

The Surplus Problem
in the Northeastern
Milksheds

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in cooperation with

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FARM CREDIT ADMINISTRATION

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Summary

SURPLUS milk is variously defined, but generally is the milk which is put to uses that could be supplied by sources outside the milkshed. Difficulties with surplus milk are among the chief obstacles to be overcome by the fluid-milk bargaining associations, which represent a great majority of the producers in the Northeastern States.

The surplus problem in the northeastern milksheds involves two phases: (1) Utilization of milk in the Northeastern States; and (2) "western" cream, as a supplementary supply for the markets of this region. These aspects are treated separately in part I and part II of this bulletin.

Part I.—Three facts in the surplus-milk problem are of outstanding importance. First, surplus milk is mainly a seasonal occurrence resulting from lack of close adjustment between production and consumption. At times year-around surpluses have been caused by sudden decreases in consumption, and by abnormal price relationships that have attracted larger supplies of milk than the markets could absorb.

Second, the burden of surplus milk in each milkshed is unevenly distributed among the dealers and groups of producers. In general, the larger distributors have more milk going into surplus uses than the smaller distributors. Differences in prices paid for milk by large and small dealers is less than the difference in utilization would suggest.

Third, the problem of surplus milk in the Northeast centers in the New York milkshed. This milkshed has more highly seasonal production than any of the others. It is the only one of the six milksheds included in the survey in which no systematic effort has been made to bring about a leveling of seasonal production by price inducements. Since New York City is closed to cream shipments from outside the milkshed, a rather high peak of production is needed to maintain an adequate supply of cream during the summer months. Also, throughout a large part of the New York milkshed, natural conditions give more than the usual advantage to summer dairying.

Four lines of action appear to be the most promising approaches toward solving the problem. They are:

1. Firm adherence to a price policy the main objective of which is to maintain a close balance between the supply of milk in the milkshed and the consumption of fluid milk and cream. Further steps to encourage desired adjustments in seasonal production should be considered, especially for the New York milkshed.

2. Perfection of arrangements whereby each market may have access to properly supervised sources of cream outside its own milkshed, when local supplies are insufficient. If this were done, production could be adjusted seasonally so that a larger proportion of the supply could be utilized as fluid milk.

3. Greater coordination in the supply and disposal of milk by cooperative associations and dealers in the several milksheds. This might be accomplished by a cream pool or cooperative brokerage agency for surplus cream, representing as many interests as possible throughout the Northeastern States. The need for this will be lessened if milk supplies are adjusted more closely to the consumption of fluid milk and cream in each market.

4. Market-wide equalization of fluid sales and surplus at times when uneven sharing of large surpluses results in price cutting and drives producer prices below a reasonable level. Under ordinary circumstances, the best methods of overcoming the difficulties arising from uneven distribution of surplus among dealers and producer groups are to keep production in the closest possible adjustment to market demands for fluid milk and cream, and to avoid too wide a spread between the price of fluid milk and the returns obtainable for surplus milk.

The lines of action suggested in paragraphs 1 and 2 should be closely coordinated. The anticipated recovery in demand for fluid milk and cream in New York and other eastern markets may well provide both the opportunity and the necessity for both.

Part II.—Midwestern cream plants are complementary to the eastern milksheds. Few have continuous outlets in the eastern markets for a major part of their butterfat. Likewise few, if any, eastern manufacturers or distributors depend upon midwestern plants exclusively as sources of cream.

During recent years, the net returns from shipments of western cream to eastern markets, in comparison with returns from alternative uses of butterfat, have not been sufficient to encourage rapid expansion of this trade. It is unlikely that midwestern shippers will seriously depress cream prices in those markets where strict sanitary requirements are enforced.

The possibility of coordinating shipments of western cream more effectively with the supply and demand for cream in the East seems worthy of consideration, particularly by producers' bargaining associations.

While present methods of sanitary control have brought about much improvement in cream quality in most of the eastern markets, some serious difficulties arise from lack of coordination among the numerous municipal and State inspection agencies. There also is need for cream grades based upon physical properties and flavor, as well as sanitary considerations.

Because of the diverse interests of the many agencies involved, the most practicable solution of the problem appears to be the promulgation and enforcement of Federal grades for sweet cream. Health authorities of eastern States and municipalities could then specify what Federal grades might be admitted for various uses.

Appendix

Basic Statistical Data

TABLE 33.—SUPPLY AND UTILIZATION OF MILK AND CREAM IN THE NORTHEASTERN STATES, 1934

(Million pounds)

Item	States where production exceeds consumption of fluid milk and cream							States where production is less than consumption of fluid milk and cream				
	Maine	New Hampshire	Vermont	New York	Pennsylvania	Maryland	Delaware	Massachusetts	Connecticut	Rhode Island	New Jersey	District of Columbia
Supply:												
Production on farms ¹ .	628	307	1,240	7,149	4,405	758	129	707	594	127	748	
Production by cows not on farms ²	22	18	13	54	138	17	1	48	14	5	15	
Milk and cream from Virginia and West Virginia ³												114
Western cream ⁴				58	128	11	3	176	22	10	60	18
Milk and cream from other Northeastern States (net) ⁴								791	78	134	771	46
Total.....	650	385	1,259	7,261	4,761	786	133	1,722	708	276	1,594	178

Utilization:												
Used on farms: ⁶												
Fluid milk and cream	76	31	65	388	427	98	16	53	42	6	48	-----
Butter	156	33	37	332	349	73	9	14	11	1	12	-----
Fed to calves	13	8	29	250	108	15	3	15	17	3	15	-----
Other fluid consumption ⁷	240	149	94	4,589	2,468	410	58	1,527	579	250	1,428	160
Manufactured (net) ⁸	12	4	48	1,456	896	80	8	94	44	13	72	18
Waste and unaccounted for ⁹	16	10	32	181	116	20	3	19	15	3	19	-----
Milk and cream to other Northeastern States (net) ¹⁰	137	150	954	65	397	81	36	-----	-----	-----	-----	-----
Total	650	385	1,259	7,261	4,761	786	133	1,722	708	276	1,594	178

¹ Estimates for 1934, MILK PRODUCTION TRENDS, June 10, 1935, U. S. Department of Agriculture, Bureau of Agricultural Economics.

² Estimates for 1933, MILK PRODUCTION TRENDS, Supplement No. 8, May 1933, p. 43, U. S. Department of Agriculture, Bureau of Agricultural Economics.

³ Estimates by Maryland-Virginia Milk Producers' Association.

⁴ Records of cream shipments supplied by railroad companies.

⁵ Amount necessary to effect balance between total supply and total utilization.

⁶ Includes estimated quantities so used on nonfarm places keeping cows, as per Special Report, U. S. Department of Agriculture, Bureau of Agricultural Economics, MILK PRODUCED AND MILK USED IN THE NORTHEASTERN STATES IN 1931, June 30, 1933.

⁷ Number of persons estimated as follows: Total population of each State as per United States Census of Population, 1930, less the estimated number living on farms reporting milk produced in 1929; plus population growth estimated at 3 times the average annual percentage for the 10-year period 1920-30. Consumption per capita estimated as follows: Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, and New York, 42 gallons; New Jersey, 39 gallons; Pennsylvania, Maryland, and Delaware, 32 gallons; District of Columbia, 28 gallons. These estimates are based on data reported by the U. S. Bureau of Agricultural Economics, New York State College of Agriculture, and Pennsylvania State College.

⁸ Quantities of dairy products manufactured in 1934 as reported by the U. S. Bureau of Agricultural Economics, converted to the whole-milk equivalent; less allowance for butter made from whey cream, also butter and concentrated milk used in the manufacture of ice cream, plus milk and cream used in the manufacture of milk chocolate. Similar data for the years 1929-33 are reported in MILK EQUIVALENT OF PRODUCTION OF MANUFACTURED DAIRY PRODUCTS BY STATES, Mimeographed Report, U. S. Bureau of Agricultural Economics, June 1935.

⁹ Total for the entire area, representing difference between the total supply and estimated utilization, prorated among the several States in proportion to the amounts produced.

¹⁰ Amount necessary to effect balance between total supply and total utilization.

TABLE 34.—MILK EQUIVALENT OF ALL DAIRY PRODUCTS MANUFACTURED IN THE NORTHEASTERN STATES, 1929-36¹
(Million pounds)

State	1929	1930	1931	1932	1933	1934	1935	1936
Maine.....	20.3	19.3	16.0	10.9	9.3	12.2	11.6	13.9
New Hampshire.....	8.3	8.2	7.8	5.6	3.7	4.1	4.4	4.9
Vermont.....	105.8	99.8	82.0	57.0	58.9	48.3	71.7	74.1
Massachusetts.....	117.3	125.1	102.6	82.6	80.8	93.7	94.2	99.9
Connecticut.....	71.7	65.0	55.3	48.1	42.4	43.6	43.5	48.2
Rhode Island.....	17.9	14.9	14.2	11.4	12.3	12.9	15.6	18.5
New York.....	1,364.7	1,393.7	1,338.9	1,223.9	1,314.0	1,414.9	1,432.4	1,616.2
New Jersey.....	139.9	117.7	113.6	70.2	58.2	71.9	68.9	87.6
Pennsylvania.....	843.1	831.4	745.2	628.2	616.0	682.5	740.3	841.1
Maryland.....	55.3	48.2	40.4	40.5	65.5	80.0	106.7	114.8
Delaware.....	5.5	9.1	8.9	7.7	7.7	8.0	9.4	11.6
District of Columbia.....	18.6	18.2	18.2	15.5	15.3	17.7	19.3	24.0
Total.....	2,768.4	2,750.6	2,543.1	2,201.6	2,284.1	2,489.8	2,618.0	2,954.8

¹ Milk chocolate and some minor products not included.

Source: Data from reports on MILK EQUIVALENT OF PRODUCTION OF MANUFACTURED DAIRY PRODUCTS, U. S. Bureau of Agricultural Economics.

TABLE 35.—MILK EQUIVALENTS OF THE VARIOUS DAIRY PRODUCTS MANUFACTURED IN THE NORTHEASTERN STATES, 1929-36¹
(Million pounds)

Product	1929	1930	1931	1932	1933	1934	1935	1936
Creamery butter.....	552.0	555.9	552.4	522.4	641.1	666.6	664.3	650.4
American cheese.....	291.3	337.3	293.4	248.5	299.6	295.9	244.3	259.6
Other cheese.....	281.7	293.1	269.6	253.3	263.9	293.7	307.0	300.3
Evaporated milk (case goods).....	250.4	250.1	255.6	303.2	278.1	260.9	359.3	483.3
Plain condensed milk.....	100.5	77.4	75.1	59.8	64.4	86.9	81.1	133.3
Sweetened condensed milk:								
Case goods.....	95.5	87.1	71.7	55.8	46.0	43.7	40.8	32.9
Bulk goods.....	18.3	13.2	12.0	14.0	16.2	18.0	21.2	23.4
Ice cream.....	1,560.0	1,513.7	1,388.3	1,037.5	966.5	1,165.1	1,243.2	1,481.1
Powdered whole milk.....	47.7	45.1	27.5	22.7	16.1	20.4	37.1	26.2
Powdered cream.....	3.4	3.3		0.3	0.7	0.2	0.3	
Total.....	3,200.8	3,176.2	2,945.6	2,517.5	2,592.6	2,851.4	2,998.6	3,390.5
Duplications ²	432.4	425.6	402.6	315.9	308.5	362.4	380.6	435.7
Net total.....	2,768.4	2,750.6	2,543.0	2,201.6	2,284.1	2,489.0	2,618.0	2,954.8

¹ Including Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, Delaware, and District of Columbia.

² Butter made from whey cream, also butter and concentrated milk used in the production of ice cream.

Source: Compiled from reports of the U. S. Bureau of Agricultural Economics.

TABLE 36.—SEASONAL VARIATION IN SALES OF MILK AND CREAM BY FARMERS IN THE NORTHEASTERN STATES, 1933-34¹
(Daily average for each month in percentage of daily average for the year)

State	1933						1934					
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Maine.....	100	94	103	104	95	89	93	87	95	104	109	125
New Hampshire.....	97	85	100	111	96	93	98	93	96	100	109	119
Vermont.....	111	93	98	99	86	84	85	83	94	106	124	134
Massachusetts.....	100	100	102	102	98	97	97	95	99	99	104	105
Connecticut.....	101	101	102	102	98	97	97	95	99	99	104	105
Rhode Island.....	101	101	102	102	98	97	97	95	99	99	104	105
New York.....	111	89	101	99	84	83	83	82	93	107	127	141
New Jersey.....	101	101	98	100	93	95	96	97	99	99	112	110
Pennsylvania.....	109	104	99	94	87	87	80	92	95	101	120	123
Maryland.....	105	105	97	97	94	93	92	92	94	96	116	119
Delaware.....	106	102	93	91	93	88	88	105	105	107	109	117
Weighted average.....	108.3	95.5	100.1	98.3	87.6	86.7	87.5	87.4	94.7	103.7	120.8	129.4

¹ The seasonal indices for Vermont, Connecticut, New York, New Jersey, Pennsylvania, and Maryland are based on records of monthly deliveries to dairy plants, representing a high percentage of the total sales by farmers. The indices for Maine, New Hampshire, Massachusetts, Rhode Island, and Delaware are less reliable.

TABLE 37.—MONTHLY SALES OF MILK AND CREAM FROM FARMS IN THE NORTHEASTERN STATES, 1933 AND 1934¹

(Daily average for each month in thousands of pounds)

Month	Maine	N. H.	Vt.	Mass.	Conn.	R. I.	N. Y.	N. J.	Pa.	Md.	Del.	Total
January.....	985	794	2, 670	1, 657	1, 415	316	14, 246	1, 716	8, 738	1, 452	248	34, 237
February.....	921	753	2, 607	1, 623	1, 386	310	14, 074	1, 734	9, 033	1, 452	296	34, 189
March.....	1, 006	778	2, 953	1, 691	1, 444	323	15, 963	1, 770	9, 327	1, 483	296	37, 034
April.....	1, 101	810	3, 329	1, 691	1, 444	323	18, 365	1, 770	9, 916	1, 515	302	40, 566
May.....	1, 154	883	3, 895	1, 776	1, 517	339	21, 798	2, 003	11, 782	1, 830	307	47, 284
June.....	1, 324	964	4, 209	1, 793	1, 532	342	24, 201	1, 967	12, 076	1, 878	330	50, 616
July.....	1, 059	786	3, 487	1, 708	1, 474	329	19, 052	1, 806	10, 702	1, 657	299	42, 359
August.....	995	688	2, 921	1, 708	1, 474	329	15, 276	1, 806	10, 211	1, 657	288	37, 353
September.....	1, 091	810	3, 078	1, 742	1, 488	333	17, 336	1, 752	9, 720	1, 531	262	39, 143
October.....	1, 101	899	3, 110	1, 742	1, 488	333	16, 992	1, 788	9, 229	1, 531	257	38, 470
November.....	1, 006	778	2, 701	1, 674	1, 430	319	14, 418	1, 663	8, 542	1, 483	262	34, 276
December.....	943	753	2, 638	1, 657	1, 415	316	14, 246	1, 699	8, 542	1, 468	248	33, 925
Year.....	1, 059	810	3, 141	1, 708	1, 459	326	17, 164	1, 788	9, 818	1, 578	282	39, 133

¹ Estimates computed by prorating farm sales of milk and cream throughout the year on basis of seasonal index given in table 30.

TABLE 38.—SEASONAL VARIATION IN THE SALES OF MILK AND CREAM BY FARMERS, IN THE CONSUMPTION OF FLUID MILK AND CREAM, AND IN THE MILK EQUIVALENT OF ALL DAIRY PRODUCTS MANUFACTURED IN THE NORTHEASTERN STATES, AVERAGE FOR 1933 AND 1934

[Daily average for the 2 years = 100]

Month	Total sales of milk and cream by farmers ¹	Consumption of fluid milk and cream ²	Milk equivalent of all manufactured dairy products ³
January.....	87.5	98.2	68.2
February.....	87.4	94.8	62.7
March.....	94.7	97.1	75.8
April.....	103.7	103.2	98.0
May.....	120.8	108.6	140.2
June.....	129.4	112.7	177.8
July.....	108.3	105.9	139.2
August.....	95.5	96.0	110.2
September.....	100.1	98.8	101.1
October.....	98.3	97.0	93.4
November.....	87.6	95.1	69.2
December.....	86.7	92.1	62.2

¹ From table 36.

² Based on dealers' sales of milk and cream for fluid use as reported to Division of Milk Control, New York State Department of Agriculture and Markets.

³ Computed from special monthly tabulation of Dairy Products Manufactured in the Northeastern States, Bureau of Agricultural Economics. Duplications consisting of butter and concentrated milk used in ice cream, and butter churned from whey cream, excluded.

TABLE 39.—SEASONAL VARIATION IN MILK EQUIVALENT OF DAIRY PRODUCTS MANUFACTURED IN THE NORTHEASTERN STATES, AVERAGE FOR 1933 AND 1934

[Daily average for the 2 years = 100]

Month	Milk equivalent of—					
	Ice cream		Cream cheese	Creamery butter	Evaporated milk ¹	American cheese
	Gross	Net ²				
January.....	52.3	58.1	111.7	85.7	42.6	42.8
February.....	48.1	53.9	121.9	70.2	38.0	33.6
March.....	61.0	70.2	111.6	69.5	80.6	44.2
April.....	84.6	95.2	101.3	74.0	144.7	74.5
May.....	142.4	140.5	96.4	114.6	207.0	155.2
June.....	182.3	201.2	86.4	148.6	231.2	235.4
July.....	185.2	168.9	84.9	115.8	154.3	170.8
August.....	155.7	124.6	76.4	112.2	91.0	134.6
September.....	109.3	92.4	88.0	118.4	83.6	120.8
October.....	67.6	71.7	105.7	131.4	57.2	100.8
November.....	55.7	65.2	110.0	83.1	33.7	50.6
December.....	52.0	55.3	107.4	74.6	33.1	32.8
Year.....	100.0	100.0	100.0	100.0	100.0	100.0

¹ Excluding estimated quantities of butter and concentrated milk used in ice-cream manufacture.

² Includes condensed milk and powdered milk.

Source: Computed from special monthly tabulation of Dairy Products Manufactured in the Northeastern States, by the U. S. Bureau of Agricultural Economics.

TABLE 40.—MONTHLY QUANTITIES OF MILK USED FOR CONSUMPTION IN FLUID FORM AND FOR MANUFACTURE IN THE NORTHEASTERN STATES, 1934¹

(Daily average for each month, in millions of pounds)

Month	Milk for fluid use	Cream for fluid use	Ice cream, cream cheese, and milk chocolate ²	Butter, American cheese, and evaporated milk ²	Total
January.....	24.5	7.8	2.5	2.5	37.3
February.....	24.3	7.4	2.5	2.2	36.4
March.....	24.2	7.9	3.1	2.9	38.1
April.....	24.2	9.3	3.8	4.0	41.3
May.....	25.0	9.8	4.7	5.7	45.2
June.....	25.9	9.9	6.0	7.3	49.1
July.....	25.2	8.8	5.5	5.5	45.0
August.....	24.4	7.4	3.9	4.8	40.5
September.....	24.4	8.0	3.2	4.3	39.9
October.....	24.2	8.0	3.0	3.6	38.8
November.....	24.7	7.1	2.8	2.0	36.6
December.....	23.6	7.2	2.3	1.6	34.7
Year.....	24.6	8.2	3.6	3.9	40.3

¹ Does not include milk used or manufactured on farms.

² Net milk equivalent of dairy products manufactured in the Northeastern States.

TABLE 41.—CREAM SHIPPED BY NORTHEASTERN COOPERATIVES TO MARKETS OUTSIDE THEIR OWN MILKSHEDS, JULY 1934 TO DECEMBER 1935

(40-quart cans)

Month	New England Dairies	Dairy-men's League	Maryland Cooperative Milk Producers, Inc.	Maryland and Virginia Milk Producers' Association	Total
1934:					
July.....	None	17,983.0	608.8	None	18,591.8
August.....	None	10,319.0	261.5	None	10,580.5
September.....	None	9,028.0	1,274.0	None	10,302.0
October.....	None	14,951.0	1,481.2	None	16,432.2
November.....	None	5,021.0	737.0	None	5,758.0
December.....	None	59.0	398.0	None	457.0
1935:					
January.....	None	500.0	446.8	None	946.8
February.....	None	-----	160.0	13.5	173.5
March.....	None	2,600.0	-----	6.0	2,606.0
April.....	None	1,400.0	-----	339.0	1,739.0
May.....	None	-----	1,800.0	2,681.0	4,481.0
June.....	140.0	950.0	3,300.0	3,148.0	7,538.0
July.....	136.0	11,592.0	109.0	908.0	12,745.0
August.....	138.0	9,414.0	1,200.0	1,223.0	11,975.0
September.....	853.0	7,054.0	350.0	544.7	8,801.7
October.....	734.0	6,885.0	202.3	679.4	8,500.7
November.....	662.5	-----	55.8	314.5	1,032.8
December.....	602.0	-----	1,478.2	473.0	2,553.2
Total for 1935.....	3,265.5	40,395.0	9,102.1	10,330.1	63,092.7

TABLE 42.—CREAM SHIPPED BY NORTHEASTERN COOPERATIVES TO EACH MARKET OUTSIDE THEIR RESPECTIVE MILKSHEDS,
JULY 1934 TO DECEMBER 1935

(40-quart cans)

Month	Boston	Other Massachusetts and New England	New York City	North Jersey	Up-State New York	South Jersey	Philadelphia	Other Pennsylvania	Baltimore	Washington	Virginia and North Carolina	Total
<i>1934</i>												
July.....	5,967.0	2,847.0					9,761.8	16.0				18,591.8
August.....	3,229.0	1,575.0					5,776.5					10,580.5
September.....	4,450.0	2,120.0			1,150.0		2,558.0	24.0				10,302.0
October.....	5,315.0	5,483.0			1,350.0		4,168.0	116.2				16,432.2
November.....	1,808.0	2,137.0				265.0	1,353.0	22.0			173.0	5,758.0
December.....						286.0	152.0	19.0				457.0
<i>1935</i>												
January.....						240.0	690.0	16.8				946.8
February.....						160.0	10.0				3.5	173.5
March.....							2,600.0				6.0	2,606.0
April.....		97.0					1,403.0		25.0		214.0	1,739.0
May.....					200.0		1,971.0	200.0	10.0	1,400.0	700.0	4,481.0
June.....	700.0	265.0			200.0		2,618.0	3,300.0			455.0	7,538.0
July.....	4,739.0	3,828.0					3,460.0	610.0	108.0			12,745.0
August.....	3,900.0	3,398.0		180.0			3,152.0	1,000.0	145.0		200.0	11,975.0
September.....	2,050.0	2,993.0	20.0	180.0	704.0		2,090.0	350.0	46.0	50.0	318.7	8,801.7
October.....	2,550.0	1,938.0	559.0				2,754.4	460.0	20.0	75.1	144.2	8,500.7
November.....		216.5	446.0				292.5		22.0	30.6	25.2	1,032.8
December.....		157.0	445.0	100.0			331.0	1,368.2	2.0	110.0	40.0	2,553.2
Total for 1935.....	13,939.0	12,892.5	1,470.0	460.0	1,104.0	400.0	21,371.9	7,305.0	378.0	1,665.7	2,106.6	63,092.7

Other Publications Available

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Use of Motortrucks in Marketing Fruits and Vegetables

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