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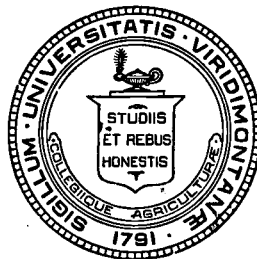
NOVEMBER, 1932

BULLETIN 349

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station
BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER and E. F. BOYCE



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Two thousand and seventy samples, representing 567 brands, drawn from dealers' stocks during April, 1932, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respect up to guaranty are listed on pages 4 to 22. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 23 and 24. The statement as to ingredients in the proprietary feeds occur on pages 27 to 42.

It might be said, briefly, that only six of the 190 brands of unmixed goods failed to meet their guaranties and that only 10 of the 377 brands of proprietary or ready-mixed rations similarly failed to meet their guaranties. This is an exceptionally good showing. Increasingly the situation in respect to guaranty maintenance is improving. In 1923-26 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-32, 95 percent.

Eight brands of dairy rations and three brands of scratch feeds contained noticeable numbers of weed seed. Whenever inferior ingredients were used a statement setting forth such usage appeared on the tag or bag, as is required by state law. With only a few minor exceptions the feed manufacturers seem now to be complying very well with the state law.

The average ton price last spring approximated \$34.

BULLETIN 349: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

The following report dealing with more than 2,000 samples of feeding stuffs collected in the spring of 1932 is submitted in accordance with the requirements of the Vermont law, as set forth in sections 5980-5987, 5992-5994, 5996-5999, G. L., and in No. 111 of the Acts of 1923.

The 2,070 samples (567 brands) were drawn from dealers' stocks during April in some 80 or more Vermont cities, towns, and villages. Each was examined as to its crude protein content and the several brands as to their crude fat and fiber contents and, in the case of ready-mixed returns, as to their ingredient statements.

The following tables show:

1. Brands which fulfilled their guaranties—pages 4 to 22.
2. Brands which failed to fulfill their guaranties—pages 23 and 24.
3. Ingredient statements—pages 27 to 42.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

COTTONSEED MEALS

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
E. T. Allen Co., Atlanta, Ga.. Empire High Grade	41	6	10
Ashcraft-Wilkinson Co., Atlanta, Ga.	41	5.5	10
Cairo Meal & Cake Co., Cairo, Ill.	Miss Cairo Brand Prime 43% Protein	43	6
	Miss Cairo Brand Prime 41% Protein	41	6
S. P. Davis, Little Rock, Ark.	Goodluck Brand Prime	41	6
Humphreys-Godwin Co., Memphis, Tenn.	Bull Brand 43% Protein Prime	43	5
	Dixie Brand 41% Protein Prime	41	5
	Danish Brand	36	5
L. B. Lovitt & Co., Memphis, Tenn.	"Lovit Brand" 43%	43	6
	"Lovit Brand" 41%	41	6
Marianna Sales Co., Memphis, Tenn.	White Mule Brand Prime	41	6
Ralston Purina Co., St. Louis, Mo.	41% Protein	41	5

LINSEED MEALS

Archer-Daniels-Midland Co., Minneapolis, Minn.	Pure Old Process	37	4.5	9
	Pure Old Process	34	4.5	9
	Midland 30% Protein Animal Feed	30	5	10
Bisbee Linseed Co., Philadelphia, Pa.	Old Process	34	5	10
Canada Linseed Oil Mills, Ltd., Montreal, Que.	"Maple Leaf" 38% Oil Cake..	38	5	9
Dominion Linseed Oil Co., Ltd., Montreal, Que.	Dominion Oil Cake	38	6.5	8
Hirst & Begley Linseed Works, Chicago, Ill.	Old Process	34	5	9
	Pure Old Process	37	5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y.	Pure Old Process	34	5	9
Spencer Kellogg & Sons, Inc., Buffalo, N. Y.	Kellogg's 37% Protein Pure Old Process	37	5	10
	Kellogg's Pure Old Process...	34	5	10
Mann Bros. Co., Buffalo, N. Y.	34% Protein Pure Old Process	34	6	10
Sherwin-Williams Co., Cleveland, Ohio	S W C	34	5	10
Sherwin-Williams Co., Ltd., Montreal, Que.	Screwpress Oil Cake Meal...	35	6.5	8

SOY BEAN MEALS

Archer-Daniels-Midland Co., Minneapolis, Minn.	Soy Bean Oil Meal	41	4.5	7
	Soy Bean Oil Meal	40	4.5	7

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

CORN GLUTEN MEALS AND FEEDS

		GUARANTIES		
		Crude protein %	Crude fat %	Crude fiber %
American Maize Products Co., New York, N. Y.	Amaizo Gluten Meal	40	1	4
	Cream of Corn Gluten Feed ..	23	2	8.5
Anheuser-Busch, Inc., St. Louis, Mo.	Corn Gluten Feed	23	2	8.5
Clinton Corn Syrup Refining Co., Clinton, Ia.	Clinton Corn Gluten Feed ...	23	2	8.5
Corn Products Refining Co., New York, N. Y.	Diamond Corn Gluten Meal ..	40	1	4
	Buffalo Corn Gluten Feed ...	23	2	8.5
Hubinger Co., Keokuk, Iowa..	KeOKuk Corn Gluten Feed ..	23	2	8.5
Penick & Ford Ltd., Inc., Cedar Rapids, Ia.	Douglas Corn Gluten Meal ...	40	1	4
	Douglas Corn Gluten Feed ...	23	2	8.5
A. E. Staley Mfg. Co., De- catur, Ill.	Staley's Corn Gluten Feed ...	23	1	8
Union Starch & Refining Co., Columbus, Ind.	Union Corn Gluten Feed	23	1	8

DISTILLERS' AND BREWERS' DRIED GRAINS

Allied Mills, Inc., Peoria, Ill..	Brewers' Dried	20	4.5	18
Dewey Bros. Co., Blanchester, Ohio	Eagle 3D (Dewey's Distillers' Dried)	30	10	13
Donahue-Stratton Co., Mil- waukee, Wis.	"Hiquality" Brewers' Dried..	20	5	19
Farmers Feed Co., Buffalo, N. Y.	"Bull Brand" Dried Brewers'.	22	6	17
Park & Pollard Co., Inc., Buf- falo, N. Y.	Murphy's Brewer's Dried....	20	6	15
St. Albans Grain Co., St. Al- bans, Vt.	Brewers' Dried	21	5	15

WHEAT OFFALS—WHEAT BRANS

Acme-Evans Co., Indianapolis, Ind.	Acme Pure	15.5	3.75	10
Bill, Bell & Co., Ogdensburg, N. Y.	Bill, Bell (+)	14	4	12
Commander-Larabee Corp., Minneapolis, Minn.	Sunfed (+)	14	4	12
Donahue-Stratton Co., Mil- waukee, Wis.	———— (+)	14	4	11
Dreyer Commission Co., St. Louis, Mo.	Dryco (+)	14.5	3.5	10
Duluth-Superior Milling Co., Duluth, Minn.	Duluth Imperial (+)	15	3.75	13
B. A. Eckhart Milling Co., Chicago, Ill.	Pure	14	3.5	12
Federal Mill, Inc., Lockport, N. Y.	Lucky Hard (+)	14	4	14
J. A. Forrest, Minneapolis, Minn.	Alpine Canadian Pure	15	3.5	11.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

WHEAT OFFALS—WHEAT BRANS—Continued

		GUARANTIES		
		Crude protein %	Crude fat %	Crude fiber %
General Mills, Inc., Minne- apolis, Minn.	Washburn's Gold Medal	15	3.5	11
	Washburn's Gold Medal (+)	14	4	12
Hall Milling Co., St. Louis, Mo.	Palace Pure	15	4	10.5
Frank B. Ham & Co., Ltd., Toronto, Ont.	Hamco Brand	13.5	3	12
J. F. Imbs Milling Co., Belle- ville, Ill.	Charm Pure Winter	14	3.5	11
International Milling Co., Minneapolis, Minn.	Blackhawk Pure	15	3.2	12
Kansas Flour Mills Corp., Kansas City, Mo.	Big Flake Pure	15	3.5	11
Lake-of-the-Woods Milling Co., Montreal, Que.	Lake Woods	15	3.5	11.5
Larabee Flour Mills Co., Kan- sas City, Mo.	Sunfed Pure Winter	15	3.5	11
Lawrenceburg Roller Mills Co., Lawrenceburg, Ind.	"Snowflake" (+)	14.5	3.5	10
Maple Leaf Milling Co., Ltd., Toronto, Ont.	Maple Leaf Pure	15	3.5	11.5
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.	Moon's (+)	13	3	10
Moseley & Motley Milling Co., Rochester, N. Y.	Big B	13.5	3	13
The National Milling Co., Toledo, Ohio	Pure	14	3	10
Niagara Falls Milling Co., Lockport, N. Y.	Niagara Standard (+)	15.5	4	11.5
Ogilvie Flour Mills Co., Ltd., Montreal, Que.	Ogilvie's	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn.	Pillsbury's (+)	14.5	3.5	10
	Pillsbury's Hard (+)	14	4	12
	Pillsbury's Durum (+)	13	4	14
Quaker Oats Co., Chicago, Ill.	Bell Cow (+)	15	3.5	10
Robin Hood Mills, Ltd., Moose Jaw, Sask.	Superior Pure	15	3.5	11.5
Rodney Milling Co., Kansas City, Mo.	———— (+)	16	3.5	11
Russell Milling Co., Russell, Kan.	Pure	14.5	3.5	11
Russell-Miller Milling Co., Minneapolis, Minn.	Hard Wheat Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que.	————	15	3.5	11.5
Southwestern Milling Co., Inc., Kansas City, Mo.	Red Turkey Pure	14.5	3.5	11
Sparks Milling Co., Alton, Ill.	Try Me (+)	15	3.5	10
Star and Crescent Milling Co., Minneapolis, Minn.	Crescent (+)	14	3	12
David Stott Flour Mills, Inc., Detroit, Mich.	Spring (+)	14.5	4	12.5
	Winter (+)	13.5	3.5	12

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

WHEAT OFFALS—WHEAT BRANS—*Concluded*

		GUARANTIES		
		Crude protein %	Crude fat %	Crude fiber %
Stratton & Co., Concord, N. H.	Stratton & Co.'s (+)	14	4	11
Toledo Grain & Milling Co., Toledo, Ohio	Camp's Winter	15	4	10
Valley City Milling Co., Grand Rapids, Mich.	Rowena	15.1	3.5	12.15
Western Canada Flour Mills Ltd., Toronto, Ont.	Pioneer	14	3.5	11.5

WHEAT OFFALS—WHEAT MIDDINGS

Acme-Evans Co., Indianapolis, Ind.	Acme (+)	15	4	7.5
Bill, Bell & Co., Ogdensburg, N. Y.	Bill, Bell Wheat Flour (+) ..	16	4	6
	Bill, Bell Wheat Shorts (+) ..	15	4	9.5
Commander-Larabee Corp., Minneapolis, Minn.	Sunfed Standard (+)	14.5	4	9.5
Federal Mill, Inc., Lockport, N. Y.	Lucky Hard (+)	15	4.5	9.5
	Dairy Maid Soft Winter (+) ..	13	4.5	8
J. A. Forrest, Minneapolis, Minn.	Alpine Canadian Pure Shorts ..	16	5	8
General Mills, Inc., Minneapolis, Minn.	Washburn's Gold Medal Hard Standard (+)	15	4	9.5
Frank B. Ham & Co., Ltd., Toronto, Ont.	"Hamco Brand" Shorts	15	3.5	10.5
Igleheart Brothers, Inc., Evansville, Ind.	Winter Shorts (+)	16	3.5	6.5
International Milling Co., Minneapolis, Minn.	Blackhawk Standard (+)	16	4.5	8.5
King Midas Mill Co., Minneapolis, Minn.	Standard (+)	15	4	9.5
Lake-of-the-Woods Milling Co., Montreal, Que.	Lake Woods Shorts	16	5	8
Maple Leaf Milling Co., Ltd., Toronto, Ont.	Maple Leaf Shorts	15	3.5	10.5
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.	Moon's Fresh Ground White ..	15	3.5	7.5
Moseley & Motley Milling Co., Rochester, N. Y.	Big B (+)	15	4.5	9
National Milling Co., Toledo, Ohio	Namico (+)	15	3.5	9
Niagara Falls Milling Co., Lockport, N. Y.	Niagara Standard (+)	15.5	4.5	7
Ogilvie Flour Mills Co., Ltd., Montreal, Que.	Ogilvie's Shorts	16	5	8
Park & Pollard Co., Inc., Buffalo, N. Y.	Wheat Flour	14	4	6
Pillsbury Flour Mills Co., Minneapolis, Minn.	Pillsbury's Hard A. (+)	16	4	6
	Pillsbury's Hard Standard B. (+)	15	4	9.5
Quaker Oats Co., Chicago, Ill.	Bell Cow Shorts (+)	15	4	8

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I. BRANDS IN ALL RESPECTS UP TO GUARANTY

WHEAT OFFALS—WHEAT MIDLINGS—*Concluded*

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
Robin Hood Mills, Ltd., Moose Jaw, Sask.	Superior Pure Shorts 17	5	3
Rodney Milling Co., Kansas City, Mo.	Jersey Gray Shorts (+).... 17	3.5	6
Russell-Miller Milling Co., Minneapolis, Minn.	Hard Occident Flour 15.5	4.5	5
	Alta Hard 15	4.5	8.5
	Hard Occident Standard 15	4	9.5
St. Albans Grain Co., St. Al- bans, Vt.	Wirthmore Flour (+) 15	4	6
David Stott Flour Mills, Inc., Detroit, Mich.	Pennant (+) 15	4	9
	Stott's Fine Flour (+) 14.5	3.7	6
Thornton & Chester Milling Co., Buffalo, N. Y.	T & C Flour (+) 15	4	6
Valley City Milling Co., Grand Rapids, Mich.	Rowena (+) 15.6	4.5	5
	Rowena (+) 13.75	4	6
Western Canada Flour Mills, Ltd., Toronto, Ont.	Pioneer Shorts 16	5	8

WHEAT OFFALS—WHEAT MIXED FEEDS

E. W. Bailey & Co., Mont- pelier, Vt.	Capital 14	3	7
G. N. Bartemus Co., Concord, N. H.	Barco 14	3	7
Bill, Bell & Co., Ogdensburg, N. Y.	Bill, Bell Wise King (+).... 15	4	8.5
Caledonia Mills, Inc., St. Johnsbury, Vt.	Brook's Fancy 15	4	8
Elmore Milling Co., Inc., One- onta, N. Y.	Elmore's "Xtragoood" (+)... 15	3	8
Federal Mill, Inc., Lockport, N. Y.	Dairy Maid Soft Winter (+) 12.5	3.5	10
General Mills, Inc., Minne- apolis, Minn.	Washburn's Gold Medal Fancy (+) 15	3.5	7.5
E. T. & H. K. Ide, St. Johns- bury, Vt.	Ideal 15	4	8
Malted Cereals Co., Burling- ton, Vt.	Maltex Cereal (§) 12.5	4.5	8
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.	Moon's Fresh Ground (+).. 14	4	10
Niagara Falls Milling Co., Lockport, N. Y.	Niagara Choice 14.5	4	10
Pillsbury Flour Mills Co., Minneapolis, Minn.	Pillsbury's Fancy (+) 15	4	8.5
Russell-Miller Milling Co., Minneapolis, Minn.	Hard Wheat Occident 15	4.5	9.5
St. Albans Grain Co., St. Al- bans, Vt.	Wirthmore (+) 15	4.5	8
David Stott Flour Mills, Inc., Detroit, Mich.	Columbus Heavy (+) 14.5	3.7	8.5
Stratton & Co., Concord, N. H.	Stratton & Co.'s (+) 13.5	4.11	7.13

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.
§ Wheat, barley bran "wheat parts processed" (+).

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

WHEAT OFFALS—WHEAT MIXED FEEDS—*Concluded*

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
Valley City Milling Co., Grand Rapids, Mich.			
Rowena (+)	15.4	4.4	9
Rowena (+)	13.5	3.8	8.5
Ray P. Webster, Barton, Vt.			
Ray's R-E-A-L	14	4	7

WHEAT OFFALS—RED DOG FLOURS

Bay State Milling Co., Wiconona, Minn.	Wingold G Pure Hard	16.5	3.8	3.5
Commander-Larabee Corp., Minneapolis, Minn.	Sunfed	16	4	4
Duluth-Superior Milling Co., Duluth, Minn.	_____	15	3	3
General Mills, Inc., Minneapolis, Minn.	Washburn's Gold Medal Pure Hard Wheat Adrian	16	3.5	4
	Arlington Second Clear Flour	14	3	1.5
International Milling Co., Minneapolis, Minn.	Blackhawk	16	3.5	4
Maritime Milling Co., Inc., Buffalo, N. Y.	B B	16	4	4
Niagara Falls Milling Co., Lockport, N. Y.	Choice	16	4	4
Northwestern Consolidated Milling Co., Minneapolis, Minn.	XXX Comet	16	4	4
Pillsbury Flour Mills Co., Minneapolis, Minn.	Pillsbury's XX Daisy	16	4	4

HOMINY FEEDS

E. W. Bailey & Co., Montpelier, Vt.	OcornO	10	6.5	5
Decatur Milling Co., Inc., Decatur, Ill.	Homco	10	7	6
Kellogg Sales Co., Battle Creek, Mich.	Hexite Sweet	9	4	3.5
Mount Vernon Milling Co., Mount Vernon, Ind.	Poco	10	7	6
Patent Cereals Co., Geneva, N. Y.	_____	10	5	5
Postum Co., Inc., Battle Creek, Mich.	Burt's	10	6	5
Pratt Food Co., Inc., Buffalo, N. Y.	Pratt's White	9	4	6
	Pratt's Yellow	10	4	6
Quaker Oats Co., Chicago, Ill.	White	9.5	4	5
	Yellow	9.5	4	5
David Stott Flour Mills, Inc., Detroit, Mich.	White	9.5	5.5	6.5

DRIED BEET PULPS

Larrowe Milling Co., Detroit, Mich.	_____	8	0.5	22
	Molasses	8	0.5	20

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

ALFALFA MEALS

	GUARANTIES		
	Crude protein	Crude fat	Crude fiber
	%	%	%
Denver Alfalfa Milling & Products Co., Lamar, Colo.	13	1	33
Pecos Valley Alfalfa Mill Co., Hagerman, N. M.			
Peevee	20	2.5	18
Velvet	17	1.5	23
Pecos Special	13	1.5	33

OAT, RYE AND CORN FEEDS

Hales & Hunter Co., Chicago, Ill.	H. & H. Quality Rolled Oats.	16	6	4
Quaker Oats Co., Chicago, Ill.	Feeding Oatmeal	16	6	4
	Sugared Vim Feed	5	1.25	26
	Sugared Vim Feed	5	1.25	27.5
	Banner Feed	13	4.5	18
Ralston Purina Co., St. Louis, Mo.	Purina Checkerboard Rolled Oats (Steam Cooked)	15	5	2
	Corn Feed Meal	8.5	3	5
Upper Hudson Rye Flour Mills, Inc., Troy, N. Y.	Rye Feed§	13.5	3	6

§ = With (rye) screenings not exceeding mill run.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY
 PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot-note*
Allied Mills, Inc., Peoria,					
Ill.	Amco 32% Supplement†	32	4	9	✓
	Amco 24%†	24	3.5	9	✓
	Amco 20%†	20	3.5	9	✓
	Amco 20% National†	20	3.5	9	✓
	Wayne 20% Supreme	20	3.5	12.5	✓
	Amco 16½% Sucrene†	16.5	3.5	12	
	Amco 16½% Sucrene†	16.5	4	12	✓
E. W. Bailey & Co., Montpelier, Vt.					
	Capital	24	5	9	✓
	Sweetened Capital	24	5	9	✓
	Bailey's Open Formula 24%	24	4.5	9	✓
	Bailey's Open Formula 20%	20	4.5	9	✓
	Favorite	20	4.5	7.5	✓
	Sweetened Favorite	20	4.5	7.5	✓
	Our 20% Special	20	3.5	9	✓
	"Our Own" Sweetened	16	5	9	✓
	Sweetened Bailey's 16%	16	5	9	✓
Berkshire Coal & Grain Co., Inc., North Adams, Mass.					
	Green Mountain	23	5	10	✓
Bethel Mills, Bethel, Vt.					
	Bethel Mills 24 Protein	20	5	9	✓
	Bethel Mills 20 Protein	20	5	9	✓
	Bethel Mills 20 Protein Sweetened	20	4	11	✓
Black Rock Milling Corp., Buffalo, N. Y.					
	Bidwell 24%	24	4	11	✓
	Bidwell 20%	20	4	11	✓
Chapin & Co., Hammond, Ind.					
	Unicorn 24%	24	4.5	10	✓
E. C. Crosby, Danby, Vt.					
	Crosby's A Quality 20%	20	5	8	✓
Danville Grain Co., Inc., Danville, Vt.					
	Danville 24%	24	5	9	✓
	Danville 20%	20	4	10	✓
	Blue Ribbon	20	4	11	✓
Davis Feed Co., Inc., Rutland, Vt.					
	Davis Special 24 Milk	24	4	9	✓
	Davis Special 20 Milk	20	4	8.5	✓
	Davis 20% Kow Feed	20	4.5	8.5	✓
H. W. Demick, Inc., Derby Line, Vt.					
	Beats 'Em All	20	4	10	
Eastern States Farmers' Exchange, Springfield, Mass.					
	Eastern States 30% Supplement†	30	5	8	✓
	Eastern States Milkmore†	24	4.5	8	✓
	Eastern States Fulpall†	20	4.5	8	✓
	Eastern States Highland 20†	20	4	12	✓

*The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g., cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by a state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other and undesirable ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist "failed to find" appear on pages 27 to 42.

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY
 PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—Continued

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 11)
Elmore Milling Co., Inc., One- onta, N. Y.	Elmore 32% Supplemental ..	32	4	9	✓
	Elmore Milk Grains	25	5	11	✓
	Granger	24	4	9	
	Elmore's Economilk 24%	24	4	10	
	Elmore Milk Grains (Sweet- ened)	24	5	10	✓
	Elmore Milk Grains Junior..	20	5	10	✓
	Emco	20	4.5	10	✓
	Economilk	20	4	11	
	Otsego Economy	20	4	11	
	Elmore's Sweet Digesto	16	4	12	
John W. Eshelman & Sons, Lancaster, Pa.	Eshelman Red Rose 24	24	4	11	✓
	Eshelman Open Formula....	20	4	9	✓
	Eshelman Conestoga 20	20	4	11	
	Eshelman Lancaster 20	20	4	11	✓
	Eshelman Pennsy 16	16	3	11	
For-All Grain Co., Inc., South Ryegate, Vt.	For-All Milk Grains 20%	20	5	8.5	
General Mills, Inc., Minne- apolis, Minn.	Eventually Gold Medal	20	5	8.5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.	Grandin's 32%	32	4	9	✓
	Grandin's 24% Balanced....	24	5	10	✓
	Grandin's Sweetened 24%....	24	4	10	✓
	Grandin's 12 Twin Six 12....	22	5	12	✓
	Grandin's Sweetened 20%....	20	4	10	✓
	M-S (Money Saver) 20%	20	4	12	✓
	Sweet	20	4	12	✓
E. T. & H. K. Ide, St. Johns- bury, Vt.	Ideal Sweetened	24	5	10	✓
	Ide's Special	20	4	10	
	Royal Sweetened	20	4	10	✓
	Sunshine	20	4	10	
W. B. Johnson & Son, Essex Junction, Vt.	Johnson's Economy	20	4	12	✓
Kasco Mills, Inc., Toledo, Ohio	Kasco 32% Mixing Feed	32	5	10	✓
	Kasco Mormilk	24	4.5	10	
	Kasco 20% Milk Maker	20	4.5	11	✓
Larrowe Milling Co., Detroit, Mich.	Larro	20	4	12	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.	McEwen's 20%	20	4	10	✓
T. J. McGovern, Cambridge, Vt.	McGovern's 24%	24	4	8	✓
	McGovern's 20%	20	4	8	✓
	McGovern's 20% Farm Relief	20	4	12	
	McGovern's 16%	16	4	8	✓
Maritime Milling Co., Inc., Buffalo, N. Y.	Sweetened Bull Brand B-B "24"	24	4.5	11	✓
	Sweetened Dollar\$Maker	24	3.5	12	✓
	B-B Hi-Test 20% Protein....	20	4.5	12	✓
	B-B Marmico 16% Protein with Molasses	16	4	12	

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—Continued

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 11)
Geo. Q. Moon & Co., Inc.,					
Binghamton, N. Y.	Moon's 24%	24	5	10	✓
	Special A 20%	20	4	10	✓
	Moon's 20% with Molasses...	20	4.5	11	✓
Plin Morse, Inc., Randolph,					
Vt.	Balanced	18	5	10	✓
Park & Pollard Co., Inc., Buf-					
falo, N. Y.	Overall 24%	24	4.5	9	✓
	Milk-Maid 24% Sweetened...	24	4.5	11	
	Bet-R-Milk 20%	20	4	9	✓
	Herdhelth 16%	16	3.5	9	✓
	Top Notch 16%	16	3.5	12	✓
Quaker Oats Co., Chicago,					
Ill.	Quaker 24% Protein	24	4	12	✓
	Quaker 20% Protein	20	3.25	12	✓
	Quaker 16% Protein	16	3.5	13.5	✓
Ralston Purina Co., St. Louis,					
Mo.	Purina 34% Cow Chow	34	3	12	✓
	Purina 24% Cow Chow	24	3	12	✓
	Protena 24% (Buffalo Mill)..	24	3	14	✓
	Purina 20% Cow Chow	20	3	12	✓
	Protena 20%	20	3	14	✓
	Purina Bulky Cow Chow	16	3	12	✓
	Protena 16%	16	3	14	✓
St. Albans Grain Co., St. Al-					
bans, Vt.	Wirthmore 25 Balanced	25	5	9	✓
	Wirthmore 25 Balanced				
	Sweetened	25	4.75	8.5	✓
	Hygrade 24 Sweetened Milk..	24	4	9	✓
	Wirthmore 20	20	5	8.5	✓
	Wirthmore 20 Sweetened....	20	4.75	8	✓
	Hygrade 20 Sweetened Milk..	20	4	8.5	✓
	Utility	20	3.5	10.5	✓
	Wirthmore with Beet Pulp				
	Sweetened	20	4	11	✓
	Paragon Sweetened	20	3.25	11	✓
	Wirthmore 16 Sweetened	16	4	8	✓
	Hygrade 16 Sweetened Milk..	16	3.5	8.5	✓
E. T. Seabury Grain Co.,					
Waterbury, Vt.	Our Own Make 20%	20	4	9	
	Our Own Make 16%	16	4	9	✓
Chas. M. Seaver & Co., Will-					
iamstown, Vt.	Honor Brand	20	4	10	✓
H. A. Slayton & Co., Morris-					
ville, Vt.	Economy	20	3.75	8.5	✓
R. D. Small, Lyme, N. H.	Small's 20%	20	4.2	11.8	✓
C. A. Smith, St. Johnsbury,					
Vt.	Smith's	20	4	12	✓
C. H. Stearns & Son Co.,					
Johnson, Vt.	Stearnco	20	4	9	✓
J. D. Thompson Est., Nor-					
wich, Vt.	Special 20%	20	4	12	✓
J. G. Turnbull Co., Orleans,					
Vt.	Turnbull's Special	20	3.5	12	

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—*Concluded*

				GUARANTIES			
				Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 11)
Ubiko Milling Co., Cincinnati, Ohio	Union Grains Ubiko 24%						
	Dry	24	5	10	✓		
	Union Grains Ubiko 24%						
	Sweet	24	4.5	10	✓		
	Union Grains Ubiko 16%						
	Sweet	16	3	12	✓		
Valley City Milling Co., Grand Rapids, Mich.....	Rowena 20%	20	4	8	✓		
Ray P. Webster, Barton, Vt....	Ray's Ready	20	5	10			
West-Nesbitt, Inc., Oneonta, N. Y.	Super Pure Sweetened	24	4.5	10	✓		

PROPRIETARY FEEDS—STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Allied Mills, Inc., Peoria, Ill.	Amco 12% Fitting†	12	3	9	✓		
	June Pasture†	10	0.5	21	✓		
	Wayne Supreme Horse	9.5	3.5	8	✓		
E. W. Bailey & Co., Mont- peller, Vt.	Bailey's Fitting	14	4	9	✓		
	Sweetened Bailey's Fitting..	14	4	9	✓		
	Pennant Brand Stock Sweet- ened with Molasses	9.5	4	9.5			
	Pennant Horse	10.75	3.5	6.5	✓		
	Pennant Brand Stock	9.5	4	9.5	✓		
Bethel Mills, Bethel, Vt.....	Bethel Mills 16 Protein Pas- ture	16	4.2	9.5	✓		
Chapin & Co., Hammond, Ind.	Chapin Rabbit Cookies	18	4.5	10	✓		
	Centaur Fitting	12	4	8			
Eastern States Farmers' Ex- change, Springfield, Mass..	Eastern States Fitting†	12	3.5	7	✓		
	Eastern States Highland 12†.	12	3.5	11.5			
	Eastern States Horse & Calf†.	10.5	3.5	7	✓		
	Eastern States Succulence†..	10	1.5	14.5	✓		
Elmore Milling Co., Inc., One- onta, N. Y.	Elmore Rabbit Pel-ets	12	4	10	✓		
John W. Eshelman & Sons, Lancaster, Pa.	Eshelman Red Rose Rabbit ..	12	3.5	9.5	✓		
	Eshelman S-O-S	11	2	15	✓		
	Eshelman Steamed-Cooked Horse	9	4	6	✓		
	Eshelman Red Rose 85 Horse	9	3	10	✓		
	Eshelman Red Rose Stock...	9	3	11	✓		
D. H. Grandin Milling Co., Jamestown, N. Y.	Grandin's Sweetened Horse..	9.5	3.5	11	✓		
	Grandin's Stock	8.5	4	12	✓		
Hales & Hunter Co., Chicago. Ill.	Victoria Rabbit	14	3.5	10	✓		
	College Horse	9	2.5	10			
E. T. & H. K. Ide, St. Johns- bury, Vt.	Ideal Fitting	12	4	10	✓		
Imperial Grain & Milling Co., Toledo, Ohio	Imperial Steam Cooked	9.5	4	4.6	✓		

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY
 PROPRIETARY FEEDS—STOCK FEEDS, HORSE FEEDS, ETC.—*Concluded*

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot-note* (p. 11)
Park & Pollard Co., Inc., Buffalo, N. Y.	Park & Pollard Fitting.....	12	3.5	7	
	Park & Pollard Horse.....	10	3.5	9	✓
	Bison Stock Sweetened.....	10	3	12	
	Park & Pollard Stock.....	8.5	4	12	✓
Quaker Oats Co., Chicago, Ill.	Quaker Thorobred Horse.....	10.5	3.5	9	✓
	Quaker Schumacher.....	10	3	12	✓
	Quaker Sugared Schumacher.....	10	3	12	✓
	Quaker Green Cross Horse....	10	2.5	12	✓
	Richford White Diamond Stock.....	9	3	14	✓
Ralston Purina Co., St. Louis, Mo.	Purina Rabbit Chow.....	16	3.5	8	✓
	Purina Lamb Chow.....	14	3	12	✓
	Purina Fitting Chow.....	13.5	2.6	12	✓
	Purina Bulky Omolene Chow.....	10	3.2	11	✓
	Purina Omolene Chow.....	10	3.2	9	✓
	Purina Bulky Las Chow (Buffalo Mill).....	9	1.3	15	✓
	Protena Sweet Roughage (Buffalo Mill).....	6	1	30	✓
St. Albans Grain Co., St. Albans, Vt.	Wirthmore 14 Fitting.....	14	4	7	✓
	Wirthmore Rabbit.....	14	3.5	9	
	Utility 60 Pasture.....	14	3	13	✓
	Hygrade Fitting or Stock....	10	3.25	12	✓
	Wirthmore Horse.....	9.8	3.25	9	✓
	Wirthmore Stock.....	9	4	9.5	✓
	Wirthmore Fodder Greens....	9	1.25	19	✓
Ubiko Milling Co., Cincinnati, Ohio	Ubiko Horse.....	9	3.5	7	✓
	Crusader Horse.....	9	3	10	✓

PROPRIETARY FEEDS—CALF MEALS, HOG MEALS, ETC.

Allied Mills, Inc., Peoria, Ill.	Wayne Calf.....	24	4	7	✓
	Blatchford Calf Meal Co., Waukegan, Ill.	Blatchford's Calf.....	24	5	6.75
Eastern States Farmers' Exchange, Springfield, Mass.	Eastern States-Calf Starter†.	23	3.5	4	✓
	Eastern States Hog†.....	14.5	4	5.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.	Elmore "Three Point" Calf..	24	4	4	✓
John W. Eshelman & Sons, Lancaster, Pa.	Eshelman Red Rose Calf Starter.....	18	3	5	✓
	Kasco Mills, Inc., Toledo, Ohio	Kasco Pig-Hog.....	17	4.5	7.5
Larrowe Milling Co., Detroit, Mich.	Larro Pork-Maker.....	25	5	10	✓
	Larro Calf.....	23	4	3.5	✓
	Larro Hog.....	18	5	10	✓

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

PROPRIETARY FEEDS—CALF MEALS, HOG MEALS, ETC.—*Concluded*

		GUARANTIES			
		Crude protein	Crude fat	Crude fiber	See foot-note*
		%	%	%	(p. 11)
Park & Pollard Co., Inc., Buffalo, N. Y.	Milkade Calf	20	7	6.5	✓
	Go-Tu-It Pig and Hog	15	3.5	8	✓
Quaker Oats Co., Chicago, Ill.	Schumacher Calf	18	7.5	4	✓
	Purina Calf Chow	27	3.2	4.5	✓
Ralston Purina Co., St. Louis, Mo.	Purina Hog Fatena Chow	14	3	7	✓
	Ryde's Cream Quality Calf	18.5	4	4	✓
Ryde & Co., Chicago, Ill.	Wirthmore Calf	24	5.5	4	✓
	Wirthmore Pig and Hog	17	4	9	✓
St. Albans Grain Co., St. Albans, Vt.					

PROPRIETARY FEEDS—MEAT AND BONE SCRAPS

Burlington Rendering Co., Burlington, Vt.	Burlington Meat and Bone	45	8	..	
	Corenco Bone	20	3	..	
Consolidated Rendering Co., Boston, Mass.	Brighton Special—Quality Brand	50	10	..	
	Brighton Bull	45	8	..	
New England Rendering Co., Brighton, Mass.	Brighton Feeding	7	3	1	
	ManAmar	40	3	4	
Philip R. Park, Inc., San Pedro, Cal.	Vico Special Steamed Bone ..	5	0.5	3	
Van Iderstine Co., Long Island City, N. Y.					

PROPRIETARY FEEDS—POULTRY FEEDS—SCRATCH FEEDS, CHICK FEEDS

Allied Mills, Inc., Peoria, Ill.	Wayne Scratch	10	2.5	4	✓
	Red Feather Scratch	9	2.5	4	✓
	Wayne Chick	9	2	4	✓
E. W. Bailey & Co., Montpelier, Vt.	Pennant Scratch	10	3	6.5	✓
	Pennant Brand Coarse Chick ..	10	3	3	✓
	Pennant Brand Fine Chick ..	10	3	3	✓
Berkshire Coal & Grain Co., Inc., North Adams, Mass.	Berkshire Scratch	10	2.5	5	✓
	Bidwell Scratch	10	1.5	5	✓
Black Rock Milling Corp., Buffalo, N. Y.	Ajax Scratch	9	2.5	5	✓
	Eastern States Scratch Grains (with Coarse Cracked Corn)†	10	2.5	4	✓
Chapin & Co., Hammond, Ind.	Eastern States 31 Scratch Grains†	9.5	2.5	3	✓
	Eastern States Intermediate Scratch Grains†	9.5	2	3	
Elmore Milling Co., Inc., Ontario, N. Y.	Elmore Intermediate Chick ..	10	3	3	✓
	Elmore Chick	10	3.5	3.5	✓

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

PROPRIETARY FEEDS—POULTRY FEEDS—SCRATCH FEEDS, CHICK FEEDS—Continued

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 11)
John W. Eshelman & Sons, Lancaster, Pa.	Eshelman Red Rose Chick Grains	10	3	3	✓
	Eshelman Pennsy Scratch Grains	9	2.5	4	✓
	First National Stores, Inc., Somerville, Mass.	10	3.5	5	
D. H. Grandin Milling Co., Jamestown, N. Y.	Grandin's Screened Scratch..	10	2.5	5	✓
	Grandin's Intermediate Chick	10	2.5	5	✓
	Grandin's Baby Chick	10	2.5	5	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.	Daily Egg Scratch	10	2.5	5	✓
Hales & Hunter Co., Chicago, Ill.	Red Comb Scratch	10	2.5	5	✓
	Red Comb Coarse Chick.....	10	2.5	5	✓
	Red Comb Fine Chick	10	2.5	5	✓
	Pound Squab Pigeon No Corn —No Grit	10	2.5	5	
	Pound Squab Pigeon No Grit.	10	2.5	5	
E. T. & H. K. Ide, St. Johns- bury, Vt.	Ideal Scratch	10	3	4	✓
W. B. Johnson & Son., Essex Junction, Vt.	Johnson's Perfection Scratch	10	3	5	✓
Kasco Mills, Inc., Toledo, Ohio.	Kasco Scratch Grains	9	2.5	4	✓
Larrowe Milling Co., Detroit, Mich.	Larro Scratch Grains	10	2	3.5	✓
	Larro Chick Grains	10	2	3.5	✓
	Larro Growing Grains	10	3	4	
R. H. McEwen Milling Co., Ogdensburg, N. Y.	McEwen's Red Feather Scratch	10	2.5	5	✓
Maritime Milling Co., Inc., Buffalo, N. Y.	Bull Brand B-B Scratch.....	10	2.5	4	✓
	B-B Daisy Scratch	9	2.5	5	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.	Moon's Scratch	10	2	5	✓
	Moon's Developing Grains...	10	2	5	✓
Park & Pollard Co., Inc., Buf- falo, N. Y.	Red Ribbon Scratch	10	3	5	✓
	Park & Pollard Chick Scratch	10	3	3	✓
	Red Ribbon Chick	10	3	3.5	✓
	Intermediate Chick	10	3	3.5	✓
Quaker Oats Co., Chicago, Ill.	Quaker Ful-O-Pep Fine Chick	11	2.5	2	✓
	Quaker Ful-O-Pep Coarse Chick	10	2	2.5	✓
	Big Egg Scratch Grains, No Grit	10	3	4.25	✓
	Early Bird Fine Chick, No Grit	10	2	2	✓
	Early Bird Coarse Chick.....	9.5	2	3.5	✓
	Quaker Ful-O-Pep Scratch Grains	9	2	3.5	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

PROPRIETARY FEEDS—POULTRY FEEDS—SCRATCH FEEDS, CHICK FEEDS—Concluded

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 11)
Ralston Purina Co., St. Louis, Mo.					
	Purina Pigeon Chow	13.5	2	4	✓
	Purina Pigeon Chow contain- ing Corn	12.5	2	4	✓
	Purina Hen Chow	10	2.5	4	✓
	Purina Intermediate Hen Chow	10	2.5	4	✓
	Purina Chick Chow	10	2	4	✓
	Protana Scratch (Buffalo Mill)	9.5	2	4	✓
St. Albans Grain Co., St. Al- bans, Vt.					
	Wirthmore Scratch.....	10	2.5	4	✓
	Paragon Scratch	10	2.5	5	✓
	Wirthmore Intermediate Scratch	10	2.5	3.5	✓
	Wirthmore Baby Chick Scratch	10	2.5	3.5	✓
Ubiko Milling Co., Cincinnati, Ohio					
	Ubiko Intermediate Scratch..	9	2.5	5	✓
	Ubiko Chick	9	2.5	5	✓

PROPRIETARY FEEDS—POULTRY FEEDS
MASHES, GROWING FEEDS, ETC.

Allied Mills, Inc., Peoria, Ill.					
	Wayne Egg	18	3.5	7	✓
	Wayne Egg with Cod-liver Oil	18	3.5	7	✓
	Red Feather Egg	18	3.5	8	
	Wayne Broiler Ration	17	3.5	8	
	Wayne All Mash Chick Starter	17	4	6	
	Wayne All Mash Chick Starter with Cod-liver Oil..	17	4	6	✓
	Wayne All Mash Chick Starter	16	4	6	✓
	Wayne All Mash Grower	16	4	6	✓
	Wayne All Mash Grower with Cod-liver Oil	16	4	6	✓
	Wayne Poultry Fattener.....	13.5	4	6	✓
E. W. Bailey & Co., Mont- peller, Vt.					
	Pennant Brand Laying	20	5	6	✓
	Pennant Brand Chick Starter	17	5	5	✓
Berkshire Coal & Grain Co., Inc., North Adams, Mass....					
	Green Mountain Laying.....	19	4	9	✓
Black Rock Milling Corp., Buffalo, N. Y.					
	Bidwell Dry	18	3	8	✓
Chapin & Co., Hammond, Ind.					
	Chapin Kernels Lay-All	16	3.5	5.5	✓
	Chapin Kernels Start-All	15	3.5	4.5	✓
Community Feed Stores, Inc., Bellows Falls, Vt.					
	Community Milk Laying	20	4	8	✓
	Community Chick	17	5	8	✓
Eastern States Farmers' Ex- change, Springfield, Mass....					
	Eastern States Developer (with Cod-liver Oil)†	18.5	4	6.5	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—Continued

		GUARANTIES				
		Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 11)	
Eastern States Farmers' Exchange, Springfield, Mass.	Eastern States Starting and Broiler Ration (with Cod-liver Oil)†	18.5	4	5	✓	
	Eastern States Broiler Ration (with Cod-liver Oil)†	18.5	4	5.5		
	Eastern States Egg†	17	4	6.5	✓	
	Eastern States Milk Egg†	17	4	6.5	✓	
	Eastern States Milk Egg (with Cod-liver Oil)†	17	4	6.5	✓	
Elmore Milling Co., Inc., Oneonta, N. Y.	Elmore Egg	18	4	8	✓	
	Elmore Eggmaker	17	4.5	8	✓	
	Elmore Complete Broiler Ration	17	4	5		
	Elmore Complete Starting and Growing Ration	16	4	8	✓	
	Elmore Chixsaver	16.5	4	8	✓	
	Elmore Chixsaver	14	4	5	✓	
John W. Eshelman & Sons, Lancaster, Pa.	Eshelman Red Rose Laying	20	5	7	✓	
	Eshelman Red Rose Laying with Cod-liver Oil	20	5	7	✓	
	Eshelman Red Rose Growing with Cod-liver Oil	16	4	7	✓	
	Eshelman Red Rose Chick Starter	15	4	6	✓	
First National Stores, Inc., Somerville, Mass.	Henfield Egg	20	5	7	✓	
D. H. Grandin Milling Co., Jamestown, N. Y.	Grandin's Laying with Buttermilk	20	4	8	✓	
	Grandin's Laying with Buttermilk—Cod-liver Oil	20	4	8	✓	
	Grandin's Complete Starting Ration with Buttermilk—Cod-liver Oil	16	4	6	✓	
	Grandin's Growing with Buttermilk—Cod-liver Oil	15	4	8	✓	
	Grandin's Broiler with Buttermilk—Cod-liver Oil	15	4	6	✓	
	Grandin's Baby Chick Starter with Buttermilk—Cod-liver Oil	14	4	5	✓	
Hales & Hunter Co., Chicago, Ill.	Red Comb Egg with Dried Buttermilk	18	4	7	✓	
	Red Comb Chick Starter with Dried Buttermilk	15	4	5	✓	
	Red Comb Growing with Dried Buttermilk	15	4	6	✓	
	Red Comb Crate Fattener with Rolled Oats	13	4	6	✓	
E. T. & H. K. Ide, St. Johnsbury, Vt.	Ideal Buttermilk Egg	24	5	6	✓	

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY
 PROPRIETARY FEEDS—POULTRY FEEDS—MASHERS, ETC.—Continued

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 11)
Kasco Mills, Inc., Toledo, Ohio	Apex Laying	20	4	8.5	✓
	Kasco All-Mash Chick Food..	17	4	5.5	
Larrowe Milling Co., Detroit, Mich.	Larro Egg	19	5	7.5	✓
	Larro Turkey and Game Bird Starter	17	4.5	6.5	✓
	Larro Turkey and Game Bird Developer	16.5	4.5	7	✓
	Larro Growing	16	4.5	6.5	✓
	Larro Chick Starter	16.5	4.5	5	✓
	Larro Broiler	15	4.5	5	✓
	Larro Poultry Fattening	14	4	7.5	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.	McEwen's Red Feather Egg..	20	4	9	✓
Maritime Milling Co., Buffalo, N. Y.	Vitamized Bull Brand B-B Laying	20	4.5	7	✓
	B-B Daisy Egg with Dried Buttermilk	18	3.5	7	
	Vitamized B-B Daisy Egg with Dried Buttermilk and Cod- liver Oil	18	3.5	7	✓
	Vitamized Bull Brand B-B Chick Starter	18	4	5	✓
	Vitamized Bull Brand B-B All Mash Chick Starter Ration	17	4	6	✓
	Vitamized Bull Brand B-B Growing	16	4.5	7	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.	Moon's Laying with Dried But- termilk	20	4	9	✓
	Moon's Growing	17	4	7	✓
	Moon's Baby Chick Starter..	15	4	5	✓
Park & Pollard Co., Inc., Buf- falo, N. Y.	Lay or Bust Dry	18	3	7	✓
	Lay or Bust Dry with Cod- liver Oil	18	3	7	✓
	All-In-One Starting	17	3.5	5	✓
	Park & Pollard Chick Starter	17	3.5	5	
	Growing	14	3	7	
Quaker Oats Co., Chicago, Ill.	Quaker Ful-O-Pep Turkey Starter	22	5	6.5	✓
	Quaker Ful-O-Pep Egg	20	4.5	8	✓
	Quaker Ful-O-Pep Growing..	19	5	6	✓
	Quaker Ful-O-Pep Chick Starter	17	5	7	✓
Ralston Purina Co., St. Louis, Mo.	Purina 32% Egg Chowder... 32	3	3	8	✓
	Purina Breeder Egg Chowder	19	3.5	8	✓
	Purina Egg Chowder	19	3.5	8	✓
	Purina Egg Chowder contain- ing Mineral	19	3.5	8	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—*Concluded*

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot-note* (p. 11)
Ralston Purina Co., St. Louis, Mo.	Purina Egg Chowder (with Dried Buttermilk)	19	3.5	8	✓
	Purina Egg Chowder (with Cod-liver Oil)	19	3.5	8	✓
	Purina Chicken Chowder containing Mineral	19	3.5	8	✓
	Purina Chick Startena Chow	19	4	7	✓
	Purina All Mash Startena Chow containing Mineral ..	18	4	7	✓
	Purina All Mash Startena Chow	18	4	7	✓
	Purina Lay Chow containing Mineral	17	2.5	8	✓
	Purina Lay Chow	17	2.5	8	✓
	Purina Lay Chow (with Dried Buttermilk)	17	2.5	8	✓
	Purina Lay Chow (with Cod-liver Oil)	17	2.5	8	✓
	Purina Chick Growena Chow ..	17	3.5	7	✓
	Purina Chick Growena Chow (with Cod-liver Oil)	17	3.5	7	✓
	Purina Chicken Fat Chow	15.5	3	5	✓
	Purina Chicken Fatena Chow ..	12	3	6.6	✓
	Purina Poultry Fattening Chow	11	3	10.6	✓
St. Albans Grain Co., St. Albans, Vt.	Wirthmore Laying with Buttermilk	20	4	7	✓
	Wirthmore Laying containing Cod-liver Oil—Buttermilk ..	20	4	7	✓
	Wirthmore Breeder	20	4.5	7	✓
	Wirthmore Turkey Starter containing Cod-liver Meal—Buttermilk	20	4.5	5	
	Wirthmore Baby Chick Starter containing Cod-liver Meal—Cod-liver Oil—Buttermilk ..	18	4	5	✓
	Wirthmore Turkey Growing ..	18	4.5	6	✓
	Wirthmore All Purpose Chick and Broiler Ration	17.5	4	5.5	✓
	Wirthmore Complete Ration for Broilers	16.5	4	4.5	✓
	Wirthmore Growing containing Buttermilk	15	4.5	6	✓
	Wirthmore Growing containing Cod-liver Oil—Buttermilk	15	4.5	6	✓
Ubiko Milling Co., Cincinnati, Ohio	Ubiko Egg	20	4	6	✓
	Ubiko All-Mash Starter	18	4	5	
	Ubiko All-Mash Complete Laying Ration	16	3.5	6	✓
	Ubiko All-Mash Developer	14	4	5	
West-Nesbitt, Inc., Oneonta, N. Y.	Pure Feed Egg Maker	18	4.5	7	✓
	Pure Feed Starting	16	4.5	4.6	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

SKIMMILKS

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 11)
Dairymen's League Co-operative Assoc., Inc., Utica, N. Y. ....Dairylea Dried	33	0.75	..	
Keystone Dairy Co., New York, N. Y. ....Keystone Dairy Co. Skimmilk Powder	32	0.75	..	
Land O'Lakes Creameries, Inc., Minneapolis, Minn....Dried	30	0.5	..	
St. Albans Grain Co., St. Al- bans, Vt. ....Pure Dried Skimmilk Powder	32	0.5	..	
Sheffield Farms Co., Inc., New York, N. Y. ....Sheffield Skimmilk Powder...	32	0.75	..	
Trout Brook Creamery Co., Concord, Vt. ....Trout Brook Skimmilk Powder	32	0.25	..	

II. BRANDS FAILING TO MEET GUARANTIES

(In respect to one or more of the samples analyzed)¹

COTTONSEED MEALS

- ASHCRAFT-WILKINSON Co., Atlanta, Ga. *Helmet Brand Prime*. 41/5.5/10. Nineteen samples, one below protein guaranty (41%). Stock of Checkerboard Warehouse, Brattleboro, 33.11%. Five samples below protein guaranty but within tolerance limits. Average 19 samples 41.24%.
- F. W. BRODÉ CORP., Memphis, Tenn. *Owl Brand 41% Prime*. 41/5/10. Average of two samples above fiber guaranty (10%). Found 11.21%. One sample below protein guaranty but within tolerance limits. Average two samples 41.28%.
- CAIRO MEAL & CAKE Co., Cairo, Ill. *Miss Cairo Brand Prime*. 43/6/10. Three samples, one below protein guaranty (43%). Stock of C. A. Smith, Newport, 41.83%. Two samples below protein guaranty but within tolerance limits. Average three samples 42.20%.
- EASTERN STATES FARMERS' EXCHANGE, Springfield, Mass. *Eastern States Choice*. 41/6/10. One sample above fiber guaranty (10%). Stock of W. H. Jackman, Vergennes, 10.82%.

LINSEED MEALS

- BISBEE LINSEED Co., Philadelphia, Pa. *Old Process*. 34/5/10. Six samples, two below protein guaranty (34%). Stocks of E. T. & H. K. Ide, Danville, 33.07%; E. T. & H. K. Ide, St. Johnsbury, 33.07%. One below protein guaranty but within tolerance limits. Average six samples 33.99%.
- KELLOGGS & MILLER, INC., Amsterdam, N. Y. *Pure Old Process*. 34/5/9. Nine samples three below protein guaranty (34%). Stocks of For-All Grain Co., Inc., Barnet, 32.86%; E. W. Bailey & Co., Montpelier, 32.86% H. K. Foster, South Royalton, 32.86%. One below protein guaranty but within tolerance limits. Average nine samples 34.73%.
- SHERWIN-WILLIAMS Co. OF CANADA, LTD., Montreal, Que. *Screwpress Oil Cake*. 35/6.5/8. Three samples, one below protein guaranty (35%). Stock of C. A. Smith, Concord, 33.73%. Average three samples 37.96%.

ALFALFA MEALS

- DENVER ALFALFA MILLING & PRODUCTS Co., Lamar, Colo. *Leafalfa Brand*. 20/2.5/18. One sample below protein guaranty (20%). Stock of Danville Grain Co., Danville, 18.19%.
- URBANA MILLS Co., Urbana, Ohio. *Alfalfa*. 13/1.5/33. One sample below protein guaranty (13%). Stock of A. D. Pease Grain Co., Burlington, 10.96%. Fat guaranty 1.5%, found 1.06%. Fiber guaranty 33%, found 33.01%.

¹In cases where one or more samples of a given brand proved deficient in its or their protein contents at the same time that others were within the tolerance limits or up to or above guaranty, and where the average figure was within tolerance limits or up to or above guaranty, the brand in question is listed both in this table as "falling to meet guaranty" (because some one or more of the samples was deficient) and in the preceding table as "in all respects up to guaranty" (because on the basis of the average of the several analyses it was "up to guaranty"). A hypothetical case may be cited. Eighteen samples are analyzed and two are deficient. Hence the brand, because of these two, is listed here. But 16 of the 18 were as good as they were said to be, actually or essentially, and on the average the shortage was either almost infinitesimal or, indeed, actually nonexistent. Hence the brand is listed among those that passed muster. Every sample taken is analyzed for its protein content. All samples of a given brand are mixed, forming one analytical sample for the determination of its fat and fiber contents. Hence it is that no sample of a brand showing material shortage in fat or overage in fiber is listed as "up to guaranty."

II. BRANDS FAILING TO MEET GUARANTIES—Continued

OAT, RYE AND CORN FEEDS

- QUAKER OATS Co., Chicago, Ill. *Vim Feed*. 5/2/30. Average five samples below fat guaranty (2%). Found 1.74%.
- QUAKER OATS Co., Chicago, Ill. *Sugared Vim Feed*. 5/1.25/26. Two samples, one below protein guaranty (5%). Stock of Nelson & Warner Co., Springfield, 4.40%. Average of two samples 5.16%.

DAIRY FEEDS OR RATIONS

- W. B. JOHNSON & SON, Essex Junction, Vt. *Johnson's Perfection Dairy No. 1*. 20/5/9. One sample below fat guaranty (5%). Stock of W. B. Johnson & Son, Essex Junction, 4.69%.
- MARITIME MILLING Co., INC., Buffalo, N. Y. *Sweetened Bull Brand B-B "20" Dairy Ration*. 20/4.5/11. Average of three samples below fat guaranty (4.5%). Found 4.09%.
- E. G. & A. W. NORTON, Vergennes, Vt. *Kow Feed*. 20/4/10. One sample above fiber guaranty (10%). Stock of E. G. & A. W. Norton, Vergennes, 12.43%.
- CHAS. M. SEAVER & Co., Williamstown, Vt. *Honor Brand 2½ Dairy Ration*. 24/5.5/9. One sample below fat guaranty (5.5%). Stock of Chas. M. Seaver & Co., Williamstown, Vt., 5.05%.
- J. G. TURNBULL Co., Orleans, Vt. *Creamery*. 20/5/10. Average of two samples below fat guaranty (5%). Found 4.29%.

CALF MEAL

- HALES & HUNTER Co., Chicago, Ill. *Red Horn Calf*. 18/4/5. Two samples below protein guaranty (18%). Stocks of Enosburg Grain Co., Enosburg, 16.66%; E. W. Bailey & Co., Montpelier, 16%. Average two samples 16.33%.

SCRATCH FEEDS, CHICK FEEDS

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore Scratch*. 10/3.5/7. Average of five samples below fat guaranty (3.5%). Found 2.79%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Emco Scratch*. 10/3.5/7. Average of two samples below fat guaranty (3.5%). Found 3.05%.
- MARITIME MILLING Co., INC., Buffalo, N. Y. *Bull Brand B-B Chick*. 11/2.5/4. One sample below fat guaranty (2.5%). Stock of Shelburne Feed Store, Shelburne, 2.24%.

MASHES, GROWING FEEDS, ETC.

- E. W. BAILEY & Co., Montpelier, Vt. *Pennant Brand Growing*. 15/5/5. Average of six samples below fat guaranty (5%). Found 4.60%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Turkey Growing*. 18/4.5/6. Two samples, one below protein guaranty (18%). Stock of St. Albans Grain Co., St. Albans, 17.09%. Average of two samples 17.86%

SKIMMILK

- THE DRY MILK Co., INC., New York, N. Y. *Chikora Dry Skimmilk*. 35.14/1/—. One sample below protein guaranty (35.14%). Stock of Washington County Farm Exchange, Montpelier, 33.95%. Below fat guaranty (1%). Found 0.73%.

III. INGREDIENT STATEMENTS

The Vermont commercial feeding stuffs law requires that the specific name of each ingredient used in the manufacture of a compounded feeding stuff shall appear on each package in the form of a plainly printed statement. This shows of what it is made. The information thus vouchsafed is an important factor in determining its value as a feed and should be taken into account by purchasers.

These mixtures are of all sorts and conditions. About fourscore different materials enter into their makeup. Some manufacturers maintain essentially unchanged formulas from year to year, but more are apt to modify them from time to time as circumstances seem to indicate. Much thought is given by most feed manufacturers in compounding their mixtures and much experience is reflected therein. Several carry on extensive test farms where stock and poultry are fed and several use biological tests in order to help them to devise special combinations for special purposes.

The following statement indicates the ingredients—stated in order alphabetically—which are most commonly used in the brands sold in Vermont. It may prove both interesting and helpful to the consumer.

DAIRY FEED GROUP

Calcium carbonate or bone meal, corn meal, cottonseed meal, gluten feed or meal, linseed meal, molasses, salt, wheat bran, wheat middlings.

STOCK FEED GROUP

Corn products, linseed meal, molasses, oats, salt.

CALF MEAL GROUP

Blood meal, corn meal, dried buttermilk or skimmilk, edible bone meal, linseed meal, oatmeal, salt, wheat red dog flour.

FIG AND HOG FEED GROUP

Alfalfa meal, calcium carbonate or bone meal, corn meal, linseed meal, meat scraps, salt, wheat bran, wheat middlings.

SCRATCH AND CHICK FEED GROUP

Barley, buckwheat, corn, kaffir corn, milo maize, oats, wheat.

MASHES, GROWING AND STARTING FEED GROUP

Alfalfa meal, calcium carbonate or bone meal, cod-liver oil or meal, corn meal, dried buttermilk or skimmilk, fish meal, meat meal, salt, wheat bran, wheat middlings.

Only 22 of the 178 brands of dairy and stock feeds, in other words, only one-eighth of the total number, contained "screenings." This is a fairly good showing as compared to the situation obtaining 10 years ago. Some screenings have considerable feeding value but in the main they are inferior in respect to their values as a feeding stuff and some may be positively dangerous to use. Feeds carrying some of the lower grade ingredients, and selling at from two to nine dollars less per ton than those not containing this type of ingredient, are being pushed by some manufacturers. Buyers will do well to compare the prices and the composition of high and of low grades before purchasing and to ponder the question as to which, all things considered, is the wiser choice.

The following pages set forth the ingredient contents of all brands sampled as declared on the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturer. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on pages 31, 34, 35, 37 and 42.

Twelve percent of the 369 brands of proprietary feeds examined were found not to be "as certified"; that is to say, either some of the ingredients declared to be used by the manufacturer were not found to be present by the microscopist or else extraneous ingredients were found in the sample. Some of the ingredients "not detected," e.g. calcium carbonate, salt, if used, were used in very small quantities and, furthermore, such materials are prone to mechanical separation in the bag. It may very well have been that in every case they were put into the mixtures, for they are among the cheaper ingredients. Failure to detect calcium carbonate and salt means very little, it means only that the microscopist failed to find them. Particular attention is called to the eight dairy rations which carried weed seeds. If the viability of such seeds is not destroyed they may cause trouble later on, since they are quite apt to survive passage through the cow's digestive tract. The Vermont station carried on several trials touching this matter in 1909, in the days when the proprietary feed trade was in its infancy and when these goods were far more apt than today to be loaded with weed seeds. The results were published in bulletins 131 and 138. Feeds containing weed seeds were fed to cows, their manure used on sterilized soil and fine weed crops were secured.

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Allied Mills, Inc.																								
Amco 32% Supplement†	32/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Amco 24%†	24/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Amco 20%†	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Amco 20% National†	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4
Wayne 20% Supreme	20/3.5/12.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 13, 16
Amco 16½ Sucrene†	16.5/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Amco 16½ Sucrene†	16.5/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. W. Bailey & Co.																								
Capital	24/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweetened Capital	24/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Open Formula 24%	24/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Open Formula 20%	20/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Favorite	20/4.5/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Sweetened Favorite	20/4.5/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Our 20% Special	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
"Our Own"	16/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Bailey's 16%	16/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Berkshire Coal & Grain Co., Inc.																								
Green Mountain	23/5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Bethel Mills																								
Bethel Mills 24%	24/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Bethel Mills 20%	20/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Bethel Mills 20% Sweetened	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Black Rock Milling Corp.																								
Bidwell 24%	24/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 5
Bidwell 20%	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 5
Chapin & Co.																								
Unicorn 24%	24/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
E. C. Crosby																								
Crosby's A Quality 20%	20/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Danville Grain Co., Inc.																								
Danville 24%	24/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Danville 20%	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Blue Ribbon	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Davis Feed Co., Inc.																								
Davis Special 24 Milk	24/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Davis Special 20 Milk	20/4/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Davis 20% Kow Feed	20/4.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12
H. W. Demick, Inc.																								
Beats 'Em All	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Farmers' Exchange																								
Eastern States 30% Supplement†	30/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Milkmore†	24/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Fulpall†	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Highland 20†	20/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 6

†Open formula.

DAIRY FEEDS—concluded

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linsseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
St. Albans Grain Co.																								
Hygrade 24 Sweetened Milk	24/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Wirthmore 20	20/5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore 20 Sweetened	20/4.75/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Hygrade 20 Sweetened Milk	20/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Utility	20/3.5/10.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Wirthmore with Beet Pulp Sweetened	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Paragon Sweetened	20/3.25/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Wirthmore 16 Sweetened	16/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Hygrade 16 Sweetened Milk	16/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Seabury Grain Co.																								
Our Own Make 20%	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3
Our Own Make 16%	16/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3
C. M. Seaver & Co.																								
Honor Brand 24	24/5.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Honor Brand 20	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
H. A. Slayton & Co.																								
Economy Feed	20/3.75/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
R. D. Small																								
Small's 20 Per Cent	20/4.2/11.3																							
C. A. Smith																								
Smith's	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. H. Stearns & Son Co.																								
Stearneo	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
J. D. Thompson Est.																								
Special 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
J. G. Turnbull Co.																								
Creamery	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3
Turnbull's Special	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 12
Ubiko Milling Co.																								
Union Grains Ubiko																								
24% Dry	24/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Union Grains Ubiko																								
24% Sweet	24/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Union Grains Ubiko																								
16% Sweet	16/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Valley City Milling Co.																								
Rowena 20%	20/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
R. P. Webster																								
Ray's Ready	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3
West-Nesbitt, Inc.																								
Super Pure Sweetfeed	24/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 14

Additional ingredients: 1. Soy bean oil meal. 2. Barley. 3. Wheat. 4. Peanut oil. 5. Malt sprouts. 6. Dicalcium phosphate. 7. Copra oil meal. 8. Phosphatic limestone. 9. Feed meal. 10. Wheat germ. 11. Ground phosphate rock. 12. Rye feed. 13. Potassium io. 14. Dried yeast grains. 15. Dried ground fish. 16. Iron oxide. 17. Iodized salt. 18. Trical phosphate.

All dairy feeds, with few exceptions, were found to be "as certified."

In the following instances, the ingredients were "not detected":

Allied Mills, Inc., Amco 16½% Sucrene: Calcium carbonate.
 For-All Grain Co., Inc., For-All 20%: Calcium carbonate.
 E. T. & H. K. Ide, Ide's Special 20%: Calcium carbonate.
 E. T. & H. K. Ide, Sunshine 20%: Calcium carbonate.
 Kasco Mills, Inc., Kasco Mormilk: Calcium carbonate.
 T. J. McGovern, McGovern's 20% Farm Relief: Bone meal and calcium carbonate.
 J. G. Turnbull Co., Creamery: Distillers' dried grains.

In the following instances small quantities of ingredients named were found in addition to those certified:

H. W. Dimick, Inc., Beats 'Em All: Small amount of cottonseed meal.
 Elmore Milling Co., Inc., Granger: Few whole weed seeds.
 Elmore Milling Co., Inc., Elmore's Economilk 24%: Few whole weed seeds.
 Elmore Milling Co., Inc., Economilk: Numerous whole weed seeds.
 Elmore Milling Co., Inc., Otsego Economy: Few whole weed seeds.
 Elmore Milling Co., Inc., Elmore's Sweet Digesto: Numerous whole weed seeds.
 John W. Eshelman & Sons, Eshelman Conestoga 20: Few whole weed seeds.
 John W. Eshelman & Sons, Eshelman Pennsy 16: Few whole weed seeds.
 Maritime Milling Co., B B Marmico 16% Protein with Molasses: Few whole weed seeds.
 Park & Pollard Co., Milk-Maid 24% Sweetened: Corn meal.
 E. T. Seabury Grain Co., Our Own Make 20%: Ground barley.
 E. T. Seabury Grain Co., Our Own Make 16%: Ground barley.
 J. G. Turnbull Co., Creamery: Brewers' dried grains.
 J. G. Turnbull Co., Turnbull's Special: Brewers' dried grains.
 Ray P. Webster, Ray's Ready: Brewers' dried grains and malt sprouts.

Thirty-nine ingredients were used in making the 126 brands of dairy feeds sampled. Bran, salt, cottonseed meal, linseed meal, gluten meal or feed in nine-tenths or over; molasses and calcium carbonate or bone in eight-tenths; corn meal and wheat middlings in six-tenths; hominy, ground oats, bone meal, and brewers', distillers' or malt grains in one-half; barley meal in one-fifth; soy bean meal in three-tenths; either screenings or oat mill feed in one-fourth; and screenings in a little less than one-fifth of brands sampled. Ninety percent of brands carry minerals other than salt.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																	
Allied Mills, Inc.																				
Amco 12% Fitting†	12/3/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
June Pasture	10/0.5/21	*																		
Wayne Supreme Horse	9.5/3.5/8									*				*						
E. W. Bailey & Co.																				
Bailey's Fitting	14/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Bailey's Fitting	14/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Pennant Horse	10.75/3.5/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Pennant Brand Stock	9.5/4/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Pennant Brand Stock	9.5/4/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills																				
Bethel Mills 16% Pasture	16/4.2/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Chapin & Co.																				
Chapin Rabbit Cookies	18/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 7, 14
Centaur Fitting	12/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																				
Eastern States Fitting†	12/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9
Eastern States Highland 12†	12/3.5/11.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9
Eastern States Horse and Calf†	10.5/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Eastern States Suc- culence†	10/1.5/14.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3
Elmore Milling Co. Inc.																				
Elmore Rabbit Pel-ets	12/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 10, 13, 17, 21
J. W. Eshelman & Sons																				
Eshelman Red Rose Rabbit	12/3.5/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
Eshelman S-O-S	11/2/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4
Eshelman Steam-cooked Horse	9/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose 85 Horse	9/3/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose Stock	9/3/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 16
D. H. Grandin Milling Co.																				
Grandin's Sweetened Horse	9.5/3.5/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Grandin's Stock	8.5/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Hales & Hunter Co.																				
Victoria Rabbit	14/3.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 7, 8 18, 19, 20
College Horse	9/2.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
E. T. & H. K. Ide																				
Ideal Fitting	12/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Imperial Grain & Milling Co. \ Imperial Steam Cooked	9.5/4/4.6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Park & Pollard Co., Inc. Park & Pollard Fitting	12/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6

†Open formula.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																	
Park & Pollard Co., Inc.																				
Park & Pollard Horse	10/3.5/9								*	*	*	*	*	*	*					*
Bison Stock Sweetened	10/3/12					*	*	*	*	*	*	*	*	*	*					*
Park & Pollard Stock	8.5/4/12			*	*	*	*	*	*	*	*	*	*	*	*					*
Quaker Oats Co.																				
Quaker Thorobred Horse	10.5/3.5/9	*		*					*	*	*	*	*	*	*					*
Quaker Schumacher	10/3/12			*	*	*	*	*	*	*	*	*	*	*	*				*	11
Quaker Sugared Schumacher	10/3/12			*	*	*	*	*	*	*	*	*	*	*	*				*	11
Quaker Green Cross Horse	10/2.5/12	*		*					*	*	*	*	*	*	*					
Richford White Diamond Stock	9/3/14			*	*	*	*	*	*	*	*	*	*	*	*					
Ralston Purina Co.																				
Purina Rabbit Chow	16/3.5/8	*		*	*	*	*	*	*	*	*	*	*	*	*			*		9, 10, 21, 22
Purina Lamb Chow	14/3/12	*		*					*	*	*	*	*	*	*			*		7, 8
Purina Fitting Chow	13.5/2.6/12	*		*					*	*	*	*	*	*	*			*		9, 10
Purina Bulky Omolene Chow	10/3.2/11			*					*	*	*	*	*	*	*			*		10
Purina Omolene Chow	10/3.2/9	*		*					*	*	*	*	*	*	*			*		10
Purina Bulky Las Chow (Buffalo Mill)	9/1.3/15	*		*					*	*	*	*	*	*	*			*		3, 4, 10
Profena Sweet Roughage (Buffalo Mill)	6/1/30			*					*	*	*	*	*	*	*			*		4, 10, 15
St. Albans Grain Co.																				
Wirthmore 14 Fitting	14/4/7			*	*	*	*	*	*	*	*	*	*	*	*			*		6
Wirthmore Rabbit	14/3.5/9	*		*	*	*	*	*	*	*	*	*	*	*	*			*		1, 7, 12, 13
Utility 60 Pasture	14/3/13			*	*	*	*	*	*	*	*	*	*	*	*			*		4, 7
Hygrade Fitting or Stock	10/3.25/12			*	*	*	*	*	*	*	*	*	*	*	*			*		
Wirthmore Horse	9.8/3.25/9	*		*	*	*	*	*	*	*	*	*	*	*	*			*		
Wirthmore Stock	9/4/9.5			*	*	*	*	*	*	*	*	*	*	*	*			*		
Wirthmore Fodder Greens	9/1.25/19	*		*					*	*	*	*	*	*	*			*		3, 15
Ubiko Milling Co.																				
Ubiko Horse	9/3.5/7			*					*	*	*	*	*	*	*			*		
Crusader Horse	9/3/10	*		*					*	*	*	*	*	*	*			*		

Additional ingredients: 1. Ground wheat. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Charcoal. 9. Soy bean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skimmilk. 13. Cod-liver oil. 14. Corn oil meal. 15. Alfalfa stem meal. 16. Ground rye. 17. Dried buttermilk. 18. Rock phosphate. 19. Magnesium sulphate. 20. Calcium iodide. 21. Corn germ meal. 22. Wheat germ meal.

All stock feeds were found to be "as certified" with a few minor exceptions.

In the following instances the ingredients named were "not detected":

Hales & Hunter Co., College Horse: Linseed meal.

In the following instances, small quantities of ingredients named were found in addition to those certified:

E. W. Bailey & Co., Sweetened with molasses Pennant Stock; Gluten meal.

Chapin & Co., Centaur Fitting: Charcoal.

Eastern States Farmers' Exchange, Eastern States Highland 12: Linseed meal.

Park & Pollard Co., Inc., Park & Pollard Fitting: Malt sprouts.

Park & Pollard Co., Inc., Bison Stock sweetened: Bran, gluten meal and malt sprouts.

St. Albans Grain Co., Wirthmore Rabbit: Salt.

Thirty-nine ingredients were used in making 52 brands of stock feed, etc., sampled. Salt appears in nine-tenths; molasses and oats in eight-tenths; linseed meal in six-tenths; alfalfa meal, corn meal, ground barley, wheat bran, and cracked corn in four-tenths; bone meal, calcium carbonate, hominy meal and oat mill feed in three-tenths, wheat middlings in one-fourth; and cottonseed meal in two-tenths of brands sampled. Oat mill feed appears in 16 and screenings only in one brand.

CALF MEALS, HOG FEEDS

Allied Mills, Inc., Wayne Calf Meal. 24/4/7. Dried skim milk, cottonseed oil meal, corn gluten meal, coconut oil meal, wheat standard middlings, wheat second clear flour, soy bean oil meal, ground limestone, steamed bone meal, salt, iron oxide, potassium iodide, cane molasses, and wheat standard bran.

Blatchford Calf Meal Co., Blatchford's Calf Meal. 24/5/6.75. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, old process linseed oil meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate (bone meal), wheat flour, coconut oil meal, re-cleaned cottonseed meal, fenugreek, anise, and salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula). 23/3.5/4. Rolled oat groats, yellow corn meal, wheat bran, linseed meal, cracked corn, blood flour, dry skim milk, dicalcium phosphate, salt.

Eastern States Farmers' Exchange, Eastern States Hog Meal (Open Formula). 14.5/4/5.5. Corn meal, meat scraps, wheat middlings, linseed meal, alfalfa leaf meal, dicalcium phosphate, calcium carbonate, and salt.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal. 24/4/4. Red dog wheat flour, corn meal, corn feed meal, oat meal, linseed meal, reground malted barley, blood meal, dried buttermilk, bone meal, and salt.

John W. Eshelman & Sons, Eshelman Red Rose Calf Starter. 18/3/5. Cooked and baked wheat feed, linseed meal, wheat middlings, wheat flour, oatmeal, ground kaffir corn, blood meal, and ground flaxseed.

Hales & Hunter Co., Red Horn Calf Meal. 18/4/5. Corn flour, oat flour, wheat red dog flour, linseed meal, ground barley malt, dried buttermilk, dextrose, calcium carbonate, rock phosphate, salt, steamed bone meal, charcoal, magnesium sulphate, calcium iodide, and alfalfa.

Kasco Mills, Inc., Kasco Pig-Hog Feed. 17/4.5/7.5. Wheat red dog flour, ground barley, corn meal, lined oil meal, soy bean meal, wheat middlings, corn germ meal, fish meal, digester tankage, salt, calcite, red oxide of iron, milk sugar feed (dried whey), alfalfa meal, (wheat middlings may contain ground screenings not exceeding mill run.)

Larrowe Milling Co., Larro Pork-Maker. 25/5/10. Meat scraps, dried beet pulp, linseed oil meal, wheat middlings (with ground grain screenings not exceeding mill run), alfalfa meal, wheat bran, corn germ meal, limestone, and salt.

Larrowe Milling Co., Larro Calf Meal. 23/4/3.5. Oatmeal, wheat red dog, corn meal, linseed oil meal, blood flour, dried skim milk, bone meal, cod-liver oil, and salt.

Larowe Milling Co., Larro Hog Feed. 18/5/10. Corn germ meal, linseed meal, hominy, meat scraps, alfalfa meal, wheat middlings, wheat bran, dried beet pulp and salt, phosphatic limestone.

Park & Pollard Co., Milkade Calf Meal. 20/7/6.5. Ground malt, linseed meal, wheat bran, wheat flour, cocoanut oil meal, bone meal, rice polish, wheat middlings, sesame oil meal, blood flour, calcium carbonate, fenugreek, ground anise, and salt.

Park & Pollard Co., Go-Tu-It Pig and Hog Ration. 15/3.5/8. Alfalfa meal, hominy, ground barley, iodol fish meal, meat, bone, corn meal, corn germ meal, wheat middlings, ground grain screenings, calcium carbonate, and salt.

Quaker Oats Co., Schumacher Calf Meal. 18/7.5/4. Oatmeal, ground flaxseed, ground puffed wheat, linseed meal, dried skimmed milk, boiled and sterilized blood flour, bicarbonate of soda, salt, limestone, and bone meal.

Ralston Purina Co., Purina Calf Chow. 27/3.2/4.5. Blood flour, dried skimmilk, linseed flour, corn meal, wheat flour (second clear), corn gluten meal, iodized salt, and limestone.

Ralston Purina Co., Purina Hog Fatena Chow. 14/3/7. Tankage, linseed meal, corn germ meal, alfalfa leaf meal, wheat middlings, hominy meal, molasses, alfalfa meal, iodized salt, and charcoal.

Ryde & Co., Ryde's Cream Quality Calf Meal. 18.5/4/4. Blood meal, dried skimmilk, locust bean meal, barley malt flour, crude milk albumen, linseed meal, cocoanut oil meal, ground oat groats, corn meal, flaxseed, wheat flour, wheat middlings, fenugreek, anise, steam bone meal, calcium carbonate, and salt.

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skimmilk, ground oatmeal, flax, blood meal, linseed meal, wheat red dog flour, corn meal, edible bone meal, and iodized salt.

St. Albans Grain Co., Wirthmore Pig and Hog. 17/4/9. Beef scraps, fish meal, edible bone meal, wheat red dog flour, wheat middlings, wheat bran, linseed meal, alfalfa meal, corn meal, ground barley, corn gluten meal, calcium carbonate, cane molasses, and salt.

All the calf and hog meals were found to be "as certified."

There were 46 ingredients used in 12 brands of calf meals sampled. Linseed meal and salt appeared in 11; blood flour in 10; either dried skimmilk, buttermilk, or milk albumen in 10; bone meal and wheat flour in 9; oats in 8; corn meal in 7; wheat flour and limestone in 6; and ground flax in 5.

There were 25 ingredients used in seven brands of pig and hog feeds sampled. Alfalfa, wheat and salt appeared in all; linseed meal and limestone in 6; meat scraps and corn germ meal in 5; corn meal in 4; wheat bran, fish meal, barley meal, and hominy feed in 3.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty													
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
Maritime Milling Co., Inc.														
Bull Brand B-B Chick	11/2.5/4					*	*	*	*	*	*	*	*	*
Bull Brand B-B Scratch	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
B-B Daisy Scratch	9/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Geo. Q. Moon & Co., Inc.														
Moon's Scratch	10/2/5			*	*	*	*	*	*	*	*	*	*	*
Moon's Developing	10/2/5			*	*	*	*	*	*	*	*	*	*	*
Park & Pollard Co., Inc.														
Red Ribbon Scratch	10/3/5			*	*	*	*	*	*	*	*	*	*	*
Park & Pollard Chick Scratch	10/3/3			*	*	*	*	*	*	*	*	*	*	*
Red Ribbon Chick	10/3/3.5			*	*	*	*	*	*	*	*	*	*	*
Intermediate Chick	10/3/3.5			*	*	*	*	*	*	*	*	*	*	*
Quaker Oats Co.														
Quaker Ful-O-Pep Fine Chick	11/2.5/2			*	*	*	*	*	*	*	*	*	*	*
Quaker Ful-O-Pep Coarse Chick	10/2/2.5			*	*	*	*	*	*	*	*	*	*	*
Big Egg Scratch, No Grit	10/3/4.25			*	*	*	*	*	*	*	*	*	*	*
Early Bird Fine Chick, No Grit	10/2/2			*	*	*	*	*	*	*	*	*	*	*
Early Bird Coarse Chick	9.5/2/3.5			*	*	*	*	*	*	*	*	*	*	*
Quaker Ful-O-Pep Scratch	9/2/3.5			*	*	*	*	*	*	*	*	*	*	*
Ralston Purina Co.														
Purina Pigeon Chow	13.5/2/4			*	*	*	*	*	*	*	*	*	*	*
Purina Pigeon Chow containing Corn	12.5/2/4			*	*	*	*	*	*	*	*	*	*	1
Purina Hen Chow	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
Purina Intermediate Hen Chow	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
Purina Chick Chow	10/2/4			*	*	*	*	*	*	*	*	*	*	*
Protena Scratch (Buffalo Mill)	9.5/2/4			*	*	*	*	*	*	*	*	*	*	*
St. Albans Grain Co.														
Wirthmore Scratch	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
Paragon Scratch	10/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Wirthmore Intermediate Scratch	10/2.5/3.5			*	*	*	*	*	*	*	*	*	*	*
Wirthmore Baby Chick Scratch	10/2.5/3.5			*	*	*	*	*	*	*	*	*	*	*
Ubiko Milling Co.														
Ubiko Intermediate Scratch	9/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Ubiko Chick	9/2.5/5			*	*	*	*	*	*	*	*	*	*	*

Additional ingredients: 1. Whole corn. 2. Hemp.

All scratch feeds, etc., were found "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

Elmore Milling Co., Inc., Elmore Scratch: Kaffir corn.

First National Stores, Inc., Henfield Scratch: Milo maize.

Larrowe Milling Co., Larro Growing Grains (1930): Buckwheat.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Eastern States Farmers' Exchange, Eastern States Intermediate Scratch:

Few oats.

First National Stores, Inc., Henfield Scratch: Few whole weed seeds.

Hales & Hunter Co., Pound Squab Pigeon, No Corn: Few whole weed seeds.

Hales & Hunter Co., Pound Squab Pigeon, No Grit: Millet and few weed seeds.

Thirteen ingredients were used in making 62 brands of scratch feeds, etc., sampled. Wheat was used in all but one brand sampled; corn in all but three; kaffir corn, buckwheat and oats in a little less than seven-tenths; barley and milo maize in one-half; and sunflower in three-tenths of brands.

MASHES AND OTHER FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																			
Allied Mills, Inc.																					
Wayne Egg	18/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne Egg†	18/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4
Red Feather Egg	18/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 3
Wayne Broiler	17/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4
Wayne All Mash Chick Starter	17/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne All Mash Chick Starter†	17/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4
Wayne All Mash Chick Starter	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne All Mash Grower	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne All Mash Grower†	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4
Wayne Poultry Fattener	13.5/4/6																				6, 7
E. W. Bailey & Co.																					
Pennant Brand Laying	20/5/6	*									*	*	*	*	*	*	*	*	*	*	1
Pennant Brand Chick Starter	17/5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 20
Pennant Brand Growing Feed	15/5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 20
Berkshire Coal & Grain Co., Inc.																					
Green Mountain Laying	19/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Black Rock Milling Corp.																					
Bidwell Dry-Mash	18/3/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Chapin & Co.																					
Chapin Kernels Lay-All	16/3.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 8, 9, 10, 21
Chapin Kernels Start-All	15/3.5/4.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 8, 9, 10, 21
Community Feed Stores, Inc.																					
Community Milk Laying	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Community Chick	17/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 20
Eastern States Farmers' Exchange																					
Eastern States Developer††	18.5/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 11, 24
Eastern States Broiler††	18.5/4/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 11, 24
Eastern States Starting and Broiler††	18.5/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 11, 24
Eastern States Egg†	17/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11, 24
Eastern States Milk Egg†	17/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24
Eastern States Milk Egg††	17/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 11, 24
Elmore Milling Co., Inc.																					
Elmore Egg	18/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 21
Elmore Eggmaker	17/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Elmore Complete Broiler	17/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4

†Open formula. ††With cod-liver oil.

MASHES AND OTHER FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																			
Elmore Milling Co., Inc.																					
Elmore Complete Starting and Growing	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Elmore Chixsaver	16.5/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Elmore Chixsaver	14/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 21
John W. Eshelman & Sons																					
Eshelman Red Rose Laying	20/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12
Eshelman Red Rose Laying†	20/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 12
Eshelman Red Rose Growing†	16/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 12
Eshelman Red Rose Chick Starter	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 12
First National Stores, Inc.																					
Henfield Egg	20/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
H. Grandin Milling Co.																					
Grandin Laying*	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Grandin Laying*†	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Complete Starting*†	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin Growing*†	15/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin Broiler*†	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Baby Chick Starter*†	14/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
James & Hunter Co.																					
Red Comb Egg*	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 13
Red Comb Chick Starter*	15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 13
Red Comb Growing*	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 13
Red Comb Crate Fattener with Rolled Oats	13/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10, 21
T. & H. K. Ide																					
Ideal Buttermilk Egg	24/5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Kasco Mills, Inc.																					
Apex Laying	20/4/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Kasco All-Mash Chick Food	17/4/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 12
Lawrence Milling Co.																					
Larro Egg	19/5/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 23
Larro Turkey and Game Bird Starter	17/4.5/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 23
Larro Turkey and Game Bird Developer	16.5/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 23
Larro Growing	16/4.5/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 23
Larro Chick Starter	16.5/4.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 23
Larro Broiler Feed	15/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 23
Larro Poultry Fattening Feed	14/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 15, 23
H. McEwen Milling Co.																					
McEwen's Red Feather Egg	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Maritime Milling Co., Inc.																					
Vitamized Bull Brand B-B Laying	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12

*With buttermilk. †With cod-liver oil.

MASHES AND OTHER FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog									
																								18/3.5/7	18/3.5/7	18/4/5	17/4/6	16/4.5/7	20/4/9	17/4/7	15/4/5	18/3/7
Maritime Milling Co., Inc.																																
B-B Daisy Egg*		18/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2									
Vitamized B-B Daisy Egg*†		18/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4									
Vitamized Bull Brand B-B Chick Starter		18/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12									
Vitamized Bull Brand B-B All Mash Chick Starter		17/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12									
Vitamized Bull Brand B-B Growing Mash		16/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12									
Geo. Q. Moon & Co., Inc.																																
Moon's Laying*		20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16									
Moon's Growing		17/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16									
Moon's Baby Chick Starter		15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 16									
Park & Pollard Co.																																
Lay or Bust Dry-Mash		18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17									
Lay or Bust Dry-Mash‡		18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17									
All-in-One Starting Feed		17/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4									
Park & Pollard Chick Starter		17/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 18									
Growing Feed		14/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*										
Quaker Oats Co.																																
Quaker Ful-O-Pep Turkey Starter		22/5/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 9.									
Quaker Ful-O-Pep Egg		20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20									
Quaker Ful-O-Pep Growing		19/5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20									
Quaker Ful-O-Pep Chick Starter		17/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 9.									
Ralston Purina Co.																																
Purina 32% Chowder		32/3/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 14									
Purina Breeder Egg Chowder		19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6.									
Purina Egg Chowder		19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 14									
Purina Chicken Chowder¶		19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6									
Purina Egg Chowder*		19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 14									
Purina Egg Chowder‡		19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6.									
Purina Chicken Chowder Feed¶		19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6									
Purina Chick Startena Chow'		19/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 14 22, 25									
Purina All Mash Startena Chow¶		18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 22									
Purina All Mash Startena Chow		18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 14 22, 25									
Purina Lay Chow¶		17/2.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9									
Purina Lay Chow		17/2.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9, 14									
Purina Lay Chow*		17/2.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9, 14									
Purina Lay Chow‡		17/2.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9.									
Purina Chick Growena Chow		17/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 14									

*With buttermilk. †With cod-liver oil. ‡With cod-liver meal.

MASHES AND OTHER FEEDS MADE OF FINE INGREDIENTS—concluded

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Ralston Purina Co.																						
Purina Chick Growena Chow†	17/3.5/7	*						*	*	*						*			*	*		
Purina Chicken Fat Chow	15.5/3/5		*					*	*	*				*	*	*						
Purina Chicken Fatena Chow	12/3/6.6		*					*	*					*	*					*		
Purina Poultry Fattening Chow	11/3/10.6		*					*	*					*	*					*		
St. Albans Grain Co.																						
Wirthmore Laying*†	20/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Laying*‡	20/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Breeder	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Turkey Starter*§	20/4.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Baby Chick Starter*‡†	18/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Turkey Growing Feed	18/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore All Purpose Chick and Broiler	17.5/4/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Complete Ration for Broilers	16.5/4/4.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Growing*	15/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Growing*‡	15/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ubiko Milling Co.																						
Ubiko Egg	20/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ubiko All-Mash Starter	18/4/5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ubiko All-Mash Complete Laying	16/3.5/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ubiko All-Mash Developer	14/4/5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Vest-Nesbitt, Inc.																						
Pure Feed Egg Maker	18/4.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Pure Feed Starting	16/4.5/4.6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	

*With buttermilk. †With cod-liver oil. ‡With cod-liver meal.
 Additional ingredients: 1. Dried skim milk. 2. Soy bean meal. 3. Iron oxide and potassium oxide. 4. Cod-liver oil. 5. Charcoal. 6. Corn germ meal. 7. Coconut oil meal. 8. Milo maize. 9. Molasses. 10. Corn oil meal. 11. Dicalcium phosphate. 12. Milk sugar feed (dried whey). 13. Charcoal, iron sulphate, sulphur. 14. Iodized salt. 15. Dried beet pulp. 16. Calcium phosphate. 17. Kaffir corn. 18. Rice. 19. Oat mill feed. 20. Cod-liver meal. 21. Low-grade wheat flour. 22. Wheat germ. 23. Phosphatic limestone. 24. Oyster shell meal. 25. Oat middlings.

The mashes and other feeds were found "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne All Mash Chick Starter: Potassium iodide.
 Eastern States Farmers' Exchange, Eastern States Broiler Ration: Fish.
 Elmore Milling Co., Inc., Elmore Complete Broiler Ration: Alfalfa.
 Kasco Mills, Inc., Kasco All-Mash Chick Food: Calcite.
 Maritime Milling Co., Inc., B-B Daisy Egg Mash with Dried Buttermilk:

Salt.

Park & Pollard Co., Inc., Park & Pollard Chick Starter: Salt.

Park & Pollard Co., Inc., Growing Feed: Linseed meal.

St. Albans Grain Co., Wirthmore Turkey Starter containing God-liver

Meal: Buttermilk, alfalfa meal.

Ubiko Milling Co., Ubiko All-Mash Starter: Alfalfa meal.

Ubiko Milling Co., Ubiko All-Mash Developer: Alfalfa meal.

In the following instances a small quantity of ingredients named were found in addition to those certified:

Allied Mills, Inc., Red Feather Egg Mash: Linseed meal.

Allied Mills, Inc., Wayne Broiler Ration: Linseed meal.

Forty-four ingredients were used in making 110 brands of mashes, etc., sampled. Alfalfa meal, corn meal, wheat bran, meat meal, wheat middlings, salt, and either buttermilk or skimmed milk appear in nine-tenths or more; oats in eight-tenths; calcium carbonate and buttermilk in seven-tenths; cod-liver oil or cod-liver meal in six-tenths; bone meal, fish meal and cod-liver oil in five-tenths; dried skim milk and linseed meal in four-tenths; and gluten meal or feed and soy bean meal in three-tenths of brands sampled.

All but one brand carried minerals.

DISCUSSION OF RESULTS

The table on the next page sets forth the results of the inspection of April, 1932. The proportions of the total number of brands found deficient in recent inspections were:

Spring 1923.....	22%	Winter 1923-24.....	11%
Spring 1924.....	16%	Winter 1924-25.....	10%
Spring 1925.....	15%	Winter 1925-26.....	13%
Spring 1926.....	13%	Winter 1926-27.....	10%
Spring 1927.....	8%	Winter 1927-28.....	9%
Spring 1928.....	18%	Winter 1928-29.....	9%
Spring 1929.....	7%	Winter 1929-30.....	6%
Spring 1930.....	9%	Winter 1930-31.....	7%
Spring 1931.....	8%	Winter 1931-32.....	4%
Spring 1932.....	3%		

APRIL, 1932, INSPECTION

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	74	72	2	14	12	2	..	..	2	..	..	..
Soy bean meals	7	7	..	2	2	..	..	..	..	..	..	..
Linseed meals	58	52	6	14	14	..	..	..	..	..	..	..
Gluten meals and feeds	82	82	..	11	11	..	..	..	..	..	..	..
Distillers' and brewers' dried grains	12	12	..	6	6	..	..	..	..	..	..	..
Wheat offals	373	373	..	107	107	..	..	..	..	..	..	..
Bran	154	154	..	43	43	..	..	..	..	..	..	..
Middlings	106	106	..	35	35	..	..	..	..	..	..	..
Mixed feeds	68	68	..	19	19	..	..	..	..	..	..	..
Red dog flours	45	45	..	10	10	..	..	..	..	..	..	..
Alfalfa meals	8	6	2	7	5	2	1	..	..	..	..	*1
Dried beet pulps	26	26	..	2	2	..	..	..	..	..	..	..
Hominy feeds	19	19	..	11	11	..	..	..	..	..	..	..
Oat and rye feeds	38	37	1	9	8	1	..	1	..	..	..	..
Proprietary feeds	1,353	1,350	3	377	367	10	1	8	1	..	..	..
Dairy	422	422	..	127	122	5	..	4	1	..	..	..
Stock, horse, etc.	195	195	..	52	52	..	..	..	..	..	..	..
Calf and hog	81	79	2	19	18	1	1	..	..	..	..	..
Poultry feeds	655	654	1	179	175	4	..	4	..	..	..	..
Scraps	16	16	..	7	7	..	..	..	..	..	..	..
Scratch, chick	223	223	..	62	59	2	..	3	..	..	..	..
Mashes, growing	416	415	1	110	109	1	..	1	..	..	..	..
Skim- and buttermilk	20	19	1	7	6	1	..	..	..	1	..	..
Totals	2,070	2,055	15	567	551	16	2	9	3	1	..	*1
Winter 1931	2,357	2,320	37	590	567	23	6	9	4	1	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3	1
Winter 1930	2,060	2,022	38	540	503	37	5	23	9	..	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	..
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	..
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	..
Winter 1927-28	1,051	982	69	303	275	28	14	2	8	2	2	..
Spring 1927	1,254	1,197	57	395	365	30	17	9	4	..	..	..
Winter 1926-27	1,339	1,281	58	363	325	38	12	6	14	1	2	3
Spring 1926	1,147	1,109	38	332	288	44	10	13	12	..	7	2
Winter 1925-26	1,219	1,161	58	345	300	45	15	9	14	1	5	1
Spring 1925	1,031	953	78	335	285	50	24	15	4	3	2	2
Winter 1924-25	1,076	1,024	52	314	283	31	7	11	6	2	1	4

*Protein, fat and fiber.

The average prices at which the several classes of feeds sold during the past seven years appear on the next page.

	Mar.-Apr., '26	Dec., '26	Apr., '27	Dec., '27	Apr., '28	Dec., '28	Apr., '29	Dec., '29	Apr., '30	Dec., '30	Apr., '31	Dec., '31	Apr., '32
Cottonseed meals 43%.....	\$47	\$41½	\$47	\$57	\$65	\$64	\$58	\$55	\$54	\$43	\$42	\$30	\$30
Cottonseed meals 41%.....	47	40	45	53½	62	59	57	63	48	41	40	29	28
Cottonseed meals 36%.....	45½	38	44	50½	58½	55	54½	50	47½	41	40	28	26
Linseed meals 34%.....	57	56	56	58	63	67	65½	64	58	48	45	40	40
Linseed meals 30-33%...	56	54	56	58	61½	..	61	..	61	47	42	39	40
Distillers' grains.	57	59	..	57	61	50	..	..	50	47	32	30	29
Gluten meals 40%	57	52	54	56	62	63	72½	60	54	49½	40½	34	28
Gluten feeds 23%.	48	41½	44	48	51½	53	55½	50½	43½	42	38	27	24
Wheat brands	37	38	39½	44½	49	44	40	40½	38½	30	31	25	24½
Wheat middlings:													
Standard	39	40	41	44	49	46	44	43½	39½	32½	31½	26	25½
Shorts	37	39½	40½	43	49	45	40½	42	38	30	31	26	24½
Flour	45½	45	46	50	58	47½	47	45½	44	36	35	29	28
Wheat mixed feeds	42½	42	43	48	51	58	46	46½	42	36	33	28	27
Red dog flours....	52½	50	50½	54	54	57	51½	51½	45	39½	35	30	28
Dried beet pulps..	50	45	45	48	51½	54	54½	53	51	38½	35	28	28
Hominy feeds....	37	39½	38	48	48	46	46	45½	50½	38	34½	27	24
Alfalfa meals	47	44	45	49	..	55	48	50	62	54½	55	41	49½
Proprietary feeds:													
Dairy 24%.....	50	47½	49	53½	56	56	56	54	50	45½	42	34	32
20%.....	48	46	47	50	54	53	53½	51½	48	42½	39½	32	33
16%.....	41½	39	40½	43	48½	47	46½	48	43	39	35	30	27½
Stock and horse 9-10%*.	40	39½	41	45½	50	49	48½	49	48½	42	40	34	32
8%*.	38	..	..	..	47	49	45	46½	..	44½	34	29	34
Fitting 9-12%...	..	..	..	..	..	..	..	50½	45	43	39	31	29½
14%.....	..	..	..	..	..	..	..	53	45½	43	39	36	31½
Calf	99	95	94	100	99	96	96	98	92½	89	84	80	74
Hog	58	55	50½	60	60	57	57½	57	53½	50	48	38	35½
Poultry:													
Scraps	71	74	80½	..	87	79	75	75	70	82	75½	58	60½
Scratches	54	52	52	55	59	52	53½	52½	51	44½	41½	33	32½
Mashes	60½	60	59	64½	68	63	64½	64	61	56	52	42	40
Chick grains..	78	72	72	63	68½	57	60	56½	55	52½	49	41	39
Chick mashes.	..	..	..	..	86½	64	74½	70½	77	69½	63	48	49

*Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of same guaranteed protein contents.

A comparison of the average prices for 1923, 1927, 1928, 1929, 1930, 1931, and April, 1932, follow, 1923 being rated at 100.

	1923	1927	1928	1929	1930	1931	Apr. 1932
Cottonseed meals	100	84	108	93	77	59	47
Linseed meals	100	95	108	107	90	71	68
Gluten meals and feeds.....	100	85	102	104	81	63	46
Wheat offals (exclusive of red dog)	100	107	118	105	89	72	63
Beet pulps	100	93	105	107	88	60	55
Hominy feeds	100	106	117	115	110	78	60
Proprietary:							
Dairy 24%.....	100	94	104	102	90	71	59
20%.....	100	92	101	100	87	68	62
16%.....	100	91	104	103	89	71	60
Stock and horse	100	100	120	116	110	84	81
Calf, hog, etc.	100	112	111	109	103	88	78
Scratches	100	105	109	104	98	77	71
Mashes	100	98	103	102	102	81	70

CONCLUSION

There were 2,070 samples representing 567 brands collected last spring. Each sample was tested for crude protein and 460 brands were examined as to their crude fat and fiber content. Of the crude proteins less than one percent were found to be below the guaranty. Of the 460 brands only 16 (3.5 percent) were below. They were made up as follows: Two in crude protein; nine in crude fat; three in crude fiber; one in protein and fat; and one brand was below in protein and fat and above in fiber.

On the average spring prices were about a dollar cheaper per ton than those of last fall and seven dollars cheaper than the spring of 1931.

Taking the collection as a whole the feeding stuffs sold in Vermont last spring show an improvement over those found on sale in any previous collection going back to the passage of the first law in 1898. The composition of the average goods has improved and the deficiencies are fewer in number. And the prices asked are slightly lower than they were last winter. This all goes to show that the ultimate consumer is receiving more feed of good quality for less money than has been the case for many years.

The following table shows the average analysis of 15 proprietary feeds together with 28 common ingredients used in their mixing. These averages are based upon samples collected in Vermont during the past three years.

Farmers who mix their own formulas may find these figures useful.

AVERAGE COMPOSITION OF THE COMMON FEEDING STUFFS

(Figures expressed in percentages or pounds in 100)

	Protein	Fat	Fiber
Alfalfa meal (20% protein)	20.55	2.51	16.26
Alfalfa meal (17% protein)	17.93	2.18	21.27
Alfalfa meal (13% protein)	14.66	1.68	28.51
Beet pulp (dried)	9.18	0.50	17.38
Bone meal (20% protein)	25.91	2.89	.....
Bone meal (6% protein)	8.79	2.45	.....
Brewers' dried grains	23.82	7.10	13.62
Buttermilk (dried)	34.28	5.63	.....
Corn feed meal	9.74	5.24	2.98
Corn gluten meal	43.59	1.97	2.29
Corn gluten feed	26.81	2.67	6.87
Cottonseed meal (43% protein)	42.57	7.09	8.07
Cottonseed meal (41% protein)	41.26	7.10	9.67
Cottonseed meal (36% protein)	36.31	6.24	13.53
Distillers' dried grains	28.37	9.26	10.37
Hominy feed	10.74	6.72	3.90
Linseed meal (34-35% protein)	36.37	6.61	7.46
Linseed meal (30-33% protein)	34.	6.01	8.17
Meat scraps	48.13	11.49	.....
Oat mill feed (oat hulls, middlings and shorts)...	5.35	1.82	26.21
Proprietary feeds:			
Dairy (32% protein)	32.95	4.93	7.13
Dairy (24% protein)	25.76	4.87	8.04
Dairy (20% protein)	21.97	4.60	8.13
Dairy (16% protein)	18.24	4.66	8.40
Stock and horse (8-8.5% protein)	10.43	4.92	10.
Stock and horse (9-10.5% protein)	11.56	4.16	7.97
Fitting (9-12% protein)	14.17	4.25	6.81
Fitting (14% protein)	16.15	4.95	7.64
Rabbit	16.53	4.28	7.48
Calf	24.38	5.14	3.58
Hog	19.99	5.23	6.02
Scratch grain	10.60	3.21	2.35
Chick scratch grain	11.30	3.28	1.64
Egg mash	20.58	5.47	5.75
Starting and growing	18.47	5.34	4.92
Rye feed and screenings	16.85	3.60	4.71
Skim milk (dried)	34.58	0.79	.....
Soy bean meal	34.12	4.58	4.14
Wheat bran	16.38	5.12	9.59
Wheat middlings, standard	17.38	5.52	6.98
Wheat middlings flour	16.81	4.92	4.59
Wheat mixed feeds	16.41	4.60	6.87
Wheat red dog flour	17.41	4.25	2.10

Many of the following bulletins dealing with feeds and feeding are as useful today as when they were issued. Any or all of them will be sent without charge to any address on application. Tear off the bottom of this page, state what you want (using bulletin numbers), mail it, and your wishes will be met.

Animal Nutrition, including Dairy Feeding

- 158 1911 Concerning Feeding Standards; Summer Solling Suggestions.
- 180 1914 Concerning Feeding Practice.
- 225 1922 The Protein Requirements of Dairy Cows.
- 226 1922 The Maintenance Requirements of Dairy Cattle.
- 229 1922 The Protein and the Maintenance Requirements of Dairy Cattle.
- 243 1924 Feeding Cocoa Meal to Dairy Cows.
- 262 1927 Exercise as a Factor in Digestion Trials with Dairy Cows.
- 270 1927 Apparent Digestibility as Affected by Length of Trial and by Certain Variations in the Ration.
- 271 1927 Feeding Cocoa Meal to Hogs.
- 272 1927 Effect of Feeding Cocoa Meal to Milking Cows.
- 273 1927 Returns from Skimmlilk Fed to Hogs under Vermont Conditions.
- 284 1928 Feeding Cocoa Meal to Dairy Heifers.
- 331 1931 Calcium and Phosphorus Balances of Dairy Cows. I. Weekly Balances through Lactation and Gestation Periods.
- 333 1931 The Supplemental Value of Fish Meal as a Feed for Dairy Cattle.
- 342 1932 Calcium and Phosphorus Balances of Dairy Cows. II. Weekly Balances through Lactation and Gestation Periods.

Feeding Stuffs

- 144 1909 Concerning Commercial Feeding Stuffs.
- 246 1925 The Manufacture of Commercial Feeding Stuffs.
- 247 1925 Concerning Grain Screenings.
- 295 1929 Yield and Composition of Pasture Grass.
- 324 1930 A Third of a Century of Feeding Stuff Inspection.

**EXPERIMENT STATION,
BURLINGTON, VERMONT.**

Please mail me the following bulletins:

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.....

Name

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State

If you want a list of all available Experiment Station publications, put a check mark here

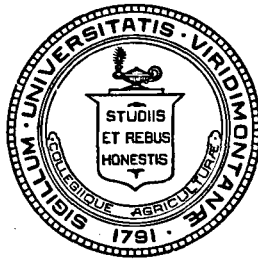
APRIL, 1933

BULLETIN 351

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station
BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER and E. F. BOYCE



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Twenty-two hundred and thirty-five samples, representing 581 brands, drawn from dealers' stocks during December, 1932, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respect up to guaranty are listed on pages 4 to 19. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 20 and 23. The statement as to the ingredients in the proprietary feeds occur on pages 25 to 43.

It might be said, briefly, that only eight of the 214 brands of unmixed goods and only 19 of the 367 brands of proprietary or ready mixed rations failed to meet their guaranties. This is an exceptionally good showing. The situation in respect to guaranty maintenance is improving as is set forth in the table and text on pages 43 and 44. In 1923-26 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-33, 95 percent.

Thirteen brands of dairy rations and five brands of scratch feeds contained noticeable numbers of weed seed. Whenever inferior ingredients were used a statement setting forth such usage appeared on the tag or bag, as is required by state law. With but few exceptions manufacturers seem now to be complying very well with the state law.

The average ton price last December, taking all classes of feeds as a unit, seem to have been not far from thirty dollars.

BULLETIN 351: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

The following report, dealing with the analytical results secured on nearly 2,250 samples of feeding stuffs collected in the winter of 1932, is submitted in accordance with the requirements of the Vermont law, as set forth in sections 5980-5987, 5992-5994, 5996-5999, G. L., and in No. 111 of the Acts of 1923.

Twice a year, usually about the first of April and July, lists of registered brands are mailed to all Vermont sellers of feeding stuffs in so far as their names and addresses are on file at the Station. In these lists the following suggestion is offered:

“It is respectfully suggested that you consult this list when placing orders for feeding stuffs. Manufacturers and jobbers almost always—but not always—license. In the event that they neglect—as some do—or refuse—as a few do—to license, the station director has no recourse under the law but to look to the Vermont seller for the payment of the fee (\$20 per brand). In order that this undesirable and undesired situation may not arise, it is suggested that you should consult this list in making future orders.

“In case you anticipate making purchases of brands not shown on this list to be licensed, an inquiry made of the Station will determine the facts.”

Notwithstanding this warning, which has been reiterated for many years, 44 of the 581 brands collected in December, 1932, were not licensed for sale and were being sold contrary to law. A similar situation has existed ever since the law was placed on the statute books and despite reiterated warnings conditions do not improve. “Illegals” occur in every state.

Each of the 2,235 samples was examined as to its crude protein content and the several brands, with some exceptions, as to their crude fat and fiber contents. In the case of ready-mixed rations, the accuracy of the ingredient statements made by their manufacturers was checked.

The following tables show:

1. Brands which fulfilled their guaranties—pages 4 to 19.
2. Brands which failed to fulfill their guaranties—pages 20 and 23.
3. Ingredient statements—pages 25 to 43.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
Ashcraft-Wilkinson Co., Atlanta, Ga.			
Monarch Brand—Prime	43	6	10
Helmet Brand—Prime	41	5.5	10
F. W. Brod ^e Corp., Memphis, Tenn.			
Owl Brand 41%—Prime.....	41	5	10
Cairo Meal and Cake Co., Cairo, Ill.			
Miss Cairo Brand 43 Per Cent Protein—Prime Quality	43	6	10
Humphreys-Godwin Co., Memphis, Tenn.			
Bull Brand 43% Protein—Prime Quality.....	43	5	11
Dixie Brand 41% Protein—Prime Quality.....	41	5	12
Larrowe Milling Co., Detroit, Mich.			
41% Protein—Prime Quality.....	41	6	10
L. B. Lovitt & Co., Memphis, Tenn.			
" Lovit Brand" 43%.....	43	6	10
" Lovit Brand" 41%.....	41	6	10
Marianna Sales Co., Memphis, Tenn.			
White Mule Brand—Prime.....	41	6	10
National Cottonseed Products Corp., Memphis, Tenn.			
Star Brand	41	5.5	10
Ralston Purina Co., St. Louis, Mo.			
41% Protein	41	5	11
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
Amco Old Process.....	30	5	10
Pure Old Process.....	37	4.5	9
Pure Old Process.....	34	4.5	9
Midland 30% Protein Animal Feed.....	30	5	10
Bisbee Linseed Co., Philadelphia, Penn.			
Bisbee Old Process.....	34	5	10
Canada Linseed Oil Mills, Ltd., Montreal, Que.			
"Maple Leaf" Pure Oil Cake Meal Protein 37%....	37	5	9
Hirst & Begley Linseed Works, Chicago, Ill.			
Pure Old Process.....	37	5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y.			
Pure Old Process.....	34	5	9
Spencer Kellogg & Sons, Inc., Buffalo, N. Y.			
Kellogg's 37% Protein Pure Old Process.....	37	5	10
Kellogg's Pure Old Process.....	34	5	10
Mann Bros. Co., Buffalo, N. Y.			
37% Protein Pure Old Process.....	37	6	10
Sherwin Williams Co., Cleveland, Ohio			
S W C.....	34	5	10
SOY BEAN MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
.....	41	4.5	7
Shellabarger Grain Products Co., Decatur, Ill.			
Shellabarger's Cooked	41	4.5	7
Soya Products, Inc., Chicago, Ill.			
Super Soy	37	5	6.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's	41	4.5	7

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein	Crude fat	Crude fiber
	%	%	%
CORN GLUTEN MEALS AND FEEDS			
American Maize-Products Co., New York, N. Y.			
Cream of Corn Gluten Feed.....	25	2	8.5
Cream of Corn Gluten Feed.....	23	2	8.5
Clinton Corn Syrup Refining Co., Clinton, Iowa			
Clinton Corn Gluten Feed.....	25	2	8.5
Clinton Corn Gluten Feed.....	23	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond Corn Gluten Meal.....	40	1	4
Buffalo Corn Gluten Feed.....	23	2	8.5
Penick & Ford Ltd., Inc., Cedar Rapids, Iowa			
Douglas Corn Gluten Meal.....	41	1	4
Douglas Corn Gluten Meal.....	40	1	4
Douglas Corn Gluten Feed.....	23	2	8.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's Corn Gluten Feed.....	23	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union Corn Gluten Meal.....	40	1	4
Union Corn Gluten Feed.....	23	1	8
DISTILLERS' AND BREWERS' DRIED GRAINS			
Dewey Bros. Co., Blanchester, Ohio			
Eagle 3D (Dewey's Distillers' Dried).....	30	10	13
Donahue-Stratton Co., Milwaukee, Wis.			
"Hiquality" Brewers' Dried.....	20	5	19
Farmers Feed Co., Buffalo, N. Y.			
"Bull Brand" Dried Brewers'.....	24	6	17
T. A. Hauschel, Chicago, Ill.			
Brewers' Dried	21	6	18
St. Albans Grain Co., St. Albans, Vt.			
Brewers' Dried	21	5	15
WHEAT OFFALS—WHEAT BRANS			
Atkinson Milling Co., Minneapolis, Minn.			
Atkinson's (+)	14	4	12
Bill, Bell & Co., Ogdensburg, N. Y.			
Bill, Bell (+).....	14	4	12
Chelsea Milling Co., Chelsea, Mich.			
Heywood Pure	13.6	3	10
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed (+)	14	4	12
Dreyer Commission Co., St. Louis, Mo.			
Dryco (+)	14.5	3.5	10
B. A. Eckhart Milling Co., Chicago, Ill.			
Pure	14	3.5	12
John W. Eshelman & Sons, Lancaster, Penn.			
Eshelman Pure	14	3.5	11
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+).....	14	3	14
J. A. Forrest, Minneapolis, Minn.			
Alpine (+)	14.5	3.5	11.5
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Pure.....	15	3.5	11
Washburn's Gold Medal Hard (+).....	14	4	12
Hall Milling Co., St. Louis, Mo.			
Palace Pure	15	4	10.5

± — "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT BRANS—concluded			
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand	13.5	3	12
Hecker-Jones-Jewell Milling Co., Buffalo, N. Y.			
Choice (+)	13.5	3.5	14
J. F. Imbs Milling Co., Belleville, Ill.			
Charm Pure Winter.....	14	3.5	11
International Milling Co., Minneapolis, Minn.			
Blackhawk Pure	15	3.2	12
Kansas Flour Mills Corp., Kansas City, Mo.			
Big Flake Pure.....	15	3.5	11
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods	15	3.5	11.5
Larabee Flour Mills Co., Kansas City, Mo.			
Sunfed Pure Winter.....	15	3.5	11
Sunfed Winter (+).....	15	3.5	11
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Maple Leaf Pure.....	15	3.5	11.5
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's (+)	13	3	10
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+).....	15.5	4	11.5
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's	15	3.5	11.5
Omaha Flour Mills Co., Omaha, Neb.			
"Omar" Pure	15	3.5	11
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's (+)	14.5	3.5	10
Pillsbury's Hard (+).....	14	4	12
Red Wing Milling Co., Red Wing, Minn.			
Red Wing	13.5	4.1	15.6
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior Pure	15	3.5	11.5
Rodney Milling Co., Kansas City, Mo.			
_____ (+)	16	3.5	11
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Wheat Occident.....	14	4	11.5
J. C. Shaffer Grain Co., St. Louis, Mo.			
Shafco (+)	14.5	3.5	10
Southwestern Milling Co., Inc., Kansas City, Mo.			
Red Turkey Pure.....	14.5	3.5	11
Sparks Milling Co., Alton, Ill.			
Try Me (+).....	15	3.5	10
F. W. Stock & Sons, Hillsdale, Mich.			
Stock's (+)	17	4	10
David Stott Flour Mills, Inc., Detroit, Mich.			
Spring (+)	14.5	4	12.5
Winter (+)	13.5	3.5	12
Stratton & Co., Concord, N. H.			
Stratton & Co.'s (+).....	14	4	11
Thornton & Chester Milling Co., Buffalo, N. Y.			
T&C (+)	14	3.5	12
Victor Flour Mills, Inc., Pittsford, N. Y.			
Victor Spring	15	4	11
Western Canada Flour Mills, Ltd., Toronto, Ont.			
Pioneer	15	3.5	11.5
Willis Norton Co., Topeka, Kan.			
Pure	14.5	3.5	11

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein	Crude fat	Crude fiber
	%	%	%
WHEAT OFFALS—WHEAT MIDDINGS			
Atkinson Milling Co., Minneapolis, Minn.			
Atkinson's Standard (+)	15	4	9.5
Bill, Bell & Co., Ogdensburg, N. Y.			
Bill, Bell Wheat Flour (+)	16	4	6
Bill, Bell Wheat Shorts (+)	15	4	9.5
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Standard (+)	14.5	4	9.5
Cannon Valley Milling Co., Minneapolis, Minn.			
Cannon Valley Standard (+)	16	4.5	9.5
Duluth-Superior Milling Co., Minneapolis, Minn.			
Standard (+)	15	4	9.5
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+)	15	4.5	9.5
Dairy Maid Soft Winter (+)	13	4.5	8
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard Standard (+)	15	4	9.5
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand Shorts	15	3.5	10.5
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+)	16	4.5	8.5
Blackhawk Wheat Flour	16	3.5	4
H. H. King Flour Mills Co., Minneapolis, Minn.			
"Fairybow" (+)	15.5	5	9.5
King Midas Mill Co., Minneapolis, Minn.			
Snowball Wheat Flour (+)	16	4	6
Wheat Standard (+)	15	4	9.5
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods Shorts	16	5	8
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Rex (+)	16	5	7.5
Maritime Milling Co., Inc., Buffalo, N. Y.			
B B Bull Brand Wheat Flour (+)	15	4	6
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's Fresh Ground White	15	3.5	7.5
Moseley & Motley Milling Co., Rochester, N. Y.			
Big B (+)	15	4.5	9
National Milling Co., Toledo, Ohio			
Tolio (+)	15	3.5	6
Newsome Feed & Grain Co., Pittsburg, Penn.			
Palmo (+)¶	16	7	9
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+)	15.5	4.5	7
Northwestern Consolidated Milling Co., Minneapolis, Minn.			
Standard (+)	15	4	9.5
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's Shorts	16	5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard Wheat A. (+)	16	4	6
Pillsbury's Hard Standard B. (+)	15	4	9.5
Quaker Oats Co., Chicago, Ill.			
Bell Cow Shorts	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident Flour	15.5	4.5	5
Alta Hard	15	4.5	8.5
Hard Occident Standard	15	4	9.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.
 ¶ And palm oil.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIDDINGS—concluded			
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour (+).....	15	4	6
F. W. Stock & Sons, Hillsdale, Mich.			
Stock's	17	4	7
David Stott Flour Mills, Inc., Detroit, Mich.			
Pennant (+)	15	4	9
Stott's Fine Flour (+).....	14.5	3.7	6
Valley City Milling Co., Grand Rapids, Mich.			
Rowena (+)	15.6	4.5	5
WHEAT OFFALS—WHEAT MIXED FEEDS			
E. W. Bailey & Co., Montpelier, Vt.			
Capital	14	3	7
G. N. Bartemus Co., Concord, N. H.			
Barco	14	3	7
Bill, Bell & Co., Ogdensburg, N. Y.			
Bill, Bell Wise King (+).....	15	4	8.5
C. W. Brister & Son, Auburn, N. Y.			
Prize (+)	14	3.5	9
Caledonia Mills, Inc., St. Johnsbury, Vt.			
Brook's Fancy	15	4	8
J. F. Eesley Milling Co., Plainwell, Mich.			
Sunshine (+)	14.25	3.25	7.25
John W. Eshelman & Sons, Lancaster, Penn.			
Eshelman Choice	14.5	4	8.5
Excelsior Milling Co., Minneapolis, Minn.			
Pure Camel Fancy.....	16	5	8.5
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+).....	12.5	3.5	10
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Fancy.....	15	3.5	7.5
E. T. & H. K. Ide, St. Johnsbury, Vt.			
Ideal	15	4	8
Malted Cereals Co., Burlington, Vt.			
Maltex Cereal§	12.5	4.5	8
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's Fresh Ground (+).....	14	4	10
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Choice	14.5	4	10
Park & Pollard Co., Buffalo, N. Y.			
Park & Pollard Heavy.....	15.5	3.35	8
Yankee (+)	15.3	3.85	10.25
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+).....	15	4	8.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Wheat Occident.....	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore (+)	15	4.5	8
F. W. Stock & Sons, Hillsdale, Mich.			
Superior	18	4	7
David Stott Flour Mills, Inc., Detroit, Mich.			
Columbus Heavy (+).....	14.5	3.7	8.5
Stratton & Co., Concord, N. H.			
Stratton & Co.'s (+).....	13.5	4.11	7.13
Valley City Milling Co., Grand Rapids, Mich.			
Rowena (+)	15.4	4.4	9

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

§ Wheat, barley bran "wheat parts processed" (+).

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIXED FEEDS—concluded			
Ray P. Webster, Barton, Vt. Ray's R-E-A-L	14	4	7
WHEAT OFFALS—RED DOG FLOURS			
Commander-Larabee Corp., Minneapolis, Minn. Sunfed	16	4	4
Federal Mill, Inc., Lockport, N. Y. Kennel Club Flour.....	13	2	1
General Mills, Inc., Minneapolis, Minn. Washburn's Gold Medal Pure Hard Wheat Adrian.	16	3.5	4
Arlington Second Clear Flour.....	14	3	1.5
Hecker-Jones-Jewell Milling Co., Buffalo, N. Y.	15	4.25	4
International Milling Co., Minneapolis, Minn. Blackhawk	16	3.5	4
Niagara Falls Milling Co., Lockport, N. Y. Choice	16	4	4
Northwestern Consolidated Milling Co., Minneapolis, Minn. XXX Comet	16	4	4
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's X X Daisy.....	16	4	4
Pillsbury's Amazon Flour.....	14	2.5	1.5
Thornton & Chester Milling Co., Buffalo, N. Y. T&C	16	4.5	4
HOMINY FEEDS			
Evans Milling Co., Indianapolis, Ind. * Emco	10	6	6
Kellogg Sales Co., Battle Creek, Mich. White	10	6	5
Chas. A. Krause Milling Co., Milwaukee, Wis. Badger White	10	6	5
Quaker Oats Co., Chicago, Ill. Yellow	9.5	4	5
White	9.5	4	5
David Stott Flour Mills, Inc., Detroit, Mich. (Yellow)	9.5	5.5	6.5
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.	8	0.5	22
.....	8	0.4	22
Molasses	8	0.5	20
Molasses	8	0.4	20
ALFALFA MEALS			
A. B. Caple Co., Toledo, Ohio Leaf	20	2.5	18
.....	13	1	33
Denver Alfalfa Milling & Products Co., Lamar, Colo. Leaf (Leafalfa Brand).....	20	1.5	18
.....	13	1	33
Fernando Valley Milling & Supply Co., Los Angeles, Calif. Fernando Ideal Greens Suncured.....	20	3	13
Fernando Fine Ground.....	16	2	26
Pecos Valley Alfalfa Mill Co., Hagerman, N. Mex. Pevée	20	2.5	18
Pecos Special	13	1.5	33

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
OAT, RYE AND CORN FEEDS			
John W. Eshelman & Sons, Lancaster, Penn.			
Oat Feed and Molasses.....	3	1	25
Northern Illinois Cereal Co., Lockport, Ill.			
Reground Oat Feed.....	3.5	1.25	35
Pratt Food Co., Buffalo, N. Y.			
Oat Feed (Oat Hulls, Oat Shorts, Oat Middlings) .	4	1.5	30
Quaker Oats Co., Chicago, Ill.			
Feeding Oatmeal	16	6	4
Banner Feed	13	4.5	18
Barley Feed	12	3	12
Vim Feed	5	2	30
Sugared Vim Feed.....	5	1.25	27.5
David Stott Flour Mills, Inc., Detroit, Mich.			
Winner Chop Feed.....	10	3.5	12
Upper Hudson Rye Mills, Inc., Troy, N. Y.			
Rye Feed (+).....	15.5	3	6
Rye Feed (+).....	13.5	3	6

	GUARANTIES			See foot-note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Peoria, Ill.				
Amco 32% Supplement†.....	32	4	9	✓
Amco 24%†	24	3.5	9	✓
Amco 20%†	20	3.5	9	✓
Sweet Dairy Mix.....	20	3.5	9	✓
Empire	18	4	12	
Amco 16½% Sucrene†.....	16.5	3.5	12	✓
E. W. Bailey & Co., Montpelier, Vt.				
Sweetened Capital	24	5	9	✓
Bailey's Open Formula 24.....	24	4.5	9	✓
Bailey's Open Formula 20.....	20	4.5	9	✓
Favorite	20	4.5	7.5	✓
Sweetened Favorite	20	4.5	7.5	✓
Our 20% Special.....	20	3.5	9	✓
Bailey's 16%	16	5	9	✓
Sweetened Bailey's 16%.....	16	5	9	✓
G. N. Bartemus Co., Concord, N. H.				
Concord 20% Sweetened†.....	20	3	9	✓
Barco 20% Sweetened.....	20	4.5	7.5	✓
Bethel Mills, Bethel, Vt.				
Bethel Mills 24 Protein.....	24	5	9	✓
Bethel Mills 20 Protein.....	20	5	9	✓
Bethel Mills 20 Protein Sweetened Economy	20	4	11	✓
Bethel Mills 16 Protein Pasture.....	16	4.2	9.5	✓

† = "With ground screenings not to exceed mill run" or equivalent phraseology.

*The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g., cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by the state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other and possibly undesirable ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist "failed to find" appear on pages 26 to 43.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note* (p. 10)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Green Mountain	23	5	10	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell 20%	20	4	11	✓
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	✓
Unicorn 20%	20	4.5	10	✓
Community Feed Stores, Inc., Bellows Falls, Vt.				
Community 20	20	4.5	8.5	✓
Danville Grain Co., Inc., Danville, Vt.				
Danville 20%	20	4	10	
Davis Feed Co., Inc., Rutland, Vt.				
Davis 20% Kow Feed.....	20	4.5	8.5	✓
Dewey Bros. Co., Blanchester, Ohio				
Dewey's Buckeye	20	5	10	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 30% Supplement†.....	30	5	8	✓
Eastern States Milkmore†.....	24	4.5	8	✓
Eastern States Fulpall†.....	20	4.5	8	✓
Eastern States Highland 20†.....	20	4	12	✓
Eastern States Highland 16†.....	16	3.5	11	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore 32% Supplemental.....	32	4	9	
Elmore Milk Grains.....	25	5	11	✓
Elmore Milk Grains (Sweetened).....	24	5	10	✓
Elmore's Economilk 24%.....	24	4	10	
Granger	24	4	9	
Elmore Milk Grains Junior.....	20	5	10	✓
Economilk	20	4	11	
Otsego Economy	20	4	11	
Elmore's Sweet Digesto.....	16	4	12	
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman 32% Mixing.....	32	4.5	9	✓
Eshelman Challenge	24	4	11	✓
Eshelman Red Rose 24.....	24	4	11	✓
Eshelman Lancaster 20.....	20	4	11	✓
Eshelman Conestoga 20.....	20	4	11	✓
Eshelman Open Formula 20.....	20	4	9	✓
Eshelman Pennsy 16.....	16	3	11	
Maintenance 16%	16	3	11	
Gateway Milling Assoc., Inc., Buffalo, N. Y.				
Gateway Special 24%†.....	24	4	8.5	✓
Gateway Special 20%†.....	20	4	8.5	✓
General Mills, Inc., Minneapolis, Minn.				
Eventually Gold Medal.....	20	5	8.5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's 32%	32	4	9	✓
M — S (Money Saver) 24% Sweet.....	24	4	12	✓
Grandin's Sweetened 24%.....	24	4	10	✓
Grandin's 12 Twin Six 12.....	22	5	12	✓
Grandin's Milk Maker.....	20	5	12	✓
M — S (Money Saver) 20% Sweet.....	20	4	12	✓
Grandin's Sweetened 20%.....	20	4	10	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Sweetened	24	5	10	✓
Sunshine	20	4	10	
Royal Sweetened	20	4	10	
Ide's Special	20	4	10	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 10)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
W. B. Johnson & Son, Essex Junction, Vt.				
Johnson's Economy	20	4	12	✓
Johnson's Perfection No. 1.....	20	5	9	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Mormilk	24	4.5	10	✓
Kasco 20% Milk Maker.....	20	4.5	11	✓
Larrowe Milling Co., Detroit, Mich.				
Larro	20	4	12	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's 24%	24	4	9	✓
McEwen's 20%	20	4	10	✓
T. J. McGovern, Cambridge, Vt.				
McGovern's 24 Per Cent.....	24	4	8	✓
McGovern's 20 Per Cent Farm Relief.....	20	4	12	✓
McGovern's 20 Per Cent.....	20	4	8	✓
McGovern's 16 Per Cent.....	16	4	8	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
Farmer's B B Mixing.....	32	5	10	✓
Sweetened Dollar\$Maker	24	3.5	12	✓
B-B Hi-Test	20	4.5	12	✓
Sweetened Dollar\$Maker 20% Protein.....	20	3.5	12	✓
B-B Marmico 16% Protein with Molasses....	16	4	12	
Mt. Mansfield Coop. Creamery & Grain Assn., Inc., Stowe, Vt.				
Mt. Mansfield 20%.....	20	4	8.5	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's 24%	24	5	10	✓
Park & Pollard Co., Buffalo, N. Y.				
Overall 24%	24	4.5	9	✓
Bet-R- Milk 20%.....	20	4	9	✓
Top Notch 16%.....	16	3.5	12	
W. N. Potter Grain Stores, Inc., Greenfield, Mass.				
Potter's Sweetened	20	4	10	✓
Quaker Oats Co., Chicago, Ill.				
Quaker 20% Protein.....	20	3.25	12	✓
Quaker 16% Protein.....	16	3.5	13.5	✓
Ralston Purina Co., St. Louis, Mo.				
Purina 34% Cow Chow.....	34	3	12	✓
Protena 24% (Buffalo Mill).....	24	3	14	✓
Purina 24% Cow Chow.....	24	3	12	✓
Protena 20%	20	3	14	✓
Purina 20% Cow Chow.....	20	3	12	✓
Protena 16%	16	3	14	✓
Purina Bulky Cow Chow.....	16	3	12	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 32 Supplement.....	32	4	8	✓
Wirthmore 25 Balanced.....	25	5	9	✓
Wirthmore 25 Balanced Sweetened.....	25	4.75	8.5	✓
Hygrade 24 Sweetened Milk.....	24	4	9	✓
Wirthmore 20	20	5	8.5	✓
Wirthmore 20 Sweetened.....	20	4.75	8	✓
Wirthmore with Beet Pulp Sweetened.....	20	4	11	✓
Hygrade 20 Sweetened Milk.....	20	4	8.5	✓
Utility	20	3.5	10.5	✓
Wirthmore 16 Sweetened.....	16	4	8	✓
Hygrade 16 Sweetened Milk.....	16	3.5	8.5	✓

✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
E. T. Seabury Grain Co., Waterbury, Vt.				
Our Own Make 20%	20	4	9	✓
Chas. M. Seaver & Co., Williamstown, Vt.				
Honor Brand	20	4	10	✓
Skeels & Weidman, Swanton, Vt.				
Producer	20	4	7.5	✓
H. A. Slayton & Co., Morrisville, Vt.				
Economy	20	3.75	8.5	✓
C. A. Smith, St. Johnsbury, Vt.				
Smith's	20	4	12	✓
J. D. Thompson Est., Norwich, Vt.				
Special 20%	20	4	10	✓
J. G. Turnbull Co., Orleans, Vt.				
Turnbull's Special	20	3.5	12	✓
Ubiko Milling Co., Cincinnati, Ohio				
Union Grains Ubiko 32% Sweet.....	32	4	10	✓
Union Grains Ubiko 24% Dry.....	24	5	10	✓
Union Grains Ubiko 24% Sweet.....	24	4.5	10	✓
C. H. Utley, Hardwick, Vt.				
Veri-Best Balanced	20	5	7.5	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
"Galen 24%"	24	4	8.5	
"Clyde 20%"	20	4	8.5	
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed 32% Supplemental Mixing.....	32	4.5	10	✓
Super Pure Sweetfeed.....	24	4.5	10	✓
All Pure 20 Per Cent Milk.....	20	4.5	10	
Pure Feed	20	4	10	✓
Special 20 Per Cent.....	20	3	12	✓
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Rabbit Feed.....	13	3.5	8	
Amco 12% Fitting†.....	12	3	9	✓
June Pasture	10	.5	21	✓
Wayne Supreme Horse.....	9.5	3.5	8	
E. W. Bailey & Co., Montpelier, Vt.				
Sweetened Bailey's Fitting.....	14	4	9	✓
Pennant Horse	10.75	3.5	6.5	✓
Sweetened with Molasses Pennant Brand Stock	9.5	4	9.5	✓
Chapin & Co., Hammond, Ind.				
Chapin Rabbit Cookies.....	18	4.5	10	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Highland 12†.....	12	3.5	11.5	✓
Eastern States Fitting†.....	12	3.5	7	✓
Eastern States Horse and Calf†.....	10.5	3.5	7	✓
Elmore Milling Company, Inc., Oneonta, N. Y.				
Elmore Horse with Molasses.....	9	2.5	11	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Rabbit.....	12	3.5	9.5	✓
Eshelman S-O-S	11	2	15	✓
Eshelman Steamed-Cooked Horse.....	9	4	6	✓
Eshelman Red Rose Stock.....	9	3	11	✓
Eshelman Red Rose 95 Horse.....	9	3	10	✓
Eshelman Garden Spot Horse.....	7	2	10	✓

*See footnote p. 10

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 10)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.—concluded				
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Sweetened Horse.....	9.5	3.5	11	✓
Grandin's Stock	8.5	4	12	✓
Hales & Hunter Co., Chicago, Ill.				
College Horse	9	2.5	10	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Fitting	12	4	10	✓
Imperial Grain & Milling Co., Toledo, Ohio				
Imperial Steam Cooked.....	9.5	4	4.6	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
Bull Brand B B Horse with Alfalfa and Molasses	8	2	10	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Horse	9	3	10	✓
Park & Pollard Co., Buffalo, N. Y.				
Park & Pollard Rabbit.....	14.5	4.5	7	✓
Park & Pollard Fitting.....	12	3.5	7	✓
Park & Pollard Horse.....	10	3.5	9	✓
Park & Pollard Stock.....	8.5	4	12	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Thorobred Horse.....	10.5	3.5	9	✓
Quaker Sugared Schumacher.....	10	3	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Rabbit Chow.....	16	3.5	8	✓
Purina Lamb Chow.....	14	3	12	✓
Purina Fitting Chow.....	13.5	2.8	12	✓
Purina Bulky Omolene Chow.....	10	3.2	11	✓
Purina Omolene Chow.....	10	3.2	9	✓
Purina Bulky Las Chow (Buffalo Mill).....	9	1.3	15	✓
Protena Sweet Roughage (Buffalo Mill).....	6	1	30	✓
St. Albans Grain Co., St. Albans, Vt.				
Hygrade 14 Fitting.....	14	4	8.5	✓
Wirthmore 14 Fitting.....	14	4	7	✓
Wirthmore Rabbit	14	3.5	9	✓
Utility 60 Pasture.....	14	3	13	✓
Hygrade Fitting	12	4.5	8	✓
Hygrade Fitting or Stock.....	10	3.25	12	✓
Wirthmore Horse	9.8	3.25	9	✓
Wirthmore Stock	9	4	9.5	✓
Wirthmore Fodder Greens.....	9	1.25	19	✓
Ublko Milling Co., Cincinnati, Ohio				
Crusader Horse	9	3	10	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Horse.....	9	3	10	✓
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS				
Allied Mills, Inc., Peoria, Ill.				
Wayne Calf	24	4	7	✓
Amco Calf	24	4	6.5	✓
Wayne Pig	18	3.5	7	✓
Emergency Hog	14	3	7	✓
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	24	5	6.75	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Hog Supplement†.....	30	5.5	5	✓
Eastern States Calf Starter†.....	23	3.5	4	✓
Eastern States Hog†.....	14.5	4	5.5	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 10)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS—concluded				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore "Three Point" Calf.....	24	4	4	✓
Elmore's Hog	15	5	6	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Calf Starter.....	18	3	5	✓
Larrowe Milling Co., Detroit, Mich.				
Larro Pork-Maker.....	25	5	10	✓
Larro Calf	23	4	3.5	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B B Bull Brand Pig & Hog with Minerals...	18	4	8	✓
Park & Pollard Co., Buffalo, N. Y.				
Go Tu It Pig & Hog.....	15	3.5	8	✓
Quaker Oats Co., Chicago, Ill.				
Schumacher Calf	18	7.5	4	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Pig and Hog Chow.....	31	3	10	✓
Purina Calf Chow.....	27	3.2	4.5	✓
Purina Pig Chow.....	25	3.2	8	✓
Purina Hog Fatena Chow.....	14	3	7	✓
Ryde & Co., Chicago, Ill.				
Ryde's Cream Quality Calf.....	18.5	4	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	5	✓
Wirthmore Pig and Hog.....	17	4	9	✓
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Scratch	10	2.5	4	✓
Wayne Intermediate Scratch.....	10	2.5	4	✓
Red Feather Scratch.....	9	2.5	4	✓
Wayne Special Scratch.....	9	2.5	4	✓
Wayne Chick	9	2	4	✓
Screened Cracked Corn.....	8.5	2.5	2.5	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Scratch	10	3	6.5	✓
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Berkshire Scratch	10	2.5	5	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell Scratch	10	1.5	5	
Chapin & Co., Hammond, Ind.				
Ajax Scratch	9	2.5	5	
Crosby Milling Co., Brattleboro, Vt.				
Crosby's Scratch	11	3	5	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch Grains (With Whole Corn)†	10.5	2.5	4	✓
Eastern States Scratch Grains (With Coarse Cracked Corn)†	10	2.5	4	✓
Eastern States 31 Scratch Grains†.....	9.5	2.5	3	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Scratch	10	3.5	7	✓
Emco Scratch	10	3.5	7	
Elmore Intermediate Chick.....	10	3	3	
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Lancaster Scratch Grains.....	10	2.5	4	✓

†Open formula. ✓See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note ^a (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Scratch Grains.....	10	2.5	4	✓
Eshelman Pennsy Scratch Grains.....	9	2.5	4	✓
First National Stores, Inc., Somerville, Mass.				
Henfield Scratch Grains.....	10	3.5	5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Screened Scratch.....	10	2.5	5	
Grandin's Intermediate Chick.....	10	2.5	5	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg Scratch.....	10	2.5	5	✓
Hales & Hunter Co., Chicago, Ill.				
Red Comb Scratch.....	10	2.5	5	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Scratch.....	10	3	4	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Scratch Grains.....	9	2.5	4	
Larrowe Milling Co., Detroit, Mich.				
Larro Growing Grains.....	10	3	4	
Larro Scratch Grains.....	10	2	3.5	✓
Larro Growing Grains.....	10	2	3.5	✓
Larro Chick Grains.....	10	2	3.5	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Scratch.....	10	2.5	5	
Maritime Milling Co., Inc., Buffalo, N. Y.				
B B Bull Brand Pigeon.....	11	4	4	✓
Bull Brand B B Scratch.....	10	2.5	4	✓
B-B Daisy Scratch.....	9	2.5	5	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Scratch.....	10	2	5	
Park & Pollard Co., Buffalo, N. Y.				
Red Ribbon Scratch.....	10	3	5	✓
Paramount Scratch.....	10	2.5	5	✓
Quaker Oats Co., Chicago, Ill.				
Big Egg Scratch Grains, No Grit.....	10	3	4.25	✓
Quaker Ful-O-Pep Coarse Chick.....	10	2	2.5	✓
Quaker Ful-O-Pep Scratch Grains.....	9	2	3.5	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Pigeon Chow Containing Corn.....	12.5	2	4	✓
Purina Hen Chow.....	10	2.5	4	✓
Purina Intermediate Hen Chow.....	10	2.5	4	✓
Purina Chick Chow.....	10	2	4	✓
Protena Scratch (Buffalo Mill).....	9.5	2	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Squab & Pigeon.....	12	2.5	5	✓
Paragon Scratch.....	10	2.5	5	✓
Wirthmore Scratch.....	10	2.5	4	✓
Mornin' Call Poultry Grains.....	10	2.5	4	✓
Wirthmore Intermediate Scratch.....	10	2.5	3.5	✓
Wirthmore Baby Chick Scratch.....	10	2.5	3.5	✓
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko Intermediate Scratch.....	9	2.5	5	✓
Ubiko Chick.....	9	2.5	5	✓
Valley City Milling Co., Grand Rapids, Mich.				
Valco Scratch Grains.....	9.5	2.5	4	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Special Scratch Grain.....	9	3.5	5	✓

✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 10)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS—MASHERS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne 26% Supplement.....	26	4	7	✓
Red Feather Egg.....	18	3.5	8	✓
Wayne Egg.....	18	3.5	7	✓
Wayne Egg with Cod Liver Oil.....	18	3.5	7	
Wayne Broiler.....	17	3.5	8	
Wayne All Mash Grower.....	16	4	6	✓
Wayne All Mash Grower with Cod Liver Oil.....	16	4	6	✓
Wayne Turkey.....	15	3.5	8	
Wayne Poultry Fattener.....	13.5	4	6	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Brand Laying with Cod Liver Oil and Cod Liver Meal.....	20	5	6	✓
Pennant Brand Laying.....	20	5	6	✓
Pennant Brand Chick Starter.....	17	5	5	✓
G. N. Bartemus Co., Concord, N. H.				
Barco Special.....	20	5	6	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell's Dry.....	18	3	8	
Chapin & Co., Hammond, Ind.				
Chapin Kernels Lay-All.....	16	3.5	5.5	
Chapin Kernels Grow-All.....	16	3.5	5.5	
Chapin Kernels Start-All.....	15	3.5	4.5	✓
Community Feed Stores, Inc., Bellows Falls, Vt.				
Community Chick.....	17	5	8	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Developer†.....	18.5	4	6.5	✓
Eastern States Developer (With Oil)†.....	18.5	4	6.5	✓
Eastern States Starting and Broiler (With Oil)†.....	18.5	4	5	✓
Eastern States Producer†.....	17	4	6.5	✓
Eastern States Producer (With Oil)†.....	17	4	6.5	✓
Eastern States Egg†.....	17	4	6.5	✓
Eastern States Starting and Growing†.....	16.5	4	6	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Egg.....	18	4	8	✓
Elmore Eggmaker.....	17	4.5	8	✓
Elmore Complete Starting and Growing....	16	4	8	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Laying.....	20	5	7	✓
Eshelman Red Rose Laying with Cod Liver Oil).....	20	5	7	✓
Eshelman Red Rose Growing with Cod Liver Oil.....	16	4	7	✓
Eshelman Red Rose All Mash Starter.....	16	4	6.5	✓
First National Stores, Inc., Somerville, Mass.				
Henfield Egg.....	20	5	7	✓
Gateway Milling Assn, Inc., Buffalo, N. Y.				
Gateway Super Laying & Breeding†.....	18.5	4	7.5	
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Laying with Buttermilk.....	20	4	8	✓
Grandin's Laying With Buttermilk—Cod Liver Oil.....	20	4	8	✓
Grandin's Growing with Buttermilk—Cod Liver Oil.....	15	4	8	✓
Grandin's Broiler with Buttermilk—Cod Liver Oil.....	15	4	6	

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- notes (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.— <i>continued</i>				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg	20	4.5	7	✓
Hales & Hunter Co., Chicago, Ill.				
Red Comb Egg with Dried Buttermilk.....	18	4	7	✓
Red Comb Growing with Dried Buttermilk..	15	4	6	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Buttermilk Egg.....	24	5	6	✓
Jersee Co., Minneapolis, Minn.				
Just Right Egg.....	20	4	8	✓
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	✓
Kasco All-Mash Laying Food.....	15	4	6	
Larrowe Milling Co., Detroit, Mich.				
Larro Turkey and Game Bird Starter.....	20	4.5	6	✓
Larro Egg	19	5	7.5	✓
Larro Growing	18	4.5	6.5	✓
Larro Chick Starter.....	16.5	4.5	5	✓
Larro Broiler	15	4.5	7	✓
Larro Poultry Fattening.....	14	4	7.5	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Egg.....	20	4	9	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
Vitamized B B Bull Brand Laying.....	20	4.5	7	
Vitamized B-B Daisy Egg with Dried Butter- milk and Cod Liver Oil.....	18	3.5	7	✓
Dollar \$ Maker Egg.....	17	3.5	9	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Laying with Dried Buttermilk.....	20	4	9	✓
Moon's Laying with Dried Buttermilk and Cod Liver Oil.....	20	4	9	✓
Park & Pollard Co., Buffalo, N. Y.				
Lay or Bust Dry.....	18	3	7	✓
Lay or Bust Dry with Cod Liver Oil.....	18	3	7	✓
Park & Pollard Chick Starter.....	17	3.5	5	✓
Growing Feed	14	3	7	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Egg.....	20	4.5	8	✓
Quaker Ful-O-Pep Growing.....	19	5	6	✓
Quaker Ful-O-Pep Turkey Starter.....	15	5	7	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Egg Chowder.....	19	3.5	8	✓
Purina Breeder Egg Chowder.....	19	3.5	8	✓
Purina Egg Chowder (With Cod Liver Oil)..	19	3.5	8	✓
Purina All Mash Startena Chow.....	18	4	7	✓
Purina Turkey Startena Chow.....	18	4	7	✓
Purina Broiler Chow.....	18	4	7	✓
Purina Chick Growena Chow (With Cod Liver Oil)	17	3.5	7	✓
Purina Chick Growena Chow.....	17	3.5	7	✓
Purina Lay Chow.....	17	2.5	8	✓
Purina Lay Chow (With Cod Liver Oil)....	17	2.5	8	✓
Purina Lay Chow (With Cod Liver Oil and Dried Buttermilk)	17	2.5	8	✓
Purina Turkey Growing and Fattening Chow (With Cod Liver Oil).....	17	2.5	8	✓
Purina Chicken Fat Chow.....	15.5	3	5	✓
Purina All Mash Egg Chowder.....	15.5	3.5	8	✓
Purina Chicken Fatena Chow.....	12	3	6.6	✓

/ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note* (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.— <i>continued</i>				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Breeder	20	4.5	7	✓
Wirthmore Turkey Starter containing Cod Liver Meal and Buttermilk.....	20	4.5	5	✓
Wirthmore Laying with Buttermilk.....	20	4	7	✓
Wirthmore Laying containing Cod Liver Oil-Buttermilk	20	4	7	✓
Wirthmore Turkey Growing.....	18	4.5	6	
Wirthmore Baby Chick Starter containing Cod Liver Meal-Buttermilk-Cod Liver Oil	18	4	5	✓
Wirthmore All Purpose Chick & Broiler....	17.5	4	5.5	
Wirthmore Growing containing Buttermilk.	15	4.5	6	✓
Wirthmore Growing containing Cod Liver Oil-Buttermilk	15	4.5	6	✓
Wirthmore Complete for Layers.....	15	4	5	✓
Wirthmore Complete Growing.....	14	3.75	6	✓
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko Egg	20	4	5	✓
Ubiko All-Mash Starter.....	18	4	5	✓
Ubiko All-Mash Complete Laying.....	16	3.5	6	✓
Ubiko All-Mash Developer.....	14	4	5	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Egg.....	18	5	7	✓
Pure Feed Egg Maker.....	18	4.5	7	✓
MEAT AND BONE SCRAPS				
Burlington Rendering Co., Burlington, Vt.				
Burlington Meat and Bone.....	45	8	—	
Burlington Meat and Bone.....	45	8	15	
Geo. E. Marsh Co., Lynn, Mass.				
Marsh's Gem for Poultry.....	45	10	—	
James F. Morse & Co., Somerville, Mass.				
Morse's 50%	50	8	—	
New England Rendering Co., Brighton, Mass.				
Brighton Bull	45	8	1	
Philip R. Park, Inc., San Pedro, Calif.				
ManAmar	40	3	4	
John Reardon & Sons Co., Cambridge A, Mass.				
Register Brand	50	6	—	
St. Albans Grain Co., St. Albans, Vt.				
Fresh White Fish Meal.....	60	1	1	
Van Iderstine Co., Long Island City, N. Y.				
Vico Special Steamed Bone.....	5	.5	3	
BUTTERMILKS AND SKIMMILKS				
C. E. Buell, Inc., Boston, Mass.				
Buell-Boston Dried Skimmilk.....	31.1	0.2	—	
Dairymen's League Co-operative Assn., Inc., Utica, N. Y.				
Dairylea Dried Skimmilk.....	33	0.75	—	
Dry Milk Co., Inc., New York, N. Y.				
Chickora	35.14	1	—	
Land O'Lakes Creameries, Inc., Minneapolis, Minn.				
Dried Buttermilk	30	0.5	—	
St. Albans Grain Co., St. Albans, Vt.				
Pure Dried Skimmilk Powder.....	32	0.5	—	
Sheffield Farms Co., Inc., New York, N. Y.				
Sheffield Skimmilk Powder.....	32	0.75	—	
Waddington Condensed Milk Co., Inc., New York, N. Y.				
Surety Brand Powdered Skimmed Milk.....	33	0.75	—	

II. BRANDS FAILING TO MEET GUARANTIES
(In respect to one or more of the samples analyzed)¹

COTTONSEED MEALS

- ASHCRAFT-WILKINSON Co., Atlanta, Ga. *Helmet Brand—Prime*. 41/5.5/10. Twelve samples, two below protein guaranty (41%). Stocks of W. B. Johnson & Son, Essex Junction, 39.64%; C. H. Utley, Hardwick, 39.86%. Average 12 samples 41.85%.
- CAIRO MEAL AND CAKE Co., Cairo, Ill. *Miss Cairo Brand 41 Per Cent Protein—Prime Quality*. 41/6/10. Average eleven samples above fiber guaranty (10%). Found 10.55%.
- S. P. DAVIS, Little Rock, Ark. *Goodluck Brand—Prime*. 41/6/10. One sample above fibre guaranty (10%). Stock of Taylor & Hawkins, South Shaftsbury, 11.50%.
- HUMPHREYS-GODWIN Co., Memphis, Tenn. *Bull Brand 43% Protein—Prime Quality*. 43/5/11. Ten samples, one below protein guaranty (43%). Stock of Chas. M. Seaver & Co., Williamstown, 42.05%. Two samples below protein guaranty but within tolerance limits. Average 10 samples 43.60%.
- HUMPHREYS-GODWIN Co., Memphis, Tenn. *Danish Brand*. 36/5/15. One sample above fibre guaranty (15%). Stock of E. W. Bailey & Co., Swanton, 16.64%.

LINSEED MEALS

- SHERWIN-WILLIAMS Co. OF CANADA, LTD., Montreal, Que. *Sherwin-Williams Screwpress Oil Cake Meal*. 35/6.5/8. One sample below protein guaranty (35%). Stock of E. G. & A. W. Norton, Vergennes, 32.86%. Also above fiber guaranty (8%). Found 8.84%.

WHEAT BRANS

- VALLEY CITY MILLING Co., Grand Rapids, Mich. *Rowena*. 15.1/3.5/12.15. Two samples, one below protein guaranty (15.1%). Stock of D. B. Dwinell, East Calais, 14.25%. Average two samples 14.47%.

WHEAT MIDLINGS

- VALLEY CITY MILLING Co., Grand Rapids, Mich. *Rowena*. 15.6/4.5/5. Six samples, two below protein guaranty (15.6%). Stocks of Chester Grain Co., Chester Depot, 14.90%; Jesse Spaulding, Ludlow, 14.69%. Three samples below protein guaranty but within tolerance limits. Average six samples 15.49%.

WHEAT MIXED FEEDS

- VALLEY CITY MILLING Co., Grand Rapids, Mich. *Rowena*. 15.4/4.4/9. Two samples, one below protein guaranty (15.4%). Stock of Jesse Spaulding, Ludlow, 14.69%. One sample below protein guaranty but within tolerance limits. Average two samples 14.91%.

¹In cases where one or more samples of a given brand proved deficient in its or their protein contents at the same time that others were within the tolerance limits or up to or above guaranty, and where the average figure was within tolerance limits or up to or above guaranty, the brand in question is listed both in this table as "failing to meet guaranty" (because some one or more of the samples was deficient) and in the preceding table as "in all respects up to guaranty" (because on the basis of the average of the several analyses it was "up to guaranty"). A hypothetical case may be cited. Eighteen samples are analyzed and two are deficient. Hence the brand, because of these two, is listed here. But 16 of the 18 were as good as they were said to be, actually or essentially, and on the average the shortage was either almost infinitesimal or, indeed, actually nonexistent. Hence the brand is listed among those that passed muster. Every sample taken is analyzed for its protein content. All samples of a given brand are mixed, forming one analytical sample for the determination of its fat and fiber contents. Hence it is that no sample of a brand showing material shortage in fat or average in fiber is listed as "up to guaranty."

II. BRANDS FAILING TO MEET GUARANTIES—*continued*

RED DOG FLOURS

GENERAL MILLS, INC., Minneapolis, Minn. *Washburn's Gold Medal Pure Hard Wheat Adrian*. 16/3.5/4. Fifteen samples, one below protein guaranty (16%). Stock of J. G. Turnbull Co., Orleans, 15.34%. Average 15 samples 17.94%.

ALFALFA MEALS

ALBERS BROS. MILLING Co., San Francisco, Calif. *Atlas Poultry Greens*. 20/2/18. One sample above fiber guaranty (18%). Stock of E. T. & H. K. Ide, St. Johnsbury, 19.98%.

PECOS VALLEY ALFALFA MILL Co., Hagerman, N. Mex. *Pecos Special*. 13/1.5/33. Two samples, one below protein guaranty (13%). Stock of Community Feed Store, Westminster, 12.50%. Average two samples 14.03%.

OAT, RYE AND CORN FEEDS

J. A. FORREST, Minneapolis, Minn. *Alpine Oat Meal*. 14/5/3.9. One sample above fiber guaranty (3.9%). Stock of E. T. & H. K. Ide, St. Johnsbury, 4.43%.

PARK & POLLARD Co., Buffalo, N. Y. *Feed Meal*. 9/2.5/4. One sample above fiber guaranty (4%). Stock of Chester Grain Co., Chester Depot, 4.54%.

QUAKER OATS Co., Chicago, Ill. *Vim Feed*. 5/2/30. Ten samples, four below protein guaranty (5%). Stocks of Sunshine Feed Store, Bellows Falls, 4.62%; Thompson & Thompson, Saxtons River, 3.74%; Community Feed Store, Westminster, 3.30%; Farmers' Feed & Grain Co., Windsor, 4.18%. Average 10 samples 4.88%.

DAIRY FEEDS OR RATIONS

G. N. BARTEMUS Co. Concord, N. H. *Special 20%*. 20/4.5/10. One sample below fat guaranty (4.5%). Stock of G. F. Robinson, Woodstock, 3.40%.

BERKSHIRE COAL & GRAIN Co., INC., North Adams, Mass. *Berkshire Hills Sweet Dairy Feed*. 20/5/10. One sample above fiber guaranty (10%). Stock of Deerfield Valley Grain Co., Wilmington, 10.91%.

BLACK ROCK MILLING CORP., Buffalo, N. Y. *Bidwell 2½% Dairy Ration*. 24/4/11. Average of three samples below fat guaranty (4%). Found 3.44%.

E. C. CROSBY, Danby, Vt. *Crosby's A Quality 20% Dairy Ration; Open Formula*. 20/5/8. One sample below fat guaranty (5%). Stock of E. C. Crosby, Danby, 4.45%.

DANVILLE GRAIN Co., INC., Danville, Vt. *Danville 2½% Dairy Ration*. 24/5/9. One sample below fat guaranty (5%). Stock of Farmers Feed and Grain Co., East Barre, 4.26%.

DANVILLE GRAIN Co., INC., Danville, Vt. *Blue Ribbon Dairy Feed*. 20/4/11. Two samples below protein guaranty (20%). Stocks of Farmers Feed & Grain Co., East Barre, 19.28%; Danville Grain Co., Danville, 19.06%. Average two samples 19.17%.

DAVIS FEED Co., INC., Rutland, Vt. *Davis Special 2½ Milk Ration*. 24/4/9. One sample below protein guaranty (24%). Stock of J. C. Stewart, Cuttingsville, 22.57%.

MARITIME MILLING Co., INC., Buffalo, N. Y. *Bull Brand B B "2½" Dairy Ration*. 24/4.5/11. One sample below fat guaranty (4.5%). Stock of J. C. Stewart, Cuttingsville, 4.19%.

II. BRANDS FAILING TO MEET GUARANTIES—*continued*

- MARITIME MILLING Co., Inc., Buffalo, N. Y. *Bull Brand B-B "20" Dairy Ration (Sweet)*. 20/4.5/11. One sample below fat guaranty (4.5%). Stock of Shelburne Feed Store, Shelburne, 3.91%.
- GEO. Q. MOON & Co., Inc., Binghamton, N. Y. *Moon's 24% Dairy Ration*. 24/5/10. One sample below fat guaranty (5%). Stock of Star Feed Co., Burlington, 4.12%
- GEO. Q. MOON & Co., Inc., Binghamton, N. Y. *Moon's 24% Dairy Feed with Molasses*. 20/4.5/11. Average of three samples below fat guaranty (4.5%). Found 4.03%.
- E. G. & A. W. NORTON, Vergennes, Vt. *Kow Feed*. 20/4/10. One sample above fiber guaranty (10%). Stock of E. G. & A. W. Norton, Vergennes, 11.23%. Also below fat guaranty but within tolerance limits.
- PARK & POLLARD Co., Buffalo, N. Y. *Milk-Maid 24% Dairy Ration*. 24/4.5/11. Average of five samples below fat guaranty (4.5%). Found 4.13%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore 25 Sweetened Balanced Ration*. 25/4.75/8.5. Eighteen samples, two below protein guaranty (25%). Stocks of W. B. Johnson & Son, Essex Junction, 23.88%; C. A. Smith, Newbury, 23.66%. Two samples below protein guaranty but within tolerance limits. Average of 18 samples 25.58%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Hygrade 24 Milk Ration*. 24/4/9. Ten samples, six below protein guaranty (24%). Stocks of Caswell & O'Rourke, Derby Line, 22.78%; G. E. Eldred, East Wallingford, 21.91%; Elliott & Churchill, Middlebury, 23.00%; C. A. Smith, Newport, 22.35%; Wirthmore Grain Co., St. Albans, 22.78%; Wirthmore Grain Co., St. Albans, 21.91%. One sample below protein guaranty but within tolerance limits. Average 10 samples 23.53%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Hygrade 20 Milk Ration Sweetened*. 20/4/8.5. Twenty samples, two below protein guaranty (20%). Stocks of G. E. Eldred, East Wallingford, 19.28%; C. A. Smith, St. Johnsbury, 19.28%. Three samples below protein guaranty but within tolerance limits. Average 20 samples 20.48%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Utility Dairy Ration*. 20/3.5/10.5. Twenty-two samples, one below protein guaranty (20%). Stock of Colchester Milling Co., Colchester, 18.63%. Three samples below protein guaranty but within tolerance limits. Average 22 samples 20.67%.
- C. M. SEAVER & Co., Williamstown, Vt. *Honor Brand 24 Dairy Ration*. 24/5.5/9. One sample below fat guaranty (5.5%). Stock of C. M. Seaver & Co., Williamstown, 5.13%.
- J. G. TURNBULL Co., Orleans, Vt. *Creamery Dairy Ration*. 20/5/10. Average two samples below fat guaranty, (5%). Found 4.57%.
- RAY P. WEBSTER, Barton, Vt. *Ray's Ready Ration*. 20/5/10. One sample below fat guaranty (5%). Stock of Ray P. Webster, Barton, 4.22%.

STOCK FEEDS

- ST. ALBANS GRAIN Co., St. Albans, Vt. *Utility Pasture Ration*. 14/3/13. Thirteen samples, one below protein guaranty (14%). Stock of Frank A. Adams, Bellows Falls, 13.59%. One sample below protein guaranty but within tolerance limits. Average 13 samples 14.92%.

CALF MEALS AND HOG FEEDS

- PARK & POLLARD Co., Buffalo, N. Y. *Milkade Calf Meal*. 20/7/6.5. One sample below fat guaranty (7%). Stock of Farmers Grain & Feed Co., Windsor, 6.67%.

II. BRANDS FAILING TO MEET GUARANTIES—concluded

ST. ALBANS GRAIN CO., St. Albans, Vt. *Wirthmore Pig & Hog Feed*. 17/4/9. Thirteen samples, one below protein guaranty (17%). Stock of W. B. Johnson & Son, Essex Junction, 15.73%. Average 13 samples 18.46%.

SCRATCH FEEDS, CHICK FEEDS

E. T. & H. K. IDE, St. Johnsbury, Vt. *Ideal Scratch Feed*. 10/3/4. Average of two samples below fat guaranty (3%). Found 2.44%.

MASHES, GROWING FEEDS, ETC.

E. W. BAILEY & Co., Montpelier, Vt. *Pennant Growing Feed*. 15/5/5. Average of three samples below fat guaranty (5%). Found 4.69%.

COMMUNITY FEED STORES, INC., Westminster, Vt. *Community Milk Laying Mash*. 20/4/8. One sample below protein guaranty (20%). Stock of Community Feed Store., Inc., Westminster, 19.28%.

ST. ALBANS GRAIN CO., St. Albans, Vt. *Wirthmore Laying Mash with Butter-milk and Cod Liver Oil*. 20/4/7. Twenty-four samples, one below protein guaranty (20%). Stock of Taylor & Hawkins, South Shaftsbury, 19.28%. One sample below protein guaranty but within tolerance limits. Average of 24 samples, 22.35%.

MEAT SCRAPS

BURLINGTON RENDERING Co., Burlington, Vt., *Burlington Meat & Bone Scrap*. 45/8/—. Ten samples, one below protein guaranty (45%). Stock of E. I. Claffin, Randolph, 44.02%. Average 10 samples 47.87%.

BURLINGTON RENDERING Co., Burlington, Vt. *Corenco Bone Meal*. 20/3/—. Average of five samples below fat guaranty (3%). Found 2.66%.

JOHN REARDON & SONS Co., Cambridge, Mass. *Pure Raw Bone for Feed*. 25/3/2. One sample below fat guaranty (3%). Stock of E. T. & H. K. Ide, St. Johnsbury, 1.22%.

ST. ALBANS GRAIN CO., St. Albans, Vt. *Hygrade Special Prepared Steamed Bone Meal*. 6/1/2. One sample below fat guaranty (1%). Stock of Lamberton Mill, Marshfield, 0.52%.

III. PROTEIN, FAT, FIBER

The guaranties as to the chemical composition of the many brands of feed found on sale in December last are set forth on pages 4 to 23 in terms of three nutrients, namely, protein, fat and fiber. What are they? What are their functions when fed to an animal?

Protein according to Webster is "a class of complex substances present in all living cells, both animal and vegetable, necessary in the diet of animals. It contains carbon, hydrogen, nitrogen, oxygen and a little sulphur." Protein, being digested and assimilated, is built into body structure and/or restores tissues which have been impaired by wear and tear. Protein is the most expensive part of the diet, whether it be of man or beast. When high protein feeds are relatively expensive, the cost of the ration may be lowered by substituting cheaper ingredients, usually such carbohydrates as starches and allied bodies

and crude fiber. When their prices are low, their protein contents may be increased to some extent and usually without harm to the animal. Among the high protein feed ingredients are cottonseed meal, linseed meal, gluten meal, soy bean oil meal, meat scraps, dried butter- and skimmilks.

Fat or Ether Extract (that part of a feed which is soluble in ether) is composed chiefly of animal fats and vegetable oils but may contain waxes, resins and coloring matter. It is a source of body fat and furnishes energy and heat. It is a fattening and a milk fat producing agent. Cottonseed meal, linseed meal, gluten meal, corn feed meal, distillers' and brewers' dried grains, hominy feed and meat scraps carry considerable quantities of fat.

Crude Fiber (Cellulose) makes up the coarse woody framework of the plant. It is the least digestible portion of a feeding stuffs. In general nutritive values decrease as crude fiber contents increase. The larger animals—cows, horses, sheep—can assimilate it better than pigs or birds; hence the fiber content of a ration should be related to the type of animal for which it is designed. Even though its food value is low, more or less is needed as a roughage. Such as is assimilated furnishes heat or energy and fat to the animal body. Alfalfa meal, alfalfa stem meal, hays, beet pulps, distillers' and brewers' dried grains, 36 percent cottonseed meal, screenings and oat mill feed carry relatively high fiber contents.

Nitrogen-free-extract is determined by difference, the percentages of water, ash, protein, fat and fiber being subtracted from 100. This peculiar term is used to describe the readily extractable material which contains no nitrogen or is free therefrom. It comprises starches, sugars, gums, etc. These furnish heat and energy to the body and from them body or milk fat may be constructed. Nitrogen-free-extract is the main source of bodily heat, energy and fat. Such materials as hays, fodders, screenings and oat mill feed contain relatively much fiber and relatively little in the better class of carbohydrates, such as starch and sugar. Such materials as gluten meal and feed, corn meal, hominy feed and wheat offals are high in starches, etc.

Carbohydrates include the nitrogen-free-extract and the crude fiber.

IV. INGREDIENT STATEMENTS

In the following pages are set forth the ingredient contents of all brands of compounded or proprietary feeds which were sampled and analyzed as declared on the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturers. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on pages 31, 33, 34, 35, 38 and 42.

Only 20 of the 189 brands of dairy and stock feeds—one-tenth of the total number—contained screenings, a fairly good showing as compared with the situation as it existed 10 years ago when the present law took effect.

Fifteen percent of the 348 brands of proprietary feeds examined were found not to be "as certified" in respect to ingredient statements. Either some one or more of the ingredients declared to be used by the manufacturer were not found to be present by the microscopist or else extraneous ingredients were found. Some of the ingredients "not detected," *e.g.*, calcium carbonate, salt, if placed in the mixture, were used in very small quantities. Furthermore, such materials are liable mechanically to separate in the bag. It may very well have been that in every case where they were not detected they were as a matter of fact actually put into the mixtures by their makers. They are among the cheaper ingredients and nothing is gained by omitting them. Failure to detect calcium carbonate and salt means very little; it means only that the microscopist failed to find them in the samples submitted to him.

Particular attention is called to the 13 dairy rations which carried weed seeds. If their viability has not been destroyed they may cause trouble later on, since they are quite apt to survive passage through the cow's digestive tract. Germination tests made on weed seeds from samples collected in 1931 indicated low viability. Perhaps sterilization had been attempted. Ingredients containing weed seeds which are to be used in feeding stuffs should be so treated before being so used.

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linsced meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middings		
	Protein	Fat	Fiber																							
Allied Mills, Inc.																										
Amco 32% Supplement†	32/4/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1	
Amco 24%†	24/3.5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1, 2	
Amco 20%†	20/3.5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1, 2	
Sweet Dairy Mix	20/3.5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1, 12, 15	
Empire	18/4/12			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1, 12, 15	
Amco 16½%																										
Sucrene†	16.5/3.5/12			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1	
E. W. Bailey & Co.																										
Sweetened Capital	24/5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Bailey's Open Formula				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
24%	24/4.5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Bailey's Open Formula				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
20%	20/4.5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Favorite	20/4.5/7.5			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Sweetened Favorite	20/4.5/7.5			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Our 20% Special	20/3.5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Bailey's 16%	16/5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Sweetened Bailey's 16%	16/5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
G. N. Bartemus Co.																										
Special 20% Sweetened	20/4.5/10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Concord 20% Sweetened†	20/3/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Barco 20% Sweetened	20/4.5/7.5			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Berkshire Coal & Grain Co., Inc.																										
Green Mountain	23/5/10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Berkshire Hills Sweet	20/5/10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Bethel Mills																										
Bethel Mills 24 Protein	24/5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Bethel Mills 20 Protein	20/5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Bethel Mills 20 Protein				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Sweetened	20/4/11			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Bethel Mills 16 Protein				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Pasture	16/4.2/9.5			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Black Rock Milling Corp.																										
Bidwell 24%	24/4/11			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Bidwell 20%	20/4/11			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Chapin & Co.																										
Unicorn 24%	24/4.5/10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Unicorn 20%	20/4.5/10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Community Feed Stores, Inc.																										
Community 20	20/4.5/8.5			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
E. C. Crosby																										
Crosby's A Quality 20%†	20/5/8			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Danville Grain Co., Inc.																										
Danville 24%	24/5/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Danville 20%	20/4/10			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Blue Ribbon	20/4/11			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Davis Feed Co., Inc.																										
Davis Special 24 Milk	24/4/9			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Davis 20% Kow Feed	20/4.5/8.5			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

†Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	
	Protein	Fat	Fiber																						
Dewey Bros. Co.																									
Dewey's Buckeye	20/5/10			*								*	*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																									
Eastern States 30% Supplement†	30/5/8											*	*	*	*	*	*	*	*	*	*	*	*	1, 6	
Eastern States Milkmore†	24/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1, 6	
Eastern States Fulpall†	20/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1, 6	
Eastern States Highland 20†	20/4/12			*								*	*	*	*	*	*	*	*	*	*	*	*	1, 6	
Eastern States Highland 16†	16/3.5/11			*								*	*	*	*	*	*	*	*	*	*	*	*	1, 6	
Elmore Milling Co., Inc.																									
Elmore 32% Supplemental	32/4/9					*						*	*	*	*	*	*	*	*	*	*	*	*	1	
Elmore Milk Grains	25/5/11				*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	5	
Elmore Milk Grains Sweetened	24/5/10				*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	5	
Elmore's Economilk 24%	24/4/10				*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1, 2	
Granger	24/4/9			*		*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1, 7	
Elmore Milk Grains Jr.	20/5/10				*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	5	
Economilk	20/4/11				*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1, 2	
Otsego Economy	20/4/11				*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	7, 8	
Elmore's Sweet Digesto	16/4/12				*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*		
John W. Eshelman & Sons																									
Eshelman 32% Mixing	32/4.5/9			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1	
Eshelman Challenge	24/4/11			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1, 9	
Eshelman Red Rose 24	24/4/11			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1, 9	
Eshelman Lancaster 20	20/4/11			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1, 9	
Eshelman Conestoga 20	20/4/11			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1	
Eshelman Open Formula 20	20/4/9			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1	
Eshelman Pennsy 16	16/3/11			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1	
Maintenance 16%	16/3/11			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1, 9	
Gateway Milling Assoc., Inc.																									
Gateway Special 24%†	24/4/8.5			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1	
Gateway Special 20%†	20/4/8.5			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	1	
General Mills, Inc.																									
Eventually Gold Medal	20/5/8.5					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 10	
D. H. Grandin Milling Co.																									
Grandin's 32%	32/4/9			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*		
M-S (Money Saver) 24% Sweet	24/4/12			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	2, 9	
Grandin's Sweetened 24%	24/4/10			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	9	
Grandin's 12 Twin Six 12	22/5/12 *			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	9	
Grandin's Milk Maker M-S (Money Saver) 20% Sweet	20/5/12			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	9	
M-S (Money Saver) 20% Sweet	20/4/12			*	*	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	2, 9	

† Open formula.

DAIRY FEEDS—concluded

Dairy Feeds or "Rations"	Guaranty		Fiber	Alfalfa meal	Beet plup	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grain	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlines
	Protein	Fat																						
J. D. Thompson Est. Special 20%	20/4/10		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
J. G. Turnbull Co. Creamery	20/5/10									*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Turnbull's Special	20/3.5/12									*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 11
Ubiko Milling Co. Union Grains Ubiko 32% Sweet	32/4/10			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 6, 12, 15
Union Grains Ubiko 24% Dry	24/5/10			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	
Union Grains Ubiko 24% Sweet	24/4.5/10			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	
C. H. Utley Veri-Best Balanced	20/5/7.5			*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne County Grangers Feed Corp. "Galen 24%"	24/4/3.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
"Clyde 20%"	20/4/3.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
R. P. Webster Ray's Ready	20/5/10									*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
West-Nesbitt, Inc. Pure Feed 32%																								
Supplemental Mixing	32/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Super Pure Sweetfeed	24/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 13
All Pure 20 Per Cent Milk	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Pure Feed	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Special 20 Per Cent	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

Additional ingredients: 1. Soy bean oil meal. 2. Barley. 3. Wheat. 4. Copper sulphate. 5. Malt sprouts. 6. Dicalcium phosphate. 7. Copra oil meal. 8. Phosphatic limestone. 9. C feed meal. 10. Wheat germ. 11. Rye feed. 12. Potassium iodide. 13. Dried yeast grain. 14. Dried ground fish. 15. Iron oxide. 16. Iodized salt. 17. Ground phosphate rock.

The dairy feeds, with few exceptions, were found to be "as certified."

In the following instances, the ingredients were "not detected":

Allied Mills, Inc., Empire: Potassium iodide.
 Berkshire Coal & Grain Co., Inc., Berkshire Hills Sweet: Bone meal and calcium carbonate.
 Danville Grain Co., Inc., Danville 20%: Calcium carbonate.
 Geo. Q. Moon & Co., Inc., Moon's 20% with Molasses: Calcium carbonate.
 E. G. & A. W. Norton, Kow: Bone meal and calcium carbonate.
 West-Nesbitt, Inc., All Pure 20%: Bone meal and calcium carbonate.

In the following instances small quantities of ingredients named were found in addition to those certified:

Black Rock Milling Corp., Bidwell 24%: Brewers' dried grains and few whole weed seeds.
 Black Rock Milling Corp., Bidwell 20%: Few whole weed seeds.
 Elmore Milling Co., Inc., Elmore 32% Supplemental: Few whole weed seeds.
 Elmore Milling Co., Inc., Granger: Few whole weed seeds.
 Elmore Milling Co., Inc., Elmore's Economilk 24%: Few whole weed seeds.
 Elmore Milling Co., Inc., Elmore's Economilk 20%: Few whole weed seeds.
 Elmore Milling Co., Inc., Otsego Economy: Few whole weed seeds.
 Elmore Milling Co., Inc., Elmore's Sweet Digesto: Few whole weed seeds.
 John W. Eshelman & Sons, Eshelman Pennsy 16: Corn meal and few whole weed seeds.
 John W. Eshelman & Sons, Maintenance 16%: Few whole weed seeds.
 E. T. & H. K. Ide, Sunshine: Ground barley.
 E. T. & H. K. Ide, Royal Sweetened: Brewers' dried grains.
 Maritime Milling Co., Inc., B-B Marmico 16% with Molasses: Few whole weed seeds.
 Park & Pollard Co., Top Notch 16%: Brewers' dried grains.
 J. G. Turnbull Co., Creamery: Dried beet pulp.
 Wayne Co. Grangers Feed Corp., "Galen" 24%: Few whole weed seeds.
 Wayne Co. Grangers Feed Corp., "Clyde" 20%: Few whole weed seeds.

Thirty-nine ingredients were used in making the 140 brands of dairy feeds sampled. Bran, cottonseed meal, gluten meal or feed and salt appear in nine-tenths or over; calcium carbonate, linseed meal, and molasses in eight-tenths; bone meal, corn meal and wheat middlings in six-tenths; hominy and ground oats in one-half; brewers' dried grains and soy bean meal in one-fourth; barley meal, distillers' dried grains and oat mill feed in one-fifth; and screenings in one-eighth of brands sampled. Ninety percent of brands carry minerals other than salt.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																	
Allied Mills, Inc.																			
Wayne Rabbit	13/3.5/8		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 12, 13, 17, 18, 19 9
Amco 12% Fitting†	12/3/9		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
June Pasture	10/0.5/21		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne Supreme Horse	9.5/3.5/8							*	*	*	*	*	*	*	*	*	*	*	
E. W. Bailey & Co.																			
Sweetened Bailey's Fitting	14/4/9		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Pennant Horse	10.75/3.5/6.5							*	*	*	*	*	*	*	*	*	*	*	
Sweetened with Molasses																			
Pennant Brand Stock	9.5/4/9.5		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Chapin & Co.																			
Chapin Rabbit Cookies	18/4.5/10		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 7, 14
Eastern States Farmers' Exchange																			
Eastern States Highland 12†	12/3.5/11.5					*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9
Eastern States Fitting†	12/3.5/7					*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9
Eastern States Horse and Calf†	10.5/3.5/7							*	*	*	*	*	*	*	*	*	*	*	2
Elmore Milling Co., Inc.																			
Elmore Horse with Molasses	9/2.5/11		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
John W. Eshelman & Sons																			
Eshelman Red Rose Rabbit	12/3.5/9.5		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
Eshelman S-O-S	11/2/15		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4
Eshelman Steam-cooked Horse	9/4/6							*	*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose Stock	9/3/11		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 16
Eshelman Red Rose 85 Horse	9/3/10		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Garden Spot Horse	7/2/10							*	*	*	*	*	*	*	*	*	*	*	
D. H. Grandin Milling Co.																			
Grandin's Sweetened Horse	9.5/3.5/11		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Grandin's Stock	8.5/4/12		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Hales & Hunter Co.																			
College Horse	9/2.5/10		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
E. T. & H. K. Ide																			
Ideal Fitting	12/4/10		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Imperial Grain & Milling Co.																			
Imperial Steam Cooked	9.5/4/4.6							*	*	*	*	*	*	*	*	*	*	*	
Maritime Milling Co., Inc.																			
Bull Brand B-B Horse	8/2/10		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Geo. Q. Moon & Co., Inc.																			
Moon's Horse	9/3/10		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

†Open formula.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Lined meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																	
Park & Pollard Co., Park & Pollard Rabbit	14.5/4.5/7	* * *							*	*	*	*	*	*	*					3, 12, 13, 22
Park & Pollard Fitting	12/3.5/7					*	*			*	*	*	*	*	*					6
Park & Pollard Horse	10/3.5/9					*	*			*	*	*	*	*	*					
Park & Pollard Stock	8.5/4/12					*	*			*	*	*	*	*	*					
Quaker Oats Co. Quaker Thorobred Horse	10.5/3.5/9	*							*	*	*	*	*	*	*					
Quaker Sugared Schumacher	10/3/12			*	*	*	*	*	*	*	*	*	*	*	*			*		11
Ralston Purina Co. Purina Rabbit Chow	16/3.5/8	*				*	*				*	*		*				*		9, 10, 21, 22
Purina Lamb Chow	14/3/12	*							*	*	*	*	*	*	*			*		7, 8
Purina Fitting Chow	13.5/2.6/12	*							*	*	*	*	*	*	*			*		9, 10
Purina Bulky Omolene Chow	10/3.2/11								*	*	*	*	*	*	*			*		10
Purina Omolene Chow	10/3.2/9	*							*	*	*	*	*	*	*			*		10
Purina Bulky Las Chow (Buffalo Mill)	9/1.3/15	*									*	*	*	*	*			*		3, 4, 10
Protena Sweet Roughage (Buffalo Mill)	6/1/30										*	*	*	*	*			*		4, 10, 15
St. Albans Grain Co. Hygrade 14 Fitting	14/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*			*	*	4, 7, 9
Wirthmore 14 Fitting	14/4/7			*	*	*	*	*	*	*	*	*	*	*	*			*	*	6
Wirthmore Rabbit	14/3.5/9	*		*	*	*	*	*	*	*	*	*	*	*	*			*	*	7, 12, 13, 20
Utility 60 Pasture	14/3/13			*	*	*	*	*	*	*	*	*	*	*	*			*	*	4, 7
Hygrade Fitting	12/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*			*	*	9
Hygrade Fitting or Stock	10/3.25/12			*	*	*	*	*	*	*	*	*	*	*	*			*	*	
Wirthmore Horse	9.8/3.25/9	*		*	*	*	*	*	*	*	*	*	*	*	*			*	*	
Wirthmore Stock	9/4/9.5			*	*	*	*	*	*	*	*	*	*	*	*			*	*	
Wirthmore Fodder Greens	9/1.25/19	*		*	*	*	*	*	*	*	*	*	*	*	*			*	*	3, 15
Ubiko Milling Co. Crusader Horse	9/3/10	*							*	*	*	*	*	*	*			*	*	
West-Nesbitt, Inc. Pure Feed Horse	9/3/10	*							*	*	*	*	*	*	*			*	*	

Additional ingredients: 1. Ground wheat. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Charcoal. 9. Soy bean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skim milk. 13. Cod-liver oil. 14. Corn oil meal. 15. Alfalfa stem meal. 16. Ground rye. 17. Dried buttermilk. 18. Iron oxide. 19. Potassium iodide. 20. Cracked wheat. 21. Corn germ meal. 22. Wheat germ meal.

The stock feeds, horse feeds, fitting feeds, and rabbit feeds were found to be "as certified" with a few minor exceptions.

In the following instances the ingredients were "not detected":

Allied Mills, Inc., Wayne Rabbit: Potassium iodide.
Ralston Purina Co., Purina Bulky Omelene Chow: Salt.

In the following instances small quantities of ingredients named were found in addition to those certified:

Allied Mills, Inc., Wayne Supreme Horse: Few whole weed seeds.
 St. Albans Grain Co., Wirthmore 14 Fitting: Corn gluten meal.
 St. Albans Grain Co., Hygrade Fitting or Stock: Corn gluten meal.

Thirty-eight ingredients were used in making 49 brands of stock feed, etc., sampled. Molasses and salt appear in nine-tenths; oats in eight-tenths; linseed meal in six-tenths; cracked corn and wheat bran in one-half; alfalfa meal, ground barley and corn meal in four-tenths; bone meal, calcium carbonate and wheat middlings in three-tenths; hominy meal in one-fourth; and cottonseed meal in one-eighth brands sampled. Oat mill feed is an ingredient of 11 brands and screenings of one brand.

CALF MEALS, HOG FEEDS

Allied Mills, Inc., Wayne Calf Meal. 24/4/7. Dried skim milk, cottonseed meal, corn gluten meal, coconut oil meal, wheat standard middlings, wheat second clear flour, soy bean meal, 2% ground limestone, 1% steamed bone meal, 1% salt, 0.06% iron oxide, 0.0007% potassium iodide, cane molasses, and wheat standard bran.

Allied Mills, Inc., Amco Calf Meal. 24/4/8.5. Cottonseed oil meal, corn gluten meal, coconut oil meal, wheat standard middlings, wheat standard bran, wheat second clear flour, dried buttermilk, 2% steamed bone meal, 1% salt, and cane molasses.

Allied Mills, Inc., Wayne Pig Meal. 18/3.5/7. Digester tankage, fish meal, peanut oil meal, cottonseed oil meal, soy bean oil meal, old process linseed oil meal, coconut oil meal, wheat flour middlings, corn meal, fine ground alfalfa meal, fine ground oat meal, cane molasses, 1% ground limestone, 0.5% steamed bone meal, 0.04% iron oxide, 0.5% salt, 0.0005% potassium iodide, and 0.0005% copper sulphate.

Allied Mills, Inc., Emergency Hog Feed. 14/3/7. Digester tankage, coconut oil meal, corn meal, ground barley, wheat standard middlings, fine ground alfalfa meal, cane molasses, 1% ground limestone, 0.02% iron oxide, 0.5% steamed bone meal, 0.0005% potassium iodide, 0.0005% copper sulphate, and 1% salt.

Blatchford Calf Meal Co., Blatchford's Calf Meal. 24/5/6.75. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, old process linseed oil meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate (bone meal), wheat flour, coconut oil meal, recleaned cottonseed meal, fenugreek, anise, and salt.

Eastern States Farmers' Exchange, Eastern States Hog Supplement (Open Formula). 30/5.5/5. Meat scraps, wheat flour middlings, alfalfa leaf meal, old process linseed oil meal, soy bean oil meal, calcium carbonate, dicalcium phosphate, and salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula). 23/3.5/4. Rolled oat groats, yellow corn meal, standard wheat bran, old process linseed oil meal, yellow cracked corn, soluble blood flour, dry skim milk, dicalcium phosphate, and salt.

Eastern States Farmers' Exchange, Eastern States Hog Meal (Open Formula). 14.5/4/5.5. Yellow corn meal, meat scraps, wheat flour middlings, old process linseed oil meal, alfalfa meal, dicalcium phosphate, calcium carbonate, and salt.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal. 24/4/4. Red dog wheat flour, corn meal or corn feed meal, oat meal, old process linseed oil meal, reground malted barley, blood meal, dried buttermilk, bone meal, and a little salt.

Elmore Milling Co., Inc., Elmore's Hog Ration. 15/5/6. Wheat middlings, old process oil meal, corn meal, corn feed meal or hominy feed, tankage, and salt.

John W. Eshelman & Sons, Eshelman Red Rose Calf Starter. 18/3/5. Cooked and baked wheat feed, old process oil meal, wheat middlings, wheat flour, oat meal, ground kaffir corn, blood meal; 2% pure ground flaxseed.

Larroe Milling Co., Larro Pork-Maker. 25/5/10. Meat scraps, dried beet pulp, old process linseed oil meal, standard wheat middlings (with ground grain screenings not exceeding mill run), alfalfa meal, wheat bran, corn germ meal, 3% phosphatic limestone, 1% salt.

Larrowe Milling Co., Larro Calf Meal. 23/4/3.5. Oatmeal, wheat red dog, yellow corn meal, old process linseed oil meal, blood flour, dried skim-milk, bone meal, cod-liver oil vitamin extract, 0.75% salt.

Maritime Milling Co., Inc., B B Bull Brand Pig & Hog Meal with Minerals. 18/4/8. Digester tankage, alfalfa meal, wheat middlings, old process linseed oil meal, soy bean meal, corn meal, pulverized barley, pulverized oats, steamed bone meal, red dog wheat flour, charcoal, calcium carbonate, and salt. (Wheat middlings may contain ground screenings not exceeding mill run.)

Park & Pollard Co., Milkade Calf Meal. 20/7/6.5. Ground malt, old process linseed oil meal, wheat bran, wheat flour, cocoanut oil meal, bone meal, rice polish, wheat middlings, sesame oil meal, blood flour 3%, and a small percentage of calcium carbonate, ground fenugreek, ground anise, and salt.

Park & Pollard Co., Go Tu It Pig & Hog Ration. 15/3.5/8. Alfalfa meal, hominy meal, ground barley, iodol fish meal, meat, bone, corn meal, corn germ meal, wheat middlings, fine ground grain screenings, calcium carbonate, and salt.

Quaker Oats Co., Schumacher Calf Meal. 18/7.5/4. Oatmeal, ground flaxseed, ground puffed wheat, linseed meal, dried skim milk, boiled and sterilized blood flour, 0.50% bicarbonate of soda, 0.75% salt, 1% ground limestone, and 1% bone meal.

Ralston Purina Co., Purina Pig and Hog Chow. 31/3/10. Tankage (60% protein), soy bean oil meal, linseed meal, cottonseed meal, wheat middlings, alfalfa meal, molasses, 1% iodized salt.

Ralston Purina Co., Purina Calf Chow. 27/3.2/4.5. Blood flour, dried skim milk, linseed flour, bolted corn meal, wheat flour (second clear), corn gluten meal, 0.5% iodized salt, 1.5% calcium carbonate (limestone).

Ralston Purina Co., Purina Pig Chow. 25/3.2/8. Tankage (60% protein), meat scraps (55% protein), linseed meal, alfalfa leaf meal, soy bean meal, molasses, alfalfa meal, wheat middlings, 1% charcoal, and 2% iodized salt.

Ralston Purina Co., Purina Hog Fatena Chow. 14/3/7. Tankage (60% protein), linseed meal, corn germ meal, alfalfa leaf meal, grey wheat middlings, hominy meal, molasses, alfalfa meal, 2% iodized salt, and 1% charcoal.

Ryde & Co., Ryde's Cream Quality Calf Meal. 18.5/4/4. Blood meal, dried skim milk, locust bean meal, barley malt flour, crude milk albumen, linseed oil meal, cocoanut oil meal, ground oat groats, corn meal, ground flaxseed, wheat flour, wheat flour middlings, fenugreek, anise, steamed bone meal, calcium carbonate, and salt.

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skim milk, fine ground oatmeal, ground whole flaxseed, blood flour, old process linseed meal, wheat red dog flour, yellow corn meal, edible bone meal, and iodized salt.

St. Albans Grain Co., Wirthmore Pig and Hog—A Growing and Fattening Feed. 17/4/9. Beef scraps, fish meal, edible bone meal, wheat red dog flour, wheat middlings, wheat bran, linseed meal, alfalfa meal, yellow corn meal, ground barley, corn gluten feed, calcium carbonate, pure cane molasses, and dairy salt.

The calf and hog meals were found to be "as certified" with but a single minor exception.

In the following instance the ingredient named was "not detected":
Elmore Milling Co., Inc., Elmore's Hog: salt.

There were 42 ingredients used in 12 brands of calf meals sampled. Linseed meal, blood flour and salt appeared in 10; bone meal in 9; dried skim milk, ground oats and wheat flour in 7; corn meal in 6; calcium carbonate, cocoanut oil meal, flaxseed meal and wheat middlings in 5.

There were 31 ingredients used in 12 brands of pig and hog feeds sampled. Salt and wheat middlings appeared in all; alfalfa in 11; linseed meal in 10; calcium carbonate and corn meal in 7; meat scraps, molasses and tankage in 6; bone meal and soybean meal in 5; and fine ground grain

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE
OR CRACKED GRAINS

Scratch Grains, etc.	Guaranty			Barley	Buckwheat	Cracked corn	Kafir corn	Milo maize	Millet	Oats	Peas	Sundowner seed	Wheat	Fish meal
	Protein	Fat	Fiber											
Allied Mills, Inc.														
Wayne Scratch	10/2.5/4			•	•	•	•	•					•	•
Wayne Intermediate Scratch	10/2.5/4			•	•	•	•	•					•	•
Red Feather Scratch	9/2.5/4			•	•	•	•	•		•			•	•
Wayne Special Scratch	9/2.5/4			•									•	•
Wayne Chick	9/2/4			•				•					•	•
Screened Cracked	8.5/2.5/2.5			•										
E. W. Bailey & Co.														
Pennant Scratch	10/3/6.5			•	•	•				•			•	•
Berkshire Coal & Grain Co., Inc.														
Berkshire Scratch	10/2.5/5			•	•	•							•	•
Black Rock Milling Corp.														
Bidwell Scratch	10/1.5/5			•	•	•	•	•		•			•	•
Chapin & Co.														
Ajax Scratch	9/2.5/5			•	•	•	•	•		•			•	•
Crosby Milling Co.														
Crosby's Scratch	11/3/5			•	•	•	•	•		•			•	•
Eastern States Farmers' Exchange														
Eastern States Scratch Grains (with whole corn)†	10.5/2.5/4									•			•	1
Eastern States Scratch Grains (with coarse cracked corn)†	10/2.5/4					•				•			•	
Eastern States 31 Scratch Grains†	9.5/2.5/3					•							•	
Elmore Milling Co., Inc.														
Elmore Scratch	10/3.5/7			•	•	•	•						•	•
Emco Scratch	10/3.5/7			•	•	•	•						•	•
Elmore Intermediate Chick	10/3/3			•			•			•			•	•
John W. Eshelman & Sons														
Eshelman Lancaster Scratch	10/2.5/4			•	•	•	•						•	•
Eshelman Red Rose Scratch	10/2.5/4			•	•	•	•						•	•
Eshelman Pennsy Scratch	9/2.5/4			•	•	•	•			•			•	•
First National Stores, Inc.														
Henfield Scratch	10/3.5/5			•	•	•	•						•	•
D. H. Grandin Milling Co.														
Grandin's Screened Scratch	10/2.5/5			•	•	•	•						•	•
Grandin's Intermediate Chick	10/2.5/5			•						•			•	•
Great Atlantic & Pacific Tea Co.														
Dally Egg Scratch	10/2.5/5			•	•	•	•			•			•	•
Hales & Hunter Co.														
Red Comb Scratch	10/2.5/5			•	•	•	•			•			•	•
E. T. & H. K. Ide														
Ideal Scratch	10/3/4			•	•	•							•	•
Kasco Mills, Inc.														
Kasco Scratch	9/2.5/4			•	•	•							•	•

†Open formula.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty													
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
Larrowe Milling Co.														
Larro Growing	10/3/4			*	*	*	*	*	*	*	*	*	*	*
Larro Scratch	10/2/3.5			*	*	*	*	*	*	*	*	*	*	*
Larro Growing	10/2/3.5			*	*	*	*	*	*	*	*	*	*	*
Larro Chick	10/2/3.5			*	*	*	*	*	*	*	*	*	*	*
R. H. McEwen Milling Co.														
McEwen's Red Feather Scratch	10/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Maritime Milling Co., Inc.														
B-B Bull Brand Pigeon	11/4/4			*	*	*	*	*	*	*	*	*	*	2
Bull Brand B-B Scratch	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
B-B Daisy Scratch	9/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Geo. Q. Moon & Co., Inc.														
Moon's Scratch	10/2/5			*	*	*	*	*	*	*	*	*	*	*
Park & Pollard Co.														
Red Ribbon Scratch	10/3/5			*	*	*	*	*	*	*	*	*	*	*
Paramount Scratch	10/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Quaker Oats Co.														
Big Egg Scratch, No Grit	10/3/4.25			*	*	*	*	*	*	*	*	*	*	*
Quaker Ful-O-Pep Coarse Chick	10/2/2.5			*	*	*	*	*	*	*	*	*	*	*
Quaker Ful-O-Pep Scratch	9/2/3.5			*	*	*	*	*	*	*	*	*	*	*
Ralston Purina Co.														
Purina Pigeon Chow containing Corn	12.5/2/4			*	*	*	*	*	*	*	*	*	*	1
Purina Hen Chow	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
Purina Intermediate Hen Chow	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
Purina Chick Chow	10/2/4			*	*	*	*	*	*	*	*	*	*	*
Protana Scratch (Buffalo Mill)	9.5/2/4			*	*	*	*	*	*	*	*	*	*	*
St. Albans Grain Co.														
Wirthmore Squab & Pigeon	12/2.5/5			*	*	*	*	*	*	*	*	*	*	3
Paragon Scratch	10/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Wirthmore Scratch	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
Mornin' Call Poultry	10/2.5/4			*	*	*	*	*	*	*	*	*	*	*
Wirthmore Intermediate Scratch	10/2.5/3.5			*	*	*	*	*	*	*	*	*	*	*
Wirthmore Baby Chick Scratch	10/2.5/3.5			*	*	*	*	*	*	*	*	*	*	*
Ubiko Milling Co.														
Ubiko Intermediate Scratch	9/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Ubiko Chick	9/2.5/5			*	*	*	*	*	*	*	*	*	*	*
Valley City Milling Co.														
Valco Scratch	9.5/2.5/4			*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc.														
Special Scratch	9/3.5/5			*	*	*	*	*	*	*	*	*	*	*

Additional ingredients: 1. Whole corn. 2. Hemp. 3. Vetches.

The scratch feeds, etc., were found "*as certified*" with few exceptions.

In the following instances the ingredients named were "*not detected*":

Black Rock Milling Co., Inc., Bidwell Scratch: Sunflower.
Elmore Milling Co., Inc., Elmore Intermediate Chick: Cracked peas.
Larowe Milling Co., Larro Growing Grains: Buckwheat.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Allied Mills, Inc., Wayne Special Scratch: Few whole oats.
Chapin & Co., Ajax Scratch: Few whole weed seeds.
Elmore Milling Co., Emco Scratch: Few whole weed seeds.
Elmore Milling Co., Elmore Intermediate Chick: Buckwheat.
D. H. Grandin Milling Co., Grandin's Screened Scratch: Few whole weed seeds.
Kasco Mills, Inc., Kasco Scratch: Kaffir corn and milo maize.
R. H. McEwen Milling Co., McEwen's Red Feather Scratch: Few whole weed seeds.
Geo. Q. Moon & Co., Moon's Scratch: Few whole weed seeds.

Thirteen ingredients were used in making 56 brands of scratch grains, etc., sampled. Wheat was used in all but one brand; corn in all but three; buckwheat in seven-tenths; barley, kaffir corn, milo maize and oats in six-tenths; and sunflower in almost four-tenths.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Allied Mills, Inc.																						
Wayne 26% Mash Supplement	26/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3	
Red Feather Egg	18/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 3	
Wayne Egg	18/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3	
Wayne Egg†	18/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4	
Wayne Broiler	17/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4	
Wayne All Mash Grower	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3	
Wayne All Mash Grower‡	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4	
Wayne Turkey	15/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 5	
Wayne Poultry Fattener	13.5/4/6									*			*	*	*	*	*	*	*	*	6, 7	
E. W. Bailey & Co.																						
Pennant Brand Laying‡§	20/5/6	*						*					*	*	*	*	*	*	*	*	1, 4, 20	
Pennant Brand Laying	20/5/6	*											*	*	*	*	*	*	*	*	1	
Pennant Brand Chick Starter	17/5/5	*	*					*					*	*	*	*	*	*	*	*	1, 5, 20	
Pennant Brand Growing Feed	15/5/5	*	*					*					*	*	*	*	*	*	*	*	1, 5, 20	
G. N. Bartemus Co.																						
Barco Special	20/5/6	*											*	*	*	*	*	*	*	*	1	
Black Rock Milling Corp.																						
Bidwell Dry Mash	18/3/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17	
Chapin & Co.																						
Chapin Kernels Lay-All	16/3.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 8, 9, 10, 21	
Chapin Kernels Grow-all	16/3.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 8, 9, 10, 21	
Chapin Kernels Start-All	15/3.5/4.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 8, 9, 10, 21	
Community Feed Stores, Inc.																						
Community Milk Laying	20/4/8	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1	
Community Chick ‡§	17/5/8	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 20	
Eastern States Farmers' Exchange																						
Eastern States Developer†	18.5/4/6.5	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	24, 11, 24	
Eastern States Developer‡¶	18.5/4/6.5	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 11, 24, 26	
Eastern States Starting and Broiler‡¶	18.5/4/5	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24, 26	
Eastern States Producer†	17/4/6.5	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24	
Eastern States Producer‡¶	17/4/6.5	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24, 26	
Eastern States Egg†	17/4/6.5	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11, 24	
Eastern States Starting and Growing†	16.5/4/6	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11	

†Open formula. ‡With cod-liver oil. ¶With oil. §With cod-liver-meal.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty																						
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal		Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
Elmore Milling Co., Inc.																							
Elmore Egg	18/4/8 *																						4, 21
Elmore Eggmaker	17/4.5/8																						
Elmore Complete Starting and Growing	16/4/8 *																						1
John W. Eshelman & Sons																							
Eshelman Red Rose Laying	20/5/7 *																						12
Eshelman Red Rose Laying†	20/5/7 *																						4, 12
Eshelman Red Rose Growing†	16/4/7 *																						4, 12
Eshelman Red Rose All All Mash Starter	16/4/6.5 *																						4, 12
First National Stores, Inc.																							
Henfield Egg	20/5/7 *																						4
Gateway Milling Assoc., Inc.																							
Gateway Super Laying & Breeding†	18.5/4/7.5 *																						1, 4
D. H. Grandin Milling Co.																							
Grandin's Laying*	20/4/8 *																						
Grandin's Laying*†	20/4/8 *																						4
Grandin's Growing*†	15/4/8 *																						4
Grandin's Broiler*†	15/4/6 *																						4
Great Atlantic & Pacific Tea Co.																							
Daily Egg	20/4.5/7 *																						1, 2, 3, 4, 20
Hales & Hunter Co.																							
Red Comb Egg*	18/4/7 *																						2, 13
Red Comb Growing*	15/4/6 *																						2, 13
E. T. & H. K. Ide																							
Ideal Buttermilk Egg	24/5/6 *																						
Jersee Co.																							
Just Right Egg	20/4/8 *																						1, 5, 16, 19, 27, 29, 30
Kasco Mills, Inc.																							
Apex Laying	20/4/8.5 *																						1, 2, 4, 1
Kasco All Mash Laying	15/4/6 *																						1, 2, 4, 1
Larowe Milling Co.																							
Larro Turkey and Game Bird Starter	20/4.5/6 *																						1, 4, 23
Larro Egg	19/5/7.5 *																						1, 4, 23
Larro Chick Starter	16.5/4.5/5 *																						1, 4, 23
Larro Growing	16/4.5/6.5 *																						1, 4, 23
Larro Broiler	15/4.5/7 *																						1, 4, 23
Larro Poultry Fattening	14/4/7.5 *																						1, 15, 23
R. H. McEwen Milling Co.																							
McEwen's Red Feather Egg	20/4/9 *																						

*With buttermilk. †With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty																						
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
Maritime Milling Co., Inc.																							
Vitamized B B Bull Brand Laying	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12
Vitamized B-B Daisy Egg*†	18/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4
Dollar \$ Maker Egg	17/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Geo. Q. Moon & Co., Inc.																							
Moon's Laying Mash*†	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 16
Moon's Laying Mash*	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16
Park & Pollard Co.																							
Lay or Bust Dry-Mash	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Lay or Bust Dry-Mash†	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17
Park & Pollard Chick Starter	17/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 18
Park & Pollard Chick Growing	14/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Quaker Oats Co.																							
Quaker Ful-O-Pep Egg	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20
Quaker Ful-O-Pep Growing	19/5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20
Quaker Ful-O-Pep Chick Starter	15/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 9, 20
Ralston Purina Co.																							
Purina Egg Chowder	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 14
Purina Breeder Egg Chowder	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 14
Purina Egg Chowder†	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 14
Purina All Mash Startena Chow	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 14, 22, 25
Purina Broiler Chow	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 14
Purina Turkey Startena Chow	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 14, 22, 25
Purina Chick Growena Chow†	17/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 14, 22
Purina Chick Growena Chow	17/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 14, 22
Purina Lay Chow*	17/2.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9, 14
Purina Lay Chow†	17/2.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9, 14
Purina Lay Chow*†	17/2.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9, 14
Purina Turkey Growing and Fattening Chow†	17/2.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9, 14
Purina Chicken Fat Chow	15.5/3/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6, 14, 21
Purina All Mash Egg Chowder	15.5/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14
Purina Chicken Fatena Chow	12/3/6.6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6, 14, 21
St. Albans Grain Co.																							
Wirthmore Breeder	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 6

*With buttermilk. †With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—concluded

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hornly feed	Linsed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
St. Albans Grain Co.																						
Wirthmore Turkey Starter*‡	20/4.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Laying*	20/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Laying*†	20/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Turkey Growing	18/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Baby Chick Starter*‡†	18/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore All Purpose Chick and Broiler	17.5/4/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Growing*	15/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Growing*†	15/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Complete for Layers	15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Complete Growing	14/3.75/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ubiko Milling Co.																						
Ubiko Egg	20/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ubiko All-Mash Starter	18/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ubiko All-Mash Complete Laying	16/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ubiko All-Mash Developer	14/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc.																						
Pure Feed Egg	18/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Pure Feed Egg Maker	18/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

*With buttermilk. †With cod-liver oil. ‡With cod-liver meal.
 Additional ingredients: 1. Dried skimmilk. 2. Soy bean meal. 3. Iron oxide and potassium iodide. 4. Cod-liver oil. 5. Charcoal. 6. Corn germ meal. 7. Coconut oil meal. 8. Milo meal. 9. Molasses. 10. Corn oil meal. 11. Dicalcium phosphate. 12. Milk sugar feed (dried whey). 13. Charcoal iron sulphate, sulphur. 14. Iodized salt. 15. Dried beet pulp. 16. Calcium phosphate. 17. Kaffir corn. 18. Rice. 19. Iron oxide. 20. Cod-liver meal. 21. Low-grade wheat flour. 22. Wheat germ. 23. Phosphatic limestone. 24. Oyster shell meal. 25. Oat middlings. 26. Sardine oil. 27. St. John's bread. 28. Starch. 29. Anise. 30. Dried blood.

The mashes and other fine poultry feeds were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected."

Allied Mills, Inc., Wayne Egg Mash with Cod-liver Oil: Potassium iodide.

Allied Mills, Inc., Wayne Broiler Ration: Potassium iodide.

Allied Mills, Inc., Wayne Turkey Mash: Potassium iodide.

Chapin & Co., Chapin Kernels Lay-All: Bone meal.

Chapin & Co., Chapin Kernels Grow-All: Bone meal.

First National Stores, Inc., Henfield Egg Mash: Bone meal.

D. H. Grandin Milling Co., Grandin's Broiler Mash with Buttermilk—

Cod-liver Oil: Bone meal.

Kasco Mills, Inc., Kasco All-Mash Laying Food: Ground barley.

Maritime Milling Co., Inc., Vitamized B B Laying Mash: Bone meal.

St. Albans Grain Co., Wirthmore Turkey Growing Feed: Fish.

In the following instances a small quantity of ingredients named were found in addition to those certified.

Black Rock Milling Corp., Bidwell's Dry Mash: Ground oats.
 St. Albans Grain Co., Wirthmore All Purpose Chick and Broiler Ration:
 Corn gluten meal.

Forty-eight ingredients were used in making 98 brands of mashes, etc., sampled. Alfalfa meal, corn meal, meat, salt, wheat bran, wheat middlings and oats appear in nine-tenths or more; calcium carbonate, and either butter-milk or skimmilk in eight-tenths; gluten meal or feed in seven-tenths; bone meal, dried buttermilk, fish meal, and either cod-liver oil, sardine oil or cod-liver meal in six-tenths; linseed meal in four-tenths; and ground barley and soy-bean meal in three-tenths.

The following tables set forth the proportions of the total number of brands found deficient in recent inspections and the detailed results.

Spring 1923.....	22%	Winter 1923-24.....	11%
Spring 1924.....	16%	Winter 1924-25.....	10%
Spring 1925.....	16%	Winter 1925-26.....	13%
Spring 1926.....	13%	Winter 1926-27.....	10%
Spring 1927.....	8%	Winter 1927-28.....	9%
Spring 1928.....	18%	Winter 1928-29.....	9%
Spring 1929.....	7%	Winter 1929-30.....	6%
Spring 1930.....	9%	Winter 1930-31.....	7%
Spring 1931.....	8%	Winter 1931-32.....	4%
Spring 1932.....	3%	Winter 1932-33.....	5%

It is interesting to note how much better as the years have passed manufacturers have maintained their guaranties. Time was when cottonseed meals were commonly lacking; they are less so nowadays. The protein contents of but 1.5 percent of all samples analyzed in this inspection were low of manufacturers' promises—a most satisfactory outcome. The fat figures are less well maintained; yet here the shortages occurred in but 4.5 percent of the brands.

DECEMBER, 1933, INSPECTION

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	85	82	3	15	12	3	..	..	3	..	..	..
Soy bean meals	16	16	..	4	4	..	..	..	..	..	..	..
Linseed meals	51	50	1	13	12	1	..	..	..	..	1	..
Gluten meals and feed	90	90	..	12	12	..	..	..	..	..	..	..
Distillers and brewers' dried grains	13	13	..	5	5	..	..	..	..	..	..	..
Wheat offals	419	414	5	114	113	1	1	..	..	..	..	..
Brans	171	170	1	43	42	1	1	..	..	..	..	..
Middlings	122	120	2	36	36	..	..	..	..	..	..	..
Mixed feeds	78	77	1	24	24	..	..	..	..	..	..	..
Red dog flours	48	47	1	11	11	..	..	..	..	..	..	..
Alfalfa meals	15	14	1	9	8	1	..	..	1	..	..	..
Dried beet pulps	37	37	..	4	4	..	..	..	..	..	..	..
Hominy feeds	22	22	..	6	6	..	..	..	..	..	..	..
Oat and rye feeds	53	49	4	13	11	2	..	..	2	..	..	..
Proprietary feeds	1,412	1,393	19	379	357	22	3	17	2	..	..	..
Dairy	502	488	14	140	124	16	2	12	2	..	..	..
Stock, horse, etc	218	217	1	49	49	..	..	..	..	..	..	..
Calf and hog	101	100	1	24	24	..	..	..	..	..	..	..
Poultry feeds	591	588	3	166	160	6	1	5	..	..	..	..
Scratch, chick	195	195	..	56	55	1	..	1	..	..	..	..
Mashes, growing	367	365	2	98	96	2	1	1	..	..	..	..
Meat Scraps	29	28	1	12	9	3	..	3	..	..	..	..
Skim- and buttermilks	22	22	..	7	7	..	..	..	..	..	..	..
Totals	2,235	2,202	33	581	551	30	4	17	8	..	1	..
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	..	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	1	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3	1
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	..
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	..
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	..
Winter 1927-28	1,051	982	69	303	275	28	14	2	8	2	2	..
Spring 1927	1,254	1,197	57	395	365	30	17	9	4	..	..	..
Winter 1926-27	1,339	1,281	58	363	325	38	12	6	14	1	2	3
Spring 1926	1,147	1,109	38	332	288	44	10	13	12	..	7	2
Winter 1925-26	1,219	1,161	58	345	300	45	15	9	14	1	5	1
Spring 1925	1,031	953	78	335	285	50	24	15	4	3	2	2
Winter 1924-25	1,076	1,024	52	314	283	31	7	11	6	2	1	4
Spring 1924	1,119	1,025	94	379	317	62	24	24	4	5	3	2

*Protein, fat and fiber.

COMMERCIAL FEEDING STUFFS

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. As everyone knows feed prices are now in the depths. It does not seem possible that they will go any lower.

	Apr., '27	Dec., '27	Apr., '28	Dec., '28	Apr., '29	Dec., '29	Apr., '30	Dec., '30	Apr., '31	Dec., '31	Apr., '32	Dec., '32
Cottonseed meals 43%	\$47	\$57	\$65	\$64	\$58	\$55	\$54	\$43	\$42	\$30	\$30	\$27
Cottonseed meals 41%	45	53½	62	59	57	63	48	41	40	29	28	27
Cottonseed meals 36% ...	44	50½	58½	55	54½	50	47½	41	40	28	26	22½
Linseed meals 34%	56	58	63	67	65½	64	58	48	45	40	40	33½
Linseed meals 30-33% ..	56	58	61½	..	61	..	61	47	42	39	40	33
Distillers' grains ..	..	57	61	50	..	..	50	47	32	30	29	27
Gluten meals 40%	54	56	62	63	72½	60	54	49½	40½	34	28	27
Gluten feeds 23%..	44	48	51½	53	55½	50½	43½	42	38	27	24	23
Wheat brans	39½	44½	49	44	40	40½	38½	30	31	25	24½	22
Wheat middlings:												
Standard	41	44	49	46	44	43½	39½	32½	31½	26	25½	21½
Shorts	40½	43	49	45	40½	42	38	30	31	26	24½	21
Flour	46	50	58	47½	47	45½	44	36	35	29	28	24
Wheat mixed feeds	43	48	51	58	46	46½	42	36	33	28	27	24
Red dog flours ...	50½	54	54	57	51½	51½	45	39½	35	30	28	26½
Dried beet pulps..	45	48	51½	54	54½	53	51	38½	35	28	28	28
Hominy feeds	38	48	48	46	46	45½	50½	38	34½	27	24	20½
Alfalfa meals	45	49	..	55	48	50	62	54½	55	41	49½	38½
Proprietary feeds:												
Dairy 24%	49	53½	56	56	56	54	50	45½	42	34	32	28½
20%	47	50	54	53	53½	51½	48	42½	39½	32	33	27
16%	40½	43	48½	47	46½	48	43	39	35	30	27½	24
Stock and												
horse 9-10%*..	41	45½	50	49	48½	49	48½	42	40	34	32	29
8%*..	..	..	47	49	45	46½	..	44½	34	29	34	22
Fitting 9-12%...	..	..	..	..	..	50½	45	43	39	31	29½	25
14%...	..	..	..	..	..	53	45½	43	39	36	31½	28
Calf	94	100	99	96	96	98	92½	89	84	80	74	69
Hog	50½	60	60	57	57½	57	53½	50	48	38	35½	32½
Poultry:												
Scraps	80½	..	87	79	75	75	70	82	75½	58	60½	55
Scratches	52	55	59	52	53½	52½	51	44½	41½	33	32½	27½
Mashes	59	64½	68	63	64½	64	61	56	52	42	40	36
Chick grains .	72	63	68½	57	60	56½	55	52½	49	41	39	41½
Chick mashes. .	..	..	86½	64	74½	70½	77	69½	63	48	49	39..

*Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1927, 1928, 1929, 1930, 1931, April, 1932, and December, 1932, follow, 1923 being rated at 100.

	1923	1927	1928	1929	1930	1931	Apr. 1932	Dec. 1932
Cottonseed meals	100	84	108	93	77	59	47	43
Linseed meals	100	95	108	107	90	71	68	60
Gluten meals and feeds..	100	85	102	104	81	63	46	45
Wheat offals (exclusive of red dog)	100	107	118	105	89	72	63	55
Beet pulps	100	93	105	107	88	60	55	50
Hominy feeds	100	106	117	115	110	78	60	51
Proprietary :								
Dairy 24%	100	94	104	102	90	71	59	53
20%	100	92	101	100	87	68	62	51
16%	100	91	104	103	89	71	60	52
Stock and horse	100	100	120	116	110	84	81	62
Calf, hog, etc.	100	112	111	109	103	88	78	72
Scratches	100	105	109	104	98	77	71	60
Mashes	100	98	103	102	102	81	70	61

The present bulletin sets forth the results of the analyses of the samples taken in the 20 inspections since the licensing law of 1923 went into effect. If one includes also the samples taken in the April, 1933, inspection (they are in hand and are being prepared for analysis as this bulletin goes to press), the total number of samples analyzed approximates 30,000.

As the years have gone on, the trade has grown—as judged by the number of brands licensed—and it has changed somewhat in character. From 1923 to 1927 the average number of samples collected at each sampling period approximated 1,100, but from 1928 to 1932 it approximated 1,750 and during the last two and a half years, 2,100. The number of brands licensed for sale in Vermont has increased rapidly since 1923, although apparently for the time being it is static. The methods of sample collection have not varied materially, but the better roads of the last five years have enabled sampling agents to cover more ground in a given time.

PERCENTAGES OF TOTAL NUMBER OF SAMPLES DRAWN AND ANALYZED

	Apr., '33	Dec., '32	Apr., '32	Dec., '31	Apr., '31	Dec., '30	Apr., '30	Dec., '29	Apr., '29	Dec., '28	Apr., '28	Dec., '27	Apr., '27	Dec., '26	Apr., '26	Dec., '25	Apr., '25	Dec., '24	Apr., '24	Dec., '23	Apr., '23
Oil meals	11	11	11	13	11	12	10	12	10	13	14	25	24	28	28	28	25	31	26	30	27
Wheat offals.....	15	19	18	20	16	20	18	20	18	21	21	17	16	17	15	19	17	19	18	25	19
Miscellaneous	4	6	4	4	3	4	3	4	3	3	3	4	3	3	3	3	5	5	5	4	5
Dairy feeds	20	23	20	22	24	25	24	23	23	30	23	24	22	25	20	22	21	21	15	15	15
Stock, etc., feeds.....	8	10	9	12	11	12	9	11	8	8	8	6	6	6	7	7	6	8	7	8	8
Calf and hog feeds....	4	5	4	5	4	5	4	5	4	4	4	4	3	2	3	2	3	3	2	3	2
Poultry feeds	37	27	32	24	30	23	32	20	28	20	28	20	27	18	25	18	25	15	26	15	23

Certain noticeable changes have occurred in the character of the goods which Vermont farmers are buying, as is disclosed in the accompanying table. If one scans it, he will note that:

1. The oil meals and the wheat offals appear to be bought less commonly today than they were in the earlier years of the period under discussion. Speaking in general terms, their usages during the last five years were but 65 and 70 percents of those during the 1923-1927 period.

2. Conversely, the usage of the ready mixed rations has increased about 27 percent during the past five years as compared with the first five years of this period.

3. The usages of the various sorts of proprietary rations seem to have increased about as follows; dairy and poultry, 25 percent; stock, horse, etc., 45 percent; calf and hog, 65 percent. The latter increment is probably largely due to the lessened amount of skim milk available for feeding calves and hogs in this milk marketing state as compared to what was available in the earlier days.

4. The several oil meals and wheat offals have regularly constituted a smaller proportion of the total number of samples taken in the April than in December inspections, and this has also been true—to a less extent—of the dairy, stock and horse, calf and hog feeds. This change is really apparent rather than actual. It seems to be almost entirely due to the greatly increased proportion of poultry feeds always and naturally found on sale in April as compared with December. The decreases in the former case range from 84 to 93 percent; the increase in the latter case is about 45 percent.

SUMMARY

Twenty-two hundred thirty-five samples, representing 581 brands, were collected in December, 1932. Each sample was tested for crude protein and almost all of the brands were examined as to their crude fat and fiber contents. Less than 1.5 percent were found to be low in their protein contents. Shortages were as follows: crude protein 4, crude fat 17, crude fiber 8; and one sample was low in protein and at the same time high in fiber.

Prices have continued to drop and a new low was reached, even below the low figure of 1915. The average for all classes of feeds approximates \$30 per ton, or about four dollars less than the average sales price in April, 1932.

A few more deficiencies were observed than occurred in the last inspection, yet the writers feel that the Vermont buyer of feeding stuffs should be satisfied with his purchase; that is to say, the manufacturers furnished what they guaranteed. The deficiencies were small, most of them being in fat, which were generally offset by over-runs in protein.

The following table is submitted for the benefit of those who mix their own rations. It shows the average analyses of 15 sorts of proprietary goods, as well as of 28 of the ingredients most commonly used in mixing. These averages are based upon samples collected in Vermont during the past three years.

AVERAGE COMPOSITION OF THE COMMON FEEDING STUFFS
(Figures expressed in percentages or pounds in 100)

	Protein	Fat	Fiber
Alfalfa meal (20% protein)	20.55	2.51	16.26
Alfalfa meal (17% protein)	17.93	2.18	21.27
Alfalfa meal (13% protein)	14.66	1.68	28.51
Beet pulp (dried)	9.18	0.50	17.38
Bone meal (20% protein)	25.91	2.89	....
Bone meal (6% protein)	8.79	2.45	....
Brewers' dried grains	23.82	7.10	13.62
Buttermilk (dried)	34.28	5.63	....
Corn feed meal	9.74	5.24	2.98
Corn gluten meal	43.59	1.97	2.29
Corn gluten feed	26.81	2.67	6.87
Cottonseed meal (43% protein)	42.57	7.09	8.07
Cottonseed meal (41% protein)	41.26	7.10	9.67
Cottonseed meal (36% protein)	36.31	6.24	13.53
Distillers' dried grains	28.37	9.26	10.37
Hominy feed	10.74	6.72	3.90
Linseed meal (34-35% protein)	36.37	6.61	7.46
Linseed meal (30-33% protein)	34.	6.01	8.17
Meat scraps	48.13	11.49	....
Oat mill feed (oat hulls, middlings and shorts)...	5.35	1.82	26.21
Proprietary feeds:			
Dairy (32% protein)	32.95	4.93	7.13
Dairy (24% protein)	25.76	4.87	8.04
Dairy (20% protein)	21.97	4.60	8.13
Dairy (16% protein)	18.24	4.66	8.40
Stock and horse (8-8.5% protein)	10.43	4.92	10.
Stock and horse (9-10.5% protein)	11.56	4.16	7.97
Fitting (9-12% protein)	14.17	4.25	6.81
Fitting (14% protein)	16.15	4.95	7.64
Rabbit	16.53	4.28	7.48
Calf	24.38	5.14	3.58
Hog	19.99	5.28	6.02
Scratch grains	10.60	3.21	2.35
Chick scratch grains	11.30	3.28	1.64
Egg mash	20.58	5.47	5.75
Starting and growing	18.47	5.34	4.92
Rye feed and screenings	16.85	3.60	4.71
Skimmilk (dried)	34.58	0.79	....
Soy bean meal	34.12	4.58	4.14
Wheat bran	16.38	5.12	9.59
Wheat middlings, standard	17.38	5.52	6.98
Wheat middlings, flour	16.81	4.92	4.59
Wheat mixed feeds	16.41	4.60	6.87
Wheat red dog flour	17.41	4.25	2.10

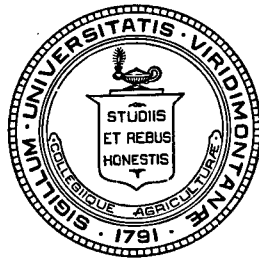
NOVEMBER, 1933

BULLETIN 366

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station
BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER and E. F. BOYCE



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Two thousand fifty-two samples, representing 552 brands, drawn from dealers' stocks during April, 1933, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respects up to guaranty in respect to their nutrient contents are listed on pages 4 to 19. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 19 to 22. The statement as to the ingredients used in the manufacture of the proprietary feeds and the manner in which their makers fulfilled their statements occurs on pages 26 to 42.

It might be said, briefly, that 11 of the 169 brands of unmixed goods and 34 of the 376 brands of proprietary or unmixed goods failed to meet their guaranties. This is not quite as good a showing as was made in the inspection of samples drawn in December, 1932; on the other hand it is commendable. The general situation in respect to guaranty maintenance is set forth in the table and text on pages 43 and 44. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-33, 95 percent; in 1933, 92 percent.

Five brands of dairy rations and two brands of scratch feeds contained noticeable numbers of weed seeds. In all cases where an inferior ingredient was used in a mixture a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price last April, taking all classes of feeds as a unit, seems to have been not far from thirty dollars.

BULLETIN 366: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in sections 5980-5987, 5992-5994, 5996-5999, G. L., and in No. 111 of the Acts of 1923, the following report of 2,052 samples collected in April, 1933, is submitted. The object of the law is to prevent fraud or misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of cattle and poultry feeds offered for sale. The law does not forbid the sale of inferior feeds, but it provides through publicity the information as to their real nature in such fashion that he who runs may read.

The table of contents follows:

I.	Brands in all respects up to guaranty—pages 4 to 19.		
		Up to guaranty	Below guaranty
	Cottonseed meals	4	19
	Linseed meals	4	..
	Soy bean meals	4	..
	Corn gluten meals and feeds	5	..
	Distillers' and brewers' dried grains	5	19
	Wheat brans	5, 6	19
	Wheat middlings	6, 7	19
	Wheat mixed feeds	7, 8	20
	Wheat red dog flours	8	20
	Hominy feeds	8	..
	Dried beet pulps	9	..
	Alfalfa meals	9	..
	Oat, rye and corn feeds	9	20
	Dairy rations	9-12	20, 21
	Stock, horse, fitting, rabbit feeds, etc.	12, 13	21
	Calf and hog meals	13	21
	Meat and bone scraps	14	22
	Scratch and chick feeds	14, 15	22
	Egg mash, starters and growing feeds.....	15-18	22
	Buttermilks and skimmilks	18, 19	..
II.	Brands falling to meet guaranty—pages 19 to 22.		
III.	Maintenance of guaranty—pages 22 to 24.		
IV.	Ingredient statements—pages 24 to 42.		
V.	Deficiencies, 1922-1933—page 43.		
VI.	April, 1933, inspection—page 44.		
VII.	Average prices, 1927-1933—page 45.		
VIII.	Conclusion—page 46.		

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
E. T. Allen Co., Atlanta, Ga.			
Empire High Grade	41	6	10
Ashcraft-Wilkinson Co., Atlanta, Ga.			
Helmet Brand—Prime	41	5.5	10
F. W. Brod� Corp., Memphis, Tenn.			
Owl Brand 41%—Prime.....	41	5	10
Buckeye Cotton Oil Co., Cincinnati, Ohio			
Buckeye 41% Prime Quality	41	6.5	10
Cairo Meal and Cake Co., Cairo, Ill.			
Miss Cairo Brand 43 Per Cent Protein—Prime Quality	43	6	10
Miss Cairo Brand 41 Per Cent Protein—Prime Quality	41	6	10
S. P. Davis, Little Rock, Ark.			
Goodluck Brand Prime	41	6	10
Eastern States Farmers' Exchange, Springfield, Mass.			
Eastern States Choice	41	6	10
Humphreys-Godwin Co., Memphis, Tenn.			
Bull Brand 43% Protein—Prime Quality.....	43	5	11
Dixie Brand 41% Protein—Prime Quality.....	41	5	12
International Vegetable Oil Co., Inc., Greenville, Miss.			
41.12% Protein	41.12	6	10
Larrowe Milling Co., Detroit, Mich.			
41% Protein—Prime Quality	41	6	10
L. B. Lovitt & Co., Memphis, Tenn.			
" Lovit Brand" 43%	43	6	10
" Lovit Brand" 41%	41	6	10
Marianna Sales Co., Memphis, Tenn.			
White Mule Brand—Prime	43	6	10
White Mule Brand—Prime.....	41	6	10
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
Pure Old Process.....	37	4.5	9
Pure Old Process.....	34	4.5	9
Midland and Flaxseed Screenings Oil Feed—30%..	30	5	10
Bisbee Linseed Co., Philadelphia, Penn.			
Bisbee Old Process.....	34	5	10
Hirst & Begley Linseed Works, Chicago, Ill.			
Pure Old Process.....	37	5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y.			
Pure Old Process.....	34	5	9
Spencer Kellogg & Sons, Inc., Buffalo, N. Y.			
Kellogg's 37% Protein Pure Old Process.....	37	5	10
Kellogg's 37% Protein Pure Old Process.....	37	4.5	10
Mann Bros. Co., Buffalo, N. Y.			
37% Protein Pure Old Process.....	37	6	10
Sherwin Williams Co., Cleveland, Ohio			
S W C.....	34	5	10
SOY BEAN MEALS			
Shellabarger Grain Products Co., Decatur, Ill.			
.....	41	4.5	7
Soya Products, Inc., Chicago, Ill.			
Super Soy	37	5	6.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's	41	4.5	7

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein	Crude fat	Crude fiber
	%	%	%
CORN GLUTEN MEALS AND FEEDS			
American Maize-Products Co., New York, N. Y.			
Cream of Corn Gluten Feed.....	25	2	8.5
Cream of Corn Gluten Feed.....	23	2	8.5
Anheuser-Busch, Inc., St. Louis, Mo.			
Corn Gluten Feed	25	2	8.5
Clinton Corn Syrup Refining Co., Clinton, Iowa			
Clinton Corn Gluten Feed.....	25	2	8.5
Clinton Corn Gluten Feed.....	23	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond Corn Gluten Meal	43	1	4
Diamond Corn Gluten Meal.....	40	1	4
Buffalo Corn Gluten Feed	25	2	8.5
Buffalo Corn Gluten Feed.....	23	2	8.5
Penick & Ford Ltd., Inc., Cedar Rapids, Iowa			
Douglas Corn Gluten Meal.....	41	1	4
Douglas Corn Gluten Feed	25	1.5	8.5
Douglas Corn Gluten Feed.....	23	2	8.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's Corn Gluten Feed	25	1	8
Staley's Corn Gluten Feed.....	23	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union Corn Gluten Feed	25	1	8
Union Corn Gluten Feed	23	1	8
DISTILLERS' AND BREWERS' DRIED GRAINS			
Badger Grains & Feed Co., Inc., Milwaukee, Wis.			
Distillers'	24	5	16
Donahue-Stratton Co., Milwaukee, Wis.			
Hiquality Brewers'	20	5	19
T. A. Hauschel, Chicago, Ill.			
Brewers'	21	5.5	18
WHEAT OFFALS—WHEAT BRANS			
Atkinson Milling Co., Minneapolis, Minn.			
P of H Pure	15	5	12
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed (+)	14	4	12
Copeland Flour Mills, Ltd., Midland, Ont.			
Copeland's "Dandy"	15	3.5	11.5
Dreyer Commission Co., St. Louis, Mo.			
Dryco (+)	14.5	3.5	10
Dryco Pure	14	3	11
B. A. Eckhart Milling Co., Chicago, Ill.			
Pure	14	3.5	12
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+).....	14	3	14
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Pure.....	15	3.5	11
Washburn's Gold Medal Hard (+).....	14	4	12
Hall Milling Co., St. Louis, Mo.			
Palace Pure	15	4	10.5
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand	13.5	3	12
J. F. Imbs Milling Co., Belleville, Ill.			
Charm Pure Winter.....	14	3.5	11

— with ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT BRANS—concluded			
International Milling Co., Minneapolis, Minn.			
Blackhawk Pure	15	3.2	12
Kansas Flour Mills Corp., Kansas City, Mo.			
Big Flake Pure.....	15	3.5	11
King Midas Mill Co., Minneapolis, Minn.			
Cloverleaf Pure	15	4	12
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods	15	3.5	11.5
Larabee Flour Mills Co., Kansas City, Mo.			
Sunfed Pure Winter.....	15	3.5	11
Sunfed Winter (+).....	15	3.5	11
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Maple Leaf Pure.....	15	3.5	11.5
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's (+)	13	3	10
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's (+)	14.5	3.5	10
Pillsbury's Hard (+).....	14	4	12
Red Wing Milling Co., Red Wing, Minn.			
..... (+)	14.5	3.5	11
James Richardson & Sons, Ltd., Montreal, Que.			
Richardson Pure	15	3.5	11.5
Rodney Milling Co., Kansas City, Mo.			
..... (+)	16	3.5	11
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que.			
.....	15	3.5	11.5
Southwestern Milling Division,* Kansas City, Mo.			
Red Turkey Pure.....	14.5	3.5	11
Sparks Milling Co., Alton, Ill.			
Try Me (+).....	15	3.5	10
David Stott Flour Mills, Inc., Detroit, Mich.			
Spring (+)	14.5	4	12.5
Winter (+)	13.5	3.5	12
Stratton & Co., Concord, N. H.			
Stratton & Co.'s (+).....	14	4	11
Toledo Grain & Milling Co., Toledo, Ohio			
Camp's Winter	15	4	10
Valley City Milling Co., Grand Rapids, Mich.			
Rowena	13.7	4.45	10.6
Western Canada Flour Mills, Ltd., Toronto, Ont.			
Pioneer	15	3.5	11.5
WHEAT OFFALS—WHEAT MIDDINGS			
Bill, Bell & Co., Ogdensburg, N. Y.			
Bill, Bell Shorts (+)	15	4	9.5
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Standard (+).....	14.5	4	9.5
Copeland Flour Mills, Ltd., Midland, Ont.			
Copeland's "Dandy Shorts"	16	5	8
Duluth-Superior Milling Co., Minneapolis, Minn.			
Standard (+)	15	4	9.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

* Of Standard Milling Co.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIDDINGS—concluded			
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+).....	15	4.5	9.5
Dairy Maid Soft Winter (+).....	13	4.5	8
J. A. Forrest, Minneapolis, Minn.			
Alpine Canadian Pure Shorts	16	5	8
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard Standard (+).....	15	4	9.5
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand Shorts.....	15	3.5	10.5
Hecker-Jones-Jewell Milling Division,* Buffalo, N. Y.			
Standard (+)	15	4.75	9.5
Flour	15	4.25	6
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+)	16	4.5	8.5
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods Shorts.....	16	5	8
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Rex (+)	16	5	7.5
Moseley & Motley Milling Co., Rochester, N. Y.			
Big B (+).....	15	4.5	9
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+).....	15.5	4.5	7
Northwestern Consolidated Milling Div.,* Minneapolis, Minn.			
Standard (+)	15	4	9.5
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's Shorts	16	5	8
Park & Pollard Co., Buffalo, N. Y.			
Flour (+)	14	4	6
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard Standard B. (+).....	15	4	9.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Alta Hard	15	4.5	8.5
Hard Occident Standard.....	15	4	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour (+).....	15	4	6
St. Paul Milling Co., St. Paul, Minn.			
Komo Standard (+)	15	4.5	9.5
David Stott Flour Mills, Inc., Detroit, Mich.			
Pennant (+)	15	4	9
Western Canada Flour Mills, Ltd., Toronto, Ont.			
Pioneer Shorts	16	5	8

WHEAT OFFALS—WHEAT MIXED FEEDS

E. W. Bailey & Co., Montpelier, Vt.			
Capital	14	3	7
G. N. Bartemus Co., Concord, N. H.			
Barco	14	3	7
Caledonia Mills, Inc., St. Johnsbury, Vt.			
Brooks' Fancy	15	4	8
Excelsior Milling Co., Minneapolis, Minn.			
Pure Camel Fancy.....	16	5	8.5
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+).....	12.5	3.5	10
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Fancy (+)	15	3.5	7.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

WHEAT OFFALS—WHEAT MIXED FEEDS—concluded	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
E. T. & H. K. Ide, St. Johnsbury, Vt.			
Ideal	15	4	8
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's Fresh Ground (+)	15	4	10
Park & Pollard Co., Buffalo, N. Y.			
Yankee (+)	15.3	3.85	10.25
Park & Pollard Heavy	15.5	3.35	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+)	15	4	8.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Wheat Occident	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore (+)	15	4.5	8
David Stott Flour Mills, Inc., Detroit, Mich.			
Columbus Heavy (+)	14.5	3.7	8.5
Stratton & Co., Concord, N. H.			
Stratton's (+)	13.5	4.11	7.13
Valley City Milling Co., Grand Rapids, Mich.			
Rowena (+)	13.9	4.6	9.5
Ray P. Webster, Barton, Vt.			
Ray's R-E-A-L	14	4	7
WHEAT OFFALS—RED DOG FLOURS			
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed	16	4	4
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Pure Hard Wheat Adrian	16	3.5	4
Arlington Second Clear Flour	14	3	1.5
Hecker-Jones-Jewell Milling Division,* Buffalo, N. Y.			
.....	15	4.25	4
International Milling Co., Minneapolis, Minn.			
Blackhawk	16	3.5	4
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's X X Daisy	16	4	4
George Urban Milling Co., Buffalo, N. Y.			
Wheat Red Dog Flour	15	4	4
HOMINY FEEDS			
Chapman-Doake Co., Decatur, Ill.			
.....	10	7	6
Kellogg Sales Co., Battle Creek, Mich.			
White	10	6	5
Miller Cereal Mills, Omaha, Neb.			
.....	11	7	4.5
Pratt Food Co., Buffalo, N. Y.			
Pratts Yellow	10	5	6
Quaker Oats Co., Chicago, Ill.			
White	10	5	5
Yellow	10	5	5
St. Albans Grain Co., St. Albans, Vt.			
Paragon	10	6	7
David Stott Flour Mills, Inc., Detroit, Mich.			
Yellow	9.5	5.5	6.5
White	9.5	5.5	6.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

* Of Standard Milling Co.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.			
Molasses	8	0.4	22
	8	0.4	20
ALFALFA MEALS			
A. B. Caple Co., Toledo, Ohio			
.....	13	1	33
Denver Alfalfa Milling & Products Co., Lamar, Colo.			
Leaf (Leafalfa Brand).....	20	1.5	18
.....	13	1	33
Pecos Valley Alfalfa Mill Co., Hagerman, N. Mex.			
Peevee Leaf	20	2.5	18
Pecos Special	13	1.5	33
OAT, RYE AND CORN FEEDS			
Allied Mills, Inc., Peoria, Ill.			
Corn Feed Meal	9	4	5
Pratt Food Co., Buffalo, N. Y.			
Oat Feed (Oat Hulls, Oat Shorts, Oat Middlings) .	4	1.5	30
Quaker Oats Co., Chicago, Ill.			
Banner Feed	13	4.5	18
Sunset Feed and Grain Co., Inc., Buffalo, N. Y.			
Red 3 Reground Oat Hulls	3.5	1.25	32.5
Upper Hudson Rye Flour Mills, Inc., Troy, N. Y.			
Upper Hudson Rye Feed (+)	15.5	3	6

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot. note*
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Peoria, Ill.				
Amco 32% Supplement†.....	32	4	9	✓
Amco 24%†	24	3.5	9	✓
Empire 24%†	24	3	9	✓
Amco 20%†	20	3.5	9	✓
Empire 20%†	20	3	12	✓
Amco 16½% Sucrene†.....	16.5	3.5	12	✓
E. W. Bailey & Co., Montpelier, Vt.				
Bailey's Open Formula 20.....	20	4.5	9	✓
Favorite	20	4.5	7.5	✓
Our 20% Special.....	20	3.5	9	✓
Bailey's 16%	16	5	9	✓
Sweetened Bailey's 16%.....	16	5	9	✓

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.
 *The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g. cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by the state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other and possibly undesirable ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist "failed to find" appear on pages 26 to 42.

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 9)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
G. N. Bartemus Co., Concord, N. H.				
Barco 24% Sweet	24	5	9	✓
Special 20% Sweetened	20	4.5	10	✓
Concord 20% Sweetened†	20	3	9	
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon '20'	20	4.5	9	✓
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Green Mountain	23	5	10	✓
Bethel Mills, Bethel, Vt.				
Bethel Mills 24 Protein	24	5	9	✓
Bethel Mills 20 Protein	20	5	9	✓
Bethel Mills 20 Protein Sweetened Economy	20	4	11	✓
Bethel Mills 16 Protein Pasture	16	4.2	9.5	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell 20%	20	4	11	
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	✓
Unicorn 20%	20	4.5	10	✓
Community Feed Stores, Inc., Westminster, Vt.				
Community 20	20	4.5	8.5	✓
E. C. Crosby, Danby, Vt.				
Crosby's B Quality 20%†	20	4.5	9	
Danville Grain Co., Inc., Danville, Vt.				
Danville 20%	20	4	10	✓
Davis Feed Co., Inc., Rutland, Vt.				
Davis 20% Kow Feed	20	4.5	8.5	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 32% Supplement†	32	4.5	8	
Eastern States 30% Supplement†	30	5	8	
Eastern States Milkmore†	24	4.5	8	✓
Eastern States Fulpail†	20	4.5	8	✓
Eastern States Highland 20†	20	4	12	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Milk Grains	25	5	11	✓
Elmore Milk Grains Junior	20	5	10	✓
Emco Feed	20	4.5	10	✓
Granger 20%	20	4	11	
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose 24	24	4	11	✓
Eshelman Lancaster 20	20	4	11	✓
Eshelman Conestoga 20	20	4	11	✓
Eshelman Open Formula 20	20	4	9	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's 32%	32	4	9	✓
Grandin's Sweetened 12 Twin Six 12	22	5	12	✓
Grandin's Milk Maker	20	5	12	✓
M — S (Money Saver) 20% Sweet	20	4	12	✓
Grandin's Sweetened 20%	20	4	10	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Sweetened	24	5	10	✓
Ide's Special	20	4	10	
Royal Sweetened	20	4	10	✓
Sunshine	20	4	10	✓
W. B. Johnson & Son, Essex Junction, Vt.				
Johnson's Perfection No. 1	20	5	9	✓
Johnson's Economy	20	4	12	✓

† Open formula. ✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 9)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco 20% Milk Maker.....	20	4.5	11	✓
Kasco 18%	18	3	10	✓
Larrowe Milling Co., Detroit, Mich.				
Larro	20	4	12	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's 20%	20	4	10	✓
T. J. McGovern, Cambridge, Vt.				
McGovern's 24 Per Cent.....	24	4	8	
McGovern's 20 Per Cent Farm Relief.....	20	4	12	✓
McGovern's 20 Per Cent.....	20	4	8	✓
McGovern's 16 Per Cent.....	16	4	8	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
Sweetened Dollar\$Maker 24% Protein	24	3.5	12	
Sweetened Dollar\$Maker 20% Protein.....	20	3.5	12	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's 20% With Molasses	20	4.5	11	
Special A 20%	20	4	10	
E. G. & A. W. Norton, Vergennes, Vt.				
Kow Feed	20	4	10	
Park & Pollard Co., Buffalo, N. Y.				
Overall 24%	24	4.5	9	
Bet-R-Milk 20%	20	4	9	
Quaker Oats Co., Chicago, Ill.				
Quaker 24% Protein	24	4	12	✓
Quaker 20% Protein.....	20	3.25	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina 34% Cow Chow.....	34	3	12	✓
Protena 24% (Buffalo Mill).....	24	3	14	
Purina 24% Cow Chow.....	24	3	12	✓
Protena 20%	20	3	14	✓
Purina 20% Cow Chow.....	20	3	12	✓
Protena 16%	16	3	14	
Purina Bulky Cow Chow.....	16	3	12	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 32 Supplement.....	32	4	8	
Wirthmore 25 Balanced.....	25	5	9	✓
Wirthmore 25 Balanced Sweetened.....	25	4.75	8.5	✓
Hygrade 24 Sweetened Milk	24	3.5	9	✓
Champlain Valley Emergency 24	24	3.5	8.5	✓
Wirthmore 20	20	5	8.5	✓
Wirthmore 20 Sweetened.....	20	4.75	8	✓
Wirthmore with Beet Pulp Sweetened.....	20	4	11	✓
Hygrade 20 Sweetened Milk.....	20	4	8.5	✓
Utility	20	3.5	10.5	✓
Hygrade 20 Sweetened Milk	20	3.5	8.5	✓
Champlain Valley Emergency 20	20	3.5	8.5	✓
Wirthmore 16 Sweetened.....	16	4	8	✓
Hygrade 16 Sweetened Milk.....	16	3.5	8.5	✓
E. T. Seabury Grain Co., Waterbury, Vt.				
Our Own Make 20%	20	4	9	✓
Our Own Make 16%	16	4	9	✓
Chas. M. Seaver & Co., Williamstown, Vt.				
Honor Brand 24	24	4.5	9	✓
Vim—20	20	4	12	✓
Honor Brand	20	4	9	✓

✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 9)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
Skeels & Weidman, Swanton, Vt.				
Producer	20	4	7.5	✓
Estate of Henry A. Slayton, Morrisville, Vt.				
Economy Feed	20	3.75	8.5	✓
C. A. Smith, St. Johnsbury, Vt.				
Smith's	20	4	12	✓
C. H. Stearns & Son Co., Johnson, Vt.				
Stearnco All Grain 20% Milk	20	4	9	✓
J. D. Thompson Est., Lewiston, Vt.				
Special 20%	20	4	10	✓
J. G. Turnbull Co., Orleans, Vt.				
Turnbull's Special	20	3.5	12	✓
Ubiko Milling Co., Cincinnati, Ohio				
Union Grains Ubiko 32% Sweet.....	32	4	10	
Wayne County Grangers Feed Corp., Clyde, N. Y.				
"Galen 24%"	24	4	8.5	✓
"Clyde 20%"	20	4	8.5	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Super Pure Sweetfeed.....	24	4.5	10	✓
All Pure 20 Per Cent Milk.....	20	4.5	10	
Special 20 Per Cent.....	20	3	12	✓
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Amco 12% Fitting†.....	12	3	9	✓
June Pasture	10	.5	21	✓
Wayne Supreme Horse	9.5	3	8	✓
E. W. Bailey & Co., Montpelier, Vt.				
Sweetened Bailey's Fitting.....	14	4	9	✓
Pennant Horse	10.75	3.5	6.5	✓
Pennant Brand Stock	9.5	4	9.5	✓
Sweetened with Molasses Pennant Brand Stock	9.5	4	9.5	
Chapin & Co., Hammond, Ind.				
Chapin Rabbit Cookies.....	18	4.5	10	✓
Centaur Fitting	12	4	8	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Highland 12	12	3.5	11.5	✓
Eastern States Fitting	12	3.5	7	✓
Eastern States Horse and Calf	10.5	3.5	7	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose 85 Horse	9	3	10	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Sweetened Horse.....	9.5	3.5	11	✓
Grandin's Stock Food	8.5	4	12	✓
Hales & Hunter Co., Chicago, Ill.				
Victoria Rabbit	12	2	20	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Fitting	12	4	10	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B B Dealer's Mixing with Molasses	10	3.5	12	✓
B B Bull Brand Horse with Alfalfa and Molasses	8	2	10	✓

✓ See footnote p. 9.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 9)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.—concluded				
Park & Pollard Co., Buffalo, N. Y.				
Fitting	12	3.5	7	✓
Park & Pollard Horse.....	10	3.5	9	✓
Park & Pollard Stock.....	8.5	4	12	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Sugared Schumacher.....	10	3	12	✓
Quaker Green Cross Horse	10	2.5	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Rabbit Chow.....	16	3.5	8	✓
Purina Fitting Chow.....	13.5	2.6	12	✓
Purina Bulky Omolene Chow.....	10	3.2	11	✓
Purina Omolene Chow.....	10	3.2	9	✓
Purina Bulky Las Chow (Buffalo Mill)....	9	1.3	15	
Protena Sweet Roughage (Buffalo Mill)....	6	1	30	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting	14	4	7	✓
Wirthmore Rabbit	14	3.5	9	✓
Utility Pasture	14	3	13	✓
Hygrade Fitting	12	4.5	8	
Wirthmore Horse	9.8	3.25	9	✓
Wirthmore Stock	9	4	9.5	✓
Wirthmore Fodder Greens.....	9	1.25	19	✓
Ublko Milling Co., Cincinnati, Ohio				
Crusader Horse	9	3	10	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Fitting	10	4	7	✓
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS				
Allied Mills, Inc., Peoria, Ill.				
Wayne Calf	24	4	7	✓
Wayne Pig	18	3.5	7	✓
Emergency Hog	14	3	7	✓
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	24	5	6.75	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter.....	23	3.5	4	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore "Three Point" Calf.....	24	4	4	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Calf	21	3.5	4.5	✓
Larroe Milling Co., Detroit, Mich.				
Larroe Pork-Maker.....	25	5	10	✓
Larroe Calf	23	4	4	✓
Larroe Calf	23	4	3.5	✓
Park & Pollard Co., Buffalo, N. Y.				
Go Tu It Pig & Hog.....	15	3.5	8	
Quaker Oats Co., Chicago, Ill.				
Schumacher Calf	18	7.5	4	
Ralston Purina Co., St. Louis, Mo.				
Purina Pig and Hog Chow.....	31	3	10	✓
Purina Calf Chow.....	27	3.2	4.5	✓
Purina Hog Fatena Chow.....	14	3	7	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	4	✓
Wirthmore Pig and Hog.....	17	4	9	

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 9)
	Crude protein %	Crude fat %	Crude fiber %	
MEAT AND BONE SCRAPS				
Burlington Rendering Co., Burlington, Vt.				
Burlington	50	8	..	
Burlington	45	8	..	
Consolidated Rendering Co., Boston, Mass.				
Corenco 45%	45	6	..	
New England Rendering Co., Brighton, Mass.				
Brighton Special—Quality Brand	50	10	..	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Pigeon	13	2.5	5	✓
Wayne Scratch	10	2.5	4	✓
Wayne Intermediate Scratch	10	2.5	4	✓
Wayne Intermediate Scratch	10	2	4	✓
Wayne Special Scratch	9	2.5	4	✓
Red Feather Scratch	9	2.5	4	✓
Wayne Chick	9	2	4	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Scratch	10	3	6.5	✓
Pennant Brand Fine Chick	10	3	3	✓
Pennant Brand Coarse Chick	10	3	3	✓
G. N. Bartemus Co., Concord, N. H.				
Barco Scratch	10	3	6	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell Scratch	10	1.5	5	
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch Grains (With Whole Corn)†	10.5	2.5	4	✓
Eastern States Scratch Grains (With Coarse Cracked Corn)†	10	2.5	4	✓
Eastern States 31 Scratch Grains†	9.5	2.5	3	✓
Eastern States Intermediate Scratch Grains†	9.5	2	3	✓
Eastern States Chick Grains†	9.5	2	3	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Scratch	10	3.5	7	
Elmore Chick	10	3.5	3.5	
Elmore Intermediate Chick	10	3	3	
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Scratch Grains	10	2.5	4	✓
Eshelman Lancaster Scratch Grains	9	2.5	4	
Eshelman Pennsy Scratch Grains	9	2.5	4	✓
First National Stores, Inc., Somerville, Mass.				
Henfield Scratch Grains	10	2.5	5	
General Mills, Inc., Minneapolis, Minn.				
Eventually Gold Medal Scratch—No Grit....	10	3	4	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Screened Scratch	10	2.5	5	✓
Grandin's Intermediate Chick	10	2.5	5	✓
Grandin's Baby Chick	10	2.5	5	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg Scratch	10	2.5	5	✓
Hales & Hunter Co., Chicago, Ill.				
Red Comb Scratch	10	2.5	5	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Scratch Grains	9	2.5	4	✓

† Open formula. ✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 9)
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
Larrowe Milling Co., Detroit, Mich.				
Larro Scratch Grains.....	10	2	3.5	✓
Larro Chick Grains.....	10	2	3.5	✓
Larro Growing Grains.....	10	2	3.5	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Scratch	10	2.5	5	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B B Bull Brand Scratch	10	2.5	4	✓
B B Bull Brand Developing	10	2	5	✓
B-B Daisy Chick	10	2	4	✓
B-B Daisy Scratch.....	9	2.5	5	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Scratch	10	2	5	✓
Park & Pollard Co., Buffalo, N. Y.				
Red Ribbon Scratch.....	10	3	5	✓
Red Ribbon Chick	10	3	3.5	✓
Intermediate Chick	10	3	3.5	✓
Park & Pollard Chick	10	3	3	✓
Paramount Scratch	10	2.5	5	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Fine Chick	11	2.5	2	✓
Big Egg Scratch Grains, No Grit.....	10	3	4.25	✓
Quaker Ful-O-Pep Coarse Chick.....	10	2	2.5	✓
Early Bird Fine Chick, No Grit	10	2	2	✓
Quaker Ful-O-Pep Scratch Grains.....	9	2	3.5	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Hen Chow.....	10	2.5	4	✓
Purina Intermediate Hen Chow.....	10	2.5	4	✓
Purina Chick Chow.....	10	2	4	✓
Protena Scratch (Buffalo Mill).....	9.5	2	4	
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Squab and Pigeon	12	2.5	5	
Mornin' Call Poultry Grains.....	10	2.5	4	✓
Wirthmore Scratch	10	2.5	4	✓
Wirthmore Intermediate Scratch.....	10	2.5	3.5	✓
Wirthmore Baby Chick Scratch.....	10	2.5	3.5	✓
Skeels & Weidman, Swanton, Vt.				
Scratch	10	2	5	
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko Chick	9	2.5	5	✓
Ubiko Intermediate Scratch.....	9	2.5	5	✓
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne 26% Supplement	26	4	8	
Red Feather Egg.....	13	3.5	8	✓
Wayne Egg	18	3.5	7	✓
Wayne Egg with Cod-liver Oil and Sardine Oil	18	3.5	7	✓
Wayne All Mash Chick Starter	17	4	6	✓
Wayne All Mash Chick Starter with Cod Liver Oil and Sardine Oil	17	4	6	✓
Wayne Broiler	17	3.5	8	✓
Empire Egg	16.5	4	7	✓
Wayne All Mash Grower.....	16	4	6	✓

✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note (p. 9)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—continued				
Allied Mills, Inc., Peoria, Ill.				
Wayne All Mash Grower with Cod Liver Oil and Sardine Oil	16	4	6	
Wayne Starter and Grower	16	3.5	6	
Wayne Turkey	15	3.5	8	✓
Wayne Turkey with Cod Liver Oil and Sar- dine Oil	15	3.5	8	✓
Wayne Poultry Fattener	13.5	4	7	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Brand Laying	20	5	6	✓
Pennant Brand Laying with Cod Liver Oil and Cod Liver Meal	20	5	6	✓
Pennant Brand Chick Starter	17	5	5	✓
Pennant Brand Growing	15	5	5	✓
G. N. Bartemus Co., Concord, N. H.				
Barco Special	20	5	6	✓
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon Breeders with Buttermilk	20	4	7	✓
Beacon's Cayuga Laying with Buttermilk ...	20	4	7	✓
Beacon Complete Starting	17.5	4	6	✓
Beacon Growing	17	4	7	✓
Beacon Fleshing and Crate Fattener	15	4.5	5	
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell Dry with Cod Liver Oil	18	3	8.5	✓
Bidwell Dry	18	3	8	✓
Community Feed Stores, Inc., Westminster, Vt.				
Community Laying	20	4	8	✓
Community Chick	17	5	8	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Turkey-Start†	24	4.5	5	✓
Eastern States Developer†	18.5	4	6.5	✓
Eastern States Developer (With Oil)†	18.5	4	6.5	✓
Eastern States Starting and Broiler†	18.5	4	5	✓
Eastern States Starting and Broiler (With Oil)†	18.5	4	5	✓
Eastern States Producer†	17	4	6.5	✓
Eastern States Producer (with Oil)†	17	4	6.5	✓
Eastern States Egg†	17	4	6.5	✓
Eastern States Egg (With Oil)†	17	4	6.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Egg	18	4	8	✓
Elmore Eggmaker	17	4.5	8	✓
Elmore Growing	17	4	8	✓
Elmore Chixsaver	16.5	4	8	✓
Elmore Complete Starting and Growing ...	16	4	8	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Laying	20	5	7	✓
Eshelman Red Rose Laying with Cod Liver Oil	20	5	7	✓
Eshelman Red Rose Growing	16	4	7	✓
Eshelman Red Rose All Mash Starter	16	4	6.5	✓
Eshelman Red Rose Chick Starter	15	4	6	✓
First National Stores, Inc., Somerville, Mass.				
Henfield Egg	20	5	7	

† Open formula. ✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 9)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.— <i>continued</i>				
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Laying With Buttermilk—Cod Liver Oil	20	4	8	✓
Grandin's Complete Starting with Butter- milk—Cod Liver Oil	16	4	6	✓
Grandin's Growing with Buttermilk—Cod Liver Oil	15	4	8	✓
Grandin's Combined Chick and Broiler.....	15	4	6	✓
Grandin's Baby Chick Starter with Butter- milk—Cod Liver Oil	14	4	5	✓
Grandin's Poultry Green Food	10	1	25	✓
Great Atlantic & Pacific Tea Co., New York, N. Y.				
Daily Egg	20	4.5	7	✓
Daily Growth Growing	17.5	4	7	✓
Daily Growth Chick Starter	16	4	5	✓
Hales & Hunter Co., Chicago, Ill.				
Red Comb Egg with Dried Buttermilk.....	13	4	7	✓
Red Comb Chick Starter with Dried Butter- milk	15	4	5	
Jersee Co., Minneapolis, Minn.				
Just Right Egg	20	4	8	
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	✓
Kasco All Mash Chick Food	17	4	5.5	✓
Kasco All Mash Laying Food	15	4	6	✓
Apex Complete Growing	14	4	8.5	✓
Larroe Milling Co., Detroit, Mich.				
Larro Egg	19	5	7.5	✓
Larro Chick Starter.....	16.5	4.5	5	✓
Larro Growing	16	4.5	6.5	✓
Larro Broiler	15	4.5	7	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Egg.....	20	4	9	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B B Bull Brand Chick Starter Vitamized with Cod Liver Oil, Milk Sugar Feed, Dried Buttermilk	18	4	5	✓
B-B Daisy Egg with Dried Buttermilk.....	18	3.5	7	✓
B B Bull Brand All Mash Chick Starter Vitamized with Cod Liver Oil, Milk Sugar Feed, Dried Buttermilk	17	4	6	✓
Dollar\$Maker Egg	17	3.5	9	✓
B B Bull Brand Growing Vitamized with Cod Liver Oil, Milk Sugar Feed, Dried Buttermilk	16	4.5	7	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Laying with Dried Buttermilk and Cod Liver Oil.....	20	4	9	
Moon's Growing with Cod Liver Oil	17	4	7	
Moon's Baby Chick Starter	15	4	5	✓
Park & Pollard Co., Buffalo, N. Y.				
Lay or Bust Dry.....	13	3	7	✓
Lay or Bust Dry with Cod Liver Oil.....	13	3	7	✓
Park & Pollard Chick Starter.....	17	3.5	5	✓
Growing Feed	14	3	7	✓
Growing Feed with Cod Liver Oil	14	3	7	✓

✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 9)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—concluded.				
Pratt Food Co., Buffalo, N. Y.				
Pratts Cak-Cak Egg with Dried Buttermilk.	18	4	8	✓
Pratts All-Mash Chick Starter with Butter- milk	16	4	4	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Egg.....	20	4.5	8	✓
Quaker Ful-O-Pep Chick Starter.....	17	5	7	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Chick Startena Chow	19	4	7	✓
Purina Egg Chowder.....	19	3.5	8	✓
Purina Egg Chowder (With Cod Liver Oil).....	19	3.5	8	✓
Purina Breeder Egg Chowder.....	19	3.5	8	✓
Purina Broiler Chow.....	18	4	7	✓
Purina All Mash Startena Chow.....	18	4	7	✓
Purina Turkey Startena Chow.....	18	4	7	✓
Purina Chick Growena Chow.....	17	3.5	7	✓
Purina Chick Growena Chow (With Cod Liver Oil)	17	3.5	7	✓
Purina Turkey Growing and Fattening Chow (With Cod Liver Oil)	17	2.5	8	✓
Purina Lay Chow.....	17	2.5	8	✓
Purina Lay Chow (With Cod Liver Oil)....	17	2.5	8	✓
Purina Lay Chow (With Cod Liver Oil and Dried Buttermilk)	17	2.5	8	✓
Purina All Mash Egg Chowder.....	15.5	3.5	8	✓
Purina All Mash Growena Chow	15	3.5	7	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Turkey Breeder	20	4.5	7	✓
Wirthmore Laying	20	4	7	✓
Wirthmore Laying with Cod Liver Oil.....	20	4	7	✓
Wirthmore Turkey Growing Feed	18	4.5	6	✓
Wirthmore Baby Chick Starter	18	4	5	✓
Wirthmore All Purpose Chick and Broiler..	17.5	4	5.5	✓
Wirthmore Growing	15	4.6	6	
Wirthmore Growing with Cod Liver Oil....	15	4.5	6	
Wirthmore Fleshing and Fattening	15	4.5	6	✓
Wirthmore Complete for Layers.....	15	4	5	✓
Wirthmore Complete Growing.....	14	3.75	6	✓
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko Egg	20	4	6	✓
Ubiko All-Mash Starter.....	18	4	5	✓
Ubiko All-Mash Complete Laying.....	16	3.5	6	✓
Ubiko All-Mash Developer.....	14	4	5	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Egg.....	18	5	7	✓
Pure Feed Egg Maker.....	18	4.5	7	✓
Pure Feed Growing	18	4.5	5.5	✓
Pure Feed Starting	16	4.5	4.6	✓
DRIED SKIMMILKS				
C. E. Buell, Inc., Boston, Mass.				
Buell-Boston	31.1	0.2	..	
Dairymen's League Co-operative Assn., Inc., Utica, N. Y.				
Dairylea	33	0.75	..	
Dairylea	33	0.5	..	

✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
DRIED SKIMMILKS—concluded			
Keystone Dairy Co., New York, N. Y. Skimmilk Powder	32	0.75	..
Sheffield Farms Co., Inc., New York, N. Y. Sheffield Skimmilk Powder	32	0.5	..
Trout Brook Creamery Co., Concord, Vt. Trout Brook Skimmilk Powder	32	0.25	..
Ward Dry Milk Co., St. Paul, Minn. Ward's Pure	32	1	..

II. BRANDS FAILING TO MEET GUARANTIES

(In respect to one or more of the samples analyzed)¹

COTTONSEED MEALS

CAIRO MEAL & CAKE Co., Cairo, Ill. *Miss Cairo Brand 41% Protein Prime Quality*. 41/6/10. Nine samples, one below protein guaranty (41%). Stock of Community Feed Stores, Inc., Westminster, 39.86%. Four samples below protein guaranty but within tolerance limits. Average nine samples 41.06%.

HUMPHREYS-GODWIN Co., Memphis, Tenn. *Dixie Brand 41% Protein Prime*. 41/5/12. Twenty samples, one below protein guaranty (41%). Stock of St. Albans Grain Co., St. Albans, 39.64%. Two samples below protein guaranty but within tolerance limits. Average 20 samples 41.78%.

DISTILLERS' DRIED GRAINS

DEWEY BROS. Co., Blanchester, Ohio. *Eagle 3D (Dewey's Distillers' Dried)*. 30/10/13. One sample below protein guaranty (30%). Stock of E. W. Bailey & Co., Swanton, 28.48%. Below fat guaranty but within tolerance limits.

WHEAT BRANS

NIAGARA FALLS MILLING Co., Lockport, N. Y. *Niagara Choice*. 15.5/4/11. Two samples, one below protein guaranty (15.5%). Stock of Depot Cash Feed Store, Chester Depot, 13.81%. Average two samples 14.8%.

WHEAT MIDDINGS

VALLEY CITY MILLING Co., Grand Rapids, Mich. *Rowena*. 15.6/4.5/5. Two samples below protein guaranty (15.6%). Stocks of Park & Pollard Grain Store, Chester Depot, 14.47%; Berry & Jones, Montpelier, 14.03%. Average two samples 14.25%.

¹In cases where one or more samples of a given brand proved deficient in its or their protein contents at the same time that others were within the tolerance limits or up to or above guaranty, and where the average figure was within tolerance limits or up to or above guaranty, the brand in question is listed *both* in this table as "failing to meet guaranty" (because some one or more of the samples was deficient) and in the preceding table as "in all respects up to guaranty" (because on the basis of the average of the several analyses it was "up to guaranty"). A hypothetical case may be cited. Eighteen samples are analyzed and two are deficient. Hence the brand, because of these two, is listed here. But 16 of the 18 were as good as they were said to be, actually or essentially, and on the average the shortage was either almost infinitesimal or, indeed, actually nonexistent. Hence the brand is listed among those that passed muster. Every sample taken is analyzed for its protein content. All samples of a given brand are mixed, forming one analytical sample for the determination of its fat and fiber contents. Hence it is that no sample of a brand showing material shortage in fat or overage in fiber is listed as "up to guaranty."

WHEAT MIXED FEEDS

- MALTED CEREALS Co., Burlington, Vt. *Maltez Cereal Feed*. 12.5/4.5/8. Average of two samples below fat guaranty (4.5%). Found 3.98%. Also above fiber guaranty (8%). Found 9.36%.
- VALLEY CITY MILLING Co., Grand Rapids, Mich. *Rowena*. 15.4/4.4/9. One sample below protein guaranty (15.4%). Stock of Berry & Jones, Montpelier, 14.25%.

RED DOG FLOURS

- ATKINSON MILLING Co., Minneapolis, Minn. *Atkinson Watchword*. 16/3.5/4. One sample below fat guaranty (3.5%). Stock of E. T. & H. K. Ide, St. Johnsbury, 2.31%.
- GENERAL MILLS, INC., Minneapolis, Minn. *Washburn's Gold Medal Pure Hard Adrian*. 16/3.5/4. Twelve samples, one below protein guaranty (16%). Stock of A. D. Pease Grain Co., Burlington, 14.69%. One sample below protein guaranty but within tolerance limits. Average 12 samples 17.42%.

OAT, RYE AND CORN FEEDS

- J. A. FORREST, Minneapolis, Minn. *Alpine Ground Feeding Oatmeal*. 14/5/3.9. One sample below fat guaranty (5%). Stock of St. Albans Grain Co., St. Albans, 4.07%.
- QUAKER OATS Co., Chicago, Ill. *Vim Feed*. 5/2/30. Eleven samples, nine below protein guaranty (5%). Stocks of Brattleboro Grain Co., Brattleboro, 4.62%; C. A. Smith, Concord, 4.40%; Farmers Feed & Grain Co., St. Albans, 4.18%; C. A. Smith, St. Johnsbury, 3.96%; C. A. Benson, South Londonderry, 4.18%; For-All Grain Co., South Ryegate, 4.40%; Mt. Mansfield Cooperative Creamery & Grain Association, Inc., Stowe, 4.62%; E. W. Bailey & Co., Swanton, 4.40%; Community Feed Stores, Inc., Westminster, 4.40%. One sample below protein guaranty but within tolerance limits. Average 11 samples 4.48%. Also below fat guaranty (2%). Found 1.74%.
- QUAKER OATS Co., Chicago, Ill. *Sugared Vim Feed*. 5/1.25/27.5. Eight samples, six below protein guaranty (5%). Stocks of Bethel Mills, Bethel, 4.62%; Wirthmore Feed Store, Enosburg Falls, 4.62%; E. W. Bailey & Co., Montpelier, 4.40%; J. D. Thompson Estate, Norwich, 3.52%; E. G. & A. W. Norton, Vergennes, 4.62%; Community Feed Stores, Inc., Westminster, 4.62%. One sample below protein guaranty but within tolerance limits. Average eight samples 4.54%.

DAIRY FEEDS OR RATIONS

- E. W. BAILEY & Co., Montpelier, Vt. *Capital*. 24/5/9. Average of three samples below fat guaranty (5%). Found 4.65%.
- E. W. BAILEY & Co., Montpelier, Vt. *Sweetened Capital*. 24/5/9. Average of eight samples below fat guaranty (5%). Found 4.31%.
- E. W. BAILEY & Co., Montpelier, Vt. *Sweetened Favorite*. 20/4.5/7.5. Average 13 samples below fat guaranty (4.5%). Found 4.19%.
- BLACK ROCK MILLING CORP., Buffalo, N. Y. *Bidwell* 24%. 24/4/11. Average four samples below fat guaranty (4%). Found 3.69%.
- E. C. CROSBY, Danby, Vt. *Crosby's A Quality* 20%. 20/5/8. One sample below fat guaranty (5%). Stock of E. C. Crosby, Danby, 4.67%.
- DANVILLE GRAIN Co., Inc., Danville, Vt. *Danville* 24%. 24/5/9. Average two samples below fat guaranty (5%). Found 4.21%.
- ELMORE MILLING Co., Inc., Oneonta, N. Y. *Granger* 24%. 24/4/10. Four samples, one below protein guaranty (24%). Stock of Farmers Supply Store, Northfield, 22.57%. One sample below protein guaranty but within tolerance limits. Average four samples 24.16%. Also above fiber guaranty (10%). Found 10.69%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore's Sweet Digesto*. 16/4/12. Average two samples above fiber guaranty (12%). Found 13.01%.
- MARITIME MILLING Co., Inc., Buffalo, N. Y. *B B Bull Brand "24"* 24/4.5/11. One sample below fat guaranty (4.5%). Stock of B. L. Powell, North Pownal, 4.17%.

- MARITIME MILLING Co., Inc., Buffalo, N. Y. *Sweetened Dollar-Maker 24% Pro.* 24/3.5/12. Three samples, one below protein guaranty (24%). Stock of Thomas & White, Pittsford Mills, 22.78%. One sample below protein guaranty but within tolerance limits. Average three samples 24.02%.
- MARITIME MILLING Co., Inc., Buffalo, N. Y. *Real Value 20%*. 20/4/12. One sample below protein guaranty (20%). Stock of R. L. Miller, North Troy, 19.06%.
- GEO. Q. MOON & Co., Inc., Binghamton, N. Y. *Moon's 24%*. 24/5/10. Average three samples below fat guaranty (5%). Found 4.35%.
- PARK & POLLARD Co., Buffalo, N. Y. *Milk-Maid 24% Sweetened*. 24/4.5/11. Average five samples below fat guaranty (4.5%). Found 4.19%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore 32 Supplement*. 32/4/8. Four samples, one below protein guaranty (32%). Stock of St. Albans Grain Co., St. Albans, 30.88%. Average four samples 33.84%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore 25 Balanced Sweetened*. 25/4.75/8.5. Twelve samples, two below protein guaranty (25%). Stocks of W. B. Johnson & Son, Essex Junction, 23.44%; C. A. Smith, Newbury, 23.22%; S. E. Smith Estate, West Rutland, 23.22%. One sample below protein guaranty but within tolerance limits. Average 12 samples 25.78%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Hygrade 24 Sweetened Milk*. 24/3.5/9. Seven samples, three below protein guaranty (24%). Stocks of Caswell & O'Rourke, Derby Line, 23.22%; St. Albans Grain Co., St. Albans, 23.22%; S. E. Smith Estate, West Rutland, 23.22%. One sample below protein guaranty but within tolerance limits. Average seven samples 24.22%.
- J. G. TURNBULL Co., Orleans, Vt. *Creamery*. 20/5/10. One sample below fat guaranty (5%). Stock of J. G. Turnbull Co., Orleans, 4.29%.
- FRANK TYLER, Essex Junction, Vt. *Tyler's Ready Mixed 20%*. 20/4.5/9. One sample below protein guaranty (20%). Stock of Frank Tyler, Essex Junction, 18.41%.
- C. H. UTLEY, Hardwick, Vt. *Veri-Best Balanced*. 20/5/7.5. One sample above fiber guaranty (7.5%). Stock of C. H. Utley, Hardwick, 8.34%. Also below protein guaranty but within tolerance limits.
- RAY P. WEBSTER, Barton, Vt. *Ray's Ready*. 20/5/10. One sample below fat guaranty (5%). Stock of Ray P. Webster, Barton, 4.20%.

STOCK FEEDS

- BEACON MILLING Co., Inc., Cayuga, N. Y. *Be-Co-Lass*. 11/1/12. One sample above fiber guaranty (12%). Stock of H. K. Foster, South Royalton, 13.11%.
- HALES & HUNTER Co., Chicago, Ill. *Victoria Rabbit*. 14/3.5/10. One sample below fat guaranty (3.5). Stock of Enosburg Grain Co., Enosburg Falls, 3.04%.
- IMPERIAL GRAIN & MILLING Co., Toledo, Ohio. *Imperial Steam Cooked Feed*. 9.5/4/4.6. Average of two samples above fiber guaranty (4.6%). Found 5.29%.

CALF MEALS AND HOG FEEDS

- HALES & HUNTER Co., Chicago, Ill. *Red Horn Calf*. 18/4/5. One sample below protein guaranty (18%). Stock of Enosburg Grain Co., Enosburg Falls, 16.66%.
- PARK & POLLARD Co., Buffalo, N. Y. *Milkade Calf*. 20/7/6.5. Average of two samples below fat guaranty (7%). Found 6.25%.
- RYDE & Co., Chicago, Ill. *Ryde's Cream Quality Calf*. 18.5/4/4. Average of two samples below fat guaranty (4%). Found 3.65%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Calf*. 24/5.5/4. Seven samples, three below protein guaranty (24%). Stocks of Davis Feed Co., Rutland, 23%; St. Albans Grain Co., St. Albans, 22.57%; H. K. Foster, South Royalton, 23.44%. Average seven samples, 24.16%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Pig and Hog*. 17/4/9. Eleven samples, one below protein guaranty (17%). Stock of F. C. Brown, Barton, 14.69%. One sample below protein guaranty but within tolerance limits. Average 11 samples, 17.93%.

MEAT SCRAPS

- CONSOLIDATED RENDERING Co., Boston, Mass. *Corenco Bone Meal*. 20/3/—.
Average two samples below fat guaranty (3%). Found 2.50%.
- JOHN REARDON & SONS Co., Cambridge, Mass. *Register Brand*. 50/6/3. One
sample below protein guaranty (50%). Stock of E. T. & H. K. Ide, Brad-
ford, 48.64%.

SCRATCH FEEDS, CHICK FEEDS

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Emco*. 10/3.5/7. Average of four
samples below fat guaranty (3.5%). Found 3.01%.
- E. T. & H. K. IDE, St. Johnsbury, Vt. *Ideal Scratch*. 10/3/4. Average two
samples below fat guaranty (3%). Found 2.57%.
- GEO. Q. MOON & Co., INC., Binghamton, N. Y. *Moon's Baby Chick Grains*.
10/3/2.5. One sample below fat guaranty (3%). Stock of W. W. Brough-
ton, Poultney, 1.33%.
- WEST-NESBITT, INC., Oneonta, N. Y. *Pure Feed Chick Grains*. 11/4.5/3. One
sample below fat guaranty (4.5%). Stock of E. L. Thompson, Poultney,
2.99%.
- WEST-NESBITT, INC., Oneonta, N. Y. *Pure Feed Scratch Grain*. 10/3.5/5.
Average three samples below fat guaranty (3.5%). Found 3.15%.

MASHES, GROWING FEEDS, ETC.

- ALLIED MILLS, INC., Peoria, Ill. *Wayne Poultry Fattener*. 13.5/4/6. One
sample above fiber guaranty (6%). Stock of C. Favano, Windsor, 6.52%.
- HALES & HUNTER Co., Chicago, Ill. *Red Comb Growing with Dried Butter-
milk*. 15/4/6. Average two samples above fiber guaranty (6%). Found
6.95%.
- E. T. & H. K. IDE, St. Johnsbury, Vt. *Ideal Buttermilk Egg*. 24/5/6. Average
two samples above fiber guaranty (6%). Found 6.52%.
- QUAKER OATS Co., Chicago, Ill. *Quaker Fu-O-Pep Growing*. 19/5/6. Two
samples below protein guaranty (19%). Stocks of Frank Tyler, Essex
Junction, 17.31%; C. S. Brush & Son, Jericho, 18.19%. Average two
samples, 17.75%.
- QUAKER OATS Co., Chicago, Ill. *Quaker Fu-O-Pep Chick Starter*. 17/5/7.
Eleven samples, three below protein guaranty (17%). Stocks of C. S.
Brush & Son, Jericho, 16.44%; Stephenson & Tillotson, Sheldon, 16.44%;
E. G. & A. W. Norton, Vergennes, 16.22%. One sample below protein
guaranty but within tolerance limits. Average 11 samples 17.61%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Turkey Starting*. 24/4.5/7.
One sample below protein guaranty (24%). Stock of Crosby Milling
Co., Brattleboro, 21.47%.

III. GUARANTY MAINTENANCE

The feeding stuffs law requires maintenance of guaranties. Guaranty maintenance is important but not necessarily all important. A guaranty may be met but the goods may contain low grade ingredients. A high grade feeding stuff may be consistently below guaranty in some one respect but its digestible nutrient contents may be higher than that of some brand which has always maintained its guaranty. Even though the commercial value of a feed may be low, its digestible nutrient content may be high, in which case purchase may be advisable. Sometimes feeding stuffs contain viable weed seeds, which pass uninjured through the alimentary canal. Then the farm of the buyer—and perhaps those of his neighbors—may be seeded to noxious weeds.

Ten inspections of feeding stuffs have been made during the past five years. The following statement as to brands which have been found on sale throughout these years and which have frequently been found to be short of guaranty should prove interesting to those who have bought or who contemplate buying them.

Elmore Milk Grains (Sweetened) 24% Protein: Low in fat four times.

Elmore Scratch Feed: Low in fat six times.

Ide's Ideal Buttermilk Egg Mash: Low in protein five times.

Maritime Bull Brand "24" Dairy Ration: Low in fat four times.

E. G. & A. W. Norton's Kow Feed: High in fiber five times.

Quaker Oats Co.'s Vim Feed: Low in protein three times and in fat four times.

Chas. M. Seaver & Co.'s Honor Brand 24: Low in fat six times.

J. G. Turnbull Co.'s Creamery Dairy Ration: Low in fat eight times.

Ray P. Webster's Ray's Ready Ration: Low in fat five times.

These brands have quite consistently been found low of guaranty in respect to the ingredients indicated; yet seven of the nine are made solely of high grade materials. The protein and fat contents in Vim Feed have been decreasing of late years. Apparently the oat middlings and shorts are being more thoroughly removed from the oat hulls, which, of course, reduces the feeding value of the ultimate product.

Attention is called to the table on page 47 which displays the average analyses of many concentrates used in preparing proprietary feeds. This table shows the average percentages of protein, fat, fiber, carbohydrates and of total digestible nutrients. A small mixer or a farmer who mixes can thus calculate the analyses of his final product and to some extent its efficiency as a feeding stuff. The Station stands ready to test without charge samples of feeding stuffs sent it by residents of the State, if not in inordinate quantities and if carefully taken in accordance with directions.

The question is sometimes asked why the Station does not sample and test the proprietary stock and poultry remedies put up in small packages and cartons which are so commonly sold in feed stores. These are sometimes termed "feeds" but are really medicines or drugs rather than feeds and hence do not come within the scope of the Vermont law, although they are included within that of some state laws. Concerning their serviceability as a class, the Station has frequently gone on

record. *Flour and Feed*, the recognized organ of the feed trade, in its July 1933 issue quotes Dr. H. E. Moskey of the Federal Food and Drug Division of the United States Department of Agriculture, as saying:

"Farmers waste millions of dollars annually for nostrums worthless in the prevention or treatment of livestock diseases. Comparatively few peddlers are selling stock 'remedies' now, but farmers can find counterparts on billboards, in the press, and in radio broadcasts. The quack of old made tall claims for his goods, but today there are some manufacturers, catering to the worried farmer, who exceed these claims both in volume and in exaggeration. The farmer is led to believe that there are medicines available which will 'condition' his stock—prevent or cure such serious diseases as hog cholera, infectious abortion of cattle, fowl cholera, and blackhead of turkeys—keep his stock healthy and producing—increase the milk yield of cattle and the egg yield of hens—and do other things which drugs and medicines simply will not do."

One can not help but wonder how much Vermont farmers are spending for materials of this sort. When in doubt as to the well being of animals or birds, one should, according to circumstances, consult a good veterinarian, the County Agent, the Extension Service or the State Commissioner of Agriculture.

IV. INGREDIENT STATEMENTS

The following pages set forth the ingredient contents of all brands of compounded or proprietary feeds which were sampled and analyzed as declared upon the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturers. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on pages 30, 32, 34, 36-37, 42.

Only 13 of the 165 brands of dairy and stock feeds—eight percent of the total number collected—contained screenings. This is an improvement over last year and over conditions which have been existing for many years. Perhaps this is due to the fact that the farmer is demanding higher grade goods. It is to be hoped so; they are usually cheaper in the long run.

Fourteen percent of the 377 brands of proprietary feeds examined were not found to be "as certified" in respect to ingredient statements.

Either some one or more of the ingredients declared to be used by the manufacturer were not found to be present by the microscopist or else additional ingredients were found. Some of the ingredients "not detected," *e.g.*, calcium carbonate, salt, bone meal, potassium iodide, magnesium sulphate and bicarbonate of soda, if placed in the mixture, were used in very small quantities. Such materials are usually finely ground and are liable mechanically to separate in the bag, to pass to the outer portions or settle to the bottom in such fashion that when the standard method of sampling is used they are not always included in the sample. It may very well have been that in every case where they were not detected they were, as a matter of fact, actually put into the mixture by the makers. Some of them are among the cheaper ingredients and nothing is gained by omitting them. Failure to detect them means very little; it means only that the microscopist failed to find them in the samples submitted to him.

Some of the ingredients found in addition to those declared to be present on the tag or bag are quite as good as those which seem to have been omitted, if such is the case. In other words, the fact that they got into the feed does no harm. They consisted chiefly of dried brewers' grains, corn distillers' dried grains, corn meal, malt sprouts, bone meal and oat mill feed. Oat mill feed was found present in all samples of Park & Pollard Company's Overall 24% and Bet-R-Milk 20% Dairy Ration in addition to the ingredients stated to be present. This relatively low grade ingredient was found in rations guaranteed to contain only high grade materials, and their efficiencies were correspondingly reduced. However, guaranties were maintained, so no serious question can be raised.

In only six cases were weed seeds found in dairy and stock feeds as compared with 13 cases in the December, 1932, inspection. Germination tests were made on seeds taken from several samples collected last winter and in no instance did they grow. This would indicate that their power for ill was nil. However, the purchase of commercial feeding stuffs carrying weed seeds is not to be recommended.

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
United Mills, Inc.																								
Amco 32% Supplement†	32/4/9			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1
Amco 24%†	24/3.5/9			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 24%†	24/3/9			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	
Amco 20%†	20/3.5/9			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 20%†	20/3/12			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	
Amco 16½%											*	*	*	*	*	*	*	*	*	*	*	*	*	
Sucrene†	16.5/3.5/12			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1
J. W. Bailey & Co.																								
Capital	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Capital	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bailey's Open Formula																								
20%	20/4.5/9			*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	
Favorite	20/4.5/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Favorite	20/4.5/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Our 20% Special	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bailey's 16%	16/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Bailey's 16%	16/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
J. N. Bartemus Co.																								
Barco 24% Sweet	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Special 20% Sweetened	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Concord 20% Sweetened†	20/3/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Beacon Milling Co., Inc.																								
Beacon "20"	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 6
Berkshire Coal & Grain Co., Inc.																								
Green Mountain	23/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Bethel Mills																								
Bethel Mills 24 Protein	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein	20/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein																								
Sweetened Economy	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18
Bethel Mills 16 Protein																								
Pasture	16/4.2/9.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Black Rock Milling Corp.																								
Bidwell 24%	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 5
Bidwell 20%	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 5
Chapin & Co.																								
Unicorn 24%	24/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Unicorn 20%	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Community Feed Stores, Inc.																								
Community 20	20/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
J. C. Crosby																								
Crosby's A Quality 20%†	20/5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Crosby's B Quality 20%	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Danville Grain Co., Inc.																								
Danville 24%	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Danville 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Davis Feed Co., Inc.																								
Davis 20% Kow Feed	20/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11

†Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linsed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Eastern States Farmers' Exchange																								
Eastern States 32%																								
Supplement†	32/4.5/8			*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States 30%																								
Supplement†	30/5/8											*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Milk-																								
more†	24/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Fulpall†	20/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States High-																								
land 20†	20/4/12			*							*	*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Elmore Milling Co., Inc.																								
Elmore Milk Grains	25/5/11					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Granger 24%	24/4/10					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Elmore Milk Grains Jr.	20/5/10					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Emco Feed	20/4.5/10			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Granger 20%	20/4/11					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Elmore's Sweet Digesto	16/4/12					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
John W. Eshelman & Sons																								
Eshelman Red Rose 24	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9
Eshelman Lancaster 20	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9
Eshelman Conestoga 20	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Eshelman Open Formula																								
20	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
D. H. Grandin Milling Co.																								
Grandin's 32%	32/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Grandin's Sweetened																								
12 Twin Six 12	22/5/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
Grandin's Milk Maker	20/5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
M-S (Money Saver)																								
20% Sweet	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9
Grandin's Sweetened																								
20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
E. T. & H. K. Ide																								
Ideal Sweetened	24/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sunshine	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Royal Sweetened	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ide's Special	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
W. B. Johnson & Son																								
Johnson's Perfection No. 1	20/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Johnson's Economy	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Kasco Mills, Inc.																								
Kasco 20% Milk Maker	20/4.5/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Kasco 18%	18/3/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Larowe Milling Co.																								
Larro	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
R. H. McEwen Milling Co.																								
McEwen's 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
T. J. McGovern																								
McGovern's 24 Per Cent	24/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11

† Onen formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Horniny feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
St. Albans Grain Co.																								
Utility	20/3.5/10.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Hygrade 20 Sweetened Milk	20/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Champlain Valley Emergency 20	20/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 16 Sweetened Hygrade 16 Sweetened Milk	16/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
E. T. Seabury Grain Co.																								
Our Own Make 20%	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Our Own Make 16%	16/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
C. M. Seaver & Co.																								
Honor Brand 24	24/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Vim-20	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Honor Brand	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Skeels & Weidman Producer	20/4/7.5								*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
H. A. Slayton & Co. Economy	20/3.75/8.5			*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. A. Smith Smith's	20/4/12			*								*	*	*	*	*	*	*	*	*	*	*	*	
C. H. Stearns & Son Co. Stearnco All Grain 20% Milk	20/4/9			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
J. D. Thompson Est. Special 20%	20/4/10			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
J. G. Turnbull Co. Creamery	20/5/10								*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Turnbull's Special	20/3.5/12								*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 11
Frank Tyler Tyler's Ready Mixed 20%	20/4.5/9			*	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ubiko Milling Co. Union Grains Ubiko 32% Sweet	32/4/10			*	*						*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 6, 12, 15	
C. H. Utley Veri-Best Balanced	20/5/7.5			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne County Grangers Feed Corp. "Galen 24%"	24/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
"Clyde 20%"	20/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
R. P. Webster Ray's Ready	20/5/10						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
West-Nesbitt, Inc. Super Pure Sweetfeed All Pure 20 Per Cent Milk	24/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 13
Special 20 Per Cent	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

Additional ingredients: 1. Soy bean oil meal. 2. Barley. 3. Wheat. 4. Copper sulphate. 5. Malt sprouts. 6. Dicalcium phosphate. 7. Copra oil meal. 8. Phosphatic limestone. 9. Corn feed meal. 10. Oat middlings. 11. Rye feed. 12. Potassium iodide. 13. Dried yeast grains.

The dairy feeds, with few exceptions, were found to be "as certified."

In the following instances, the ingredients were "not detected":

E. C. Crosby, Crosby's A Quality: Bone meal and calcium carbonate.
 E. C. Crosby, Crosby's B Quality: Bone meal and calcium carbonate.
 E. T. & H. K. Ide, Ide's Special: Calcium carbonate.
 T. J. McGovern, McGovern's 24%: Bone meal.
 J. G. Turnbull Co., Creamery: Corn distillers' dried grains.
 Ubiko Milling Co., Union Grains Ubiko 32% Sweet: Potassium iodide.

In the following instances small quantities of ingredients named were found in addition to those certified:

G. N. Bartemus Co., Concord 20% Sweet: Corn distillers' dried grains.
 Black Rock Milling Corp., Bidwell 20%: Dried brewers' grains.
 Eastern States Farmers' Exchange, Eastern States 32% Supplement:
 Corn meal.
 Eastern States Farmers' Exchange, Eastern States 30% Supplement:
 Dried brewers' grains.
 Elmore Milling Co., Inc., Granger 20%: Oat mill feed, copra oil meal,
 whole weed seeds.
 Elmore Milling Co., Inc., Sweet Digesto: Few whole weed seeds.
 Maritime Milling Co., Inc., Sweetened Dollar\$Maker 24%: Few whole
 weed seeds.
 Geo. Q. Moon & Co., Inc., Moon's 24%: Few malt sprouts.
 Geo. Q. Moon & Co., Inc., Moon's 20% with Molasses: Corn meal.
 Geo. Q. Moon & Co., Inc., Special A 20%: Malt sprouts.
 E. G. & A. W. Norton, Kow Feed: Dried beet pulp.
 Park & Pollard Co., Overall 24%: Oat mill feed.
 Park & Pollard Co., Bet-R-Milk 20%: Oat mill feed.
 Ralston Purina Co., Protena 24% (Buffalo Mill): Few whole weed seeds.
 Ralston Purina Co., Protena 16%: Moderate number of whole weed
 seeds.
 St. Albans Grain Co., Wirthmore 32 Supplement: Corn meal.
 J. G. Turnbull Co., Creamery: Dried brewers' grains.

Thirty-seven ingredients were used in making the 122 brands of dairy feeds sampled. Bran, cottonseed meal, gluten meal or feed and salt appear in nine-tenths or over; calcium carbonate, linseed meal and molasses in eight-tenths; bone meal, corn meal and wheat middlings in six-tenths; hominy and ground oats in one-half; brewers' dried grains and soy bean meal in one-third; barley meal, distillers' dried grains and oat mill feed in one-fifth; and screenings in one-tenth of brands sampled. Ninety percent of brands carried minerals other than salt.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																	
Allied Mills, Inc.																			
Amco 12% Fitting†	12/3/9		*	*	*					*	*	*	*	*	*	*	*		9
June Pasture	10/0.5/21 *																		
Wayne Supreme Horse	9.5/3/8								*			*	*				*		
E. W. Bailey & Co.																			
Sweetened Bailey's Fitting	14/4/9		*	*					*	*	*	*	*	*	*	*	*		
Pennant Horse	10.75/3.5/6.5								*	*	*	*	*	*	*	*	*		
Pennant Brand Stock	9.5/4/9.5		*						*	*	*	*	*	*	*	*	*		
Sweetened with Molasses									*	*	*	*	*	*	*	*	*		
Pennant Brand Stock	9.5/4/9.5		*						*	*	*	*	*	*	*	*	*		
Beacon Milling Co.																			
Be-Co-Lass	11/1/12 *		*	*								*	*	*	*	*	*		3, 4
Chapin & Co.																			
Chapin Rabbit Cookies	18/4.5/10		*	*	*				*	*	*	*	*	*	*	*	*	*	4, 7, 14
Centaur Fitting	12/4/8						*		*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																			
Eastern States Highland																			
12†	12/3.5/11.5					*		*	*	*	*	*	*	*	*	*	*	*	2, 4, 9
Eastern States Fitting†	12/3.5/7					*		*	*	*	*	*	*	*	*	*	*	*	2, 9
Eastern States Horse and Calf†	10.5/3.5/7								*	*	*	*	*	*	*	*	*	*	2
John W. Eshelman & Sons																			
Eshelman Red Rose 85 Horse	9/3/10 *		*						*	*	*	*	*	*	*	*	*	*	
D. H. Grandin Milling Co.																			
Grandin's Sweetened Horse	9.5/3.5/11 *		*						*	*	*	*	*	*	*	*	*	*	
Grandin's Stock	8.5/4/12 *		*	*					*	*	*	*	*	*	*	*	*	*	5
Hales & Hunter Co.																			
Victoria Rabbit	14/3.5/10 *		*	*	*	*			*	*	*	*	*	*	*	*	*	*	1, 7, 8, 20, 21, 22
Victoria Rabbit	12/2/20 *		*	*	*	*			*	*	*	*	*	*	*	*	*	*	1, 8, 17
E. T. & H. K. Ide																			
Ideal Fitting	12/4/10 *		*	*					*	*	*	*	*	*	*	*	*	*	16
Imperial Grain & Milling Co.																			
Imperial Steam Cooked	9.5/4/4.6								*										
Maritime Milling Co., Inc.																			
B B Dealers' Mixing with Molasses	10/3.5/12					*					*	*	*	*	*	*	*	*	
Bull Brand B-B Horse with Alfalfa and Molasses	8/2/10 *								*	*	*	*	*	*	*	*	*	*	
Park & Pollard Co.,																			
Park & Pollard Fitting	12/3.5/7				*	*			*	*	*	*	*	*	*	*	*	*	6
Park & Pollard Horse	10/3.5/9				*	*			*	*	*	*	*	*	*	*	*	*	
Park & Pollard Stock	8.5/4/12		*	*	*				*	*	*	*	*	*	*	*	*	*	
Quaker Oats Co.																			
Quaker Sugared Schumacher	10/3/12		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Quaker Green Cross Horse	10/2.5/12 *		*	*			*	*	*	*	*	*	*	*	*	*	*	*	

†Open formula.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty																				
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog	
Ralston Purina Co.																					
Purina Rabbit Chow	16/3.5/8	*				*	*						*	*				*			9, 10, 19, 22, 23
Purina Fitting Chow	13.5/2.6/12	*							*	*	*	*					*				9, 10
Purina Bulky Omolene Chow	10/3.2/11								*		*	*					*				10
Purina Omolene Chow	10/3.2/9	*							*	*	*	*									10
Purina Bulky Las Chow (Buffalo Mill)	9/1.3/15	*									*						*	*			3, 10
Protena Sweet Roughage (Buffalo Mill)	6/1/30	*									*	*									10
St. Albans Grain Co.																					
Wirthmore 14 Fitting	14/4/7			*	*	*	*			*	*	*	*	*	*	*	*	*	*	*	6
Wirthmore Rabbit	14/3.5/9	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	7, 12, 13, 18
Utility Pasture	14/3/13			*	*	*	*			*	*	*	*	*	*	*	*	*	*	*	4, 7
Hygrade Fitting	12/4.5/8			*	*	*	*			*	*	*	*	*	*	*	*	*	*	*	9
Wirthmore Horse	9.8/3.25/9	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Stock	9/4/9.5	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Fodder Greens	9/1.25/19	*		*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	3, 15
Ubiko Milling Co.																					
Crusader Horse	9/3/10	*							*	*	*	*	*	*	*	*	*	*	*	*	
West-Nesbitt, Inc.																					
Fitting for Horses and Cattle	10/4/7					*				*	*	*	*	*	*	*	*	*	*	*	

Additional ingredients: 1. Ground wheat. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Charcoal. 9. Soy bean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skimmilk. 13. Cod-liver oil. 14. Corn oil meal. 15. Alfalfa stem meal. 16. Ground rye. 17. Potassium iodide. 18. Cracked wheat. 19. Corn germ meal. 20. Calcium phosphate. 21. Magnesium sulphate. 22. Calcium iodide. 23. Wheat germ.

The stock feeds, horse feeds, fitting feeds, and rabbit feeds were found to be "as certified" with a few minor exceptions.

In the following instance the ingredients were "not detected":

St. Albans Grain Co., Hygrade Fitting: Bone meal and calcium carbonate.

In the following instances small quantities of ingredients named were found in addition to those certified:

E. W. Bailey & Co., Sweetened with Molasses Pennant Brand Stock: Corn gluten meal.

Ralston Purina Co., Purina Bulky Las Chow (Buffalo Mill): Few whole weed seeds.

Forty ingredients were used in making 42 brands of stock feed, etc., sampled. Molasses appears in nine-tenths; oats and salt in eight-tenths; linseed meal in six-tenths; wheat bran in one-half; alfalfa meal, ground barley, cracked corn and corn meal in four-tenths; calcium carbonate and hominy in three-tenths; wheat middlings and bone meal in one-fifth brands sampled. Oat mill feed was used as an ingredient in 10 brands and screenings in two brands.

CALF MEALS, HOG FEEDS

Allied Mills, Inc., Wayne Calf Meal. 24/4/7. Dried skimmilk, cottonseed meal, corn gluten meal, cocoanut oil meal, wheat standard middlings, wheat second clear flour, soy bean meal, 2% ground limestone, 1% steamed bone meal, 1% salt, 0.06% iron oxide, 0.0007% potassium iodide, cane molasses, and wheat standard bran.

Allied Mills, Inc., Wayne Pig Meal. 18/3.5/7. Digester tankage, fish meal, peanut oil meal, cottonseed oil meal, soy bean oil meal, old process linseed oil meal, wheat flour middlings, corn meal, fine ground alfalfa meal, fine ground oat meal, cane molasses, 1% ground limestone, 0.5% steamed bone meal, 0.04% iron oxide, 0.5% salt, 0.0005% potassium iodide, and 0.0005% copper sulphate.

Allied Mills, Inc., Emergency Hog Feed. 14/3/7. Digester tankage, corn meal, wheat standard middlings, fine ground alfalfa meal, cane molasses, 1% ground limestone, 0.02% iron oxide, 0.5% steamed bone meal, 0.0005% potassium iodide, 0.0005% copper sulphate, 1% salt, and fine ground oats.

Blatchford Calf Meal Co., Blatchford's Calf Meal. 24/5/6.75. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, old process linseed oil meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate (bone meal), wheat flour, cocoanut oil meal, re-cleaned cottonseed meal, fenugreek, anise, and salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula). 23/3.5/4. Rolled oat groats, yellow corn meal, standard wheat bran, old process linseed oil meal, yellow cracked corn, soluble blood flour, dry skimmilk, dicalcium phosphate, and salt.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal. 24/4/4. Red dog wheat flour, corn meal or corn feed meal, oat meal, old process linseed oil meal, reground malted barley, blood meal, dried buttermilk, bone meal, and a little salt.

Hales & Hunter Co., Red Horn Calf Meal. 18/4/5. Corn flour, oat flour, wheat reddog flour, linseed oil meal, ground barley malt, alfalfa meal, dried buttermilk, dextrose and not over 3% mineral mixture (calcium carbonate, rock phosphate, salt, steamed bone meal, charcoal, magnesium sulphate, calcium iodide).

Kasco Mills, Inc., Kasco Calf Meal. 21/3.5/4.5. Wheat middlings, wheat reddog flour, linseed oil meal, soybean meal, corn meal, ground oatmeal, ground malted barley, dried skimmilk, milk sugar feed (dried whey), blood flour, bone meal, 1% salt, 1% calcite (wheat middlings may contain ground screenings not exceeding mill run).

Larrowe Milling Co., Larro Pork-Maker. 25/5/10. Meat scraps, dried beet pulp, old process linseed oil meal, standard wheat middlings (with ground grain screenings not exceeding mill run), alfalfa meal, wheat bran, corn germ meal, 3% ground limestone, 1% salt.

Larrowe Milling Co., Larro Calf Meal. 23/4/4. Oatmeal, standard wheat middlings (with ground grain screenings not exceeding mill run), yellow corn meal, O. P. linseed oil meal, blood flour, dried skimmilk, cod-liver oil vitamin extract, 0.5% ground limestone, 0.75% salt.

Larrowe Milling Co., Larro Calf Meal. 23/4/3.5. Oatmeal, wheat red dog, yellow corn meal, old process linseed oil meal, blood flour, dried skimmilk, bone meal, cod-liver oil vitamin extract, 0.75% salt.

Park & Pollard Co., Milkade Calf Meal. 20/7/6.5. Ground malt, old process linseed oil meal, wheat bran, wheat flour, cocoanut oil meal, bone meal 1%, rice polish, wheat middlings, sesame oil meal, blood flour 3%, and a small percentage of calcium carbonate, ground fenugreek, ground anise, and salt.

Park & Pollard Co., Go Tu It Pig & Hog Ration. 15/3.5/8. Alfalfa meal, hominy meal, ground barley, iodol fish meal, meat, bone, corn meal, corn germ meal, wheat middlings, fine ground grain screenings, calcium carbonate, and salt.

Quaker Oats Co., Schumacher Calf Meal. 18/7.5/4. Oatmeal, ground flaxseed, ground puffed wheat, linseed meal, dried skimmilk, boiled and sterilized blood flour, 0.50% bicarbonate of soda, 0.75% salt, 1% ground limestone, and 1% bone meal.

Ralston Purina Co., Purina Pig and Hog Chow. 31/3/10. Tankage (60% protein), soy bean oil meal, linseed meal, cottonseed meal, wheat middlings, alfalfa meal, molasses, 1% iodized salt.

Ralston Purina Co., Purina Calf Chow. 27/3.2/4.5. Blood flour, dried skimmilk, linseed flour, bolted corn meal, wheat flour (second clear), corn gluten meal, 0.5% iodized salt, 1.5% calcium carbonate (limestone).

Ralston Purina Co., Purina Hog Fatena Chow. 14/3/7. Tankage (60% protein), linseed meal, corn germ meal, alfalfa leaf meal, grey wheat middlings, hominy meal, molasses, alfalfa meal, 2% iodized salt, and 1% charcoal.

Ryde & Co., Ryde's Cream Quality Calf Meal. 18.5/4/4. Blood meal, dried skimmilk, locust bean meal, barley malt flour, crude milk albumen, linseed oil meal, cocoanut oil meal, ground oat groats, corn meal, ground flaxseed, wheat flour, wheat flour middlings, fenugreek, anise, steamed bone meal, calcium carbonate, and salt.

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skimmilk, fine ground oatmeal, ground whole flaxseed, blood flour, old process linseed meal, wheat reddog flour, yellow corn meal, edible bone meal, iodized salt, ground anise, and ground fenugreek.

St. Albans Grain Co., Wirthmore Pig and Hog—A Growing and Fattening Feed. 17/4/9. Beef scraps, fish meal, edible bone meal, wheat red dog flour, wheat middlings, wheat bran, linseed meal, alfalfa meal, yellow corn meal, ground barley, corn gluten feed, calcium carbonate, pure cane molasses, and dairy salt.

The calf and hog meals were found to be "as certified" with but a single minor exception.

In the following instances the ingredient named was "not detected":

Hales & Hunter Co., Red Horn Calf: Magnesium sulphate.

Quaker Oats Co., Schumacher Calf: Bicarbonate of soda.

In the following instances small quantities of ingredients named were found in addition to those certified:

Park & Pollard Co., Milkade Calf: Hominy feed.

Park & Pollard Co., Go Tu It Pig and Hog: Corn gluten meal and ground oats.

St. Albans Grain Co., Wirthmore Pig and Hog: Ground oats.

There were 46 ingredients used in the 13 brands of calf meals sampled. Salt appears in all; linseed meal in 12; blood flour in 11; wheat reddog in 10; corn meal and dried skimmilk in nine; calcium carbonate in eight; oatmeal in seven; and wheat middlings in five.

There were 28 ingredients used in the seven brands of pig and hog feeds sampled. Alfalfa meal, wheat middlings and salt appeared in all; calcium carbonate, linseed meal and molasses in five; bone meal, corn meal and tankage in four; and fine ground grain screenings in one.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE
OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty			Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
	Protein	Fat	Fiber											
R. H. McEwen Milling Co.														
McEwen's Red Feather Scratch	10/2.5/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Maritime Milling Co., Inc.														
Bull Brand B-B Scratch	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
B B Bull Brand Developing	10/2/5	•	•	•	•	•	•	•	•	•	•	•	•	•
B-B Daisy Chick	10/2/4	•	•	•	•	•	•	•	•	•	•	•	•	•
B-B Daisy Scratch	9/2.5/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Geo. Q. Moon & Co., Inc.														
Moon's Baby Chick	10/3/2.5	•	•	•	•	•	•	•	•	•	•	•	•	•
Moon's Scratch	10/2/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Park & Pollard Co.														
Red Ribbon Scratch	10/3/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Intermediate Chick	10/3/3.5	•	•	•	•	•	•	•	•	•	•	•	•	•
Red Ribbon Chick	10/3/3.5	•	•	•	•	•	•	•	•	•	•	•	•	•
Park & Pollard Chick Scratch	10/3/3	•	•	•	•	•	•	•	•	•	•	•	•	•
Paramount Scratch	10/2.5/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Quaker Oats Co.														
Quaker Ful-O-Pep Fine Chick	11/2.5/2	•	•	•	•	•	•	•	•	•	•	•	•	•
Big Egg Scratch, No Grit	10/3/4.25	•	•	•	•	•	•	•	•	•	•	•	•	•
Quaker Ful-O-Pep Coarse Chick	10/2/2.5	•	•	•	•	•	•	•	•	•	•	•	•	•
Early Bird Fine Chick—No Grit	10/2/2	•	•	•	•	•	•	•	•	•	•	•	•	•
Quaker Ful-O-Pep Scratch	9/2/3.5	•	•	•	•	•	•	•	•	•	•	•	•	•
Ralston Purina Co.														
Purina Hen Chow	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Purina Intermediate Hen Chow	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Purina Chick Chow	10/2/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Protens Scratch (Buffalo Mill)	9.5/2/4	•	•	•	•	•	•	•	•	•	•	•	•	•
St. Albans Grain Co.														
Wirthmore Squab & Pigeon	12/2.5/5	•	•	•	•	•	•	•	•	•	•	•	•	3
Wirthmore Scratch	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Mornin' Call Poultry	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Wirthmore Intermediate Scratch	10/2.5/3.5	•	•	•	•	•	•	•	•	•	•	•	•	•
Wirthmore Baby Chick Scratch	10/2.5/3.5	•	•	•	•	•	•	•	•	•	•	•	•	•
Skeels & Weidman														
Scratch	10/2/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Ubiko Milling Co.														
Ubiko Intermediate Scratch	9/2.5/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Ubiko Chick	9/2.5/5	•	•	•	•	•	•	•	•	•	•	•	•	•
West-Nesbitt, Inc.														
Pure Feed Chick	11/4.5/3	•	•	•	•	•	•	•	•	•	•	•	•	•
Pure Feed Scratch	10/3.5/5	•	•	•	•	•	•	•	•	•	•	•	•	•

Additional ingredients: 1. Whole corn. 2. Hemp. 3. Vetches. 4. Rice.

- The scratch feeds, etc., were found to be "as certified" with few exceptions.
- In the following instances the ingredients named were "not detected".
 - Black Rock Milling Corp., Bidwell Scratch: Sunflower.
 - Elmore Milling Co., Inc., Elmore Chick: Cracked peas.
 - Elmore Milling Co., Inc., Elmore Intermediate Chick: Cracked peas.
 - Quaker Oats Co., Ful-O-Pep Scratch: Barley.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Elmore Milling Co., Inc., Elmore Scratch: Sunflower and few whole weed seeds.

Elmore Milling Co., Inc., Elmore Intermediate Chick: Buckwheat.

John W. Eshelman & Sons, Eshelman Lancaster Scratch: Few Oats.

First National Stores, Inc., Henfield Scratch: Few oats.

Ralston Purina Co., Protena Scratch (Buffalo Mill): Few oats.

St. Albans Grain Co., Wirthmore Squab and Pigeon: Few whole oats.

Skeels & Weidman, Scratch: Sunflower and few whole weed seeds.

Fourteen ingredients were used in making the 67 brands of scratch grains, etc., sampled. Corn and wheat were used in all brands; buckwheat and oats in six-tenths; barley, kafir corn and milo maize in one-half; and sunflower in about one-quarter.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																			
Allied Mills, Inc.																					
Wayne 26% Mash Supplement	26/4/8 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3
Red Feather Egg	18/3.5/8 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		2, 3
Wayne Egg	18/3.5/7 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3
Wayne Eggs||‡	18/3.5/7 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3, 4, 26
Wayne All Mash Chick Starter	17/4/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3
Wayne All Mash Chick Starter‡||	17/4/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3, 4, 26
Wayne Broiler	17/3.5/8 *			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3, 4
Empire Egg	16.5/4/7 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 26
Wayne All Mash Grower	16/4/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3
Wayne All Mash Grower||‡	16/4/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3, 4, 26
Wayne Starter and Grower	16/3.5/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3
Wayne Turkey‡||	15/3.5/8 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3, 4, 5, 26
Wayne Turkey	15/3.5/8 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 3, 5
Wayne Poultry Fattener	13.5/4/7 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		6
Wayne Poultry Fattener	13.5/4/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		6, 7
E. W. Bailey & Co.																					
Pennant Brand Laying	20/5/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1
Pennant Brand Laying‡§	20/5/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 20
Pennant Brand Chick Starter	17/5/5 *		*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 5, 20
Pennant Brand Growing Feed	15/5/5 *		*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 5, 20
J. N. Bartemus Co.																					
Barco Special	20/5/6 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1
Beacon Milling Co., Inc.																					
Beacon Breeder*	20/4/7 **				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 16, 23
Beacon's Cayuga Laying*	20/4/7 **				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 16
Beacon Complete Starting	17.5/4/6 **				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 16
Beacon Growing	17/4/7 **				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 16
Beacon Fleshing and Crate Fattener	15/4.5/5 *			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 10, 16, 21
Black Rock Milling Corp.																					
Bidwell Dry-Mash‡	18/3/8.5 *		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		2, 4, 17
Bidwell Dry-Mash	18/3/8 *		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		2, 17
Community Feed Stores, Inc.																					
Community Laying	20/4/8 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 20
Community Chick	17/5/8 *		*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 20
Eastern States Farmers' Exchange																					
Eastern States Turkey Starter‡	24/4.5/5 *				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 11, 24, 26

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Eastern States De-veloper†	18.5/4/6.5	*	*						*	*				*	*	*	*	*	*	*		1, 2, 11, 24
Eastern States Developer†¶	18.5/4/6.5	*	*						*	*				*	*	*	*	*	*	*		1, 2, 11, 24, 26
Eastern States Starting and Broiler†¶	18.5/4/5	*							*	*				*	*	*	*	*	*	*		1, 11, 24, 26
Eastern States Starting and Broiler†	18.5/4/5	*							*	*				*	*	*	*	*	*	*		1, 11, 24
Eastern States Egg¶	17/4/6.5	*							*	*				*	*	*	*	*	*	*		11, 24, 26
Eastern States Producer†	17/4/6.5	*							*	*				*	*	*	*	*	*	*		1, 11, 24
Eastern States Producer†¶	17/4/6.5	*							*	*				*	*	*	*	*	*	*		1, 11, 24, 26
Eastern States Egg†	17/4/6.5	*							*	*				*	*	*	*	*	*	*		11, 24
Elmore Milling Co., Inc.																						
Elmore Egg	18/4/8	*						*	*	*			*	*	*	*	*	*	*	*		4, 21
Elmore Eggmaker	17/4.5/8	*			*			*	*	*			*	*	*	*	*	*	*	*		4, 21
Elmore Growing	17/4/8	*			*			*	*	*			*	*	*	*	*	*	*	*		4, 21
Elmore Chixsaver	16.5/4/8	*			*			*	*	*			*	*	*	*	*	*	*	*		1, 4
Elmore Complete Starting and Growing	16/4/8	*			*			*	*	*			*	*	*	*	*	*	*	*		1, 4
John W. Eshelman & Sons																						
Eshelman Red Rose Laying	20/5/7	*			*			*	*	*			*	*	*	*	*	*	*	*		4
Eshelman Red Rose Laying†	20/5/7	*			*			*	*	*			*	*	*	*	*	*	*	*		4
Eshelman Red Rose Growing	16/4/7	*			*			*	*	*			*	*	*	*	*	*	*	*		
Eshelman Red Rose All All Mash Starter	16/4/6.5	*			*			*	*	*			*	*	*	*	*	*	*	*		4
Eshelman Red Rose Chick Starter	15/4/6	*			*			*	*	*			*	*	*	*	*	*	*	*		4
First National Stores, Inc.																						
Henfield Egg	20/5/7	*			*			*	*	*			*	*	*	*	*	*	*	*		4
D. H. Grandin Milling Co.																						
Grandin's Laying*†	20/4/8	*			*			*	*	*			*	*	*	*	*	*	*	*		4
Grandin's Complete Start-ing*†	16/4/6	*			*			*	*	*			*	*	*	*	*	*	*	*		4
Grandin's Growing*†	15/4/8	*			*			*	*	*			*	*	*	*	*	*	*	*		4
Grandin's Combined Chick and Broiler	15/4/6	*			*			*	*	*			*	*	*	*	*	*	*	*		4
Grandin's Baby Chick Starter*†	14/4/5	*			*			*	*	*			*	*	*	*	*	*	*	*		4
Grandin's Poultry Green Food	10/1/25	*																				9, 15
Great Atlantic & Pacific Tea Co.																						
Daily Egg	20/4.5/7	*			*			*	*	*			*	*	*	*	*	*	*	*		1, 2, 3, 4, 20
Daily Growth Growing	17.5/4/7	*			*			*	*	*			*	*	*	*	*	*	*	*		1, 4
Daily Growth Chick Starter	16/4/5	*			*			*	*	*			*	*	*	*	*	*	*	*		1, 4
Hales & Hunter Co.																						
Red Comb Egg*	18/4/7	*			*			*	*	*			*	*	*	*	*	*	*	*		2, 13
Red Comb Growing*	15/4/6	*			*			*	*	*			*	*	*	*	*	*	*	*		2, 13
Red Comb Chick Starter*	15/4/5	*			*			*	*	*			*	*	*	*	*	*	*	*		2, 13

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty																						
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Eckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed		Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
E. T. & H. K. Ide																							
Ideal Buttermilk Egg	24/5/6	*					*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*
Iersee Co.																							
Just Right Egg	20/4/8	*				*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 16, 27, 28, 29 30, 31
Kasco Mills, Inc.																							
Apex Laying	20/4/8.5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Kasco All Mash Chick Food	17/4/5.5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 12
Kasco All Mash Laying	15/4/6	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Apex Complete Growing	14/4/8.5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Larrowe Milling Co.																							
Larro Egg	19/5/7.5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Larro Chick Starter	16.5/4.5/5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Larro Growing	16/4.5/6.5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Larro Broiler	15/4.5/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
R. H. McEwen Milling Co.																							
McEwen's Red Feather Egg	20/4/9	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
Maritime Milling Co., Inc.																							
B B Bull Brand Chick																							
Starter Vitamized †*	18/4/5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12
B-B Daisy Egg*	18/3.5/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
B B Bull Brand All Mash																							
Chick Starter Vitamized †*	17/4/6	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12
Dollar\$Maker Egg	17/3.5/9	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
B B Bull Brand Growing																							
Vitamized †*	16/4.5/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12
Geo. Q. Moon & Co., Inc.																							
Moon's Laying Mash †‡	20/4/9	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 16
Moon's Growing †	17/4/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 16
Moon's Baby Chick Starter	15/4/5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 16
Park & Pollard Co.																							
Lay or Bust Dry-Mash	18/3/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Lay or Bust Dry-Mash †	18/3/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17
Park & Pollard Chick																							
Starter	17/3.5/5	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 18
Growing	14/3/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 18
Growing †	14/3/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Pratt Food Co.																							
Pratts Cak-Cak Egg*	18/4/8	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14, 16
Pratts All Mash Chick																							
Starter*	16/4/4	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 14, 16
Quaker Oats Co.																							
Quaker Ful-O-Pep Egg	20/4.5/8	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Quaker Ful-O-Pep Growing	19/5/6	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Quaker Ful-O-Pep Chick																							
Starter	17/5/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 9, 20
Ralston Purina Co.																							
Purina Chick Startena																							
Chow	19/4/7	*			*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 14, 22, 25

* With buttermilk. † With cod-liver oil. ‡ With milk sugar feed (dried whey).

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
	Protein	Fat	Fiber																				
alston Purina Co.																							
Purina Egg Chowder	19/3.5/8	*							*	*					*	*			*	*		2, 6, 14	
Purina Egg Chowder†	19/3.5/8	*							*	*					*	*			*	*		2, 4, 6, 14	
Purina Breeder Egg Chowder	19/3.5/8	*						*	*	*					*	*			*	*		2, 4, 6, 14	
Purina All Mash Startena Chow	18/4/7	*						*	*	*	*			*	*				*	*		4, 6, 14 22, 25	
Purina Broiler Chow	18/4/7	*						*	*	*	*			*	*				*	*		4, 14	
Purina Turkey Startena Chow	18/4/7	*						*	*	*	*			*	*				*	*		4, 6, 14, 22, 25	
Purina Chick Growena Chow	17/3.5/7	*						*	*	*	*			*	*				*	*		2, 6, 14, 22	
Purina Chick Growena Chow†	17/3.5/7	*						*	*	*	*			*	*				*	*		2, 4, 6, 14, 22	
Purina Lay Chow	17/2.5/8	*						*	*					*	*				*	*		2, 9, 14	
Purina Lay Chow†	17/2.5/8	*						*	*					*	*				*	*		2, 4, 9, 14	
Purina Lay Chow*†	17/2.5/8	*						*	*	*				*	*				*	*		2, 4, 9, 14	
Purina Turkey Growing and Fattening Chow†	17/2.5/8	*						*	*					*	*				*	*		2, 4, 9, 14	
Purina All Mash Egg Chowder	15.5/3.5/8	*						*	*	*				*	*				*	*		2, 4, 14	
Purina All Mash Growena Chow	15/3.5/7	*						*	*	*	*			*	*				*	*		2, 4, 14, 22	
t. Albans Grain Co.																							
Wirthmore Turkey Starting	24/4.5/7	*						*	*	*	*			*	*	*	*	*	*	*		1, 2, 4	
Wirthmore Turkey Breeder	20/4.5/7	*						*	*	*	*			*	*	*	*	*	*	*		1, 4	
Wirthmore Laying	20/4/7	*						*	*	*	*			*	*	*	*	*	*	*		1, 8	
Wirthmore Laying†	20/4/7	*						*	*	*	*			*	*	*	*	*	*	*		1, 4, 8	
Wirthmore Turkey Growing	18/4.5/6	*	*	*				*	*	*	*			*	*	*	*	*	*	*		1, 4, 6	
Wirthmore Baby Chick Starter	18/4/5	*						*	*	*	*			*	*	*	*	*	*	*		1, 4, 6, 20	
Wirthmore All Purpose Chick and Broiler	17.5/4/5.5	*						*	*	*	*			*	*	*	*	*	*	*		1, 4, 20	
Wirthmore Growing	15/4.5/6	*						*	*	*	*			*	*	*	*	*	*	*		1, 8	
Wirthmore Growing†	15/4.5/6	*						*	*	*	*			*	*	*	*	*	*	*		1, 4, 8	
Wirthmore Fleshing and Fattening	15/4.5/6	*						*	*	*	*			*	*	*	*	*	*	*		1, 4	
Wirthmore Complete for Layers	15/4/5	*						*	*	*	*			*	*	*	*	*	*	*		1, 4	
Wirthmore Complete Growing	14/3.75/6	*						*	*	*	*			*	*	*	*	*	*	*		1, 4	
Ubiko Milling Co.																							
Ubiko Egg	20/4/6	*						*	*	*	*			*	*	*	*	*	*	*		3, 4, 11, 12, 19	
Ubiko All-Mash Starter	18/4/5	*						*	*	*	*			*	*	*	*	*	*	*		3, 4, 5, 11, 12, 19	

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—concluded

Mashes, etc.	Guaranty											3, 4, 11, 19										
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal		Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
Ubiko Milling Co.																						
Ubiko All-Mash Complete Laying	16/3.5/6 *																					
Ubiko All-Mash Developer	14/4/5 *																					
West-Nesbitt, Inc.																						
Pure Feed Egg	18/5/7 *																					
Pure Feed Egg Maker	18/4.5/7																					
Pure Feed Growing	18/4.5/5.5 *																					
Pure Feed Starting	16/4.5/4.6 *																					

Additional ingredients: 1. Dried skimmilk. 2. Soy bean meal. 3. Iron oxide and potassium iodide. 4. Cod-liver oil. 5. Charcoal. 6. Corn germ meal. 7. Cocoanut oil meal. 8. Milo meal. 9. Molasses. 10. Corn oil meal. 11. Dicalcium phosphate. 12. Milk sugar feed (dried whey). 13. Charcoal, iron sulphate, sulphur. 14. Iodized salt. 15. Dried beet pulp. 16. Calcium phosphate. 17. Kaffir corn. 18. Rice. 19. Copper sulphate. 20. Cod-liver meal. 21. Low-grade wheat flour. 22. Wheat germ. 23. Protozyme (an enzyme). 24. Oyster shell meal. 25. Oat middling. 26. Sardine oil. 27. St. John's bread. 28. Starch. 29. Anise. 30. Dried blood. 31. Iron oxide.

The mashes and other fine poultry feeds were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected."

Allied Mills, Inc., Wayne Starter and Grower: Potassium iodide.

First National Stores, Inc., Henfield Egg: Bone meal.

Hales & Hunter Co., Red Comb Growing with Dried Buttermilk: Ferrous sulphate.

Hales & Hunter Co., Red Comb Chick Starter with Dried Buttermilk: Ferrous sulphate.

Jersee Co., Just Right Egg: Charcoal.

In the following instances a small quantity of ingredients named were found in addition to those certified.

Allied Mills, Inc., Wayne 26% Mash Supplement: Bone meal.

Allied Mills, Inc., Wayne All Mash Grower with Cod Liver Oil and Sardine Oil: Small amount of corn gluten meal.

Beacon Milling Co., Inc., Beacon Fleshing and Crate Fattener: Few meat scraps.

Geo. Q. Moon & Co., Inc., Moon's Laying with Dried Buttermilk and Cod Liver Oil: Corn gluten meal.

Geo. Q. Moon & Co., Inc., Moon's Growing with Cod Liver Oil: Ground wheat.

St. Albans Grain Co., Wirthmore Turkey Starting: Bone meal.

St. Albans Grain Co., Wirthmore Growing: Bone meal.

St. Albans Grain Co., Wirthmore Growing with Cod Liver Oil: Bone meal.

Fifty ingredients were used in making the 125 brands of mashes, etc., sampled. Alfalfa meal, corn meal, meat, salt, wheat bran and wheat middlings appear in nine-tenths or more; calcium carbonate, oats and either dried buttermilk or skimmilk in eight-tenths; dried buttermilk in seven-tenths; skimmilk, fish meal and either cod-liver oil, sardine oil or cod-liver meal in six-tenths; bone meal and linseed meal in four-tenths; and ground barley, gluten meal or feed and soy-bean meal in three-tenths.

V. DEFICIENCIES, 1923-1933

The following tables set forth the proportions of the total number of brands found deficient in recent inspections and the detailed results.

Spring 1923.....	22%	Winter 1923-24.....	11%
Spring 1924.....	16%	Winter 1924-25.....	10%
Spring 1925.....	15%	Winter 1925-26.....	13%
Spring 1926.....	13%	Winter 1926-27.....	10%
Spring 1927.....	8%	Winter 1927-28.....	9%
Spring 1928.....	18%	Winter 1928-29.....	9%
Spring 1929.....	7%	Winter 1929-30.....	6%
Spring 1930.....	9%	Winter 1930-31.....	7%
Spring 1931.....	8%	Winter 1931-32.....	4%
Spring 1932.....	3%	Winter 1932-33.....	5%
Spring 1933.....	8%		

It is interesting to note how much better as the years have passed manufacturers have maintained their guaranties. Time was when cottonseed meals were commonly lacking; they are less so nowadays.

The protein contents of only two percent of all samples analyzed in this inspection were low of manufacturers' promises—a most satisfactory outcome. The fat figures were a little less well maintained; yet here the shortages occurred in only four percent of the brands. Particular attention should be called to the seven brands listed on page 23, which have been found to be somewhat consistently low in fat during the past five years. Their manufacturers should remedy this condition by readjusting their formulas or revising their guaranties.

VI. APRIL, 1933, INSPECTION

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	81	79	2	16	16	..	..	..	..	..	..	..
Soy bean meals	13	13	..	3	3	..	..	..	..	..	..	..
Linseed meals	44	44	..	10	10	..	..	..	..	..	..	..
Gluten meals and feeds	79	79	..	16	16	..	..	..	..	..	..	..
Distillers' and brewers' dried grains	9	8	1	4	3	1	1	..	..	..	..	..
Wheat offals	314	309	5	90	85	5	3	1	..	..	..	1
Brans	115	114	1	37	36	1	1	..	..	..	..	..
Middlings	82	80	2	26	25	1	1	..	..	..	..	..
Mixed feeds	75	74	1	19	17	2	1	..	..	..	..	1
Reddog flours	42	41	1	8	7	1	..	1	..	..	..	..
Alfalfa meals	7	7	..	5	5	..	..	..	..	..	..	..
Dried beet pulps	29	29	..	2	2	..	..	..	..	..	..	..
Hominy feeds	18	18	..	9	9	..	..	..	..	..	..	..
Corn, oat and rye feeds	36	21	15	8	5	3	1	1	..	1	..	..
Proprietary feeds	1,396	1,375	21	376	344	32	5	19	8	..	..	..
Dairy	420	410	10	122	106	16	2	11	3	..	..	..
Stock, horse, etc.	168	168	..	42	39	3	..	1	2	..	..	..
Calf and hog	78	73	5	20	17	3	1	2	..	..	..	..
Poultry feeds	741	734	7	198	186	12	3	6	3	..	..	..
Scratch, chick	239	239	..	67	62	5	..	5	..	..	..	..
Mashes, growing	491	485	6	125	120	5	2	..	3	..	..	..
Meat scraps	11	10	1	6	4	2	1	1	..	..	..	..
Skim milk and buttermilks	15	15	..	7	7	..	..	..	..	..	..	..
Totals	2,052	2,007	45	552	509	43	11	22	8	1	..	1
Winter 1932	2,235	2,202	33	581	551	30	4	17	8	..	1	..
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	..	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	1	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3	1
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	..
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	..
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	..
Winter 1927-28	1,051	982	69	303	275	28	14	2	8	2	2	..
Spring 1927	1,254	1,197	57	395	365	30	17	9	4	..	..	..
Winter 1926-27	1,339	1,281	58	363	325	38	12	6	14	1	2	3
Spring 1926	1,147	1,109	38	332	288	44	10	13	12	..	7	2
Winter 1925-26	1,219	1,161	58	345	300	45	15	9	14	1	5	1
Spring 1925	1,031	953	78	335	285	50	24	15	4	3	2	2
Winter 1924-25	1,076	1,024	52	314	283	31	7	11	6	2	1	4

*Protein, fat and fiber.

VII. AVERAGE PRICES, 1927-1933

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. As everyone knows feed prices are now in the depths. It does not seem possible that they will go any lower.

	Dec., '27	Apr., '28	Dec., '28	Apr., '29	Dec., '29	Apr., '30	Dec., '30	Apr., '31	Dec., '31	Apr., '32	Dec., '32	Apr., '33
Cottonseed meals 43%	\$57	\$65	\$64	\$58	\$55	\$54	\$43	\$42	\$30	\$30	\$27	\$29
Cottonseed meals 41%	53½	62	59	57	63	48	41	40	29	28	27	27½
Cottonseed meals 36%	50½	58½	55	54½	50	47½	41	40	28	26	22½	..
Linseed meals 37-38% ...	..	..	..	..	..	..	..	..	..	..	..	31½
Linseed meals 34%	58	63	67	65½	64	58	48	45	40	40	33½	32½
Linseed meals 30-33% ...	58	61½	..	61	..	61	47	42	39	40	33	32½
Soy bean meals...	..	..	..	..	..	..	..	..	..	..	..	32
Distillers' grains..	57	61	50	..	..	50	57	32	30	20	27	28
Gluten meals 40%	56	62	63	72½	60	54	49½	40½	34	28	27	29
Gluten feeds 23%..	48	51½	53	55½	50½	43½	42	38	27	24	23	25
Wheat brans	44½	49	44	40	40½	38½	30	31	25	24½	22	23½
Wheat middlings:												
Standard	44	49	46	44	43½	39½	32½	31½	26	25½	21½	23
Shorts	43	49	45	40½	42	38	30	31	26	24½	21	23½
Flour	50	58	47½	47	45½	44	36	35	29	28	24	24½
Wheat mixed feeds	48	51	58	46	46½	42	36	33	28	27	24	25
Reddog flours	54	54	57	51½	51½	45	39½	35	30	28	26½	25½
Dried beet pulps..	48	51½	54	54½	53	51	38½	35	28	28	28	27
Hominy feeds	48	48	46	46	45½	50½	38	34½	27	24	20½	20½
Alfalfa meals	49	..	55	48	50	62	54½	55	41	49½	38½	36½
Proprietary feeds:												
Dairy 24%	53½	56	56	56	54	50	45½	42	34	32	28½	29½
20%	50	54	53	53½	51½	48	42½	39½	32	33	27	28
16%	43	48½	47	46½	48	43	39	35	30	27½	24	26
Stock and horse 9-10%*..	45½	50	49	48½	49	48½	42	40	34	32	29	29
8%*..	..	47	49	45	46½	..	44½	34	29	34	22	26½
Fitting 9-12%... ..	..	..	..	..	50½	45	43	39	31	29½	25	26½
14%... ..	..	..	..	..	53	45½	43	39	36	31½	28	28
Calf	100	99	96	96	98	92½	89	84	80	74	69	66½
Hog	60	60	57	57½	57	53½	50	48	38	35½	32½	32½
Poultry:												
Scraps .....	..	87	79	75	75	70	82	75½	58	60½	55	38
Scratches	55	59	52	53½	52½	51	44½	41½	33	32½	27½	28½
Mashes	64½	68	63	64½	64	61	56	52	42	40	36	37
Chick grains..	63	68½	57	60	56½	55	52½	49	41	39	41½	32½
Chick mashes..	..	86½	64	74½	70½	77	69½	63	48	49	39	43

*Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1927, 1928, 1929, 1930, 1931, 1932, and April, 1933, follow, 1923 being rated at 100.

	1923	1927	1928	1929	1930	1931	1932	Apr. 1933
Cottonseed meals	100	84	108	93	77	59	45	47
Linseed meals	100	95	108	107	90	71	64	54
Gluten meals and feeds..	100	85	102	104	81	63	46	48
Wheat offals (exclusive of reddog)	100	107	118	105	89	72	59	59
Beet pulps	100	93	105	107	88	60	53	53
Hominy feeds	100	106	117	115	110	78	56	51
Proprietary:								
Dairy 24%.....	100	94	104	102	90	71	56	55
20%.....	100	92	101	100	87	68	57	53
16%.....	100	91	104	103	89	71	56	58
Stock and horse	100	100	120	116	110	84	72	68
Calf, hog, etc.	100	112	111	109	103	88	75	70
Scratches	100	105	109	104	98	77	66	60
Mashes	100	98	103	102	102	81	66	63

VIII. CONCLUSIONS

An endeavor has been made in this bulletin to indicate how well the manufacturers of commercial feeding stuffs who sell their goods in Vermont have complied with the law controlling such sales. Reference to pages 4 to 22 shows those brands which have met and those which have failed to meet their guaranties. As a whole guaranties were not quite as well met as was the case in the inspection of December, 1932, especially in respect to the fat figures. Tables showing guaranty maintenance and spring prices appear; also a comparison of the last six years' prices with 1923 prices. The prices have dropped since 1928 and apparently have reached the bottom, as this spring's are, on the average, about the same as last winter's. During July, prices advanced on account of a possible inflation but have dropped somewhat since then, but they are still higher than they were in the spring. Present indications seem to point towards a general upward trend of the market.

The following table is submitted for the benefit of those who mix their own rations. It shows the average analyses of 15 sorts of proprietary goods, as well as of 28 ingredients most commonly used in mixing. These averages are based upon samples collected in Vermont.

The last two columns show the percentages of carbohydrates and total digestible nutrients, taken from Henry & Morrison's "Feeds and Feeding." The digestible nutrient figures represent the result of feeding trials designed to determine the digestibility of the various ingredients. Each figure shows the number of pounds in 100 pounds.

COMMERCIAL FEEDING STUFFS

AVERAGE COMPOSITION OF FEEDING STUFFS
(Figures expressed in percentages or pounds in 100)

	Protein	Fat	Fiber	Carbo- hydrates	T.D.N.*
Alfalfa meal (20% protein)	20.5	2.5	16.2	57.6	60.
Alfalfa meal (17% protein)	17.9	2.1	21.2	58.6	60.
Alfalfa meal (13% protein)	14.6	1.6	28.5	65.6	51.6
Beet pulp (dried)	9.1	0.5	17.3	78.5	71.6
Bone meal (20% protein)	25.9	2.8	...	3.8	73.4
Bone meal (6% protein)	8.7	2.4	...	3.6	29.4
Brewers' dried grains	23.8	7.1	13.6	58.5	65.7
Buttermilk (dried)	34.2	5.6	...	50.9	84.2
Corn feed meal	9.7	5.2	2.9	70.	85.
Corn gluten meal	43.5	1.9	2.2	49.6	84.
Corn gluten feed	26.8	2.6	6.8	60.	80.7
Cottonseed meal (43% protein)	42.5	7.	8.	33.1	78.2
Cottonseed meal (41% protein)	41.2	7.1	9.6	37.5	75.5
Cottonseed meal (36% protein)	36.3	6.2	13.5	39.9	74.8
Distillers' dried grains	28.3	9.2	10.3	47.9	88.9
Hóminy feed	10.7	6.7	3.9	68.7	84.6
Linseed meal (34-35% protein)	36.3	6.6	7.4	44.1	77.9
Linseed meal (30-33% protein)	34.	6.	8.1	45.	77.9
Meat scraps	48.1	11.4	...	4.3	61.8
Oat mill feed (oat hulls, oat shorts, and middlings)	5.3	1.8	26.2	79.8	43.3
Proprietary feeds:					
Dairy (32% protein)	32.9	4.9	7.1	...	...
Dairy (24% protein)	25.7	4.8	8.	...	...
Dairy (20% protein)	21.9	4.6	8.1	...	...
Dairy (16% protein)	18.2	4.6	8.4	...	...
Stock and horse (8-8.5% protein)...	10.4	4.9	10.	...	...
Stock and horse (9-10.5% protein)..	11.5	4.1	7.9	...	...
Fitting (14% protein)	16.1	4.9	7.6	...	...
Rabbit	16.5	4.2	7.4	...	...
Calf	24.3	5.1	3.5	...	...
Hog	19.9	5.2	6.	...	...
Scratch grains	10.6	3.2	2.3	...	...
Chick scratch grains	11.3	3.2	1.6	...	...
Egg mash	20.5	5.4	5.7	...	...
Starting and growing	18.4	5.3	4.9	...	...
Rye feed and screenings	16.8	3.6	4.7	66.2	74.6
Skimmilk (dried)	34.5	0.7	...	25.8	86.7
Soy bean meal	34.1	4.5	4.1	34.8	84.5
Wheat bran	16.3	5.1	9.5	63.2	60.9
Wheat middlings, standard	17.3	5.5	6.9	62.8	69.3
Wheat middlings, flour	16.8	4.9	4.5	62.8	78.2
Wheat mixed feeds	16.4	4.6	6.8	63.3	67.
Wheat reddog flour	17.4	4.2	2.1	70.7	77.3

* T.D.N.—Total digestible nutrients.

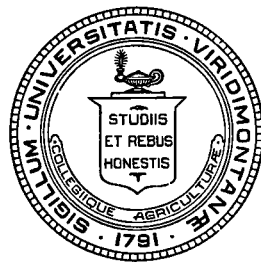
APRIL, 1934

BULLETIN 372

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station
BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER *and* E. F. BOYCE



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Nineteen hundred fifty-five samples, representing 566 brands, drawn from dealers' stocks during December, 1933, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respects up to guaranty in regard to their nutrient contents are listed on pages 4 to 19. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 20 to 22. Statements as to the ingredients used in the manufacture of the proprietary feeds and the manner in which their makers fulfilled their statements occur on pages 25 to 42.

It might be said, briefly, that 14 of the 200 brands of unmixed goods and 13 of the 366 brands of proprietary or mixed goods failed to meet their guaranties. This is a better showing than was made in the inspection of samples drawn in April, 1933 and is very commendable. The general situation in respect to guaranty maintenance is set forth in the table and text on pages 43 and 44. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-33, 95 percent.

Five brands of dairy rations and six brands of scratch feeds contained noticeable numbers of weed seeds. In all cases where an inferior ingredient was used in a mixture a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price last December, taking all classes of feeds as a unit, seems to have been not far from thirty-seven dollars.

BULLETIN 372: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in sections 4479-4483, 7850-7864, 7885-7891, Public Laws, the following report of 1,955 samples collected in December, 1933, is submitted. The object of the law is to prevent fraud or misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of cattle and poultry feeds offered for sale. The law does not forbid the sale of inferior feeds, but it provides through publicity the information as to their real nature in such fashion that he who runs may read.

The table of contents follows:

I.	Brands in all respects up to guaranty—pages 4 to 19.		
II.	Brands falling to meet guaranty—pages 20 to 22.		
		Up to guaranty Page	Below guaranty Page
	Cottonseed meals	4	20
	Linseed meals	4	..
	Soy bean meals	4	..
	Corn gluten meals and feeds	5	20
	Distillers' and brewers' dried grains	5	20
	Wheat brans	5, 6	..
	Wheat middlings	7	..
	Wheat mixed feeds	7, 8	20
	Wheat red dog flours	8, 9	21
	Hominy feeds	9	..
	Dried beet pulps	9	..
	Alfalfa meals	9	21
	Oat, rye and corn feeds	9	21
	Dairy rations	10-13	21
	Stock, horse, fitting, rabbit feeds, etc.	13, 14	21, 22
	Calf and hog meals	14, 15	22
	Meat and bone scraps	15	22
	Scratch and chick feeds	15, 16	22
	Egg mash, starters and growing feeds	17-19	22
	Dried skimmilks	19	..
III.	Concerning 1934 and 1935 feeding stuffs registrations—page 22.		
IV.	Ingredient statements—pages 24 to 42.		
V.	Deficiencies, 1923-1933—page 43.		
VI.	April, 1933, inspection—page 44.		
VII.	Average prices, 1928-1933—page 45.		
VIII.	Conclusion—page 46.		

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
Buckeye Cotton Oil Co., Cincinnati, Ohio			
Buckeye 41% Prime Quality	41	6.5	10
Cairo Meal and Cake Co., Cairo, Ill.			
Miss Cairo Brand 43 Percent Protein—Prime Quality	43	6	10
Miss Cairo Brand 41 Percent Protein—Prime Quality	41	6	10
S. P. Davis, Little Rock, Ark.			
Goodluck Brand Prime	41	6	10
Eastern States Farmers' Exchange, Springfield, Mass.			
Eastern States Choice	41	6	10
Humphreys-Godwin Co., Memphis, Tenn.			
Bull Brand 43% Protein—Prime Quality.....	43	5	11
Bull Brand 43% Protein—Prime Quality.....	43	5	10
Dixie Brand 41% Protein—Prime Quality.....	41	5	12
Larrowe Milling Co., Detroit, Mich.			
41% Protein—Prime Quality	41	6	10
L. B. Lovitt & Co., Memphis, Tenn.			
"Lovit Brand" 41%	41	6	10
Marianna Sales Co., Memphis, Tenn.			
White Mule Brand—Prime.....	41	6	10
Maurice Pincoffs Co., Houston, Tex.			
41% Protein Prime Quality.....	41	5	14
Planters Cotton Oil Co., Dallas, Tex.			
"Golden Rod" Brand Cake or Meal.....	41	5	12
Ralston Purina Co., St. Louis, Mo.			
(41% Protein)	41	5	11
Transit Milling Co., Galveston, Tex.			
Texas Bull Brand 41% Protein—Prime Quality....	41	5	11
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
Pure Old Process.....	37	4.5	9
Pure Old Process.....	34	4.5	9
Midland and Flaxseed Screenings Oil Feed—30%..	30	5	10
Bisbee Linseed Co., Philadelphia, Penn.			
Bisbee Old Process.....	34	5	10
Canada Linseed Oil Mills, Ltd., Montreal, Can.			
"Maple Leaf" Oil Cake Meal Protein 39%.....	39	5	9
Hirst & Begley Linseed Works, Chicago, Ill.			
Pure Old Process.....	37	5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y.			
Pure Old Process.....	34	5	9
Pure Old Process.....	32	5	9
Spencer Kellogg & Sons, Inc., Buffalo, N. Y.			
Kellogg's 37% Protein Pure Old Process.....	37	4.5	10
Kellogg's 34% Protein Pure Old Process.....	34	5	10
Mann Bros. Co., Buffalo, N. Y.			
37% Protein Pure Old Process.....	37	6	10
Sherwin Williams Co., Cleveland, Ohio			
S W C.....	32	5	10
SOY BEAN MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
Pure Old Process.....	41	4.5	7
Soya Products, Inc., Chicago, Ill.			
Super Soy	37	5	6.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's	41	4.5	7

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
CORN GLUTEN MEALS AND FEEDS			
American Maize-Products Co., New York, N. Y.			
Cream of Corn Gluten Feed.....	25	2	8.5
Cream of Corn Gluten Feed.....	23	2	8.5
Clinton Corn Syrup Refining Co., Clinton, Iowa			
Clinton Corn Gluten Feed.....	25	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond Corn Gluten Meal	43	1	4
Buffalo Corn Gluten Feed	25	2	8.5
Buffalo Corn Gluten Feed.....	23	2	8.5
Hubinger Co., Keokuk, Iowa			
KeOKuk Corn Gluten Feed.....	25	2	8.5
Penick & Ford Ltd., Inc., Cedar Rapids, Iowa			
Douglas Corn Gluten Meal.....	43	1	4
Douglas Corn Gluten Meal.....	40	1	4
Douglas Corn Gluten Feed	25	1.5	8.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's Corn Gluten Feed	25	1	8
Staley's Corn Gluten Feed.....	23	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union Corn Gluten Feed	25	1	8
DISTILLERS' AND BREWERS' DRIED GRAINS			
Allied Mills, Inc., Peoria, Ill.			
Corn Distillers'	28	9	15
Brewers'	20	4.5	18
Badger Grains & Feed Co., Inc., Milwaukee, Wis.			
Distillers'	24	5	16
Dewey Bros. Co., Blanchester, Ohio			
Corn 3D (Dewey's Distillers').....	28	9	13
Dewey's Brewers'	22	6	18
Farmers' Feed Co., New York, N. Y.			
"Bull Brand" Brewers'.....	24	6	17
Donahue-Stratton Co., Milwaukee, Wis.			
Hiquality Brewers'	24	5	19
T. A. Hauschel, Chicago, Ill.			
Brewers'	21	5.5	18
St. Albans Grain Co., St. Albans, Vt.			
Corn Distillers'	27	7	14
Brewers'	21	5	15
WHEAT OFFALS—WHEAT BRANS			
Atkinson Milling Co., Minneapolis, Minn.			
P of H Pure.....	14	4	12
Bay State Milling Co., Winona, Minn.			
Wingold Pure Hard.....	14.5	4.75	13
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed (+)	14	4	12
Copeland Flour Mills, Ltd., Midland, Ont.			
Copeland's "Dandy"	15	3.5	11.5
Dreyer Commission Co., St. Louis, Mo.			
Dryco (+)	14.5	3.5	10
Dryco Pure	14	3	11
B. A. Eckhart Milling Co., Chicago, Ill.			
Pure	14	3.5	12
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+).....	14	3	14

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
<i>WHEAT OFFALS—WHEAT BEANS—concluded</i>			
General Mills, Inc., Minneapolis, Minn. Washburn's Gold Medal Hard (+).....	14	4	12
Frank B. Ham & Co., Ltd., Toronto, Ont. Hamco Brand	15	3.5	11.5
Hamco Brand	13.5	3	12
Hecker-Jones-Jewell Milling Div., Buffalo, N. Y. Choice (+)	13.5	3.5	14
International Milling Co., Minneapolis, Minn. Blackhawk Pure	15	3.2	12
H. H. King Flour Mills Co., Minneapolis, Minn. Fancy "Broflake"	14.5	4	11
King Midas Mill Co., Minneapolis, Minn. Cloverleaf Pure	15	4	12
Lake-of-the-Woods Milling Co., Montreal, Que. Lake Woods	15	3.5	11.5
Larabee Flour Mills Co., Kansas City, Mo. Sunfed Winter (+).....	15	3.5	11
Montana Flour Mills Co., Great Falls, Mont. Montco (+)	15	3	12
Geo. Q. Moon & Co., Inc., Binghamton, N. Y. Moon's (+)	15	3	10
Nebraska Consolidated Mills Co., Omaha, Neb. Pure	15.5	3.5	11
Niagara Falls Milling Co., Lockport, N. Y. Niagara Choice Wheat.....	15.5	4	11
Ogilvie Flour Mills Co., Ltd., Montreal, Que. Ogilvie's	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's Hard (+).....	14	4	12
Quaker Oats Co., Chicago, Ill. Bell Cow (+).....	15	3.5	10
Red Wing Milling Co., Red Wing, Minn. (+)	13.5	4.1	15.6
Robin Hood Mills, Ltd., Moose Jaw, Can. Superior	15	3.5	11.5
Rodney Milling Co., Kansas City, Mo. Heart of America Pure.....	16.5	3	10
Russell-Miller Milling Co., Minneapolis, Minn. Hard Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que.	15	3.5	11.5
Southwestern Milling Division,* Kansas City, Mo. Red Turkey Pure.....	14.5	3.5	11
David Stott Flour Mills, Inc., Detroit, Mich. Spring (+)	14.5	4	12.5
Winter (+)	13.5	3.5	12
Tennant & Hoyt Co., Lake City, Minn. (+)	16	4	11
George Urban Milling Co., Buffalo, N. Y. (+)	14	3.5	12
Valley City Milling Co., Portland, Mich. Rowena	14	3	10.75
Western Canada Flour Mills, Ltd., Toronto, Ont. Pioneer	15	3.5	11.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.
* Of Standard Milling Co.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIDDINGS			
Cannon Valley Milling Co., Minneapolis, Minn.			
Cannon Valley Standard (+)	16	4.5	9.5
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Standard (+)	14.5	4	9.5
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+)	15	4.5	9.5
Dairy Maid Soft Winter (+)	13	4.5	8
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Metal Hard Flour (+)	16	4	6
Washburn's Gold Medal Hard Standard (+)	15	4	9.5
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand Shorts	16	5	8
Hamco Brand Shorts	15	3.5	10.5
Hecker-Jones-Jewell Milling Division,* Buffalo, N. Y.			
Standard (+)	15	4.75	9.5
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+)	16	4.5	8.5
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods Shorts	16	5	8
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Rex (+)	16	5	7.5
King Midas Mill Co., Minneapolis, Minn.			
Snowball Flour (+)	16	4	6
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's Fresh Ground White	15	3.5	7.5
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+)	15.5	4.5	7
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's Shorts	16	5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard A. (+)	16	4	6
Pillsbury's Hard Standard B. (+)	15	4	9.5
Quaker Oats Co., Chicago, Ill.			
Bell Cow Shorts (+)	15	4	8
Robin Hood Mills, Ltd., Moose Jaw, Can.			
Superior Shorts	17	5	8
Blackhawk Standard (+)	17	4.5	9.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Alta Hard	15	4.5	8.5
Hard Occident Standard	15	4	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour (+)	15	4	6
F. W. Stock & Sons, Hillsdale, Mich.			
Stock's Pure	17	4	7
David Stott Flour Mills, Inc., Detroit, Mich.			
Pennant (+)	15	4	9
Stott's Fine Flour (+)	14.5	3.7	6
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14	5	6.4
Western Canada Flour Mills, Ltd., Toronto, Ont.			
Pioneer Shorts	16	5	8
WHEAT OFFALS—WHEAT MIXED FEEDS			
E. W. Bailey & Co., Montpelier, Vt.			
Capital	14	3	7
Pennant	14	3	7

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.
 * Of Standard Milling Co.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIXED FEEDS—concluded			
G. N. Bartemus Co., Concord, N. H.			
Barco	14	3	7
Elmore Milling Co., Inc., Oneonta, N. Y.			
Elmore's "Xtragoood" (+).....	15	3	8
John W. Eshelman & Sons, Lancaster, Pa.			
Eshelman Choice (+).....	14.5	4	8.5
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+).....	12.5	3.5	10
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Fancy (+)	15	3.5	7.5
E. T. & H. K. Ide, St. Johnsbury, Vt.			
Ideal	15	4	8
International Milling Co., Minneapolis, Minn.			
Blackhawk Heavy	15.5	3.35	8
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's Fresh Ground (+)	15	4	10
Fark & Pollard Co., Buffalo, N. Y.			
Fark & Pollard Heavy.....	15.5	3.35	8
Yankee (+)	15.3	3.85	10.25
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+).....	15	4	8.5
Quaker Oats Co., Chicago, Ill.			
Buckeye Feed (+).....	15.5	4.5	10
Ralston Purina Co., St. Johnsbury, Vt.			
Brooks' Fancy	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore (+)	15	4.5	8
David Stott Flour Mills, Inc., Detroit, Mich.			
Columbus Heavy (+).....	14.5	3.7	8.5
Stratton & Co., Concord, N. H.			
Stratton's (+)	13.5	4.11	7.13
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14.5	3.75	9
Rowena (+)	13.9	4.6	9.5
Ray P. Webster, Barton, Vt.			
Ray's R-E-A-L	14	4	9
WHEAT OFFALS—RED DOG FLOURS			
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed	16	4	4
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Pure Hard Wheat Adrian. 16	3.5	4	
Arlington Second Clear Flour.....	14	3	1.5
International Milling Co., Minneapolis, Minn.			
Blackhawk	16	3.5	4
R. H. McEwen Milling Co., Ogdensburg, N. Y.			
McEwen's Wheat	14	2	2.1
King Midas Mill Co., Minneapolis, Minn.			
Wheat	16.5	4	4
Niagara Falls Milling Co., Lockport, N. Y.			
Choice Wheat	15	2	4
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's X X Daisy.....	16	4	4
Robin Hood Mills, Ltd., Moose Jaw, Can.			
Superior Wheat	16.5	3.5	4

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—RED DOG FLOURS—concluded.			
George Urban Milling Co., Buffalo, N. Y.			
Wheat	15	4	4
HOMINY FEEDS			
Chas. A. Krause Milling Co., Milwaukee, Wis.			
Badger White	10	6	5
Badger Sugared	9	5	5
Miner-Hillard Milling Co., Wilkes-Barre, Pa.			
Choice Steam Cooked.....	10	5	5
Mt. Vernon Milling Co., Mt. Vernon, Ind.			
Poco	10	7	6
Patent Cereals Co., Geneva, N. Y.			
.....	10	5	5
Postum Co., Inc., Battle Creek, Mich.			
Burt's	10	6	5
Quaker Oats Co., Chicago, Ill.			
White	10	5	5
Yellow	10	5	5
St. Albans Grain Co., St. Albans, Vt.			
Paragon	10	6	7
David Stott Flour Mills, Inc., Detroit, Mich.			
Yellow	9.5	5.5	6.5
White	9.5	5.5	6.5
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.			
.....	8	0.4	22
.....	7	0.3	22.5
Molasses	7	0.3	20
ALFALFA MEALS			
A. B. Caple Co., Toledo, Ohio			
.....	13	1	33
Denver Alfalfa Milling & Products Co., Lamar, Colo.			
.....	13	1	33
Genoa Mills, Inc., Genoa, Ohio			
Genoa Fine Ground.....	13	1	33
Green Acre Farms, Nazareth, Pa.			
Green Acres Brand Super-Quality.....	17	2	25
OAT, RYE AND CORN FEEDS			
John W. Eshelman & Sons, Lancaster, Pa.			
Eshelman Red Rose Corn Feed Meal.....	8	3	4
Hecker-H-O Co., Inc., Buffalo, N. Y.			
Oat Mill Feed.....	6	2	28
Park & Pollard Co., Buffalo, N. Y.			
Feed Meal	9	2.5	4
Quaker Oats Co., Chicago, Ill.			
Vim Feed	5	2	30
Sugared Vim Feed.....	5	1.25	27.5
Buckeye Rolled Oats.....	16	6	2
David Stott Flour Mills, Inc., Detroit, Mich.			
Winner Chop Feed.....	10	3.5	12
Upper Hudson Rye Flour Mills, Inc., Troy, N. Y.			
Rye Feed with rye screenings.....	15.5	3	6
Rye Feed with rye screenings.....	13.5	3	6

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note*
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Peoria, Ill.				
Amco 32% Supplement†	32	4	9	✓
Amco 24%†	24	3.5	9	✓
Empire 24%†	24	3	9	✓
Amco 20%†	20	3.5	9	✓
Empire 20%†	20	3	12	✓
Amco 16½% Sucrenet	16.5	3.5	12	
E. W. Bailey & Co., Montpelier, Vt.				
Capital	24	5	9	✓
Sweetened Capital	24	5	9	✓
Bailey's Open Formula 20	20	4.5	9	✓
Favorite	20	4.5	7.5	✓
Sweetened Favorite	20	4.5	7.5	✓
Our 20% Special	20	3.5	9	✓
Bailey's 16%	16	5	9	✓
Sweetened Bailey's 16%	16	5	9	
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon Sweet '24'	24	4	9	✓
Beacon Sweet '20'	20	4.5	9	
Auburn Brand Auburn	20	4	10	
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Green Mountain	23	5	10	✓
Bethel Mills, Bethel, Vt.				
Bethel Mills 24 Protein	24	5	9	✓
Bethel Mills 20 Protein	20	5	9	✓
Bethel Mills 20 Protein Sweetened	20	4.2	9.5	✓
Bethel Mills 20 Protein Sweetened Economy	20	4	11	✓
Bethel Mills 16 Protein Pasture	16	4.2	9.5	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell 24%	24	4	11	✓
Bidwell 20%	20	4	11	✓
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	✓
Unicorn 20%	20	4.5	10	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community 20	20	4.5	8.5	✓
E. C. Crosby, Danby, Vt.				
Crosby's A Quality 20%†	20	5	8	✓
Crosby's B Quality 20%†	20	4.5	9	✓
Danville Grain Co., Inc., Danville, Vt.				
Danville 24%	24	5	9	✓
Danville 20%	20	4	10	✓
Davis Feed Co., Inc., Rutland, Vt.				
Vermont 20%	20	5	8	✓
Davis 20% Kow Feed	20	4.5	8.5	✓

*The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g., cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by the state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other and possibly undesirable ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist "failed to find" appear on pages 26 to 42.

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			See foot- note* (p. 10)
		Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>					
H. W. Demick, Inc., Derby Line, Vt.					
	Beats 'Em All.....	20	4	10	✓
Eastern States Farmers' Exchange, Springfield, Mass.					
	Eastern States 32% Supplement†.....	32	4.5	8	✓
	Eastern States Milkmore†.....	24	4.5	8	✓
	Eastern States Fulpall†.....	20	4.5	8	✓
	Eastern States Highland 20†.....	20	4	12	
	Eastern States Sixteen†.....	16	4	8	✓
Elmore Milling Co., Inc., Oneonta, N. Y.					
	Elmore Milk Grains.....	25	5	11	✓
	Granger 24%.....	24	4	10	✓
	Elmore Milk Grains Junior.....	20	5	10	✓
	Elmore Milk Grains Junior Sweet.....	20	5	10	✓
	Emco Feed.....	20	4.5	10	✓
	Granger 20%.....	20	4	11	
	Elmore's Sweet Digesto.....	16	4	12	
John W. Eshelman & Sons, Lancaster, Penn.					
	Eshelman Challenge.....	24	4	11	
	Eshelman Red Rose 24.....	24	4	11	✓
	Eshelman Lancaster 20.....	20	4	11	✓
	Eshelman Conestoga 20.....	20	4	11	
	Eshelman Open Formula 20.....	20	4	9	✓
	Eshelman Certified 20%†.....	20	4	8	✓
	Eshelman Pennsy 16.....	16	3	11	✓
For-All Grain Co., Inc., South Ryegate, Vt.					
	For-All Milk Grains 20%.....	20	5	8.5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.					
	Grandin's 32%.....	32	4	9	✓
	M - S (Money Saver) 24% Sweet.....	24	4	12	✓
	Grandin's Sweetened 12 Twin Six 12.....	22	5	12	✓
	M - S (Money Saver) 20% Sweet.....	20	4	12	✓
	Grandin's Sweetened 20%.....	20	4	10	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.					
	Ideal Sweetened.....	24	5	10	✓
	Ide's Special.....	20	4	10	
	Royal Sweetened.....	20	4	10	✓
	Sunshine.....	20	4	10	✓
W. B. Johnson & Son, Essex Junction, Vt.					
	Johnson's Perfection No. 1.....	20	5	9	
	Johnson's Economy.....	20	4	12	
Kasco Mills, Inc., Waverly, N. Y.					
	Kasco Mormilk.....	24	4.5	10	✓
	Kasco 20% Milk Maker.....	20	4.5	11	✓
	Kasco 18%.....	18	3	10	
Larrowe Milling Co., Detroit, Mich.					
	Larro.....	20	4	12	✓
	Larro.....	20	3.75	12	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.					
	McEwen's 20%.....	20	4	10	✓
T. J. McGovern, Cambridge, Vt.					
	McGovern's 24 Per Cent.....	24	4	8	✓
	McGovern's 20 Per Cent Farm Relief.....	20	4	12	✓
	McGovern's 20 Per Cent.....	20	4	8	✓
	McGovern's 16 Per Cent.....	16	4	8	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note (p. 10)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Bull Brand "24".....	24	4.5	11	✓
Real Value 20%.....	20	4	12	✓
B-B Marmico 16% Protein with Molasses....	16	4	12	
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's 24%	24	5	10	✓
Moon's 20% With Molasses.....	20	4.5	11	✓
Mt. Mansfield Co-op. Creamery & Grain Assn., Inc., Stowe, Vt.				
Mt. Mansfield 20%.....	20	4	8.5	✓
Park & Pollard Co., Buffalo, N. Y.				
Milk-Maid 24% Sweetened.....	24	4.5	11	✓
Overall 24%	24	4.5	9	✓
Bet-R-Milk 20%	20	4	9	✓
Yankee	20	3.5	9	✓
Top Notch 16%.....	16	3.5	12	✓
W. N. Potter Grain Stores, Inc., Greenfield, Mass.				
Potter's Sweetened	20	4	10	✓
Quaker Oats Co., Chicago, Ill.				
Quaker 20% Protein.....	20	3.25	12	✓
Quaker 16% Protein.....	16	3.5	13.5	✓
Race Milling Co., Granville, N. Y.				
Race's 24%†	24	4	10	✓
Race's 20%†	20	3	10	✓
Race's 18%†	18	3	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina 34% Cow Chow.....	34	3	12	✓
Protena 24% (Buffalo Mill).....	24	3	14	
Purina 24% Cow Chow.....	24	3	12	✓
Protena 20%	20	3	14	✓
Purina 20% Cow Chow.....	20	3	12	✓
Protena 16%	16	3	14	✓
Purina Bulky Cow Chow.....	16	3	12	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 32 Supplement.....	32	4	8	✓
Wirthmore 25 Balanced.....	25	5	9	✓
Wirthmore 25 Balanced Sweetened.....	25	4.75	8.5	✓
Hygrade 24 Sweetened Milk	24	3.5	9	✓
Champlain Valley Emergency 24	24	3.5	8.5	
Wirthmore 20	20	5	8.5	✓
Wirthmore 20 Sweetened.....	20	4.75	8	✓
Wirthmore with Beet Pulp Sweetened.....	20	4	11	✓
Utility	20	3.5	10.5	✓
Hygrade 20 Sweetened Milk	20	3.5	8.5	✓
Champlain Valley Emergency 20	20	3.5	8.5	✓
Wirthmore 16 Sweetened.....	16	4	8	✓
Hygrade 16 Sweetened Milk.....	16	3.5	8.5	✓
E. T. Seabury Grain Co., Waterbury, Vt.				
Our Own Make 20%	20	4	9	✓
Chas. M. Seaver & Co., Williamstown, Vt.				
Vim—20	20	4	12	✓
Honor Brand	20	4	10	✓
Estate of Henry A. Slayton, Morrisville, Vt.				
Economy Feed	20	3.75	8.5	✓
C. A. Smith, St. Johnsbury, Vt.				
Smith's	20	4	12	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
S. E. Smith Estate, West Rutland, Vt.				
Smith Estate 24%†	24	5	8.5	✓
Smith Estate 18%†	18	4.5	8.5	✓
C. H. Stearns & Son Co., Johnson, Vt.				
Stearnco All Grain 20% Milk	20	4	9	✓
J. G. Turnbull Co., Orleans, Vt.				
Turnbull's Special	20	3.5	12	
Frank Tyler, Essex Junction, Vt.				
Tyler's Ready Mixed 20%	20	4.5	9	
C. H. Utley, Hardwick, Vt.				
Veri-Best Balanced	20	5	7.5	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Milkproducer 24%	24	4	10	✓
"Galen 24%"	24	4	8.5	✓
Superior 20%	20	4	10	✓
"Clyde 20%"	20	4	8.5	✓
Hi-Yan-Ka Farms 20% with beet plup.	20	3	8.5	✓
Sweetened 16%	16	4	12	
Ray P. Webster, Barton, Vt.				
Ray's Ready	20	5	10	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
All Pure 20 Per Cent Milk	20	4.5	10	✓
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Rabbit	13	3	11	
Amco 12% Fitting†	12	3	9	✓
Wayne Supreme Horse	9.5	3	8	✓
E. W. Bailey & Co., Montpelier, Vt.				
Sweetened Bailey's Fitting	14	4	9	
Pennant Horse	10.75	3.5	6.5	✓
Pennant Brand Stock	9.5	4	9.5	✓
Sweetened with Molasses Pennant Brand Stock	9.5	4	9.5	✓
Chapin & Co., Hammond, Ind.				
Centaur Fitting	12	4	8	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Highland 12†	12	3.5	11.5	
Eastern States Fitting†	12	3.5	7	✓
Eastern States Horse and Calf†	10.5	3.5	7	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Fitting	12	4	9	✓
Elmore Stock	10	3	12	✓
Elmore Horse with Molasses	9	2.5	11	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Fitting	12	3.5	7	✓
Eshelman Steamed-Cooked Horse	9	4	6	✓
Eshelman Red Rose \$5 Horse	9	3	10	✓
Eshelman Garden Spot Horse	7	2	10	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Sweetened Horse	9.5	3.5	11	✓
Grandin's Stock Food	8.5	4	12	✓
Hales & Hunter Co., Chicago, Ill.				
Victoria Rabbit	12	2	20	✓
Imperial Grain & Milling Co., Toledo, Ohio				
Imperial Steam Cooked Feed	9.5	4	4.6	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 10)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.—concluded				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Horse	9	3	10	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B B Dealer's Mixing with Molasses	10	3.5	12	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Molasses Horse.....	9	3	10	✓
Park & Pollard Co., Buffalo, N. Y.				
Fitting	12	3.5	7	✓
Park & Pollard Horse.....	10	3.5	9	✓
Park & Pollard Stock.....	8.5	4	12	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Sugared Schumacher.....	10	3	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Rabbit Chow.....	16	3.5	8	✓
Purina Fitting Chow.....	13.5	2.6	12	✓
Purina Rabbit Chow.....	13.5	2.5	16	✓
Purina Bulky Omolene Chow.....	10	3.2	11	✓
Purina Omolene Chow.....	10	3.2	9	✓
Purina Bulky Las Chow (Buffalo Mill).....	9	1.3	15	✓
Protina Sweet Roughage (Buffalo Mill)....	6	1	30	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting	14	4	7	✓
Wirthmore Rabbit	14	3.5	9	✓
Utility Pasture	14	3	13	✓
Hygrade Fitting	12	4.5	8	✓
Wirthmore Horse	9.8	3.25	9	✓
Wirthmore Stock	9	4	9.5	✓
Wirthmore Fodder Greens.....	9	1.25	19	✓
Ubiko Milling Co., Cincinnati, Ohio				
Crusader Horse	9	3.5	7	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Universal Horse	10	3	9	✓
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS				
Allied Mills, Inc., Peoria, Ill.				
Wayne Calf	24	4	7	✓
Emergency Hog	14	3	7	✓
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	24	5	6.75	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter†.....	23	3.5	4	✓
Eastern States Hog†.....	14.5	4	5.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore "Three Point" Calf.....	24	4	4	✓
Elmore's Makegrow Little Pig.....	18	4.5	7	✓
Elmore's Hog	15	5	6	✓
John W. Eshelman & Sons, Lancaster, Pa.				
Eshelman Red Rose Calf Starter.....	20	3	5	✓
Eshelman Red Rose Calf Starter.....	18	3	5	✓
Eshelman Red Rose Hog.....	16	5	10	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Pig and Hog.....	18	5	10	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS—concluded				
Larrowe Milling Co., Detroit, Mich.				
Larro Pork-Maker.....	25	5	10	✓
Larro Calf	23	4	4	✓
Park & Pollard Co., Buffalo, N. Y.				
Go Tu It Pig & Hog.....	15	3.5	8	✓
Quaker Oats Co., Chicago, Ill.				
Schumacher Calf	18	7	4	
Ralston Purina Co., St. Louis, Mo.				
Purina Calf Chow.....	27	3.2	4.5	✓
Purina Hog Fatena Chow.....	14	3	7	✓
Ryde & Co., Chicago, Ill.				
Ryde's Cream Quality Calf.....	18.5	4	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	4	✓
Wirthmore Pig and Hog.....	17	4	9	✓

MEAT AND BONE SCRAPS

Consolidated Rendering Co., Boston, Mass.				
Corenco 50% Meat Scrap.....	50	6	..	
Corenco 45%	45	6	..	
Corenco Bone Meal.....	20	2	..	
New England Rendering Co., Brighton, Mass.				
Brighton Special—Quality Brand.....	45	8	..	
John Reardon & Sons Co., Cambridge, Mass.				
Register Brand Meat & Bone Scraps.....	50	6	3	

PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.

Allied Mills, Inc., Peoria, Ill.				
Wayne Scratch	10	2.5	4	✓
Wayne Intermediate Scratch	10	2	4	✓
Wayne Special Scratch	9	2.5	4	✓
Red Feather Scratch.....	9	2.5	4	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Scratch	10	3	6.5	✓
Pennant Brand Fine Chick	10	3	3	✓
Pennant Brand Coarse Chick	10	3	3	✓
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon's Cayuga Scratch.....	9	2.5	5	✓
Beacon Special Scratch.....	9	2	3.5	
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Berkshire Scratch	10	2.5	5	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell Scratch	10	1.5	5	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Scratch	10	3	4	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch Grains (With Whole Corn)†	10.5	2.5	4	✓
Eastern States Scratch Grains (With Coarse Cracked Corn)†	10	2.5	4	✓
Eastern States 31 Scratch Grains†.....	9.5	2.5	3	✓
Eastern States Intermediate Scratch Grains†	9.5	2	3	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Emco Scratch	10	2.5	7	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Scratch Grains.....	10	2.5	4	✓
Eshelman Pennsy Scratch Grains.....	9	2.5	4	
First National Stores, Inc., Somerville, Mass.				
Henfield Scratch Grains.....	10	2.5	5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Screened Scratch	10	2.5	5	✓
Grandin's Intermediate Chick.....	10	2.5	5	✓
Grandin's Baby Chick	10	2.5	5	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg Scratch.....	10	2.5	5	
Hales & Hunter Co., Chicago, Ill.				
Pound Squab Pigeon, No grit.....	10	2.5	5	✓
Red Comb Scratch.....	10	2.5	5	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Scratch	10	3	4	
W. B. Johnson & Son, Essex Junction, Vt.				
Johnson's Perfection Scratch.....	10	3	5	✓
Kasco Mills, Inc., Waverly, N. Y.				
Apex Scratch	9	2.5	4	✓
Kasco Scratch Grains	9	2.5	4	✓
Larroe Milling Co., Detroit, Mich.				
Larro Scratch Grains.....	10	2	3.5	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Scratch	10	2.5	5	
Maritime Milling Co., Inc., Buffalo, N. Y.				
B B Bull Brand Scratch	10	2.5	4	✓
B-B Daisy Scratch.....	9	2.5	5	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Scratch	10	2	5	
Park & Pollard Co., Buffalo, N. Y.				
Red Ribbon Scratch.....	10	3	5	
Intermediate Chick	10	3	3.5	
Quaker Oats Co., Chicago, Ill.				
Big Egg Scratch Grains, No Grit.....	10	3	4.25	✓
Big Egg Scratch, No grit.....	9.5	2	3.5	✓
Quaker Ful-O-Pep Scratch Grains.....	9	2	3.5	
Ralston Purina Co., St. Louis, Mo.				
Purina Hen Chow.....	10	2.5	4	
Purina Intermediate Hen Chow.....	10	2.5	4	✓
Purina Chick Chow.....	10	2	4	✓
Protena Scratch (Buffalo Mill).....	9.5	2	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Squab and Pigeon.....	12	2.5	5	✓
Mornin' Call Poultry Grains.....	10	2.5	4	
Wirthmore Scratch	10	2.5	4	
Wirthmore Intermediate Scratch.....	10	2.5	3.5	
Wirthmore Baby Chick Scratch.....	10	2.5	3.5	✓
Skeels & Weidman, Swanton, Vt.				
Scratch	10	2	5	
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko Chick	9	2.5	5	✓
Ubiko Intermediate Scratch.....	9	2.5	5	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Grange Superior Scratch.....	10	3	6	✓

✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES				
Allied Mills, Inc., Peoria, Ill.				
Wayne Concentrate with Cod Liver Oil and Sardine Oil	32	4	8	
Wayne 26% Supplement with Cod Liver Oil and Sardine Oil	26	4	8	✓
Wayne 26% Supplement	26	4	7	✓
Wayne Breeder	18	4	7	
Red Feather Egg	18	3.5	8	✓
Wayne Broiler	18	3.5	8	✓
Wayne Egg	18	3.5	7	✓
Wayne Egg with Cod-liver Oil and Sardine Oil	18	3.5	7	✓
Wayne All Mash Chick Starter	17	4	6	✓
Wayne All Mash Chick Starter with Cod Liver Oil and Sardine Oil	17	4	6	✓
Empire Egg	16.5	4	7	✓
Wayne All Mash Grower	16	4	6	✓
Wayne All Mash Laying	15.5	3.5	7	✓
Wayne Turkey	15	3.5	8	✓
Wayne Poultry Fattener	13.5	4	7	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Brand Laying	20	5	6	✓
Pennant Brand Laying with Cod Liver Oil and Cod Liver Meal	20	5	6	✓
Pennant Brand Chick Starter	17	5	5	✓
Pennant Brand Growing	15	5	5	✓
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon Breeders with Buttermilk	20	4	7	✓
Beacon Growing	16	4	7	✓
Beacon Fleshing and Crate Fattener	15	4.5	5	
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell Dry with Cod Liver Oil	18	3	8.5	✓
Bidwell Dry	18	3	8	✓
Chapin & Co., Hammond, Ind.				
Chapin. Kernels Lay All	16	3.5	5.5	✓
Chapin Kernels Grow All	16	3.5	5.5	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Milk Laying	20	4	8	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Developer†	18.5	4	6.5	✓
Eastern States Producer†	17	4	6.5	
Eastern States Producer (with Oil)†	17	4	6.5	✓
Eastern States Egg†	17	4	6.5	✓
Eastern States Turkey-Fat†	16	3.5	5	✓
Eastern States Combination†	15	4	6.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Egg	18	4	8	✓
Elmore Eggmaker	17	4.5	8	✓
Elmore Complete Broiler	17	4	5	✓
Elmore Chixsaver	16.5	4	8	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Laying	20	5	7	✓
Eshelman Red Rose Laying with Cod Liver Oil	20	5	7	✓
Eshelman Pennsy Laying	18	5	8	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 10)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—continued				
First National Stores, Inc., Somerville, Mass.				
Henfield Egg	20	5	7	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Laying With Buttermilk—Cod Liver Oil	20	4	8	✓
Grandin's Laying with Buttermilk.....	20	4	8	✓
Grandin's Complete Starting with Butter- milk—Cod Liver Oil	16	4	6	✓
Grandin's Growing with Buttermilk—Cod Liver Oil	15	4	8	✓
Grandin's Complete Laying.....	15	4	7	✓
Grandin's Poultry Green Food	10	1	25	✓
Great Atlantic & Pacific Tea Co., New York, N. Y.				
Daily Egg	20	4.5	7	✓
Daily Growth Growing	17.5	4	7	✓
Hales & Hunter Co., Chicago, Ill.				
Red Comb Egg with Dried Buttermilk.....	18	4	7	✓
Red Comb Chick Starter with Dried Butter- milk	15	4	5	
Jersee Co., Minneapolis, Minn.				
Just Right Egg.....	18	5	8	✓
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	✓
Kasco Laying	20	4	6.5	✓
Kasco Poultry Flushing.....	17	4	6.5	✓
Larrowe Milling Co., Detroit, Mich.				
Larro Turkey Grower.....	24.5	4	6.5	✓
Larro Egg	19	5	7.5	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
Dollar\$Maker Egg	17	3.5	9	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Laying with Dried Buttermilk and Cod Liver Oil.....	20	4	9	
Park & Pollard Co., Buffalo, N. Y.				
Lay or Bust Dry.....	18	3	7	✓
Lay or Bust Dry with Cod Liver Oil.....	18	3	7	✓
Park & Pollard Chick Starter.....	17	3.5	5	✓
All-In-One Laying	15	4	5	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Egg.....	20	4.5	8	✓
Quaker Full-O-Pep Growing.....	19	5	6	
Ralston Purina Co., St. Louis, Mo.				
Purina Turkey Growing and Fattening Chow	21	3.5	8	✓
Purina Chick Startena Chow	19	4	7	✓
Purina Egg Chowder.....	19	3.5	8	✓
Purina Egg Chowder (With Cod Liver Oil).	19	3.5	8	✓
Purina Breeder Egg Chowder.....	19	3.5	8	✓
Purina Broiler Chow.....	18	4	7	✓
Purina All Mash Startena Chow.....	18	4	7	✓
Purina Chick Growena Chow.....	17	3.5	7	✓
Purina Chick Growena Chow (With Cod Liver Oil)	17	3.5	7	✓
Purina Lay Chow.....	17	2.5	8	✓
Purina Lay Chow (With Cod Liver Oil)....	17	2.5	8	✓

✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—concluded.					
Ralston Purina Co., St. Louis, Mo.— <i>continued</i>					
Purina Lay Chow (With Cod Liver Oil and Dried Buttermilk)					
	17	2.5	8	8	✓
	15.5	3.5	8	8	✓
	15	3.5	7	7	✓
St. Albans Grain Co., St. Albans, Vt.					
	24	4.5	7	7	✓
	20	4.5	7	7	✓
	20	4.5	7	7	✓
	20	4	7	7	✓
	20	4	7	7	✓
	20	4	7	7	✓
	18	4	5	5	✓
	17.5	4	5.5	5.5	✓
	16	4.5	7	7	✓
	15	4.5	6	6	✓
	15	4.5	6	6	✓
	15	4.5	6	6	✓
	15	4	5	5	✓
	14	3.75	6	6	✓
S. E. Smith Estate, West Rutland, Vt.					
	18	4.5	7	7	✓
Ubiko Milling Co., Cincinnati, Ohio					
	20	4	6	6	✓
	18	4	5	5	✓
	16	3.5	6	6	✓
	14	4	5	5	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.					
	18	4	7	7	✓
	18	4	7	7	✓
West-Nesbitt, Inc., Oneonta, N. Y.					
	18	5	7	7	✓
	16	4.5	4.6	4.6	✓

DRIED SKIMMILKS

Dairymen's League Co-operative Assn., Inc., Utica, N. Y.					
	33	0.5	..	..	..
Page Dairy Co., Toledo, Ohio					
	30	0.5	..	..	..
Trout Brook Creamery Co., Concord, Vt.					
	32	0.25	..	..	..
Ward Dry Milk Co., St. Paul, Minn.					
	32	1	..	..	..

✓ See footnote p. 10.

II. BRANDS FAILING TO MEET GUARANTIES

(In respect to one or more of the samples analyzed)¹

COTTONSEED MEALS

- ASHCRAFT-WILKINSON Co., Atlanta, Ga. *Helmet Brand Prime*. 41/5.5/10. Thirteen samples, one below protein guaranty (41%). Stock of Minckler's I. G. A. Store, Grand Isle, 39.42%. Seven samples below protein guaranty but within tolerance limits. Average 13 samples 40.97%. Also above fiber guaranty (10%). Found 11.51%.
- CAIRO MEAL & CAKE Co., Cairo, Ill. *Miss Cairo Brand 41 Percent Protein Prime Quality*. 41/6/10. Five samples, one below protein guaranty (41%). Stock of W. J. Rogers, Middlebury, 40.08%. Average five samples 41.48%.
- HUMPHREYS-GODWIN Co., Memphis, Tenn. *Bull Brand 43% Prime*. 43/5/11. Seven samples, one below protein guaranty (43%). Stock of Fred B. Tilden, Roxbury, 41.61%. Three samples below protein guaranty but within tolerance limits. Average seven samples 42.98%.
- HUMPHREYS-GODWIN Co., Memphis, Tenn. *Dixie Brand 41% Protein Prime*. 41/5/12. Eighteen samples, one below protein guaranty (41%). Stock of Checkerboard Feed Store, Barnet, 40.52%. Three samples below protein guaranty but within tolerance limits. Average 18 samples 41.73%.
- INTERNATIONAL VEGETABLE OIL Co., Inc., Greenville, Miss. *41% Protein*. 41/6/10. Average of two samples above fiber guaranty (10%). Found 10.75%.

GLUTEN FEED

- ANHEUSER-BUSCH, INC., St. Louis, Mo. *Corn Gluten Feed*. 25/2/8.5. One sample below fat guaranty (2%). Stock of E. L. Thompson, Poultney, 1.79%.

BREWERS' AND DISTILLERS' DRIED GRAINS

- DEWEY BROS. Co., Blanchester, Ohio. *Eagle 3D (Dewey's Distillers' Dried)*. 30/10/13. One sample below fat guaranty (10%). Stock of J. E. Foster, Underhill, 9.10%.
- DEWEY BROS. Co., Blanchester, Ohio. *Corn Distillers' Dried*. 27/8/13. One sample below protein guaranty (27%). Stock of R. B. Foster, Groton, 25.19%.
- PARK & POLLARD Co., Buffalo, N. Y. *Murphy's Brewers' Dried*. 20/6/15. Average two samples below fat guaranty (6%). Found 5.53%. Also above fiber guaranty (15%). Found 16.90%.

WHEAT MIXED FEEDS

- EXCELSIOR MILLING Co., Minneapolis, Minn. *Pure Camel Fancy Wheat Feed*. 16/5/8.5. One sample below protein guaranty (16%). Stock of C. H. Utley, Hardwick, 15.12%. Also below fat guaranty but within tolerance limits.
- MALTED CEREALS Co., Burlington, Vt. *Maltez Cereal Feed*. 12.5/4.5/8. Average two samples above fiber guaranty (8%). Found 9.32%.

¹In cases where one or more samples of a given brand proved deficient in its or their protein contents at the same time that others were within the tolerance limits or up to or above guaranty, and where the average figure was within tolerance limits or up to or above guaranty, the brand in question is listed both in this table as "failing to meet guaranty" (because some one or more of the samples was deficient) and in the preceding table as "in all respects up to guaranty" (because on the basis of the average of the several analyses it was "up to guaranty"). A hypothetical case may be cited. Eighteen samples are analyzed and two are deficient. Hence the brand, because of these two, is listed here. But 16 of the 18 were as good as they were said to be, actually or essentially, and on the average the shortage was either almost infinitesimal or, indeed, actually nonexistent. Hence the brand is listed among those that passed muster. Every sample taken is analyzed for its protein content. All samples of a given brand are mixed, forming one analytical sample for the determination of its fat and fiber contents. Hence it is that no sample of a brand, showing material shortage in fat or overage in fiber is listed as "up to guaranty."

RED DOG FLOURS

- HECKER-JONES-JEWELL MILLING DIV., Buffalo, N. Y. *Wheat*. 15/4.25/4. One sample below fat guaranty (4.25%). Stock of Goodrich Mill, Wells, 3.80%.
- NIAGARA FALLS MILLING CO., Lockport, N. Y. *Choice Wheat*. 16/4/4. One sample below fat guaranty (4%). Stock of Denison & Phillips, Pittsford, 3.53%.

ALFALFA MEALS

- PECOS VALLEY ALFALFA MILL CO., Hagerman, N. Mex. *Peevee Leaf*. 20/2.5/18. Average five samples below fat guaranty (2.5%). Found 2.11%.
- PECOS VALLEY ALFALFA MILL CO., Hagerman, N. Mex. *Pecos Special*. 13/1.5/33. One sample below protein guaranty (13%). Stock of E. W. Bailey & Co., Montpelier, 12.06%. Also above fiber guaranty (33%). Found 33.96%. Also below fat guaranty but within tolerance limits.

OAT, RYE AND CORN FEEDS

- EASTERN STATES FARMERS' EXCHANGE, Springfield, Mass. *Eastern States Molasses Oat Feed*. 5/1.25/27.5. One sample below protein guaranty (5%). Stock of South Hero Grain Co., South Hero, 4.62%.
- NORTHERN ILLINOIS CEREAL CO., Lockport, Ill. *Reground Oat Feed*. 3.5/1.25/35. One sample below protein guaranty (3.5%). Stock of E. E. Davis & Son, Island Pond, 2.43%. Also below fat guaranty (1.25%). Found 0.95%.
- QUAKER OATS CO., Chicago, Ill. *Vim Feed*. 5/2/30. Fourteen samples, one below protein guaranty (5%). Stock of E. M. Holt & Co., Northfield, 4.40%. Two samples below protein guaranty but within tolerance limits. Average fourteen samples 5.37%. Also below fat guaranty but within tolerance limits.

DAIRY FEEDS OR RATIONS

- E. W. BAILEY & Co., Montpelier, Vt. *Richmond Special 22%*. 22/5/9.5. One sample below fat guaranty (5%). Stock of Richmond Feed Co., Richmond, 4.44%.
- DANVILLE GRAIN CO., INC., Danville, Vt. *Danville 24%*. 24/5/9. Two samples, one below protein guaranty (24%). Stock of Farmers Feed & Grain Co., East Barre, 23.44%. Average two samples 23.99%. Also below fat guaranty but within tolerance limits.
- ELMORE MILLING CO., INC., Oneonta, N. Y. *Elmore Milk Grains Sweetened*. 24/5/10. One sample below fat guaranty (5%). Stock of South Hero Grain Co., South Hero, 4.34%.
- MARITIME MILLING CO., INC., Buffalo, N. Y. *B-B Hi-Test 20% Sweetened*. 20/4.5/12. One sample below fat guaranty (4.5%). Stock of R. W. Simonds, Fair Haven, 4.03%.
- E. G. & A. W. NORTON, Vergennes, Vt. *Kow Feed*. 20/4/10. One sample above fiber guaranty (10%). Stock of E. G. & A. W. Norton, Vergennes, 11%.
- CHAS. M. SEAVER & Co., Williamstown, Vt. *Honor Brand 24*. 24/5.5/9. One sample below fat guaranty (5.5%). Stock of Chas. M. Seaver & Co., Williamstown, 4.90%.
- J. D. THOMPSON ESTATE, Norwich, Vt. *Special 20%*. 20/4.5/12. One sample below fat guaranty (4.5%). Stock of J. D. Thompson Estate, Norwich, 3.87%.
- J. G. TURNBULL CO., Orleans, Vt. *Creamery*. 20/5/10. One sample below fat guaranty (5%). Stock of J. G. Turnbull Co., Orleans, 3.94%.

STOCK FEEDS

- JOHN W. ESHELMAN & SONS, Lancaster, Pa. *S-O-S*. 11/2/15. One sample above fiber guaranty (15%). Stock of E. J. Chatterton, Middlebury, 16.68%.

QUAKER OATS Co., Chicago, Ill. *Sugared Schumacher*. 10/3/12. Eleven samples, one below protein guaranty (10%). Stock of Elliott & Churchill, Middlebury, 9.21%. Two below protein guaranty but within tolerance limits. Average 11 samples 10.55%.

CALF MEALS AND HOG FEEDS

ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Calf*. 24/5.5/4. Eight samples, three below protein guaranty (24%). Stocks of W. J. Simonds, Brandon, 23%; C. H. Stearns & Son Co., Johnson, 23%; McIndoes Cash Grain Store, McIndoe Falls, 22.55%. Average eight samples 24.43%.

SCRATCH FEEDS, CHICK FEEDS

ELMORE MILLING Co., Inc., Oneonta, N. Y. *Elmore*. 10/3.5/7. Average six samples below fat guaranty (3.5%). Found 2.95%.

S. E. SMITH ESTATE, West Rutland, Vt. *Smith Estate Blue Ribbon*. 11/3.5/4. One sample below fat guaranty (3.5%). Stock of S. E. Smith Estate, West Rutland, 3.18%. Also below protein guaranty but within tolerance limits.

WEST-NESBITT, INC., Oneonta, N. Y. *Pure Feed*. 10/3.5/5. Average two samples below fat guaranty (3.5%) Found 3.09%.

MASHES, GROWING FEEDS, ETC.

ALLIED MILLS, INC., Peoria, Ill. *Empire Egg*. 16.5/4/7. Four samples, one below protein guaranty (16.5%). Stock of Amco Service Store, Richmond, 15.78%. Average four samples 17.48%.

HALES & HUNTER Co., Chicago, Ill. *Red Comb Growing with Buttermilk*. 15/4/6. One sample above fiber guaranty (6%). Stock of E. W. Bailey & Co., Montpelier, 6.59%.

E. T. & H. K. IDE, St. Johnsbury, Vt. *Ideal Egg*. 19/4.5/5.5. One sample above fiber guaranty (5.5%). Stock of E. T. & H. K. Ide, St. Johnsbury, 6.02%.

ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Laying with Cod Liver Oil*. 20/4/7. Twenty-two samples, one below protein guaranty (20%). Stock of W. B. Johnson & Son, Essex Junction, 19.28%. Two samples below protein guaranty but within tolerance limits. Average 22 samples 21.21%.

III. CONCERNING 1934 AND 1935 FEEDING STUFFS REGISTRATIONS

The main objective of the Association of American Feed Control Officials is the promotion of "uniformity in legislation, definitions and rulings and the uniformity of laws relating to the manufacture, sale, and distribution of feeding stuffs in the continent of North America." Its first regulation sets forth the fact that its "definitions and standards . . . should be adopted by state officials so far as the statutes will permit."

A study of the Vermont 1933 feeding stuffs registrations indicates that in several instances these "definitions and standards" were not taken into account by registrants. For example:

1. The protein percentage was not embodied in the brand name of cottonseed and linseed meals.
2. The words "molasses" or "buttermilk" were used as part of brand names.
3. The source whence screenings were derived was not stated.

4. The name of the cereal predominating in the manufacture of distillers' dried grains was not indicated.
5. Oat hulls guaranteed to contain 35 percent of crude fiber were registered as "ground oat feed."
6. The word "wheat" was not made a portion of the brand name of brans, shorts, mixed feeds and reddog flours.
7. The term "wheat middlings" was used indiscriminately to designate either "standard wheat middlings" or "wheat flour middlings."
8. The term "Ideal Greens," or "Velvet Meal" were used in lieu of alfalfa meal.
9. The term "reddog" was used for "wheat reddog flour."

It is hoped that 1934 registrants will be guided by the following suggestions:

- (1) COTTONSEED AND LINSEED MEALS. *The protein percentages should be embodied in the brand name.* (Proper phraseology: Bonnie 41% protein cottonseed meal.)
- (2) MOLASSES, BUTTERMILK. *These words should not be used as a part of the brand name unless preceded by the word "with" or the word "containing."* (Inadvisable phraseology: Bonnie Molasses Dairy Feed; Bonnie Buttermilk Egg Mash. Proper phraseology: Bonnie Dairy Feed with (or containing) Molasses; Bonnie Egg Mash with (or containing) Buttermilk; Bonnie Egg Mash with (or containing) Cod Liver Oil.)
- (3) SCREENINGS. *The source should be indicated. The word "wheat" should precede the word "screenings" unless they are derived from rye or some other grain, in which case the appropriate term should be used.*
- (4) DISTILLERS' DRIED GRAINS. *The name of the predominating cereal should be embodied in the brand name.* (Proper phraseology: Bonnie Corn Distillers' Dried Grains.)
- (5) OAT HULLS *should not be guaranteed as "oat feed."* (Proper phraseology: Bonnie Ground Oat Hulls.)
- (6) WHEAT OFFALS. *The word "wheat" should be embodied in the brand name.* (Inadvisable phraseology: Bonnie Bran. Proper phraseology: Bonnie Wheat Bran.)
- (7) STANDARD WHEAT MIDDLLINGS, WHEAT FLOUR MIDDLLINGS. *Differentiation should be made; neither should be registered simply as "wheat middlings."*
- (8) ALFALFA MEAL *should be properly designated.* (Inadvisable phraseology: Bonnie Greens; Bonnie Velvet Meal. Proper phraseology:

Bonnie Alfalfa Meal. If desired, the brand name or designation may be used, provided the descriptive term "alfalfa meal" is printed in at least as large letters as the non-descriptive term and is make a part of the brand name.) *Note:* Alfalfa meal should not be guaranted to carry over 33% fiber:

(9) WHEAT RED DOG FLOUR *should be the term used and not "red dog."*

The writer realizes that some members of the trade may not be able to make brand name changes at once; that stencils and tags may be in use and on hand in large numbers containing phraseology which does not strictly conform to these suggestions. However, since similar requirements are likely to be made in the near future in most if not all states where feeding stuff control exists, and are likely to be "adopted by state officials so far as the statutes will permit," the situation is one which all members of the trade must face at some time. A large proportion, probably four-fifths, perhaps nine-tenths, of the brands registered in Vermont in 1933 were named in accordance with the above suggestions; hence it is thought that it will not be difficult for the trade to conform.

In order to afford the trade ample opportunity to adjust itself to the uniformity of nomenclature above suggested, the Vermont Station does not now propose to give the force of rulings to the suggestions 1-9, printed above in italics. However, it is expected to accord them the status of rulings on December 1, 1934, eight months from the date of this bulletin, it being understood that if, in any given case, there seems sufficient reason for further extension of time, the same may be granted.

Of course the members of the trade will realize that the motive back of this country-wide movement is the securing of greater uniformity of nomenclature, a clearer understanding on the part of both sellers and buyers as to what a given goods purports to be, and the adoption of uniform labels which will pass current in all states of the Union.

Registrants who desire to secure a copy of the latest statement as to definitions and standards made by the Association of American Feed Control Officials can doubtless secure the same by writing to Mr. L. E. Bopst, Secretary, College Park, Maryland.

Correspondence concerning the matters discussed herein should be had with the writer, addressing L. S. Walker, 489 Main St., Burlington, Vermont.

IV. INGREDIENT STATEMENTS

The following pages set forth the ingredient contents of all brands of compounded or proprietary feeds which were sampled and analyzed as declared upon the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturers. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on pages 31, 33-34, 35, 37-38, 42.

Twenty-one of the 185 brands of dairy and stock feeds sampled—11 percent of the total number collected—contained screenings. This result is not as good as that secured with the spring 1933 samples and is probably due to the increase in price. Perhaps dairymen, hard put to it by the difficult economic conditions with which they are confronted, have tried to economize and have bought cheaper grades of feed.

Thirteen percent of the 366 brands of proprietary feeds examined were not found to be "as certified" in respect to ingredient statements. Either some one or more of the ingredients declared to be used by the manufacturer were not found to be present by the microscopist or else additional ingredients were found. Some of the ingredients "not detected," *e.g.*, calcium carbonate, salt, bone meal, potassium iodide, magnesium sulphate and bicarbonate of soda, if placed in the mixture, were used in very small quantities. Such materials are usually finely ground and are liable mechanically to separate in the bag, to pass to the outer portions or settle to the bottom in such fashion that when the standard method of sampling is used they are not always included in the sample. Perhaps, in every case where they were not detected they were actually put into the mixture by their makers. Some of them are among the cheaper ingredients and nothing is gained by omitting them.

A study of the 50 brands which were not "as certified" reveals the fact that in only 14 cases were ingredients lacking whereas in 36 cases there were found ingredients not certified to be present. Brewers' dried grains, sunflower seed, barley, kaffir corn and milo maize were important ingredients found lacking in the 14 feeds; bone meal, calcium carbonate, potassium iodide, bicarbonate of soda, iron sulphate and copper sulphate are less important, also found lacking, yet their absence necessitates listings under the heading "not as certified." Eleven of the 36 contained weed seeds and one, oat mill feed. In the other cases the extraneous materials did not harm and were of good quality. Five dairy and six scratch feeds contained weed seeds as compared with 13 dairy and six scratch feeds found in the inspection of a year ago.

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Allied Mills, Inc.																								
Amco 32% Supplement†	32	4	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Amco 24%†	24	3.5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 24%†	24	3	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Amco 20%†	20	3.5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 20%†	20	3	12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Amco 16½%	16.5	3.5	12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. W. Bailey & Co.																								
Capital	24	5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Capital	24	5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bailey's Open Formula	20	4.5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
20%	20	4.5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Favorite	20	4.5	7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Favorite	20	4.5	7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Our 20 Special	20	3.5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bailey's 16%	16	5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Bailey's 16%	16	5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Beacon Milling Co., Inc.																								
Beacon Sweet '24'	24	4	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Beacon Sweet '20'	20	4.5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Auburn Brand Auburn	20	4	10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Berkshire Coal & Grain Co., Inc.																								
Green Mountain	23	5	10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Bethel Mills																								
Bethel Mills 24 Protein	24	5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein	20	5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein	20	4.2	9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened	20	4.2	9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein	20	4	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Sweetened Economy	20	4	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 16 Protein	16	4.2	9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Pasture	16	4.2	9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Black Rock Milling Corp.																								
Bidwell 24%	24	4	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 5
Bidwell 20%	20	4	11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 5
Chapin & Co.																								
Unicorn 24%	24	4.5	10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Unicorn 20%	20	4.5	10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Community Feed Stores, Inc.																								
Community 20	20	4.5	8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. C. Crosby																								
Crosby's A Quality 20%†	20	5	8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Crosby's B Quality 20%†	20	4.5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Danville Grain Co., Inc.																								
Danville 24%	24	5	9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Danville 20%	20	4	10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Davis Feed Co., Inc.																								
Vermont 20%	20	5	8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Davis 20% Kow Feed	20	4.5	8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11

†Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linsed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
H. W. Demick, Inc.																								
Beats 'Em All	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Farmers' Exchange																								
Eastern States 32% Supplement†	32/4.5/8	*										*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Milkmore†	24/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Fulpall†	20/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Highland 20†	20/4/12	*										*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Eastern States Sixteen†	16/4/8											*	*	*	*	*	*	*	*	*	*	*	*	6
Elmore Milling Co., Inc.																								
Elmore Milk Grains	25/5/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Elmore Milk Grain Sweetened	24/5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Granger 24%	24/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Elmore Milk Grains Jr.	20/5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Elmore Milk Grains Junior Sweet	20/5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Emco Feed	20/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Granger 20%	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	-1, 2
Elmore's Sweet Digesto	16/4/12																							
John W. Eshelman & Sons																								
Eshelman Red Rose 24	24/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9
Eshelman Challenge	24/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9
Eshelman Lancaster 20	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9
Eshelman Conestoga 20	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Eshelman Open Formula 20	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Eshelman Certified 20%†	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Eshelman Pennsy 16	16/3/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
For-All Grain Co., Inc.																								
For-All Milk Grains 20%	20/5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 11
D. H. Grandin Milling Co.																								
Grandin's 32%	32/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
M-S (Money Saver) 24% Sweet	24/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9
Grandin's Sweetened 12 Twin Six 12	22/5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
M-S (Money Saver) 20% Sweet	20/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9
Grandin's Sweetened 20%	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
E. T. & H. K. Ide																								
Ideal Sweetened	24/5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sunshine	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Royal Sweetened	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ide's Special	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
W. B. Johnson & Son																								
Johnson's Perfection No. 1	20/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Johnson's Economy	20/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11

† Open formula.

DAIRY FEEDS—concluded

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grain	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein.	Fat	Fiber																					
J. D. Thompson Est. Special 20%	20/4.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
J. G. Turnbull Co. Creamery	20/5/10									*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Turnbull's Special	20/3.5/12									*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 11
Frank Tyler Tyler's Ready Mixed 20%	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
C. H. Utley Veri-Best Balanced	20/5/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne County Grangers Feed Corp. Milkproducer 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 3, 5 17, 18
"Galen 24%"	24/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Superior 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 3, 5 17, 18
"Clyde 20%"	20/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Hi-Yan-Ka Farms 20% with Beet Pulp	20/3/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Sweetened 16%	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 17, 18
Ray P. Webster Ray's Ready	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc. All Pure 20% Milk	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Additional ingredients: 1. Soy bean oil meal. 2. Barley. 3. Wheat. 4. Calcium phosph. 5. Malt sprouts. 6. Dicalcium phosphate. 7. Copra oil meal. 8. Phosphate limestone. 9. C feed meal. 10. Oat middlings. 11. Rye feed. 12. Potassium iodide. 13. Fenugreek. 14. D ground fish. 15. Charcoal. 16. Iodized salt. 17. Cocoa meal. 18. Tricalcium phosphata.

The dairy feeds, with few exceptions, were found to be "as certified."

In the following instances, the ingredients were "not detected":

- E. W. Bailey & Co., Bailey's Sweetened 16%: Bone meal.
- W. B. Johnson & Son, Johnson's Perfection No. 1: Bone meal and calcium carbonate.
- W. B. Johnson & Son, Johnson's Economy: Bone meal and calcium carbonate.
- J. D. Thompson Estate, Special 20%: Brewers' dried grains.

In the following instances small quantities of ingredients named were found in addition to those certified:

- Allied Mills, Inc., Amco 16½% Sucrene: Oat mill feed.
- Beacon Milling Co., Inc., Beacon Sweet '20': Brewers' dried grains.
- Beacon Milling Co., Inc., Auburn Brand Auburn: Few whole weed seeds.
- Black Rock Milling Corp., Bidwell 24%: Corn meal.
- Eastern States Farmers' Exchange, Eastern States Highland 20: Distillers' dried grains.
- Elmore Milling Co., Inc., Granger 20%: Coconut oil meal.
- Elmore Milling Co., Inc., Elmore's Sweet Digesto: Linseed meal, small amount of ground barley and brewers' dried grains.
- John W. Eshelman & Sons, Eshelman's Challenge: Occasional whole weed seeds.
- John W. Eshelman & Sons, Eshelman Conestoga 20: Occasional whole weed seeds.
- Kasco Mills, Inc., Kasco 18%: Linseed meal.
- Maritime Milling Co., Inc., B-B Marmico 16% Protein with Molasses: Occasional whole weed seeds.
- E. G. & A. W. Norton, Kow Feed: Brewers' dried grains.
- Ralston Purina Co., Protena 24% (Buffalo Mill): Trace of alfalfa.
- St. Albans Grain Co., Champlain Valley Emergency 24: Small amounts of ground oats.
- J. D. Thompson Estate, Special 20%. Dried beet pulp.
- J. G. Turnbull Co., Creamery: Brewers' dried grains.
- J. G. Turnbull Co., Turnbull's Special: Dried beet pulp.
- Frank Tyler, Tyler's Ready Mixed 20%: Brewers' dried grains.
- Wayne Co. Grangers Feed Corp, Sweetened 16%: Numerous whole weed seeds.

Thirty-nine ingredients were used in making the 139 brands of dairy feeds sampled. Cottonseed meal and salt appear in all; bran and gluten meal or feed in all but one; calcium carbonate, linseed meal and molasses in eighth-tenths; corn meal in seven-tenths; wheat middlings and ground oats in six-tenths; bone meal and hominy feed in five-tenths; brewers' dried grains and soybean meal in four-tenths; corn distillers' dried grains in three-tenths; and ground barley, oat mill feed and screenings in two-tenths. Ninety percent of brands carried minerals other than salt.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																	
Allied Mills, Inc. Wayne Rabbit	13/3/11	* * * *																	1.9, 12.13, 14.16, 17.20
Amco 12% Fitting†	12/3/9		*	*	*				*	*	*	*	*	*	*	*	*	*	9
Wayne Supreme Horse	9.5/3/8								*	*	*	*	*	*	*	*	*	*	
E. W. Bailey & Co. Sweetened Bailey's Fitting	14/4/9		*	*					*	*	*	*	*	*	*	*	*	*	
Pennant Horse	10.75/3.5/6.5								*	*	*	*	*	*	*	*	*	*	
Pennant Brand Stock	9.5/4/9.5		*						*	*	*	*	*	*	*	*	*	*	
Sweetened with Molasses Pennant Brand Stock	9.5/4/9.5		*						*	*	*	*	*	*	*	*	*	*	
Chapin & Co. Centaur Fitting	12/4/8		*						*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange Eastern States Highland 12†	12/3.5/11.5								*	*	*	*	*	*	*	*	*	*	2, 4, 9
Eastern States Fitting†	12/3.5/7								*	*	*	*	*	*	*	*	*	*	2, 9
Eastern States Horse and Calf†	10.5/3.5/7								*	*	*	*	*	*	*	*	*	*	2
Elmore Milling Co., Inc. Elmore Fitting	12/4/9		*	*					*	*	*	*	*	*	*	*	*	*	7
Elmore Stock	10/3/12		*						*	*	*	*	*	*	*	*	*	*	
Elmore Horse with Molasses	9/2.5/11	*							*	*	*	*	*	*	*	*	*	*	
John W. Eshelman & Sons Eshelman Red Rose Fitting	12/3.5/7		*	*	*				*	*	*	*	*	*	*	*	*	*	
Eshelman S-O-S	11/2/15	*	*	*					*	*	*	*	*	*	*	*	*	*	3, 4
Eshelman Steam-Cooked Horse	9/4/6		*						*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose 85 Horse	9/3/10	*							*	*	*	*	*	*	*	*	*	*	
Eshelman Garden Spot Horse	7/2/10								*	*	*	*	*	*	*	*	*	*	
D. H. Grandin Milling Co. Grandin's Sweetened Horse	9.5/3.5/11	*							*	*	*	*	*	*	*	*	*	*	
Grandin's Stock	8.5/4/12		*	*					*	*	*	*	*	*	*	*	*	*	5
Hales & Hunter Co. Victoria Rabbit	12/2/20	* * * *							*	*	*	*	*	*	*	*	*	*	1, 8, 17
Imperial Grain & Milling Co. Imperial Steam Cooked	9.5/4/4.6								*	*	*	*	*	*	*	*	*	*	
Kasco Mills, Inc. Kasco Horse	9/3/10	*							*	*	*	*	*	*	*	*	*	*	
Maritime Milling Co., Inc. B B Dealers' Mixing with Molasses	10/3.5/12		*						*	*	*	*	*	*	*	*	*	*	

†Open formula.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linsseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog	
	Protein	Fat	Fiber																		
Geo. Q. Moon & Co., Inc.																					
Moon's Molasses Horse	9/3/10	*				*	*	*	*	*	*	*	*	*	*						
Park & Pollard Co.,																					
Park & Pollard Fitting	12/3.5/7						*	*			*	*	*	*	*			*		6	
Park & Pollard Horse	10/3.5/9									*	*	*	*	*	*			*			
Park & Pollard Stock	8.5/4/12				*	*	*	*			*	*	*	*	*			*			
Quaker Oats Co.																					
Quaker Sugared																					
Schumacher	10/3/12				*	*	*	*	*	*	*	*	*	*	*			*		11	
Ralston Purina Co.																					
Purina Rabbit Chow	16/3.5/8	*			*	*						*	*	*	*			*		9, 10, 19, 21	
Purina Fitting Chow	13.5/2.6/12	*			*	*				*	*	*	*	*	*			*		9, 10	
Purina Rabbit Chow	13.5/2.5/16	*	*		*	*				*	*	*	*	*	*			*		9, 10, 19, 21	
Purina Bulky Omolene Chow	10/3.2/11									*		*	*	*	*			*		10	
Purina Omolene Chow	10/3.2/9	*								*	*	*	*	*	*			*		10	
Purina Bulky Las Chow (Buffalo Mill)	9/1.3/15	*										*	*	*	*			*		3, 10	
Protena Sweet Roughage (Buffalo Mill)	6/1/30	*										*	*	*	*			*		10	
St. Albans Grain Co.																					
Wirthmore 14 Fitting	14/4/7				*	*	*	*			*	*	*	*	*			*		6	
Wirthmore Rabbit	14/3.5/9	*	*		*	*	*	*		*	*	*	*	*	*			*		7, 12, 13, 18	
Utility Pasture	14/3/13	*	*		*	*	*	*		*	*	*	*	*	*			*		4, 7	
Hygrade Fitting	12/4.5/8	*	*		*	*	*	*		*	*	*	*	*	*			*		9	
Wirthmore Horse	9.8/3.25/9	*			*	*	*	*		*	*	*	*	*	*			*			
Wirthmore Stock	9/4/9.5	*	*		*	*	*	*		*	*	*	*	*	*			*			
Wirthmore Fodder Greens	9/1.25/19	*			*	*	*	*		*	*	*	*	*	*			*		3, 15	
Ubiko Milling Co.																					
Ubiko Horse	9/3.5/7									*	*	*	*	*	*			*			
Wayne County Grangers Feed Corp.																					
Universal Horse	10/3/9	*	*		*	*	*	*		*	*	*	*	*	*			*			

Additional ingredients: 1. Ground wheat. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Charcoal. 9. Soy bean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skimmilk. 13. Cod-liver oil. 14. Dried buttermilk. 15. Alfalfa stem meal. 16. Sardine oil. 17. Potassium iodide. 18. Cracked wheat. 19. Corn germ meal. 20. Iron oxide. 21. Wheat germ.

The stock feeds, horse feeds, fitting feeds and rabbit feeds were found to be "as certified" with a few minor exceptions.

In the following instance the ingredients were "not detected":

Allied Mills, Inc., Wayne Rabbit: Potassium iodide.

In the following instances small quantities of ingredients named were found in addition to those certified:

E. W. Bailey & Co., Sweetened Bailey's Fitting: Ground barley.
 Eastern States Farmers' Exchange, Eastern States Highland 12: Distillers' dried grains.
 St. Albans Grain Co., Wirthmore Rabbit: Salt.
 St. Albans Grain Co., Hygrade Fitting: Corn gluten meal.

Thirty-eight ingredients were used in making the 46 brands of stock feed, etc., sampled. Molasses, oats, and salt appear in eight-tenths; linseed meal in six-tenths; corn meal and wheat bran in five-tenths; alfalfa meal and cracked corn in four-tenths; ground barley, calcium carbonate and hominy feed in three-tenths; bone meal, oat mill feed and wheat middlings in two-tenths of the brands sampled. Screenings were used in one brand.

CALF MEALS, HOG FEEDS

Allied Mills, Inc., Wayne Calf Meal. 24/4/7. Dried skim milk, cottonseed meal, corn gluten meal, coconut oil meal, wheat bran, wheat middlings, wheat second clear flour, soybean meal, 2% limestone, 1% steamed bone meal, 1% salt, 0.06% iron oxide, 0.0007% potassium iodide, cane molasses.

Allied Mills, Inc., Emergency Hog Feed. 14/3/7. Digester tankage, corn meal, wheat middlings, alfalfa meal, cane molasses, 1% limestone, 0.02% iron oxid, 0.5% steamed bone meal, 0.0005% potassium iodide, 0.0005% copper sulphate, 1% salt and oats.

Blatchford Calf Meal Co., Blatchford's Calf Meal. 24/5/6.75. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, linseed meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate, wheat flour, coconut oil meal, cottonseed meal, fenugreek, anise, and salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula). 23/3.5/4. Rolled oat groats, corn meal, wheat bran, linseed meal, cracked corn, blood flour, dried skim milk, dicalcium phosphate, and salt.

Eastern States Farmers' Exchange, Eastern States Hog Meal (Open Formula). 14.5/4/5.5. Corn meal, meat scraps, wheat flour middlings, linseed meal, alfalfa leaf meal, dicalcium phosphate, calcium carbonate, and salt.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal. 24/4/4. Wheat reddog, corn meal or corn feed meal, oat meal, linseed meal, malted barley, blood meal, dried buttermilk, bone meal, and salt.

Elmore Milling Co., Inc., Elmore's Makemgrow Little Pig. 18/4.5/7. Wheat middlings, corn feed meal or hominy feed, linseed meal, wheat reddog, tankage, salt.

Elmore Milling Co., Inc., Elmore's Hog. 15/5/6. Wheat middlings, linseed meal, corn meal, corn feed meal or hominy, tankage, and salt.

John W. Eshelman & Sons, Eshelman Red Rose Calf Starter. 20/3/5. Wheat feed, linseed meal, wheat middlings, wheat flour, oat meal, kafir corn, blood flour, 2% flaxseed, 1% steamed bone meal, ½% calcium carbonate, and ½% salt.

John W. Eshelman & Sons, Eshelman Red Rose Calf Starter. 18/3/5. Wheat feed, linseed meal, wheat middlings, wheat flour, oat meal, kafir corn, blood meal, 2% flaxseed.

John W. Eshelman & Sons, Red Rose Hog. 16/5/10. Wheat Middlings, corn feed meal, digester tankage, wheat bran, 3% bone meal, 2% fish meal, 2% linseed meal, 2% charcoal, reground grain screenings, 1% calcium carbonate, and 1% salt.

D. H. Grandin Milling Co., Grandin's Pig and Hog. 18/5/10. Linseed meal, coconut oil meal, wheat middlings, corn meal, corn feed meal, hominy, digester tankage, alfalfa meal, calcium carbonate, cod liver oil, and ½% salt.

Larowe Milling Co., Larro Pork-Maker. 25/5/10. Meat scraps, dried beet pulp, linseed meal, wheat standard middlings, alfalfa meal, wheat bran, corn germ meal, 3% limestone, and 1% salt.

Larowe Milling Co., Larro Calf Meal. 23/4/4. Oat meal, wheat standard middlings, corn meal, linseed meal, blood flour, dried skim milk, cod liver oil vitamin extract, 0.5% limestone, 0.75% salt.

Park & Pollard Co., Go Tu It Pig & Hog Ration. 15/3.5/8. Alfalfa meal, hominy, barley, fish meal, meat bone, corn meal, corn germ meal, wheat middlings, ground grain screenings, calcium carbonate, and salt.

Quaker Oats Co., Schumacher Calf Meal. 18/7/4. Oat meal, ground flaxseed, ground puffed wheat, linseed meal, dried skim milk, blood flour, 0.50% bicarbonate of soda, 0.75% salt, 1% ground limestone, and 1% bone meal.

Ralston Purina Co., Purina Calf Chow. 27/3.2/4.5 Blood flour, dried skim milk, linseed flour, corn meal, wheat second clear flour, corn gluten meal, 0.5% iodized salt, 1.5% calcium carbonate.

Ralston Purina Co., Purina Hog Fatena Chow. 14/3/7. Tankage, linseed meal, corn germ meal, alfalfa leaf meal, wheat middlings, hominy, molasses, alfalfa meal, 2% iodized salt, and 1% charcoal.

Ryde & Co., Ryde's Cream Quality Calf Meal. 18.5/4/4. Blood meal, dried skim milk, locust bean meal, barley malt flour, crude milk albumen, linseed meal, coconut oil meal, oat groats, corn meal, ground flaxseed, wheat flour, wheat flour middlings, fenugreek, anise, steamed bone meal, calcium carbonate, and salt.

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skim milk, oat meal, ground flaxseed, blood flour, linseed meal, wheat reddog, corn meal, bone meal, iodized salt, anise, and fenugreek.

St. Albans Grain Co., Wirthmore Pig and Hog. 17/4/9. Beef scraps, fish meal, bone meal, wheat reddog, wheat middlings, wheat bran, linseed meal, alfalfa meal, corn meal, ground barley, corn gluten feed, calcium carbonate, cane molasses, and dairy salt.

The calf and hog meals were found to be "as certified" with but a single minor exception.

In the following instance the ingredient named was "not certified":

Quaker Oats Co., Schumacher Calf: Bicarbonate of soda.

There were 43 ingredients used in the 11 brands of calf meals sampled. Blood flour, linseed meal and salt appear in 10; dried skim milk in 7; bone meal, calcium carbonate, corn meal, ground flax and wheat flour in 6; and oat meal and wheat middlings in 5.

There were 29 ingredients used in 10 brands of pig and hog feeds sampled. Wheat middlings and salt appear in all; linseed meal in 8; alfalfa meal and calcium carbonate in 7; corn meal in 5; bone meal, meat meal and hominy feed in 4; and fine ground grain screenings in 2.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE
OR CRACKED GRAINS

Scratch Grains, etc.	Guaranty													
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
Allied Mills, Inc.														
Wayne Scratch	10/2.5/4			•	•	•						•	•	
Wayne Intermediate Scratch	10/2/4			•	•	•						•	•	
Red Feather Scratch	9/2.5/4			•	•	•				•		•	•	
Wayne Special Scratch	9/2.5/4			•								•	•	
E. W. Bailey & Co.														
Pennant Scratch	10/3/6.5			•	•	•				•		•	•	
Pennant Brand Fine Chick	10/3/3					•						•	•	
Pennant Brand Coarse Chick	10/3/3				•						•	•	•	
Beacon Milling Co., Inc.														
Beacon's Cayuga Scratch	9/2.5/5			•	•	•	•					•	•	
Beacon Special Scratch	9/2/3.5			•								•	•	
Berkshire Coal & Grain Co., Inc.														
Berkshire Scratch	10/2.5/5			•	•	•				•		•	•	
Black Rock Milling Corp.														
Bidwell Scratch	10/1.5/5			•	•	•	•	•		•		•	•	
Community Feed Stores, Inc.														
Community Scratch	10/3/4			•	•	•				•		•	•	
Eastern States Farmers' Exchange														
Eastern States Scratch Grains (with whole corn)†	10.5/2.5/4									•		•	•	1
Eastern States Scratch Grains (with coarse cracked corn)†	10/2.5/4					•				•		•	•	
Eastern States 31 Scratch Grains†	9.5/2.5/3					•						•	•	
Eastern States Intermediate Scratch†	9.5/2/3					•						•	•	
Elmore Milling Co., Inc.														
Elmore Scratch	10/3.5/7			•	•	•	•					•	•	
Emco Scratch	10/2.5/7			•	•	•						•	•	
John W. Eshelman & Sons														
Eshelman Red Rose Scratch	10/2.5/4			•	•	•	•					•	•	
Eshelman Pennsy Scratch	9/2.5/4			•	•	•	•					•	•	
First National Stores, Inc.														
Henfield Scratch	10/2.5/5			•	•	•	•			•		•	•	
D. H. Grandin Milling Co.														
Grandin's Baby Chick	10/2.5/5					•				•		•	•	
Grandin's Screened Scratch	10/2.5/5			•	•	•				•		•	•	
Grandin's Intermediate Chick	10/2.5/5					•				•		•	•	
Great Atlantic & Pacific Tea Co.														
Daily Egg Scratch	10/2.5/5			•	•	•	•	•		•		•	•	
Hales & Hunter Co.														
Red Comb Scratch	10/2.5/5			•	•	•	•			•		•	•	
Pound Squab & Pigeon, No grit	10/2.5/5			•	•	•				•		•	•	2
E. T. & H. K. Ide														
Ideal Scratch	10/3/4			•	•	•						•	•	
W. B. Johnson & Son														
Johnson's Perfection Scratch	10/3/5			•	•	•	•	•		•		•	•	
Kasco Mills, Inc.														
Apex Scratch	9/2.5/4			•	•	•	•					•	•	
Kasco Scratch	9/2.5/4			•	•	•						•	•	
Larrowe Milling Co.														
Larro Scratch	10/2/3.5			•	•	•	•			•		•	•	

†Open formula.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty			Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
	Protein	Fat	Fiber											
R. H. McEwen Milling Co.														
McEwen's Red Feather Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Maritime Milling Co., Inc.														
B-B Bull Brand Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
B-B Daisy Scratch	9/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Geo. Q. Moon & Co., Inc.														
Moon's Scratch	10/2/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Park & Pollard Co.														
Red Ribbon Scratch	10/3/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Intermediate Chick	10/3/3.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Quaker Oats Co.														
Big Egg Scratch, No Grit	10/3/4.25	*	*	*	*	*	*	*	*	*	*	*	*	*
Big Egg Scratch, No grit	9.5/2/3.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Quaker Ful-O-Pep Scratch	9/2/3.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Ralston Purina Co.														
Purina Hen Chow	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Purina Intermediate Hen Chow	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Purina Chick Chow	10/2/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Protana Scratch (Buffalo Mill)	9.5/2/4	*	*	*	*	*	*	*	*	*	*	*	*	*
St. Albans Grain Co.														
Wirthmore Squab & Pigeon	12/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	3
Wirthmore Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Mornin' Call Poultry	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Intermediate Scratch	10/2.5/3.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Baby Chick Scratch	10/2.5/3.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Skeels & Weidman														
Scratch	10/2/5	*	*	*	*	*	*	*	*	*	*	*	*	*
S. E. Smith Estate														
Smith Estate Blue Ribbon Scratch	11/3.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Ubiko Milling Co.														
Ubiko Intermediate Scratch	9/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Ubiko Chick	9/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne County Grangers Feed Corp.														
Grange Superior Scratch	10/3/6	*	*	*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc.														
Pure Feed Scratch	10/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*

Additional ingredients: 1. Whole corn. 2. Hemp. 3. Vetches.

The scratch feeds, etc., were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

- Park & Pollard Co., Red Ribbon Scratch: Sunflower.
- Quaker Oats Co., Quaker Ful-O-Pep Scratch: Barley.
- St. Albans Grain Co., Wirthmore Scratch: Kaffir corn and milo maize.
- St. Albans Grain Co., Mornin' Call Poultry Grains: Sunflower.

In the following instances small quantities of the ingredients named were found in addition to those certified:

- Beacon Milling Co., Inc., Beacon Special Scratch: Occasional whole weed seeds.

Elmore Milling Co., Inc., Elmore Scratch: Sunflower.
 John W. Eshelman & Sons, Eshelman Pennsy Scratch: Oats.
 Great Atlantic & Pacific Tea Co., Daily Egg Scratch: Whole weed seeds.
 E. T. & H. K. Ide, Ideal Scratch: Few oats.
 R. H. McEwen Milling Co., McEwen Red Feather Scratch: Few whole weed seeds.
 Geo. Q. Moon & Co., Inc., Moon's Scratch: Few oats.
 Park & Pollard Co., Intermediate Chick: Occasional whole weed seeds.
 Ralston Purina Co., Purina Hen Chow: Occasional whole weed seeds.
 St. Albans Grain Co., Wirthmore Intermediate Scratch: Few whole weed seeds.
 Skeels & Weidman, Scratch: Sunflower.

Thirteen ingredients were used in making the 56 brands of scratch feeds, etc., sampled. Corn and wheat were used in all brands; buckwheat in seven-tenths; barley and oats in six-tenths; kaffir corn and milo maize in five-tenths; and sunflower in four-tenths.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
	Protein	Fat	Fiber																				
Hied Mills, Inc.																							
Wayne Mash Concentrate||†	32/4/8 *																						1, 2, 3, 4, 26
Wayne 26% Mash Supplement||†	26/4/8 *																						1, 2, 3, 4, 26
Wayne 26% Supplement	26/4/7 *																						1, 2, 3
Wayne Breeder	18/4/7 *																						1, 2, 3, 4, 6, 7, 26
Wayne Broiler	18/3.5/8 *																						1, 2, 3, 4, 26
Red Feather Egg	18/3.5/8 *																						2, 8
Wayne Egg	18/3.5/7 *																						1, 2, 3
Wayne Egg||†	18/3.5/7 *																						1, 2, 3, 4, 26
Wayne All Mash Chick Starter	17/4/6 *																						1, 2, 3
Wayne All Mash Chick Starter||	17/4/6 *																						1, 2, 3, 4, 26
Empire Egg	16.5/4/7 *																						1, 4, 26
Wayne All Mash Grower	16/4/6 *																						1, 2, 3
Wayne Turkey	15/3.5/8 *																						1, 2, 3, 5
Wayne All Mash Laying	15.5/3.5/7 *																						1, 2, 3
Wayne Poultry Fattener W. Bailey & Co.	13.5/4/7																						6
Pennant Brand Laying	20/5/6 *																						1
Pennant Brand Laying||	20/5/6 *																						1, 4, 20
Pennant Brand Chick Starter	17/5/5 *																						1, 5, 20

* With dried buttermilk. † Open formula. ‡ With cod-liver oil. § With cod-liver meal. With sardine oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																			
E. W. Bailey & Co.—continued																					
Pennant Brand Growing Feed	15/5/5	*	*					*			*	*	*	*	*	*					1, 5, 20
Beacon Milling Co., Inc.																					
Beacon Breeders*	20/4/7	*	*				*	*	*	*	*	*	*	*	*	*					1, 2, 4, 16, 23
Beacon's Cayuga Growing	16/4/7	*	*				*	*	*	*	*	*	*	*	*	*					1, 4, 16
Beacon Fleshing and Crate Fattener	15/4.5/5	*	*				*	*	*	*	*	*	*	*	*	*					1, 4, 10, 16, 21
Black Rock Milling Corp.																					
Bidwell Dry-Mash†	18/3/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17
Bidwell Dry-Mash	18/3/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Chapin & Co.																					
Chapin Kernels Lay All	16/3.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 8, 9, 10, 21
Chapin Kernels Grow All	16/3.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 8, 9, 10, 21
Community Feed Stores, Inc.																					
Community Milk Laying	20/4/8	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 20
Eastern States Farmers' Exchange																					
Eastern States Developer†	18.5/4/6.5	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 11, 24
Eastern States Producer†	17/4/6.5	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24
Eastern States Producer†¶	17/4/6.5	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24, 26
Eastern States Egg†	17/4/6.5	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	11, 24
Eastern States Turkey Fat†	16/3.5/5	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24
Eastern State Combination†	15/4/6.5	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24, 26
Elmore Milling Co., Inc.																					
Elmore Egg	18/4/8	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 21
Elmore Eggmaker	17/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Elmore Complete Broiler	17/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Elmore Chixsaver	16.5/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
John W. Eshelman & Sons																					
Eshelman Red Rose Laying	20/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose Laying†	20/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Eshelman Pennsy Laying	18/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
First National Stores, Inc.																					
Henfield Egg	20/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
D. H. Grandin Milling Co.																					
Grandin's Laying*	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Grandin's Laying*†	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Complete Starting*†	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4

* With buttermilk. † With cod-liver oil. ¶ With oil. † Open formula.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Wheat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
	Protein	Fat																				
D. H. Grandin Milling Co.—continued																						
Grandin's Growing*†	15/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4	
Grandin's Complete Laying	15/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4	
Grandin's Poultry Green Food	10/1/25	*																			8, 15	
Great Atlantic & Pacific Tea Co.																						
Daily Egg	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4, 20	
Daily Growth Growing	17.5/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4	
Hales & Hunter Co.																						
Red Comb Egg*	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 13	
Red Comb Growing*	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 13	
Red Comb Chick Starter*	15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 13	
E. T. & H. K. Ide																						
Ideal Egg	19/4.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 11, 24	
Jersee Co.																						
Just Right Egg	18/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 5, 11, 12, 14, 27, 28, 29, 30, 31, 32	
Kasco Mills, Inc.																						
Apex Laying	20/4/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12	
Kasco Laying	20/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12	
Kasco Poultry Flushing	17/4/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 12	
Larroe Milling Co.																						
Larro Turkey Grower	24.5/4/6.5*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4	
Larro Egg	19/6/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4	
Maritime Milling Co., Inc.																						
DollarfMaker Egg	17/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2	
Geo. Q. Moon & Co., Inc.																						
Moon's Laying Mash*†	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 16	
Park & Pollard Co.																						
Lay or Bust Dry-Mash	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17	
Lay or Bust Dry-Mash†	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17	
Park & Pollard Chick Starter	17/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 13	
All-in-One Laying	15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4	
Quaker Oats Co.																						
Quaker Ful-O-Pep Egg	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26	
Quaker Ful-O-Pep Growing	19/5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26	
Ralston Purina Co.																						
Purina Turkey Growing and Fattening	21/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9, 14	
Purina Chick Startena Chow	19/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 14, 22, 25	

* With buttermilk. † With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																			
Ralston Purina Co.																					
Purina Egg Chowder	19/3.5/8	*					*	*					*	*				*	*		2, 6, 14
Purina Egg Chowder†	19/3.5/8	*					*	*					*	*				*	*		2, 4, 6, 14
Purina Breeder Egg Chowder	19/3.5/8	*					*	*					*	*				*	*		2, 4, 6, 14
Purina All Mash Startena Chow	18/4/7	*					*	*	*	*			*	*				*	*		4, 6, 14 22, 25 4, 14
Purina Broiler Chow	18/4/7	*					*	*	*	*			*	*				*	*		2, 6, 14, 22
Purina Chick Growena Chow	17/3.5/7	*					*	*	*	*			*	*				*	*		2, 4, 6, 14, 22
Purina Chick Growena Chow†	17/3.5/7	*					*	*	*	*			*	*				*	*		2, 4, 9, 14 2, 4, 9, 14
Purina Lay Chow	17/2.5/8	*					*	*					*	*				*	*		2, 4, 14
Purina Lay Chow†	17/2.5/8	*					*	*					*	*				*	*		2, 4, 9, 14 2, 4, 9, 14
Purina Lay Chow*†	17/2.5/8	*					*	*					*	*				*	*		2, 4, 14
Purina All Mash Egg Chowder	15.5/3.5/8	*					*	*					*	*				*	*		2, 4, 14
Purina All Mash Growena Chow	15/3.5/7	*					*	*	*	*			*	*				*	*		2, 4, 14, 22
St. Albans Grain Co.																					
Wirthmore Turkey Starting	24/4.5/7	*					*	*		*	*		*	*	*	*	*	*	*		1, 2, 4
Wirthmore Turkey Breeder	20/4.5/7	*					*	*		*	*		*	*	*	*	*	*	*		1, 4
Wirthmore Breeder	20/4.5/7	*					*	*		*	*		*	*	*	*	*	*	*		1, 4, 6
Wirthmore Turkey Growing	20/4/7	*					*	*		*	*		*	*	*	*	*	*	*		1
Wirthmore Laying	20/4/7	*					*	*		*	*		*	*	*	*	*	*	*		1, 8
Wirthmore Laying†	20/4/7	*					*	*		*	*		*	*	*	*	*	*	*		1, 4, 8
Wirthmore Baby Chick Starter	18/4/5	*					*	*	*	*			*	*	*	*	*	*	*		1, 4, 6, 20
Wirthmore All Purpose Chick and Broiler	17.5/4/5.5	*					*	*		*	*		*	*	*	*	*	*	*		1, 4, 20
Wirthmore Turkey Fattening	16/4.5/7	*					*	*		*	*		*	*	*	*	*	*	*		1
Wirthmore Growing	15/4.5/6	*					*	*		*	*		*	*	*	*	*	*	*		1, 8
Wirthmore Growing†	15/4.5/6	*					*	*		*	*		*	*	*	*	*	*	*		1, 4, 8
Wirthmore Fleshing and Fattening	15/4.5/6	*					*	*		*	*		*	*	*	*	*	*	*		1, 4
Wirthmore Complete for Layers	15/4/5	*					*	*		*	*		*	*	*	*	*	*	*		1, 4
Wirthmore Complete Growing	14/3.75/6	*					*	*		*	*		*	*	*	*	*	*	*		1, 4
S. E. Smith Estate																					
Smith Estate Egg Producer	18/4.5/7	*					*	*		*	*		*	*	*	*	*	*	*		1, 4
Ubiko Milling Co.																					
Ubiko Egg	20/4/6	*					*	*		*	*		*	*	*	*	*	*	*		3, 4, 11, 12, 19

* With buttermilk. † With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—concluded

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Ubiko Milling Co.—continued																						
Ubiko All-Mash Starter	18/4/5 *																					3, 4, 5, 11, 12, 19
Ubiko Milling Co.																						
Ubiko All-Mash Complete Laying	16/3.5/6 *																					3, 4, 11, 12, 19
Ubiko All-Mash Developer	14/4/5 *																					3, 4, 11, 12, 19
Wayne County Grangers Feed Corp.																						
Superior Laying*†	18/4/7 *																					4, 33
Superior Growing*†	18/4/7 *																					4, 33
West-Nesbitt, Inc.																						
Pure Feed Egg	18/5/7 *																					1, 4
Pure Feed Starting	16/4.5/4.6 *																					1, 4

Additional ingredients: 1. Dried skim milk. 2. Soy bean meal. 3. Iron oxide and potassium iodide. 4. Cod-liver oil. 5. Charcoal. 6. Corn germ meal. 7. Crab meal. 8. Milo maize. 9. Molasses. 10. Corn oil meal. 11. Dicalcium phosphate. 12. Milk sugar feed (dried whey). 13. Charcoal, iron sulphate, sulphur. 14. Iodized salt. 15. Dried beet pulp. 16. Calcium phosphate. 17. Kaffir corn. 18. Rice. 19. Copper sulphate. 20. Cod-liver meal. 21. Low-grade wheat flour. 22. Wheat germ. 23. "Protozyme" (an enzyme). 24. Oyster shell meal. 25. Oat middlings. 26. Sardine oil. 27. St. John's bread. 28. Starch. 29. Anise. 30. Dried blood. 31. Iron oxide. 32. Yeast. 33. Tricalcium phosphate.

The mashes and other fine poultry feeds were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne Breeder: Potassium iodide.

Hales & Hunter Co., Red Comb Chick Starter with buttermilk: Iron sulphate.

Quaker Oats Co., Quaker Ful-O-Pep Growing: Bone meal.

Ubiko Milling Co., Ubiko All-Mash Starter: Copper sulphate.

In the following instances a small quantity of ingredients named were found in addition to those certified:

Allied Mills, Inc., Wayne Concentrate with Cod Liver Oil and Sardine Oil: Steamed bone meal.

Eastern States Farmers' Exchange, Eastern States Producer: Trace of steamed bone meal.

Geo. Q. Moon & Co., Inc., Moon's Laying with Dried Buttermilk and Cod Liver Oil: Corn gluten meal.

Fifty-two ingredients were used in making the 104 brands of mashes, etc., sampled. Alfalfa meal, corn meal, meat, salt, wheat bran and wheat middlings appear in nine-tenths or more; calcium carbonate, oats and either dried skim milk or dried buttermilk in eight-tenths; either cod liver oil, sardine oil or cod liver meal in seven-tenths; dried buttermilk and fish meal in six-tenths; dried skim milk in five-tenths; bone meal, gluten meal or feed, linseed meal and soybean meal in four-tenths.

V. DEFICIENCIES, 1923-1933

The following tables set forth the proportions of the total number of brands found deficient in recent inspections and the detailed results.

Spring 1923.....	22%	Winter 1923-24.....	11%
Spring 1924.....	16%	Winter 1924-25.....	10%
Spring 1925.....	15%	Winter 1925-26.....	13%
Spring 1926.....	13%	Winter 1926-27.....	10%
Spring 1927.....	8%	Winter 1927-28.....	9%
Spring 1928.....	18%	Winter 1928-29.....	9%
Spring 1929.....	7%	Winter 1929-30.....	6%
Spring 1930.....	9%	Winter 1930-31.....	7%
Spring 1931.....	8%	Winter 1931-32.....	4%
Spring 1932.....	3%	Winter 1932-33.....	5%
Spring 1933.....	8%	Winter 1933-34.....	5%

For the past ten years the number of brands found deficient have decreased. In 1923 they averaged 16 percent and in 1933 six percent. This is a decided improvement and indicates that the consumer is securing better feeding stuffs, at any rate better in the sense that guaranty maintenance has become almost universal.

The following table shows detailed results of the December, 1933, inspection giving the number of samples and brands collected, the deficiencies, and the totals for the past 10 years. Over 31,000 samples representing nearly 9,000 brands have been collected during the last decade. Of these only about 3.5 percent have been below their protein guaranty. A study of the 9,000 brands shows an 8.5 percent deficiency. These are distributed as follows: Crude proteins, 3.5 percent; crude fat, 3.5 percent; and crude fiber, two percent.

There were 4,007 samples collected during the spring and winter of 1933. These represented 658 brands (87%) of the 758 registered for that year. Of these brands only 33 were below their guaranty, six below in crude protein, 18 below in crude fat, and nine below in crude fiber. This on the whole is a very good showing. The following brands which were mentioned in the last report are still low:

- Elmore Milk Grains Sweetened 24% Protein: Low in fat.
- E. G. & A. W. Norton's Kow Feed: High in fiber.
- Chas. M. Seaver & Co.'s Honor Brand 24: Low in fat.
- J. G. Turnbull Co.'s Creamery Dairy Ration: Low in fat.

VI. DECEMBER, 1933, INSPECTION

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals . . .	75	71	4	17	15	2	..	..	2	..	..	..
Soy bean meals	14	14	..	3	3	..	..	..	..	..	..	..
Linseed meals	40	40	..	12	12	..	..	..	..	..	..	..
Gluten meals and feeds	77	77	..	14	13	1	..	1	..	..	..	..
Distillers' and Brew-												
ers' dried grains . . .	33	32	1	13	10	3	1	1	..	..	..	1
Wheat offals	332	331	1	101	97	4	1	2	1	..	..	..
Brans	121	121	..	36	36	..	..	..	..	..	..	..
Middlings	90	90	..	29	29	..	..	..	..	..	..	..
Mixed feeds	77	76	1	24	22	2	1	..	1	..	..	..
Reddog flours	44	44	..	12	10	2	..	2	..	..	..	..
Alfalfa meals	11	10	1	6	4	2	..	1	..	..	1	..
Dried beet pulps	26	26	..	3	3	..	..	..	..	..	..	..
Hominy feeds	23	23	..	11	11	..	..	..	..	..	..	..
Corn, oat and rye												
feeds	44	41	3	11	9	2	1	..	..	1	..	..
Proprietary feeds	1,266	1,259	7	366	353	13	..	9	4	..	..	..
Dairy	427	426	1	139	132	7	..	6	1	..	..	..
Stock, horse, etc.	212	211	1	46	45	1	..	..	1	..	..	..
Calf and hog	81	78	3	21	21	..	..	..	..	..	..	..
Poultry feeds	552	550	2	165	160	5	..	3	2	..	..	..
Scratch, chick	189	189	..	56	53	3	..	3	..	..	..	..
Mashes, growing	357	355	2	104	102	2	..	..	2	..	..	..
Meat scraps	6	6	..	5	5	..	..	..	..	..	..	..
Skimmilks and butter-												
milks	8	8	..	4	4	..	..	..	..	..	..	..
Totals	1,955	1,938	17	566	539	27	3	14	7	1	1	1
Spring 1933	2,052	2,007	45	552	509	43	11	22	8	1	..	1
Winter 1932-33	2,235	2,202	33	581	551	30	4	17	8	..	1	..
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	..	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	1	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3	1
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	..
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	..
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	..
Winter 1927-28	1,051	982	69	303	275	28	14	2	8	2	2	..
Spring 1927	1,254	1,197	57	395	365	30	17	9	4	..	..	..
Winter 1926-27	1,339	1,281	58	363	325	38	12	6	14	1	2	3
Spring 1926	1,147	1,109	38	332	288	44	10	13	12	..	7	2
Winter 1925-26	1,219	1,161	58	345	300	45	15	9	14	1	5	1
Spring 1925	1,031	953	78	335	285	50	24	15	4	3	2	2
Winter 1924-25	1,076	1,024	52	314	283	31	7	11	6	2	1	4
Spring 1924	1,119	1,025	94	379	317	62	24	24	4	5	3	2

*Protein, fat and fiber.

VII. AVERAGE PRICES, 1928-1933

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. The December, 1933, prices are on the average, about seven dollars higher per ton than April, 1933.

	Apr., '28	Dec., '28	Apr., '29	Dec., '29	Apr., '30	Dec., '30	Apr., '31	Dec., '31	Apr., '32	Dec., '32	Apr., '33	Dec., '33
Cottonseed meals 43%	\$65	\$64	\$58	\$55	\$54	\$43	\$42	\$30	\$30	\$27	\$29	\$33½
Cottonseed meals 41%	62	59	57	63	48	41	40	29	28	27	27½	33½
Cottonseed meals 36%	58½	55	54½	50	47½	41	40	28	26	22½	..	..
Linseed meals 37-38% ...	..	..	..	..	..	..	..	..	..	..	31½	41½
Linseed meals 34%	63	67	65½	64	58	48	45	40	40	33½	32½	44
Linseed meals 30-33% ...	61½	..	61	..	61	47	42	39	40	33	32½	44
Soy bean meals ..	..	..	..	..	..	..	..	..	..	..	32	41½
Brewers' grains ..	..	..	..	..	..	..	..	..	..	..	28	30
Distillers' grains..	61	50	..	..	50	57	32	30	20	27	28	32½
Gluten meals	62	63	72½	60	54	49½	40½	34	28	27	29	38½
Gluten feeds	51½	53	55½	50½	43½	42	38	27	24	23	25	30½
Wheat brans	49	44	40	40½	38½	30	31	25	24½	22	23½	26½
Wheat middlings:												
Standard	49	46	44	43½	39½	32½	31½	26	25½	21½	23	28½
Shorts	49	45	40½	42	38	30	31	26	24½	21	23½	26½
Flour	58	47½	47	45½	44	36	35	29	28	24	24½	32
Wheat mixed feeds	51	58	46	46½	42	36	33	28	27	24	25	31
Reddog flours	54	57	51½	51½	45	39½	35	30	28	26½	25½	33½
Dried beet pulps..	51½	54	54½	53	51	38½	35	28	28	28	27	30
Hominy feeds	48	46	46	45½	50½	38	34½	27	24	20½	20½	27
Alfalfa meals ....	..	55	48	50	62	54½	55	41	49½	38½	36½	38
Proprietary feeds:												
Dairy 24%	56	56	56	54	50	45½	42	34	32	28½	29½	35½
20%	54	53	53½	51½	48	42½	39½	32	33	27	28	33½
16%	48½	47	46½	48	43	39	35	30	27½	24	26	30½
Stock and												
horse 9-10%*..	50	49	48½	49	48½	42	40	34	32	29	29	37
8%*... ..	47	49	45	46½	..	44½	34	29	34	22	26½	..
Fitting 9-12%... ..	..	..	..	50½	45	43	39	31	29½	25	26½	34½
14%... ..	..	..	..	53	45½	43	39	36	31½	28	28	37½
Calf	99	96	96	98	92½	89	84	80	74	69	66½	77½
Hog	60	57	57½	57	53½	50	48	38	35½	32½	32½	40½
Poultry:												
Scraps	87	79	75	75	70	82	75½	58	60½	55	38	44
Scratches	59	52	53½	52½	51	44½	41½	33	32½	27½	28½	37½
Mashes	68	63	64½	64	61	56	52	42	40	36	37	44
Chick grains..	68½	57	60	56½	55	52½	49	41	39	41½	32½	40½
Chick mashes.	86½	64	74½	70½	77	69½	63	48	49	39	43	49

*Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1928, 1929, 1930, 1931, 1932, April and December, 1933, follow, 1923 being rated at 100.

	1923	1928	1929	1930	1931	1932	Apr. 1933	Dec. 1933
Cottonseed meals	100	108	93	77	59	45	47	57
Linseed meals	100	108	107	90	71	64	54	72
Gluten meals and feeds..	100	102	104	81	63	46	48	62
Wheat offals (exclusive of reddog)	100	118	105	89	72	59	59	72
Beet pulps	100	105	107	88	60	53	53	54
Hominy feeds	100	117	115	110	78	56	51	69
Proprietary:								
Dairy 24%	100	104	102	90	71	56	55	66
20%	100	101	100	87	68	57	53	63
16%	100	104	103	89	71	56	58	66
Stock and horse	100	120	116	110	84	72	68	90
Calf, hog, etc.	100	111	109	103	88	75	70	83
Scratches	100	109	104	98	77	66	60	68
Mashes	100	103	102	102	81	66	63	74

VIII. CONCLUSION

This bulletin, like its more than two score predecessors, is simply an inspection bulletin, which attempts to set forth salient facts as to the composition of the many hundreds of feeding stuffs for domestic animals which are offered for sale in Vermont, and to compare manufacturers' promises and their fulfillment. It does not pretend to discuss methods of production increment, ration formulation or feeding practice. These are treated in bulletins, circulars and brieflets issued by the Station or the Extension Service which are available without charge to anyone who may apply for them. In none of these publications are the names of any particular feed mentioned, for the Experiment Station and Extension Service play no favorites. Names are necessarily and properly given in the inspection bulletins which may be used to good advantage in connection with publications like those listed. Classified lists are appended. Persons who may request any of these publications should ask by *number* and carefully indicate whether the publication or publications desired are Station bulletins, Extension circulars or Extension brieflets. Unless this is done an unwanted pamphlet may arrive. For example, if one asked for No. 52 without specifying that Extension circular 52 was desired, he might get Experiment Station bulletin 52, an ancient and now useless fertilizer bulletin. A postal card addressed Experiment Station, Burlington, Vermont, stating desires is sufficient.

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OCTOBER, 1934

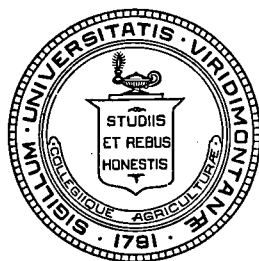
BULLETIN 385

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station

BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER *and* E. F. BOYCE



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Nineteen hundred samples, representing 551 brands, drawn from dealers' stocks during April, 1934, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respects up to guaranty in regard to their nutrient contents are listed on pages 4 to 18. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 19 to 21. Statements as to the ingredients used in the manufacture of the proprietary feeds and the manner in which their makers fulfilled their statements occur on pages 23 to 38.

It might be said, briefly, that 7 of the 174 brands of unmixed goods and 17 of the 377 brands of proprietary or mixed goods failed to meet their guaranties. This is a slightly better showing than was made in the inspection of samples drawn in December, 1933, and is very commendable. The general situation in respect to guaranty maintenance is set forth in the table and text on pages 40 to 41. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-33, 95 percent.

Four brands of dairy rations, one calf meal, three brands of scratch feeds, and two poultry mash feeds contained noticeable numbers of weed seeds. In all cases where an inferior ingredient was used in a mixture a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price last April, taking all classes of feeds as a unit, seems to have been not far from \$38.50.

BULLETIN 385: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in sections 4479-4483, 7850-7864, 7885-7891, Public Laws, the following report of 1,901 samples collected in April, 1934, is submitted. The object of the law is to prevent fraud or misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of cattle and poultry feeds offered for sale. The law does not forbid the sale of inferior feeds, but it provides through publicity the information as to their real nature in such fashion that he who runs may read.

The table of contents follows:

- I. Brands in all respects up to guaranty—pages 4 to 18.
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I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
Ashcraft-Wilkinson Co., Atlanta, Ga. Helmet Brand—Prime	41	5.5	10
Cairo Meal and Cake Co., Cairo, Ill. Miss Cairo Brand 41 Percent Protein—Prime Quality	41	6	10
Humphreys-Godwin Co., Memphis, Tenn. Bull Brand 43% Protein—Prime Quality.....	43	5	11
Dixie Brand 41% Protein—Prime Quality.....	41	5	12
International Vegetable Oil Co., Inc., Greenville, Miss. 41.12% Protein	41.12	6	10
41% Protein	41	6	10
L. B. Lovitt & Co., Memphis, Tenn. "Lovit Brand" 41%	41	6	10
"Lovit Brand" 41% Prime Quality.....	41	5	13
Marianna Sales Co., Memphis, Tenn. White Mule Brand—Prime.....	41	6	10
Maurice Pincoffs Co., Houston, Tex. 41% Protein Prime Quality.....	41	5	14
Ralston Purina Co., St. Louis, Mo. (41% Protein)	41	5	12
Transit Milling Co., Galveston, Tex. Texas Bull Brand 41% Protein—Prime Quality....	41	5	11
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn. 37 Percent Protein Old Process.....	37	4.5	9
34 Percent Protein Old Process.....	34	4.5	9
Midland with Flaxseed Screenings Oil Feed—30 Percent Protein	30	4.5	10
Bisbee Linseed Co., Philadelphia, Penn. Bisbee (Brand 34% Protein Pure) Old Process....	34	5	10
Canada Linseed Oil Mills, Ltd., Montreal, Can. "Maple Leaf" Oil Cake Meal Protein 39%.....	39	5	9
Kellogg & Miller, Inc., Amsterdam, N. Y. Pure Old Process.....	34	5	9
Spencer Kellogg & Sons, Inc., Buffalo, N. Y. Kellogg's 37% Protein Pure Old Process.....	37	4.5	10
Kellogg's 34% Protein Pure Old Process.....	34	4.5	10
Diamond K with Flaxseed Screenings Oil Feed 30% Protein	30	4.5	10
Sherwin Williams Co., Cleveland, Ohio S W C Pure Old Process.....	34	5	10
S W C Pure Old Process 34%.....	34	4.5	9
SOY BEAN MEALS			
Allied Mills, Inc., Chicago, Ill. Super Soy	37	5	6.5
Archer-Daniels-Midland Co., Minneapolis, Minn. 41 Percent Protein Pure Old Process.....	41	4.5	7
Evans Milling Co., Indianapolis, Ind. Evans 41%	41	5	7
Shellabarger Grain Products Co., Decatur, Ill.	41	4.5	7.5
A. E. Staley Manufacturing Co., Decatur, Ill. Staley's	41	4.5	7
COCOANUT OIL MEALS			
Franklin Baker Co., Inc., Hoboken, N. J. Baker's Cooked	20	6	12

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
CORN GLUTEN MEALS AND FEEDS			
American Maize-Products Co., New York, N. Y.			
Amalzo Gluten Meal	40	1	4
Cream of Corn Gluten Feed.....	25	2	8.5
Clinton Co., Clinton, Iowa			
Clinton Corn Gluten Feed.....	25	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond Corn Gluten Meal	43	1	4
Buffalo Corn Gluten Feed	25	2	8.5
Penick & Ford Ltd., Inc., Cedar Rapids, Iowa			
Douglas Corn Gluten Meal.....	43	1	4
Douglas Corn Gluten Feed	25	1.5	8.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's Corn Gluten Feed	25	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union Corn Gluten Feed	25	1	8
DISTILLERS' AND BREWERS' DRIED GRAINS			
Allied Mills, Inc., Peoria, Ill.			
Corn Distillers'	28	9	15
Brewers'	20	5	18
Brown-Forman Dist. Co., Louisville, Ky.			
Distillers'	28	5	15
Dewey Bros. Co., Blanchester, Ohio			
Corn 3D(Dewey's Distillers').....	28	9	13
Dewey's Brewers'	22	6	18
Farmers' Feed Co., New York, N. Y.			
"Bull Brand" Brewers'.....	24	6	17
Glenmore Distilleries Co., Inc., Owensboro, Ky.			
Distillers' Bourbon	30	6	13
F. W. Kelly, St. Johnsbury, Vt.			
Kelly's Rye Distillers'.....	17	5	20
WHEAT OFFALS—WHEAT BRANS			
Bay State Milling Co., Winona, Minn.			
Wingold Pure Hard.....	14.5	4.75	13
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed (+)	14	4	12
B. A. Eckhart Milling Co., Chicago, Ill.			
Pure	14	3.5	12
Faroll Brothers, New York, N. Y.			
(+)	13	4	13
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+).....	14	3	14
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard (+).....	14	4	12
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand	15	3.5	11.5
Hamco Brand	13.5	3	12
Hecker-Jones-Jewell Milling Division,* Buffalo, N. Y.			
Choice (+)	13.5	3.5	14
International Milling Co., Minneapolis, Minn.			
Blackhawk Pure	15	3.2	12
H. H. King Flour Mills Co., Minneapolis, Minn.			
Fancy "Brodfake" (+)	14.5	4	11
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods	15	3.5	11.5
Larabee Flour Mills Co., Kansas City, Mo.			
Sunfed Winter (+).....	15	3.5	11

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS--WHEAT BRANS--concluded			
Montana Flour Mills Co., Great Falls, Mont. Montco (+)	15	3	12
Moseley & Motley Milling Co., Rochester, N. Y. Big B	13.5	3	13
Nebraska Consolidated Mills Co., Omaha, Neb. Pure	15.5	3.5	11
Niagara Falls Milling Co., Lockport, N. Y. Niagara Choice	15.5	4	11
Northwestern Consolidated Milling Division,* Minneapolis, Minn. Pure	14	4	12
Ogilvie Flour Mills Co., Ltd., Montreal, Que. Ogilvie's	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's Hard (+)	14	4	12
Quaker Oats Co., Chicago, Ill. Bell Cow (+)	15	3.5	10
Robin Hood Mills, Ltd., Moose Jaw, Can. Superior	15	3.5	11.5
Rodney Milling Co., Kansas City, Mo. Heart of America Pure.....	16.5	3	10
Russell-Miller Milling Co., Minneapolis, Minn. Hard Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que.	15	3.5	11.5
Southwestern Milling Division,* Kansas City, Mo. Red Turkey Pure.....	14.5	3.5	11
State Mill & Elevator Co., Grand Forks, N. D. Dakota Maid (+)	15	5	12
David Stott Flour Mills, Inc., Detroit, Mich. Spring (+)	14.5	4	12.5
..... Winter (+)	13.5	3.5	12
Stratton & Co., Concord, N. H. Stratton & Co.'s (+)	14	4	11
George Urban Milling Co., Buffalo, N. Y. (+)	14	3.5	12
Valley City Milling Co., Portland, Mich. Rowena	14	3	10.75
Victor Flour Mills, Inc., Pittsford, N. Y. Victor Spring (+)	15	4	11
Weber Flour Mills Co., Salina, Kan. Tea Table (+)	14.5	3.5	11.5
Western Canada Flour Mills, Ltd., Toronto, Ont. Pioneer	15	3.5	11.5
WHEAT OFFALS--WHEAT MIDDINGS			
Commander-Larabee Corp., Minneapolis, Minn. Sunfed Standard (+)	14.5	4	9.5
Commercial Milling Co., Detroit, Mich. Henkel's Extra Fancy Comco (+)	15	3.5	7
Duluth-Superior Milling Division,* Minneapolis, Minn. Rye	15	3	8
B. A. Eckhart Milling Co., Chicago, Ill. Rye with Rye Screenings.....	14.5	2.5	10
Federal Mill, Inc., Lockport, N. Y. Lucky Standard Hard (+)	15	4.5	9.5
..... Dairy Maid Soft Winter Flour (+)	13	4.5	6
General Mills, Inc., Minneapolis, Minn. Washburn's Gold Medal Hard Standard (+)	15	4	9.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.
* Of Standard Milling Co.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIDLINGS—concluded			
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand Shorts.....	15	3.5	10.5
Hecker-Jones-Jewell Milling Division,* Buffalo, N. Y.			
Standard (+).....	15	4.75	9.5
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+).....	16	4.5	8.5
Kasco Mills, Inc., Waverly, N. Y.			
Kasco Flour (+).....	16	3.5	6
King Midas Mill Co., Minneapolis, Minn.			
Snowball Flour (+).....	16	4	6
Standard (+).....	15	4	9.5
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods Shorts.....	16	5	8
Moseley & Motley Milling Co., Rochester, N. Y.			
Big B (+).....	15	4.5	9
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+).....	15.5	4.5	7
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's Shorts.....	16	5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard A. (+).....	16	4	6
Pillsbury's Hard Standard B. (+).....	15	4	9.5
Robin Hood Mills, Ltd., Moose Jaw, Can.			
Superior Shorts.....	17	5	8
Blackhawk Standard (+).....	17	4.5	9.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident Standard.....	15	4	9.5
David Stott Flour Mills, Inc., Detroit, Mich.			
Pennant (+).....	15	4	9
Stott's Fine Flour (+).....	14.5	3.7	6
Valley City Milling Co., Portland, Mich.			
Rowena Standard Soft (+).....	15	4.25	6
Rowena (+).....	14	5	6.4
WHEAT OFFALS—WHEAT MIXED FEEDS			
E. W. Bailey & Co., Montpelier, Vt.			
Capital.....	14	3	7
Elmore Milling Co., Inc., Oneonta, N. Y.			
Elmore's "Xtragoood" (+).....	15	3	8
John W. Eshelman & Sons, Lancaster, Pa.			
Eshelman Choice (+).....	14.5	4	8.5
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+).....	12.5	3.5	10
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Fancy (+).....	15	3.5	7.5
E. T. & H. K. Ide, St. Johnsbury, Vt.			
Ideal.....	15	4	8
Malted Cereals Co., Burlington, Vt.			
Maltex Cereal Feed (+).....	12.5	4.5	8
Park & Pollard Co., Buffalo, N. Y.			
Park & Pollard Heavy.....	15.5	3.35	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+).....	15	4	8.5
Ralston Purina Co., St. Johnsbury, Vt.			
Brooks' Fancy.....	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident.....	15	4.5	9.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIXED FEEDS—concluded			
St. Albans Grain Co., St. Albans, Vt. Wirthmore (+)	15	3.75	8
David Stott Flour Mills, Inc., Detroit, Mich. Columbus Heavy (+)	14.5	3.7	8.5
Stratton & Co., Concord, N. H. Stratton's (+)	13.5	4.11	7.13
Valley City Milling Co., Portland, Mich. Rowena Standard (+)	17	3	9
Rowena (+)	14.5	3.75	9
WHEAT OFFALS—RED COG FLOURS			
Commander-Larabee Corp., Minneapolis, Minn. Sunfed	16	4	4
General Mills, Inc., Minneapolis, Minn. Washburn's Gold Medal Pure Hard Adrian	16	3.5	4
Hecker-Jones-Jewel Milling Division,* Buffalo, N. Y.	15	4.25	4
International Milling Co., Minneapolis, Minn. Blackhawk	16	3.5	4
King Midas Mill Co., Minneapolis, Minn.	16.5	4	4
R. H. McEwen Milling Co., Ogdensburg, N. Y. McEwen's	14	2	2.1
Northwestern Consolidated Milling Div.,* Minneapolis, Minn. XXX Comet	16	4	4
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's XX Daisy	16	4	4
Robin Hood Mills, Ltd., Moose Jaw, Can. Superior	16.5	3.5	4
HOMINY FEEDS			
Decatur Milling Co., Inc., Decatur, Ill. Homco	10	7	6
Chas. A. Krause Milling Co., Milwaukee, Wis. Badger White	10	6	5
Pratt Food Co., Inc., Buffalo, N. Y. Pratt's White	10	5	6
Pratt's Yellow	10	5	6
Quaker Oats Co., Chicago, Ill. Yellow	10	5	5
St. Albans Grain Co., St. Albans, Vt. Paragon	10	6	7
David Stott Flour Mills, Inc., Detroit, Mich. Yellow	9.5	5.5	6.5
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.	7	0.3	22.5
Molasses	7	0.3	20
ALFALFA MEALS			
Denver Alfalfa Milling & Products Co., Lamar, Colo.	13	1	33
Green Acre Farms, Nazareth, Pa. Green Acres Brand Super-Quality	17	2	25
Pecos Valley Alfalfa Mill Co., Hagerman, N. Mex. Peevee Leaf	20	2.5	18

* Of Standard Milling Co.

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
OAT, RYE AND CORN FEEDS			
Elmore Milling Co., Inc., Oneonta, N. Y.			
Vigor Feed	5	1	23
Hecker-H-O Co., Inc., Buffalo, N. Y.			
Oat Mill Feed	6	2	28
Northern Illinois Cereal Co., Lockport, Ill.			
Ground Oat Hulls	3.5	1.25	35
Northern Oats Co., Minneapolis, Minn.			
Go-Fer Feeding Oatmeal	14	5	3.75
Park & Pollard Co., Buffalo, N. Y.			
Feed Meal	9	2.5	4
Pratt Food Co., Inc., Buffalo, N. Y.			
Oat Feed (Oat hulls, oat shorts, oat middlings)...	5	1.5	30
Quaker Oats Co., Chicago, Ill.			
Buckeye Feed	15.5	4.5	10
Sugared Vim Feed.....	5	1.25	27.5
Ralston Purina Co., St. Louis, Mo.			
Corn Feed Meal	8.5	3	5
Protena Sweet Feed "C"	5.5	1.5	20
David Stott Flour Mills, Inc., Detroit, Mich.			
Winner Chop Feed.....	10	3.5	12
Three Minute Cereals Co., St. Louis, Mo.			
Red 3 Feeding Oatmeal	14.5	5	3.7
Upper Hudson Rye Flour Mills, Inc., Troy, N. Y.			
Rye Feed with rye screenings.....	15.5	3	6

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note*
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Peoria, Ill.				
Wayne Amco 32% Supplement†.....	32	4	9	✓
Wayne Amco 24%†	24	3.5	9	✓
Empire 24%†	24	3	12	✓
Wayne Amco 20%†	20	3.5	9	✓
Empire 20%†	20	3	12	✓
Empire 16½%†	16.5	3	12	✓
E. W. Bailey & Co., Montpelier, Vt.				
Sweetened Capital	24	4.5	9	✓
Favorite	20	4	7.5	
Sweetened Favorite	20	4	7.5	✓
Our 20 Special	20	3.5	9	✓
Bailey's Sweetened 16%.....	16	5	9	✓
L. C. Berry, Norwich, Vt.				
Special 20%	20	4	12	

*The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g., cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by the state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other, and possibly undesirable, ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist "failed to find" appear on pages 23 to 38.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 9)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
Bethel Mills, Bethel, Vt.				
Bethel Mills 24 Protein.....	24	5	9	✓
Bethel Mills 20 Protein Sweetened.....	20	4.5	6.5	✓
Bethel Mills 20 Protein Sweetened Economy	20	4	11	✓
Bethel Mills 16 Protein Pasture.....	16	4.2	9.5	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell 24%	24	4	11	✓
Bidwell 20%	20	4	11	✓
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	✓
Unicorn 20%	20	4.5	10	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community 20	20	4	9	✓
E. C. Crosby, Danby, Vt.				
Crosby's A Quality 20%†.....	20	5	8	✓
Crosby's B Quality 20%†.....	20	4.5	9	✓
Danville Grain Co., Inc., Danville, Vt.				
Danville 24%	24	5	9	✓
Danville 20%	20	4	10	
Davis Feed Co., Inc., Rutland, Vt.				
Vermont 20%	20	5	8	✓
Davis 20% Kow Feed.....	20	4.5	8.5	✓
H. W. Demick, Inc., Derby Line, Vt.				
Beats 'Em All.....	20	4	10	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 32% Supplement†.....	32	4.5	8	✓
Eastern States Milkmore†.....	24	4.5	8	✓
Eastern States Fulpall†.....	20	4.5	8	✓
Eastern States Highland 20†.....	20	4	12	✓
Eastern States Sixteen†.....	16	4	8	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Milk Grains.....	25	5	11	✓
Granger 24%	24	4	10	
Elmore Milk Grains Junior.....	20	5	10	✓
Emco Feed	20	4.5	10	✓
Granger 20%	20	4	11	✓
Elmore's Sweet Digesto.....	16	4	12	
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose 24.....	24	4	11	✓
Eshelman Lancaster 20.....	20	4	11	✓
Eshelman Conestoga 20.....	20	4	11	
Eshelman Open Formula 20.....	20	4	9	✓
Eshelman Certified 20%†.....	20	4	8	✓
Eshelman Pennsy 16.....	16	3	11	✓
For-All Grain Co., Inc., South Ryegate, Vt.				
For-All Milk Grains 20%.....	20	5	8.5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's 32%	32	4	9	✓
Grandin's Sweetened 24%	24	4	10	✓
Grandin's Sweetened 12 Twin Six 12	22	5	12	✓
M-S (Money Saver) 20% Sweet.....	20	4	12	✓
Grandin's Sweetened 20%.....	20	4	10	✓
Great Atlantic & Pacific Tea Co., New York, N. Y.				
Milky Way 20%	20	4	9	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Sweetened	24	5	10	✓
Ide's Special	20	4	10	✓
Sunshine	20	4	10	✓

† Open formula. ✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note* (p. 9)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
W. B. Johnson & Son, Essex Junction, Vt.				
Johnson's Perfection No. 1.....	20	5	9	✓
Johnson's Economy	20	4	12	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Mormilk	24	4.5	10	✓
Kasco 20% Milk Maker.....	20	4	11	✓
Apex 20%	20	3.5	12	✓
Kasco 18%	18	3.5	10	
Larrowe Milling Co., Detroit, Mich.				
Larro	20	3.75	12	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's 20%	20	4	10	✓
McEwen's 16%	16	4	12	✓
T. J. McGovern, Cambridge, Vt.				
McGovern's 24 Per Cent.....	24	4	8	✓
McGovern's 20 Per Cent Farm Relief.....	20	4	12	✓
McGovern's 20 Per Cent.....	20	4	8	✓
McGovern's 16 Per Cent.....	16	4	8	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
Sweetened B-B Bull Brand "24".....	24	4.5	11	✓
B-B Hi-Test 20% Pro. Sweetened.....	20	4	12	✓
Sweetened Dollar\$Maker 20% Pro.....	20	3.5	12	✓
B-B Marmico 16% Protein with Molasses....	16	4	12	
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's 24%	24	5	10	✓
U. S. 20%	20	3	12	✓
Mt. Mansfield Co-operative Creamery & Grain Assn., Inc., Stowe, Vt.				
Mt. Mansfield 20%†	20	4	8.5	✓
E. G. & A. W. Norton, Vergennes, Vt.				
Kow Feed	20	4	10	
Park & Follard Co., Buffalo, N. Y.				
Manamar 24%	24	4.5	11	✓
Milk-Maid 24% Sweetened.....	24	4.5	11	✓
Overall 24%	24	4.5	9	✓
Bet-R-Milk 20%	20	4	9	✓
Manamar 20%	20	4	9	✓
Yankee	20	3.5	9	✓
Top Notch 16%.....	16	3.5	12	✓
Quaker Oats Co., Chicago, Ill.				
Quaker 24% Protein	24	4	12	✓
Quaker 20% Protein.....	20	3.25	12	✓
Quaker 16% Protein.....	16	3.5	13.5	✓
Race Milling Co., Granville, N. Y.				
Race's 24%	24	4	9	
Race's 20%	20	3.5	9	✓
Race's 18%†	18	3	12	✓
Ralston Purina Co., St. Louis, Mo.				
Red Checker Purina Cow Chow (34%).....	34	3	12	✓
Protena 24%	24	3.5	12	✓
Green Checker Purina Cow Chow (24%).....	24	3	12	✓
Protena 20%	20	3	12	✓
Blue Checker Purina Cow Chow (20%).....	20	3	12	✓
Protena 16% (Buffalo Mill).....	16	3	14	✓
Purina Bulky Cow Chow.....	16	3	12	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 32 Supplement.....	32	4	8	✓
Wirthmore 25 Balanced Sweetened.....	25	4.5	8.5	✓
Hygrade 24 Sweetened Milk	24	3.5	9	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 9)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
<i>St. Albans Grain Co., St. Albans, Vt.—continued</i>				
Champlain Valley Emergency 24.....	24	3.5	8.5	✓
Wirthmore 20 Sweetened.....	20	4.5	8	✓
Utility	20	3.5	11.5	✓
Hygrade 20 Sweetened Milk	20	3.5	8.5	✓
Champlain Valley Emergency 20	20	3.5	8.5	✓
Wirthmore 16 Sweetened.....	16	4	8	✓
Hygrade 16 Sweetened Milk.....	16	3.5	8.5	✓
<i>E. T. Seabury Grain Co., Waterbury, Vt.</i>				
Our Own Make 20%	20	4	9	✓
Our Own Make 16%	16	4	9	✓
<i>Chas. M. Seaver & Co., Williamstown, Vt.</i>				
Honor Brand	20	4	10	✓
<i>Estate of Henry A. Slayton, Morrisville, Vt.</i>				
Economy Feed	20	3.75	8.5	✓
<i>C. A. Smith, St. Johnsbury, Vt.</i>				
Smith's	20	4	12	✓
<i>S. E. Smith Estate, West Rutland, Vt.</i>				
Smith Estate 24%†.....	24	5	8.5	✓
Smith Estate 20%	20	4.5	8	✓
Smith Estate 18%†.....	18	4.5	8.5	✓
<i>C. H. Stearns & Son Co., Johnson, Vt.</i>				
Stearnco All Grain 20% Milk	20	4	9	✓
<i>Tioga-Empire Feed Mills, Inc., Waverly, N. Y.</i>				
20% Creamatine	20	4.5	10	
<i>Frank Tyler, Essex Junction, Vt.</i>				
Tyler's Ready Mixed 20%.....	20	4.5	9	✓
<i>Wayne County Grangers Feed Corp., Clyde, N. Y.</i>				
Galen 24%†	24	4	8.5	✓
Superior 20%†	20	4	10	✓
Clyde 20%†	20	4	8.5	✓
Hi-Yan-Ka Farms 20% with beet pulp†.....	20	4	8.5	✓
Sweetened 16%†	16	4	12	✓
<i>West-Nesbitt, Inc., Oneonta, N. Y.</i>				
All Pure 20% Milk.....	20	4.5	10	✓
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.				
<i>Allied Mills, Inc., Peoria, Ill.</i>				
Arab Horse	10	2	12	✓
Wayne Supreme Horse	9.5	3	8	✓
Empire Stock	9	3	12	✓
<i>E. W. Bailey & Co., Montpelier, Vt.</i>				
Sweetened Bailey's Fitting.....	14	4	9	✓
Pennant Horse	10.75	3.5	6.5	✓
Sweetened with Molasses Pennant Brand Stock	9.5	4	9.5	✓
<i>Eastern States Farmers' Exchange, Springfield, Mass.</i>				
Eastern States Highland 12†.....	12	3.5	11.5	✓
Eastern States Fitting†.....	12	3.5	7	✓
Eastern States Horse and Calff.....	10.5	3.5	7	✓
<i>Elmore Milling Co., Inc., Oneonta, N. Y.</i>				
Elmore Fitting	12	4	9	✓
Elmore Horse with Molasses.....	9	2.5	11	✓
<i>John W. Eshelman & Sons, Lancaster, Penn.</i>				
Eshelman Red Rose Fitting.....	12	3.5	7	✓
Eshelman S O S	11	2	15	✓
Eshelman Steamed Cooked Horse	9	4	6	✓
Eshelman Conestoga Horse	9	3	10	✓

† Open formula. ✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 9)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.—concluded				
John W. Eshelman & Sons, Lancaster, Penn.—continued				
Eshelman Red Rose 85 Horse	9	3	10	✓
Eshelman Garden Spot Horse.....	7	2	11	✓
Vermont Special	5	1	25	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Sweetened Horse.....	9.5	3.5	11	✓
Grandin's Stock Food	8.5	4	12	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Fitting	12	4	10	✓
Imperial Grain & Milling Co., Toledo, Ohio				
Imperial Steam Cooked Feed.....	9.5	4	4.6	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Horse	9	3	10	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B B Dealer's Mixing with Molasses	10	3.5	12	✓
Park & Pollard Co., Buffalo, N. Y.				
Manamar Fitting	12	3.5	7	✓
Park & Pollard Horse.....	10	3.5	9	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Schumacher Feed	10	3	12	✓
Quaker Sugared Schumacher.....	10	3	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Fitting Chow.....	13.5	2.6	12	✓
Purina Rabbit Chow.....	13.5	2.5	16	✓
Purina Bulky Omolene.....	10	3.2	11	✓
Purina Omolene	10	3.2	9	✓
Purina Bulky Las Chow (Buffalo Mill).....	9	1.3	15	✓
Protena Sweet Feed "D".....	6	1	25	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting	14	4	7	✓
Wirthmore Rabbit	14	3.5	9	✓
Utility Pasture	14	3	13	✓
Hygrade Fitting	12	4.5	8	✓
Wirthmore Horse	9.8	3.25	9	✓
Wirthmore Stock	9	4	9.5	✓
Ubiko Milling Co., Cincinnati, Ohio				
Crusader Horse	9	3	10	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Universal Horse	10	3	9	✓
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS				
Allied Mills, Inc., Peoria, Ill.				
Wayne Calf	24	4	7	✓
Wayne Pig	18	3.5	7	✓
Emergency Hog	14	3	7	✓
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	24	5	6.75	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter.....	23	3.5	4	✓
Eastern States Hog.....	14.5	4	5.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore "Three Point" Calf.....	24	4	4	✓
Elmore's Makemgrow Little Pig.....	18	4.5	7	✓
Elmore's Hog	15	5	6	✓
John W. Eshelman & Sons, Lancaster, Pa.				
Eshelman Red Rose Calf Starter.....	20	3	5	✓
Eshelman Red Rose Hog.....	16	5	10	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Calf	21	3.5	4.5	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note* (p. 9)
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS—concluded				
Larrowe Milling Co., Detroit, Mich.				
Larro Pork-Maker.....	25	5	10	✓
Larro Calf	23	4	4	✓
Park & Pollard Co., Buffalo, N. Y.				
Go Tu It Pig & Hog.....	15	3.5	8	✓
Quaker Oats Co., Chicago, Ill.				
Schumacher Calf	18	7	4	
Ralston Purina Co., St. Louis, Mo.				
Purina Calf (Starting) Chow.....	23	3.2	7	✓
Purina Hog Fatena Chow.....	14	3	7	✓
Purina Heifer Growing Chow	14	2.5	14	✓
Ryde & Co., Chicago, Ill.				
Ryde's Cream Quality Calf.....	18.5	4	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	4	✓
Wirthmore Pig and Hog.....	17	4	9	✓
MEAT AND BONE SCRAPS AND FISH MEAL				
Consolidated Rendering Co., Boston, Mass.				
Corenco 55%	55	6	..	
Corenco 50% Meat Scrap.....	50	6	..	
Corenco 45%	45	6	..	
Corenco Bone Meal.....	20	2	..	
Maine Fish Meal Co., Portland, Me.				
Maine Vitamin D Fish	55	1	1	
Philip R. Park, Inc., San Pedro, Calif.				
ManAmar	40	3	4	
John Reardon & Sons Co., Cambridge, Mass.				
Register Brand Cod and Haddock Fish.....	60	3	1	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Scratch	10	2.5	4	✓
Wayne Intermediate Scratch	10	2	4	✓
Wayne Special Scratch	9	2.5	4	✓
Red Feather Scratch.....	9	2.5	4	✓
Empire Scratch	9	2.5	4	✓
Wayne Chick	9	2	4	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Scratch	10	3	6.5	✓
Pennant Brand Fine Chick	10	3	3	✓
Pennant Brand Coarse Chick	10	3	3	✓
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon's Cayuga Scratch.....	9	2	5	
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell Scratch	10	1.5	5	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch Grains (With Coarse Cracked Corn)†	10	2.5	4	✓
Eastern States Scratch Grains 1931†.....	9.5	2.5	3	✓
Eastern States Intermediate Scratch Grains†	9.5	2	3	✓
Eastern States Chick Grains	9.5	2	3	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Scratch	10	3.5	7	✓
Elmore Intermediate Chick	10	3	3	✓
Elmore Scratch	10	2.5	7	✓
Elmore Chick	10	2.5	3.5	✓
Elmore Intermediate Chick	10	2.5	3	✓

† Open formula. ✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 9)
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.— <i>continued</i>					
John W. Eshelman & Sons, Lancaster, Penn.					
	Eshelman Red Rose Chick Grains.....	10	3	3	✓
	Eshelman Red Rose Scratch Grains.....	10	2.5	4	
	Eshelman Pennsy Chick Grains.....	9	3	3	✓
	Eshelman Pennsy Scratch Grains.....	9	2.5	4	✓
D. H. Grandin Milling Co., Jamestown, N. Y.					
	Grandin's Screened Scratch	10	2.5	5	✓
	Grandin's Intermediate Chick.....	10	2.5	5	✓
	Grandin's Baby Chick	10	2.5	5	✓
Grand Union Co., New York, N. Y.					
	Peerless Scratch Grains	10	2.5	5	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.					
	Daily Growth Fine Chick	10	3	5	✓
	Daily Egg Scratch	10	2.5	5	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.					
	Ideal Scratch	10	3	4	✓
Kasco Mills, Inc., Waverly, N. Y.					
	Apex Scratch	9	2.5	4	
Larowe Milling Co., Detroit, Mich.					
	Larro Chick Grains	10	2	4	✓
	Larro Growing Grains	10	2	4	✓
	Larro Scratch Grains	10	2	4	✓
	Larro Chick Grains	10	2	3.5	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.					
	McEwen's Red Feather Scratch.....	10	2.5	5	✓
Maritime Milling Co., Inc., Buffalo, N. Y.					
	B-B Daisy Scratch.....	9	2.5	5	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.					
	Moon's Scratch	10	2	5	✓
Park & Pollard Co., Buffalo, N. Y.					
	Red Ribbon Scratch.....	10	3	5	✓
	Paramount Scratch	10	2.5	5	✓
Quaker Oats Co., Chicago, Ill.					
	Quaker Ful-O-Pep Fine Chick	11	2.5	2	✓
	Quaker Ful-O-Pep Coarse Chick	10	2	2.5	✓
	Early Bird Fine Chick, No Grit	10	2	2	✓
	Early Bird Coarse Chick	9.5	2	3.5	✓
	Big Egg Scratch Grains, No Grit	9.5	2	3.5	✓
	Big Egg Scratch (Grains), No Grit.....	9.5	2	3.5	✓
	Quaker Ful-O-Pep Scratch Grains.....	9	2	3.5	
Ralston Purina Co., St. Louis, Mo.					
	Purina Hen Chow	10	2.5	4	✓
	Purina Chick Chow (Coarse).....	10	2.5	4	✓
	Purina Chick Chow (Fine)	10	2	4	✓
	Protena Scratch (Buffalo Mill).....	9.5	2	4	✓
St. Albans Grain Co., St. Albans, Vt.					
	Mornin' Call Poultry Grains.....	10	2.5	4	✓
	Wirthmore Scratch	10	2.5	4	✓
	Wirthmore Intermediate Scratch.....	10	2.5	3.5	✓
	Wirthmore Baby Chick Scratch.....	10	2.5	3.5	✓
Skeels & Weidman, Swanton, Vt.					
	Scratch	10	2	5	
S. E. Smith Estate, West Rutland, Vt.					
	Smith Estate Blue Ribbon Scratch	11	3.5	4	
Ubiko Milling Co., Cincinnati, Ohio					
	Ubiko Chick	9	2.5	5	✓
	Ubiko Intermediate Scratch.....	9	2.5	5	✓

✓ See footnote n. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note (p. 9)
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Grange Superior Scratch.....	10	3	6	✓
PROPRIETARY FEEDS—POULTRY FEEDS—MASHERS				
Allied Mills, Inc., Peoria, Ill.				
Wayne Concentrate with Cod Liver Oil and Sardine Oil	32	4	8	✓
Wayne Breeder	18	4	7	✓
Wayne Broiler	18	3.5	8	
Wayne Egg	18	3.5	7	✓
Wayne Egg with Sardine Oil	18	3.5	7	✓
Wayne Chick Starter	17	4	6	✓
Wayne Chick Starter with Sardine Oil.....	17	4	6	✓
Empire Egg	16.5	3.5	7	✓
Empire Egg with Sardine Oil	16.5	3.5	7	✓
Wayne Growing with Sardine Oil	16	4	6	✓
Wayne All Mash Grower.....	16	4	6	
Empire Starter and Grower	16	3.5	6	
Empire Starter and Grower with Sardine Oil	16	3.5	6	✓
Wayne Poultry Fattener	13.5	3.5	8	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Brand Laying.....	20	5	6	✓
Pennant Brand Laying with Cod Liver Oil and Cod Liver Meal.....	20	5	6	✓
Pennant Brand Chick Starter.....	17	5	5	✓
Pennant Brand Growing	15	5	5	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell Dry with Cod Liver Oil	18	3	8.5	
Clyde-Renco Milling Corp., Clyde, N. Y.				
Cornell†	18	4	10	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Milk Laying	20	4	8	✓
Community Chick Starter-Grower-Broiler (With Cod Liver Oil)	17	5	8	✓
Crystal Lake Mills, Barton, Vt.				
Storr's Egg with Nopco XX Cod Liver Oil..	15	4	7	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Developer†.....	18.5	4	6.5	✓
Eastern States Starting and Broiler†.....	18.5	4	5	✓
Eastern States Controller†.....	18.5	2.5	4	
Eastern States Producer†.....	17	4	6.5	✓
Eastern States Combination†.....	15	4	6.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Egg	18	4	8	✓
Elmore Eggmaker	17	4.5	8	✓
Elmore Eggmaker with Cod Liver Oil	17	4.5	8	✓
Elmore Complete Broiler.....	17	4	5	✓
Elmore Chixsaver	16.5	4	8	✓
Elmore Complete Starting and Growing....	16	4	8	✓
Elmore Complete Laying Ration	16	4	6	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Laying.....	20	5	7	✓
Eshelman Red Rose Laying with Cod Liver Oil	20	5	7	✓
Eshelman Pennsy Laying.....	18	5	8	✓
Eshelman Red Rose All Mash Starter.....	16	4	6.5	✓
Eshelman Red Rose Chick Starter.....	15	4	6	✓

† Open formula. ✓ See footnote p. 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 9)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—continued				
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Laying With Buttermilk—Cod Liver Oil	20	4	8	✓
Grandin's Complete Starting with Buttermilk—Cod Liver Oil	16	4	6	✓
Grandin's Growing with Buttermilk—Cod Liver Oil	15	4	8	✓
Grandin's Complete Laying Ration.....	15	4	7	✓
Grandin's Combined Chick and Broiler.....	15	4	6	✓
Grandin's Baby Chick Starter with Buttermilk—Cod Liver Oil	14	4	5	✓
Grandin's Poultry Green Food	10	1	25	✓
Grand Union Co., New York, N. Y.				
Peerless Laying	20	4	7	✓
Great Atlantic & Pacific Tea Co., New York, N. Y.				
Daily Egg	20	4.5	7	✓
Daily Growth Chick Starter	16	4	5	✓
Hales & Hunter Co., Chicago, Ill.				
Red Comb Egg with Dried Buttermilk.....	18	4	7	✓
Red Comb Growing with Dried Buttermilk..	16	4	7	
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Egg	19	4.5	5.5	✓
Jersee Co., Minneapolis, Minn.				
Just Right Egg 18%.....	18	5	8	
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	✓
Larrowe Milling Co., Detroit, Mich.				
Larro Egg	19	4	7.5	✓
Larro Chick Starter	16.5	4.5	5.5	✓
Larro Growing	16	4	7.5	✓
Larro Broiler	15.5	4	6	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Egg	20	4	9	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Daisy All Mash Starter and Growing Vitamized with Cod Liver Oil, Milk Sugar Feed, Dried Buttermilk	17	4	7	
Dollar\$Maker Egg Vitamized with Cod Liver Oil and Dried Buttermilk	17	3.5	9	
B-B Bull Brand All Mash Laying Vitamized with Cod Liver Oil, Milk Sugar Feed, Dried Buttermilk	15	4	7	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Laying with Dried Buttermilk and Cod Liver Oil	20	4	9	✓
Moon's Growing	17	4	7	✓
Moon's Baby Chick Starter	15	4	5	✓
Park & Pollard Co., Buffalo, N. Y.				
Manamar Lay or Bust	18	3.5	6	✓
Lay or Bust Dry.....	18	3	7	✓
Lay or Bust Dry with Cod Liver Oil.....	18	3	7	✓
Park & Pollard Chick Starter.....	17	3.5	5	✓
All-In-One Starting	17	3.5	5	✓
Manamar Complete Ration	16	3.5	6	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Egg.....	20	4.5	8	✓
Quaker Full-O-Pep Growing.....	19	5	6	✓
Quaker Ful-O-Pep Chick Starter	17	5	7	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 9)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHER, ETC.—concluded.				
Ralston Purina Co., St. Louis, Mo.				
Purina Turkey Startena	26	4.5	6	✓
Purina Turkey Growing and Fattening Chow	21	3.5	8	✓
Purina Lay Chow.....	19	3.5	8	✓
Purina Lay Chow (With Cod Liver Oil)....	19	3.5	8	✓
Purina Lay Chow (With Cod Liver Oil and Dried Buttermilk)	19	3.5	8	✓
Purina Egg Chowder.....	19	3.5	8	✓
Purina Egg Chowder (With Cod Liver Oil) .	19	3.5	8	✓
Purina Breeder Egg Chowder.....	19	3.5	8	✓
Purina Broiler Chow.....	18	4	7	✓
Purina Chick Startena (Complete-All Mash)	18	4	7	✓
Purina Growing Chow	17	3.5	7	✓
Purina Layena (Complete-All Mash).....	15.5	3.5	8	✓
Purina Chick Growena (Complete-All Mash)	15	3.5	7	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Turkey Starting with Cod Liver Oil	24	4.5	7	✓
Wirthmore Breeder	20	4.5	7	✓
Wirthmore Turkey Breeder	20	4.5	7	✓
Wirthmore Laying	20	4	7	✓
Wirthmore Laying with Cod Liver Oil.....	20	4	7	✓
Wirthmore Baby Chick Starter with Cod Liver Oil	18	4	5	✓
Wirthmore Complete Chick and Broiler....	17.5	4	5.5	✓
Wirthmore Growing	15	4.5	6	✓
Wirthmore Growing with Cod Liver Oil....	15	4.5	6	✓
Wirthmore Fleshing and Fattening	15	4.5	6	✓
Wirthmore Complete Laying.....	15	4	5	✓
Wirthmore Complete Growing.....	14	3.75	6	✓
S. E. Smith Estate, West Rutland, Vt.				
Smith Estate Starting with Cod Liver Oil...	19	4.5	4.5	
Smith Estate Egg Producer.....	18	4.5	7	
Smith Estate Blue Ribbon Growing.....	17	4.5	6	
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko Egg	20	4	6	
Ubiko All-Mash Starter.....	18	4	5	✓
Ubiko All-Mash Complete Laying.....	16	3.5	6	✓
Ubiko All-Mash Developer.....	14	4	5	
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Superior Laying with Buttermilk & Cod Liver Oil†	18	4	7	✓
Superior Growing with Buttermilk & Cod Liver Oil†	18	4	7	✓
Superior Chick Starter with Buttermilk and Cod Liver Oil†	18	4	7	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Egg.....	18	5	7	✓
Pure Feed Starting	16	4.5	4.6	✓
DRIED SKIMMILKS				
Dairymen's League Co-operative Assn., Inc., Utica, N. Y.				
Dairylea	33	0.5	..	
Trout Brook Creamery Co., Concord, Vt.				
Trout Brook Skimmilk Powder	32	0.25	..	
Ward Dry Milk Co., St. Paul, Minn.				
Ward's Pure	32	1	..	

† Open formula. ✓ See footnote p. 9.

II. BRANDS FAILING TO MEET GUARANTIES

COTTONSEED MEALS

- ASHCRAFT-WILKINSON Co., Atlanta, Ga. *Helmet Brand Prime*. 41/5.5/10. Seventeen samples, three below protein guaranty (41%). Stocks of Checkerboard Feed Store, Bradford, 39.86%; C. E. Johnson, Island Pond, 39.64%; Wallingford Feed Store, Wallingford, 39.64%. Three samples below protein guaranty but within tolerance limits. Average 17 samples 41.72%.
- HUMPHREYS-GODWIN Co., Memphis, Tenn. *Dixie Brand Prime 41% Protein*. 41/5/12. Seventeen samples, three below protein guaranty (41%). Stocks of H. M. Brown & Co., Castleton, 39.64%; Caswell & O'Rourke, Derby Line, 39.86%; C. H. Stearns & Son, Johnson, 40.08%. Five samples below protein guaranty but within tolerance limits. Average 17 samples 41.03%.
- L. B. LOVITT & Co., Memphis, Tenn. "*Lovitt Brand*" 41% Prime Quality. 41/5/13. Nine samples, two below protein guaranty (41%). Stocks of J. S. Spaulding, Ludlow, 39.86%; E. L. Thompson, Poultney, 40.08%. Three samples below protein guaranty but within tolerance limits. Average nine samples 41.28%.

CORN GLUTEN FEEDS

- ANHEUSER-BUSCH, INC., St. Louis, Mo. *Corn Gluten Feed*. 25/2/8.5. One sample below fat guaranty (2%). Stock of E. L. Thompson, Poultney, 1.77%.

WHEAT MIXED FEEDS

- F. W. STOCK & SONS, Hillsdale, Mich. *Superior*. 18/4/7. One sample below protein (18%) and fat (4%) guaranties. Stock of W. B. Johnson, Essex Junction, 16.88%, 3.44%.

ALFALFA MEALS

- DENVER ALFALFA MILLING & PRODUCTS Co., Lamar, Colo. (*Leafalfa Brand*.) 20/1.5/18. One sample below protein guaranty (20%). Stock of St. Albans Grain Co., St. Albans, 19.06%.
- PECOS VALLEY ALFALFA MILL Co., Hagerman, N. Mex. *Pecos Special*. 13/1.5/33. Two samples, one below protein guaranty (13%). Stock of E. W. Bailey & Co., Swanton, 11.62%. One sample below protein guaranty but within tolerance limits. Average two samples 12.28%. Also above fiber guaranty but within tolerance limits.

OAT, RYE AND CORN FEEDS

- J. A. FORREST, Minneapolis, Minn. *Alpine Ground Feeding Oatmeal*. 14/5/3.9. One sample above fiber guaranty (3.9%). Stock of Community Feed Stores, Inc., Westminster Station, 4.90%.
- QUAKER OATS Co., Chicago, Ill. *Vim Feed*. 5/2/30. Average of 18 samples below fat guaranty (2%). Found 1.77%. Four samples below protein guaranty but within tolerance limits.
- QUAKER OATS Co., Chicago, Ill. *Sugared Vim Feed*. 5/1.25/27.5. Eight samples, one below protein guaranty (5%). Stock of Community Feed Stores, Inc., Westminster Station, 4.62%. One sample below protein guaranty but within tolerance limits. Average eight samples 5.05%.

DAIRY FEEDS OR RATIONS

- E. W. BAILEY & Co., Montpelier, Vt. *Capital*. 24/4.5/9. One sample below protein guaranty (24%). Stock of E. W. Bailey & Co., Swanton, 23%. Also below fat guaranty but within tolerance limits.
- BETHEL MILLS, Bethel, Vt. *Bethel Mills 20 Protein*. 20/4.5/6.5. One sample above fiber guaranty (6.5%). Stock of Bethel Mills, Bethel, 7.51%.

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore Milk Grains (Sweetened)*. 24/5/10. One sample below fat guaranty (5%). Stock of South Hero Grain Co., South Hero, 4.65%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore Milk Grains Junior Sweet*. 20/5/10. Average three samples below fat guaranty (5%). Found 4.61%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Granger 20%*. 20/4/11. Nine samples, one below protein guaranty (20%). Stock of E. H. Edgerton, Dorset, 19.28%. Two samples below protein guaranty but within tolerance limits. Average nine samples 20.79%.
- E. T. & H. K. IDE, St. Johnsbury, Vt. *Royal Sweetened*. 20/4/10. Average three samples above fiber guaranty (10%). Found 12.31%. Also below fat guaranty but within tolerance limits.
- GEO Q. MOON & Co., INC., Binghamton, N. Y. *U. S. 20%*. 20/3/12. Two samples, one below protein guaranty (20%). Stock of Farmers Supply Store, Northfield, 19.28%. One sample below protein guaranty but within tolerance limits. Average two samples 19.61%. Also below fat guaranty but within tolerance limits.
- PARK & POLLARD Co., Buffalo, N. Y. *Top Notch 16%*. 16/3.5/12. Three samples, one below protein guaranty (16%). Stock of Farmers Feed and Grain Store, Windsor, 15.12%. Average three samples 16.13%.
- RICHMOND FEED Co., Richmond, Vt. *Richmond Special 22 Percent*. 22/5/9.5. One sample below fat guaranty (5%). Stock of Richmond Feed Co. Richmond, 4.51%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Utility*. 20/3.5/11.5. Four samples, one below protein guaranty (20%). Stock of H. P. Munson Estate, Morrisville, 18.41%. Average four samples 20.88%.
- CHAS. M. SEAVER & Co., Williamstown, Vt. *Vim—20*. 20/4/12. One sample below protein (20%) and fat (4%) guaranties. Stock of Chas. M. Seaver, Williamstown, 19.28%, 3.66%.
- J. G. TURNBULL Co., Orleans, Vt. *Creamery*. 20/5/10. Average two samples below fat guaranty (5%). Found 4.29%.
- J. G. TURNBULL Co., Orleans, Vt. *Turnbull's Special*. 20/3.5/12. Two samples, one below protein guaranty (20%). Stock of J. G. Turnbull Co., Newport Center, 18.63%. One sample below protein guaranty but within tolerance limits. Average two samples 19.07%.
- WAYNE COUNTY GRANGERS FEED CORP., Clyde, N. Y. *Milkproducer 24%*. 24/4/10. One sample below protein guaranty (24%). Stock of Farmers Cash Feed Store, Bellows Falls, 23%.
- RAY P. WEBSTER, Barton, Vt. *Ray's Ready*. 20/5/10. One sample below fat guaranty (5%). Stock of Ray P. Webster, Barton, 4.25%. Also below protein guaranty but within tolerance limits.

STOCK FEEDS

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore Stock*. 10/3/12. Two samples below protein guaranty (10%). Stocks of J. A. Ryan Co., Milton, 9.43%; B. L. Powell, Pownal, 9.43%. Average two samples 9.43%.

CALF MEALS AND HOG FEEDS

- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Calf*. 24/5.5/4. Seven samples, one below protein guaranty (24%). Stock of Davis Feed Co., Inc., Rutland, 23.22%. Two samples below protein guaranty but within tolerance limits. Average seven samples 24.16%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Pig and Hog*. 17/4/9. Nine samples, one below protein guaranty (17%). Stock of F. C. Brown, Barton, 16.44%. Average nine samples 18.60%.

MEAT SCRAFS

- JOHN REARDON & SONS Co., Cambridge, Mass. *Rearco Bone Meal*. 20/3/— . One sample below fat guaranty (3%). Stock of E. T. & H. K. Ide, St. Johnsbury, 2.43%.

SCRATCH FEEDS, CHICK FEEDS

- ELMORE MILLING Co., Inc., Oneonta, N. Y. *Emco Scratch*. 10/2.5/7. Two samples below protein guaranty (10%). Stocks of W. V. Phelps Co., Enosburg Falls, 9.43%; Farmers Feed and Grain Co., St. Albans, 9.43%. Average two samples 9.43%.
- GEO. Q. MOON & Co., Inc., Binghamton, N. Y. *Moon's Baby Chick Grains*. 10/3/2.5. One sample below fat guaranty (3%). Stock of W. M. Broughton, Poultney, 1.54%.
- WEST-NESBITT, INC., Oneonta, N. Y. *Pure Feed Scratch Grain*. 10/3.5/5. Two samples, one below protein guaranty (10%). Stock of R. W. Simonds, Fair Haven, 9.43%. Average two samples 9.98%. Also below fat guaranty (3.5%). Found 2.82%.

MASHES, GROWING FEEDS, ETC.

- JOHN W. ESHELMAN & SONS, Lancaster, Pa. *Eshelman Red Rose Laying with Cod Liver Oil*. 20/5/7. Four samples, one below protein guaranty (20%). Stock of North Troy Bakery, North Troy, 19.28%. Average four samples 20.70%.
- PARK & POLLARD Co., Buffalo, N. Y. *Manamar Starting and Broiler*. 18/3.5/6. One sample above fiber guaranty (6%). Stock of Farmers Feed and Grain Store, Windsor, 6.76%.
- QUAKER OATS Co., Chicago, Ill. *Quaker Ful-O-Pep Growing*. 19/5/6. Four samples, one below protein guaranty (19%). Stock of Godette Bros., Essex Center, 18.19%. One sample below protein guaranty but within tolerance limits. Average four samples 18.78%.
- QUAKER OATS Co., Chicago, Ill. *Quaker Ful-O-Pep Chick Starter*. 17/5/7. Eight samples, one below protein guaranty (17%). Stock of E. G. & A. W. Norton, Vergennes, 16.44%. One sample below protein guaranty but within tolerance limits. Average eight samples 17.51%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Laying with Cod Liver Oil*. 20/4/7. Seventeen samples, one below protein guaranty (20%). Stock of C. A. Smith, Concord, 17.31%. One sample below protein guaranty but within tolerance limits. Average 17 samples 21.15%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Turkey Growing*. 20/4/7. One sample below protein guaranty (20%). Stock of St. Albans Grain Co., St. Albans, 18.63%.

III. INGREDIENT STATEMENTS

The following pages set forth the ingredient contents of all brands of proprietary feeds which were sampled and analyzed as declared upon the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturer. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on pages 29, 33, 35, and 40.

Nineteen of the 177 brands of dairy and stock feeds sampled—11 percent of the total number collected—contained screenings. This showing is about the same as last fall. It is cheaper in the long run for the farmer to purchase a high quality feed and furnish the screenings or roughages from his own hay crop.

Only 36 brands of the 377 proprietary feeds examined—11 percent of the total number collected—were not found to be "as certified" in respect to their ingredient contents. This is a good showing. The chief missing ingredient was potassium iodide, which was guaranteed

to be present in amounts varying from 0.0005 to 0.0007 of a percent. This is equivalent to about one-sixth of an ounce in a ton of feed. Is it any wonder that the microscopist did not find this minute trace in two dairy feeds, in one pig ration and in four of the poultry mashes? Sherlock Holmes himself would be nonplussed. Sunflower seed was not found in four scratch grains. Bicarbonate of soda, kaffir corn, copper sulphate, iron sulphate, anise, blood meal and yeast were other ingredients which in some instances were "not detected." All of these were undoubtedly used in very small quantities. Presumably they are deemed to be serviceable, otherwise manufacturers would not include them in their formulas.

Ingredients found in addition to those certified were brewers' dried grains, dried beet pulp, linseed meal and ground wheat. These are standard materials of good quality and were probably used without notice to the control officials in order to improve the quality of the feeds or to lessen costs. If a manufacturer wishes to make substitutions or additions of this character during the registration year, such a procedure is almost invariably permitted provided good standard ingredients of equal digestibility are used, provided the guaranty is not changed for the worse and provided due notice be made of such change to the Station.

Instances have been noted where the ingredient statement on the tag or stencil fails to correspond with that filed at the time of registration. Such situations should not arise. Manufacturers should see to it that the ingredient statement made on the registration application corresponds with that on the tag or stencil.

Only 10 of the 377 brands of proprietary feeds contained weed seeds—four dairy feeds, one calf ration, three scratch feeds and two poultry mash feeds. The dairy and the calf feeds contained screenings from which probably the weed seeds were derived.

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Allied Mills, Inc.																								
Wayne Amco 32% Supplement†	32/4/9			*	*							*	*	*	*	*	*	*	*	*	*	*	*	1
Wayne Amco 24%†	24/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 24%	24/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wayne Amco 20%†	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 20%	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 16½%	16.5/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. W. Bailey & Co.																								
Capital	24/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Capital	24/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Favorite	20/4/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Favorite	20/4/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Our 20 Special	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Bailey's 16%	16/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
L. C. Berry																								
Special 20%	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills																								
Bethel Mills 24 Protein	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein	20/4.5/6.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Bethel Mills 20 Protein Sweetened	20/4.5/6.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Bethel Mills 20 Protein Sweetened Economy	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 16 Protein Pasture	16/4.2/9.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Black Rock Milling Corp.																								
Bidwell 24%	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.5
Bidwell 20%	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.5
Chapin & Co.																								
Unicorn 24%	24/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Unicorn 20%	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Community Feed Stores, Inc.																								
Community 20	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. C. Crosby																								
Crosby's A Quality 20%†	20/5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Crosby's B Quality 20%†	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Danville Grain Co., Inc.																								
Danville 24%	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Danville 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Davis Feed Co., Inc.																								
Vermont 20%	20/5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Davis 20% Kow Feed	20/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
H. W. Demick, Inc.																								
Beats 'Em All	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																								
Eastern States 32% Supplement†	32/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.6
Eastern States Milkmore†	24/4.5/8											*	*	*	*	*	*	*	*	*	*	*	1.6	
Eastern States Fulpal†	20/4.5/8											*	*	*	*	*	*	*	*	*	*	*	1.6	

†Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linsed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	
	Protein	Fat	Fiber																						
Eastern States Farmers' Exchange—continued																									
Eastern States High-land 20†	20/4/12																							1, 6	
Eastern States Sixteen†	16/4/8																								1, 6
Elmore Milling Co., Inc.																									
Elmore Milk Grains	25/5/11																								1, 5
Elmore Milk Grains (Sweetened)	24/5/10																								1, 5
Granger 24%	24/4/10																								1, 2
Elmore Milk Grains Jr.	20/5/10																								1, 5
Elmore Milk Grains Junior Sweet	20/5/10																								1, 5
Emco Feed	20/4.5/10																								
Granger 20%	20/4/11																								1, 2
Elmore's Sweet Digesto	16/4/12																								
John W. Eshelman & Sons																									
Eshelman Red Rose 24	24/4/11																								1
Eshelman Lancaster 20	20/4/11																								1
Eshelman Conestoga 20	20/4/11																								1
Eshelman Open Formula 20	20/4/9																								1
Eshelman Certified 20%†	20/4/8																								1
Eshelman Pennsy 16	16/3/11																								1
For-All Grain Co., Inc.																									
For-All Milk Grains 20%	20/5/8.5																								2, 11
D. H. Grandin Milling Co.																									
Grandin's 32%	32/4/9																								
Grandin's Sweetened 24%	24/4/10																								9
Grandin's Sweetened 12 Twin Six 12	22/5/12																								9
M-S (Money Saver) 20% Sweet	20/4/12																								9
Grandin's Sweetened 20%	20/4/10																								9
Great Atlantic & Pacific Tea Co.																									
Milky Way 20%	20/4/9																								1, 2, 9
E. T. & H. K. Ide																									
Ideal Sweetened	24/5/10																								
Sunshine	20/4/10																								
Royal Sweetened	20/4/10																								
Ide's Special	20/4/10																								
W. B. Johnson & Son																									
Johnson's Perfection No. 1	20/5/9																								
Johnson's Economy	20/4/12																								11
Kasco Mills, Inc.																									
Kasco Mormilk	24/4.5/10																								1, 2
Kasco 20% Milk Maker	20/4/11																								1, 2
Apex 20%	20/3.5/12																								1
Kasco 18%	18/3.5/10																								2
Larrowe Milling Co.																									
Larro	20/3.75/12																								

† Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
R. H. McEwen Milling Co.																								
McEwen's 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
McEwen's 16%	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
T. J. McGovern																								
McGovern's 24 Per Cent	24/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
McGovern's 20 Per Cent																								
Farm Relief	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
McGovern's 20 Per Cent	20/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 3, 11
McGovern's 16 Per Cent	16/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Maritime Milling Co., Inc.																								
Sweetened B-B Bull																								
Brand "24"	24/4.5/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
B-B Hi-Test 20% Pro.																								
Sweetened	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Sweetened Dollar\$Maker																								
20%	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
B-B Marmico 16%																								
Protein with molasses	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Geo. Q. Moon & Co., Inc.																								
Moon's 24%	24/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
U. S. 20%	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Mt. Mansfield Co-op. Creamery & Grain Assoc., Inc.																								
Mt. Mansfield 20%†	20/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
E. G. & A. W. Norton																								
Kow Feed	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Park & Pollard Co.																								
Milk-Maid 24% Sweetened																								
	24/4.5/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 7, 14
Manamar 24%	24/4.5/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 7, 10, 14
Overall 24%	24/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bet-R-Milk 20%	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 14
Manamar 20%	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 10, 14
Yankee	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Top Notch 16%	16/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 5
Quaker Oats Co.																								
Quaker 24% Protein	24/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Quaker 20% Protein	20/3.25/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Quaker 16% Protein	16/3.5/13.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Race Milling Co.																								
Race's 24%	24/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11
Race's 20%	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11
Race's 18%†	18/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Walston Purina Co.																								
Purina (Red Checker)																								
Cow Chow (34%)	34/3/12 *									*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16
Protena 24%	24/3.5/12			*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16, 19
Purina (Green Checker)																								
Cow Chow (24%)	24/3/12 *									*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16

† Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Ralston Purina Co.—continued																								
Purina (Blue Checker)																								
Cow Chow (20%)	20/3/12			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.16
Protena 20%	20/3/12			*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.16, 1
Protena 16% (Buffalo Mill)	16/3/12			*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.16, 1
Purina Bulky Cow Chow	16/3/12			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.16
Richmond Feed Co.																								
Richmond Special																								
22 Per Cent	22/5/9.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20, 21,
St. Albans Grain Co.																								
Wirthmore 32 Supplement	32/4/8			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 25 Balanced Sweetened	25/4.5/8.5			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Hygrade 24 Sweetened Milk	24/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.2
Champlain Valley Emergency 24	24/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 20 Sweetened	20/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Utility	20/3.5/11.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.2
Hygrade 20 Sweetened Milk	20/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.2
Champlain Valley Emergency 20	20/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 16 Sweetened	16/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Hygrade 16 Sweetened Milk	16/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
E. T. Seabury Grain Co.																								
Our Own Make 20%	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Our Own Make 16%	16/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
C. M. Seaver & Co.																								
Vim-20	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Honor Brand	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Estate of Henry A. Slayton																								
Economy	20/3.75/8.5			*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. A. Smith																								
Smith's	20/4/12			*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	
S. E. Smith Estate																								
Smith Estate 24%†	24/5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Smith Estate 20%	20/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Smith Estate 18%†	18/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
C. H. Stearns & Son Co.																								
Stearns All Grain																								
20% Milk	20/4/9			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Tioga-Empire Feed Mills, Inc.																								
20% Crematine	20/4.5/10			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.12, 1
J. G. Turnbull Co.																								
Creamery	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Turnbull's Special	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8.11

† Open formula.

DAIRY FEEDS—concluded

Dairy Feeds or "Rations"	Guaranty	Protein	Fat	Fiber	Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grain	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
Frank Tyler Tyler's (20%) Ready Mixed		20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne County Grangers Feed Corp. Milkproducer 24%†		24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 3, 5, 12, 13
Galen 24%†		24/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Superior 20%†		20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 3, 5, 12, 13
Clyde 20%†		20/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Hi-Yan-Ka Farms 20% with Beet Pulp†		20/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Sweetened 16%†		16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 12, 13
Ray P. Webster Ray's Ready		20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
West-Neshitt, Inc. All Pure 20% Milk		20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

† Open formula.

Additional ingredients: 1. Soybean oil meal. 2. Barley. 3. Wheat. 4. Kelp. 5. Malt sprouts. 6. Dicalcium phosphate. 7. Copra oil meal. 8. Phosphatic limestone. 9. Corn feed meal. 10. Sea shells. 11. Rye feed. 12. Tricalcium phosphate. 13. Cocoa meal. 14. Dried ground fish. 15. Iodine, charcoal. 16. Iodized salt. 17. Palm kernel oil meal. 18. Peanut oil meal. 19. Corn germ meal. 20. Charcoal. 21. Fenugreek. 22. Potassium iodide.

The dairy feeds were found to be "as certified" with few exceptions.

In the following instances, the ingredients named were "not detected":

Richmond Feed Co., Richmond Special 22 Percent; Potassium iodide.
Tioga-Empire Feed Mills, Inc., 20% Crematine: "Iodine."

In the following instances small quantities of ingredients named were found in addition to those certified:

E. W. Bailey & Co., Favorite: Dried beet pulp.
L. C. Berry, Special 20%: Dried beet pulp.
Danville Grain Co., Danville 20%: Brewers' dried grains.
Elmore Milling Co., Inc., Granger 24%: Whole weed seeds.
Elmore Milling Co., Inc., Elmore's Sweet Digesto: Whole weed seeds.
John W. Eshelman & Sons, Eshelman Conestoga 20: Whole weed seeds.
Maritime Milling Co., Inc., B-B Marmico 16% Protein with Molasses: Whole weed seeds.
E. G. & A. W. Norton, Kow Feed: Brewers' dried grains.
Race Milling Co., Race 24%: Linseed meal.
J. G. Turnbull Co., Creamery: Dried beet pulp and brewers' grains.
J. G. Turnbull Co., Turnbull's Special: Dried beet pulp and brewers' grains.

Forty ingredients were used in making the 134 brands of dairy feeds sampled. Cottonseed meal and salt appear in all; bran and gluten meal or feed in nine-tenths or more; calcium carbonate, linseed meal and molasses in eight-tenths; corn meal in seven-tenths; wheat middlings and ground oats in five-tenths; bone meal, hominy feed, brewers' dried grains and soybean meal in four-tenths; corn distillers' dried grains in three-tenths; oat mill feed in two-tenths; and barley and screenings in one-tenth.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																	
Allied Mills, Inc.																			
Arab Horse	10/2/12	*																	
Wayne Supreme Horse	9.5/3/8																		
Empire Stock	9/3/12																		4
E. W. Bailey & Co.																			
Sweetened Bailey's Fitting	14/4/9																		
Pennant Horse	10.75/3.5/6.5																		
Sweetened with Molasses Pennant Brand Stock	9.5/4/9.5	*																	
Eastern States Farmers' Exchange																			
Eastern States Highland 12†	12/3.5/11.5																		2, 4, 9
Eastern States Fitting†	12/3.5/7																		14
Eastern States Horse and Calf†	10.5/3.5/7																		2, 9
Elmore Milling Co., Inc.																			
Elmore Fitting	12/4/9																		7
Elmore Stock	10/3/12																		
Elmore Horse with Molasses	9/2.5/11	*																	
John W. Eshelman & Sons																			
Eshelman Red Rose Fitting	12/3.5/7																		
Eshelman S-O-S	11/2/15	*																	3, 4
Eshelman Steam-Cooked Horse	9/4/6																		
Eshelman Conestoga Horse	9/3/10																		
Eshelman Red Rose 85 Horse	9/3/10	*																	
Eshelman Garden Spot Horse	7/2/11																		
Vermont Special	5/1/25																		3
D. H. Grandin Milling Co.																			
Grandin's Sweetened Horse	9.5/3.5/11	*																	
Grandin's Stock	8.5/4/12	*																	5
E. T. & H. K. Ide																			
Ideal Fitting	12/4/10																		
Imperial Grain & Milling Co. Imperial Steam Cooked	9.5/4/4.6																		
Kasco Mills, Inc.																			
Kasco Horse	9/3/10	*																	
Maritime Milling Co., Inc.																			
B B Dealers' Mixing with Molasses	10/3.5/12																		
Park & Pollard Co., Manamar Fitting	12/3.5/7																		1, 6, 8
Park & Pollard Horse	10/3.5/9																		

†Open formula.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																	
Quaker Oats Co.																				
Quaker Schumacher	10/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Quaker Sugared Schumacher	10/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Ralston Purina Co.																				
Purina Fitting Chow	13.5/2.6/12	*						*	*	*	*	*	*	*	*	*	*	*	*	9, 10
Purina Rabbit Chow	13.5/2.5/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9, 10, 16, 17
Purina Bulky Omolene	10/3.2/11							*	*	*	*	*	*	*	*	*	*	*	*	10
Purina Omolene	10/3.2/9	*						*	*	*	*	*	*	*	*	*	*	*	*	10
Purina Bulky Las Chow (Buffalo Mill)	9/1.3/15	*										*	*	*	*	*	*	*	*	3, 10
Protena Sweet Feed "D"	6/1/25	*										*	*	*	*	*	*	*	*	
St. Albans Grain Co.																				
Wirthmore 14 Fitting	14/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6
Wirthmore Rabbit	14/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 12, 13, 15
Utility Pasture	14/3/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 7
Hygrade Fitting	12/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9
Wirthmore Horse	9.8/3.25/9	*						*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Stock	9/4/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ubiko Milling Co.																				
Crusader Horse	9/3/10	*						*	*	*	*	*	*	*	*	*	*	*	*	
Wayne County Grangers Feed Corp.																				
Universal Horse	10/3/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

Additional ingredients: 1. Kelp. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Sea shells. 9. Soybean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skim milk. 13. Cod-liver oil. 14. Distillers' dried grains. 15. Cracked wheat. 16. Wheat germ. 17. Corn germ meal.

All stock feeds, horse feeds, fitting feeds and rabbit feeds were found to be "as certified" with respect to their ingredients.

Thirty-four ingredients were used in making the 43 brands of stock feed, etc., sampled. Molasses, oats, and salt appear in eight-tenths; linseed meal and wheat bran in five-tenths; corn meal and cracked corn in four-tenths; alfalfa and calcium carbonate in three-tenths; barley, hominy feed, oat mill feed, and wheat middlings in two-tenths; and bone meal in one-tenth of the brands sampled. Screenings were used in two brands.

CALF MEALS, HOG FEEDS

Allied Mills, Inc., Wayne Calf Meal. 24/4/7. Dried skim milk, cottonseed meal, corn gluten meal, coconut oil meal, wheat bran, wheat middlings, soybean meal, 2% limestone, 1% steamed bone meal, 1% salt, 0.06% iron oxide, 0.0007% potassium iodide, cane molasses, wheat reddog.

Allied Mills, Inc., Wayne Pig Meal. 18/3.5/7. Digester tankage, fish meal, peanut oil meal, cottonseed meal, soybean oil meal, wheat flour middlings, corn meal, alfalfa meal, oatmeal, molasses, limestone, 0.5% bone, 0.04% iron oxide, 0.5% salt, 0.0005% potassium iodide, and 0.0005% copper sulphate.

Allied Mills, Inc., Emergency Hog Feed. 14/3.5/7. Digester tankage, corn meal, wheat middlings, alfalfa meal, cane molasses, 1% limestone,

0.02% iron oxide, 0.5% steamed bone meal, 0.0005% potassium iodide, 0.0005% copper sulphate, 1% salt and oats.

Blatchford Calf Meal Co., Blatchford's Calf Meal. 24/5/6.75. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, linseed meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate, wheat flour, cocoanut oil meal, cottonseed meal, fenugreek, anise, and salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula). 23/3.5/4. Rolled oat groats, corn meal, wheat bran, linseed meal, blood flour, dried skim milk, dicalcium phosphate, and salt.

Eastern States Farmers' Exchange, Eastern States Hog Meal (Open Formula). 14.5/4/5.5. Corn meal, meat scraps, wheat flour middlings, linseed meal, alfalfa leaf meal, dicalcium phosphate, calcium carbonate, and salt.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal. 24/4/4. Wheat reddog, corn meal or corn feed meal, oatmeal, linseed meal, malted barley, blood meal, dried buttermilk, bone meal, and salt.

Elmore Milling Co., Inc., Elmore's Makemgrow Little Pig. 18/4.5/7. Wheat middlings, corn feed meal or hominy feed, linseed meal, wheat reddog, tankage, salt.

Elmore Milling Co., Inc., Elmore's Hog. 15/5/6. Wheat middlings, linseed meal, corn meal, corn feed meal or hominy, tankage, and salt.

John W. Eshelman & Sons, Eshelman Red Rose Calf Starter. 20/3/5. Wheat feed, linseed meal, wheat middlings, wheat flour, oatmeal, kaffir corn, blood flour, 2% flaxseed, 1% steamed bone meal, ½% calcium carbonate, and ½% salt.

John W. Eshelman & Sons, Red Rose Hog. 16/5/10. Wheat middlings, corn feed meal, digester tankage, wheat bran, 3% bone meal, 2% fish meal, 2% linseed meal, 2% charcoal, reground grain screenings, 1% calcium carbonate, and 1% salt.

Kasco Mills, Inc., Kasco Calf Meal. Wheat middlings, wheat reddog, linseed meal, soybean meal, corn meal, oatmeal, malted barley, dried skim milk, milk sugar feed (dried whey), blood flour, bone meal, 1% salt, 1% calcite, and cod-liver oil.

Larowe Milling Co., Larro Pork-Maker. 25/5/10. Meat scraps, dried beet pulp, linseed meal, wheat standard middlings, alfalfa meal, wheat bran, 3% limestone, 1% salt, and soybean oil meal.

Larowe Milling Co., Larro Calf Meal. 23/4/4. Oatmeal, wheat standard middlings, corn meal, linseed meal, blood flour, dried skim milk, cod liver oil vitamin extract, 0.5% limestone, 0.75% salt.

Park & Pollard Co., Go Tu It Pig & Hog Ration. 15/3.5/8. Alfalfa meal, hominy, barley, fish meal, meat meal, bone meal, corn meal, corn germ meal, wheat middlings, ground grain screenings, calcium carbonate, and salt.

Quaker Oats Co., Schumacher Calf Meal. 18/7/4. Oatmeal, ground flaxseed, ground puffed wheat, linseed meal, dried skim milk, blood flour, 0.50% bicarbonate of soda, 0.75% salt, 1% ground limestone, and 1% bone meal.

Ralston Purina Co., Purina Calf Starting Chow. 23/3.2/7. Dried skim milk, linseed meal, soybean oil meal, fish meal, blood flour, alfalfa meal, oats, wheat middlings, corn meal, molasses, 1% calcium carbonate, 1% iodized salt.

Ralston Purina Co., Purina Hog Fatena Chow. 14/3/7. Tankage, linseed meal, corn germ meal, alfalfa leaf meal, wheat middlings, hominy, molasses, alfalfa meal, 2% iodized salt, and 1% charcoal.

Ralston Purina Co., Heifer Growing Chow. 14/2.5/14. Soybean oil meal, oats, alfalfa meal, cracked corn, cottonseed meal, wheat bran, molasses, screenings, 1% iodized salt.

Ryde & Co., Ryde's Cream Quality Calf Meal. 18.5/4/4. Blood meal, dried skim milk, locust bean meal, barley malt flour, crude milk albumen, linseed meal, cocoanut oil meal, oat groats, corn meal, ground flaxseed, wheat flour, wheat flour middlings, fenugreek, anise, steamed bone meal, calcium carbonate, and salt.

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skim milk, oatmeal, ground flaxseed, blood flour, linseed meal, wheat reddog, corn meal, bone meal, iodized salt, anise, and fenugreek.

St. Albans Grain Co., Wirthmore Pig and Hog. 17/4/9. Meat scraps, fish meal, bone meal, wheat reddog, wheat middlings, wheat bran, linseed

meal, alfalfa meal, corn meal, ground barley, corn gluten feed, calcium carbonate, cane molasses, and dairy salt.

The calf and hog meals with few exceptions were found to be "as certified."

In the following instances the ingredients named were "not detected":

- Allied Mills, Inc., Wayne Calf: Potassium iodide.
- Quaker Oats Co., Schumacher Calf: Bicarbonate of soda.

In the following instance a small quantity of the ingredient named was found in addition to those certified:

- Ralston Purina Co., Purina Heifer Growing Chow: Whole weed seeds.

There were 32 ingredients used in the 12 brands of calf meals sampled. Salt appears in 10; oatmeal in 9; blood flour and linseed meal in 8; dried skimmilk in 7; bone meal, calcium carbonate, corn meal in 6; wheat middlings in 5; ground flax in 3; and wheat flour in 1.

There were 29 ingredients used in 10 brands of pig and hog feeds sampled. Wheat middlings and salt appear in all; linseed meal, alfalfa meal and calcium carbonate in 7; corn meal in 6; bone meal in 5; meat meal and hominy feed in 4; and fine ground grain screenings in 3.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS

Scratch Grains, etc.	Guaranty			Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
	Protein	Fat	Fiber											
Allied Mills, Inc.														
Wayne Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne Intermediate Scratch	10/2/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Red Feather Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne Special Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Empire Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne Chick	9/2/4	*	*	*	*	*	*	*	*	*	*	*	*	*
E. W. Bailey & Co.														
Pennant Scratch	10/3/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Pennant Brand Fine Chick	10/3/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Pennant Brand Coarse Chick	10/3/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Beacon Milling Co., Inc.														
Beacon's Cayuga Scratch	9/2/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Black Rock Milling Corp.														
Bidwell Scratch	10/1.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Farmers' Exchange														
Eastern States Scratch Grains (with coarse cracked corn)†	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Scratch Grains 1931†	9.5/2.5/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Intermediate Scratch Grains†	9.5/2/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Chick Grains†	9.5/2/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Elmore Milling Co., Inc.														
Elmore Scratch	10/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*
Elmore Intermediate Chick	10/3/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Elmore Scratch	10/2.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*
Emco Scratch	10/2.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*
Elmore Chick	10/2.5/3.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Elmore Intermediate Chick	10/2.5/3	*	*	*	*	*	*	*	*	*	*	*	*	*

†Open formula.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty													
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
Skeels & Weidman Scratch	10/2/5	*	*	*	*	*	*	*	*	*	*	*	*	*
S. E. Smith Estate Smith Estate Blue Ribbon Scratch	11/3.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Ubiko Milling Co. Ubiko Intermediate Scratch	9/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Ubiko Chick	9/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne County Grangers Feed Corp. Grange Superior Scratch	10/3/6	*	*	*	*	*	*	*	*	*	*	*	*	*
Superior Little Chick	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	1
West-Nesbitt, Inc. Pure Feed Scratch	10/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*

Additional ingredients: 1. Traces of wild seed.

The scratch feeds were found usually to be "as certified."

In the following instances the ingredients named were "not detected":

Beacon Milling Co., Inc., Beacon's Cayuga Scratch: Sunflower seed.

Kasco Mills, Inc., Apex Scratch: Sunflower seed.

Quaker Oats Co., Quaker Ful-O-Pep: Sunflower seed.

S. E. Smith Estate, Smith Estate Blue Ribbon: Sunflower seed.

In the following instances small quantities of the ingredients named were found in addition to those certified:

John W. Eshelman & Sons, Red Rose Scratch: Whole weed seeds.

Skeels & Weidman, Scratch: Whole weed seeds.

S. E. Smith Est., Smith Estate Blue Ribbon Scratch: Whole weed seeds.

Twelve ingredients were used in making the 64 brands of scratch feeds, etc., sampled. Corn and wheat were used in all brands; oats in six-tenths; kaffir corn, barley and buckwheat in five-tenths; milo maize in four-tenths; and sunflower in two-tenths.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty																						
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
Wheat Mills, Inc. Wayne Mash Concentrate	32/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4, 26
Wayne Breeder	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 6, 7, 26
Wayne Broiler	18/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26

‡ With cod-liver oil. ¶ With sardine oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linsed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
<i>Allied Mills, Inc.—continued</i>																						
Wayne Egg	18/3.5/7	*																				1, 2, 3
Wayne Egg||	18/3.5/7	*																				1, 2, 3, 26
Wayne Chick Starter	17/4/6	*																				1, 2, 3
Wayne Chick Starter||	17/4/6	*																				1, 2, 3, 26
Empire Egg	16.5/3.5/7	*																				1, 2
Empire Egg||	16.5/3.5/7	*																				1, 2, 26
Wayne Growing||	16/4/6	*																				1, 2, 3, 26
Wayne All Mash Grower	16/4/6	*																				1, 2, 3
Empire Starter and Grower	16/3.5/6	*																				1, 2, 3
Empire Starter and Grower||	16/3.5/6	*																				1, 2, 3, 26
Wayne Poultry Fattener	13.5/3.5/8																					6
<i>E. W. Bailey & Co.</i>																						
Pennant Brand Laying	20/5/6	*																				1
Pennant Brand Laying†§	20/5/6	*																				1, 4, 20
Pennant Brand Chick Starter	17/5/5	*																				1, 4, 5, 20
Pennant Brand Growing	15/5/5	*																				1, 4, 5, 20
<i>Black Rock Milling Corp.</i>																						
Bidwell Dry-Mash†	18/3/8.5	*																				2, 4, 17
<i>Community Feed Stores, Inc.</i>																						
Community Milk Laying	20/4/8	*																				1, 4, 20
Community Chick Starter-Grower-Broiler†	17/5/8	*																				1, 4, 20
<i>Crystal Lake Mills</i>																						
Storr's Egg††	15/4/7	*																				4
<i>Clyde-Renco Milling Corp.</i>																						
Cornell†	18/4/10																					
<i>Eastern States Farmers' Exchange</i>																						
Eastern States Developer†	18.5/4/6.5	*																				1, 2, 11, 24, 26
Eastern States Starter and Broiler†	18.5/4/5	*																				1, 11, 24, 26
Eastern States Controller†	18.5/2.5/4																					1, 11, 24, 26
Eastern States Producer†	17/4/6.5	*																				1, 11, 24, 26
Eastern States Combination†	15/4/6.5	*																				1, 11, 24, 26
<i>Elmore Milling Co., Inc.</i>																						
Elmore Egg	18/4/8	*																				4, 21
Elmore Eggmaker	17/4.5/8	*																				4
Elmore Eggmaker†	17/4.5/8	*																				4
Elmore Complete Broiler	17/4/5	*																				4
Elmore Chixsaver	16.5/4/8	*																				1, 4

* With buttermilk. ‡ With cod-liver oil. ¶ With oil. † Open formula. ‡ With sardine oil. § With cod-liver meal.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—*continued*

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
<i>Elmore Milling Co., Inc.—continued</i>																						
Elmore Complete Start- ing and Growing	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Elmore Complete Laying	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
<i>John W. Eshelman & Sons</i>																						
Eshelman Red Rose Laying	20/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose Laying†	20/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Eshelman Pennsy Laying	18/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Eshelman Red Rose All- Mash Starter	16/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Eshelman Red Rose Chick Starter	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
<i>D. H. Grandin Milling Co.</i>																						
Grandin's Laying*†	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Complete Start- ing*†	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Growing*†	15/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Complete Laying	15/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Combined Chick and Broiler	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Baby Chick Starter	14/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Poultry Green Food	10/1/25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9, 15
<i>Grand Union Co.</i>																						
Peerless Laying	20/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
<i>Great Atlantic & Pacific Tea Co.</i>																						
Daily Egg	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4, 20
Daily Growth Chick Starter	16/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 21
<i>Hales & Hunter Co.</i>																						
Red Comb Egg*	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 13, 26
Red Comb Growing*	16/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 13, 26
<i>E. T. & H. K. Ide</i>																						
Ideal Egg	19/4.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 11, 24
<i>Jersee Co.</i>																						
Just Right Egg 18%	18/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 5, 8, 11, 12, 14, 27, 28, 29, 30, 31
<i>Kasco Mills, Inc.</i>																						
Apex Laying	20/4/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
<i>Larowe Milling Co.</i>																						
Larro Egg	19/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Larro Chick Starter	16.5/4.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Larro Growing	16/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Larro Broiler	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
<i>R. H. McEwen Milling Co.</i>																						
McEwen's Red Feather Egg	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9

* With buttermilk. † With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Maritime Milling Co., Inc.																						
B-B Daisy All-Mash Starter and Grower Vitamized†*	17/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12
Dollar‡Maker Egg Vitamized†*	17/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4
B-B Bull Brand All-Mash Laying Vitamized†*																						
	15/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12
Geo. Q. Moon & Co., Inc.																						
Moon's Laying Mash*‡	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 16
Moon's Growing	17/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 16
Moon's Baby Chick Starter	15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 16
Park & Pollard Co.																						
Manamar Lay or Bust	18/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 10, 23
Manamar Starting and Broiler	18/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 10, 23
Lay or Bust Dry-Mash	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Lay or Bust Dry-Mash‡	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17
All-In-One Starting	17/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Park & Pollard Chick Starter	17/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 18
Manamar Complete	16/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 10, 23
Quaker Oats Co.																						
Quaker Ful-O-Pep Egg	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Quaker Ful-O-Pep Growing	19/5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 2
Quaker Ful-O-Pep Chick Starter	17/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Ralston Purina Co.																						
Purina Turkey Startena	26/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 22, 25, 26
Purina Turkey Growing and Fattening	21/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9, 14
Purina Egg Chowder	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 14
Purina Egg Chowder‡	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 14, 26
Purina Breeder Egg Chowder	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 14, 26
Purina Lay Chow	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 9, 14
Purina Lay Chow‡	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 9, 14, 26
Purina Lay Chow*‡	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 9, 14, 26
Purina Broiler Chow	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 14, 26
Purina Chick Startena Chow	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 14, 22, 25, 26
Purina Growing Chow	17/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 6, 14, 2
Purina Layena	15.5/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 15, 26
Purina Chick Growena	15/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 15, 22, 26

* With buttermilk. ‡ With cod-liver oil. • Milk sugar feed (dried whey).

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—concluded

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Albans Grain Co.																						
Wirthmore Turkey Start- ing†	24/4.5/7	*							*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Turkey Breeder	20/4.5/7	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Breeder	20/4.5/7	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 6, 12
Wirthmore Turkey Growing	20/4/7	*							*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Laying	20/4/7	*	*				*		*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 12
Wirthmore Laying†	20/4/7	*	*				*		*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Baby Chick Starter†	18/4/5	*							*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 6, 12, 20
Wirthmore Complete Chick and Broiler	17.5/4/5.5	*							*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12, 20
Wirthmore Growing	15/4.5/6	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 12
Wirthmore Growing†	15/4.5/6	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Fleshing and Fattening	15/4.5/6	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 12
Wirthmore Complete Lay- ing	15/4/5	*							*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 12
Wirthmore Complete Growing	14/3.75/6	*							*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 12
E. Smith Estate																						
Smith Estate Starting†	19/4.5/4.5	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Smith Estate Blue Ribbon Growing	17/4.5/6	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Smith Estate Egg Producer	18/4.5/7	*							*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Ubiko Milling Co.																						
Ubiko Egg	20/4/6	*							*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 11, 12, 19
Ubiko All-Mash Starter	18/4/5	*							*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 5, 11, 12, 19
Ubiko All-Mash Complete Laying	16/3.5/6	*							*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 11, 12, 19
Ubiko All-Mash Developer	14/4/5	*							*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 11, 12, 19
Wayne County Grangers Feed Corp.																						
Superior Chick Starter*†	18/4/7	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	4, 30, 32
Superior Laying*†	18/4/7	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	4, 32
Superior Growing*†	18/4/7	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	4, 32
West-Nesbitt, Inc.																						
Pure Feed Egg	18/5/7	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Pure Feed Starting	16/4.5/4.6	*	*						*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4

* With buttermilk. † With cod-liver oil.

Additional ingredients: 1. Dried skim milk. 2. Soybean meal. 3. Iron oxide and potassium chloride. 4. Cod-liver oil. 5. Charcoal. 6. Corn germ meal. 7. Crab meal. 8. Yeast. 9. Molasses. 10. Kelp. 11. Dicalcium phosphate. 12. Milk sugar feed (dried whey). 13. Charcoal, iron phosphate, sulphur. 14. Iodized salt. 15. Dried beet pulp. 16. Calcium phosphate. 17. Kaffir corn. 18. Rice. 19. Copper sulphate. 20. Cod-liver meal. 21. Low-grade wheat flour. 22. Wheat bran. 23. Sea shells. 24. Oyster shell meal. 25. Oat middlings. 26. Sardine oil. 27. St. John's wort. 28. Starch. 29. Anise. 30. Dried blood. 31. Iron oxide. 32. Tricalcium phosphate.

The mashes and other fine poultry feeds were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne Broiler: Potassium iodide.
 Allied Mills, Inc., Wayne All Mash Grower: Potassium iodide.
 Allied Mills, Inc., Empire Starter and Grower: Potassium iodide.
 Black Rock Milling Corp., Bidwell Dry-Mash with Cod Liver Oil: Kaffir corn.
 Hales & Hunter Co., Red Comb Growing with Dried Buttermilk: Iron sulphate.
 Jersee Co., Just Right Egg: Anise, blood and yeast.
 Ubiko Milling Co., Ubiko Egg: Copper sulphate.
 Ubiko Milling Co., Ubiko All-Mash Developer: Potassium iodide.

In the following instances a small quantity of ingredients named were found in addition to those certified:

Eastern States Farmers' Exchange, Eastern States Controller (Open Formula): Trace of meat scraps.
 Maritime Milling Co., Inc., B-B Daisy All Mash Starter and Growing Vitamized with Cod Liver Oil, Milk Sugar Feed (Dried Whey) and Dried Buttermilk: Whole weed seeds.
 Maritime Milling Co., Inc., Dollar\$Maker Egg Vitamized with Cod Liver Oil and Dried Buttermilk: Whole weed seeds.
 S. E. Smith Estate, Smith Estate Starting with Cod Liver Oil: Ground wheat.
 S. E. Smith Estate, Smith Estate Egg Producer: Ground wheat.
 S. E. Smith Estate, Smith Estate Blue Ribbon Growing: Ground wheat.

Fifty-one ingredients were used in making the 114 brands of mashes, etc., sampled. Alfalfa meal, corn meal, meat, salt, wheat bran and wheat middlings appear in nine-tenths or more; oats, either dried skim milk or dried buttermilk, and either cod liver oil, sardine oil or cod liver meal in eight-tenths; calcium carbonate in seven-tenths; fish meal in six-tenths; dried buttermilk and dried skim milk in five-tenths; soybean meal in four-tenths; bone meal in three-tenths; linseed meal and gluten meal or feed in two-tenths.

IV. NEW INGREDIENTS

During the past few years several new and somewhat unusual ingredients have been used by manufacturers of proprietary rations. It seems advisable to indicate what they are. Vermont farmers know the nature of the standard materials but are not as well informed about some of the newer byproducts.

ORGANIC MATERIALS

Blood Flour is dried blood, prepared by special processes and reduced to a fine powder.

Copra Oil Meal or *Cocoanut Oil Meal* is the ground residue from the extraction of part of the oil from dried meat of the cocoanut.

Corn Germ Meal is ground corn germ cake which consists of corn germ with other parts of the corn kernel from which part of the oil has been pressed, and is the product obtained in the dry milling process of the manufacture of corn meal, corn grits, hominy feed and other corn products.

Corn Oil Meal is the ground corn oil cake which consists of the corn germ from which part of the oil has been pressed and is the product obtained in the wet milling process of the manufacture of corn starch, corn syrup and other corn products.

Crab Meal (feeding) is prepared from the undecomposed, dried waste of the crab industry and contains the shell, viscera and part or all of the flesh.

It contains not less than 25 percent of protein and not more than three percent of salt (NaCl). If it contains more than three percent of salt (NaCl) the amount of salt must constitute a part of the brand name, provided that in no case shall the salt content of this product exceed seven percent.

Dextrose.—A refined, crystallized sugar obtained chiefly by the hydrolysis of starch or of a starch-containing substance.

Lactose.—*Milk Sugar* is a sugar obtained from cow's milk.

Locust Bean Meal and *Velvet Bean Meal* are ground locust or velvet beans containing an unavoidable trace of hulls or pods.

Milk Sugar Feed or *Dried Whey* (feeding) is the byproduct from the manufacture of cheese and should contain at least 70 percent of lactose (milk sugar).

Milk Albumen is not necessarily a recognized ingredient as thus named. It may be strictly such or it may be simply a euphemism for dried buttermilk or skimmilk.

Palm Kernel Oil Meal is the ground residue from the extraction of part of the oil by pressure or solvents from the kernel of the fruit of *Elaeis guineensis* or *Elaeis molanococco*.

Peanut Oil Cake is the residue after the extraction of part of the oil by pressure or solvents from peanut kernels.

Peanut Oil Meal is ground peanut oil cake.

Protozyme is an enzyme-supplying product derived from biochemically processed cereals.

Rice Polish is the finely powdered material obtained in polishing the kernel.

Sesame Oil Meal is the ground residue from the extraction of part of the oil from sesame seed.

Soybean Oil Cake or *Soybean Oil Chips* is the product obtained by crushing, cooking and removing part of the oil from soybeans.

Soybean Oil Meal is ground soybean oil cake or ground soybean oil chips.

St. John's Bread, *Anise*, and *Fenugreek* are U. S. Pharmacopoeia products.

Yeast Dried Grains or *Vinegar Dried Grains* is the properly dried residue from the mixture of cereals, malt and malt sprouts (sometimes cottonseed meal) obtained in the manufacture of yeast or vinegar, and consists of corn or corn and rye from which most of the starch has been extracted, together with malt added during the manufacturing process to change the starch to sugars, and malt sprouts (sometimes cottonseed meal) added during the manufacturing process to aid in filtering the residue from the wort and to serve as a source of food supply for the yeast.

MINERAL MATERIALS

Bicarbonate of Soda, "baking soda," is sodium bicarbonate with impurities not exceeding commercial grade.

Bone Ash is the ash obtained by burning bones with free access of air and containing from 35 to 38 percent of phosphoric acid.

Calcium Carbonate—calcite, ground limestone—is ground calcium limestone of commercial grade.

Calcium Phosphate is tricalcium salt of phosphoric acid with impurities not exceeding commercial grade.

Copper Sulphate is crystallized copper sulphate with impurities not exceeding commercial grade.

Cream of Tartar—potassium bitartrate—is potassium bitartrate with impurities not exceeding commercial grade.

Dicalcium Phosphate is a manufactured combination of calcium and phosphoric acid, and is more readily assimilated than tricalcium phosphate.

Dolomite—dolomitic limestone—is ground calcium-magnesium limestone of commercial grade.

Epsom Salts—magnesium sulphate—is magnesium sulphate with impurities not exceeding commercial grade.

Iodized Salt (feeding) is common salt (NaCl) containing not less than 0.015 percent of iodine, uniformly distributed.

Iron Oxide—ferric oxide—is ferric oxide with impurities not exceeding commercial grade. Iron rust is a common example.

Potassium Iodide is potassium iodide with impurities not exceeding commercial grade.

Phosphatic Limestone, sometimes called Fos-For-Ua, is ground phosphate containing limestone of commercial grade.

Rock Phosphate is ground phosphate rock of commercial grade.

VITAMIN CARRIERS

Cod Liver Oil is the product obtained by extraction of part of the oil from cod livers.

Cod Liver Meal is a product made from cod livers.

Sardine Oil or *Pilchard Oil* is the product obtained by extraction of part of the oil from the whole Pacific sardine or pilchard or from cannery refuse of this species of fish.

These products are used in the feed trade, mainly in poultry feeds, as sources of vitamin A and D, especially the latter which is the anti-rachitic vitamin. If the ration fed carries a sufficiency of minerals the addition of one of these products tends to promote calcium and phosphorus assimilation and rickets or leg weakness is less likely to occur. The several brands do not of necessity possess equal values or potencies. The determination of the facts in any given case is difficult and costly, since chemical analysis will not serve and biological methods must be used. Their conduct is a long and expensive process, but they are now being employed in some of the more amply endowed research and regulatory laboratories. Any Vermont feeder who may desire information concerning any brand of oil or meal will be advised as to the results if they can be secured elsewhere.

V. DEFICIENCIES, 1923-1934

The following tables set forth the proportions of the total number of brands found deficient in recent inspections and the detailed results.

Spring 1923.....	22%	Winter 1923-24.....	11%
Spring 1924.....	16%	Winter 1924-25.....	10%
Spring 1925.....	15%	Winter 1925-26.....	13%
Spring 1926.....	13%	Winter 1926-27.....	10%
Spring 1927.....	8%	Winter 1927-28.....	9%
Spring 1928.....	18%	Winter 1928-29.....	9%
Spring 1929.....	7%	Winter 1929-30.....	6%
Spring 1930.....	9%	Winter 1930-31.....	7%
Spring 1931.....	8%	Winter 1931-32.....	4%
Spring 1932.....	3%	Winter 1932-33.....	5%
Spring 1933.....	8%	Winter 1933-34.....	5%
Spring 1934.....	4%		

The showing has been very satisfactory now for some years, except perhaps in the spring of 1933. Manufacturers as a whole are maintaining guaranties very well.

The following table tells the story as to the efficiency of the trade in Vermont, each brand being taken as a unit, the number of samples and brands collected, the number of protein determination below guaranty and a detailed account of the nutrient or nutrients deficiencies.

VI. APRIL, 1934, INSPECTION

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	73	65	8	12	12							
Soy bean meals	13	13		5	5							
Linseed meals	35	35		11	11							
Cocoanut oil meals	1	1		1	1							
Gluten meals and feeds	61	61		10	9	1		1				
Distillers' and brewers' dried grains	23	23		8	8							
Wheat offals	311	310	1	87	86	1				1		
Brans	132	132		35	35							
Middlings	78	78		26	26							
Mixed feeds	62	61	1	17	16	1				1		
Reddog flours	39	39		9	9							
Alfalfa meals	9	7	2	5	3	2	2					
Dried beet pulps	26	26		2	2							
Hominy feeds	15	15		7	7							
Corn, oat and rye feeds	60	59	1	15	13	2		1	1			
Proprietary feeds	1,256	1,236	20	377	360	17	6	7	3	1		
Dairy	413	405	8	134	123	11	3	5	2	1		
Stock, horse, etc.	172	170	2	43	42	1	1					
Calf and hog	64	62	2	22	22							
Poultry feeds	607	599	8	178	173	5	2	2	1			
Scratch, chick	220	217	3	64	61	3	1	2				
Mashes, growing	387	382	5	114	112	2	1		1			
Meat scraps	10	10		8	7	1		1				
Skimmilks and buttermilks	8	8		3	3							
Totals	1,901	1,869	32	551	527	24	8	10	4	2		
Winter 1933-34	1,955	1,938	17	566	539	27	3	14	7	1	1	1
Spring 1933	2,052	2,007	45	552	509	43	11	22	8	1		1
Winter 1932-33	2,235	2,202	33	581	551	30	4	17	8		1	
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1		*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	2	2	
Spring 1931	1,748	1,710	38	543	497	46	10	22	10		3	1
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9			
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1		1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1		
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	
Winter 1927-28	1,051	982	69	303	275	28	14	2	8	2	2	
Spring 1927	1,254	1,197	57	395	365	30	17	9	4			
Winter 1926-27	1,339	1,281	58	363	325	38	12	6	14	1	2	3
Spring 1926	1,147	1,109	38	332	288	44	10	13	12		7	2
Winter 1925-26	1,219	1,161	58	345	300	45	15	9	14	1	5	1
Spring 1925	1,031	953	78	335	285	50	24	15	4	3	2	2
Winter 1924-25	1,076	1,024	52	314	283	31	7	11	6	2	1	4

*Protein, fat and fiber.

VII. AVERAGE PRICES, 1928-1934

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. The April, 1934, prices are on the average, about one and one-half dollars higher per ton than December, 1933.

	Dec., '28	Apr., '29	Dec., '29	Apr., '30	Dec., '30	Apr., '31	Dec., '31	Apr., '32	Dec., '32	Apr., '33	Dec., '33	Apr., '34
Cottonseed												
meals 43%	\$64	\$58	\$55	\$54	\$43	\$42	\$30	\$30	\$27	\$29	\$33½	\$38½
Cottonseed												
meals 41%	59	57	63	48	41	40	29	28	27	27½	33½	37½
Cottonseed												
meals 36%	55	54½	50	47½	41	40	28	28	22½	..	..	..
Linseed												
meals 37-39%..	..	..	..	..	..	..	..	..	..	31½	41½	44
Linseed												
meals 34%	67	65½	64	58	48	45	40	40	33½	32½	44	44
Linseed												
meals 30-33%..	..	61	..	61	47	42	39	40	33	32½	44	45
Soybean meals...	..	..	..	..	..	..	..	..	..	32	41½	42
Gluten meals	63	72½	60	54	49½	40½	34	28	27	29	38½	39
Gluten feeds	53	55½	50½	43½	42	38	27	24	23	25	30½	31
Brewers' grains..	..	..	..	..	..	..	..	..	..	28	30	31½
Distillers' grains.	50	..	..	50	57	32	30	20	27	28	32½	35
Wheat brans	44	40	40½	38½	30	31	25	24½	22	23½	26½	32
Wheat middlings:												
Standard	46	44	43½	39½	32½	31½	26	25½	21½	23	28½	32½
Shorts	45	40½	42	38	30	31	26	24½	21	23½	26½	31
Flour	47½	47	45½	44	36	35	29	28	24	24½	32	33
Wheat mixed												
feeds	58	46	46½	42	36	33	28	27	24	25	31	33½
Reddog flours ...	57	51½	51½	45	39½	35	30	28	26½	25½	33½	33½
Dried beet pulps.	54	54½	53	51	38½	35	28	28	28	27	30	30
Hominy feeds ...	46	46	45½	50½	38	34½	27	24	20½	20½	27	31
Alfalfa meals	55	48	50	62	54½	55	41	49½	38½	36½	38	39½
Proprietary feeds:												
Dairy 24%.....	56	56	54	50	45½	42	34	32	28½	29½	35½	37
20%.....	53	53½	51½	48	42½	39½	32	33	27	28	33½	35
16%.....	47	46½	48	43	39	35	30	27½	24	26	30½	31
Stock and												
horse 9-10%*	49	48½	49	48½	42	40	34	32	29	29	37	37½
8%*	49	45	46½	..	44½	34	29	34	22	26½	..	34½
Fitting 9-12%..	..	..	50½	45	43	39	31	29½	25	26½	34½	36
14%..	..	..	53	45½	43	39	36	31½	28	28	37½	40½
Calf	96	96	98	92½	89	84	80	74	69	66½	77½	67½
Hog	57	57½	57	53½	50	48	38	35½	32½	32½	40½	40
Poultry:												
Scraps	79	75	75	70	82	75½	58	60½	55	38	44	47½
Scratches ...	52	53½	52½	51	44½	41½	33	32½	27½	28½	37½	38
Mashes	63	64½	64	61	56	52	42	40	36	37	44	45½
Chick grains	57	60	56½	55	52½	49	41	39	41½	32½	40½	46
Chick mashes	64	74½	70½	77	69½	63	48	49	39	43	49	52

*Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1928, 1929, 1930, 1931, 1932, 1933, and April, 1934, follow, 1923 being rated at 100.

	1923	1928	1929	1930	1931	1932	1933	Apr. 1934
Cottonseed meals	100	108	93	77	59	45	52	64
Linseed meals	100	108	107	90	71	64	63	75
Gluten meals and feeds..	100	102	104	81	63	46	55	63
Wheat offals (exclusive of reddog)	100	118	105	89	72	59	66	79
Beet pulps	100	105	107	88	60	53	54	54
Hominy feeds	100	117	115	110	78	56	60	80
Proprietary:								
Dairy 24%	100	104	102	90	71	56	61	69
20%	100	101	100	87	68	57	58	66
16%	100	104	103	89	71	56	62	67
Stock and horse	100	120	116	110	84	72	79	88
Calf, hog, etc.	100	111	109	103	88	75	77	76
Scratches	100	109	104	98	77	66	64	74
Mashes	100	103	102	102	81	66	69	78

VIII. CONCERNING PROPRIETARY FEEDS

A generation ago there were few such goods sold in Vermont. When the first (1898) inspection law was placed on her statute books they were practically unknown, but now their numbers are legion. The last and this bulletin list 366 and 377 respectively. They are of all sorts, built for the use of cows, horses, beef cattle, calves, hogs, rabbits, chickens, turkeys. The modern farmer is thoroughly used to them; yet, notwithstanding, they are enough unlike to warrant the issuance of a few general statements concerning them.

Dairy Feeds.—Many ingredients are used in the dairy rations sold in Vermont, no less than 40 different ones in the 134 brands listed in this bulletin. Almost any sound feeding stuff of vegetable origin and many of animal origin may be used, if adequate precautions are taken. Most brands contain from eight to 12 ingredients, although as many as this may not be needed. Indeed, if well chosen, a half a dozen ingredients should suffice and afford sufficient variety and palatability. So far as the 134 are concerned, it may be said that cottonseed meal was always used, that bran and gluten meal or feed was used in about 90 percent, linseed meal and molasses in about 80 percent, cornmeal in 70 percent, wheat middlings and ground oats in 50 percent, hominy feed, brewers' dried grains, soybean meal in 40 percent, corn distillers' dried grains in 30 percent, oat mill feed in 20 percent, and barley and screenings in 10 percent of the feeds. Salt and calcium carbonate were almost always used, and bone meal frequently. Occasionally dicalcium

phosphate, phosphatic limestone, sea shells, tricalcium phosphate were used. Tricalcium phosphate (usually a euphemism for rock phosphate) is apt to contain fluorine, a highly deleterious ingredient.

Dairy feeds are of four sorts—those containing 32 percent or thereabouts of protein (used as “supplements” and commonly by local mixers or by dairymen to use with home grown and ground grain), those containing 24, 20 and 16 percents protein. The brands in the 24 percent group contain larger proportions of the protein-rich materials than do those in the two lower groups. Such brands may be fed to advantage with roughages of a relatively low protein content, such as corn stover, mixed hay, silage, etc. If one has home-grown cornmeal, oats, etc., they can be mixed, if desired, with a 24 percent protein goods to bring it down to the 20 percent level.

The 20 percent protein goods are usually made of high-grade materials. If one may judge by numbers, these brands are popular. They probably suit most Vermont needs. They may be used together with the lower grades of roughages, silage, mixed hay, corn stover, with a fair degree of satisfaction, but the roughages should be of at least average grade if maximum yields are to be secured.

The 16 percent protein goods are more apt to contain undesirable ingredients. Dairymen who are feeding heavy milking cows, who desire to maintain at least an average milk flow, particularly if they are feeding low-grade roughages, may find it difficult to achieve this end if they use a 16 percent ration. If, however, they are amply supplied with legume hay, a 16 percent ration may serve. It is particularly serviceable during the summer time as a supplement to pasture.

In this connection the following table seems significant:

	32%	24%	20%	16%
Number of samples represented in this bulletin.....	5	34	78	17
Percentages containing screenings, etc.....		7½	14	44

Stock Feeds, Horse Feeds, Fitting Feeds, etc.—These are usually less complex mixtures than are the dairy rations. Thirty-four ingredients were used in making the 43 brands that were found on sale in the present inspection. Molasses, oats and salt appeared in 80 percent, linseed meal and wheat bran in 50 percent, cornmeal and cracked corn in 40 percent, alfalfa in 30 percent, barley, hominy feed, oatmeal feed and wheat middlings in 20 percent, bone meal in 10 percent. Screenings were rarely used.

Calf Meals.—Twelve brands contained 32 ingredients. Salt appeared in 10, oatmeal in nine, blood flour and linseed meal in eight, dried skimmilk in seven, bone meal, calcium carbonate and cornmeal in

six, wheat middlings in five. With rare exceptions only high grade materials were used.

Hog Feeds.—Wheat middlings and salt were used in each of the 10 brands, linseed meal, alfalfa meal and calcium carbonate in seven, cornmeal and bone meal in five, meat meal and hominy feed in four, screenings in only two.

Poultry Feeds, Scratch Grains, Chick Grains.—These are simple mixtures as compared with the complex dairy feeds, calf meals and mashes. Only 12 ingredients were used in 64 brands. Corn and wheat were always used, while oats, Kaffir corn, barley, buckwheat and Milo maize were used in about half of the brands.

Mashes.—One hundred and fourteen brands of mashes and similar feeds made up of fine ingredients were found on sale in the current inspection and no less than 51 different ingredients were used therein.

A great variety were offered for sale. There were mashes designed to promote egg production, for the starting of chicks, for the growing and fattening of fowls. There were those termed "all-mash," apparently designed for all sorts of purposes. In some cases the designation by name is such that it is difficult to place the goods; however, the larger part of the 114 can be listed as laying, growing, or starting mashes.

Laying Mashes.—Approximately 50 brands were of this type. Rather more than three-fourths of them were guaranteed to carry from 18 to 20 percent protein, the residue from 15 to 16½ percent protein. The materials commonly used in their construction were cornmeal, wheat offals, oats, alfalfa meal, gluten feed, linseed meal, meat scraps, fish meal, etc. Cod-liver oil was frequently included. The minerals used were salt or iodized salt, bone meal, calcium carbonate.

Starting Mashcs.—About 20 brands were analyzed. They were apparently made of good grade of protein-carrying materials of high digestibility. Highly fibrous materials are not to be advised for use in this class of goods. Cornmeal, wheat offals (more particularly middlings or shorts), alfalfa meal, meat scraps, fish meal, oats, dried buttermilk, and cod-liver oil were commonly used, together with the usual minerals. Their protein contents varied from 15 to 19 percent with a mean of 17 percent.

Growing Mashes.—Approximately 20 brands were of this type. They were made from much the same materials as were the starting mashes, but in some cases the ingredients seemed to be somewhat less finely ground. Roughly, half of the brands carried from 14 to 15 percent protein and half of them from 16 to 17 percent. Their protein

contents were somewhat less than those of the starting or laying mashes, since growing implies fattening and fattening implies carbohydrates.

All-mashes.—Six brands, thus labeled, were found on sale, two being "all-mash growing," two "all-mash laying," one "all-mash starting" and one "all-mash starting and growing." This class of goods seems to be built somewhat on the blunderbuss principle, designed to serve all purposes with special reference, as the case may be, to growing or laying or starting. Their protein contents varied from 14 to 18 percent, but their fat and fiber contents are less variable. It is said that some "all-mashes"—not necessarily those represented in this inspection—are made from a half-and-half mixture of a regular 20 percent laying ration and finely ground scratch grains.

The names of several mashes are so ill descriptive of their use that they can not be classified, as for example, "Cornell," "Controller," "Combination."

Turkey Mashes.—A few turkey mashes were found. The materials used appeared to be much the same as those employed in connection with the ordinary run of mashes for chickens.

Minerals are indispensable in animal feeding, even though they may be present in very small amounts. When animals are fed rations containing no minerals whatever, death from starvation ensues. However, it is a question whether minerals need to be added to those naturally present in the ingredients used. Mineral deficiencies in feeding stuffs may occur in some localities, but not commonly. Modern milling methods sometimes bring about such deficiencies in feeds. Roughages, especially leguminous roughages, are usually richer in mineral substances than are grains or their by-products. Hence it is that under some conditions mineral supplement to a ration becomes necessary. However, most investigators of animal nutrition now feel that too much stress has been laid upon the supposed need for added mineral supplement. The need is usually limited to salt, calcium, phosphorus and, sometimes, iodine.

Many names are used by feed manufacturers to designate the minerals that they use. These are listed on pages 39 and 40.

Vitamins.—Much has been made of late of the importance of vitamins in animal nutrition. The lack of one or more of them in a ration may cause a deficiency disease. Most, but not all, cattle food materials contain them, but in varying amounts. Their relationship to the well being of livestock should be borne in mind in ration formulation. Modern milling processes have changed the composition and quality of many of the by-products, particularly in respect to their vitamin con-

tent; for example, the germ—which is commonly rich in vitamins—is often removed.

Feed manufacturers are quite apt to include in their formulas materials of presumed high vitamin content and to emphasize this fact in their advertising literature. They sometimes overstate the case.

The following brief remarks concerning vitamins A, B, C, D, E and G may be of interest:

A, the growth-promoting vitamin, a most important ingredient, should be present in adequate amounts to insure health, growth and resistance to infection. It is found in green leaves, butter, egg yolk, whole fresh milk and in liver oils, such as cod-liver oil, sardine oil, etc. Its activity decreases with length of storage.

B, the anti-neuritic vitamin, stimulates appetite, digestion and growth, inhibits nervous disorders and aids lactation. It is found in many cattle feeding stuffs, such as green leaves, the growing parts of plants, grain, seeds (especially in the germ), in some animal foods, and in yeast. The most available sources of this vitamin in stock feeds are yeast and corn germ meal. It is destroyed by cooking at high temperature.

C, the anti-scorbutic vitamin, prevents scurvy and aids bone and teeth construction and maintenance. It is found in citrus fruits, tomatoes, green leaves and vegetables, sprouting grains and is partially destroyed by cooking and by drying and by exposure to the air.

D, the anti-rachitic vitamin, prevents rickets, promotes formation, growth and maintenance of bones and regulates calcium and phosphorus assimilation and the calcium content of the blood. It is found in the livers of fish and other animals, butter and eggs and is particularly abundant in cod-liver oil, sardine oil, etc. Certain fat-containing food substances when subjected to ultra-violet light acquire vitamin D properties, hence the importance of direct sunlight and ultra-violet radiations. It is unaffected materially by the application of moderate heat and is not destroyed by ordinary cooking.

E is the reproductive, anti-sterility vitamin. When lacking, the reproductive function is lost. It is present in most vegetables and animal oils, in wheat germ, in lettuce, yeast and various seeds. It is very stable and is not destroyed by ordinary cooking.

G, the anti-pellagra vitamin, stimulates appetite and growth. It is found in yeast, milk, lean meats, eggs, vegetables, carrots, butter.

IX. CONCLUSION

This bulletin is simply an inspection report, setting forth the analyses of the 1,901 samples collected in April, 1934. These represented 551 brands and were taken from dealers' stocks in most the larger towns and villages. A very good idea of the character of the feeds sold is thus afforded. One thousand nine hundred and one protein, 551 fat and 551 fiber determinations were made and 492 samples, representing 377 brands of proprietary feeds, were subjected to microscopic analysis.

Only 36 of the 1,901 protein determinations (1.6 percent) fell below the guaranty. Only 12 of the 551 fat determinations (two percent) fell below the guaranty and only four of the 551 fiber determinations (0.7 percent) were above guaranty.

The ingredients used have been of good quality. In only 19 instances were screenings used. In only about 10 percent of the brands of mixed goods did the microscopist find certificate and performance at variance. Average prices are slightly higher than they were last winter.

APRIL, 1935

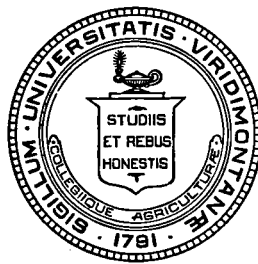
BULLETIN 387

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station

BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER and E. F. BOYCE



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Two thousand forty-nine samples, representing 550 brands, drawn from dealers' stocks during December, 1934, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respects up to guaranty in regard to their nutrient contents are listed on pages 4 to 19. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 20 to 22. Statements as to the ingredients used in the manufacture of the proprietary feeds and the manner in which their makers fulfilled their statements occur on pages 24 to 38.

It might be said, briefly, that 12 of the 192 brands of unmixed goods and 14 of the 358 brands of proprietary or mixed goods failed to meet their guaranties. This outcome is about the same as that secured in the inspection of samples drawn in April, 1934, and is very commendable. The general situation in respect to guaranty maintenance is set forth in the table and text on pages 46 to 47. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-33, 95 percent.

Seven brands of dairy rations and five brands of scratch feeds contained noticeable numbers of weed seeds. In all cases where an inferior ingredient was used in a mixture a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price last December, taking all classes of feeds as a unit, seems to have been not far from \$47.00 or \$8.50 higher than last April's average.

BULLETIN 387: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in sections 4479-4483, 7850-7864, 7885-7891, Public Laws, the following report is submitted setting forth the analysis of 2,049 samples collected in December, 1934. The object of the law is to prevent fraud or misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of cattle and poultry feeds offered for sale. The law does not forbid the sale of inferior feeds, but it provides through publicity the information as to their real nature in such fashion that he who runs may read.

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I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
E. T. Allen Co., Atlanta, Ga.			
Empire 41% Protein Prime Quality.....	41	5.5	13
Atlas 36% Protein Prime Quality.....	36	5	16
Ashcraft-Wilkinson Co., Atlanta, Ga.			
Helmet Brand—Prime	41	5.5	10
Cow-Eta Brand 41% Prime Quality.....	41	5	13
Paramount Brand Prime 36%.....	36	5.	14
Buckeye Cotton Oil Co., Cincinnati, Ohio			
Buckeye 41% Prime Quality.....	41	6.5	10
Cairo Meal and Cake Co., Cairo, Ill.			
Miss Cairo Brand 41 Percent Protein—Prime Quality	41	6	10
Eastern States Farmers' Exchange, Springfield, Mass.			
Eastern States 41% Choice.....	41	6	10
Humphreys-Godwin Co., Memphis, Tenn.			
Bull Brand 43% Protein—Prime Quality.....	43	5	11
Dixie Brand 41% Protein—Prime Quality.....	41	5	12
L. B. Lovitt & Co., Memphis, Tenn.			
"Lovit Brand" 41% Prime Quality.....	41	5	13
New Orleans Export Co., Ltd., New Orleans, La.			
41% Prime	41	5	13
Maurice Pincoffs Co., Houston, Tex.			
41% Protein Prime Quality.....	41	5	14
Ralston Purina Co., St. Louis, Mo.			
41% Protein	41	5	12
Transit Milling Co., Galveston, Tex.			
Texas Bull Brand 41% Protein—Prime Quality....	41	5	11
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
37 Percent Protein Old Process.....	37	4.5	9
34 Percent Protein Old Process.....	34	4.5	9
31 Per Cent Protein Old Process.....	31	4.5	9
Midland with Flaxseed Screenings Oil Feed—30 Percent Protein	30	4.5	10
Bisbee Linseed Co., Philadelphia, Penn.			
Bisbee Brand 34% Protein Pure Old Process.....	34	5	10
Canada Linseed Oil Mills, Ltd., Montreal, Can.			
"Maple Leaf" Oil Cake Meal Protein 39%.....	39	5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y.			
K & M Brand 34% Protein Pure Old Process.....	34	5	10
Spencer Kellogg & Sons, Inc., Buffalo, N. Y.			
Kellogg's 37% Protein Pure Old Process.....	37	4.5	9
Kellogg's 34% Protein Pure Old Process.....	34	4.5	9
Kellogg's 32% Protein Old Process.....	32	4.5	9
Mann Bros., Buffalo, N. Y.			
34% Protein Pure Old Process.....	34	6	10
Sherwin-Williams Co., Montreal, Que.			
Screwpress Oil Cake Meal.....	35	6.5	8
Sherwin-Williams Co., Cleveland, Ohio			
S W C Pure Old Process 34%.....	34	4.5	9
S W C Pure Old Process 32%.....	32	4.5	9

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
SOY BEAN MEALS			
Allied Mills, Inc., Chicago, Ill.	41	5	7
Super Soy	37	5	6.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's	41	4.5	7
CORN GLUTEN MEALS AND FEEDS			
American Maize-Products Co., New York, N. Y.			
Cream of Corn Gluten Feed.....	25	2	8.5
E. R. Bacon Grain Co., Boston, Mass.			
Bacon's Gluten Feed.....	24	2	8
Bacon's Gluten Feed.....	23	2	8
Clinton Co., Clinton, Iowa			
Clinton Corn Gluten Feed.....	25	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond Corn Gluten Meal	43	1	4
Buffalo Corn Gluten Feed	25	2	8.5
Penick & Ford Ltd., Inc., Cedar Rapids, Iowa			
Douglas Corn Gluten Meal.....	43	1	4
Douglas Corn Gluten Feed	25	1.5	8.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's Corn Gluten Feed	25	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union Corn Gluten Feed	25	1	8
DISTILLERS' AND BREWERS' DRIED GRAINS			
Allied Mills, Inc., Peoria, Ill.			
Corn Distillers'	28	9	15
Brewers'	20	5	18
Dewey Bros. Co., Blanchester, Ohio			
Eagle 3D (Dewey's Distillers' Dried).....	30	10	13
Corn 3D (Dewey's Distillers').....	28	9	13
Corn and Rye Distillers' Dried.....	24	7	16
Dewey's Brewers'	22	6	18
Farmers' Feed Co., New York, N. Y.			
"Bull Brand" Brewers'.....	24	6	17
F. W. Kelley, St. Johnsbury, Vt.			
Kelley's Rye Distillers'.....	17	5	20
St. Albans Grain Co., St. Albans, Vt.			
Corn Distillers' Dried.....	27	7	14
Brewers' Dried	21	5	15
Hiram Walker & Sons, Inc., Peoria, Ill.			
Corn Distillers' Dried.....	30	6	14
WHEAT OFFALS—WHEAT BRANS			
Bay State Milling Co., Winona, Minn.			
Wingold Pure Hard.....	14.5	4.75	13
B. A. Eckhart Milling Co., Chicago, Ill.			
Pure	14	3.5	12
Farroll Brothers, New York, N. Y.			
(+)	13	4	13
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+).....	14	3	14
Dairy Maid Soft Winter (+).....	13.5	2.5	13
J. A. Forrest, Minneapolis, Minn.			
Alpine Canadian Pure.....	15	3.5	11.5

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT BRANS—concluded			
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard (+).....	14	4	12
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand	15	3.5	11.5
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y.			
Choice (+)	13.5	3.5	14
International Milling Co., Minneapolis, Minn.			
Blackhawk Pure	15	3.2	12
Kansas Flour Mills Corp., Kansas City, Mo.			
Big Flake Pure.....	15	3.5	11
King Midas Mill Co., Minneapolis, Minn.			
Clover Leaf Pure.....	15	4	12
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods	15	3.5	11.5
Larabee Flour Mills Co., Kansas City, Mo.			
Sunfed Winter (+).....	15	3.5	11
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Rex (+)	15	3.5	12
Montana Flour Mills Co., Great Falls, Mont.			
Montco (+)	15	3	12
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Choice	15.5	4	11
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's	15	3.5	11.5
Parrish & Heimbecker, Ltd., Toronto, Ont.			
Parrheim Pure	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's (+)	14.5	3.5	10
Pillsbury's Hard (+).....	14	4	12
Quaker Oats Co., Chicago, Ill.			
Bell Cow (+).....	15	3.5	10
Red Wing Milling Co., Red Wing, Minn.			
Red Wing (+).....	13.5	4.1	15.6
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior	15	3.5	11.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que.			
.....	15	3.5	11.5
Southwestern Milling Div.,* Kansas City, Mo.			
Red Turkey Pure.....	15	3.5	10
David Stott Flour Mills, Inc., Detroit, Mich.			
Spring (+)	14.5	4	12.5
Winter (+)	13.5	3.5	12
Stratton & Co., Concord, N. H.			
Stratton & Co.'s (+)	14	4	11
Valley City Milling Co., Portland, Mich.			
Rowena	14	3	10.75
Western Canada Flour Mills, Ltd., Toronto, Ont.			
Pioneer	15	3.5	11.5
WHEAT OFFALS—WHEAT MIDDINGS			
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Standard (+).....	14.5	4	9.5
Copeland Flour Mills, Ltd., Midland, Ont.			
"Dandy Shorts"	16	5	8

* Of Standard Milling Co.

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIDLINGS—concluded			
Federal Mill, Inc., Lockport, N. Y.			
Lucky Standard Hard (+).....	15	4.5	9.5
Dairy Maid Soft Winter Flour (+).....	13	4.5	6
J. A. Forrest, Minneapolis, Minn.			
Alpine Canadian Shorts.....	16	5	7.5
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard Standard (+).....	15	4	9.5
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand Shorts.....	16	5	8
Hamco Brand Shorts.....	15	3.5	10.5
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y.			
Standard (+).....	15	4.75	9.5
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+).....	16	4.5	8.5
Kasco Mills, Inc., Waverly, N. Y.			
Kasco Flour (+).....	16	3.5	6
Lake-of-theWoods Milling Co., Montreal, Que.			
Lake Woods Shorts.....	16	5	8
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Rex (+).....	16	5	7.5
Mennel Milling Co., Toledo, Ohio			
Memo Soft Flour (+).....	15	4	6.5
Montana Flour Mills Co., Great Falls, Mont.			
Montco Standard (+).....	15	4	9.5
Moseley & Motley Milling Co., Rochester, N. Y.			
Big B (+).....	15	4.5	9
National Milling Co., Toledo, Ohio			
Tollo.....	15	3.5	6
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+).....	15.5	4.5	7
Parrish & Heimbecker, Ltd., Toronto, Ont.			
Parrheim Pure Shorts.....	16	5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard A. (+).....	16	4	6
Pillsbury's Hard Standard B. (+).....	15	4	9.5
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior Shorts.....	17	5	8
Blackhawk Standard (+).....	17	4.5	9.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident Flour.....	15.5	4	5
Alta Hard.....	15	4.5	8.5
Hard Occident Standard.....	15	4	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour (+).....	15	4	6
David Stott Flour Mills, Inc., Detroit, Mich.			
Pennant (+).....	15	4	9
Stott's Fine Flour (+).....	14.5	3.7	6
Stratton & Co., Concord, N. H.			
Standard (+).....	16	5.65	9.5
George Urban Milling Co., Buffalo, N. Y.			
(+).....	15	4	9.5
Valley City Milling Co., Portland, Mich.			
Rowena Standard Soft (+).....	15	4.25	6
Western Canada Flour Mills Co., Ltd., Winnipeg, Man.			
Pioneer Shorts.....	16	5	8

* Of Standard Milling Co.

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIXED FEEDS			
E. W. Bailey & Co., Montpelier, Vt.			
Capital	14	3	7
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+).....	12.5	3.5	10
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Fancy (+)	15	3.5	7.5
E. T. & H. K. Ide, St. Johnsbury, Vt.			
Ideal	15	4	8
Malted Cereals Co., Burlington, Vt.			
Maltex Cereal Feed (+).....	12.5	3.75	9
Park & Pollard Co., Buffalo, N. Y.			
Park & Pollard Heavy.....	15.5	3.35	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+).....	15	4	8.5
Quaker Oats Co., Chicago, Ill.			
Buckeye (+)	15.5	4.5	10
Ralston Purina Co., St. Johnsbury, Vt.			
Brooks' Fancy	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore (+)	15	3.75	8
David Stott Flour Mills, Inc., Detroit, Mich.			
Columbus Heavy (+).....	14.5	3.7	8.5
Stratton & Co., Concord, N. H.			
Stratton's (+)	13.5	4.11	7.13
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14.5	3.75	9
WHEAT OFFALS—RED DOG FLOURS			
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Pure Hard Adrian.....	16	3.5	4
Hecker-Jones-Jewel Milling Div.,* Buffalo, N. Y.			
.....	15	4.25	4
International Milling Co., Minneapolis, Minn.			
Blackhawk	16	3.5	4
King Midas Mill Co., Minneapolis, Minn.			
.....	16.5	4	4
Northwestern Consolidated Milling Div.,* Minneapolis, Minn.			
XXX Comet	16	4	4
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's XX Daisy	16	4	4
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior	16.5	3.5	4
George Urban Milling Co., Buffalo, N. Y.			
.....	15	4	4
HOMINY FEEDS			
Decatur Milling Co., Inc., Decatur, Ill.			
Homco	10	7	6
Kellogg Sales Co., Battle Creek, Mich.			
White	10	6	5
Chas. A. Krause Milling Co., Milwaukee, Wis.			
Badger White	10	6	5
Patent Cereals Co., Geneva, N. Y.			
.....	10	5	5

* Of Standard Milling Co.

+ = "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
HOMINY FEEDS—concluded			
Postum Co., Inc., Battle Creek, Mich.			
Burt's	10	6	5
Quaker Oats Co., Chicago, Ill.			
White	10	5	5
Yellow	10	5	5
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.			
.....	7	0.3	22.5
Molasses	7	0.3	20
ALFALFA MEALS			
A. B. Caple Co., Toledo, Ohio			
.....	13	1	33
Denver Alfalfa Milling & Products Co., Lamar, Colo.			
Leaf (Leafalfa Brand).....	20	1.5	18
Greenalfa Poultry	17	1.5	23
.....	13	1	33
National Mineral Products Co., Ltd., San Francisco, Cal.			
California Fine Ground.....	14	1.5	30
Pecos Valley Alfalfa Mill Co., Hagerman, N. Mex.			
Peevee Leaf,.....	20	2.5	18
Pecos Special	13	1.5	33
MISCELLANEOUS			
Elmore Milling Co., Inc., Oneonta, N. Y.			
Vigor Feed	5	1	28
John W. Eshelman & Sons, Lancaster, Pa.			
Eshelman Red Rose Corn Feed Meal.....	8	3	4
Hecker-H-O Co., Inc., Buffalo, N. Y.			
Oat Mill Feed.....	6	2	28
Northern Illinois Cereal Co., Lockport, Ill.			
Gold Medal Fine Ground Feeding Oatmeal.....	15	6.5	3
Park & Pollard Co., Buffalo, N. Y.			
Feed Meal	9	2.5	4
Quaker Oats Co., Chicago, Ill.			
Sugared Vim Feed.....	5	1.25	27.5
Ralston Purina Co., St. Louis, Mo.			
Purina Checkerboard Rolled Oats (Steam Cooked)	15	5	2
Corn Feed Meal	8.5	3	5
David Stott Flour Mills, Inc., Detroit, Mich.			
Winner Chop Feed.....	10	3.5	12

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note*
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Peoria, Ill.				
Wayne Amco 32% Supplement†	32	4	9	✓
Wayne Amco 24%†	24	3.5	9	✓
Empire 24%	24	3	12	✓
Wayne Amco 20%†	20	3.5	9	✓
Empire 20%	20	3	12	✓
Empire 16½%	16.5	3	12	✓
E. W. Bailey & Co., Montpelier, Vt.				
Capital	24	4.5	9	✓
Sweetened Capital	24	4.5	9	✓
Favorite	20	4	7.5	✓
Sweetened Favorite	20	4	7.5	✓
Our 20 Special	20	3.5	9	✓
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Green Mountain	23	5	10	✓
Bethel Mills, Bethel, Vt.				
Bethel Mills 24 Protein	24	5	9	✓
Bethel Mills 20 Protein Sweetened Economy	20	4	11	✓
Bethel Mills 16 Protein Pasture	16	4.2	9.5	✓
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell 24%	24	4	11	✓
Bidwell 20%	20	4	11	✓
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	✓
Unicorn 20%	20	4.5	10	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community 20	20	4.5	8.5	✓
E. C. Crosby, Danby, Vt.				
Crosby's B Quality 20%†	20	4.5	9	✓
Danville Grain Co., Inc., Danville, Vt.				
Danville 20%	20	4	10	
Davis Feed Co., Inc., Rutland, Vt.				
Vermont 20%	20	5	8	✓
Davis 20% Kow Feed	20	4.5	8.5	✓
H. W. Demick, Inc., Derby Line, Vt.				
Beats 'Em All	20	4	10	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 32% Supplement†	32	4.5	8	
Eastern States Milkmore†	24	4.5	8	✓
Eastern States Fulpull†	20	4.5	8	✓
Eastern States Highland 20†	20	4	8	✓
Eastern States Sixteent†	16	4	8	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
32% Supplemental	32	4	9	✓
Elmore Milk Grains	25	5	11	✓
Elmore Milk Grains (Sweetened)	24	5	10	✓
Granger 24%	24	4	10	

*The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g., cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by the state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other, and possibly undesirable, ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist failed to find some one or more or found extraneous ingredients appear on pages 24 to 39.

†Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>					
Elmore Milling Co., Inc., Oneonta, N. Y.— <i>continued</i>					
	Elmore Milk Grains Junior.....	20	5	10	✓
	Elmore Milk Grains Junior Sweet.....	20	5	10	
	Emco Feed	20	4.5	10	✓
	Granger 20%	20	4	11	
	Granger 16%	16	4	11	
John W. Eshelman & Sons, Lancaster, Penn.					
	Eshelman 32% Mixing.....	32	4.5	9	✓
	Eshelman Challenge	24	4	11	
	Eshelman Red Rose 24.....	24	4	11	✓
	Eshelman Lancaster 20.....	20	4	11	✓
	Eshelman Conestoga 20.....	20	4	11	
	Eshelman Open Formula 20.....	20	4	9	✓
	Eshelman Pennsy 16.....	16	3	11	
For-All Grain Co., Inc., South Ryegate, Vt.					
	For-All Milk Grains 20%.....	20	5	8.5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.					
	Grandin's 32%	32	4	9	✓
	Grandin's Sweetened 24%	24	4	10	✓
	Grandin's Sweetened 20%.....	20	4	10	✓
	Economy 20% Sweetened.....	20	3	12	✓
	Economy 16% Sweetened.....	16	3	12	
E. T. & H. K. Ide, St. Johnsbury, Vt.					
	Ideal Sweetened	24	5	10	✓
	Ide's Special	20	4	10	
	Royal Sweetened	20	4	10	✓
	Sunshine	20	4	10	✓
W. B. Johnson & Son, Essex Junction, Vt.					
	Johnson's Perfection No. 1.....	20	5	9	✓
	Johnson's Economy	20	4	12	✓
Kasco Mills, Inc., Waverly, N. Y.					
	Apex 20%	20	3.5	12	✓
	Kasco 18%	18	3.5	10	✓
Larroe Milling Co., Detroit, Mich.					
	Larro	20	3.75	12	✓
	Larroe's 16%	16	3	11	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.					
	McEwen's 20%	20	4	10	✓
T. J. McGovern, Cambridge, Vt.					
	McGovern's 24 Per Cent.....	24	4	8	✓
	McGovern's 20 Per Cent Farm Relief.....	20	4	12	✓
	McGovern's 20 Per Cent.....	20	4	8	✓
	McGovern's 16 Per Cent.....	16	4	8	✓
Maritime Milling Co., Inc., Buffalo, N. Y.					
	Sweetened B-B Bull Brand "20".....	20	4.5	11	✓
	Real Value 20%.....	20	4	12	
	B-B Marmico 16% Protein with Molasses... 16		4	12	
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.					
	Moon's 24%	24	5	10	✓
	U. S. 24%.....	24	3	12	
	U. S. 20%	20	3	12	✓
Park & Pollard Co., Buffalo, N. Y.					
	Milk-Maid 24% Sweetened.....	24	4.5	11	✓
	Overall 24%	24	4.5	9	✓
	Manamar Doublex 20%.....	20	4	10	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 10)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>					
Park & Pollard Co., Buffalo, N. Y.— <i>continued</i>					
	Bet-R-Milk 20%	20	4	9	✓
	Manamar Top Notch 16%.....	16	3.5	11	✓
	Top Notch 16%.....	16	3.5	12	✓
Quaker Oats Co., Chicago, Ill.					
	Quaker 24% Protein	24	4	12	✓
	Quaker 16% Protein.....	16	3.5	13.5	✓
Race Milling Co., Granville, N. Y.					
	Race's 24%	24	4	9	
	Race's 20%	20	3.5	9	✓
	Race's 18%†	18	3	12	✓
Ralston Purina Co., St. Louis, Mo.					
	Purina Red Checker Cow Chow (34%).....	34	3	12	✓
	Protana 24%	24	3.5	12	✓
	Purina Green Checker Cow Chow (24%)... 24	24	3	12	✓
	Protana 20%	20	3.5	12	✓
	Purina Blue Checker Cow Chow (20%)..... 20	20	3.5	12	✓
	Protana 20%	20	3	12	✓
	Purina Blue Checker Cow Chow (20%)..... 20	20	3	12	✓
	Protana 16% (Buffalo Mill).....	16	3	14	✓
	Purina Body Cow Chow.....	16	3	12	✓
	Purina Bulky Cow Chow.....	16	3	12	✓
Richmond Feed Co., Richmond, Vt.					
	Richmond Special 22%	22	5	9	✓
St. Albans Grain Co., St. Albans, Vt.					
	Wirthmore 32 Supplement.....	32	4	8	✓
	Wirthmore 25 Balanced Sweetened..... 25	25	4.5	8.5	✓
	Hygrade 24 Sweetened Milk	24	3.5	9	✓
	Champlain Valley Emergency 24.....	24	3.5	8.5	✓
	Wirthmore 20 Sweetened.....	20	4.5	8	✓
	Utility	20	3.5	12	✓
	Utility	20	3.5	11.5	✓
	Hygrade 20 Sweetened Milk	20	3.5	8.5	✓
	Champlain Valley Emergency 20	20	3.5	8.5	✓
	Wirthmore 16 Sweetened.....	16	4	8	✓
Seabury Grain Co., Waterbury, Vt.					
	Our Own Make 20%	20	4	9	✓
	Our Own Make Special.....	18.5	4.5	9	✓
Chas. M. Seaver & Co., Williamstown, Vt.					
	Honor Brand	20	4	10	✓
H. A. Slayton & Co., Morrisville, Vt.					
	Economy	20	3.75	8.5	
C. A. Smith, St. Johnsbury, Vt.					
	Smith's	20	4	12	
S. E. Smith Estate, West Rutland, Vt.					
	Smith Estate 24%†.....	24	5	8.5	✓
	Smith Estate 20%	20	4.5	8	
	Smith Estate 18%†.....	18	4.5	8.5	✓
C. H. Stearns & Son Co., Johnson, Vt.					
	Stearnco All Grain 20% Milk	20	4	9	✓
Tioga-Empire Feed Mills, Inc., Waverly, N. Y.					
	20% Creamatine	20	4.5	10	✓
J. G. Turnbull Co., Orleans, Vt.					
	Creamery	20	5	10	
	Turnbull's Special	20	3.5	12	

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
Frank Tyler, Essex Junction, Vt.				
Tyler's (20%) Ready Mixed.....	20	4.5	9	
Wayne County Grangers Feed Corp., Clyde, N. Y.				
32% Reliance Supplemental†.....	32	4	10	✓
Galen 24%†	24	4	10	✓
Galen 24%†	24	4	8.5	✓
Superior 20%†	20	4	10	✓
Clyde 20%†	20	4	8.5	✓
Sweetened 16%†	16	4	12	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Super Pure Sweetfeed.....	24	4.5	10	✓
Special 20 Per Cent.....	20	3	12	✓
W. S. Wright, Lyndonville, Vt.				
Open Formula 20%.....	20	4.5	8	✓
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Rabbit	13	3	11	✓
Wayne Amco 12% Fitting.....	12	3	9	✓
June Pasture	10	0.5	21	✓
Wayne Supreme Horse	9.5	3	8	✓
Empire Stock	9	3	12	✓
E. W. Bailey & Co., Montpelier, Vt.				
"Bailey's" Pasture	15.5	3.75	10	✓
Sweetened Bailey's Fitting.....	14	4	9	✓
Pennant Horse	10.75	3.5	6.5	✓
Sweetened with Molasses Pennant Brand Stock	9.5	4	9.5	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Highland 12†.....	12	3.5	10.5	✓
Eastern States Fitting†.....	12	3.5	7	✓
Eastern States Horse and Calf†.....	10.5	3.5	7	✓
Eastern States Horse†	10.5	3.5	7	✓
Eastern States Succulence†.....	10	1.5	14.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Sugared Feedall	10	3	18	✓
Elmore Stock	10	3	12	✓
Elmore Horse with Molasses.....	9	2.5	11	✓
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Fitting.....	12	3.5	7	✓
Eshelman S O S	11	2	15	✓
Eshelman Steamed Cooked Horse	9	4	6	✓
Eshelman Conestoga Horse	9	3	10	✓
Eshelman Red Rose 85 Horse	9	3	10	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Sweetened Horse.....	9.5	3.5	11	✓
Grandin's Stock	8.5	4	12	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Fitting	12	4	10	✓
Imperial Grain & Milling Co., Toledo, Ohio				
Imperial Steam Cooked.....	9.5	4	4.6	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Horse	9	3	10	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Dealer's Mixing with Molasses.....	10	3.5	12	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.—concluded				
Park & Pollard Co., Buffalo, N. Y.				
Fitting	12	3.5	7	✓
Manamar Fitting	12	3.5	7	✓
Park & Pollard Horse.....	10	3.5	9	✓
Yankee Horse	10	3.5	9	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Sugared Schumacher.....	10	3	12	✓
Quaker Green Cross Horse.....	10	2.5	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Heifer Growing Chow.....	14	2.5	14	✓
Purina Fitting Chow.....	13.5	2.6	12	✓
Purina Rabbit Chow.....	13.5	2.5	16	✓
Purina Bulky Omolene.....	10	3.2	11	✓
Purina Omolene	10	3.2	9	✓
Purina Bulky Las Chow (Buffalo Mill).....	9	1.3	15	✓
Protena Sweet Feed "D".....	6	1	25	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting	14	4	7	✓
Wirthmore Rabbit	14	3.5	9	✓
Utility Pasture	14	3	13	✓
Hygrade Fitting	12	4.5	8	
Wirthmore Fodder Greens.....	10	3	15	✓
Wirthmore Horse	9.8	3.25	9	✓
Hygrade Horse	9.5	3.25	9	✓
Wirthmore Stock	9	4	9.5	✓
Ubiko Milling Co., Cincinnati, Ohio				
Crusader Horse	9	3	10	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Universal Horse	10	3	9	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Horse.....	9	3	10	✓
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS				
Albers Bros. Milling Co., Seattle, Wash.				
Calf Manna	25	4	5	
Allied Mills, Inc., Peoria, Ill.				
Wayne Calf	24	4	7	
Wayne Pig	18	3.5	7	
Emergency Hog	14	3.5	7	✓
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	24	5	6.75	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter†.....	23	3.5	4	✓
Eastern States Hog†.....	14.5	4	5.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore "Three Point" Calf.....	24	4	4	✓
Elmore's Makemgrow Little Pig.....	18	4.5	7	✓
Elmore's Hog	15	5	6	✓
John W. Eshelman & Sons, Lancaster, Pa.				
Eshelman Red Rose Calf Starter.....	18	3	5	✓
Eshelman Red Rose Hog.....	16	5	10	✓
Larrowe Milling Co., Detroit, Mich.				
Larro Pork-Maker.....	25	5	10	✓
Larro Calf	23	4	4	✓
Larro Pig	16	4	6	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS—concluded				
Park & Pollard Co., Buffalo, N. Y.				
Milkade Calf	20	7	6.5	✓
Go Tu It Pig & Hog.....	15	3.5	8	✓
Quaker Oats Co., Chicago, Ill.				
Schumacher Calf	18	7	4	
Ralston Purina Co., St. Louis, Mo.				
Purina Calf Starting Chow.....	23	3.2	7	✓
Purina Hog Fatena Chow.....	14	3	7	✓
Ryde & Co., Chicago, Ill.				
Ryde's Cream Quality Calf.....	18.5	4	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	4	✓
Wirthmore Pig and Hog.....	17	4	9	✓
MEAT AND BONE SCRAPS AND FISH MEAL				
Consolidated Rendering Co., Boston, Mass.				
Corenco Cod and Haddock.....	62	2	..	
Corenco 50% Meat Scrap.....	50	6	..	
Corenco 45%	45	6	..	
Corenco Bone Meal.....	20	2	..	
Consumers Import Co., Inc., New York, N. Y.				
Cico Fish	55	1	1	
John Reardon & Sons Co., Cambridge, Mass.				
Register Brand	50	6	..	
Register Brand	45	6	..	
John T. Stanley Co., Inc., New York, N. Y.				
Stanley's 55%	55	10	3	
Stanley's 50%	50	10	3	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Scratch	10	2.5	4	✓
Empire Scratch	9	2.5	4	✓
Wayne Chick	9	2	4	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Scratch	10	3	6.5	✓
Pennant Brand Coarse Chick	10	3	3	✓
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon Special Scratch Grains.....	10	2	3.5	
Beacon's Cayuga Scratch.....	9	2	5	
Black Rock Milling Corp., Buffalo, N. Y.				
Bidwell Scratch	10	1.5	5	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Scratch Grains.....	10	3	4	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch Grains (with Whole Corn)	10.5	2.5	4	✓
Eastern States Scratch Grains (with Coarse Cracked Corn)†	10	2.5	4	✓
Eastern States Scratch Grains 1931†.....	9.5	2.5	3	✓
Eastern States Chick Grains	9.5	2	3	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Scratch	10	3.5	7	✓
Emco Scratch	10	3.5	7	✓
Elmore Scratch	10	2.5	7	✓
Emco Scratch	10	2.5	7	

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
John W. Eshelman & Sons, Lancaster, Penn.				
Eshelman Red Rose Scratch Grains.....	10	2.5	4	✓
Eshelman Lancaster Scratch Grains.....	9	2.5	4	✓
First National Stores, Inc., Somerville, Mass.				
Henfield Scratch Grains.....	10	2.5	5	
D. H. Grandin Milling Co., Jamestown, N. Y.				
Economy Scratch Grains.....	10	2.5	5	✓
Grandin's Screened Scratch	10	2.5	5	✓
Grandin's Intermediate Chick.....	10	2.5	5	✓
Grand Union Co., New York, N. Y.				
Peerless Scratch Grains	10	2.5	5	
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg Scratch	10	2.5	5	✓
Talco Scratch	10	2.5	5	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Scratch	10	3	4	
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Scratch Grains.....	9	2.5	4	✓
Larrowe Milling Co., Detroit, Mich.				
Larro Growing Grains	10	2	4	✓
Larro Scratch Grains	10	2	4	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Scratch.....	10	2.5	5	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Daisy Scratch.....	9	2.5	5	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Scratch	10	2	5	
Park & Pollard Co., Buffalo, N. Y.				
Red Ribbon Scratch.....	10	3	5	✓
Paramount Scratch	10	2.5	5	
Quaker Oats Co., Chicago, Ill.				
Early Bird Fine Chick, No Grit	10	2	2	✓
Big Egg Scratch Grains, No Grit	9.5	2	3.5	✓
Quaker Ful-O-Pep Scratch Grains.....	9	2	3	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Hen Chow	10	2.5	4	✓
Purina Chick Chow (Coarse).....	10	2.5	4	✓
Purina Chick Chow (Fine)	10	2	4	✓
Protena Scratch (Buffalo Mill).....	9.5	2	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Mornin' Call Poultry Grains.....	10	2.5	4	✓
Wirthmore Scratch	10	2.5	4	✓
Wirthmore Intermediate Scratch.....	10	2.5	3.5	
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Grange Superior Scratch.....	10	3	6	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Scratch Grain.....	10	3.5	5	
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES				
Allied Mills, Inc., Peoria, Ill.				
Wayne Concentrate	32	4	8	✓
Wayne 26% Supplement with Cod Liver Oil & Sardine Oil.....	26	4	8	
Wayne Breeder	18	4	7	✓
Wayne Egg	18	3.5	7	✓

✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—continued				
<i>Allied Mills, Inc., Peoria, Ill.—continued</i>				
Wayne Egg with Sardine Oil	18	3.5	7	✓
Wayne Chick Starter with Sardine Oil.....	17	4	6	
Empire Egg	16.5	3.5	7	✓
Empire Egg with Sardine Oil	16.5	3.5	7	✓
Wayne Growing with Sardine Oil	16	4	6	✓
Empire Starter and Grower	16	3.5	6	
Wayne Turkey	15	3.5	8	✓
Wayne Poultry Fattener	13.5	3.5	8	✓
<i>E. W. Bailey & Co., Montpelier, Vt.</i>				
Pennant Brand Laying.....	20	5	6	✓
Pennant Brand Laying with Cod Liver Oil and Cod Liver Meal.....	20	5	6	✓
Pennant Brand Growing	15	5	5	✓
<i>Beacon Milling Co., Inc., Cayuga, N. Y.</i>				
Beacon Breeders With Buttermilk.....	20	4	7	✓
Beacon's Cayuga Laying With Buttermilk..	20	4	7	✓
Beacon CC Pellets.....	18	1	5	✓
Beacon Complete Starting Ration.....	17.5	4	6	
Beacon Fleshing Pellets.....	15	4	5	
<i>Black Rock Milling Corp., Buffalo, N. Y.</i>				
Bidwell Dry	18	3	8	✓
<i>Chapin & Co., Hammond, Ind.</i>				
Chapin's Start All Kernels.....	21	5	4.5	✓
Lay All Chapin Kernels.....	20	3.5	5	✓
<i>Community Feed Stores, Inc., Westminster Station, Vt.</i>				
Community Milk Laying	20	4	8	✓
<i>Eastern States Farmers' Exchange, Springfield, Mass.</i>				
Eastern States Producer 20†.....	20	4	6	✓
Eastern States Developert.....	18.5	4	6.5	✓
Eastern States Starting and Broilert.....	18.5	4	5	✓
Eastern States Product†.....	17	4	6.5	✓
Eastern States Egg†.....	17	4	6.5	✓
Eastern States Turkey-Fatt†.....	16	3.5	5	✓
Eastern States Combination†.....	15	4	6.5	✓
Eastern States Fattener†.....	14.5	4.5	4.5	✓
<i>Elmore Milling Co., Inc., Oneonta, N. Y.</i>				
Turkey Starting	24	4	6	✓
Elmore Egg	18	4	8	✓
Elmore Eggmaker	17	4.5	8	✓
Elmore Complete Laying Ration	16	4	6	✓
<i>John W. Eshelman & Sons, Lancaster, Penn.</i>				
Eshelman Red Rose Laying.....	20	5	7	✓
Eshelman Red Rose Laying with Cod Liver Oil	20	5	7	✓
Eshelman Red Rose Chick Starter.....	15	4	6	
<i>First National Stores, Inc., Somerville, Mass.</i>				
Henfield Egg	20	5	7	✓
<i>D. H. Grandin Milling Co., Jamestown, N. Y.</i>				
Grandin's Laying With Buttermilk—Cod Liver Oil	20	4	8	✓
Grandin's Complete Laying Ration.....	15	4	7	✓
Grandin's Poultry Green Food	10	1	25	✓
<i>Grand Union Co., New York, N. Y.</i>				
Peerless Laying	20	4	7	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote* (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—continued				
Great Atlantic & Pacific Tea Co., New York, N. Y.				
Daily Egg	20	4.5	7	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Egg	19	4.5	5.5	✓
Jersee Co., Minneapolis, Minn.				
Just Right Egg 18%	18	5	8	
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	✓
Larrowe Milling Co., Detroit, Mich.				
Larro Turkey Grower.....	24	4.5	6.5	✓
Larro Egg	19	4	7.5	✓
Larro Growing	16	4	7.5	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Egg	20	4	9	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
Dollar\$Maker Egg Vitamized with Cod Liver Oil and Dried Buttermilk.....	17	3.5	9	✓
B-B Bull Brand All Mash Laying Vitamized with Cod Liver Oil, Milk Sugar Feed, Dried Buttermilk	15	4	7	✓
Geo. Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Laying with Dried Buttermilk and Cod Liver Oil	20	4	9	✓
Park & Pollard Co., Buffalo, N. Y.				
Manamar Starting and Broiler.....	18	3.5	6	✓
Lay or Bust Dry.....	18	3	7	
Lay or Bust Dry with Cod Liver Oil.....	18	3	7	✓
All-In-One Starting	17	3.5	5	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Egg.....	20	4.5	8	✓
Quaker Full-O-Pep Growing.....	19	5	6	✓
Big Egg Laying.....	18	4	8	✓
Quaker Ful-O-Pep Chick Starter	17	5	7	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Turkey Growing and Fattening Chow	21	3.5	8	✓
Purina Lay Chow.....	19	3.5	8	✓
Purina Lay Chow (With Cod Liver Oil)....	19	3.5	8	✓
Purina Egg Chowder.....	19	3.5	8	✓
Purina Egg Chowder (With Cod Liver Oil). 19		3.5	8	✓
Purina Breeder Egg Chowder.....	19	3.5	8	✓
Purina Broiler Chow.....	18	4	7	✓
Purina Chick Startena (Complete-All Mash) 18		4	7	✓
Purina Growing Chow (With Cod Liver Oil) 17		3.5	7	✓
Purina Layena (Complete-All Mash).....	15.5	3.5	8	✓
Purina Chick Growena (Complete-All Mash) 15		3.5	7	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Breeder	20	4.5	7	✓
Wirthmore Turkey Growing.....	20	4	7	✓
Wirthmore Laying	20	4	7	✓
Wirthmore Laying containing Fortified Cod Liver Oil	20	4	7	✓
Wirthmore Baby Chick Starter containing Fortified Cod Liver Oil.....	18	4	5	✓
Wirthmore Complete Chick and Broiler....	17.5	4	5.5	✓
Wirthmore Turkey Fattening Ration.....	16	4.5	7	✓
Wirthmore Pellets	15	4.5	6.5	✓
Wirthmore Growing	15	4.5	6	✓

† Open formula. ✓ See footnote p. 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See foot- note* (p. 10)
PROPRIETARY FEEDS—POULTRY FEEDS—MASHES, ETC.—concluded.					
St. Albans Grain Co., St. Albans, Vt.— <i>continued</i>					
Wirthmore Growing containing Fortified					
	Cod Liver Oil.....	15	4.5	6	✓
	Wirthmore Fleshing and Fattening	15	4.5	6	✓
	Wirthmore Complete Laying.....	15	4	5	✓
	Wirthmore Complete Growing.....	14	3.75	6	✓
S. E. Smith Estate, West Rutland, Vt.					
	Smith Estate Egg Producer.....	18	4.5	7	
Ubiko Milling Co., Cincinnati, Ohio					
	Ubiko Egg	20	4	6	
	Ubiko All-Mash Starter.....	18	4	5	✓
	Ubiko All-Mash Complete Laying.....	16	3.5	6	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.					
	Superior Laying with Buttermilk & Cod Liver Oil†	18	4	7	✓
Ray P. Webster, Barton, Vt.					
	Storr's* Egg with Nopco XX Cod Liver Oil..	15	4	7	✓
West-Nesbitt, Inc., Oneonta, N. Y.					
	Pure Feed Egg.....	18	5	7	✓
	Pure Feed Special Egg.....	18	4	7	✓
DRIED SKIMMILKS AND DRIED WHEY					
C. E. Buell, Inc., Boston, Mass.					
	Buell-Boston	31	0.2	..	
Dairymen's League Co-operative Assn., Inc., Utica, N. Y.					
	Dairylea	33	0.5	..	
Queensboro Farm Products, Inc., Long Island City, N. Y.					
	.....	32	0.75	..	
St. Albans Grain Co., St. Albans, Vt.					
	Pure	32	0.5	..	
Sheffield Farms Co., Inc., New York, N. Y.					
	Sheffield	32	0.5	..	
Western Condensing Co., Eureka, Calif.					
	Pebbles Lacto Dried Whey.....	12.5	0.5	0.1	

* Sic. † See footnote p. 10. † Open formula.

II. BRANDS FAILING TO MEET GUARANTIES

COTTONSEED MEALS

- E. T. ALLEN Co., Atlanta, Ga. *Empire High Grade*. 41/6/10. Three samples, one below protein guaranty (41%). Stock of Checkerboard Feed Store, Barton, 37.19%. Average three samples 40.17%. Also above fiber guaranty but within tolerance limits.
- E. T. ALLEN Co., Atlanta, Ga. *Atlas 36% Protein Prime Quality*. 36/5/16. Two samples, one below protein guaranty (36%). Stock of Checkerboard Feed Store, Bradford, 35.18%. One sample below protein guaranty but within tolerance limits. Average two samples 35.36%.
- CAIRO MEAL & CAKE Co., Cairo, Ill. *Miss Cairo Brand 43% Protein Prime Quality*. 43/6/10. One sample below protein guaranty (43%). Stock of New Feed Store, Richford, 42.01%
- HUMPHREYS-GODWIN Co., Memphis, Tenn. *Dixie Brand 41% Protein—Prime Quality*. 41/5/12. Sixteen samples, three below guaranty (41%). Stocks of Brattleboro Grain Store, Brattleboro, 39.91%; C. A. Smith, Concord, 40.08%; E. I. Clafin, Randolph, 39.21%. Four samples below protein guaranty but within tolerance limits. Average 16 samples 41.31%.
- L. B. LOVITT & Co., Memphis, Tenn. *"Lovit Brand" 41% Prime Quality*. 41/5/13. Nineteen samples, four below protein guaranty (41%). Stocks of Checkerboard Feed Store, Barnet, 39.64%; Colchester Milling Co., Colchester, 39.99%; H. W. Demick, Inc., Derby Line, 40.17%; Windsor Co. Farmers' Exchange, White River Junction, 40.17%. Four samples below protein guaranty but within tolerance limits. Average 19 samples 41.06%.
- PERKINS OIL Co., Memphis, Tenn. *Golden Rod Brand*. 41/6/10. One sample below protein guaranty (41%). Stock of Danville Grain Co., Danville, 39.91%.
- RALSTON PURINA Co., St. Louis, Mo. *41% Protein*. 41/5/12. Two samples, one below protein guaranty (41%). Stock of Poultney Coal & Grain Elevator, Poultney, 40.17%. Average two samples 40.74%.

LINSEED MEAL

- SPENCER KELLOGG & SONS, INC., Buffalo, N. Y. *Kellogg's 34% Protein Pure Old Process*. 34/4.5/9. Eleven samples, one below protein guaranty (34%). Stock of For-All Grain Co., Groton, 33.25%. Two samples below protein guaranty but within tolerance limits. Average 11 samples 34.45%.

PEANUT MEAL

- HUMPHREYS-GODWIN Co., Memphis, Tenn. *45% Protein Peanut Cake*. 45/6/12. One sample above fiber guaranty (12%). Stock of T. J. McGovern, Cambridge, 12.79%.

CORN DISTILLERS' AND RYE DISTILLERS' DRIED GRAINS

- ALLIED MILLS, INC., Chicago, Ill. *Corn Distillers'*. 28/9/15. Five samples, one below protein guaranty (28%). Stock of Sunshine Feed Store, Bradford, 25.28%. Average five samples 28.51%.
- DRIED GRAINS CORP., Baltimore, Md. *GRA-CO Stock Feed (Rye Distillers')*. 17/6/17. One sample below protein guaranty (17%). Stock of Enosburg Grain Co., Enosburg Falls, 16.35%.
- F. W. KELLEY, St. Johnsbury, Vt. *Kelley's Rye Distillers'*. 17/5/20. Three samples, two below protein guaranty (17%). Stocks of For-All Grain Co., Groton, 16.35%; Coe Bros., West Burke, 16.18%. Average three samples 17.72%.
- NEUMOND Co., St. Louis, Mo. *"Neumond" 28% Corn Distillers'*. 28/8/15. One sample below protein guaranty (28%). Stock of R. G. Whitman, North Bennington, 26.77%.

*

WHEAT MIXED FEED

F. W. STOCK & SONS, Hillsdale, Mich. *Superior*. 18/4/7. One sample below protein guaranty (18%). Stock of W. B. Johnson & Son, Essex Junction, 17.31%. Also below fat guaranty but within tolerance limits.

HOMINY FEED

DAVID STOTT FLOUR MILLS, INC., Detroit, Mich. (*Yellow*). 9.5/5.5/6.5. One sample below fat guaranty (5.5%). Stock of Gilman & Seaver, Wolcott, 4.23%.

MISCELLANEOUS

ELMORE MILLING Co., INC., Oneonta, N. Y. *Vigor Feed*. 5/1/28. Two samples, one below protein guaranty (5%). Stock of J. A. Donner, Sheldon Junction, 4.36%. Average two samples 5.15%.

J. A. FORREST, Minneapolis, Minn. *Ground Grain Screenings*. 13/6/16. One sample below protein (13%) and fat (6%) guaranties and above fiber guaranty (16%). Stock of Davis Feed Co., Rutland, 11.53%; 5.04%; 17.96%.

QUAKER OATS Co., Chicago, Ill. *Vim Feed*. 5/2/30. Eleven samples, one below protein guaranty (5%). Stock of W. L. Brown Estate, West Burke, 3.83%. Two samples below protein guaranty but within tolerance limits. Average 11 samples 5.29%. Also below fat guaranty (2%); found 1.77%.

UPPER HUDSON RYE FLOUR MILLS, INC., Troy, N. Y. *Rye Feed*. 15.5/3/6. Fifteen samples, 12 below protein guaranty (15.5%). Stocks of H. W. Myers & Son, Bennington, 13.81%; Yandow & Leclair Grain Co., Charlotte, 13.99%; Park & Pollard Co., Chester Depot, 14.51%; W. B. Johnson & Son, Essex Junction, 13.73%; For-All Grain Co., Groton, 13.64%; Jesse Spaulding, Ludlow, 14.51%; Race Mill, Pawlet, 14.34%; Farmers Feed Co., St. Albans, 14.25%; For-All Grain Co., South Ryegate, 12.93%; Taylor & Hawkins, South Shaftsbury, 14.08%; E. G. & A. W. Norton, Vergennes, 14.51%; Chas. M. Seaver & Co., Williamstown, 14.43%. Two samples below protein guaranty but within tolerance limits. Average 15 samples 14.42%.

DAIRY FEEDS OR RATIONS

BETHEL MILLS, Bethel, Vt. *Bethel Mills 20 Protein*. 20/4.5/6.5. One sample above fiber guaranty (6.5%). Stock of Bethel Mills, Bethel, 7.53%.

BETHEL MILLS, Bethel, Vt. *Bethel Mills 20 Protein Sweetend*. 20/4.5/6.5. One sample above fiber guaranty (6.5%). Stock of Bethel Mills, Bethel, 7.06%.

BLACK ROCK MILLING CORP., Buffalo, N. Y., *Bidwell 20%*. 20/4/11. Six samples, one below protein guaranty (20%). Stock of Danville Grain Co., Danville, 18.98%. Two samples below protein guaranty but within tolerance limits. Average six samples 20.26%.

E. C. CROSBY, Danby, Vt. *Crosby's A Quality 20% Open Formula*. 20/5/3. One sample below fat guaranty (5%). Stock of E. C. Crosby, Danby, 4.52%.

ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore's Sweet Digesto*. 16/4/12. One sample above fiber guaranty (12%). Stock of W. H. Sherman, West Rupert, 13.30%.

GEO. Q. MOON & Co., INC., Binghamton, N. Y. *Moon's 20% With Molasses*. 20/4.5/11. One sample below fat guaranty (4.5%) and above fiber guaranty (11%). Stock of I. Messier, South Northfield, 3.59%; 11.72%.

E. G. & A. W. NORTON, Vergennes, Vt. *Kow Feed*. 20/4/10. One sample above fiber guaranty (10%). Stock of E. G. & A. W. Norton, Vergennes, 11.19%.

PARK & POLLARD Co., Buffalo, N. Y. *Yankee*. 24/3.5/9. One sample below protein guaranty (24%). Stock of Farmers Grain & Feed Co., East Barre, 23.01%.

- PARK & POLLARD Co., Buffalo, N. Y. *Manamar Doublez 20%*. 20/4/10. Seven samples, two below protein guaranty (20%). Stocks of Yandow & Leclair Grain Co., Charlotte, 13.89%; Park & Pollard Grain Co., Chester Depot, 17.31%. Three samples below protein guaranty but within tolerance limits. Average seven samples 19.45%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore 32 Supplement. 32/4/8*. Five samples, one below protein guaranty (32%). Stock of McIndoes Cash Grain Store, McIndoes, 28.87%. One sample below protein guaranty but within tolerance limits. Average five samples 31.95%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore 25% Balanced. 25/5/9*. One sample below protein guaranty (25%). Stock of Frank Adams & Co., Bellows Falls, 23.97%.
- CHAS. M. SEAVER & Co., Williamstown, Vt. *Vim—20%*. 20/4/12. One sample below protein guaranty (20%). Stock of Chas. M. Seaver & Co., Williamstown, 19.41%. Also below fat guaranty but within tolerance limits.
- J. G. TURNBULL Co., Orleans, Vt. *Turnbull's Special. 20/3.5/12*. Two samples, one below protein guaranty (20%). Stock of J. G. Turnbull Co., Newport Center, 19.33%. Average two samples 19.81%.
- C. H. UTLEY, Hardwick, Vt. *VERI-BEST Balanced. 20/5/7.5*. One sample below fat guaranty (5%) and above fiber guaranty (7.5%). Stock of C. H. Utley, Hardwick, 4.27%; 8.06%.
- RAY P. WEBSTER, Barton, Vt. *Ray's Ready. 20/5/10*. One sample below fat guaranty (5%). Stock of Ray P. Webster, Barton, 4.27%.

MEAT SCRAPS

- CONSOLIDATED RENDERING Co., Boston, Mass. *Corenco 55%*. 55/6/—. One sample below protein guaranty (55%). Stock of R. G. Whitman, North Bennington, 52.32%.

SCRATCH FEED

- S. E. SMITH ESTATE, West Rutland, Vt. *Smith Estate Blue Ribbon. 11/3.5/4*. One sample below protein guaranty (11%). Stock of S. E. Smith Estate, West Rutland, 10.39%. Also below fat guaranty but within tolerance limits.

MASHES, GROWING FEEDS, ETC.

- PARK & POLLARD Co., Buffalo, N. Y. *Manamar Complete Ration. 16/3.5/6*. Average seven samples above fiber guaranty (6%); found 6.46%.
- PARK & POLLARD Co., Buffalo, N. Y. *Manamar Lay or Bust. 18/3.5/6*. Average two samples above fiber guaranty (6%); found 7.51%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Laying. 20/4/7*. Ten samples, two below protein guaranty (20%). Stocks of Putnam Mills, Bennington, 19.33%; A. G. Greeley, Gassets, 17.93%. Average 10 samples 21.41%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Complete Chick and Broiler. 17.5/4/5.5*. Five samples, one below protein guaranty (17.5%). Stock of Nelson Warner Co., Springfield, 15.91%. Average five samples 19.17%.

¹In cases where one or more samples of a given brand proved deficient in its or their protein contents at the same time that others were within the tolerance limits or up to or above guaranty, and where the average figure was within tolerance limits or up to or above guaranty, the brand in question is listed both in this table as "failing to meet guaranty" (because some one or more of the samples was deficient and in the preceding table as "in all respects up to guaranty" (because on the basis of the average of the several analyses it was "up to guaranty"). A hypothetical case may be cited. Eighteen samples are analyzed and two are deficient. Hence the brand, because of these two, is listed here. But 16 of the 18 were as good as they were said to be, actually or essentially, and on the average the shortage was either almost infinitesimal or, indeed, actually nonexistent. Hence the brand is listed among those that passed muster. Every sample taken is analyzed for its protein content. All samples of a given brand are mixed, forming one analytical sample for the determination of its fat and fiber contents. Hence it is that no sample of a brand, showing material shortage in fat or overage in fiber is listed as "up to guaranty."

III. INGREDIENT STATEMENTS

The following pages set forth the ingredient contents of all brands of proprietary feeds which were sampled and analyzed as declared upon the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturer. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on the following pages.

Dairy feeds are listed alphabetically by manufacturer's names on pages 24 to 28; stock, horse, fitting, etc., feeds on pages 29 and 30; calf and hog feeds on pages 31 and 32; scratch grains, etc., on pages 33 and 34; mashes and other poultry feeds made of fine ingredients on pages 35 to 38.

Forty-seven of the 358 brands of proprietary feeds subjected to microscopic analysis were found to be not "*as certified*," being one in seven. They were distributed as follows: 21 dairy feeds, 2 stock, 4 calf and hog feeds, 10 scratch grains and 10 mashes. In only 16 brands was a declared ingredient "not detected," the missing ingredients including linseed meal, malt sprouts, barley, dried blood, dried yeast, milo maize, buckwheat, sunflower, potassium iodide, salt, copper sulphate and bicarbonate of soda. Some of these were presumably used in minute amounts and may not have been picked up by the sampling tube. Undeclared ingredients were found in 34 brands: alfalfa meal, ground barley, brewers' dried grains, corn meal, cottonseed meal, coconut oil meal, corn distillers' grains, corn gluten meal, linseed meal, oats, salt, wheat and whole weed seeds. Omissions and inclusions did no harm except in the case of the weed seeds, which were present in seven dairy and five scratch feeds.

Ground grain screenings were declared as an ingredient of the seven dairy feeds. Apparently in these cases the grinding was not thoroughly done. These seven brands were among the cheaper sorts for which considerable demand exists among buyers who look at price more than at quality. Unground screenings should never be used unless they have been so treated as to destroy weed seed viability. Even when ground, some weed seeds may escape destruction, in which case, unless sterilized, they may pass through the alimentary canal uninjured and be voided in the manure in excellent condition to grow a weed crop. Screenings were found to be present in 27 brands, whereas they were present in only 18 in the spring inspection. This represents a 50 percent increase. " 'Tis true, 'tis pity and pity 'tis 'tis true."

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linsed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Allied Mills, Inc.																								
Wayne Amco 32% Supplement†	32/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wayne Amco 24%†	24/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 24%	24/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wayne Amco 20%†	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 20%	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Empire 16½%	16.5/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. W. Bailey & Co.																								
Capital	24/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Sweetened Capital	24/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Favorite	20/4/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Sweetened Favorite	20/4/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Our 20 Special	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Berkshire Coal & Grain, Co., Inc.																								
Green Mountain	23/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Bethel Mills																								
Bethel Mills 24 Protein	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein	20/4.5/6.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Bethel Mills 20 Protein Sweetened	20/4.5/6.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Bethel Mills 20 Protein Sweetened Economy	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 16 Protein Pasture	16/4.2/9.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Black Rock Milling Corp.																								
Bidwell 24%	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.5
Bidwell 20%	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2.5
Chapin & Co.																								
Unicorn 24%	24/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Unicorn 20%	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Community Feed Stores, Inc.																								
Community 20	20/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. C. Crosby																								
Crosby's A Quality 20%†	20/5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Crosby's B Quality 20%†	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11
Danville Grain Co., Inc.																								
Danville 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Davis Feed Co., Inc.																								
Vermont 20%	20/5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Davis 20% Kow Feed	20/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.11
H. W. Demick, Inc.																								
Beats 'Em All	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																								
Eastern States 32% Supplement†	32/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1.6
Eastern States Milkmore†	24/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1.6
Eastern States Fulpall†	20/4.5/8											*	*	*	*	*	*	*	*	*	*	*	*	1.6
Eastern States Highland 20†	20/4/8			*								*	*	*	*	*	*	*	*	*	*	*	*	1
Eastern States Sixteen†	16/4/8											*	*	*	*	*	*	*	*	*	*	*	*	1.6

† Open formula.

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DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Wirthmore 25 Balanced Sweetened	25/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Hygrade 24 Sweetened Milk	24/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Champlain Valley Emergency 24	24/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 20 Sweetened	20/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Utility	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Utility	20/3.5/11.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Hygrade 20 Sweetened Milk	20/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Champlain Valley Emergency 20	20/3.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 16 Sweetened	16/4/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Seabury Grain Co. Our Own Make 20%	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Our Own Make Special	18.5/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 8
C. M. Seaver & Co. Vim-20	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Honor Brand	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Henry A. Slayton & Co. Economy	20/3.75/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. A. Smith Smith's	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
S. E. Smith Estate Smith Estate 24%†	24/5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Smith Estate 20%	20/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
Smith Estate 18%†	18/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2
C. H. Stearns & Son Co. Stearnco All Grain 20% Milk	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Pioga-Empire Feed Mills, Inc. 20% Crematine	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 12, 15, 17, 18
I. G. Turnbull Co. Creamery	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Turnbull's Special	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 11
Frank Tyler Tyler's 20% Ready Mixed	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. H. Utley Veri-Best Balanced	20/5/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne County Grangers Feed Corp. 32% Reliance Supplemental	32/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 12, 13
Galen 24%†	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 20
Galen 24%†	24/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Superior 20%†	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 3, 5, 12, 13
Clyde 20%†	20/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Sweetened 16%†	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 12, 13

† Open formula.

DAIRY FEEDS—concluded

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grain	Gluten meal and feed	Hominy feed	Linseed meal	Malt grains	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Ray P. Webster																								
Ray's Ready	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc.																								
Super Pure Sweetfeed	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Special 20 Per Cent	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 22
W. S. Wright																								
Open Formula 20%	20/4.5/8																							1, 21

† Open formula.

Additional ingredients: 1. Soybean oil meal. 2. Barley. 3. Wheat. 4. Kelp. 5. Malt sprouts. 6. Dicalcium phosphate. 7. Copra oil meal. 8. Phosphatic limestone. 9. Corn feed meal. 10. Sea shells. 11. Rye feed. 12. Tricalcium phosphate. 13. Cocoa meal. 14. Dried ground fish. 15. Iodine, charcoal. 16. Iodized salt. 17. Palm kernel oil meal. 18. Peanut oil meal. 19. Corn germ meal. 20. Cocoa oil meal. 21. Union minerals (bone black, calcium carbonate, sodium chlorid; charcoal, fenugreek, potassium iodide). 22. Rye distillers' grains.

The dairy feeds were found to be "as certified" with few exceptions. In the following instance, the ingredient was "not detected":

Elmore Milling Co., Elmore Milk Grains Junior Sweet: Malt sprouts.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Danville Grain Co., Danville 20%: Ground barley.

Eastern States Farmers Exchange, Eastern States 32 Supplement: Ground oats.

Elmore Milling Co., Granger 24%: Brewers' dried grains, corn meal and occasional whole weed seeds.

Elmore Milling Co., Granger 20%: Brewers' dried grains, cocoanut oil meal.

Elmore Milling Co., Granger 16%: Corn meal.

J. W. Eshelman & Sons, Eshelman Challenge: Few whole weed seeds.

J. W. Eshelman & Sons, Eshelman Conestoga 20: Few whole weed seeds.

J. W. Eshelman & Sons, Eshelman Pennsy 16: Many whole weed seeds.

D. H. Grandin Milling Co., Economy 16% Sweetened: Cottonseed meal, linseed meal, few whole weed seeds.

E. T. & H. K. Ide, Ide's Special: Ground barley.

Maritime Milling Co., Real Value 20%: Occasional whole weed seeds.

Maritime Milling Co., B-B Marmico 16% Protein with Molasses: Linseed meal, occasional whole weed seeds.

G. Q. Moon & Co., Inc., U. S. 24%: Linseed meal.

E. G. & A. W. Norton, Kow Feed: Brewers' dried grains.

H. A. Slayton & Co., Economy: Brewers' dried grains.

C. A. Smith, Smith's: Corn meal.

S. E. Smith Est., Smith Estate 20%: Brewers' dried grains.

J. G. Turnbull Co., Creamery: Brewers' dried grains.

J. G. Turnbull Co., Turnbull's Special: Brewers' dried grains.

Frank Tyler, Tyler's 20% Ready Mixed: Corn distillers' dried grains.

Forty-two ingredients were used in making the 138 brands of dairy feeds sampled. Cottonseed meal and salt appear in all but two; bran and gluten meal or feed in nine-tenths or more; calcium carbonate and molasses in eight-tenths; corn meal and linseed meal in seven-tenths; soybean meal in six-tenths; wheat middlings in five-tenths; ground oats, hominy feed, bone meal, brewers' dried grains and corn distillers' dried grains in four-tenths; and barley, oat mill feed and screenings in one-tenth.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Horniny feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog		
	Protein	Fat	Fiber																			
Allied Mills, Inc.																						
Wayne Rabbit	13/3/11	*	*	*	*								*	*							9, 12, 18, 19, 20, 21	
Wayne Amco 12% Fitting	12/3/9	*	*	*								*	*	*	*	*					9	
June Pasture	10/0.5/21	*										*										
Wayne Supreme Horse	9.5/3/8								*			*	*	*	*	*						
Empire Stock	9/3/12					*	*					*	*	*	*	*					4	
E. W. Bailey & Co.																						
"Bailey's" Pasture	15.5/3.75/10				*	*	*		*	*	*	*	*	*	*	*					4, 7	
Sweetened Bailey's Fitting	14/4/9				*	*				*	*	*	*	*	*	*						
Pennant Horse	10.75/3.5/6.5								*		*	*	*	*	*	*						
Sweetened with Molasses									*		*	*	*	*	*	*						
Pennant Brand Stock	9.5/4/9.5	*							*		*	*	*	*	*	*						
Eastern States Farmers' Exchange																						
Eastern States Highland 12†	12/3.5/10.5				*	*			*	*	*	*	*	*	*	*					9, 14	
Eastern States Fitting†	12/3.5/7				*				*	*	*	*	*	*	*	*					2, 9	
Eastern States Horse and Calf†	10.5/3.5/7								*	*	*	*	*	*	*	*					2	
Eastern States Horse†	10.5/3.5/7								*	*	*	*	*	*	*	*					2	
Eastern States Succulence†	10/1.5/14.5	*							*	*							*					3
Elmore Milling Co., Inc.																						
Sugared Feedall	10/3/18	*	*	*	*				*	*	*	*	*	*	*	*					*	
Elmore Stock	10/3/12	*							*		*	*	*	*	*	*						
Elmore Horse with Molasses	9/2.5/11	*							*		*	*	*	*	*							
John W. Eshelman & Sons																						
Eshelman Red Rose Fitting	12/3.5/7	*	*	*					*	*	*	*	*	*	*	*						
Eshelman S-O-S	11/2/15	*	*	*					*		*	*	*	*	*	*					3, 4	
Eshelman Steam-Cooked Horse	9/4/6				*				*		*	*	*	*	*							
Eshelman Conestoga Horse	9/3/10				*				*		*	*	*	*	*							
Eshelman Red Rose 85 Horse	9/3/10	*							*		*	*	*	*	*							
D. H. Grandin Milling Co.																						
Grandin's Sweetened Horse	9.5/3.5/11	*							*		*	*	*	*	*							
Grandin's Stock	8.5/4/12	*			*				*		*	*	*	*	*					*	5	
E. T. & H. K. Ide																						
Ideal Fitting	12/4/10				*	*					*	*	*	*	*							
Imperial Grain & Milling Co.																						
Imperial Steam Cooked	9.5/4/4.6				*				*		*	*	*	*	*							
Kasco Mills, Inc.																						
Kasco Horse	9/3/10	*							*		*	*	*	*	*							
Maritime Milling Co., Inc.																						
B-B Dealers' Mixing with Molasses	10/3.5/12				*				*		*	*	*	*	*					*		

†Open formula.

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STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																	
Park & Pollard Co., Fitting	12/3.5/7				*	*				*	*	*	*	*	*	*	*		6
Manamar Fitting	12/3.5/7				*	*				*	*	*	*	*	*	*	*		1, 6, 8
Park & Pollard Horse	10/3.5/9							*		*	*	*	*	*	*	*	*		
Yankee Horse	10/3.5/9							*		*	*	*	*	*	*	*	*		
Quaker Oats Co. Quaker Sugared Schumacher	10/3/12		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		11
Quaker Green Cross Horse	10/2.5/12	*					*	*	*	*	*	*	*	*	*	*	*		
Ralston Purina Co. Heifer Growing Chow	14/2.5/14	*					*	*	*	*	*	*	*	*	*	*	*		9, 10
Purina Fitting Chow	13.5/2.6/12	*					*	*	*	*	*	*	*	*	*	*	*		9, 10
Purina Rabbit Chow	13.5/2.5/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		9, 10, 16, 17
Purina Bulky Omolene	10/3.2/11						*	*	*	*	*	*	*	*	*	*	*		10
Purina Omolene	10/3.2/9	*					*	*	*	*	*	*	*	*	*	*	*		10
Purina Bulky Las Chow (Buffalo Mill)	9/1.3/15	*					*	*	*	*	*	*	*	*	*	*	*		3, 10
Protena Sweet Feed "D"	6/1/25	*					*	*	*	*	*	*	*	*	*	*	*		
St. Albans Grain Co. Wirthmore 14 Fitting	14/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		6, 13
Wirthmore Rabbit	14/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		7, 12, 13, 15
Utility Pasture	14/3/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		4, 7
Hygrade Fitting	12/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		9
Wirthmore Fodder Greens	10/3/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		3, 4
Wirthmore Horse	9.8/3.25/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Hygrade Horse	9.5/3.25/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Wirthmore Stock	9/4/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Ubiko Milling Co. Crusader Horse	9/3/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Wayne County Grangers Feed Corp. Universal Horse	10/3/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
West-Nesbitt, Inc. Pure Feed Horse	9/3/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		

Additional ingredients: 1. Kelp. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Sea shells. 9. Soybean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skim milk. 13. Cod-liver oil. 14. Distillers' dried grains. 15. Cracked wheat. 16. Wheat germ. 17. Corn germ meal. 18. Dried buttermilk. 19. Ground wheat. 20. Iron oxide and potassium iodide. 21. Sardine oil.

The stock feeds were found to be "as certified" with a few exceptions.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Allied Mills, Inc., Wayne Amco 12% Fitting: Ground barley, ground wheat, alfalfa meal.

St. Albans Grain Co., Hygrade Fittings: Corn gluten meal.

Thirty-eight ingredients were used in making the 52 brands of stock feed, etc., sampled. Molasses appears in nine-tenths; oats in eight-tenths; salt in seven-tenths; wheat bran, linseed meal in five tenths; corn meal, alfalfa meal, and cracked corn in four-tenths; calcium carbonate in three-tenths; hominy feed, barley, oat mill feed and bone meal in two-tenths; and wheat middlings in one-tenth.

CALF MEALS, HOG FEEDS

Albers Bros. Milling Co., Calf Manna. 25/4/5. Powdered skim milk, oat meal, ground corn, soluble meat extract, linseed meal, ground hulled barley, ground wheat, wheat shorts, sugar, soy bean meal, coconut oil meal, cod liver oil, anise, calcium carbonate 1%, iodized salt 1%, steamed bone meal 1%, oyster shell meal 1%.

Allied Mills, Inc., Wayne Calf Meal. 24/4/7. Dried skim milk, cottonseed meal, corn gluten meal, coconut oil meal, wheat bran, wheat middlings, soy bean meal, 2% limestone, 1% steamed bone meal, 1% salt, 0.06% iron oxide, 0.0007% potassium iodide, cane molasses, wheat reddog.

Allied Mills, Inc., Wayne Pig Meal. 18/3.5/7. Digester tankage, fish meal, peanut oil meal, cottonseed meal, soy bean meal, wheat flour middlings, corn meal, alfalfa meal, oatmeal, molasses, limestone, 0.5% bone, 0.04% iron oxide, 0.5% salt, 0.0005% potassium iodide, 0.0005% copper sulphate.

Allied Mills, Inc., Emergency Hog Feed. 14/3.5/7. Digester tankage, corn meal, wheat middlings, alfalfa meal, cane molasses, 1% limestone, 0.02% iron oxide, 0.5% steamed bone meal, 0.0005% potassium iodide, 0.0005% copper sulphate, 1% salt, oats.

Blatchford Calf Meal Co., Blatchford's Calf Meal. 24/5/6.75. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, linseed meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate, wheat flour, coconut oil meal, cottonseed meal, fenugreek, anise, salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula). 23/3.5/4. Rolled oat groats, corn meal, wheat bran, linseed meal, blood flour, dried skim milk, dicalcium phosphate, salt.

Eastern States Farmers' Exchange, Eastern States Hog Meal (Open Formula). 14.5/4/5.5. Corn meal, meat scraps, wheat flour middlings, linseed meal, alfalfa leaf meal, dicalcium phosphate, calcium carbonate, salt.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal. 24/4/4. Wheat reddog, corn meal or corn feed meal, oatmeal, linseed meal, malted barley, blood meal, dried buttermilk, bone meal, salt.

Elmore Milling Co., Inc., Elmore's Makemgrow Little Pig Ration. 18/4.5/7. Wheat middlings, corn feed meal or hominy feed, linseed meal, wheat reddog, tankage, salt.

Elmore Milling Co., Inc., Elmore's Hog Ration. 15/5/6. Wheat middlings, linseed meal, corn meal, corn feed meal or hominy, tankage, salt.

John W. Eshelman & Sons, Eshelman Red Rose Calf Starter. 18/3/5. Wheat feed, linseed meal, wheat middlings, wheat flour, oatmeal, kaffir corn, blood flour, 2% flaxseed.

John W. Eshelman & Sons, Red Rose Hog Meal. 16/5/10. Wheat middlings, corn feed meal, digester tankage, wheat bran, 3% bone meal, 2% fish meal, 2% linseed meal, 2% charcoal, reground grain screenings, 1% calcium carbonate, 1% salt.

Larroe Milling Co., Larro Pork-Maker. 25/5/10. Meat scraps, dried beet pulp, linseed meal, wheat standard middlings, alfalfa meal, wheat bran, 3% limestone, 1% salt, soy bean meal.

Larroe Milling Co., Larro Calf Meal. 23/4/4. Oatmeal, wheat standard middlings, corn meal, linseed meal, blood flour, dried skim milk, cod liver oil vitamin extract, 0.5% limestone, 0.75% salt.

Larroe Milling Co., Larro Pig Feed. 16/4/6. Wheat bran, corn meal, wheat standard middlings, meat and bone scraps, linseed meal, soy bean meal, alfalfa, dried beet pulp, 1¼% limestone, 1% salt.

Park & Pollard Co., Milkade Calf Meal. 20/7/65. Ground malt, linseed meal, corn meal, wheat bran, wheat flour, coconut oil meal, bone meal 1%, rice polish, wheat middlings, sesame oil meal, blood flour 3%, limestone, fenugreek, anise, salt.

Park & Pollard Co., Go Tu It Pig & Hog Ration. 15/3.5/8. Alfalfa meal, hominy, barley, fish meal, meat meal, bone meal, corn meal, corn germ meal, wheat middlings, ground grain screenings, calcium carbonate, salt.

Quaker Oats Co., Schumacher Calf Meal. 18/7/4. Oatmeal, ground flaxseed, ground puffed wheat, linseed meal, dried skim milk, blood flour, 0.50% bicarbonate of soda, 0.75% salt, 1% ground limestone, 1% bone meal.

Ralston Purina Co., Purina Calf Starting Chow. 23/3.2/7. Dried skim-milk, linseed meal, soy bean meal, fish meal, blood flour, alfalfa meal, oats, wheat middlings, corn meal, molasses, 1% calcium carbonate, 1% iodized salt.

Ralston Purina Co., Purina Hog Fatena Chow. 14/3/7. Tankage, linseed meal, corn germ meal, alfalfa leaf meal, wheat middlings, hominy, molasses, alfalfa meal, 2% iodized salt, 1% charcoal.

Ryde & Co., Ryde's Cream Quality Calf Meal. 18.5/4/4. Blood meal, dried skim milk, locust bean meal, barley malt flour, crude milk albumen, linseed meal, cocoanut oil meal, oat groats, corn meal, ground flaxseed, wheat flour, wheat flour middlings, fenugreek, anise, steamed bone meal, calcium carbonate, salt.

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skim milk, oatmeal, ground flaxseed, blood flour, linseed meal, wheat reddog, corn meal, bone meal, iodized salt, anise, fenugreek, cod liver oil.

St. Albans Grain Co., Wirthmore Pig and Hog Feed. 17/4/9. Meat scraps, fish meal, bone meal, wheat reddog, wheat middlings, wheat bran, linseed meal, alfalfa meal, corn meal, ground barley, corn gluten feed, calcium carbonate, cane molasses, dairy salt.

The calf and hog meals with a few exceptions were found to be "as certified."

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne Calf: Potassium iodide.

Allied Mills, Inc., Wayne Pig: Copper sulphate.

Quaker Oats Co., Schumacher Calf: Bicarbonate of soda.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Allen Brothers, Calf Manna: Iron oxide.

Allied Mills, Inc., Wayne Pig: Linseed meal, ground wheat.

There were 43 ingredients used in the 12 brands of calf meals sampled. Salt and linseed meal appear in 11; blood flour in 10; oat meal in 9; dried skim milk and corn meal in 8; wheat middlings, bone meal and calcium carbonate in 7; ground flax in 5; and wheat flour in 4.

There were 29 ingredients used in the 11 brands of pig and hog feeds sampled. Wheat middlings and salt appear in all; linseed meal, alfalfa meal and calcium carbonate in 8; corn meal in 7; bone meal in 6; meat meal in 5; hominy feed in 4; and fine ground grain screenings in 2.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS

Scratch Grains, etc.	Guaranty			Barley	Buckwheat	Cracked corn	Kafir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
	Protein	Fat	Fiber											
Allied Mills, Inc.														
Wayne Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Empire Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne Chick	9/2/4	*	*	*	*	*	*	*	*	*	*	*	*	*
E. W. Bailey & Co.														
Pennant Scratch	10/3/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Pennant Brand Coarse Chick	10/3/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Beacon Milling Co., Inc.														
Beacon Special Scratch	10/2/3.5	*	*	*	*	*	*	*	*	*	*	*	*	*
Beacon's Cayuga Scratch	9/2/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Black Rock Milling Corp.														
Bidwell Scratch	10/1.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Community Feed Store, Inc.														
Community Scratch	10/3/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Farmers' Exchange														
Eastern States Scratch (with whole corn)†	10.5/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	1
Eastern States Scratch (with coarse cracked corn)†	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Scratch 1931†	9.5/2.5/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Chick†	9.5/2/3	*	*	*	*	*	*	*	*	*	*	*	*	*
Elmore Milling Co., Inc.														
Elmore Scratch	10/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*
Emco Scratch	10/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*
Elmore Scratch	10/2.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*
Emco Scratch	10/2.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*
John W. Eshelman & Sons														
Eshelman Red Rose Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Eshelman Lancaster Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
First National Stores, Inc.														
Henfield Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
D. H. Grandin Milling Co.														
Economy Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Grandin's Screened Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Grandin's Intermediate Chick	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Grand Union Co.														
Peerless Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Great Atlantic & Pacific Tea Co.														
Daily Egg Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Talco Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
E. T. & H. K. Ide														
Ideal Scratch	10/3/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Kasco Mills, Inc.														
Kasco Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Larowe Milling Co.														
Larro Scratch	10/2/4	*	*	*	*	*	*	*	*	*	*	*	*	*
Larro Growing	10/2/4	*	*	*	*	*	*	*	*	*	*	*	*	*
R. H. McEwen Milling Co.														
McEwen's Red Feather Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*
Maritime Milling Co., Inc.														
B-B Daisy Scratch	9/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*

†Open formula.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE
OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty													
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kafir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat	Fish meal
Geo. Q. Moon & Co., Inc.														
Moon's Scratch	10/2/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Park & Pollard Co.														
Red Ribbon Scratch	10/3/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Paramount Scratch	10/2.5/5	•	•	•	•	•	•	•	•	•	•	•	•	•
Quaker Oats Co.														
Early Bird Fine Chick, No Grit	10/2/2	•	•	•	•	•	•	•	•	•	•	•	•	•
Big Egg Scratch, No grit	9.5/2/3.5	•	•	•	•	•	•	•	•	•	•	•	•	•
Quaker Ful-O-Pep Scratch	9/2/3	•	•	•	•	•	•	•	•	•	•	•	•	•
Ralston Purina Co.														
Purina Hen Chow	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Purina Chick Chow (Coarse)	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Purina Chick Chow (Fine)	10/2/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Protena Scratch (Buffalo Mill)	9.5/2/4	•	•	•	•	•	•	•	•	•	•	•	•	•
St. Albans Grain Co.														
Wirthmore Scratch	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Mornin' Call Poultry	10/2.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Wirthmore Intermediate Scratch	10/2.5/3.5	•	•	•	•	•	•	•	•	•	•	•	•	•
S. E. Smith Estate														
Smith Estate Blue Ribbon Scratch	11/3.5/4	•	•	•	•	•	•	•	•	•	•	•	•	•
Wayne County Grangers Feed Corp.														
Grange Superior Scratch	10/3/6	•	•	•	•	•	•	•	•	•	•	•	•	•
West-Nesbitt, Inc.														
Pure Feed Scratch	10/3.5/5	•	•	•	•	•	•	•	•	•	•	•	•	•

Additional ingredients: 1. Whole corn.

The scratch feeds with a few exceptions were found to be "as certified." In the following instances the ingredients named were "not detected":

First National Stores, Inc., Henfeed Scratch: Milo maize.
Grand Union Co., Peerless Scratch: Buckwheat.
G. Q. Moon Co., Inc., Moon's Scratch: Sunflower seed.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Beacon Milling Co., Beacon's Special Scratch: Few whole weed seeds.
Beacon Milling Co., Beacon's Cayuga Scratch: Few whole weed seeds.
Elmore Milling Co., Emco Scratch: Oats.
First National Stores, Inc., Henfeed Scratch: Oats.
E. T. & H. K. Ide, Ideal Scratch: Few whole weed seeds.
G. Q. Moon Co., Inc., Moon's Scratch: Few whole weed seeds.
Park & Pollard Co., Paramount Scratch: Oats.
St. Albans Grain Co., Wirthmore Intermediate Scratch: Few whole weed seeds.
West-Nesbitt, Inc., Pure Feed Scratch: Oats.

Twelve ingredients were used in making the 48 brands of scratch feeds, etc., sampled. Corn and wheat were used in all; barley and buckwheat in seven-tenths; oats and kafir corn in five-tenths; and milo maize and sunflower in four-tenths.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Allied Mills, Inc.																						
Wayne Concentrate	32/4/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 33
Wayne 26% Supplement†	26/4/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4, 26
Wayne Breeder	18/4/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 6, 7, 26
Wayne Egg	18/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne Egg||	18/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26
Wayne Chick Starter||	17/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26
Empire Egg	16.5/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Empire Egg||	16.5/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 26
Wayne Growing||	16/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26
Empire Starter and Grower	16/3.5/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne Turkey	15/3.5/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 5
Wayne Poultry Fattener	13.5/3.5/8							*					*	*	*	*	*	*	*	*	*	6
E. W. Bailey & Co.																						
Pennant Brand Laying	20/5/6	*						*				*	*	*	*	*	*	*	*	*	*	1
Pennant Brand Laying†§	20/5/6	*						*				*	*	*	*	*	*	*	*	*	*	1, 4, 20
Pennant Brand Growing	15/5/5	*					*				*	*	*	*	*	*	*	*	*	*	*	1, 4, 5, 20
Beacon Milling Co., Inc.																						
Beacon Breeders*	20/4/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 16, 34, 35
Beacon's Cayuga Laying*	20/4/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 16, 34
Beacon CC Pellets	18/1/5	*						*				*	*	*	*	*	*	*	*	*	*	1, 34
Beacon Complete Starting	17.5/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16, 34
Beacon Fleshing Pellets	15/4/5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16, 18, 21, 34
Black Rock Milling Corp.																						
Bidwell Dry	18/3/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Chapin & Co.																						
Chapin's Start All Kernels	21/5/4.5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9, 13, 18, 21
Lay All Chapin Kernels	20/3.5/5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 9, 13, 18, 21
Community Feed Stores, Inc.																						
Community Milk Laying	20/4/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 20
Eastern States Farmers' Exchange																						
Eastern States Producer 20†	20/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 11, 24, 26
Eastern States Developer†	18.5/4/6.5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 11, 24, 26
Eastern States Starter and Broiler†	18.5/4/5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24, 26
Eastern States Producer†	17/4/6.5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24, 26
Eastern States Egg†	17/4/6.5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	11, 24, 26
Eastern States Turkey Fat†	16/3.5/5	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11, 24

* With buttermilk. † Open formula. ‡ With cod-liver oil. || With sardine oil. § With cod-

MASHERS AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																			
Eastern States Farmers' Exchange—continued																					
Eastern States Combination†	15/4/6.5	*							*	*				*	*	*	*	*	*		1, 11, 24, 26
Eastern States Fattener†	14.5/4.5/4.5								*						*	*		*	*		1, 2, 18
Elmore Milling Co., Inc.																					
Turkey Starting	24/4/6	*	*						*	*				*	*	*	*	*	*	*	1, 2, 4
Elmore Egg	18/4/8	*				*	*	*	*	*			*	*	*	*	*	*	*	*	4, 21
Elmore Eggmaker	17/4.5/8	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	
Elmore Complete Laying	16/4/6	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	1, 4
John W. Eshelman & Sons																					
Eshelman Red Rose Laying	20/5/7	*				*	*	*	*	*			*	*	*	*	*	*	*	*	
Eshelman Red Rose Laying†	20/5/7	*				*	*	*	*	*			*	*	*	*	*	*	*	*	4
Eshelman Red Rose Chick Starter	15/4/6	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	4
First National Stores, Inc.																					
Henfield Egg	20/5/7	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	4
D. H. Grandin Milling Co.																					
Grandin's Laying*†	20/4/8	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	4
Grandin's Complete Laying	15/4/7	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	4
Grandin's Poultry Green Food	10/1/25	*																			9, 15
Grand Union Co.																					
Peerless Laying	20/4/7	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	4
Great Atlantic & Pacific Tea Co.																					
Daily Egg	20/4.5/7	*	*	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 3, 4, 20
E. T. & H. K. Ide																					
Ideal Egg	19/4.5/5.5	*	*						*	*			*	*	*	*	*	*	*	*	1, 4, 11, 24
Jersee Co.																					
Just Right Egg 18%	18/5/8	*							*	*			*	*	*	*	*	*	*	*	1, 4, 5, 8, 11, 12, 14, 27, 28, 29, 30, 31
Kasco Mills, Inc.																					
Apex Laying	20/4/8.5	*	*						*	*			*	*	*	*	*	*	*	*	1, 2, 4, 12
Larroe Milling Co.																					
Larro Turkey Grower	24/4.5/6.5	*	*	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4
Larro Egg	19/4/7.5	*	*	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4
Larro Growing	16/4/7.5	*	*	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4
R. H. McEwen Milling Co.																					
McEwen's Red Feather Egg	20/4/9	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	9
Maritime Milling Co., Inc.																					
Dollar\$Maker Egg Vitamized†*	17/3.5/9	*	*	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	2, 4
B-B Bull Brand All-Mash Laying Vitamized†*	15/4/7	*	*			*	*	*	*	*			*	*	*	*	*	*	*	*	2, 4, 12
Geo. Q. Moon & Co., Inc.																					
Moon's Laying Mash*†	20/4/9	*	*	*	*	*	*	*	*	*			*	*	*	*	*	*	*	*	4, 16

* With buttermilk. † Open formula. ‡ With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Park & Pollard Co.																						
Manamar Lay or Bust	18/3.5/6	*					*	*	*					*	*	*	*	*	*	*		4, 10, 23
Manamar Starting and Broiler	18/3.5/6	*					*	*	*					*	*	*	*	*	*	*		4, 10, 23
Lay or Bust Dry	18/3/7	*	*				*	*	*					*	*	*	*	*	*	*		2, 17
Lay or Bust Dry†	18/3/7	*	*				*	*	*					*	*	*	*	*	*	*		2, 4, 17
All-In-One Starting	17/3.5/5	*	*				*	*	*					*	*	*	*	*	*	*		4
Manamar Complete	16/3.5/6	*					*	*	*					*	*	*	*	*	*	*		4, 10, 23
Quaker Oats Co.																						
Quaker Ful-O-Pep Egg	20/4.5/8	**					*						*	*	*	*	*	*	*	*		1, 9, 20, 26
Quaker Ful-O-Pep Growing	19/5/6	**					*						*	*	*	*	*	*	*	*		1, 9, 20, 26
Big Egg Laying	18/4/8	*					*						*	*	*	*	*	*	*	*		1, 9, 26
Quaker Ful-O-Pep Chick Starter	17/5/7	*					*						*	*	*	*	*	*	*	*		1, 9, 20, 26
Ralston Purina Co.																						
Purina Turkey Growing and Fattening Chow	21/3.5/8	*					*							*	*	*	*	*	*	*		2, 9, 14
Purina Egg Chowder	19/3.5/8	*					*	*						*	*	*	*	*	*	*		2, 6, 14
Purina Egg Chowder†	19/3.5/8	*					*	*						*	*	*	*	*	*	*		2, 4, 6, 14, 26
Purina Breeder Egg Chowder	19/3.5/8	*					*	*	*					*	*	*	*	*	*	*		2, 4, 6, 14, 26
Purina Lay Chow	19/3.5/8	*					*	*						*	*	*	*	*	*	*		2, 6, 9, 14
Purina Lay Chow†	19/3.5/8	*					*	*						*	*	*	*	*	*	*		2, 4, 6, 9, 14, 26
Purina Broiler Chow	18/4/7	*					*	*	*	*				*	*	*	*	*	*	*		4, 14, 26
Purina Chick Startena Chow	18/4/7	*					*	*	*	*				*	*	*	*	*	*	*		4, 6, 14, 22, 25, 26
Purina Growing Chow†	17/3.5/7	*					*	*	*	*				*	*	*	*	*	*	*		2, 4, 6, 14, 22, 26
Purina Layena	15.5/3.5/8	*					*	*	*					*	*	*	*	*	*	*		2, 4, 14, 15, 26
Purina Chick Growena	15/3.5/7	*					*	*	*	*				*	*	*	*	*	*	*		2, 4, 14, 15, 22, 26
St. Albans Grain Co.																						
Wirthmore Breeder	20/4.5/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 6, 12
Wirthmore Turkey Growing	20/4/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 12
Wirthmore Laying	20/4/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 12
Wirthmore Laying†	20/4/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 12
Wirthmore Baby Chick Starter†	18/4/5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 6, 12, 20
Wirthmore Complete Chick and Broiler	17.5/4/5.5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 12
Wirthmore Turkey Fattening	16/4.5/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 12
Wirthmore Pellets	15/4.5/6.5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 6, 9
Wirthmore Growing	15/4.5/6	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 12
Wirthmore Growing†	15/4.5/6	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 12
Wirthmore Flashing and Fattening	15/4.5/6	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 12

* With buttermilk. † With cod-liver oil. ° Milk sugar feed (dried whey).

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—concluded

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
St. Albans Grain Co.—continued																						
Wirthmore Complete Laying	15/4/5	*								*	*	*				*	*	*	*	*	*	1, 4, 12
Wirthmore Complete Growing	14/3.75/6		**							*	*	*				*	*	*	*	*	*	1, 4, 12
S. E. Smith Estate																						
Smith Estate Egg Producer	18/4.5/7	*								*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Ubiko Milling Co.																						
Ubiko Egg	20/4/6	*								*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 11, 12, 19
Ubiko All-Mash Starter	18/4/5	*								*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 5, 12, 19
Ubiko All-Mash Complete Laying	16/3.5/6	*								*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 11, 19
Wayne County Grangers Feed Corp.																						
Superior Laying*†	18/4/7		***							*	*	*	*	*	*	*	*	*	*	*	*	4, 32
Ray P. Webster																						
Storr's† Egg‡	15/4/7	*								*	*	*	*	*	*	*	*	*	*	*	*	4
West-Nesbitt, Inc.																						
Pure Feed Special Egg	18/4/7	*	*							*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Pure Feed Egg	18/5/7	*	*							*	*	*	*	*	*	*	*	*	*	*	*	1, 4

* With buttermilk. † Sic. ‡ With cod-liver oil.

Additional ingredients: 1. Dried skimmilk. 2. Soybean meal. 3. Iron oxide and potassium iodide. 4. Cod-liver oil. 5. Charcoal. 6. Corn germ meal. 7. Crab meal. 8. Yeast. 9. Molasses. 10. Kelp. 11. Dicalcium phosphate. 12. Milk sugar feed (dried whey). 13. Milo. 14. Iodized salt. 15. Dried beet pulp. 16. Calcium phosphate. 17. Kaffir corn. 18. Corn oil meal. 19. Copper sulphate. 20. Cod-liver meal. 21. Low-grade wheat flour. 22. Wheat germ. 23. Fish shells. 24. Oyster shell meal. 25. Oat middlings. 26. Sardine oil. 27. St. John's bread. 28. Starch. 29. Anise. 30. Dried blood. 31. Iron oxide. 32. Tricalcium phosphate. 33. Peanut meal. 34. Anti-rachitic oil. 35. Protozine (claimed to be an enzyme).

The mashes and other fine poultry feeds, with a few exceptions, were found to be "as certified."

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne 26 Mash Supplement with Cod-liver Oil and Sardine Oil, Wayne Chick Starter with Sardine Oil, Empire Starter and Grower: Potassium iodide.

Beacon Milling Co., Inc., Beacon Complete Starting, Beacon Fleshing Pellets: Linseed meal.

J. W. Eshelman & Sons, Eshelman Red Rose Chick Starter: Salt.

Jersee Co., Just Right Egg: Dried blood, dried yeast.

Park & Pollard Co., Lay or Bust Dry: Barley.

Ubiko Milling Co., Ubiko Egg: Copper sulphate.

In the following instance a small quantity of the ingredients named was found in addition to those certified:

S. E. Smith Est., Smith's Estate Egg Producer: Ground barley.

Fifty-four ingredients were used in making the 97 brands of mashes, etc., sampled. Alfalfa meal, meat, salt, wheat bran, corn meal and wheat middlings appear in nine-tenths or more; oats and either dried skimmilk or dried buttermilk in eight-tenths; calcium carbonate and either cod liver oil, cod liver meal or sardine oil in seven-tenths; fish meal in six-tenths; dried skimmilk in five-tenths; dried buttermilk and soybean meal in four-tenths;

IV. DEFICIENCIES 1930-1934

The following table lists brands which have been found more than once deficient in respect to guaranty maintenance during the 10 inspections from 1930 to 1934 inclusive. Failure to maintain guaranty does not imply inferiority but simply that the purveyor has not strictly kept his self-imposed promise—only this and nothing more.

DEFICIENCIES IN RESPECT TO NUTRIENT CONTENT

		Number of in- spection	O. K.	Deficient in		
				Pro- tein	Fat	Fiber
COTTONSEED AND LINSEED MEALS AND DISTILLERS' DRIED GRAINS						
E. T. Allen Co.	Empire 41% C. S. Meal	7	4	1	..	2
F. W. Brodé Co.	Owl 41% Prime C. S. Meal	5	3	1	..	2
Cairo Mill & Cake Co.	Miss Cairo 43% Prime C. S. Meal	5	3	2	..	..
S. P. Davis Co.	Goodluck Prime C. S. Meal	5	3	..	..	2
Sherwin-Williams Co.	Screwpress Oil Cake	8	6	2	..	1
Dewey Bros. Co.	Eagle 3D Dist. Grains	7	4	2	1	..
WHEAT OFFALS, ALFALFA MEALS, OATMEAL, OAT FEED						
Malted Cereal Co.	Maltex Cereal Feed	10	7	..	1	3
Northfield Milling Co.	Orient Mixed Feed	3	1	2	..	..
F. W. Stock & Sons	Superior Mixed Feed	5	3	2	1	..
Albers Bros. Milling Co.	Atlas Poultry Greens	3	1	..	..	2
Denver A. M. & P. Co.	Leafalfa Brand	6	4	2	..	..
Pecos Valley A. M. Co.	Pecos Special (alfalfa)	6	4	2	..	1
Urbana Mills	Alfalfa	2	..	..	1	2
J. A. Forrest	Aline Oatmeal	3	..	..	1	2
Quaker Oats Co.	Vim Feed	10	3	3	7	..
DAIRY FEEDS						
E. W. Bailey & Co.	Capital	9	5	1	3	..
Berkshire Coal & Grain Co.	Berkshire Hills Sweetened	5	1	..	..	4
Black Rock Milling Co.	Bidwell 24%	7	5	..	2	..
E. C. Crosby	A Quality 20%	6	3	..	3	..
Danville Grain Co.	24%	9	5	..	4	..
Elmore Milling Co.	Milk Grains Sweetened	9	4	..	5	..
	Sweet Digesto	10	6	..	..	4
J. W. Eshelman & Sons	Red Rose	9	6	..	3	..
Hales & Hunter Co.	Gold Flake	2	..	..	2	..
T. J. McGovern	Farm Relief 20%	8	6	..	2	..
Maritime Milling Co.	B.B. 24% Sweet	8	5	..	3	..
	Red-E-Mixt	2	..	..	2	..
G. Q. Moon & Co.	24%	8	6	..	2	..
	20% with Molasses	9	7	..	1	2
Morris Bros. Feed Co.	Morris Balanced	2	..	..	2	..
Plin Morse	Balanced	5	2	..	3	..
E. G. & A. W. Norton	Kow Feed	10	4	..	..	6
C. M. Seaver & Co.	Honor 24	8	1	..	7	..
	Vim 20%	4	2	2	1	..
J. D. Thompson Estate	Special 20%	6	4	..	2	..
Valley City Milling Co.	Rowena 20%	4	2	..	2	..
C. H. Utley	Veri-Best	7	5	..	1	2
Ray P. Webster	Ray's Ready Ration	10	3	..	7	..
West-Nesbitt Co.	Super-Pure	8	6	..	2	..

		Number of in- spection	O. K.	Deficient in		
				Pro- tein	Fat	Fiber
STOCK, ETC., FEEDS, CALF FEEDS						
Elmore Milling Co., Inc.	Stock	4	2	1	..	1
Hales & Hunter Co.	Red Horn Calf	4	1	3	..	..
Imperial Grain & Mill Co.	Imperial Steam Cooked	10	8	..	..	2
Park & Pollard Co.	Milkaid Calf	8	6	..	2	..
Quaker Oats Co.	Sugared Vim	4	2	1	1	..
Ryde & Co.	Cream Quality Calf	10	8	..	2	..
PACKINGHOUSE PRODUCTS						
Consolidated Rendering Co.	Corenco Bone Meal	9	6	..	3	..
John Reardon & Sons	Register Meat Scraps	6	3	3	..	..
St. Albans Grain Co.	Hygrade Bone Meal	4	1	..	3	..
POULTRY FEEDS						
Allied Mills	Universal Scratch	3	1	..	2	..
	Wayne Turkey Mash	6	4	..	..	2
E. W. Bailey & Co.	Pennant Growing Mash	6	4	..	2	..
Elmore Milling Co.	Elmore Scratch	10	6	..	4	..
	Emco Scratch	7	3	1	3	..
Hales & Hunter Co.	Red Comb Growing Mash	9	7	..	..	2
E. T. & H. K. Ide	Ideal Scratch	10	8	..	2	..
	Ideal B. M. Egg Mash	7	5	1	1	..
G. Q. Moon & Co.	Baby Chick	3	..	..	3	..
St. Albans Grain Co.	Turkey Starter	4	2	1	1	..
S. E. Smith Estate	Blue Ribbon Scratch	3	1	1	1	..
West-Nesbitt Co.	Pure Feed Scratch	4	1	..	3	..

It is again emphasized that a failure to maintain guaranty does not of necessity imply inferiority. Occasional lapses occur concerning which no serious objection can be raised; but when a feed manufacturer consistently overguarantees his goods, there seems reason for raising the question why he does not lower his claims. Manufacturers located outside of state borders are beyond the reach of a state law. However, local dealers who sell their goods are not beyond its reach and by its terms are made equally liable with the original manufacturer. The Station has very rarely invoked the penal sections of the law in respect to failure to maintain guaranties, but it does not follow that it will be forever lenient in this respect. Hence a careful scrutiny of this table by local dealers may be a wise procedure.

DEFICIENCIES IN RESPECT TO INGREDIENTS CONTENT

A failure to supply as much of a given nutrient as is promised is not the only sort of shortage that may occur. A feed manufacturer may omit from his mixture an ingredient which he promises to use or, on the other hand, may add some one or more ingredients which he does not state he uses. He may, for example, leave out of his mixture distillers' dried grains which he says he uses, or he may run in some alfalfa meal which he fails to declare.

The microscopist during the 10 inspections 1930 to 1934 found 25 instances among dairy feeds wherein a claimed ingredient was "not detected" (salt and calcium carbonate excluded).¹ Twenty of these cases have to do with eight brands, five twice, two thrice, one four times. The undetected ingredient was bone meal¹ in five cases, and in the other three malt sprouts, fish meal and distillers' dried grains. These eight brands have been found on sale quite constantly throughout the five years. The malt sprouts were found to be present five times out of nine; the distillers' dried grains six times out of eight; the fish meal found seven times out of nine; the bone meal four times out of six, four times out of seven, seven times out of nine, four times out of seven and four times out of six. Bone meal is always used in very small quantities, 10 to 20 pounds to a ton. It is not easy to find so small an amount of a relatively heavy constituent which tends mechanically to separate in the bag. Malt sprouts also tend mechanically to separate from the other ingredients.

The average number of dairy brands tested was 133, the average number wherein some ingredients was "not detected" (exclusive of salt and calcium carbonate) $2\frac{1}{2}$. This amounts to only 2 percent of the entire number.

The extraneous ingredients, those found present by the microscopist but not declared by the manufacturer, are an interesting proposition. Except for the weed seeds they are good materials and their inclusion does no harm. They were found over and over again in the same goods in different inspections. For example, a local mixer put molasses into his feed for a year before he declared it on his label. Another local mixer's goods were found in several successive inspections to contain brewers' dried grains which, however, he did not admit he was using. He declared distillers' dried grains and apparently used both. This did no harm but was technically a violation of the law.

¹ Salt and ground limestone are cheap and doubtless always used when claimed; but the amounts used are very small. Furthermore these ingredients, as well as some others, especially bone meal, tend to sift to the bottom and outside of the bag and thus to escape the sampler's tube.

During the 10 inspections whole weed seeds in greater or less quantities were reported present in 54 cases. They tend to bunch, 21 in the goods of one company, 13 in those of another, 10 in those of another. It should be said that the seed analyst from time to time has tested the germination of whole weed seeds derived from feed samples and has rarely found them viable to any considerable extent; however, other things being equal, one hardly cares to buy weed seeds to feed cows. Sheep and poultry can handle them to advantage, but cows can not.

The situation with respect to horse and stock feeds is unlike that stated above. Promise and performance are rarely apart. One brand contained alfalfa in addition to the ingredients declared during two years. Weed seeds were not commonly found. Two manufacturers have at times used corn gluten meal without declaring it, which does no harm whatever.

Calf and hog meals were usually found to be "as certified." However, one calf feed lacked fish meal twice in 10 times, one hog meal twice in 10 times and one hog feed oats twice in six times, another oats twice in 10 times. One calf meal contained undeclared alfalfa meal¹ thrice in five inspections. A somewhat doubtful addition to a "little pig ration" was bran, which was found to be present twice in five times. Bran is not a desirable ingredient of such a ration.

Samples of scratch grains rarely lacked a declared ingredient. Sunflower seed was not found twice or thrice in nine or 10 inspections of three brands. The amount used is small, the seed large, its shape and smooth nature such as to encourage mechanical separation, its omission very evident to the buyer. Sunflower seeds were probably put into the mixture but escaped the sampling tube or the quartering process of subsampling. Kaffir corn and milo maize were sometimes "not detected." Tag or stencil statements often read "Kaffir corn or milo maize." Barley twice, buckwheat thrice, and cracked peas thrice were among those not present in three brands inspected from seven to 10 times.

Weed seeds were quite commonly found, loose dirt occasionally and small stones once. Undeclared oats were sometimes found. One manufacturer, whose name frequently appears in deficiency statements both in respect to failure to maintain guaranty and as regards ingredi-

¹ This purveyor's stock feed also contained undeclared alfalfa meal at the same three inspections. In other words, this concern bought and used alfalfa meal in their products and did not bother to say so either to the inspection agency or to those who bought its output. Alfalfa meal—if it is not alfalfa stem meal—is a recognized and desirable ingredient, but if it is used such use should be declared.

ent statements and contents, is much in evidence in respect to the use of undeclared but perfectly good ingredients in scratch feeds. One local mixer's scratch feed almost always contained weed seeds. Weed seeds can be used in poultry feeding with a fair degree of safety.

Mashes and fine poultry feeds are especially difficult materials to inspect microscopically. In five brands found on sale from four to 10 times single ingredients were not detected twice, namely bone, dried blood, fish and alfalfa meal. These lapses constitute only a minute fraction of the total number of certifications. Additional ingredients were few and were almost always good material. Weed seeds were found but rarely.

V. DISTILLERS' AND BREWERS' WET GRAINS

Since the repeal of the Eighteenth Amendment, the production of distillers' and brewers' grains has greatly increased. They are sold and used in both the wet and dry state. Distillers' dried grains are derived from the manufacture of alcohol and distilled liquors. Corn and rye are chiefly used, being treated with a solution of malt to convert starches to sugars which are changed into alcohol by yeast. After the alcohol is distilled from the mash, the residue is kiln-dried and sold as corn distillers' dried or rye distillers' dried grains as the case may be. The wet grains have been fed advantageously by farmers, but high transportation charges and spoilage have inhibited their use at a distance from the source of supply.

Brewers' dried grains are derived from the manufacture of beer. The residual material is usually kiln-dried prior to sale, but many breweries sell it in the original wet condition to nearby farmers. Henry and Morrison in "Feeds and Feeding" say concerning them that "owing to their volume, watery nature and perishable character, wet brewers' grains are usually fed near the brewery. Containing about 75 percent of water, they have slightly over one-fourth the feeding value of an equal weight of dried grains. Supplied in seasonal quantity, 20 to 30 pounds per head daily, and fed while fresh in clean, water-tight boxes and along with nutritious hay and other roughage, wet brewers' grains give good results with dairy cows. They are also good for fattening cattle and swine when used with dry feed and furnishing not over half the nutrients in the ration. On account of their 'washy' nature, horses should be fed not over 20 pounds per head daily and fattening sheep not over one pound daily per 100 pounds live weight."

Wet brewers' grains have been coming into Vermont of late, being trucked from breweries in adjoining states. They have been offered for sale in one case at \$12 per ton delivered. Two samples were collected by station sampling agents which contained about 7.7 percent of water, 6.9 percent protein, 1.2 percent fat, 4.0 percent of fiber. At this price the farmer who buys is paying \$12 for the equivalent of about 500 pounds of dried grains, or at the rate of \$48 per ton. Sixteen samples of dried brewers' grains were collected early in April, 1935, which averaged to cost about \$36 per ton. No Vermont farmer can afford to pay \$12 a ton for wet brewers' grains. Ordinarily only those who live near a brewery or who can do their own trucking at a low cost can afford to feed wet grains.

VI. CONCERNING SALES OF "SPECIAL MIXTURES"

"If a dealer mixes a feed on the order of the consumer who pays the dealer for the ingredients as such and also pays the dealer his charge for mixing the same, such mixture is held to be the consumer's and not the dealer's mixture, the latter acting only as the former's agent in making the mixture.

"Mixtures thus made are not subject to registration or license provided they are made solely from registered and licensed ingredients and are made solely upon consumer's orders for immediate delivery.

"Mixtures made by a dealer on his own account in advance or in anticipation of orders, to be stored upon the premises for sale in the usual course of business, must be registered, licensed, branded, and guaranteed."

This regulation has been in force since 1923, and is printed here to refresh the memories of the Vermont dealers who mix on order. Violations of this regulation have come to the attention of the writer within recent years. In some instances the dealer-mixer did not appreciate that he was breaking the law, but there seems reason to believe that this has not always been the case. Dealer-mixers should carefully note this regulation and be governed accordingly.

VII. DEFICIENCIES, 1923-1934

The following tables set forth the proportions of the total number of brands found deficient in recent inspections and the detailed results.

Spring 1923.....	22%	Winter 1923-24.....	11%
Spring 1924.....	16%	Winter 1924-25.....	10%
Spring 1925.....	16%	Winter 1925-26.....	13%
Spring 1926.....	13%	Winter 1926-27.....	10%
Spring 1927.....	8%	Winter 1927-28.....	9%
Spring 1928.....	18%	Winter 1928-29.....	9%
Spring 1929.....	7%	Winter 1929-30.....	6%
Spring 1930.....	9%	Winter 1930-31.....	7%
Spring 1931.....	8%	Winter 1931-32.....	4%
Spring 1932.....	3%	Winter 1932-33.....	5%
Spring 1933.....	8%	Winter 1933-34.....	5%
Spring 1934.....	4%	Winter 1934-35.....	5%

The showing has been very satisfactory for some years, except perhaps in the spring of 1933. Manufacturers as a whole are maintaining guaranties very well.

The following table sets forth the essential facts as to the trade in Vermont, each brand being taken as a unit, the number of samples and brands collected, the number of protein determination below guaranty and the nutrient deficiencies.

VIII. TABULAR SUMMATION, DECEMBER, 1934, INSPECTION

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	77	65	12	18	15	3	3	..	..	..	..	..
Soy bean meals	10	10	..	3	3	..	..	..	..	..	..	..
Linseed meals	51	50	1	14	14	..	..	..	..	..	..	..
Peanut meals	1	1	..	1	..	1	..	..	1	..	..	..
Gluten meals and feeds	79	79	..	10	..	..	..	..	..	..	..	..
Distillers' and brewers' dried grains	55	50	5	13	11	2	2	..	..	..	..	..
Wheat offals	315	314	1	88	87	1	1	..	..	..	..	..
Brans	122	122	..	32	32	..	..	..	..	..	..	..
Middlings	98	98	..	33	33	..	..	..	..	..	..	..
Mixed feeds	58	57	1	15	14	1	1	..	..	..	..	..
Reddog flours	37	37	..	8	8	..	..	..	..	..	..	..
Alfalfa meals	8	8	..	7	7	..	..	..	..	..	..	..
Dried beet pulps	28	28	..	2	2	..	..	..	..	..	..	..
Hominy feeds	13	13	..	8	7	1	..	1	..	..	..	..
Miscellaneous	42	27	15	12	9	3	1	1	..	..	..	*1
Proprietary feeds	1,344	1,332	12	358	344	14	4	2	6	..	..	2
Dairy	540	532	8	138	127	11	3	2	4	..	..	2
Stock, horse, etc.	258	258	..	52	52	..	..	..	..	..	..	..
Calf and hog	82	82	..	23	23	..	..	..	..	..	..	..
Poultry feeds	464	460	4	145	142	3	1	..	2	..	..	..
Scratch, chick	158	157	1	48	47	1	1	..	..	..	..	..
Mashea, growing	306	303	3	97	95	2	..	..	2	..	..	..
Meat scraps	13	12	1	10	9	1	1	..	..	..	..	..
Skimmilks and dried whey	13	13	..	6	6	..	..	..	..	..	..	..
Totals	2,049	2,002	47	550	524	26	12	4	7	..	..	3
Spring 1934	1,901	1,869	32	551	527	24	8	10	4	2	..	..
Winter 1933-34	1,955	1,938	17	566	539	27	3	14	7	1	1	1
Spring 1933	2,052	2,007	45	552	509	43	11	22	8	1	..	1
Winter 1932-33	2,235	2,202	33	581	551	30	4	17	8	..	1	..
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	..	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	2	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3	1
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	..
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	..
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	..
Winter 1927-28	1,051	982	69	303	275	28	14	2	8	2	2	..
Spring 1927	1,254	1,197	57	395	365	30	17	9	4	..	..	..
Winter 1926-27	1,339	1,281	58	363	325	38	12	6	14	1	2	3
Spring 1926	1,147	1,109	38	332	288	44	10	13	12	..	7	2
Winter 1925-26	1,219	1,161	58	345	300	45	15	9	14	1	5	1
Spring 1925	1,031	953	78	335	285	50	24	15	4	3	2	2

* Protein, fat and fiber.

IX. AVERAGE PRICES, 1928-1934

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. The December, 1934, prices are on the average, about eight dollars higher per ton than April, 1934.

	Apr., '29	Dec., '29	Apr., '30	Dec., '30	Apr., '31	Dec., '31	Apr., '32	Dec., '32	Apr., '33	Dec., '33	Apr., '34	Dec., '34
Cottonseed meals 43% ...	\$58	\$55	\$54	\$43	\$42	\$30	\$30	\$27	\$29	\$33½	\$38½	\$51½
Cottonseed meals 41% ...	57	63	48	41	40	29	28	27	27½	33½	37½	49½
Cottonseed meals 36% ...	54½	50	47½	41	40	28	26	22½	..	..	..	47
Linseed meals 37-39% ..	..	..	..	..	..	..	..	..	31½	41½	44	50
Linseed meals 34% ...	65½	64	58	48	45	40	40	33½	32½	44	44	50½
Linseed meals 30-33% ..	61	..	61	47	42	39	40	33	32½	44	45	49½
Soybean meals ..	..	..	..	..	..	..	..	..	32	41½	42	48½
Gluten meals ...	72½	60	54	49½	40½	34	28	27	29	38½	39	52
Gluten feeds ...	55½	50½	43½	42	38	27	24	23	25	30½	31	43
Brewers' grains ..	..	..	..	..	..	..	..	..	28	30	31½	39½
Distillers' grains ..	..	..	50	57	32	30	20	27	28	32½	35	41½
Wheat brans ...	40	40½	38½	30	31	25	24½	22	23½	26½	32	36½
Wheat middlings:												
Standard	44	43½	39½	32½	31½	26	25½	21½	23	28½	32½	38½
Shorts	40½	42	38	30	31	26	24½	21	23½	26½	31	36
Flour	47	45½	44	36	35	29	28	24	24½	32	33	41½
Wheat mixed feeds	46	46½	42	36	33	28	27	24	25	31	33½	40½
Reddog flours ..	51½	51½	45	39½	35	30	28	26½	25½	33½	33½	44½
Dried beet pulps	54½	53	51	38½	35	28	28	28	27	30	30	41½
Hominy feeds ..	46	45½	50½	38	34½	27	24	20½	20½	27	31	42
Alfalfa meals ..	48	50	62	54½	55	41	49½	38½	36½	38	39½	43½
Proprietary feeds:												
Dairy 24%....	56	54	50	45½	42	34	32	28½	29½	35½	37	46
20%....	53½	51½	48	42½	39½	32	33	27	28	33½	35	43½
16%....	46½	48	43	39	35	30	27½	24	26	30½	31	41½
Stock and horse 9-19%*	48½	49	48½	42	40	34	32	29	29	37	37½	46½
8%*	45	46½	..	44½	34	29	34	22	26½	..	34½	..
Fitting 9-12% ..	..	50½	45	43	39	31	29½	25	26½	34½	36	44
14% ..	..	53	45½	43	39	36	31½	28	28	37½	40½	47½
Calf	96	98	92½	89	84	80	74	69	66½	77½	67½	82
Hog	57½	57	53½	50	48	38	35½	32½	32½	40½	40	49
Poultry:												
Scraps	75	75	70	82	75½	58	60½	55	38	44	47½	48
Scratches ..	53½	52½	51	44½	41½	33	32½	27½	28½	37½	38	46½
Mashes	64½	64	61	56	52	42	40	36	37	44	45½	52
Chick grains	60	56½	55	52½	49	41	39	41½	32½	40½	46	56
Chick mashes	74½	70½	77	69½	63	48	49	39	43	49	52	56½

*Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1929, 1930, 1931, 1932, 1933, April, 1934, and December, 1934, follow, 1923 being rated at 100.

	1923	1929	1930	1931	1932	1933	Apr. 1934	Dec. 1934
Cottonseed meals	100	93	77	59	45	52	64	84
Linseed meals	100	107	90	71	64	63	75	85
Gluten meals and feeds..	100	104	81	63	46	55	63	85
Wheat offals (exclusive of reddog)	100	105	89	72	59	66	79	94
Beet pulps	100	107	88	60	53	54	54	74
Hominy feeds	100	115	110	78	56	60	80	108
Proprietary:								
Dairy 24%.....	100	102	90	71	56	61	69	85
20%.....	100	100	87	68	57	58	66	82
16%.....	100	103	89	71	56	62	67	90
Stock and horse.....	100	116	110	84	72	79	88	112
Calf, hog, etc.	100	109	103	88	75	77	76	92
Scratches	100	104	98	77	66	64	74	90
Mashes	100	102	102	81	66	69	78	86

X. SPECIAL ARTICLES IN RECENT FEEDING STUFF INSPECTION BULLETINS

Special articles, a page or two long, have been issued in the several inspection bulletins, which have as much pertinence today as well as when they were issued. They are not reprinted year by year, for obvious reasons. However, any reader who is interested enough in any one or more of these articles to ask for them (using bulletin numbers) will receive the same without charge. A postal card stating desires is sufficient.

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NOVEMBER, 1935

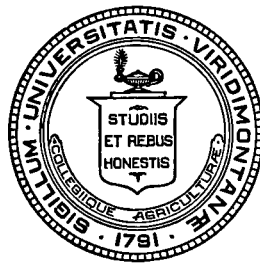
BULLETIN 399

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station

BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER *and* E. F. BOYCE



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Two thousand one hundred ninety-nine samples, representing 635 brands, drawn from dealers' stocks during April, 1935, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respects up to guaranty in regard to their nutrient contents are listed on pages 4 to 20. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 21 to 24. Statements as to the ingredients used in the manufacture of the proprietary feeds and the manner in which their makers fulfilled their statements occur on pages 25 to 42.

It might be said, briefly, that 16 of the 198 brands of unmixed goods and 28 of the 437 brands of proprietary or mixed goods failed to meet their guaranties. This outcome is not so good as that secured in the inspection of samples drawn in December, 1934. The general situation in respect to guaranty maintenance is set forth in the table and text at the close of the bulletin. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-34, 95 percent; in the spring of 1935, 93 percent.

Six brands of dairy rations and two brands of scratch feeds contained noticeable numbers of weed seeds. In all cases where an inferior ingredient was used in a mixture a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price last April, taking all classes of feeds as a unit, seems to have been not far from \$43, or \$4 less than last December's average.

BULLETIN 399: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in Sections 4479-4483, 7850-7864, 7885-7891, Public Laws, the following report is submitted setting forth the analysis of 2,199 samples collected in April, 1935. The object of the law is to prevent fraud or misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of cattle and poultry feeds offered for sale. The law does not forbid the sale of inferior feeds, but it provides through publicity clear information as to their real nature.

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I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fiber %	Crude fat %
COTTONSEED MEALS			
E. T. Allen Co., Atlanta, Ga.			
Empire 41% Protein Prime Quality.....	41	3.5	13
Atlas 36% Protein Prime Quality.....	36	5	16
Ashcraft-Wilkinson Co., Atlanta, Ga.			
Helmet Brand 41% Prime.....	41	5.5	10
Cow-Eta Brand 41% Prime Quality.....	41	5	13
Paramount Brand Prime 36%.....	36	5	16
Buckeye Cotton Oil Co., Cincinnati, Ohio			
Buckeye 41% Protein Prime Quality.....	41	5	13
Cairo Meal and Cake Co., Cairo, Ill.			
"Miss Cairo" Brand 41% Protein Prime Quality.....	41	6	10
Eastern States Farmers' Exchange, Springfield, Mass.			
Eastern States 41% Protein Prime Quality.....	41	6	10
Humphreys-Godwin Co., Memphis, Tenn.			
Bull Brand 43% Protein Prime.....	43	5	11
Dixie Brand Prime 41% Protein.....	41	5	12
L. B. Lovitt & Co., Memphis, Tenn.			
"Lovit Brand" 41% Protein Prime Quality.....	41	5	13
New Orleans Export Co., Ltd., New Orleans, La.			
41% Prime	41	5	13
Perkins Oil Co., Memphis, Tenn.			
Golden Rod Brand 41%.....	41	6	10
Maurice Pincoffs Co., Houston, Texas			
Maurice Pincoffs Company 41% Prime Quality.....	41	5	14
Ralston-Purina Co., St. Louis, Mo.			
41% Protein	41	5	12
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
34 Per Cent Protein Old Process.....	34	4.5	9
32 Per Cent Protein Old Process.....	32	4.5	9
Bisbee Linseed Co., Philadelphia, Penna.			
Bisbee Brand 34% Protein Pure Old Process.....	34	5	10
Kelloggs & Miller, Inc., Amsterdam, N. Y.			
K. & M. Brand Old Process, 34% Protein.....	34	5	10
Spencer Kellogg & Sons, Inc., Buffalo, N. Y.			
Kellogg's 34% Protein Old Process.....	34	4.5	9
Kellogg's 32% Protein Old Process.....	32	4.5	9
Diamond K, Flaxseed Screenings, Oil, 30%.....	30	4.5	10
Sherwin Williams Co., Cleveland, Ohio			
Sherwin Williams Pure Old Process 34%.....	34	4.5	9
SOY BEAN MEALS			
Allied Mills, Inc., Chicago, Ill.			
Super Soy	41	5	7
Super Soy	37	5	6.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's	41	4.5	7
CORN GLUTEN MEALS AND FEEDS			
American Maize-Products Co., New York, N. Y.			
Cream of Corn Gluten Feed.....	25	2	8.5
E. R. Bacon Grain Co., Boston, Mass.			
Bacon's Gluten Feed.....	24	2	8

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fiber %	Crude fat %
CORN GLUTEN MEALS AND FEEDS—concluded			
Canada Starch Sales Co., Edwardsburg Works, Montreal, P. Q., Canada			
Corn Gluten Feed.....	27	2.5	8
Clinton Co., Clinton, Iowa			
Clinton Corn Gluten Feed.....	25	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond Corn Gluten Meal.....	43	1	4
Buffalo Corn Gluten Feed.....	25	2	8.5
Penick & Ford, Ltd., Inc., Cedar Rapids, Iowa			
Douglas Corn Gluten Meal.....	43	1	4
Douglas Corn Gluten Feed.....	25	1.5	8.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's Corn Gluten Feed.....	25	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union Corn Gluten Meal.....	43	1	3
Union Corn Gluten Feed.....	25	1	8

DISTILLERS' AND BREWERS' DRIED GRAINS

Allied Mills, Inc., Chicago, Ill.			
Corn Distillers'	28	8	15
Dewey Bros. Co., Blanchester, Ohio			
Corn 3D (Dewey's Distillers').....	28	9	13
Corn 3D (Dewey's Distillers').....	28	8	14
Farmers' Feed Co., New York, N. Y.			
"Bull Brand" Brewers'.....	26	6	17
"Bull Brand" Brewers'.....	24	6	17
F. W. Kelley, St. Johnsbury, Vt.			
Kelley's Rye Distillers'.....	17	5	20
C. J. Martenis Grain Co., New York, N. Y.			
Alco Dried Brewers'.....	22	6	20
Neumond Co., St. Louis, Mo.			
Neumond Corn Distillers'.....	28	8	15
Neumond Dried Brewers'.....	24	4.5	18
St. Albans Grain Co., St. Albans, Vt.			
Corn Distillers' Dried.....	27	7	14
Brewers' Dried	21	5	15
Hiram, Walker & Sons, Inc., Peoria, Ill.			
Corn Distillers' Dried.....	30	6	14

WHEAT OFFALS—WHEAT BRANS

Bay State Milling Co., Winona, Minn.			
"Wingold" Pure Hard.....	14.5	4.75	13
S. J. Cherry & Sons, Ltd., Preston, Ont., Canada			
Canadian Pure	15	3.5	11.5
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed (+)	14	4	12
Copeland Flour Mills, Ltd., Midland, Ont., Canada			
Copeland's "Dandy Wheat".....	15	3.5	11.5
B. A. Eckhart Milling Co., Chicago, Ill.			
Pure	14	3.5	12
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+).....	16	3	14
Lucky Hard (+).....	14	3	14
J. A. Forrest, Minneapolis, Minn.			
Pioneer Pure	15	3.5	11.5
Alpine Canadian Pure.....	13.5	3.5	11.5

(+) "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fiber %	Crude fat %
<i>WHEAT OFFALS—WHEAT BRANS—concluded</i>			
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard (+).....	14	4	12
Frank B. Ham & Co., Ltd., Toronto, Ont., Canada			
"Hamco" Brand	15	3.5	11.5
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y.			
Choice (+)	13.5	3.5	14
International Milling Co., Minneapolis, Minn.			
Blackhawk Pure	15	3.2	12
Lake-of-the-Woods Milling Co., Montreal, Canada			
Lake Woods	15	3.5	11.5
Loudenville Milling Co., Loudenville, Ohio			
"Le Grande" Winter.....	13	4	12
Maple Leaf Milling Co., Toronto, Ont., Canada			
Rex (+)	15	3.5	12
George Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's	15	3	10
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Choice	15.5	4	11
Ogilvie Flour Mills Company, Ltd., Montreal, Que., Canada			
Ogilvie's	15	3.5	11.5
Parrish & Heimbecker, Ltd., Toronto, Ont., Canada			
Parrheim Pure	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard (+).....	14	4	12
Quaker Oats Company, Chicago, Ill.			
Bell Cow (+).....	15	3.5	10
Robin Hood Mills, Ltd., Moose Jaw, Sask., Canada			
Superior	15	3.5	11.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Occident Hard	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que., Canada			
Premier	15	3.5	11.5
Southwestern Milling Division,* Kansas City, Mo.			
Red Turkey Pure	15	3.5	10
David Stott Flour Mills, Inc., Detroit, Mich.			
Spring (+)	14.5	4	12.5
Winter (+)	13.5	3.5	12
Stratton & Co., Concord, N. H.			
Stratton & Co.'s.....	14	4	11
George Urban Milling Co., Buffalo, N. Y.			
_____ (+)	14	3.5	12
Valley City Milling Co., Portland, Mich.			
Rowena	14	3	10.75
Voigt Milling Co., Grand Rapids, Mich.			
Voigt's (Pure Winter).....	14	3	10
Western Canada Flour Mills Co., Ltd., Winnipeg, Canada			
J. A. Pioneer Pure.....	15	3.5	11.5

WHEAT OFFALS—WHEAT MIDDINGS

S. J. Cherry & Sons, Ltd., Preston, Ont., Canada			
Canadian Pure Shorts.....	16	5	8
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Standard (+).....	14.5	4	9.5
Copeland Flour Mills, Ltd., Midland, Ont., Canada			
Copeland's "Dandy Shorts".....	16	5	8

* Of Standard Milling Co.

(+)"With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fiber %	Crude fat %
WHEAT OFFALS—WHEAT MIDLINGS—concluded			
Federal Mill, Inc., Lockport, N. Y.			
Lucky Standard Hard (+).....	16	4.5	9.5
Lucky Standard Hard (+).....	15	4.5	9.5
Dairy Maid Soft Winter Flour (+).....	14.5	4.5	6
Dairy Maid Soft Winter Flour (+).....	13	4.5	6
J. A. Forrest, Minneapolis, Minn.			
Alpine Canadian Shorts.....	16	5	8
Alpine Canadian Shorts.....	16	5	7.5
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard Flour (+).....	16	4	6
Frank B. Ham & Co., Ltd., Toronto, Ont., Canada			
"Hamco" Brand Shorts.....	16	5	8
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y.			
Standard (+).....	15	4.75	9.5
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+).....	16	4.5	8.5
Blackhawk Flour.....	16	3.5	4
Kasco Mills, Inc., Waverly, N. Y.			
Kasco Flour (+).....	16	3.5	6
Lake-of-the-Woods Milling Co., Montreal, Canada			
Lake Woods Shorts.....	16	5	8
Maple Leaf Milling Co., Toronto, Ont., Canada			
Rex (+).....	16	5	7.5
George Q. Moon & Co., Inc., Binghamton, N. Y.			
Moon's Fresh Ground.....	14	2.85	7.5
National Milling Co., Toledo, Ohio			
Tolio.....	15	3.5	6
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard.....	15.5	4.5	7
Parrish & Heimbecker, Ltd., Toronto, Ont., Canada			
Parrheim Pure Shorts.....	16	5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard A (+).....	16	4	6
Pillsbury's Hard Standard B (+).....	15	4	9.5
Robin Hood Mills, Ltd., Moose Jaw, Sask., Canada			
Superior Shorts.....	17	5	8
Blackhawk Standard.....	17	4.5	9.5
Rodney Milling Co., Kansas City, Mo.			
Jersey Gray Shorts (+).....	17	3.5	6
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident Flour.....	15.5	4	5
Hard Occident Standard.....	15	4	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour.....	15	4	6
David Stott Flour Mills, Inc., Detroit, Mich.			
Pennant (+).....	15	4	9
Stott's Fine Flour (+).....	14.5	3.5	6
Valley City Milling Co., Portland, Mich.			
Rowena Standard Soft (+).....	15	4.25	6

WHEAT OFFALS—WHEAT MIXED FEEDS

E. W. Bailey & Co., Montpelier, Vt.			
Capital.....	14	3	7
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed (+).....	15	4	8.5

* Of Standard Milling Co.

(+) "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fiber %	Crude fat %
WHEAT OFFALS—WHEAT MIXED FEEDS—concluded			
Excelsior Milling Co., Minneapolis, Minn. Pure Camel Fancy.....	16	4	7.5
Federal Mill, Inc., Lockport, N. Y. Dairy Maid Soft Winter (+).....	13.5	3.5	10
General Mills, Inc., Minneapolis, Minn. Fancy.....	15	3.5	7.5
E. T. & H. K. Ide, St. Johnsbury, Vt. Ideal.....	15	4	8
International Milling Co., Buffalo, N. Y. Blackhawk Heavy.....	15.5	3.35	8
Malted Cereals Co., Burlington, Vt. Maltex Cereal Feed (+).....	12.5	3.75	9
Niagara Falls Milling Co., Lockport, N. Y. Niagara Choice.....	14.5	4	10
Park & Pollard Co., Buffalo, N. Y. Park & Pollard Heavy.....	15.5	3.35	8
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's Fancy (+).....	15	4	8.5
Ralston Purina Co., St. Johnsbury, Vt. Brook's Fancy.....	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn. Hard Occident.....	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt. Wirthmore.....	15	3.75	8
David Stott Flour Mills, Inc., Detroit, Mich. Columbus Heavy (+).....	14.5	3.7	8.5
Stratton & Co., Concord, N. H. Stratton's.....	13.5	4.11	7.13
Valley City Milling Co., Portland, Mich. Rowena (+).....	16	3.5	9
WHEAT OFFALS—RED DOG FLOURS			
Commander-Larabee Corp., Minneapolis, Minn. Sunfed Pure.....	16	4	4
General Mills, Inc., Minneapolis, Minn. Washburn's Gold Medal Pure Hard Adrian.....	16	3.5	4
Hecker-Jones Jewell Milling Div.,* Buffalo, N. Y.	15	4.25	4
International Milling Co., Minneapolis, Minn. Blackhawk.....	16	3.5	4
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's XX Daisy.....	16	4	4
Robin Hood Mills, Ltd., Moose Jaw, Sask., Canada Superior.....	16.5	3.5	4
George Urban Milling Co., Buffalo, N. Y.	15	4	4
HOMINY FEEDS			
Decatur Milling Co., Inc., Decatur, Ill. Homco.....	10	7	6
Kellogg Sales Co., Battle Creek, Mich. White.....	10	6	5
Kellogg Co. of Canada, Ltd., London, Ont., Canada O-Corn-O.....	10	6.5	5

* Of Standard Milling Co.

(+)"With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fiber %	Crude fat %
HOMINY FEEDS—concluded			
Chas. A. Krause Milling Co., Milwaukee, Wis.			
Badger White	10	6	5
Miner-Hillard Milling Co., Wilkes-Barre, Penna.			
Choice Steam Cooked.....	10	5	5
Patent Cereals Co., Geneva, N. Y.			
.....	10	5	5
Postum Co., Inc., Battle Creek, Mich.			
Burt's	10	6	5
Pratt Food Co., Buffalo, N. Y.			
Pratt's White	10	5	6
Quaker Oats Co., Chicago, Ill.			
White	10	5	5
Yellow	10	5	5
David Stott Flour Mills, Inc., Detroit, Mich.			
White	9.5	3.5	6.5
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.			
Molasses	7	0.3	22.5
.....	7	0.3	20
ALFALFA MEALS			
A. B. Caple Co., Toledo, Ohio			
.....	13	1	33
Denver Alfalfa Milling & Products Co., Lamar, Colo.			
Leaf (Leafalfa Brand).....	20	1.5	18
.....	13	1	33
Green Acre Farms, Nazareth, Penna.			
Green Acres Brand Super-Quality.....	17	2	25
Pecos Valley Alfalfa Mill Co., Hagerman, N. M.			
Peevee	20	2.5	18
.....	13	1.5	33
MISCELLANEOUS			
John W. Eshelman & Sons, Lancaster, Penna.			
Eshelman Red Rose Corn Feed Meal.....	8	3	4
Northern Oats Co., Minneapolis, Minn.			
Go-Fer Brand Feeding Oatmeal.....	14	5	3.75
Quaker Oats Co., Chicago, Ill.			
Vim Oat Mill Feed.....	5	1.5	30
Sugared Vim Feed.....	5	1.25	27.5
Sugared Vim Oat Mill Feed.....	5	1.5	27.5
Ralston Purina Co., St. Louis, Mo.			
Purina Checkerboard Rolled Oats (Steam Cooked)....	15	5	2
Corn Feed Meal.....	8.5	3	5
David Stott Flour Mills, Inc., Detroit, Mich.			
Winner Chop Feed.....	10	3.5	12
Upper Hudson Rye Flour Mills, Inc., Troy, N. Y.			
Upper Hudson Ryefeed with Rye Screenings.....	13.5	3	6

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fiber %	Crude fat %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Chicago, Ill.				
Wayne Amco 32% Supplement.....	32	4	9	✓
Wayne Amco 24%.....	24	4	9	✓
Empire 24%	24	3	12	✓
Wayne Amco 20%.....	20	4	9	✓
Wayne Amco 20%†.....	20	3.5	9	✓
Empire 20%	20	3	12	
Empire 16½%	16.5	3	12	
Wayne Amco 16%.....	16	3.5	8	✓
E. W. Bailey & Co., Montpelier, Vt.				
Capital	24	4.5	9	✓
Sweetened Capital	24	4.5	9	✓
Bailey's New Deal.....	20	5	11	✓
Favorite	20	4	7.5	✓
Sweetened Favorite	20	4	7.5	✓
Our 20% Special.....	20	3.5	9	✓
Bailey's Sweetened 16%.....	16	5	9	✓
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon Sweet "20".....	20	4.5	9	✓
Auburn Brand Auburn.....	20	4	10	✓
Bethel Mills, Bethel, Vt.				
Bethel Mills 24 Protein.....	24	5	9	✓
Bethel Mills 20 Protein Sweetened Economy.....	20	4	11	✓
Bethel Mills 16 Protein Pasture.....	16	4.2	9.5	✓
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	✓
Unicorn 20%	20	4.5	10	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community 20	20	4.5	9	✓
E. C. Crosby, Danby, Vt.				
Crosby's A Quality 20%†.....	20	5	8	✓
Crosby's B Quality 20%†.....	20	4.5	9	✓
Danville Grain Co., Inc., Danville, Vt.				
Danville 20%	20	4	10	✓
Davis Feed Co., Inc., Rutland, Vt.				
Vermont 20%	20	5	8	✓
Davis 20% Kow.....	20	4.5	8.5	✓
H. W. Demick, Inc., Derby Line, Vt.				
Beats 'Em All.....	20	4	10	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 32% Supplement†.....	32	4.5	8	
Eastern States Milkmore†.....	24	4.5	8	✓
Eastern States Fulpail†.....	20	4.5	8	✓
Eastern States Highland 20†.....	20	4	12	✓
Eastern States Highland 16†.....	16	4	11	✓
Eastern States Sixteen†.....	16	4	8	✓

* The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g., cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by the state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other, and possibly undesirable, ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist failed to find some one or more ingredients or found extraneous ingredients appear on pages 25 to 42.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fiber %	Crude fat %	
PROPRIETARY FEEDS—DAIRY FEEDS OR RATIONS— <i>continued</i>				
Elmore Milling Co., Inc., Oneonta, N. Y.				
32% Supplemental	32	4	9	✓
Elmore Milk Grains	24	4.5	10	✓
Elmore Milk Grains Sweetened	24	4.5	10	✓
Granger 24%	24	4	10	
Elmore Milk Grains Junior	20	4.5	10	✓
Elmore Milk Grains Junior Sweet	20	5	10	✓
Elmore Milk Grains Junior Sweet	20	4.5	10	✓
Granger 20%	20	4	11	✓
Dairyman's Emergency	20	3	12	✓
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose 24	24	4	11	✓
Eshelman Conestoga 20	20	4	11	✓
Eshelman Lancaster 20	20	4	11	✓
Eshelman Pennsy 16	16	3	11	
For-All Grain Co., Inc., S. Ryegate, Vt.				
For-All Milk Grains	20	5	8.5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's 32%	32	4	9	✓
M-S (Money Saver) 24% Sweet	24	4	12	✓
Grandin's Sweetened 24%	24	4	10	✓
Grandin's Sweetened 12 Twin Six 12	22	5	12	✓
M-S (Money Saver) 20% Sweet	20	4	12	✓
Grandin's Sweetened 20%	20	4	10	✓
Economy 20% Sweetened	20	3	12	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Milky Way 20%	20	3.5	9	✓
Daily Milk	16	4	12	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Sweetened	24	5	10	✓
Ide's Special	20	4	10	✓
Royal Sweetened	20	4	10	✓
Sunshine	20	4	10	✓
W. B. Johnson & Son, Essex Jct., Vt.				
Johnson's Perfection No. 1	20	5	9	✓
Johnson's Economy	20	4	12	✓
Kasco Mills, Inc., Toledo, Ohio				
Kasco 20% Milk Maker	20	4	11	✓
Apex 20%	20	3.5	12	✓
Kasco 18%	18	3.5	10	✓
Larrowe Milling Co., Detroit, Mich.				
Larro	20	3.75	12	✓
Larrowe's 16	16	3	11	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's 20%	20	4	10	✓
T. J. McGovern, Cambridge, Vt.				
McGovern's 20 Per Cent.	20	4	8	✓
McGovern's 16 Per cent.	16	4	8	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Hi-Test 20% Protein, Sweetened	20	4	12	
B-B Marmico 16% Protein, with Molasses	16	4	12	
George Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's 24%	24	5	10	
U. S. 20%	20	3	12	✓
New Grain Store, Richford, Vt.				
Xtra Good 20%	20	5.75	11	✓
Xtra Good 16%	16	4.25	14	✓

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fiber %	Crude fat %	
PROPRIETARY FEEDS—DAIRY FEEDS OR RATIONS— <i>continued</i>				
Park & Pollard Co., Buffalo, N. Y.				
Milk-Maid 24% Sweetened.....	24	4.5	11	V
Overall 24%	24	4	9	
Manamar Doublex 20%.....	20	4	10	V
Bet-R-Milk 20%	20	4	9	V
Yankee	20	3.5	9	
Top Notch 16.....	16	3.5	11	
Manamar Top Notch 16.....	16	3.5	11	
Quaker Oats Co., Chicago, Ill.				
Quaker 24% Protein.....	24	4	12	V
Quaker 20% Protein.....	20	3	12	V
Quaker 16% Protein.....	16	3	13.5	V
Race Milling Co., Granville, N. Y.				
Race's 24%	24	4	9	V
Race's 20%	20	3.5	9	V
Race's 18%	18	3	12	V
Ralston Purina Co., St. Louis, Mo.				
Purina Red Checker Cow Chow 34%.....	34	3.5	12	V
Purina Red Checker Cow Chow 34%.....	34	3	12	V
Purina Green Checker Cow Chow 24%.....	24	3.5	12	V
Purina Green Checker Cow Chow 24%.....	24	3	12	V
Protena 24%	24	3.5	12	V
Purina Blue Checker Cow Chow 20%.....	20	3.5	12	V
Protena 20%	20	3.5	12	V
Protena 20%	20	3	12	V
Protena 16% (Buffalo Mill).....	16	3.5	14	V
Purina Body Cow Chow.....	16	3.5	12	V
Purina Bulky Cow Chow.....	16	3	12	V
Richmond Feed Co., Richmond, Vt.				
Richmond Special 22%.....	22	5	9	V
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 32 Supplement.....	32	4	8	
Wirthmore 25 Balanced.....	25	5	9	V
Wirthmore 25 Balanced Sweetened.....	25	4.5	8.5	V
Hygrade 24 Sweetened Milk.....	24	3.5	9	V
Champlain Valley Emergency 24.....	24	3.5	8.5	V
Wirthmore 20	20	5	8.5	V
Wirthmore 20 Sweetened.....	20	4.5	8	V
Wirthmore 20 Sweetened Fortified with Vitamins A & D.....	20	4.5	8	V
Utility	20	3.5	12	V
Utility	20	3.5	11.5	V
Champlain Valley Emergency 20.....	20	3.5	8.5	V
Hygrade 20 Sweetened.....	20	3.5	8.5	V
Wirthmore 16 Sweetened.....	16	4	8	V
Wirthmore 16 Sweetened Fortified with Vitamins A & D.....	16	4	8	V
Utility 16%	16	3	13	V
Seabury Grain Co., Waterbury, Vt.				
Our Own Make 20%.....	20	4	9	V
Our Own Make Special.....	20	4.5	9	V
Chas. M. Seaver & Co., Williamstown, Vt.				
Vim-20	20	4	12	V
Honor Brand 20%.....	20	4	10	V
C. A. Smith, St. Johnsbury, Vt.				
Smith's	20	4	12	V

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See footnote*
	Crude protein %	Crude fiber %	Crude fat %	
PROPRIETARY FEEDS—DAIRY FEEDS OR RATIONS—concluded				
S. E. Smith Estate, West Rutland, Vt.				
Smith Estate 24%†	24	5	8.5	✓
Smith Estate 20%	20	4.5	8	✓
Smith Estate 18%†	18	4.5	8	✓
C. H. Stearns & Son Co., Johnson, Vt.				
Stearnco All Grain 20%	20	4	9	✓
J. D. Thompson Estate, Norwich, Vt.				
Special 20%	20	4	11	✓
Tioga-Empire Feed Mills, Inc., Waverly, N. Y.				
20% Creamatine	20	4.5	10	
J. G. Turnbull Co., Orleans, Vt.				
Creamery	20	5	10	
Turnbull Special	20	3.5	12	✓
Frank Tyler, Essex Jct., Vt.				
Tyler's Ready Mixed 20%	20	4.5	9	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
32% Reliance Supplemental	32	4	10	✓
Milkproducer 24%	24	4	10	✓
Galen 24%	24	4	8.5	
Clyde 20%	20	4	10	✓
Superior 20%	20	4	10	
Sweetened 16%	16	4	12	✓
R. P. Webster, Barton, Vt.				
Ray's Ready	20	5	10	✓
W. S. Wright, Lyndonville, Vt.				
Wright's 20%†	20	4.5	8	✓
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.				
Allied Mills, Inc., Chicago, Ill.				
Wayne Rabbit	13	3	11	
June Pasture	10	0.5	21	✓
Wayne Supreme Horse	9.5	3	8	✓
Empire Stock	9	4	11	✓
E. W. Bailey & Co., Montpelier, Vt.				
Bailey's Pasture	15.5	3.75	10	✓
Bailey's Sweetened Fitting	14	4	9	✓
Pennant Horse	10.75	3.5	6.5	✓
Pennant Brand Sweetened with Molasses	9.5	4	9.5	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Highland 12†	12	3.5	10.5	✓
Eastern States Highland 12†	12	3.5	10	✓
Eastern States Fitting†	12	3.5	7.5	✓
Eastern States Fitting†	12	3.5	7	✓
Eastern States Horse†	10.5	3.5	7	✓
Eastern States Horse & Calf†	10.5	3.5	7	✓
Eastern States Succulence†	10	2	14.5	✓
Elmore Milling Company, Inc., Oneonta, N. Y.				
Elmore Fitting	12	4	9	✓
Elmore's Super-Silage	12	2	15	✓
Elmore Stock	10	3	12	✓
Elmore Steam Cooked Horse	9	4	6	✓
Elmore Horse with Molasses	9	2.5	11	✓
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose Fitting	12	3.5	7	✓
Eshelman S-O-S	11	2	15	✓

* See footnote, page 10.
 † Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fiber %	Crude fat %	
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.—concluded				
John W. Eshelman & Sons, Lancaster, Penna.—continued				
Eshelman Steamed-Cooked Horse.....	9	4	6	✓
Eshelman Conestoga Horse.....	9	3	10	✓
Eshelman Red Rose 85 Horse.....	9	3	10	✓
Eshelman Garden Spot Horse.....	7	2	11	
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Sweetened Horse.....	9.5	3.5	11	✓
Grandin's Stock	8.5	4	12	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Fitting	12	4	10	✓
Imperial Grain & Milling Co., Toledo, Ohio				
Imperial Steam Cooked.....	9.5	4	4.6	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Horse	9	3	10	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
BB Dealer's Mixing with Molasses.....	10	3.5	12	
Park & Pollard Co., Buffalo, N. Y.				
Park & Pollard Fitting	12	3.5	7	✓
Manamar Fitting	12	3.5	7	✓
Yankee Horse	10	3.5	9	✓
Park & Pollard Stock.....	9	4	12	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Sugared Schumacher.....	10	3	12	✓
Schumacher Special Horse—Cubed.....	10	2.5	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Heifer Growing Chow.....	14	2.5	14	✓
Purina Fitting Chow.....	13.5	2.6	12	✓
Purina Bulky Omolene.....	10	3.2	11	✓
Purina Omolene	10	3.2	9	✓
Purina Bulky Las Chow (Buffalo Mill).....	9	1.3	15	✓
Protena Sweet Feed "D".....	6	1	25	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting.....	14	4	7	✓
Wirthmore Rabbit	14	3.5	9	✓
Hygrade Fitting	12	4.5	8	
Wirthmore Fodder Greens.....	10	3	15	✓
Wirthmore Horse	9.8	3.25	9	✓
Hygrade Horse	9.5	3.25	9	✓
Wirthmore Stock	9	4	9.5	✓
Ubiko Milling Co., Cincinnati, Ohio				
Honeycomb Fitting	12	2.5	15	
Crusader Horse	9	2.5	10	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Universal Horse	10	3	9	✓
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS				
Albers Bros. Milling Co., Seattle, Wash.				
Calf Manna	25	4	5	✓
Allied Mills, Inc., Chicago, Ill.				
Wayne Calf	24	4	7	✓
Wayne Pig Starter.....	18	3.5	7	
Wayne Pork Maker.....	14	3.5	7	
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon Calf Pellets.....	25	3.5	4	✓
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	24	5	6.7	✓

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fiber %	Crude fat %	
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS—concluded				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter†	23	3.5	4	✓
Eastern States Hog Meal†	14.5	4	5.5	✓
Eastern States Hog Meal†	14.5	4	4.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore "Three Point" Calf	24	4	4	✓
Elmore's Makemgrow Little Pig	18	4.5	7	✓
Elmore's Hog	15	5	6	✓
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose Calf Starter	20	3	5	✓
Eshelman Red Rose Hog	16	5	10	✓
Larrowe Milling Co., Detroit, Mich.				
Larro Pork-Maker	25	5	10	✓
Larro Calf	23	4	4	✓
Larro Pig Feed	16	4	6	✓
Park & Pollard Co., Buffalo, N. Y.				
Milkade Calf	20	7	6.5	✓
Go-Tu-It Pig & Hog	15	3.5	8	✓
Quaker Oats Co., Chicago, Ill.				
Schumacher Calf	18	7	4	
Race Milling Co., Granville, N. Y.				
Race's Hog	18	4	8	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Calf Starting Chow	27	3.2	5	✓
Purina Calf Starting Chow	23	3.2	7	✓
Purina Hog Fatena	14	3	7	
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	4	✓
Wirthmore Pig and Hog	17	4	9	✓

MEAT SCRAPS, BONE AND FISH MEALS

Consolidated Rendering Co., Boston, Mass.				
Corenco	50	6	..	
Corenco	45	6	..	
New England Chemical Industries, Inc., Woburn, Mass.				
Digesta-Bone	5	..	2	
New England Rendering Co., Brighton, Mass.				
Brighton Special Meat—Quality Brand	50	8	..	
Philip R. Park, Inc., San Pedro, Calif.				
Manamar	40	3	4	
John Reardon & Sons Co., Cambridge, Mass.				
Register Brand Cod & Haddock Fish	60	3	1	
Van Iderstine Co., Long Island City, N. Y.				
Vico Special Steamed Bone	5	0.5	3	

PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.

Allied Mills, Inc., Chicago, Ill.				
Wayne Scratch	10	2.5	4	✓
Wayne Intermediate Scratch	10	2	4	✓
Wayne Special Scratch	9	2.5	4	✓
Empire Scratch	9	2.5	4	✓
Wayne Chick	9	2	4	✓
Screened Cracked Corn	8.5	2.5	2.5	✓

* See footnote, page 10.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fiber %	Crude fat %	See foot- note*
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.— <i>continued</i>				
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Scratch	10	3	6.5	✓
Pennant Coarse Chick.....	10	3	3	✓
Pennant Fine Chick.....	10	3	3	✓
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon Special Scratch.....	10	2	3.5	✓
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Scratch	10	3	4	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch (with Whole Corn)†....	10.5	2.5	4	✓
Eastern States Scratch (with Coarse Cracked Corn)†	10	2.5	4	✓
Eastern States Scratch 1931†.....	9.5	2.5	3	✓
Eastern States Intermediate Scratch†.....	9.5	2	3	✓
Eastern States Chick†.....	9.5	2	3	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Scratch	10	2.5	7	✓
Emco Scratch	10	2.5	7	✓
Elmore Intermediate Chick.....	10	3	3	✓
Elmore Chick	10	2.5	3.5	
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose Scratch.....	10	2.5	4	✓
Eshelman Lancaster Scratch.....	9	2.5	4	✓
Eshelman Pennsy Scratch.....	9	2.5	4	✓
First National Stores, Inc., Somerville, Mass.				
Henfield Scratch	10	2.5	5	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Economy Scratch	10	2.5	5	
Grandin's Screened Scratch.....	10	2.5	5	✓
Grandin's Baby Chick.....	10	2.5	5	✓
Grandin's Intermediate Chick.....	10	2.5	5	✓
Grand Union Co., New York City				
Peerless Chick	10	2.5	5	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Growth Fine Chick.....	10	3	5	✓
Daily Egg Scratch.....	10	2.5	5	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Scratch	9	2.5	4	✓
Larowe Milling Co., Detroit, Mich.				
Larro Scratch	10	2	4	
Larro Chick	10	2	4	
Larro Growing	10	2	4	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Scratch.....	10	2.5	5	✓
George Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Scratch	10	2	5	
Park & Pollard Co., Buffalo, N. Y.				
Red Ribbon Scratch.....	10	3	5	✓
Intermediate Chick	10	3	3.5	✓
Park & Pollard Chick Scratch.....	10	3	3	✓
Bidwell Scratch	10	1.5	5	✓
Park & Pollard Economy.....	10	1.5	5	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Full-O-Pep Coarse Chick.....	10	2	2.5	✓
Early Bird Fine Chick, No Grit.....	10	2	2	
Early Bird Coarse Chick.....	9.5	2	3.5	✓

* See footnote, page 10.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fiber %	Crude fat %	See foot-note*
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
Quaker Oat Co., Chicago, Ill.—continued				
Big Egg Scratch, No Grit.....	9.5	2	3.5	
Quaker Ful-O-Pep Scratch.....	9	2	3	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Hen Chow.....	10	2.5	4	✓
Purina Chick Chow (Coarse).....	10	2.5	4	✓
Purina Chick (Fine).....	10	2	4	✓
Protena Scratch.....	9.5	2	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Scratch.....	10	2.5	4	✓
Mornin' Call Poultry.....	10	2.5	4	✓
Wirthmore Intermediate Scratch.....	10	2.5	3.5	✓
Wirthmore Baby Chick.....	10	2.5	3.5	✓
Mornin' Call Poultry.....	9.5	2.5	4	✓
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko Chick.....	9	2.5	5	✓
Wayne County Grangers Feed Corporation, Clyde, N. Y.				
Grange Superior Scratch.....	10	3	6	✓
Superior Little Chick.....	10	2.5	5	✓

PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.

Allied Mills, Inc., Chicago, Ill.				
Wayne Concentrate.....	32	4	8	✓
Wayne Turkey Starting.....	25	4	8	
Wayne Breeder.....	18	4	7	
Wayne Broiler.....	18	3.5	8	✓
Wayne Egg.....	18	3.5	7	✓
Wayne Egg with Sardine Oil.....	18	3.5	7	
Wayne Chick Starter.....	17	4	6	✓
Wayne Chick Starter with Sardine Oil.....	17	4	6	
Empire Egg.....	16.5	3.5	7	✓
Empire Egg with Sardine Oil.....	16.5	3.5	7	✓
Wayne Growing.....	16	4	6	✓
Wayne Growing with Sardine Oil.....	16	4	6	
Empire Starter & Grower.....	16	3.5	6	✓
Empire Starter & Grower with Sardine Oil.....	16	3.5	6	✓
Wayne All Mash Laying.....	15.5	3.5	7	
Wayne Turkey.....	15	3.5	8	✓
Wayne Poultry Fattener.....	13.5	3.5	8	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Laying.....	20	5	6	✓
Pennant Brand Laying.....	20	5	6	✓
Pennant Laying with Cod Liver Oil and Cod Liver Meal.....	20	5	6	✓
Pennant Chick Starter.....	17	5	5	✓
Pennant Growing.....	15	5	5	✓
Beacon Milling Co., Inc., Cayuga, N. Y.				
Beacon Breeders with Buttermilk.....	20	4	7	✓
Beacon's Cayuga Laying with Buttermilk.....	20	4	7	✓
Beacon Complete Starting.....	17.5	4	6	✓
Beacon Broiler.....	17	4	6	✓
Beacon Growing.....	17	4	7	✓
Beacon's Cayuga Growing.....	15	4	7	✓
Chapin & Co., Hammond, Ind.				
Chapin Kernels Start All.....	21	5	4.5	
Chapin Kernels Lay All.....	20	3.5	5	✓

* See footnote, page 10

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fiber %	Crude fat %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.— <i>continued</i>				
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Laying with Milk & Cod Liver Oil.	20	4	7	✓
Community Chick (Starter-Broiler) with Cod Liver Oil	18	5	7	✓
Community Growing with Milk & Cod Liver Oil	17	4.5	8	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Turkey Breeder†.....	24	4	6	✓
Eastern States Producer 20†.....	20	4	6	✓
Eastern States Developer†.....	18.5	4	6.5	✓
Eastern States Starting & Broiler†.....	18.5	4	5	✓
Eastern States Producer†.....	17	4	6.5	✓
Eastern States Egg†.....	17	4	6.5	✓
Eastern States Combination†.....	15	4	6.5	✓
Eastern States Fattener†.....	14.5	4.5	4.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Egg	18	4	8	✓
Elmore Eggmaker	17	4.5	8	✓
Elmore Growing	17	4	8	✓
Elmore Chixsaver	16.5	4	8	✓
Elmore Complete Starting and Growing.....	16	4	8	✓
Elmore Complete Laying	16	4	6	✓
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose Laying.....	20	5	7	✓
Eshelman Red Rose Laying with Cod Liver Oil.	20	5	7	✓
Eshelman Red Rose Broiler with Cod Liver Oil.	17	4.5	7	✓
Eshelman Red Rose Growing with Cod Liver Oil	16	4	7	✓
Eshelman Red Rose All Mash Starter.....	16	4	6.5	✓
First National Stores, Inc., Somerville, Mass.				
Henfield Egg	20	5	7	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Laying with Buttermilk.....	20	4	8	✓
Grandin's Laying with Buttermilk & Cod Liver Oil	20	4	8	✓
Grandin's Complete Starting with Buttermilk & Cod Liver Oil.....	16	4	6	✓
Grandin's Growing with Buttermilk & Cod Liver Oil	15	4	8	✓
Grandin's Complete Laying.....	15	4	7	✓
Grandin's Combined Chick & Broiler.....	15	4	6	✓
Grandin's Poultry Green Food.....	10	1	25	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg	20	4.5	7	✓
Daily Growth Growing.....	17.5	4	7	✓
Daily Growth Chick Starter.....	16	4	5	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Egg	20	4.5	6	✓
Jersee Co., Minneapolis, Minn.				
Just Right Egg.....	18	5	8	
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	✓
Kasco Laying	20	4	6.5	✓
Kasco All Mash Laying Food.....	15	4	6	✓
Larroe Milling Co., Detroit, Mich.				
Larro Turkey Grower.....	24	4.5	6.5	✓
Larro Egg	19	4	7.5	✓
Larro Turkey Adult.....	19	4	7.5	✓
Larro Chick Starter.....	16.5	4.5	5.5	✓

* See footnote, page 10.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			
		Crude protein %	Crude fiber %	Crude fat %	See footnote*
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.— <i>continued</i>					
Larrowe	Milling Co., Detroit, Mich.— <i>continued</i>				
	Larro Growing	16	4	7.5	✓
	Larro Broiler	15.5	4	6	✓
R. H. McEwen	Milling Co., Ogdensburg, N. Y.				
	McEwen's Red Feather Egg Mash.....	20	4	9	✓
Maritime	Milling Co., Inc., Buffalo, N. Y.				
	Dollar \$ Maker Egg, Vitaminized with Cod Liver Oil & Buttermilk.....	17	3.5	9	
George Q. Moon & Co., Inc.,	Binghamton, N. Y.				
	Moon's Laying with Dried Buttermilk.....	20	4	9	✓
	Moon's Growing	17	4	7	✓
	Moon's Baby Chick Starter.....	15	4	5	✓
Park & Pollard Co.,	Buffalo, N. Y.				
	Manamar Lay or Bust.....	18	3.5	6	✓
	Bidwell Dry with Cod Liver Oil.....	18	3	8.5	✓
	Bidwell Dry	18	3	8	✓
	Lay or Bust Dry.....	18	3	7	✓
	Lay or Bust Dry with Cod Liver Oil.....	18	3	7	✓
	Park & Pollard Chick Starter.....	17	3.5	5	✓
	Growing Feed	14	3	7	✓
	Growing Feed with Cod Liver Oil.....	14	3	7	✓
Quaker Oats Co.,	Chicago, Ill.				
	Quaker Ful-O-Pep Turkey Starter.....	26	5	7	✓
	Quaker Ful-O-Pep Egg.....	20	4.5	8	✓
	Quaker Ful-O-Pep Broiler.....	19	5	7	✓
	Quaker Ful-O-Pep Growing.....	19	5	6	✓
	Big Egg Laying.....	18	4	8	✓
	Quaker Ful-O-Pep Chick Starter.....	17	5	7	✓
	Big Egg Growing.....	17	4	8	✓
Race	Milling Co., Granville, N. Y.				
	Race's Poultry	20	3.5	7	✓
Ralston	Purina Co., St. Louis, Mo.				
	Purina Turkey Startena.....	26	4.5	6	✓
	Purina Turkey Growing & Fattening Chow.....	21	3.5	8	✓
	Purina Egg Chowder.....	19	3.5	8	✓
	Purina Lay Chow.....	19	3.5	8	✓
	Purina Broiler Chow.....	18	4	7	✓
	Purina Chick Startena.....	18	4	7	✓
	Purina Growing Chow.....	17	3.5	7	✓
	Purina Growing Chow with Cod Liver Oil.....	17	3.5	7	✓
	Purina Layena (Complete Ration).....	15.5	3.5	8	✓
	Purina Chick Growena.....	15	3.5	7	✓
St. Albans	Grain Co., St. Albans, Vt.				
	Wirthmore Turkey Starting containing Fortified Cod Liver Oil.....	24	4.5	7	✓
	Wirthmore Breeder	20	4.5	7	✓
	Wirthmore Laying	20	4	7	✓
	Wirthmore Laying, containing Fortified Cod Liver Oil	20	4	7	✓
	Wirthmore Turkey Growing.....	20	4	7	✓
	Wirthmore Baby Chick Starter containing Fortified Cod Liver Oil.....	18	4	5	✓
	Wirthmore Complete Chick and Broiler.....	17.5	4	5.5	✓
	Wirthmore Turkey Fattening.....	16	4.5	7	✓
	Wirthmore Pellets	15	4.5	6.5	✓
	Wirthmore Fleshing and Fattening.....	15	4.5	6	
	Wirthmore Growing	15	4.5	6	

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note ^a
	Crude protein %	Crude fiber %	Crude fat %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—concluded				
St. Albans Grain Co., St. Albans, Vt.—continued				
Wirthmore Growing containing Fortified Cod Liver Oil	15	4.5	6	
Wirthmore Complete Laying.....	15	4	5	✓
Wirthmore Complete Growing.....	14	3.75	6	✓
S. E. Smith Estate, West Rutland, Vt.				
Smith Estate Egg Producer.....	18	4.5	7	✓
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko Egg	20	4	6	✓
Ubiko All-Mash Starter.....	18	4	5	
Ubiko All-Mash Complete Laying.....	16	3.5	6	✓
Ubiko All-Mash Developer.....	14	4	5	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Superior Chick Starter with Buttermilk and Cod Liver Oil	20	4	7	
Superior Laying with Buttermilk and Cod Liver Oil	20	4	7	
Superior Laying with Buttermilk and Cod Liver Oil	18	4	7	
Turkey Breeding and Laying.....	18	4	7	✓
Complete Laying with Buttermilk and Cod Liver Oil	15	4	7	
R. P. Webster, Barton, Vt.				
Storr's‡ Egg Mash†.....	15	4	7	

DRIED SKIMMILKS

C. E. Buell, Inc., Boston, Mass.				
Buell-Boston	31	0.2	..	
Dairymen's League Co-Operative Assoc., Inc., Utica, N. Y.				
Dairylea Choice Feed Grade.....	33	0.5	..	
New England Dairies, Inc., Boston, Mass.				
New England Dairies.....	32	0.25	..	
Queensboro Farm Products, Inc., Long Island City, N. Y.				
.....	32	0.75	..	
St. Albans Grain Co., St. Albans, Vt.				
.....	32	0.5	..	
United Farmers' Cooperative Creamery Assoc., Inc., Morrisville, Vt.				
.....	32	0.5	..	
Ward Dry Milk Co., St. Paul, Minn.				
Ward's Pure	32	1	..	

* See footnote, page 10.

† Open formula.

‡ Sic.

II. BRANDS FAILING TO MEET GUARANTIES

COTTONSEED MEALS

- E. T. ALLEN Co., Atlanta, Ga. *Empire 41% Prime*. 41/5.5/13. Four samples, one below protein guaranty (41%). Stock of Checkerboard Feed Store, Greensboro Bend, 37.03%. Two samples below protein guaranty but within tolerance limits. Average 4 samples low but within tolerance limits. 40.48%.
- ASHCRAFT-WILKINSON Co., Atlanta, Ga. *Cow-Eta Brand 41% Prime Quality*. 41/5/13. Eleven samples, one below protein guaranty (41%). Stock of South Hero Grain Co., South Hero, 39.99%. Four samples below protein guaranty but within tolerance limits. Average 11 samples 41.04%.
- F. W. BRODÉ CORP., Memphis, Tenn. *Owl Brand 41% Prime*. 41/5/10. One sample below protein guaranty (41%). Stock of A. H. Merrill Co., Norwich, 39.99%.
- L. B. LOVITT & Co., Memphis, Tenn. "*Lovitt Brand*" 41%. 41/5/13. Ten samples, 3 below protein guaranty (41%). Stocks of H. W. Demick, Inc., Derby Line, 39.56%; St. Albans Grain Co., St. Albans, 40.08%; E. T. & H. K. Ide, St. Johnsbury, 39.56%. Five samples below protein guaranty but within tolerance limits. Average 10 samples low but within tolerance limits, 40.55%.
- MARIANNA SALES Co., Memphis, Tenn. *White Mule Brand*. 41/6/10. One sample below protein guaranty (41%). Stock of Goddette Bros., Essex Center, 39.56%.

LINSEED MEALS

- SHERWIN-WILLIAMS Co., LTD., OF CANADA, Montreal, P. Q., Can. *Screwpress*. 35/6.5/8. Four samples, 3 below protein guaranty (35%). Stocks of F. A. Amsden, Greenboro Bend, 33.86%; City Feed Co., St. Albans, 33.95%; St. Albans Grain Co., St. Albans, 33.60%. One sample below protein guaranty but within tolerance limits. Average 4 samples 33.93%.

COCOANUT OIL MEAL

- PROCTER & GAMBLE Co., Cincinnati, Ohio. *P. & G.* 20/5/11. One sample below protein guaranty (20%). Stock of Enosburg Grain Co., Enosburg Falls, 19.06%.

DISTILLERS' AND BREWERS' DRIED GRAINS

- DEWEY BROS. Co., Blanchester, Ohio. *Corn 3D*. 28/9/13. Seven samples, one below protein guaranty (28%). Stock of W. T. Simonds, Brandon, 27.12%. Average 7 samples, 28.80%.
- DEWEY BROS. Co., Blanchester, Ohio. *Corn & Rye Distillers'*. 24/7/16. One sample below protein guaranty (24%). Stock of Farmers' Feed & Grain Co., St. Albans, 23.27%.
- DRIED GRAINS CORP., Baltimore, Md. *Corn-Barley, Malt Rye Distillers'*. 24/6/16. One sample below protein guaranty (24%). Stock of S. R. White, Northfield, 19.33%.
- F. W. KELLEY, St. Johnsbury, Vt. *Kelley's Rye Distillers'*. 17/5/20. Two samples, one below protein guaranty (17%). Stock of For-All Grain Co., S. Ryegate, 16%. Average 2 samples 18.23%.
- WILBER FEED Co., INC., Jamestown, N. Y. *Corn Distillers'*. 28/8.5/13. Two samples. Fat below guaranty (8.5%); found 5.50%.
- WILBER FEED Co., INC., Jamestown, N. Y. *Corn Distillers'*. 24/7/16. Two samples below protein guaranty (24%). Stocks of A. D. Pease Grain Co., Burlington, 23.01%; A. D. Pease Grain Co., Shelburne Falls, 23.18%. Average 2 samples, 23.10%.

WHEAT OFFALS

- LAKESIDE MILLING Co., Toronto, Canada. *Sea Gull Shorts*. 16/5/8. One sample above fiber guaranty (8%). Stock of Plainfield Grain Warehouse, Plainfield, 8.76%.
- EXCELSIOR MILLING Co., Minneapolis, Minn. *Pure Camel Fancy Mixed Feed*. 16/4/7.5. Two samples, one below protein guaranty (16%). Stock of McIndoes Cash Grain Store, McIndoes, 15.39%. Average 2 samples low but within tolerance limits. 15.74%.
- NIAGARA FALLS MILLING Co., Lockport, N. Y. *Choice Wheat Red Dog*. 16/4/4. One sample above fiber guaranty (4%). Stock of Smith Estate, W. Rutland, 4.66%.

ALFALFA MEALS

FERNANDO VALLEY MILLING & SUPPLY Co., Los Angeles, Calif. *Ideal Green Sun-Cured Leaf*, 20/3/18. One sample below protein guaranty (20%). Stock of Groton Grain Co., Groton, 19.41%. Fat low but within tolerance limits.

MISCELLANEOUS

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Vigor-Feed*, 5/1/28. Three samples, 2 below protein guaranty (5%). Stocks of E. T. Chatterton, Middlebury, 3.48%; A. L. Doner, Sheldon Jct., 3.39%. Average 3 samples, 4.36%. Fat below guaranty but within tolerance limits.
- J. A. FORREST, Minneapolis, Minn. *Ground Grain Screenings*, 13/6/16. One sample below both protein and fat guaranties (13%, 6%). Stock of Davis Feed Co., Rutland, 11.71%, 4.47%.
- QUAKER OATS Co., Chicago, Ill. *North Star Oatmeal*, 16/6/35. One sample below protein guaranty (16%). Stock of Community Feed Stores, Inc., Westminster Station, 14.25%.
- QUAKER OATS Co., Chicago, Ill. *Vim Feed*, 5/2/30. Eleven samples, 6 below protein guaranty (5%). Stocks of H. A. Slayton, Morrisville, 3.74%; St. Albans Grain Co., St. Albans, 4.53%; For-All Grain Co., S. Ryegate, 3.83%; E. W. Bailey & Co., Swanton, 4.18%; W. L. Brown Estate, W. Burke, 3.65%; Community Feed Stores, Inc., Westminster Station, 3.91%. One sample below protein guaranty but within tolerance limits. Average 11 samples, 4.62%. Fat low but within tolerance limits.
- QUAKER OATS Co., Chicago, Ill. *Vim Oat Mill Feed*, 5/1.5/30. Five samples, one below protein guaranty (5%). Stock of C. E. Lanpher, Morrisville, 3.91%. Average 5 samples, 5.24%.
- QUAKER OATS Co., Peterborough, Ont. *Sugared Vim Oat Mill Feed*, 5/1.25/27.5. Seven samples, 3 below protein guaranty (5%). Stocks of C. E. Lanpher, Morrisville, 4.53%; Guy Catlin, Randolph, 4.53%; Community Feed Store, Westminster Station, 4.53%. One sample below protein guaranty but within tolerance limits. Average 7 samples, 5.09%.
- UPPER HUDSON RYE FLOUR MILLS, INC., Troy, N. Y. *Rye Feed*, 15.5/3/6. Five samples, 4 below protein guaranty (15.5%). Stocks of Depot Cash Grain Store, Chester Depot, 14.51%; C. H. Stearns & Son, Johnson, 14.51%; Elliot & Churchill, Middlebury, 13.99%; Davis Feed Co., Rutland, 13.55%. Average 5 samples, 14.72%. Fat below guaranty but within tolerance limits.

DAIRY FEEDS OR RATIONS

- BETHEL MILLS, Bethel, Vt. *Bethel Mills 20 Protein*, 20/4.5/6.5. One sample above fiber guaranty (6.5%). Stock of Bethel Mills, Bethel, 7.11%.
- BETHEL MILLS, Bethel, Vt. *Bethel Mills 20 Protein Sweetened*, 20/4.5/6.5. One sample above fiber guaranty (6.5%). Stock of Bethel Mills, Bethel, 7.01%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore 32% Supplemental*, 32/4/9. Two samples, one below protein guaranty (32%). Stock of South Hero Grain Co., South Hero, 31.51%. Average 2 samples, 32.47%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Granger 20%*, 20/4/11. Nine samples, one below protein guaranty (20%). Stock of Mintzer Bros., Rutland, 19.41%. One sample below guaranty but within tolerance limits. Average 9 samples, 21.25%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Dairyman's Emergency*, 20/3/12. Five samples, one below protein guaranty (20%). Stock of E. T. Chatterton, Middlebury, 18.54%. One sample below protein guaranty but within tolerance limits. Average 5 samples low but within tolerance limits, 19.92%. Fiber above guaranty but within tolerance limits.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Sweet Digesto*, 16/4/12. Two samples below fat guaranty (4%); found 3.42%.
- JOHN W. ESHELMAN & SONS, Lancaster, Penna. *Challenge*, 24/4/11. One sample below fat guaranty (4%). Stock of W. J. Rogers, Middlebury, 3.72%.
- GREAT ATLANTIC & PACIFIC TEA Co., New York City. *Milky Way*, 24/4/9. Eight samples, 2 below protein guaranty (24%). Stocks of A. & P. Store, Bellows Falls, 21.96%; A. & P. Store, Enosburg Falls, 22.22%. Two samples below protein guaranty but within tolerance limits. Average 8 samples low but within tolerance limits 23.97%. Fat below guaranty (4%); found 3.56%.
- C. E. JOHNSON & Co., Island Pond. *Johnson's Regular*, 20/4/10. Two samples above fiber guaranty (10%); found 11.27%.

- C. E. JOHNSON & Co., Island Pond. *16 Special*. 16/3/11. One sample below protein and above fiber guaranties (16%, 11%). Stock of C. E. Johnson & Co., Island Pond, 14.60% protein, 15.49% fiber.
- T. J. MCGOVERN, Cambridge, Vt. *McGovern's 20% Farm Relief*. 20/4/12. Two samples, one below protein guaranty (20%). Stock of T. J. McGovern, Cambridge, 18.98%. One sample below protein guaranty but within tolerance limits. Average two samples, 19.37%. Fat below guaranty but within tolerance limits.
- MARITIME MILLING Co., Buffalo, N. Y. *Bull Brand 20% Sweet*. 20/4/5/11. One sample below fat guaranty (4.5%). Stock of W. T. Simonds, Brandon, 4.02%.
- GEORGE Q. MOON & Co., INC., Binghamton, N. Y. *U. S. 24%*. 24/3/12. One sample below protein guaranty (24%). Stock of Tom McKenzie, Shelburne, 23.09%.
- MT. MANSFIELD COOPERATIVE CREAMERY ASSOC., INC., Stowe, Vt. 20%. 20/6/8. One sample below fat guaranty (6%). Stock of Mt. Mansfield Cooperative Creamery Assoc., Inc., Stowe, 5.07%.
- PARK & POLLARD Co., Boston, Mass. *Bidwell 24%*. 24/4/11. One sample below protein guaranty (24%). Stock of Farmers' Grain & Feed Co., E. Barre, 21.34%.
- PARK & POLLARD Co., Buffalo, N. Y. *Bidwell 20%*. 20/4/11. Four samples, 3 below protein guaranty (20%). Stocks of Valley Grain Store, Bradford, 18.71%; Park & Pollard Grain Store, Chester Depot, 18.63%; Farmers' Grain & Feed Co., E. Barre, 19.33%. Average 4 samples, 19.24%.
- PARK & POLLARD Co., Boston, Mass. *Manamar Doublex 20*. 20/4/10. Nine samples, 2 below protein guaranty (20%). Stocks of Park & Pollard Grain Store, Chester Depot, 19.06%; Farmers' Grain & Feed Co., E. Barre, 18.89%. Two samples below protein guaranty but within tolerance limits. Average 9 samples, 20.08%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore 32% Supplement*. 32/4/8. Five samples, 3 below protein guaranty (32%). Stocks of Frank Davis Grain Store, Bellows Falls, 29.66%; St. Albans Grain Co., St. Albans, 30.80%; Junction Grain Co., White River Junction, 30.89%. Average 5 samples low but within tolerance limits, 31.32%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Utility 16%*. 16/3/13. Six samples, one below protein guaranty (16%). Stock of Batchelder Mills, Plainfield, 15.30%. Average 6 samples, 17.22%.
- CHAS. M. SEAVER & Co., Williamstown, Vt. *Honor Brand 24*. 24/5/5/9. One sample below fat guaranty (5.5%). Stock of C. M. Seaver & Co., Williamstown, 4.60%.
- H. A. SLAYTON & Co., Morrisville, Vt. *Economy*. 20/3.75/8.5. One sample above fiber guaranty (8.5%). Stock of H. A. Slayton & Co., Morrisville, 9.61%.
- C. H. UTLEY, Hardwick, Vt. *Veri-Best Balanced*. 20/5/7.5. One sample above fiber guaranty (7.5%). Stock of C. H. Utley, Hardwick, 8.75%.

CALF AND HOG FEEDS

- ALLIED MILLS, INC., Chicago, Ill. *Wayne Pork Maker*. 14/3.5/7. Five samples, one below protein guaranty (14%). Stock of W. J. Rogers, Brandon, 13.46%. Average 5 samples, 14.43%.

MEAT SCRAPS, MEAT AND BONE MEALS

- CONSOLIDATED RENDERING Co., Boston, Mass. *Corenco 50% Meat*. 50/6/— . Three samples, one below protein guaranty (50%). Stock of Junction Grain Co., White River Junction, 48.98%. Average 3 samples, 52.02%.
- CONSOLIDATED RENDERING Co., Boston, Mass. *Corenco Bone*. 20/2/— . Two samples below fat guaranty (2%), 0.69%.
- CONSUMERS' IMPORT Co., INC., New York City. *Cico Brand Steamed Bone*. 5.14/1/1. Fat below guaranty (1%). Stock of W. L. Brown Estate, West Burke, 0.69%.

SCRATCH FEEDS

- E. T. & H. K. IDE, St. Johnsbury, Vt. *Ideal Scratch*. 10/3/4. Four samples, fat below guaranty (3%); found 2.61%.
- GEORGE Q. MOON & Co., INC., Binghamton, N. Y. *Moon's Baby Chick*. 10/3/2.5.

- One sample, fat below guaranty (3%). Stock of W. R. Broughton, Poultney, 2.03%.
- QUAKER OATS Co., Chicago, Ill. *Quaker Ful-O-Pep Fine Chick*. 11/2.5/2. One sample below protein guaranty (11%). Stock of A. D. Pease Grain Co., Burlington, 10.57%.
- S. E. SMITH ESTATE, West Rutland, Vt. *Smith Estate Blue Ribbon Scratch*. 11/3.5/4. One sample below protein and fat guaranties (11%, 3.5%). Stock of S. E. Smith Estate, West Rutland, 9.78%, 3.07%.
- WEST-NESBITT, INC., Oneonta, N. Y. *Pure Feed Chick*. 11/4.5/3. One sample below protein and fat guaranties (11%, 4.5%). Stock of E. L. Thompson, Poultney. 10.57%, 2.67%.
- WEST-NESBITT, INC., Oneonta, N. Y. *Pure Feed Scratch*. 10/3.5/5. One sample below fat guaranty (3.5%). Stock of E. L. Thompson, Poultney, 2.99%.

MASHES

- CHAPIN & Co., Hammond, Ind. *Chapin Kernels Grow All*. 20/5/4.5. One sample, fat below guaranty (5%). Stock of Putnam Mills, Bennington, 4.68%.
- GRAND UNION Co., New York City. *Peerless Laying*. 20/4/7. Two samples, one below protein guaranty (20%). Stock of Grand Union Store, Rutland, 18.80%. Average, 2 samples low but within tolerance limits, 19.63%. Fiber above guaranty (7%); found 7.74%.
- PARK & POLLARD Co., Boston, Mass. *Manamar Complete*. 16/3.5/6. One sample above fiber guaranty (6%). Stock of Farmers' Grain & Feed Co., E. Barre, 7.50%.
- PARK & POLLARD Co., Boston, Mass. *Manamar Complete Life Cycle*. 16/3.5/6. Six samples above fiber guaranty (6%); found 7.63%.
- QUAKER OATS Co., Chicago, Ill. *Quaker Ful-O-Pep Chick Starter*. 17/5/7. Three samples, one below protein guaranty (17%). Stock of E. C. Crosby, Danby, 16.35%. Average 3 samples 17.46%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Breeder*. 20/4.5/7. Four samples, one below protein guaranty (20%). Stock of Hugh Rand, S. Royalton, 18.71%. Average 4 samples low but within tolerance limits, 19.52%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Laying*. 20/4.5/7. Thirteen samples, 4 below protein guaranty (20%). Stocks of A. H. Greeley, Gassetts 18.89%; J. A. Ryan Estate, Milton, 18.89%; H. P. Munson, Morrisville, 17.84%; H. Waite & Son, Morrisville, 19.24%. Five samples low but within tolerance limits. Average 13 samples low but within tolerance limits, 19.68%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Laying with Cod Liver Oil*. 20/4/7. Twenty-three samples, 4 below protein guaranty (20%). Stocks of Star Feed Co., Burlington, 19.33%; C. H. Utley, Hardwick, 19.33%; C. H. Stearns & Son, Johnson, 18.63%; Dennison & Phillips, Pittsford, 19.06%. Thirteen samples below protein guaranty but within tolerance limits. Average 23 samples low but within tolerance limits, 19.78%.
- WAYNE COUNTY GRANGERS FEED CORP., Clyde, N. Y. *Superior Growing with Cod Liver Oil and Buttermilk*. 20/4/7. Three samples, one below protein guaranty (20%). Stock of E. L. Thompson, Poultney, 16.61%. Average 3 samples 19.21%.

DRIED SKIMMILKS

- DAIRYMEN'S LEAGUE COOPERATIVE ASSOCIATION, INC., Utica, N. Y. *Dairyalea Choice Feed Grade*. 33/0.5/—. Six samples, one below protein guaranty (33%). Stock of Hugh Rand, S. Royalton, 31.94%. Average 6 samples 33.13%.

COMMERCIAL FEEDING STUFFS

III. INGREDIENT STATEMENTS

The following pages set forth the ingredient contents of all brands of proprietary feeds which were sampled and analyzed as declared upon the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturer. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on the following pages.

Dairy feeds are listed alphabetically by manufacturer's names on pages 26 to 31; stock, horse, fitting, etc., feeds on pages 32 and 33; calf and hog feeds on pages 34 and 35; scratch grains, etc., on pages 36 and 37; mashes and other poultry feeds made of fine ingredients on pages 38 to 42.

Fifty-six brands (13 percent) of the proprietary feeds subjected to microscopic analysis were found to be not "as certified." They were distributed as follows: 22 dairy feeds, 5 stock feeds, 4 calf and hog feeds, 7 scratch grains and 18 mashes. In only 25 brands was a declared ingredient "not detected." In 13 of these brands iodine could not be found. Iodine is used in feeds in several forms, as iodized salt, iodized calcium carbonate, or potassium iodide. It is often very difficult to detect, for rarely is as much as a pound of the ingredient used in a ton and commonly less than this. The other missing ingredients were dried beet pulp, malt sprouts, iron oxide, copper sulphate, bicarbonate of soda, milo maize, sunflower seed, charcoal, dried blood and gluten meal. Undeclared ingredients were found in 31 brands. Nine of them (6 dairy feeds, 2 scratch grains, and 1 mash) carried weed seeds in what seemed to be undue amounts. The other additional ingredients were ground oats, corn meal, malt sprouts, brewers' dried grains, alfalfa, ground wheat, kaffir-milo, salt, bone meal and charcoal, all perfectly legitimate materials.

Apparently the cheaper ingredients are being used somewhat more freely than of late, because there is a demand for low-priced goods. For example, ground grain screenings were found in 30 brands of dairy feeds and in two each of stock and hog feeds. Economy is worth while, but when the buyer looks at price rather than quality he may not be using good judgment. The most digestible dry matter for a dollar should be sought, so be it enough digestible protein is present.

There is this to be said concerning the relatively unfavorable results secured in this inspection and the increased usage of inferior ingredients, that feed manufacturers were put to it last winter to secure sufficient supplies. The unprecedented drought of 1934 lessened available supplies to such an extent that quality sometimes suffered.

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Coconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hobniny feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Allied Mills, Inc.																								
Wayne Amco 32% Supplement†	32/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
Wayne Amco 24%†	24/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
Empire 24%	24/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne Amco 20%	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne Amco 20%†	20/3½/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Empire 20%†	20/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Empire 16½%	16.5/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne Amco 16%	16/3½/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
E. W. Bailey & Co.																								
Capital	24/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Capital	24/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
New Deal	20/5/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Favorite	20/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Favorite	20/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Our 20 Special	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bailey's 16%	16/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Beacon Milling Co.																								
Beacon Sweet "20"	20/4½/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Auburn	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 11
Bethel Mills																								
Bethel Mills 24 Protein	24/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein	20/4.5/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein Sweetened	20/4.5/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20 Protein Sweetened Economy	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 16 Protein Pasture	16/4.2/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Chapin & Co.																								
Unicorn 24%	24/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Unicorn 20%	20/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Community Feed Stores, Inc.																								
Community 20	20/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
E. C. Crosby																								
Crosby's A Quality 20%†	20/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Crosby's B Quality 20%†	20/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Danville Grain Co., Inc.																								
Danville 20%	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Davis Feed Co., Inc.																								
Vermont 20%	20/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Davis 20% Kow Feed	20/4.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
H. W. Demick, Inc.																								
Beats 'Em All	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																								
Eastern States 32% Supplement†	32/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5

† Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlines
	Protein	Fat	Fiber																					
Eastern States Farmers' Exchange—Continued																								
Eastern States Milk-																								
more†	24/4.5/8										*	*	*	*	*	*	*	*	*	*	*	*	*	5
Eastern States Fulpail†	20/4.5/8																							5
Eastern States High-																								
land 20†	20/4/12			*								*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States High-																								
land 16†	16/4/11			*								*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States Sixteen†	16/4/8											*	*	*	*	*	*	*	*	*	*	*	*	5
Elmore Milling Co., Inc.																								
32% Supplemental	32/4/9			*								*	*	*	*	*	*	*	*	*	*	*	*	
Elmore Milk Grains	24/4½/10			*	*							*	*	*	*	*	*	*	*	*	*	*	*	4
Elmore Milk Grains																								
(Sweetened)	24/4.5/10			*	*							*	*	*	*	*	*	*	*	*	*	*	*	4
Granger 24%	24/4/10			*	*							*	*	*	*	*	*	*	*	*	*	*	*	1
Elmore Milk Grains Jr.	20/4.5/10			*	*							*	*	*	*	*	*	*	*	*	*	*	*	4
Elmore Milk Grains																								
Junior Sweet	20/5/10			*	*							*	*	*	*	*	*	*	*	*	*	*	*	4
Elmore Milk Grains Jr.																								
(Sweetened)	20/4½/10			*	*							*	*	*	*	*	*	*	*	*	*	*	*	4
Granger 20%	20/4/11			*	*							*	*	*	*	*	*	*	*	*	*	*	*	1
Dairyman's Emergency	20/3/12			*	*							*	*	*	*	*	*	*	*	*	*	*	*	6
Elmore Sweet Digesto	16/4/12			*	*							*	*	*	*	*	*	*	*	*	*	*	*	
John W. Eshelman & Sons																								
Eshelman Challenge	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Eshelman Red Rose 24	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Eshelman Lancaster 20	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Eshelman Conestoga 20	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Eshelman Pennsy 16	16/3/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
For-All Grain Co., Inc.																								
For-All Milk Grains 20%	20/5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 10
J. H. Grandin Milling Co.																								
Grandin's 32%	32/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
M-S 24% Sweet	24/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Grandin's Sweetened 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Swt. 12 Twin Six 12	22/5/12 *			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
M-S 20% Sweet	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Grandin's Sweetened 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Economy 20% Sweetened	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
St. A. & P. Co.																								
Milky Way 24%	24/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 8
Milky Way 20%	21/3½/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 8
Daily Milk	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
E. T. & H. K. Ide																								
Ideal Sweetened	24/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Sunshine	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Royal Sweetened	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ide's Special	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
C. E. Johnson & Co.																								
Regular	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Special	16/5/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

† Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Race Milling Co.																								
Race's 24%	24/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Race's 20%	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Race's 18%†	18/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ralston Purina Co.																								
Purina Red Checker																								
Cow Chow (34%)	34/3.5/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Red Checker 34%	34/3/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Protena 24%	24/3.5/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Green Checker																								
Cow Chow (24%)	24/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Green Checker 24%	24/3/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Blue Checker																								
Cow Chow (20%)	20/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Protena 20%	20/3.5/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Protena 20%	20/3/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15, 18
Protena 16% (Buffalo Mill)	16/3.5/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Body Cow Chow	16/3.5/12	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Bulky Cow Chow	16/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Richmond Feed Co.																								
Richmond Special																								
22 Per Cent†	22/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
St. Albans Grain Co.																								
Wirthmore 32 Supplement	32/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore 25 Balanced	25/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore 25 Balanced Sweetened	25/4.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Hygrade 24 Sweetened Milk	24/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Champlain Valley Emergency 24	24/3.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 20%	20/5/8½	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore 20 Sweetened	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore 20 Swt. Oil	20/4½/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23
Utility	20/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Utility	20/3.5/11.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Hygrade 20 Sweetened Milk	20/3.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Champlain Valley Emergency 20	20/3.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore 16 Sweetened	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 16 Swt. Oil	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23
Utility 16	16/3/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Seabury Grain Co.																								
Our Own Make 20%	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Our Own Make Special	20/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7

† Open formula.

DAIRY FEEDS—concluded

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linsed meal	Molasses	Oats	Oat mill feed	Salt	Screemines	Soy bean meal	Wheat bran	Wheat middlins
	Protein	Fat	Fiber																					
C. M. Seaver & Co.																								
Honor Brand 24	24/5½/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Vim-20	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Honor Brand	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Henry A. Slayton & Co.																								
Economy	20/3.75/8.5			*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. A. Smith																								
Smith's	20/4/12			*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	
S. E. Smith Estate																								
Smith Estate 24%†	24/5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Smith Estate 20%	20/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Smith Estate 18%†	18/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. H. Stearns & Son Co.																								
Stearnco All Grain				*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	
20% Milk	20/4/9			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	
J. D. Thompson Est.																								
Special 20%	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Tioga-Empire Feed Mills, Inc.																								
20% Crematine	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11, 14, 16, 17
J. G. Turnbull Co.																								
Creamery	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Turnbull's Special	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Frank Tyler																								
Tyler's 20% Ready				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Mixed	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. H. Utley																								
Veri-Best Balanced	20/5/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne County Grangers																								
Feed Corp.																								
32% Reliance Supplemental	32/4/10			*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 11, 12
Milk Producer 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 11, 12, 14, 25
Galen 24%†	24/4/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 19
Superior 20%†	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 11, 12, 125
Clyde 20%†	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 19
Sweetened 16%†	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 11, 12, 125
Ray P. Webster																								
Ray's Ready	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
W. S. Wright																								
Open Formula 20%	20/4.5/8									*	*	*	*	*	*	*	*	*	*	*	*	*	*	20

† Open formula.
 Additional ingredients: 1. Barley. 2. Wheat. 3. Kelp. 4. Malt sprouts. 5. Dicalcium phosphate. 6. Copra oil meal. 7. Phosphatic limestone. 8. Corn feed meal. 9. Sea shells. 10. Rye feed. 11. Tricalcium phosphate. 12. Cocoa meal. 13. Dried ground fish. 14. Iodine, charcoal. 15. Iodized salt. 16. Palm kern oil meal. 17. Peanut oil meal. 18. Corn germ meal. 19. Cocoa oil meal. 20. Union minerals (bone black calcium carbonate, sodium chloride, charcoal, fenugreek, potassium iodide). 21. Rye distillers' grains. 22. Potassium iodide. 23. Cod-liver oil. 24. Meat scraps. 25. Iron sulphate. 26. Iodized ground limestone.

The dairy feeds were found to be "as certified" with the following exceptions:

In the following instances, the ingredients named were "not detected":

Tioga Mills, Inc., 20% Creamatine: Potassium iodide.
 J. G. Turnbull Co., Creamery: Dried beet pulp.
 Wayne County Grangers Feed Corp., Galen 24%: Malt sprouts.
 Wayne County Grangers Feed Corp., Superior 20%: Iodine and iron sulphate.

In the following instances, small quantities of the ingredient named were found in addition to those certified:

Allied Mills, Inc., Empire 20%: Few whole weed seeds.
 Allied Mills, Inc., Empire 16%: Few whole weed seeds.
 Eastern States Farmers' Exchange, E. S. 32% Supplement: Ground oats.
 Elmore Milling Co., Granger 24%: Corn meal.
 J. W. Eshelman & Sons, Eshelman Pennsy: Few whole weed seeds.
 C. E. Johnson & Co., Regular: Salt.
 C. E. Johnson & Co., Special: Salt.
 Maritime Milling Co., Sweetened B-B Bull Brand "20": Occasional whole weed seeds.
 Maritime Milling Co., B-B Hi-Test 20% Protein Sweetened: Few whole weed seeds.
 Maritime Milling Co., B-B Marmico 16% Protein with Molasses: Few whole weed seeds.
 Geo. Q. Moon & Co., Inc., U. S. 24%: Salt.
 Park & Pollard Co., Bidwell 24%: Corn meal.
 Park & Pollard Co., Overall 24%: Small amount of ground oats.
 Park & Pollard Co., Bidwell 20%: Corn meal.
 Park & Pollard Co., Yankee: Malt sprouts.
 Park & Pollard Co., Top Notch 16%: Small amount of corn meal.
 Park & Pollard Co., Manamar Top Notch 16%: Small amount of corn meal.
 St. Albans Grain Co., Wirthmore 32 Supplement: Corn meal.
 J. G. Turnbull Co., Creamery: Brewers' dried grains.

Fifty ingredients were used in making 156 brands of dairy feeds sampled. Cottonseed meal appears in all but one; corn gluten meal or feed and salt in all but three; and wheat bran in all but four; linseed meal, calcium carbonate in eight-tenths; corn meal in seven-tenths; soy bean meal in six-tenths; wheat middlings, ground oats and hominy feed in five-tenths; brewers' dried grains, corn distillers' dried grains and bone meal in four-tenths; and barley, oat mill feed and screenings in two-tenths of brands sampled.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linsed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlines	Wheat red dour
	Protein	Fat	Fiber																	
Allied Mills, Inc.																				
Wayne Rabbit	13/3/11	*		*	*	*							*	*						9, 12, 18, 19, 20, 21
June Pasture	10/0.5/21	*											*							
Wayne Supreme Horse	9.5/3/8								*				*	*				*		
Empire Stock	9/4/11			*	*	*				*			*	*	*	*	*	*		
E. W. Bailey & Co.																				
Bailey's Pasture	15.5/3.75/10			*	*	*				*	*	*	*	*	*	*	*	*	*	4, 7
Sweetened Bailey's Fitting	14/4/9			*	*					*	*	*	*	*	*	*	*	*	*	
Pennant Horse	10.75/3.5/6.5								*	*	*	*	*	*	*	*	*	*	*	
Sweetened with Molasses													*	*	*	*	*	*	*	
Pennant Brand Stock	9.5/4/9.5	*		*						*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																				
Eastern States Highland 12†	12/3.5/10.5			*	*					*	*	*	*	*	*	*	*	*	*	4, 9, 14
Eastern States Highland 12†	12/3/10½	*		*	*					*	*	*	*	*	*	*	*	*	*	9, 14
Eastern States Fitting†	12/3.5/7.5	*		*	*					*	*	*	*	*	*	*	*	*	*	2, 9, 21
Eastern States Fitting†	12/3½/7			*	*					*	*	*	*	*	*	*	*	*	*	2, 9
Eastern States Horse and Calf†	10.5/3.5/7									*	*	*	*	*	*	*	*	*	*	2
Eastern States Horse†	10.5/3.5/7									*	*	*	*	*	*	*	*	*	*	2
Eastern States Succulence†	10/2/14.5	*							*	*	*	*	*	*	*	*	*	*	*	
Elmore Milling Co., Inc.																				
Elmore Fitting	12/4/9			*	*					*	*	*	*	*	*	*	*	*	*	7
Elmore Super Silage	12/2/15	*		*	*					*	*	*	*	*	*	*	*	*	*	3, 4
Elmore Stock	10/3/12			*	*					*	*	*	*	*	*	*	*	*	*	
Elmore Steam Cooked Horse	9/4/6			*	*					*	*	*	*	*	*	*	*	*	*	
Elmore Horse with Molasses	9/2.5/11	*							*	*	*	*	*	*	*	*	*	*	*	
John W. Eshelman & Sons																				
Eshelman Red Rose Fitting	12/3.5/7			*	*	*				*	*	*	*	*	*	*	*	*	*	
Eshelman S-O-S	11/2/15	*		*	*					*	*	*	*	*	*	*	*	*	*	3, 4
Eshelman Steamed-Cooked Horse	9/4/6			*	*					*	*	*	*	*	*	*	*	*	*	
Eshelman Conestoga Horse	9/3/10									*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose 85 Horse	9/3/10	*								*	*	*	*	*	*	*	*	*	*	
Eshelman Garden Spot Horse	7/2/11									*	*	*	*	*	*	*	*	*	*	
D. H. Grandin Milling Co.																				
Grandin's Sweetened Horse	9.5/3.5/11	*							*	*	*	*	*	*	*	*	*	*	*	
Grandin's Stock	8.5/4/12	*		*	*				*	*	*	*	*	*	*	*	*	*	*	5
E. T. & H. K. Ide																				
Ideal Fitting	12/4/10	*		*	*					*	*	*	*	*	*	*	*	*	*	
Imperial Grain & Milling Co.																				
Imperial Steam Cooked	9.5/4/4.6			*	*					*	*	*	*	*	*	*	*	*	*	
Kasco Mills, Inc.																				
Kasco Horse	9/3/10	*		*	*					*	*	*	*	*	*	*	*	*	*	
Maritime Milling Co., Inc.																				
B-B Dealers' Mixing with Molasses	10/3.5/12			*	*					*	*	*	*	*	*	*	*	*	*	

Open formula.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty		Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat																	
Park & Pollard Co.																			
Fitting	12/3.5/7						*	*			*	*	*	*	*				6
Manamar Fitting	12/3.5/7						*	*			*	*	*	*	*				1, 6, 8
Yankee Horse	10/3.5/9						*	*			*	*	*	*	*				
Park & Pollard Stock	9/4/12						*	*			*	*	*	*	*				
Quaker Oats Co.																			
Quaker Sugared Schumacher	10/3/12						*	*			*	*	*	*	*				9, 11, 22
Schumacher Special Horse																			
—Cubed	10/2.5/12						*	*			*	*	*	*	*				9, 11, 22
Ralston Purina Co.																			
Heifer Growing Chow	14/2.5/14		*		*		*	*			*	*	*	*	*				9, 10
Purina Fitting Chow	13.5/2.6/12		*		*		*	*			*	*	*	*	*				9, 10
Purina Bulky Omolene	10/3.2/11		*		*		*	*			*	*	*	*	*				10
Purina Omolene	10/3.2/9		*		*		*	*			*	*	*	*	*				10
Purina Bulky Las Chow																			
(Buffalo Mill)	9/1.3/15		*		*		*	*			*	*	*	*	*				3, 10
Protena Sweet Feed "D"	6/1/25		*		*		*	*			*	*	*	*	*				10
St. Albans Grain Co.																			
Wirthmore 14 Fitting	14/4/7		*	*	*		*	*			*	*	*	*	*				6, 13
Wirthmore Rabbit	14/3.5/9		*	*	*		*	*			*	*	*	*	*				7, 12, 13,
																			15
Hygrade Fitting	12/4.5/8		*	*	*		*	*			*	*	*	*	*				9, 13
Wirthmore Fodder Greens	10/3/15		*		*		*	*			*	*	*	*	*				3, 4
Wirthmore Horse	9.8/3.25/9		*		*		*	*			*	*	*	*	*				
Hygrade Horse	9.5/3.25/9		*		*		*	*			*	*	*	*	*				
Wirthmore Stock	9/4/9.5		*	*	*		*	*			*	*	*	*	*				
Ubiko Milling Co.																			
Honeycomb Fitting	12/2.5/15		*		*		*	*			*	*	*	*	*				2, 3, 4, 20,
																			23
Crusader Horse	9/2.5/10		*		*		*	*			*	*	*	*	*				
Wayne County Grangers																			
Feed Corp.																			
Universal Horse	10/3/9		*	*	*		*	*			*	*	*	*	*				

Additional ingredients: 1. Kelp. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Sea shells. 9. Soy bean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skim milk. 13. Cod-liver oil. 14. Distillers' dried grains. 15. Cracked wheat. 16. Wheat germ. 17. Corn germ meal. 18. Dried buttermilk. 19. Ground wheat. 20. Iron oxide and potassium iodide. 21. Sardine oil. 22. Iodized ground limestone. 23. Copper sulphate.

The stock feeds were found to be "as certified" with few exceptions.

In the following instances, the ingredients named were "not detected":

Allied Mills, Inc., Wayne Rabbit: Potassium iodide.

Ubiko Milling Co., Honeycomb Fitting: Potassium iodide, copper sulphate.

In the following instances small quantities of the ingredients named were found.

J. W. Eshelman & Sons, Eshelman Garden Spot Horse: Alfalfa.

Maritime Milling Co., Inc., B-B Dealers' Mixing with Molasses: Small amount of ground grain screenings.

St. Albans Grain Co., Hygrade Fitting: Bone meal.

Ubiko Milling Co., Honeycomb Fitting: Small amount of malt sprouts.

Forty ingredients were used in making the 54 brands of stock feeds, etc., sampled. Molasses appears in nine-tenths; oats and salt in seven-tenths; wheat bran in six-tenths; corn meal in five-tenths; linseed meal, alfalfa meal, cracked corn and calcium carbonate in four-tenths; hominy feed and oat mill feed in three-tenths; barley

CALF MEALS, HOG FEEDS

Albers Bros. Milling Co., Calf Manna 25/4/5. Powdered skim milk, oat meal, ground corn, soluble meat extract, linseed meal, ground hulled barley, ground wheat, wheat shorts, dextrose, soy bean meal, coconut oil meal, cod-liver oil, anise, iodized salt 1%, steamed bone meal 1%, oyster shell meal 1%.

Allied Mills, Inc., Wayne Calf Meal 24/4/7. Dried skim milk, cottonseed meal, corn gluten meal, coconut oil meal, wheat bran, wheat middlings, soy bean meal, 2% limestone, 1% steamed bone meal, 1% salt, 0.06% iron oxide, 0.0007% potassium iodide, cane molasses, wheat red dog.

Allied Mills, Inc., Wayne Pig Starter 18/3.5/7. Digester tankage, fish meal, peanut oil meal, cottonseed meal, soy bean oil meal, wheat flour middlings, corn meal, fine ground alfalfa meal, oat meal, molasses, 1% limestone, 0.5% bone meal, 0.04% iron oxide, 0.5% salt, 0.0005% potassium iodide, and 0.0005% copper sulphate.

Allied Mills, Inc., Wayne Pork Maker 14/3.5/7. Digester tankage, ground oats, corn meal, wheat standard middlings, alfalfa meal, cane molasses, 1% ground limestone, 0.5% steamed bone meal, 0.02% iron oxide, 0.0005% potassium iodide, 0.0005% copper sulphate, and 1% salt.

Beacon Milling Co., Inc., Beacon Calf Pellets 25/3.5/4. Dried skim milk, blood flour, fish meal, linseed meal, hominy meal, corn meal, wheat red dog, soy bean meal, ground oat groats, pulverized barley, anti-rachitic oil, 1% calcium carbonate, ½% calcium phosphate, ½% salt, 1% protozyme (an enzyme supplying a product derived from biochemically processed cereals).

Blatchford Calf Meal Co., Blatchford's Calf Meal 24/5/6.75. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, linseed meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate, wheat flour, coconut oil meal, cottonseed meal, fenugreek, anise, salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula) 23/3.5/4. Rolled oat groats, corn meal, wheat bran, linseed meal, blood flour, dried skim milk, dicalcium phosphate, salt.

Eastern States Farmers' Exchange, Eastern States Hog Meal (Open Formula) 14.5/4/5.5. Corn meal, meat scraps, wheat flour middlings, linseed meal, alfalfa leaf meal, dicalcium phosphate, calcium carbonate, salt.

Eastern States Farmers' Exchange, Eastern States Hog Meal 14.5/4/4.5. Corn meal, meat scraps, wheat flour middlings, wheat bran, linseed meal, alfalfa leaf meal, dicalcium phosphate, calcium carbonate, sardine oil, salt.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal 24/4/4. Wheat red dog, corn meal or corn feed meal, oatmeal, linseed meal, malted barley, blood meal, dried buttermilk, bone meal, salt.

Elmore Milling Co., Inc., Elmore's Makemgrow Little Pig Ration 18/4.5/7. Wheat middlings, corn feed meal or hominy feed, linseed meal, wheat red dog, tankage, salt.

Elmore Milling Co., Inc., Elmore's Hog Ration 15/5/6. Wheat middlings, linseed meal, corn meal, corn feed meal or hominy, tankage, salt.

John W. Eshelman & Sons, Eshelman Red Rose Calf Starter 20/3/5. Wheat feed, linseed meal, wheat middlings, wheat flour, oatmeal, kaffir corn, blood flour, 2% flaxseed, 1% bone meal, ½% calcium carbonate, ¼% salt, ¼% fortified cod-liver oil.

John W. Eshelman & Sons, Red Rose Hog Meal 16/5/10. Wheat middlings, corn feed meal, digester tankage, wheat bran, 3% bone meal, 2% fish meal, 2% linseed meal, 2% charcoal, reground grain screenings, 1% calcium carbonate, 1% salt.

Larowe Milling Co., Larro Pork-Maker 25/5/10. Meat scraps, dried beet pulp, linseed meal, wheat standard middlings, alfalfa meal, wheat bran, 3% limestone, 1% salt, soy bean meal.

Larowe Milling Co., Larro Calf Meal 23/4/4. Oatmeal, wheat standard middlings, corn meal, linseed meal, blood flour, dried skim milk, cod-liver oil vitamin extract, 0.5% limestone, 0.75% salt.

Larowe Milling Co., Larro Pig Feed 16/4/6. Wheat bran, corn meal, wheat standard middlings, meat and bone scraps, linseed meal, soy bean meal, alfalfa, dried beet pulp, 1¼% limestone, 1% salt.

Park & Pollard Co., Milkade Calf Meal 20/7/6.5. Ground malt, linseed meal, wheat bran, wheat flour, coconut oil meal, bone meal 1%, rice polish, wheat middlings, sesame oil meal, blood flour 3%, limestone, fenugreek, anise, salt, kelp, fish meal, sea shells, soy bean meal.

Park & Pollard Co., Go Tu It Pig & Hog Ration. 15/3.5/8. Alfalfa meal, hominy, barley, fish meal, meat meal, bone meal, corn meal, corn germ meal, wheat middlings, ground grain screenings, calcium carbonate, salt.

Quaker Oats Co., Schumacher Calf Meal. 18/7/4. Oatmeal, ground flaxseed, ground puffed wheat, linseed meal, dried skim milk, blood flour, 0.50% bicarbonate of soda, 0.75% salt, 1% iodized ground limestone, 1% bone meal.

Race Milling Co., Race's Hog Feed. 18/4/8. Flour middlings, corn meal, linseed meal, meat scraps, alfalfa meal, calcium carbonate and salt.

Ralston Purina Co., Purina Calf Starting Chow. 23/3.2/7. Dried skim milk, linseed meal, soy bean meal, blood flour, wheat flour (second clear), corn meal, 1% calcium carbonate, 1% iodized salt.

Ralston Purina Co., Purina Calf Starting Chow. 23/3.2/7. Dried skim milk, linseed flour, soy bean meal, fish meal, blood flour, alfalfa leaf meal, ground oats, wheat middlings, bolted corn meal, molasses, 1% calcium carbonate, 1% iodized salt.

Ralston Purina Co., Purina Hog Fatena. 14/3/7. Tankage, linseed meal, corn germ meal, wheat middlings, hominy, molasses, alfalfa meal, 1.5% iodized salt.

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skim milk, oatmeal, ground flaxseed, blood flour, linseed meal, wheat red dog, corn meal, bone meal, iodized salt, anise, fenugreek, cod-liver oil.

St. Albans Grain Co., Wirthmore Pig and Hog Feed. 17/4/9. Meat scraps, fish meal, bone meal, wheat red dog, wheat middlings, wheat bran, linseed meal, alfalfa meal, corn meal, ground barley, corn gluten feed, calcium carbonate, cane molasses, dairy salt, hominy feed.

The calf and hog meals were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne Pig Starter: Copper sulphate.
Allied Mills, Inc., Wayne Pork Maker: Potassium iodide.
Quaker Oats Co., Schumacher Calf: Bicarbonate of soda.

In the following instance, small quantities of the ingredients named were found in addition to those certified:

Ralston Purina Co., Purina Hog Fatena: Charcoal and bone meal.

There were 53 ingredients used in the 13 brands of calf meals sampled. Linseed meal and salt appear in all; blood flour in 11; skim milk in 9; corn meal and calcium carbonate in 8; bone meal in 7; oatmeal and wheat middlings in 6; soy bean meal and cod-liver oil in 5; anise, wheat red dog, ground flax and coconut oil meal in 4 of the brands sampled.

There were 31 ingredients used in the 13 brands of pig and hog feeds sampled. Wheat middlings and salt appear in 12; linseed meal and alfalfa meal in 9; corn meal in 8; meat scraps and tankage in 6; hominy feed and bone meal in 5; wheat bran and fish meal in 4; and fine ground grain screenings in 2 of brands sampled.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE
 OR CRACKED GRAINS

Scratch Grains, etc.	Guaranty												
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kafir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat
Allied Mills, Inc.													
Wayne Scratch	10/2.5/4				*	*	*	*			*	*	
Wayne Intermediate Scratch	10/2/4				*	*	*	*			*	*	
Wayne Special Scratch	9/2.5/4				*	*	*	*			*	*	
Empire Scratch	9/2.5/4				*	*	*	*			*	*	
Wayne Chick	9/2/4				*	*	*	*	*		*	*	
Screened Cracked Corn	8.5/2.5/2.5				*	*	*	*			*	*	
E. W. Bailey & Co.													
Pennant Scratch	10/3/6.5				*	*	*	*		*	*	*	
Pennant Brand Coarse Chick	10/3/3				*	*	*	*			*	*	3
Pennant Fine Chick	10/3/3				*	*	*	*			*	*	3
Beacon Milling Co., Inc.													
Beacon Special Scratch	10/2/3.5				*	*	*	*			*	*	
Community Feed Store, Inc.													
Community Scratch	10/3/4				*	*	*	*			*	*	
Eastern States Farmers' Exchange													
Eastern States Scratch (with whole corn)†	10.5/2.5/4								*		*	*	1
Eastern States Scratch (with coarse cracked corn)†	10/2.5/4				*	*	*	*		*	*	*	
Eastern States Scratch 1931†	9.5/2.5/3				*	*	*	*			*	*	
Eastern States Intermediate Scratch†	9.5/2/3				*	*	*	*			*	*	
Eastern States Chick†	9.5/2/3				*	*	*	*			*	*	
Elmore Milling Co., Inc.													
Elmore Scratch	10/2.5/7				*	*	*	*			*	*	
Emco Scratch	10/2.5/7				*	*	*	*			*	*	
Elmore Intermediate Chick	10/3/3				*	*	*	*			*	*	3
Elmore Chick	10/2.5/3.5				*	*	*	*			*	*	2
John W. Eshelman & Sons													
Eshelman Red Rose Scratch	10/2.5/4				*	*	*	*			*	*	
Eshelman Lancaster Scratch	9/2.5/4				*	*	*	*			*	*	
Eshelman Pennsy Scratch	9/2.5/4				*	*	*	*			*	*	
First National Stores, Inc.													
Henfield Scratch	10/2.5/5				*	*	*	*			*	*	
D. H. Grandin Milling Co.													
Economy Scratch	10/2.5/5				*	*	*	*			*	*	
Grandin's Screened Scratch	10/2.5/5				*	*	*	*			*	*	
Grandin's Baby Chick	10/2.5/5				*	*	*	*	*		*	*	
Grandin's Intermediate Chick	10/2.5/5				*	*	*	*			*	*	
Grand Union Co.													
Peerless Scratch	10/2.5/5				*	*	*	*	*		*	*	
Great Atlantic & Pacific Tea Co.													
Daily Growth Fine Chick	10/3/5				*	*	*	*	*		*	*	3
Daily Egg Scratch	10/2.5/5				*	*	*	*	*	*	*	*	
E. T. & H. K. Ide													
Ideal Scratch	10/3/4				*	*	*	*			*	*	
Kasco Mills, Inc.													
Kasco Scratch	9/2.5/4				*	*	*	*			*	*	
Larrowe Milling Co.													
Larro Scratch	10/2/4				*	*	*	*			*	*	
Larro Chick Grains	10/2/4				*	*	*	*			*	*	3
Larro Growing	10/2/4				*	*	*	*			*	*	3
R. H. McEwen Milling Co.													
McEwen's Red Feather Scratch	10/2.5/5				*	*	*	*	*		*	*	

† Open formula.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty												
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Peas	Sunflower seed	Wheat
Geo. Q. Moon & Co., Inc.													
Moon's Baby Chick Grains	10/3/2.5					*			*			*	
Moon's Scratch	10/2/5			*	*	*						*	*
Park & Pollard Co.													
Red Ribbon Scratch	10/3/5			*	*	*	*	*	*		*	*	*
Intermediate Chick	10/3/3.5			*	*	*	*	*	*		*	*	3
Park and Pollard Chick Scratch	10/3/3			*	*	*	*	*	*		*	*	3
Bidwell Scratch	10/1.5/5			*	*	*	*	*	*	*	*	*	
Park & Pollard Economy Scratch	10/1.5/5			*	*	*	*	*	*		*	*	
Quaker Oats Co.													
Quaker Ful-O-Pep Fine Chick	10/2.5/2					*			*			*	3
Quaker Ful-O-Pep Coarse Chick	10/2/2.5					*			*			*	3
Early Bird Fine Chick, No Grit	10/2/2					*			*			*	3
Early Bird Coarse Chick	9.5/2/3.5			*	*	*			*			*	
Big Egg Scratch, No Grit	9.5/2/3.5			*	*	*			*			*	
Quaker Ful-O-Pep Scratch	9/2/3			*	*				*			*	
Ralston Purina Co.													
Purina Hen Chow	10/2.5/4			*	*	*	*	*	*			*	*
Purina Chick Chow (Coarse)	10/2.5/4			*	*	*	*	*	*			*	3
Purina Chick Chow (Fine)	10/2/4			*	*	*	*	*	*			*	3
Protena Scratch	9.5/2/4			*	*	*	*	*	*			*	*
St. Albans Grain Co.													
Wirthmore Scratch	10/2.5/4			*	*	*			*			*	*
Mornin' Call Poultry	10/2.5/4			*	*	*			*			*	*
Wirthmore Intermediate Scratch	10/2.5/3.5			*		*			*			*	3
Wirthmore Baby Chick Scratch	10/2.5/3.5			*		*			*			*	3
Mornin' Call	9.5/2.5/4			*	*	*			*			*	*
S. E. Smith Estate													
Smith Estate Blue Ribbon Scratch	11/3.5/4			*	*	*			*			*	*
Ubiko Milling Co.													
Ubiko Chick	9/2.5/5					*	*		*			*	3
Wayne County Grangers Feed Corp.													
Grange Superior Scratch	10/3/6			*	*	*			*			*	
Superior Little Chick	10/2.5/5			*	*	*			*			*	4
West-Nesbitt, Inc.													
Pure Feed Chick	11/4.5/3			*		*			*			*	2
Pure Feed Scratch	10/3.5/5			*	*	*			*			*	

Additional ingredients: 1. Whole corn. 2. Pin-head oatmeal. 3. Oat groats. 4. Barley with trace of wild seeds.

The scratch feeds were found to be "as certified" with few exceptions.

In the following instances, the ingredients named were "not detected":

- Elmore Milling Co., Inc., Elmore Chick: Milo.
- Geo. Q. Moon., Inc., Moon's Scratch: Sunflower.

In the following instances small quantities of ingredients named were found.

- D. H. Grandin Milling Co., Economy Scratch: Occasional whole weed seeds.
- Larrowe Milling Co., Larro Scratch: Oats.
- Larrowe Milling Co., Larro Chick: Small amount of millet.
- Quaker Oats Co., Early Bird Fine Chick, No Grit: Kaffir milo.
- Quaker Oats Co., Big Egg Scratch, No Grit: A few whole weed seeds.

Fourteen ingredients were used in 65 scratch feeds, etc. Corn and wheat were

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
	Protein	Fat	Fiber																				
Allied Mills, Inc.																							
Wayne Concentrate	32/4/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 33
Wayne Turkey Starting	23/4/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 5, 26
Wayne Breeder	18/4/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 6, 7, 26
Wayne Broiler	18/3.5/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26
Wayne Egg	18/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne Egg||	18/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26
Wayne Chick Starter	17/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne Chick Starter||	17/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26
Empire Egg	16.5/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2
Empire Egg||	16.5/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 26
Wayne Growing	16/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne Growing||	16/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26
Empire Starter and Grower	16/3.5/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Empire Starter and Grower||	16/3.5/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 26
Wayne All Mash Laying	15.5/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3
Wayne Turkey	15/3.5/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 5
Wayne Poultry Fattener	13.5/3.5/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6
E. W. Bailey & Co.																							
Pennant Brand Laying	20/5/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Pennant Laying 1934	20/5/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Pennant Brand Laying†‡	20/5/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 20
Pennant Chick Starter	17/5/5	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 5, 20
Pennant Brand Growing	15/5/5	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 5, 20
Beacon Milling Co., Inc.																							
Beacon Breeders*	20/4/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 16, 34, 35
Beacon's Cayuga Laying*	20/4/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 16, 34
Beacon Complete Starting	17.5/4/6	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16, 34
Beacon Broiler	17/4/6	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16, 34
Beacon Growing	17/4/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16, 34
Beacon Cayuga Growing	15/4/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 16, 34
Chapin & Co.																							
Chapin's Kernels Start All	21/5/4.5	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 9, 13, 18, 21
Chapin Kernels Grow All	20/5/4.5	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9, 13, 18, 21
Chapin Kernels Lay All	20/3.5/5	*	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 9, 13, 18, 21
Community Feed Stores, Inc.																							
Community Milk Laying	20/4/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 24
Community Chick (Starter-Broiler)†	18/5/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 20
Community Growing*†	17/4.5/8	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 24
Eastern States Farmers Exchange																							
Eastern States Turkey Breeder†	24/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 11, 24, 26
Eastern States Producer 20†	20/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 11, 24, 26

* With buttermilk. † Open formula. ‡ With cod-liver oil. § With sardine oil. ¶ With cod-liver meal.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—*continued*

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Eastern States Farmers' Exchange—Continued																						
Eastern States Developer†	18.5/4/6.5	*	*							*	*			*	*	*	*		*			1, 2, 11, 24, 26
Eastern States Starting and Broiler†	18.5/4/5	*								*	*			*	*	*	*		*			1, 11, 24, 26
Eastern States Producer†	17/4/6.5	*								*	*			*	*	*	*		*			1, 11, 24, 26
Eastern States Egg†	17/4/6.5	*								*	*			*	*	*	*		*			11, 24, 26
Eastern States Combination†	15/4/6.5	*								*	*			*	*	*	*		*			1, 11, 24, 26
Eastern States Fattener†	14.5/4.5/4.5	*								*	*			*	*	*	*		*			1, 2, 18
Elmore Milling Co., Inc.																						
Elmore Egg	18/4/8	*					*	*	*	*	*	*	*	*	*	*	*		*			4, 21
Elmore Eggmaker	17/4.5/8	*			*		*	*	*	*	*	*	*	*	*	*	*		*			
Elmore Growing	17/4/8	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4, 21
Elmore Chixsaver	16.5/4/8	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 4
Elmore Complete Starting and Growing	16/4/8	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 4
Elmore Complete Laying	16/4/6	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 4
John W. Eshelman & Sons																						
Eshelman Red Rose Laying	20/5/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			
Eshelman Red Rose Laying†	20/5/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Eshelman Red Rose Broiler†	17/4.5/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Eshelman Red Rose Growing†	16/4/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Eshelman Red Rose All Mash Starter	16/4/6.5	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
First National Stores, Inc.																						
Henfield Egg	20/5/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
D. H. Grandin Milling Co.																						
Grandin's Laying*†	20/4/8	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Grandin's Laying*	20/4/8	*			*		*	*	*	*	*	*	*	*	*	*	*		*			
Grandin's Starting*†	16/4/6	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Grandin's Growing*†	15/4/8	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Grandin's Complete Laying	15/4/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Grandin's Combined Chick and Broiler	15/4/6	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Grandin's Poultry Green Food	10/1/25	*																				9, 15
Grand Union Co.																						
Peerless Laying	20/4/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			4
Great Atlantic & Pacific Tea Co.																						
Daily Egg	20/4.5/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 2, 3, 4, 20
Daily Growth Growing	17.5/4/7	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 4
Daily Growth Chick Starter	16/5/4	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 4, 21
E. T. & H. K. Ide																						
Ideal Egg	20/4.5/6	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 4, 11, 24
Jersee Co.																						
Just Right Egg 18%	18/5/8	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 4, 5, 8, 11, 12, 14, 27, 28, 29, 30, 31
Kasco Mills, Inc.																						
Apex Laying	20/4/8.5	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 2, 4, 12
Kasco Laying Mash	20/4/6.5	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 2, 4, 12
Kasco All Mash Laying	15/4/6	*			*		*	*	*	*	*	*	*	*	*	*	*		*			1, 2, 4, 12

* With buttermilk. † Open formula. ‡ With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bones meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Larrowe Milling Co.																						
Larro Turkey Grower	24/4.5/6.5	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Larro Egg	19/4/7.5	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Larro Turkey Adult	19/4/7.5	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Larro Chick Starter	16.5/4.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Larro Growing	16/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Larro Broiler	15.5/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
R. H. McEwen Milling Co.																						
McEwen's Red Feather Egg	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 9
Maritime Milling Co., Inc.																						
Dollar\$Maker Egg																						
Vitamized†*	17/3.5/9	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4
Geo. Q. Moon & Co., Inc.																						
Moon's Laying Mash*	20/4/9	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 16
Moon's Growing	17/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 16
Moon's Baby Chick Starter	15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 16
Park & Pollard Co.																						
Manamar Lay or Bust	18/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 10, 23
Bidwell Dry‡	18/3/8.5	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17
Bidwell Dry	18/3/8	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Lay or Bust Dry	18/3/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Lay or Bust Dry‡	18/3/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17
Park & Pollard Chick																						
Starter	17/3.5/5	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 36
Manamar Complete	16/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 10, 23
Manamar Complete Life																						
Cycle	16/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 10, 23
Growing	14/3/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Growing‡	14/3/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Quaker Oats Co.																						
Quaker Ful-O-Pep Turkey																						
Starter	26/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Quaker Ful-O-Pep Egg	20/4.5/8	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Quaker Ful-O-Pep Broiler	19/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Quaker Ful-O-Pep Growing	19/5/6	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Big Egg Laying	18/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 26
Quaker Ful-O-Pep Chick																						
Starter	17/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26
Big Egg Growing	17/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 26
Race Milling Co.																						
Race's Poultry	20/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Ralston Purina Co.																						
Purina Turkey Startena	26/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 22, 25, 26
Purina Turkey Growing																						
and Fattening Chow	21/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9, 14
Purina Egg Chowder	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 14, 26
Purina Lay Chow	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 9, 14, 26
Purina Broiler Chow	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 26
Purina Chick Startena	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 22, 25, 26

* With buttermilk. ‡ With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linsed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
alston Purina Co.—continued																						
Purina Growing Chow	17/3.5/7	*						*	*	*	*			*		*			*	*		2, 6, 14, 22
Purina Growing Chow‡	17/3.5/7	*						*	*	*	*			*		*			*	*		2, 4, 6, 14, 22, 26
Purina Layena (Comp.)	15.5/3.5/8	*						*	*	*	*			*		*			*	*		2, 4, 14, 15, 26
Purina Chick Growena	15/3.5/7	*						*	*	*	*			*		*			*	*		2, 4, 14, 15, 22, 26
. Albans Grain Co.																						
Wirthmore Turkey Starting‡	24/4.5/7	**						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Breeder	20/4.5/7	**						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 6, 12
Wirthmore Turkey Breeder	20/4.5/7	**						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Turkey Growing	20/4/7	**						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Laying	20/4/7	**				*		*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 12
Wirthmore Laying‡	20/4/7	**				*		*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Baby Chick Starter‡	18/4/5	*						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 6, 12
Wirthmore Complete Chick and Broiler	17.5/4/5.5	*						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Turkey Fattening	16/4.5/7	**						*						*	*	*	*	*	*	*	*	1, 12
Wirthmore Pellets	15/4.5/6.5	**						*	*					*	*	*	*	*	*	*	*	1, 2, 4, 6, 9
Wirthmore Growing	15/4.5/6	**						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 12
Wirthmore Growing‡	15/4.5/6	**						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 12
Wirthmore Fleshing and Fattening	15/4.5/6	*						*	*	*	*			*	*	*	*	*	*	*	*	1, 4, 12
Wirthmore Complete Laying	15/4/5	*						*	*	*	*			*	*	*	*	*	*	*	*	1, 4, 12
Wirthmore Complete Growing	14/3.75/6	**						*	*	*	*			*	*	*	*	*	*	*	*	1, 2, 4, 12
E. Smith Estate																						
Smith Estate Egg Producer	18/4.5/7	*						*	*	*	*			*	*	*	*	*	*	*	*	1, 4
Ubiko Milling Co.																						
Ubiko Egg	20/4/6	*						*	*	*	*			*	*	*	*	*	*	*	*	2, 3, 4, 11, 12, 19
Ubiko All-Mash Starter	18/4/5	*						*	*	*	*			*	*	*	*	*	*	*	*	3, 4, 5, 11, 12, 19
Ubiko All-Mash Complete Laying	16/3.5/6	*						*	*	*	*			*	*	*	*	*	*	*	*	2, 3, 4, 11, 12, 19
Ubiko All Mash Developer	14/4/5	*						*	*	*	*			*	*	*	*	*	*	*	*	2, 3, 4, 11, 12, 19
Wayne County Grangers Feed Corp.																						
Superior Chick Starter*‡	20/4/7	*		*				*	*	*	*		*	*	*	*	*	*	*	*	*	4, 5, 30, 32, 37, 38
Superior Growing*‡	20/4/7	**		*				*	*	*	*		*	*	*	*	*	*	*	*	*	4, 5, 32, 37, 38
Superior Laying*‡	20/4/7	**		*				*	*	*	*		*	*	*	*	*	*	*	*	*	4, 5, 32, 37, 38
Superior Laying*‡	18/4/7	**		*				*	*	*	*		*	*	*	*	*	*	*	*	*	4, 32

* With buttermilk. ‡ With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—concluded

Mashes, etc.	Guaranty																						
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
Wayne County Grangers Feed Corp.—continued																							
Turkey Breeding and Laying	18/4/7								*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 5, 37, 38
Complete Laying*†	15/4/7	**						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 5, 37, 38
Ray P. Webster									*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Storr's† Egg†	15/4/7	*							*	*	*	*	*	*	*	*	*	*	*	*	*	*	4

* With buttermilk. † Sic. ‡ With cod-liver oil.
 Additional ingredients: 1. Dried skim milk. 2. Soy bean meal. 3. Iron oxide and potassium iodide. 4. Cod liver oil. 5. Charcoal. 6. Corn germ meal. 7. Crab meal. 8. Yeast. 9. Molasses. 10. Kelp. 11. Dicalcium phosphate. 12. Milk sugar feed (dried whey). 13. Milo. 14. Iodized salt. 15. Dried beet pulp. 16. Calcium phosphate. 17. Kafir corn. 18. Corn oil meal. 19. Copper sulphate. 20. Cod-liver meal. 21. Low-grade wheat flour. 22. Wheat germ. 23. Sea shells. 24. Oyster shell meal. 25. Oat middlings. 26. Sardine oil. 27. St John's bread. 28. Starch. 29. Anise. 30. Dried blood. 31. Iron oxide. 32. Tricalcium phosphate. 33. Peanut oil meal. 34. Anti-rachitic oil. 35. Protozyme (claimed to be an enzyme). 36. Rice. 37. Iodine. 38. Sulphat of iron.

The mashes and other fine poultry feeds were found to be "as certified" with few exceptions.

In the following instances, the ingredients named were "not detected":

Allied Mills, Inc., Wayne Turkey Starting: Iron oxide.
 Allied Mills, Inc., Wayne Breeder: Potassium iodide.
 Allied Mills, Inc., Wayne Egg with Sardine Oil: Potassium iodide.
 Allied Mills, Inc., Wayne Chick Starter with Sardine Oil: Potassium iodide.
 Allied Mills, Inc., Wayne Growing with Sardine Oil: Potassium iodide.
 Allied Mills, Inc., Wayne All Mash Laying: Potassium iodide.
 Chapin & Co., Chapin Kernels Start All: Charcoal.
 Jersee Co., Just Right Egg 18%: Iron oxide and dried blood.
 St. Albans Grain Co., Wirthmore Growing: Corn gluten meal.
 St. Albans Grain Co., Wirthmore Growing containing Fortified Cod-liver Oil: Corn gluten meal.
 Ubiko Milling Co., Ubiko All Mash Starter: Copper sulphate.
 Wayne County Grangers Feed Corp., Superior Chick Starter with Buttermilk and Cod-liver Oil: Iodine.
 Wayne County Grangers Feed Corp., Superior Laying with Buttermilk and Cod-liver Oil: Iodine and iron sulphate.
 Wayne County Grangers Feed Corp., Complete Laying with Buttermilk and Cod-liver Oil: Iodine.

In the following instances a small quantity of the ingredients named was found in addition to those certified:

Maritime Milling Co., Inc., Dollar \$ Maker Egg, Vitaminized with Cod-liver Oil and Dried Buttermilk: Few whole weed seeds.
 St. Albans Grain Co., Wirthmore Fleshing and Fattening: Salt.
 Wayne Co. Grangers Feed Corp., Superior Growing with Buttermilk and Cod-liver Oil: Ground wheat.
 Wayne Co. Grangers Feed Corp., Superior Laying with Buttermilk and Cod-liver Oil (1934): Charcoal.
 R. P. Webster, Storr's Egg with Clo-Irate Conc. Cod-liver Oil: Ground wheat.

There were 57 ingredients used in making 136 brands of mashes, etc., sampled. Alfalfa meal, wheat bran, wheat middlings, corn meal, ground oats, meat meal and salt appear in nine-tenths or more; dried skim milk and buttermilk and cod-liver oil, cod-liver meal, or sardine oil, in eight-tenths; fish meal and calcium carbonate in seven-tenths; dried skim milk and dried buttermilk in six-tenths; soy bean meal and corn gluten meal or feed in four-tenths; and linseed meal, ground barley and bone meal in three-tenths of brands sampled.

IV. MINERALS

The ash of all adequately fertilized crops contains sulphur, phosphorus, potassium, calcium, magnesium and iron, soil derived ingredients which are found likewise in most fertilizers. These elements are important ingredients of various parts of the animal body. If any of them is in insufficient supply, malnutrition, even death, results. When calcium, magnesium, potassium, sodium, copper, iron, manganese, phosphorus, chlorine and iodine are not supplied in sufficient amounts in an animal's ration, the bones are apt to become brittle, the nervous system to break down, anemia and other diseases to develop and death is likely to ensue.

Some of these elements are included nowadays in proprietary rations in the form of ground limestone, ground dolomitic limestone, oyster shells, steamed bone meal, dicalcium phosphate, phosphatic limestone, bone black, tricalcium phosphate, common salt, iodized salt, iron oxide, copper sulphate, dried whey (milk sugar feed), and dried buttermilk and skimmilk (note ingredient tables pages 26 to 42).

These elements occur in greater or less, although always in minute, amounts in practically all common feeding stuffs grown on normal fertile soils. Alfalfa, clover, timothy hays and other forage crops, when grown on fairly fertile or well fertilized soils and when properly harvested, contain many of them in sufficient quantities to meet the requirements of most domestic animals. These forage crops are, as a rule, richer in mineral matter than the grains.

Adequate fertilization and proper cutting and curing are important. Hays should be cut and dried at the proper time. Many farmers delay hay harvest until the crop is overripe and its dry matter less digestible than when cut earlier, in which event recourse must be had to purchased protein.

A few minerals, such as common salt and iodine, do not occur in the general run of feeding stuffs unless mixed with them. If not added to the purchased grain ration, rock salt should be made available to cows. Ground limestone and/or steamed bone meal should be used if rations are low in calcium and phosphorus. However, prolonged trials made at this Station seem to indicate that, as a rule, Vermont roughages contain a sufficiency of these elements and that their addition to a purchased ration is not necessary. "Hairlessness" or goitre in newborn animals is usually due to iodine deficiency and may be avoided if the mother has a sufficient supply of iodine during pregnancy. This trouble is not common in Vermont. One tablespoonful of a solution of

an ounce of potassium iodide dissolved in a gallon of water, if sprinkled daily on the feed, should serve.

Vitamins A and D are nowadays deemed essential. Roughage that has not lost its green color usually carries ample supplies. Corn and hay should be so handled as to retain their nutrients as well as their green color. Mineral assimilation is enhanced if these vitamins are present in sufficient quantities. If lacking, a good grade of vitamin A and D concentrate may be added during the winter months.

V. FEED STORAGE; CARE OF EMPTY BAGS

Processed grain and mixed feeds should be properly cared for in storage, especially during the hot, moist days of late summer, if they are to remain wholesome and palatable. Storage rooms should be cleaned at least every three months and, if possible, more often, the ceiling and walls swept down, the floors cleansed thoroughly in order to remove all feed dust, webs, sticky masses, beetles, bugs, worms and moths. A single pair of insects may breed hundreds within a few weeks. Whitewash or fly spray is good insurance.

Feed is better kept on a slatted platform than on the floor. The platform not only allows good air circulation but gives the cats a chance with the mice and rats. Air circulation prevents the absorption of moisture by the feed. Feed will take moisture from the air up to 15 or 20 percent of its weight, if the store room is not kept dry. The oldest feed stocks should be used first.

Feed piles should be kept low, especially in the summer, to obviate caking and decomposition, and repiling is advised at least every two weeks during hot, moist weather.

Feed kept in storage for more than a month may become infested with insects, weevils, etc., and should be carefully looked over before it is placed in contact with fresh stock, lest the latter become contaminated.

Empty bags should be carefully handled, all feed dust shaken out, and hung where they will be out of the way and free from insects or mice. The price rating of a No. 1 feed bag is accorded only when the burlap is sound, the bag free from dirt which cannot be removed by suction cleaning, is dry and free from spots, and contains no holes, cuts, snags, tears or strained spots. At least 100 bags should be shipped collect at one time to obtain minimum freight rates. The addresses of firms which buy second-hand feed bags may be found in the agricultural press.

The following table sets forth the essential facts as to the trade in Vermont, each brand being taken as a unit, the number of samples and brands collected, the number of protein determinations below guaranty and the nutrient deficiencies.

VI. TABULAR SUMMATION, APRIL, 1935, INSPECTION

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	72	65	7	17	15	2	2	..	..	..	..	..
Soy bean meals	13	13	..	3	3	..	..	..	..	..	..	..
Linseed meals	39	36	3	9	8	1	1	..	..	..	..	..
Cocanut oil meal	1	..	1	1	..	1	1	..	..	..	..	..
Gluten meals and feeds	76	76	..	11	11	..	..	..	..	..	..	..
Distillers' and brewers' dried grains	47	41	6	16	12	4	3	1	..	..	..	..
Wheat offals	322	321	1	91	89	2	..	..	2	..	..	..
Brans	129	129	..	33	33	..	..	..	..	..	..	..
Middlings	97	97	..	33	32	1	..	..	1	..	..	..
Mixed feeds	62	61	1	17	17	..	..	..	..	..	..	..
Red dogs	34	34	..	8	7	1	..	..	1	..	..	..
Alfalfa meals	15	14	1	7	6	1	1	..	..	..	..	..
Dried beet pulps	31	31	..	2	2	..	..	..	..	..	..	..
Hominy feeds	30	30	..	11	11	..	..	..	..	..	..	..
Miscellaneous	45	27	18	14	9	5	4	..	..	1	..	..
Proprietary feeds	1,478	1,443	35	437	409	28	7	10	8	2	1	..
Dairy	484	466	18	156	140	16	4	6	5	..	1	..
Stock, horse, etc.	240	240	..	54	54	..	..	..	..	..	..	..
Calf and hog	82	81	1	26	26	..	..	..	..	..	..	..
Poultry feeds	672	656	16	201	189	12	3	4	3	2	..	..
Scratch, chick	209	206	3	65	50	6	1	3	..	2	..	..
Mashes, growing	463	450	13	136	130	6	2	1	3	..	..	..
Meat scraps, bone meal	16	15	1	9	7	2	..	2	..	..	..	..
Skimmilks, etc.	14	13	1	7	7	..	..	..	..	..	..	..
Totals	2,199	2,125	74	635	589	46	19	13	10	3	1	..
Winter 1934-35	2,049	2,002	47	550	524	26	12	4	7	..	..	3
Spring 1934	1,901	1,869	32	551	527	24	8	10	4	2	..	..
Winter 1933-34	1,955	1,938	17	566	539	27	3	14	7	1	1	1
Spring 1933	2,052	2,007	45	552	509	43	11	22	8	1	..	1
Winter 1932-33	2,235	2,202	33	581	551	30	4	17	8	..	1	..
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	..	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	2	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3	1
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	..
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	..
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	..
Winter 1927-28	1,051	982	69	303	275	28	14	2	8	2	2	..
Spring 1927	1,254	1,197	57	395	365	30	17	9	4	..	..	..
Winter 1926-27	1,339	1,281	58	363	325	38	12	6	14	1	2	3
Spring 1926	1,147	1,109	38	332	288	44	10	13	12	..	7	2

* Protein, fat and fiber.

VII. AVERAGE PRICES, 1929-1935

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. The April, 1935, prices are on the average, about four dollars cheaper per ton than December, 1934.

	December, '29	April, '30	December, '30	April, '31	December, '31	April, '32	December, '32	April, '33	December, '33	April, '34	December, '34	April, '35
Cottonseed meals 43%....	\$55	\$54	\$43	\$42	\$30	\$30	\$27	\$29	\$33½	\$38½	\$51½	\$52
Cottonseed meals 41%....	63	48	41	40	29	28	27	27½	33½	37½	49½	44½
Cottonseed meals 36%....	50	47½	41	40	28	26	22½	..	..	..	47	41½
Linseed meals 37-39%....	..	..	..	..	..	..	..	31½	41½	44	50	37½
Linseed meals 34%.....	64	58	48	45	40	40	33½	32½	44	44	50½	41
Linseed meals 30-33%....	..	61	47	42	39	40	33	32½	44	45	49½	41
Soy bean meals.....	..	..	..	..	..	..	..	32	41½	42	48½	43
Gluten meals	60	54	49½	40½	34	28	27	29	38½	39	52	43
Gluten feeds	50½	43½	42	38	27	24	23	25	30½	31	43	37½
Brewers' dried grains....	..	..	..	..	..	..	..	28	30	31½	39½	36
Distillers' dried grains....	..	50	57	32	30	20	27	28	32½	35	41½	38
Wheat brans.....	40½	38½	30	31	25	24½	22	23½	26½	32	36½	34½
Wheat middlings:												
Standard	43½	39½	32½	31½	26	25½	21½	23	28½	32½	38½	36
Shorts	42	38	30	31	26	24½	21	23½	26½	31	36	34
Flour	45½	44	36	35	29	28	24	24½	32	33	41½	38
Wheat mixed feeds.....	46½	42	36	33	28	27	24	25	31	33½	40½	38½
Red dog flours.....	51½	45	39½	35	30	28	26½	25½	33½	33½	44½	41
Dried beet pulps.....	53	51	38½	35	28	28	28	27	30	30	41½	43
Hominy feeds.....	45½	50½	38	34½	27	24	20½	20½	27	31	42	37½
Alfalfa meals.....	50	62	54½	55	41	49½	38½	36½	38	39½	43½	42½
Proprietary feeds:												
Dairy 24%.....	54	50	45½	42	34	32	28½	29½	35½	37	46	42
20%.....	51½	48	42½	39½	32	33	27	28	33½	35	43½	40½
16%.....	48	43	39	35	30	27½	24	26	30½	31	41½	37½
Stock and horse 9-19%*	49	48½	42	40	34	32	29	29	37	37½	46½	43½
8%*	46½	..	44½	34	29	34	22	26½	..	34½	..	..
Fitting 9-12%.....	50½	45	43	39	31	29½	25	26½	34½	36	44	41
14%.....	53	45½	43	39	36	31½	28	28	37½	40½	47½	44
Calf	98	92½	89	84	80	74	69	66½	77½	67½	82	78½
Hog	57	53½	50	48	38	35½	32½	32½	40½	40	49	46½
Poultry:												
Scraps	75	70	82	75½	58	60½	55	38	44	47½	48	46
Scratches	52½	51	44½	41½	33	32½	27½	28½	37½	38	46½	44
Mashes	64	61	56	52	42	40	36	37	44	45½	52	50½
Chick grains	56½	55	52½	49	41	39	41½	32½	40½	46	56	49½
Chick mashes	70½	77	69½	63	48	49	39	43	49	52	56½	56½

* Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1929, 1930, 1931, 1932, 1933, 1934, and April, 1935, follow, 1923 being rated at 100.

	1923	1929	1930	1931	1932	1933	1934	Apr. 1935
Cottonseed meals	100	93	77	59	45	52	74	78
Linseed meals	100	107	90	71	64	63	80	67
Gluten meals and feeds.....	100	104	81	63	46	55	74	72
Wheat offals (exclusive of red dog)	100	105	89	72	59	66	87	88
Beet pulps	100	107	88	60	53	54	64	77
Hominy feeds	100	115	110	78	56	60	94	96
Proprietary:								
Dairy 24%.....	100	102	90	71	56	61	77	78
20%.....	100	100	87	68	57	58	74	76
16%.....	100	103	89	71	56	62	79	82
Stock and horse	100	116	110	84	72	79	100	106
Calf, hog, etc.	100	109	103	88	75	77	84	88
Scratches	100	104	98	77	66	64	82	82
Mashes	100	102	102	81	66	69	82	80

VIII. DEFICIENCIES, 1923-1935

The following tables set forth the proportions of the total number of brands found deficient in recent inspections and the detailed results.

Spring 1923.....	22%	Winter 1923-24.....	11%
Spring 1924.....	16%	Winter 1924-25.....	10%
Spring 1925.....	15%	Winter 1925-26.....	13%
Spring 1926.....	13%	Winter 1926-27.....	10%
Spring 1927.....	8%	Winter 1927-28.....	9%
Spring 1928.....	18%	Winter 1928-29.....	9%
Spring 1929.....	7%	Winter 1929-30.....	6%
Spring 1930.....	9%	Winter 1930-31.....	7%
Spring 1931.....	8%	Winter 1931-32.....	4%
Spring 1932.....	3%	Winter 1932-33.....	5%
Spring 1933.....	8%	Winter 1933-34.....	5%
Spring 1934.....	4%	Winter 1934-35.....	5%
Spring 1935.....	7%		

The showing has not been as satisfactory as in recent preceding collections. The deficiencies occur chiefly in protein and fat on distillers' dried grains, dairy rations and poultry feeds.

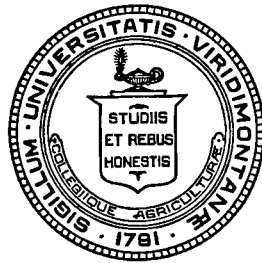
APRIL, 1936

BULLETIN 404

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station
BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER *and* E. F. BOYCE



47009

Two thousand three hundred forty-three samples, representing 586 brands, drawn from dealers' stocks during December, 1935, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respects up to guaranty in regard to their nutrient contents are listed on pages 4 to 20. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 21 to 23. Statements as to the ingredients used in the manufacture of the proprietary feeds and the manner in which their makers fulfilled their statements occur on pages 26 to 41.

It might be said, briefly, that 12 of the 201 brands of unmixed goods and 16 of the 384 brands of proprietary or mixed goods failed to meet their guaranties. This outcome is better than that secured in the inspection of samples drawn in April, 1935, and approximates that obtaining of late years. The general situation in respect to guaranty maintenance is set forth in the table and text at the close of the bulletin. A reasonably adequate inspection service has been in operation since 1923. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-35, 95 percent.

Thirteen brands of dairy rations and five brands of scratch feeds contained noticeable numbers of weed seeds. In all cases where an inferior ingredient was used in a mixture a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price last December, taking all classes of feeds as a unit, seems to have been not far from \$38, or \$5 less than last April's average and \$9 less than that of a year ago.

Note.—An unfortunate error occurred in bulletin 399 on pages 4 to 20, in that the "Crude fat" and "Crude fiber" captions in the tables of "brands in all respects up to guaranty" were interchanged.

BULLETIN 404: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in Sections 4479-4483, 7850-7864, 7885-7891, Public Laws, the following report is submitted setting forth the analysis of 2,343 samples collected in December, 1935. The object of the law is to prevent fraud or misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of cattle and poultry feeds offered for sale. The law does not forbid the sale of inferior feeds, but it provides through publicity clear information as to their real nature.

The table of contents follows:

- I. Brands in all respects up to guaranty—pages 4 to 20.
II. Brands failing to meet guaranty—pages 21 to 23.

	Up to guaranty	Below guaranty
	Page	Page
Cottonseed meals	4	21
Linseed meals	4	21
Soybean meals	4	..
Peanut meal	4	..
Corn gluten meals and feeds	5	..
Distillers' and brewers' dried grains	5	21
Wheat brans	5-7	21
Wheat middlings	7, 8	21
Wheat mixed feeds	8	22
Wheat red dog flours	8, 9	22
Hominy feeds	9	22
Dried beet pulps	9	..
Alfalfa meals	9	..
Miscellaneous	9, 10	22
Dairy rations	10-14	23
Stock, horse, fitting, rabbit feeds, etc.	14, 15	23
Calf and hog meals	15, 16	..
Meat and bone scraps and fish meal	16	..
Scratch and chick feeds	16, 17	23
Egg mashes, starters and growing feeds	17-20	23
Dried skimmilks	20	..

III. Ingredient statements—pages 24 to 41.
IV. Choice of factory-mixed goods—page 42.
V. Soybean meal—pages 42, 43.
VI. Tabular summation, December, 1935, inspection—page 44.
VII. Average prices, 1930-1935—pages 44 to 45.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
E. T. Allen Co., Atlanta, Ga.			
Empire 41% Protein	41	5.5	13
Ashcraft-Wilkinson Co., Atlanta, Ga.			
Cow-Eta Brand 41% Prime Quality	41	5	13
Cairo Meal and Cake Co., Cairo, Ill.			
Miss Cairo Brand 41 Percent Protein—Prime Quality ..	41	6	10
Eastern States Farmers' Exchange, Springfield, Mass.			
Eastern States 41% Choice	41	6	10
Humphreys-Godwin Co., Memphis, Tenn.			
"Bull Brand" 43% Protein—Prime Quality	43	5	11
Dixie Brand 41% Protein—Prime Quality	41	5	12
L. B. Lovitt & Co., Memphis, Tenn.			
"Lovit Brand" 41% Protein	41	5	13
Marianna Sales Co., Memphis, Tenn.			
White Mule Brand 41%	41	5	13
Ralston Purina Co., St. Louis, Mo.			
41% Protein	41	5	12
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
Triple Value Pure Old Process	37	4.5	9
32% Protein Old Process	32	4.5	9
Spencer Kellogg & Sons, Inc., Buffalo, N. Y.			
Kellogg's 37% Protein Old Process	37	4.5	9
Kellogg's 32% Protein Old Process	32	4.5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y.			
K. & M. Brand 34% Protein Pure Old Process	34	5	10
K. & M. Brand 32% Protein Pure Old Process	32	5	10
Sherwin-Williams Co., Cleveland, Ohio			
Sherwin-Williams Pure Old Process 37%	37	4.5	9
Sherwin-Williams Pure Old Process 34%	34	4.5	9
SOYBEAN MEALS			
Allied Mills, Inc., Chicago, Ill.			
Super Soy	37	5	6.5
Archer-Daniels-Midland Co., Minneapolis, Minn.			
Pure Old Process	41	4.5	7
Buckeye Cotton Oil Co., Cincinnati, Ohio			
Buckeye	41	4.5	7
Cairo Meal & Cake Co., Cairo, Ill.			
Miss Cairo Brand	41	4.5	7
Central Soya Co., Inc., Decatur, Ind.			
"Central"	41	5	7
Evans Milling Co., Indianapolis, Ind.			
Evans 41% Soybean Cake	41	4.5	7
Ralston Purina Co., St. Louis, Mo.			
41%	41	4.5	7
Shellabarger Grain Products Co., Decatur, Ill.			
Shellabarger's Cooked—Expeller Process	41	4.5	7.5
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's	41	4.5	7
PEANUT MEAL			
Ashcraft-Wilkinson Co., Atlanta, Ga.			
Hi-Pro Brand-Prime	45	6	10

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
CORN GLUTEN MEALS AND FEEDS			
American Maize-Products Co., New York, N. Y.			
Cream of Corn Gluten Feed.....	25	2	8.5
Clinton Co., Clinton, Iowa			
Clinton Corn Gluten Feed.....	25	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond Corn Gluten Meal.....	43	1	4
Buffalo Corn Gluten Feed.....	25	2	8.5
Heavy Buffalo Sweet Corn Gluten Feed	20	1	7
Hubinger Co., Keokuk, Iowa			
KeOKuK Corn Gluten Feed	25	2	8.5
Penick & Ford, Ltd., Inc., Cedar Rapids, Iowa			
Douglas Corn Gluten Meal.....	43	1	4
Douglas Corn Gluten Feed.....	25	1.5	8.5
Douglas Sweet Corn Gluten Feed	20	1	7
A. E. Staley Manufacturing Co., Decatur, Ill.			
Staley's Corn Gluten Feed	25	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union Corn Gluten Meal	43	1	3
Union Corn Gluten Feed	25	1	8
DISTILLERS' AND BREWERS' DRIED GRAINS			
Dewey Bros. Co., Blanchester, Ohio			
Corn 3D (Dewey's Distillers' Dried)	28	8	14
Farmers' Feed Co., New York, N. Y.			
"Bull Brand" Brewers'.....	26	6	17
F. W. Kelley, St. Johnsbury, Vt.			
Kelley's Rye Distillers'.....	17	5	20
C. J. Martenis Grain Co., New York, N. Y.			
Alco Dried Brewers'	24	6	20
Neumond Co., St. Louis, Mo.			
Neumond 28% Corn Distillers'	28	8	15
Neumond 28% Corn Distillers'	28	7	15
Neumond Dried Brewers'.....	24	4.5	18
St. Albans Grain Co., St. Albans, Vt.			
Brewers'	21	5	15
Corn Distillers'	27	7	14
Hiram Walker & Sons, Inc., Peoria, Ill.			
Corn Distillers'	30	6	14
WHEAT OFFALS—WHEAT BRANS			
Bay State Milling Co., Winona, Minn.			
Wingold Pure Hard	14.5	4.75	13
Coatsworth & Cooper, Toronto, Ont.			
C & C Pure	15	3.5	11.5
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed (+)	14	4	12
Commercial Milling Co., Detroit, Mich.			
Extra Fancy Pure Spring	17	4	11
Copeland Flour Mills, Ltd., Midland, Ont.			
Dandy	15	3.5	11.5
Duluth-Superior Milling Co., Minneapolis, Minn.			
Duluth Imperial (+)	15	3.75	13
Duluth-Universal Milling Co., Duluth, Minn.			
———— (+)	16	4.5	11

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT BRANS— <i>continued</i>			
B. A. Eckhart Milling Co., Chicago, Ill.			
Pure	14	3.5	12
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard	16	3	14
J. A. Forrest Co., Minneapolis, Minn.			
Alpine Canadian Pure	15	3.5	11.5
Bronco	15	3.5	11.5
General Mills, Inc., Minneapolis, Minn.			
Gold Medal Hard (+)	14	4	12
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco	15	3.5	11.5
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y.			
Choice (+)	13.5	3.5	14
International Milling Co., Minneapolis, Minn.			
Blackhawk Pure	15	3.2	12
Kansas Flour Mills Corp., Kansas City, Mo.			
Big Flake Pure	15	3.5	11
King Midas Milling Co., Minneapolis, Minn.			
Clover Leaf Pure	15	4	12
Lake-of-the-Woods Milling Co., Montreal, Que.			
Lake Woods	15	3.5	11.5
Lakeside Milling Co., Ltd., Toronto, Ont.			
Sea Gull	15	3.5	11.5
Larabee Flour Mills Co., Kansas City, Mo.			
Sunfed Pure Winter (+)	15	3.5	11
Maney Milling Co., Omaha, Neb.			
..... (+)	14.5	3.5	11
Maple Leaf Milling Co., Toronto, Ont.			
Rex (+)	15	3.5	12
Montana Flour Mills Co., Great Falls, Mont.			
Montco (+)	15	3	12
National Milling Co., Toledo, Ohio			
Pure	14	3	10
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Choice	15.5	4	11
Ogilvie Flour Mills, Ltd., Montreal, Que.			
Ogilvie's	15	3.5	11.5
Omaha Flour Mills Co., Omaha, Neb.			
Omar Pure	15	3	11
Parrish & Heimbecker, Ltd., Toronto, Ont.			
Parrheim Pure	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard (+).....	14	4	12
Quaker Oats Co., Chicago, Ill.			
Bell Cow (+)	15	3.5	10
Red Star Milling Co., Wichita, Kan.			
Red Star (+)	15	3.75	10
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior	15	3.5	11.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que.			
Premier	15	3.5	11.5
Southwestern Milling Div.,* Kansas City, Mo.			
Red Turkey Pure	15	3.5	10

* Of Standard Milling Co.

(+) "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT BRANS—concluded			
State Mill & Elevator, Grand Forks, N. Dak.			
Dakota Maid Pure	15	5	12
David Stott Flour Mills, Inc., Detroit, Mich.			
Spring (+)	14.5	4	12.5
Winter (+)	13.5	3.5	12
Stratton & Co., Concord, N. H.			
Stratton & Co.'s Fancy	14	4	11
George Urban Milling Co., Buffalo, N. Y.			
_____ (+)	14	3.5	12
Valley City Milling Co., Portland, Mich.			
Rowena	13.75	4	12.3
Victor Flour Mills, Victor, N. Y.			
Victor Spring (+)	15	4	11
Western Canada Flour Mills Co., Ltd., Toronto, Ont.			
Pioneer Pure	15	3.5	11.5

WHEAT OFFALS—WHEAT MIDDINGS			
S. J. Cherry & Sons, Ltd., Preston, Ont.			
Shorts	16	5	8
Coatsworth & Cooper, Toronto, Ont.			
C & C Shorts	16	5	8
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Flour (+) *	16	4	5
Sunfed Standard (+)	14.5	4	9.5
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard Standard (+)	16	4.5	9.5
Dairy Maid Soft Flour (+)	14.5	4.5	6
Dairy Maid Flour (+)	13	4.5	6
J. A. Forrest Co., Minneapolis, Minn.			
Bronco Shorts	16	5	8
General Mills, Inc., Minneapolis, Minn.			
Gold Medal Hard Standard (+)	15	4	9.5
Geneva Milling Co., Geneva, N. Y.			
Genesota Standard (+)	15	4	9.5
Frank B. Ham & Co., Ltd., Toronto, Ont.			
Hamco Brand Shorts	16	5	8
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y.			
Standard (+)	15	4.75	9.5
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+)	16	4.5	8.5
Kasco Mills, Inc., Waverly, N. Y.			
Kasco Flour	16	3.5	6
King Midas Mill Co., Minneapolis, Minn.			
Standard (+)	15	4	9.5
Maple Leaf Milling Co., Toronto, Ont.			
Rex (+)	16	5	7.5
National Milling Co., Toledo, Ohio			
Tolio	15	3.5	6
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard	16	5.63	9
Pillsbury Flour Mills, Inc., Minneapolis, Minn.			
Pillsbury's Hard A (+)	16	4	6
Pillsbury's Standard B (+)	15	4	9.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident Flour	15.5	4	5
Occident Standard	15	4	9.5

* Of Standard Milling Co.
 (A) "With ground screenings not to exceed mill run" or equivalent elsewhere

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIDLINGS—concluded			
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour	15	4	6
State Mill & Elevator, Grand Forks, N. Dak.			
Dakota Maid Standard (+)	16	5	8
David Stott Flour Mills, Inc., Detroit, Mich.			
Pennant (+)	15	4	9
Stott's Fine Flour (+)	14.5	3.5	6
Geo. Urban Milling Co., Buffalo, N. Y.			
(+)	15	4	9.5
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14	4.2	6
Western Canada Flour Mills, Ltd., Toronto, Ont.			
Pioneer Shorts	16	5	8
WHEAT OFFALS—WHEAT MIXED FEEDS			
E. W. Bailey & Co., Montpelier, Vt.			
Capital	14	3	7
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed	15	4	8.5
Elmore Milling Co., Inc., Oneonta, N. Y.			
Elmore Xtragood (+)	15	3	8
John W. Eshelman & Sons, Lancaster, Pa.			
Eshelman Choice	14.5	4	8.5
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+)	13.5	3.5	10
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Fancy (+)	15	3.5	7.5
E. T. & H. K. Ide, St. Johnsbury, Vt.			
Ideal	15	4	8
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Choice	14.5	4	10
Park & Pollard Co., Inc., Buffalo, N. Y.			
Heavy	15.5	3.5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+)	15	4	8.5
Ralston Purina Co., St. Johnsbury, Vt.			
Brooks' Fancy	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Occident Hard	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore (+)	15	3.75	8
David Stott Flour Mills, Inc., Detroit, Mich.			
Columbus Heavy (+)	14.5	3.7	8.5
Stratton & Co., Concord, N. H.			
Stratton & Co.'s (+)	13.5	4.11	7.13
WHEAT OFFALS—RED DOG FLOURS			
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed	16	4	4
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Pure Hard Adrian	16	3.5	4
International Milling Co., Minneapolis, Minn.			
Blackhawk	16	3.5	4
King Midas Mills Co., Minneapolis, Minn.			
.....	16.5	4	4

(+) "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—RED DOG FLOURS—concluded			
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's XX Daisy	16	4	4
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior	16.5	3.5	4
HOMINY FEEDS			
Evans Milling Co., Indianapolis, Ind.			
Emco	10	6	6
Kellogg Co. of Canada, Ltd., London, Ont.			
O-Corn-O	10	6.5	5
Kellogg Sales Co., Battle Creek, Mich.			
White	10	6	5
Chas. A. Krause Milling Co., Milwaukee, Wis.			
Badger White	10	6	5
Maple Leaf Milling Co., Toronto, Ont.			
White	10	6	5
Mt. Vernon Milling Co., Mt. Vernon, Ind.			
Poco	10	7	6
Patent Cereals Co., Geneva, N. Y.			
.....	10	5	5
Postum Div., General Foods Corp., Battle Creek, Mich.			
Burt's	10	6	5
Pratt Food Co., Inc., Buffalo, N. Y.			
White	10	5	6
Yellow	10	5	6
Quaker Oats Co., Chicago, Ill.			
White	10	5	5
Yellow	10	5	5
St. Albans Grain Co., St. Albans, Vt.			
Paragon	10	6	7
David Stott Flour Mills, Inc., Detroit, Mich.			
Yellow	9.5	5.5	5.5
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.			
.....	7	0.3	22.5
Molasses	7	0.3	20
ALFALFA MEALS			
Allied Mills, Inc., Peoria, Ill.			
.....	13.5	1.5	33
A. B. Caple Co., Toledo, Ohio			
.....	13	1	33
Denver Alfalfa Milling & Products Co., Lamar, Colo.			
Leafalfa	20	1.5	18
.....	13	1	33
Fernando Valley Milling Co., Los Angeles, Calif.			
.....	20	2.5	18
Pecos Valley Alfalfa Mill Co., Hagerman, N. Mex.			
Peevee Leaf	20	2.5	18
Ohio Pecos Special	13	1.5	33
MISCELLANEOUS			
Checkerboard Elevator Co. St. Louis, Mo.			

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
MISCELLANEOUS—concluded			
J. A. Forrest Co., Minneapolis, Minn.			
Bronco Fine Ground Feeding Oatmeal	15	5	3.9
D. H. Grandin Milling Co., Jamestown, N. Y.			
Grandin's Poultry Green Food	10	1	25
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.			
Corn Feed Meal	9	2.5	4
New Richmond Roller Mills Co., New Richmond, Wis.			
Feeding Oat Meal	15	5	3.75
Pratt Food Co., Inc., Buffalo, N. Y.			
Oat Feed	5	1.5	30
Purity Oats Co., Keokuk, Iowa			
Chief Hi-Hat Oat Feed	12	4.5	19
Quaker Oats Co., Chicago, Ill.			
Banner Feed	13	4.5	19
Vim Feed	5	2	30
Vim Oat Mill Feed	5	1.5	30
Sugared Vim Oat Mill Feed	5	1.25	27.5
Ralston Purina Co., St. Louis, Mo.			
Protena Sweet Feed D	6	1	25
Upper Hudson Rye Flour Mills, Inc., Troy, N. Y.			
Upper Hudson Ryefeed with Rye Screenings	13.5	3	6

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Peoria, Ill.				
Wayne Amco 32% Supplement†	32	4	9	
Wayne Amco 24%†	24	4	9	✓
Empire 24%	24	3	12	✓
Wayne Amco 16%	16	3	8	✓
Empire 20%	20	3	12	
Empire 16½%	16.5	3	12	
Wayne Amco 16%	16	3	8	✓
E. W. Bailey & Co., Montpelier, Vt.				
Capital Sweetened	24	4.5	9	✓
New Deal	20	5	11	✓
Favorite	20	4	7.5	✓
Sweetened Favorite	20	4	7.5	✓
Our 20% Special.....	20	3.5	9	
Bailey's Sweetened 16%.....	16	5	9	✓
Chapin & Co., Hammond, Ind.				
Unicorn 20%	20	4.5	10	✓

* The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g., cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by the state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other, and possibly undesirable, ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist failed to find some one or more ingredients or found extraneous ingredients appear on pages 25 to 42.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
E. C. Crosby, Danby, Vt.				
Crosby's A Quality 20%	20	4.5	8	
Danville Grain Co., Inc., Danville, Vt.				
Danville 20%	20	4	10	✓
Davis Feed Co., Inc., Rutland, Vt.				
Vermont 20%	20	5	8	
Davis 20% Kow	20	4.5	8.5	✓
H. W. Demick, Inc., Derby Line, Vt.				
Beats 'Em All	20	4	10	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 32% Supplement†	32	4.5	8	✓
Eastern States Milkmore†	24	4.5	9	✓
Eastern States Fulpail†	20	4.5	8.5	✓
Eastern States Highland 20†	20	4	11.5	✓
Eastern States Sixteen†	16	4	8	✓
Eastern States Highland 16†	16	4	11	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore 32% Supplemental	32	4	9	✓
Elmore Milk Grains	24	4.5	10	✓
Elmore Milk Grains Sweet	24	4.5	10	✓
Granger 24%	24	4	10	
Dairyman's Emergency 24%	24	3	12	
Elmore Milk Grains Junior	20	4.5	10	✓
Elmore Milk Grains Junior Sweet	20	4.5	10	✓
Granger 20%	20	4	11	✓
Dairyman's Emergency	20	3	12	
Elmore Sweet Digesto	16	4	12	
Elmore 16% Pasture	16	3.5	10	
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman 32% Mixing	32	4.5	9	✓
Eshelman Challenge	24	4	11	✓
Eshelman Red Rose 24	24	4	11	✓
Eshelman Open Formula 20	20	4	9	✓
Eshelman Conestoga 20	20	4	11	✓
Eshelman Lancaster 20	20	4	11	✓
Eshelman Pennsy 16	16	3	11	
First National Stores, Inc., Somerville, Mass.				
Brookside 24%	24	4	10	✓
Brookside 20%	20	3.5	10	✓
Brookside 16%	16	3.5	12	✓
For-All Grain Co., Groton, Vt.				
For-All Milk	20	5	8.5	✓
Grand Union Co., New York, N. Y.				
Grand Union 24%	24	3	10	✓
Grand Union 20%	20	3	10	
Grand Union 16%	16	3	12	
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Milk Maker	20	5	12	✓
Grandin's Sweetened 20%	20	4	10	✓
M-S (Money Saver) 20% Sweet	20	4	12	✓
Economy Sweetened 20%	20	3	12	✓
Economy 16 Sweetened, Flexible Formula	16	3	12	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Milk	16	4	12	
Great Eastern Feed Mills, Lowell, Mass.				
Phoenix 24	24	5	9	✓
Phoenix 20	20	4.5	9	✓

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Sweetened	24	5	10	✓
Ide's Special	20	4	10	✓
Royal Sweetened	20	4	10	✓
Sunshine	20	4	10	✓
W. B. Johnson & Son, Essex Jct., Vt.				
Johnson's Perfection No. 1.....	20	5	9	✓
Johnson's Economy	20	4	12	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco 18%	18	3.5	10	✓
Kasco 16%	16	3.5	12	✓
Larrowe Milling Co., Detroit, Mich.				
Larrowe 32	32	4	10	✓
Larro—The Ready Ration for Dairy Cows	20	3.75	12	✓
Larrowe 16	16	3	11	✓
R. H. McEwen Milling Co., Ogdensburg, N. Y.				
McEwen's 20%	20	4	10	✓
T. J. McGovern, Cambridge, Vt.				
McGovern's 24	24	4	8	✓
McGovern's 20	20	4	8	✓
20% Farm Relief	20	4	12	✓
McGovern's 16	16	4	8	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
BB Hi-Test 20% Sweetened	20	4	12	✓
BB Marmico 16% with Molasses	16	4	12	✓
George Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's 24%	24	5	10	✓
U. S. 24%	24	3	12	✓
U. S. 20%	20	3	12	✓
Mt. Mansfield Coop. Creamery & Grain Assoc., Inc., Stowe, Vt.				
Mt. Mansfield 20%	20	5.5	8	✓
E. G. & A. W. Norton, Vergennes, Vt.				
Kow Feed	20	4	12	
Park & Pollard Co., Inc., Buffalo, N. Y.				
Overall 24%	24	4	9	✓
Bidwell 24%	24	4	11	✓
Milk Maid 24% Sweet	24	4	11	✓
Bet-R-Milk 20%	20	4	9	✓
Manamar 20%	20	4	9	
Yankee	20	3.5	9	
Manamar Doublex 20%.....	20	4	10	✓
Doublex 20%	20	4	11	
Bidwell 20%	20	4	11	✓
Manamar Top Notch 16%	16	3.5	11	
Top Notch 16%	16	3.5	11	
Quaker Oats Co., Chicago, Ill.				
Quaker 20% Protein.....	20	3	12	✓
Quaker 16% Protein.....	16	3	13.5	✓
Race Milling Co., Granville, N. Y.				
Race's 24%	24	4	9	✓
Race's 20%	20	3.5	9	✓
Race's 18%	18	3	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Red Checker Cow Chow 34%.....	34	3.5	12	✓
Purina Green Checker Cow Chow 24%	24	4	12	✓
Purina Green Checker Cow Chow 24%.....	24	3.5	12	✓
Protena 24%	24	3.5	12	✓

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			See foot- note*
		Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>					
Ralston Purina Co., St. Louis, Mo.— <i>continued</i>					
	Purina Blue Checker Cow Chow 20%	20	4	12	✓
	Purina Blue Checker Cow Chow 20%	20	3.5	12	✓
	Protena 20%	20	3.5	12	
	Purina Body Cow Chow	16	3.5	12	
	Purina Bulky Cow Chow	16	3.5	12	✓
	Protena 16%	16	3.5	14	
Richmond Feed Co., Richmond, Vt.					
	Richmond Special 22%	22	5	9	✓
St. Albans Grain Co., St. Albans, Vt.					
	Wirthmore 32% Supplement	32	4	8	✓
	Wirthmore 25 Balanced Sweetened	25	4.5	8.5	✓
	Champlain Valley Emergency 24%	24	3.5	8.5	✓
	Hygrade 24%	24	3.5	9	✓
	Wirthmore 20% Sweetened	20	4.5	8	
	Champlain Valley Emergency 20%	20	3.5	8.5	✓
	Hygrade 20%	20	3.5	8.5	✓
	Utility 20%	20	3.5	12	✓
	Wirthmore 16% Sweetened	16	4	8	✓
	Wirthmore 16% Sweetened, Fortified with Vitamins A and D	16	4	8	✓
	Champlain Valley Emergency 16%	16	3.5	8.5	✓
	Utility 16%	16	3	13	✓
Seabury Grain Co., Waterbury, Vt.					
	Our Own Make Special	20	4.5	9	✓
	Our Own Make 20%	20	4	9	✓
	Our Own Make 16%	16	4	9	✓
Chas. M. Seaver & Co., Williamstown, Vt.					
	Honor Brand 20%	20	4	10	✓
	Vim-20	20	4	12	✓
W. T. Simonds, Brandon, Vt.					
	Simonds' All Pure 20%	20	4	10	✓
	Simonds' Green Mountain 20%	20	3.5	12	✓
S. E. Smith Estate, West Rutland, Vt.					
	Smith Estate 18%†	18	4.5	8	✓
C. H. Stearns & Son Co., Johnson, Vt.					
	Stearnsco All Grain 20% Milk	20	4	9	✓
J. D. Thompson Estate, Norwich, Vt.					
	Special 20%	20	4	11	✓
J. G. Turnbull Co., Orleans, Vt.					
	Creamery	20	5	10	
	Turnbull's Special	20	3.5	12	
Frank Tyler, Essex Jct., Vt.					
	Tyler's 20% Ready Mixed	20	4.5	9	✓
A. N. Washburn Estate, Bethel, Vt.					
	Bethel Mills 24% Protein	24	5	9	✓
	Bethel Mills 20% Protein Sweetened	20	4.5	8.5	✓
	Bethel Mills 20% Sweetened Economy	20	4	12	✓
	Bethel Mills 16% Protein Pasture	16	4.2	9.5	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.					
	32% Reliance Supplemental	32	4	10	✓
	Galen 24%†	24	4	10	✓
	Milkproducer 24%	24	4	10	
	Clyde 20%	20	4	10	✓
	Superior 20%	20	4	10	
	Sweetened 16%	16	4	12	

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES ¹			See note ²
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
R. P. Webster, Barton, Vt.				
Ray's Ready	20	5	10	
West-Nesbitt, Inc., Oneonta, N. Y.				
Super Pure Sweetfeed	24	4.5	10	✓
All Pure 20%	20	4.5	10	✓
Special 20 Per Cent	20	3	12	
W. S. Wright, Lyndonville, Vt.				
Wright's Open Formula 20%	20	4.5	8	✓
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Amco 12% Fitting†	12	3	9	✓
June Pasture	10	0.5	21	✓
Wayne Supreme Horse	9.5	3	8	✓
Empire Stock	9	4	11	✓
E. W. Bailey & Co., Montpelier, Vt.				
Bailey's Pasture	15	3.75	10	✓
Bailey's Sweetened Fitting	14	4	9	✓
Pennant Horse	10.75	3.5	6.5	✓
Pennant Brand Stock Sweetened with Molasses ..	9.5	4	9.5	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Fitting†	12	3.5	8	✓
Eastern States Highland 12†	12	3	11	✓
Eastern States Horset	10.5	3.5	7	✓
Eastern States Succulence†	10	2	14.5	✓
Elmore Milling Company, Inc., Oneonta, N. Y.				
Elmore Fitting	12	4	9	✓
Elmore's Super-Silage	12	2	15	✓
Elmore Stock	10	3	12	
Elmore Horse with Molasses	9	2.5	11	✓
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose Fitting	12	3.5	7	✓
Eshelman Red Rose 85 Horse	9	3	10	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Sweetened Horse	9.5	3.5	11	✓
Grandin's Stock Food	8.5	4	12	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Horse	9.5	3	10	✓
Great Eastern Feed Mills, Lowell, Mass.				
Phoenix Stock	8	3	12	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Banner Bulky	13	2.5	18	
Ideal Fitting	12	4	10	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Horse	9	3	10	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
BB Dealer's Mixing with Molasses	10	3.5	12	✓
George Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's 90 Molasses Horse	9	3	10	
Park & Pollard Co., Inc., Buffalo, N. Y.				
Manamar Fitting	12	3.5	7	✓
Park & Pollard Horse	10	3.5	9	✓
Yankee Sweet Horse	10	3.5	9	✓
Park & Pollard Stock	9	4	12	✓

¹ See footnote, page 10.

² Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, RABBIT FEEDS, ETC.—concluded				
Quaker Oats Co., Chicago, Ill.				
Quaker Sugared Schumacher Horse	10	3	12	✓
Schumacher Special Horse—Cubed.....	10	2.5	12	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Heifer Growing Chow.....	14	2.5	14	✓
Purina Dry and Freshening Cow Chow	12.5	2.5	14	✓
Purina Omolene	10	3.2	9	✓
Purina Bulky Omolene.....	10	3.2	11	✓
Purina Bulky Las Chow	9	1.3	15	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting.....	14	4	7	✓
Wirthmore Rabbit	14	3.5	9	
Hygrade Fitting	12	4.5	8	
Wirthmore Fodder Greens.....	10	3	15	✓
Wirthmore Horse	9.8	3.25	9	✓
Hygrade Horse	9.5	3.25	9	✓
Wirthmore Stock	9	4	9.5	✓
David Stott Flour Mills, Inc., Detroit, Mich.				
Winner Chop Feed	10	3.5	12	✓
Ubiko Milling Co., Cincinnati, Ohio				
Honeycomb Fitting	12	2.5	15	
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Universal Horse	10	3	9	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Horse	9	3	10	✓

PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS

Albers Bros. Milling Co., Seattle, Wash.				
Calf Manna	25	4	5	✓
Allied Mills, Inc., Peoria, Ill.				
Wayne Calf Meal	24	4	7	✓
Wayne Pig Starter.....	18	3.5	7	
Wayne Pork Maker.....	14	3.5	7	
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	24	5	6.75	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter†	23	3.5	4	✓
Eastern States Hog Mealt	14.5	4	4.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore "Three Point" Calf.....	24	4	4	✓
Elmore's Makemgrow Little Pig.....	18	4.5	7	
Elmore's Hog	15	5	6	
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose Hog.....	16	5	10	✓
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Pig and Hog	18	5	10	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Growth Calf	25	4	5	
Great Eastern Feed Mills, Lowell, Mass.				
Phoenix 15% Hog	15	4	6	✓
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Pig and Hog	17	4.5	7.5	✓
Larrowe Milling Co., Detroit, Mich.				
Larro Calf	23	4	4	✓
Larro Pig	16	4	6	✓

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note*
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS—concluded				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Milkade Calf	20	7	6.5	V
Go-Tu-It Pig & Hog.....	15	3.5	8	V
Race Milling Co., Granville, N. Y.				
Race's Hog	18	4	8	V
Ralston Purina Co., St. Louis, Mo.				
Purina Pig and Hog Chow	36	3	14	V
Purina Calf Starting Chow.....	27	3.2	5	V
Purina Hog Fatena.....	14	3	7	
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf Meal	24	5.5	4	V
Wirthmore Pig and Hog	17	4	8	
MEAT SCRAPS, BONE AND FISH MEALS				
Consolidated Rendering Co., Boston, Mass.				
Corenco 45% Meat and Bone	45	6	..	
John Reardon & Sons Co., Cambridge, Mass.				
Register Brand 60% Cod and Haddock Fish	60	3	1	
Register Brand Meat and Bone	50	6	..	
Van Iderstine Co., Long Island City, N. Y.				
Vico Special Steamed Bone.....	5	0.5	3	
Wilson & Co., Chicago, Ill.				
Red "W" Brand Meat and Bone	50	6	3	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Scratch	10	2.5	4	V
Wayne Intermediate Scratch.....	10	2	4	V
Wayne Special Scratch.....	9	2.5	4	V
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Brand Coarse Chick	10	3	3	V
Pennant Brand Scratch	10	3	6.5	V
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Scratch	10	3	4	V
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch (with Whole Corn)†....	10.5	2.5	4	V
Eastern States Scratch (with Coarse Cracked Corn)†	10	2.5	4	V
Eastern States Scratch 1931†.....	9.5	2.5	3	V
Eastern States Scratch 1927†	9.5	2.5	3	V
Eastern States Intermediate Scratch†.....	9.5	2	3	V
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Scratch	10	2.5	7	V
Emco Scratch	10	2.5	7	
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose Scratch.....	10	2.5	4	V
Eshelman Lancaster Scratch.....	9	2.5	4	V
First National Stores, Inc., Somerville, Mass.				
Henfield	10	2.5	5	V
Grand Union Co., New York, N. Y.				
Peerless Scratch	10	2.5	5	
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Screened Scratch	10	2.5	5	V
Grandin's Intermediate Chick	10	2.5	5	V

* See footnote, page 10.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Growth Fine Chick.....	10	3	5	✓
Daily Egg Scratch.....	10	2.5	5	✓
Great Eastern Feed Mills, Lowell, Mass.				
Phoenix Scratch.....	10	2.5	5	✓
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Scratch.....	10	3	4	
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Scratch.....	9	2.5	4	✓
Larroe Milling Co., Detroit, Mich.				
Larro Scratch.....	10	2	4	
George Q. Moon & Co., Inc., Binghamton, N. Y.				
Moon's Scratch.....	10	2	5	✓
Park & Pollard Co., Inc., Buffalo, N. Y.				
Intermediate Chick.....	10	3	3.5	✓
Red Ribbon Scratch.....	10	3	5	✓
Bidwell Scratch.....	10	1.5	5	✓
Quaker Oats Co., Chicago, Ill.				
Big Egg Scratch.....	9.5	2	3.5	
Quaker Full-O-Pep Scratch.....	9	2	3	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Hen Chow.....	10	2.5	4	✓
Purina Chick Chow (Fine).....	10	2	4	✓
Protena Scratch.....	9.5	2	4	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Baby Chick.....	10	2.5	3.5	✓
Wirthmore Intermediate Scratch.....	10	2.5	3.5	✓
Wirthmore Scratch.....	10	2.5	4	✓
Mormin' Call Poultry Grains.....	10	2.5	4	✓
Mormin' Call Poultry Grains.....	9.5	2.5	4	✓
S. E. Smith Estate, West Rutland, Vt.				
Smith Estate Blue Ribbon Scratch.....	11	3.5	4	
Wayne County Grangers Feed Corporation, Clyde, N. Y.				
Grange Superior Scratch.....	10	3	6	✓
West-Nesbitt Inc., Oneonta, N. Y.				
Pure Feed Scratch.....	10	3.5	5	✓
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Breeder.....	18	4	7	✓
Wayne Egg.....	18	3.5	7	
Wayne Egg with Sardine Oil.....	18	3.5	7	
Wayne Broiler.....	18	3.5	8	✓
Wayne Chick Starter.....	17	4	6	
Empire Egg.....	16.5	3.5	7	✓
Empire Egg with Sardine Oil.....	16.5	3.5	7	✓
Wayne Growing.....	16	4	6	✓
Empire Growing.....	16	3	7	✓
Wayne All Mash Laying.....	15.5	3.5	7	✓
Wayne Turkey with Sardine Oil.....	15	3.5	8	
Wayne Poultry Fattener.....	13.5	3.5	8	✓
E. W. Bailey & Co., Montpelier, Vt.				
Pennant Laying.....	20	5	6	✓
Pennant Laying with Cod Liver Oil and Cod Liver Meal.....	20	5	6	✓

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.— <i>continued</i>				
E. W. Bailey & Co., Montpelier, Vt.— <i>continued</i>				
Pennant Chick Starter.....	17	5	5	v
Pennant Broiler	17	4	5	v
Pennant Growing	15	5	5	v
Chapin & Co., Hammond, Ind.				
Chapin Kernels Lay All.....	20	3.5	5	v
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Laying	20	4	7	v
Chas. M. Cox Co., Boston, Mass.				
Utility Laying	18	4	7	v
Utility Growing	15	4	7	v
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Turkey-Grow†	20	4	5	v
Eastern States Producer 20†.....	20	4	6	v
Eastern States Developer†.....	18.5	4	6.5	v
Eastern States Controllert†	18.5	2.5	4	v
Eastern States Egg†.....	17	4	6.5	v
Eastern States Producer†.....	17	4	6.5	v
Eastern States Turkey-Fat†	16	3.5	5.5	v
Eastern States Combination†.....	15	4	6.5	v
Eastern States Fattener†.....	14.5	4.5	4.5	v
Eastern States All-Mash Developer†	14	3	7	v
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Turkey Starter	24	4	6	v
Elmore Egg	18	4	8	v
Elmore M. A. C. Laying	17	5	7	v
Elmore Egg Maker	17	4.5	8	v
Elmore Growing	17	4	8	v
Elmore Chixsaver	16.5	4	8	v
Elmore Complete Laying	16	4	6	v
John W. Eshelman & Sons, Lancaster, Penna.				
Eshelman Red Rose Laying with Cod Liver Oil. 20	5	7	v	
Eshelman Pennsy Laying with Cod Liver Oil.... 18	5	8	v	
Eshelman Red Rose Growing with Cod Liver Oil 16	4	7	v	
First National Stores, Inc., Somerville, Mass.				
Henfield Egg	20	5	7	v
D. H. Grandin Milling Co., Jamestown, N. Y.				
Grandin's Laying with Buttermilk & Cod Liver Oil	20	4	8	v
Grandin's Complete Laying.....	15	4	7	v
Grandin's Growing with Buttermilk & Cod Liver Oil	15	4	8	v
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg Laying	20	4.5	7	
Daily Growth Growing.....	17.5	4	7	v
Daily Growth Chick Starter.....	16	4	5	v
Great Eastern Feed Mills, Lowell, Mass.				
Phoenix 20% Laying	20	4	7	v
Phoenix Broiler	18	4	6	v
All Purpose Complete Ration	16	4.5	6	v
Phoenix 16% Growing	16	4	8	v
E. T. & H. K. Ide, St. Johnsbury, Vt.				
Ideal Egg	20	4.5	6	v
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	v

* See footnote, page 10.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

		GUARANTIES			
		Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.— <i>continued</i>					
Larrowe	Milling Co., Detroit, Mich.				
	Larro Egg	19	4	7.5	✓
	Larro Turkey Adult.....	19	4	7.5	✓
	Larro Chick Starter.....	16.5	4.5	5.5	✓
	Larro Growing	16	4	7.5	✓
R. H. McEwen	Milling Co., Ogdensburg, N. Y.				
	Red Feather Egg	20	4	9	✓
Maritime	Milling Co., Inc., Buffalo, N. Y.				
	\$ Maker Egg Vitamized with Cod Liver Oil and Dried Buttermilk	17	3.5	9	✓
	BB All Mash Laying Vitamized with Cod Liver Oil and Dried Buttermilk	15	4	7	✓
George Q.	Moon & Co., Inc., Binghamton, N. Y.				
	Moon's Laying with Buttermilk	20	4	9	✓
Park & Pollard	Co., Inc., Buffalo, N. Y.				
	Manamar Turkey Starter	26	4	6	✓
	Manamar Lay or Bust.....	18	3.5	6	✓
	Lay or Bust Dry.....	18	3	7	✓
	Lay or Bust Dry with Cod Liver Oil.....	18	3	7	✓
	Bidwell Dry	18	3	8.5	✓
	Manamar Complete Life Cycle	16	3.5	6	✓
	Manamar Growing	15	3.5	6	✓
Quaker	Oats Co., Chicago, Ill.				
	Quaker Ful-O-Pep Egg.....	20	4.5	8	✓
	Quaker Ful-O-Pep Turkey Grower	20	4.5	8	✓
	Quaker Ful-O-Pep Growing.....	19	5	6	✓
	Big Egg Laying.....	18	4	8	✓
	Quaker Ful-O-Pep Chick Starter.....	17	5	7	✓
Race	Milling Co., Granville, N. Y.				
	Race's Poultry	20	3.5	7	✓
Ralston	Purina Co., St. Louis, Mo.				
	Purina Turkey Startena.....	26	4.5	6	✓
	Purina Turkey Growing & Fattening Chow.....	21	3.5	8	✓
	Purina Egg Chowder.....	19	3.5	8	✓
	Purina Lay Chow.....	19	3.5	8	✓
	Purina Broiler Chow.....	18	4	7	✓
	Protena Laying Mash	18	3.5	8.5	✓
	Purina Growing Chow with Cod Liver Oil.....	17	3.5	7	✓
	Purina Layena (Complete Ration).....	15.5	3.5	8	✓
	Purina Chick Growena.....	15	3.5	7	✓
St. Albans	Grain Co., St. Albans, Vt.				
	Wirthmore Breeder	20	4.5	7	✓
	Wirthmore Turkey Breeder	20	4.5	7	✓
	Wirthmore Laying	20	4	7	✓
	Wirthmore Laying containing Fortified Cod Liver Oil	20	4	7	✓
	Wirthmore Baby Chick Starter containing Fortified Cod Liver Oil.....	18	4	5	✓
	Wirthmore Complete Chick and Broiler.....	17.5	4	5.5	✓
	Wirthmore Turkey Fattening.....	16	4.5	7	✓
	Wirthmore Fleshing and Fattening	15	4.5	6	✓
	Wirthmore Growing	15	4.5	6	✓
	Wirthmore Growing containing Fortified Cod Liver Oil	15	4.5	6	✓
	Wirthmore Pellets	15	4.5	6.5	✓
	Wirthmore Complete Laying	15	4	5	✓
	Wirthmore Complete Growing.....	14	3.75	6	✓

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note ^a
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—concluded				
S. E. Smith Estate, West Rutland, Vt. Smith Estate Egg Producer.....	18	4.5	7	V
Ubiko Milling Co., Cincinnati, Ohio Ubiko All-Mash Starter	18	4	5	V
Ubiko All-Mash Complete Laying.....	16	3.5	6	
Wayne County Grangers Feed Corp., Clyde, N. Y. Superior Laying Mash with Buttermilk and Cod Liver Oil	20	4	7	V
Superior Growing with Buttermilk and Cod Liver Oil	20	4	7	
R. P. Webster, Barton, Vt. Storr's§ Egg	15	4	7	
West-Nesbitt, Inc., Oneonta, N. Y. Pure Feed Egg	18	5	7	
DRIED SKIMMILKS				
Dairymen's League Co-Operative Assoc., Inc., Utica, N. Y. Dairylea Choice Feed Grade.....	33	0.5	..	
General Commodity Corp., Buffalo, N. Y. Old Sol	32	0.5	..	
King Bros. & Co., Philadelphia, Pa. King's Pure	30	1	..	
New England Dairies, Inc., Boston, Mass. New England Dairies	32	0.025	..	
Sheffield Farms Co., Inc., New York, N. Y. Sheffield	32	0.5	..	V

^a See footnote, page 10.

§ Sic.

II. BRANDS FAILING TO MEET GUARANTIES

COTTONSEED MEALS

- E. T. ALLEN Co., Atlanta, Ga. *Empire 41% Protein*. 41/5.5/13. Twelve samples, two below protein guaranty (41%). Stocks of Checkerboard Feed Store, Hardwick, 39.29%; Checkerboard Feed Store, Fairlee, 40.17%. Six samples below protein guaranty but within tolerance limits. Average 12 samples below protein guaranty but within tolerance limits, 40.68%.
- HUMPHREYS-GODWIN Co., Memphis, Tenn. *Dixie Brand 41% Protein Prime*. 41/5/12. Seventeen samples, one below protein guaranty (41%). Stock of Mintzer Bros., Rutland, 39.82%. Eight samples below protein guaranty but within tolerance limits. Average 17 samples, 41.29%.
- L. B. LOVITT & Co., Memphis, Tenn. "*Lovitt Brand*" 41% Protein. 41/5/13. Eighteen samples, two below protein guaranty (41%). Stocks of C. H. Utley, Hardwick, 39.64%; Nelson & Warner, Springfield, 39.21%. Four samples below protein guaranty but within tolerance limits. Average 18 samples, 41.15%.

LINSEED MEALS

- SHERWIN-WILLIAMS Co., LTD., OF CANADA, Montreal, Que. *Screwpress*. 36/6.5/8. One sample below protein guaranty (35%). Stock of Caswell & O'Rourke, Derby Line, 32.99%.

DISTILLERS' AND BREWERS' DRIED GRAINS

- ALLIED MILLS, INC., Peoria, Ill. *Corn Distillers'* 28/8/15. Five samples. Fat below guaranty (8%); found 6.81%.
- CONTINENTAL DISTILLING CORP., Philadelphia, Pa. *Continental Corn Distillers'* 28/7/15. One sample below protein guaranty (28%). Stock of Richmond Feed Co., Richmond, 26.24%.
- NEUMOND Co., St. Louis, Mo. *Neumond Dried Brewers'*. 24/4.5/18. Two samples, one below protein guaranty (24%). Stock of Checkerboard Feed Store, Randolph, 22.31%. Average two samples, 27.91%.
- STRATTON GRAIN Co., Milwaukee, Wis. *High Quality Dried Brewers'*. 24/6/19. One sample. Fat below guaranty (6%). Stock of Plainfield Grain Warehouse, Plainfield, 5.63%.
- HIRAM WALKER & SONS, INC., Peoria, Ill. *Corn Distillers'*. 30/6/14. Five samples, one below protein guaranty (30%). Stock of E. T. & H. K. Ide, Bradford, 27.56%. Average 5 samples, 30.49%.
- WILBER FEED Co., Jamestown, N. Y. *W Corn Distillers'*. 28/8.5/13. Two samples. Fat below guaranty (8.5%); found 6.44%.

WHEAT OFFALS—WHEAT BRANS

- COATSWORTH & COOPER, Toronto, Ont. *C & C Pure*. 15/3.5/11.5. Six samples, one below protein guaranty (15%). Stock of Ralston Purina Co., St. Johnsbury, 14.08%. Average six samples, 17.23%.
- FRANK B. HAM & Co., LTD., Toronto, Ont. *Hamco Wheat*. 15/3.5/11.5. Thirteen samples, one below protein guaranty (15%). Stock of Glen Webster, Randolph, 13.73%. Average 13 samples, 16.61%.

WHEAT OFFALS—WHEAT MIDDINGS

- NATIONAL MILLING Co., Toledo, Ohio. *Tolio*. 15/3.5/6. Two samples, one below protein guaranty (15%). Stock of W. J. Rogers, Middlebury, 13.99%. Average two samples, 15.35%.
- NIAGARA FALLS MILLING Co., Lockport, N. Y. *Niagara Standard*, 15.5/4.5/7. Four samples, one below protein guaranty (15.5%). Stock of White Feed Store, Wallingford, 14.69%. Average four samples, 17.62%.
- STRATTON & Co., Concord, N. H. *Standard*. 16/5.63/9.5. One sample below protein guaranty (16%). Stock of Clark Grist Mill, Wells River, 15.39%.

WHEAT OFFALS—WHEAT MIXED FEEDS

- EXCELSIOR MILLING Co., Minneapolis, Minn. *Pure Camel Fancy*. 16/4/7.5. Three samples, one below protein guaranty (16%). Stock of C. H. Utley, Hardwick, 15.13%. Average three samples low but within tolerance limits, 15.51%.

- MALTED CEREALS Co., Burlington, Vt. *Maltex Cereal Feed*. 12.5/3.75/9. Three samples. Fat below guaranty (3.75%); found 2.94%.
- VALLEY CITY MILLING Co., Portland, Mich. *Rouvena Mixed Feed*. 16/3.5/9. Two samples, both below protein guaranty (16%). Stock of Park & Pollard Grain Store, Chester, 14.69%; Berry & Jones, Montpelier, 13.81%. Average below protein guaranty, 14.25%.

WHEAT OFFALS—WHEAT RED DOG

- GENEVA MILLING Co., Geneva, N. Y. *Genesota*. 16/4/4. One sample below protein guaranty (16%). Stock of A. H. Merrill & Co., Norwich, 15.21%. Fat below guaranty (4%); found 2.13%.
- HECKER-JONES-JEWELL MILLING DIV., STANDARD MILLING Co., Buffalo, N. Y. 15/4.25/4. One sample. Fat below guaranty (4.25%). Stock of R. W. Simonds, Fair Haven, 3.87%.
- NIAGARA FALLS MILLING Co., Lockport, N. Y. *Choice*. 16/4/4. Two samples, one below protein guaranty but within tolerance limits. Fat below guaranty (4%); found 3.25%.

HOMINY FEEDS

- ILLINOIS CEREAL MILLS, INC., Paris, Ill. 12%. 12/7/6. Three samples, two below protein guaranty (12%). Stock of Farmers' Grain & Feed Co., East Barre, 11.44%; Godette Bros., Essex Center, 11.36%. One sample below protein guaranty but within tolerance limits. Average three samples, 11.53%.

MISCELLANEOUS

- QUAKER OATS Co., Chicago, Ill. *Vim Feed*. 5/2/30. Six samples, two below protein guaranty (5%). Stock of Mintzer Bros., Rutland, 4.18%; Gilman & Seaver, Wolcott, 4%. Two samples below protein guaranty but within tolerance limits. Average six samples below protein guaranty but within tolerance limits, 4.70%. Fat below guaranty but within tolerance limits.
- QUAKER OATS Co., Chicago, Ill. *Vim Oat Mill Feed*. 5/1.5/30. Eleven samples two below protein guaranty (5%). Stock of C. H. Stearns & Son, Johnson, 4.18%; St. Albans Grain Co., St. Albans, 4.53%. Three samples below protein guaranty but within tolerance limits. Average 11 samples, 5.31%.
- QUAKER OATS Co., Chicago, Ill. *Sugared Vim Oat Mill Feed*. 5/1.25/27.5. Twelve samples, two below protein guaranty (5%). Stock of A. N. Washburn Estate, Bethel, 4.44%; Green Mt. Farmers' Coop. Exch., South Londonderry, 3.91%. Two samples below protein guaranty but within tolerance limits. Average 12 samples, 5.41%.
- UPPER HUDSON RYE FLOUR MILLS, INC., Troy, N. Y. *Upper Hudson Rye Feed and Rye Screenings*. 13.5/3/6. Twelve samples, eight below protein guaranty (13.5%). Stock of W. T. Simonds, Brandon, 12.94%; Park & Pollard Grain Store, Chester, 12.84%; E. C. Crosby, Danby, 12.58%; W. B. Johnson & Son, Essex Junction, 12.84%; A. G. Greeley, Gassetts, 12.84%; For All-Grain Co., Groton, 13.03%; J. G. Turnbull Co., Orleans, 13.03%; Taylor & Hawkins, South Shaftsbury, 12.41%. Three samples below protein guaranty but within tolerance limits. Average 12 samples, 13.21%.

DAIRY FEEDS OR RATIONS

- CHAPIN & Co., Hammond, Ind. *Unicorn*. 24/4.5/10. Two samples. Fat below guaranty (4.5%); found 4.17%.
- E. C. CROSBY, Danby, Vt. *Crosby's B Quality*. 20/4.5/9. One sample below protein and fat guaranties (20%; 4.5%). Stock of E. C. Crosby, Danby. Found 17.40%; 4.04%.
- GREAT ATLANTIC & PACIFIC TEA Co., Minneapolis, Minn. *Milky Way 24%*. 24/4/9. Nine samples, one below protein guaranty (24%). Stock of A. & P. Store, St. Johnsbury, 23.27%. One sample below protein guaranty but within tolerance limits. Average nine samples 24.35%. Fat below guaranty (4%); found 3.64%.
- GREAT ATLANTIC & PACIFIC TEA Co., Minneapolis, Minn. *Milky Way 20%*. 20/3.5/9. Fourteen samples. Fat below guaranty (3.5%); found 3.28%.

- C. E. JOHNSON, Island Pond, Vt. *Regular*. 20/4/10. One sample. Fiber above guaranty (10%). Stock of C. E. Johnson, Island Pond, 11.72%.
- MARITIME MILLING Co., Inc., Buffalo, N. Y. *BB Bull Brand 20% Sweetened*. 20/4.5/11. Two samples. Fat below guaranty (4.5%); found 4.07%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore 32% Supplement*. 32/4/8. Five samples, one below protein guaranty (32%). Stock of Junction Grain Store, White River Junction, 29.74%. One sample below protein guaranty but within tolerance limits. Average five samples, low but within tolerance limits, 31.78%.
- CHAS. M. SEAVER & Co., Williamstown, Vt. *Honor Brand 24%*. 24/5.5/9. One sample. Fat below guaranty (5.5%). Stock of C. M. Seaver & Co., Williamstown, 4.45%.
- H. A. SLAYTON & Co., Inc., Morrisville, Vt. *Economy*. 20/3.75/8.5. One sample. Fiber above guaranty (8.5%). Stock of H. A. Slayton & Co., Inc., Morrisville, 11.51%.
- S. E. SMITH ESTATE, West Rutland, Vt. *Smith Estate 24%*. 24/5/8.5. One sample. Protein below guaranty but within tolerance limits. Fat below guaranty (5%). Stock of S. E. Smith Estate, West Rutland, 4.35%.
- S. E. SMITH ESTATE, West Rutland, Vt. *Smith Estate 20%*. 20/4.5/8. One sample. Fat below guaranty (4.5%). Stock of S. E. Smith Estate, West Rutland, 3.95%.
- C. H. UTLEY, Hardwick, Vt. *Veri-Best Balanced*. 20/5/7.5. One sample. Fiber above guaranty (7.5%). Stock of C. H. Utley, Hardwick, 8.34%.

STOCK FEEDS, ETC.

- JOHN W. ESHELMAN & SONS, Lancaster, Pa. *Eshelman S-O-S*. 11/2/15. Three samples. Fiber above guaranty (15%); found 15.88%.
- GREAT EASTERN FEED MILLS, Lowell, Mass. *Phoenix Horse*. 10.5/4/8. One sample. Fat below guaranty (4%). Stock of Phoenix Feeds, Inc., Bellows Falls, 3.17%.

SCRATCH FEEDS

- ALLIED MILLS, Inc., Peoria, Ill. *Empire*. 9/2.5/4. Six samples. Fat below guaranty (2.5%); found 2.24%.
- LARROWE MILLING Co., Detroit, Mich. *Larro*. 10/2/4. Five samples, one below protein guaranty (10%). Stock of Elwell & Clark, East Arlington, 9.43%. Two samples low but within tolerance limits. Average five samples low but within tolerance limits, 9.94%.

MASHES

- GRAND UNION Co., New York, N. Y. *Grand Union Peerless*. 20/4/7. One sample. Fiber above guaranty (7%). Stock of Grand Union Store, Rutland, 8.05%.
- GEO. Q. MOON & Co., Inc., Binghamton, N. Y. *Moon's Special A Laying*. 18/5/9. One sample. Fat below guaranty (5%). Stock of G. F. Robinson, Woodstock, 4.64%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Laying Containing Fortified Cod Liver Oil*. 20/4/7. Eighteen samples, two below protein guaranty (20%). Stock of C. A. Smith, Concord, 19.06%; J. A. Ryan Estate, Milton, 19.41%. Two samples below protein guaranty but within tolerance limits. Average 18 samples, 20.66%.

III. INGREDIENT STATEMENTS

The following pages set forth the ingredient contents of all brands of proprietary feeds which were sampled and analyzed as declared upon the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturer. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on the following pages.

Dairy feeds are listed alphabetically by manufacturer's names on pages 26 to 31; stock, horse, fitting, etc., feeds on pages 32 and 33; calf and hog feeds on pages 34 and 35; scratch grains, etc., on pages 36 and 37; mashes and other poultry feeds made of fine ingredients on pages 38 to 41.

Vermont law requires that a statement setting forth the specific name of each ingredient used in the manufacture of a feeding stuff be attached to each package. It permits the director to refuse to register any commercial feeding stuffs under a name, brand or trade-mark which would be misleading or deceptive or which would tend to mislead or deceive as to the material of which it is composed and allows him to issue such rules and regulations as he may deem necessary to carry into effect the full intent and meaning of the law.

In December, 1933, suggestions were made to all manufacturers then registering touching ingredient nomenclature, these being in accord with action taken by the Association of Feed Control Officials. In most instances manufacturers have followed these suggestions. A few still fail to indicate the word "wheat" on their wheat offal packages or the predominating grain, be it corn or rye, when registering distillers' dried grains. The use of trade names to designate an ingredient is not deemed advisable as, for example, "Vim" for oat mill feed; "Kraco" for dried whey; "Phos-for-us" for phosphatic limestone; "lime" for ground limestone or calcium carbonate; "essential minerals," "mineral salts," "union minerals," "manamar," "protozyme." The word "essential" is synonymous with the word "indispensable." There is good authority for saying that the addition of minerals to a feed ration is by no means "essential" in all cases. A manufacturer may, if he sees fit, add minerals to the ration he mixes, provided they are properly named, but he must not use the word "essential" in that connection. A trade name for an ingredient may be used, provided immediately following it, preferably in the form of a parenthetical statement, appears its recognized name and provided, further, that the trade name does not tend to deceive or mislead the purchaser. Buyers

should read the ingredient statement of feeds they propose to purchase and look askance at any mixture which declares the presence of a material of doubtful value.

The ingredient statements made by the manufacturers on the whole have been well-maintained. Fifteen brands of dairy rations and five brands of scratch feeds carried a few whole weed seeds. Such few ingredients as were found in addition to those certified were all of good quality. No evidence of adulteration has been found and the writers believe that no adulteration has been practiced. In 23 brands certain ingredients named were *not detected*. Twelve lacked iodine, potassium iodide, copper sulfate or iron sulfate, which doubtless were added in homeopathic doses; in two brands meat scraps was substituted for tankage; and in others soy bean meal, beet pulp, bone meal, salt, sunflower seed and molasses were not found.

The writers are sometimes asked to state the amounts of the sundry ingredients present in a given feed, notwithstanding the oft-repeated statement that no living man, except the manufacturer who controls the formula and his employees, can vouchsafe this information. The microscopist can tell whether or not gluten feed is used but not how much is used.

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Coconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Allied Mills, Inc.																								
Wayne Amco 32% Supplement†	32/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
Wayne Amco 24%†	24/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
Empire 24%	24/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne Amco 20%	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Empire 20%†	20/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Empire 16½%	16.5/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne Amco 16%	16/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
E. W. Bailey & Co.																								
Sweetened Capital	24/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
New Deal	20/5/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Favorite	20/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Favorite	20/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Our 20 Special	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bailey's Sweetened 16%	16/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Chapin & Co.																								
Unicorn 24%	24/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Unicorn 20%	20/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. C. Crosby																								
Crosby's A Quality 20%† (1936)	20/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Crosby's B Quality 20%†	20/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Danville Grain Co., Inc.																								
Danville 20%	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Davis Feed Co., Inc.																								
Vermont 20%	20/5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	27
Davis 20% Kow Feed	20/4.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
H. W. Demick, Inc.																								
Beats 'Em All	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																								
Eastern States 32% Supplement†	32/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Eastern States Milkmore†	24/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Eastern States Fulpail†	24/4.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Eastern States Highland 20†	20/4/11.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 17
Eastern States Sixteen†	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5
Eastern States Highland 16†	16/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 17
Elmore Milling Co., Inc.																								
32% Supplemental	32/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Elmore Milk Grains	24/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Elmore Milk Grains (Sweetened)	24/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Granger 24%	24/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Dairyman's Emergency 24%	24/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Elmore Milk Grains Jr.	20/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Elmore Milk Grains Junior Sweet	20/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4

† Open formula.

DAIRY FEEDS—*continued*

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocoanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlines
	Protein	Fat	Fiber																					
<i>Elmore Milling Co., Inc.—continued</i>																								
Granger 20%	20/4/11			*	*					*		*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Dairyman's Emergency	20/3/12											*	*	*	*	*	*	*	*	*	*	*	*	6
Elmore Sweet Digesto	16/4/12							*				*	*	*	*	*	*	*	*	*	*	*	*	
Elmore 16% Pasture	16/3.5/10							*	*			*	*	*	*	*	*	*	*	*	*	*	*	
<i>John W. Eshelman & Sons</i>																								
Eshelman 32% Mixing	32/4.5/9			*	*	*						*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Challenge	24/4/11			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose 24	24/4/11			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Open Formula 20	20/4/9			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Lancaster 20	20/4/11			*	*	*			*			*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Conestoga 20	20/4/11			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Pennsy 16	16/3/11			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
<i>First National Stores, Inc.</i>																								
Brookside 24% Protein	24/4/10			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
Brookside 20% Protein	20/3.5/10			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
Brookside 16% Protein	16/3.5/12			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	
<i>For-All Grain Co., Inc.</i>																								
For-All Milk Grains 20%	20/5/8.5			*	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 10
<i>Grand Union Co.</i>																								
Grand Union 24% (1936)	24/3.5/10			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grand Union 20% (1936)	20/3.5/10			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Grand Union 16% (1936)	16/3/12			*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	4
<i>D. H. Grandin Milling Co.</i>																								
Grandin's Milk Maker	20/5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Grandin's Sweetened 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
M-S 20% Sweet	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Economy 20% Sweetened	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Economy 16% Sweetened	16/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
<i>Gt. A. & P. Co.</i>																								
Milky Way 24%	24/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 8
Milky Way 20%	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 8
Daily Milk	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
<i>Great Eastern Feed Mills</i>																								
Phoenix 24† (1936)	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 13
Phoenix 24† (1936)	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 13
<i>E. T. & H. K. Ide</i>																								
Ideal Sweetened	24/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sunshine	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Royal Sweetened	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ide's Special	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
<i>C. E. Johnson & Co.</i>																								
Regular	20/4/10									*	*	*	*	*	*	*	*	*	*	*	*	*	*	
<i>W. B. Johnson & Son</i>																								
Johnson's Perfection No. 1	20/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Johnson's Economy	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
<i>Kasco Mills, Inc.</i>																								
Kasco 18%	18/3.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Kasco 16%	16/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4

† Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Coconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	S-lt	Screenings	Soy bean meal	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Larrowe Milling Co.																								
Larrowe's 32	32/4/10.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Larro	20/3.75/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Larrowe's 16%	16/3/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
R. H. McEwen Milling Co.																								
McEwen's 20%	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
T. J. McGovern																								
McGovern's 24%	24/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
McGovern's 20 Percent	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 10
McGovern's 20 Percent																								
Farm Relief	20/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
McGovern's 16 Percent	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Maritime Milling Co., Inc.																								
Sweetened B-B Bull																								
Brand "20"	20/4.5/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22
B-B Hi-Test 20% Pro.																								
Sweetened	24/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
B-B Marmico 16%																								
Protein with Molasses	16/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Geo. Q. Moon & Co., Inc.																								
Moon's 24%	24/5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
U. S. 24%	24/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21
U. S. 20%	20/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21
Mt. Mansfield Coop. Creamery																								
& Grain Assoc.																								
Mt. Mansfield 20%																								
(1936)	20/5.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
E. G. & A. W. Norton																								
Kow Feed	20/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Park & Pollard Co., Inc.																								
Overall 24%	24/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Bidwell 24%	24/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Milk-Maid 24% Sweetened	24/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 6, 13
Bet-R-Milk 20%	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 13
Manamar 20%	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 9, 13
Manamar Doublex 20%	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 3, 4, 9,
Bidwell 20%	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Doublex 20%	20/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Yankee	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Manamar Top Notch																								
16%	16/3.5/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 3, 4, 9,
Top Notch 16%	16/3.5/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Quaker Oats Co.																								
20% Protein	20/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 26
Quaker 16% Protein	16/3/13.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	26
Race Milling Co.																								
Race's 24%	24/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Race's 20%	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Race's 18%†	18/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ralston Purina Co.																								
Purina Red Checker																								
Cow Chow (34%)	34/3.5/12 *	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15

† Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Horniny feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlines
	Protein	Fat	Fiber																					
Purina Green Checker Cow Chow (24%)	24/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Green Checker Cow Chow (24%)	24/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Protena 24%	24/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Blue Checker Cow Chow (20%)	20/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Blue Checker Cow Chow (20%)	20/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Protena 20%	20/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Body Cow Chow	16/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Purina Bulky Cow Chow	16/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Protena 16% (Buffalo Mill)	16/3.5/14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15
Richmond Feed Co. Richmond Special 22 Per Cent†	22/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
St. Albans Grain Co. Wirthmore 32 Supplement	32/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore 25 Balanced Sweetened	25/4.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Champlain Valley Emergency 24	24/3.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Hygrade 24 Sweetened Milk	24/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 20 Sweetened	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Champlain Valley Emergency 20	20/3.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Hygrade 20 Sweetened Milk	20/3.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Utility	20/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Wirthmore 16 Sweetened	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore 16 Swt. Oil	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	23
Champlain Valley Emergency 16	16/3.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Utility 16	16/3/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Seabury Grain Co. Our Own Make Special	20/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Our Own Make 20%	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Our Own Make 16%	16/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
C. M. Seaver & Co. Honor Brand 24	24/5.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Honor Brand	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Vim-20	20/4/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
W. T. Simonds Simonds' All Pure (1936)	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Simonds' Green Mountain 20 Percent (1936)	20/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21
Henry A. Slayton & Co., Inc. Economy	20/3.75/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

† Open formula.

DAIRY FEEDS—concluded

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal and feed	Hominy feed	Linsed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlins
	Protein	Fat	Fiber																					
S. E. Smith Estate																								
Smith Estate 24%†	24/5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Smith Estate 20%	20/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Smith Estate 18%†	18/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
C. H. Stearns & Son Co.																								
Stearnco All Grain				*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20% Milk	20/4/9																							
J. D. Thompson Est.																								
Special 20%	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
J. G. Turnbull Co.																								
Creamery	20/5/10									*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Turnbull's Special	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Frank Tyler																								
Tyler's 20% Ready																								
Mixed	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
C. H. Utley																								
Veri-Best Balanced	20/5/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
A. N. Washburn Estate																								
Bethel Mills 24%	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Bethel Mills 20% Protein																								
Sweetened (1936)	20/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Bethel Mills 20% Protein																								
Sweetened Economy																								
(1936)	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Bethel Mills 16%	16/4.2/9.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne County Grangers																								
Feed Corp.																								
32% Reliance Supple-																								
mental	32/4/10					*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 11, 12
Galen 24%† (1936)	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Milk Producer 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 11, 12, 14, 25
Clyde 20%†	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 19
Superior 20%†	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 11, 12, 14, 25
Sweetened 16%†	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 11, 12, 14, 25
Ray P. Webster																								
Ray's Ready	20/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc.																								
Super-Pure Sweetfeed	24/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
All Pure 20% Milk																								
(1936)	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3
Special 20 Percent	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	21
W. S. Wright																								
Wright's Open Formula																								
20%	20/6.5/8			*	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

† Open formula.
 Additional ingredients: 1. Barley. 2. Wheat. 3. Kelp. 4. Malt sprouts. 5. Dicalcium phosphate. 6. Copra oil meal. 7. Phosphatic limestone. 8. Corn feed meal. 9. Sea shells. 10. Rye feed. 11. Tricalcium phosphate. 12. Cocoa meal. 13. Dried ground fish. 14. Iodine, charcoal. 15. Iodized salt. 16. Palm kernel oil meal. 17. Peanut oil meal. 18. Corn germ meal. 19. Cocoa oil meal. 20. Union minerals (bone black, calcium carbonate, sodium chloride, charcoal, fenugreek, potassium iodide). 21. Rye distillers' grains. 22. Potassium iodide. 23. Cod-liver oil. 24. Meat scraps. 25. Iron sulfate. 26. Iodized ground limestone. 27. Molasses beet pulp.

The dairy feeds were found to be "as certified" with few exceptions.

In the following instances, the ingredients named were "not detected":

- Maritime Milling Co., Inc., Sweetened BB Bull Brand "20": Potassium iodide.
- Park & Pollard Co., Top Notch 16%: Soybean meal.
- J. G. Turnbull Co., Turnbull's Special: Beet pulp.
- Wayne County Grangers Feed Corp., Milkproducer 24%: Iodine.
- Wayne County Grangers Feed Corp., Superior 20%: Iron sulfate and iodine.
- Wayne County Grangers Feed Corp., Sweetened 16%: Iodine.
- West-Nesbitt, Inc., Special 20 Per Cent: Bone.

In the following instances, small quantities of the ingredient named were found in addition to those certified:

- Allied Mills, Inc., Wayne Amco 32% Supplement: Ground oats.
- Allied Mills, Inc., Empire 20%: Few whole weed seeds.
- Allied Mills, Inc., Empire 16½%: Few whole weed seeds.
- E. C. Crosby, Crosby's A Quality 20%: Trace of rye feed.
- Davis Feed Co., Rutland, Vermont 20%: Ground barley.
- Elmore Milling Co., Inc., Granger 24%: Few whole weed seeds.
- Elmore Milling Co., Inc., Dairyman's Emergency 24%: Few whole weed seeds.
- Elmore Milling Co., Dairyman's Emergency 20%: Occasional whole weed seeds.
- Elmore Milling Co., Inc., Elmore's Sweet Digesto: Occasional whole weed seeds.
- John W. Eshelman & Sons, Eshelman Pennsy 16: Occasional whole weed seeds.
- Grand Union Co., Grand Union 20%: Occasional whole weed seeds.
- Grand Union Co., Grand Union 16%: Occasional whole weed seeds.
- Great Atlantic & Pacific Tea Co., Daily Milk: Occasional whole weed seeds.
- C. E. Johnson, Regular: Salt.
- T. J. McGovern, McGovern's 20% Farm Relief: Small amount brewers' dried grains.
- Geo. Q. Moon & Co., Inc., U. S. 24%: Salt.
- E. G. & A. W. Norton, Kow Feed: Brewers' dried grains.
- Park & Pollard Co., Inc., Manamar 20%: Cottonseed meal.
- Park & Pollard Co., Inc., Yankee: Malt sprouts.
- Park & Pollard Co., Inc., Doublex 20%: Brewers' dried grains.
- Park & Pollard Co., Inc., Manamar Top Notch 16%: Wheat bran.
- Park & Pollard Co., Inc., Top Notch 16%: Brewers' dried grains.
- Ralston Purina Co., Protena 20%: Few whole weed seeds.
- Ralston Purina Co., Purina Body Cow Chow: Few whole weed seeds.
- Ralston Purina Co., Protena 16%: Occasional whole weed seeds.
- Chas. M. Seaver & Co., Honor Brand 24%: Small amount rye feed.
- J. G. Turnbull Co., Creamery: Brewers' dried grains.
- R. P. Webster, Ray's Ready: Small amount rye feed.

Forty-four ingredients were used in making 159 brands of dairy feeds sampled. Wheat bran and salt appear in all but two; corn gluten meal or feed in all but six; and cottonseed meal in all but seven; calcium carbonate in nine-tenths; linseed meal, corn meal, and soybean meal in seven-tenths; oats and brewers' dried grains in six-tenths; wheat middlings and distillers' dried grains in five tenths; hominy feed and bone meal in four-tenths; and oat mill feed, screenings and barley in two-tenths of brands sampled.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty																				
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screens	Wheat bran	Wheat middlings	Wheat red dog	
Allied Mills, Inc.																					
Wayne Amco 12% Fitting	12/3/9					*	*	*				*	*	*	*	*					9
June Pasture	10/0.5/21	*										*									
Wayne Supreme Horse	9.5/3/8									*		*	*	*	*	*					
Empire Stock	9/4/11					*	*	*		*	*	*	*	*	*	*					
E. W. Bailey & Co.																					
Bailey's Pasture	15.5/3.75/10					*	*	*		*	*	*	*	*	*	*					4, 7
Sweetened Bailey's Fitting	14/4/9					*	*			*	*	*	*	*	*	*					
Pennant Horse Sweetened with Molasses	10.75/3.5/6.5									*	*	*	*	*	*	*					
Pennant Brand Stock Sweetened with Molasses	9.5/4/9.5					*				*	*	*	*	*	*	*					
Eastern States Farmers' Exchange																					
Eastern States Fitting†	12/3.5/8					*	*			*	*	*	*	*	*	*					2, 9, 21
Eastern States Highland 12†	12/3/11					*	*			*	*	*	*	*	*	*					9, 14
Eastern States Horse†	10.5/3.5/7									*	*	*	*	*	*	*					2
Eastern States Succulence†	10/2/14.5					*				*	*	*	*	*	*	*					
Elmore Milling Co., Inc.																					
Elmore Fitting	12/4/9					*	*			*	*	*	*	*	*	*					7
Elmore's Super Silage	12/2/15					*				*	*	*	*	*	*	*					3, 4
Elmore Stock	10/3/12					*				*	*	*	*	*	*	*					
Elmore Horse with Molasses	9/2.5/11					*				*	*	*	*	*	*	*					
John W. Eshelman & Sons																					
Eshelman Red Rose Fitting	12/3.5/7					*	*	*		*	*	*	*	*	*	*					
Eshelman S-O-S	11/2/15					*	*			*	*	*	*	*	*	*					3, 4
Eshelman Red Rose 85 Horse	9/3/10					*				*	*	*	*	*	*	*					
D. H. Grandin Milling Co.																					
Grandin's Sweetened Horse	9.5/3.5/11					*				*	*	*	*	*	*	*					
Grandin's Stock	8.5/4/12					*	*			*	*	*	*	*	*	*					5
Great Atlantic & Pacific Tea Co.																					
Daily Horse	9.5/3/10					*				*	*	*	*	*	*	*					
Great Eastern Feed Mills																					
Phoenix Horse (1936)	10.5/4/8					*	*			*	*	*	*	*	*	*					
Phoenix Stock (1936)	8/3/12					*				*	*	*	*	*	*	*					5
E. T. & H. K. Ide																					
Ideal Fitting	12/4/10					*	*			*	*	*	*	*	*	*					
Banner Bulky (1936)	13/2.5/18					*	*			*	*	*	*	*	*	*					3, 4
Kasco Mills, Inc.																					
Kasco Horse	9/3/10					*	*			*	*	*	*	*	*	*					
Maritime Milling Co., Inc.																					
B-B Dealers' Mixing with Molasses	10/3.5/12					*				*	*	*	*	*	*	*					
Geo. Q. Moon & Co., Inc.																					
Moon's 90 Molasses Horse (1936)	9/3/10					*				*	*	*	*	*	*	*					
Park & Pollard Co., Inc.																					
Manamar Fitting	12/3.5/7					*	*			*	*	*	*	*	*	*					1, 6, 8
Park & Pollard Horse	10/3.5/9					*				*	*	*	*	*	*	*					
Yankee Horse	10/3.5/9					*				*	*	*	*	*	*	*					
Park & Pollard Stock	9/4/12					*	*	*		*	*	*	*	*	*	*					

† Open formula.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty																			
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings	Wheat red dore
Quaker Oats Co.																				
Quaker Sugared Schumacher	10/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9, 11, 22
Schumacher Special Horse —Cubed	10/2.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9, 11, 22
Ralston Purina Co.																				
Heifer Growing Chow	14/2.5/14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9, 10
Purina Dry and Fitting Chow	12.5/2.5/14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 9, 10
Purina Omolene	10/3.2/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Purina Bulky Omolene	10/3.2/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Purina Bulky Las Chow (Buffalo Mill)	9/1.3/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 10
St. Albans Grain Co.																				
Wirthmore 14 Fitting	14/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6, 13
Wirthmore Rabbit	14/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 12, 13, 15, 24
Hygrade Fitting	12/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	9, 13
Wirthmore Fodder Greens	10/3/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4
Wirthmore Horse	9.8/3.25/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Hygrade Horse	9.5/3.25/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wirthmore Stock	9/4/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
David Stott Flour Mills, Inc.																				
Winner Chop Feed	10/3.5/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	25
Ubiko Milling Co.																				
Honeycomb Fitting	12/2.5/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 3, 4, 20, 23
Wayne County Grangers Feed Corp.																				
Universal Horse	10/3/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
West-Nesbitt, Inc.																				
Pure Feed Horse	9/3/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

Additional ingredients: 1. Kelp. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Sea shells. 9. Soybean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skim milk. 13. Cod-liver oil. 14. Distillers' dried grains. 15. Cracked wheat. 16. Wheat germ. 17. Corn germ meal. 18. Dried buttermilk. 19. Ground wheat. 20. Iron oxide and potassium iodide. 21. Sardine oil. 22. Iodized ground limestone. 23. Copper sulphate. 24. Oat groats. 25. Oat hulls.

The stock feeds were found to be "as certified" with few exceptions.

In the following instances, the ingredients named were "not detected":

- E. T. & H. K. Ide, Banner Bulky: Salt.
- Ubiko Milling Co., Honeycomb Fitting: Copper sulfate, potassium iodide.

In the following instances small quantities of the ingredients named were found in addition to those certified:

- Elmore Milling Co., Inc., Elmore Stock: Corn gluten feed and molasses.
- St. Albans Grain Co., Hygrade Fitting: Bone meal.
- Ubiko Milling Co., Honeycomb Fitting: Small amount malt sprouts, distillers' dried grains and corn gluten meal.

Thirty-seven ingredients were used in making the 51 brands of stock feeds, etc., sampled. Molasses appears in all but three of the brands sampled; oats and salt in eight-tenths; linseed meal and alfalfa meal in five-tenths; wheat bran, corn meal, cracked corn and calcium carbonate in four-tenths; hominy feed and barley in three-tenths; and oat mill feed, wheat middlings and bone meal in two-tenths of the sampled brands.

CALF MEALS, HOG FEEDS

Albers Bros., Milling Co., Calf Manna. 25/4/5. Powdered skim milk, oatmeal, ground corn, soluble meat extract, linseed meal, ground hulled barley, ground wheat, wheat shorts, dextrose, soybean meal, coconut oil meal, cod-liver oil, anise, iodized salt 1%, steamed bone meal 1%, oyster shell meal 1%.

Allied Mills, Inc., Wayne Calf Meal. 24/4/7. Dried skim milk, cottonseed meal, corn gluten meal, coconut oil meal, wheat bran, wheat middlings, soybean meal, 2% limestone, 1% steamed bone meal, 1% salt, 0.06% iron oxide, 0.0007% potassium iodide, cane molasses, wheat red dog flour.

Allied Mills, Inc., Wayne Pig Starter. 18/3.5/7. Digester tankage, fish meal, peanut oil meal, cottonseed meal, soybean meal, wheat flour middlings, corn meal, fine ground alfalfa meal, oatmeal, molasses, 1% limestone, 0.5% bone meal, 0.04% iron oxide, 0.5% salt, 0.0005% potassium iodide, and 0.0005% copper sulfate.

Allied Mills, Inc., Wayne Pork Maker. 14/3.5/7. Digester tankage, ground oats, corn meal, wheat standard middlings, alfalfa meal, cane molasses, 1% ground limestone, 0.5% steamed bone meal, 0.02% iron oxide, 0.0005% potassium iodide, 0.0005% copper sulfate, and 1% salt.

Blatchford Calf Meal Co., Blatchford's Calf Meal. 24/5/6.7. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, linseed meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate, wheat flour, coconut oil meal, cottonseed meal, fenugreek, anise, salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula). 23/3.5/4. Rolled oats, corn meal, wheat bran, linseed meal, blood flour, dried skim milk, dicalcium phosphate, salt, soybean meal, sardine oil.

Eastern States Farmers' Exchange, Eastern States Hog Meal (Open Formula). 14.5/4/4.5. Corn meal, meat scraps, wheat flour middlings, linseed meal, alfalfa leaf meal, dicalcium phosphate, calcium carbonate, salt, wheat bran, sardine oil.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal. 24/4/4. Wheat red dog flour, corn meal or corn feed meal, oatmeal, linseed meal, malted barley, blood meal, dried buttermilk, bone meal, salt.

Elmore Milling Co., Inc., Elmore's Makemgrow Little Pig Ration. 18/4.5/7. Wheat middlings, corn feed meal or hominy feed, linseed meal, red dog wheat flour middlings, tankage, salt.

Elmore Milling Co., Inc., Elmore's Hog Ration. 15/5/6. Wheat middlings, linseed meal, corn meal, corn feed meal or hominy feed, tankage, salt.

John W. Eshelman & Sons, Red Rose Hog Meal. 16/5/10. Wheat middlings, corn feed meal, digester tankage, wheat bran, 3% bone meal, 2% fish meal, 2% linseed meal, 2% charcoal, reground grain screenings, 1% calcium carbonate, 1% salt.

D. H. Grandin Milling Co., Grandin's Pig and Hog Ration. 18/5/10. Linseed meal, coconut oil meal, soybean oil meal, wheat middlings, corn meal, corn feed meal, hominy feed, ground meat and bone, alfalfa meal, calcium carbonate, cod-liver oil and salt. Wheat middlings may contain ground screenings not exceeding mill run.

Great Atlantic & Pacific Tea Co., Daily Growth Calf Meal. 25/4/5. Linseed meal, soybean meal, wheat flour middlings, wheat red dog flour, ground malted barley, dried skim milk and blood meal.

Great Eastern Feed Mills, Phoenix 15% Hog Meal (1936). 15/4/6. Corn feed meal, linseed meal, wheat flour middlings, fish meal, alfalfa leaf meal, cooked meat and bone, salt, crab meal, hominy feed.

Kasco Mills, Inc., Kasco Pig and Hog Feed (1936). 17/4.5/7.5. Wheat red dog flour, fine ground barley, corn meal, linseed meal, soybean meal, wheat middlings, corn germ meal, fish meal, digester tankage, ½ of 1% salt, 1% calcite, red oxide of iron, 0.015% potassium iodide, choice alfalfa meal.

Larrowe Milling Co., Larro Calf Meal. 23/4/4. Oatmeal, wheat standard middlings, corn meal, linseed meal, blood flour, dried skim milk, cod-liver oil vitamin extract, 0.5% limestone, 0.75% salt.

Larrowe Milling Co., Larro Pig Feed. 16/4/6. Wheat bran, corn meal, wheat standard middlings, meat and bone scraps, linseed meal, soybean meal, alfalfa, dried beet pulp, 1¼% limestone, 1% salt.

Park & Pollard Co., Inc., Milkade Calf Meal. 20/7/6.5. Ground malt, linseed meal, wheat bran, wheat flour, coconut oil meal, bone meal 1%, rice polish, wheat middlings, sesame oil meal, blood flour 3%, limestone, fenugreek, anise, salt, kelp, fish meal, sea shells, soybean meal.

Park & Pollard Co., Inc., Go Tu It Pig & Hog Ration. 15/3.5/8. Alfalfa meal, hominy feed, barley, fish meal, meat meal, bone meal, corn meal, corn germ meal, wheat middlings, ground grain screenings, calcium carbonate, salt.

Race Milling Co., Race's Hog Feed. 18/4/8. Wheat flour middlings, corn meal, linseed meal, meat scraps, alfalfa meal, calcium carbonate and salt.

Ralston Purina Co., Purina Pig and Hog Chow. 36/3/14. Tankage, soybean meal, linseed meal, cottonseed meal, wheat middlings, alfalfa meal, molasses, 1% iodized salt.

Ralston Purina Co., Purina Calf Starting Chow. 27/3.2/5. Dried skim milk, linseed meal, soybean meal, blood flour, wheat flour (second clear), corn meal, 1.5% calcium carbonate, 0.5% iodized salt, Pur-a-tene (Pro Vitamin A—Carotene).

Ralston Purina Co., Purina Hog Fatena. 14/3/7. Tankage, linseed meal, corn germ meal, wheat middlings, hominy feed, molasses, alfalfa meal, 1.5% iodized salt, ground barley.

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skim milk, oatmeal, ground flaxseed, blood flour, linseed meal, wheat red dog flour, corn meal, bone meal, iodized salt, anise, fenugreek, cod-liver oil.

St. Albans Grain Co., Wirthmore Pig and Hog Feed. 17/4/9. Meat scraps, fish meal, bone meal, wheat red dog flour, wheat middlings, wheat bran, linseed meal, alfalfa meal, corn meal, ground barley, corn gluten feed, calcium carbonate, cane molasses, salt, hominy feed.

The calf and hog meals were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne Pig Starter: Copper sulfate.

Elmore Milling Co., Inc., Elmore's Makemgrow Little Pig: Tankage.

Elmore Milling Co., Inc., Elmore's Hog: Tankage.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Elmore Milling Co., Inc., Elmore's Makemgrow Little Pig: Meat scraps.

Elmore Milling Co., Inc., Elmore's Hog: Meat scraps.

Great Atlantic & Pacific Tea Co., Daily Growth Calf Meal: Corn meal and ground oats.

Ralston Purina Co., Purina Hog Fatena: Ground oats.

St. Albans Grain Co., Wirthmore Pig and Hog: Ground oats.

There were 44 ingredients used in the 10 brands of calf meals sampled. Linseed meal and salt appear in all but 1; dried skim milk in 8; blood flour in 7; corn meal in 6; wheat middlings, bone meal and soybean meal in 5; calcium carbonate, anise and coconut oil meal in 4; oatmeal and cod-liver oil in 3; and wheat red dog flour and ground flax in 2 of the brands sampled.

There were 33 ingredients used in the 15 brands of pig and hog feeds sampled. Wheat middlings and salt appeared in all; alfalfa meal and linseed meal in 12; corn meal, calcium carbonate and bone meal in 9; tankage in 8; meat scraps and hominy feed in 7; fish meal in 6; soybean meal, molasses and corn feed meal in 5; potassium iodide, wheat bran, barley, wheat red dog flour and corn germ meal in 3; and cottonseed meal, oatmeal, copper sulfate and screenings in 2 of the brands sampled.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE
OR CRACKED GRAINS

Scratch Grains, etc.	Guaranty			Barley	Buckwheat	Cracked corn	Kafir corn	Milo maize	Millet	Oats	Oat groats	Sunflower seed	Wheat
	Protein	Fat	Fiber										
Allied Mills, Inc.													
Wayne Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Wayne Intermediate Scratch	10/2/4	*	*	*	*	*	*	*	*	*	*	*	*
Empire Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Wayne Special Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
E. W. Bailey & Co.													
Pennant Brand Coarse Chick	10/3/3	*	*	*	*	*	*	*	*	*	*	*	*
Pennant Scratch	10/3/6.5	*	*	*	*	*	*	*	*	*	*	*	*
Community Feed Stores, Inc.													
Community Scratch	10/3/4	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Farmers' Exchange													
Eastern States Scratch (with whole corn)†	10.5/2.5/4	*	*	*	*	*	*	*	*	*	*	*	1
Eastern States Scratch (with coarse cracked corn)†	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Scratch 1931†	9.5/2.5/3	*	*	*	*	*	*	*	*	*	*	*	*
Eastern States Scratch Grains (1927)	9.5/2.5/3	*	*	*	*	*	*	*	*	*	*	*	1
Eastern States Intermediate Scratch†	9.5/2/3	*	*	*	*	*	*	*	*	*	*	*	*
Elmore Milling Co., Inc.													
Elmore Scratch	10/2.5/7	*	*	*	*	*	*	*	*	*	*	*	*
Emco Scratch	10/2.5/7	*	*	*	*	*	*	*	*	*	*	*	*
John W. Eshelman & Sons													
Eshelman Red Rose Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Eshelman Lancaster Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
First National Stores, Inc.													
Henfield Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*
Grand Union Co.													
Peerless Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*
D. H. Grandin Milling Co.													
Grandin's Screened Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*
Grandin's Intermediate Chick	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*
Great Atlantic & Pacific Tea Co.													
Daily Growth Fine Chick	10/3/5	*	*	*	*	*	*	*	*	*	*	*	*
Daily Egg Scratch	10/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*
Great Eastern Feed Mills													
Phoenix Scratch Grains (1936)	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
E. T. & H. K. Ide													
Ideal Scratch	10/3/4	*	*	*	*	*	*	*	*	*	*	*	*
Kasco Mills, Inc.													
Kasco Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Larrowe Milling Co.													
Larro Scratch	10/2/4	*	*	*	*	*	*	*	*	*	*	*	*
Geo. Q. Moon & Co., Inc.													
Moon's Scratch	10/2/5	*	*	*	*	*	*	*	*	*	*	*	*
Park & Pollard Co., Inc.													
Intermediate Chick	10/3/3.5	*	*	*	*	*	*	*	*	*	*	*	*
Red Ribbon Scratch	10/3/5	*	*	*	*	*	*	*	*	*	*	*	*
Bidwell Scratch (1936)	10/1.5/5	*	*	*	*	*	*	*	*	*	*	*	*
Quaker Oats Co.													
Big Egg Scratch, No Grit	9.5/2/3.5	*	*	*	*	*	*	*	*	*	*	*	*
Quaker Ful-O-Pep Scratch	9/2/3	*	*	*	*	*	*	*	*	*	*	*	*

† Open formula.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty												
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kafir corn	Milo maize	Millet	Oats	Oat groats	Sunflower seed	Wheat
Ralston Purina Co.													
Purina Hen Chow	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Purina Chick Chow (Fine)	10/2/4	*	*	*	*	*	*	*	*	*	*	*	*
Protens Scratch	9.5/2/4	*	*	*	*	*	*	*	*	*	*	*	*
St. Albans Grain Co.													
Wirthmore Intermediate Scratch	10/2.5/3.5	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Baby Chick Scratch	10/2.5/3.5	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Mornin' Call Poultry (1934)	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Mornin' Call Poultry	9.5/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
S. E. Smith Estate													
Smith Estate Blue Ribbon Scratch	11/3.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Wayne County Grangers Feed Corp.													
Grange Superior Scratch	10/3/6	*	*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc.													
Pure Feed Scratch	10/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*

Additional ingredients: 1. Whole corn.

The scratch feeds were found to be "as certified" with few exceptions.

In the following instance, the ingredient named was "not detected":

Grand Union Co., Peerless Scratch: Sunflower seed.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Elmore Milling Co., Inc., Emco Scratch: Occasional whole weed seeds.

E. T. & H. K. Ide, Ideal Scratch: Occasional whole weed seeds.

Larrowe Milling Co., Larro Scratch: Occasional whole weed seeds.

Quaker Oats Co., Big Egg Scratch, No Grit: Occasional whole weed seeds.

S. E. Smith Estate, Smith Estate Blue Ribbon Scratch: Occasional whole weed seeds.

There were 11 ingredients used in the 43 scratch feeds, etc., sampled. Cracked corn and wheat appeared in all; buckwheat in seven-tenths; barley in six-tenths; kaffir and sunflower seeds in four-tenths; milo and oats in three-tenths; oat groats in two-tenths of the brands sampled.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linsseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
	Protein	Fat	Fiber																				
Allied Mills, Inc.																							
Wayne Breeder	18/4/7	*						*	*	*	*				*	*	*	*	*	*		1, 2, 3, 6, 7, 26	
Wayne Egg	18/3.5/7	*						*	*	*	*				*	*	*	*	*	*		1, 2, 3	
Wayne Egg||	18/3.5/7	*						*	*	*	*				*	*	*	*	*	*		1, 2, 3, 26	
Wayne Broiler	18/3.5/8	*						*	*	*	*				*	*	*	*	*	*		1, 2, 3, 26	
Wayne Chick Starter	17/4/6	*						*	*	*	*				*	*	*	*	*	*		1, 2, 3	
Wayne Growing	16/4/6	*						*	*	*	*				*	*	*	*	*	*		1, 2, 3	
Empire Egg	16.5/3.5/7	*						*	*	*	*				*	*	*	*	*	*		1, 2	
Empire Egg||	16.5/3.5/7	*						*	*	*	*				*	*	*	*	*	*		1, 2, 26	
Empire Growing	16/3/7	*						*	*	*	*				*	*	*	*	*	*		1, 2	
Wayne All Mash Laying	15.5/3.5/7	*						*	*	*	*				*	*	*	*	*	*		1, 2, 3	
Wayne Turkey||	15/3.5/8	*						*	*	*	*				*	*	*	*	*	*		1, 2, 3, 5, 26	
Wayne Poultry Fattener	13.5/3.5/8							*					*	*	*	*	*	*	*	*		6	
E. W. Bailey & Co.																							
Pennant Brand Laying	20/5/6	*						*				*			*	*	*	*	*	*		1	
Pennant Brand Laying‡§	20/5/6	*						*				*			*	*	*	*	*	*		1, 4, 20	
Pennant Chick Starter	17/5/5	*				*		*				*			*	*	*	*	*	*		1, 4, 5, 20	
Pennant Broiler (1936)	17/4/5	*				*		*				*			*	*	*	*	*	*		1, 4	
Pennant Brand Growing	15/5/5	*				*		*				*			*	*	*	*	*	*		1, 4, 5, 20	
Chapin & Co.																							
Chapin Kernels Lay All	20/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 9, 13, 18, 21	
Community Feed Stores, Inc.																							
Community Laying with Milk‡	20/4/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4, 24	
Chas. M. Cox Co.																							
Utility Laying	18/4/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4	
Utility Growing	15/4/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4	
Eastern States Farmers' Exchange																							
Eastern States Turkey Grow†	20/4/5	*						*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 11, 24, 26	
Eastern States Producer 20†	20/4/6	*						*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 11, 24, 26	
Eastern States Developer†	18.5/4/6.5	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 11, 24, 26	
Eastern States Controller†	18.5/2.5/4							*				*			*	*	*	*	*	*		1, 11, 24, 26	
Eastern States Producer†	17/4/6.5	*						*	*	*	*	*	*	*	*	*	*	*	*	*		1, 11, 24, 26	
Eastern States Egg†	17/4/6.5	*						*	*	*	*	*	*	*	*	*	*	*	*	*		11, 24, 26	
Eastern States Turkey-Fat†	16/3.5/5.5	*						*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 11, 24	
Eastern States Combination†	15/4/6.5	*						*	*	*	*	*	*	*	*	*	*	*	*	*		1, 11, 24, 26	
Eastern States Fattener†	14/4/5	*						*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 18	
Eastern States All-Mash Developer†	14.5/3.5/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 11, 24, 26	
Elmore Milling Co., Inc.																							
Elmore Turkey Starting	24/4/6	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*		1, 2, 4	
Elmore Egg	18/4/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*		4, 21	
Elmore M. A. C. Laying	17/5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 24	
Elmore Eggmaker	17/4.5/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*		4, 21	
Elmore Growing	17/4/8	*						*	*	*	*	*	*	*	*	*	*	*	*	*		4, 21	
Elmore Chixsaver	16.5/4/8	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4	
Elmore Complete Laying	16/4/6	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4	

† Open formula. ‡ With cod-liver oil. § With sardine oil. ¶ With cod-liver meal.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Horned feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
John W. Eshelman & Sons																						
Eshelman Red Rose Laying†	20/5/7	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Pennsy Laying Mash	18/5/8	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 9
Eshelman Red Rose Growing†	16/4/7	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
First National Stores, Inc.																						
Henfield Egg	20/5/7	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grand Union Co.																						
Peerless Laying	20/4/8	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
D. H. Grandin Milling Co.																						
Grandin's Laying*†	20/4/8	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Complete Laying	15/4/7	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Grandin's Growing*†	15/4/8	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Great Atlantic & Pacific Tea Co.																						
Daily Egg	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4, 20
Daily Growth Growing	17.5/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Daily Growth Chick Starter	16/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 21
Great Eastern Feed Mills																						
Phoenix 20% Laying (1936)†	20/4/7	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 7, 16
Phoenix Broiler (1936)†	18/4/6	*	*				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 7, 16
All Purpose Complete (1936)†	16/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 7, 16
16% Growing (1936)†	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 7
E. T. & H. K. Ide																						
Ideal Egg	20/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 11, 24
Kasco Mills, Inc.																						
Apex Laying	20/4/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12
Larrowe Milling Co.																						
Larro Egg	19/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Larro Turkey Adult	19/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
Larro Chick Starter	16.5/4.5/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4
Larro Growing	16/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4
R. H. McEwen Milling Co.																						
McEwen's Red Feather Egg	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 9
Maritime Milling Co., Inc.																						
Dollar\$Maker Egg																						
Vitamized†*	17/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4
B-B Bull Brand All-Mash																						
Laying Vitamized*†	15/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 12
Geo. Q. Moon & Co., Inc.																						
Moon's Laying Mash*	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 16
Moon's Special A Laying* (1936)	18/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 3, 4, 16, 29, 31, 39, 40, 41, 42, 43, 44
Park & Pollard Co., Inc.																						
Manamar Turkey Starter	26/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 10, 23
Manamar Lay or Bust	18/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 10, 23
Lay or Bust Dry	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 17
Lay or Bust Dry†	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17
Bidwell Dry†	18/3/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 17
Manamar Complete Life																						
Cycle	16/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 10, 23
Manamar Growing	15/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10, 23

* With buttermilk † Open formula ‡ With cod-liver oil

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linsed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog	
	Protein	Fat	Fiber																				
Quaker Oats Co.																							
Quaker Ful-O-Pep Egg	20/4.5/8	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26	
Quaker Ful-O-Pep Turkey																							
Grower	20/4.5/8	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26	
Quaker Ful-O-Pep Growing	19/5/6	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26	
Big Egg Laying	18/4/8	*												*	*	*	*	*	*	*	*	1, 9, 26	
Quaker Ful-O-Pep Chick																							
Starter	17/5/7	*								*	*	*	*	*	*	*	*	*	*	*	*	1, 9, 20, 26	
Race Milling Co.																							
Race's Poultry	20/3.5/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*	*	4	
Ralston Purina Co.																							
Purina Turkey Startena	26/4.5/6	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 22, 25, 26, 45	
Purina Turkey Growing																							
and Fattening Chow	21/3.5/8	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 9, 14, 45	
Purina Egg Chowder	19/3.5/8	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 14, 45	
Purina Lay Chow	19/3.5/8	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 9, 14, 26, 45	
Purina Broiler Chow	18/4/7	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 26, 45	
Protena Laying (1936)	18/3.5/8.5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 26	
Purina Growing Chow†	17/3.5/7	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 6, 14, 22, 26, 45	
Purina Layena (Comp.)	15.5/3.5/8	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 15, 26, 45	
Purina Chick Growena	15/3.5/7	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 14, 15, 22, 26, 45	
St. Albans Grain Co.																							
Wirthmore Breeder	20/4.5/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 6, 12	
Wirthmore Turkey Breeder	20/4.5/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12	
Wirthmore Laying	20/4/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 12	
Wirthmore Laying†	20/4/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12	
Wirthmore Baby Chick																							
Starter†	18/4/5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 6, 12	
Wirthmore Complete																							
Chick and Broiler	17.5/4/5.5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12	
Wirthmore Turkey Fatten-																							
ing	16/4.5/7	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 12	
Wirthmore Growing	15/4.5/6	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 12	
Wirthmore Growing†	15/4.5/6	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12	
Wirthmore Fleshing and																							
Fattening	15/4.5/6	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 12	
Wirthmore Pellets	15/4.5/6.5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 6, 9	
Wirthmore Complete Laying	15/4/5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 12	
Wirthmore Complete																							
Growing	14/3.75/6	**					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 4, 12	
S. E. Smith Estate																							
Smith Estate Egg																							
Producer	18/4.5/7	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4	
Ubiko Milling Co.																							
Ubiko All-Mash Starter	18/4/5	*					*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 4, 5, 11, 12, 19	

† With cod-liver oil.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—concluded

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buckwheat	Buttermilk (dried)	Calcium carbonate	Corn meal	Corn feed meal	Fish meal	Gluten meal or feed	Hominy feed	Linseed meal	Meat meal	Oats	Salt	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Ubiko All-Mash Complete Laying	16/3.5/6	*						*	*		*		*	*	*	*	*	*	*			2, 3, 4, 11, 12, 19
Wayne County Grangers Feed Corp. Superior Growing*†‡	20/4/7	*	*					*	*	*	*	*	*	*	*	*	*	*	*	*		2, 3, 4, 5, 32, 37, 38
Superior Laying*†‡	20/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 5, 32, 37, 38
Lay P. Webster Storr's† Egg‡	15/4/7	*						*	*	*	*	*	*	*	*	*	*	*	*	*		4
Vest-Nesbitt, Inc. Pure Feed Egg	18/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		1, 4, 10

* With buttermilk. † Sic. ‡ With cod-liver oil.
 Additional ingredients: 1. Dried skim milk. 2. Soybean meal. 3. Iron oxide and potassium iodide. 4. Cod-liver oil. 5. Charcoal. 6. Corn germ meal. 7. Crab meal. 8. Yeast. 9. Molasses. 10. Kelp. 11. Dicalcium phosphate. 12. Milk sugar feed (dried whey). 13. Milo. 14. Iodized salt. 15. Dried beet pulp. 16. Calcium phosphate. 17. Kaffir corn. 18. Corn oil meal. 19. Copper sulfate. 20. Cod-liver meal. 21. Low-grade wheat flour. 22. Wheat germ. 23. Sea shells. 24. Oyster shell meal. 25. Oat middlings. 26. Sardine oil. 27. St. John's bread. 28. Starch. 29. Anise. 30. Dried blood. 31. Iron oxide. 32. Tricalcium phosphate. 33. Peanut oil meal. 34. Anti-rachitic oil. 35. Protozyme (claimed to be an enzyme). 36. Rice. 37. Iodine. 38. Sulfate of iron. 39. Locust bean meal. 40. Crushed flax seed. 41. Fenugreek. 42. Rice polish. 43. Cottonseed meal. 44. Coconut oil meal. 45. Pur-a-tene (Pro-Vitamin A.—Carotene).

The mashes and other fine poultry feeds were found to be "as certified" with few exceptions.

In the following instances, the ingredients named were "not detected":

- Allied Mills, Inc., Wayne Egg: Potassium iodide.
- Allied Mills, Inc., Wayne Egg with Sardine Oil: Potassium iodide.
- Allied Mills, Inc., Wayne Chick Starter: Potassium iodide.
- Allied Mills, Inc., Wayne Turkey with Sardine Oil: Potassium iodide.
- John W. Eshelman & Sons, Eshelman Pennsy Laying with Cod Liver Oil: Molasses.
- Great Atlantic & Pacific Tea Co., Daily Egg: Potassium iodide.
- Ubiko Milling Co., Ubiko All-Mash Complete Laying: Copper sulfate.
- Wayne County Grangers Feed Corp., Superior Laying with Buttermilk and Cod Liver Oil: Iron sulfate, iodine present as potassium iodide.
- Wayne County Grangers Feed Corp., Superior Growing Mash with Buttermilk and Cod Liver Oil: Iodine.
- West-Nesbitt, Inc., Pure Feed Egg: Bone meal.

In the following instances a small quantity of the ingredients named were found in addition to those certified:

- Park & Pollard Co., Inc., Manamar Lay or Bust: Ground buckwheat.
- Park & Pollard Co., Inc., Bidwell Dry with Cod Liver Oil: Ground oats.
- Ray P. Webster, Storr's* Egg: Ground wheat.

There were 56 ingredients used in making 106 brands of mashes, etc., sampled. Alfalfa meal, corn meal, meat scraps, salt, wheat bran and wheat middlings occurred in nine-tenths; oats in eight-tenths; calcium carbonate and fish meal in seven-tenths; dried buttermilk in five-tenths; gluten feed and meal in four-tenths; linseed meal and bone meal in three-tenths; barley meal and wheat in two-tenths; and hominy feed in one-tenth of the brands sampled.

* Sic.

IV. CHOICE OF FACTORY-MIXED GOODS

The choice of a factory-mixed goods calls for the exercise of some degree of judgment on the part of the buyer. Most of the brands sold in Vermont are made of strictly high-grade ingredients. This seems to be true of all calf and hog meals and of practically all poultry feeds, but it is not entirely true of all dairy and stock feeds. About one-third of these latter goods contain oat mill feed (oat hulls, oat shorts, oat middlings) and screenings of various sorts. Competitive conditions have led many manufacturers to use a lower grade of ingredients in certain dairy and stock mixtures to which invariably they add molasses, a thoroughly desirable ingredient, used, however, in part to make the feed more palatable.

The brands of dairy feed which contain either or both of these ingredients average to carry a crude fiber content of about 10 percent and average to cost about \$33 per ton, whereas in brands solely made of high-grade ingredients the comparable figures are 8 percent and \$35. As a rule there are about 50 pounds more of total digestible nutrients present in the higher than in the lower grades. In other words, at an increase of two dollars a ton, 50 pounds more digestible nutrients and 40 pounds less crude fiber per ton are bought. The same situation holds in a general way with the two grades of stock feeds. Why buy roughage? It is cheaper to grow it.

It is perfectly legal to sell brands containing low-grade ingredients if their presence is declared on each package. The label on the bag declares the nature of its contents. It is for the individual buyer to determine whether, all things considered, including price, he should buy goods containing them. Let him look well to the tag or stencil on the feed bag, note the ingredients, the digestible nutrient contents, the protein, fat and fiber guaranties, and the price before he buys.

Several years ago the College Feed Conference Board recommended minimum total digestible nutrient contents for 12, 16, 20, 24 and 32 percent protein rations at 69, 70, 72, 72 and 72½ percents, respectively. Feed manufacturers may well take note of these suggestions made by experts in the field of animal nutrition, since the total digestible nutrient content of a feed in large measure determines its usefulness.

V. SOYBEAN MEAL

Soybean meal is a relatively new ingredient in feeds. It is simply ground soybean cake, a product obtained by crushing and cooking soybeans and removing part of the oil they contain.

Soybeans were introduced into the United States many years ago from Japan and Manchuria where they have grown for many centuries. An important civilization has been built up there on the food value of this bean. The crop has been relatively unimportant in this country until recently, and the bean has never been popular here as a human food. Less than half a million acres were grown in the United States 20 years ago, although the crop has been studied at many of our experiment stations, including Vermont,¹ over a long period of time.

One ton of beans yields about 400 pounds of oil which is used in paints and foods, and 1,600 pounds of a highly proteinous meal, which is an excellent ingredient in a mixed ration for all farm animals. The meal is also used as a base in making a plastic suitable for panels, instrument boards and buttons, and it is said that automobile bodies may be made therefrom. The acreage has increased more than ten-fold in 20 years and in two years from a 125,000-ton crop (1933) to a 700,000-ton crop (1935).

The meal, when properly prepared, is very digestible and today is a very cheap source of protein. It may be safely used to the extent of 10 to 15 percent in any mixed ration and substituted pound for pound for cottonseed meal, peanut meal and/or tankage. Its usage in feeds sold in Vermont has greatly increased during the last decade. Whereas in 1927 only one feed containing soybean meal, its presence was declared in 70 percent of the rations licensed for sale in 1935. This is because it is good and cheap and plentiful. However, it is somewhat deficient in mineral matter as compared with other highly proteinous ingredients.

¹ Vt. Sta. Rpts. 7, pp. 77-79, 109-110, 115-118 (1893); 9, pp. 195-198 (1895); 10, pp. 171-173 (1896); Bul. 204, pp. 63-72 (1917).

VI. TABULAR SUMMATION, DECEMBER, 1935, INSPECTION

The following table sets forth the essential facts as to the trade in Vermont, each brand being taken as a unit, the number of samples and brands collected, the number of protein determinations below guaranty and the nutrient deficiencies.

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies				
							Proteins	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	67	62	5	9	9	..	..	..	..	..	..
Linseed meals	47	46	1	9	8	1	1	..	..	..	..
Soybean meals	31	31	..	9	9	..	..	..	..	..	..
Peanut meal	1	1	..	1	1	..	..	..	..	..	..
Gluten meals and feeds	77	77	..	12	12	..	..	..	..	..	..
Distillers' and brewers' dried grains	60	57	3	14	10	4	1	3	..	..	..
Wheat offals	398	389	9	100	94	6	2	3	..	..	1
Brans	154	152	2	43	43	..	..	..	..	..	..
Middlings	113	110	3	30	29	1	1	..	..	..	..
Mixed feed	66	63	3	18	16	2	1	1	..	..	..
Red dog flour	65	64	1	9	6	3	..	2	..	..	1
Hominy feeds	48	46	2	15	14	1	1	..	..	..	..
Beet pulps	29	29	..	2	2	..	..	..	..	..	..
Alfalfa meals	16	16	..	7	7	..	..	..	..	..	..
Miscellaneous	59	45	14	13	13	..	..	..	..	..	..
Proprietary feeds	1,487	1,481	6	384	368	16	..	10	5	1	..
Dairy	582	579	3	159	148	11	..	7	3	1	..
Stock, horse, etc.	284	284	..	51	49	2	..	1	1	..	..
Calf and hog	98	98	..	25	25	..	..	..	..	..	..
Poultry feeds	523	520	3	149	146	3	..	2	1	..	..
Scratch, chick	167	166	1	43	42	1	..	1	..	..	..
Mashes, growing	356	354	2	106	104	2	..	1	1	..	..
Meat scraps, bone meal	11	11	..	5	5	..	..	..	..	..	..
Skim milk, etc.	12	12	..	5	5	..	..	..	..	..	..
Totals	2,343	2,303	40	585	557	28	5	16	5	1	1
Spring 1935	2,199	2,125	74	635	589	46	19	13	10	3	1
Winter 1934-35	2,049	2,002	47	550	524	26	12	4	7	..	3
Spring 1934	1,901	1,869	32	551	527	24	8	10	4	2	..
Winter 1933-34	1,955	1,938	17	566	539	27	3	14	7	1	1
Spring 1933	2,052	2,007	45	552	509	43	11	22	8	1	1
Winter 1932-33	2,235	2,202	33	581	551	30	4	17	8	..	1
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	2	2
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3
Winter 1927-28	1,051	982	69	303	275	28	14	2	8	2	2
Spring 1927	1,254	1,197	57	395	365	30	17	9	4	..	..

* Protein, fat and fiber.

VII. AVERAGE PRICES, 1930-1935

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. The December, 1935, prices are on the average, about five dollars less per ton than April, 1935.

	April, '30	December, '30	April, '31	December, '31	April, '32	December, '32	April, '33	December, '33	April, '34	December, '34	April, '35	December, '35
Cottonseed meals 43%....	\$54	\$43	\$42	\$30	\$30	\$27	\$29	\$33½	\$38½	\$51½	\$52	\$40
Cottonseed meals 41%....	48	41	40	29	28	27	27½	33½	37½	49½	44½	35½
Cottonseed meals 36%....	47½	41	40	28	26	22½	..	..	..	47	41½	..
Linseed meals 37-39%....	..	..	..	..	..	..	31½	41½	44	50	37½	36½
Linseed meals 34%.....	58	48	45	40	40	33½	32½	44	44	50½	41	36½
Linseed meals 30-33%....	61	47	42	39	40	33	32½	44	45	49½	41	36
Soybean meals .....	..	..	..	..	..	..	32	41½	42	48½	43	35½
Gluten meals	54	49½	40½	34	28	27	29	38½	39	52	43	38½
Gluten feeds	43½	42	38	27	24	23	25	30½	31	43	37½	33
Brewers' dried grains .....	..	..	..	..	..	..	28	30	31½	39½	36	31
Distillers' dried grains....	50	57	32	30	20	27	28	32½	35	41½	38	33
Wheat brans	38½	30	31	25	24½	22	23½	26½	32	36½	34½	29
Wheat middlings:												
Standard	39½	32½	31½	26	25½	21½	23	28½	32½	38½	36	29
Shorts	38	30	31	26	24½	21	23½	26½	31	36	34	28½
Flour	44	36	35	29	28	24	24½	32	33	41½	38	34½
Wheat mixed feeds	42	36	33	28	27	24	25	31	33½	40½	38½	32½
Red dog flours	45	39½	35	30	28	26½	25½	33½	33½	44½	41	35½
Dried beet pulps	51	38½	35	28	28	28	27	30	30	41½	43	36½
Hominy feeds	50½	38	34½	27	24	20½	20½	27	31	42	37½	31½
Alfalfa meals	62	54½	55	41	49½	38½	36½	38	39½	43½	42½	37
Proprietary feeds:												
Dairy 24%.....	50	45½	42	34	32	28½	29½	35½	37	46	42	36
20%.....	48	42½	39½	32	33	27	28	33½	35	43½	40½	34½
16%.....	43	39	35	30	27½	24	26	30½	31	41½	37½	32
Stock and horse 9-19%* 8%*	48½	42	40	34	32	29	29	37	37½	46½	43½	38
Fitting 9-12%.....	45	43	39	31	29½	25	26½	34½	36	44	41	35½
14%.....	45½	43	39	36	31½	28	28	37½	40½	47½	44	38½
Calf	92½	89	84	80	74	69	66½	77½	67½	82	78½	79½
Hog	53½	50	48	38	35½	32½	32½	40½	40	49	46½	43½
Poultry:												
Scraps	70	82	75½	58	60½	55	38	44	47½	48	46	53
Scratches	51	44½	41½	33	32½	27½	28½	37½	38	46½	44	39½
Mashes	61	56	52	42	40	36	37	44	45½	52	50½	46½
Chick grains	55	52½	49	41	39	41½	32½	40½	46	56	49½	45½
Chick mashes	77	69½	63	48	49	39	43	49	52	56½	56½	44½

* Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1929, 1930, 1931, 1932, 1933, 1934, April, 1935, and December, 1935, follow, 1923 being rated at 100.

	1923	1930	1931	1932	1933	1934	Apr. 1935	Dec. 1935
Cottonseed meals	100	77	59	45	52	74	78	67
Linseed meals	100	90	71	64	63	80	67	63
Gluten meals and feeds	100	81	63	46	55	74	72	64
Wheat offals (exclusive of red dog)	100	89	72	59	66	87	88	75
Beet pulps	100	88	60	53	54	64	77	65
Hominy feeds	100	110	78	56	60	94	96	81
Proprietary:								
Dairy 24%	100	90	71	56	61	77	78	67
20%	100	87	68	57	58	74	76	65
16%	100	89	71	56	62	79	82	70
Stock and horse	100	110	84	72	79	100	106	87
Calf hog, etc.	100	103	88	75	77	84	88	87
Scratches	100	98	77	66	64	82	82	75
Mashes	100	102	81	66	69	82	80	72

VIII. DEFICIENCIES, 1923-1935

The following tables set forth the proportions of the total number of brands found deficient in recent inspections and the detailed results.

Spring 1923.....	22%	Winter 1923-24.....	11%
Spring 1924.....	16%	Winter 1924-25.....	10%
Spring 1925.....	15%	Winter 1925-26.....	13%
Spring 1926.....	13%	Winter 1926-27.....	10%
Spring 1927.....	8%	Winter 1927-28.....	9%
Spring 1928.....	18%	Winter 1928-29.....	9%
Spring 1929.....	7%	Winter 1929-30.....	6%
Spring 1930.....	9%	Winter 1930-31.....	7%
Spring 1931.....	8%	Winter 1931-32.....	4%
Spring 1932.....	3%	Winter 1932-33.....	5%
Spring 1933.....	8%	Winter 1933-34.....	5%
Spring 1934.....	4%	Winter 1934-35.....	5%
Spring 1935.....	7%	Winter 1935-36.....	5%

Only five percent of the brands collected in December, 1935, were low in guaranty. This is an improvement over the situation of last spring. The average for the year was 6 percent as against 4½ percent for 1934. It will be noted that in 1932 the average deficiency was only 4 percent. This was the best record made in the history of the Vermont inspection. Prices in 1935 averaged about two dollars less per ton than those of 1934, but were \$18 per ton higher than in 1932 when prices were extremely low.

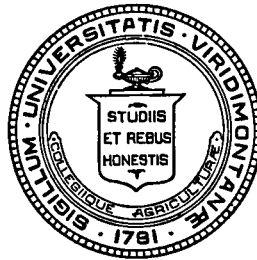
DECEMBER, 1936

BULLETIN 411

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station
BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER *and* E. F. BOYCE



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Nineteen hundred seventy-five samples, representing 600 brands, drawn from dealers' stocks during April, 1936, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respects up to guaranty in regard to their nutrient contents are listed on pages 4 to 20. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 21 to 23. Statements as to the ingredients used in the manufacture of the proprietary feeds and the manner in which their makers fulfilled their statements occur on pages 25 to 41.

It might be said, briefly, that 14 of the 194 brands of unmixed goods and 16 of the 406 brands of proprietary or mixed goods failed to meet their guaranties. This outcome is about the same as that secured in the inspection of samples drawn in December, 1935, and approximates that obtaining of late years. The general situation in respect to guaranty maintenance is set forth in the table and text at the close of the bulletin. A reasonably adequate inspection service has been in operation since 1923. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-36, 95 percent.

Six brands of dairy rations and two brands of scratch feeds contained noticeable numbers of weed seeds. In all cases where an inferior ingredient was used in a mixture a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price last April, taking all classes of feeds as a unit, seems to have been not far from \$37, or \$1 less than the average of last December and \$6 less than that of a year ago. Of course, agricultural prices have skyrocketed since then.

BULLETIN 411: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in Sections 4479-4483, 7850-7864, 7885-7891, Public Laws, the following report is submitted setting forth the analysis of 1,975 samples collected in April, 1936. The object of the law is to prevent fraud or misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of cattle and poultry feeds offered for sale. The law does not forbid the sale of inferior feeds, but it provides through publicity clear information as to their real nature.

The table of contents follows:

- I. Brands in all respects up to guaranty—pages 4 to 20.
- II. Brands failing to meet guaranty—pages 21 to 23.

	Up to guaranty	Below guaranty
	Page	Page
Cottonseed meals	4	21
Linseed meals	4	..
Soybean meals	4	..
Corn gluten meals and feeds	4-5	21
Distillers' and brewers' dried grains	5	21
Wheat brans	5-6	21
Wheat middlings	7	21
Wheat mixed feeds	8	21
Wheat red dog flours	8	21
Hominy feeds	8, 9	21
Dried beet pulps	9	..
Alfalfa meals	9	22
Miscellaneous	9	22
Dairy rations	10-13	22, 23
Stock, horse, fitting, pasture, rabbit feeds, etc....	13-11	23
Calf and hog meals	15	23
Meat and bone scraps and fish meal	15-16	23
Scratch and chick feeds	16, 17	..
Egg mashes, starters and growing feeds	17-20	23
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- III. Ingredient statements—pages 25 to 41.
- IV. Tabular summation, April, 1936, inspection—page 42.
- V. Average prices, 1930-1936—pages 43 to 44.
- VI. 1923-1928 vs. 1935 and 1936—pages 44 to 46.
- VII. Conclusions—page 47

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
Allen, E. T., Co., Atlanta, Ga.			
Empire 41% Protein	41	5.5	13
Ashcraft-Wilkinson Co., Atlanta, Ga.			
Cow-Eta Brand 43% Prime Quality	43	5.25	12
Cow-Eta Brand 41% Prime Quality	41	5	13
Eastern States Farmers' Exchange, Springfield, Mass.			
Eastern States 41% Protein	41	5.5	12
Humphreys-Godwin Co., Memphis, Tenn.			
Bull Brand 43% Protein Prime	43	5	11
Dixie Brand Prime 41% Protein (1935)	41	5	12
Lovitt, L. B., & Co., Memphis, Tenn.			
Lovit Brand 41% Protein	41	5	13
Ralston Purina Co., St. Louis, Mo.			
41% Protein	41	5	12
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn.			
37% Protein Old Process	37	4.5	9
32% Protein Old Process	32	4.5	9
Kellogg, Spencer, & Sons, Inc., Buffalo, N. Y.			
Kellogg's 37% Protein Old Process	37	4.5	9
Kellogg's 32% Protein Old Process	32	4.5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y.			
K & M Brand 34% Protein Pure Old Process	34	5	10
Sherwin-Williams Co., Cleveland, Ohio			
Sherwin-Williams Company Pure Old Process 37%	37	4.5	9
Sherwin-Williams Company Pure Old Process 34%	34	4.5	9
SOYBEAN MEALS			
Allied Mills, Inc., Chicago, Ill.			
41% Protein	41	5	7
Super Soy	37	4.5	6.5
Archer-Daniels-Midland Co., Minneapolis, Minn.			
41% Protein Old Process	41	4.5	7
Central Soya Co., Inc., Decatur, Ind.			
Central (1935)	41	5	7
Central 41% Protein	41	4.5	7
Norris Grain Co., Chicago, Ill.			
Norris Grain Company—Expeller Type	41	4.5	7
Ralston Purina Co., St. Louis, Mo.			
41% Protein	41	4.5	7
Shellabarger Grain Products Co., Decatur, Ill.			
Shellabarger's Cooked	41	4.5	7.5
Staley, A. E., Manufacturing Co., Decatur, Ill.			
Staley's	41	4.5	7
CORN GLUTEN MEALS AND FEEDS¹			
American Maize-Products Co., New York, N. Y.			
Cream of Corn	25	2	8.5
Clinton Co., Clinton, Iowa			
Clinton	25	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond	43	1	4
Buffalo	25	2	8.5

¹ Meals 43 percent, feeds 25-20 percent protein.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
CORN GLUTEN MEALS AND FEEDS—concluded			
Hubinger Co., Keokuk, Iowa			
KeOKuk	25	2	8.5
Penick & Ford, Ltd., Inc., Cedar Rapids, Iowa			
Douglas	43	1	4
Douglas	25	1.5	8.5
Sweetened Douglas	20	1	7
Staley, A. E., Manufacturing Co., Decatur, Ill.			
Staley's	25	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union	25	1	8
DISTILLERS' AND BREWERS' DRIED GRAINS			
Allied Mills, Inc., Chicago, Ill.			
Corn Distillers'	28	8	15
Brewers'	24	5	18
Continental Distilling Corp., Philadelphia, Pa.			
Corn Distillers'	28	9	15
Dewey Bros. Co., Blanchester, Ohio			
Corn 3D Distillers'	28	8	14
Farmers' Feed Co., New York, N. Y.			
"Bull Brand" Dried Brewers'	26	6	17
Great Eastern Feed Mills, Lowell, Mass.			
Phoenix Brewers'	28	6	15
Kelley, F. W., St. Johnsbury, Vt.			
Kelley's Rye Distillers'	16	5	20
Martenis, C. J., Grain Co., New York, N. Y.			
Alco Dried Brewers' (1935)	24	6	20
Alco Dried Brewers'	22	6	20
Neumond Co., St. Louis, Mo.			
Neumond Corn Distillers' (1935)	28	8	15
Neumond 28% Corn Distillers'	28	7	15
St. Albans Grain Co., St. Albans, Vt.			
Corn Distillers'	28	7	14
Corn Distillers' (1935)	27	7	14
Brewers'	21	5	15
Walker, Hiram, & Sons, Inc., Peoria, Ill.			
Corn Distillers' (1935)	30	6	14
Corn Distillers'	28	6	13
Wilber Feed Co., Inc., Jamestown, N. Y.			
Corn Distillers'	28	8.5	13
WHEAT OFFALS—WHEAT BRANS			
Atkinson Milling Co., Minneapolis, Minn.			
Atkinson's (+)	14	4	12
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed (+)	14	4	12
Duluth-Superior Milling Div.,* Minneapolis, Minn.			
Durum (+)	15	4	12
Eckhart, B. A., Milling Co., Chicago, Ill.			
Pure	14	3.5	12
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard (+) (1935)	16	3	14
Lucky Hard (+)	15	3	14
Forrest, J. A., Co., Minneapolis, Minn.			
Bronco Pure	15	3.5	11.5

(+) "With ground screenings not to exceed mill run" or equivalent phraseology.
 * Of Standard Milling Co.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
<i>WHEAT OFFALS—WHEAT BRANS—continued</i>			
General Mills, Inc., Minneapolis, Minn. Washburn's Gold Medal Hard (+)	14	4	12
Geneva Milling Co., Inc., Geneva, N. Y. Genesota Standard (+)	15	4	12
Ham, Frank B., & Co., Ltd., Toronto, Ont. "Hamco" Brand	15	3.5	11.5
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y. Choice (+)	13.5	3.5	14
International Milling Co., Minneapolis, Minn. Blackhawk Pure	15	3.2	12
Kansas Flour Mills Corp., Kansas City, Mo. Big Flake Pure	15	3.5	11
King, H. H., Flour Mills Co., Minneapolis, Minn. Fancy "Brodflake" (+)	14.5	4	11
King Midas Mill Co., Minneapolis, Minn. Cloverleaf Pure (1935)	15	4	12
Lake-of-the-Woods Milling Co., Ltd., Montreal, Que. Lakewoods	15	3.5	11.5
Larabee Flour Mills Co., Kansas City, Mo. "Sunfed" Winter (+)	15	3.5	11
Maple Leaf Milling Co., Ltd., Toronto, Ont. Rex (+)	15	3.5	12
Minot Flour Mill Co., Minot, N. D. Minot Flour Mill Company—Pure	16	5	10.5
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y. Moon's (+)	15	3	10
Niagara Falls Milling Co., Lockport, N. Y. Niagara Choice	14.5	4	11
Northwestern Consolidated Milling Div.,* Minneapolis, Minn. Pure	14	4	12
Ogilvie Flour Mills, Ltd., Montreal, Que. Ogilvie's	15	3.5	11.5
Parrish & Heimbecker, Ltd., Toronto, Ont. Parrheim Pure	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's Hard (+)	14	4	12
Russell-Miller Milling Co., Minneapolis, Minn. Hard Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que. Premier	15	3.5	11.5
Southwestern Milling Div.,* Kansas City, Mo. Red Turkey Pure	15	3.5	10
State Mill & Elevator, Grand Forks, N. Dak. Dakota Maid Pure	15	5	12
Stott, David, Flour Mills, Inc., Detroit, Mich. Winter (+)	13.5	3.5	12
Tennant & Hoyt Co., Lake City, Minn. Pure	16	4	11
Valley City Milling Co., Portland, Mich. Rowena (1934)	14	3	10.75
Voigt Milling Co., Grand Rapids, Mich. Voigt's	14	3	10
Western Canada Flour Mills Co., Ltd., Winnipeg, Man. J. A. Pioneer Pure	15	3.5	11.5

* Of Standard Milling Co.

(+)"With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIDDINGS			
Coatsworth & Cooper, Toronto, Ont.			
C & C Shorts	16	5	8
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Flour Midds	16	4	6
Sunfed Standard (+)	15	4	9.5
Copeland Flour Mills, Ltd., Midland, Ont.			
Copeland's "Dandy Shorts" (1935)	16	5	8
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard Standard (+)	16	4.5	9.5
Dairy Maid Soft Winter Flour (+) (1935)	14.5	4.5	6
Dairy Maid Soft Winter Flour (+)	13.5	3.5	6
Forrest, J. A., Co., Minneapolis, Minn.			
Bronco Pure	16	5	8
Pioneer	16	5	8
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard Standard (+)	15	4	9.5
Geneva Milling Co., Geneva, N. Y.			
Genesota Standard (+)	15	4	9.5
Ham, Frank B., & Co., Ltd., Toronto, Ont.			
"Hamco" Brand Shorts	16	5	8
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y.			
Standard (+)	15	4.75	9.5
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+)	16	4.5	8.5
King Midas Mill Co., Minneapolis, Minn.			
Standard (+)	15	4	9.5
Lake-of-the-Woods Milling Co., Ltd., Montreal, Que.			
Lakewoods Shorts	16	5	8
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Maple Leaf	16.5	3.5	4.5
Rex (+)	16	5	7.5
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+) (1935)	15.5	4.5	7
Niagara Standard (+)	14.5	4.5	7
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's Shorts	16	5	8
Parrish & Heimbecker, Ltd., Toronto, Ont.			
Parrheim Pure Shorts	16	5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard A (+)	16	4	6
Pillsbury's Hard Standard B (+)	15	4	9.5
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident Flour	15.5	4	5
Alta Hard (+)	15	4.5	8.5
Hard Occident Standard	15	4	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour (+)	15	4	6
Stott, David, Flour Mills, Inc., Detroit, Mich.			
Pennant (+)	15	4	9
Urban, George, Milling Co., Buffalo, N. Y.			
_____ (+)	15	4	9.5
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14	4.2	6

* Of Standard Milling Co.
 (+) "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIXED FEEDS			
Bailey, E. W., & Co., Montpelier, Vt.			
Capital	14	3	7
Excelsior Milling Co., Minneapolis, Minn.			
Pure Camel Fancy	16	4	7.5
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+)	13	3.5	10
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Fancy (+)	15	3.5	7.5
Ide, E. T. & H. K., St. Johnsbury, Vt.			
Ideal	15	4	8
Park & Pollard Co., Inc., Buffalo, N. Y.			
Park & Pollard Heavy	15.5	3.35	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+)	15	4	8.5
Ralston Purina Co., St. Johnsbury, Vt.			
Brooks' Fancy	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Wheat Occident	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore (+)	15	3.75	8
Stott, David, Flour Mills, Inc., Detroit, Mich.			
Columbus Heavy (+)	14.5	3.7	8.5
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14	4.1	8.2
WHEAT OFFALS—WHEAT RED DOG			
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed	16	4	4
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Pure Hard Adrian	16	3.5	4
Arlington Wheat Second Clear	14	3	1.5
Hecker-Jones-Jewell Milling Div.,* Buffalo, N. Y.			
.....	15	3.85	4.75
International Milling Co., Minneapolis, Minn.			
Blackhawk	16	3	4
King Midas Mill Co., Minneapolis, Minn.			
Flour	16.5	4	4
Niagara Falls Milling Co., Lockport, N. Y.			
Choice	14	4	4
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's XX Daisy	16	4	4
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior	16.5	3.5	4
Urban, George, Milling Co., Buffalo, N. Y.			
Flour	15	4	4
HOMINY FEEDS			
Decatur Milling Co., Inc., Decatur, Ill.			
Homco	10	6	6
Illinois Cereal Mills, Inc., Paris, Ill.			
White	10	6	5
Kellogg Co. of Canada, Ltd., London, Ont.			
O-Corn-O	10	6.5	5

* Of Standard Milling Co.

(+)"With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
HOMINY FEEDS—continued			
Kellogg Sales Co., Battle Creek, Mich.			
White	10	6	5
Krause, Chas. A., Milling Co., Milwaukee, Wis.			
Badger White	10	6	5
Miner-Hillard Milling Co., Wilkes-Barre, Pa.			
Choice Steam Cooked	10	5	5
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.			
Moon's	10	5	6
Patent Cereals Co., Geneva, N. Y.			
.....	10	5	5
Post Products Div.* Battle Creek, Mich.			
Burt's (1935)	10	6	5
Burt's	10	6	6
Pratt Food Co., Inc., Buffalo, N. Y.			
Pratt's White	10	5	6
Quaker Oats Co., Chicago, Ill.			
White	10	5	5
Yellow	10	5	5
St. Albans Grain Co., St. Albans, Vt.			
Paragon	10	6	7
Stott, David, Flour Mills, Inc., Detroit, Mich.			
Yellow	9.5	5.5	6.5
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.			
.....	7	0.3	22.5
Molasses	7	0.3	20
ALFALFA MEALS			
Denver Alfalfa Milling & Products Co., Lamar, Colo.			
Leafalfa	20	1.5	18
.....	13	1	33
Pecos Valley Alfalfa Mill Co., Hagerman, N. Mex.			
Peevee Leaf	20	2.5	18
Pecos Special	13	1.5	36
MISCELLANEOUS			
Eastern States Farmers' Exchange, Springfield, Mass.			
Molasses Oat Feed	5	1.25	27.5
Fruen Milling Co., Minneapolis, Minn.			
Glenwood Fine Ground Feeding Oatmeal	15	5	3.75
Grandin, D. H., Milling Co., Jamestown, N. Y.			
Grandin's Green Food	10	1	25
Hecker-H-O Co., Inc., Buffalo, N. Y.			
Oat Mill Feed	6	1.5	28
New Richmond Roller Mills Co., New Richmond, Wis.			
Feeding Oatmeal	15	5	3.75
Pratt Food Co., Inc., Buffalo, N. Y.			
Oat Feed	5	1.5	30
Quaker Oats Co., Chicago, Ill.			
Vim Feed (1934)	5	2	30
Vim Oat Mill Feed	5	1.5	30
Sugared Vim Oat Mill Feed	5	1.25	27.5
Ralston Purina Co., St. Louis, Mo.			
Protrena Sweet Feed "D"	6	1	25
Upper Hudson Rye Flour Mills, Inc., Troy, N. Y.			
Upper Hudson Rye Feed	13.5	3	6

* Of General Foods Corporation.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note ^a
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Chicago, Ill.				
Wayne Amco 32% Supplement	32	4	9	✓
Wayne Amco 24%	24	4	9	✓
Empire 24%	24	3	12	✓
Wayne Amco 20%	20	4	9	✓
Empire 20%	20	3	12	✓
Empire 16½%	16.5	3	12	✓
Wayne Amco 16%	16	3.5	9	
Bailey, E. W., & Co., Montpelier, Vt.				
Sweetened Capital	24	4.5	9	✓
Bailey's New Deal	20	5	11	✓
Favorite	20	4	7.5	✓
Favorite (Sweetened)	20	4	7.5	✓
Bailey's Our 20% Special	20	3.5	9	✓
Bailey's 16%	16	5	9	✓
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Berkshire Hills Sweet	20	4.5	8	✓
Blatchford Calf Meal Co., Waukegan, Ill.				
V-D	31	5	5.75	
Brown, H. M., & Co., Castleton, Vt.				
Farmers' Choice 20%†	20	4.5	9.5	
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	✓
Unicorn 20%	20	4.5	10	✓
Crosby, E. C., Danby, Vt.				
Crosby's A Quality 20%†	20	4.5	8	
Crosby's B Quality 20%†	20	4.5	9	✓
Danville Grain Co., Inc., Danville, Vt.				
Danville 20%	20	4	10	✓
Davis Feed Co., Inc., Rutland, Vt.				
Vermont 20%	20	4.5	8	✓
Davis 20% Kow	20	4	8	✓
Demick, H. W., Inc., Derby Line, Vt.				
Beats 'Em All	20	4	10	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 32% Supplement†	32	4.5	8	✓
Eastern States Milkmore†	24	4.5	9	✓
Eastern States Fulpail†	20	4.5	8.5	✓
Eastern States Highland 20†	20	4	11.5	✓
Eastern States Sixteen†	16	4	8	✓
Eastern States Highland 16†	16	4	11	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore 32% Supplemental	32	4	9	✓
Elmore Milk Grains	24	4.5	10	✓
Elmore Milk Grains Junior Sweet	20	4.5	10	✓
Granger 20%	20	4	11	
Dairyman's Emergency (1935)	20	3	12	

^a The presence of the check mark (✓) at the right of most of the lines indicates that the microscopist avers that the several ingredients (e.g., cottonseed meal, wheat bran, hominy feed, salt, etc.) which the manufacturer stated were used in the mixture—a statement required by the state law—as a matter of fact were found to be present in the samples he analyzed. The absence of such a check mark in any instance indicates that the microscopist failed to find some one or more of the ingredients in the samples submitted to him or that he found other, and possibly undesirable, ingredients (e.g., weed seeds) to be present. Every feeding stuff listed in this table of "brands in all respects up to guaranty" against which the check mark (✓) appears passed muster both chemically as to its nutrient content and microscopically as to its ingredient content. The statement of the ingredients claimed for the several brands of mixed feeds and of the cases where the microscopist failed to find some one or more ingredients or found extraneous ingredients appears on pages 25 to 41.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman 32% Mixing	32	4.5	9	✓
Eshelman Challenge	24	4	11	✓
Eshelman Red Rose 24.....	24	4	11	✓
Eshelman Open Formula 20	20	4	9	✓
Eshelman Conestoga 20.....	20	4	11	✓
Eshelman Lancaster 20.....	20	4	11	✓
Eshelman Pennsy 16.....	16	3	11	
First National Stores, Inc., Somerville, Mass.				
Brookside 24%	24	4	10	✓
Brookside 20%	20	3.5	10	✓
Brookside 16%	16	3.5	12	✓
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's 32%	32	4	9	✓
Grandin's Milk Maker	20	5	12	✓
Grandin's Sweetened 20%.....	20	4	10	✓
M-S (Money Saver) 20% Sweetened	20	3.5	12	✓
Economy 20% Sweetened (Flexible Formula) (1935)	20	3	12	✓
Economy 16% Sweetened (Flexible Formula) (1935)	16	3	12	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Milky Way 24%	24	3.5	9	✓
Milky Way 20%	20	3.5	9	✓
Daily Milk 16	16	3.5	12	✓
Great Eastern Feed Mills, Lowell, Mass.				
Phoenix 24†	24	5	9	
Phoenix 20†	20	4.5	9	✓
Ide, E. T. & H. K., St. Johnsbury, Vt.				
Ideal Sweetened	24	5	10	✓
Ide's Special	20	4	10	✓
Royal Sweetened	20	4	10	✓
Johnson, W. B., & Son, Essex Junction, Vt.				
Johnson's Perfection No. 1.....	20	5	9	
Johnson's Economy	20	4	12	✓
Kasco Mills, Inc., Toledo, Ohio				
Beatsall Milk Grains	22	4	10	✓
Kasco 20% Milk Maker	20	4	11	✓
Apex 20%	20	3.5	12	✓
Kasco 18%	18	3.5	10	✓
Larrowe Milling Co., Detroit, Mich.				
Larro	20	3.75	12	✓
Larrowe's 16	16	3	11	✓
McEwen, R. H., Milling Co., Ogdensburg, N. Y.				
McEwen's 20%	20	4	10	✓
McGovern, T. J., Cambridge, Vt.				
McGovern's 24%	24	4	8	✓
McGovern's 20%	20	4	8	✓
McGovern's 20% Farm Relief	20	4	12	
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Hi-Test 24% Pro.‡ Sweetened	24	4	12	✓
B-B Hi Test 20% Pro.‡ Sweetened	20	4	12	✓
B-B Marmico 16% Protein with Molasses	16	4	12	
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.				
U. S. 24%	24	3	12	✓

* See footnote, page 10.
 ‡ Sic.
 † Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Mt. Mansfield Coop. Creamery & Grain Assoc., Inc., Stowe, Vt.				
Mt. Mansfield 20%	20	5.5	8	V
Norton, E. G. & A. W., Vergennes, Vt.				
Kow Feed	20	4	12	
Park & Pollard Co., Inc., Buffalo, N. Y.				
Milk-Maid 24% Sweetened	24	4	11	V
Bidwell 24%	24	3.5	11	
Bet-R-Milk 20%	20	4	9	
Manamar 20%	20	4	9	
Bidwell 20% (1935)	20	4	11	
Yankee	20	3.5	9	V
Manamar Doublex 20%	20	3.5	10	
Bidwell 20%	20	3.5	11	
Doublex 20%	20	3.5	11	
Manamar Top Notch 16%	16	3.5	11	
Top Notch 16%	16	3.5	11	
Pease, A. D., Grain Co., Burlington, Vt.				
Peasco 20%	20	4	9	
Quaker Oats Co., Chicago, Ill.				
Quaker 24% Protein	24	3.5	12	V
Quaker 20% Protein	20	3	12	V
Quaker 16% Protein	16	3	13.5	V
Race Milling Co., Granville, N. Y.				
Race's 24%	24	4	9	V
Race's 20%	20	3.5	9	V
Ralston Purina Co., St. Louis, Mo.				
Purina Milking Cow Chow (34%)	34	3.5	12	V
Purina Red Checker Cow Chow (34%) (1935) ..	34	3.5	12	V
Purina Green Checker Cow Chow (24%) (1935) ..	24	4	12	V
Purina Milking Cow Chow (24%)	24	4	12	V
Protana 24%	24	3.5	12	V
Purina Blue Checker Cow Chow (20%) (1935) ..	20	4	12	V
Purina Milking Cow Chow (20%)	20	4	12	V
Protana 20%	20	3.5	12	V
Purina Body Cow Chow (1935)	16	3.5	12	
Purina Bulky Cow Chow (1935)	16	3.5	12	
Purina Milking Cow Chow (16%)	16	3.5	12	V
Protana 16% (Buffalo Mill)	16	3.5	14	V
Richford Feed Co., Richford, Vt.				
Xtragoood 20%	20	4.5	8.5	V
Richmond Feed Co., Richmond, Vt.				
Richmond Special 22%	22	5	9	V
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 32 Supplement	32	4	8	V
Wirthmore 25 Balanced	25	5	9	V
Wirthmore 25 Balanced Sweetened	25	4.5	8.5	V
Champlain Valley 24	24	3.5	8.5	V
Hygrade 24 Sweetened Milk	24	3.5	9	V
Wirthmore 20	20	5	8.5	V
Wirthmore 20 Sweetened	20	4.5	8	V
Champlain Valley 20 Containing Cod Liver Oil ..	20	3.5	8.5	V
Champlain Valley Emergency 20 (1935)	20	3.5	8.5	V
Hygrade 20 Sweetened Milk	20	3.5	8.5	V
Utility	20	3.5	12	V
Wirthmore 16 Sweetened	16	4	8	
Champlain Valley Emergency 16 (1935)	16	3.5	8.5	V
Utility 16	16	3	13	V

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
Seabury, E. T., Grain Co., Waterbury, Vt.				
Our Own Make Special.....	20	4.5	9	✓
Our Own Make 20%.....	20	4	9	✓
Seaver, Chas. M., & Co., Williamstown, Vt.				
Honor Brand 20	20	4	10	✓
Vim-20	20	4	12	✓
Simonds, W. T., Brandon, Vt.				
Simonds' All Pure 24%	24	4	10	✓
Simonds' All Pure	20	4	10	✓
Simonds' Green Mountain 20%	20	3.5	12	✓
Smith, C. A., St. Johnsbury, Vt.				
Smith's	20	4	12	✓
Smith, S. E., Estate, West Rutland, Vt.				
Smith Estate 20%	20	4.5	8	
Smith Estate 18%	18	4.5	8	✓
Stearns, C. H., & Son Co., Johnson, Vt.				
Stearnco All Grain 20% Milk	20	4	9	
Thompson, J. D., Estate, Norwich, Vt.				
Special 20% (1935)	20	4	11	✓
Turnbull, J. G., Co., Orleans, Vt.				
Creamery	20	5	10	
Turnbull's Special	20	3.5	12	✓
Tyler, Frank, Essex Junction, Vt.				
Tyler's 20% Ready Mixed	20	4.5	9	✓
Utley, C. H., Hardwick, Vt.				
Veri-Best Balanced	20	5	7.5	✓
Washburn, A. N., Estate, Bethel, Vt.				
Bethel Mills 24% Sweetened	24	4.5	9	✓
Bethel Mills 20% Protein Sweetened	20	4.5	8.5	✓
Bethel Mills 20% Protein Sweetened Economy ..	20	4	12	✓
Bethel Mills 16% Protein Sweetened Pasture....	16	4.2	9.5	✓
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Galen 24%	24	4	10	✓
Milkproducer 24%	24	4	10	
Clyde 20%	20	4	10	✓
Superior 20%	20	4	10	
Sweetened 16%	16	4	12	
Webster, R. P., Barton, Vt.				
Ray's Ready	25	5	10	
Wright, W. S., Lyndonville, Vt.				
Wright's Open Formula 20%	20	6.5	8	
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.				
Allied Mills, Inc., Chicago, Ill.				
Wayne Amco 12% Fitting	12	3	9	✓
June Pasture	10	0.5	21	✓
Wayne Horse	9.5	3	8	✓
Empire Stock	9	4	11	✓
Bailey, E. W., & Co., Montpelier, Vt.				
Bailey's Pasture	15.5	3.75	10	✓
Bailey's Sweetened Fitting.....	14	4	9	✓
Pennant Horse	10.75	3.5	6.5	✓
Pennant Stock (Sweetened)	9.5	4	9.5	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Fitting†	12	3.5	8	✓

* See footnote, page 10.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.— <i>continued</i>				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Highland 12†	12	3	11	V
Eastern States Horse†	10.5	3.5	7	V
Eastern States Succulence†	10	1.5	20	V
Elmore Milling Company, Inc., Oneonta, N. Y.				
Elmore Fitting	12	4	9	V
Elmore's Super-Silage	12	2	15	V
Elmore Stock	10	3	12	V
Elmore Horse with Molasses	9	2.5	11	V
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Fitting	12	3.5	7	V
Eshelman S-O-S	11	2	15	V
Eshelman Conestoga Horse	9	3	10	V
Eshelman Red Rose 85 Horse	9	3	10	V
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Sweetened Horse	9.5	3.5	11	V
Grandin's Stock Food	8.5	4	12	V
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Horse	9.5	3	10	V
Great Eastern Feed Mills, Lowell, Mass.				
Sugared Phoenix	10	3	13	V
Ide, E. T. & H. K., St. Johnsbury, Vt.				
Banner Bulky	13	2.5	18	V
Ideal Fitting	12	4	10	V
Imperial Grain & Milling Co., Toledo, Ohio				
Imperial Steam Cooked	9.5	4	4.6	V
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Bull Brand Horse with Alfalfa and Molasses	8	2	10	V
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.				
Moon's Stock	9	3	12	V
Park & Pollard Co., Inc., Buffalo, N. Y.				
Manamar Fitting	12	3.5	7	V
Bulky-Sweet Dairy	11	3	12	V
Park & Pollard Horse	10	3.5	9	V
Yankee Horse	10	3.5	9	V
Park & Pollard Stock	9	4	12	V
Quaker Oats Co., Chicago, Ill.				
Quaker Sugared Schumacher	10	3	12	V
Ralston Purina Co., St. Louis, Mo.				
Purina Heifer Growing Chow	14	2.5	14	V
Purina Dry and Freshening Cow Chow	12.5	2.5	14	V
Purina Omolene	10	3.2	9	V
Purina Bulky Omolene	10	3.2	11	V
Purina Bulky Las Chow (Buffalo Mill)	9	1.3	15	V
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting	14	4	7	V
Wirthmore Rabbit Pellets	14	3.5	9	V
Wirthmore Rabbit (1935)	14	3.5	9	V
Wirthmore Complete Rabbit	14	3	12	V
Hygrade Fitting	12	4	8	V
Wirthmore Fodder Greens	10	3	15	V
Wirthmore Horse	9.8	3.25	9	V
Hygrade Horse	9.5	3.25	9	V
Wirthmore Stock	9	4	9.5	V
Stratton & Co., Concord, N. H.				
Stratton's "24" Stock	7.5	2.83	14.43	V

* See footnote, page 10.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.— <i>concluded</i>				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Universal Horse	10	3	9	✓
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Horse	9	3	10	✓
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS				
Albers Bros. Milling Co., Seattle, Wash.				
Calf Manna	25	4	5	✓
Allied Mills, Inc., Chicago, Ill.				
Wayne Calf	24	4	7	✓
Wayne Pig Starter	18	3.5	7	
Wayne Pork Maker	14	3.5	7	✓
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	26	5	6	✓
Blatchford's Calf (1935)	24	5	6.7	✓
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter†	23	3.5	4	✓
Eastern States Hog†	14.5	4	4.5	✓
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore's Makemgrow Little Pig	18	4.5	7	
Elmore's Hog	15	5	6	
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Calf Starter	20	3	5	✓
Eshelman Red Rose Pig & Hog	16	5	10	✓
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Pig and Hog	18	5	10	✓
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Growth Calf	25	4	5	
Great Eastern Feed Mills, Lowell, Mass.				
15% Hog	15	4	6	
Larrowe Milling Co., Detroit, Mich.				
Larro Calf	23	4	4	✓
Larro Pig	17.5	4	7.5	✓
Park & Pollard Co., Inc., Buffalo, N. Y.				
Milkade Calf (1935)	20	7	6.5	
Milkade Calf (1934)	20	7	6.5	
Go-Tu-It Pig & Hog	15	3.5	8	✓
Race Milling Co., Granville, N. Y.				
Race's Hog	18	4	8	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Calf Starting Chow	27	3.2	5	✓
Purina Hog Fatena	14	3	7	✓
Ryde & Co., Chicago, Ill.				
Ryde's Cream Quality Calf	19	4	4	
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	4	✓
Wirthmore Pig and Hog	17	4	9	✓
MEAT SCRAPS, BONE AND FISH MEALS				
Consolidated Rendering Co., Boston, Mass.				
Corenco 55% Meat Scrap	55	6	..	
Corenco 45% Meat & Bone Scrap	45	6	..	
New England Rendering Co., Brighton, Mass.				
Brighton Special Meat Scrap—Quality Brand... ..	50	8	..	

* See footnote, page 10.
 † Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
MEAT SCRAPS, BONE AND FISH MEALS—concluded				
Reardon, John, & Sons Co., Cambridge, Mass.				
Register Brand Cod & Haddock Fish Meal	60	3	1	
Rearco Bone Meal	20	3	..	
Van Iderstine Co., Long Island City, N. Y.				
Vico Special Steamed Bone Meal	5	0.5	3	
Wilson & Co., Inc., Chicago, Ill.				
Red "W" Brand Meat and Bone Scraps	50	6	3	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.				
Allied Mills, Inc., Chicago, Ill.				
Wayne Scratch	10	2.5	4	V
Wayne Intermediate Scratch.....	10	2	4	V
Empire Scratch	9	2.5	4	V
Wayne Special Scratch.....	9	2.5	4	V
Wayne Chick Feed	9	2	4	V
Bailey, E. W., & Co., Montpelier, Vt.				
Pennant Coarse Chick	10	3	3	V
Pennant Fine Chick	10	3	3	V
Pennant Scratch	10	3	6.5	V
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Scratch	10	3	4	V
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch (with Whole Corn)†....	10.5	2.5	4	V
Eastern States Scratch (with Coarse Cracked Corn)†	10	2.5	4	V
Eastern States Scratch 1931†.....	9.5	2.5	3	V
Eastern States Chick†	9.5	2	3	V
Eastern States Intermediate Scratch†.....	9.5	2	3	V
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Chick	10	2.5	3.5	V
Elmore Scratch	10	2.5	7	V
Emco Scratch	10	2.5	7	V
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Scratch.....	10	2.5	4	V
Eshelman Lancaster Scratch.....	9	2.5	4	V
First National Stores, Inc., Somerville, Mass.				
Henfield Scratch	10	2.5	5	V
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Economy Scratch	10	2.5	5	V
Grandin's Baby Chick	10	2.5	5	V
Grandin's Intermediate Chick	10	2.5	5	V
Grandin's Screened Scratch	10	2.5	5	V
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Growth Fine Chick.....	10	3	5	V
Daily Egg Scratch.....	10	2.5	5	V
Great Eastern Feed Mills, Lowell, Mass.				
Phoenix Medium Scratch	10	2.5	4	V
Phoenix Scratch	10	2.5	4	V
Ide, E. T. & H. K., St. Johnsbury, Vt.				
Ideal Scratch	10	3	4	
Johnson, W. B., & Son, Essex Junction, Vt.				
Johnson's Perfection	10	3	5	
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Scratch	9	2.5	4	V

* See footnote, page 10.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
Larrowe Milling Co., Detroit, Mich.				
Larro Scratch	10	2	4	
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Daisy Scratch	9	2.5	5	V
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.				
Moon's Scratch	10	2	5	
Park & Pollard Co., Inc., Buffalo, N. Y.				
Park & Pollard Chick Scratch	10	3	3	V
Intermediate Chick	10	3	3.5	V
Red Ribbon Scratch.....	10	3	5	V
Bidwell Scratch	10	1.5	5	V
Park & Pollard Economy Scratch	10	1.5	5	V
Quaker Oats Co., Chicago, Ill.				
Early Bird Fine Chick	10	2	2	V
Early Bird Coarse Chick	9.5	2	3.5	V
Big Egg Scratch	9.5	2	3.5	V
Quaker Ful-O-Pep Scratch	9	2	3	V
Ralston Purina Co., St. Louis, Mo.				
Purina Hen Chow.....	10	2.5	4	V
Protena Scratch	9.5	2	4	V
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Baby Chick Scratch	10	2.5	3.5	V
Wirthmore Intermediate Scratch.....	10	2.5	3.5	V
Wirthmore Scratch	10	2.5	4	V
Mornin' Call Poultry Grains	9.5	2.5	4	V
Wayne County Grangers Feed Corporation, Clyde, N. Y.				
Grange Scratch	10	3	6	V
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Scratch	10	3.5	5	V
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.				
Allied Mills, Inc., Chicago, Ill.				
Wayne 26% Supplement with Sardine Oil	26	4	10	V
Wayne Turkey Starting	25	4	8	V
Wayne Egg & Breeder	18	3.5	7	V
Wayne Egg & Breeder with Sardine Oil	18	3.5	7	V
Wayne Broiler	18	3.5	8	V
Wayne Chick Starter	17	4	6	V
Empire Egg	16.5	3.5	7	V
Empire Egg with Sardine Oil.....	16.5	3.5	7	V
Wayne Growing with Sardine Oil	16	4	6	V
Wayne Starter & Grower	16	3.5	6	V
Wayne Starter & Grower with Sardine Oil	16	3.5	6	V
Wayne Poultry Fattener.....	13.5	3.5	8	V
Bailey, E. W., & Co., Montpelier, Vt.				
Pennant Turkey Starter	25	5	6	V
Pennant Turkey Growing	23	4.5	6	V
Pennant Laying	20	5	6	V
Pennant Laying (with Cod Liver Oil—Cod Liver Meal)	20	5	6	V
Pennant Chick Starter.....	17	5	5	V
Pennant Broiler	17	4	5	V
Pennant Growing	15	5	5	V
Chapin & Co., Hammond, Ind.				
Chapin Kernels Lay All.....	20	3.5	5	V

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note*
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Laying	20	4	7	V
Community Chick	18	5	7	V
Community Growing	17	4.5	8	V
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Producer 20†	20	4	6	V
Eastern States Egg†	20	4	6.5	V
Eastern States Starting and Broiler†	18.5	4	5	V
Eastern States Developer†	18.5	4	6.5	V
Eastern States Flushing†	18.5	2.5	4	V
Eastern States Producer†	17	4	6.5	V
Eastern States Combination†	15	4	6.5	V
Eastern States Fattener†	14.5	4	5	V
Eastern States All-Mash Developer†	14.5	3.5	7	V
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Egg	20	4	8	V
Elmore M. A. C. Laying	17	5	7	V
Elmore Eggmaker (1935)	17	4.5	8	V
Elmore Growing	17	4	8	V
Elmore Chixsaver	16.5	4	8	V
Elmore Complete Laying	16	4	6	V
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Laying with Cod Liver Oil. 20	5	7	V	
Eshelman Pennsy Laying (1935)	18	5	8	V
Eshelman Pennsy Laying	18	5	8.5	V
Eshelman Red Rose All Mash Starter	16	4	6.5	V
Eshelman Red Rose Growing with Cod Liver Oil 16	4	7	V	
First National Stores, Inc., Somerville, Mass.				
Henfield Egg	20	4.5	7	V
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Laying (contains Cod Liver Oil)	20	4	8	V
Grandin's Complete Starting	16	4	6	V
Grandin's Start-To-Finish	16	4	7	V
Grandin's Combined Chick and Broiler	15	4	6	V
Grandin's Complete Laying	15	4	7	V
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg (1935)	20	4.5	7	V
Daily Egg Laying	20	4	6.5	V
Daily Growth Growing	17.5	4	6.5	V
Daily Growth Chick Starter	16	4	5	V
Great Eastern Feed Mills, Lowell, Mass.				
Phoenix 20% Laying†	20	4	7	V
Phoenix Starter & Broiler†	18.5	4	6	V
Phoenix 16% Growing†	16	4	8	V
Ide, E. T. & H. K., St. Johnsbury, Vt.				
Ideal Egg	20	4.5	6	V
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	V
Apex Starter	15	4	6	V
Kasco All Mash Laying	15	4	6	V
Larroe Milling Co., Detroit, Mich.				
Larro Egg	20	4	7.5	V
Larro Chick Builder	19	4	7	V
Larro Growing	16	4	7.5	V
Larro Broiler (1935)	15.5	4	6	V

† Open formula.

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot-note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
McEwen, R. H., Milling Co., Ogdensburg, N. Y.				
McEwen's Red Feather Egg	20	4	9	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
B-B Daisy Egg Vitamized with Cod Liver Oil and Dried Buttermilk	20	3.5	9	✓
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.				
Moon's Laying with Dried Buttermilk	20	4	9	
Moon's Baby Chick Starter	15	4	5	✓
Park & Pollard Co., Inc., Buffalo, N. Y.				
Park & Pollard Starter & Broiler	18	4	6	✓
Manamar Lay or Bust	18	3.5	6	✓
Lay or Bust Dry.....	18	3	7	✓
Bidwell Dry	18	3	8	
Manamar Life Cycle	16	3.5	6	✓
Bidwell Growing	15	3	7	✓
Growing	14	3	7	✓
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Turkey Starter	26	5	7	✓
Quaker Ful-O-Pep Egg.....	20	4.5	8	✓
Quaker Ful-O-Pep Turkey Grower	20	4.5	8	✓
Quaker Ful-O-Pep Growing.....	19	5	6	✓
Quaker Ful-O-Pep Broiler	19	5	7	✓
Quaker Ful-O-Pep Chick Starter.....	17	5	7	✓
Big Egg Chick Starter—Growing	17	4	8	✓
Race Milling Co., Granville, N. Y.				
Race's Poultry	20	3.5	7	✓
Ralston Purina Co., St. Louis, Mo.				
Purina Turkey Startena.....	26	4.5	6	✓
Purina Turkey Growing & Fattening Chow.....	21	3.5	8	✓
Purina Egg Chowder.....	19	3.5	8	✓
Purina Lay Chow.....	19	3.5	8	✓
Purina Broiler Chow.....	18	4	7	✓
Purina Chick Startena	18	4	7	✓
Protana Laying	18	3.5	8.5	✓
Purina Layena (Complete Ration).....	15.5	3.5	8	✓
Purina Chick Growena.....	15	3.5	7	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Breeder	20	4.5	7	✓
Wirthmore Turkey Breeder (1935)	20	4.5	7	✓
Wirthmore Turkey Growing	20	4	7	✓
Wirthmore Laying containing Fortified Cod Liver Oil	20	4	7	✓
Wirthmore Baby Chick Starter	18	4	5	✓
Wirthmore Complete Chick Starter and Broiler.....	17.5	4	5.5	✓
Wirthmore Turkey Fattening.....	16	4.5	7	
Wirthmore Growing containing Cod Liver Oil..	15	4.5	6	✓
Wirthmore Fleshing and Fattening	15	4.5	6	
Wirthmore Pellets (1935)	15	4.5	6.5	✓
Wirthmore Fleshing Pellets	15	4.5	8.5	✓
Wirthmore Complete Laying	15	4	5	✓
Wirthmore Laying Pellets	15	4	6	✓
Wirthmore Complete Growing.....	14	3.75	6	✓
Smith, S. E., Estate, West Rutland, Vt.				
Smith Estate Starting	19	4.5	4.5	✓
Smith Estate Egg Producer.....	18	4.5	7	✓
Ubiko Milling Co., Cincinnati, Ohio				
Ubiko All-Mash Complete Laying (1935)	16	3.5	6	

* See footnote, page 10.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot- note*
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—concluded				
Wayne County Grangers Feed Corp., Clyde, N. Y. Superior Laying with Buttermilk and Cod Liver Oil	20	4	7	
Webster, Ray P., Barton, Vt. Storr's§ Egg	15	4	7	
West-Nesbitt, Inc., Oneonta, N. Y. Pure Feed Egg	18	5	7	v
DRIED SKIMMILKS				
Dairymen's League Co-Operative Assoc., Inc., Utica, N. Y. Dairylea Choice Feed Grade.....	33	0.5	..	
General Commodity Corp., Buffalo, N. Y. Old Sol	32	0.5	..	
New England Dairies, Inc., Boston, Mass.	32	0.25	..	

* See footnote, page 10.
 § Sic.

II. BRANDS FAILING TO MEET GUARANTIES

COTTONSEED MEALS

- ALLEN, E. T., Co., Atlanta, Ga. *Empire 41% Protein*. 41/5.5/13. Six samples, one below protein guaranty (41%). Stock of S. F. Robinson, Woodstock, 40.17%. Four samples below protein guaranty but within tolerance limits. Average 6 samples below protein guaranty but within tolerance limits, 40.93%.
- LOVITT, L. B., & Co., Memphis, Tenn. "*Lovitt Brand*" 41% Protein. 41/5/13. Nine samples, two below protein guaranty (41%). Stocks of W. B. Atherton, Cavendish, 39.38%; Danville Grain Co., Inc., Danville, 39.56%. Three samples below protein guaranty but within tolerance limits. Average 9 samples below protein guaranty but within tolerance limits, 40.70%.
- SWIFT & Co. (Oil Mills), Atlanta, Ga. *Swift's Cotton Bloom*. 41/5/10. Two samples, one below protein guaranty (41%) but within tolerance limits. Average 2 samples below protein guaranty but within tolerance limits, 40.87%. Fiber above guaranty (10%); found 11.37%.

CORN GLUTEN FEED

- CORN PRODUCTS REFINING CO., New York, N. Y. *Heavy Buffalo Corn Gluten Feed (Sweetened)*. 20/1/7. One sample below protein guaranty (20%). Stock of Guy M. Catlin, Randolph, 18.98%.

DISTILLERS' AND BREWERS' DRIED GRAINS

- CONTINENTAL DISTILLING CORP., Philadelphia, Pa. *Continental Distillers'*. (1935) 28/7/15. One sample below protein guaranty (28%). Stock of Richmond Grain Co., Richmond, 24.58%. Fat below guaranty but within tolerance limits.
- DEWEY BROS. Co., Blanchester, Ohio. *Corn 3D Distillers'*. 28/8/14. Seven samples, one below protein guaranty (28%). Stock of H. W. Gray, Cambridge, 27.12%. Average 7 samples, 30.24%.
- NEUMOND Co., St. Louis, Mo. *Neumond Dried Brewers'*. 24/4.5/18. One sample below protein guaranty (24%). Stock of Farmers' Trading Post, Randolph, 22.48%.

WHEAT OFFALS—WHEAT BRANS

- MAPLE LEAF MILLING Co., LTD., Toronto, Ont. *Rex (+)*. 15/3.5/12. Eight samples, one below protein guaranty (15%). Stock of Clark Grist Mill, Wells River, 14.34%. Average 8 samples, 16.20%.
- UNITED MILLS Co., INC., Grafton, Ohio. *U. M. C. Pure*. 15/4/10. One sample below protein guaranty (15%). Stock of L. W. Howe, Burlington, 14.43%.

WHEAT OFFALS—WHEAT MIDDINGS

- NIAGARA FALLS MILLING Co., Lockport, N. Y. *Niagara Standard (+)*. (1935.) 15.5/4.5/7. Two samples, one below protein guaranty (15.5%). Stock of J. C. Stewart, Cuttingsville, 14.60%. Average 2 samples, 16.88%.
- STATE MILL & ELEVATOR, Grand Forks, N. Dak. *Dakota Maid Standard (+)*. 16/5/8. Two samples. Fat below guaranty (5%); found 4.67%.
- STRATTON & Co., Concord, N. H. *Stratton & Co.'s Standard*. 16/5.63/9.5. One sample below protein guaranty (16%). Stock of Clark Grist Mill, Wells River, 15.39%. Fat below guaranty (5.63%); found 5.25%.
- VALLEY CITY MILLING Co., Portland, Mich. *Rowena (+)*. (1935.) 16.5/4.5/6. One sample below protein guaranty (16.5%). Stock of Groton Grain Co., Groton, 15.48%. Fat below guaranty but within tolerance limits.

WHEAT OFFALS—WHEAT MIXED FEEDS

- STRATTON & Co., Concord, N. H. *Stratton's (+)*. 13.5/4.11/7.13. Two samples. Fiber above guaranty (7.13%); found 7.98%.

WHEAT OFFALS—WHEAT RED DOG

- GENEVA MILLING Co., INC., Geneva, N. Y. *Genesota*. 15/4/3. Two samples. Fat below guaranty (4%); found 2.58%.

HOMINY FEEDS

- PRATT FOOD Co., INC., Buffalo, N. Y. *Pratt's Yellow*. 10/5/6. One sample below protein guaranty (10%). Stock of Eastern States Farmers' Exchange, Morrisville, 9.34%. Fat below guaranty (5%); found 4.47%.

ALFALFA MEALS

- FERNANDO VALLEY MILLING & SUPPLY Co., Los Angeles, Calif. *Fernando Ideal Greens Suncured*. 20/3/18. (1934). One sample below protein guaranty (20%). Stock of Goodrich Mills, Wells, 18.36%. Fat below guaranty (3%); found 2.57%. Fiber above guaranty (18%); found 19.91%.
- PECOS VALLEY ALFALFA MILL Co., Hagerman, N. Mex. *Pecos Special*. 13/15/33. Two samples, one below protein guaranty (13%). Stock of E. W. Bailey & Co., Swanton, 12.58%. Average 2 samples, 14.03%.

MISCELLANEOUS

- MALTEX Co., INC., Burlington, Vt. *Maltex Cereal Feed*. 12.5/3.75/9. Two samples. Fat below guaranty (3.75%); found 3.22%.
- QUAKER OATS Co., Chicago, Ill. *Vim Feed*. (1934.) 5/2/30. Two samples, one below protein guaranty (5%). Stock of H. A. Slayton & Co., Inc., Morrisville, 4.36%. Average 2 samples, 5.32%. Fat below guaranty but within tolerance limits.
- QUAKER OATS Co., Chicago, Ill. *Vim Oat Mill Feed*. 5/1.5/30. Ten samples, two below protein guaranty (5%). Stock of W. T. Simonds, Brandon, 3.83%; Danville Grain Co., Inc., Danville, 4.27%. Two samples below protein guaranty but within tolerance limits. Average 10 samples, 5.13%. Fiber above guaranty but within tolerance limits.
- QUAKER OATS Co., Chicago, Ill. *Sugared Vim Oat Mill Feed*. 5/1.25/27.5. Four samples, one below protein guaranty (5%). Stock of E. W. Bailey & Co., Montpelier, 4.27%. Average 4 samples, 5.44%.
- UPPER HUDSON RYE FLOUR MILLS, INC., Troy, N. Y. *Upper Hudson Rye Feed*. 13.5/3/6. Eleven samples, six below protein guaranty (13.5%). Stock of W. T. Simonds, Brandon, 12.67%; Depot Cash Feed Store, Chester, 12.49%; E. C. Crosby, Danby, 12.93%; Godette Bros., Essex Center, 12.93%; For-All Grain Co., Inc., Groton, 12.49%; For-All Grain Co., Inc., South Ryegate, 13.03%. One sample below protein guaranty but within tolerance limits. Average 11 samples, 13.54%.

DAIRY FEEDS OR RATIONS

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Granger 24%*. 24/4/10. Three samples, two below protein guaranty (24%). Stock of G. H. McFarren, Fair Haven, 22.13%; E. T. Chatterton, Middlebury, 22.92%. Average 3 samples, 23.18%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Waldorf 24%*. 24/4/11. Two samples, one below protein guaranty (24%). Stock of G. H. McFarren, Fair Haven, 22.66%. One sample below protein guaranty but within tolerance limits. Average 2 samples, 23.31%. Fiber above guaranty but within tolerance limits.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Waldorf 20%*. 20/4/11. Six samples, one below protein guaranty (20%). Stock of Chas. B. Leavey, North Bennington, 17.49%. Average 6 samples, 20.61%. Fiber above guaranty (11%); found, 11.76%.
- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore's Sweet Digesto*. 16/4/12. One sample above fiber guaranty (12%). Stock of E. T. Chatterton, Middlebury, 12.67%.
- FOR-ALL GRAIN Co., INC., South Ryegate, Vt. *For-All Milk Grains*. 20/5/8.5. Two samples. Fat below guaranty (5%); found 4.61%.
- GREAT ATLANTIC & PACIFIC TEA Co., Minneapolis, Minn. *Milky Way 24%*. 24/3.5/9. Five samples, one below protein guaranty (24%). Stock of A. & P. Store, St. Johnsbury, 22.57%. Two samples below protein guaranty but within tolerance limits. Average, 5 samples, 24%. Fiber above guaranty but within tolerance limits.
- GREAT EASTERN FEED MILLS, Lowell, Mass. *Wamenit 16%*. 16/3.5/12. Two samples. Fiber above guaranty (12%); found 13.11%.
- JOHNSON, C. E., & Co., Island Pond, Vt. *Regular*. 20/4/10. One sample, below protein guaranty (20%). Stock of C. E. Johnson, Island Pond, 18.63%. Fiber above guaranty (12%); found 13.47%.
- McGOVERN, T. J., Cambridge, Vt. *McGovern's 16%*. 16/4/R. One sample above fiber guaranty (8%). Stock of T. J. McGovern, Jeffersonville, 9.29%.
- PARK & POLLARD Co., INC., Buffalo, N. Y. *Manomar Mixing*. 26/4/9. Two samples, both below protein guaranty (26%). Stock of Brandon Fuel & Grain Co.,

- Brandon, 25.02%; Danville Grain Co., Inc., Danville, 23.62%. Average, 2 samples, 24.32%.
- PARK & POLLARD Co., INC., Buffalo, N. Y. *Milk-Maid 24% Sweetened*. 24/4/11. Three samples, one below protein guaranty (24%). Stock of Farmers' Grain & Feed Co., East Barre, 23.18%. Average, 3 samples, 25.86%. Fat below guaranty but within tolerance limits.
- PARK & POLLARD Co., INC., Buffalo, N. Y. *Bidwell 24%*. 24/3.5/11. Three samples, one below protein guaranty (24%). Stock of Chester Grain Co., Ludlow, 22.92%. Average 3 samples below guaranty but within tolerance limits, 23.91%.
- PARK & POLLARD Co., INC., Buffalo, N. Y. *Bidwell 20%*. 20/3.5/11. Three samples, one below protein guaranty (20%). Stock of Park & Pollard Grain Store, Chester, 19.33%. Average 3 samples, 20.55%.
- SEAVER, CHAS. M., & Co., Williamstown, Vt. *Honor Brand 24*. 24/5.5/9. One sample below fat guaranty (5.5%). Stock of Chas. M. Seaver & Co., Williamstown, 4.63%.
- SLAYTON, H. A., & Co., INC., Morrisville, Vt. *Economy*. 20/3.75/8.5. One sample above fiber guaranty (8.5%). Stock of H. A. Slayton & Co., Inc., Morrisville, 10.46%.
- SMITH, S. E., ESTATE, West Rutland, Vt. *Smith Estate 24%*. 24/5/8.5. One sample below fat guaranty (5%). Stock of S. E. Smith Estate, West Rutland, 4.59%.
- TURNBULL, J. G., Co., Orleans, Vt. *Turnbull's Special*. 20/3.5/12. Three samples, one below protein guaranty (20%). Stock of J. G. Turnbull Co., Newport Center, 18.80%. Average 3 samples, below protein guaranty but within tolerance limits, 19.74%.

STOCK, HORSE, RABBIT FEEDS, ETC.

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore Stock*. 10/3/12. Three samples, one below protein guaranty (10%). Stock of A. L. Doner, Sheldon Junction, 9.52%. Average 3 samples, 10.22%. Fiber above guaranty but within tolerance limits.
- ESHELMAN, JOHN W., & SONS, Lancaster, Pa. *Eshelman Garden Spot Horse*. 7/2/11. One sample above fiber guaranty (11%). Stock of J. H. Gates, Franklin, 13.19%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Complete Rabbit*. 14/3/12. Two samples, one below protein guaranty (14%). Stock of St. Albans Grain Co., St. Albans, 13.38%. Average 2 samples below protein guaranty but within tolerance limits, 13.82%. Fiber above guaranty but within tolerance limits.

CALF MEAL

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore "Three Point" Calf*. 24/4/4. Two samples. Fiber above guaranty (4%); found 5.29%.

BONE MEAL

- CONSOLIDATED RENDERING Co., Boston, Mass. *Corenco Bone Meal*. 20/2/— . One sample below fat guaranty (2%). Stock of Groton Grain Co., Groton, 0.80%.

MASHES

- ELMORE MILLING Co., INC., Oneonta, N. Y. *Elmore Complete Broiler*. 17/4/5. Four samples. Fiber above guaranty (5%); found 5.84%.
- GREAT EASTERN FEED MILLS, Lowell, Mass. *Wamesit 18%*. 18/3.5/7. One sample above fiber guaranty (7%). Stock of Feeds, Inc., Bellows Falls, 8.28%.
- QUAKER OATS Co., Chicago, Ill. *Quaker Ful-O-Pep Egg*. 20/4.5/8. Six samples, one below protein guaranty (20%). Stock of C. S. Brush & Co., Jericho, 19.41%. Two samples below protein guaranty but within tolerance limits. Average 6 samples, 20%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Breeder*. 20/4.5/7. Five samples, one below protein guaranty (20%). Stock of St. Albans Grain Co., St. Albans, 17.93%. One protein below guaranty but within tolerance limits. Average, 5 samples, 20.03%.
- ST. ALBANS GRAIN Co., St. Albans, Vt. *Wirthmore Complete Chick Starter and Broiler*. 17.5/4/5.5. Sixteen samples, two below protein guaranty (17.5%). Stock of W. B. Johnson & Son, Essex Junction 14.60%; C. A. Smith, St. Johnsbury, 16.61%. Average, 16 samples, 19.44%

III. INGREDIENT STATEMENTS

The following pages set forth the ingredient contents of all brands of proprietary feeds which were sampled and analyzed as declared upon the packages containing them. An asterisk (*) indicates usage as claimed by the manufacturer. The microscopist usually found claim and performance to be identical. Such brands as failed to pass in this respect are listed at the end of each table on the following pages.

Dairy feeds are listed alphabetically by manufacturer's names on pages 25 to 30; stock, horse, fitting, etc., feeds on pages 31 and 32; calf and hog feeds on pages 33 and 34; scratch grains, etc., on pages 35 and 36; mashes and other poultry feeds made of fine ingredients on pages 37 to 41.

The Vermont law requires that a statement setting forth the specific name of each ingredient used in the manufacture of a feeding stuff be attached to each package. It permits the director to refuse to register any commercial feeding stuffs under a name, brand or trade-mark which would be misleading or deceptive or which would tend to mislead or deceive as to the material of which it is composed and allows him to issue such rules and regulations as he may deem necessary to carry into effect the full intent and meaning of the law.

Four hundred five brands of proprietary feeds were examined as to their ingredient contents, 328 of which (81 percent) were certified or found to contain the ingredients guaranteed. Additional ingredients, not declared on the tag were found to be present in 48 brands (12 percent). Most of these extraneous materials were of good quality and probably would not have lowered quality. However, they should not have been there. Several dairy feeds contained considerable amounts of oat hulls, although no ingredient was declared as a constituent which would warrant their presence in such quantities. Their inclusion in such quantities tends, as a rule, to lessen the serviceableness of a feed.

In 29 cases it was impossible to discover all of the ingredients declared to be present. In many cases very small quantities were undoubtedly used. Potassium iodide could not be detected in 13 brands in which its use was declared.

DAIRY FEEDS

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Coconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal or feed	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																					
Allied Mills, Inc.																								
Wayne Amco 32% Supplement	32/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15, 18, 22
Wayne Amco 24%	24/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	15, 18, 22
Empire 24%	24/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne Amco 20%	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18, 22
Empire 20%	20/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Empire 16½%	16.5/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne Amco 16%	16/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	18, 22
E. W. Bailey & Co.																								
Sweetened Capital	24/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
New Deal	20/5/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Favorite	20/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Sweetened Favorite	20/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Our 20 Special	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bailey's Sweetened 16%	16/5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Berkshire Coal & Grain Co., Inc.																								
Berkshire Hills Sweet	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Blatchford Calf Meal Co. V-D	31/5/5.75	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	11, 12, 18, 19, 23, 24, 25, 26, 27, 28, 29
H. M. Brown & Co.																								
Farmer's Choice 20%	20/4.5/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16
Chapin & Co.																								
Unicorn 24%	24/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Unicorn 20%	20/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
E. C. Crosby																								
Crosby's A Quality 20%†	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Crosby's B Quality 20%†	20/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Danville Grain Co., Inc.																								
Danville 20%	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Davis Feed Co., Inc.																								
Vermont 20%	20/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Davis 20% Kow Feed	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 30
H. W. Demick, Inc.																								
Beats 'Em All	20/4/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																								
Eastern States 32% Supplement†	32/4.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5
Eastern States Fulpail†	24/4.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 8
Eastern States Milkmore†	24/4.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 8
Eastern States Highland 20†	20/4/11.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 8, 15
Eastern States Sixteen†	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 5, 8
Eastern States Highland 16†	16/4/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 8, 15
Elmore Milling Co., Inc.																								
Elmore 32% Supplemental	32/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Elmore Milk Grains	24/4.5/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4

† Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocconut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal or feed	Hominy feed	Linsed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middings
	Protein	Fat	Fiber																					
Elmore Milling Co., Inc.—continued																								
Granger 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1
Waldorf 24%	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Elmore Milk Grains																								
Junior Sweet	20/4.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Granger 20%	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 6
Waldorf 20%	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6
Dairyman's Emergency (1935)	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6
Elmore's Sweet Digesto	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
John W. Eshelman & Sons																								
Eshelman 32% Mixing	32/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Challenge	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose 24	24/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Open Formula 20	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Conestoga 20	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Lancaster 20	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Pennsy 16	16/3/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
First National Stores, Inc.																								
Brookside 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Brookside 20%	20/3.5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Brookside 16%	16/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
For-All Grain Co., Inc.																								
For-All Milk Grains 20%	20/5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 10
D. H. Grandin Milling Co.																								
Grandin's 32%	32/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Grandin's Milk Maker	20/5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Grandin's Sweetened 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
M-S (Money Saver) 20% Sweet	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Economy 20% Sweetened (1935)	20/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Economy 16% Sweetened (1935)	16/3/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Gt. A. & P. Tea Co.																								
Milky Way 24%	24/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 8
Milky Way 20%	20/3.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 8
Daily Milk 16%	16/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Great Eastern Feed Mills																								
Phoenix 24†	24/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 12
Phoenix 20†	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 12
Wamesit† 16%	16/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 12
E. T. & H. K. Ide																								
Ideal Sweetened	24/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ide's Special	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Royal Sweetened	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. E. Johnson & Co.																								
Regular	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
W. B. Johnson & Son																								
Johnson's Perfection No. 1	20/5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Johnson's Economy	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10
Kasco Mills, Inc.																								
Beatsall Milk Grains	22/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Kasco 20% Milk Maker	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4

† Open formula.

DAIRY FEEDS—continued

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bong meal	Brewers' dried grains	Calcium carbonate	Cocanut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal or feed	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middings
	Protein	Fat	Fiber																					
Ralston Purina Co.—continued																								
Purina Red Checker Cow Chow (34%) (1935)	34/3.5/12	*		*			*		*	*	*	*	*	*	*	*				*				14
Purina Green Checker Cow Chow (24%) (1935)	24/4/12	*		**			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Purina Milking Cow Chow (24%)	24/4/12	*		**			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Protena 24%	24/3.5/12	*		*			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Purina Blue Checker Cow Chow (20%) (1935)	24/4/12	**		**			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Purina Milking Cow Chow (20%)	20/4/12	**		**			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Protena 20%	20/3.5/12	*		*			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Purina Body Cow Chow (1935)	16/3.5/12			*			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Purina Bulky Cow Chow (1935)	16/3.5/12	**		**			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Purina Milking Cow Chow (16%)	16/3.5/12	**		**			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Protena 16% (Buffalo Mill)	16/3.5/14	*		*			*		*	*	*	*	*	*	*	*				*	*	*	*	14
Richford Feed Co. Extra Good 20%	20/4.5/8.5			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Richmond Feed Co. Richmond Special 22%	22/5/9			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1
St. Albans Grain Co. Wirthmore 32 Supplement	32/4/8			*			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Wirthmore 25 Balanced	25/5/9			*			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Wirthmore 25 Balanced Sweetened	25/4.5/8.5			*			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Champlain Valley 24	24/3.5/8.5			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Hygrade 24 Sweetened Milk	24/3.5/9			*			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Wirthmore 20	20/5/8.5			*			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Wirthmore 20 Sweetened	20/4.5/8			*			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Champlain Valley 20%	20/3.5/8.5			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1, 19
Champlain Valley Emergency 20 (1935)	20/3.5/8.5			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Hygrade 20 Sweetened Milk	20/3.5/8.5			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Utility	20/3.5/12			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Wirthmore 16 Sweetened	16/4/8			*			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Champlain Valley Emergency 16 (1935)	16/3.5/8.5			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Utility 16	16/3/13			**			*		*	*	*	*	*	*	*	*				*	*	*	*	1
Seabury Grain Co. Our Own Make Special	20/4.5/9			**			*		*	*	*	*	*	*	*	*				*	*	*	*	7
Our Own Make 20%	20/4/9			**			*		*	*	*	*	*	*	*	*				*	*	*	*	7
C. M. Seaver & Co. Honor Brand 24	24/5.5/9			*			*		*	*	*	*	*	*	*	*				*	*	*	*	30
Honor Brand	20/4/10			*			*		*	*	*	*	*	*	*	*				*	*	*	*	30
Vim-20	20/4/12			*			*		*	*	*	*	*	*	*	*				*	*	*	*	30

† Open formula.

DAIRY FEEDS—concluded

Dairy Feeds or "Rations"	Guaranty			Alfalfa meal	Beet pulp	Bone meal	Brewers' dried grains	Calcium carbonate	Cocunut oil meal	Corn meal	Corn oil meal	Cottonseed meal	Distillers' dried grains	Gluten meal or feed	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Soy bean meal	Wheat bran	Wheat middlines
	Protein	Fat	Fiber																					
W. T. Simonds																								
Simonds' All Pure 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Simonds' All Pure	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Simonds' Green Mountain 20%	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17
H. A. Slayton & Co., Inc. Economy	20/3.75/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. A. Smith Smith's	20/4/12			*							*	*	*	*	*	*	*	*	*	*	*	*	*	
S. E. Smith Estate Smith Estate 24%†	24/5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Smith Estate 20%	20/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Smith Estate 18%†	18/4.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. H. Stearns & Son Co. Stearnco All Grain 20% Milk	20/4/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
I. D. Thompson Est. Special 20% (1935)	20/4/11			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
I. G. Turnbull Co. Creamery	20/5/10						*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7
Turnbull's Special	20/3.5/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	30
Frank Tyler Tyler's 20% Ready Mixed	20/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
C. H. Utley Veri-Best Balanced	20/5/7.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
A. N. Washburn Estate Bethel Mills 24% Sweetened	24/4.5/9			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20% Protein Sweetened	20/4.5/8.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 20% Protein Sweetened Economy	20/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Bethel Mills 16% Protein Sweetened Pasture	16/4.2/9.5			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Wayne County Grangers Feed Corp. Galen 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Milk Producer 24%	24/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 13, 20
Clyde 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
Superior 20%	20/4/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 4, 13, 20
Sweetened 16%	16/4/12			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 4, 13, 20
Ray P. Webster Ray's Ready	25/5/10			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	19
N. S. Wright Wright's Open Formula 20%	20/6.5/8			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

† Open formula.
 Additional ingredients: 1. Barley. 2. Wheat. 3. Kelp. 4. Malt sprouts. 5. Dicalcium phosphate. 6. Copra oil meal. 7. Phosphatic limestone. 8. Corn feed meal. 9. Sea shells. 10. Rye feed. 11. Cocoa meal. 12. Dried ground fish. 13. Iodine, charcoal. 14. Iodized salt. 15. Peanut oil meal. 16. Union minerals bone black, calcium carbonate, sodium chloride, charcoal, fenugreek, potassium iodide). 17. Rye distillers' rains. 18. Potassium iodide. 19. Cod-liver oil. 20. Iron sulfate. 21. Iodized ground limestone. 22. Iron oxide. 23. Locust bean meal. 24. Anise. 25. Crushed flaxseed. 26. Dried milk albumen. 27. Blood flour. 28. Fenugreek. 29. Rice polish. 30. Rye middlings.

The dairy feeds were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne Amco 16%: Potassium iodide.
 Brown, H. M., & Co., Farmers' Choice 20% Open Formula: Fenugreek and potassium iodide.
 Ralston Purina Co., Purina Bulky Cow Chow (1935): Brewers' dried grains.
 Stearns, C. H., & Son, Stearnco All Grain 20% Milk: Soybean meal.
 Wayne County Grangers Feed Corp., Milkproducer 24%: Iron sulfate.
 Wayne County Grangers Feed Corp., Superior 20%: Iodine.
 Wayne County Grangers Feed Corp., Sweetened 16%: Iodine.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Blatchford Calf Meal Co., V-D: Cottonseed meal.
 Crosby, E. C., Crosby's A Quality 20% Open Formula: Rye feed.
 Elmore Milling Co., Inc., Granger 24%: Occasional whole weed seeds.
 Elmore Milling Co., Inc., Waldorf 24%: Occasional whole weed seeds.
 Elmore Milling Co., Inc., Granger 20%: Occasional whole weed seeds.
 Elmore Milling Co., Inc., Waldorf 20%: Few whole weed seeds.
 Elmore Milling Co., Inc., Dairyman's Emergency: Occasional whole weed seeds.
 Eshelman, John W., & Sons, Eshelman Pennsy 16: Corn meal.
 Great Eastern Feed Mills, Phoenix 24% Open Formula: Malt sprouts.
 Johnson, C. E., Regular: Salt.
 Johnson, W. B., & Son, Johnson's Perfection No. 1: Ground barley.
 McGovern, T. J., McGovern's 20% Farm Relief: Brewers' dried grains and trace of rye feed.
 McGovern, T. J., McGovern's 16%: Brewers' dried grains.
 Maritime Milling Co., Inc., B-B Marmico 16% Protein with Molasses: Oats and/or oat mill feed.
 Norton, E. G. & A. W., Kow Feed: Rye feed.
 Park & Pollard Co., Inc., Bidwell 24%; Bidwell 20% (1935); Manamar Doublex 20%; Bidwell 20%; Doublex 20%; Manamar Top Notch 16%; Top Notch 16%.*
 Park & Pollard Co., Inc., Manamar 20%: Cottonseed meal.
 Park & Pollard Co., Inc., Bidwell 20%: Corn meal.
 Park & Pollard Co., Inc., Manamar Top Notch 16%: Gluten feed, gluten meal, corn meal and/or hominy.
 Pease, A. D., Grain Co., Peasco 20%: Brewers' dried grains and ground barley.
 Ralston Purina Co., Purina Body Cow Chow (1935): Few whole weed seeds.
 St. Albans Grain Co., Wirthmore 16 Sweetened: Brewers' dried grains.
 Smith, S. E., Estate, Smith Estate 20%: Ground barley.
 Stearns, C. H., & Son, Stearnco All Grain 20% Milk: Brewers' dried grains.
 Turnbull, J. G., Co., Creamery: Brewers' dried grains.
 Webster, Ray P., Ray's Ready: Molasses.
 Wright, W. S., Wright's Open Formula 20%: Gluten meal.

There were 51 ingredients in the 161 brands of dairy rations sampled. Calcium carbonate, cottonseed meal, gluten meal or feed, molasses and wheat bran appear in nine-tenths; linseed meal, salt and soybean meal in eight-tenths; corn meal in seven-tenths; corn distillers' dried grains, oats and wheat middlings in five-tenths; bone meal, brewers' dried grains and hominy in four-tenths; barley in three tenths; and malt sprouts and screenings of one sort or another in two-tenths of the brands sampled. Other ingredients occur as follows: beet pulp, iodized salt, 12; alfalfa, 11; corn feed meal and fish meal, 10; dicalcium phosphate, 7; rye feed and potassium iodide, 6; iron sulfate, 5; kelp, sea shells, peanut oil meal, iron oxide and rye middlings, 4; cocoanut oil meal, copra oil meal, phosphatic limestone, wheat, iodine and charcoal, 3; cod-liver oil and corn oil meal, 2; cocoa meal, union minerals (see additional ingredients dairy feeds, No. 16), rye distillers' grains, iodized ground limestone, locust bean meal, anise, crushed flaxseed, dried milk albumen, blood flour, fenugreek and rice polish, 1.

* The Park & Pollard Company's screenings are not the straight "wheat screenings" commonly used but "are from wheat, oats, barley, buckwheat, milo mostly." Their registration certificates indicated that they used "ground wheat screenings." The samples in question carried very considerable amounts of oat hulls.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
	Protein	Fat	Fiber																
Allied Mills, Inc.																			
Wayne Amco 12% Fitting	12/3/9			*	*	*				*	*	*	*	*	*	*	*	*	9, 17
June Pasture	10/0.5/21 *										*								
Wayne Horse	9.5/3/8									*	*	*	*	*	*	*	*	*	
Empire Stock	9/4/11			*	*	*				*	*	*	*	*	*	*	*	*	
E. W. Bailey & Co.																			
Bailey's Pasture	15.5/3.75/10			*	*	*				*	*	*	*	*	*	*	*	*	4, 7
Sweetened Bailey's Fitting	14/4/9			*	*	*				*	*	*	*	*	*	*	*	*	
Pennant Horse	10.75/3.5/6.5									*	*	*	*	*	*	*	*	*	
Pennant Brand Stock (Sweetened)	9.5/4/9.5			*	*	*				*	*	*	*	*	*	*	*	*	
Eastern States Farmers' Exchange																			
Eastern States Fitting†	12/3.5/8			*	*	*				*	*	*	*	*	*	*	*	*	2, 9, 18
Eastern States Highland 12†	12/3/11			*	*	*				*	*	*	*	*	*	*	*	*	9, 14
Eastern States Horse†	10.5/3.5/7									*	*	*	*	*	*	*	*	*	2
Eastern States Succulence†	10/1.5/20 *									*	*	*	*	*	*	*	*	*	
Elmore Milling Co., Inc.																			
Elmore Fitting	12/4/9					*	*				*	*	*	*	*	*	*	*	7
Elmore's Super Silage	12/2/15 *					*	*				*	*	*	*	*	*	*	*	3, 4
Elmore Stock	10/3/12					*	*				*	*	*	*	*	*	*	*	
Elmore Horse with Molasses	9/2.5/11 *										*	*	*	*	*	*	*	*	
John W. Eshelman & Sons																			
Eshelman Red Rose Fitting	12/3.5/7			*	*	*				*	*	*	*	*	*	*	*	*	
Eshelman S-O-S	11/2/15 *			*	*	*				*	*	*	*	*	*	*	*	*	3, 4
Eshelman Conestoga Horse	9/3/10									*	*	*	*	*	*	*	*	*	
Eshelman Red Rose 85 Horse	9/3/10 *									*	*	*	*	*	*	*	*	*	
Eshelman Garden Spot Horse	7/2/11									*	*	*	*	*	*	*	*	*	21
D. H. Grandin Milling Co.																			
Grandin's Sweetened Horse	9.5/3.5/11 *									*	*	*	*	*	*	*	*	*	
Grandin's Stock	8.5/4/12			*	*	*				*	*	*	*	*	*	*	*	*	5
Great Atlantic & Pacific Tea Co.																			
Daily Horse	9.5/3/10 *									*	*	*	*	*	*	*	*	*	
Great Eastern Feed Mills																			
Sugared Phoenix	10/3/13			*	*	*				*	*	*	*	*	*	*	*	*	6, 9, 11, 22
E. T. & H. K. Ide																			
Banner Bulky	13/2.5/18 *			*	*	*				*	*	*	*	*	*	*	*	*	3, 4
Ideal Fitting	12/4/10			*	*	*				*	*	*	*	*	*	*	*	*	9
Imperial Grain & Milling Co.																			
Imperial Steam Cooked	9.5/4/4.6									*	*	*	*	*	*	*	*	*	
Maritime Milling Co., Inc.																			
BB Bull Brand Horse with Alfalfa and Molasses	8/2/10 *			*	*	*				*	*	*	*	*	*	*	*	*	
Geo. Q. Moon & Co., Inc.																			
Moon's Stock	9/3/12			*	*	*				*	*	*	*	*	*	*	*	*	
Park & Pollard Co., Inc.																			
Manamar Fitting	12/3.5/7			*	*	*				*	*	*	*	*	*	*	*	*	1, 6, 8
Bulky-Sweet Dairy	11/3/12			*	*	*				*	*	*	*	*	*	*	*	*	3, 4
Park & Pollard Horse	10/3.5/9									*	*	*	*	*	*	*	*	*	
Yankee Horse	10/3.5/9			*	*	*				*	*	*	*	*	*	*	*	*	
Park & Pollard Stock	9/4/12			*	*	*				*	*	*	*	*	*	*	*	*	

† Open formula.

STOCK FEEDS, HORSE FEEDS, FITTING FEEDS, ETC.—concluded

Stock Feeds, Horse Feeds, Fitting Feeds, etc.	Guaranty																		
	Protein	Fat	Fiber	Alfalfa meal	Barley	Bone meal	Calcium carbonate	Corn meal	Cottonseed meal	Cracked corn	Hominy feed	Linseed meal	Molasses	Oats	Oat mill feed	Salt	Screenings	Wheat bran	Wheat middlings
Quaker Oats Co.																			
Quaker Sugared Schumacher	10/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ralston Purina Co.																			
Purina Heifer Growing Chow	14/25/14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Purina Dry and Freshening Cow Chow	125/25/14	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Purina Omolene	10/32/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Purina Bulky Omolene	10/32/11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Purina Bulky Las Chow (Buffalo Mill)	9/13/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
St. Albans Grain Co.																			
Wirthmore 14 Fitting	14/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Rabbit Pellets	14/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Rabbit (1935)	14/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Complete Rabbit	14/3/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Hygrade Fitting	12/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Fodder Greens	10/3/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Horse	9.8/3.25/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Hygrade Horse	9.5/3.25/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Stock	9/4/9.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Stratton & Co.																			
Stratton's "24" Stock	7.5/2.83/14.43	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Wayne County Grangers Feed Corp.																			
Universal Horse	10/3/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc.																			
Pure Feed Horse	9/3/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Additional ingredients: 1. Kelp. 2. Dicalcium phosphate. 3. Beet pulp. 4. Brewers' dried grains. 5. Corn feed meal. 6. Fish meal. 7. Gluten feed or meal. 8. Sea shells. 9. Soybean meal. 10. Iodized salt. 11. Low grade wheat flour. 12. Dried skim milk. 13. Cod-liver oil. 14. Distillers' dried grains. 15. Cracked wheat. 16. Ground wheat. 17. Iron oxide and potassium iodide. 18. Sardine oil. 19. Iodized ground limestone. 20. Oat groats. 21. Oat hulls. 22. Calcium phosphate. 23. Corn bran. 24. Cracked corn siftings.

The stock feeds were found to be "as certified" with one exception.

In the following instance, the ingredients named were "not detected":

Ralston Purina Co., Purina Bulky Omolene: Linseed and soybean meal.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Elmore Milling Co., Inc., Elmore Supersilage: Corn gluten meal and gluten feed.

Park & Pollard Co., Inc., Park & Pollard Horse: Limestone.

Park & Pollard Co., Inc., Yankee Horse: Limestone.

St. Albans Grain Co., Hygrade Fitting: Gluten feed and bone meal.

There were 40 ingredients used in the 53 brands of stock feeds, etc., sampled. Molasses appeared in nine-tenths; oats and salt in eight-tenths; wheat bran in six-tenths; alfalfa, calcium carbonate, corn meal, cracked corn and linseed in five-tenths; barley and hominy in three-tenths; bone meal, oat mill feed, wheat middlings and soybean meal in two-tenths; beet pulp, brewers' dried grains, gluten meal or feed,

iodized salt and cod-liver oil in one-tenth, of the brands sampled. The following ingredients appeared the number of times indicated: Fish meal and dried skimmilk, 3; low grade wheat flour, ground wheat and dicalcium phosphate, 2; cottonseed meal, wheat screenings, kelp, corn feed meal, sea shells, distillers' dried grains, cracked wheat, iron oxide and potassium iodide, sardine oil, iodized ground limestone, oat groats, oats hulls, calcium phosphate, corn bran and cracked corn siftings, 1.

CALF MEALS, HOG FEEDS

Albers Bros. Milling Co., Calf Manna. 25/4/5. Powdered skimmilk, oatmeal, ground corn, soluble meat extract, linseed meal, ground hulled barley, ground wheat, wheat shorts, dextrose, soybean meal, coconut oil meal, cod-liver oil, anise, iodized salt 1%, steamed bone meal 1%, oyster shell meal 1%.

Allied Mills, Inc., Wayne Calf Meal. 24/4/7. Dried skimmilk, cottonseed meal, corn gluten meal, coconut oil meal, wheat bran, wheat middlings, soybean meal, 2% limestone, 1% steamed bone meal, 1% salt, 0.06% iron oxide, 0.0007% potassium iodide, cane molasses, wheat red dog flour.

Allied Mills, Inc., Wayne Pig Starter. 18/3.5/7. Digester tankage, fish meal, peanut oil meal, cottonseed meal, soybean meal, wheat flour middlings, corn meal, fine ground alfalfa meal, oatmeal, molasses, 1% limestone, 0.5% bone meal, 0.04% iron oxide, 0.5% salt, 0.0005% potassium iodide, and 0.0005% copper sulfate, hominy, oats.

Allied Mills, Inc., Wayne Pork Maker. 14/3.5/7. Digester tankage, ground oats, corn meal, wheat standard middlings, alfalfa meal, cane molasses, 1% ground limestone, 0.5% steamed bone meal, 0.02% iron oxide, 0.0005% potassium iodide, 0.0005% copper sulfate, and 1% salt.

Blatchford Calf Meal Co., Blatchford's Calf Meal. 26/5/6. Anise, dried milk albumen, locust bean meal, fenugreek, rice polish, unpressed flaxseed, blood flour, cocoa, coconut oil meal, fish meal, soybean meal, wheat flour, potassium iodide, ground beans, barley meal, re-cleaned cottonseed meal, wheat flour middlings, linseed oil meal, cod-liver oil, calcium phosphate (bone meal), salt.

Blatchford Calf Meal Co., Blatchford's Calf Meal (1935). 24/5/6.7. Locust bean meal, unpressed flaxseed, blood flour, rice polish, fish meal, linseed meal, dried milk albumen, barley meal, ground beans, cocoa, calcium phosphate (bone meal), wheat flour, coconut oil meal, cottonseed meal, fenugreek, anise, salt.

Eastern States Farmers' Exchange, Eastern States Calf Starter (Open Formula). 23/3.5/4. Rolled oats, corn meal, wheat bran, linseed meal, blood flour, dried skimmilk, dicalcium phosphate, salt, soybean meal, sardine oil.

Eastern States Farmers' Exchange, Eastern States Hog Meal (Open Formula). 14.5/4/4.5. Corn meal, meat scraps, wheat flour middlings, linseed meal, alfalfa leaf meal, dicalcium phosphate, calcium carbonate, salt, wheat bran, sardine oil.

Elmore Milling Co., Inc., Elmore "Three Point" Calf Meal. 24/4/4. Wheat red dog flour, corn meal or corn feed meal, oatmeal, linseed meal, malted barley, blood meal, dried buttermilk, bone meal, salt.

Elmore Milling Co., Inc., Elmore's Makemgrow Little Pig Ration. 18/4.5/7. Wheat middlings, corn feed meal or hominy feed, linseed meal, red dog, wheat flour middlings, tankage, salt.

Elmore Milling Co., Inc., Elmore's Hog Ration. 15/5/6. Wheat middlings, linseed meal, corn meal, corn feed meal or hominy feed, tankage, salt.

John W. Eshelman & Sons, Eshelman Red Rose Calf Starter. 20/3/5. Wheat feed, linseed meal, wheat middlings, wheat flour, oat meal, ground kaffir corn, blood meal, 2% ground flaxseed, 1% bone meal, ½% calcium carbonate, ½% salt, ¼% cod-liver oil.

John W. Eshelman & Sons, Red Rose Pig and Hog Meal. 16/5/10. Wheat middlings, corn feed meal, digester tankage, wheat bran, 2% bone meal, 2% fish meal, 2% linseed meal, 2% charcoal, reground grain screenings, 1% calcium carbonate, 1% salt, soybean meal.

D. H. Grandin Milling Co., Grandin's Pig and Hog Ration. 18/5/10. Linseed meal, soybean oil meal, wheat middlings, corn meal, corn feed meal, hominy feed, ground meat and bone, alfalfa meal, calcium carbonate, cod-liver oil, salt.

Great Atlantic & Pacific Tea Co., Daily Growth Calf Meal. 25/4/5. Linseed meal, soybean meal, wheat flour middlings, wheat red dog flour, ground malted barley, dried skimmilk, blood meal, cod-liver oil.

Great Eastern Feed Mills, Phoenix 15% Hog Meal. 15/4/6. Corn feed meal, linseed meal, wheat flour middlings, fish meal, alfalfa leaf meal, cooked meat and bone, 1% salt, crab meal, hominy feed.

Larrowe Milling Co., Larro Calf Meal. 23/4/4. Oatmeal, wheat standard middlings, corn meal, linseed meal, blood flour, dried skim milk, cod-liver oil extract, 1.5% limestone, 0.75% salt.

Larrowe Milling Co., Larro Pig Feed. 17.5/4/7.5. Wheat bran, corn meal, wheat standard middlings, meat and bone scraps, linseed meal, soybean meal, alfalfa, dried beet pulp, 1¼% limestone, 1% salt.

Park & Pollard Co., Inc., Milkade Calf Meal. 20/7/6.5. (1934.) Ground malt, linseed meal, wheat bran, wheat flour, cocoanut oil meal, bone meal 1%, rice polish, wheat middlings, sesame oil meal, blood flour 3%, calcium carbonate, fenugreek, anise and salt.

Park & Pollard Co., Inc., Milkade Calf Meal (1935). 20/7/6.5. Ground malt, linseed meal, wheat bran, wheat flour, cocoanut oil meal, bone meal 1%, rice polish, wheat middlings, sesame oil meal, blood flour 3%, limestone, fenugreek, anise, salt, kelp, fish meal, sea shells, soybean meal.

Park & Pollard Co., Inc., Go-Tu-It Pig & Hog Ration. 15/3.5/8. Alfalfa meal, hominy feed, barley, fish meal, meat meal, bone meal, corn meal, corn germ meal, wheat middlings, ground grain screenings, calcium carbonate, salt.

Race Milling Co., Race's Hog Feed. 18/4/8. Wheat flour middlings, corn meal, linseed meal, meat scraps, alfalfa meal, calcium carbonate, salt.

Ralston Purina Co., Purina Calf Starting Chow. 27/3.2/5. Dried skim milk, linseed meal, soybean meal, blood flour, wheat flour (second clear), corn meal, 1.5% calcium carbonate, 0.5% iodized salt, Pur-a-tene (Pro Vitamin A—Carotene).

Ralston Purina Co., Purina Hog Fatena. 14/3/7. Tankage, linseed meal, corn germ meal, wheat middlings, hominy feed, molasses, alfalfa meal, 1.5% iodized salt, ground barley.

Ryde & Co., Ryde's Cream Quality Calf Meal. 19&4/4. Blood meal, dried skim milk, dried whey, locust bean meal, barley malt flour, linseed meal, soybean meal, ground oat groats, corn meal, ground flaxseed, wheat flour, wheat flour middlings, fenugreek, anise, organic minerals (egg albumen, cooked and ground egg shells, sulphur, iron oxide, steamed bone meal, iodized salt, ground charcoal, Glauber's salt).

St. Albans Grain Co., Wirthmore Calf Meal. 24/5.5/4. Dried skim milk, oatmeal, ground flaxseed, blood flour, linseed meal, wheat red dog flour, corn meal, bone meal, iodized salt, anise, fenugreek, cod-liver oil.

St. Albans Grain Co., Wirthmore Pig and Hog Feed. 17/4/9. Meat scraps, fish meal, bone meal, wheat red dog flour, wheat middlings, wheat bran, linseed meal, alfalfa meal, corn meal, ground barley, corn gluten feed, calcium carbonate, cane molasses, salt, hominy feed.

The calf and hog meals were found to be "as certified" with few exceptions.

In the following instances the ingredients named were "not detected":

Allied Mills, Inc., Wayne Pig Starter: Copper sulfate.

Great Eastern Feed Mills, 15% Hog Meal: Linseed meal.

Park & Pollard Co., Inc., Milkade Calf Meal (1935): Kelp, fish meal, sea shells.

Ryde & Co., Ryde's Cream Quality Calf Meal: Dried egg albumen, egg shells, Glauber's salt.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Elmore Milling Co., Inc., Elmore's Makegrow Little Pig Ration: Meat scraps.

Elmore Milling Co., Inc., Elmore's Hog Ration: Meat scraps.

Great Atlantic & Pacific Tea Co., Daily Growth Calf Meal: Corn meal.

Great Eastern Feed Mills, 15% Hog Meal: Ground oats.

There were 53 ingredients in the 14 brands of calf meals sampled. Linseed meal occurred in 12 of the brands; blood flour in 11; dried skim milk, soybean meal, wheat middlings and salt in 8; corn meal and bone meal in 7; barley, cod-liver oil, anise and wheat flour in 6; oatmeal, fenugreek, cocoanut oil meal, calcium carbonate (presumably limestone) and ground flaxseed in 5; iodized salt and wheat red dog in 4; cottonseed meal, wheat bran, locust bean meal, rice polish, fish meal and calcium phosphate in 3; iron oxide, potassium iodide, ground beans, cocoa, dried milk albumen in 2; egg albumen, egg shells, wheat feed, meat scraps, kaffir corn, oat groats, ground wheat, corn feed meal, dextrose, kelp, oats, oyster shell meal,

dried whey, gluten, charcoal, malt, Glauber's salt, molasses, sea shells, sesame oil meal, sardine oil and carotene in 1, of the brands sampled.

There were 33 ingredients in the 13 brands of pig and hog feeds sampled. Salt and wheat middlings occurred in 11 of the brands sampled; corn meal, alfalfa, limestone and linseed meal in 9; bone meal in 8; meat scraps in 7; hominy feed in 6; tankage, fish meal, soybean meal and corn feed meal in 5; wheat bran in 4; molasses and barley in 3; iron oxide, potassium iodide, copper sulfate and screenings in 2; peanut oil meal, cottonseed meal, oat meal, oats, dicalcium phosphate, sardine oil, charcoal, cod-liver oil, crab meal, beet pulp, corn germ meal, wheat red dog and gluten feed in 1.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE OR CRACKED GRAINS

Scratch Grains, etc.	Guaranty												
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Oat groats	Sunflower seed	Wheat
Allied Mills, Inc.													
Wayne Scratch	10/2.5/4			*	*	*	*					*	*
Wayne Intermediate Scratch	10/2/4			*	*	*	*					*	*
Empire Scratch	9/2.5/4			*	*	*	*			*		*	*
Wayne Special Scratch	9/2.5/4			*								*	*
Wayne Chick	9/2/4			*				*					2
E. W. Bailey & Co.													
Pennant Coarse Chick	10/3/3			*	*					*		*	*
Pennant Fine Chick	10/3/3			*						*		*	2
Pennant Scratch	10/3/6.5			*	*	*				*		*	*
Community Feed Stores, Inc.													
Community Scratch	10/3/4			*	*	*				*		*	*
Eastern States Farmers' Exchange													
Eastern States Scratch (with whole corn)†	10.5/2.5/4									*		*	1
Eastern States Scratch (with coarse cracked corn)†	10/2.5/4				*					*		*	*
Eastern States Scratch 1931†	9.5/2.5/3				*					*		*	*
Eastern States Chick Grain†	9.5/2/3				*					*		*	*
Eastern States Intermediate Scratch†	9.5/2/3				*					*		*	*
Elmore Milling Co., Inc.													
Elmore Chick	10/2.5/3.5				*	*	*						2,3
Elmore Scratch	10/2.5/7			*	*	*	*					*	*
Emco Scratch	10/2.5/7			*	*	*	*					*	*
John W. Eshelman & Sons													
Eshelman Red Rose Scratch	10/2.5/4			*	*	*	*					*	*
Eshelman Lancaster Scratch	9/2.5/4			*	*	*	*					*	*
First National Stores, Inc.													
Henfield Scratch	10/2.5/5			*	*	*						*	*
D. H. Grandin Milling Co.													
Economy Scratch	10/2.5/5			*	*	*						*	*
Grandin's Baby Chick	10/2.5/5			*						*		*	2
Grandin's Intermediate Chick	10/2.5/5			*						*		*	*
Grandin's Screened Scratch	10/2.5/5			*	*	*				*		*	*
Great Atlantic & Pacific Tea Co.													
Daily Growth Fine Chick	10/3/5			*	*	*	*	*		*		*	2
Daily Egg Scratch	10/2.5/5			*	*	*	*	*		*		*	*
Great Eastern Feed Mills													
Phoenix Medium Scratch	10/2.5/4			*	*	*				*		*	*
Phoenix Scratch	10/2.5/4			*	*	*				*		*	*
E. T. & H. K. Ide													
Ideal Scratch	10/3/4			*	*	*						*	*

† Open formula.

SCRATCH GRAINS AND OTHER POULTRY FEEDS COMPOSED IN THE MAIN OF WHOLE
OR CRACKED GRAINS—concluded

Scratch Grains, etc.	Guaranty												
	Protein	Fat	Fiber	Barley	Buckwheat	Cracked corn	Kaffir corn	Milo maize	Millet	Oats	Oat groats	Sunflower seed	Wheat
W. B. Johnson & Son Johnson's Perfection Scratch	10/3/5	*	*	*	*	*	*	*	*	*	*	*	*
Kasco Mills, Inc. Kasco Scratch	9/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Larrowe Milling Co. Larro Scratch	10/2/4	*	*	*	*	*	*	*	*	*	*	*	*
Maritime Milling Co., Inc. B-B Daisy Scratch	9/2.5/5	*	*	*	*	*	*	*	*	*	*	*	*
Geo. Q. Moon & Co., Inc. Moon's Scratch	10/2/5	*	*	*	*	*	*	*	*	*	*	*	*
Park & Pollard Co., Inc. Park & Pollard Chick Scratch	10/3/3	*	*	*	*	*	*	*	*	*	*	*	2
Intermediate Chick	10/3/3.5	*	*	*	*	*	*	*	*	*	*	*	*
Red Ribbon Scratch	10/3/5	*	*	*	*	*	*	*	*	*	*	*	*
Bidwell Scratch	10/1.5/5	*	*	*	*	*	*	*	*	*	*	*	*
Park & Pollard Economy Scratch	10/1.5/5	*	*	*	*	*	*	*	*	*	*	*	*
Quaker Oats Co. Early Bird Fine Chick	10/2/2	*	*	*	*	*	*	*	*	*	*	*	2
Big Egg Scratch	9.5/2/3.5	*	*	*	*	*	*	*	*	*	*	*	*
Early Bird Coarse Chick	9.5/2/3.5	*	*	*	*	*	*	*	*	*	*	*	*
Quaker Ful-O-Pep Scratch	9/2/3	*	*	*	*	*	*	*	*	*	*	*	*
Ralston Purina Co. Purina Hen Chow	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	1
Protena Scratch	9.5/2/4	*	*	*	*	*	*	*	*	*	*	*	1
St. Albans Grain Co. Wirthmore Baby Chick Scratch	10/2.5/3.5	*	*	*	*	*	*	*	*	*	*	*	2
Wirthmore Intermediate Scratch	10/2.5/3.5	*	*	*	*	*	*	*	*	*	*	*	*
Wirthmore Scratch	10/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Mornin' Call Poultry Grains	9.5/2.5/4	*	*	*	*	*	*	*	*	*	*	*	*
Wayne County Grangers Feed Corp. Grange Scratch	10/3/6	*	*	*	*	*	*	*	*	*	*	*	*
West-Nesbitt, Inc. Pure Feed Scratch	10/3.5/5	*	*	*	*	*	*	*	*	*	*	*	*

Additional ingredients: 1. Whole corn. 2. Cracked wheat. 3. Pinhead oat meal.

The scratch feeds were found to be "as certified" with few exceptions.

In the following instances, the ingredients named were "not detected":

Elmore Milling Co., Inc., Elmore Scratch: Kaffir corn.

Johnson, W. B., & Son, Johnson's Perfection Scratch: Kaffir corn and milo maize.

Moon, Geo. Q., & Co., Inc., Moon's Scratch: Sunflower seed.

In the following instances small quantities of the ingredients named were found in addition to those certified:

Ide, E. T. & H. K., Ideal Scratch: Occasional whole weed seeds.

Larrowe Milling Co., Larro Scratch: Occasional whole weed seeds.

There were 13 ingredients used in the 51 brands of scratch feeds sampled. Cracked corn appeared in all but one; wheat in eight-tenths; barley and buckwheat in six-tenths; kaffir corn, milo maize and oats in three-tenths; oat groats and sunflower seed in one-tenth of the brands sampled. Other ingredients appear as follows: Cracked wheat, 8; millet, 4; whole corn, 3; and pinhead oatmeal, 1.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buttermilk (dried)	Calcium carbonate	Cod-liver oil	Corn meal	Fish meal	Gluten meal or feed	Linseed meal	Meat scraps	Oats	Salt	Skimmilk (dried)	Soybean meal	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Allied Mills, Inc.																						
Wayne 26% Supplemental||	26/4/10	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 22, 24	
Wayne Turkey Starting	25/4/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 2, 22	
Wayne Egg & Breeder	18/3.5/7	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1	
Wayne Egg & Breeder||	18/3.5/7	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 22	
Wayne Broiler	18/3.5/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 22	
Wayne Chick Starter	17/4/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 22	
Empire Egg	16.5/3.5/7	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22	
Empire Egg||	16.5/3.5/7	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 22	
Wayne Growing||	16/4/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1	
Wayne Starter & Grower	16/3.5/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 22	
Wayne Starter & Grower||	16/3.5/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1	
Wayne Poultry Fattener	13.5/3.5/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 31, 32	
E. W. Bailey & Co.																						
Pennant Turkey Starter	25/5/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Pennant Turkey Growing	23/4.5/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Pennant Brand Laying	20/5/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	28	
Pennant Brand Laying†§	20/5/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16, 28	
Pennant Brand Chick Starter	17/5/5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 16	
Pennant Broiler	17/4/5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	28	
Pennant Growing	15/5/5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	2, 16, 28	
Chapin & Co.																						
Chapin Kernels Lay All	20/3.5/5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 9, 14, 17	
Community Feed Stores, Inc.																						
Community Laying with Milk†	20/4/7	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20, 31	
Community Chick†	18/5/7	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	16, 31	
Community Growing†	17/4.5/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20, 31	
Eastern States Farmers' Exchange																						
Eastern States Producer 20†	20/4/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 20, 22	
Eastern States Egg†	20/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20, 22	
Eastern States Starting & Broiler†	18.5/4/5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 20, 22, 28	
Eastern States Developer†	18.5/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 20, 22	
Eastern States Flushing†	18.5/2.5/4	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 20, 22, 28	
Eastern States Producer†	17/4/6.5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 20, 22	
Eastern States Combination†	15/4/6.5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 20, 22	
Eastern States Fattener†	14.5/4/5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	14, 28	
Eastern States All-Mash Developer†	14.5/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 20, 22	
Elmore Milling Co., Inc.																						
Elmore Egg	20/4/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17, 20	
Elmore M. A. C. Laying	17/5/7	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20	
Elmore Eggmaker (1935)	17/4.5/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Elmore Complete Broiler	17/4/5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20, 32	
Elmore Growing	17/4/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17, 20	
Elmore Chixsaver	16.5/4/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	20, 32	
Elmore Complete Laying	16/4/6	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	28	
John W. Eshelman & Sons																						
Eshelman Red Rose Laying†	20/5/7	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	31	
Eshelman Pennsy Laying (1935)	18/5/8	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5	
Eshelman Pennsy Laying	18/5/8.5	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5	

|| With sardine oil. † With cod-liver oil. § With cod-liver meal. † Open formula.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buttermilk (dried)	Calcium carbonate	Cod-liver oil	Corn meal	Fish meal	Gluten meal or feed	Linsed meal	Meat scraps	Oats	Salt	Skim milk (dried)	Soybean meal	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
John W. Eshelman & Sons—continued																						
Eshelman Red Rose All-Mash Starter	16/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Eshelman Red Rose Growing†	16/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	31
First National Stores, Inc.																						
Henfield Egg	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	31
D. H. Grandin Milling Co.																						
Grandin's Laying†	20/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	30, 31
Grandin's Complete Starting	16/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	31
Grandin's Start-To-Finish	16/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	31
Grandin's Combined Chick & Broiler	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	31
Grandin's Complete Laying	15/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	31
Great Atlantic & Pacific Tea Co.																						
Daily Egg (1935)	20/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16, 30
Daily Egg Laying	20/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1, 16, 30
Daily Growth Growing	17.5/4/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	30
Daily Growth Chick Starter	16/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	17, 28, 30
Great Eastern Feed Mills																						
Phoenix 20% Laying†	20/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 12
Phoenix Starter & Broiler†	18.5/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 12, 28
Wamesit 18%†	18/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4, 12
Phoenix 16% Growing†	16/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	4
E. T. & H. K. Ide																						
Ideal Egg	20/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	7, 20
Kasco Mills, Inc.																						
Apex Laying	20/4/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Apex Starter	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Kasco All-Mash Laying	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Larrowe Milling Co.																						
Larro Egg	20/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Larro Chick Builder	19/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Larro Growing	16/4/7.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Larro Broiler (1935)	15.5/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	28
R. H. McEwen Milling Co.																						
McEwen's Red Feather Egg	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 31
Maritime Milling Co., Inc.																						
B-B Daisy Egg Vitamized†*	20/3.5/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Geo. Q. Moon & Co., Inc.																						
Moon's Laying Mash*	20/4/9	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12, 23, 29
Moon's Baby Chick Starter	15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12, 23
Park & Pollard Co., Inc.																						
Park & Pollard Starter & Broiler	18/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Manamar Lay or Bust	18/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6, 19, 29
Lay or Bust Dry	18/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13, 29
Bidwell Dry	18/3/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	13, 29
Manamar Life Cycle	16/3.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6, 19, 29
Bidwell Growing	15/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	29
Growing	14/3/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	29

† Open formula. ‡ With cod-liver oil. * With buttermilk.

MASHES AND OTHER POULTRY FEEDS MADE OF FINE INGREDIENTS—continued

Mashes, etc.	Guaranty			Alfalfa meal	Barley	Bone meal	Buttermilk (dried)	Calcium carbonate	Cod-liver oil	Corn meal	Fish meal	Gluten meal or feed	Linseed meal	Meat scraps	Oats	Salt	Skimmilk (dried)	Soybean meal	Wheat	Wheat bran	Wheat middlings	Wheat red dog
	Protein	Fat	Fiber																			
Quaker Oats Co.																						
Quaker Ful-O-Pep Turkey Starter	26/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 16, 22, 31
Quaker Ful-O-Pep Egg	20/4.5/8	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 16, 22, 31
Quaker Ful-O-Pep Turkey Grower	20/4.5/8	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 16, 22, 31
Quaker Ful-O-Pep Growing	19/5/6	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 16, 22, 31
Quaker Ful-O-Pep Broiler	19/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 16, 22, 31
Quaker Ful-O-Pep Chick Starter	17/5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 16, 22, 31
Big Egg Chick Starter-Growing	17/4/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	5, 22, 31
Race Milling Co.																						
Race's Poultry	20/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Ralston Purina Co.																						
Purina Turkey Startena	26/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10, 18, 21, 22, 27
Purina Turkey Growing & Fattening Chow	21/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10, 27
Purina Egg Chowder	19/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 10, 22, 27
Purina Lay Chow	19/3.5/8*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 10, 22, 27
Purina Broiler Chow	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10, 22, 27
Purina Chick Startena	18/4/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 10, 18, 21, 22, 27
Protena Laying	18/3.5/8.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	22
Purina Layena (Complete Ration)	15.5/3.5/8	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10, 11, 22, 27
Purina Chick Growena	15/3.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	10, 11, 18, 22, 27
St. Albans Grain Co.																						
Wirthmore Breeder	20/4.5/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Wirthmore Turkey Breeder (1935)	20/4.5/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Wirthmore Turkey Growing	20/4/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Wirthmore Laying†	20/4/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 29
Wirthmore Baby Chick Starter	18/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 28
Wirthmore Complete Chick Starter & Broiler	17.5/4/5.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 28
Wirthmore Turkey Fattening	16/4.5/7	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Wirthmore Growing†	15/4.5/6	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Wirthmore Fleshing & Fattening	15/4.5/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 31
Wirthmore Pellets (1935)	15/4.5/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 5
Wirthmore Fleshing Pellets	15/4.5/6.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	3, 5
Wirthmore Complete Laying	15/4/5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8, 28
Wirthmore Laying Pellets	15/4/6	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
Wirthmore Complete Growing	14/3.75/6	**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	8
S. E. Smith Estate																						
Smith Estate Starting†	19/4.5/4.5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Smith Estate Egg Producer	18/4.5/7	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

† With cod-liver oil.

St. Albans Grain Co., Wirthmore Fleshing and Fattening: Wheat bran.
Webster, Ray P., Storr's* Egg: Ground barley.

There were 50 ingredients used in making 114 brands of mashes, etc., sampled. Meat scraps were found in all but 2; alfalfa meal, in all but 4; and wheat middlings, in all but 5 of the brands sampled. In addition corn meal and wheat bran were found in nine-tenths; fish meal, oats and salt in eight-tenths; calcium carbonate and cod-liver oil in seven-tenths; dried skim milk and soybean meal in six-tenths; dried buttermilk in five-tenths; bone meal and gluten meal or feed in four-tenths; sardine oil, barley and linseed meal in three-tenths; wheat and hominy feed in two-tenths; and wheat red dog, iron oxide and potassium iodide, milk sugar feed, cod-liver meal, oyster shell meal and oat groats in one-tenth of brands sampled. Other ingredients occurred as follows: Molasses, 9; dicalcium phosphate, iodized salt and carotene, 8; calcium phosphate, 6; corn germ meal and crab meal, 5; charcoal, low grade wheat flour, wheat germ and corn feed meal, 4; kelp and buckwheat, 3; dried beet pulp, kaffir corn, sea shells, and V. D. (see additional ingredients, mashes, No. 23), 2; and milo, corn oil meal, copper sulfate, oat middlings, peanut oil meal, iodine and sulfate of iron, 1.

* Sic.

IV. TABULAR SUMMATION, APRIL, 1936, INSPECTION

The following table sets forth the essential facts as to the trade in Vermont, each brand taken as a unit, the number of samples and brands collected, the number of protein determinations below guaranty and the nutrient deficiencies.

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies				
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	47	44	3	9	8	1	..	..	1	..	..
Linseed meals	28	28	..	7	7	..	..	..	..	..	..
Soybean meals	23	23	..	9	9	..	..	..	..	..	..
Gluten meals and feeds	55	54	1	11	10	1	1	..	..	..	..
Distillers' and brewers' dried grains	56	53	3	19	17	2	2	..	..	..	..
Wheat offals	304	299	5	93	87	6	1	2	1	1	..
Brans	121	119	2	35	34	1	1	..	..	..	..
Middlings	82	79	3	34	31	3	..	1	..	1	..
Mixed feeds	52	52	..	13	12	1	..	..	1	..	..
Red dog flours	49	49	..	11	10	1	..	1	..	..	..
Hominy feeds	49	48	1	16	15	1	..	..	..	1	..
Beet pulps	18	18	..	2	2	..	..	..	..	..	..
Alfalfa meals	10	8	2	5	4	1	..	..	..	..	*1
Miscellaneous	41	31	10	12	11	1	..	1	..	..	..
Proprietary feeds	1,327	1,309	18	406	390	16	3	3	9	..	1
Dairy	454	442	12	161	149	12	3	3	5	..	1
Stock, horse, etc.	222	220	2	53	52	1	..	..	1	..	..
Calf and hog	90	90	..	27	26	1	..	..	1	..	..
Poultry	561	557	4	165	163	2	..	..	2	..	..
Scratch, chick	180	180	..	51	51	..	..	..	..	..	..
Mashes, growing	381	377	4	114	112	2	..	..	2	..	..
Meat scraps, bone meal	11	11	..	8	7	1	..	1	..	..	..
Skim milk, etc.	6	6	..	3	3	..	..	..	..	..	*1
Totals	1,975	1,932	43	600	571	29	7	7	11	2	1
Winter 1935	2,343	2,303	40	585	557	28	5	16	5	1	..
Spring 1935	2,199	2,125	74	635	589	46	19	13	10	3	1
Winter 1934-35	2,049	2,002	47	550	524	26	12	4	7	..	3
Spring 1934	1,901	1,869	32	551	527	24	8	10	4	2	..
Winter 1933-34	1,955	1,938	17	566	539	27	3	14	7	1	1
Spring 1933	2,052	2,007	45	552	509	43	11	22	8	1	..
Winter 1932-33	2,235	2,202	33	581	551	30	4	17	8	..	1
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3

* Protein, fat and fiber.

V. AVERAGE PRICES, DECEMBER, 1930 TO APRIL, 1936

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. The April, 1936, prices are on the average, about five dollars less per ton than December, 1935.

	December, '30	April, '31	December, '31	April, '32	December, '32	April, '33	December, '33	April, '34	December, '34	April, '35	December, '35	April, '36
Cottonseed meals 43%....	\$43	\$42	\$30	\$30	\$27	\$29	\$33½	\$38½	\$51½	\$52	\$40	\$37½
Cottonseed meals 41%....	41	40	29	28	27	27½	33½	37½	49½	44½	35½	35½
Cottonseed meals 36%....	41	40	28	26	22½	..	..	..	47	41½	..	..
Linseed meals 37-39%....	..	..	..	..	..	31½	41½	44	50	37½	36½	37½
Linseed meals 34%.....	48	45	40	40	33½	32½	44	44	50½	41	36½	36
Linseed meals 30-33%....	47	42	39	40	33	32½	44	45	49½	41	36	35½
Soybean meals .....	..	..	..	..	..	32	41½	42	48½	43	35½	33
Gluten meals	49½	40½	34	28	27	29	38½	39	52	43	38½	37½
Gluten feeds	42	38	27	24	23	25	30½	31	43	37½	33	30½
Brewers' dried grains....	..	..	..	..	..	28	30	31½	39½	36	31	28
Distillers' dried grains....	57	32	30	20	27	28	32½	35	41½	38	33	29½
Wheat brans	30	31	25	24½	22	23½	26½	32	36½	34½	29	28
Wheat middlings:												
Standard	32½	31½	26	25½	21½	23	28½	32½	38½	36	29	29
Shorts	30	31	26	24½	21	23½	26½	31	36	34	28½	28
Flour	36	35	29	28	24	24½	32	33	41½	38	34½	31
Wheat mixed feeds	36	33	28	27	24	25	31	33½	40½	38½	32½	32
Red dog flours	39½	35	30	28	26½	25½	33½	33½	44½	41	35½	34½
Dried beet pulps	38½	35	28	28	28	27	30	30	41½	43	36½	37
Hominy feeds	38	34½	27	24	20½	20½	27	31	42	37½	31½	30
Alfalfa meals	54½	55	41	49½	38½	36½	38	39½	43½	42½	37	36
Proprietary feeds:												
Dairy 24%.....	45½	42	34	32	28½	29½	35½	37	46	42	36	34½
20%.....	42½	39½	32	33	27	28	33½	35	43½	40½	34½	33
16%.....	39	35	30	27½	24	26	30½	31	41½	37½	32	31
Stock and horse 9-10%*	42	40	34	32	29	29	37	37½	46½	43½	38	37
8%*	44½	34	29	34	22	26½	..	34½	..	..	33	35
Fitting 9-12%.....	43	39	31	29½	25	26½	34½	36	44	41	35½	35
14%.....	43	39	36	31½	28	28	37½	40½	47½	44	38½	37½
Calf	89	84	80	74	69	66½	77½	67½	82	78½	79½	77½
Hog	50	48	38	35½	32½	32½	40½	40	49	46½	43½	41
Poultry:												
Scraps	82	75½	58	60½	55	38	44	47½	48	46	53	59½
Scratches	44½	41½	33	32½	27½	28½	37½	38	46½	44	39½	37½
Mashes	56	52	42	40	36	37	44	45½	52	50½	46½	45½
Chick grains	52½	49	41	39	41½	32½	40½	46	56	49½	45½	43½
Chick mashes	69½	63	48	49	39	43	49	52	56½	56½	44½	52

* Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1931, 1932, 1933, 1934, 1935, and April, 1936, follow, 1923 being rated at 100.

	1923	1931	1932	1933	1934	1935	Apr. 1936
Cottonseed meals	100	59	45	52	74	73	62
Linseed meals	100	71	64	63	80	65	62
Gluten meals and feeds	100	63	46	55	74	68	61
Wheat offals (exclusive of red dog) ..	100	72	59	66	87	83	73
Beet pulps	100	60	53	54	64	71	66
Hominy feeds	100	78	56	60	94	89	77
Proprietary:							
Dairy 24%	100	71	56	61	77	73	64
20%	100	68	57	58	74	71	62
16%	100	71	56	62	79	76	67
Stock and horse	100	84	72	79	100	97	88
Calf, hog, etc.	100	88	75	77	84	88	83
Scratches	100	77	66	64	82	79	72
Mashes	100	81	66	69	82	76	78

VI. 1923-1928 vs. 1935 AND 1936

An adequate inspection service has been in operation since 1922 whereas for 20 years prior to that date it was not much better than a farce. The present enactment became law on March 26, 1923, and the very next month, for the first time in 20 years a fairly representative lot of samples was drawn from dealers' stocks. The feeds then on the market were doubtless made in pre-law days. The following statement seems significant, its figures speaking quite as loudly as words.

APPROXIMATE PERCENTAGE SHORTAGES FOUND IN

	Dairy feeds	Stock feeds	Calf and hog feeds	Poultry feeds
April, 1923	30	65	50	20
1923-1928	15	30	15	10

Twenty-seven inspections have been made since the present law went into effect. The following table summarizing their salient features gives some idea as to how well the law has worked. The percentage figures are approximations. Exact figures would mean no more than do these approximations.

Dates	Inspections	Average number of samples drawn	Average number of brands sampled	Percentage shortages					Percentage of brands containing low-grade ingredients			
				Cottonseed meal	Dairy feeds		Stock feeds		Dairy feeds	Stock feeds	Calf feeds	Poultry feeds
					Dairy feeds	Stock feeds	Calf feeds	Poultry feeds				
1923-1928	12	1,110	343	20	15	30	15	10	25	70	15	0
1929-1930	4	1,195	470	15	15	5	15	15	20	40	10	0
1931-1934	8	2,045	560	15	10	5	5	5	25	30	10	0
1935-1936	3	2,180	607	5	5	0	0	0	30	25	5	0

The average number of samples drawn from stocks found on sale increased greatly, from about 700 in 1923 to 2,200 in 1935-1936, of brands from about 300 to over 600. Sampling methods have not changed materially and nearly as many sampling agents were put into the field in 1923 as in 1936. The 1936 figures differ from those of 1923 in the main because more feeds have been sold, whether stated in terms of brand numbers or of gross business, although of course with added experience a more thorough job of sampling is being done today than in 1923.

Cottonseed meals have proved to be most erratic in respect to guaranty maintenance as the years have gone by. Whenever the crop has been at all short the mills have ground more hulls into the meal, thus lowering protein and increasing fiber contents. In the April inspections of 1924, 1926 and 1931 a large proportion of the meals were found to be adulterated (40, 45 and 60 percents respectively) but when samples were taken in the following Decembers the percentages of lapse were 0, 15 and 0 respectively. Presumably the new crops were larger and there was less temptation to dilute the meal. Only once since 1928 has the percentage of failure exceeded 20 percent, and only once since 1931 has it equalled 20 percent, whereas it was 20 percent or more in six of the first 12 inspections. State inspection services all over the land have pilloried the cottonseed meal brokers from time to time. One often finds them listed in the judgment notices of the federal food and drugs administration. However, there is less cause to cavil now than formerly and, furthermore, soybean meal is beginning to compete vigorously with cottonseed meal.

The dairy feeds as a whole nowadays meet guaranties well. One out of four fell by the wayside during the first three inspections (April, 1923-April, 1924), but only one in 10 during the last 20 (1926-1936).

The stock and horse feeds of 1923-1928 were quite apt to be short of guaranty, about one in three being lacking, whereas since 1928 lapses have been almost non-existent. A less liberal usage of the high fiber ingredients during late years doubtless accounts for this change.

The calf and hog feeds during the first 16 inspections (1923-1930) were faulty to the extent of one in six, whereas shortages have very rarely occurred since 1930.

The poultry feeds during 1923-1928 were short of guaranty to the extent of about one in seven, whereas since 1928 only about one in 30 has been lacking.

Low-grade ingredients have always been used, are now being used and doubtless will continue to be used in feed manufacture. Little change

seems to have taken place in respect to the proportion of dairy feeds carrying them. Nearly one in four contained them in 1923-1924 and fully as large a proportion in 1935-1936. This is due in part to the fact that many buyers look at the price rather than at the label. However, there is this to be said on the other side, that 16 percent goods often serve the purpose as well as those of a higher protein content, especially in the early summer and if one has plenty of good legume hay. Under such circumstances the purchase of a brand containing a not too large proportion of low-grade by-products, so be it live weed seeds are not present, may not be inadvisable.

The stock and horse feed situation has improved. Whereas in 1923-1928 two out of three brands contained them barely one in three does today.

One in six of the calf and hog feeds of 1923-1927—there were few brands sold then—contained low-grade ingredients, but none carry them nowadays. The same proportion, one in six, of poultry feeds in 1923 contained them, one in 20 during 1924 and 1925, but practically none since then.

It seems reasonably safe to assume that continued and reasonably adequate inspection of the goods as sold to farmers has been a factor in the improvement of their quality.

CONCERNING DOG FOODS

The Vermont law covers only feeding stuffs "used for feeding farm live stock." It does not cover a class of goods which, in some sections, is attracting considerable attention, namely, canned dog foods. Rarely, if ever, are canned dog foods bought to feed farm dogs in Vermont. The law provides that "information in relation to the character, composition, value and use of such . . . feeding stuffs . . . (may) be published. The word "such" would seem to exclude the possibility of publishing information concerning canned dog foods in an inspection bulletin. However, there is plenty to be said concerning this class of goods and there is considerable information in hand as to their composition which will be furnished on application to anyone who may happen to be interested.

VII. CONCLUSIONS

Only 43 (2 percent) of the 1,975 samples collected failed to meet their protein guaranties. These samples represented 600 different brands, 29 of which failed to comply with the guaranty, 8 being low in protein and 7 in fat while 11 were high in fiber. Four brands failed to meet guaranties in two or more components, one of them, "Suncured Alfalfa Leaf Meal" (1934), registered by the Fernando Valley Milling & Supply Company, Los Angeles, Calif., in all three. The fiber contents of four brands of dairy feed and of one stock feed were excessively high, indicating a too free usage of low-grade ingredients.

Prices of feeding stuffs averaged about \$37 per ton last April, or a dollar less than last December and six dollars less than in April, 1935. During the summer and fall of 1936 prices advanced sharply and higher prices are prevailing at the time of the issuance of this bulletin.

Much good feed is on the market. Buyers will do well to study the tags or stencils of the feed they contemplate buying, to note the results secured when fed and to choose accordingly.

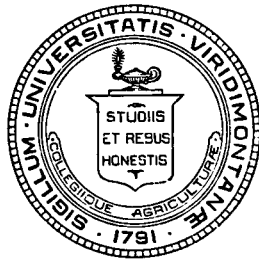
NOVEMBER, 1937

BULLETIN 428

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station
BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER and E. F. BOYCE



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Nineteen hundred ninety samples, representing 599 brands, drawn from dealers' stocks during April 1937, were analyzed for their protein, fat, and fibre contents. Microscopical examinations were made of all ready-mixed rations.

Brands in all respects up to guaranty in regard to their nutrient contents are listed on pages 4 to 27. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 28 to 29. Statements as to the ingredients used in the manufacture of the proprietary feeds appear on pages 9 to 29, and as to the manner in which their makers fulfilled these statements on pages 30 to 33.

It might be said, briefly, that 13 of the 161 brands of unmixed goods and 23 of the 438 brands of proprietary or mixed goods failed to meet their guaranties. This outcome is somewhat better than that reported in bulletin 416 dealing with the December 1936 inspection. Protein and fiber guaranties were better maintained, but fat deficiencies were more numerous. Shortages were noted in six percent of the brands. A reasonably adequate inspection service has been in operation since 1923. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-37, 94 percent.

In all cases in which an inferior ingredient was used in a mixture, a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price in April 1937, taking all classes of feeds as a unit, was not far from \$51, or \$4.50 more than it was in December 1936, and \$13 more than it was in the spring of 1936.

BULLETIN 428: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in Sections 4479-4483, 7850-7864, 7885-7891, Public Laws, the following report is submitted setting forth the analyses of 1,990 samples collected in April 1937. The object of the law is to prevent fraud and misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of goods offered for sale, as well as of any feed which he may contemplate buying if it is licensed and found on sale. The inspection covers most of the foods so licensed. The law does not forbid the sale of inferior feeds, but it provides through publicity clear information as to their real nature.

The table of contents follows.

I.	Brands in all respects up to guaranty and statement of ingredients—pages 4 to 27.		
II.	Brands failing to meet guaranty and statement of ingredients—pages 28 and 29.		
		Up to guaranty Page	Below guaranty Page
	Cottonseed meals	4	..
	Linseed meals	4	28
	Soybean meals	4	..
	Corn gluten meals and feeds	4, 5	..
	Distillers' and brewers' dried grains	5, 6	28
	Wheat brans	6, 7	..
	Wheat middlings	7	..
	Wheat mixed feeds	8	28
	Wheat red dog flours	8	28
	Hominy feeds	8	28
	Dried beet pulps	8	..
	Alfalfa meals	9	..
	Miscellaneous	9	28
	Dairy rations	9-15	28, 29
	Stock, horse, fitting, pasture, rabbit feeds, etc....	15-17	29
	Calf and hog meals	17, 18	..
	Meat and bone scraps and fish meal	19	28
	Scratch and chick feeds	19-21	29
	Egg mashes, starters and growing feeds	21-27	29
	Dried skimmilks	27	28
	List of ingredient abbreviations	30	..
III.	Discussion of ingredient statements—pages 30 to 33.		
IV.	Tabular summation, April 1937 inspection—page 34.		
V.	Average prices, 1931-1937—pages 35, 36.		
VI.	Deficiencies, 1923-1937—page 36, 37.		
VII.	"Mixed-on-order goods"—pages 37, 38.		

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
Allen, E. T., Co., Atlanta, Ga. Empire 41% Protein Prime Quality	41	5.5	13
Ashcraft-Wilkinson Co., Atlanta, Ga. Cow-Eta Brand 41% Protein Prime Quality	41	5	13
Buckeye Cotton Oil Co., Cincinnati, Ohio Buckeye 41% Protein Prime Quality	41	5	13
Eastern States Farmers' Exchange, Springfield, Mass. Eastern States 41% Protein Prime Quality	41	5	13
Georgia Distributing Co., Atlanta, Ga. Gold Dust Brand 41% Protein Choice Quality	41	6	10
Humphreys-Godwin Co., Memphis, Tenn. Dixie Brand 41% Protein Prime	41 ¹	5	12
Larrowe Milling Co., Detroit, Mich. 41% Protein Prime Quality	41	6	10
Lovitt, L. B., & Co., Memphis, Tenn. "Lovit Brand" 41% Protein Prime Quality	41 ¹	5	13
Marianna Sales Co., Memphis, Tenn. Prime	41	6	10
Swift & Co. (Oil Mills), Atlanta, Ga. Swift's Cotton Bloom 41% Protein	41	5	10
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn. 37% Protein Old Process	37	4.5	9
32% Protein Old Process	32	4.5	9
Bisbee Linseed Co., Amsterdam, N. Y. "K&M" Brand 34% Protein Old Process	34 ²	5	10
Canada Linseed Oil Mills, Ltd., Montreal, Que. Maple Leaf Pure 34% Protein	34	5	9
Kellogg, Spencer, & Sons, Inc., Buffalo, N. Y. Kellogg's 37% Protein Old Process	37 ⁴	4.5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y. "K&M" Brand 34% Protein Old Process (1936)	34	5	10
Sherwin-Williams Co., Cleveland, Ohio Sherwin-Williams Pure Old Process 34%	34	4.5	9
Sherwin-Williams Pure Old Process 32%	32	4.5	9
SOYBEAN MEALS			
Allied Mills, Inc., Peoria, Ill. Super Soy	37	4.5	6.5
Central Soya Co., Inc., Decatur, Ind. Central	41	4.5	7
Larrowe Milling Co., Detroit, Mich. 41% Protein Larro	41	4.5	6.5
Ralston Purina Co., St. Louis, Mo. 41% Protein	41	4.5	7
Staley, A. E., Manufacturing Co., Decatur, Ill. Staley's	41	4.5	7
CORN GLUTEN MEALS AND FEEDS*			
American Maize-Products Co., New York, N. Y. Cream of Corn	25	2	8.5

¹ Fifteen samples; one below protein guaranty, 40.17%.

² Eleven samples; two below protein guaranty, 37.98%; 39.64%.

³ Six samples; one below protein guaranty, 32.90%.

⁴ Three samples; one below protein guaranty, 36.05%.

* Meals 43% protein, feeds 25 or 20% protein.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
<i>CORN GLUTEN MEALS AND FEEDS—continued</i>			
Bacon, Edward R., Grain Co., Chicago, Ill.			
Bacon's	25	2	8
Clinton Co., Clinton, Iowa ¹			
Clinton	25	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond	43	1	4
Buffalo (1936)	25	1	8.5
Buffalo (Sweetened)	20	1	7
Penick & Ford, Ltd., Inc., Cedar Rapids, Iowa			
Douglas	43	1	4
Douglas	25	1.5	8.5
Sweetened Douglas	20	1	7
Staley, A. E., Manufacturing Co., Decatur, Ill.			
Staley's	25	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union	43	1	3
Union	25	1	8

DISTILLERS' AND BREWERS' DRIED GRAINS

Allied Mills, Inc., Peoria, Ill.			
Corn Distillers'	28	8	15
Brewers'	24	5	18
Anheuser-Busch, Inc., St. Louis, Mo.			
Budweiser Brewers'	20	5	20
Blatz Brewing Co., Milwaukee, Wis.			
Blatz 100% Brewers'	24	5	18
Continental Distilling Corp., Philadelphia, Pa.			
Corn Distillers'	28	7	15
Dewey Bros. Co., Blanchester, Ohio			
Corn 3D (Dewey's Distillers')	28 ²	8	14
Distillers' Corp., Ltd., Montreal, Que.			
Distilco Corn Distillers' (1936)	28	10	13
Farmers' Feed Co., New York, N. Y.			
"Bull Brand" Brewers'	26 ²	6	17
Ferneau Grain Co., Blanchester, Ohio			
F. Corn Distillers'	28 ²	9	14
Kelley, F. W., St. Johnsbury, Vt.			
Kelley's Rye Distillers'	16	5	20
Martenis, C. J., Grain Co., New York, N. Y.			
Alco Malt Sprouts	24	0.5	15
Alco Brewers'	21	6.5	19.5
Neumond Co., St. Louis, Mo.			
Neumond 28% Corn Distillers'	28	7	15
Neumond Brewers'	24	4.5	18
St. Albans Grain Co., St. Albans, Vt.			
Corn Distillers'	28	7	14
Brewers'	24	5	15
Schenley Products Co., Inc., New York, N. Y.			
28% Schenley Corn Distillers'	28	8	13
Schlitz, Jos., Brewing Co., Milwaukee, Wis.			
Schlitz Brewers'	24	6	20
Walker, Hiram, & Sons, Inc., Peoria, Ill.			
Corn Distillers'	28	6	13

¹ Six samples; one below protein guaranty, 27.03%.

² Six samples; one below protein guaranty, 25.10%.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
DISTILLERS' AND BREWERS' DRIED GRAINS— <i>continued</i>			
Wilber Feed Co., Inc., Jamestown, N. Y. American Corn Distillers'	28	8	12
WHEAT OFFALS—WHEAT BRANS			
Bay State Milling Co., Winona, Minn. "Wingold" Pure Hard	14.5	4.75	13
Coatsworth & Cooper, Toronto, Ont. "C and C"	15	3.5	11.5
Commander-Larabee Corp., Minneapolis, Minn. Sunfed (+)	14	4	12
Copeland Flour Mills, Ltd., Midland, Ont. Copeland's "Dandy"	15	3.5	11.5
Federal Mill, Inc., Lockport, N. Y. Lucky Hard (+)	15	3	14
Forrest, J. A., Co., Minneapolis, Minn. Bronco Pure	15	3.5	11.5
General Mills, Inc., Minneapolis, Minn. Washburn's Gold Medal Hard (+)	14	4	12
Ham, Frank B., & Co., Ltd., Toronto, Ont. "Hamco" Brand	15 ²	3.5	11.5
Hecker-Jones-Jewell Milling Div., Standard Milling Co., Buffalo, N. Y. Choice (+)	13.5	3.5	14
International Milling Co., Minneapolis, Minn. Blackhawk Pure	15	3.2	12
Kansas Flour Mills Corp., Kansas City, Mo. Big Flake Pure	15	3.5	11
Lewi, Franklin L., Inc., New York, N. Y. (+)	13	4	13
Maple Leaf Milling Co., Ltd., Toronto, Ont. Rex (+)	15	3.5	12
Martenis, C. J., Grain Co., New York, N. Y. Brazilian (+)	13	4	13
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y. Moon's (+)	15	3	10
Niagara Falls Milling Co., Lockport, N. Y. Niagara Choice	14.5	4	11
Ogilvie Flour Mills, Co., Ltd., Montreal, Que. Ogilvie's	15	3.5	11.5
Parrish & Heimbecker, Ltd., Toronto, Ont. Parrheim Pure	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's Hard (+)	14	4	12
Pratt, R. C., Toronto, Ont. Ruler Brand Pure	15	3.5	11.5
Quaker Oats Co., Chicago, Ill. Bell Cow (+)	15	3.5	10
Russell-Miller Milling Co., Minneapolis, Minn. Hard Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que. Premier	15	3.5	11.5
Southwestern Milling Div., Standard Milling Co., Kansas City, Mo. Red Turkey Pure	15	3.5	10

² Four samples; one below protein guaranty, 14.08%.
(+) Screenings not exceeding mill run.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
<i>WHEAT OFFALS—WHEAT BRANS—continued</i>			
Stratton & Co., Concord, N. H.			
Stratton's (+)	14	4	11
Valley City Milling Co., Portland, Mich.			
Rowena	13.75	4	12.3
Western Canada Flour Mills Co., Ltd., Toronto, Ont.			
Pioneer	15	3.5	11.5

<i>WHEAT OFFALS—WHEAT MIDDINGS</i>			
Coatsworth & Cooper, Toronto, Ont.			
"C and C" Shorts	16	5	8
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Standard (+)	15	4	9.5
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard Standard (+)	16	4.5	9.5
Dairy Maid Soft Winter Flour (+)	13.5	3.5	6
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard Standard (+)	15	4	9.5
Ham, Frank B., & Co., Ltd., Toronto, Ont.			
"Hamco" Brand Shorts	16 ¹	5	8
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+)	16	4.5	8.5
Lake of the Woods Milling Co., Ltd., Montreal, Que.			
Lakewoods Shorts	16	5	8
Lewi, Franklin L., Inc., New York, N. Y.			
Standard (+)	14	4	9.5
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Rex (+)	16	5	7.5
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+)	14.5	4.5	7
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's Shorts	16	5	8
Parrish & Heimbecker, Ltd., Toronto, Ont.			
Parrheim Pure Shorts	16	5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard A (+)	16	4	6
Pillsbury's Hard Standard B (+)	15	4	9.5
Pratt, R. C., Toronto, Ont.			
Ruler Brand Pure Shorts	16	4	8
Quaker Oats Co., Chicago, Ill.			
Bell Cow Shorts (+)	15	4	8
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior Shorts	17	5	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident Flour	15.5	4	5
Hard Occident Standard	15	4	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour (+)	15	4	6
St. Lawrence Flour Mills, Co., Ltd., Montreal, Que.			
Premier Wheat Shorts	16	5	8
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14	4.2	6

¹ Five samples: one below protein guaranty. 14.69%.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIXED FEEDS			
Bailey, E. W., & Co., Montpelier, Vt.			
Capital	14	3	7
Excelsior Milling Co., Minneapolis, Minn.			
Camel Fancy	16 ¹	4	7.5
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+)	13	3.5	10
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Fancy (+)	15	3.5	7.5
Ide, E. T. & H. K., Inc., St. Johnsbury, Vt.			
Ideal	15	4	8
Park & Pollard Co., Inc., Buffalo, N. Y.			
Park & Pollard Heavy	15.5	3.35	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+)	15	4	8.5
Ralston Purina Co., St. Johnsbury, Vt.			
Brooks' Fancy	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore (+)	15	3.75	8
Stott, David, Flour Mills, Inc., Detroit, Mich.			
Columbus Heavy (+)	14.5	3.7	8.5
Stratton & Co., Concord, N. H.			
Stratton's (+)	13.5	4.1	7.1
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14	4.1	8.2
WHEAT OFFALS—WHEAT RED DOG			
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed	16	4	4
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard Wheat Adrian	16	3.5	4
International Milling Co., Minneapolis, Minn.			
Blackhawk	16	3.5	4
Niagara Falls Milling Co., Lockport, N. Y.			
Choice	14	3	4
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's XX Daisy	16	4	4
HOMINY FEEDS			
General Foods Corp., Battle Creek, Mich.			
Burt's	10	6	6
Illinois Cereal Mills Co., Paris, Ill.			
.....	10	6	5
Kellogg Sales Co., Battle Creek, Mich.			
White	10	6	5
Krause, Chas. A., Milling Co., Milwaukee, Wis.			
Badger White	10	6	5
Quaker Oats Co., Chicago, Ill.			
White	10	5	5
BEEF PULP			
Larrowe Milling Co., Detroit, Mich.			
Molasses	7	0.3	20
.....	7	0.3	22.5

¹ Four samples; one below protein guaranty, 15.21%.
 (+) Screenings not exceeding mill run.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
ALFALFA MEALS			
Allied Mills, Inc., Peoria, Ill.			
Denver Alfalfa Milling & Products Co., Lamar, Colo.	13.5	1.5	33
13% Triple XXX	13	1	33
MISCELLANEOUS			
Eastern States Farmers' Exchange, Springfield, Mass.			
Molasses Oat Feed	5	1.25	27.5
Finger Lakes & Hudson Flour Mills, Inc., Troy, N. Y.			
Rye Feed (with Ground Screenings)	13.5	3	6
Forrest, J. A., Co., Minneapolis, Minn.			
Fine Ground Feeding Oatmeal	15	6	4
Grandin, D. H., Milling Co., Jamestown, N. Y.			
Grandin's Green Food	10	1	25
Hecker-H-O Div., Hecker Products Corp., Buffalo, N. Y.			
Oat Mill Feed (Oat Hulls, Oat Shorts, Oat Middlings)	6	1.5	28
North East Feed Mill Co., Minneapolis, Minn.			
North East Quality Feeding Oatmeal	15	4	3.75
Quaker Oats Co., Chicago, Ill.			
North Star Oatmeal	16	6	3.5
Vim Oat Mill Feed (Oat Hulls, Oat Shorts, Oat Middlings)	5 ¹	1.5	30
Sugared Vim Oat Mill Feed (Oat Hulls, Oat Shorts, Oat Middlings)	5	1.25	27.5
Ralston Purina Co., St. Louis, Mo.			
Purina Checkerboard Rolled Oats (Steam Cooked)	15	5	2

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Peoria, Ill.				
Wayne Amco 32% Supplement	32	4	9	✓
Soy, Gluml, Dist, Cotton, Pnut, Glufd, Linsd, Bran, Mol, Bone, Calc, Salt, Iron, KI, &				
Wayne Amco 24%	24	4	9	✓
Cotton, Gluml, Dist, Brew, Glufd, Linsd, Soy, Pnut, Oats, Corn, Hom, Bran, Mol, Bone, Calc, Salt, Iron, KI.				
Empire 24%	24	3.5	12	✓
Dist, Brew, Soy, Glufd, Cotton, Corn, Bran, Scrngs, Oatmld, Mol, Calc, Salt.				
Wayne Amco 20%	20	4	9	✓
Cotton, Brew, Dist, Oats, Glufd, Corn, Hom, Soy, Gluml, Linsd, Bran, Mol, Bone, Calc, Salt, Iron, KI.				
Empire 20%	20	3.5	12	✓
Soy, Cotton, Bran, Dist, Brew, Glufd, Corn, Scrngs, Oatmld, Mol, Calc, Salt.				
Empire 16½%	16.5	3.5	12	✓
Dist, Brew, Soy, Glufd, Gluml, Cotton, Corn, Bran, Scrngs, Oatmld, Mol, Calc, Salt.				
Bailey, E. W., & Co., Montpelier, Vt.				
Sweetened Capital	24	4.5	9	✓
Glufd, Linsd, Hom, Cotton, Oats, Bran, Corn, Soy, Mol, Bone, Calc, Salt.				
Bailey's New Deal	20	5	11	✓
Glufd, Hom, Brew, Cotton, Linsd, Midds, Bran, Oatmld, Mol, Salt, Bone, Calc.				
Favorite Sweetened with Molasses	20	4	7.5	✓
Hom, Cotton, Linsd, Corn, Oats, Bran, Soy, Glufd, Midds, Mol, Bone, Calc, Salt.				

¹ Nine samples; two below protein guaranty, 4.62% ; 4.09%.

* Check mark ✓ means that the brand in question was found to be certified with respect to ingredients. Statements concerning brands not found to be as certified in respect to ingredients appear on pages 30 to 33.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
Bailey, E. W., & Co., Montpelier, Vt.—continued				
Bailey's 20% Special	20	3.5	9	
Glufd, Midds, Oatmfd, Corn, Bran, Cotton, Soy, Mol, Salt, Bone, Calc.				
Bailey's 16%	16	5	9	✓
Glufd, Linsd, Hom, Cotton, Oats, Bran, Mol, Bone, Calc, Salt.				
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Green Mountain	23	5	10	✓
Bran, Cotton, Glufd, Linsd, Corn, Oats, Bar, Calc, Salt.				
Brown, H. M., & Co., Castleton, Vt.				
Farmers' Choice 20%†	20	4.5	9.5	
Bran, Corn or Hom, Oats, Bar, Glufd, Cotton, Soy, Linsd, Dist, Mol, Dical.				
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	
Linsd, Gluml, Glufd, Cotton, Brew, Cornoil, Soy, Bran, Midds, Hom, Bar, Mol, Calc, Salt.				
Crosby, E. C., Danby, Vt.				
Crosby's A Quality 20%†	20	4.5	8	✓
Soy, Hom, Bran, Midds, Linsd, Cotton, Dist, Oats, Bar, Glu, Brew, Mol, Calc, Salt, Bone.				
Crosby's B Quality 20%†	20	4.5	9	✓
Linsd, Bran, Glu, Cotton, Oats, Brew, Corn, Ryefd, Mol, Salt, Bone, Calc.				
Crosby Milling Co., Brattleboro, Vt.				
Brattleboro Milk -A- Plant 20	20	3.5	8.5	✓
Linsd, Soy, Cotton, Brew, Gluml, Glufd, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.				
Brattleboro Milk -B- Plant 20	20	3.5	12	✓
Linsd, Soy, Glufd, Cotton, Corn, Hom, Oats, Bar, Brew, Oatmfd, Bran, Midds, Mol, Calc, Salt.				
Brattleboro Milk Plant -16-	16	3.5	8.5	✓
Linsd, Cotton, Brew, Gluml, Glufd, Corn, Oats, Bar, Bran, Midds, Mol, Bone, Calc, Salt.				
Danville Grain Co., Inc., Danville, Vt.				
Blue Ribbon 20%	20	4	11.5	✓
Bran, Cotton, Glufd, Hom, Corn, Gluml, Dist, Soy, Oatmfd, Calc, Salt.				
Davis Feed Co., Inc., Rutland, Vt.				
Vermont 20	20	4.5	8	✓
Soy, Linsd, Cotton, Dist, Bar, Mol, Oats, Glufd, Midds, Corn, Bran, Salt, Calc.				
Davis 20% Kow	20	4	8	
Corn, Bar, Oats, Bran, Ryemidds, Glufd, Cotton, Soy, Linsd, Dist, Brew, Mol, Calc, Salt, KI.				
Demick, H. W., Inc., Derby Line, Vt.				
Beats 'Em All	20	4	10	✓
Cotton, Linsd, Glufd, Midds, Bran, Corn, Oats, Dist, Mol, Salt, Calc.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 32% Supplement†	32	4.5	8	
Cotton, Gluml, Soy, Dist, Mol, Bran, Linsd, Dical, Salt.				
Eastern States Milkmore†	24	4.5	9	✓
Cotton, Dist, Bran, Soy, Oats, Glufd, Mol, Cornfd, Linsd, Whtgerm, Dical, Salt.				
Eastern States Fulpail†	20	4.5	8.5	✓
Dist, Oats, Bran, Cornfd, Cotton, Mol, Soy, Glufd, Linsd, Bar, Whtgerm, Dical, Salt.				
Eastern States Highland 20†	20	4	11.5	✓
Dist, Oatmfd, Cotton, Soy, Mol, Bran, Hom, Bar, Glufd, Whtgerm, Calc, Salt.				
Eastern States 16†	16	4	8	✓
Cornfd, Oats, Bran, Dist, Mol, Glufd, Bar, Cotton, Linsd, Soy, Whtgerm, Dical, Salt.				
Eastern States Highland 16†	16	4	11	✓
Dist, Hom, Oatmfd, Mol, Bar, Bran, Soy, Cotton, Whtgerm, Calc, Salt.				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore 32% Supplemental	32	4	9	✓
Glufd, Gluml, Cotton, Linsd, Bran, Soy, Mol, Calc, Salt.				
Elmore Milk Grains Sweet	24	4.5	10	✓
Dist, Bran, Linsd, Corn or Hom, Malt, Glufd, Cotton, Brew, Mol, Soy, Calc, Salt.				
Granger 24%	24	4	10	
Bran, Midds, Cotton, Soy, Glufd, Mol, Scrngs, Oats, Brew, Calc, Salt.				
Waldorf 24%	24	4	11	
Bran, Glufd, Gluml, Soy, Cotton, Mol, Oats, Scrngs, Calc, Salt.				
Elmore Milk Grains Junior Sweet	20	4.5	10	✓
Dist, Bran, Linsd, Corn or Hom, Malt, Glufd, Cotton, Brew, Soy, Mol, Calc, Salt.				

* See footnote, page 9.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
Elmore Milling Co., Inc., Oneonta, N. Y.—continued				
Granger 20%	20	4	11	✓
Bran, Midds, Cotton, Glufd, Corn or Hom, Soy, Mol, Scrngs, Oats, Brew, Copra, Calc, Salt.				
Waldorf 20%	20	4	11	
Bran, Coconut, Glufd, Gluml, Soy, Cotton, Mol, Oats, Scrngs, Calc, Salt.				
Elmore's Sweet Digesto	16	4	12	✓
Glufd, Cotton, Bran, Coconut, Scrngs, Oatmfd, Mol, Salt.				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Challenge	24	4	11	
Cotton, Bran, Glufd, Mol, Gluml, Oats, Brew, Dist, Linsd, Soy, Corn, Scrngs, Bone, Calc, Salt.				
Eshelman Certified 20%	20	4	8	
Glufd, Hom, Oats, Linsd, Bran, Cotton, Soy, Midds, Dist, Mol, Bone, Calc, Salt.				
Eshelman Conestoga 20	20	4	11	✓
Cotton, Bran, Mol, Glufd, Brew, Dist, Soy, Linsd, Scrngs, Bone, Calc, Salt.				
Eshelman Lancaster 20	20	4	11	✓
Bran, Cotton, Oats, Glufd, Mol, Brew, Dist, Corn, Linsd, Soy, Bone, Calc, Salt.				
Eshelman Pennsy 16	16	3	11	✓
Bran, Cotton, Mol, Glufd, Brew, Linsd, Soy, Scrngs, Oatmfd, Bone, Calc, Salt.				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's 32% (Sweetened)	32	4	9	✓
Cotton, Soy, Linsd, Gluml, Glufd, Bran, Mol, Bone, Calc, Salt, KI.				
M-S (Money Saver) 24% Sweetened	24	3.5	12	
Mol, Cotton, Soy, Linsd, Gluml, Glufd, Dist, Brew, Bran, Midds, Scrngs, Oatmfd, Bone, Calc, Salt, KI.				
Grandin's Twin Six Sweetened	22	5	12	✓
Mol, Cotton, Soy, Linsd, Glufd, Bran, Midds, Corn, Hom, Dist, Oats, Alf, Bone, Calc, KI, Salt.				
Grandin's Milk Maker	20	5	12	✓
Beet, Cotton, Soy, Linsd, Glufd, Bran, Midds, Corn, Cornfd, Hom, Dist, Oats, Bone, Calc, KI, Salt.				
Grandin's Sweetened 20%	20	4	10	✓
Mol, Cotton, Soy, Linsd, Glufd, Bran, Midds, Corn, Cornfd, Hom, Dist, Oats, Bone, Calc, KI, Salt.				
M-S (Money Saver) 20% Sweetened	20	3.5	12	
Mol, Cotton, Soy, Linsd, Glufd, Dist, Brew, Bran, Midds, Scrngs, Oatmfd, Bone, Calc, KI, Salt.				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Milky Way 24%	24	3.5	9	✓
Cornfd, Dist, Brew, Bran, Cotton, Midds, Oats, Bar, Mol, Linsd, Gluml, Glufd, Soy, Malt, Calc, Salt.				
Milky Way 20%	20	3.5	9	✓
Cornfd, Dist, Brew, Bran, Cotton, Midds, Bar, Oats, Mol, Soy, Linsd, Gluml, Malt, Glufd, Calc, Salt.				
Daily Milk	16	3	12	✓
Bran, Cotton, Midds, Mol, Linsd, Gluml, Glufd, Soy, Malt, Scrngs, Oatmfd, Calc, Salt.				
Ide, E. T. & H. K., Inc., St. Johnsbury, Vt.				
Ideal Sweetened	24	5	10	✓
Mol, Dist, Cotton, Glufd, Linsd, Corn, Oats, Bran, Salt, Calc.				
Ide's Special	20	4	10	✓
Bran, Oats, Corn, Glufd, Cotton, Linsd, Dist, Salt, Calc.				
Royal Sweetened	20	4	10	✓
Mol, Dist, Cotton, Glufd, Linsd, Corn, Oats, Bran, Salt, Cal.				
Sunshine	18	4	10	✓
Bran, Midds, Oats, Corn, Cotton, Glufd, Dist, Mol, Salt, Calc.				
Kasco Mills, Inc., Waverly, N. Y.				
Beatsall Milk Grains	22	4	10	✓
Bran, Midds, Linsd, Dist, Glufd, Gluml, Cotton, Soy, Hom, Beet, Mol, Salt, Calc.				
Kasco 20% Milk Maker (1936)	20	4	11	✓
Cotton, Linsd, Brew, Dist, Glufd, Gluml, Soy, Corn, Bran, Midds, Oats, Bar, Mol, Malt, Salt, Cal.				
Apex 20%	20	3.5	12	✓
Soy, Cotton, Glufd, Gluml, Bran, Scrngs, Oatmfd, Malt, Brew, Dist, Mol, Salt, Calc.				
Kasco 18%	18	3.5	10	✓
Glufd, Gluml, Brew, Dist, Cotton, Soy, Bran, Midds, Bar, Oats, Corn, Malt, Mol, Calc, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Larrowe Milling Co., Detroit, Mich.				
Larrowe's 32% Cotton, Bran, Soy, Beet, Linsd, Dist, Calc, Salt.	32	4	10.5	
Larro Cotton, Corn, Midds, Soy, Linsd, Glufd, Beet, Bran, Dist, Calc, Salt.	20	3.75	12	✓
Larrowe's 16 Cotton, Glufd, Midds, Linsd, Corn, Beet, Bran, Dist, Salt.	16	3	11	✓
Maritime Milling Co., Inc., Buffalo, N. Y.				
Hi-Test 24% Pro. Sweetened Brew, Cotton, Glufd, Soy, Hom, Corn, Oats, Scrngs, Bran, Mol, Bone, Calc, Salt.	24	4	12	✓
Sweetened Bull Brand BB "20" Brew, Cotton, Glufd, Soy, Linsd, Hom, Corn, Bran, Midds, Mol, Bone, Calc, Salt, K.I.	20	4	9	
Hi-Test 20% Pro. Sweetened Brew, Cotton, Glufd, Soy, Hom, Oats, Corn, Bran, Scrngs, Mol, Bone, Calc, Salt.	20	4	12	✓
Marmico 16% Protein with Molasses Brew, Soy, Cotton, Glufd, Corn, Scrngs, Bran, Mol, Bone, Calc, Salt.	16	4	12	✓
McGovern, T. J., Cambridge, Vt.				
McGovern's 24% Cotton, Linsd, Hom or Corn, Bran, Shorts, Glufd, Brew, Mol, Dist, Soy, Calc.	24	4	8	
McGovern's 20% Cotton, Linsd, Hom or Corn, Bran, Glu, Dist, Soy, Shorts, Bar, Brew, Mol, Calc.	20	4	8	
McGovern's 20% Milk Special Cotton, Linsd, Hom or Corn, Bran, Glufd, Oatmld, Soy, Dist, Shorts, Brew, Mol, Bone, Salt, Calc.	20	4	12	✓
McGovern's 16% Cotton, Linsd, Hom or Corn, Bran, Oats, Dist, Soy, Shorts, Glufd, Gluml, Mol, Bone, Salt, Calc.	16	4	8	✓
McGovern's 16% Milk Special Cotton, Linsd, Hom or Corn, Bran, Glufd, Oatmld, Soy, Dist, Shorts, Brew, Mol, Bone, Salt, Calc.	16	4	12	✓
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.				
U. S. 24% Glufd, Cotton, Dist, Scrngs, Oatmld, Bran, Corn, Hom, Mol, Soy, Pnut, Alf, Cocoa, Bar, Babassu, Palm, Linsd, Calc, Salt.	24	3	12	
Mt. Mansfield Co-operative Creamery & Grain Assoc., Inc., Stowe, Vt.				
Mt. Mansfield 20% Glufd, Hom or Corn, Brew, Bran, Linsd, Cotton, Bone, Calc, Salt.	20	5.5	8	✓
Norton, E. G. & A. W., Vergennes, Vt.				
Kow Feed Bran, Cotton, Glufd, Linsd, Brew, Oatmld, Midds, Corn, Mol, Bone, Calc, Salt.	20	4	12	✓
Park & Pollard Co., Inc., Buffalo, N. Y.				
Milkmaid 24% Sweetened Glufd, Linsd, Cotton, Dist, Soy, Bran, Brew, Malt, Gluml, Corn, Fish, Mol, Calc, Salt.	24	4	10	✓
Doublex 24% Bran, Linsd, Soy, Oats, Malt, Gluml, Cotton, Glufd, Scrngs, Mol, Calc, Salt.	24	3.5	11	✓
Milkmaid 20% with Manamar (1936) Kelp, Fish, Glufd, Linsd, Cotton, Dist, Soy, Oats, Bran, Brew, Malt, Gluml, Corn, Mol, Seashl, Calc, Salt.	20	4	9	✓
Milkmaid 20% with Manamar Kelp, Fish, Glufd, Linsd, Cotton, Bar, Dist, Soy, Oats, Bran, Brew, Malt, Gluml, Corn, Mol, Seashl, Calc, Salt.	20	4	10	✓
Milkmaid 20% Glufd, Linsd, Cotton, Dist, Soy, Oats, Bran, Brew, Malt, Gluml, Corn, Bar, Calc, Salt.	20	4	10	✓
Bidwell 20% Bran, Linsd, Malt, Glufd, Oats, Gluml, Soy, Bar, Cotton, Scrngs, Mol, Calc, Salt.	20	3.5	11	
Doublex 20% Linsd, Glufd, Oats, Gluml, Soy, Dist, Bar, Bran, Malt, Cotton, Scrngs, Mol, Calc, Salt.	20	3.5	11	
Manamar Doublex 20% Kelp, Fish, Linsd, Glufd, Oats, Gluml, Soy, Bar, Dist, Bran, Malt, Cotton, Scrngs, Mol, Seashl, Calc, Salt.	20	3.5	11	✓

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
Pease, A. D., Grain Co., Burlington, Vt.				
Peasco 20%	20	4.5	9	✓
Bran, Glufd, Oats, Dist, Cotton, Linsd, Soy, Corn or Hom, Mol, Oyster, Bone, Salt.				
Peasco 16%	16	4.5	9	✓
Bran, Glufd, Oats, Dist, Linsd, Soy, Corn or Hom, Mol, Oyster, Bone, Salt.				
Quaker Oats Co., Chicago, Ill.				
Quaker 24% Protein	24	3.5	12	✓
Hom, Cotton, Glufd, Soy, Bran, Midds, Oatmfd, Mol, Bar, Salt, Limeiod, Bone.				
Quaker 20% Protein	20	3	12	✓
Hom, Bar, Cotton, Glufd, Soy, Bran, Midds, Oatmfd, Mol, Salt, Limeiod, Bone.				
Quaker 16% Protein	16	3	13.5	✓
Hom, Bar, Cotton, Soy, Glufd, Bran, Midds, Scrngs, Oatmfd, Mol, Salt, Limeiod, Bone.				
Race Milling Co., Granville, N. Y.				
Race's 24%	24	4	9	✓
Bran, Soy, Cotton, Glufd, Hom or Corn, Ryefd, Brew, Dist, Linsd, Mol, Calc, Salt.				
Race's 20%	20	3.5	9	✓
Bran, Soy, Cotton, Glufd, Hom or Corn, Ryefd, Brew, Dist, Mol, Calc, Salt.				
Ralston Purina Co., St. Louis, Mo.				
Purina Milking Cow Chow (34%)	34	3.5	12	✓
Linsd, Soy, Gluml, Cotton, Alf, Mol, Calc, Iodsalt.				
Purina Milking Cow Chow (24%)	24	4	12	✓
Linsd, Soy, Glufd, Cotton, Dist, Brew, Midds, Bran, Alf, Mol, Calc, Iodsalt.				
Protena 24%	24	3.5	12	✓
Linsd, Soy, Cotton, Alf, Glufd, Midds, Bran, Mol, Calc, Iodsalt.				
Purina Milking Cow Chow (20%)	20	4	12	✓
Beet, Linsd, Soy, Glufd, Cotton, Dist, Brew, Midds, Bran, Corn, Alf, Mol, Calc, Iodsalt.				
Protena 20%	20	3.5	12	✓
Linsd, Soy, Cotton, Glufd, Midds, Alf, Bran, Scrngs, Mol, Calc, Iodsalt.				
Purina Milking Cow Chow (16%)	16	3.5	12	✓
Linsd, Soy, Glufd, Oats, Bar, Cotton, Dist, Brew, Midds, Bran, Corn, Alf, Beet, Mol, Calc, Iodsalt.				
Protena 16% (Buffalo Mill)	16	3.5	14	✓
Linsd, Soy, Glufd, Alf, Midds, Cotton, Mol, Scrngs, Bran, Calc, Iodsalt.				
Richford Feed Co., Richford, Vt.				
Extra Good 20%	20	4.5	8.5	✓
Corn, Hom, Cotton, Linsd, Midds, Oats, Glufd, Soy, Bran, Dist, Brew, Mol, Salt, Calc, Bone.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 32 Supplement	32	4	8	✓
Gluml, Glufd, Soy, Linsd, Cotton, Bran, Dist, Mol, Calc, Bone, Salt.				
Wirthmore 25 Balanced	25	4.5	8.5	✓
Gluml, Dist, Linsd, Soy, Bar, Oats, Cotton, Glufd, Corn, Midds, Bran, Mol, Bone, Salt.				
Champlain Valley 24	24	3.5	8.5	✓
Gluml, Glufd, Linsd, Soy, Cotton, Brew, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.				
Hygrade 24 Milk	24	3.5	9	✓
Gluml, Glufd, Linsd, Soy, Cotton, Brew, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.				
Wirthmore 20	20	4.5	8	✓
Gluml, Dist, Linsd, Soy, Cotton, Glufd, Corn, Oats, Bar, Midds, Bran, Mol, Bone, Salt.				
Wirthmore 20 containing Fortified Cod Liver Oil ..	20	4.5	8	✓
Codlivoil, Gluml, Dist, Linsd, Soy, Cotton, Glufd, Corn, Oats, Bar, Midds, Mol, Bran, Bone, Salt.				
Champlain Valley 20	20	3.5	8.5	✓
Linsd, Soy, Cotton, Brew, Gluml, Glufd, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.				
Hygrade 20 Milk	20	3.5	8.5	✓
Linsd, Soy, Cotton, Brew, Gluml, Glufd, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.				
Utility 20	20	3.5	12	✓
Linsd, Soy, Glufd, Cotton, Corn, Hom, Oats, Bar, Brew, Oatmfd, Bran, Midds, Mol, Calc, Salt.				
Wirthmore 16	16	4	8	✓
Gluml, Dist, Glufd, Linsd, Soy, Corn, Hom, Oats, Bar, Bran, Midds, Cotton, Mol, Calc, Bone, Salt.				
Wirthmore 16 containing Fortified Cod Liver Oil ...	16	4	8	✓
Codlivoil, Gluml, Dist, Glufd, Linsd, Soy, Corn, Hom, Oats, Bar, Bran, Midds, Cotton, Mol, Calc, Bone, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
St. Albans Grain Co.— <i>continued</i>				
Hygrade 16 Milk	16	3.5	8.5	✓
Linsd, Soy, Brew, Glufd, Hom, Oats, Bar, Bran, Midds, Corn, Mol, Calc, Salt.				
Utility 16	16	3	13	✓
Linsd, Gluml, Glufd, Cotton, Corn, Hom, Oats, Bar, Brew, Oatmld, Bran, Midds, Mol, Calc, Salt.				
Seabury, E. T., Grain Co., Waterbury, Vt.				
Our Own Make 24%	24	3.5	9	✓
Cotton, Gluml, Dist, Brew, Glufd, Linsd, Soy, Oats, Corn, Bran, Mol, Bone, Calc, Salt.				
Our Own Make Special	20	4.5	9	✓
Hom or Corn, Bran, Glufd, Brew, Cotton, Soy, Mol, Bone, Calc.				
Our Own Make 20%	20	4	9	✓
Corn, Oats, Bran, Glufd, Dist, Brew, Cotton, Linsd, Gluml, Hom, Mol, Bone, Salt, Calc.				
Our Own Make 16%	16	4	9	✓
Corn, Oats, Bran, Glufd, Cotton, Midds, Brew, Mol, Phoslime, Calc, Salt.				
Seaver, Chas. M., & Co., Williamstown, Vt.				
Honor Brand 20	20	4	10	✓
Cotton, Linsd, Glufd, Hom or Corn, Midds or Ryemidds, Bran, Oats, Mol, Salt, Calc, Bone.				
Sharon Mills, Sharon, Vt.				
Sharon Mills Special 20%	20	5	10	✓
Bran, Brew, Cotton, Soy, Linsd, Glufd, Oats, Corn or Hom, Mol, Bone, Calc, Salt.				
Skeels & Weidman, Swanton, Vt.				
Producer	20	3.5	8	✓
Linsd, Cotton, Glufd, Corn, Bran, Dist, Brew, Salt.				
Slayton, H. A., & Co., Inc., Morrisville, Vt.				
Economy	20	3.75	10.5	✓
Corn or Hom, Beet, Oats, Bran, Cotton, Linsd, Gluten, Brew, Salt.				
Smith, C. A., St. Johnsbury, Vt.				
Smith's	20	4	12	✓
Cotton, Linsd, Gluten, Bran, Oats, Midds, Salt.				
Smith, S. E., Estate, West Rutland, Vt.				
Smith Estate 24%†	24	5	8.5	✓
Bran, Oats, Cotton, Corn or Hom, Glufd, Linsd, Brew, Dist, Soy, Mol, Bone, Calc, Salt.				
Smith Estate 20%	20	4.5	8	✓
Bran, Oats, Cotton, Glufd, Corn, Beet, Linsd, Midds, Brew, Dist, Mol, Bone, Salt.				
Stearns, C. H., & Son Co., Johnson, Vt.				
Stearnco All Grain 20% Milk	20	4.75	8.5	✓
Hom, Corn, Oats, Bran, Glufd, Cotton, Linsd, Soy, Dist, Mol, Brew, Calc, Bone, Salt.				
Turnbull, J. G., Co., Orleans, Vt.				
Creamery	20	5	10	✓
Bran, Midds, Cotton, Hom or Corn, Oats, Linsd, Glufd, Dist, Mol, Salt, Phoslime.				
Turnbull's Special	20	3.5	12	✓
Bran, Midds, Cotton, Hom or Corn, Oatfd, Brew, Linsd, Glufd, Mol, Salt, Phoslime, Oyster or Calc.				
Tyler, Frank M., Essex Junction, Vt.				
Tyler's 20% Ready Mixed	20	4.5	9	✓
Glufd, Bran, Oats, Corn or Hom, Bone, Linsd, Brew, Midds, Cotton, Soy, Dist, Salt, Calc.				
Washburn, A. N., Estate, Bethel, Vt.				
Bethel Mills 24 Protein Sweetened	24	4.5	9	✓
Cotton, Linsd, Glufd, Bran, Midds, Corn, Oats, Soy, Mol, Dist, Calc, Bone, Salt.				
Bethel Mills 20 Protein Sweetened	20	4.5	8.5	✓
Cotton, Linsd, Corn, Glufd, Bran, Midds, Oats, Soy, Mol, Calc, Bone, Salt, Dist.				
Bethel Mills 20 Protein Sweetened Economy	20	4	12	✓
Cotton, Glufd, Bran, Midds, Hom, Corn, Linsd, Oatmld, Mol, Calc, Bone, Salt.				
Bethel Mills 16% Protein Sweetened Pasture	16	4.2	9.5	✓
Cotton, Bran, Hom, Corn, Oatmld, Mol, Calc, Bone, Salt.				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
32% Reliance Supplemental	32	4	10	✓
Linsd, Cotton, Glufd, Gluml, Malt, Bran, Soy, Mol, Ironsft, Calc, Bonechar, Iodsalt.				
Milkproducer 24%	24	4	10	✓
Dist, Soy, Linsd, Cotton, Glufd, Gluml, Corn or Hom, Bran, Wheat, Malt, Oats, Mol, Bonechar, Calc, Ironsft, Iodsalt.				

* See footnote, page 9.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
<i>Wayne County Grangers Feed Corp.—continued</i>				
Superior 20%	20	4	10	✓
Cotton, Linsd, Glufd, Bran, Wheat, Oats, Corn, Dist, Brew, Malt, Mol, Soy, Ironsft, Bonechar, Calc, Iodsalt.				
Sweetened 16	16	4	12	
Dist, Soy, Linsd, Glufd, Cotton, Bar, Bran, Oats, Malt, Corn or Hom, Mol, Iodsalt.				
<i>Webster, R. P., Barton, Vt.</i>				
Ray's Ready	22	5	10	✓
Dist, Bran, Gluten, Cotton, Linsd, Oats, Corn, Midds, Mol, Codlivoil, Calc, Salt.				
<i>West-Nesbitt, Inc., Oneonta, N. Y.</i>				
Super Pure Sweetfeed	24	4	10	
Glufd, Dist, Soy, Cotton, Linsd, Bran, Hom or Corn, Mol, Bone, Calc, Salt.				
All Pure 20% Milk	20	4	10	
Cotton, Dist, Soy, Gluml, Linsd, Glufd, Bran, Midds, Hom or Corn, Mol, Bone, Calc, Salt.				
Simonds All Pure	20	4	10	
Cotton, Dist, Soy, Gluml, Linsd, Glufd, Bran, Midds, Hom or Corn, Mol, Bone, Calc, Salt.				
Ideal 20%	20	3	12	✓
Cotton, Soy, Glufd, Dist, Corn, Bran, Gluml, Oatmld, Scrngs, Mol, Bone, Calc, Salt.				
Uniform Sweet	16	3	14	✓
Cotton, Soy, Glufd, Hom or Corn, Dist, Bran, Oatmld, Scrngs, Mol, Calc, Salt.				
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.				
<i>Allied Mills, Inc., Peoria, Ill.</i>				
Wayne Amco 12% Fitting	12	3.5	9	✓
Dist, Corn, Hom, Soy, Oats, Linsd, Bran, Brew, Mol, Bone, Calc, Salt, Iron, KI.				
Wayne Amco 12% Fitting (1936)	12	3	9	✓
Corn & Hom, Soy, Oats, Linsd, Bran, Mol, Bone, Calc, Salt, Iron, KI.				
June Pasture	10	0.5	21	✓
Alf, Beetmol.				
Wayne Horse	9.5	3	8	✓
Ckdcorn, Oats, Bran, Mol.				
Empire Stock	9	4	11	✓
Hom, Oats, Corn, Oatmld, Scrngs, Mol, Salt, Bone, Calc.				
<i>Bailey, E. W., & Co., Montpelier, Vt.</i>				
Bailey's Pasture	15.5	3.75	10	✓
Hom, Corn, Oatmld, Brew, Midds, Bran, Glufd, Mol, Bone, Calc, Salt.				
Bailey's Sweetened Fitting	14	4	9	✓
Corn, Hom, Oats, Bran, Linsd, Mol, Codlivoil, Bone, Salt, Calc.				
Pennant Horse	10.75	3.5	6.5	✓
Ckdcorn, Oats, Bran, Linsd, Mol, Salt.				
Pennant Stock Sweetened	9.5 ¹	4	9.5	✓
Hom, Oatmld, Oats, Linsd, Bar, Mol, Salt, Calc, Bone.				
<i>Crosby Milling Co., Brattleboro, Vt.</i>				
Brattleboro Milk Plant Horse	9.5	3.25	9	✓
Oats, Ckdcorn, Linsd, Bran, Alf, Mol, Salt.				
<i>Eastern States Farmers' Exchange, Springfield, Mass.</i>				
Eastern States Fitting†	12	3.5	8	✓
Oats, Corn, Bran, Bar, Mol, Alf, Linsd, Soy, Whtgerm, Alf, Calc, Salt.				
Eastern States Highland 12†	12	3	11	✓
Hom, Oatmld, Bran, Bar, Mol, Dist, Soy, Whtgerms, Alf, Calc, Salt.				
Eastern States Horse†	11	3	7.5	✓
Oats, Ckdcorn, Bar, Bran, Mol, Linsd, Dical, Salt.				
Eastern States Horse†	10.5	3.5	7	✓
Ckdcorn, Oats, Bran, Mol, Linsd, Dical, Salt.				
Eastern States Succulence†	10	2	18	✓
Alf, Mol, Oats, Bran.				
<i>Elmore Milling Company, Inc., Oneonta, N. Y.</i>				
Elmore Stock	10	3	12	✓
Corn or Hom, Oats, Oatmld, Salt.				

¹ Five samples; one below protein guaranty, 8.99%.

* See footnote, page 9.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.— <i>continued</i>				
Elmore Milling Company, Inc., Oneonta, N. Y.— <i>continued</i>				
Elmore Horse with Molasses	9	2.5	11	✓
Ckdcorn, Oats, Alf, Mol, Salt.				
Emco Horse	9	2.5	11	✓
Alf, Ckdcorn, Oats, Bran, Mol, Salt.				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Fitting	12	3.5	7	✓
Bran, Oats, Corn, Hom, Linsd, Soy, Mol, Bone, Calc, Salt.				
Eshelman Conestoga Horse	9	3	10	✓
Ckdcorn, Oats, Mol, Bran, Salt.				
Eshelman Red Rose 85 Horse	9	3	10	✓
Ckdcorn, Oats, Mol, Linsd, Alf, Salt.				
Eshelman Garden Spot Horse	7	2	11	✓
Ckdcorn, Oats, Mol, Oatmfd, Salt.				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's 14% Fitting	14	3.5	9	
Codlivoil, Mol, Linsd, Soy, Corn, Hom, Oats, Bar, Bran, Midds, Fish, Bone, Calc, Salt, KI.				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Horse	9.5	3	10	✓
Alf, Linsd, Bran, Ckdcorn, Oats, Mol, Salt.				
Ide, E. T. & H. K., Inc., St. Johnsbury, Vt.				
Ideal Fitting	12	4	10	✓
Mol, Linsd, Corn, Oats, Bran, Bar, Salt, Calc.				
Banner Bulky	12	2	17	✓
Bran, Corn, Oatmfd, Beet, Brew, Malt, Alf, Mol, Salt, Calc.				
Ideal Horse	9	3.5	12	
Oats, Ckdcorn, Linsd, Alf, Bran, Mol, Salt.				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Fitting	14	4	8	✓
Bran, Cornfd, Hom, Bar, Oats, Linsd, Soy, Mol, Bone, Calc, Salt.				
Maritime Milling Co., Inc., Buffalo, N. Y.				
BB Bull Brand Horse	8	2	10	✓
Mol, Ckdcorn, Oats, Alf, Linsd, Salt.				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Park & Pollard Manamar Fitting	12	3.5	7	✓
Kelp, Fish, Linsd, Oats, Corn, Bran, Mol, Ckdcorn, Seashl, Calc, Salt.				
Bulky-Sweet Fairy (1936)	11	3	12	✓
Beet, Brew, Bran, Hom, Bar, Alf, Mol, Calc, Salt.				
Bulky-Sweet Dairy	11	2.5	12	✓
Beet, Brew, Bran, Hom, Bar, Alf, Mol, Calc, Salt.				
Park & Pollard Horse	10	3.5	9	✓
Ckdcorn, Oats, Linsd, Bran, Mol, Calc, Salt.				
Yankee Horse	10	3.5	9	✓
Bar, Ckdcorn, Oats, Bran, Mol, Calc, Salt.				
Quaker Oats Co., Chicago, Ill.				
Quaker Sugared Schumacher	10	3	12	✓
Corn, Hom, Bar, Soy, Flour, Midds, Oatmfd, Mol, Salt, Limeiod, Bone.				
Quaker Green Cross Horse	10	2.5	12	✓
Ckdcorn, Oats, Cotton, Soy, Alf, Oatmfd, Mol, Salt.				
Ralston Purina Co., St. Louis, Mo.				
Purina Heifer Growing Chow	14	2.5	14	✓
Soy, Oats, Alf, Ckdcorn, Cotton, Bran, Mol, Midds, Calc, Iodsalt.				
Purina Dry and Freshening Cow Chow	12.5	2.5	14	✓
Soy, Oats, Beet, Corn, Alf, Midds, Bran, Mol, Calc, Iodsalt.				
Purina Omolene (1936)	10	3.2	9	✓
Ckdcorn, Oats, Alf, Linsd, Soy, Mol, Calc, Iodsalt.				
Purina Omolene	10	3.2	11	✓
Oats, Ckdcorn, Linsd, Soy, Mol, Bran, Calc, Iodsalt.				
Purina Bulky Omolene	10	3.2	11	✓
Oats, Ckdcorn, Linsd, Soy, Mol, Bran, Alf, Calc, Iodsalt.				
Purina Bulky Las Chow	9	1.3	15	✓
Beet, Bran, Mol, Midds, Alf, Calc, Iodsalt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.— <i>concluded</i>				
Richford Feed Co., Richford, Vt.				
Extra Good Horse	12	4.5	8	✓
Oats, Bar, Bran, Linsd, Ckdcorn, Mol.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting	14	4	7	✓
Codlivoil, Linsd, Oats, Bar, Corn, Hom, Bran, Midds, Mol, Fish, Bone, Salt.				
Wirthmore Rabbit Pellets	14	3.5	9	✓
Codlivoil, Skim, Bran, Midds, Corn, Oatml, Bar, Wheat, Alf, Linsd, Glufd, Mol, Calc, Bone, Iodsalt.				
Wirthmore Complete Rabbit	14	3	12	✓
Alf, Bar, Wheat, Oats, Ckdcorn, Mol, Bran, Midds, Codlivoil, Glufd, Linsd, Oatml, Corn, Skim, Bone, Calc, Salt.				
Hygrade 12 Fitting	12	4	8	
Codlivoil, Linsd, Soy, Oats, Bar, Corn, Hom, Midds, Bran, Mol, Calc, Salt.				
Wirthmore Fodder Greens	10	3	15	✓
Beet, Alf, Brew, Bran, Hom, Mol, Calc, Salt.				
Wirthmore Horse	9.8	3.25	9	✓
Oats, Ckdcorn, Linsd, Alf, Mol, Salt.				
Hygrade Horse	9.5	3.25	9	✓
Oats, Ckdcorn, Linsd, Bran, Alf, Mol, Salt.				
Wirthmore Stock	9	4	9.5	✓
Bar, Oats, Hom, Corn, Oatmfd, Mol, Bone, Calc, Salt.				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Universal Horse	10	3	9	✓
Corn, Oats, Bar, Alf, Bran, Linsd, Mol.				

PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS

Albers Bros. Milling Co., Seattle, Wash.				
Calf Manna	25	4	5	✓
Skim, Oatml, Corn, Meatext, Linsd, Bar, Wheat, Shorts, Dextro, Soy, Cocnut, Codlivoil, Anise, Oyster, Bone, Iodsalt.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Calf	24	4	7	✓
Skim, Cotton, Gluml, Cocnut, Midds, Bran, Rdog, Soy, Sard, Mol, Calc, Bone, Salt, Iron, KI.				
Wayne Pig Starter	18	3.5	7	
Tank, Fish, Pnut, Cotton, Soy, Midds, Corn, Hom, Alf, Oatml, Oats, Mol, Calc, Bone, Iron, Salt, KI, Copper.				
Wayne Pork Maker	14	3.5	7	
Tank, Oats, Corn, Midds, Alf, Fish, Linsd, Cotton, Pnut, Soy, Mol, Calc, Bone, Iron, KI, Copper, Salt.				
Bailey, E. W., & Co., Montpelier, Vt.				
Pennant Pig Feed	17.5	4.5	6.5	✓
Glufd, Soy, Corn, Midds, Rdog, Bar, Oats, Linsd, Alf, Meat, Mol, Codlivoil, Calc, Salt, Bone.				
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	26	5	6	✓
Anise, Milkalb, Locust, Fengk, Rice, Flax, Blood, Cocoa, Cocnut, Fish, Soy, Flour, Beans, Bar, Cotton, Midds, Linsd, Codlivoil, Bone, Salt, KI.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter†	23	3.5	4	✓
Corn, Oatgrots, Bran, Blood, Skim, Linsd, Soy, Sard, Dical, Salt.				
Eastern States Hog Meal†	14.5	4	5	✓
Corn, Bar, Meat, Bran, Midds, Alf, Linsd, Soy, Sard, Calc, Dical, Salt.				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore's Makegrow Little Pig	18	4.5	7	✓
Midds, Cornfd or Hom, Linsd, Rdog, Tank, Salt.				
Elmore's Hog	15	5	6	✓
Midds, Linsd, Corn, Cornfd or Hom, Tank, Salt.				

* See footnote, page 9.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS--CALF MEALS AND HOG MEALS--continued				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Calf Starter	20	3	5	✓
Mxdfd, Linsd, Midds, Flour, Oatml, Kaffir, Blood, Flax, Codlivoil, Bone, Calc, Salt.				
Eshelman Red Rose Pig and Hog	16	5	10	✓
Midds, Cornfd, Tank, Soy, Bran, Bone, Fish, Linsd, Scrngs, Char, Calc, Salt.				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Pig and Hog (Contains Concentrated Cod-liver Oil)	18	5	10	
Codlivoil, Meat&Bone, Soy, Linsd, Alf, Corn, Cornfd, Hom, Midds, Fish, Bar, Calc, KI, Salt.				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Pig Hog	17	4.5	7.5	✓
Rdog, Bar, Corn, Linsd, Soy, Midds, Corngerm, Fish, Tank, Alf, Salt, Calc, Iron, KI.				
Larroe Milling Co., Detroit, Mich.				
Larro Calf Builder	25	4	4	✓
Skim, Corn, Midds, Linsd, Soy, Blood, Oatml, Codlivoil, Calc, Salt.				
Larro Calf (1936)	23	4	4	✓
Oatml, Skim, Corn, Midds, Linsd, Blood, Codlivoil, Calc, Salt.				
Larro Pig	17.5	5	7.5	✓
Bran, Corn, Midds, Meat&Bone, Linsd, Soy, Fish, Alf, Beet, Calc, Salt.				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Milkade Calf	20	5.5	6.5	✓
Kelp, Fish, Malt, Linsd, Hom, Bran, Flour, Cocnut, Midds, Soy, Blood, Fengk, Anise, Bone, Seashl, Calc, Salt.				
Go-Tu-It Pig and Hog	15	3.5	8	✓
Alf, Hom, Bar, Fish, Meat, Bone, Corn, Corngerm, Midds, Scrngs, Calc, Salt.				
Pease, A. D., Grain Co., Burlington, Vt.				
Peasco Pig and Hog	18	4.5	6	✓
Corn, Hom, Meat, Glufd, Rdog, Bran, Bar, Alf, Linsd, Soy, Mol, Oyster, Bone, Salt.				
Quaker Oats Co., Chicago, Ill.				
Schumacher Calf	18	7	4	✓
Oatml, Flax, Pfdwht, Soy, Skim, Blood, Sard, Bicarb, Salt, Limeiod, Bone.				
Quaker Pig-N-Hog	16	3.5	10	✓
Hom, Bar, Alf, Linsd, Soy, Midds, Fish, Meat, Sard, Oatmlfd, Mol, Salt, Limeiod, Bone.				
Race Milling Co., Granville, N. Y.				
Race's Hog	18	4	8	✓
Midds, Corn, Linsd, Meat, Alf, Calc, Salt.				
Ralston Purina Co., St. Louis, Mo.				
Purina Calf Starting Chow	27	3.2	5	✓
Carotene, Skim, Linsd, Soy, Blood, Flour, Corn, Calc, Iodsalt.				
Purina Calf Startena	19.5	3	9.5	✓
Carotene, Skim, Linsd, Soy, Blood, Flour, Corn, Beet, Oats, Alf, Midds, Bran, Mol, Calc, Iodsalt.				
Purina Hog Fatena	14	3	7	✓
Tank, Linsd, Corngerm, Midds, Hom, Bar, Corn, Mol, Alf, Iodsalt.				
Ryde & Co., Chicago, Ill.				
Ryde's Cream Quality Calf	19	4	4	
Blood, Skim, Whey, Locust, Bar, Linsd, Soy, Oatgrots, Corn, Flax, Flour, Midds, Fengk, Anise, Eggalb, Eggshls, Sifr, Iron, Bone, Iodsalt, Char, Glaubsalt.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	4	✓
Codlivoil, Skim, Oatml, Flax, Blood, Linsd, Rdog, Corn, Fengk, Anise, Bone, Iodsalt.				
Wirthmore Pig and Hog	17	4	9	✓
Meat, Fish, Bone, Rdog, Midds, Bran, Linsd, Alf, Corn, Hom, Bar, Glufd, Mol, Calc, Salt.				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Superior Hog	16	3.5	7	✓
Meat, Fish, Oats, Corn or Hom, Alf, Midds, Bar, Bran, Soy, Linsd, Calc, Bone, KI, Ironsft, Salt.				
Superior Calf Grower	15	4	8	
Bran, Midds, Corngerm, Oats, Gluml, Soy, Linsd, Locust, Codlivoil, Calc, Bone, Iodsalt, Ironsft.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
MEAT SCRAPS, BONE AND FISH MEAL				
Consolidated Chemical Industries, Inc., New York, N. Y.				
Digesta-Bone	5	..	2	
Consolidated Rendering Co., Boston, Mass.				
Corenco Fish Meal	62	2	..	
Corenco 50% Meat and Bone Scraps	50	6	..	
Corenco 45% Meat and Bone Scraps	45	6	..	
Corenco Bone Meal	20	2	..	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Scratch	10	2.5	4	✓
Wheat, Ckdcorn, Kaffir, Milo, Buckwht, Sunfir.				
Wayne Intermediate Scratch	10	2	4	
Ckdcorn, Kaffir, Milo, Wheat, Buckwht.				
Empire Scratch	9	2.5	4	✓
Ckdcorn, Wheat, Kaffir, Milo, Buckwht, Bar, Oats.				
Wayne Chick	9	2	4	
Ckdcorn, Ckdwht, Millet.				
Screened Cracked Corn	8.5	2.5	2.5	
Scr Ckdcorn.				
Bailey, E. W., & Co., Montpelier, Vt.				
Pennant Coarse Chick	10	3	3	✓
Ckdcorn, Oatgrots, Wheat, Buckwht.				
Pennant Scratch	10	3	6.5	
Wheat, Ckdcorn, Bar, Buckwht, Sunfir.				
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Berkshire Scratch	10	2.5	5	
Ckdcorn, Wheat, Bar, Oats, Kaffir, Buckwht, Sunfir.				
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Scratch	10	3	4	✓
Ckdcorn, Wheat, Oats, Bar, Buckwht.				
Crosby Milling Co., Brattleboro, Vt.				
Brattleboro Milk Plant Scratch	9.5	2.5	4	✓
Ckdcorn, Wheat, Bar, Oats, Buckwht, Sunfir.				
Davis Feed Co., Inc., Rutland, Vt.				
Davis Scratch	9.5	2.5	4	✓
Ckdcorn, Wheat, Bar, Oats, Buckwht, Sunfir.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch (with Coarse Cracked Corn)†	10	2.5	4	✓
Ckdcorn, Wheat, Oats.				
Eastern States Scratch (with Whole Corn)†	10	2.5	4	✓
Corn, Wheat, Oats.				
Eastern States Scratch 1931†	9.5	2.5	3	✓
Ckdcorn, Wheat.				
Eastern States Chick†	9.5	2	3	✓
Ckdcorn, Wheat.				
Eastern States Intermediate Scratch†	9.5	2	3	✓
Ckdcorn, Wheat.				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Intermediate Chick	10	2.5	3	✓
Ckdcorn, Buckwht, Wheat.				
Elmore Chick	10	2.5	3.5	✓
Ckdcorn, Oatml, Ckdwht.				
Elmore Scratch	10	2.5	7	✓
Wheat, Ckdcorn, Bar, Buckwht.				
Emco Scratch	10	2.5	7	
Wheat, Ckdcorn, Bar, Buckwht.				

* See footnote, page 9.
 † Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.— <i>continued</i>				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Chick	10	3	3	✓
Ckdcorn, Ckdwht, Kaffir, Oatgrots, Millet.				
Eshelman Red Rose Scratch	10	2.5	4	✓
Ckdcorn, Wheat, Bar, Buckwht, Kaffir.				
Eshelman Lancaster Scratch	9	2.5	4	✓
Ckdcorn, Wheat, Bar, Buckwht, Kaffir.				
First National Stores, Inc., Somerville, Mass.				
Henfield Scratch	10	2.5	5	✓
Wheat, Ckdcorn, Buckwht, Bar, Sunfr.				
Grand Union Stores, Inc., New York, N. Y.				
Grand Union Scratch	10	2.5	5	✓
Ckdcorn, Wheat, Bar, Kaffir, Milo, Buckwht, Sunfr.				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Baby Chick	10	2.5	5	✓
Ckdcorn, Ckdwht, Oats.				
Grandin's Intermediate Chick	10	2.5	5	✓
Ckdcorn, Wheat, Oats.				
Grandin's Scratch	10	2.5	5	✓
Wheat, Ckdcorn, Bar, Buckwht, Sunfr.				
M-S (Money Saver) Scratch	10	2	5	✓
Ckdcorn, Wheat, Bar, Buckwht.				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Growth Developing	10	2.5	4	
Oatgrots, Ckdcorn, Milo, Kaffir, Wheat.				
Daily Egg Scratch	10	2.5	5	✓
Wheat, Ckdcorn, Kaffir, Bar, Oats, Milo, Buckwht.				
Johnson, W. B., & Son, Essex Junction, Vt.				
Johnson's Perfection Scratch	10	3	5	✓
Ckdcorn, Wheat, Buckwht, Bar, Oats.				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Scratch	9	2.5	4	
Bar, Buckwht, Ckdcorn, Sunfr, Wheat.				
Larowe Milling Co., Detroit, Mich.				
Larro Chick	10	2	4	✓
Ckdwht, Ckdcorn, Oatgrots, Kaffir & Milo.				
Larro Growing	10	2	4	✓
Ckdcorn, Wheat, Oatgrots, Kaffir, Milo.				
Larro Scratch	10	2	4	✓
Ckdcorn, Wheat, Bar, Kaffir & Milo.				
Maritime Milling Co., Inc., Buffalo, N. Y.				
BB Developing	10	2	5	✓
Ckdcorn, Buckwht, Wheat, Milo.				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Park & Pollard Chick Scratch	10	2	3	✓
Ckdcorn, Ckdwht, Kaffir, Milo, Oatgrots, Millet.				
Intermediate Chick	10	2	3.5	✓
Ckdcorn, Wheat, Buckwht, Oats, Kaffir, Milo.				
Paramount Scratch	10	2	5	✓
Ckdcorn, Wheat.				
Red Ribbon Scratch	10	2	5	✓
Ckdcorn, Wheat, Buckwht, Bar, Oats, Kaffir, Milo, Sunfr.				
Bidwell Scratch	10	1.5	5	✓
Ckdcorn, Wheat, Buckwht, Bar, Oats, Kaffir, Milo, Sunfr.				
Park & Pollard Economy Scratch	10	1.5	5	✓
Ckdcorn, Wheat, Bar, Buckwht, Kaffir, Milo.				
Quaker Oats Co., Chicago, Ill.				
Early Bird Fine Chick	10	2	2	✓
Ckdcorn, Ckdwht, Oatgrots, Millet.				
Big Egg Scratch	9.5	2	3.5	✓
Ckdcorn, Bar, Wheat, Buckwht, Oats.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
Quaker Oats Co., Chicago, Ill.—continued				
Early Bird Coarse Chick	9.5	2	3.5	✓
Ckdcorn, Bar, Wheat, Oats, Buckwht.				
Quaker Ful-O-Pep Scratch	9	2	3	✓
Ckdcorn, Wheat, Buckwht, Sunfir.				
Ralston Purina Co., St. Louis, Mo.				
Purina Chick Chow (Coarse)	10	2.5	4	✓
Wheat, Corn, Kaffir, Milo, Buckwht, Oatgrots.				
Purina Hen Chow	10	2.5	4	✓
Wheat, Corn, Bar, Kaffir, Milo, Buckwht.				
Protana Scratch	9.5	2	4	✓
Wheat, Corn, Bar, Kaffir, Milo, Buckwht.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Baby Chick Scratch	10	2.5	3.5	✓
Ckdwht, Ckdcorn, Oatgrots.				
Wirthmore Intermediate Scratch	10	2.5	3.5	✓
Oatgrots, Wheat, Ckdcorn.				
Wirthmore Scratch	10	2.5	4	✓
Ckdcorn, Buckwht, Wheat, Bar, Oats, Sunfir.				
Mornin' Call Poultry Grains	9.5	2.5	4	✓
Ckdcorn, Wheat, Bar, Oats, Buckwht, Sunfir.				
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Scratch	10	3.5	5	✓
Wheat, Ckdcorn, Bar, Buckwht.				
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne 26% Mash Supplement with Sardine Oil . . .	26	4	10	✓
Btrmlk, Skim, Meat, Fish, Midds, Pnut, Bran, Gluml, Glufd, Alf, Soy, Sard, Calc, Iron, KI, Salt.				
Wayne Turkey Starting	25	4	8	✓
Btrmlk, Skim, Livml, Meat, Fish, Midds, Corn, Alf, Soy, Bran, Oats, Sard, Char, KI, Iron, Calc, Salt.				
Wayne Egg and Breeder	18	3.5	7	✓
Btrmlk, Skim, Meat, Fish, Midds, Bran, Corn, Oatml, Glufd, Alf, Soy, Oats, Livml, Calc, Iron, KI, Salt.				
Wayne Egg and Breeder with Sardine Oil	18	3.5	7	✓
Btrmlk, Skim, Meat, Fish, Midds, Bran, Corn, Oatml, Glufd, Alf, Soy, Oats, Sard, Livml, Calc, Iron, KI, Salt.				
Wayne Broiler	18	3.5	8	✓
Btrmlk, Skim, Livml, Meat, Fish, Corn, Oats, Midds, Bran, Soy, Alf, Sard, Calc, Iron, KI, Salt.				
Wayne Chick Starter	17	4	6	✓
Btrmlk, Skim, Meat, Fish, Midds, Corn, Oatml, Oats, Alf, Soy, Bran, Sard, Livml, Calc, Iron, KI, Salt.				
Empire Egg	16.5	3.5	7	✓
Btrmlk, Skim, Meat, Fish, Soy, Alf, Bran, Midds, Glufd, Corn, Oats, Calc, Salt.				
Empire Egg with Sardine Oil	16.5	3.5	7	✓
Btrmlk, Skim, Meat, Fish, Soy, Alf, Bran, Midds, Glufd, Corn, Oats, Sard, Calc, Salt.				
Wayne Growing	16	4	6	✓
Btrmlk, Skim, Meat, Fish, Midds, Corn, Oats, Alf, Soy, Bran, Livml, Calc, Iron, KI, Salt.				
Wayne Growing with Sardine Oil	16	4	6	✓
Btrmlk, Skim, Livml, Meat, Fish, Midds, Corn, Oatml, Oats, Alf, Soy, Bran, Sard, Calc, Iron, KI, Salt.				
Wayne Starter and Grower with Sardine Oil	16	3.5	6	✓
Corn, Oats, Soy, Fish, Meat, Midds, Bran, Alf, Skim, Btrmlk, Sard, Calc, Iron, KI, Salt.				
Wayne Poultry Fattener	13.5	3.5	8	✓
Corn, Corngerm, Hom, Oats, Oatfl, Midds, Rdog, Linsd, Salt.				
Bailey, E. W., & Co., Montpelier, Vt.				
Pennant Turkey Starter	25	5	6	✓
Corn, Soy, Oats, Bran, Midds, Meat, Fish, Skim, Gluml, Alf, Locust, Anise, Flax, Milkalb, Blood, Cocoa, Fengk, Rice, Cocnut, Linsd, Codlivoil, Bone, KI, Calc, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
Bailey, E. W., & Co., Montpelier, Vt.—continued				
Pennant Laying with Cod Liver Oil and Cod Liver Meal	20	5	6	✓
Rdog, Corn, Oats, Oatgrots, Meat, Bran, Midds, Glufd, Alf, Skim, Codlivoil, Codlivml, Locust, Anise, Flax, Milkalb, Fish, Blood, Cocoa, Fengk, Rice, Soy, Linsd, Cocnut, KI, Bone, Calc, Salt.				
Pennant Chick Starter	17	5	5	✓
Bran, Corn, Rdog, Oatgrots, Skim, Meat, Alf, Codlivoil, Codlivml, Locust, Anise, Flax, Milkalb, Fish, Blood, Cocoa, Fengk, Rice, Soy, Linsd, Cocnut, Char, KI, Bone, Calc, Salt.				
Pennant Broiler	17	4	5	✓
Corn, Bran, Rdog, Oatgrots, Skim, Meat, Alf, Codlivoil, Locust, Anise, Flax, Milkalb, Fish, Blood, Cocoa, Fengk, Rice, Soy, Linsd, Cocnut, Char, KI, Bone, Calc, Salt.				
Pennant Growing	15	5	5	✓
Bran, Corn, Rdog, Oatgrots, Skim, Meat, Alf, Codlivoil, Codlivml, Locust, Anise, Flax, Milkalb, Fish, Blood, Cocoa, Fengk, Rice, Soy, Linsd, Cocnut, Char, KI, Bone, Calc, Salt.				
Berkshire Coal & Grain Co., Inc., North Adams, Mass.				
Green Mountain Laying	19	4	8	✓
Bran, Midds, Linsd, Corn, Oats, Alf, Meat, Fish, Skim, Codlivoil, Bone, Calc, Salt.				
Chapin & Co., Hammond, Ind.				
Chapin Kernels Grow All	20	5	4.5	✓
Meat, Fish, Btrmlk, Oatml, Cornoil, Flour, Gluml, Alf, Corn, Bran, Milo, Midds, Mol, Soy, Codlivoil, Salt, Calc.				
Chapin Kernels Lay All	20	3.5	6	✓
Btrmlk, Fish, Meat, Gluml, Alf, Cornoil, Flour, Oats, Corn, Bran, Milo, Midds, Mol, Codlivoil, Bar, Salt, Calc, Bone.				
Chapin Game Bird Kernels Lay All	20	3.5	6	✓
Btrmlk, Fish, Meat, Gluml, Alf, Cornoil, Flour, Oats, Corn, Bran, Milo, Midds, Mol, Codlivoil, Bar, Bone, Salt, Calc.				
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Laying with Dried Milk and Cod Liver Oil	20	4	7	✓
Corn or Hom, Oats, Bran, Glu, Midds, Meat, Soy, Milk, Alf, Codlivoil, Salt, Calc, Oyster.				
Community Growing with Cod Liver Oil	17	4.5	8	✓
Corn or Hom, Oats, Bran, Midds, Alf, Soy, Milk, Meat, Fish, Codlivoil, Oyster, Salt.				
Cox, Chas. M., & Co., Boston, Mass.				
Utility Laying	18	4	7	✓
Skim, Meat, Fish, Alf, Gluml, Glufd, Codlivoil, Oats, Bar, Wheat, Corn, Bran, Midds, Calc, Salt.				
Utility Growing	15	4	7	✓
Skim, Meat, Fish, Alf, Soy, Gluml, Glufd, Bar, Oats, Corn, Codlivoil, Bran, Midds, Calc, Salt.				
Crosby Milling Co., Brattleboro, Vt.				
Brattleboro Milk Plant Laying	18	4	7	✓
Skim, Meat, Fish, Alf, Gluml, Glufd, Codlivoil, Oats, Bar, Wheat, Corn, Bran, Midd, Salt, Calc.				
Brattleboro Milk Plant All Purpose Chick Starter and Broiler	17.5	4	5.5	✓
Codlivoil, Skim, Whey, Oatgrots, Meat, Fish, Alf, Gluml, Soy, Corn, Bran, Midds, Calc, Salt.				
Brattleboro Milk Plant Growing	15	4	7	✓
Skim, Meat, Fish, Alf, Soy, Gluml, Glufd, Bar, Oats, Corn, Codlivoil, Bran, Midds, Calc, Salt.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Turkey-Start†	25	4.5	5	✓
Corn, Bran, Midds, Soy, Fish, Oatgrots, Gluml, Alf, Meat, Skim, Sard, Oyster, Dical, Salt.				
Eastern States Turkey Breeder†	24	4	6	✓
Corn, Bran, Meat, Midds, Skim, Alf, Soy, Oats, Fish, Gluml, Sard, Whtoil, Oyster, Dical, Salt.				
Eastern States Turkey-Grow†	20	4	5.5	✓
Bran, Corn, Midds, Soy, Fish, Oatgrots, Alf, Skim, Gluml, Oats, Meat, Sard, Oyster, Dical, Salt.				
Eastern States Producer 20†	20†	4	6	✓
Corn, Bran, Midds, Meat, Oats, Alf, Fish, Soy, Skim, Sard, Whtoil, Oyster, Dical, Salt.				

† Eight samples; one below protein guaranty, 17.14%.

* See footnote, page 9.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
Eastern States Farmers' Exchange—continued				
Eastern States Turkey-Fat†	20	4	6	✓
Corn, Bran, Midds, Meat, Oats, Soy, Alf, Gluml, Skim, Oatgrots, Oyster, Salt.				
Eastern States Egg†	20	4	6.5	✓
Midds, Corn, Bran, Bar, Fish, Meat, Soy, Oats, Alf, Gluml, Sard, Oyster, Salt.				
Eastern States Starting and Broiler†	18.5	4	5	✓
Corn, Bran, Midds, Oatgrots, Skim, Alf, Meat, Fish, Sard, Oyster, Salt, Dical.				
Eastern States Developer†	18.5	4	6.5	✓
Corn, Bran, Midds, Bar, Oats, Soy, Alf, Fish, Meat, Skim, Whey, Sard, Oyster, Salt, Dical.				
Eastern States Producer 17†	17	4	6.5	✓
Corn, Bran, Midds, Oats, Meat, Fish, Alf, Skim, Whtoil, Sard, Oyster, Dical, Salt.				
Eastern States Combination†	15	4	6.5	✓
Corn, Bran, Midds, Oats, Skim, Alf, Meat, Fish, Whtoil, Sard, Oyster, Dical, Salt.				
Eastern States Fattener†	14.5	4	5	✓
Corn, Oatgrots, Cornoil, Skim, Midds, Rdog, Oats, Soy, Salt.				
Eastern States All-Mash Developer†	14.5	3.5	7	✓
Corn, Bran, Midds, Oats, Bar, Alf, Soy, Skim, Meat, Fish, Sard, Oyster, Dical, Salt.				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Turkey Starting	24	4	6	✓
Corn, Bran, Midds, Oats, Whtgerm, Alf, Soy, Gluml, Skim, Meat, Fish, Codlivoil, Oyster, Salt.				
Elmore Egg	20	4	8	✓
Skim, Meat, Flour, Oats, Midds, Corn, Bran, Alf, Fish, Codlivoil, Bone, Oyster, Salt.				
Elmore Breeders	20	3.5	7	✓
Whtgerm, Corn, Bran, Midds, Oats, Alf, Meat & Bone, Fish, Skim, Codlivoil, Codlivml, Oyster, Salt.				
Elmore M. A. C. Laying	17	5	7	✓
Alf, Bran, Corn, Fish, Midds, Skim, Oats, Meat, Codlivoil, Oyster, Salt.				
Elmore Complete Starter-Broiler	17	4	6	✓
Gluml, Corn, Bran, Midds, Oatml, Meat & Bone, Btrmlk, Alf, Fish, Soy, Codlivoil, Oyster, Salt.				
Elmore Growing	17	4	8	✓
Btrmlk, Meat, Bone, Midds, Bran, Flour, Alf, Corn, Oatml, Gluml, Fish, Codlivoil, Oyster, Salt.				
Elmore Chixsaver	16.5	4	8	✓
Skim, Midds, Bran, Corn, Alf, Oatfl, Meat & Bone, Fish, Gluml, Codlivml, Codlivoil, Oyster, Salt.				
Elmore Complete Laying	16	4	6	✓
Meat, Fish, Corn, Alf, Bran, Midds, Skim, Oats, Codlivoil, Oyster, Salt.				
Elmore Complete Growing	15	4	6	✓
Corn, Bran, Midds, Oats, Bar, Alf, Meat & Bone, Fish, Glml, Skim, Soy, Codlivoil, Oyster, Salt.				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Laying with Cod Liver Oil	20	5	7	✓
Midds, Corn, Meat, Bran, Glufd, Oats, Linsd, Fish, Soy, Hom, Alf, Btrmlk, Codlivoil, Whey, Calc, Salt.				
Eshelman Pennsy Laying	18	5	8.5	✓
Corn, Midds, Meat, Bran, Oats, Alf, Soy, Mol, Fish, Glufd, Linsd, Calc, Bone, Salt.				
Eshelman Pennsy Laying with Cod Liver Oil	18	5	8.5	✓
Corn, Midds, Meat, Bran, Oats, Alf, Soy, Mol, Fish, Glufd, Codlivoil, Calc, Salt, Bone.				
Eshelman Red Rose Chick Starter with Cod Liver Oil	17.5	4	6	✓
Oatml, Corn, Bran, Midds, Alf, Btrmlk, Whey, Soy, Fish, Linsd, Codlivoil, Bone, Calc, Salt.				
Eshelman Red Rose Broiler with Cod Liver Oil	17	4.5	7	✓
Corn, Bran, Midds, Oatml, Oats, Meat, Rdog, Soy, Alf, Btrmlk, Whey, Linsd, Codlivoil, Fish, Calc, Salt.				
Eshelman Red Rose All-Mash Starter with Cod Liver Oil	16	4	6.5	✓
Corn, Bran, Midds, Oatml, Meat, Fish, Soy, Alf, Btrmlk, Whey, Linsd, Codlivoil, Calc, Bone, Salt.				
Eshelman Red Rose Growing with Cod Liver Oil	16	4	7	✓
Midds, Corn, Bran, Meat, Oats, Glufd, Oatml, Soy, Hom, Linsd, Fish, Btrmlk, Whey, Alf, Codlivoil, Calc, Salt.				

* See footnote, page 9.
† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See note ^a
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
Eshelman, John W., & Sons, Lancaster, Pa.—continued				
Eshelman Red Rose Fattening	14	4.5	5	✓
Corn, Hom, Oats, Corngerm, Rdog, Soy, Meat, Btrmlk, Whey, Linad, Calc, Bone, Salt.				
First National Stores, Inc., Somerville, Mass.				
Henfield Egg	20	4.5	7	✓
Codlivoil, Meat, Fish, Btrmlk, Alf, Oats, Hom, Corn, Midds, Bran, Glufd, Linad, Bone, Calc, Salt.				
Grand Union Stores, Inc., New York, N. Y.				
Grand Union Laying	20	4	8	✓
Btrmlk, Meat, Glufd, Corn, Bran, Oats, Midds, Alf, Codlivoil, Calc, Salt.				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Laying (contains Concentrated Cod Liver Oil)	20	4	8	✓
Codlivoil, Btrmlk, Meat & Bone, Glufd, Hom, Corn, Gluml, Alf, Oats, Bar, Bran, Midds, Fish, Calc, Salt, KI.				
Grandin's Start-to-Finish	16	4	7	✓
Codlivoil, Btrmlk, Meat & Bone, Glufd, Hom, Corn, Cornfd, Glufd, Alf, Oats, Bar, Bran, Calc, Salt, KI.				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg Laying	20	4	6.5	✓
Oats, Bar, Soy, Linsd, Gluml, Midds, Bran, Alf, Cornfd, Btrmlk, Skim, Meat & Bone, Fish, Codlivoil, Codlivml, Calc, Bone, Salt, Iron, KI.				
Daily Growth Growing	17.5	4	6.5	✓
Meat & Bone, Btrmlk, Skim, Bran, Alf, Midds, Cornfd, Oats, Bar, Linsd, Glufd, Codlivoil, Calc, Bone, Salt.				
Daily Growth Chick Starter	16	4	5	✓
Btrmlk, Skim, Meat & Bone, Flour, Midds, Corn, Cornfd, Oats, Oatgrota, Linad, Alf, Codlivoil, Calc, Salt, Bone.				
Sunnyfield All-Mash Growing and Laying	15	3.5	8	✓
Cornfd, Oats, Alf, Bran, Midds, Soy, Linsd, Meat, Fish, Skim, Codlivoil, Bone, Calc, Salt.				
Heiney, Samuel J., & Son, Allentown, Pa.				
Hei-Son Baby Chick Food with Dried Buttermilk, Yeast Granules and Cod Liver Oil	13	4	7.5	✓
Btrmlk, Midds, Ckdcorn, Kelp, Epsom, Gentian, Fengk, Codlivoil, Yeast, Oatml, Cornch, Glufd, Char, Bone.				
Ide, E. T. & H. K., Inc., St. Johnsbury, Vt.				
Ideal Egg	20	4.5	6	✓
Meat, Milk, Linsd, Glufd, Corn, Alf, Oatml, Bran, Rdog, Midds, Codlivoil, Bone, Salt, Dical, Oyster.				
Ideal Starting and Growing	19	4.5	5	✓
Corn, Midds, Rdog, Oatml, Alf, Skim, Meat, Fish, Codlivoil, Dical, Salt, Oyster.				
Kasco Mills, Inc., Waverly, N. Y.				
Apex Laying	20	4	8.5	✓
Bran, Midds, Corn, Linsd, Soy, Oats, Bar, Meat, Fish, Skim, Whey, Lactofl, Codlivoil, Alf, Bone, Salt, Calc.				
Kasco All Mash Laying Food	15	4	6	✓
Corn, Oats, Oatml, Bran, Midds, Rdog, Linsd, Soy, Bar, Meat, Fish, Skim, Whey, Lactofl, Codlivoil, Alf, Salt, Calc, Bone.				
Larrowe Milling Co., Detroit, Mich.				
Larro Turkey Builder	24	4.5	6.5	✓
Midds, Corn, Bar, Meat & Bone, Fish, Soy, Btrmlk, Alf, Skim, Bran, Oats, Codlivoil, Calc, Salt.				
Larro Egg	20	4	7.5	✓
Bran, Corn, Midds, Bar, Meat & Bone, Soy, Fish, Alf, Skim, Btrmlk, Oats, Codlivoil, Calc, Salt.				
Larro Chick Builder	19	4	7	✓
Bran, Corn, Midds, Bar, Meat & Bone, Soy, Fish, Alf, Skim, Btrmlk, Oats, Codlivoil, Calc, Salt.				
Larro Broiler	18	4	6.5	✓
Corn, Midds, Alf, Bran, Meat & Bone, Btrmlk, Soy, Fish, Skim, Oats, Codlivoil, Calc, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.— <i>continued</i>				
Maritime Milling Co., Inc., Buffalo, N. Y.				
BB Layer and Breeder, vitamized with Cod Liver Oil, Liver Meal, Milk Sugar Feed and Dried Buttermilk	20	4.5	7	✓
Codlivoil, Livml, Whey, Btrmlk, Alf, Bran, Midds, Soy, Gluml, Corn, Oats, Bar, Oatml, Fish, Meat& Bone, Calc, Salt, KI.				
BB Complete Chick Starter, vitamized with Cod Liver Oil, Dried Buttermilk and Milk Sugar Feed	20	4	6	
Codlivoil, Kelp, Whey, Btrmlk, Alf, Midds, Bran, Wheat, Gluml, Corn, Oats, Bar, Soy, Oatml, Fish, Meat& Bone, Calc, Salt, KI.				
BB Daisy Egg, vitamized with Cod Liver Oil and Dried Buttermilk	20	3.5	9	✓
Codlivoil, Btrmlk, Alf, Bran, Midds, Soy, Gml, Corn, Bar, Oats, Fish, Meat& Bone, Calc, Salt.				
BB Daisy Growing, vitamized with Cod Liver Oil and Dried Buttermilk	15	4	9	
Codlivoil, Btrmlk, Alf, Bran, Midds, Soy, Gml, Corn, Bar, Oats, Fish, Meat& Bone, Calc, Salt.				
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.				
Moon's Laying with Dried Buttermilk	20	4	9	✓
Bran, Midds, Corn, Oats, Alf, Meat, Btrmlk, Bar, Glufd, Soy, Codlivoil, Locust, Anise, Milkalb, Fish, Blood, Cocoa, Fengk, Rice, Cotton, Linsd, Cocnut, Hom, Skim, KI, Bone, Calc, Salt.				
Moon's Special A Laying with Dried Buttermilk	18	5	9	✓
Hom, Corn, Alf, Meat, Bran, Midds, Fish, Glufd, Skim, Btrmlk, Codlivoil, Bar, Soy, Locust, Anise, Flax, Milkalb, Blood, Cocoa, Fengk, Rice, Cotton, Cocnut, Linsd, Oats, Bone, KI, Calc, Salt.				
Moon's Baby Chick Starter	15	4	5	✓
Corn, Midds, Bran, Oats, Alf, Meat, Fish, Skim, Btrmlk, Codlivoil, Locust, Anise, Flax, Milkalb, Blood, Cocoa, Fengk, Rice, Cotton, Cocnut, Soy, Linsd, KI, Bone, Calc, Salt.				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Park & Pollard Turkey Starter	26	4	6	✓
Corn, Oats, Bran, Midds, Meat, Alf, Soy, Gluml, Fish, Btrmlk, Codlivoil, Calc, Salt.				
Park & Pollard Starter and Broiler	18	4	6	✓
Corn, Gluml, Soy, Bran, Midds, Oats, Fish, Meat, Alf, Skim, Codlivoil, Calc, Salt.				
Lay or Bust Dry	18	3	7	✓
Btrmlk, Alf, Gluml, Fish, Meat, Linsd, Soy, Bran, Midds, Codlivoil, Corn, Wheat, Oats, Bar, Kafir, Buckwht, Bone, Calc, Salt.				
Manamar Lay or Bust	18	3	7	✓
Kelp, Fish, Btrmlk, Meat, Alf, Bran, Midds, Corn, Oats, Wheat, Bar, Buckwht, Codlivoil, Gluml, Linsd, Soy, Kafir, Seashi, Bone, Calc, Salt.				
Bidwell Laying	18	3	8	✓
Btrmlk, Alf, Corn, Bran, Midds, Fish, Meat, Linsd, Gluml, Soy, Codlivoil, Wheat, Bar, Kafir, Buckwht, Oats, Bone, Calc, Salt.				
Park & Pollard Fleshing Pellets	16	4	7	
Corn, Bar, Oats, Alf, Meat, Bran, Midds, Linsd, Glufd, Mol, Btrmlk, Codlivoil, Calc.				
Manamar Life Cycle	16	3.5	7	✓
Kelp, Fish, Meat, Bran, Midds, Soy, Alf, Gluml, Btrmlk, Corn, Oats, Bar, Wheat, Buckwht, Codlivoil, Seashl.				
Bidwell Growing	15	3	7	✓
Btrmlk, Corn, Alf, Oats, Wheat, Meat, Gluml, Buckwht, Bran, Midds, Soy, Bar, Codlivoil, Fish, Bone, Calc, Salt.				
Growing	14	3	7	✓
Btrmlk, Alf, Fish, Linsd, Meat& Bone, Bran, Midds, Codlivoil, Corn, Wheat, Oats, Bar, Buckwht, Gluml, Calc, Salt.				
Pratt Food Co., Buffalo, N. Y.				
Pratt's Baby Chick Food with Buttermilk	16	3.5	4	✓
Btrmlk, Alf, Oatml, Wheat, Meat, Corn, Soy, Midds, Rape, Millet, Cornoil, Codlivoil, Calc, Calphos, Iodsalt, Epsom, Bone.				
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Turkey Starter	26	5	7	✓
Oatml, Corn, Hom, Bran, Midds, Gluml, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
Quaker Oats Co., Chicago, Ill.—continued				
Quaker Ful-O-Pep Egg	20	4.5	8	V
Oatml, Hom, Bran, Midds, Bar, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Quaker Ful-O-Pep Growing	19	5	6	V
Oatml, Hom, Bran, Midds, Bar, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Quaker Ful-O-Pep Broiler	19	5	7	
Oatml, Hom, Bran, Midds, Fish, Codlivml, Meat, Sard, Bar, Gluml, Soy, Skim, Btrmlk, Mol, Alf, Salt.				
Big Egg Laying	18	4	8	V
Hom, Bran, Midds, Oats, Soy, Meat, Fish, Sard, Skim, Mol, Alf, Salt.				
Quaker Ful-O-Pep Chick Starter	17	5	7	V
Oatml, Hom, Bran, Midds, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Big Egg All Mash Starter-Grower	16	5	8	V
Hom, Bran, Midds, Oats, Fish, Codlivml, Meat, Sard, Skim, Mol, Alf, Salt.				
Quaker Ful-O-Pep Developer	15	5	9	V
Oatml, Hom, Bran, Midds, Bar, Oats, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Race Milling Co., Granville, N. Y.				
Race's Poultry	20	3.5	7	V
Bran, Corn, Meat, Alf, Fish, Oats, Midds, Codlivoil, Salt.				
Ralston Purina Co., St. Louis, Mo.				
Purina Turkey Startena	26	4.5	6	V
Carotene, Codlivoil, Sard, Meat, Fish, Alf, Whtgerm, Btrmlk, Oatmidds, Corn, Soy, Bran, Midds, Iodsalt.				
Purina Turkey Breeder Chow	23	5	7	V
Carotene, Codlivoil, Sard, Meat, Fish, Whtgerm, Btrmlk, Alf, Corn, Midds, Soy, Bran, Calc, Iodsalt.				
Purina Turkey Growing and Fattening Chow (1936)	21	3.5	8	V
Carotene, Meat, Soy, Alf, Corn, Midds, Bran, Iodsalt.				
Purina Lay Chow	19	3.5	8	V
Carotene, Btrmlk, Codlivoil, Sard, Meat, Soy, Linsd, Alf, Corngerm, Midds, Bran, Corn, Iodsalt, Calc.				
Purina Broiler Chow	18	4	7	V
Carotene, Btrmlk, Codlivoil, Sard, Meat, Fish, Soy, Alf, Corn, Oats, Midds, Bran, Calc, Iodsalt.				
Purina Chick Startena	18	4	7	V
Carotene, Btrmlk, Codlivoil, Sard, Meat, Fish, Soy, Alf, Whtgerm, Linsd, Corngerm, Oatmidds, Midds, Corn, Bran, Calc, Iodsalt.				
Purina Turkey Growena	18	4	7	V
Carotene, Meat, Soy, Alf, Btrmlk, Corn, Midds, Bran, Gluml, Iodsalt.				
Protana Laying Mash	18	3.5	8.5	V
Meat, Soy, Linsd, Corn, Btrmlk, Codlivoil, Sard, Alf, Midds, Bran, Calc, Salt.				
Purina Layena (Complete Ration)	15.5	3.5	8	V
Carotene, Btrmlk, Codlivoil, Sard, Meat, Soy, Alf, Midds, Beet, Corn, Iodsalt, Calc.				
Purina Chick Growena	15	3.5	7	V
Carotene, Btrmlk, Codlivoil, Sard, Meat, Fish, Soy, Whtgerm, Alf, Corn, Beet, Midds, Bran, Calc, Iodsalt.				
Purina Chicken Fatena Checkers	14	4	6	V
Skim, Oats, Corn, Bar, Meat, Soy, Midds, Mol, Iodsalt.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Turkey Breeder	24	4.5	7	V
Codlivoil, Skim, Whey, Meat, Fish, Corn, Alf, Soy, Gluml, Bran, Midds, Oats, Bar, Wheat, Calc, Salt.				
Wirthmore Turkey Starting	24	4.5	7	V
Codlivoil, Skim, Whey, Meat, Fish, Alf, Corn, Gluml, Soy, Oats, Bar, Wheat, Bran, Midds, Calc, Salt.				
Wirthmore Breeder	20	4.5	7	V
Codlivoil, Skim, Whey, Meat, Fish, Corn, Alf, Soy, Gluml, Bran, Midds, Oats, Liverml, Bar, Calc, Salt.				
Wirthmore Laying	20	4	7	V
Codlivoil, Skim, Whey, Meat, Fish, Corn, Alf, Linsd, Soy, Gluml, Bran, Midds, Wheat, Oats, Bar, Buckwht, Calc, Salt.				
Wirthmore Turkey Growing	20	4	7	V
Codlivoil, Skim, Whey, Meat, Fish, Soy, Gluml, Alf, Corn, Oats, Bar, Wheat, Bran, Midds, Calc, Salt.				
Wirthmore Baby Chick Starter	18	4	5	V
Codlivoil, Skim, Whey, Alf, Fish, Meat, Gluml, Soy, Bran, Midds, Oatgrots, Wheat, Corn, Calc, Salt.				

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—concluded				
St. Albans Grain Co., St. Albans, Vt.—continued				
Wirthmore Complete Chick Starter and Broiler	17.5	4	5.5	✓
Codlivoil, Skim, Whey, Oatgrots, Meat, Fish, Alf, Gluml, Soy, Corn, Bran, Midds, Calc, Salt.				
Wirthmore Turkey Fattening	16	4.5	7	✓
Skim, Whey, Meat, Gluml, Alf, Corn, Oats, Bar, Wheat, Bran, Midds, Salt.				
Wirthmore Fleshing and Fattening	15	4.5	6	
Codlivoil, Skim, Whey, Meat, Oatml, Rdog, Midds, Corn, Hom, Bar, Wheat, Oats.				
Wirthmore Growing	15	4.5	6	✓
Codlivoil, Skim, Whey, Meat, Fish, Corn, Alf, Linsd, Wheat, Oats, Bar, Soy, Gluml, Bran, Midds, Rdog, Calc, Salt.				
Wirthmore Fleshing Pellets	15	4.5	6.5	✓
Skim, Meat, Soy, Corngerm, Oatml, Bran, Midds, Rdog, Corn, Alf, Codlivoil, Mol, Calc, Salt.				
Wirthmore Complete Laying	15	4	5	✓
Codlivoil, Skim, Whey, Meat, Fish, Oatgrots, Corn, Oats, Alf, Wheat, Bran, Midds, Liverml, Calc, Salt.				
Wirthmore Laying Pellets	15	4	6	✓
Codlivoil, Skim, Whey, Soy, Fish, Meat, Oatml, Corn, Oats, Wheat, Bran, Midds, Alf, Calc, Salt.				
Wirthmore Complete Growing	14	3.75	6	✓
Codlivoil, Skim, Whey, Meat, Fish, Soy, Gluml, Corn, Wheat, Oats, Bar, Bran, Midds, Alf, Calc, Salt.				
Sharon Mills, Sharon, Vt.				
Sharon Mills Laying	20	5	6	✓
Rdog, Corn, Hom, Oats, Oatgrots, Meat, Bran, Midds, Glufd, Alf, Skim, Locust, Anise, Flax, Milkab, Fish, Blood, Cocoa, Fengr, Rice, Soy, Linsd, Cocnut, Codlivoil, KI, Bone, Salt, Calc.				
Smith, S. E., Estate, West Rutland, Vt.				
Smith Estate Egg Producer	18	4.5	7	✓
Corn, Bran, Midds, Oats, Meat, Fish, Alf, Skim, Linsd, Glufd, Codlivoil, Calc, Salt.				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Superior Laying with Buttermilk and Cod Liver Oil	20	4	7	✓
Meat, Fish, Btrmlk, Codlivoil, Corn, Wheat, Gluml, Oats, Bar, Rdog, Bran, Soy, Alf, Ironsft, Calc, Bonechar, Iodsalt.				
Superior Chick Starter with Cod Liver Oil	17.5	4	7	
Meat, Fish, Blood, Oatml, Oats, Corn, Hom, Bran, Midds, Soy, Alf, Skim or Btrmlk, Codlivoil, Iodsalt, Ironsft, Bonechar, Calc.				
Superior Growing with Buttermilk and Cod Liver Oil	17.5	4	7	
Corn & Hom, Soy, Oatml, Bar, Bran, Oats, Midds, Btrmlk, Alf, Meat, Fish, Codlivoil, Ironsft, Calc, Bonechar, Iodsalt.				
Superior Broiler with Milk and Cod Liver Oil	17	4	7	
Corn, Oats, Midds, Bran, Meat, Fish, Skim, Gluml, Soy, Alf, Codlivoil, Bonechar, Ironsft, Calc, Iodsalt.				
Webster, Ray P., Barton, Vt.				
Storr's Egg with Cod Liver Oil	15	4	7	✓
Corn, Bran, Midds, Oats, Meat, Fish, Alf, Codlivoil, Calc, Salt.				
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Broiler	19	4	6	✓
Skim, Fish, Meat, Gluml, Soy, Kelp, Oats, Midds, Bran, Corn or Hom, Alf, Codlivoil, Calc, Salt.				
Pure Feed Starting and Growing	18	4	6	✓
Skim, Fish, Meat, Gluml, Soy, Kelp, Oats, Midds, Bran, Corn or Hom, Alf, Bar, Codlivoil, Calc, Salt.				
Pure Feed Developer	18	4	6.5	✓
Skim, Fish, Meat, Gluml, Midds, Bran, Corn or Hom, Alf, Oats, Codlivoil, Calc, Salt.				
Pure Feed Egg Maker	18	4	8	✓
Skim, Fish, Meat, Soy, Midds, Bran, Glufd, Alf, Corn or Hom, Oats, Codlivoil, Calc, Salt.				
DRIED SKIMMILK				
B. & B. Dairy Co., Inc., Margaretville, N. Y.				
Buell-Boston	33	0.2	..	
Dairymen's League Cooperative Asso., Inc., Utica, N. Y.				
Dairylea Choice Feed Grade	33	0.5	..	
Grand Isle Cooperative Creamery Assoc., Inc., Grand Isle, Vt.				
Grand Isle	32	0.25	..	

* See footnote, page 9.

II. BRANDS FAILING TO MEET GUARANTIES

CRUDE STOCKS

- FARMERS' SERVICE BUREAU, Baltimore, Md. *Fine Ground Feeding Oatmeal*. 14/5/4. One sample; fat below guaranty, 3.82%.
- GOLD MEDAL FARMS, INC., New York, N. Y. *Pure Dried Skimmilk*. 32/1/—.
One sample; fat below guaranty, 0.62%.
- HEYWOOD MILLING Co., Jackson, Mich. *Heywood Wheat Mixed Feed*. 16/3.5/8.5.
One sample; protein below guaranty, 14.60%.
- KELLOGG Co. OF CANADA, LTD., Montreal, Que. *O-Corn-O Hominy Feed*. 10/7/4.
Three samples; all below protein guaranty, 9.08%, 8.73%, 9.34%. Average, three samples, 9.05%.
- MALTED CEREAL Co., Burlington, Vt. *Maltex Cereal Feed*. 12.5/3.75/9. Five samples; fat below guaranty, 2.69%.
- NIAGARA FALLS MILLING Co., Lockport, N. Y. *Choice Wheat Red Rog*. 14/4/4. (1936.) One sample; fat below guaranty, 2.98%.
- REARDON, JOHN, & SONS, Cambridge, Mass.
Register Brand Cod and Haddock Fish Meal. 62/3/1. One sample; fat below guaranty, 2.48%.
- Register Brand Meat and Bone Scraps*. 50/6/—.
One sample; protein below guaranty, 48.48%.
- SHERWIN-WILLIAMS Co., of Canada, Ltd., Montreal, Que. *Screwpress Linseed Oil Cake Meal*. 35/6.5/8. One sample; protein below guaranty, 34.13%.
- UPPER HUDSON RYE FLOUR MILLS, INC., Troy, N. Y. *Upper Hudson Rye Feed*. 13.5/3/6. One sample; protein below guaranty, 13.03%.
- WILBER FEED Co., INC., Jamestown, N. Y. *W Corn Distillers' Dried Grains*. 28/8.5/13. One sample; fat below guaranty, 7.26%.

DAIRY FEEDS

- CHAPIN & Co., Hammond, Ind. *Unicorn 20%*. 20/4.5/10.V* One sample: fat below guaranty, 4.13%.
Cotton, Linsd, Brew, Cornoil, Glufd, Bran, Midds, Soy, Hom, Bar, Mol, Salt, Calc.
- CROSBY, E. C., Danby, Vt. *The New '36*. 20/4/11. One sample; fat below guaranty, 3.56%.
Bran, Midds, Cotton, Soy, Hom, Dist, Glufd, Linsd, Mol, Calc, Salt, Bone.
- DANVILLE GRAIN Co., INC., Danville, Vt. *Danville 20%*. 20/4/10.V Two samples; fat below guaranty, 3.68%.
Linsd, Cotton, Glufd, Bran, Midds, Gluml, Malt, Oats, Corn, Mol, Calc, Salt.
- DAVIS FEED Co., INC., Rutland, Vt. *Flexo 20%*. 20/3.5/12.V Four samples; fiber above guaranty, 13.65%.
Corn, Oats, Bar, Maltfd, Ryemidds, Bran, Oatmld, Dist, Glufd, Brew, Soy, Cotton, Scrngs, Mol, Salt, Calc.
- FOR-ALL GRAIN Co., INC., South Ryegate, Vt. *For-All Milk Grains*. 20/5/8.5.V One sample; fat below guaranty, 4.33%.
Cotton, Linsd, Glufd, Bran, Shorts, Oats, Bar, Corn, Ryeshorts, Brew, Mol, Salt, Calc.
- JOHNSON, C. E., & Co., Island Pond, Vt. *Regular*, 20/4/12. One sample; protein below guaranty, 18.89%. Fiber above guaranty, 12.85%.
Soy, Cotton, Glufd, Corn, Oats, Bran, Oatmld.
- PARK & POLLARD Co., INC., Buffalo, N. Y. *Doublex 16%*. 16/3.5/11.V Four samples; fiber above guaranty, 11.96%.
Dist, Oats, Bar, Brew, Malt, Linsd, Cotton, Scrngs, Soy, Glufd, Mol, Calc, Salt.
- RICHFORD FEED Co., Richford, Vt. *Butterfat 20%*. 20/5/12.V One sample; fat below guaranty, 4.67%.
Corn, Hom, Cotton, Soy, Bran, Dist, Brew, Glufd, Oatmld, Mol, Salt, Calc, Bone.
- SEAVER, CHAS. M., & Co., Williamstown, Vt.
Honor Brand 24%. 24/5.5/9.V One sample; fat below guaranty, 4.61%.
Bran, Midds, Oats, Cotton, Linsd, Glufd, Dist, Hom or Corn, Mol, Bone, Calc, Salt.
- Vim-20*. 20/4/12.V One sample; protein below guaranty, 19.41%.
Cotton, Linsd, Glufd, Hom or Corn, Midds, Bran, Oatmld, Mol, Salt, Calc, Bone.
- UTLEY, C. H., Hardwick, Vt. *Veri-Best Balanced*. 20/5/7.5.V One sample; fiber above guaranty, 8.23%.
Dist, Linsd, Glufd, Brew, Oats, Cotton, Midds, Hom or Corn, Bran, Bone, Salt, Calc.

* Check mark \checkmark means that the brand in question was found to be certified with respect to ingredients. Statements concerning brands not found to be as certified in respect to ingredients appear on pages 30 to 33.

DAIRY FEEDS—continued

- WAYNE COUNTY GRANGERS FEED CORP., Clyde, N. Y.
Hi-Yan-Ka Farms 20% with Beet Pulp. 20/4/8.5. One sample; fiber above guaranty, 10.23%.
 Soy, Dist, Glufd, Cotton, Linsd, Bran, Beet, Oats, Brew, Hom or Corn, Iodsalt, Bonchar, Calc.
Economy 20%. 20/4/12. ✓ One sample; fat below guaranty, 3.53%.
 Cotton, Soy, Scrngs, Corn or Hom, Glufd, Dist, Oatmldf, Bran, Mol, Salt, Calc.

OTHER PROPRIETARY FEEDS

- BAILEY, E. W., & Co., Montpelier, Vt. *Pennant Fine Chick Feed.* 10/3/3. ✓*
 Four samples; fat below guaranty, 2.64%.
 Wheat, Ckdcorn, Bar, Buckwht, Sunfr.
 EASTERN STATES FARMERS' EXCHANGE, Springfield, Mass. *Eastern States Flushing Mash.* † 18.5/3.5/4.5. ✓ Two samples; fiber above guaranty, 4.89%.
 Whey, Corn, Bran, Midds, Soy, Alf, Fish, Meat, Sard.
 ESHELMAN, JOHN W., & SONS, Lancaster, Pa. *Eshelman S-O-S.* 11/2/15. ✓
 Four samples; fiber above guaranty, 15.94%.
 Bran, Alf, Brew, Mol, Beet, Bone, Calc, Salt.
 GRANDIN, D. H., MILLING CO., Jamestown, N. Y. *Grandin's Combined Chick and Broiler Ration.* (1936.) 15/4/6. ✓ One sample; fiber above guaranty, 6.56%.
 Codlivoil, Btrmlk, Meat&Bone, Fish, Soy, Alf, Oats, Wheat, Bran, Midds, Bar, Hom, Corn, Calc, Salt.
 IDE, T. E. & H. K., INC., St. Johnsbury, Vt. *Ideal Scratch Feed.* 10/3/4. ✓ Five samples; fat below guaranty, 2.61%.
 Ckdcorn, Bar, Wheat, Buckwht.
 MARITIME MILLING CO., INC., Buffalo, N. Y. *BB Flushing Mash vitaminized with Cod Liver Oil, Milk Sugar Feed and Dried Buttermilk.* 14/2.5/4. ✓ One sample; fiber above guaranty, 4.43%.
 Codlivoil, Whey, Btrmlk, Alf, Midds, Corn, Oatml, Soy, Meat&Bone, Fish, Calc, Salt, KI.
 PARK & POLLARD CO., INC., Buffalo, N. Y.
Park & Pollard Pelleted Scratch Feed. 12/3/6. ✓ Two samples; fiber above guaranty, 6.84%.
 Corn, Wheat, Oats, Bar, Buckwht, Alf, Glufd, Kelp, Codlivoil, Mol, Calc, Bone.
Park & Pollard Chick Starter. 17/3.5/5. ✓ One sample; fiber above guaranty, 6.52%.
 Btrmlk, Corn, Wheat, Bar, Oatml, Fish, Meat, Bran, Midds, Gluml, Soy, Alf, Codlivoil, Calc, Salt.
 PEASE, A. D., GRAIN CO., Burlington, Vt. *Peasco Molasses Horse Feed.* 11/3.5/7. ✓
 One sample; fiber above guaranty, 7.80%.
 Oats, Ckdcorn, Linsd, Alf, Bran, Soy, Mol, Oyster, Salt.
 WAYNE COUNTY GRANGERS FEED CORP., Clyde, N. Y. *Grange Scratch Feed.* 10/3/6. ✓ Three samples; fat below guaranty, 2.71%.
 Ckdcorn, Wheat, Bar, Oats, Buckwht.
 WEST-NESBITT, INC., Oneonta, N. Y.
Pure Feed Chick Grains. 11/4.5/3. ✓ One sample; fat below guaranty, 1.83%.
 Ckdwht, Oatml, Ckdcorn, Millet.
Pure Feed Growing Grains. 11/4/5. One sample; fat below guaranty, 1.71%.
 Buckwht, Wheat, Ckdcorn, Oatgrots.

* Check mark ✓ means that the brand in question was found to be certified with respect to ingredients. Statements concerning brands not found to be as certified in respect to ingredients appear on pages 30 to 33.

† Open formula.

KEY TO ABBREVIATIONS OF INGREDIENTS

<i>Abbreviation</i>	<i>Name of ingredient</i>	<i>Abbreviation</i>	<i>Name of ingredient</i>
Alf	Alfalfa	KI	Potassium iodide
Anise	Anise	Kafir	Kafir corn
Babassu	Babassu meal	Kelp	Dried kelp
Bar	Barley	Lactofl	Lactoflavin
Beans	Ground beans	Limeiod	Iodized ground limestone
Beet	Beet pulp	Linsd	Linseed oil meal
Beetmol	Beet molasses	Livml	Liver meal
Bicarb	Bicarbonate of soda	Locust	Locust bean meal
Blood	Blood flour or meal	Maltfd	Wheat, barley, bran and other wheat parts with mill run of screenings
Bone	Bone meal	Malt	Malt sprouts
Bonebl	Bone black	Meat	Meat scraps or meal
Bonechar	Bone charcoal	Meatext	Meat extract
Bran	Wheat bran	Midds	Wheat middlings (flour or standard)
Brew	Brewers' dried grains	Milk	Dried milk
Btrmlk	Dried buttermilk	Milkalb	Dried milk albumen
Buckwht	Buckwheat	Millet	Millet
Cale	Calcium carbonate (ground limestone)	Milo	Milo-maize
Calphos	Calcium phosphate	Mol	Molasses
Carotene	Carotene	Mxdfd	Wheat mixed feed
Char	Charcoal	Oatfl	Oat flour
Ckdcorn	Cracked corn	Oatgrots	Ground oat groats
Ckdcornsift	Cracked corn siftings	Oatmidds	Oat middlings
Ckdwht	Cracked wheat	Oatml	Oat meal
Cocnut	Cocanut oil meal	Oatmld	Oat mill feed (hulls, shorts, middlings)
Cocoa	Cocoa meal	Oats	Ground or pulverized oats
Codlivml	Cod liver meal	Oyster	Oyster shell meal
Codlivoil	Cod liver oil	Palm	Palm kernel oil meal
Copper	Copper sulfate	Pfdwht	Puffed wheat
Copra	Copra oil meal	Phoslime	Phosphatic limestone
Corn	Corn meal, ground corn	Pnut	Peanut oil meal
Cornbran	Corn bran	Rape	Rape seed
Cornch	Corn chop	Rdog	Wheat red dog (flour)
Cornfd	Corn feed meal	Rice	Rice polish
Corngerm	Corn germ oil meal	Ryefd	Rye feed
Cornoil	Corn oil meal	Ryemidds	Rye middlings
Dextro	Dextrose	Salt	Salt
Dical	Dicalcium phosphate	Sard	Sardine oil
Dist	Corn or rye distillers' dried grains	Scrngs	Ground grain screenings (all grains)
Eggalb	Egg albumen	Seashl	Ground seashells
Eggshl	Egg shells, ground	Shorts	Shorts (all grains)
Epsom	Epsom salt	Soy	Soy bean oil meal
Fengk	Fenugreek	Slfr	Sulphur
Fish	Fish meal, codfish residue meal	Sunflr	Sunflower seed
Flax	Ground flaxseed	Tank	Ground tankage
Flour	Low grade wheat flour	Wheat	Wheat
Gentian	Gentian	Whey	Dried whey (milk sugar feed)
Glaubsalt	Glauber's salt	Whtgerm	Wheat germ meal, wheat germ oil meal
Glufd	Gluten feed	Whtoil	Wheat germ oil
Gluml	Gluten meal	Yeast	Yeast granules
Glu	Gluten		
Hom	Hominy feed		
Iod	Iodine		
Iodsalt	Iodized salt		
Iron	Iron oxide		
Ironsft	Iron sulfate		

III. DISCUSSION OF INGREDIENT STATEMENTS

The Vermont law requires that a statement setting forth the specific name of each ingredient used in the manufacture of a feeding stuff be attached to each package. The Association of American Feed Control Officials, Inc., is an organization made up of feed control chemists from the United States and Canada, whose purpose it is to promote uniformity of legislation, definitions, and rulings relating to the manufacture, sale, and distribution of feeding stuffs on the continent of North America. Most of the ingredients in proprietary feeds are named and defined by this Association, and its recommendations have been accepted

by this Station, insofar as the State law will permit. It is suggested that each manufacturer procure a copy of the Association's Official Publication and be guided thereby.

The Vermont law permits the director to refuse to register any commercial feeding stuffs under a name, brand, or trade-mark which is misleading or deceptive as to the material of which it is composed and allows him to issue such rules and regulations as he may deem necessary to carry into effect the full intent and meaning of the law.

The list of ingredients used in the manufacture of each proprietary feed is stated in tables I and II on pages 9 and 29. The nutrient and ingredient guaranties are combined in one clearly understandable statement. A list of abbreviations used in indicating the ingredients will be found on page 30. The presence of the check mark (✓) indicates that all of the ingredients mentioned on tag or bag and no others were found in the feed sampled and tested.

In the following instances, the ingredients named were "not detected" or extraneous ones were found to be present.

ALLIED MILLS, Inc., Peoria, Ill.

Wayne Pig Starter. Copper sulfate not detected.

Wayne Pork Maker. Potassium iodide not detected.

Wayne Intermediate Scratch Feed. Also found sunflower seed and a few whole oats.

Wayne Chick Feed. Also found a few whole oats.

Screened Cracked Corn. Also found wheat and occasional grains of barley.

Wayne Broiler Ration. Potassium iodide not detected.

Wayne Growing Mash with Sardine Oil. Potassium iodide not detected.

Wayne Starter and Grower with Sardine Oil. Potassium iodide not detected.

BAILEY, E. W., & Co., Montpelier, Vt.

Our 20 Special Dairy Ration. Also found linseed oil meal.

BERKSHIRE COAL & GRAIN Co., Inc., North Adams, Mass.

Berkshire Scratch Feed. Kaffir not detected.

CHAPIN & Co., Hammond, Ind.

Unicorn 24% Dairy Ration. Also found malt sprouts.

CROSBY, E. C., Danby, Vt.

The New '36. Also found malt sprouts, brewers' dried grains and rye feed.

CROSBY MILLING Co., Brattleboro, Vt.

Brattleboro Milk Plant Growing Mash. Also found ground wheat.

DAVIS FEED Co., Inc., Rutland, Vt.

Davis 20% Kow Feed. Potassium iodide not detected.

EASTERN STATES FARMERS' EXCHANGE, Springfield, Mass.

Eastern States 32% Supplement Feed.† Also found ground oats.

ELMORE MILLING Co., Inc., Oneonta, N. Y.

Emco Scratch Feed. Also found few whole oats.

GRANDIN, D. H., MILLING Co., Jamestown, N. Y.

M-S (Money Saver) 24% Dairy Ration Sweet. Potassium iodide not detected.

M-S (Money Saver) 20% Dairy Ration Sweet. Potassium iodide not detected.

Grandin's 14% Fitting Ration. Potassium iodide not detected.

Grandin's Pig and Hog Ration (contains Concentrated Cod Liver Oil). Barley and potassium iodide not detected.

- GREAT ATLANTIC & PACIFIC TEA Co., Minneapolis, Minn.
Daily Growth Developing Feed. Also found few grains of buckwheat.
- JOHNSON, C. E., & Co., Island Pond, Vt.
Regular Dairy Ration. Also found salt.
- KASCO MILLS, INC., Waverly, N. Y.
Kasco Scratch Grains. Also found kaffir.
- LARROWE MILLING Co., Detroit, Mich.
Larrowe's 32 Dairy Ration. Corn distillers' grain not detected.
- MARITIME MILLING Co., INC., Buffalo, N. Y.
Sweetened Bull Brand "20" Dairy Ration. Potassium iodide not detected.
BB Complete Chick Starter, Vitamized. Potassium iodide not detected.
BB Daisy Growing Mash, Vitamized. Also found occasional whole weed seeds.
- McGOVERN, T. J., Cambridge, Vt.
McGovern's 24% Dairy Ration. Also found bone meal and salt.
McGovern's 20% Dairy Ration. Also found bone meal and salt.
- PARK & POLLARD Co., INC., Buffalo, N. Y.
Bidwell 20% Dairy Ration. Also found corn meal.
Doublex 20% Dairy Ration. Also found corn meal.
Red Ribbon Scratch Feed. Sunflower seed not detected.
Park & Pollard Fleshing Pellets. Also found ground buckwheat.
- QUAKER OATS Co., Chicago, Ill.
Quaker-Ful-O-Pep Broiler Ration. Barley, gluten meal and soy bean meal not detected.
- RYDE & Co., Chicago, Ill.
Ryde's Cream Quality Calf Meal. Egg albumen and Glauber's salt not detected.
- ST. ALBANS GRAIN Co., St. Albans, Vt.
Hygrade 12 Fitting Ration. Also found bone meal.
Wirthmore Fleshing and Fattening Ration. Also found salt.
- TURNBULL, J. G., Co., Orleans, Vt.
Turnbull's Special Dairy Ration. Also found dried beet pulp.
- WAYNE COUNTY GRANGERS FEED CORP., Clyde, N. Y.
Hi-Yan-Ka Farms 20% Dairy Ration with Beet Pulp. Iron sulfate not found.
Also found ground wheat.
Sweetened 16% Dairy Feed. Iron sulfate not detected.
Superior Calf Grower. Also found corn meal.
Superior Chick Starter with Buttermilk and Cod Liver Oil. Iron sulfate not detected.
Superior Broiler Ration with Buttermilk and God Liver Oil. Iron sulfate not detected.
- WEST-NESBITT, INC., Oneonta, N. Y.
Pure Feed Growing Grains. Also found whole oats.

Forty-four of the 438 brands of proprietary feeds, when examined microscopically, were found to be not as certified with respect to their ingredient contents. In 16 of these, the microscopist could not detect the presence of potassium iodide, iron oxide, or copper sulfate which are often hard to find because they are likely to settle to the bottom of the bag and escape the sampling tube and, furthermore, are used in almost infinitesimal amounts, a pound or two to a ton. In the 28 other cases, some ingredient (or ingredients), usually of good grade, either replaced one or more stated on tag or stencil to be present but left out in the process of manufacture, or else was used in addition to the regularly certified ingredients.

"Sec. 7858. CHANGE IN ANALYSIS OR INGREDIENTS FORBIDDEN WITHOUT REASON. The director may refuse to allow a manufacturer, importer, agent or seller to lower the guaranteed analysis or change the ingredients of any brand of his or their commercial feeding stuffs during the term for which registered unless satisfactory reasons are presented for making such change."

No objection is raised at this Station in case a manufacturer desires to introduce or to withdraw ingredients from his formula within the license year, provided written notice is given of such intention and provided the guaranties are not lowered. However, there is reason to believe that substitutions and additions to the lists of ingredients have been made in the past in some cases without any notification whatsoever to the Station. In such cases the brand may be deemed to be "not certified" as to its ingredients, even though as a matter of fact it may be quite as good a feed as it was when it was originally certified. Strictly speaking, the sale of such goods is contrary to law. Manufacturers and mixers who contemplate changing their formulas should seek permission of the Station in advance, which, as above remarked, is always given provided guaranties are not lowered.

Some small mixers, particularly local mixers, seem to pay little attention to their registered formulas and printed guaranty tags and leave out or add ingredients at will. However, as a rule, which is proved by the occasional exception, they furnish the ingredients which they claim to use. In no case has intentional adulteration been observed.

IV. TABULAR SUMMATION, APRIL 1937 INSPECTION

The following table sets forth the essential facts as to the trade in Vermont, each brand taken as a unit, the number of samples and brands collected, the number of protein determinations below guaranty, and the nutrient deficiencies.

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	53	50	3	10	10	..	..	..	..	..	..	..
Linseed meals	33	30	3	9	8	1	1	..	..	..	..	..
Soybean meals	15	15	..	5	5	..	..	..	..	..	..	..
Gluten meals and feeds...	55	55	..	12	12	..	..	..	..	..	..	..
Distillers' and brewers' dried grains, malt sprouts	60	57	3	21	20	1	..	1	..	..	..	..
Wheat offals	250	246	4	70	68	2	1	1	..	..	..	..
Brans	96	95	1	27	27	..	..	..	..	..	..	..
Middlings	67	66	1	23	23	..	..	..	..	..	..	..
Mixed feeds	62	60	2	14	13	1	1	..	..	..	..	..
Red dog flours	25	25	..	6	5	1	..	1	..	..	..	..
Hominy feeds	16	13	3	6	5	1	1	..	..	..	..	..
Beet pulps	19	19	..	2	2	..	..	..	..	..	..	..
Alfalfa meals	2	2	..	2	2	..	..	..	..	..	..	..
Miscellaneous	39	36	3	13	10	3	1	2	..	..	..	..
Proprietary feeds	1,430	1,426	4	428	413	25	1	12	11	..	1	..
Dairy	484	482	2	152	139	13	1	7	4	..	1	..
Stock, horse, etc.	224	223	1	54	52	2	..	..	2	..	..	..
Calf and hog	100	100	..	31	31	..	..	..	..	..	..	..
Poultry	622	621	1	201	191	10	..	5	5	..	..	..
Scratch, chick	178	178	..	61	55	6	..	5	1	..	..	..
Mash, growing	444	443	1	140	136	4	..	..	4	..	..	..
Meat scraps, fish, bone meal	14	13	1	7	5	2	1	1	..	..	..	..
Dried skimmilks	4	4	..	4	3	1	..	1	..	..	..	..
Totals	1,990	1,966	24	599	563	36	6	18	11	..	1	..
Winter 1936-37	2,216	2,190	26	584	542	42	6	11	23	1	1	..
Spring 1936	1,975	1,932	43	600	571	29	7	7	11	2	1	*1
Winter 1935-36	2,343	2,303	40	585	557	28	5	16	5	1	..	1
Spring 1935	2,199	2,125	74	635	589	46	19	13	10	3	1	..
Winter 1934-35	2,049	2,002	47	550	524	26	12	4	7	..	..	3
Spring 1934	1,901	1,869	32	551	527	24	8	10	4	2	..	..
Winter 1933-34	1,955	1,938	17	566	539	27	3	14	7	1	1	1
Spring 1933	2,052	2,007	45	552	509	43	11	22	8	1	..	1
Winter 1932-33	2,235	2,202	33	581	551	30	4	17	8	..	1	..
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	..	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	2	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3	1
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	..
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	..
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	..

* Protein, fat, and fiber.

V. AVERAGE PRICES, DECEMBER 1931 TO APRIL 1937

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. The April 1937 prices average about \$4.50 more per ton than those of December 1936.

	December '31	April '32	December '32	April '33	December '33	April '34	December '34	April '35	December '35	April '36	December '36	April '37
Cottonseed meals 43% ...	\$30	\$30	\$27	\$29	\$33½	\$38½	\$51½	\$52	\$40	\$37½	..	..
Cottonseed meals 41% ...	29	28	27	27½	33½	37½	49½	44½	35½	35½	\$58	\$48½
Cottonseed meals 36% ...	28	26	22½	..	..	..	47	41½	..	..	..	..
Linseed meals 37-39% ...	..	..	..	31½	41½	44	50	37½	36½	47½	..	51½
Linseed meals 34%	40	40	33½	32½	44	44	50½	41	36½	36	51½	52½
Linseed meals 30-33% ...	39	40	33	32½	44	45	49½	41	36	35½	51½	50½
Soybean meals .....	..	..	..	32	41½	42	48½	43	35½	33	50	51
Gluten meals	34	28	27	29	38½	39	52	43	38½	37½	46	46
Gluten feeds	27	24	23	25	30½	31	43	37½	33	30½	44½	43½
Brewers' dried grains ...	..	..	..	28	30	31½	39½	36	31	28	41	40½
Distillers' dried grains ...	30	20	27	28	32½	35	41½	38	33	29½	41½	51½
Wheat brans	25	24½	22	23½	26½	32	36½	34½	29	28	42½	47
Wheat middlings:												
Standard	26	25½	21½	23	28½	32½	38½	36	29	29	44½	48
Shorts	26	24½	21	23½	26½	31	36	34	28½	28	44	46
Flour	29	28	24	24½	32	33	41½	38	34½	31	45	49
Wheat mixed feeds	28	27	24	25	31	33½	40½	38½	32½	32	46	48½
Red dog flours	30	28	26½	25½	33½	33½	44½	41	35½	34½	46	49
Dried beet pulps	28	28	28	27	30	30	41½	43	36½	37	44	45½
Hominy feeds	27	24	20½	20½	27	31	42	37½	31½	30	47	46
Alfalfa meals	41	49½	38½	36½	38	39½	43½	42½	37	36	47	45½
Proprietary feeds:												
Dairy 32% .....	..	..	..	..	..	..	..	..	..	..	50	49
24%	34	32	28½	29½	35½	37	46	42	36	34½	47	47
20%	32	33	27	28	33½	35	43½	40½	34½	33	45½	46
16%	30	27½	24	26	30½	31	41½	37½	32	31	43	46
Stock and horse 9-10% ..	34	32	29	29	37	37½	46½	43½	38	37	48½	48½
8%	29	34	22	26½	..	34½	..	..	33	35	50	..
Fitting 9-12%	31	29½	25	26½	34½	36	44	41	35½	35	48	45½
14%	36	31½	28	28	37½	40½	47½	44	38½	37½	49½	51
Calf	80	74	69	66½	77½	67½	82	78½	79½	77½	84	87½
Hog	38	35½	32½	32½	40½	40	49	46½	43½	41	55½	54½
Poultry:												
Scraps	58	60½	55	38	44	47½	48	46	53	59½	57½	56
Scratches	33	32½	27½	28½	37½	38	46½	44	39½	37½	55½	55½
Mashes	42	40	36	37	44	45½	52	50½	46½	45½	59	63½
Chick grains	41	39	41½	32½	40½	46	56	49½	45½	43½	56	59½
Chick mash	48	49	39	43	49	52	56½	56½	44½	52	62	65½

A comparison of the average prices for 1923, 1932, 1933, 1934, 1935, 1936, and April 1937 follow, 1923 being rated at 100.

	1923	1932	1933	1934	1935	1936	Apr. 1937
Cottonseed meals	100	45	52	74	73	80	34
Linseed meals	100	64	63	80	65	75	85
Gluten meals and feeds	100	46	55	74	68	71	80
Wheat offals (exclusive of red dog)	100	59	66	87	83	88	117
Beet pulps	100	53	54	64	71	73	80
Hominy feeds	100	56	60	94	89	99	128
Proprietary:							
Dairy 24%	100	56	61	77	73	76	87
20%	100	57	58	74	71	74	87
16%	100	56	62	79	76	81	100
Stock and horse	100	72	79	100	97	104	118
Calf, hog, etc.	100	75	77	84	88	91	100
Scratches	100	66	64	82	79	85	101
Mashes	100	66	69	82	76	87	103

VI. DEFICIENCIES, 1923-1937

The following table sets forth the proportions of the total numbers of brands found deficient in recent inspections.

Spring 1923	22%	Winter 1923-24	11%
Spring 1924	16%	Winter 1924-25	10%
Spring 1925	15%	Winter 1925-26	13%
Spring 1926	13%	Winter 1926-27	10%
Spring 1927	8%	Winter 1927-28	9%
Spring 1928	18%	Winter 1928-29	9%
Spring 1929	7%	Winter 1929-30	6%
Spring 1930	9%	Winter 1930-31	7%
Spring 1931	8%	Winter 1931-32	4%
Spring 1932	3%	Winter 1932-33	5%
Spring 1933	8%	Winter 1933-34	5%
Spring 1934	4%	Winter 1934-35	5%
Spring 1935	7%	Winter 1935-36	5%
Spring 1936	5%	Winter 1936-37	7%
Spring 1937	6%		

The deficiencies are relatively few in number. The analyses reported in this bulletin represent about seven-eighths of the brands registered at the time the inspection was made.

Few deficiencies occur nowadays in the protein contents of the goods sold in Vermont, but maintenance of fat and fiber guaranties seems to be more difficult to attain. Cases of fiber deficiency seem to be lessening in number, but those of fat to be increasing. A few of the guaranties seem to have been wrongly stated, that is to say, to be unwarranted by the known average compositions of the ingredients used in the proportions in which probably they were used. Fat guaranties are apt to be overstated and fiber guaranties understated in cases of this character. Parties responsible for such incorrect guaranties

technically are violating the law. They should recalculate their formulas.

The deficiencies are shown on pages 28 to 29.

It was pointed out in bulletin 416, in which were discussed the analytical results secured on samples drawn in December 1936, that eight feeds found on sale did not conform to their guaranties in both the April and December 1936 inspection, four being deficient in fat and four carrying too much fiber. Two of these were not found on sale by the sampling agents who were in the field last April, two passed muster in the present inspection, but four again failed to make good the guaranties made in their behalf. These four are:

MALTEX Co., INC., Burlington, Vt.
Maltex Cereal Feed. 12.5/3.75/9.

FOR-ALL GRAIN Co., INC., South Ryegate, Vt.
For-All Milk Grains. 20/5.5/8.

CHAS. M. SEAVER & Co., Williamstown, Vt.
Honor Brand Dairy Feed.

C. E. JOHNSON & Co., Island Pond, Vt.
Regular Dairy Feed Ration.

The first three run consistently low in fat, the last consistently high in fiber. The parties responsible for these goods have been advised to modify their guaranties in order that they may conform to the facts and notified that in case further deficiencies occur report may be made to the State's attorneys of their respective counties for prosecution as provided by law.

VII. "MIXED-ON-ORDER GOODS"

Several of the proprietary goods of today have evolved from the "mixed-on-order" goods of yesterday. As early as 1895 mixed rations were being sold in Vermont, and since then many types have entered the market.

Much has been written concerning the sale of unregistered, batch-mixed, mixed-to-order goods. A dairyman has his own pet formula, which both he and his animals like. He likes it sometimes because it makes a smaller dent in his pocketbook than competing brands. His cows show their appreciation by good production. But sometimes a mixture is bought which the cows do not like, and the milk flow decreases and the milk check lessens. The dairyman may send a sample to the Experiment Station for analysis, and there the chemist finds a low protein and an excessive fiber content. For some reason, this lot was not properly mixed by the local dealer. In such cases the farmer has no comeback. The feed was unregistered, unguaranteed, and its ingredient content was not stated. He is not protected by the state law

which controls the sale of all registered goods. He takes a chance when he buys this class of goods, unless he has implicit confidence in the honesty and skill of the local mixer.

Attention is called to the regulations pertaining to this class of goods.

"REGULATION CONCERNING THE SALE OF 'SPECIAL MIXTURES'"

"If a dealer mixes a feed on the order of the consumer who pays the dealer for the ingredients as such and also pays the dealer his charge for mixing the same, such mixture is held to be the consumer's and not the dealer's mixture, the latter acting only as the former's agent in making the mixture.

"Mixtures thus made are not subject to registration or license, provided they are made solely from registered and licensed ingredients and are made solely upon consumer's orders for immediate delivery.

Mixtures made by a dealer on his own account in advance or in anticipation of orders, to be stored upon the premises for sale in the usual course of business, must be registered, licensed, branded, and guaranteed."

VIII. CONCLUSION

Only 24 (one percent) of the 1,990 samples collected failed to meet their protein guaranties. These samples represented 599 different brands, 36 of which failed to comply with the guaranty. Six were low in protein, 18 in fat, 11 high in fiber, and one low in both protein and fat (pages 28 to 29). Eleven brands of dairy feed and four of mashes contained excessive amounts of crude fiber.

In April the consumer paid on the average \$51 per ton as compared with \$46.50 paid last December, a 10 percent increase. With this increase the trend is toward the purchase of cheaper and lower-grade products. When a farmer is choosing a feeding stuff, however, its total digestible nutrient contents should be taken into account. Many feed tags carry this information; if not, the manufacturer can furnish it. Other things being equal, a ration which has a high total digestible nutrient content is to be preferred, and in the long run it is the cheaper purchase.

APRIL, 1937

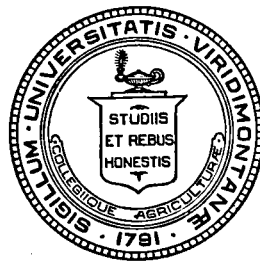
BULLETIN 416

University of Vermont and State Agricultural College
Vermont Agricultural Experiment Station

BURLINGTON, VERMONT

COMMERCIAL FEEDING STUFFS

By L. S. WALKER and E. F. BOYCE



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Twenty-two hundred sixteen samples, representing 584 brands, drawn from dealers' stocks during December, 1936, were analyzed for their protein, fat and fiber contents. Microscopical examinations were made of all ready-mixed rations except scratch feeds.

Brands in all respects up to guaranty in regard to their nutrient contents are listed on pages 4 to 26. Those which in some one or more respects were not quite what they were said to be as to their nutrient contents are listed on pages 27 to 28. Statements as to the ingredients used in the manufacture of the proprietary feeds appear on pages 9 to 28, and as to the manner in which their makers fulfilled these statements occur on pages 29 to 32.

It might be said, briefly, that 14 of the 170 brands of unmixed goods and 28 of the 414 brands of proprietary or mixed goods failed to meet their guaranties. This outcome is not so good as that of recent years. Protein guaranties were much better maintained, but fat and fiber deficiencies were more numerous. Shortages were noted in seven percent of the brands. A reasonably adequate inspection service has been in operation since 1923. In 1923-26, 86 percent of the brands were as good as they were said to be; in 1927-30, 90 percent; in 1931-36, 94 percent.

In all cases where an inferior ingredient was used in a mixture a statement setting forth such usage appeared on the tag or bag, as is required by state law. With very few exceptions manufacturers seem now to be complying with the state law in all respects.

The average ton price in December, 1936, taking all classes of feeds as a unit, was not far from \$46.50, or \$5.50 more than it was in April, 1936, and \$8.50 more than it was in the preceding December.

BULLETIN 416: COMMERCIAL FEEDING STUFFS

L. S. WALKER AND E. F. BOYCE

INTRODUCTION

In accordance with the requirements of the Vermont laws, as set forth in Sections 4479-4483, 7850-7864, 7885-7891, Public Laws, the following report is submitted setting forth the analysis of 2,216 samples collected in December, 1936. The object of the law is to prevent fraud or misrepresentation in the sale of commercial feeding stuffs. The statements which appear in the following pages will enable anyone who may be interested to determine the facts as to the quality of the various types of cattle and poultry feeds offered for sale. The law does not forbid the sale of inferior feeds, but it provides through publicity clear information as to their real nature.

The table of contents follows :

I.	Brands in all respects up to guaranty and statement of ingredients—pages 4 to 26.		
II.	Brands failing to meet guaranty and statement of ingredients—pages 27 and 28.		
		Up to guaranty Page	Below guaranty Page
	Cottonseed meals	4	27
	Linseed meals	4	..
	Soybean meals	4	..
	Babassu oil meal	4	..
	Corn gluten meals and feeds	5	..
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	Stock, horse, fitting, pasture, rabbit feeds, etc....	16-18	28
	Calf and hog meals	18, 19	28
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VI.	Average composition of feeding stuffs analyzed during 1936—pages 35, 36.		
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I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
COTTONSEED MEALS			
Allen, E. T., Co., Atlanta, Ga. Empire 41% Protein Prime Quality	41 ¹	5.5	13
Ashcraft-Wilkinson Co., Atlanta, Ga. Cow-Eta Brand 41% Prime Quality	41 ²	5	13
Eastern States Farmers' Exchange, Springfield, Mass. 41 Per Cent Protein Prime Quality	41	5.5	12
Humphreys-Godwin Co., Memphis, Tenn. Dixie Brand 41% Protein Prime	41	5	12
Lovitt, L. B., & Co., Memphis, Tenn. "Lovit Brand" 41% Protein Prime Quality	41 ²	5	13
Maxton Oil & Fertilizer Co., Maxton, N. C. "Mofco" 41% Protein—Prime Quality (1937)	41	6	10
Swift & Co. (Oil Mills), Atlanta, Ga. Swift's Cotton Bloom 41 Per Cent Protein	41	5	10
LINSEED MEALS			
Archer-Daniels-Midland Co., Minneapolis, Minn. 37 Per Cent Protein Old Process	37	4.5	9
32 Per Cent Protein Old Process	32	4.5	9
Canada Linseed Oil Mills, Ltd., Montreal, Que. "Maple Leaf" Protein 34% Oilcake	34	5	9
Kellogg, Spencer, & Sons, Inc., Buffalo, N. Y. Kellogg's 37% Protein Old Process	37	4.5	9
Kelloggs & Miller, Inc., Amsterdam, N. Y. K&M Brand 34% Protein Pure Old Process	34	5	10
K&M Brand 32% Protein Old Process	32	5	10
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que. Sherwin-Williams Screwpress	35	6.5	8
Sherwin-Williams Co., Cleveland, Ohio Sherwin-Williams Company Pure Old Process 34%	34	4.5	9
Sherwin-Williams Company Pure Old Process 32%	32	4.5	9
SOYBEAN MEALS			
Allied Mills, Inc., Peoria, Ill. Super Soy	37	4.5	6.5
Soy, Calc, Bone, Iron, Copper, KI, Salt.			
Archer-Daniels-Midland Co., Minneapolis, Minn. 41 Per Cent Protein Old Process	41	4.5	7
Central Soya Co., Inc., Decatur, Ind. Central 41% Protein	41	4.5	7
Clinton Co., Clinton, Iowa Clinton New Process	44	0.5	7
Norris Grain Co., Chicago, Ill. Norris Grain Company—Expeller Type	41	4.5	7
Staley, A. E., Manufacturing Co., Decatur, Ill. Staley's	41	4.5	7
BABASSU OIL MEAL			
Baker, Franklin, Div., General Foods Corp., Hoboken, N. J. Baker's Cooked Kernel	23	6	12

¹ Two samples, one below protein guaranty, 40.17%.² Twelve samples, one below protein guaranty, 39.21%.³ Twelve samples, one below protein guaranty, 39.47%.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
CORN GLUTEN MEALS AND FEEDS			
American Maize-Products Co., New York, N. Y.			
Cream of Corn Gluten Feed	25	2	8.5
Bacon, Edward R., Grain Co., Chicago, Ill.			
Bacon's Gluten Feed	24	2	8
Clinton Co., Clinton, Iowa			
Clinton Corn Gluten Feed	25	2	8.5
Corn Products Refining Co., New York, N. Y.			
Diamond Corn Gluten Meal	43	1	4
Buffalo Corn Gluten Feed	25	2	8.5
Heavy Buffalo Corn Gluten Feed (Sweetened)	20	1	7
Hubinger Co., Keokuk, Iowa			
Ke OK uK Corn Gluten Feed	25	2	8.5
Penick & Ford, Ltd., Inc., Cedar Rapids, Iowa			
Douglas Corn Gluten Meal	43	1	4
Douglas Corn Gluten Feed	25	1.5	8.5
Sweetened Douglas Corn Gluten Feed	20	1	7
Staley, A. E., Manufacturing Co., Decatur, Ill.			
Staley's Corn Gluten Feed	25	1	8
Union Starch & Refining Co., Columbus, Ind.			
Union Corn Gluten Feed	25	1	8
DISTILLERS' AND BREWERS' DRIED GRAINS			
Allied Mills, Inc., Peoria, Ill.			
Brewers'	24	5	18
Continental Distilling Corp., Philadelphia, Pa.			
Corn Distillers'	28	9	15
Corn Distillers'	25	7	15
Dewey Bros. Co., Blanchester, Ohio			
Corn 3D (Dewey's Distillers')	28 ¹	8	14
Distillers' Corp., Ltd., Montreal, Que.			
Distillco Corn Distillers'	27	10	13
Farmers Feed Co., Buffalo, N. Y.			
Brewers' (1937)	22	6	17
Farmers Feed Co., New York, N. Y.			
"Bull Brand" Brewers'	26	6	17
Ferneau Grain Co., Blanchester, Ohio			
F Corn Distillers'	28 ²	9	14
Kelley, F. W., St. Johnsbury, Vt.			
Kelley's Rye Distillers'	16	5	20
Martenis, C. J., Grain Co., New York, N. Y.			
Alco Malt Sprouts (1937)	24	0.5	15
Alco Brewers'	22	6	20
Alco Brewers'	21	6	20
Neumond Co., St. Louis, Mo.			
"Neumond" 28% Corn Distillers'	28	7	15
St. Albans Grain Co., St. Albans, Vt.			
Corn Distillers'	28	7	14
Brewers'	21	5	15
Walker, Hiram, & Sons, Inc., Peoria, Ill.			
Corn Distillers'	28	6	13
WHEAT OFFALS—WHEAT BRANS			
Atkinson Milling Co., Minneapolis, Minn.			
Atkinson's (+)	14	4	12

¹ Four samples, one below protein guaranty, 26.24%.

² Four samples, one below protein guaranty, 27.12%.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT BRANS— <i>continued</i>			
Bay State Milling Co., Winona, Minn. "Wingold" Pure Hard	14.5	4.75	13
Coatsworth & Cooper, Toronto, Ont. "C and C" Pure	15	3.5	11.5
Commander-Larabee Corp., Minneapolis, Minn. Sunfed (+)	14	4	12
Copeland Flour Mills, Ltd., Midland, Ont. Copeland's "Dandy"	15	3.5	11.5
Eagle Roller Mill Co., New Ulm, Minn. Eagle (+)	14	4	12
Federal Mill, Inc., Lockport, N. Y. Lucky Hard (+)	15	3	14
Forrest, J. A., Co., Minneapolis, Minn. Bronco Pure	15	3.5	11.5
General Mills, Inc., Minneapolis, Minn. Washburn's Gold Medal Hard (+)	14	4	12
Ham, Frank B., & Co., Ltd., Toronto, Ont. "Hamco" Brand	15	3.5	11.5
Hecker-Jones-Jewell Milling Div., Standard Milling Co., Buffalo, N. Y. Choice (+)	13.5	3.5	14
International Milling Co., Minneapolis, Minn. Blackhawk Pure	15	3.2	12
Kansas Flour Mills Corp., Kansas City, Mo. Big Flake Pure	15	3.5	11
Lake of the Woods Milling Co., Ltd., Montreal, Que. Lakewoods	15	3.5	11.5
Lewi, Franklin L., Inc., New York, N. Y. _____ (+)	13	4	13
Maple Leaf Milling Co., Ltd., Toronto, Ont. Rex (+)	15 ¹	3.5	12
Ogilvie Flour Mills, Co., Ltd., Montreal, Que. Ogilvie's	15	3.5	11.5
Parrish & Heimbecker, Ltd., Toronto, Ont. Parrheim Pure	15	3.5	11.5
Pillsbury Flour Mills Co., Minneapolis, Minn. Pillsbury's Hard (+)	14	4	12
Pratt, R. C., Toronto, Ont. Ruler Brand Pure	15	3.5	11.5
Quaker Oats Co., Chicago, Ill. Bell Cow (+)	15	3.5	10
Russell-Miller Milling Co., Minneapolis, Minn. Hard Occident	14	4	11.5
St. Lawrence Flour Mills Co., Ltd., Montreal, Que. Premier	15	3.5	11.5
State Mill & Elevator, Grand Forks, N. Dak. Dakota Maid Pure	15	5	12
Stott, David, Flour Mills, Inc., Detroit, Mich. Spring (+)	14.5	4	12.5
Stratton & Co., Concord, N. H. Stratton's (+)	14	4	11
Urban, George Milling Co., Buffalo, N. Y. _____ (+)	14	3.5	12
Valley City Milling Co., Portland, Mich. Rowena	13.75	4	12.3
Western Canada Flour Mills Co., Toronto, Ont. Pioneer	15	3.5	11.5

¹ Seven samples, one below protein guaranty, 13.99%.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
WHEAT OFFALS—WHEAT MIDDINGS			
Coatsworth & Cooper, Toronto, Ont.			
"C and C" Pure Shorts	16	5	8
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed Standard (+)	15	4	9.5
Federal Mill, Inc., Lockport, N. Y.			
Lucky Hard Standard (+) (1937)	16	4.5	9.5
Dairy Maid Soft Winter Flour (+)	13.5	3.5	6
Forrest, J. A., Co., Minneapolis, Minn.			
Bronco Pure Shorts	16	5	8
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Hard Flour (+)	16	4	6
Washburn's Gold Medal Hard Standard (+)	15	4	9.5
Ham, Frank B., & Co., Ltd., Toronto, Ont.			
"Hamco" Brand Shorts	16	5	8
International Milling Co., Minneapolis, Minn.			
Blackhawk Standard (+)	16	4.5	8.5
Lake of the Woods Milling Co., Ltd., Montreal, Que.			
Lakewoods Shorts	16	5	8
Lewi, Franklin L., Inc., New York, N. Y.			
Standard (+)	14	4	9.5
Maple Leaf Milling Co., Ltd., Toronto, Ont.			
Rex (+)	16	5	7.5
Niagara Falls Milling Co., Lockport, N. Y.			
Niagara Standard (+)	14.5	4.5	7
Ogilvie Flour Mills Co., Ltd., Montreal, Que.			
Ogilvie's Shorts	16	5	8
Parrish & Heimbecker, Ltd., Toronto, Ont.			
Parrheim Pure Shorts	16	5	8
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Hard Standard B (+)	15	4	9.5
Quaker Oats Co., Chicago, Ill.			
Bell Cow Shorts (+)	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident Flour	15.5	4	5
Hard Occident Standard	15	4	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore Flour (+)	15	4	6
St. Lawrence Flour Mills, Co., Ltd., Montreal, Que.			
Premier Shorts	16	5	8
Stott, David, Flour Mills, Inc., Detroit, Mich.			
Stott's Fine Flour (+)	14.5	3.5	6
Urban, George, Milling Co., Buffalo, N. Y.			
_____ (+)	15	4	9.5
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14	4.2	6

WHEAT OFFALS—WHEAT MIXED FEEDS

Bailey, E. W., & Co., Montpelier, Vt.			
Capital	14	3	7
Federal Mill, Inc., Lockport, N. Y.			
Dairy Maid Soft Winter (+)	13	3.5	10
Ide, E. T. & H. K., St. Johnsbury, Vt.			
Ideal	15	4	8
Park & Pollard Co., Inc., Buffalo, N. Y.			
Park & Pollard Heavy	15.5	3.35	8

(+) "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
<i>WHEAT OFFALS—WHEAT MIXED FEEDS—continued</i>			
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's Fancy (+)	15	4	8.5
Ralston Purina Co., St. Johnsbury, Vt.			
Brooks' Fancy	15	4	8
Russell-Miller Milling Co., Minneapolis, Minn.			
Hard Occident	15	4.5	9.5
St. Albans Grain Co., St. Albans, Vt.			
Wirthmore (+)	15	3.75	8
Stott, David, Flour Mills, Inc., Detroit, Mich.			
Columbus Heavy (+)	14.5	3.7	8.5
Stratton & Co., Concord, N. H.			
Stratton's (+)	13.5	4.11	7.13
Valley City Milling Co., Portland, Mich.			
Rowena (+)	14	4.1	8.2
<i>WHEAT OFFALS—WHEAT RED DOG</i>			
Commander-Larabee Corp., Minneapolis, Minn.			
Sunfed	16	4	4
Duluth-Superior Milling Div., Standard Milling Co., Minneapolis, Minn.			
Flour (1937)	15	3	3
General Mills, Inc., Minneapolis, Minn.			
Washburn's Gold Medal Pure Hard Adrian	16	3.5	4
Hecker-Jones-Jewell Milling Div., Standard Milling Co., Minneapolis, Minn.			
.....	15	3.85	4.75
International Milling Co., Minneapolis, Minn.			
Blackhawk	16	3.5	4
Northwestern Consolidated Milling Div., Standard Milling Co., Minneapolis, Minn.			
XXX Comet	16	4	4
Pillsbury Flour Mills Co., Minneapolis, Minn.			
Pillsbury's XX Daisy	16	4	4
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Superior	16.5	3.5	4
Urban, George, Milling Co., Buffalo, N. Y.			
Flour	15	4	4
<i>HOMINY FEEDS</i>			
Kellogg Sales Co., Battle Creek, Mich.			
White	10	6	5
Krause, Chas. A., Milling Co., Milwaukee, Wis.			
Badger White	10	6	5
Miner-Hillard Milling Co., Wilkes-Barre, Pa.			
Choice Steam Cooked	10	5	5
Patent Cereals Co., Geneva, N. Y.			
.....	10	5	5
Post Products Div., General Foods Corp., Battle Creek, Mich.			
Burt's	10	6	6
Pratt Food Co., Buffalo Mills, Buffalo, N. Y.			
Pratt's White	10	5	6
Quaker Oats Co., Chicago, Ill.			
White	10	5	5
Yellow	10	5	5

(+) "With ground screenings not to exceed mill run" or equivalent phraseology.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES		
	Crude protein %	Crude fat %	Crude fiber %
DRIED BEET PULPS			
Larrowe Milling Co., Detroit, Mich.			
Molasses	7	0.3	20
.....	7	0.3	22.5
ALFALFA MEALS			
Caple, A. B., Co., Toledo, Ohio			
.....	13	1	33
Denver Alfalfa Milling & Products Co., Lamar, Colo.			
.....	13	1	33
Pecos Valley Alfalfa Mill Co., Hagerman, N. Mex.			
Peevee Leaf	20	2.5	18
Pecos Special	13	1.5	33
MISCELLANEOUS			
Elmore Milling Co., Inc., Oneonta, N. Y.			
Vigor Feed (Oat Hulls, Oat Middlings, Oats Shorts, Molasses)	5	1	28
Forrest, J. A., Co., Minneapolis, Minn.			
Fine Ground Feeding Oatmeal	15	6	4
Pratt Food Co., Buffalo Mills, Buffalo, N. Y.			
Oat Feed (Oat Hulls, Oat Middlings, Oat Shorts)	5	1.5	30
Quaker Oats Co., Chicago, Ill.			
Vim Oat Mill Feed (Oat Hulls, Oat Middlings, Oat Shorts) 5 ¹	5 ¹	1.5	30
Sugared Vim Oat Mill Feed (Oat Hulls, Oat Middlings, Oats Shorts)	5	1.25	27.5
Ralston Purina Co., St. Louis, Mo.			
Protena Sweet Feed "D"	6	1	25
Alf. Oatmld. Mol. Calc. Iod. salt. †			
Robin Hood Mills, Ltd., Moose Jaw, Sask.			
Blackhawk Pulverized Oat Feed (Oat Hulls, Oat Middlings, Oat Shorts, Molasses)	5.5	2.5	27.9
Upper Hudson Rye Flour Mills, Inc., Troy, N. Y.			
Upper Hudson Rye Feed and Rye Screenings	13.5	3	6

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note*
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"				
Allied Mills, Inc., Peoria, Ill.				
Wayne Amco 32% Supplement	32	4	9	✓
Soy, Gluml, Dist, Cotton, Pnut, Glufd, Linsd, Bran, Mol, Bone, Calc, Salt, Iron, KI. ‡				
*Wayne Amco 24%	24	4	9	✓
Cotton, Gluml, Dist, Brew, Glufd, Linsd, Soy, Pnut, Oats, Corn & Hom, Bran, Mol, Bone, Calc, Salt, Iron, KI.				
Empire 24%	24	3	12	✓
Dist, Brew, Soy, Glufd, Gluml, Cotton, Corn, Bran, Scrngs, Oatmld, Mol, Calc, Salt.				
Wayne Amco 20%	20	4	9	✓
Cotton, Brew, Dist, Oats, Glufd, Corn & Hom, Soy, Gluml, Linsd, Bran, Mol, Bone, Calc, Salt, Iron, KI.				
Empire 20%	20	3	12	✓
Soy, Cotton, Bran, Scrngs, Oatmld, Mol, Calc, Salt.				

¹ Thirteen samples, two below protein guaranty, 4.27%: 4.27%.
 * Check mark ✓ means that the brand in question was found to be certified with respect to ingredients. Statements concerning brands not found to be as certified in respect to ingredients appear on pages 29 to 32.
 ‡ For key to these abbreviations, see page 29.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
Allied Mills, Inc.—continued				
Empire 16½%	16.5	3	12	✓
Dist, Brew, Soy, Glufd, Gluml, Cotton, Corn, Bran, Scrngs, Oatmld, Mol, Calc, Salt.				
Wayne Amco 16%	16	3.5	9	
Dist, Brew, Soy, Glufd, Gluml, Cotton, Bran, Scrngs, Oatmld, Mol, Calc, Salt. ‡				
Bailey, E. W., & Co., Montpelier, Vt.				
Sweetened Capital	24	4.5	9	✓
Glufd, Linsd, Hom, Cotton, Oats, Bran, Corn, Soy, Bone, Calc, Salt, Mol.				
Bailey's New Deal	20	5	11	✓
Glufd, Hom, Brew, Cotton, Linsd, Midds, Bran, Oatmld, Salt, Bone, Calc, Mol.				
Favorite	20	4	7.5	✓
Hom, Cotton, Linsd, Corn, Oats, Bran, Glufd, Midds, Bone, Calc, Salt, Soy.				
Favorite Sweetened	20	4	7.5	✓
Hom, Cotton, Linsd, Corn, Oats, Bran, Soy, Glufd, Midds, Bone, Calc, Salt, Mol.				
Our 20% Special	20	3.5	9	
Glufd, Midds, Oatmld, Corn, Bran, Cotton, Mol, Salt, Bone, Calc, Soy.				
Bailey's 16%	16	5	9	✓
Glufd, Linsd, Hom, Cotton, Oats, Bran, Bone, Calc, Salt, Mol.				
Barber & Bennett, Inc., Albany, N. Y.				
Big Ben Brand 24%	24	4	11	✓
Glufd, Cotton, Bar, Soy, Bran, Dist, Babassu or Cocnut, Scrngs, Mol, Calc, Bone, Salt, KI.				
Big Ben Brand 20%	20	3.5	12	✓
Glufd, Bar, Soy, Bran, Dist, Scrngs, Mol, Calc, Bone, Salt, KI.				
Big Ben Brand 16%	16	3.5	12	
Glufd, Cotton, Bar, Soy, Bran, Dist, Scrngs, Mol, Calc, Bone, Salt, KI.				
Blatchford Calf Meal Co., Waukegan, Ill.				
V-D	31	5	5.75	
Locust, Anise, Flax, Milkalb, Fish, Blood, Cocoa, Fngk, KI, Codlivoil, Rice, Midds, Soy, Bone, Linsd, Salt, Cocnut.				
Brown, H. M., & Co., Castleton, Vt.				
Farmers' Choice 20% †	20	4.5	9.5	
Bran, Corn & Hom, Oats, Bar, Glufd, Cotton, Soy, Linsd, Dist, Mol, Bonebl, Calc, Char, Fngk, KI, Salt.				
Chapin & Co., Hammond, Ind.				
Unicorn 24%	24	4.5	10	✓
Linsd, Gluml, Glufd, Cotton, Brew, Cornoil, Soy, Bran, Midds, Hom, Bar, Mol, Calc, Salt.				
Unicorn 20%	20	4.5	10	✓
Cotton, Linsd, Brew, Cornoil, Glufd, Bran, Midds, Soy, Hom, Mol, Salt, Calc, Bar.				
Crosby, E. C., Danby, Vt.				
Crosby's A Quality 20% †	20	4.5	8	
Soy, Hom, Bran, Midds, Linsd, Cotton, Dist, Oats, Bar, Glu, Brew, Mol, Calc, Salt, Bone.				
Crosby's B Quality 20% †	20	4.5	9	
Linsd, Bran, Glu, Cotton, Oats, Brew, Corn, Ryefd, Mol, Salt, Bone, Calc.				
Crosby Milling Co., Brattleboro, Vt.				
Brattleboro Milk -A- Plant 20	20	3.5	8.5	✓
Linsd, Soy, Cotton, Brew, Gluml, Glufd, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.				
Brattleboro Milk -B- Plant 20	20	3.5	12	✓
Linsd, Soy, Glufd, Cotton, Corn, Hom, Oats, Bar, Brew, Oatmld, Bran, Midds, Calc, Mol, Salt.				
Brattleboro Milk Plant -16-	16	3.5	8.5	✓
Linsd, Cotton, Brew, Gluml, Glufd, Corn, Oats, Bar, Bran, Midds, Mol, Bone, Calc, Salt.				
Curtis, J. F., Sharon, Vt.				
Sharon Mills Special 20% (1937)	20	5	10	✓
Bran, Brew, Cotton, Soy, Linsd, Glufd, Oats, Corn or Hom, Mol, Bone, Calc, Salt.				
Danville Grain Co., Inc., Danville, Vt.				
Danville 20%	20	4	10	✓
Linsd, Cotton, Glufd, Bran, Midds, Gluml, Malt, Oats, Corn, Mol, Calc, Salt.				
Blue Ribbon 20%	20	4	11.5	✓
Bran, Cotton, Glufd, Hom, Gluml, Dist, Soy, Oatmld, Calc, Salt.				
Davis Feed Co., Inc., Rutland, Vt.				
Vermont 20	20	4.5	8	✓
Soy, Linsd, Cotton, Dist, Bar, Mol, Oats, Calc, Glufd, Midds, Bran, Salt, Corn.				

* See footnote, page 9.

† Open formula.

‡ For key to these abbreviations, see page 29.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Davis Feed Co., Inc.— <i>continued</i>				
Davis 20% Kow	20	4	8	✓
Corn, Bar, Oats, Bran, Midds, Glufd, Cotton, Soy, Linsd, Dist, Brew, Mol, Calc, Salt.				
Delaware Mills, Inc., Deposit, N. Y.				
Indian Sweet 20% (1937)	20	4	12	✓
Mol, Linsd, Glufd, Cotton, Soy, Pnut, Bran, Midds, Corn, Oatmfd, Dist or Buckwht, Phoslime, Salt.				
Demick, H. W., Inc., Derby Line, Vt.				
Beats 'Em All	20	4	10	✓
Cotton, Linsd, Glufd, Midds, Bran, Corn, Oats, Dist, Mol, Salt, Calc.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States 32% Supplement†	32	4.5	8	✓
Cotton, Gluml, Soy, Dist, Mol, Bran, Linsd, Dical, Salt.				
Eastern States Milkmore†	24	4.5	9	✓
Cotton, Dist, Bran, Soy, Oats, Glufd, Mol, Cornfd, Linsd, Dical, Salt.				
Eastern States Fulpail†	20	4.5	8.5	✓
Dist, Oats, Bran, Cornfd, Cotton, Mol, Soy, Glufd, Linsd, Bar, Dical, Salt.				
Eastern States Highland 20†	20	4	11.5	✓
Dist, Oatmfd, Cotton, Soy, Mol, Bran, Hom, Bar, Glufd, Calc, Salt.				
Eastern States Sixteen†	16	4	8	✓
Cornfd, Oats, Bran, Dist, Mol, Glufd, Bar, Cotton, Linsd, Soy, Dical, Salt.				
Eastern States Highland 16†	16	4	11	✓
Dist, Hom, Oatmfd, Mol, Bar, Bran, Soy, Glufd, Cotton, Calc, Salt.				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore 32% Supplemental	32	4	9	✓
Glufd, Gluml, Cotton, Linsd, Bran, Soy, Mol, Calc, Salt.				
Elmore Milk Grains	24	4.5	10	✓
Dist, Bran, Linsd, Corn or Hom, Malt, Glufd, Cotton, Brew, Soy, Calc, Salt.				
Elmore Milk Grains Sweet	24	4.5	10	✓
Dist, Bran, Linsd, Corn or Hom, Malt, Glufd, Cotton, Brew, Mol, Soy, Calc, Salt.				
Elmore Milk Grains Junior	20	4.5	10	✓
Dist, Bran, Linsd, Corn or Hom, Malt, Glufd, Cotton, Brew, Soy, Calc, Salt.				
Elmore Milk Grains Junior Sweet	20	4.5	10	✓
Dist, Bran, Linsd, Corn or Hom, Malt, Glufd, Cotton, Brew, Soy, Mol, Calc, Salt.				
Granger 20%	20	4	11	✓
Bran, Midds, Bar, Cotton, Glufd, Corn or Hom, Soy, Mol, Scrngs, Oats, Brew, Copra, Calc, Salt.				
Elmore's Sweet Digesto	16	4	12	✓
Glufd, Cotton, Bran, Coconut, Scrngs, Oatmfd, Mol, Salt.				
Elmore 16% Pasture	16	3.5	10	✓
Oats, Corn or Hom, Bran, Midds, Cotton, Mol, Glufd, Calc, Salt, Brew.				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Conestoga 20	20	4	11	✓
Cotton, Bran, Mol, Glufd, Brew, Dist, Soy, Linsd, Scrngs, Bone, Calc, Salt.				
Eshelman Lancaster 20	20	4	11	✓
Bran, Cotton, Oats, Glufd, Mol, Brew, Dist, Corn, Linsd, Soy, Bone, Calc, Salt.				
Eshelman Pennsy 16	16	3	11	✓
Bran, Cotton, Mol, Glufd, Brew, Linsd, Soy, Scrngs, Oatmfd, Bone, Calc, Salt.				
First National Stores, Inc., Somerville, Mass.				
Brookside 24%	24	4	10	✓
Dist, Cotton, Glufd, Soy, Linsd, Corn, Bran, Midds, Mol, Calc, Bone, Salt.				
Brookside 20%	20	3.5	10	✓
Dist, Cotton, Glufd, Soy, Linsd, Corn, Bran, Midds, Mol, Calc, Bone, Salt.				
Grand Union Stores, Inc., New York, N. Y.				
Grand Union 24%	24	3.5	10	✓
Soy, Gluml, Glufd, Brew, Malt, Bran, Oats, Mol, Calc, Salt.				
Grand Union 20%	20	3.5	10	✓
Soy, Gluml, Brew, Malt, Bran, Glufd, Bar, Oats, Mol, Calc, Salt.				
Grand Union 16%	16	3	12	✓
Bran, Malt, Brew, Gluml, Soy, Scrngs, Oatmfd, Mol, Calc, Salt.				

* See footnote, page 9.
† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's 32%	32	4	9	✓
Cotton, Soy, Linsd, Gluml, Glufd, Bran, Bone, Calc, Salt, Mol.				
Grandin's Sweetened 24%	24	4	10	✓
Mol, Cotton, Soy, Linsd, Gluml, Glufd, Bran, Midds, Corn, Cornfd, Hom, Bone, Calc, Salt.				
M-S (Money Saver) 24% Sweetened	24	3.5	12	✓
Mol, Cotton, Soy, Linsd, Gluml, Glufd, Dist, Brew, Bran, Midds, Scrngs, Oatmld, Bone, Calc, Salt.				
Grandin's Twin Six Sweetened	22	4	12	✓
Mol, Cotton, Soy, Linsd, Glufd, Bran, Midds, Corn, Cornfd, Hom, Alf, Bone, Calc, Salt.				
Grandin's Milk Maker	20	5	12	✓
Beet, Cotton, Soy, Linsd, Glufd, Bran, Midds, Corn, Cornfd, Hom, Bone, Calc, Salt.				
Grandin's Sweetened 20%	20	4	12	✓
Mol, Cotton, Soy, Linsd, Glufd, Bran, Midds, Corn, Cornfd, Hom, Bone, Calc, Salt.				
M-S (Money Saver) 20% Sweetened	20	3.5	12	✓
Mol, Cotton, Soy, Linsd, Glufd, Dist, Brew, Bran, Midds, Scrngs, Oatmld, Bone, Calc, Salt.				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Milky Way 24%	24	3.5	9	✓
Cornfd, Dist, Brew, Bran, Cotton, Midds, Oats, Bar, Mol, Linsd, Gluml, Glufd, Calc, Salt, Soy, Malt.				
Milky Way 20%	20	3.5	9	✓
Cornfd, Dist, Brew, Bran, Cotton, Midds, Bar, Oats, Mol, Soy, Linsd, Gluml, Calc, Salt, Malt, Glufd.				
Daily Milk 16	16	3.5	12	✓
Bran, Cotton, Midds, Mol, Linsd, Gluml, Scrngs, Oatmld, Calc, Salt, Glufd, Soy, Malt.				
Ide, E. T. & H. K., St. Johnsbury, Vt.				
Ideal Sweetened	24	5	10	✓
Mol, Dist, Cotton, Glufd, Linsd, Corn, Oats, Bran, Salt, Calc.				
Ide's Special	20	4	10	✓
Bran, Oats, Corn, Glufd, Cotton, Linsd, Dist, Salt, Calc.				
Royal Sweetened	20	4	10	✓
Mol, Dist, Cotton, Gluml, Glufd, Linsd, Corn, Oats, Bran, Salt, Calc.				
Sunshine	18	4	10	✓
Bran, Midds, Oats, Bar, Corn, Cotton, Soy, Glufd, Dist, Mol, Salt, Calc.				
Johnson, W. B., & Son, Essex Junction, Vt.				
Johnson's Economy	20	4	12	✓
Glufd, Cotton, Linsd, Hom or Corn, Rye, Bran, Midds, Oatmld, Mol, Bone, Calc, Salt.				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Mormilk	24	4.5	10	✓
Bran, Midds, Linsd, Glufd, Gluml, Brew, Dist, Cotton, Soy, Hom, Oats, Bar, Salt, Calc, Mol, Malt.				
Kasco Beatsall Milk	22	4	10	✓
Bran, Midds, Linsd, Dist, Glufd, Gluml, Cotton, Soy, Hom, Salt, Calc, Beet, Mol.				
Kasco 20% Milk Maker	20	4	11	✓
Cotton, Linsd, Brew, Dist, Glufd, Gluml, Soy, Corn, Bran, Midds, Oats, Bar, Salt, Calc, Mol, Malt.				
Apex 20%	20	3.5	12	✓
Soy, Cotton, Glufd, Gluml, Bran, Scrngs, Oatmld, Malt, Brew, Dist, Mol, Salt, Calc.				
Kasco 18%	18	3.5	10	✓
Glufd, Gluml, Brew, Dist, Cotton, Soy, Bran, Midds, Bar, Oats, Corn, Malt, Mol, Calc, Salt.				
Larrowe Milling Co., Detroit, Mich.				
Larrowe's 32%	32	4	10.5	✓
Cotton, Bran, Soy, Beet, Linsd, Calc, Salt.				
Larro	20	3.75	12	✓
Cotton, Corn, Midds, Soy, Linsd, Glufd, Beet, Bran, Salt.				
Larrowe's 16	16	3	11	✓
Cotton, Glufd, Midds, Linsd, Corn, Beet, Bran, Salt.				
Maritime Milling Co., Inc., Buffalo, N. Y.				
Sweetened BB Farmers' Mixing	32	5	10	✓
Mol, Soy, Cotton, Linsd, Glufd, Brew, Bone, Calc, Salt.				
BB Marmico 16% Protein with Molasses	16	4	12	✓
Brew, Soy, Cotton, Glufd, Corn, Scrngs, Bran, Mol, Bone, Calc, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
McGovern, T. J., Cambridge, Vt.				
McGovern's 24% Cotton, Linsd, Hom or Corn, Bran, Shorts, Glufd, Gluml, Brew, Bone, Salt, Calc, Mol, Diat, Soy.	24	4	8	✓
McGovern's 20% Cotton, Linsd, Hom or Corn, Bran, Gluml, Dist, Soy, Shorts, Glufd, Wheat & Oats, Bar, Brew, Bone, Salt, Calc, Mol.	20	4	8	✓
McGovern's 20% Farm Relief Cotton, Linsd, Hom or Corn, Bran, Glufd, Bone, Dist, Soy, Shorts, Salt, Calc, Mol, Oatmfd.	20	4	12	✓
McGovern's 20% Milk Special (1937) Cotton, Linsd, Hom or Corn, Bran, Glufd, Oatmfd, Soy, Dist, Shorts, Bone, Salt, Calc, Brew, Mol.	20	4	12	✓
McGovern's 16% Cotton, Linsd, Hom or Corn, Bran, Oats, Dist, Soy, Shorts, Glufd, Gluml, Bone, Salt, Calc, Mol.	16	4	8	
McGovern's 16% Milk Special (1937) Cotton, Linsd, Hom or Corn, Bran, Glufd, Oatmfd, Soy, Dist, Shorts, Bone, Salt, Calc, Brew, Mol.	16	4	12	✓
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.				
U. S. 24% Glufd, Cotton, Dist, Scrngs, Oatmfd, Bran, Corn, Hom, Calc, Mol, Soy, Malt, Cocnut.	24	3	12	
U. S. 20% Glufd, Cotton, Cocnut, Bran, Corn, Dist, Oatmfd, Mol, Calc, Bone, Salt, Soy, Malt.	20	3	12	✓
Mt. Mansfield Co-operative Creamery & Grain Assoc., Inc., Stowe, Vt.				
Mt. Mansfield 20% Glufd, Hom or Corn, Brew, Bran, Linsd, Cotton, Bone, Calc, Salt.	20	5.5	8	✓
New England Retail Grain Dealers' Cooperative Assoc., Springfield, Mass.				
New England Quality 24% Brew, Cotton, Glufd, Soy, Linsd, Hom, Corn, Bran, Midds, Mol, Bone, Calc, Salt, KI.	24	4	11	
New England Quality 20% Brew, Cotton, Glufd, Soy, Linsd, Hom, Corn, Bran, Midds, Mol, Bone, Calc, Salt, KI.	20	4	11	
New England Yankee 16 Brew, Soy, Cotton, Glufd, Corn, Scrngs, Bran, Mol, Bone, Calc, Salt.	16	4	12	✓
Norton, E. G. & A. W., Vergennes, Vt.				
Kow Feed Bran, Cotton, Glufd, Linsd, Brew, Oatmfd, Midds, Corn, Bone, Calc, Salt, Mol.	20	4	12	
Park & Pollard Co., Inc., Buffalo, N. Y.				
Manamar Mixing Kelp, Fish, Seashl, Bran, Dist, Brew, Malt, Copra, Linsd, Cotton, Soy, Glufd, Mol, Calc, Salt.	26	4	9	✓
Milk-Maid 24% Sweetened Glufd, Linsd, Cotton, Dist, Soy, Bran, Brew, Malt, Gluml, Corn, Fish, Mol, Calc, Salt.	24	4	11	✓
Bidwell 24% Bran, Linsd, Soy, Bar, Malt, Gluml, Cotton, Glufd, Scrngs, Mol, Calc, Salt.	24	3.5	11	
Milk-Maid 20% Glufd, Linsd, Cotton, Dist, Soy, Oats, Bran, Brew, Malt, Gluml, Corn, Mol, Calc, Salt.	20	4	9	✓
Yankee 20 Glufd, Cotton, Bran, Midds, Gluml, Soy, Linsd, Oats, Corn, Brew, Mol, Calc, Salt.	20	3.5	9	
Pease, A. D., Grain Co., Burlington, Vt.				
Peasco 20% Bran, Glufd, Oats, Dist, Cotton, Linsd, Soy, Corn or Hom, Mol, Oyster, Bone, Salt.	20	4.5	9	
Quaker Oats Co., Chicago, Ill.				
Quaker 24% Protein Hom, Cotton, Glufd, Soy, Bran, Midds, Oatmfd, Salt, Limeiod, Bone, Mol, Bar.	24	3.5	12	✓
Quaker 20% Protein Hom, Bar, Cotton, Glufd, Soy, Bran, Midds, Oatmfd, Salt, Limeiod, Bone, Mol.	20	3	12	✓
Race Milling Co., Granville, N. Y.				
Race's 24% Bran, Soy, Cotton, Glufd, Hom or Corn, Ryefd, Brew, Dist, Mol, Calc, Salt.	24	4	9	✓
Race's 20% Bran, Soy, Cotton, Glufd, Hom or Corn, Ryefd, Brew, Dist, Mol, Calc, Salt.	20	3.5	9	✓

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"— <i>continued</i>				
Ralston Purina Co., St. Louis, Mo.				
Purina Milking Cow Chow (34%) Linsd, Soy, Gluml, Cotton, Alf, Mol, Calc, Iodsalt.	34	3.5	12	✓
Purina Milking Cow Chow (24%) Linsd, Soy, Glufd, Cotton, Dist, Brew, Midds, Bran, Alf, Mol, Calc, Iodsalt.	24	4	12	✓
Protena 24% Linsd, Soy, Cotton, Alf, Glufd, Midds, Bran, Mol, Calc, Iodsalt.	24	3.5	12	✓
Purina Milking Cow Chow (20%) Beet, Linsd, Soy, Glufd, Cotton, Dist, Brew, Midds, Bran, Corn, Alf, Mol, Calc, Iodsalt.	20	4	12	✓
Protena 20% Linsd, Soy, Cotton, Glufd, Midds, Alf, Bran, Scrngs, Mol, Calc, Iodsalt.	20	3.5	12	✓
Purina Milking Cow Chow (16%) Linsd, Soy, Glufd, Oats, Bar, Cotton, Dist, Brew, Midds, Bran, Corn, Alf, Beet, Mol, Calc, Iodsalt.	16	3.5	12	✓
Protena 16% (Buffalo Mill) Linsd, Soy, Glufd, Alf, Midds, Cotton, Mol, Scrngs, Bran, Calc, Iodsalt.	16	3.5	14	
Richford Feed Co., Richford, Vt.				
Butter Fat 20% Corn, Hom, Cotton, Soy, Bran, Dist, Brew, Glufd, Oatmlfd, Mol, Salt, Calc, Bone.	20	5	12	✓
Extra Good 20% Corn, Hom, Cotton, Linsd, Midds, Bar, Oats, Gluten, Soy, Bran, Dist, Brew, Mol, Salt, Calc, Bone.	20	4.5	8.5	✓
Richmond Feed Co., Richmond, Vt.				
Richmond Special 24% Bran, Brew, Dist, Oats, Glufd, Cotton, Linsd, Soy, Hom or Corn, Salt, Bone, Calc.	24	5	9	✓
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 32 Supplement Gluml, Glufd, Soy, Linsd, Cotton, Bran, Midds, Mol, Calc, Bone, Salt.	32	4	8	✓
Wirthmore 25 Balanced Sweetened Gluml, Dist, Linsd, Soy, Bar, Oats, Cotton, Glufd, Corn, Midds, Bran, Bone, Mol, Salt.	25	4.5	8.5	✓
Champlain Valley 24 Gluml, Glufd, Linsd, Soy, Cotton, Brew, Corn, Hom, Oats, Bar, Bran, Midds, Calc, Salt, Mol.	24	3.5	8.5	✓
Hygrade 24 Sweetened Milk Gluml, Glufd, Linsd, Soy, Cotton, Brew, Corn, Hom, Oats, Bar, Bran, Midds, Calc, Salt, Mol.	24	3.5	9	✓
Wirthmore 20 Gluml, Dist, Linsd, Soy, Cotton, Glufd, Corn, Oats, Bar, Midds, Bran, Bone, Salt.	20	5	8.5	✓
Wirthmore 20 Sweetened Gluml, Dist, Linsd, Soy, Cotton, Glufd, Corn, Oats, Bar, Midds, Bran, Bone, Mol, Salt.	20	4.5	8	✓
Wirthmore 20 containing Fortified Cod Liver Oil. Codlivoil, Gluml, Dist, Linsd, Soy, Cotton, Glufd, Corn, Oats, Bar, Midds, Bran, Bone, Mol, Salt.	20	4.5	8	✓
Champlain Valley 20 Linsd, Soy, Cotton, Brew, Gluml, Glufd, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.	20	3.5	8.5	✓
Hygrade 20 Sweetened Milk Linsd, Soy, Cotton, Brew, Gluml, Glufd, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.	20	3.5	8.5	✓
Utility Linsd, Soy, Glufd, Cotton, Corn, Hom, Oats, Bar, Brew, Oatmlfd, Bran, Midds, Calc, Mol, Salt.	20	3.5	12	✓
Wirthmore 16 Sweetened Gluml, Dist, Glufd, Linsd, Soy, Corn, Hom, Oats, Bar, Bran, Midds, Cotton, Calc, Mol, Bone, Salt.	16	4	8	✓
Wirthmore 16 containing Fortified Cod Liver Oil... Codlivoil, Gluml, Dist, Glufd, Linsd, Soy, Corn, Hom, Oats, Bar, Bran, Midds, Cotton, Calc, Mol, Bone, Salt.	16	4	8	✓
Hygrade 16 Sweetened Milk Linsd, Soy, Brew, Glufd, Hom, Oats, Bar, Bran, Midds, Mol, Calc, Salt.	16	3.5	8.5	✓
Utility 16 Linsd, Gluml, Glufd, Cotton, Corn, Hom, Oats, Bar, Brew, Oatmlfd, Bran, Midds, Calc, Mol, Salt.	16	3	13	✓
Seabury, E. T., Grain Co., Waterbury, Vt.				
Our Own Make Special Hom or Corn, Bran, Glufd, Brew, Cotton, Soy, Mol, Bone, Calc.	20	4.5	9	

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—continued				
Seabury, E. T., Grain Co.—continued				
Our Own Make 20%	20	4	9	✓
Corn, Oats, Bran, Glufd, Dist, Brew, Cotton, Linsd, Gluml, Midds, Hom, Mol, Phoslime, Bone, Salt.				
Seaver, Chas. M., & Co., Williamstown, Vt.				
Honor Brand 20	20	4	10	✓
Cotton, Linsd, Glufd, Hom or Corn, Midds or Ryemidds, Bran, Oats, Salt, Mol, Calc, Bone.				
Vim 20	20	4	12	✓
Cotton, Linsd, Glufd, Hom or Corn, Midds or Ryemidds, Bran, Oatmfd, Salt, Mol, Calc, Bone.				
Simonds, W. T., Brandon, Vt.				
Simonds' All Pure 24 Per Cent	24	4	10	✓
Glufd, Dist, Soy, Cotton, Linsd, Bran, Hom or Corn, Mol, Bone, Calc, Salt.				
Simonds' All Pure	20	4	10	✓
Cotton, Dist, Soy, Gluml, Linsd, Glufd, Bran, Midds, Hom or Corn, Mol, Bone, Calc, Salt.				
Slayton, H. A., & Co., Inc., Morrisville, Vt.				
Economy (1937)	20	3.75	10.5	✓
Corn or Hom, Beet, Oats, Bran, Cotton, Linsd, Gluten, Brew, Salt.				
Smith, C. A., St. Johnsbury, Vt.				
Smith's	20	4	12	✓
Cotton, Linsd, Gluten, Bran, Oats, Beet, Midds, Salt.				
Smith, S. E., Estate, West Rutland, Vt.				
Smith Estate 24%†	24	5	8.5	✓
Bran, Oats, Cotton, Corn, Glufd, Linsd, Brew, Dist, Mol, Bone, Calc, Salt.				
Smith Estate 20%	20	4.5	8	✓
Bran, Oats, Cotton, Glufd, Corn, Beet, Linsd, Midds, Brew, Dist, Bone, Salt, Mol.				
Smith Estate 18%†	18	4.5	8	✓
Beet, Bran, Oats, Cotton, Corn, Glufd, Linsd, Brew, Dist, Midds, Mol, Bone, Calc, Salt.				
Stearns, C. H., & Son Co., Johnson, Vt.				
Stearnco All Grain 20% Milk (1937)	20	4.75	8.5	✓
Hom or Corn, Oats, Bran, Glufd, Cotton, Linsd, Soy, Dist, Mol, Calc, Bone, Salt, Brew.				
Turnbull, J. G., Co., Orleans, Vt.				
Creamery	20	5	10	
Bran, Midds, Cotton, Hom or Corn, Oats, Linsd, Glufd, Dist, Mol, Salt, Phoslime.				
Tyler, Frank M., Essex Junction, Vt.				
Tyler's 20% Ready Mixed	20	4.5	9	✓
Glufd, Bran, Oats, Corn or Hom, Bone, Linsd, Brew, Midds, Cotton, Dist, Salt, Calc.				
Tyler's 20% Special (1937)	20	4.5	11	✓
Glufd, Oats, Corn or Hom, Bone, Linsd, Brew, Cotton, Dist, Salt, Calc, Bran, Midds, Soy.				
Washburn, A. N., Estate, Bethel, Vt.				
Bethel Mills 24 Protein Sweetened	24	4.5	9	✓
Cotton, Linsd, Glufd, Bran, Midds, Corn, Oats, Soy, Mol, Dist, Calc, Bone, Salt.				
Bethel Mills 20 Protein Sweetened	20	4.5	8.5	✓
Cotton, Linsd, Corn, Glufd, Bran, Midds, Oats, Soy, Mol, Calc, Bone, Salt, Dist.				
Bethel Mills 20 Protein Sweetened Economy	20	4	12	✓
Cotton, Glufd, Bran, Midds, Hom, Corn, Linsd, Oatmfd, Mol, Calc, Bone, Salt.				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
32% Reliance Supplemental	32	4	10	
Linsd, Cotton, Glufd, Gluml, Malt, Bran, Mol, Iod, Ironsft, Salt, Calc, Bonechar.				
Galen 24%	24	4	10	✓
Dist, Glufd, Brew, Cotton, Bran, Soy, Hom & Corn, Oats, Mol, Malt, Bone, Calc, Salt.				
Milkproducer 24%	24	4	10	
Dist, Soy, Linsd, Cotton, Glufd, Gluml, Corn or Hom, Bran, Wheat, Malt, Oats, Mol, Iod, Salt, Bonechar, Calc, Ironsft.				
Clyde 20%	20	4	10	✓
Dist, Glufd, Oats, Brew, Hom or Corn, Cotton, Bran, Malt, Soy, Mol, Calc, Salt, Bone.				
Superior 20%	20	4	10	
Cotton, Linsd, Glufd, Bran, Wheat, Oats, Corn, Dist, Brew, Malt, Mol, Soy, Iod, Salt, Ironsft, Bonechar, Calc.				
Economy 20%	20	4	12	✓
Cotton, Soy, Scrngs, Corn or Hom, Glufd, Dist, Oatmfd, Bran, Mol, Salt, Calc.				

* See footnote, page 9.
† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—DAIRY FEEDS OR "RATIONS"—concluded				
Wayne County Grangers Feed Corp.—continued				
Sweetened 16	16	4	12	
Dist, Soy, Linsd, Glufd, Cotton, Bar, Bran, Oats, Malt, Corn or Hom, Mol, Iod, Salt, Ironst, Calc, Bonechar.				
Webster, R. P., Barton, Vt.				
Ray's Ready	22	5	10	✓
Dist, Bran, Gluten, Cotton, Linsd, Oats, Corn, Calc, Salt, Midds, Codlivoil.				
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed 32% Supplemental Mixing	32	4.5	10	✓
Soy, Cotton, Glufd, Gluml, Bran, Dist, Mol, Bone, Calc, Salt.				
Ideal 20 Per Cent	20	3	12	✓
Cotton, Soy, Glufd, Dist, Corn, Bran, Oatmlfd, Scrngs, Mol, Bone, Calc, Salt.				
Uniform Sweet	16	3	14	✓
Cotton, Soy, Glufd, Hom or Corn, Dist, Bran, Oatmlfd, Scrngs, Mol, Calc, Salt.				
Wright, W. S., Lyndonville, Vt.				
Wright's Open Formula 20%	20	6.5	8	✓
Bran, Hom, Oats, Dist, Cotton, Soy, Linsd, Mol, Bone, Salt, Calc.				
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Rabbit	13	3	11	
Btrmilk, Skim, Soy, Oats, Corn, Wheat, Alf, Mol, Calc, Bone, Iron, KI, Sard.				
Wayne Amco 12% Fitting	12	3	9	✓
Corn & Hom, Soy, Oats, Linsd, Bran, Mol, Bone, Calc, Salt, Iron, KI.				
June Pasture	10	0.5	21	✓
Alf, Beetmol.				
Wayne Horse	9.5	3	8	✓
Ckdcorn, Oats, Bran, Mol.				
Empire Stock	9	4	11	✓
Hom, Oats, Corn, Oatmlfd, Scrngs, Mol, Salt, Bone, Calc.				
Bailey, E. W., & Co., Montpelier, Vt.				
Bailey's Pasture	15.5	3.75	10	✓
Hom, Corn, Oatmlfd, Brew, Midds, Bran, Glufd, Salt, Calc, Bone, Mol.				
Bailey's Sweetened Fitting	14	4	9	✓
Corn or Hom, Oats, Bran, Linsd, Mol, Bone, Salt.				
Pennant Horse	10.75	3.5	6.5	✓
Ckdcorn, Oats, Bran, Linsd, Mol, Salt.				
Pennant Stock Sweetened	9.5	4	9.5	✓
Hom, Oatmlfd, Oats, Linsd, Bar, Salt, Mol, Calc, Bone.				
Crosby Milling Co., Brattleboro, Vt.				
Brattleboro Milk Plant Horse	9.5	3.25	9	✓
Oats, Ckdcorn, Linsd, Bran, Alf, Mol, Salt.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Fitting†	12	3.5	8	✓
Oats, Corn, Bran, Bar, Mol, Alf, Linsd, Soy, Sard, Dical, Salt.				
Eastern States Highland 12†	12	3	11	✓
Hom, Oatmlfd, Bran, Bar, Mol, Dist, Soy, Alf, Calc, Salt.				
Eastern States Horse†	11	3	7.5	✓
Oats, Ckdcorn, Bar, Bran, Mol, Linsd, Dical, Salt.				
Eastern States Horse†	10.5	3.5	7	✓
Ckdcorn, Oats, Bran, Mol, Linsd, Dical.				
Eastern States Succulence†	10	1.5	20	✓
Alf, Mol, Oatmlfd, Bran.				
Elmore Milling Company, Inc., Oneonta, N. Y.				
Elmore Fitting	12	4	9	✓
Glufd, Bran, Oats, Corn, Linsd, Mol, Midds, Calc, Salt.				
Elmore Super-Silage	12	2	15	✓
Bran, Alf, Beet, Brew, Mol, Calc, Salt.				
Elmore Stock	10	3	12	✓
Corn or Hom, Oats, Oatmlfd, Salt.				
Elmore Horse with Molasses	9	2.5	11	✓
Ckdcorn, Oats, Alf, Mol, Salt.				

* See footnote, page 9.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.— <i>continued</i>				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Fitting	12	3.5	7	✓
Bran, Oats, Corn, Hom, Linsd, Mol, Bone, Calc, Salt.				
Eshelman S-O-S	11	2	15	✓
Bran, Alf, Brew, Mol, Beet, Bone, Calc, Salt.				
Eshelman Steam-Cooked Horse	9	4	6	✓
Corn, Oats.				
Eshelman Red Rose 85 Horse	9	3	10	✓
Ckdcorn, Oats, Mol, Linsd, Alf, Salt.				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Fitting and Pasture	14	4	9	✓
Linsd, Soy, Corn, Hom, Oats, Bar, Bran, Midds, Mol, Fish, Bone, Calc, Salt.				
Grandin's Green Food	10	1	25	
Alf, Beet, Mol.				
Grandin's Sweetened Horse	9.5	3.5	11	✓
Oats, Ckdcorn, Linsd, Alf, Mol, Salt.				
Grandin's Stock	8.5	4	12	✓
Corn, Cornfd, Hom, Bar, Midds, Oatmfd, Salt.				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Horse	9.5	3	10	✓
Alf, Linsd, Bran, Ckdcorn, Oats, Mol, Salt.				
Ide, E. T. & H. K., St. Johnsbury, Vt.				
Banner Bulky	13	2.5	18	✓
Bran, Oats, Beet, Brew, Alf, Mol, Salt, Calc.				
Banner Bulky (1937)	12	2	17	✓
Bran, Corn, Oatmfd, Beet, Brew, Malt, Alf, Mol, Salt, Calc.				
Ideal Fitting	12	4	10	✓
Mol, Linsd, Corn, Oats, Bran, Bar, Salt, Soy, Calc.				
Imperial Grain & Milling Co., Toledo, Ohio				
Imperial Steam Cooked	9.5	4	4.6	✓
Corn, Oats.				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Fitting	14	4	8	✓
Bran, Cornfd, Hom, Bar, Oats, Linsd, Soy, Mol, Bone, Calc, Salt.				
New England Retail Grain Dealers' Cooperative Assoc., Springfield, Mass.				
New England Quality Fitting	14	4	9	✓
Linsd, Soy, Hom, Corn, Bran, Oats, Mol, Bone, Calc, Salt.				
New England Quality Horse with Alfalfa and Molasses	8	2	10	✓
Mol, Ckdcorn, Oats, Alf, Linsd, Salt.				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Manamar Fitting	12	3.5	7	✓
Kelp, Fish, Seashl, Linsd, Oats, Corn, Bran, Mol, Calc, Salt, Ckdcorn.				
Bulky Sweet Dairy	11	3	12	✓
Beet, Brew, Bran, Hom, Bar, Alf, Mol, Calc, Salt.				
Yankee Horse	10	3.5	9	✓
Bar, Ckdcorn, Oats, Bran, Mol, Salt.				
Quaker Oats Co., Chicago, Ill.				
Quaker Sugared Schumacher	10	3	12	✓
Corn, Hom, Bar, Soy, Flour, Midds, Oatmfd, Salt, Limeiod, Mol, Bone.				
Quaker Green Cross Horse	10	2.5	12	✓
Ckdcorn, Oats, Cotton, Soy, Alf, Oatmfd, Salt, Mol.				
Schumacher Special Horse—Cubed	10	2.5	12	✓
Corn, Hom, Bar, Soy, Flour, Midds, Oatmfd, Salt, Limeiod, Bone, Mol.				
Ralston Purina Co., St. Louis, Mo.				
Purina Heifer Growing Chow	14	2.5	14	✓
Soy, Oats, Alf, Ckdcorn, Cotton, Bran, Mol, Midds, Calc, Iodsalt.				
Purina Dry and Freshening Cow Chow	12.5	2.5	14	✓
Soy, Oats, Beet, Corn, Alf, Midds, Bran, Mol, Calc, Iodsalt.				
Purina Omolene	10	3.2	9	✓
Ckdcorn, Oats, Alf, Linsd, Soy, Mol, Calc, Iodsalt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note*
PROPRIETARY FEEDS—STOCK, HORSE, FITTING, PASTURE, RABBIT FEEDS, ETC.— <i>concluded</i>				
Ralston Purina Co.— <i>continued</i>				
Purina Bulky Omolene	10	3.2	11	✓
Oats, Ckdcorn, Linsd, Soy, Mol, Bran, Calc, Iodsalt.				
Purina Bulky Las Chow	9	1.3	15	✓
Beet, Bran, Mol, Midds, Alf, Calc, Iodsalt.				
Richford Feed Co., Richford, Vt.				
Extra Good Horse	12	4.5	8	✓
Oats, Bar, Bran, Linsd, Ckdcorn, Mol.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore 14 Fitting	14	4	7	✓
Codlivoil, Linsd, Oats, Bar, Corn, Hom, Bran, Midds, Mol, Fish, Bone, Salt.				
Wirthmore Complete Rabbit	14	3	12	✓
Alf, Bar, Wheat, Oats, Ckdcorn, Mol, Bran, Midds, Codlivoil, Glufd, Linsd, Oatml, Corn, Skim, Bone, Calc, Salt.				
Hygrade Fitting	12	4	8	✓
Codlivoil, Linsd, Soy, Oats, Bar, Corn, Hom, Midds, Bran, Mol, Calc, Salt.				
Wirthmore Fodder Greens	10	3	15	✓
Beet, Alf, Brew, Bran, Hom, Mol, Calc, Salt.				
Wirthmore Horse	9.8	3.25	9	✓
Oats, Ckdcorn, Linsd, Alf, Mol, Salt.				
Hygrade Horse	9.5	3.25	9	✓
Oats, Ckdcorn, Linsd, Bran, Alf, Mol, Salt.				
Wirthmore Stock	9	4	9.5	✓
Bar, Oats, Hom, Corn, Oatmfd, Mol, Bone, Calc, Salt.				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Universal Horse	10	3	9	✓
Corn, Oats, Bar, Alf, Bran, Linsd, Mol.				
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS				
Albers Bros. Milling Co., Seattle, Wash.				
Calf Manna	25	4	5	✓
Skim, Oatml, Corn, Meatext, Linsd, Bar, Wheat, Shorts, Dextro, Soy, Cocnut, Codlivoil, Oyster, Bone, Iodsalt, Anise.				
Allied Mills, Inc., Peoria, Ill.				
Wayne Calf	24	4	7	✓
Skim, Cotton, Gluml, Cocnut, Midds, Bran, Rdog, Soy, Calc, Bone, Salt, Iron, KI, Mol.				
Wayne Pig Starter	18	3.5	7	
Tank, Fish, Pnut, Cotton, Soy, Midds, Corn, Hom, Alf, Oatml, Oats, Mol, Calc, Bone, Iron, Salt, KI, Copper.				
Wayne Pork Maker	14	3.5	7	✓
Tank, Oats, Corn, Midds, Alf, Mol, Calc, Bone, Iron, KI, Copper, Salt, Fish, Linsd, Cotton, Pnut, Soy.				
Blatchford Calf Meal Co., Waukegan, Ill.				
Blatchford's Calf	26	5	6	
Anise, Milkalb, Locust, Fengk, Rice, Flax, Blood, Cocoa, Cocnut, Fish, Soy, Flour, KI, Beans, Bar, Cotton, Midds, Linsd, Codlivoil, Bone, Salt.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Calf Starter†	23	3.5	4	✓
Corn, Oats, Bran, Blood, Skim, Linsd, Soy, Sard, Dical, Salt.				
Eastern States Hog Meal†	14.5	4	5	✓
Corn, Bar, Meat, Bran, Midds, Alf, Linsd, Soy, Calc, Dical, Sard, Salt.				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore's Makegrow Little Pig	18	4.5	7	✓
Midds, Cornfd or Hom, Linsd, Rdog, Midds, Tank, Salt.				
Elmore's Hog	15	5	6	✓
Midds, Linsd, Corn, Cornfd or Hom, Tank, Salt.				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Calf Starter	20	3	5	✓
Mxdfd, Linsd, Midds, Flour, Oatml, Kaffir, Blood, Flax, Bone, Calc, Salt, Codlivoil.				
Eshelman Red Rose Pig and Hog	16	5	10	✓
Midds, Cornfd, Tank, Soy, Bran, Bone, Fish, Linsd, Char, Scrngs, Calc, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—CALF MEALS AND HOG MEALS— <i>continued</i>				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Pig and Hog	18	5	10	✓
Codlivoil, Meat & Bone, Soy, Linsd, Alf, Corn, Cornfd, Hom, Midds, Calc, Salt.				
Larroe Milling Co., Detroit, Mich.				
Larro Calf	23	4	4	✓
Oatml, Skim, Corn, Midds, Linsd, Blood, Codlivoil, Calc, Salt.				
Larro Pig	17.5	5	7.5	✓
Bran, Corn, Midds, Meat & Bone, Linsd, Soy, Alf, Beet, Calc, Salt.				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Go-Tu-It Pig and Hog	15	3.5	8	✓
Alf, Hom, Bar, Fish, Meat, Bone, Corn, Corngerm, Midds, Scrngs, Calc, Salt.				
Pease, A. D., Grain Co., Burlington, Vt.				
Peasco Pig and Hog (1937)	18	4.5	6	
Corn, Hom, Meat, Glufd, Rdog, Bran, Bar, Alf, Linsd, Soy, Mol, Oyster, Bone, Salt.				
Quaker Oats Co., Chicago, Ill.				
Schumacher Calf	18	7	4	
Oatml, Flax, Pfdwht, Soy, Skim, Blood, Sard, Bicarb, Salt, Limeiod, Bone.				
Ralston Purina Co., St. Louis, Mo.				
Purina Calf Starting Chow	27	3.2	5	✓
Carotene, Skim, Linsd, Soy, Blood, Flour, Corn, Calc, Iodsalt.				
Purina Calf Startena	19.5	3	9.5	✓
Carotene, Skim, Linsd, Soy, Blood, Flour, Corn, Beet, Oats, Alf, Midds, Bran, Mol, Calc, Iodsalt.				
Purina Hog Fatena	14	3	7	✓
Tank, Linsd, Corngerm, Midds, Hom, Bar, Mol, Alf, Iodsalt, Corn.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Calf	24	5.5	4	✓
Codlivoil, Skim, Oatml, Flax, Blood, Linsd, Rdog, Corn, Bone, Fengk, Anise, Iodsalt.				
Wirthmore Pig and Hog	17	4	9	✓
Meat, Fish, Bone, Rdog, Midds, Bran, Linsd, Alf, Corn, Hom, Bar, Glufd, Calc, Mol, Salt.				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Superior Hog	16	3.5	7	✓
Meat, Fish, Oats, Corn or Hom, Alf, Midds, Bar, Bran, Soy, Linsd, Calc, Bone, KI, Ironsft, Salt.				
Superior Calf Grower	15	4	8	
Bran, Midds, Corngerm, Oats, Gluml, Soy, Linsd, Locust, Codlivoil, Calc, Bone, Iod, Salt, Ironsft.				

MEAT SCRAPS, BONE AND FISH MEALS

Consolidated Rendering Co., Boston, Mass.				
Corenco 45% Meat Scrap	45	6	..	
New England Rendering Co., Brighton, Mass.				
Digesta Bone Meal	5	..	2	
Rearson, John, & Sons Co., Cambridge, Mass.				
Rearco 50% Meat and Bone Scrap	50	6	..	
Wilbur-Ellis Co., San Francisco, Calif.				
Lighthouse Brand Fish Meal	65	4	1	

PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.

Allied Mills, Inc., Peoria, Ill.				
Wayne Scratch	10	2.5	4	✓
Wheat, Ckdcorn, Kafir, Milo, Buckwht, Sunfr.				
Empire Scratch	9	2.5	4	✓
Ckdcorn, Wheat, Kafir, Milo, Buckwht, Bar, Oats.				
Wayne Special Scratch	9	2.5	4	✓
Ckdcorn & Wheat.				
Screened Cracked Corn	8.5	2.5	2.5	✓
Scr Ckdcorn.				

* See footnote, page 9.

† Open formula.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.— <i>continued</i>				
Bailey, E. W., & Co., Montpelier, Vt.				
Pennant Coarse Chick Feed	10	3	3	✓
Ckdcorn, Oatgrots, Wheat, Buckwht.				
Pennant Fine Chick Feed	10	3	3	✓
Ckdcorn, Oatgrots, Ckdwheat.				
Pennant Scratch	10	3	6.5	✓
Wheat, Ckdcorn, Oats, Bar, Buckwht, Sunflr.				
Barber & Bennett, Inc., Albany, N. Y.				
Big Ben Scratch	10	2.5	5	✓
Wheat, Ckdcorn, Buckwht, Bar.				
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Scratch	10	3	4	✓
Ckdcorn, Wheat, Oats, Bar, Buckwht.				
Crosby Milling Co., Brattleboro, Vt.				
Brattleboro Milk Plant Scratch	9.5	2.5	4	✓
Ckdcorn, Wheat, Bar, Oats, Buckwht, Sunflr.				
Delaware Mills, Inc., Deposit, N. Y.				
Indian Scratch	10	2.5	4	✓
Bar, Wheat, Ckdcorn, Oats, Buckwht, Milo, Kaffir, Sunflr.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Scratch (with Coarse Cracked Corn)†	10	2.5	4	✓
Ckdcorn, Wheat, Oats.				
Eastern States Scratch 1931†	9.5	2.5	3	✓
Ckdcorn, Wheat.				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Intermediate Chick Feed	10	2.5	7	✓
Ckdcorn, Buckwht, Wheat.				
Elmore Scratch	10	2.5	7	✓
Wheat, Ckdcorn, Bar, Buckwht, Kaffir.				
Emco Scratch	10	2.5	7	✓
Wheat, Ckdcorn, Bar, Buckwht.				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Lancaster Scratch	9	2.5	4	✓
Ckdcorn, Wheat, Bar, Buckwht, Kaffir, Sunflr.				
First National Stores, Inc., Somerville, Mass.				
Henfield Scratch	10	2.5	5	✓
Wheat, Ckdcorn, Buckwht, Bar, Sunflr.				
Grand Union Stores, Inc., New York, N. Y.				
Peerless Scratch	10	2.5	5	✓
Ckdcorn, Wheat, Bar, Kaffir, Milo, Buckwht, Sunflr.				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Baby Chick	10	2.5	5	✓
Ckdcorn, Ckdwht, Oats.				
Economy Scratch	10	2.5	5	✓
Ckdcorn, Wheat, Bar, Buckwht.				
Grandin's Screened Scratch	10	2.5	5	✓
Wheat, Ckdcorn, Bar, Buckwht.				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Growth Fine Chick Feed	10	3	5	✓
Ckdwht, Kaffir & Milo, Ckdcorn, Oatgrots, Millet.				
Daily Growth Developing Feed	10	2.5	4	✓
Oatgrots, Ckdcorn, Milo, Kaffir, Wheat.				
Daily Egg Scratch	10	2.5	5	✓
Wheat, Ckdcorn, Kaffir, Bar, Oats, Milo, Sunflr, Buckwht.				
Ide, E. T. & H. K., St. Johnsbury, Vt.				
Ideal Scratch	10	3	4	✓
Ckdcorn, Bar, Wheat, Buckwht.				
Johnson, W. B., & Son, Essex Junction, Vt.				
Johnson's Perfection Scratch	10	3	5	✓
Ckdcorn, Wheat, Buckwht, Bar, Kaffir or Milo, Oats.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—POULTRY FEEDS, SCRATCH FEEDS, ETC.—concluded				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Growing Grains	10	2.5	4	✓
Wheat, Ckdcorn, Oats, Buckwht.				
Kasco Scratch	9	2.5	4	✓
Bar, Buckwht, Ckdcorn, Sunfir, Wheat.				
Larroe Milling Co., Detroit, Mich.				
Larro Chick	10	2	4	✓
Ckdwht, Ckdcorn, Oatgrots, Kaffir & Milo.				
Larro Scratch	10	2	4	✓
Ckdcorn, Wheat, Bar, Kaffir & Milo.				
Moon, Geo. Q., & Co., Inc., Binghamton, N. Y.				
Moon's Scratch	10	2	5	✓
Ckdcorn, Buckwht, Bar, Wheat, Sunfir.				
Moon's Special A Scratch (1937)	10	2	5	✓
Wheat, Ckdwht, Buckwht, Bar.				
New England Retail Grain Dealers' Cooperative Assoc., Springfield, Mass.				
New England Yankee Scratch	9	2.5	5	✓
Ckdcorn, Oats, Buckwht, Kaffir or Milo, Bar, Wheat.				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Red Ribbon Scratch	10	3	5	✓
Ckdcorn, Wheat, Buckwht, Bar, Oats, Kaffir, Milo, Sunfir.				
Paramount Scratch	10	2.5	5	✓
Ckdcorn, Wheat.				
Bidwell Scratch	10	1.5	5	✓
Ckdcorn, Wheat, Buckwht, Bar, Oats, Kaffir, Milo, Sunfir.				
Park & Pollard Economy Scratch	10	1.5	5	✓
Ckdcorn, Wheat, Bar, Buckwht, Kaffir, Milo, Sunfir.				
Quaker Oats Co., Chicago, Ill.				
Big Egg Scratch	9.5	2	3.5	✓
Ckdcorn, Bar, Wheat, Buckwht.				
Quaker Ful-O-Pep Scratch	9	2	3	✓
Ckdcorn, Wheat, Buckwht, Sunfir.				
Ralston Purina Co., St. Louis, Mo.				
Purina Chick Chow (Coarse)	10	2.5	4	✓
Wheat, Corn, Kaffir, Milo, Buckwht, Oatgrots.				
Purina Hen Chow	10	2.5	4	✓
Wheat, Corn, Bar, Kaffir, Milo, Buckwht.				
Protena Scratch	9.5	2	4	✓
Wheat, Corn, Bar, Kaffir, Milo, Buckwht.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Baby Chick Scratch	10	2.5	3.5	✓
Ckdwht, Corn, Oatgrots.				
Wirthmore Intermediate Scratch	10	2.5	3.5	✓
Oatgrots, Wheat, Ckdcorn.				
Wirthmore Scratch	10	2.5	4	✓
Ckdcorn, Buckwht, Wheat, Bar, Oats, Sunfir.				
Mornin' Call Poultry Grains	9.5	2.5	4	✓
Ckdcorn, Wheat, Bar, Oats, Buckwht, Sunfir.				
Wayne County Grangers Feed Corporation, Clyde, N. Y.				
Grange Scratch	10	3	6	✓
Ckdcorn, Wheat, Bar, Oats, Buckwht.				
West-Nesbitt, Inc., Oneonta, N. Y.				
Pure Feed Scratch	10	3.5	5	✓
Wheat, Ckdcorn, Bar, Buckwht.				

PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.

Allied Mills, Inc., Peoria, Ill.				
Wayne 26% Mash Supplement with Sardine Oil	26	4	10	
Btrmlk, Skim, Meat, Fish, Midds, Pnut, Bran, Gluml, Glufd, Alf, Soy, Calc, Iron, KI, Salt, Sard.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See foot-note*
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
Wayne Egg and Breeder	18	3.5	7	✓
Btrmlk, Skim, Meat, Fish, Midds, Bran, Corn, Oatml, Glufd, Alf, Soy, Oats, Calc, Iron, KI, Salt.				
Wayne Egg and Breeder with Sardine Oil	18	3.5	7	✓
Btrmlk, Skim, Meat, Fish, Midds, Bran, Corn, Oatml, Glufd, Alf, Soy, Oats, Calc, Iron, KI, Salt, Sard.				
Wayne Turkey Growing	18	3.5	8	✓
Btrmlk, Skim, Meat, Fish, Midds, Corn, Oats, Alf, Soy, Gluml, Bran, Char, Calc, Iron, KI, Salt.				
Wayne Chick Starter	17	4	6	
Btrmlk, Skim, Meat, Fish, Midds, Corn, Oatml, Oats, Alf, Soy, Bran, Calc, Iron, KI, Salt, Sard.				
Empire Egg	16.5	3.5	7	✓
Btrmlk, Skim, Meat, Fish, Soy, Alf, Bran, Midds, Glufd, Corn, Oats, Calc, Salt.				
Empire Egg with Sardine Oil	16.5	3.5	7	✓
Btrmlk, Skim, Meat, Fish, Soy, Alf, Bran, Midds, Glufd, Corn, Oats, Calc, Salt, Sard.				
Wayne Growing	16	4	6	✓
Btrmlk, Skim, Meat, Fish, Midds, Corn, Oats, Alf, Soy, Bran, Calc, Iron, KI, Salt.				
Wayne Growing with Sardine Oil	16	4	6	
Btrmlk, Skim, Meat, Fish, Midds, Corn, Oatml, Oats, Alf, Soy, Bran, Calc, Iron, KI, Salt, Sard.				
Wayne Poultry Fattener	13.5	3.5	8	✓
Corn, Corngerm, Hom, Oats, Oatfl, Midds, Rdog, Linsd, Salt.				
Bailey, E. W., & Co., Montpelier, Vt.				
Pennant Turkey Growing	23	4.5	6	✓
Corn, Soy, Oats, Bran, Midds, Meat, Fish, Skim, Alf, Gluml, Calc, Salt, Codlivoil.				
Pennant Laying	20	5	6	
Rdog, Corn, Oats, Oatgrots, Meat, Bran, Midds, Glufd, Alf, Skim, Salt, Calc.				
Pennant Laying with Cod Liver Oil and Cod Liver Meal	20	5	6	✓
Rdog, Corn, Oats, Oatgrots, Meat, Bran, Midds, Glufd, Alf, Skim, Salt, Codlivoil, Codlivml, Calc.				
Pennant Chick Starter	17	5	5	✓
Bran, Corn, Rdog, Oatgrots, Skim, Meat, Char, Bone, Alf, Salt, Codlivoil, Codlivml, Calc.				
Pennant Broiler	17	4	5	✓
Corn, Bran, Rdog, Oatgrots, Skim, Meat, Fish, Alf, Bone, Calc, Salt, Codlivoil.				
Pennant Growing	15	5	5	✓
Bran, Corn, Rdog, Oatgrots, Skim, Meat, Char, Bone, Alf, Salt, Codlivoil, Codlivml, Calc.				
Barber & Bennett, Inc., Albany, N. Y.				
Big Ben Laying	20	4	7	✓
Bran, Bar, Midds, Mol, Corn, Meat, Soy, Calc, Bone, Salt, Locust, Anise, Flax, Milkalb, Fish, Blood, Cocoa, Fengk, KI, Codlivoil, Rice, Cotton, Cocnut, Soy, Linsd.				
Chapin & Co., Hammond, Ind.				
Chapin Kernels Lay All	20	3.5	5	✓
Btrmlk, Fish, Meat, Gluml, Alf, Cornoil, Flour, Oats, Corn, Bran, Milo, Midds, Mol, Bone, Codlivoil, Bar, Salt, Calc.				
Community Feed Stores, Inc., Westminster Station, Vt.				
Community Laying with Dried Milk and Cod Liver Oil	20	4	7	✓
Corn or Hom, Oats, Bran, Gluten, Midds, Meat, Soy, Milk, Alf, Salt, Calc, Oyster, Codlivoil.				
Community Growing with Cod Liver Oil	17	4.5	8	✓
Corn or Hom, Oats, Bran, Midds, Alf, Soy, Milk, Meat, Fish, Oyster, Salt, Codlivoil.				
Crosby Milling Co., Brattleboro, Vt.				
Brattleboro Milk Plant Growing	15	4	7	✓
Skim, Meat, Fish, Alf, Soy, Gluml, Glufd, Bar, Oats, Corn, Codlivoil, Bran, Midds, Calc, Salt.				
Eastern States Farmers' Exchange, Springfield, Mass.				
Eastern States Turkey Breeder†	24	4	6	✓
Corn, Bran, Meat, Midds, Skim, Alf, Soy, Oats, Fish, Gluml, Oyster, Sard, Dical, Salt.				
Eastern States Turkey-Grow†	20	4	5.5	✓
Bran, Corn, Midds, Soy, Fish, Oatgrots, Alf, Skim, Gluml, Oats, Meat, Oyster, Sard, Dical, Salt.				
Eastern States Producer 20†	20	4	6	✓
Corn, Bran, Midds, Meat, Oats, Alf, Fish, Soy, Skim, Oyster, Sard, Dical, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
<i>Eastern States Farmers' Exchange—continued</i>				
Eastern States Turkey-Fat†	20	4	6	✓
Corn, Bran, Midds, Meat, Oats, Soy, Alf, Gluml, Skim, Oatgrots, Oyster, Salt.				
Eastern States Egg†	20	4	6.5	✓
Midds, Corn, Bran, Bar, Fish, Meat, Soy, Oats, Alf, Gluml, Oyster, Sard, Salt.				
Eastern States Developert	18.5	4	6.5	✓
Corn, Bran, Midds, Bar, Oats, Soy, Alf, Fish, Meat, Skim, Whey, Oyster, Sard, Salt, Dical.				
Eastern States Flushing†	18.5	3.5	4	✓
Whey, Corn, Bran, Midds, Soy, Alf, Fish, Meat, Sard.				
Eastern States Producer†	17	4	6.5	✓
Corn, Bran, Midds, Oats, Meat, Fish, Alf, Skim, Oyster, Sard, Dical, Salt.				
Eastern States Starting and Growing for Ducks†	15.5	4	6	✓
Corn, Flour, Bran, Meat, Oats, Alf, Dical, Oyster, Sard.				
Eastern States Combination†	15	4	6.5	✓
Corn, Bran, Midds, Oats, Skim, Alf, Meat, Fish, Oyster, Sard, Dical, Salt.				
Eastern States Fattener†	14.5	4	5	✓
Corn, Oatgrots, Cornoil, Skim, Midds, Rdog, Oats, Soy, Salt.				
Eastern States All-Mash Developert	14.5	3.5	7	✓
Corn, Bran, Midds, Oats, Bar, Alf, Soy, Skim, Meat, Fish, Oyster, Dical, Sard, Salt.				
Elmore Milling Co., Inc., Oneonta, N. Y.				
Elmore Turkey Starting	24	4	6	✓
Corn, Bran, Midds, Oats, Whtgerm, Alf, Soy, Gluml, Skim, Meat, Fish, Oyster, Codlivoil, Salt.				
Elmore Egg	20	4	8	✓
Skim, Meat, Flour, Oats, Midds, Corn, Bran, Alf, Fish, Bone, Codlivoil, Oyster, Salt.				
Elmore M. A. C. Laying	17	5	7	✓
Alf, Bran, Corn, Fish, Midds, Skim, Oats, Meat, Oyster, Codlivoil, Salt.				
Elmore Chixsaver	16.5	4	8	✓
Skim, Midds, Bran, Corn, Alf, Oatfl, Meat & Bone, Fish, Codlivoil, Oyster, Salt.				
Elmore Complete Laying	16	4	6	
Meat & Bone, Fish, Oatgrots, Corn, Wheat, Alf, Bran, Midds, Skim, Codlivoil, Calc, Salt.				
Eshelman, John W., & Sons, Lancaster, Pa.				
Eshelman Red Rose Laying with Cod Liver Oil	20	5	7	✓
Midds, Corn, Meat, Bran, Glufd, Oats, Linsd, Fish, Soy, Hom, Alf, Btrmlk, Calc, Salt, Codlivoil.				
Eshelman Pennsy Laying	18	5	8.5	
Corn, Midds, Meat, Bran, Oats, Alf, Soy, Mol, Fish, Glufd, Linsd, Calc, Salt.				
Eshelman Pennsy Laying with Cod Liver Oil	18	5	8.5	
Corn, Midds, Meat, Bran, Oats, Alf, Soy, Mol, Fish, Glufd, Linsd, Calc, Salt, Codlivoil.				
Eshelman Red Rose All Mash Starter	16	4	6.5	✓
Corn, Bran, Midds, Oatml, Meat, Fish, Soy, Alf, Btrmlk, Linsd, Calc, Bone, Salt, Codlivoil.				
Eshelman Red Rose Growing with Cod Liver Oil	16	4	7	✓
Midds, Corn, Bran, Meat, Oats, Glufd, Oatml, Soy, Hom, Linsd, Fish, Btrmlk, Alf, Calc, Salt, Codlivoil.				
First National Stores, Inc., Somerville, Mass.				
Henfield Egg	20	4.5	7	✓
Codlivoil, Meat, Fish, Btrmlk, Alf, Oats, Hom, Corn, Midds, Bran, Glufd, Linsd, Bone, Calc, Salt.				
Grand Union Stores, Inc., New York, N. Y.				
Peerless Laying	20	4	8	✓
Btrmlk, Meat, Glufd, Corn, Bran, Oats, Midds, Alf, Codlivoil, Calc, Salt.				
Peerless All Mash Starter and Grower	17	5	5	
Meat, Fish, Midds, Oatgrots, Oats, Corn, Alf, Codlivoil, Btrmlk, Calc, Bone, Salt, KI.				
Grandin, D. H., Milling Co., Jamestown, N. Y.				
Grandin's Turkey Grower	20	4	8	✓
Codlivoil, Btrmlk, Meat & Bone, Fish, Soy, Alf, Gluml, Corn, Hom, Oats, Bar, Bran, Midds, Calc, Salt.				
Grandin's Laying with Cod Liver Oil	20	4	8	✓
Codlivoil, Btrmlk, Meat & Bone, Glufd, Hom, Corn, Cornfd, Glufd, Alf, Oats, Bar, Bran, Midds, Calc, Salt.				
Grandin's Start-to-Finish	16	4	7	✓
Codlivoil, Btrmlk, Meat & Bone, Fish, Soy, Glufd, Alf, Corn, Hom, Oats, Bar, Bran, Midds, Calc, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			
	Crude protein %	Crude fat %	Crude fiber %	See footnote*
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.— <i>continued</i>				
Great Atlantic & Pacific Tea Co., Minneapolis, Minn.				
Daily Egg Laying	20	4	6.5	✓
Oats, Bar, Soy, Linsd, Gluml, Midds, Bran, Alf, Cornfd, Btrmlk, Skim, Meat & Bone, Fish, Midds, Codlivoil, Codlivml, Calc, Bone, Salt, Iron, KI.				
Daily Growth Growing	17.5	4	6.5	✓
Meat & Bone, Btrmlk, Skim, Bran, Alf, Midds, Cornfd, Oats, Bar, Linsd, Glufd, Codlivoil, Calc, Bone, Salt.				
Ide, E. T. & H. K., St. Johnsbury, Vt.				
Ideal Egg	20	4.5	6	✓
Meat, Milk, Linsd, Glufd, Corn, Alf, Oatml, Bran, Midds, Bone, Salt, Codlivoil, Dical, Oyster.				
Kasco Mills, Inc., Waverly, N. Y.				
Kasco Laying	20	4	6.5	✓
Bran, Midds, Rdog, Corn, Linsd, Soy, Oats, Oatml, Meat, Bone, Fish, Skim, Whey, Salt, Calc, Codlivoil, Alf.				
Apex Laying	20	4	8.5	✓
Bran, Midds, Corn, Linsd, Soy, Oats, Bar, Meat, Bone, Fish, Skim, Whey, Salt, Calc, Codlivoil, Alf.				
Kasco All Mash Growing	14	4	5.5	✓
Rdog, Oats, Oatml, Midds, Bran, Corn, Meat, Fish, Skim, Whey, Bone, Linsd, Salt, Codlivoil, Calc, Alf.				
Larowe Milling Co., Detroit, Mich.				
Larro Turkey Grower	24	4.5	6.5	✓
Midds, Corn, Bar, Meat & Bone, Fish, Soy, Btrmlk, Alf, Skim, Bran, Oats, Codlivoil, Calc, Salt.				
Larro Egg	20	4	7.5	✓
Bran, Corn, Midds, Bar, Meat & Bone, Soy, Fish, Alf, Skim, Btrmlk, Oats, Codlivoil, Calc, Salt.				
Larro Chick Builder	19	4	7	✓
Bran, Corn, Midds, Bar, Meat & Bone, Soy, Fish, Alf, Skim, Btrmlk, Oats, Codlivoil, Calc, Salt.				
Larro Broiler	18	4	6.5	✓
Corn, Midds, Alf, Bran, Meat & Bone, Btrmlk, Soy, Fish, Skim, Oats, Codlivoil, Calc, Salt.				
Moon, Geo. Q. & Co., Inc., Binghamton, N. Y.				
Moon's Laying with Dried Buttermilk	20	4	8	
Bran, Midds, Corn, Oats, Alf, Meat, Btrmlk, Bar, Buckwht, Calc, Bone, Gluml, Soy, Codlivoil, Locust, Anise, Milkalb, Fish, Blood, Cocoa, Fengk, KI, Rice, Cotton, Linsd, Cocnut, Salt.				
New England Retail Grain Dealers' Assoc., Springfield, Mass.				
New England Quality Breeders' Laying With Cod				
Liver Oil	20	4.5	7	✓
Codlivoil, Whey, Btrmlk, Alf, Bran, Midds, Soy, Gluml, Corn, Oats, Bar, Oatml, Meat, Fish, Bone, Calc, Salt, KI.				
New England Yankee Egg with Cod Liver Oil	20	3.5	9	✓
Codlivoil, Btrmlk, Alf, Bran, Midds, Soy, Gluml, Corn, Bar, Oats, Meat, Fish, Bone, Calc, Salt.				
Park & Pollard Co., Inc., Buffalo, N. Y.				
Park & Pollard Turkey Grower	20	4	6	✓
Corn, Bar, Alf, Oats, Meat, Bran, Midds, Gluml, Soy, Skim, Calc, Salt.				
Park & Pollard Starter and Broiler	18	4	6	✓
Corn, Gluml, Soy, Bran, Midds, Oats, Fish, Meat, Alf, Calc, Salt, Skim, Codlivoil.				
Lay or Bust Dry	18	3	7	✓
Btrmlk, Alf, Gluml, Fish, Meat, Bone, Linsd, Soy, Bran, Midds, Calc, Salt, Codlivoil, Corn, Wheat, Oats, Bar, Kafir, Buckwht.				
Manamar Lay or Bust	18	3	7	✓
Kelp, Fish, Seashl, Btrmlk, Meat, Alf, Bran, Midds, Corn, Oats, Wheat, Bar, Buckwht, Codlivoil, Gluml, Bone, Linsd, Soy, Calc, Kafir.				
Bidwell Dry	18	3	8	
Btrmlk, Alf, Corn, Bran, Midds, Fish, Meat, Bone, Linsd, Gluml, Soy, Calc, Salt, Codlivoil, Wheat, Bar, Kafir, Buckwht.				
Growing	14	3	7	✓
Btrmlk, Alf, Fish, Linsd, Meat & Bone, Bran, Midds, Calc, Salt, Codlivoil, Corn, Wheat, Oats, Bar, Buckwht.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—continued				
Quaker Oats Co., Chicago, Ill.				
Quaker Ful-O-Pep Egg	20	4.5	8	✓
Oatml, Hom, Bran, Midds, Bar, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Quaker Ful-O-Pep Growing	19	5	6	✓
Oatml, Hom, Bran, Midds, Bar, Fish, Codlivoil, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Quaker Ful-O-Pep Broiler	19	5	7	✓
Oatml, Hom, Bran, Midds, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Big Egg Laying	18	4	8	✓
Hom, Bran, Midds, Oats, Soy, Meat, Sard, Skim, Mol, Alf, Salt.				
Quaker Ful-O-Pep Chick Starter	17	5	7	✓
Oatml, Hom, Bran, Midds, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Quaker Ful-O-Pep Developer	15	5	9	✓
Oatml, Hom, Bran, Midds, Bar, Oats, Fish, Codlivml, Meat, Sard, Skim, Btrmlk, Mol, Alf, Salt.				
Race Milling Co., Granville, N. Y.				
Race's Poultry	20	3.5	7	✓
Bran, Corn, Meat, Alf, Fish, Oats, Midds, Salt, Codlivoil.				
Ralston Purina Co., St. Louis, Mo.				
Purina Turkey Growing and Fattening Chow	21	3.5	8	✓
Carotene, Meat, Soy, Alf, Corn, Midds, Bran, Iodsalt.				
Purina Egg Chowder	19	3.5	8	✓
Carotene, Btrmlk, Codlivoil, Sard, Meat, Soy, Linsd, Alf, Corngerm, Midds, Bran, Corn, Iodsalt, Calc.				
Purina Lay Chow	19	3.5	8	✓
Carotene, Btrmlk, Codlivoil, Sard, Meat, Soy, Linsd, Alf, Corngerm, Midds, Bran, Corn, Iodsalt, Calc.				
Purina Broiler Chow	18	4	7	✓
Carotene, Btrmlk, Codlivoil, Sard, Meat, Fish, Soy, Alf, Corn, Oats, Midds, Bran, Calc, Iodsalt.				
Purina Chick Startena	18	4	7	✓
Carotene, Btrmlk, Codlivoil, Sard, Meat, Fish, Soy, Alf, Whtgerm, Linsd, Corngerm, Midds, Corn, Bran, Calc, Iodsalt.				
Protena Laying Mash	18	3.5	8.5	✓
Meat, Soy, Linsd, Corn, Btrmlk, Codlivoil, Sard, Alf, Midds, Bran, Calc, Salt.				
Purina Layena (Complete Ration)	15.5	3.5	8	✓
Carotene, Btrmlk, Codlivoil, Sard, Meat, Soy, Alf, Midds, Beet, Corn, Iodsalt, Calc.				
Purina Chick Growena	15	3.5	7	✓
Carotene, Btrmlk, Codlivoil, Sard, Meat, Fish, Soy, Whtgerm, Alf, Corn, Beet, Midds, Bran, Calc, Iodsalt.				
Purina Chicken Fatena Checkers	14	4	6	✓
Skim, Oats, Corn, Bar, Meat, Soy, Midds, Mol, Iodsalt.				
St. Albans Grain Co., St. Albans, Vt.				
Wirthmore Turkey Breeder	24	4.5	7	✓
Codlivoil, Skim, Whey, Meat, Fish, Corn, Alf, Soy, Gluml, Bran, Midds, Oats, Bar, Wheat, Calc, Salt.				
Wirthmore Turkey Starting	24	4.5	7	✓
Codlivoil, Skim, Whey, Meat, Fish, Alf, Corn, Gluml, Soy, Oats, Bar, Wheat, Bran, Midds, Calc, Salt.				
Wirthmore Breeder	20	4.5	7	✓
Codlivoil, Skim, Whey, Meat, Fish, Corn, Alf, Soy, Gluml, Bran, Midds, Oats, Bar, Calc, Salt, Liverml.				
Wirthmore Laying containing Cod Liver Oil	20	4	7	✓
Codlivoil, Skim, Whey, Meat, Fish, Corn, Alf, Linsd, Soy, Gluml, Bran, Midds, Wheat, Oats, Bar, Buckwht, Calc, Salt.				
Wirthmore Turkey Growing	20	4	7	✓
Codlivoil, Skim, Whey, Meat, Fish, Soy, Gluml, Alf, Corn, Oats, Bar, Wheat, Bran, Midds, Calc, Salt.				
Wirthmore Baby Chick Starter	18	4	5	✓
Codlivoil, Skim, Whey, Alf, Fish, Meat, Gluml, Soy, Bran, Midds, Oatgrots, Wheat, Corn, Calc, Salt.				
Wirthmore Complete Chick Starter and Broiler	17.5	4	5.5	✓
Codlivoil, Skim, Whey, Oatgrots, Meat, Fish, Alf, Gluml, Soy, Corn, Bran, Midds, Calc, Salt.				
Wirthmore Turkey Fattening	16	4.5	7	✓
Skim, Whey, Meat, Gluml, Alf, Corn, Oats, Bar, Wheat, Bran, Midds, Salt.				

* See footnote, page 9.

I. BRANDS IN ALL RESPECTS UP TO GUARANTY

	GUARANTIES			See foot- note*
	Crude protein %	Crude fat %	Crude fiber %	
PROPRIETARY FEEDS—POULTRY FEEDS, MASHES, ETC.—concluded				
St. Albans Grain Co.—continued				
Wirthmore Fleshing and Fattening	15	4.5	6	✓
Codlivoil, Skim, Whey, Meat, Oatml, Rdog, Midds, Corn, Hom, Bar, Wheat, Oats.				
Wirthmore Growing containing Cod Liver Oil.....	15	4.5	6	✓
Codlivoil, Skim, Whey, Meat, Fish, Corn, Alf, Linsd, Wheat, Oats, Bar, Soy, Gluml, Bran, Midds, Rdog, Calc, Salt.				
Wirthmore Fleshing Pellets	15	4.5	6.5	✓
Skim, Meat, Soy, Corngerm, Oatml, Bran, Midds, Rdog, Corn, Alf, Calc, Salt, Codlivoil, Mol.				
Wirthmore Complete Laying	15	4	5	✓
Codlivoil, Skim, Whey, Meat, Fish, Oatgrots, Corn, Oats, Alf, Wheat, Bran, Midds, Calc, Salt, Liverml.				
Wirthmore Laying Pellets	15	4	6	✓
Codlivoil, Skim, Whey, Soy, Fish, Meat, Oatml, Corn, Oats, Wheat, Bran, Midds, Alf, Calc, Salt.				
Wirthmore Complete Growing	14	3.75	6	✓
Codlivoil, Skim, Whey, Meat, Fish, Soy, Gluml, Corn, Wheat, Oats, Bar, Bran, Midds, Alf, Calc, Salt.				
Wayne County Grangers Feed Corp., Clyde, N. Y.				
Superior Laying with Buttermilk and Cod Liver Oil	20	4	7	✓
Meat, Fish, Btrmlk, Codlivoil, Corn, Wheat, Gluml, Oats, Bar, Rdog, Bran, Soy, Alf, Iod, Salt, Ironsft, Calc, Bonechar.				
Superior Turkey Grower and Fattener with Milk and Cod Liver Oil	20	4	7	✓
Meat, Fish, Skim, Corn, Oats, Soy, Alf, Midds, Gluml, Bran, Linsd, Codlivoil, Iod, Salt, Ironsft, Bonechar, Calc.				
Superior Growing with Buttermilk and Cod Liver Oil	17.5	4	7	
Corn, Hom, Soy, Oatml, Bar, Bran, Oats, Midds, Btrmlk, Alf, Meat, Fish, Codlivoil, Iod, Salt, Ironsft, Calc, Bonechar.				
Superior Broiler with Milk and Cod Liver Oil.....	17	4	7	✓
Corn, Oats, Midds, Bran, Meat, Fish, Skim, Gluml, Soy, Midds, Alf, Codlivoil, Iod, Salt, Bonechar, Ironsft, Calc.				
Satisfaction Laying with Buttermilk and Cod Liver Oil	17	4	8	✓
Meat, Bone, Fish, Btrmlk, Corn, Wheat, Oats, Bar, Rdog, Bran, Midds, Glufd, Alf, Salt, Bone, Calc, Codlivoil, Soy.				
Webster, Ray P., Barton, Vt.				
Storr's§ Egg with Cod Liver Oil	15	4	7	✓
Corn, Bran, Midds, Oats, Meat, Fish, Alf, Calc, Salt, Codlivoil.				

DRIED SKIMMILKS

B. & B. Dairy Co., Inc., Margaretville, N. Y.			
Buell-Boston	33	0.2	..
Dairymen's League Co-operative Assoc., Inc., Utica, N. Y.			
Dairylea Choice Feed Grade	33	0.5	..
New England Dairies, Inc., Boston, Mass.			
New England Dairies	32	0.025	..
United Farmers' Co-operative Creamery Assoc., Inc., Morrisville, Vt.			
.....	32	0.5	..

* See footnote, page 9.
§ Sic.

II. BRANDS FAILING TO MEET GUARANTIES

CRUDE STOCKS

- ALLIED MILLS, INC., Peoria, Ill. *Corn Distillers' Dried Grains*. 28/8/15. Three samples; fat below guaranty, 6.35%.
- CAIRO MEAL & CAKE Co., Cairo, Ill. "*Miss Cairo*" Brand 41% Protein Cottonseed Meal Prime Quality. 41/6/10. One sample; fiber above guaranty, 11.80%.
- CONSOLIDATED RENDERING Co., Boston, Mass. *Corenco Bone Meal*. 20/2/—. One sample; fat below guaranty, 1.22%.
- EASTERN STATES FARMERS' EXCHANGE, Springfield, Mass. *Eastern States Molasses Oat Feed*. 5/1.25/27.5. Two samples; both below protein guaranty, 4.62%, 4.44%. Average two samples, 4.53%.
- EXCELSIOR MILLING Co., Minneapolis, Minn. *Pure Camel Fancy Wheat Mixed Feed*. 16/4/7.5. Two samples; one below protein guaranty, 15.21%. Average, two samples, 15.48%.
- FERNANDO VALLEY MILLING & SUPPLY Co., Van Nuys, Calif.
Fernando Ideal Greens Alfalfa Leaf Meal. 20/2.5/18. Two samples; fiber above guaranty, 18.91%.
Fernando Alfalfa Meal. 13/1/33. Three samples; all below protein guaranty, 10.22%, 11.09%, 10.13%. Average, three samples, 10.48%. Fiber above guaranty, 39.33%
- GEORGIA DISTRIBUTING Co., Atlanta, Ga. *Gold Dust Brand 41% Protein Cottonseed Meal Choice Quality*. 41/6/10. Four samples; fiber above guaranty, 10.78%.
- KELLOGG Co. OF CANADA, LTD., London, Ont. *O-Corn-O Hominy Feed*. 10/7/4. Seven samples; six below protein guaranty, 9.17%, 8.91%, 8.91%, 9.08%, 8.99%, 8.73%. Average, seven samples, 9.07%.
- LAMAR ALFALFA MILLING Co., Lamar, Colo. *Alfalfa Leaf Meal*. 20/2.5/20. One sample; protein below guaranty, 18.10%. Fat below guaranty, 2.26%.
- MALTEX Co., INC., Burlington, Vt. *Maltex Cereal Feed*. 12.5/3.75/9. Five samples; fat below guaranty, 3.25%.
- NIAGARA FALLS MILLING Co., Lockport, N. Y. *Choice Wheat Red Dog*. 14/4/4. Four samples; fat below guaranty, 2.88%.
- NORTHERN OATS Co., Minneapolis, Minn. *Go-Fer Feeding Oat Meal*. 14/5/3.75. One sample; fat below guaranty, 4.25%.
- WILBER FEED Co., INC., Jamestown, N. Y. *W Corn Distillers' Dried Grains*. 28/8.5/13. Two samples; fat below guaranty, 7.73%.

DAIRY FEEDS

- DELAWARE MILLS, INC., Deposit, N. Y. *Indian Sweet 24%*. 24/4/12. (1937.)
 One sample; protein below guaranty, 22.13%.
 Mol, Glufd, Linsd, Cotton, Soy, Pnut, Corn, Bran, Midds, Dist or Buckwht, Oatmld, Phoslime. ✓*
- ELMORE MILLING Co., INC., Oneonta, N. Y.
Granger 24%. 24/4/10. Five samples; fiber above guaranty, 10.82%.
 Bran, Midds, Cotton, Bar, Soy, Glufd, Mol, Scrngs, Oats, Brew, Calc, Salt. ✓
Waldorf 20%. 20/4/11. Seven samples; fiber above guaranty, 12.19%.
 Bran, Copra, Glufd, Soy, Cotton, Mol, Oats, Scrngs, Calc, Salt. ✓
- ESHELMAN, JOHN W., & SONS, Lancaster, Pa. *Eshelman 32% Mixing*. 32/4.5/9.
 One sample; protein below guaranty, 31.24%.
 Cotton, Gluml, Glufd, Bran, Mol, Linsd, Soy, Dist, Brew, Bone, Calc, Salt. ✓
- FIRST NATIONAL STORES, INC., Somerville, Mass. *Brookside 16%*. 16/3.5/12.
 Three samples; fiber above guaranty, 14.15%.
 Gluml, Glufd, Soy, Linsd, Dist, Oatmld, Hom, Scrngs, Bran, Mol, Bone, Calc, Salt. ✓
- FOR-ALL GRAIN Co., INC., South Ryegate Vt. *For-All Milk Grains*. 20/5/8.5.
 Two samples; fat below guaranty, 4.38%.
 Cotton, Linsd, Glufd, Bran, Shorts, Oats, Bar, Corn, Brew, Mol, Salt, Calc. ✓
- JOHNSON, C. E., & Co., Island Pond, Vt. *Regular*. 20/4/10. One sample; fiber above guaranty, 11.63%.
 Soy, Cotton, Glufd, Corn, Oats, Bran, Oatmld.
- JOHNSON, W. B., & SON, Essex Junction, Vt. *Johnson's Perfection No. 1*. 20/5/9.
 One sample; fat below guaranty, 4.59%.
 Glufd, Cotton, Linsd, Hom or Corn, Bran, Midds, Oats, Brew, Dist, Mol, Salt, Calc, Bone. ✓

* Check mark ✓ means that the brand in question was found to be "as certified" in respect to the ingredients. Statements concerning brands not found to be "as certified" in respect to ingredients appear on pages 29 to 32.

DAIRY FEEDS—continued

- PARK & POLLARD Co., INC., Buffalo, N. Y.
Doublex 24%. 24/3.5/11. Two samples; one below protein guaranty, 22.92%.
 Average, two samples, 23.58%. Fiber above guaranty, 12.07%.
 Bran, Linsd, Soy, Oats, Malt, Gluml, Cotton, Glufd, Scrngs, Mol, Calc, Salt.*
Manamar Doublex 20%. 20/3.5/10. Six samples; fiber above guaranty, 12.30%.
 Kelp, Fish, Seashl, Linsd, Glufd, Gluml, Soy, Bar, Dist, Bran, Malt, Cotton, Hom, Scrngs,
 Mol, Calc, Salt.
Bidwell 20%. 20/3.5/11. Three samples; fiber above guaranty, 13.31%.
 Bran, Linsd, Malt, Glufd, Gluml, Soy, Bar, Cotton, Scrngs, Mol, Calc, Salt.
Doublex 20%. 20/3.5/11. Two samples; fiber above guaranty, 12.88%.
 Linsd, Glufd, Gluml, Soy, Dist, Bar, Bran, Malt, Cotton, Scrngs, Mol, Calc, Salt.
Doublex 16%. 16/3.5/11. Two samples; fiber above guaranty, 15.09%.
 Dist, Oats, Bar, Brew, Malt, Linsd, Cotton, Scrngs, Soy, Glufd, Mol, Calc, Salt.
 SEAVER, CHAS. M., & Co., Williamstown, Vt. *Honor Brand 24%*. 24/5.5/9. One
 sample; fat below guaranty, 4.85%.
 Bran, Midds, Oats, Cotton, Linsd, Glufd, Dist, Hom, Corn, Bone, Calc, Salt, Mol. ✓
 TURNBULL, J. G., & Co., Orleans, Vt. *Turnbull's Special*. 20/3.5/12. Two sam-
 ples; fiber above guaranty, 13.35%.
 Bran, Midds, Cotton, Hom or Corn, Oatmld, Brew, Linsd, Glufd, Mol, Salt, Calc.
 UTLEY, C. H., Hardwick, Vt. *Veri-Best Balanced*. 20/5/7.5. One sample; fiber
 above guaranty, 8.27%.
 Dist, Linsd, Glufd, Brew, Oats, Cotton, Midds, Hom or Corn, Bran, Bone, Salt, Calc. ✓
 WASHBURN, A. N., ESTATE, Bethel, Vt. *Bethel Mills 16% Protein Sweetened
 Pasture*. 16/4.2/9.5. One sample; fiber above guaranty, 10.35%.
 Cotton, Bran, Hom, Corn, Oatmld, Mol, Calc, Bone, Salt. ✓
 WAYNE COUNTY GRANGERS FEED CORP., Clyde, N. Y. *Hi-Yan-Ka Farms 20% with
 Beet Pulp*. 20/4/8.5. Three samples; fiber above guaranty, 9.82%.
 Soy, Dist, Glufd, Cotton, Linsd, Bran, Beet, Oats, Brew, Hom or Corn, Iod, Salt, Bonechar,
 Ironsft, Calc.

OTHER PROPRIETARY FEEDS

- BAILEY, E. W., & Co., Montpelier, Vt. *Pennant Turkey Starter*. 25/5/6. One
 sample; fat below guaranty, 4.49%.
 Corn, Soy, Oats, Bran, Midds, Meat, Fish, Skim, Alf, Gluml, Calc, Salt, Codlivoil. ✓
 ELMORE MILLING CO., INC., Oneonta, N. Y. *Elmore's "Three Point" Calf Meal*.
 24/4/4. One sample; fiber above guaranty, 4.54%.
 Rdog, Corn or Cornfd, Oatml, Linsd, Bar, Blood, Btrmlk, Bone, Salt. ✓
 NEW ENGLAND RETAIL GRAIN DEALERS' COOPERATIVE ASSOC., Springfield, Mass.
New England Quality Laying Mash with Cod Liver Oil. 20/4.5/7. Two sam-
 ples; fiber above guaranty, 7.76%.
 Codlivoil, Whey, Btrmlk, Alf, Bran, Midds, Soy, Gluml, Corn, Oats, Bar, Oatml, Meat, Fish,
 Bone, Calc, Salt, KI.
New England Quality All Mash Laying Ration with Cod Liver Oil. 15/4/7.
 One sample; fiber above guaranty, 8.33%.
 Codlivoil, Whey, Btrmlk, Alf, Bran, Midds, Wheat, Soy, Gluml, Corn, Oats, Bar, Oatml, Meat,
 Fish, Bone, Calc, Salt, KI. ✓
New England Quality Complete Growing Mash with Cod Liver Oil. 14/4/7.
 One sample, fiber above guaranty, 8.81%.
 Codlivoil, Whey, Btrmlk, Alf, Bran, Midds, Wheat, Corn, Oatml, Bar, Oats, Soy, Gluml, Meat,
 Fish, Bone, Calc, Salt, KI.
 PARK & POLLARD Co., INC., Buffalo, N. Y. *Manamar Life Cycle Mash*. 16/3.5/6.
 Four samples; fiber above guaranty, 6.83%.
 Kelp, Fish, Seashl, Meat, Bran, Midds, Alf, Btrmlk, Corn, Oats, Wheat, Bar, Buckwht,
 Codlivoil. ✓
 PEASE, A. D., GRAIN Co., Burlington, Vt. *Peasco Molasses Horse Feed*. 11/3.5/7.
 Two samples; fiber above guaranty, 8.06%.
 Oats, Ckdcorn, Linsd, Alf, Bran, Soy, Mol, Oyster, Salt. ✓
 RACE MILLING Co., Granville, N. Y. *Race's Hog Feed*. 18/4/8. One sample;
 protein below guaranty, 17.31%.
 Midds, Corn, Linsd, Meat, Alf, Calc, Salt. ✓
 RYDE & Co., Chicago, Ill. *Ryde's Cream Quality Calf Meal*. 19/4/4. Three
 samples; fiber above guaranty, 4.65%.
 Blood, Skim, Whey, Locust, Bar, Soy, Linsd, Oatgrots, Corn, Flax, Flour, Midds, Fengk,
 Anise, Eggalb, Eggshl, Slfr, Iron, Bone, Iodsalt, Char, Glauberssalt.
 STRATTON & Co., Concord, N. H. *Stratton's "24" Horse Feed*. 7.5/2.83/14.43. One
 sample; fat below guaranty, 1.85%.
 Oatmld, Cornbran, Ckdcornsift, Corn. ✓

* Check mark ✓ means that the brand in question was found to be "as certified" in respect to the ingredients. Statements concerning brands not found to be "as certified" in respect to ingredients appear on pages 29 to 32.

KEY TO ABBREVIATIONS OF INGREDIENTS

<i>Abbreviation</i>	<i>Name of ingredient</i>	<i>Abbreviation</i>	<i>Name of ingredient</i>
Alf	Alfalfa	Iodsalt	Iodized salt
Anise	Anise	Iron	Iron oxide
Babassu	Babassu meal	Ironsft	Iron sulfate
Bar	Barley	KI	Potassium iodide
Beans	Ground beans	Kaffir	Kaffir corn
Beet	Beet pulp	Kelp	Dried kelp
Beetmol	Beet molasses	Limeiod	Iodized ground limestone
Bicarb	Bicarbonate of soda	Linsd	Linseed oil meal
Blood	Blood flour or meal	Livml	Liver meal
Bone	Bone meal	Locust	Locust bean meal
Bonebl	Bone black	Malt	Malt sprouts
Bonechar	Bone charcoal	Meat	Meat scraps or meal
Bran	Wheat bran	Meatext	Meat extract
Brew	Brewers' dried grains	Midds	Wheat middlings (flour or standard)
Btrmlk	Dried buttermilk	Milk	Dried milk
Buckwht	Buckwheat	Milkalb	Dried milk albumen
Calc	Calcium carbonate (ground limestone)	Millet	Millet
Carotene	Carotene	Milo	Milo-maize
Char	Charcoal	Mol	Molasses
Ckdcorn	Cracked corn	Mxdfd	Wheat mixed feed
Ckdcornsift	Cracked corn siftings	Oatfl	Oat flour
Ckdwht	Cracked wheat	Oatgrots	Ground oat groats
Cocnut	Cocanut oil meal	Oatml	Oat meal
Cocoa	Cocoa meal	Oatmlfd	Oat mill feed (hulls, shorts, middlings)
Codlivml	Cod liver meal	Oats	Ground or pulverized oats
Codlivoil	Cod liver oil	Oyster	Oyster shell meal
Copper	Copper sulfate	Pfdwht	Puffed wheat
Copra	Copra oil meal	Phoslime	Phosphatic limestone
Corn	Corn meal, ground corn	Pnut	Peanut oil meal
Cornbran	Corn bran	Rdog	Wheat red dog (flour)
Cornfd	Corn feed meal	Rice	Rice polish
Corngerm	Corn germ oil meal	Ryefd	Rye feed
Cornoil	Corn oil meal	Ryemidds	Rye middlings
Dextro	Dextrose	Salt	Salt
Dical	Dicalcium phosphate	Sard	Sardine oil
Dist	Corn or rye distillers' dried grains	Scrngs	Ground grain screenings (all grains)
Eggalb	Egg albumen	Seashl	Ground seashells
Eggshl	Egg shells, ground	Shorts	Shorts (all grains)
Fengk	Fenugreek	Soy	Soy bean oil meal
Fish	Fish meal, codfish residue meal	Slfr	Sulphur
Flax	Ground flaxseed	Sunfr	Sunflower seed
Flour	Low grade wheat flour	Tank	Ground tankage
Glauberssalt	Glauber's salt	Wheat	Wheat
Glufd	Gluten feed	Whey	Dried whey (milk sugar feed)
Gluml	Gluten meal	Whtgerm	Wheat germ meal
Gluten	Gluten		
Hom	Hominy feed		
Iod	Iodine		

III. DISCUSSION OF INGREDIENT STATEMENTS

The Vermont law requires that a statement setting forth the specific name of each ingredient used in the manufacture of a feeding stuff be attached to each package. The Association of American Feed Control Officials, Inc., is an organization made up of feed control chemists from the United States and Canada, whose purpose it is to promote uniformity of legislation, definitions and rulings relating to the manufacture, sale and distribution of feeding stuffs on the continent of North America. Most of the ingredients in proprietary feeds are named and defined by this Association, and its recommendations have been accepted by this Station, insofar as the State law will permit. It is suggested that each manufacturer procure a copy of the Association's Official Publication and be guided thereby.

The Vermont law permits the Director to refuse to register any commercial feeding stuffs under a name, brand or trade-mark which is misleading or deceptive as to the material of which it is composed and allows him to issue such rules and regulations as he may deem necessary to carry into effect the full intent and meaning of the law.

The list of ingredients used in the manufacture of each proprietary feed is stated in tables I and II on pages 4 to 28. The nutrient and ingredient guaranties are combined in one clearly understandable statement. A list of abbreviations used in indicating the ingredients will be found on page 29. The presence of the check mark (✓) indicates that all of the ingredients mentioned on tag or bag were found in the feed sampled and tested.

In the following instances, the ingredients named were "not detected" or extraneous ones were found to be present.

ALLIED MILLS, INC., Peoria, Ill.

Wayne Amco 16% Dairy Ration. Potassium iodide and iron oxide not detected.
Wayne Rabbit Feed. Potassium iodide not detected.
Wayne Pig Starter. Potassium iodide and copper sulfate not detected.
Wayne 26% Mash Supplement with Sardine Oil. Potassium iodide not detected.
Wayne Chick Starter. Potassium iodide not detected.
Wayne Growing Mash with Sardine Oil. Potassium iodide not detected.

BAILEY, E. W., & Co., Montpelier, Vt.

Our 20% Special Dairy Ration. Also found linseed meal.
Pennant Laying Mash. Also found charcoal.

BARBER & BENNETT, INC., Albany, N. Y.

Big Ben 16% Dairy Ration. Potassium iodide not detected.

BLATCHFORD CALF MEAL CO., Waukegan, Ill.

Blatchford's Calf Meal. Potassium iodide not detected.

BROWN, H. M., & Co., Castleton, Vt.

Farmers' Choice 20% Open Formula Dairy Ration. Potassium iodide not detected.

CROSBY, E. C., Danby, Vt.

Crosby's A Quality 20% Dairy Ration Open Formula. Also found malt sprouts and small amount of rye feed.
Crosby's B Quality 20% Dairy Ration Open Formula. Also found ground barley.

ELMORE MILLING CO., INC., Oneonta, N. Y.

Elmore Complete Laying Mash. Whole oat groats and ground limestone not detected; also found ground oats and oyster shell meal.

ESHELMAN, JOHN W., & SONS, Lancaster, Pa.

Eshelman's Pennsy Laying Mash. Also found steamed bone meal.
Eshelman's Pennsy Laying Mash with Cod Liver Oil. Also found steamed bone meal.

GRAND UNION STORES, INC., New York, N. Y.

Grand Union 20% Dairy Ration. Also found cottonseed meal.
Peerless All-Mash Starter and Grower. Potassium iodide not detected.

JOHNSON, C. E., Island Pond, Vt.

Regular Dairy Ration. Also found salt.

MARITIME MILLING CO., INC., Buffalo, N. Y.

BB Marmico 16% Protein Dairy Ration with Molasses. Also found few whole weed seeds.

- McGOVERN, T. J., Cambridge, Vt.
McGovern's 16% Dairy Ration. Also found rye feed.
- MOON, GEO. Q., & Co., INC., Binghamton, N. Y.
U. S. 24% Dairy Ration. Also found salt.
Moon's Laying Mash with Dried Buttermilk. Potassium iodide not detected.
- NEW ENGLAND RETAIL GRAIN DEALERS' CO-OPERATIVE ASSOC., Springfield, Mass.
New England Quality 24% Dairy Ration. Also found malt sprouts.
New England Quality 20% Dairy Ration. Potassium iodide not detected.
New England Quality Laying Mash with Cod Liver Oil. Potassium iodide not detected.
New England Quality Complete Growing Mash with Cod Liver Oil. Potassium iodide not detected.
- NORTON, E. G. & A. W., Vergennes, Vt.
Kow Feed. Also found ground barley.
- PARK & POLLARD Co., INC., Buffalo, N. Y.
Bidwell 24% Dairy Ration. Also found corn meal and numerous oat hulls.
Doublex 24% Dairy Ration. Also found corn meal.
Yankee 20% Dairy Ration. Also found malt sprouts.
Manamar Doublex 20% Dairy Ration. Also found few oat hulls.
Bidwell 20% Dairy Ration. Also found corn meal and numerous oat hulls.
Doublex 20% Dairy Ration. Also found corn meal and numerous oat hulls.
Doublex 16% Dairy Ration. Also found corn meal.
Bidwell Dry Mash. Also found oat hulls.
- PEASE, A. D., GRAIN Co., Burlington, Vt.
Peasco 20% Dairy Ration. Also found ground barley.
Peasco Pig and Hog Feed. Also found small amounts of ground oats.
- QUAKER OATS Co., Chicago, Ill.
Schumacher Calf Meal. Bicarbonate of soda not detected.
- RALSTON PURINA Co., St. Louis, Mo.
Protana 16% Dairy Ration (Buffalo Mill). Also found few whole weed seeds.
- RYDE & Co., Chicago, Ill.
Ryde's Cream Quality Calf Meal. Glauber's salt and egg albumen not detected; cooked and ground egg shells questionable.
- SEABURY, E. T., GRAIN Co., Waterbury, Vt.
Our Own Make Special Dairy Ration. Also found salt.
- TURNBULL, J. G., Co., Orleans, Vt.
Creamery Dairy Ration. Also found brewers' dried grains.
Turnbull's Special Dairy Ration. Also found dried beet pulp.
- WAYNE COUNTY GRANGERS FEED CORP., Clyde, N. Y.
32% Reliance Supplemental Dairy Feed. Iodine not detected.
Milkproducer 24% Dairy Feed. Iron sulfate and iodine not detected.
Hi-Yan-Ka Farms 20% Dairy Feed with Beet Pulp. Iodine not detected.
Superior 20% Dairy Feed. Iodine not detected.
Sweetened 16% Dairy Feed. Iodine not detected.
Superior Calf Grower. Iodine not detected.
Superior Growing Mash with Buttermilk and Cod Liver Oil. Iron sulfate not detected.

Fifty-one of the 415 brands of proprietary feeds, when examined microscopically, were found to be not as certified with respect to their ingredient contents. In 21 of these, the microscopist could not detect the presence of potassium iodide, iron oxide, or copper sulfate which are often hard to find because they are likely to settle to the bottom of the bag and escape the sampling tube and, furthermore, are used in almost infinitesimal amounts, a pound or two to a ton. In the other 30

cases, materials, usually of good grade, replaced some ingredient stated to be present on tag or stencil, which was left out in the process of manufacture or else was used in addition to the regularly certified ingredients.

Five brands contained a considerable amount of undeclared oat hulls. The registration certificates indicate that "ground wheat screenings" were used, when in all probability "ground grain screenings from wheat, oats, barley, buckwheat and milo" should have been declared. When screenings are used, the manufacturer should describe exactly what they contain.

Several samples of O-Corn-O Hominy Feed, manufactured by the Kellogg Company of Canada, Ltd., were collected. Their crude protein contents were low. Two of the samples were examined microscopically and found to carry more starch than normal samples should contain. The crude fiber contents were about one percent lower than normal. The high starch contents account for the low crude protein percentage. Microscopically, the samples would pass as hominy feed.

On the whole, feed manufacturers have furnished the ingredients they claimed to supply. Vermont buyers can rest assured that the feeding stuffs they purchase run true to form.

IV. TABULAR SUMMATION, DECEMBER, 1936, INSPECTION

The following table sets forth the essential facts as to the trade in Vermont, each brand taken as a unit, the number of samples and brands collected, the number of protein determinations below guaranty and the nutrient deficiencies.

	Samples	Proteins up to guaranty	Proteins below guaranty	Brands	Brands up to guaranty	Brands below guaranty	Deficiencies					
							Protein	Fat	Fiber	Protein and fat	Protein and fiber	Fat and fiber
Cottonseed meals	48	45	3	9	7	2	..	..	2	..	..	..
Linseed meals	46	46	..	9	9	..	..	..	..	..	..	..
Soybean meals	25	25	..	6	6	..	..	..	..	..	..	..
Babassu meal	1	1	..	1	1	..	..	..	..	..	..	..
Gluten meals and feeds	60	60	..	12	12	..	..	..	..	..	..	..
Distillers' and brewers' dried grains and malt sprouts	70	67	3	18	16	2	..	2	..	..	..	..
Wheat offals	310	308	2	75	73	2	1	1	..	..	..	..
Brans	113	112	1	29	29	..	..	..	..	..	..	..
Middlings	87	87	..	24	24	..	..	..	..	..	..	..
Mixed feeds	59	58	1	12	11	1	1	1	..	..	..	..
Red dog flours	51	51	..	10	9	1	..	1	..	..	..	..
Hominy feeds	29	23	6	9	8	1	1	1	..	..	..	..
Beet pulps	17	17	..	2	2	..	..	..	..	..	..	..
Alfalfa meals	12	8	4	7	4	3	..	..	1	1	1	..
Miscellaneous	53	49	4	11	8	3	1	2	..	..	..	..
Proprietary feeds	1,529	1,525	4	416	388	28	3	5	20	..	..	..
Dairy	596	593	3	174	156	18	2	3	13	..	..	..
Stock, horse, etc.	254	254	..	57	55	2	..	1	1	..	..	..
Calf and hog	125	124	1	27	24	3	1	..	2	..	..	..
Poultry	554	554	..	158	153	5	..	1	4	..	..	..
Scratch, chick	179	179	..	49	49	..	..	..	..	..	..	..
Mashes, growing	375	375	..	109	104	5	..	1	4	..	..	..
Meat scraps, bone meal	7	7	..	5	4	1	..	1	..	..	..	..
Skim milk, etc.	9	9	..	4	4	..	..	..	..	..	..	..
Totals	2,216	2,190	26	584	542	42	6	11	23	1	1	..
Spring, 1936	1,975	1,932	43	600	571	29	7	7	11	2	1	*1
Winter 1935	2,343	2,303	40	585	557	28	5	16	5	1	..	1
Spring 1935	2,199	2,125	74	635	589	46	19	13	10	3	1	..
Winter 1934-35	2,049	2,002	47	550	524	26	12	4	7	..	..	3
Spring 1934	1,901	1,869	32	551	527	24	8	10	4	2	..	..
Winter 1933-34	1,955	1,938	17	566	539	27	3	14	7	1	1	1
Spring 1933	2,052	2,007	45	552	509	43	11	22	8	1	..	1
Winter 1932-33	2,235	2,202	33	581	551	30	4	17	8	..	1	..
Spring 1932	2,070	2,055	15	567	551	16	2	9	3	1	..	*1
Winter 1931-32	2,357	2,320	37	590	567	23	6	9	4	2	2	..
Spring 1931	1,748	1,710	38	543	497	46	10	22	10	..	3	1
Winter 1930-31	2,060	2,022	38	540	503	37	5	23	9	..	..	..
Spring 1930	1,651	1,607	44	474	433	41	10	25	4	1	..	1
Winter 1929-30	1,695	1,650	45	469	443	26	10	10	3	1	2	..
Spring 1929	1,369	1,324	45	430	402	28	6	15	6	1	..	..
Winter 1928-29	1,220	1,154	66	375	342	33	17	8	5	1	2	..
Spring 1928	1,406	1,223	183	406	331	75	48	13	6	5	3	..

* Protein, fat and fiber.

V. AVERAGE PRICES, APRIL, 1931, TO DECEMBER, 1936

The following table sets forth the average prices of the several classes of feeding stuffs sold in Vermont during the past six years. The December, 1936, prices average about \$5.50 more per ton than April, 1936.

	April, '31	December, '31	April, '32	December, '32	April, '33	December, '33	April, '34	December, '34	April, '35	December, '35	April, '36	December, '36
Cottonseed meals 43% ...	\$42	\$30	\$30	\$27	\$29	\$33½	\$38½	\$51½	\$52	\$40	\$37½	..
Cottonseed meals 41% ...	40	29	28	27	27½	33½	37½	49½	44½	35½	35½	\$58
Cottonseed meals 36% ...	40	28	26	22½	..	..	..	47	41½	..	..	..
Linseed meals 37-39% ...	..	..	..	..	31½	41½	44	50	37½	36½	47½	51½
Linseed meals 34%	45	40	40	33½	32½	44	44	50½	41	36½	36	51½
Linseed meals 30-33% ...	42	39	40	33	32½	44	45	49½	41	36	35½	51½
Soybean meals .....	..	..	..	..	32	41½	42	48½	43	35½	33	50
Babassu meal .....	..	..	..	..	..	..	..	..	..	..	..	51
Gluten meals	40½	34	28	27	29	38½	39	52	43	38½	37½	46
Gluten feeds	38	27	24	23	25	30½	31	43	37½	33	30½	44½
Brewers' dried grains....	..	..	..	..	28	30	31½	39½	36	31	28	41
Distillers' dried grains....	32	30	20	27	28	32½	35	41½	38	33	29½	41½
Wheat brans	31	25	24½	22	23½	26½	32	36½	34½	29	28	42½
Wheat middlings:												
Standard	31½	26	25½	21½	23	28½	32½	38½	36	29	29	44½
Shorts	31	26	24½	21	23½	26½	31	36	34	28½	28	44
Flour	35	29	28	24	24½	32	33	41½	38	34½	31	45
Wheat mixed feeds	33	28	27	24	25	31	33½	40½	38½	32½	32	46
Red dog flours	35	30	28	26½	25½	33½	33½	44½	41	35½	34½	46
Dried beet pulps	35	28	28	28	27	30	30	41½	43	36½	37	44
Hominy feeds	34½	27	24	20½	20½	27	31	42	37½	31½	30	47
Alfalfa meals	55	41	49½	38½	36½	38	39½	43½	42½	37	36	47
Proprietary feeds:												
Dairy 32% .....	..	..	..	..	..	..	..	..	..	..	..	50
24%	42	34	32	28½	29½	35½	37	46	42	36	34½	47
20%	39½	32	33	27	28	33½	35	43½	40½	34½	33	45½
16%	35	30	27½	24	26	30½	31	41½	37½	32	31	43
Stock and horse 9-10%*	40	34	32	29	29	37	37½	46½	43½	38	37	48½
8%*	34	29	34	22	26½	..	34½	..	..	33	35	50
Fitting 9-12%	39	31	29½	25	26½	34½	36	44	41	35½	35	48
14%	39	36	31½	28	28	37½	40½	47½	44	38½	37½	49½
Calf	84	80	74	69	66½	77½	67½	82	78½	79½	77½	84
Hog	48	38	35½	32½	32½	40½	40	49	46½	43½	41	55½
Poultry:												
Scraps	75½	58	60½	55	38	44	47½	48	46	53	59½	57½
Scratches	41½	33	32½	27½	28½	37½	38	46½	44	39½	37½	55½
Mashes	52	42	40	36	37	44	45½	52	50½	46½	45½	59
Chick grains	49	41	39	41½	32½	40½	46	56	49½	45½	43½	56
Chick mashes	63	48	49	39	43	49	52	56½	56½	44½	52	62

* Horse feeds, as a rule, average five to six dollars higher in price than the so-called stock feeds of similar guaranteed protein contents.

A comparison of the average prices for 1923, 1932, 1933, 1934, 1935, April, 1936, and December, 1936, follow, 1923 being rated at 100.

	1923	1932	1933	1934	1935	Apr., 1936	Dec., 1936
Cottonseed meals	100	45	52	74	73	62	98
Linseed meals	100	64	63	80	65	62	87
Gluten meals and feeds	100	46	55	74	68	61	81
Wheat offals (exclusive of red dog)	100	59	66	87	83	73	103
Beet pulps	100	53	54	64	71	66	79
Hominy feeds	100	56	60	94	89	77	121
Proprietary:							
Dairy 24%	100	56	61	77	73	64	87
20%	100	57	58	74	71	62	86
16%	100	56	62	79	76	67	94
Stock and horse	100	72	79	100	97	88	120
Calf, hog, etc.	100	75	77	84	88	83	98
Scratches	100	66	64	82	79	72	98
Mashes	100	66	69	82	76	78	96

VI. AVERAGE COMPOSITION OF FEEDING STUFFS ANALYZED DURING 1936

Name of feed	Number of samples	Crude protein	Crude fat	Crude fiber	Total digestible nutrients*
		%	%	%	%
43% protein cottonseed meal...	2	45.16	6.55	8.77	80.8
41% protein cottonseed meal...	93	41.03	6.04	11.03	73.6
37% protein linseed meal.....	21	39.19	5.36	6.57	77.8
34% protein linseed meal.....	43	36.44	7.25	7.28	78.4
32% protein linseed meal.....	10	34.42	5.49	7.99	77.9
44% protein soybean oil meal..	1	48.40	1.69	4.91	83.8
41% protein soybean oil meal..	41	43.07	5.82	5.50	82.8
37% protein soybean oil meal..	6	38.72	5.41	5.	80.5
Corn gluten meal	14	44.54	2.94	3.10	81.4
Corn gluten feed	92	28.19	2.79	6.62	77.6
30% protein corn distillers' dried grains	3	31.85	9.61	10.98	85.
28% protein corn distillers' dried grains	76	29.74	8.65	11.46	85.
27% protein corn distillers' dried grains	4	32.61	11.15	10.24	85.
25% protein corn distillers' dried grains	1	27.73	8.09	12.14	85.
16% protein rye distillers' dried grains	3	16.44	7.01	13.72	62.9
26% protein brewers' dried grains	21	27.99	6.74	14.03	65.7
24% protein brewers' dried grains	5	25.38	6.75	14.95	65.7
22% protein brewers' dried grains	3	24.38	7.08	15.08	65.2
21% protein brewers' dried grains	9	25.73	6.54	14.81	65.7
Wheat bran	233	17.31	5.20	9.11	70.2
Wheat standard middlings.....	82	18.41	5.21	7.05	78.4
Wheat flour middlings.....	25	17.53	4.87	5.05	79.5

* Morrison, "Feeds and Feeding," 20th Edition.

Name of feed	Number of samples	Crude protein	Crude fat	Crude fiber	Total digestible nutrients*
		%	%	%	%
Wheat shorts	62	18.88	5.91	7.11	76.3
Wheat mixed feed	111	16.88	4.85	6.78	73.5
Wheat red dog	99	19.07	4.21	2.55	86.9
Hominy feed	78	10.86	6.90	4.12	85.2
Dried beet pulp	21	9.42	0.73	19.84	71.8
Dried molasses beet pulp.....	14	11.02	0.70	15.09	74.3
Alfalfa leaf meal	10	20.02	2.51	17.96	57.4
Alfalfa meal	12	14.09	1.95	29.81	53.9
Oat mill feed	29	6.16	2.25	27.49	42.6
Feeding oat meal	8	16.73	5.89	2.92	92.5
Rye feed	22	15.22	3.31	4.26	77.4
32% dairy ration	53	33.75	4.91	7.90	...
24% dairy ration	210	26.09	4.74	8.65	...
20% dairy ration	582	22.35	4.67	8.86	...
16% dairy ration	144	18.44	4.35	9.85	...
8% stock and horse feed.....	9	10.01	3.81	9.07	...
9-10% stock and horse feed....	267	11.58	4.13	7.77	...
9-12% fitting ration	55	16.75	4.78	7.72	...
Calf meal	102	25.71	5.26	4.59	...
Hog meal	114	18.65	5.18	5.66	...
45-50% meat scraps	10	50.22	9.37	....	71.2
20% bone meal	3	24.20	2.45	....	...
Fish meal	2	67.49	3.83	....	71.3
Scratch grains	307	11.32	3.34	2.55	...
Chick grains	50	11.51	3.25	1.81	...
Mash feed	582	19.90	5.43	5.95	...
Chick mash feed	107	19.09	5.35	5.38	...
Skimmilk	15	35.09	0.94	....	84.1

* Morrison, "Feeds and Feeding," 20th Edition.

The above table shows the average composition of brands collected during 1936, the number of samples represented in each class and the percentage of total digestible nutrients as taken from "Feeds and Feeding," by Morrison. This table can be used in calculating formulas and in determining the number of pounds of digestible nutrients in a ton of feed. It is not possible to determine the digestible nutrients in the proprietary feeds except when the formula is provided. If one knows the number of pounds of each ingredient used, such calculations can be made readily by anyone who may be interested.

This table also shows how the various feeds compare with their guaranties. On the average, the manufacturers have complied with the law.

VII. DEFICIENCIES, 1923-1936

The following table sets forth the proportions for the total number of brands found deficient in recent inspections.

Spring 1923	22%	Winter 1923-24	11%
Spring 1924	16%	Winter 1924-25	10%
Spring 1925	15%	Winter 1925-26	13%
Spring 1926	13%	Winter 1926-27	10%
Spring 1927	8%	Winter 1927-28	9%
Spring 1928	18%	Winter 1928-29	9%
Spring 1929	7%	Winter 1929-30	6%
Spring 1930	9%	Winter 1930-31	7%
Spring 1931	8%	Winter 1931-32	4%
Spring 1932	3%	Winter 1932-33	5%
Spring 1933	8%	Winter 1933-34	5%
Spring 1934	4%	Winter 1934-35	5%
Spring 1935	7%	Winter 1935-36	5%
Spring 1936	5%	Winter 1936-37	7%

A study of the above table indicates that the feed inspection is really worthwhile. Deficiencies are now relatively few in number. During the past six years 94 percent of the brands have made good their guaranties, an excellent showing.

During 1936, 4,191 samples were collected, representing 761 brands, covering about 90 percent of the brands registered. For the entire year 61 brands were below the guaranty in one or more of their components. Some of them were below in one collection and not in the other. The following fell short in crude fat in both collections:

Maltex Co., Inc., *Maltex Cereal Feed*, 12.5/3.75/9.
 For-All Grain Co., Inc., *For-All Milk Grains*, 20/5.5/8.
 Chas. M. Seaver & Co., *Honor Brand Dairy Feed*, 24/5.5/9.
 Consolidated Rendering Co., *Corenco Bone Meal*, 20/2/—.

The following brands carried too much crude fiber:

Fernando Valley Milling & Supply Co., *Ideal Greens Alfalfa Leaf Meal*, 20/3/18.
 Elmore Milling Co., Inc., *Waldorf 24% Dairy Ration*, 24/4/11.
 C. E. Johnson & Co., *Regular Dairy Ration*, 20/4/10.
 Elmore Milling Co., Inc., *"Three Point" Calf Meal*, 24/4/4.

Elmore Granger 24% Dairy Ration, 24/4/10, failed to meet its crude protein guaranty in the spring and carried too much crude fiber in the following winter.

In each of these cases the manufacturer technically has violated the law controlling the sale of commercial feeding stuffs. He should check his formulas and endeavor to sell only such goods as comply with the guaranty.

VIII. UNREGISTERED BRANDS

Station sampling agents often find unregistered brands on sale. The State law has been in operation in its present form since 1923, but the

numbers of these derelictions do not decrease as the years go on; indeed, they seem to increase. Twice a year lists of registered brands are mailed to all retailers insofar as their names and addresses are on file. They are urged to buy only registered brands and are repeatedly warned that if they offer unregistered goods for sale they may be called upon to pay the \$20 fee for each brand. Some of them have had to pay these fees and have not enjoyed the process.

This situation has been called to the attention of Vermont dealers over and over again. Probably it will be discussed again and again in the years to come. The writers take no pleasure in exacting the pound of flesh, which is why they take pains, at least twice a year, to inform the trade, and why they are making the following statement.

All feeds for domestic animals (except hays, straws, stovers, silages, wheat, rye, barley, oat, corn, buckwheat and India wheat meals, pure grains ground together, feeds ground from materials furnished by the consumer or mixed according to a formula which is furnished by the consumer and meant solely for his own use and not for resale) must be named, guaranteed as to their protein, fat and fiber contents and as to the ingredients of which they are made, and licensed for sale, the fee being \$20 per brand for each calendar year or fraction thereof. The following information must appear on the label to be affixed to each package.

Net weight of the contents of each package; name, brand or trademark; name and address of the manufacturer or importer; minimum percentages of crude protein and crude fat and maximum percentage of crude fiber; specific name of each ingredient; percentage of weed seeds or screenings, except in poultry feeds, provided same exceeds two percent. Further statements as to chemical composition may be made, if desired, although not required. If the goods are sold in bulk or in containers furnished by the consumer, this information must be furnished if the purchaser requests it.

Manufacturers, jobbers or others shipping feeds into Vermont are expected to and usually register them and pay the required fees. However, if they fail or refuse to do so, local dealers handling the goods will be held responsible for registration and other legal requirements. It often happens in the course of trade that feeds made in other states pass through the hands of several middlemen before they reach the local distributor. These parties are usually located in other states and outside of the jurisdiction of the Vermont law. The writers attempt to determine the origin of unregistered shipments, although the law places no obliga-

tion upon them to do so. Endeavors are made in such cases to secure registration from manufacturer, jobber or middleman, but when these efforts fail the local dealer becomes responsible and must be prepared to assume responsibility.

Dealers located within the State borders who mix goods for general sale must register them. They are manufacturers in the eye of the law to the same extent as the great mills of the Middle West.

IX. CONCERNING BRAND NAMES, GUARANTEES, ETC.

The Association of American Feed Control Officials has adopted certain resolutions which are cited here in condensed form. They do not have the force of law but regulations are often based thereon. Some of these have pertinence in Vermont.

- Net weight.* 2,000 pounds net; not 99 pounds per 100-pound bag.
- Brand names.* Should not be misleading as to the kind, character or nature of materials used; name of each ingredient should be stated in simplest form and in common English terms, omitting superfluous or ambiguous words; materials used must correspond to any descriptive name used.
- Guaranties.* *Cottonseed meals.* The fat guaranties of 36, 41 and 43 percent protein goods should be not less than $4\frac{1}{2}$, 5, and $5\frac{1}{2}$ percents respectively, the fiber guaranties not more than 16, 13 and 12 percents respectively.
- Linseed meals.* Protein percentages should be made part of label, i.e., 34 percent protein linseed meal.
- If guaranties of nitrogen free extract or carbohydrates are made (not required in Vermont) it is understood that they imply respectively:
- Nitrogen free extract: 100 percent—[moisture, ash, protein, fat and fiber percentages];
- Carbohydrates: Nitrogen free extract + fiber.
- The use of the term carbohydrates is decried as misleading.
- Vitamins.* Use of the word or of any contraction thereof or of any word suggesting vitamins in the brand name deemed inadvisable; registration of brands contravening this resolution may be refused.
- Any material sold primarily as a vitamin D supplement for poultry should be labeled with a minimum guaranty of anti-rachitic potency specifying minimum percentage level at which normal calcification (44 percent minima tibia ash averages) is produced.
- Definitions.* *Cracked corn.* Not applicable to degermed cracked corn.
- Changes.* Cooperation of feed manufacturers is sought whenever changes are contemplated.
- Miscellaneous.* *Second-hand bags* (if stencilled). Should be turned wrong side out before using.
- Artificial coloring.* Use decried.

X. CONCLUSION

Only 26 (one percent) of the 2,216 samples collected failed to meet their protein guaranties. These samples represented 584 different

brands, 42 of which failed to comply with the guaranty. Six were low in protein, 11 in fat and 23 high in fiber (pages 27 to 28). Thirteen brands of dairy feed and four of mashes contained excessive amounts of crude fiber.

In December the consumer paid on the average \$46.50 per ton as compared with \$37 paid last April, a 25 percent increase. At present (mid-April, 1937) a further, though slight, increase in price is indicated. With this increase the trend is toward the purchase of cheaper and lower-grade products. When a farmer is choosing a feeding stuff however, its total digestible nutrient contents should be taken into account. Many feed tags carry this information; if not, the manufacturer can furnish it. Other things being equal, a ration which has a high total digestible nutrient content is to be preferred, and in the long run it is the cheaper purchase.