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AGRICULTURAL ECONOMIC FACTS



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BASEBOOK

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Special Report No. 1

Agricultural Economic Facts Basebook of Iowa

BY LAUREN K. SOTH

AGRICULTURAL ECONOMICS SUBSECTION
RURAL SOCIAL SCIENCE AND ECONOMICS SECTION

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Foreword

SUCCESSFUL farming was once largely an individual matter. Good management of a farm was sufficient. Success or failure was of the farmer's own making and, accordingly, he took that part of the world which fell outside his line fences for granted and bent all of his efforts to become an effective farm operator.

That generation of Iowans that farmed prior to the World War did not experience any upheavals in prices. They were spared that kind of economic violence. Instead they saw prices generally rise slowly and gradually—a good omen to them as debtors. Farm costs, especially interest and taxes, bore definite and dependable relationship to farm income. The stability in the economic patterns external to the farm placed a premium upon the efficiency of the farmer, his skill, intelligence and initiative.

But the dependability of these economic relationships which are external to the farm disappeared about 20 years ago. First came the extraordinary demand for food arising out of the War, high prices and boom. Then followed the long, painful aftermath of price and income maladjustments. There was the sharp depression in the early twenties. Business recovered but commercial agriculture in the Middlewest only partially so. Europe was too poor to buy from us except with borrowed funds and our tariffs were too high to permit Europe to earn the dollars needed to buy our farm products. Our farm markets abroad vanished.

Then came the drastic dislocations in prices and income following 1930. Depression bred despair and whatever order was left in farm prices and costs gave way to what was equivalent to economic chaos. Prices collapsed, credit stopped, and farm foreclosures became so widespread that considerably more than one-tenth of the farm land of Iowa became the property of corporations, mainly insurance companies. As a consequence, tenancy increased sharply. Farm land was exploited by more corn in the attempt to avoid bankruptcy. Farm capital deteriorated.

In a word, the economic forces outside of the farm thwarted and turned to naught the best laid plans of many able, intelligent and efficient farmers. This experience of the last two decades convinced farmers and farm leaders that good farming is not sufficient. Big crops effectively produced are no assurance against foreclosure.

The purpose of this Basebook is to make available to farmers as well as to students of agricultural affairs, economic facts and figures which pertain to the agriculture of Iowa. The statistics and analyses which make up this book deal with and describe chiefly those economic forces which are outside of the province of any individual farm.

The maladjustments that confront agriculture are indeed many. There is the whole issue of tenancy which has entered an acute stage. There is the misuse of our land resource, that rich inheritance given to us by nature. Diets have changed. People want less fats and many consumers abroad no longer buy our lard. Transportation by rail costs are sixty to seventy percent more than before the war thus forcing livestock and grains onto our roads. Farm debts are out of line with farm earning. A property tax system is in force which has little relation to ability to pay. These are merely illustrative of what agriculture is facing.

Each of these issues is essentially complex and difficult of solution. The facts and figures of this book provide the handles and levers for taking hold and for understanding the realities that are involved. Moreover, any progress that is made in developing desirable farm policies and programs must be based on an intelligent analysis and interpretation of pertinent facts. It is in the hope that constructive farm policies may be formulated that this Basebook has been prepared.

T. W. Schultz, Head
Rural Social Science and Economics Section.

March, 1936.

Agricultural Economic Facts Basebook of Iowa

By LAUREN K. SOTH*

CHAPTER I. IOWA FARM INCOME

THE World War—and its aftermath—left the commercial world as torn and twisted as it left the forests and hillsides of northern France. The little nations set up by the Versailles Treaty in central Europe hardly waited for their soldiers to get back across the frontiers before they raised high tariff barriers to keep out foreign goods. In many of these countries factories had been idle throughout the war; in others farm production had practically ceased. To the east hulked Russia lay embroiled in the difficulties of a revolutionary government while her people starved. In Germany the mark depreciated in value so fast that wheelbarrows displaced pocket-books. Even England was having monetary and labor troubles.

What effect had all this on Iowa?

To an increasing extent in the preceding 50 years Iowa had become a commercial agriculture state. The days of the spinning wheel and the one-horse plow had passed with the building of the railroads, the growth of large American cities and expansion of industrial Europe. The farmer once depended on two trips to town a year to get some shoes, some tobacco, salt and sugar. But he now lived on a graded highway and drove his own car to town twice a week. Where the price of wheat and hogs used to mean little to this farmer, since he seldom used money, now his whole business was dependent upon the price situation. What the English

housewife was able and willing to pay for lard and bacon became of immense importance to this Iowa farmer.

So the disruption caused by the war did have an effect on Iowa. Encouraged to increase production, put more acres under the plow and raise more pigs during the war, Iowa farmers found their foreign market disappearing. And the excess productive capacity of their farms was building up a surplus of increasing size. Incomes decreased compared with taxes, interest payments and other fixed obligations.

It is with this picture in mind that the estimates on farm income for Iowa are presented. Estimates are not available farther back than

1920, but the United States figures will give an inkling of what was happening in Iowa.

Total farm income for the country is estimated at \$6,238,000,000 for 1914. In 1919 it was in the neighborhood of 17 billions. War time inflation of prices, together with the great increase in production, had resulted in nearly a tripling of the agricultural income of the country.

In 1929, another key year, national farm income was about \$12,000,000,000. In 1932 it was \$5,143,000,000, a little over 43 percent of 1929 income.

Figure 1 illustrates what has happened to Iowa gross farm income in the past 13 years. The depression of 1920 brought sharply

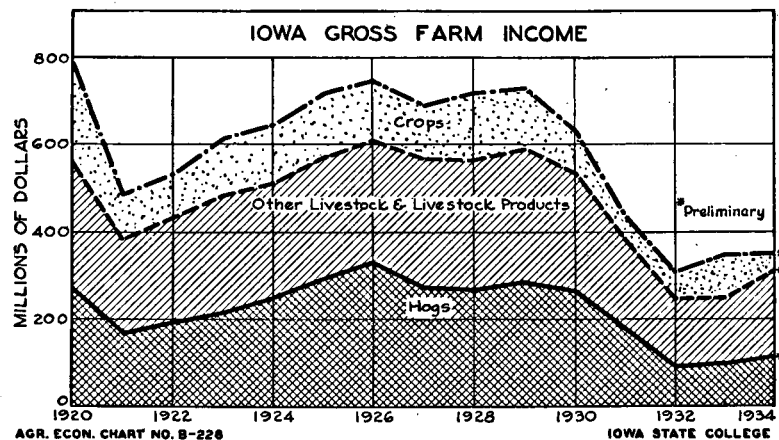


Fig. 1. After dropping off sharply in the depression of 1920, Iowa farm income climbed steadily until a peak was reached in 1929. The 3 years following were ones of greatly reduced incomes as a result of falling prices. In 1933 and 1934 higher prices for farm products brought higher incomes to Iowa farmers. Most of Iowa's farm income is from livestock and livestock products.

Data in table 1.

*This basebook of economic facts was possible only because of the splendid cooperation given me by various agencies of the national and state governments, as well as by many members of the Iowa State College staff. I am particularly indebted to Mr. Leslie M. Carl, Sr. Agricultural Statistician, United States Bureau of Agricultural Economics, Des Moines, Iowa; Mr. Charles D. Reed and Mr. J. Earl Cook, of the Iowa Weather and Crop Bureau, and Dr. J. E. Brindley, director of research for the Iowa State Board of Assessment and Review.

Mr. Glen Liston, Mr. Harold Graham and Mr. Harold Lewis helped with the work of gathering material from the many sources used, writing cut lines and narrative, reading proof, etc. Mr. Fred E. Ferguson and Mr. Carl Hamilton of the Iowa State College Bulletin Office gave invaluable advice and assistance on printing and make-up. The statistical and stenographic staffs both of the Extension Service and the Department of Economics deserve much credit for the book; they underwent constant checking, re-checking, typing and re-typing without a murmur.

AGRICULTURAL ECONOMIC FACTS

TABLE 1. IOWA FARM VALUE, GROSS INCOME* AND CASH INCOME* FROM FARM PRODUCTION, BY COMMODITIES
(In Thousands of Dollars)

	1920	1921	1922	1923	1924			1925			1926		
	Gross income				Farm value	Gross income	Cash income	Farm value	Gross income	Cash income	Farm value	Gross income	Cash income
Cattle and calves.....	152,388	105,476	109,617	137,444	100,669	112,990	111,517	108,163	120,126	118,470	98,238	115,098	113,497
Hogs.....	269,760	164,127	199,801	213,138	224,610	247,064	237,585	291,802	295,268	280,854	327,988	323,898	308,835
Sheep.....	5,644	3,305	2,912	3,548	4,701	4,569	4,514	5,711	4,941	4,879	5,700	4,070	4,008
Total meat animals.....	427,792	272,908	312,330	354,130	329,980	364,623	353,616	405,676	420,335	404,203	431,926	443,066	426,340
Milk.....	84,686	79,619	79,300	86,394	84,133	79,135	63,376	83,521	78,285	62,611	92,250	86,652	70,146
Eggs.....	32,899	21,177	24,135	27,466	36,160	34,520	26,840	42,849	40,822	32,061	44,051	42,142	34,308
Chickens.....	17,119	11,003	12,565	14,271	27,571	29,257	21,971	30,516	29,817	22,080	34,329	33,800	25,949
Total dairy and poultry products.....	134,704	111,799	116,000	128,131	147,864	142,912	112,187	156,886	148,924	116,752	170,630	162,594	130,403
Wool.....					1,822	1,822	1,822	1,983	1,983	1,983	1,850	1,850	1,850
Honey.....					582	582	410	545	545	382	512	512	361
Beeswax.....					9	9	9	10	10	10	11	11	11
Horses.....					4,550	2,057	2,057	4,180	1,045	1,045	4,324	1,147	1,147
Mules.....					1,296	648	648	1,120	358	358	872	229	229
Total livestock and livestock products.....	562,496	384,707	428,330	482,261	486,103	512,653	470,749	570,400	573,200	524,733	610,125	609,409	560,341
Corn.....	137,386	70,170	73,024	86,361	302,481	39,073	38,883	300,515	67,313	67,196	309,297	63,103	62,967
Oats.....	62,584	24,156	22,743	30,630	108,200	38,952	38,952	82,913	24,874	24,874	70,512	18,333	18,333
Wheat.....	16,875	7,521	9,064	9,082	11,016	9,621	9,560	8,774	7,357	7,287	9,920	8,398	8,337
Barley.....	2,699	895	746	784	2,909	1,105	1,105	3,306	1,262	1,262	4,741	1,564	1,564
Rye.....					655	549	539	442	352	343	1,453	324	316
Total grains.....	219,544	102,742	105,577	126,857	425,261	89,300	89,039	396,150	101,158	100,962	394,923	91,722	91,517
Clover seed—red and alsike.....					713	418	418	1,558	1,246	1,246	741	370	370
Clover seed—sweet.....					332	183	183	479	302	302	640	440	440
Timothy seed.....					3,397	3,289	3,289	2,544	2,436	2,436	2,610	2,522	2,522
Soybeans.....					1,320	170	170	1,383	195	195	1,552	277	277
Total seeds.....					5,762	4,060	4,060	5,964	4,179	4,179	5,543	3,609	3,609
Hay.....					71,355	5,712	5,712	57,144	3,996	3,996	60,246	3,609	3,609
Apples.....					3,444	3,323	2,118	3,480	3,376	2,158	4,200	4,032	2,744
Peaches.....					8	8		30	30		155	155	
Pears.....					72	70	16	76	75	24	82	78	24
Plums, cherries and apricots.....					517	498	318	522	506	324	630	605	412
Grapes.....					373	361	193	241	234	115	303	297	122
Strawberries.....					897	897	880	922	922	898	586	586	572
Small fruits.....					341	341	329	350	350	333	223	223	213
Total Fruits.....					5,652	5,498	3,854	5,621	5,493	3,852	6,179	5,976	4,087
Buckwheat.....					101	85	68	77	65	52	79	60	47
Flax seed.....					193	180	180	233	213	213	357	334	334
Popcorn.....					910	910	910	2,730	2,730	2,730	1,173	1,173	1,173
Sweet sorghum forage.....					134			194			302		
Potatoes, white.....					6,876	5,723	3,073	7,687	6,171	592	9,354	7,778	1,478
Potatoes, sweet.....					499	487	466	791	777	753	615	603	583
Truck crops.....					2,666	2,666	2,222	5,477	5,477	4,564	3,324	3,324	2,770
Sorghum sirup.....					396	297	178	454	340	204	508	382	229
Maple sugar and sirup.....					16	16	13	10	10	8	15	15	13
Forest products.....					3,371	3,371	978	3,597	3,597	1,043	3,498	3,498	1,014
Farm gardens.....					10,338	10,338		10,555	10,555		9,952	9,952	
Nursery products.....					532	532	532	532	532	532	532	532	532
Greenhouse products.....					2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060
Emmer and spelt.....													
Total crops.....					536,122	131,235	113,345	499,276	147,353	125,740	498,660	134,627	113,055
Total livestock and crops.....	782,040	487,449	533,907	609,118	1,022,225	643,888	584,094	1,069,676	720,553	650,473	1,108,785	744,036	673,396

* Gross income is total income received from farm production. Cash income is gross income minus products used on the farm.

Source: 1920-1923, Iowa Agr. Exp. Sta., Agr. Econ. Sect., 1924-1934, U. S. D. A., Bureau of Agricultural Economics.

BASEBOOK OF IOWA

TABLE 1. IOWA FARM VALUE, GROSS INCOME* AND CASH INCOME* FROM FARM PRODUCTION, BY COMMODITIES—Continued
(In Thousands of Dollars)

	1927			1928			1929			1930		
	Farm value	Gross income	Cash income	Farm value	Gross income	Cash income	Farm value	Gross income	Cash income	Farm value	Gross income	Cash income
Cattle and calves.....	99,749	120,864	118,603	116,435	105,192	102,722	120,812	115,651	113,386	111,497	109,840	107,931
Hogs.....	287,696	277,493	265,390	259,393	271,012	261,134	278,665	285,284	274,230	271,297	266,223	255,667
Sheep.....	5,430	5,856	5,798	5,781	4,325	4,247	5,767	4,657	4,555	5,010	4,728	4,704
Total meat animals.....	392,875	404,213	389,791	381,609	380,529	368,103	405,244	405,592	392,171	387,804	380,791	368,302
Milk.....	98,688	92,891	75,544	105,640	100,909	83,334	106,481	103,279	86,866	90,090	87,476	75,170
Eggs.....	37,387	35,721	28,493	45,657	43,834	35,827	46,395	44,212	36,090	40,410	38,868	31,029
Chickens.....	32,476	32,060	23,668	32,632	32,917	24,721	37,160	34,913	26,830	29,225	29,613	22,588
Total dairy and poultry products.....	168,551	160,672	127,705	183,929	177,660	143,882	190,036	182,404	149,786	159,725	155,957	128,787
Wool.....	1,769	1,769	1,769	2,503	2,503	2,503	2,055	2,055	2,055	1,528	1,528	1,528
Honey.....	684	684	542	588	588	455	675	675	548	547	547	438
Beeswax.....	16	16	16	15	15	15	15	15	15			
Horses.....	4,750	1,244	1,244	4,378	1,296	1,296	4,594	930	930	3,550	154	154
Mules.....	756	540	540	828	436	436	821	583	583	623	222	222
Total livestock and livestock products.....	569,401	569,138	521,607	573,850	563,027	516,690	603,440	592,254	546,088	553,777	539,199	499,431
Corn.....	321,198	50,690	50,530	353,311	82,962	82,816	309,512	60,481	60,342	200,403	33,406	33,307
Oats.....	86,414	19,875	19,875	83,215	24,133	24,133	82,039	21,330	21,330	67,631	14,879	14,879
Wheat.....	10,213	8,382	8,320	8,897	7,501	7,450	8,641	6,924	6,870	6,386	4,019	3,967
Barley.....	9,552	2,866	2,866	14,292	4,573	4,573	8,756	2,626	2,626	6,951	904	904
Rye.....	550	415	407	638	516	507	598	494	485	367	213	208
Total grains.....	427,927	82,228	81,998	460,353	119,685	119,479	409,546	91,855	91,653	281,738	53,421	53,265
Clover seed—red and alsike.....	1,751	1,428	1,428	925	566	566	3,257	2,930	2,930	1,726	1,375	1,375
Clover seed, sweet.....	637	523	523	326	220	220	119	69	69	106	106	106
Timothy seed.....	1,613	1,560	1,560	734	675	675	953	902	902	2,477	2,381	2,381
Soybeans.....	1,147	218	218	684	319	319	1,169	401	401	1,090	521	521
Total seeds.....	5,148	3,729	3,729	2,669	1,780	1,780	5,498	4,302	4,302	5,465	4,383	4,383
Hay.....	66,093	5,284	5,284	59,474	3,570	3,570	63,901	4,474	4,474	40,122	3,121	3,121
Apples.....	2,804	2,748	1,607	3,343	3,226	2,030	3,350	3,283	1,735	1,514	1,514	251
Peaches.....	127	127		75	75		82	82		15	15	
Pears.....	62	60	15	56	55	19	70	68	27	86	86	13
Plums, cherries and apricots.....	421	412	241	501	484	304	502	492	260	257	257	43
Grapes.....	298	292	136	317	311	133	320	314	180	377	377	192
Strawberries.....	1,128	1,128	1,106	594	594	576	961	961	939	1,314	1,314	1,132
Small fruits.....	429	429	414	226	226	219	365	365	350	471	471	362
Total fruits.....	5,269	5,196	3,519	5,112	4,971	3,281	5,650	5,565	3,491	4,034	4,034	1,993
Buckwheat.....	158	137	125	70	58	46	95	81	66	43	33	21
Flax seed.....	454	432	432	376	363	363	333	292	292	398	374	374
Popcorn.....	753	753	753	884	884	884	1,101	1,101	1,101	1,425	1,425	1,425
Sweet sorghum forage.....	413			276			197			72		
Potatoes, white.....	7,503	6,070	1,312	5,905	4,468	2,098	8,637	7,437	1,775	6,174	5,079	921
Potatoes, sweet.....	421	412	396	527	577	561	551	499	481	450	419	403
Truck crops.....	2,354	2,354	1,962	2,863	2,863	2,386	3,283	3,283	2,736	3,861	3,861	3,608
Sorghum sirup.....	161	121	73	414	248	145	448	269	179	230	138	92
Maple sugar and sirup.....	12	12	10	12	12	10	13	13	10			
Forest products.....	3,408	3,408	988	3,422	3,422	992	3,545	3,545	1,028	4,414	2,714	1,014
Farm gardens.....	9,313	9,313		10,616	10,616		9,988	9,988		6,962	6,962	
Nursery products.....	532	532	532	532	532	532	532	532	532	702	702	702
Greenhouse products.....	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	1,732	1,732	1,732
Emmer and spelt.....										55		
Total crops.....	531,979	122,041	103,173	555,625	156,109	138,187	515,378	135,296	114,180	357,877	88,398	73,054
Total livestock and crops.....	1,101,380	691,179	624,780	1,129,475	719,136	654,877	1,118,818	727,550	660,268	911,654	627,597	572,485

* Gross income is total income received from farm production. Cash income is gross income minus products used on the farm.

Source: U. S. D. A., Bureau of Agricultural Economics.

AGRICULTURAL ECONOMIC FACTS

TABLE 1. IOWA FARM VALUE, GROSS INCOME* AND CASH INCOME* FROM FARM PRODUCTION, BY COMMODITIES—Continued
(In Thousands of Dollars)

	1931			1932			1933				1934 (preliminary)			
	Farm value	Gross income	Cash income	Farm value	Gross income	Cash income	Farm value	Gross income	Cash income	Benefit pay-ments	Farm value	Gross income	Cash income	Benefit pay-ments
Cattle and calves.....	81,287	76,547	75,192	63,727	59,837	58,624	61,505	53,465	52,275	.....	74,082	86,720	85,444	.....
Hogs.....	185,064	178,931	172,147	93,807	96,100	91,490	102,522	102,384	97,282	.....	83,257	112,151	106,089	45,254
Sheep.....	3,581	3,158	3,138	2,724	3,345	3,320	3,193	2,411	2,370	.....	4,310	3,641	3,586	.....
Total meat animals.....	269,932	258,636	250,477	160,258	159,282	153,434	167,220	158,260	151,927	.....	161,649	202,512	195,119	45,254
Milk.....	67,807	65,903	56,472	51,996	50,542	43,106	54,427	52,905	45,012	.....	62,312	60,506	51,832	.....
Eggs.....	31,513	30,381	24,145	22,736	21,864	16,944	21,793	20,868	16,132	.....	27,802	26,753	21,379	.....
Chickens.....	25,821	26,366	20,916	17,353	17,471	13,463	15,697	15,201	11,715	.....	17,985	19,524	15,182	.....
Total dairy and poultry products.....	125,141	122,650	101,533	92,085	89,877	73,513	91,917	88,974	72,859	.....	108,099	106,783	88,393	.....
Wool.....	1,030	1,030	1,030	695	695	695	1,630	1,630	1,630	.....	1,659	1,659	1,659	.....
Honey.....	234	234	150	294	294	218	.....	.....	.....	.....	.....	.....	.....	.....
Beeswax.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Horses.....	2,851	660	660	2,707	1,206	1,206	3,345	1,032	1,032	.....	3,657	1,410	1,410	.....
Mules.....	352	75	75	256	88	88	248	184	184	.....	281	485	485	.....
Total livestock and livestock products.....	399,540	383,285	353,925	256,295	251,442	229,154	264,660	250,080	227,632	.....	275,345	312,849	287,066	45,254
Corn.....	108,075	16,817	16,761	152,852	31,898	31,839	227,500	59,612	59,514	.....	171,258	19,717	19,550	28,634
Oats.....	36,047	5,407	5,407	28,525	5,420	5,420	41,641	6,662	6,662	.....	28,788	1,551	1,551	.....
Wheat.....	2,928	1,786	1,720	1,653	993	925	3,356	2,376	2,226	431	2,786	1,299	1,127	504
Barley.....	4,335	607	607	3,473	764	764	4,125	1,155	1,155	.....	4,341	228	228	.....
Rye.....	203	101	99	154	45	43	270	76	71	.....	271	41	35	.....
Total grains.....	151,588	24,718	24,594	186,657	39,120	38,991	276,892	69,881	69,628	431	207,444	22,836	22,491	29,138
Clover seed—red and alsike.....	487	253	253	413	307	307	869	652	652	.....	276	52	52	.....
Clover seed, sweet.....	119	51	51	31	10	10	72	43	43	.....	213	166	166	.....
Timothy seed.....	1,386	1,347	1,347	688	657	657	682	622	622	.....	372	165	165	.....
Soybeans.....	371	140	140	455	136	136	1,436	658	658	.....	2,500	1,065	1,065	.....
Total seeds.....	2,363	1,791	1,791	1,587	1,110	1,110	3,059	1,975	1,975	.....	3,361	1,448	1,448	.....
Hay.....	28,798	1,683	1,683	26,144	1,274	1,274	31,178	2,443	2,443	.....	42,468	2,528	2,528	.....
Apples.....	1,507	1,507	696	1,315	1,315	616	1,468	1,468	813	.....	1,202	1,202	952	.....
Peaches.....	101	101	31	68	68	.....	11	11	2	.....	58	58	25	.....
Pears.....	85	85	40	58	58	21	55	55	30	.....	67	67	30	.....
Plums, cherries and apricots.....	256	256	118	284	224	105	264	264	146	.....	228	228	181	.....
Grapes.....	375	375	215	230	230	127	232	232	132	.....	202	202	134	.....
Strawberries.....	880	880	765	773	773	687	542	542	456	.....	282	282	237	.....
Small fruits.....	314	314	245	272	272	220	198	198	146	.....	103	103	76	.....
Total fruits.....	3,518	3,518	2,110	2,940	2,940	1,776	2,770	2,770	1,725	.....	2,142	2,142	1,635	.....
Buckwheat.....	11	7	1	18	13	6	44	29	19	.....	143	131	120	.....
Flax seed.....	221	208	208	142	129	129	295	269	269	.....	239	209	209	.....
Popcorn.....	477	477	477	312	312	312	114	114	114	.....	125	125	125	.....
Sweet sorghum forage.....	33	.....	.....	32	.....	.....	55	.....	.....	.....	970	.....	.....	.....
Potatoes, white.....	2,868	2,295	158	3,175	2,617	1,016	5,355	4,339	804	.....	4,075	3,238	668	.....
Potatoes, sweet.....	291	272	262	219	209	193	356	335	315	.....	236	215	202	.....
Truck crops.....	3,291	3,291	3,076	1,033	1,033	965	1,569	1,569	1,466	.....	1,172	1,172	1,095	.....
Sorghum sirup.....	235	138	91	102	60	40	75	16	29	.....	133	82	51	.....
Maple sugar and sirup.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Forest products.....	4,341	2,641	941	3,585	2,263	941	3,703	2,286	869	.....	3,516	2,156	796	.....
Farm gardens.....	7,753	7,753	.....	7,762	7,762	.....	7,762	7,762	.....	.....	4,470	4,470	.....	.....
Nursery products.....	884	884	884	688	688	688	879	.....	.....	.....	1,027	.....	.....	.....
Greenhouse products.....	1,476	1,476	1,476	463	463	463	704	704	704	.....	526	526	526	.....
Emmer and spelt.....	35	.....	.....	25	.....	.....	30	.....	.....	.....	40	.....	.....	.....
Total crops.....	208,203	51,152	37,752	234,854	59,984	47,904	334,840	94,522	80,360	431	272,087	41,278	31,894	29,138
Total livestock and crops.....	607,743	434,437	391,677	491,149	311,426	277,058	599,500	344,602	307,992	431	547,432	354,129	318,960	74,392

* Gross income is total income received from farm production. Cash income is gross income minus products used on farm.

Source: U. S. D. A., Bureau of Agricultural Economics.

SOURCES OF IOWA FARM INCOME

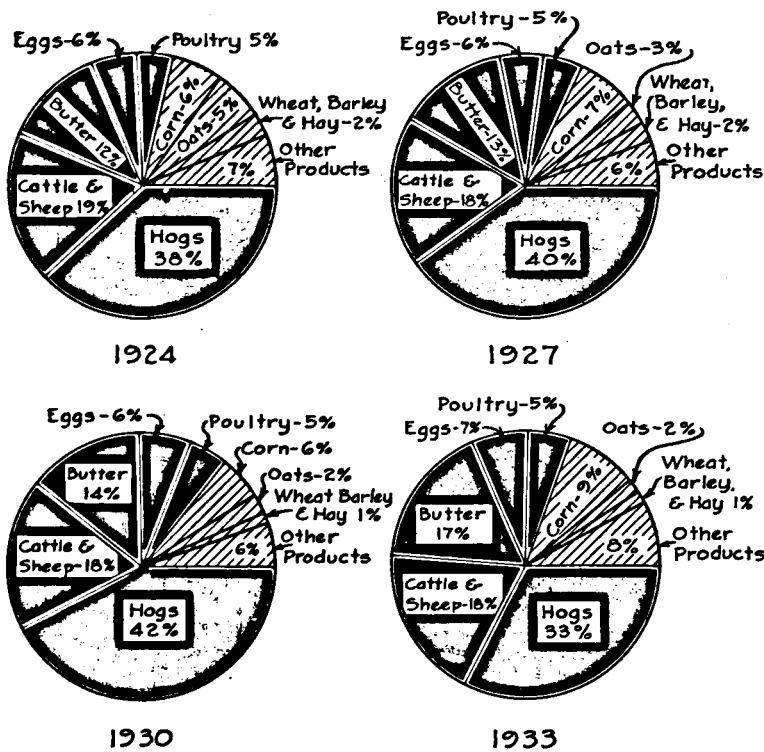


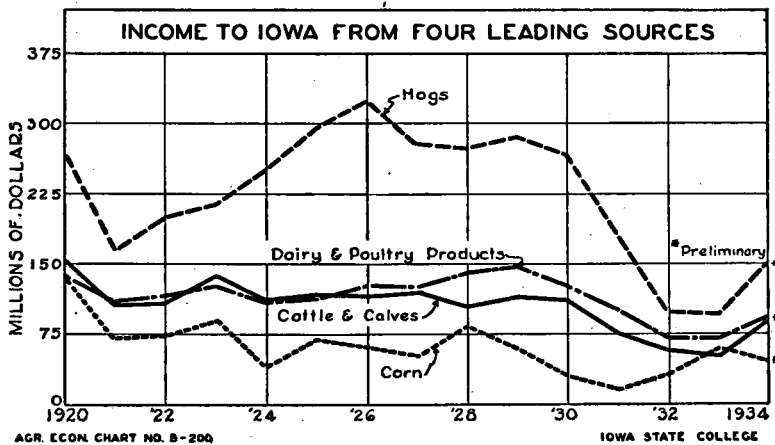
Fig. 2. The charts at left show the proportion of Iowa's farm income which is derived from different products and groups of products. Livestock and livestock products have provided about 85 percent of the income during the period for which figures are available. Of this group, hogs are by far the most important, since they alone are responsible for 40 percent of the income.

Data in table 2.

Livestock & Products
 Crops
 AGR. ECON. CHART NO. B-245
 IOWA STATE COLLEGE

Fig. 3. The chart at right shows the trend of income from the four leading farm products of Iowa. Income from hogs rose rapidly during the first part of the last decade, but dropped rapidly during the depression. Corn income fluctuated from year to year more than the others. Income from cattle and dairy products was about constant until the depression.

Data in table 1.



AGR. ECON. CHART NO. B-200

IOWA STATE COLLEGE

PERCENT. U. S. GROSS FARM INCOME WHICH IOWA SUPPLIES

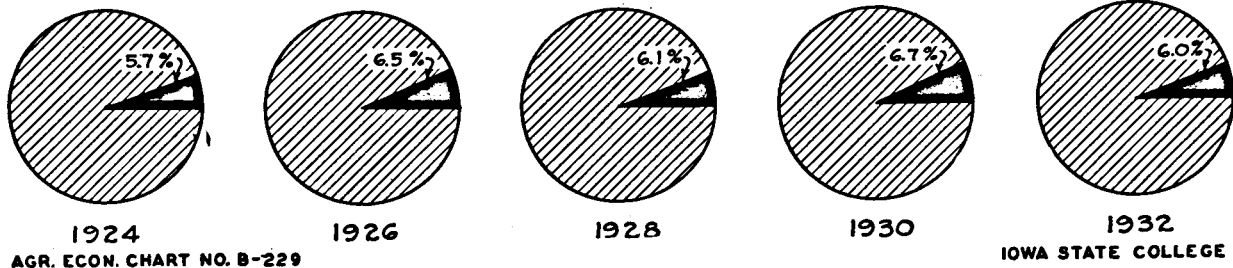


Fig. 4. The charts above show the percentage of national farm income supplied by Iowa for the different years

given. Though Iowa usually contributes more than 6 percent of the total income from farming in the country, it

only has 3½ percent of the total land in farms. Data in table 4.

lower returns to farmers in 1921. Using the years 1924-29 as a base, an index number was made up from the income figures to show the changes more plainly. Income was 111 percent of the base period in 1920 as compared with only 69 percent in 1921. This was a drop of nearly 40 percent.

From this low point, income increased until 1925, and there was little change during the next 4 years. The beginning of the depression in 1930 resulted in greatly reduced incomes until, at the bottom of the depression in 1933, Iowa got only 44 percent as much gross farm income as in the fairly normal years of 1924-29. With gross income cut into less than half, the money which Iowa farmers had left to live on and save from shrank much more. In fact, it became zero for the majority of farm families. Accordingly, farm foreclosures occurred by the thousands. Many farm families dipped into past savings in order to pay operating expenses and buy their necessities.

Sources of Iowa Farm Income

Figure 2 shows the sources of Iowa's farm income. Livestock and livestock products furnish about four-fifths of it. In 1931 they brought in 88 percent. Of this group, hogs are by far the most important, supplying on the average more than two-fifths of the total gross income. Cattle are next with around a sixth, while dairy products are not far behind.

TABLE 2. PROPORTION OF IOWA GROSS FARM INCOME CONTRIBUTED BY MAJOR PRODUCTS.

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934*
Percent Livestock and Livestock products are of total...	79.6	79.5	81.9	82.3	78.3	81.4	85.9	88.2	80.7	72.6	88.3
Percent Crops are of total....	20.4	20.5	18.1	17.7	21.7	18.6	14.1	11.8	19.3	27.4	11.7
Percent Hogs are of total.....	38.4	41.0	43.5	40.1	37.7	39.2	42.4	41.2	30.9	29.7	31.7
Percent cattle is of total.....	17.5	16.7	15.5	17.5	14.6	15.9	17.5	17.6	19.2	15.5	24.5
Percent sheep is of total.....	.7	.7	.5	.8	.6	.6	.8	.7	1.1	.7	1.0
Percent corn is of total.....	6.1	9.3	8.5	7.3	11.5	8.3	5.3	3.9	10.2	17.3	5.6
Percent oats is of total.....	6.0	3.5	2.5	2.9	3.4	2.9	2.4	1.2	1.7	1.9	.4
Percent wheat is of total.....	1.5	1.0	1.1	1.2	1.0	1.0	.6	.4	.3	.7	.4
Percent barley is of total.....	.2	.2	.2	.4	.6	.4	.1	.1	.2	.3	.1
Percent hay is of total.....	.9	.6	.5	.8	.5	.6	.5	.4	.4	.7	.7
Percent butter is of total.....	12.3	10.9	11.6	13.4	14.0	14.2	13.9	15.2	16.2	15.3	17.1
Percent eggs is of total.....	5.4	5.7	5.7	5.2	6.1	6.1	6.2	7.0	7.0	6.1	7.6
Percent poultry is of total....	4.5	4.1	4.5	4.6	4.6	4.8	4.7	6.1	5.6	4.4	5.5
Percent other products total..	6.5	6.3	5.9	5.8	5.4	6.0	5.6	6.2	7.0	7.3	5.5

* Preliminary.

Source: Derived from table 1.

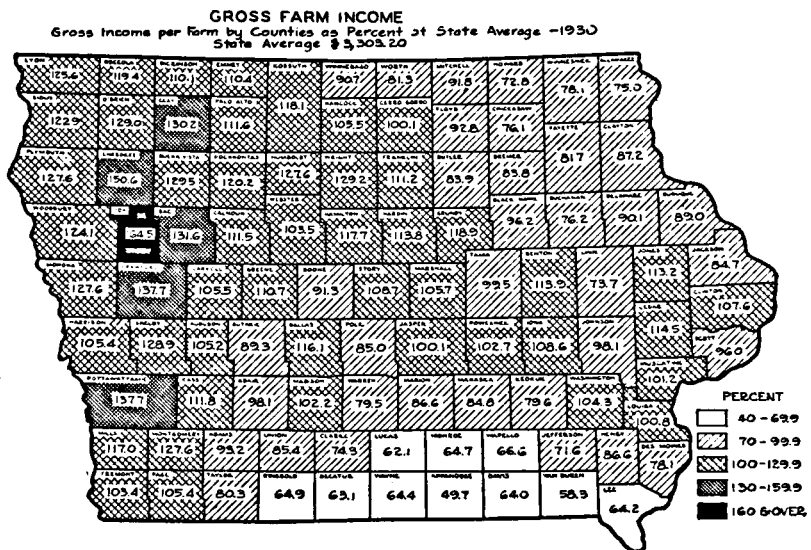


Fig. 5. The map shown here indicates the relative gross farm income of the different Iowa counties. Ida County reported the largest gross income per farm of any county in 1930. Southern Iowa has the smallest gross income, as a section. Data in table 5.

The charts in figure 2 illustrate how Iowa farmers have been increasing their production of dairy products over the last decade. The loss of foreign markets for

TABLE 8. INDEX NUMBERS OF IOWA GROSS FARM INCOME. (1924-29 = 100.)

Year	Crops	Livestock	Total
1920	158.8	99.5	111.1
1921	74.3	68.0	68.8
1922	76.4	75.7	75.9
1923	91.7	85.3	86.6
1924	94.9	90.7	91.5
1925	106.6	101.4	102.4
1926	97.4	107.8	105.7
1927	88.3	100.6	98.2
1928	112.9	99.6	102.2
1929	97.8	104.7	103.4
1930	63.9	95.4	89.2
1931	37.0	67.8	61.7
1932	43.4	44.5	44.3
1933	42.0	43.9	43.5
1934*	51.0	57.0	56.0

* Preliminary estimate.
Source: Derived from table 1.

PERCENT U.S. CASH FARM INCOME GOING TO IOWA (AV. 1925-29)

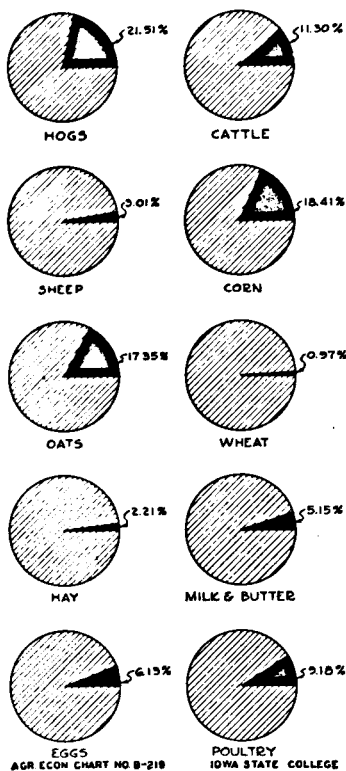


Fig. 6. These charts show the percent of national cash income Iowa supplied for each of the commodities over the period 1924 to 1929. Data in table 7.

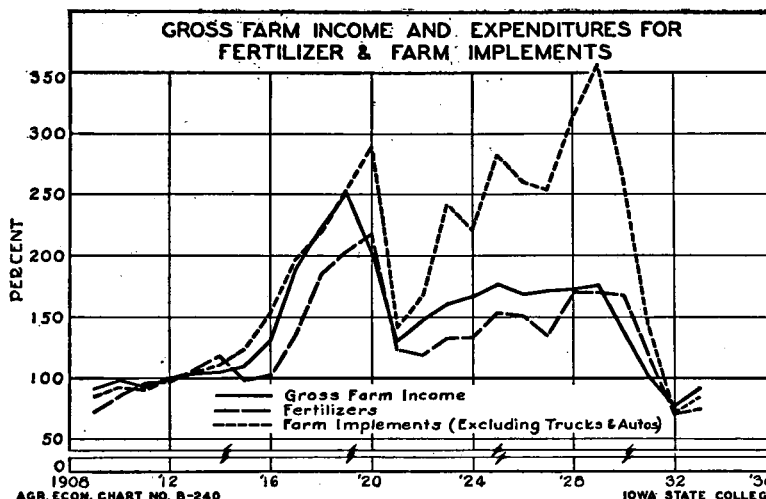


Fig. 7. The fluctuations in farm income during the past 24 years have been translated into fluctuations in purchases of fertilizer and farm implements. The above chart shows how closely purchases of these two commodities used in farm production have followed farm income. Data in table 6.

hog products has placed the corn-hog industry at an increasing disadvantage to other farm products less dependent upon foreign buyers. The growing demand for dairy products operated in the same direction. As a result, Iowa has been slowly increasing her output of butter and other dairy products.

Eggs and poultry are very important sources of Iowa farm income. During the last decade they have contributed far more income to the state than corn sold as grain. Eggs have furnished between 5 and 7 percent during the last 10 years, while poultry has brought in slightly less.

The most important of Iowa's

TABLE 4. CASH INCOME AND GROSS INCOME, IOWA AND UNITED STATES.*

Year	Cash Income (million dollars)			Gross Income (million dollars)		
	United States	Iowa	Percent	United States	Iowa	Percent
1909				6,238		
1910				6,643		
1911				6,372		
1912				6,784		
1913				6,975		
1914				7,028		
1915				7,395		
1916				8,914		
1917				12,832		
1918				15,101		
1919				16,935		
1920				13,566	783**	5.77
1921				8,927	487**	5.46
1922				9,944	534**	5.37
1923				11,041	609**	5.51
1924				11,337	644	5.68
1925	9,708	584	6.02	11,968	721	6.02
1926	10,160	650	6.40	11,480	744	6.48
1927	9,726	673	6.92	11,616	691	5.95
1928	9,954	625	6.28	11,741	719	6.12
1929	10,055	660	6.47	11,918	727	6.10
1930	10,205	572	7.17	9,414	628	6.67
1931	7,988	572	7.17	6,911	434	6.28
1932	5,795	392	6.76	5,143	311	6.05
1933	4,366	277	6.35	6,393	345	5.40
1934†	5,402	308	5.70	7,289	429	5.89
1934†	6,261	393	6.28			

1. Preliminary.
1933 and 1934 figures include benefit payments and government purchases.
Source: * Bureau of Agricultural Economics, U. S. D. A.
** Iowa Agricultural Experiment Station, Agricultural Economics Section, Circular 104.

crops is, of course, corn. The importance of Iowa's corn is not shown by the charts in figure 2, for corn is the backbone of the gigantic livestock industries of the state. The charts merely show the proportion of Iowa farm income coming from corn sold as grain. The amount of corn sold is fairly elastic, depending upon the relation between livestock and corn prices—particularly the price ratio between corn and hogs. In good crop years when corn prices are likely to be low, a lot of corn is fed. When corn prices are high many farmers decide to sell their corn as grain rather than feed it. Thus the income from corn, and the proportion of total income from that crop have varied considerably over the decade under review. Also, the increasing specialization in livestock production has resulted in a larger proportion of the corn crop being fed on farms.

Oats are affected about the same as corn, but the income furnished by this crop is much less than that from Iowa's most famous product. In 1920 oats furnished about the same proportion of Iowa income as corn, but in every year since then it has been considerably less. During the last 3 years income from this source has been less than 2 percent of the total gross farm income. Not only have less oats been marketed, but oat prices have declined more than most other farm products prices because of the decrease in number of horses.

Proportion of National Income

Figure 4 illustrates the percentage of national farm income supplied by Iowa and the percentage of national cash farm income supplied by this state. There are 986,771,016 acres of land in farms in the United States. Of this total Iowa has 34,019,332 acres, or 3.45 percent. Yet Iowa has contributed around 6 percent of the gross income of the country from farming since the war, and considerably more than 6 percent

TABLE 5. IOWA FARM INCOME BY COUNTIES.*

(All Products Sold, Traded or Used by Operator's Family.)

	Number farms reporting	Gross income per county (dollars)	Average gross income per farm (dollars)	Average gross income per farm as percent of state average	Average net income per farm as percent of state average**
Adair.....	2,010	6,510,838	3,239	98.06	100.1
Adams.....	1,536	4,727,522	3,078	93.19	91.2
Allamakee.....	2,033	5,038,662	2,478	75.02	80.0
Appanoose.....	1,957	3,212,479	1,642	49.71	48.0
Audubon.....	1,772	6,156,305	3,474	105.18	107.0
Benton.....	2,560	9,629,807	3,762	113.90	117.2
Blackhawk.....	2,313	7,353,780	3,179	96.25	93.9
Boone.....	2,488	7,505,271	3,016	91.31	97.1
Bremer.....	1,986	5,499,447	2,769	83.83	86.4
Buchanan.....	2,250	5,663,671	2,517	76.20	78.4
Buena Vista.....	2,071	8,859,639	4,278	129.52	139.4
Butler.....	2,236	6,178,351	2,763	83.65	87.1
Calhoun.....	2,165	7,971,480	3,682	111.45	123.3
Carroll.....	2,199	7,662,586	3,484	105.48	107.8
Cass.....	2,157	7,964,787	3,692	111.78	111.1
Cedar.....	2,171	8,209,202	3,781	114.47	111.0
Cerro Gordo.....	1,920	6,347,594	3,306	100.09	99.2
Cherokee.....	1,816	9,033,956	4,975	150.62	153.5
Chickasaw.....	1,924	4,836,381	2,514	76.11	80.9
Clarke.....	1,427	3,501,013	2,453	74.26	71.2
Clay.....	1,789	7,692,291	4,300	130.18	130.8
Clayton.....	2,944	8,472,274	2,878	87.13	89.7
Clinton.....	2,727	9,690,252	3,553	107.57	101.4
Crawford.....	2,450	11,182,555	4,548	137.69	133.9
Dallas.....	2,267	8,693,841	3,835	116.11	120.1
Davis.....	1,869	3,948,607	2,113	63.97	64.1
Decatur.....	1,946	4,056,859	2,085	63.12	58.7
Delaware.....	2,204	6,557,083	2,975	90.07	93.6
Des Moines.....	1,706	4,400,379	2,579	78.08	72.5
Dickinson.....	1,214	4,415,877	3,637	110.11	117.1
Dubuque.....	2,202	6,476,549	2,941	89.04	91.9
Emmet.....	1,279	4,663,405	3,646	110.38	118.6
Fayette.....	2,924	7,889,689	2,698	81.68	83.3
Floyd.....	1,773	5,434,512	3,065	92.79	89.6
Franklin.....	1,987	7,297,202	3,672	111.17	114.8
Fremont.....	1,905	6,507,944	3,416	103.42	100.4
Greene.....	2,020	7,384,636	3,656	110.69	121.2
Grundy.....	1,768	6,942,729	3,927	118.89	126.7
Guthrie.....	2,278	6,722,771	2,951	89.34	93.2
Hamilton.....	2,175	8,458,574	3,889	117.74	128.6
Hancock.....	1,920	6,694,070	3,486	105.54	109.5
Hardin.....	2,067	7,768,149	3,758	113.78	119.2
Harrison.....	2,872	10,003,020	3,483	105.45	106.3
Henry.....	1,885	5,392,895	2,861	86.61	86.1
Howard.....	1,649	3,962,372	2,403	72.75	73.5
Humboldt.....	1,457	6,140,393	4,214	127.58	139.7
Ida.....	1,398	7,597,160	5,434	164.52	158.4
Iowa.....	2,117	7,595,471	3,588	108.63	109.3
Jackson.....	2,155	6,031,381	2,799	84.74	63.5
Jasper.....	2,918	9,643,932	3,305	100.06	96.5
Jefferson.....	1,792	4,234,496	2,363	71.54	68.7
Johnson.....	2,487	8,055,783	3,239	98.06	95.4
Jones.....	2,072	7,747,352	3,739	113.20	110.3
Keokuk.....	2,545	6,691,280	2,629	79.59	75.6
Kossuth.....	3,033	11,833,461	3,902	118.13	129.5
Lee.....	1,966	4,165,970	2,119	64.15	57.9
Linn.....	3,535	8,603,297	2,434	73.69	70.6
Louisa.....	1,328	4,422,303	3,330	100.82	93.3
Lucas.....	1,551	3,182,634	2,052	62.12	56.2
Lyon.....	1,820	7,546,654	4,146	125.52	132.0
Madison.....	2,019	6,818,236	3,377	102.24	98.3
Mahaska.....	2,659	7,447,575	2,801	84.80	81.3
Marion.....	2,238	6,404,095	2,862	86.65	81.9
Marshall.....	2,315	8,078,442	3,490	105.66	103.9
Mills.....	1,623	6,272,349	3,865	117.01	115.7
Mitchell.....	1,667	5,052,582	3,031	91.76	84.4
Monona.....	2,090	8,809,543	4,215	127.61	127.2
Monroe.....	1,612	3,442,635	2,136	64.67	66.3
Montgomery.....	1,570	6,610,654	4,211	127.49	123.5
Muscatine.....	1,796	5,999,821	3,341	101.15	92.7
O'Brien.....	1,962	8,362,117	4,262	129.03	137.5
Osceola.....	1,261	4,972,338	3,943	119.38	127.6
Page.....	2,130	7,418,796	3,483	105.45	100.8
Palo Alto.....	1,879	6,925,332	3,686	111.60	118.5
Plymouth.....	2,760	11,634,665	4,215	127.61	123.1
Pocahontas.....	2,038	8,093,787	3,971	120.22	133.2
Folk.....	3,006	8,437,619	2,807	84.98	80.1
Pottawattamie.....	3,934	17,895,045	4,549	137.72	131.3
Poweshiek.....	2,203	7,488,710	3,399	102.91	103.7
Ringgold.....	1,912	4,096,511	2,142	64.85	63.0
Sac.....	1,834	7,969,910	4,346	131.58	133.3
Scott.....	2,214	7,021,372	3,171	96.00	90.1
Shelby.....	2,136	9,091,607	4,256	128.85	134.2
Sioux.....	2,930	11,894,165	4,059	122.89	122.6

TABLE 5. IOWA FARM INCOME BY COUNTIES*—Continued.

	Number farms reporting	Gross income per county (dollars)	Average gross income per farm (dollars)	Average gross income per farm as percent of state average	Average net income per farm as percent of state average**
Story.....	2,261	8,116,854	3,590	108.69	114.3
Tama.....	2,638	8,669,639	3,286	99.49	100.4
Taylor.....	2,084	5,524,856	2,651	80.26	78.6
Union.....	1,522	4,294,174	2,821	85.41	82.4
Van Buren.....	1,845	3,554,696	1,927	58.34	56.1
Wapello.....	1,929	4,244,261	2,200	66.61	62.9
Warren.....	2,345	6,161,134	2,627	79.53	77.8
Washington.....	2,305	7,939,333	3,444	104.27	99.6
Wayne.....	1,788	3,804,646	2,128	64.43	61.4
Webster.....	2,629	8,985,949	3,418	103.48	111.7
Winnebago.....	1,604	4,807,722	2,997	90.74	95.9
Winnesiek.....	2,810	7,252,889	2,581	78.14	81.4
Woodbury.....	3,039	12,460,997	4,100	124.13	111.4
Worth.....	1,450	3,894,151	2,686	81.32	83.7
Wright.....	1,952	8,330,326	4,268	129.21	139.3
TOTAL.....	208,974	690,302,406	3,303		

* The figures on income in this table give a misleading picture of the relative income of different counties unless the reader takes into consideration feeding operations in many counties. Some of the western counties, for instance, sell many thousands of dollars worth of fat cattle each year; yet all of this return is not income. The cost of the feeder cattle should be removed from the gross return. This step, however, is impossible since accurate data are not available.

** Gross Farm Income—less expenditure for labor, electricity, equipment, fertilizer.

Source: U. S. Census, 1930.

TABLE 6. UNITED STATES GROSS FARM INCOME AND SELECTED EXPENDITURES. (1910-14 = 100.)

Year	Gross income from farm production	Fertilizer	Farm implements including autos and tractors	Taxes	Interest on mortgages
1913	103	107	105	100	104
1914	104	117	111	101	109
1915	109	99	123	110	116
1916	132	102	153	116	129
1917	190	136	198	129	149
1918	223	186	221	137	174
1919	251	205	253	172	207
1920	201	219	289	209	236
1921	132	124	140	223	240
1922	147	120	168	224	246
1923	163	133	240	228	244
1924	168	134	221	228	245
1925	177	155	282	232	246
1926	170	151	261	232	246
1927	172	136	254	238	246
1928	174	172	312	239	244
1929	177	172	356	241	240
1930	140	169	263	238	236
1931	103	119	142	218	229
1932	79	71	72	189	221
1933	93	74	84	163 ¹	191

¹Preliminary.
Source: U. S. D. A. Bureau of Agricultural Economics.

of the cash income of the country. Gross income means total income received by farmers, and cash income is gross income minus products consumed on the farm. Iowa receives more cash farm income

than any other state except Texas and California. These two states, both much larger than Iowa, receive about the same cash farm income as Iowa.

Figure 6 on page 11 shows the

proportion of income from different products contributed by Iowa. Iowa's predominance in hogs, cattle, butter, egg, poultry, corn and oat production is shown by the figures.

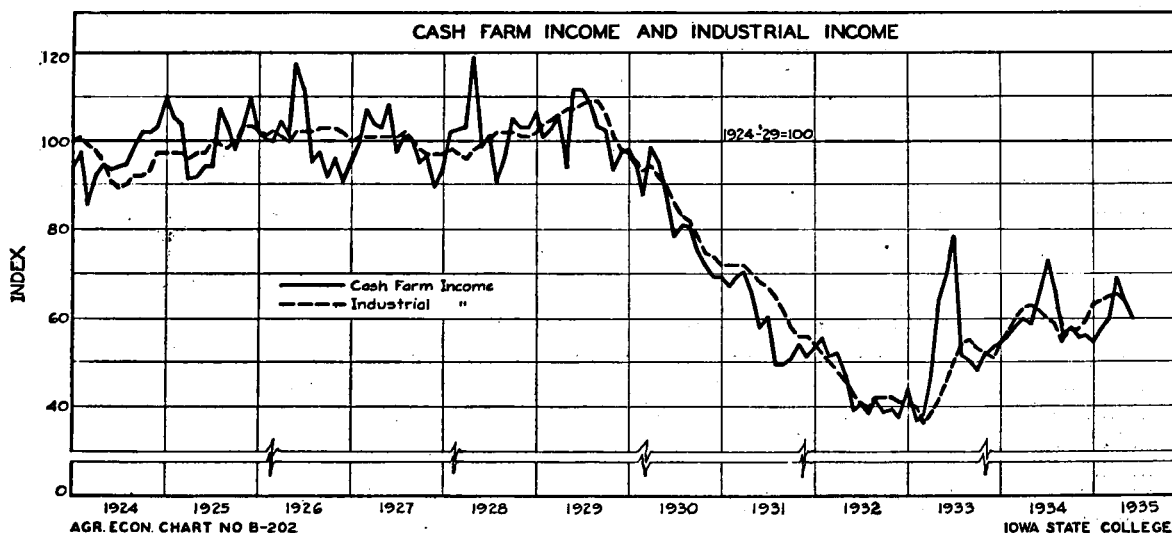


Fig. 8. The above graph illustrates how closely industrial and farm income are dependent upon each other. Rises

in industrial income in the past have been associated with rises in farm income.

Data in tables 8 and 9.

TABLE 10. PROPORTION OF IOWA FARM INCOME RECEIVED EACH MONTH.*

	Crops	Livestock and livestock products	Total
1932			
January.....	6.4	11.3	10.8
February.....	9.2	9.4	9.4
March.....	8.0	8.8	8.7
April.....	6.8	7.7	7.6
May.....	6.7	7.9	7.8
June.....	6.0	7.1	7.0
July.....	6.3	7.7	7.6
August.....	15.1	8.3	9.0
September.....	16.5	8.4	9.2
October.....	11.0	7.7	8.0
November.....	4.2	7.8	7.4
December.....	3.8	7.9	7.5
Total.....	100.0	100.0	100.00
1933			
January.....	1.8	7.5	6.5
February.....	2.1	6.4	5.7
March.....	2.1	6.0	5.3
April.....	3.9	6.7	6.3
May.....	8.8	10.1	9.9
June.....	11.6	10.6	10.8
July.....	21.0	10.0	11.9
August.....	9.1	9.6	9.5
September.....	12.4	7.3	8.1
October.....	11.2	8.2	8.7
November.....	8.7	9.3	9.2
December.....	7.3	8.3	8.1
Total.....	100.0	100.00	100.0
1934			
January.....	4.7	7.8	7.2
February.....	4.9	7.4	6.9
March.....	5.3	6.9	6.6
April.....	2.9	7.0	6.3
May.....	3.8	8.5	7.7
June.....	5.1	8.7	8.1
July.....	14.1	8.3	9.3
August.....	27.5	8.5	11.9
September.....	17.0	7.7	9.4
October.....	7.0	8.4	8.2
November.....	3.3	10.1	8.9
December.....	4.4	10.7	9.5
Total.....	100.0	100.0	100.0

* Based on receipts from the sale of farm products which contributed 98 percent of total cash income in 1932.

Source: U. S. D. A., Bureau of Agricultural Economics.

TABLE 11. RECEIPTS FROM THE SALE OF PRINCIPAL IOWA FARM PRODUCTS PLUS RENTAL AND BENEFIT PAYMENTS.

Year and month	Crops	Livestock and livestock products	Total	Rental and benefit payments	Total, including rental and benefit payments
1932—					
January.....	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars
February.....	1,702	28,066	29,768	.....	.....
March.....	2,430	23,494	25,924	.....	.....
April.....	2,104	21,972	24,076	.....	.....
May.....	1,808	19,203	21,011	.....	.....
June.....	1,771	19,589	21,360	.....	.....
July.....	1,574	17,541	19,115	.....	.....
August.....	1,664	19,244	20,908	.....	.....
September.....	3,986	20,663	24,649	.....	.....
October.....	4,367	20,906	25,273	.....	.....
November.....	2,893	19,262	22,155	.....	.....
December.....	1,102	19,314	20,416	.....	.....
Total.....	26,418	248,970	275,388	.....	.....
1933—					
January.....	901	18,797	19,698	.....	.....
February.....	1,074	16,093	17,167	.....	.....
March.....	1,049	15,070	16,119	.....	.....
April.....	1,951	16,900	18,851	.....	.....
May.....	4,470	25,472	29,942	.....	.....
June.....	5,864	26,668	32,532	.....	.....
July.....	10,658	25,135	35,793	.....	.....
August.....	4,582	24,118	28,700	785	29,485
September.....	6,251	18,214	24,465	2,499	26,964
October.....	5,658	20,603	26,261	285	26,546
November.....	4,418	23,250	27,668	90	27,758
December.....	3,698	20,986	24,684	91	24,775
Total.....	50,574	251,306	301,880	3,750	305,630
1934—					
January.....	2,438	23,226	25,664	80	25,744
February.....	3,076	21,974	25,050	23	25,073
March.....	3,309	21,368	24,677	10	24,687
April.....	1,637	22,358	23,995	46	24,041
May.....	1,790	27,048	28,838	1,945	30,783
June.....	2,904	27,006	29,910	3,013	32,923
July.....	10,978	25,550	36,528	1,606	38,134
August.....	23,017	24,833	47,850	8,471	56,321
September.....	12,699	26,588	39,287	12,996	52,283
October.....	4,553	27,091	31,644	3,667	35,311
November.....	1,945	31,787	33,732	1,000	34,732
December.....	2,652	33,109	35,761	7,271	43,032
Total.....	70,998	311,938	382,936	40,128	423,064
1935—					
January.....	1,769	29,778	31,547	9,238	40,785
February.....	1,739	28,032	29,771	4,403	34,174
March.....	2,051	27,486	29,537	7,618	37,155
April.....	2,453	32,065	34,518	9,137	43,655
May.....	2,672	33,847	36,519	1,476	37,995
June.....	2,407	31,714	34,121	1,582	35,703
July.....	2,646	31,629	34,275	2,719	36,994
August.....	6,336	27,930	34,266	6,182	40,448
September.....	5,598	28,102	33,700	5,433	39,133
October.....	5,135	29,460	34,595	3,242	37,837
November.....	3,730	32,175	35,905	1,683	37,588
December.....	3,583	41,200	44,783	599	45,382
Total.....	40,119	373,418	413,537	53,312	466,849

*Amount actually received each month—not amount due on contracts.

Source: U. S. D. A. Bureau of Agricultural Economics.

CHAPTER II. IOWA FARM PRICES

THE fluctuations in Iowa farm income have not often been the result of crop failures and other changes in production, but have been mainly the consequence of variations in prices. The price pattern since the World War is not strange to readers of economic history, however. It is much the same pattern that has followed every great war.

Figure 9 traces the trend of wholesale prices in the United States since 1785. The chart shows that since a few years before the American Revolution there have been four major periods of intense price inflation, each of which was accompanied by a major war to which this country was a party. The chart shows that there was a period of sharply rising prices during each of these wars. Following each period of pronounced inflation there have been periods of depressed price levels, broken, on the average, by two periods of recovery before another major inflationary period, that is, a war occurred.

These four major wars have lifted commodity prices far above ordinary levels. In each case these were periods of "great prosperity" brought on by war activities and war demands.

As fig. 9 gives a general picture of the drift of wholesale prices over a long period, so fig. 10 presents a picture of the drift of farm prices for the past 146 years. Farm prices, as with prices of all commodities, have been subjected to four major inflationary periods during great wars. In the last war farm prices rose more than they ever had before. In earlier inflation periods farm prices did not rise as high relatively as did other prices, since farm production was not commercialized to the extent it is today. At the time of the Revolution, for instance, farmers produced enough for their own living and sold very little in the markets. Farming then was practically a

TABLE 12. INDEX NUMBERS OF IOWA FARM PRICES.
(1910-1914 = 100.)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1910	102	105	116	114	108	107	103	100	103	98	94	85
1911	94	89	86	82	79	78	84	94	94	90	86	85
1912	87	89	93	102	101	99	100	101	103	105	97	94
1913	95	100	105	108	103	106	107	105	108	108	105	103
1914	108	111	111	107	105	105	108	110	116	108	101	98
1915	98	99	99	98	104	104	105	103	102	105	95	91
1916	96	110	120	117	120	121	122	121	130	127	129	130
1917	137	154	170	178	186	187	187	196	204	204	193	198
1918	199	203	206	203	205	199	208	216	222	215	212	215
1919	222	218	217	230	240	235	242	239	213	190	193	186
1920	197	199	201	200	199	204	203	199	200	180	159	121
1921	120	117	125	110	107	97	108	113	100	98	93	90
1922	96	110	119	117	120	122	121	110	109	116	112	113
1923	115	113	114	118	115	108	110	109	125	121	108	103
1924	105	106	108	110	110	110	115	134	136	146	131	129
1925	141	142	157	153	148	151	161	158	154	149	142	140
1926	144	147	144	143	146	153	150	140	146	150	146	143
1927	143	146	141	138	133	127	132	138	146	151	139	131
1928	128	126	128	134	147	145	155	149	165	152	139	131
1929	131	140	155	153	153	152	156	151	152	147	136	132
1930	133	139	136	134	130	128	116	120	134	127	118	109
1931	107	94	99	97	86	82	85	82	81	75	75	63
1932	60	54	61	58	51	47	63	61	60	51	49	41
1933	40	42	48	52	66	63	70	65	64	63	60	50
1934	51	62	65	63	62	68	73	87	101	91	88	88
1935	111	120	125	125	124	120	115	121	128	...	...	...

Source: Iowa Agricultural Experiment Station, Agricultural Economics Section. Based on price reports on fifteenth of the month for 10 major Iowa products.

TABLE 13. INDEX NUMBERS OF UNITED STATES FARM PRICES.
(August, 1909-July, 1914 = 100.)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1910	106	105	105	106	103	102	101	100	102	101	99	99
1911	99	96	95	95	95	96	98	98	95	93	92	94
1912	96	98	100	104	107	104	101	99	98	98	97	97
1913	97	97	98	99	98	100	99	102	105	108	107	105
1914	105	105	104	102	103	103	103	102	99	95	94	95
1915	97	98	96	99	101	99	97	95	96	100	101	101
1916	104	105	107	110	111	113	114	119	125	131	138	140
1917	141	148	156	173	185	186	183	181	183	188	189	194
1918	198	200	199	197	196	193	197	207	213	209	205	208
1919	206	197	197	206	213	213	220	223	215	219	227	227
1920	229	228	229	239	244	242	231	213	197	183	165	148
1921	142	130	127	118	113	113	116	123	128	134	130	130
1922	123	128	130	130	134	136	134	131	129	133	137	143
1923	146	144	143	143	141	137	136	137	142	144	147	148
1924	148	147	140	139	137	138	139	147	141	147	145	148
1925	155	154	156	152	152	156	158	160	155	156	156	155
1926	153	152	149	151	150	148	144	141	143	138	138	135
1927	133	132	131	131	134	138	139	142	148	148	147	147
1928	149	144	145	148	155	150	152	145	149	148	146	147
1929	147	145	146	144	142	142	147	152	150	149	145	147
1930	145	140	135	136	134	131	120	118	120	113	110	104
1931	101	95	97	97	92	86	86	82	80	77	79	75
1932	71	68	69	67	63	58	63	65	66	64	62	63
1933	60	55	55	58	68	71	83	79	80	78	80	78
1934	77	83	84	82	82	86	87	96	103	102	101	101
1935	107	111	108	111	108	104	102	106	107	...	...	...

Source: U. S. D. A. Bureau of Agricultural Economics. Based on prices for 27 farm products from price reports on the fifteenth of each month. Taken from Crops and Markets.

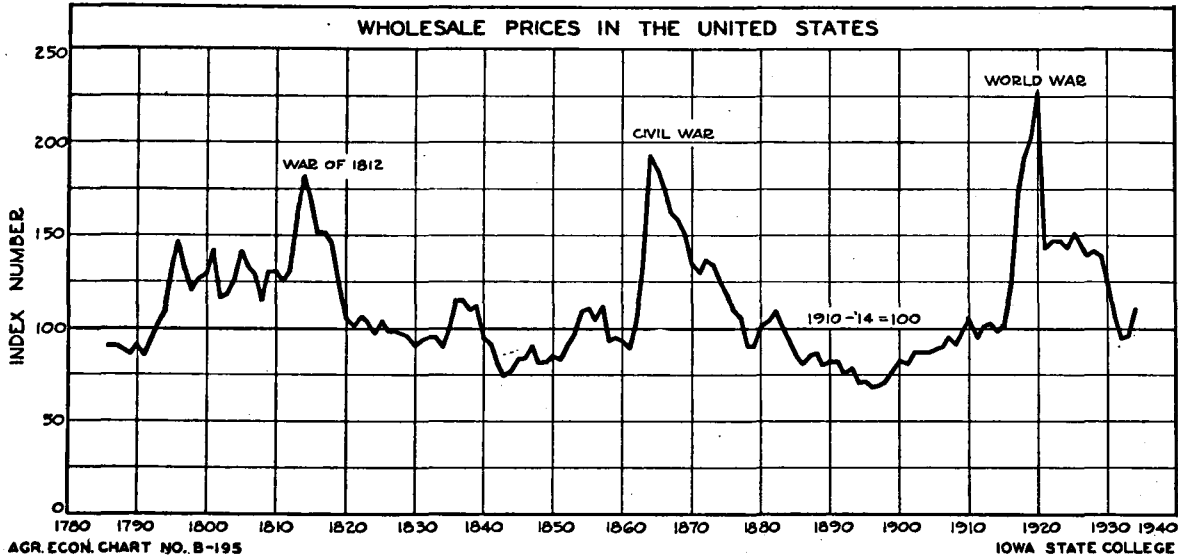


Fig. 9. The economic history of the United States has been punctuated by four periods of intense price inflation. Each period of inflation has been coincident with a major war. This is demonstrated by the graph above showing wholesale prices in the United States since 1785. During

each war there was a rapid rise in prices, and after each war was over, there was a decline which was generally slower than the rise had been.

Data from G. F. Warren and F. A. Pearson, Cornell University, Ithaca, N. Y.

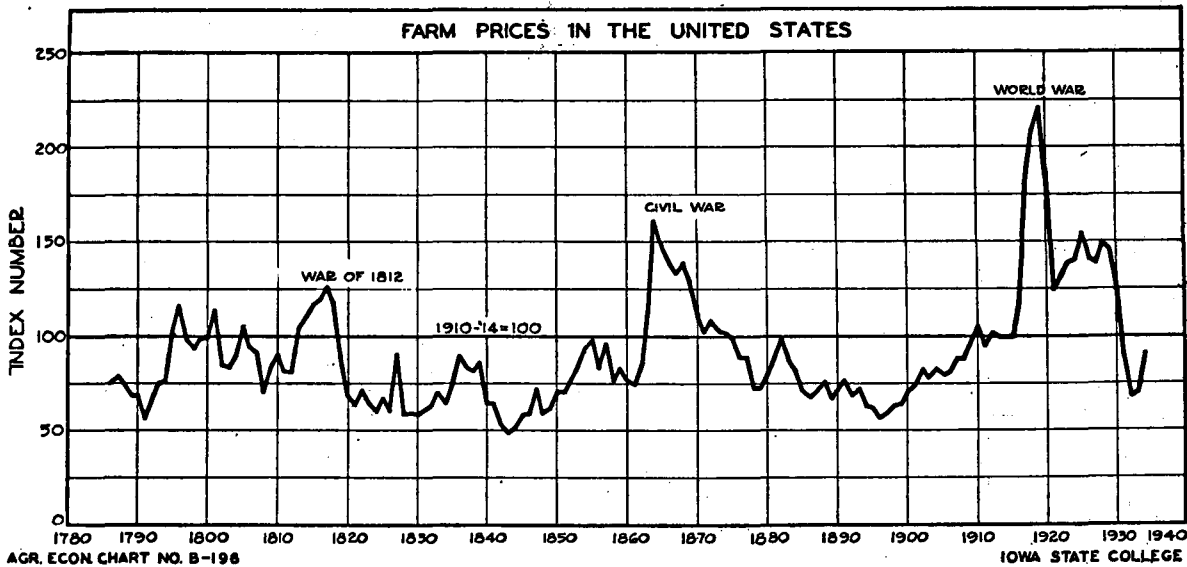


Fig. 10. Farm prices in the United States have followed the same general course since the early days of the Republic that wholesale prices have followed. There is an important difference. If you will examine fig. 11 and fig. 12 you will see that farm prices did not rise nearly as high as other prices during the war periods in the early days. This may be explained by the self-sufficient nature of agriculture at that time. Commercialization of agriculture has been a development of comparatively recent years. At the time of the

Revolution virtually all the hogs the farmer fed were slaughtered for his own family's use or else traded to the shoemaker for boots. The commercialization of agriculture has brought the farmer a much higher standard of living, but it has also exposed him to the same pull and tear of world price fluctuations that affect all other classes in an industrialized country.

Data from G. F. Warren and F. A. Pearson, Cornell University, Ithaca, N. Y.

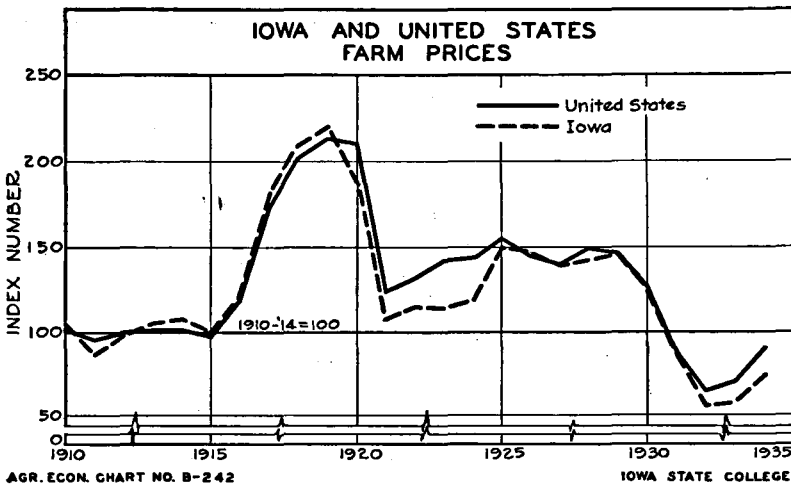


Fig. 11. This chart compares the price levels of Iowa and United States farm products since 1910. In general the two price curves tend to follow the same trends. The war peak was reached at approximately the same time. In the period immediately after the war, up to 1925, the United States farm price level was somewhat higher than the Iowa level.

Data in tables 12 and 13.

self-sufficient enterprise. The commercialization of agriculture has brought with it a vast increase in the standard of living of farmers, but it has also subjected them to the buffeting and grinding of great rises and declines in prices.

Since 1910 production in Iowa has been gradually and steadily increasing. Production itself, besides becoming greater in volume, has become more efficient during the last two decades since the beginning of the World War.

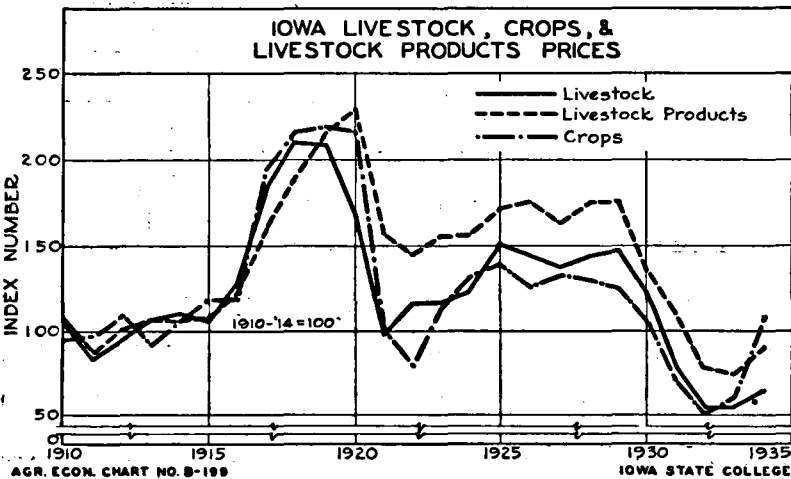


Fig. 12. Since 1919 the price of livestock products, including butter and dairy products, eggs and poultry have been maintained at a higher level than the price of livestock or of crops, when the three groups are compared with their 1910-14 level. Since 1925 livestock and livestock products prices have been considerably higher than crops prices. This is significant when it is realized that these two groups furnish over 85 percent of the total Iowa gross income. During 1934 prices of crops advanced much more than prices of livestock or livestock products because of the drought which reduced yields.

Data in table 15.

But in spite of a fairly uniform and gradual increase in production, the gross income of the state has not, especially since the war era, maintained the gradual increase that has occurred in production. Instead, it has fluctuated from year to year, and on the whole, especially since 1929, has decreased. On the surface it would seem, during the past 24 years, that if the production of Iowa agriculture was increasing, the income from it should increase.

Production is only one of the income-governing variables, however, price being equally important. The price situation during the past 24 years has been very unstable, so that instead of income increasing in direct relation to production, it has fluctuated considerably.

Occasionally production has declined because of unfavorable weather conditions, but during the 24-year period, 1910-33, Iowa did not experience a crop failure, and the fluctuations from a normal crop were not enough to cause any wide variation in total state income. Because it has a diversified agriculture, and because of its livestock industries, Iowa has made use of available crops, such as soft corn, so that such a failure, though it has been hard felt by individuals, has not curtailed production significantly.

The increases and decreases in Iowa income shown in the chapter on income, are only to a minor extent due to production changes. The differences in Iowa agricultural income have come, in the main, from extreme changes in farm prices. In general, the peak years in farm prices have been peak years in Iowa income, and years of low income have been years of depressed prices.

These wide changes in Iowa farm prices are a part of the broader and universal price changes which have affected the nation since 1910. A comparison of fig. 9 with fig. 10 will point to the fact that changes which affected the general price level also affected farm prices.

The course which the level of Iowa farm prices has followed since 1910 is shown by the dashed line

on fig. 11. In this chart the average annual index of farm prices for Iowa and the United States are shown on the basis of the 1910-14 average set at 100. In other words, the price level of any year is expressed in the percentage that it is of the five pre-war years, 1910-14. Farm prices rose rapidly during the war, but they fell rapidly in the crash in the general price level following the war. By 1921 the index of Iowa farm prices stood at 106, only 6 points above the pre-war level. In 1919 the level of Iowa farm prices was about 120 points higher than the 1910-14 base. Instead of stopping at the 1921 depression level, Iowa farm prices recovered and increased substantially during the twenties until 1929 when economic placidity was again disturbed by the upheaval which sent farm prices, in 3 years, to an unprecedented low. In 1932 the index of farm prices was 55, 45 percent lower than the 1910-14 level.

From 1915 to 1919, inclusive, Iowa farm prices were a trifle ahead of farm prices of the United States. But when the first post-war decline began in 1920, Iowa farm products felt the decline more than the agricultural produce of the country as a whole and the United States level remained slightly higher than Iowa's. This situation obtained until 1925 when both levels were about 150 percent of that of the 5 pre-war years. From 1925 to 1932, Iowa's farm prices were about equal to the national agricultural level. The 1929 level of Iowa farm prices was 146 percent of the 1910-14 level. In 1932, 1933 and 1934 the United States farm price index was higher than Iowa's. The index number of United States farm prices in 1933 was 70. Iowa's index was 13 points lower. The 1932 level was the lowest point ever reached by both Iowa and national farm prices.

Iowa Farm Prices by Groups

Figure 12 shows the major trends of three groups of Iowa farm products—livestock, livestock products and crops. The in-

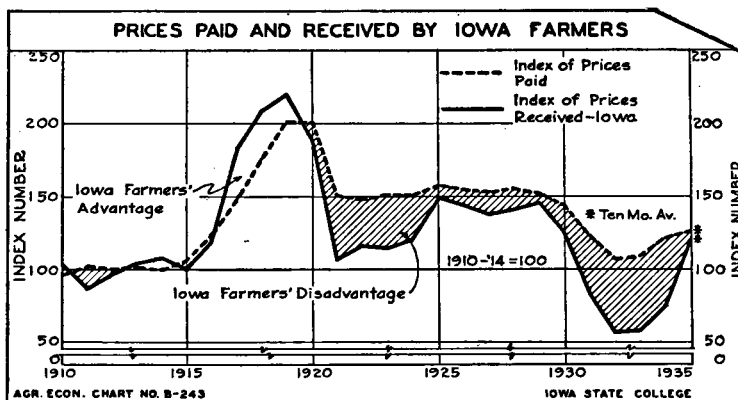


Fig. 13. During the war-time period of inflated prices the prices paid Iowa farmers for their products rose more rapidly than the prices farmers were paying for the commodities they bought. Following the war the prices of farm products dropped far below the level which retail prices maintained. The shaded areas show the farmer's disadvantage. The index of prices paid is prepared by the Bureau of Agricultural Economics of the U. S. D. A. Groups of commodities included are food, clothing, furniture, household operating expense, building materials, farm machinery, fertilizer, seeds, feeds, wages paid to hired labor and equipment and supplies.

Data in table 14.

dex numbers of these groups, constructed from the annual index numbers of several commodities included in these groups, may be found in table 15. Roughly, they follow the general trend of Iowa farm prices from 1910 to 1933, except for the trend of the livestock products group. This

group of Iowa farm products has followed a path that has been rather advantageous for the Iowa farmer, as is evident by the chart. The price level of this group lagged a trifle behind the others in the war era and did not reach its height until 1920 when it was 227 percent of the average for

UNEQUAL DECLINES IN PRICES FARMERS PAY AND RECEIVE

FEB. 1929 TO FEB. 1933

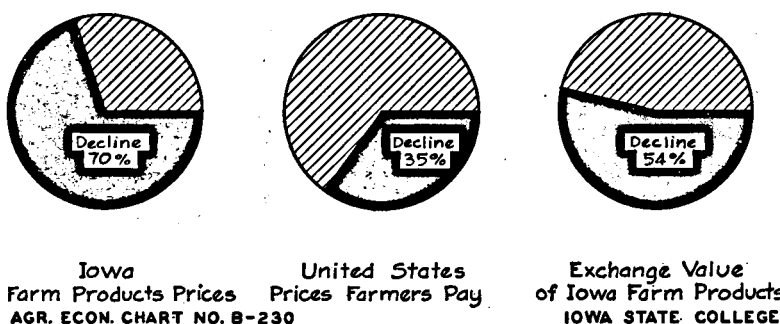


Fig. 14. Prices for Iowa farm products were 70 percent lower in February, 1933, than in the same month in 1929, just before the depression began. Prices farmers pay during the same period declined only 35 percent. Using these figures as a basis, it is estimated that the value of Iowa farm products in terms of what farmers buy declined 54 percent during the 4 years of unequal prices. Data in tables 20 and 16.

TABLE 14. INDEX NUMBERS OF FARM PRICES AND EXCHANGE VALUES OF FARM PRODUCTS. (1910-14 = 100.)

	Iowa		United States		
	Annual index of farm prices	Exchange values of farm products	Prices paid by farmers	Annual index of farm prices	Exchange values of farm products
1910	103	105	98	102	104
1911	87	86	101	95	94
1912	98	98	100	100	100
1913	104	103	101	101	100
1914	107	107	100	101	101
1915	100	95	105	98	93
1916	120	97	124	118	95
1917	182	122	149	175	117
1918	209	119	176	202	115
1919	220	109	202	213	105
1920	188	94	201	211	105
1921	107	70	152	125	82
1922	114	77	149	132	89
1923	113	74	152	142	93
1924	119	78	152	143	94
1925	150	96	157	156	99
1926	146	94	155	145	94
1927	139	91	153	139	91
1928	141	91	155	149	96
1929	146	95	153	146	95
1930	127	88	145	126	87
1931	86	69	124	87	70
1932	55	51	107	65	61
1933	57	52	109	70	64
1934	74	61	122	90	74

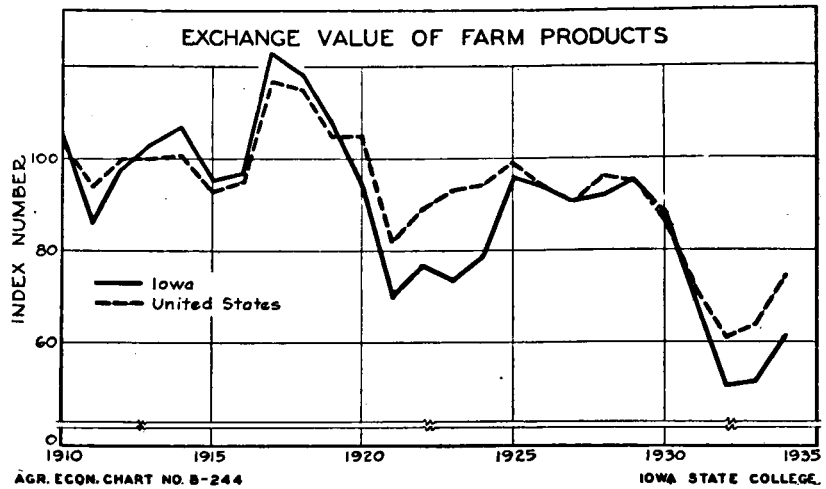
¹Weighted annual index.
²Ratio of 1 to 8.
³Index of Bureau of Agricultural Economics.
⁴Index of Bureau of Agricultural Economics.
⁵Ratio of 4 to 3.
 Source: Annual indices of Iowa farm prices and exchange value Iowa Agr. Ex. Sta. Ag. Economics Sec. Other indices from U. S. D. A. Bureau of Agricultural Economics.

TABLE 15. ANNUAL INDEX NUMBERS OF IOWA FARM PRICES FOR THREE MAIN GROUPS. (1910-14 = 100.)

Year	Livestock	Livestock products	Crops	Total
1910	105	106	97	103
1911	84	88	98	87
1912	94	101	108	98
1913	105	105	93	104
1914	109	106	105	107
1915	104	106	118	100
1916	128	122	119	120
1917	187	161	195	183
1918	210	190	217	209
1919	209	216	219	219
1920	168	230	216	188
1921	99	156	101	106
1922	116	146	72	114
1923	117	155	113	113
1924	123	155	133	120
1925	150	172	139	150
1926	145	176	127	146
1927	139	164	135	139
1928	147	177	132	142
1929	148	137	124	146
1930	123	137	104	127
1931	80	110	71	85
1932	55	80	52	55
1933	55	75	60	57
1934	66	93	108	75

Source: Derived from table 18.

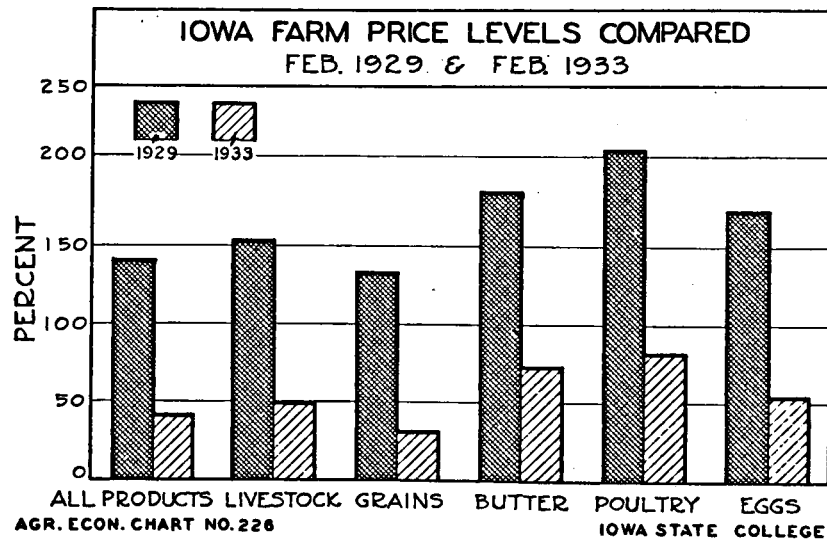
1910-14. In 1921, a depression year, the crops index was 101, the livestock 99 and the livestock products 156. In 1929, it was 29 points above the livestock level and 53 points above the crops



AGR. ECON. CHART NO. B-244 IOWA STATE COLLEGE.

Fig. 15. This chart shows the changing relationship of prices farmers pay and prices farmers receive. By 1917 the Iowa farm price level had reached a point well above the pre-war, 1910-14, level. Prices paid Iowa farmers were rising more rapidly than prices which they were paying, and a given quantity of Iowa farm products would buy over 20 percent more commodities farmers buy than they would have before the war. In the latter part of the war era, retail prices caught up and passed prices paid for farm commodities, forcing down the exchange value of farm products. 1920 to 1928 the exchange value of United States farm products was a trifle higher than that of Iowa.

Data in table 14.



AGR. ECON. CHART NO. 226 IOWA STATE COLLEGE

Fig. 16. A four-year period of price deflation in Iowa farm prices, from February, 1929 to February, 1933 shows a reduction of 70 per cent in the price level of Iowa farm products. Grains took the greatest drop, falling to 31 per cent of the base period. Poultry and butter stood up best while the livestock price level fell to approximately half that of the base period.

The index for livestock is an average of the price relatives of hogs, cattle and sheep. The grain index is an average of the price relatives of corn, oats and wheat.

Data in table 16.

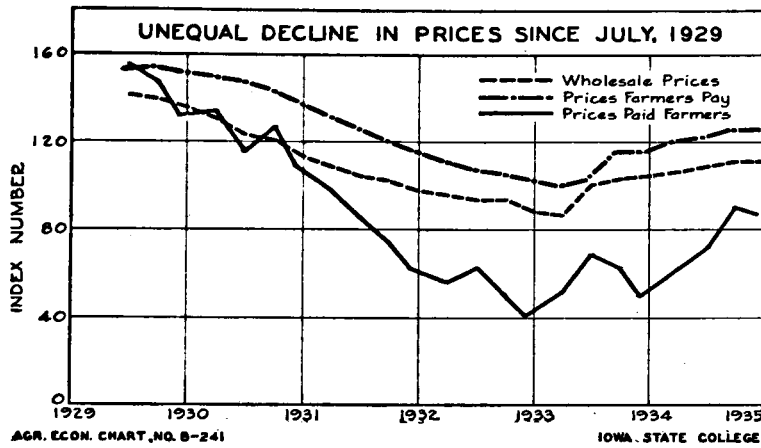


Fig. 17. During periods of price recession, various types of prices decline at different rates. Prices of raw materials, and especially farm products, have declined rapidly since July, 1929. In July, 1933, Iowa farm prices were only 46 percent of the July, 1929 level. Wholesale prices of all commodities retained more stability and were 72 percent of the July, 1929 level. Retail prices of things farmers buy also maintained a higher level than farm prices, and were 68 percent of the July, 1929 level. Since the low point was reached, farm prices have risen faster than wholesale prices and prices of things farmers buy. Data in tables 12, 19 and 20.

level. The price trends of these groups show the advantage that dairy and poultry products have had over crops and meat animals during the last few years. In 1933 the livestock products index number was 75 percent of the pre-war level while the livestock index was 55 percent and the crops index 60 percent of the 1910-14 level.

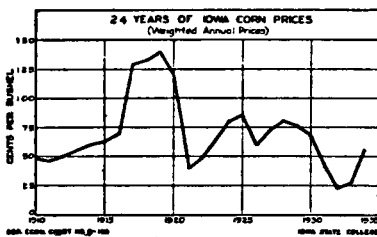


Fig. 19. In general, the curve of corn prices has followed that of the farm price level of the state during the 24-year period, 1910-1933. The highest price paid for Iowa corn was in August, 1917, when the average price for that month was \$1.84 per bushel. Since 1920 there have been three periods of severe decline in corn prices, 1921, 1926 and 1929-33. The lowest price paid for corn in 1933 was during January when the average price was 12 cents per bushel. Data in table 17.

Prices Paid and Received by Iowa Farmers

Figure 13 shows the relationship of prices Iowa farmers pay to the prices paid them for the farm products which they sell. This relationship is of great importance to any producer because if there is a drastic difference between the two, that is, if the prices producers pay are much higher than those they receive, they will have a difficult time making ends meet.

The data for prices paid by farmers is based on retail prices for the whole United States. They are probably fairly accurate indicators of prices Iowa farmers pay, however.

It is assumed that the base period here used, 1910-14, was one of equilibrium when the relationship between prices paid and received was equitable. Taxes, interest, rent, wages and insurance are not included in the index of prices paid, so a completely accurate picture of the relationship between what the farmer sells and buys is not shown. It should further be pointed out that this price relationship is not neces-

sarily a picture of agricultural well-being. Changes in productive efficiency are not taken into consideration. For instance, if farm efficiency increased faster than industrial efficiency, then the old price relationships would not be expected to hold.

The farmer produces raw material, but he buys retail products. He produces corn, wheat, beef or pork and sells it on the wholesale market. His expenditures are almost wholly made in retail markets. If changes in the general price level affected retail and farm product prices identically, the farmer's trouble, especially during the past dozen years, would not have been so acute.

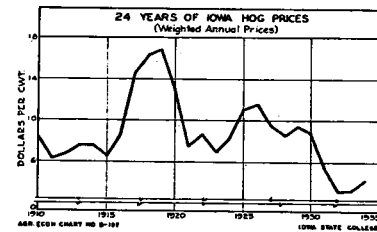


Fig. 18. Variations in the price of hogs have a tremendous effect on Iowa agriculture, for income from hogs amounts to about 40 percent of Iowa's total gross farm income. From 1915 to 1919 there was a great rise in the price of hogs. The highest price paid for Iowa hogs was in July, 1919, when the average monthly price was \$20.80 per hundred. After 1921 there was a slump, but prices recovered and gradually increased until 1926 when a downward trend began. Data in table 17.

But it is a well known fact that when there is a general increase in prices, those of raw materials, such as farm products, tend to rise faster than retail prices. Similarly, in a period of falling prices, those of farm products tend to fall faster than retail prices.

This is what happened to the relationship between Iowa farm and retail prices from 1910 to date.

For 4 years, 1916 to 1920, Iowa farmers found themselves with a considerable advantage in the price situation, for retail prices during this period lagged in the inflationary movement. Not until 1920 did the farmer's margin

TABLE 16. MONTHLY INDEX OF IOWA FARM PRICES BY COMMODITIES—Continued.

Monthly Index of Iowa Farm Price of Wheat (1910-14 = 100).												
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1910	113	114	114	113	111	108	111	112	108	106	102	99
1911	101	99	94	96	96	94	94	100	100	105	105	104
1912	105	106	108	111	114	115	107	99	96	95	94	91
1913	89	94	93	93	94	94	96	92	92	91	88	89
1914	89	91	93	93	94	95	91	86	106	111	113	113
1915	121	148	161	148	160	154	124	122	108	102	105	102
1916	114	121	115	112	114	111	111	119	148	160	182	183
1917	173	193	188	211	271	278	253	271	239	235	231	234
1918	234	238	239	245	243	242	238	235	234	236	232	235
1919	239	238	239	246	260	251	246	239	232	229	232	235
1920	248	256	252	252	268	278	278	253	243	239	208	163
1921	159	158	163	141	126	140	125	118	111	115	102	104
1922	105	106	132	127	134	128	114	109	98	106	108	116
1923	119	115	116	119	124	120	107	94	101	104	109	105
1924	109	112	112	107	107	108	122	132	129	140	144	153
1925	174	195	192	162	171	171	155	168	166	153	160	176
1926	185	180	171	166	167	165	146	146	140	143	142	146
1927	145	145	143	138	145	151	149	145	142	139	135	139
1928	138	139	142	148	163	155	143	115	109	119	116	119
1929	120	122	124	119	109	108	119	134	132	132	122	126
1930	126	119	109	109	105	102	85	91	86	81	74	78
1931	74	73	74	74	74	71	47	44	44	44	56	51
1932	49	49	51	51	48	46	40	44	44	41	40	38
1933	40	40	42	52	68	71	103	88	85	75	86	83
1934	83	87	85	82	82	98	98	109	113	109	109	116
1935	112	110	105	109	109	96	92	100	...	...	...	...

Monthly Index of Iowa Farm Prices of Hay (1910-14 = 100).

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1910	79	96	94	88	81	81	82	86	90	91	92	91
1911	92	88	85	83	84	84	111	132	121	116	120	117
1912	120	134	134	152	160	149	122	92	83	81	86	86
1913	99	95	89	98	91	93	86	80	92	96	98	98
1914	100	102	97	100	102	106	102	96	105	105	102	103
1915	109	119	123	131	128	126	114	93	91	91	91	89
1916	91	95	93	94	96	100	97	85	85	86	89	92
1917	97	103	105	111	126	144	147	134	148	148	161	171
1918	193	212	200	183	168	158	157	142	157	174	175	185
1919	186	192	198	199	215	219	196	171	171	168	169	177
1920	189	198	214	212	227	227	220	183	181	182	158	165
1921	154	115	126	121	117	114	105	100	104	100	92	95
1922	108	97	100	100	102	103	102	96	99	98	97	102
1923	110	104	108	112	114	117	116	113	113	118	118	127
1924	127	132	137	143	142	137	132	120	119	112	115	102
1925	108	111	107	118	109	106	113	116	112	111	127	130
1926	137	137	140	136	148	144	136	147	141	144	150	149
1927	153	160	160	158	158	153	127	118	114	117	117	124
1928	122	119	119	119	127	132	123	122	121	119	122	127
1929	129	139	147	142	137	131	104	105	97	93	102	97
1930	97	96	92	92	92	93	86	95	100	99	100	99
1931	98	88	82	83	83	81	83	83	83	79	80	88
1932	83	89	94	102	100	88	72	71	65	60	59	58
1933	54	49	47	50	49	50	53	56	61	59	63	60
1934	61	65	71	75	82	106	119	146	142	147	155	160
1935	163	172	176	169	168	140	85	68	...	...	...	...

disappear, and by the end of 1920 the relationship was reversed. The index of retail prices during that year was 13 points above the index for Iowa farm prices. Since then the price relationship has been more or less unfavorable to farmers. During the years between 1925 and 1929 the farmer was in a fairly good position in the price structure, due chiefly to favorable livestock prices, but re-

tail prices remained at a level slightly higher than farm prices. Since 1929 the principle that retail goods lag in price movements, especially in comparison with farm prices, has been re-verified. Farm prices were among the first to feel the depression and have shown an extremely sharp decline since then. Retail prices have declined also but at a more moderate rate, and the disparity between

the prices paid farmers and the prices they pay for commodities became wider than ever. The index of Iowa farm prices for 1933 was 57. For prices farmers pay, or retail prices, it was 109, a margin of 52 points of disadvantage to the farmer.

Exchange Value of Iowa Farm Products

The exchange value or purchasing power of farm products illustrates more accurately than farm prices the periods of good and bad times for farmers. The index of Iowa exchange value is determined by finding the ratio of prices Iowa farmers receive to prices United States farmers pay. The index of exchange value for the whole country is determined by finding the ratio of the index of United States farm prices to the index of prices paid.

Figure 15 shows the trend of exchange value of Iowa and United States farm prices since 1910 to 1933. The exchange values of Iowa and United States farm prices for the 5-year period before the World War have been taken as 100 percent. In 1917 the relationship had changed somewhat, and the value of Iowa farm products had been so far enhanced that the farmer could buy over 20 percent more with a fixed quantity of farm goods than he could with the same quantity in the pre-war period.

Since 1920 the exchange value of both national and Iowa farm products has been below that which prevailed from 1910-14.

Iowa Farm Price Levels Compared

In February 1929, the year preceding the depression, the Iowa farm price level was 40 percent higher than the 1910-14 level. Four years later, February 1933, the state's price level had dropped 58 percent below the pre-war level. In comparison, the February 1929 farm price level for the whole United States was 45 percent higher than the pre-war level. By February 1933 it was 45 percent below the pre-war price level.

During this 4-year period, February, 1929-33, the price level of Iowa's farm products had been reduced 70 percent. The national price level had similarly been reduced 62 percent.

Figure 16 shows the price change of Iowa farm products since 1929, and changes for these products grouped into livestock, grains, butter, eggs and poultry.

In comparing the two important groups of farm commodities, livestock and grains, the grain group shows the sharpest decline, falling from 131 to 31 percent of the base period, a decline of 76 percent. The corn price decline exceeded by far that of the other two grains, oats and wheat. It declined 84 percent in the 4-year period. The price level of wheat during the same time declined 67 percent, and the oat price level dropped 76 percent.

In February 1929, the corn price level was 148 percent of the 1910-14 average. In 1933 it was 23 percent of the level for the same period. The index of the oat price level for February 1929 was 122 percent of the 1910-14 level, and in February 1933 it had declined to 29 percent of the pre-war level. The wheat price level in February 1929 was 122 percent of the 1910-14 average, and for the same date 4 years later, the price level had declined to 40 percent of pre-war.

During the 4-year period since February 1929, the price level of Iowa eggs declined 70 percent. In February 1929 the price level of Iowa eggs was 171 percent of the pre-war level and in the same month of 1933 it had declined until it was only 52 percent of the 1910-14 level.

In the 4-year period from February 1929 to February 1933 the level of Iowa poultry prices declined 62 percent. In February 1929 the price level of Iowa poultry was 212 percent of the pre-war level, and in the same month of 1933, it had declined to 80 percent of the 1910-14 average.

For the same period the price level of butter also declined 62 percent. In February 1929 the

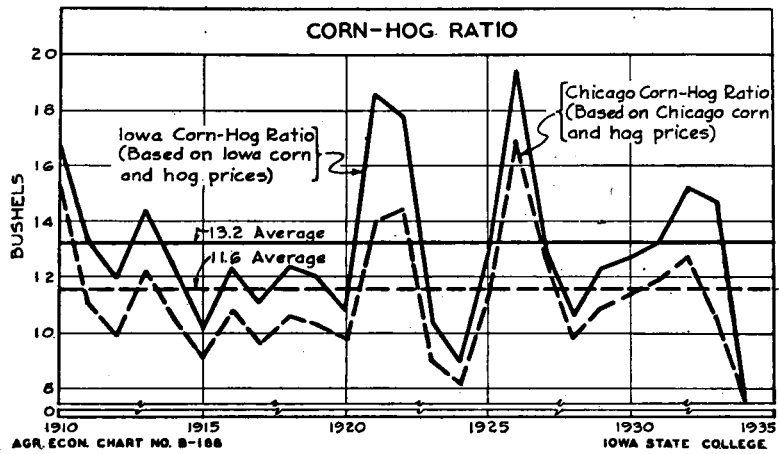


Fig. 20. During the 24-year period, 1910-1933, it required an average of 13.2 bushels of corn to buy 100 pounds of live hogs in Iowa. The average ratio of corn to hog prices at Chicago was 11.9 in this period. Data in tables 21 and 22.

level of butter prices in Iowa stood at 185 percent of the five-year (1910-14) average of 100. In 1933, the same month, the price level had declined to 71 percent of the pre-war level.

Of the 10 leading Iowa farm products, cattle, poultry and butter declined the least during this 4-year period. Iowa corn showed the highest percentage of decline. Iowa hogs, furnishing annually approximately 44 percent of the state's gross income, declined 69 percent. The seriousness of this

decline in hog prices has been brought home to the Iowa farmer during the past 4 years.

Unequal Decline in Prices Since July 1929

Various types of prices decline at different rates during periods of recession. Figure 17 shows the downward trend of wholesale, retail and farm prices from July 1929 to July 1933.

Prices of raw materials, especially farm prices, are extremely sensitive to influences which affect

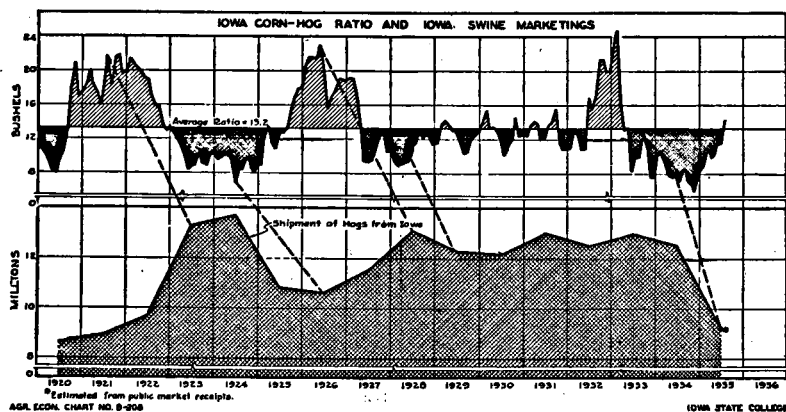


Fig. 21. This chart shows the relationship between the corn-hog ratio in Iowa, the number of bushels of corn that will buy 100 pounds of hog, to swine marketings from Iowa. After periods in which it takes more than the average number of bushels of corn to purchase 100 pounds of hog there appear periods of increased swine marketings and vice versa. Data in Tables 22 and 29.

Sheep (Dollars per 100 Pounds).

Year	Annual	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929.....	6.49	7.10	7.80	7.70	7.40	6.90	7.30	6.30	6.20	6.20	5.90	5.90	5.90
1930.....	4.64	5.90	6.20	6.00	5.80	5.40	5.40	4.50	3.80	4.10	3.90	3.70	4.00
1931.....	2.86	3.80	3.80	4.00	4.10	3.60	3.40	2.50	2.50	2.20	2.30	2.50	2.20
1932.....	1.96	2.00	2.20	2.60	2.60	2.00	1.90	1.90	2.00	2.00	2.00	1.95	1.65
1933.....	2.25	1.75	2.10	2.05	2.05	2.65	2.40	2.20	2.35	2.25	2.40	2.20	2.65
1934.....	2.87	2.75	3.75	3.55	3.40	3.00	3.00	2.75	2.35	2.30	2.30	2.45	2.90
1935.....	.....	3.70	3.80	3.90	4.20	4.10	3.70	3.45	3.50	.....	.....	.....	.....

Wheat (Dollars per Bushel).

Year	Annual	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929.....	1.07	1.02	1.04	1.05	1.01	.93	.92	1.02	1.14	1.12	1.12	1.04	1.07
1930.....	.79	1.07	1.01	.93	.93	.89	.87	.72	.77	.73	.69	.63	.66
1931.....	.47	.63	.62	.63	.63	.63	.60	.40	.37	.37	.37	.48	.43
1932.....	.37	.42	.42	.43	.43	.41	.39	.34	.37	.37	.35	.34	.32
1933.....	.64	.34	.34	.36	.44	.58	.60	.88	.75	.72	.64	.73	.71
1934.....	.83	.71	.74	.72	.70	.83	.83	.93	.96	.93	.93	.99	.99
1935.....	.....	.95	.95	.89	.93	.93	.82	.78	.85	.....	.....	.....	.....

Hay (Dollars per Ton).

Year	Annual	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929.....	10.66	12.70	13.70	14.40	13.80	13.50	12.90	10.20	10.30	9.50	9.10	10.00	9.50
1930.....	9.34	9.50	9.40	9.00	9.00	9.00	9.10	8.40	9.30	8.80	9.70	9.80	9.70
1931.....	8.32	9.60	8.60	8.10	8.20	8.20	8.00	8.20	8.20	8.20	7.80	7.90	8.60
1932.....	7.60	8.20	8.70	9.20	10.00	9.80	8.60	7.10	7.00	6.40	5.90	5.80	5.70
1933.....	5.36	5.30	4.80	4.60	4.90	4.80	4.90	5.20	5.50	6.00	5.80	6.20	5.90
1934.....	10.87	6.00	6.40	7.00	7.40	8.10	10.40	11.70	14.30	13.90	14.40	15.20	15.70
1935.....	.....	16.00	16.90	17.30	16.60	16.50	13.80	8.30	6.70	.....	.....	.....	.....

Butter (per Pound).

Year	Annual	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929.....	.46	.48	.47	.49	.47	.46	.45	.44	.44	.45	.46	.46	.44
1930.....	.36	.39	.37	.36	.38	.37	.34	.33	.36	.38	.38	.37	.33
1931.....	.27	.29	.27	.29	.28	.24	.23	.24	.25	.28	.33	.31	.30
1932.....	.20	.27	.22	.22	.21	.19	.17	.17	.20	.20	.19	.20	.22
1933.....	.21	.21	.18	.17	.19	.22	.22	.25	.21	.22	.22	.23	.21
1934.....	.24	.19	.23	.25	.23	.24	.24	.24	.25	.25	.26	.29	.29
1935.....	.....	.32	.38	.33	.35	.28	.25	.24	.25	.....	.....	.....	.....

Eggs (per Dozen).

Year	Annual	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929.....	.26	.28	.29	.26	.22	.24	.25	.25	.27	.31	.34	.40	.43
1930.....	.19	.34	.27	.19	.20	.18	.16	.15	.17	.21	.20	.26	.23
1931.....	.14	.18	.11	.17	.151	.115	.119	.125	.149	.150	.186	.232	.22
1932.....	.11	.141	.107	.083	.088	.096	.086	.099	.130	.143	.20	.238	.269
1933.....	.11	.182	.088	.085	.094	.118	.077	.122	.096	.122	.168	.203	.174
1934.....	.159	.15	.132	.131	.126	.125	.109	.110	.148	.186	.195	.25	.247
1935.....	.....	.233	.242	.177	.198	.209	.195	.201	.205	.....	.....	.....	.....

Poultry (per Pound).

Year	Annual	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929.....	.191	.204	.208	.210	.211	.219	.223	.218	.222	.215	.195	.176	.160
1930.....	.154	.169	.180	.177	.184	.177	.164	.143	.161	.166	.150	.143	.135
1931.....	.136	.148	.138	.149	.151	.133	.145	.145	.159	.152	.123	.132	.125
1932.....	.095	.121	.107	.111	.109	.105	.087	.10	.108	.11	.091	.086	.075
1933.....	.074	.073	.078	.074	.080	.090	.080	.09	.084	.081	.075	.068	.067
1934.....	.199	.076	.085	.092	.093	.094	.093	.102	.101	.126	.108	.111	.108
1935.....	.....	.117	.127	.127	.135	.136	.141	.124	.134	.....	.....	.....	.....

Prices received as of 15th of month.
Source: U. S. D. A. Bureau of Agricultural Economics.

TABLE 18. WEIGHTED ANNUAL FARM PRICES OF IOWA FARM PRODUCTS.

	Hogs dollars per cwt.	Cattle dollars per cwt.	Sheep per cwt.	Corn per bu.	Oats per bu.	Wheat per bu.	Hay per ton	Butter per lb.	Eggs per doz.	Poultry per lb.
1910.....	\$8.17	\$5.85	\$5.01	\$.49	\$.34	\$.94	\$8.61	\$.26	\$.18	\$.098
1911.....	6.20	5.57	4.04	.47	.34	.85	10.18	.22	.14	.085
1912.....	6.82	6.17	4.15	.50	.36	.87	11.23	.26	.18	.094
1913.....	7.67	7.02	4.54	.57	.33	.75	9.11	.27	.16	.106
1914.....	7.66	7.33	4.81	.61	.36	.85	9.98	.26	.18	.107
1915.....	6.49	6.94	5.10	.64	.41	1.06	10.55	.26	.18	.106
1916.....	8.63	7.53	6.37	.70	.40	1.17	8.98	.29	.21	.130
1917.....	14.43	9.72	9.58	1.29	.57	2.03	13.07	.37	.30	.157
1918.....	16.39	11.70	9.99	1.33	.70	2.03	17.28	.44	.33	.194
1919.....	16.87	12.45	9.07	1.41	.62	2.05	18.36	.52	.37	.204
1920.....	13.02	10.24	7.46	1.21	.68	2.08	19.10	.55	.40	.211
1921.....	7.61	6.48	4.09	.41	.27	1.17	19.96	.36	.23	.180
1922.....	8.52	6.83	5.61	.48	.29	.96	9.68	.34	.22	.163
1923.....	6.91	7.30	6.29	.67	.35	.92	11.21	.41	.23	.156
1924.....	7.34	7.40	6.81	.82	.42	1.09	12.34	.39	.23	.169
1925.....	11.08	8.43	7.48	.86	.39	1.44	11.23	.41	.27	.180
1926.....	11.62	7.98	6.84	.60	.34	1.26	13.98	.42	.28	.195
1927.....	9.49	8.92	6.57	.74	.41	1.22	13.69	.44	.44	.180
1928.....	8.61	10.85	6.94	.81	.43	1.09	12.05	.46	.46	.198
1929.....	9.48	10.78	6.49	.77	.39	1.07	10.66	.46	.....	.....
1930.....	8.80	9.25	4.64	.69	.33	.79	9.34	.....	.....	.....
1931.....	5.64	6.54	2.86	.44	.21	.47	8.32	.....	.....	.....
1932.....	3.21	4.91	1.96	.23	.15	.37	7.60	.....	.....	.....
1933.....	3.37	4.32	2.25	.26	.21	.64	5.36	.....	.....	.....
1934.....	4.23	5.17	2.87	.55	.37	.83	10.87	.....	.....	.....

AGRICULTURAL ECONOMIC FACTS

TABLE 19. INDEX NUMBERS OF U. S. WHOLESALE PRICES OF ALL COMMODITIES. (1910-14 = 100.)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929.....	140	139	140	139	138	139	141	141	140	139	137	136
1930.....	135	134	132	131	130	127	123	123	123	121	119	116
1931.....	114	112	111	109	107	105	105	105	104	103	103	100
1932.....	98	97	96	96	94	93	94	95	95	94	93	91
1933.....	89	87	88	88	92	95	101	101	103	104	104	103
1934.....	105	107	108	107	108	109	109	112	113	112	112	112
1935.....	115	116	116	117	117	116	116	118	...	...	...	...

Source: U. S. Department of Labor, Bureau of Labor Statistics.

them; finished goods are less flexible and do not react to changes quickly.

Evidence that farm prices are flexible in their reactions to influences upon them is found in the fact that in July 1933 farm prices were only 46 percent of the July 1929 level, 4 years before. In comparison, wholesale prices of all commodities and retail prices of things farmers buy were more stable.

In July 1933, wholesale prices were 70 percent of the July 1929 level, according to computations based on the wholesale index number compiled by the Bureau of Labor Statistics.

Retail prices of commodities farmers buy have fluctuated about the same as wholesale prices during this period. In July 1929 the index number of retail prices paid by farmers was 153; in July 1933 it was 107, 70 percent of the 1929 level.

Iowa Corn and Hog Prices Since 1910

Because swine furnish about 40 percent of Iowa's gross income and corn is the state's most im-

TABLE 20. INDEX OF PRICES U. S. FARMERS PAY. (1910-14 = 100.)

Year	Mar. 15	June 15	Sept. 15	Dec. 15
1923	152	153	151	150
1924	152	150	152	154
1925	158	158	155	155
1926	156	156	155	154
1927	152	154	153	152
1928	154	156	155	154
1929	155	153	154	152
1930	150	148	144	138
1931	132	127	121	117
1932	112	108	106	103
1933	100	103	116	116
1934	120	122	126	126
1935	127	127	125	...

Source: U. S. D. A. Bureau of Agricultural Economics.

portant cash crop, the prices of these two commodities are of particular importance in this state.

Any variation in the price of hogs is reflected directly on the prosperity of Iowa farmers. From 1915 to 1919, shown in fig. 18, hog prices experienced a sharp rise. From January 1915 to July 1919, the price of hogs rose from \$6.40 per hundred to \$20.80 per hundred. The latter price is the highest reached during the 24-year period.

In 1921 hog prices dropped sharply. This sudden decline was followed by a comparatively gradual recovery period which reached its peak in 1926. Since then prices have not recovered to the 1921 level.

The 1933 hog price index number was 54 percent below the 1910-14 level. This price was approximately 20 percent of the 1918 level, the index number of which, on the basis of 1910-14 equal to 100, was 224. The 1933 hog price level was 35 percent of the '29 level. Considerably higher hog prices were received by Iowa producers in 1934, as a result of the drought and the corn-hog program.

In general, Iowa corn prices have followed prices of hogs and all other farm products. From 1915 to 1919, corn prices experienced the same phenomenal rise as hog prices. The highest price paid for Iowa corn during the war years was in August 1917 when the monthly average price was \$1.84.

The lowest price paid for corn (see fig. 19) during the 24-year period since 1910 was during the early months of 1933 and the last few months of 1932. For a 3-

months' period, December 1932 to February 1933, the price paid for corn, on the average, was 12 cents per bushel. The drought of 1934 and the corn-hog reduction program brought sharply higher prices for corn. By December of that year, the average farm price was 90 cents a bushel.

Corn-Hog Ratios

The ratio between corn and hog prices affords a measure of the profitableness in feeding corn to hogs. Since most of Iowa's corn is disposed of through hogs, these ratios are of prime concern to Iowa. The corn-hog ratio is the number of bushels of corn required to purchase 100 pounds of live hog. Figure 20 shows graphically the corn-hog ratios for Iowa farm prices and the average for the whole country.

The average number of bushels of corn required to buy 100 pounds of live hog in Iowa during the past 24 years has been 13.2. The ratio was highest, for a yearly average, in 1926 when it reached 19.4; it has been higher than that for single months, having touched 24.6 in March, 1933. In 1926 hog prices were in a relatively better position than corn prices, and the number of hogs marketed was declining. Thus it was extremely profitable to market corn in the form of hogs. The sharp rise in the ratio during early 1933 was a result not so much of high hog prices as of extremely low corn prices. It can hardly be called profitable to feed corn to hogs when hog prices are around \$3.00—even if corn prices are very low. It is better to say that it was more profitable to feed the corn than to sell it as cash grain. The corn-hog ratio tells only the relative profitableness of feeding or selling the grain, not the absolute profitableness of Corn Belt agriculture.

The average ratio for the whole country was 11.9 during the 24 years when the Iowa ratio was 13.2. The difference in ratios is due to freight rates which make it cheaper to feed corn to hogs in Iowa than to sell it as grain. The ratio is wider in western Iowa

BASEBOOK OF IOWA

PURCHASING POWER OF IOWA FARM PRODUCTS
1934 AS % OF 1910-14 PURCHASING POWER

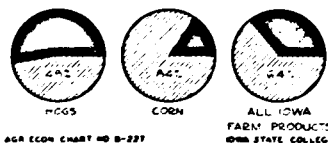


Fig. 22. The above chart shows the 1934 purchasing power of corn and hogs in Iowa as compared with the 1910-14 purchasing power. It will be seen that corn was nearest the former level with 84 percent of the purchasing power it had in 1910-14.

Data in table 23.

than it is in the eastern section. In South Dakota the ratio is wider than in Iowa. The United States ratio has been wider than the Iowa figure only one year since 1910. That year, 1919, the farm prices were all so high because of war inflation that no ordinary relationships held.

In 1924 the ratios were very narrow, 9.0 for Iowa and 8.2 for the United States. Swine slaughter was around 79.5 million head that year and the year before and hog prices sank compared with corn prices. Figure 21 compares the corn-hog ratio in Iowa with swine marketings from Iowa. The cross-hatched area shows the years during which the number of bushels required to buy 100 pounds of hog was above the average for the 24-year period. The black areas show the years during which the ratio was below 13.2. In general, periods during which the number of bushels of corn required to pur-

TABLE 23. INDEX NUMBERS OF PURCHASING POWER OF IOWA HOGS AND CORN.
(1910-14 = 100.)

Year	Hog prices	Purchasing power of hogs	Prices farmers buy	Corn prices	Purchasing power of corn
1920	178	88.6	201	228	113.4
1921	104	68.4	152	78	51.3
1922	117	78.5	149	90	60.4
1923	95	62.5	152	127	85.6
1924	101	66.4	152	156	102.6
1925	152	96.8	157	162	103.2
1926	159	102.6	155	114	73.5
1927	130	85.0	153	140	91.5
1928	118	76.1	155	153	98.7
1929	130	85.0	153	146	95.4
1930	120	82.8	145	131	90.3
1931	77	62.1	124	83	66.9
1932	44	41.1	107	44	41.1
1933	46	42.2	109	49	45.0
1934	48	47.5	122	103	84.4

Source: Derived from tables 16 and 14.

TABLE 21. CORN-HOG RATIO: CHICAGO PRICES.
(Based on averages of corn and hog prices of the month.)
(Number of bushels of corn required to equal value of 100 pounds of live hogs—based on Chicago prices.)

Year	Yearly Average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1910	13.3	12.2	12.0	13.6	14.4	13.3	12.9	12.2	11.7	13.0	14.2	15.1	14.9
1911	11.1	15.3	14.4	13.7	12.1	10.7	9.8	9.4	9.9	9.9	9.3	9.3	9.3
1912	9.9	9.1	8.8	8.6	9.0	8.4	8.1	8.3	9.1	10.1	12.0	13.2	14.1
1913	12.2	13.6	13.9	14.4	14.4	12.7	12.3	12.1	11.1	10.2	10.4	10.5	10.3
1914	10.5	10.8	11.3	11.2	10.9	10.3	9.9	10.1	10.3	10.2	10.0	10.4	10.2
1915	9.2	9.5	8.6	8.4	8.5	8.7	8.7	8.7	8.5	9.2	10.8	10.6	10.1
1916	10.7	9.8	10.5	11.4	11.5	11.4	11.0	10.9	10.6	11.1	10.4	10.1	9.8
1917	9.7	9.9	10.5	11.5	10.3	8.8	8.3	7.4	7.7	9.0	10.1	11.2	12.0
1918	10.6	11.2	10.3	10.1	10.2	10.3	10.0	9.9	10.1	10.8	11.0	11.5	11.3
1919	10.3	11.1	11.3	11.2	11.1	10.8	10.2	10.5	10.2	9.3	9.7	9.2	9.2
1920	9.8	9.3	9.2	8.9	8.4	7.6	7.1	7.8	8.5	10.1	13.0	15.0	13.2
1921	14.0	13.5	13.5	14.3	13.0	12.5	11.6	13.1	14.8	14.0	15.9	16.0	15.2
1922	14.4	15.4	16.5	15.8	15.7	15.0	14.7	14.7	13.7	13.4	13.4	12.8	11.7
1923	9.0	11.1	10.9	10.2	9.8	8.8	7.9	7.5	7.7	8.5	8.8	8.2	9.0
1924	8.2	9.0	8.5	8.6	8.6	8.5	8.1	6.7	8.0	7.7	8.7	8.7	7.9
1925	11.3	8.3	8.4	10.6	11.2	10.0	9.7	11.5	11.4	11.6	13.4	14.3	14.9
1926	16.9	15.8	17.2	17.5	17.5	17.8	18.7	17.7	14.7	15.8	16.2	17.3	17.0
1927	12.7	17.1	16.8	16.7	15.9	12.9	9.4	9.3	9.5	10.3	11.6	12.2	10.8
1928	9.9	10.3	9.6	8.7	8.4	8.6	8.5	9.4	10.2	11.7	11.3	11.3	10.4
1929	10.8	10.2	10.2	11.3	11.7	11.6	11.3	11.3	10.7	9.8	9.9	10.5	10.9
1930	11.4	11.4	12.2	12.8	11.7	11.6	11.5	10.9	9.5	10.3	10.7	12.4	11.5
1931	11.9	11.8	11.6	12.0	12.0	11.3	10.6	11.5	12.3	12.6	14.1	11.9	10.9
1932	12.6	11.2	10.9	12.1	11.4	9.8	9.6	14.1	13.4	13.5	15.0	15.7	14.5
1933	10.5	14.0	15.2	15.6	11.4	10.0	9.9	7.2	7.8	8.0	10.7	9.1	7.0
1934	7.0	7.0	8.5	8.2	7.4	6.5	6.3	6.7	6.3	7.8	6.8	6.7	6.0
1935	.....	8.1	8.4	9.8	9.2	9.3	10.0	10.2	.....	.....	.....	.....	.....

Source: U. S. D. A. Bureau of Agricultural Economics.

chase 100 pounds of hog exceeded the average are followed by periods of greater-than-average hog marketings. Periods which gave the advantage to selling corn or feeding it to other livestock rather than feeding it to hogs are followed by periods of lower swine marketings. The price relation-

ships during these times indicate that Iowa farmers switch from feeding hogs to selling corn or feeding it to other livestock, depending upon which has the advantage in price. Iowa is so important in the hog industry that what Iowa does influences the hog market markedly.

TABLE 22. CORN-HOG RATIO IN IOWA.
(Number of bushels of corn required to equal value of 100 pounds of live hogs—based on Iowa farm prices.)

Year	Yearly Average	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1910	16.7	15.0	15.3	18.5	19.0	17.6	16.9	15.2	13.6	16.2	18.0	19.2	19.2
1911	13.2	20.8	18.6	16.8	14.5	12.9	11.7	11.3	12.3	11.8	10.4	10.4	10.8
1912	12.0	10.4	10.2	10.3	11.1	10.1	10.1	10.5	11.5	12.2	14.6	17.1	19.4
1913	15.3	18.6	19.7	20.3	19.8	16.0	15.7	15.7	13.2	11.7	12.1	12.2	12.0
1914	12.6	13.5	14.3	14.0	13.7	12.8	11.9	12.5	12.5	11.9	11.1	11.7	11.6
1915	10.1	10.3	9.4	9.7	9.8	10.1	10.3	9.9	9.0	9.9	11.9	11.1	10.7
1916	12.3	10.3	12.1	14.3	13.6	13.6	12.9	12.8	12.4	13.0	11.7	11.5	11.3
1917	11.2	11.7	12.7	13.5	12.1	10.6	9.8	8.1	8.5	10.1	11.0	13.0	14.2
1918	12.3	12.9	12.0	12.0	11.9	12.0	11.6	11.5	12.2	12.8	13.5	13.9	12.7
1919	12.0	12.6	13.3	13.3	12.7	12.3	11.8	11.9	11.4	10.3	11.0	11.6	10.1
1920	10.8	10.7	10.8	10.4	9.3	8.4	8.0	9.3	10.3	12.7	17.3	20.9	16.9
1921	18.6	17.5	18.3	20.0	18.3	17.6	15.9	18.4	21.7	18.2	21.6	21.8	19.4
1922	17.8	20.0	21.5	21.1	20.4	20.0	19.2	19.0	17.2	15.8	15.8	13.7	12.8
1923	10.3	13.3	12.5	11.9	11.2	10.0	8.3	8.7	8.9	10.4	9.2	8.9	10.2
1924	9.0	10.2	9.5	9.8	10.0	10.0	9.7	6.9	8.5	8.3	9.9	8.9	8.0
1925	12.9	8.8	8.9	12.3	13.4	11.4	10.8	12.6	12.7	13.1	15.6	16.9	17.9
1926	19.4	18.0	20.7	21.7	21.5	21.4	22.8	20.5	15.3	17.0	17.6	19.1	18.9
1927	12.8	18.8	19.2	19.1	17.6	13.3	9.4	9.3	9.4	10.7	12.2	12.8	10.5
1928	10.6	10.6	9.7	9.0	9.2	9.2	9.3	10.5	11.5	13.0	12.2	12.6	12.0
1929	12.3	11.4	11.5	13.6	14.2	13.6	13.0	13.0	11.9	10.4	10.6	11.8	12.3
1930	12.7	12.8	14.1	15.3	13.3	13.4	13.2	12.1	10.1	11.3	11.9	14.4	12.3
1931	13.1	12.7	12.5	13.6	14.2	13.8	12.0	12.2	13.7	14.0	15.7	11.7	10.9
1932	15.1	10.9	11.0	13.1	12.6	10.8	10.9	16.8	15.6	16.9	21.4	21.5	20.0
1933	14.7	20.0	23.3	24.6	16.0	13.2	13.3	8.4	10.0	10.0	17.1	11.2	7.7
1934	7.7	7.7	10.6	10.3	9.4	7.9	7.7	7.8	7.2	8.7	7.2	6.8	5.7
1935	.....	8.3	9.0	10.8	9.9	10.2	11.4	11.6	14.3	.....	.....	.....	.....

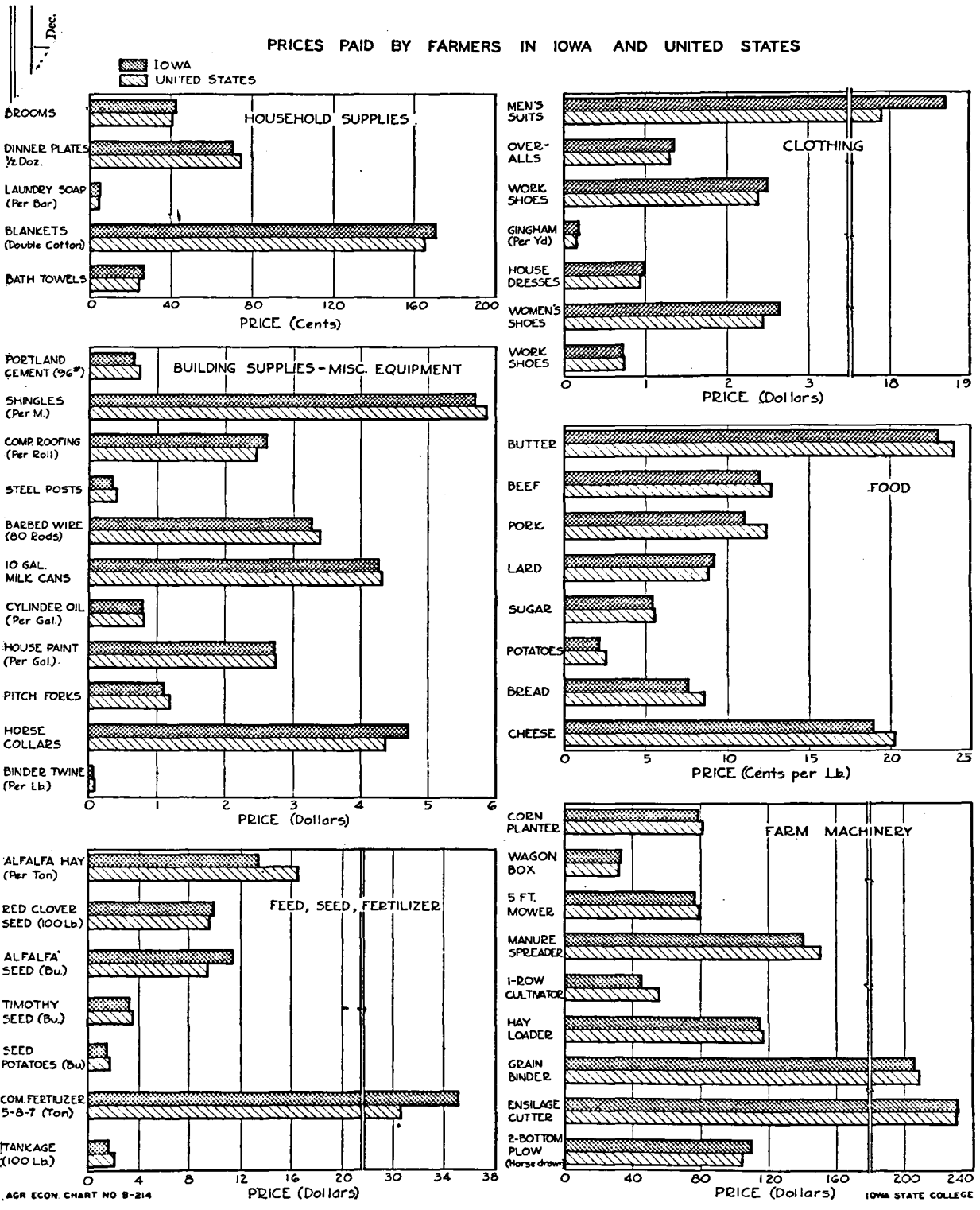


Fig. 23. The data for this chart are the results of a CWA survey conducted in 1934 and were compiled by the Division of Crop and Livestock Estimates of the United States Bureau of Agricultural Economics. Over a three to four day period several thousand enumerators in all parts of the country checked up on the prices that farmers pay for clothing, food, machinery and other articles used on the farm. This chart compares the Iowa prices with the average of those paid over all of the United States.

CHAPTER III. IOWA FARM PRODUCTION

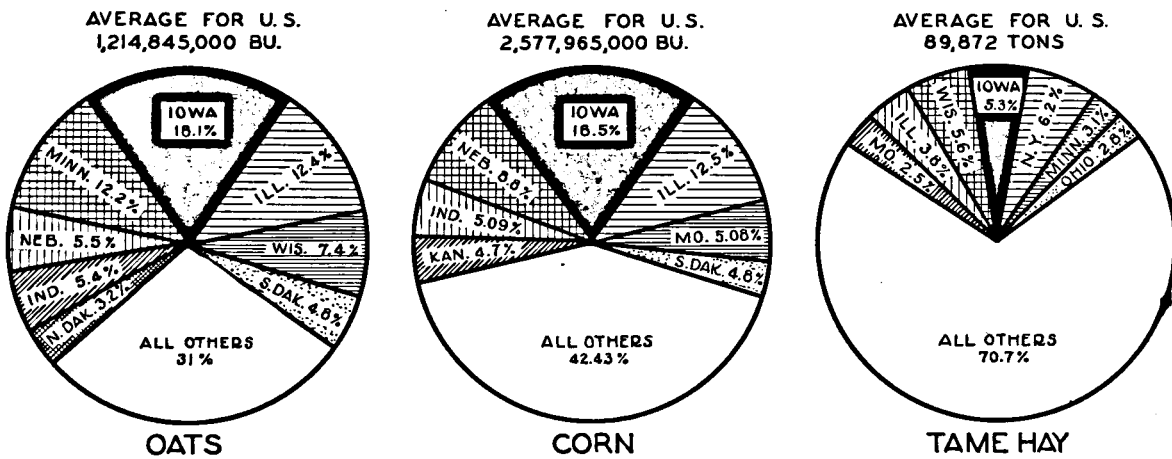
THOUGH other states may argue with Iowa on the right to the title, "leading farm state of the Union," there can be no arguments if the basis for that

title is limited strictly to production of foodstuffs. Located where temperature and moisture are ideally combined for grain crops and blessed with a large area of

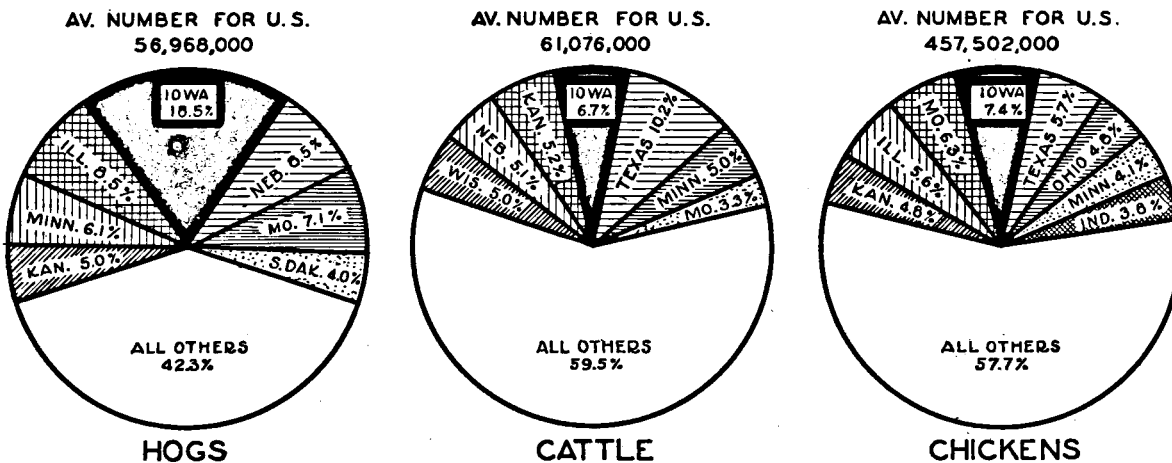
productive soil, Iowa farms furnish sustenance for many other states and foreign countries.

In the pioneer days of the state, Iowa was one of the leading wheat

IOWA'S SHARE IN NATIONAL FARM PRODUCTION
(5 YEAR AV. 1929-33)
PRODUCTION OF LEADING CROPS



NUMBERS OF LIVESTOCK ON FARMS



AGR. ECON. CHART NO. B-101

IOWA STATE COLLEGE

Fig. 24. Iowa is one of the foremost agricultural states in the union. It leads all others in the production of corn, oats, hogs and chickens. It ranks second in the production of cattle and tame hay.

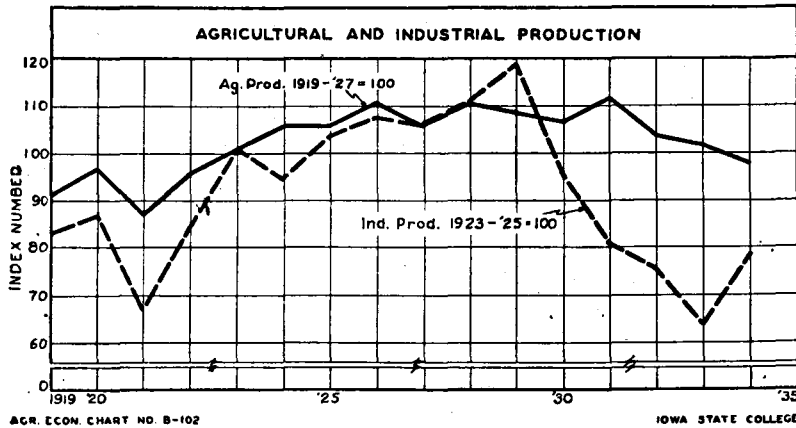


Fig. 25. Farm production did not decrease as much as industrial production after the price crash of 1929. Because of high fixed costs, it was impossible for an individual farmer to cut his production. If the farmer could get returns on his current expenses and any compensation for the use of his fixed capital, he kept on producing.

Because a large percentage of the cost of industrial production is for labor, raw material and other current expenses, business men decreased their production more than farmers. It was more profitable for them to sell their goods for about the same as before the price decline and have most of their plant idle than to keep up their production and sell their goods at less than current expenses.

Data in table 25.

TABLE 24. PERCENT OF ANNUAL FARM PRODUCTION MARKETED EACH MONTH.

	Hogs	Cattle	Sheep	Corn	Oats	Wheat	Hay	Butter	Eggs	Poultry
January.....	12.6	9.6	13.5	11.1	6.7	4.1	8.1	7.7	2.9	9.3
February.....	10.5	8.0	8.5	10.2	6.0	4.0	7.8	7.4	4.3	5.0
March.....	8.6	8.4	4.8	7.0	6.4	3.2	8.0	8.1	11.5	3.4
April.....	6.8	8.0	2.8	4.7	5.7	2.6	7.9	7.8	18.5	2.2
May.....	7.3	9.0	3.0	5.8	5.6	2.8	6.1	10.2	19.8	3.1
June.....	8.0	8.9	4.5	7.5	5.1	4.9	6.5	11.1	13.9	5.7
July.....	7.4	8.0	5.7	7.8	7.7	19.3	9.9	9.5	9.5	5.7
August.....	6.5	7.7	8.0	8.0	23.4	19.9	10.3	9.6	7.7	5.8
September.....	5.9	7.6	8.7	9.2	11.0	16.4	8.6	7.8	5.5	8.2
October.....	6.2	7.5	10.8	9.8	10.5	10.6	9.9	7.6	3.6	13.3
November.....	8.4	7.6	13.3	7.2	5.1	6.7	8.5	6.6	1.4	19.1
December.....	11.8	9.7	16.4	11.7	6.8	5.5	8.4	6.6	1.4	19.2
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Iowa Agr. Exp. Sta. Bul. 336, Gertrude M. Cox.

areas of the United States. But it was soon apparent that the Great Plains had an advantage in bread grains while Iowa was unsurpassed in corn and oats, the two leading feed grains. From the Civil War until the World War, Iowa's feed grain acreage and livestock production increased steadily. During the war even larger acreages were sown to corn and oats, and feed lots and pastures were expanded to the limit.

After the war there was no decline in production, though demand from foreign countries declined considerably. It was not until the drouth of 1934 and the corn-hog program of the AAA effectively combined to cut corn production in

half that any real reduction in Iowa agricultural output occurred. The chart (fig. 25) shows graphically how industrial production was reduced during the depression in order to maintain prices, while agricultural production remained at a constant level and prices dropped ruinously low.

Livestock

Livestock is the backbone of Iowa agriculture. Hog production is by far the most important agricultural enterprise in the state, while cattle feeding, dairying and poultry husbandry all contribute large amounts of income. Iowa has about 9 percent of all livestock on farms in the

TABLE 25. INDEX NUMBER OF AGRICULTURAL AND INDUSTRIAL PRODUCTION.

Year	Agricultural production 1919-27=100	Industrial production 1923-25=100
1919.....	91	83
1920.....	97	87
1921.....	87	67
1922.....	96	85
1923.....	101	101
1924.....	106	95
1925.....	106	104
1926.....	111	108
1927.....	106	106
1928.....	111	111
1929.....	109	119
1930.....	107	96
1931.....	112	81
1932.....	104	64
1933.....	102	76
1934.....	98	79

Source: Agricultural Production, Bureau of Agricultural Economics, U. S. D. A. Industrial Production, Federal Reserve Board.

United States. Altogether, Iowa's livestock and livestock products furnish over three-fourths of the annual income of the state. (See Chapter I for income statistics.)

Iowa's leadership in livestock production has resulted in a concentration of marketing facilities, particularly for hogs, in this state. No other producing area is so completely surrounded by large stockyards markets as Iowa. Chicago, East St. Louis, St. Joseph, Kansas City, Omaha, Sioux City and St. Paul are all within easy shipping distance.

Besides the stockyards markets, a number of packing plants are located in Iowa. These plants specialize in hogs, although a few of them have begun to slaughter beef during recent years. Livestock marketed at these interior plants, as they are called, do not pass through stockyards, but are sold directly to the packer. In many cases the packer comes right to the farmer's yard to purchase hogs, and sales made over the telephone are a commonplace.

Besides establishing packing plants out in the heart of the hog country, the packing companies have also found another way to simplify the marketing of livestock. They have established concentration points along major railroad lines. By buying up livestock at a concentration point it is possible to economize on shipments to the large packing establishments, as a single farmer might not have enough hogs or cattle to fill out a car.

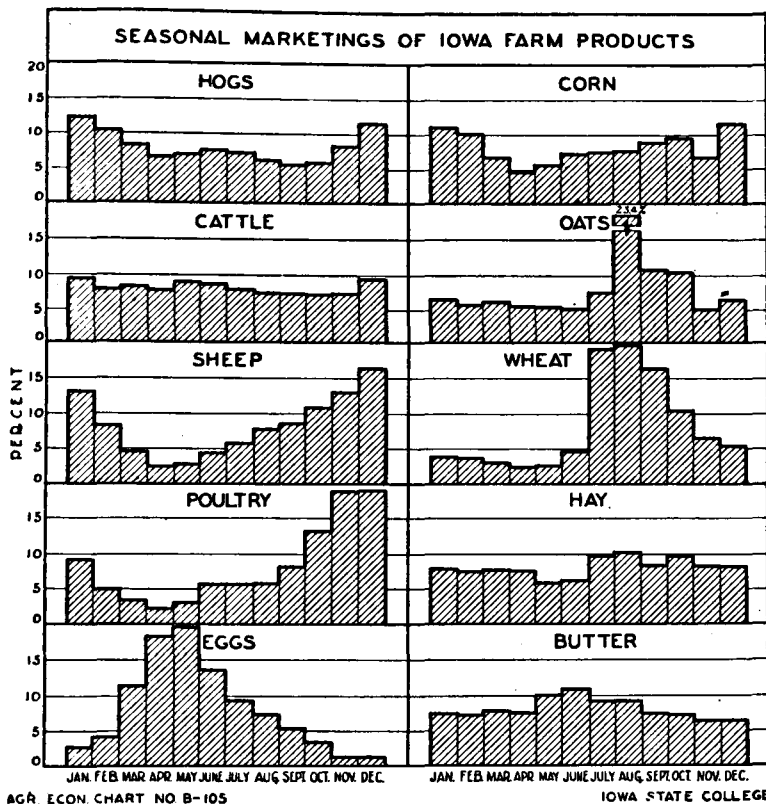
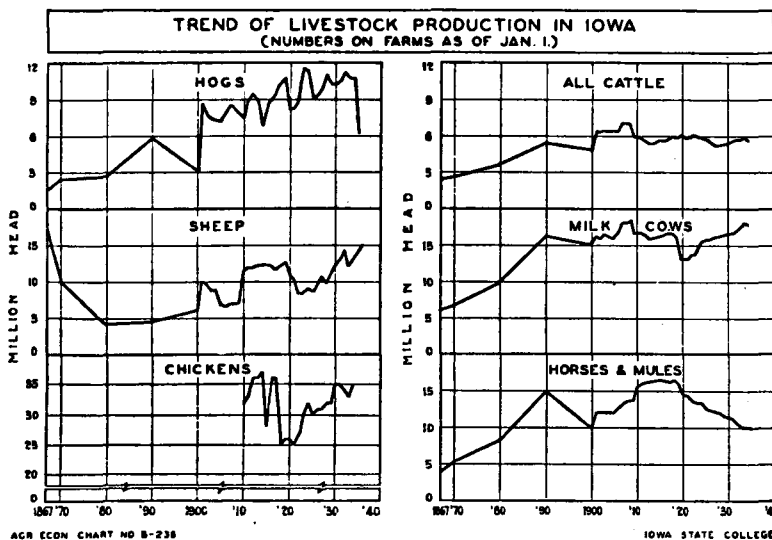


Fig. 26. From this chart it is possible to trace the marketing trends of Iowa's various farm products. It will be seen that hog marketings are heaviest in December and the first two months of the year. The corn movement is also heavy in December and January. Most of the oats and wheat move to market at threshing time.

Data in table 24.



Direct selling of hogs in Iowa has grown from about one-third of all marketings in 1920 to about two-thirds now. Only 2 percent of the cattle and calves of Iowa were sold direct in 1920 while more than 20 percent are now sold that way.

Hogs

Iowa stands alone as a hog producing state with nearly 20 percent of the hogs of the country. Nebraska, which ranks second, has only 9 percent and Illinois, third, only 8 percent. About 40 percent of the annual farm income of the state comes from the sale of hogs. Since the World War there has been an average of around 10 million hogs on Iowa farms on Jan. 1. Marketings have ranged from 11 to 13 million annually. Assuming average local slaughter and death losses, the annual hog population in Iowa ranges from 22 to 25 million head.

The periodic surveys of the rural mail carriers of the Post Office Department indicate an average of about 90 hogs to the farm in June and 75 in December. Some counties in Iowa have average shipments of 90 hogs per farm each year.

In recent years there has been a marked movement of the hog industry toward the northwest Corn Belt which includes Iowa. Figure 35 illustrates this change. For the 5

Fig. 27. Hogs—The trend in hog production had been upward since 1867 until the downward movement in 1933 and 1934, which was due to the AAA and the drouth.

Cattle—The trend in cattle has been slightly upward since 1867. Due to the time it takes to build up a herd, there is not the variation in numbers of cattle that is found in some of the other classes of livestock.

Horses and Mules—Since 1919, horses have been gradually decreasing. Automobiles and tractors are doing some of the work formerly done by horses and mules.

Sheep — Sheep numbers decreased from 1867 to 1880 to less than one-third their former total. Since then, the trend has been upward.

Chickens — Chicken numbers fluctuate greatly due to the short time it takes to go into and out of production. The general trend since 1920 has been upward.

Data in table 26.

AGRICULTURAL ECONOMIC FACTS

years, 1928-32, seven of the Corn Belt states had more than half of the hogs in the nation, and Iowa alone had 18.5 percent. This movement of hogs has followed the increase in corn acreage in these states. The maps in figs. 30 and 62 show the remarkable concentration of the corn-hog industry as well as the close relationship between corn acreage and hog numbers.

It will be noticed in the chart of livestock numbers that hog numbers fluctuate much more rapidly than do numbers of other livestock. This is a result of the farmer's ability to increase or decrease his production of hogs quickly and easily. It is much harder for the cattleman to rearrange his business in this fashion. Also the large proportion of Iowa cattle used for dairy purposes tends to give stability to cattle numbers in this state. The response of farmers to changes in the profitability of feeding hogs is shown in Chapter II in the charts dealing with the corn-hog ratio.

Cattle

Beef cattle furnish about 16 percent of the total cash farm income of Iowa and are the most important source of farm income other than hogs. Iowa ranks second to the huge state of Texas in cattle numbers. For the 5 years, 1928-32, Texas averaged 10.2 percent of all the cattle of the country, while Iowa averaged 6.7 percent. But in production of grain-fed beef, Iowa clearly leads the nation. On the average, nearly half of the beef steer receipts at Chicago are furnished by Iowa producers.

About one-third of the finished cattle sold from Iowa farms are brought into the state from western ranges as feeder stock. The other two-thirds are home-raised stock. A large proportion of the farmers of the state fatten out a few head of cattle each year, but the number who specialize in cattle feeding, particularly of the fancy grades, is comparatively small. These big cattle feeders are experienced "hands" at putting smooth layers of flesh on well-bred steers and their business is more or less a specialty affair. For the bulk of the farmers cattle

TABLE 26. NUMBER OF LIVESTOCK ON FARMS IN THE UNITED STATES. (In thousands)

Year	Horses	Mules	All Cattle	Milk Cows	Chickens	Stock Sheep	Hogs
1930.....	13,742	5,382	61,003	23,106	470,000	45,577	55,705
1931.....	13,195	5,273	63,030	23,885	460,000	47,720	54,835
1932.....	12,664	5,148	65,770	24,982	451,000	47,754	59,301
1933.....	12,291	5,046	70,214	26,030	462,000	47,324	62,127
1934.....	12,052	4,945	74,262	27,059	455,000	48,454	58,621
1935.....	11,861	4,822	68,529	26,236	412,000	46,640	39,004
1936.....	11,637	4,685	68,213	25,622	.....	46,380	42,541

¹Preliminary.
Source: U. S. D. A. Bureau of Agricultural Economics.

TABLE 27. ANIMALS ON IOWA FARMS. (000) omitted.

Year	Horses			Mules		
	(000) Numbers	Price per head	Total valuation	(000) Numbers	Price per head	Total valuation
1867.....	390,000	\$ 60.58	\$ 23,626,396	15,400	\$ 72.24	\$1,115,374
1870.....	514,000	66.78	34,320,725	32,500	73.69	2,395,033
1880.....	778,000	55.19	42,959,896	44,700	70.85	3,166,995
1890.....	1,095,700	72.70	79,626,009	42,300	78.96	3,341,065
1900.....	979,400	49.84	48,810,774	31,200	54.72	1,708,906
1901.....	1,167,800	59.63	69,640,688	47,300	63.00	2,981,266
1902.....	1,156,100	65.19	75,366,322	46,400	68.69	3,185,561
1903.....	1,144,600	69.69	79,760,061	45,900	74.06	3,400,365
1904.....	1,156,000	72.41	83,712,676	45,000	72.00	3,239,722
1905.....	1,144,500	74.49	85,250,746	44,000	80.05	3,529,755
1906.....	1,247,500	86.31	107,674,248	43,600	90.48	3,949,925
1907.....	1,390,900	100.00	139,178,490	43,600	108.00	4,702,541
1908.....	1,419,000	99.00	140,481,000	44,000	108.00	4,752,000
1909.....	1,419,000	103.00	146,137,000	46,000	112.00	5,152,000
1910.....	1,492,000	120.00	179,040,000	56,000	123.00	6,888,000
1911.....	1,537,000	121.00	185,977,000	57,000	126.00	7,182,000
1912.....	1,568,000	113.00	177,184,000	57,000	119.00	6,783,000
1913.....	1,568,000	120.00	188,160,000	56,000	124.00	6,944,000
1914.....	1,584,000	118.00	186,912,000	57,000	123.00	7,011,000
1915.....	1,600,000	105.00	168,000,000	58,000	111.00	6,438,000
1916.....	1,584,000	105.00	166,320,000	61,000	110.00	6,710,000
1917.....	1,552,000	107.00	166,064,000	68,000	116.00	7,888,000
1918.....	1,583,000	104.00	164,632,000	69,000	116.00	8,004,000
1919.....	1,536,000	95.00	145,920,000	70,000	113.00	7,910,000
1920.....	1,387,000	93.00	129,124,000	82,000	113.00	9,302,000
1921.....	1,338,000	85.00	114,138,000	84,000	104.00	8,736,000
1922.....	1,300,000	74.00	96,564,000	96,000	84.00	8,064,000
1923.....	1,266,000	80.00	101,715,000	97,000	88.00	8,530,000
1924.....	1,240,000	75.00	93,353,000	99,000	86.00	8,512,000
1925.....	1,180,000	72.00	84,714,000	97,000	83.00	8,035,000
1926.....	1,149,000	74.00	85,026,000	98,000	85.00	8,330,000
1927.....	1,126,000	74.00	83,324,000	101,000	83.00	8,383,000
1928.....	1,106,000	75.00	82,950,000	95,000	84.00	7,980,000
1929.....	1,073,000	79.00	84,767,000	90,000	86.00	7,740,000
1930.....	1,058,000	80.00	84,556,000	85,000	90.00	7,678,000
1931.....	1,026,000	68.00	69,768,000	82,000	76.00	6,232,000
1932.....	970,000	56.00	54,320,000	79,000	64.00	5,056,000
1933.....	931,000	59.00	54,929,000	77,000	64.00	4,928,000
1934.....	912,000	73.00	66,576,000	74,000	79.00	5,846,000
1935.....	903,000	83.00	74,949,000	67,000	89.00	5,963,000
1936.....	885,000	107.50	95,138,000	67,000	120.60	8,082,000

	Chickens			Dairy Cows		
	No. chickens (000)	Value cents per head	Value	No. head (000)	Average price	Value
1867.....	345	\$23.29	\$ 8,038,108
1870.....	416	28.78	11,958,042
1880.....	725	24.20	17,532,900
1890.....	1,332	19.79	26,358,064
1900.....	1,263	34.90	44,088,577
1901.....	1,378	31.87	43,915,553
1902.....	1,350	29.52	39,863,808
1903.....	1,391	30.03	41,769,087
1904.....	1,363	29.09	39,652,404
1905.....	1,336	27.90	37,269,713
1906.....	1,429	29.85	42,665,799
1907.....	1,555	32.00	49,769,600
1908.....	1,555	30.50	47,428,000
1909.....	1,586	34.00	53,924,000
1910 ¹	32,063	..	.....	1,407	36.00	50,652,000

BASEBOOK OF IOWA

TABLE 27. ANIMALS ON IOWA FARMS—Continued.

	Chickens			Dairy Cows		
	No. chickens (000)	Value cents per head	Value	No. head (000)	Average price	Value
1911.....	33,069	..	.....	1,407	40.00	56,280,000
1912.....	36,002	..	.....	1,393	40.80	56,834,000
1913.....	36,092	..	.....	1,337	50.30	67,251,000
1914.....	37,465	..	.....	1,350	60.50	81,675,000
1915.....	28,116	..	.....	1,377	57.00	78,486,000
1916.....	35,755	..	.....	1,391	58.50	81,374,000
1917.....	35,760	..	.....	1,405	66.50	93,432,000
1918.....	25,400	..	.....	1,405	76.70	107,764,000
1919.....	26,277	..	.....	1,381	86.00	118,766,000
1920.....	26,478	..	.....	1,094	88.00	96,272,000
1921.....	25,629	..	.....	1,072	62.00	66,464,000
1922.....	27,344	..	.....	1,115	53.00	59,095,000
1923.....	30,790	..	.....	1,160	58.00	67,280,000
1924.....	32,554	73	23,764,000	1,280	60.00	69,600,000
1925.....	30,275	78	23,615,000	1,321	58.00	76,618,000
1926.....	31,183	89	28,753,000	1,336	63.00	84,168,000
1927.....	31,806	90	28,625,000	1,352	66.00	89,232,000
1928.....	32,340	84	27,166,000	1,368	76.00	103,968,000
1929.....	32,005	90	28,805,000	1,384	86.00	119,024,000
1930.....	35,600	85	30,260,000	1,400	85.00	119,000,000
1931.....	35,030	66	23,120,000	1,414	59.00	83,426,000
1932.....	34,150	56	19,124,000	1,471	38.00	55,898,000
1933.....	33,875	43	14,566,000	1,503	29.00	43,587,000
1934.....	35,335	37	13,074,000	1,610	27.00	43,470,000
1935.....	31,915	49	15,638,350	1,580	28.00	44,240,000
1936.....	.....	.....	.....	1,533	51.00	78,183,000

*1910-1923—from Assessors' Reports.

	Hogs			Cattle			Sheep		
	No. head	Average price per head	Value	No. head	Average price per head	Value	No. head	Average price per head	Value
1867	1,666	\$ 3.76	\$ 6,258,282	944	\$19.80	\$ 18,680,081	1,709	\$ 2.23	\$ 3,811,070
1870	2,500	6.65	16,632,317	1,163	23.95	27,848,978	1,062	1.29	1,369,980
1880	2,778	5.36	14,892,224	2,095	21.10	44,173,476	455	2.54	1,154,176
1890	5,805	5.94	34,481,700	3,909	18.60	72,813,463	676	2.80	1,330,382
1900	3,238	6.69	21,654,856	3,442	34.00	117,019,365	419	4.02	2,487,816
1901	8,815	8.00	70,481,679	4,990	26.90	134,235,371	997	3.89	3,876,453
1902	7,069	9.88	75,794,533	4,853	25.50	123,651,955	907	3.85	3,492,377
1903	7,439	8.97	66,724,735	4,965	25.05	124,313,752	898	3.58	3,211,571
1904	7,364	6.39	47,057,673	4,866	24.05	117,047,861	862	3.31	2,856,886
1905	7,291	6.71	48,920,094	4,803	21.80	104,617,723	698	3.80	2,652,483
1906	7,947	7.20	57,216,823	4,862	23.45	113,965,717	670	4.59	3,073,707
1907	8,584	9.50	81,552,750	5,515	25.40	140,057,600	704	5.32	3,747,574
1908	8,413	6.50	54,684,000	5,436	23.70	128,929,000	718	4.97	3,568,000
1909	7,908	8.00	63,264,000	5,428	25.85	140,369,000	747	4.60	3,436,000
1910	7,546	11.30	85,270,000	4,448	26.55	118,162,200	1,146	5.30	6,074,000
1911	9,055	11.60	105,038,000	4,326	29.30	126,627,900	1,226	5.07	6,216,000
1912	9,689	9.80	94,952,000	4,166	30.30	126,159,000	1,201	4.30	5,164,000
1913	8,720	12.00	104,640,000	3,944	38.85	153,282,000	1,249	5.10	6,370,000
1914	6,976	12.60	87,898,000	3,905	46.55	181,831,000	1,249	5.30	6,620,000
1915	8,720	11.00	95,920,000	4,060	44.10	179,098,500	1,249	5.60	6,994,000
1916	9,069	9.30	84,342,000	4,128	45.10	186,201,100	1,240	6.30	7,812,000
1917	9,370	14.70	137,739,000	4,159	51.10	212,404,800	1,200	8.80	10,560,000
1918	10,307	24.20	249,429,000	4,324	57.25	247,584,100	1,224	13.80	16,891,000
1919	10,822	27.50	297,605,000	4,242	63.50	269,254,600	1,270	13.70	17,399,000
1920	8,114	21.80	199,604,000	4,558	58.00	250,234,000	1,092	12.10	13,234,000
1921	8,265	14.50	135,546,000	4,347	40.30	166,055,000	1,059	6.90	7,281,000
1922	8,928	11.00	110,707,000	4,311	34.80	142,263,000	852	5.40	4,604,000
1923	11,602	12.80	168,229,000	4,545	39.80	171,346,000	840	8.40	7,083,000
1924	11,415	10.30	132,414,000	4,533	40.30	173,161,000	900	8.30	7,448,000
1925	9,098	17.00	154,666,000	4,372	37.50	163,950,000	870	11.20	9,698,000
1926	9,260	18.70	173,440,000	4,193	42.40	177,657,000	914	11.80	10,749,000
1927	10,069	20.20	203,595,000	3,999	44.00	175,916,000	1,070	11.20	10,935,000
1928	11,124	14.40	160,186,000	3,758	54.30	204,059,000	983	10.80	10,616,000
1929	10,244	15.10	154,684,000	3,858	61.90	238,810,000	1,085	11.00	11,935,000
1930	10,200	16.00	162,784,000	3,983	61.30	243,993,000	1,000*	9.90	9,900,000
1931	10,509	13.40	140,821,000	4,063	42.40	172,271,000	1,010*	5.50	5,555,000
1932	10,700	6.40	68,480,000	4,200	26.70	112,041,000	1,060*	3.30	3,498,000
1933	10,140	4.50	45,630,000	4,380	20.60	90,228,000	1,015*	2.90	2,943,500
1934	10,200	4.70	47,940,000	4,617	19.50	90,031,500	1,077*	4.30	4,631,100
1935	6,250	8.00	50,000,000	4,570	20.50	93,685,000	1,193	4.70	5,607,100
1936	7,250	15.80	114,313,000	4,661	36.80	171,476,000	1,253	7.20	8,989,000

* Stock sheep and lambs—does not include lambs on feed Jan. 1.
Source: U. S. D. A., Bureau of Agricultural Economics.

feeding is merely a part of the farm business along with hog raising, dairying, poultry raising and crop production.

Most of the feeder cattle brought into Iowa for fattening are purchased through the livestock markets of Omaha, Kansas City, Sioux City and St. Paul. Of these, Omaha and Sioux City, located on the western border of the state and near its largest feeding area, are the most important.

Dairy Cows

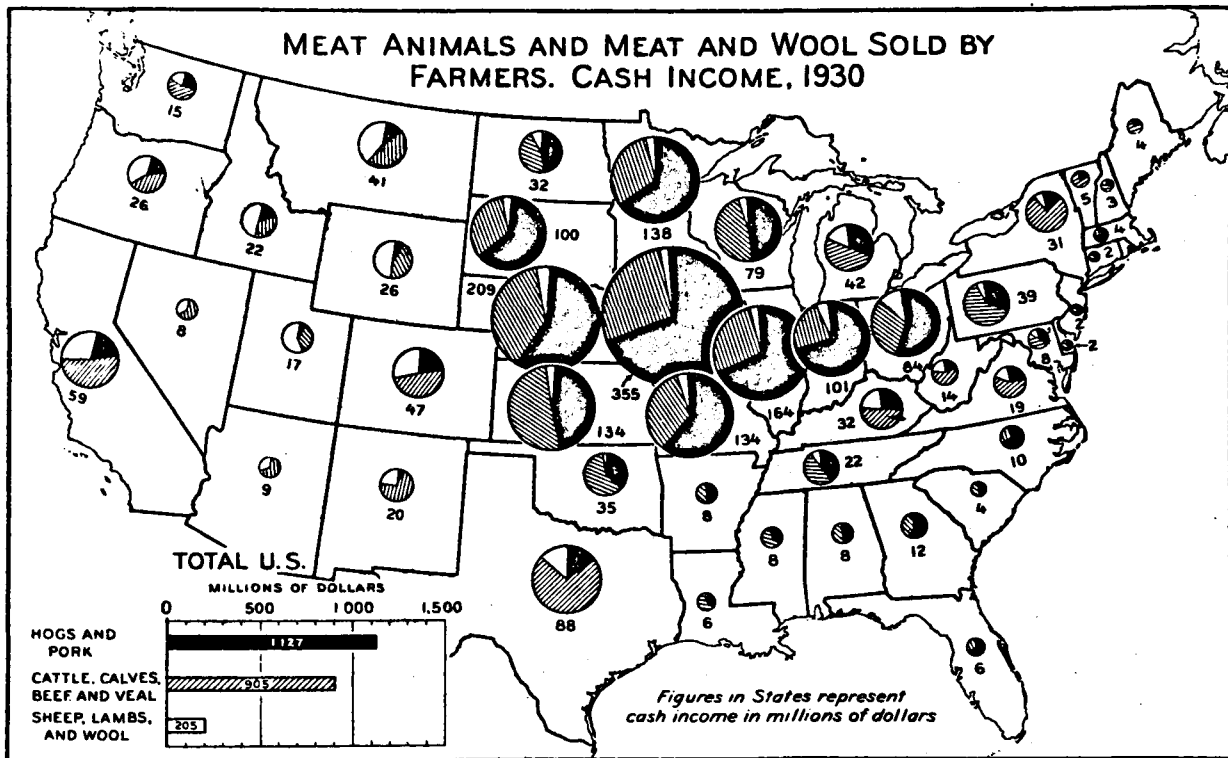
Though dairying is not ordinarily thought of as one of Iowa's leading industries, this state ranks third, behind Minnesota and Wisconsin, in numbers of dairy cows and fourth, behind those two and New York, in total milk production. Iowa ranks second in butter production, Minnesota ranking first.

Iowa's dairy industry is very closely connected with beef production. Unlike New York or Wisconsin, Iowa has a large proportion of dual purpose cows—35 percent of the dairy cows, according to the 1930 census—compared with 4 percent for Wisconsin and 3 percent for New York. When prices favor butter rather than beef, Iowa farmers raise more heifer calves for milk production. And when beef prices favor beef production they feed out the calves for market. Since the war dairying has been in a more favorable position than any of the other farm enterprises of Iowa, with the exception of poultry and eggs. Therefore emphasis has been placed upon milk production.

Very little of Iowa's milk goes into consumption as market milk. Cream is usually sold for butter making and the skim milk fed to hogs or calves.

Chickens

Poultry production has grown from a sideline of little importance to one of the greatest sources of cash income to the state. In most cases the poultry enterprise is still a sideline, but in the aggregate the income is considerable. In the



U. S. DEPARTMENT OF AGRICULTURE

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Fig. 28. This map shows that the north central states are the heaviest producers of meat animals. Iowa is the leading meat producing state. The western states produce more wool. Notice the concentration of hog production in Iowa.

years 1928-32, Iowa had more chickens on farms than any other state, with 7 percent of the country's total. Missouri was second.

Specialized poultry producers, like specialized dairymen, are few in Iowa. The bulk of the eggs of the state are produced on general farms where the housewife manages the flock. In some cases the flocks have been expanded to 1,000 or more hens and have become a major part of the farm business. More than 95 percent of the farms of the state reported poultry in the 1930 census.

Sheep

Sheep raising is not very important in Iowa, nor is Iowa very

important in the national sheep industry. Less than 1 percent of the state's annual farm income comes from sheep and wool. In the early days of the state sheep were of considerable utility to the pioneers, since they provided not only food, but clothing. But with the development of commercial corn-hog farming, the sheep has been forced out of Iowa to the grazing lands of the West.

Iowa farmers still feed out a number of lambs, both natives and western feeders. In certain parts of the state, particularly southern Iowa, considerable numbers of sheep are still raised and large amounts of wool clipped.

Horses and Mules

To provide power for cultivating the thousands of acres of tillable land, Iowa has the most horses and mules of any state. On Jan. 1, 1936, the Bureau of Agricultural Economics reported about 885,000 head of horses and mules. This represents a steady decline since the World War. Mule numbers increased until 1927 before declining, but horses started declining in 1919.

A big factor in this decline has been, of course, the increase in tractors. Horse numbers are now at such low ebb, however, that it is probable they will increase for several years.

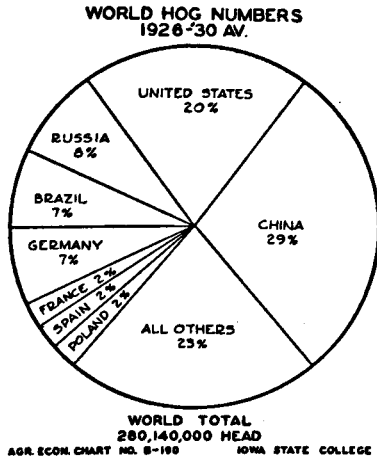


Fig. 29. The United States ranks second in world hog numbers. She produced from 1926 to 1930, an average of 20 percent of the total. China, Russia, Brazil and Germany were the other leading hog producers.

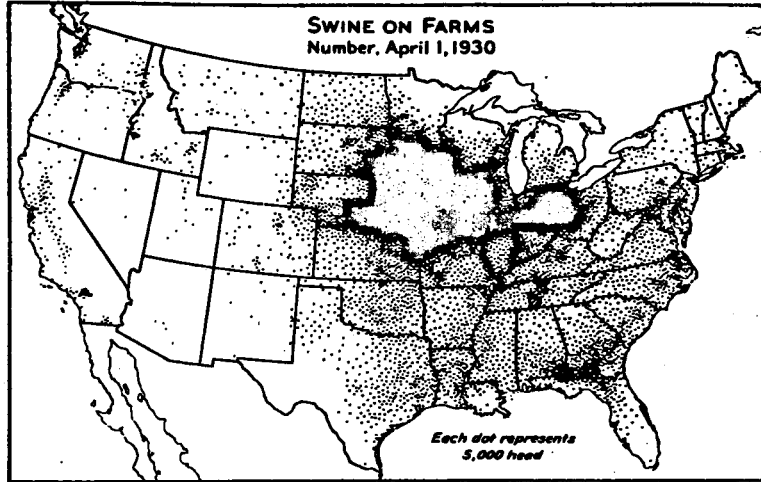


Fig. 30. The map shows that Iowa is in the center of swine production in the United States.

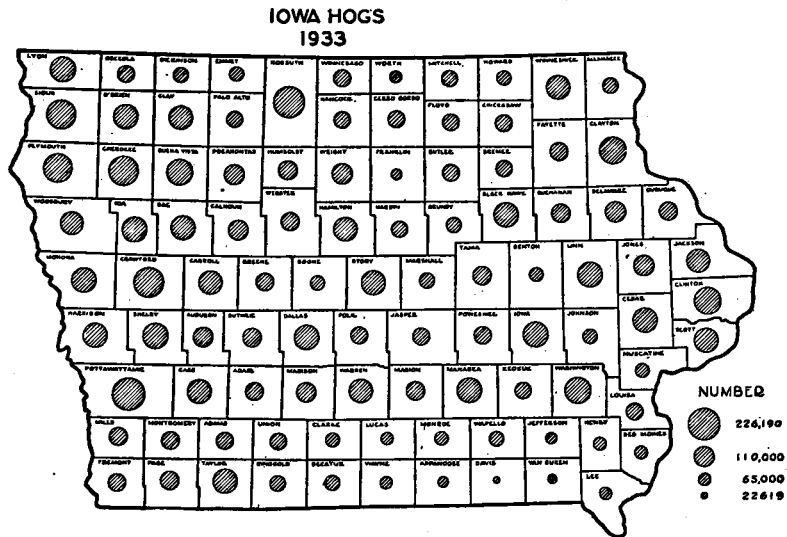


Fig. 31. Although there are not less than 22,000 hogs on farms in any county in Iowa, there is considerable variation among counties and areas in the state. The Western Livestock Area and the East Central Livestock Area have the most hogs on farms.
Data in table 28.

AGRICULTURAL ECONOMIC FACTS

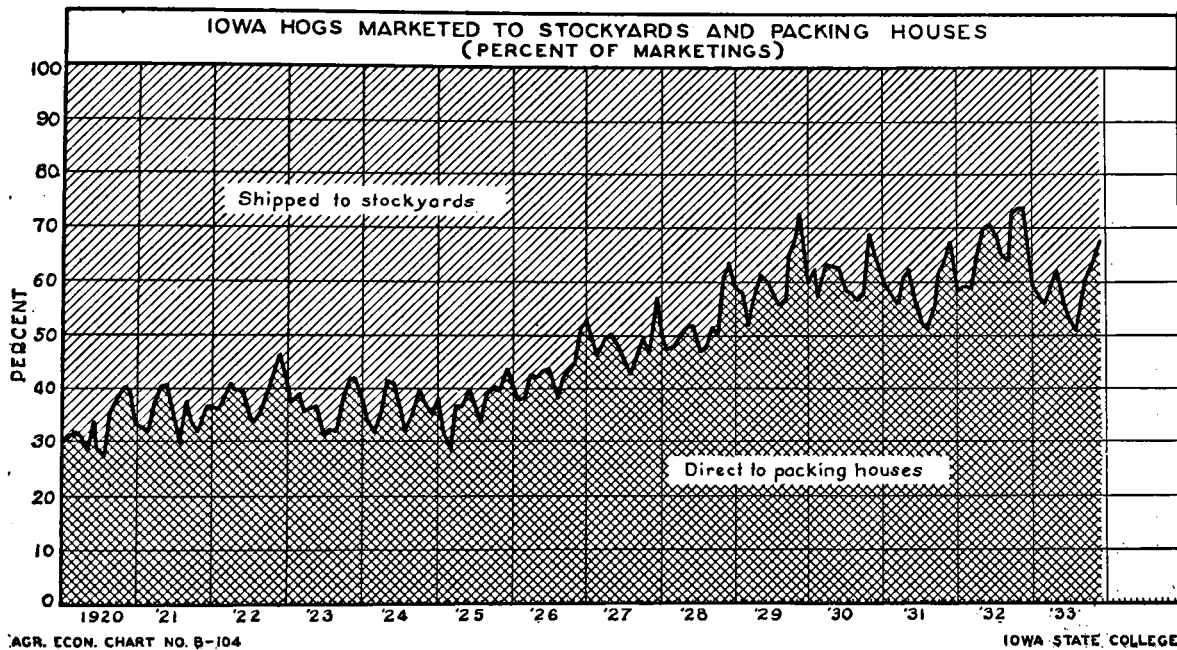
TABLE 28. HOGS RAISED TO DISPOSAL AGE (FARM AND MARKETING).

County	1982			1983		
	Spring	Fall	Total	Spring	Fall	Total
1. Buena Vista.....	125,767	24,264	150,031	132,894	28,143	161,037
Cherokee.....	140,531	29,104	169,753	144,655	29,085	173,720
Clay.....	97,206	20,066	117,273	102,204	22,045	124,249
Dickinson.....	59,614	12,350	71,964	63,216	13,999	77,215
Emmet.....	54,410	13,658	68,068	57,410	15,490	72,900
Lyon.....	117,157	12,597	129,754	116,173	12,992	129,165
O'Brien.....	104,673	18,406	123,079	103,022	18,306	121,328
Osceola.....	73,996	10,862	84,858	72,880	11,323	84,203
Palo Alto.....	84,561	17,636	102,197	88,581	21,256	109,837
Plymouth.....	141,638	22,983	164,621	147,605	22,306	169,911
Pocahontas.....	97,805	22,997	120,802	102,239	22,628	124,867
Sioux.....	175,640	20,189	195,829	172,938	20,401	193,339
2. Butler.....	57,529	17,144	74,673	59,117	15,850	74,967
Cerro Gordo.....	58,291	16,057	74,348	61,780	17,328	79,108
Floyd.....	64,093	20,011	84,104	67,514	20,455	87,969
Franklin.....	39,826	9,836	49,662	41,616	9,783	51,399
Hancock.....	82,335	22,386	104,721	82,477	21,979	104,456
Humboldt.....	83,366	25,742	109,108	86,720	18,223	104,943
Kossuth.....	181,985	42,490	224,475	185,317	41,327	226,644
Mitchell.....	59,408	19,287	78,695	65,464	21,366	86,830
Winnebago.....	69,920	18,117	88,037	71,319	19,982	91,301
Worth.....	44,227	11,565	55,792	48,641	12,545	61,186
Wright.....	89,643	23,058	112,701	95,650	21,253	116,903
3. Allamakee.....	56,714	13,046	69,760	59,085	11,187	70,272
Black Hawk.....	98,400	35,869	134,269	105,614	37,912	143,526
Bremer.....	59,283	20,506	79,789	61,620	18,874	80,494
Buchanan.....	74,661	34,896	109,557	79,212	34,155	113,367
Chickasaw.....	61,948	22,327	84,275	66,018	21,687	87,705
Clayton.....	106,105	28,914	135,019	148,480	25,953	174,433
Delaware.....	82,883	22,328	105,211	86,363	23,160	109,523
Dubuque.....	80,311	16,487	96,798	85,119	14,685	99,804
Fayette.....	81,173	27,058	108,231	87,071	27,870	114,941
Howard.....	49,572	19,277	68,849	51,561	18,819	70,380
Winnesiek.....	107,153	24,817	131,970	112,553	22,835	135,388
4. Audubon.....	80,553	23,399	103,952	83,107	23,704	106,811
Calhoun.....	79,320	22,770	102,090	81,006	24,006	105,012
Carroll.....	124,042	23,737	147,779	128,882	148,897	277,779
Crawford.....	157,932	22,759	180,691	166,570	23,980	190,550
Greene.....	69,052	18,288	87,340	74,112	19,445	93,557
Guthrie.....	79,272	29,947	109,219	86,114	29,205	115,319
Harrison.....	90,175	31,550	121,725	92,405	29,236	121,640
Ida.....	108,752	18,586	127,338	115,343	20,753	136,096
Monona.....	100,873	22,495	123,368	104,001	23,557	127,558
Sac.....	112,660	18,917	131,577	124,973	19,073	144,046
Shelby.....	108,375	26,918	135,293	111,628	24,575	136,203
Woodbury.....	116,749	26,416	143,165	117,611	25,464	143,074
5. Boone.....	73,589	23,307	96,896	78,000	21,934	99,934
Dallas.....	90,008	29,663	119,671	96,207	28,554	124,762
Grundy.....	55,629	14,766	70,395	55,934	14,770	70,704
Hamilton.....	94,908	23,992	118,900	100,142	22,421	122,563
Hardin.....	59,509	16,908	76,417	63,134	15,029	78,163
Jasper.....	56,594	22,589	79,183	59,716	20,125	79,841
Marshall.....	74,280	27,674	101,954	80,618	25,054	105,672
Polk.....	76,519	28,910	105,429	79,519	29,557	109,076
Poweshiek.....	72,195	35,826	108,021	76,186	36,488	112,674
Story.....	91,874	33,262	125,136	98,830	35,481	134,311
Tama.....	87,630	22,349	109,979	92,283	23,446	115,729
Webster.....	87,876	20,827	108,703	91,207	20,427	111,634
6. Benton.....	52,029	14,846	66,875	54,147	15,908	70,055
Cedar.....	96,672	45,724	142,396	101,285	43,212	144,497
Clinton.....	130,779	33,260	164,039	138,815	32,717	171,532
Iowa.....	102,667	43,529	146,196	109,532	42,935	152,467
Jackson.....	88,132	27,062	115,194	92,760	26,261	119,021
Johnson.....	60,959	38,680	99,639	62,200	37,086	99,286
Jones.....	83,884	28,024	111,908	87,989	27,272	115,261
Linn.....	96,513	46,009	142,522	107,672	48,820	156,492
Muscatine.....	62,007	33,971	95,978	65,492	34,353	99,845
Scott.....	104,044	33,745	137,789	106,659	30,780	137,439
7. Adair.....	75,652	31,680	107,332	80,573	30,819	111,392
Adams.....	54,311	28,636	82,947	55,623	26,026	81,649
Cass.....	107,725	45,221	152,946	113,421	42,467	155,888
Fremont.....	61,137	24,324	85,461	63,776	21,021	84,797
Mills.....	68,134	20,880	89,014	69,829	17,695	87,524
Montgomery.....	77,400	29,638	107,038	82,369	25,569	107,938
Page.....	73,380	35,997	109,377	72,137	32,664	104,801
Pottawattamie.....	176,194	49,996	226,190	181,172	40,129	221,301
Taylor.....	76,809	44,015	120,824	78,535	37,239	115,774
8. Appanoose.....	27,633	17,075	44,708	30,461	17,696	48,157
Clarke.....	38,303	22,226	60,529	43,061	23,464	66,525
Decatur.....	44,311	25,744	70,055	51,114	27,224	78,338
Lucas.....	32,057	18,618	50,675	34,127	21,065	55,192
Madison.....	69,656	39,403	109,059	76,015	37,519	113,534
Marion.....	71,354	38,706	110,060	72,402	37,618	110,020
Monroe.....	36,088	21,792	57,880	39,698	23,796	63,490
Ringgold.....	47,215	25,632	72,847	53,621	25,326	78,947
Union.....	49,751	26,266	76,017	52,089	24,331	76,420
Warren.....	87,179	48,696	135,875	93,554	49,200	142,754
Wayne.....	32,651	18,544	51,195	35,376	19,818	55,194

TABLE 28. HOGS RAISED TO DISPOSAL AGE (FARM AND MARKETING)—Continued.

County	1933			1932		
	Spring	Fall	Total	Spring	Fall	Total
9. Davis	13,296	9,195	22,491	12,970	9,152	22,122
Des Moines	36,273	20,516	56,789	36,563	20,399	56,962
Henry	35,814	21,014	56,828	36,107	21,814	57,921
Jefferson	28,357	19,731	48,088	29,129	18,768	47,897
Keokuk	47,956	30,592	78,548	51,969	30,768	82,737
Lee	31,205	21,524	52,739	32,848	22,255	55,104
Louisa	51,703	29,400	81,103	53,939	28,384	82,323
Mahaska	93,630	51,060	144,693	96,066	52,329	148,395
Van Buren	20,997	12,677	33,674	20,927	13,429	34,356
Wapello	42,003	24,355	66,385	43,377	24,369	67,746
Washington	94,122	64,914	159,036	95,744	60,853	156,597

Source: Iowa Corn-Hog Board of Review. Office of Leslie M. Carl, Des Moines, Iowa.



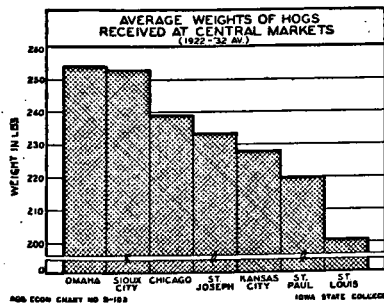
AGR. ECON. CHART NO. B-104

IOWA STATE COLLEGE

Fig. 32. The chart shows that there is a trend toward direct marketing of hogs. In 1920 only 32.6 percent of Iowa hogs were marketed direct to packing houses. By 1932, there were over twice as many, or 66.1 percent direct. The chief reasons for this increased direct

marketing are found in the transportation developments, both rail and motor truck, as they affect convenience and costs of moving livestock direct and through public markets and of transporting live animals as compared with livestock products; in comparative la-

bor costs among packers in different areas; in differences between direct and public market channels with respect to costs of marketing, including shrinkage, commission charges, yardage fees and other marketing costs. Data in table 29.



HOG ECON. CHART NO. B-103

Fig. 33. The chart shows that there is a variation in weights in the hogs received at the central markets. Part of this variation is due to the difference in farm feed supplies and farm management in the territory surrounding the markets.

Some markets also build up a reputation for various weight hogs. This is especially true of St. Louis, with a reputation for light shipping hogs and Omaha for heavier hogs.

Data in table 30.

BASEBOOK OF IOWA

TABLE 29. MARKETINGS OF HOGS FROM IOWA FARMS ANNUALLY AND MONTHLY 1920-1933—Continued.

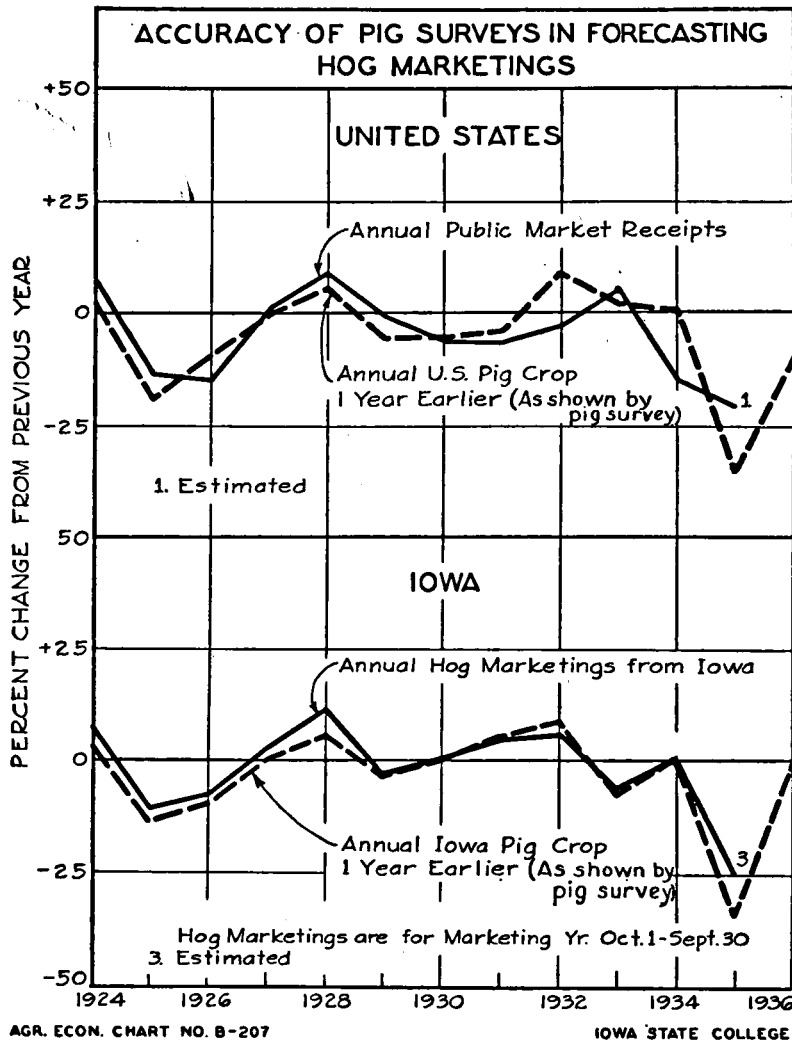
	Total movement	Monthly percent	Stockyards		Packing houses		Total movement	Monthly percent	Stockyards		Packing houses	
			Numbers	Percent	Numbers	Percent			Numbers	Percent	Numbers	Percent
1932												
January	1,790,212	14.3	740,847	41.4	1,049,365	58.6						
February	1,540,997	12.3	622,531	40.4	918,466	59.6						
March	1,081,187	8.6	446,704	41.3	634,483	58.7						
April	889,826	7.1	311,576	35.0	578,250	65.0						
May	946,867	7.6	282,058	29.8	664,809	70.2						
June	851,297	6.8	244,756	28.8	606,541	71.2						
July	750,525	6.0	236,221	31.5	514,304	68.5						
August	804,335	6.4	276,577	34.4	527,758	65.6						
September	787,352	6.3	282,176	35.8	505,176	64.2						
October	806,065	6.4	216,833	26.9	589,232	73.1						
November	897,449	7.2	230,520	25.7	666,929	74.3						
December	1,372,250	11.0	352,121	25.7	1,020,129	74.3						
Annual	12,518,362	100.0	4,242,920	33.9	8,275,442	66.1						
1933												
January	1,736,993	13.3	696,467	40.1	1,040,526	59.9						
February	1,333,894	10.2	558,659	41.9	775,235	58.1						
March	1,084,734	8.3	475,230	43.8	609,504	56.2						
April	896,808	6.9	352,129	39.3	544,679	60.7						
May	919,634	7.0	344,210	37.4	575,424	62.6						
June	943,369	7.2	414,427	43.9	528,942	56.1						
July	859,774	6.6	404,739	47.1	455,035	52.9						
August	723,669	5.5	353,166	48.8	370,503	51.2						
September	760,596	5.8	337,417	44.4	423,179	55.6						
October	908,094	7.0	355,489	39.1	552,605	60.9						
November	1,190,630	9.1	430,769	36.2	759,861	63.8						
December	1,717,613	13.1	553,707	32.2	1,163,906	67.8						
Annual	13,075,808	100.0	5,276,409	40.4	7,799,399	59.6						

Source: U. S. D. A., Bureau of Agricultural Economics, Office of Leslie M. Carl, Des Moines, Iowa.

TABLE 30. AVERAGE WEIGHT OF HOGS.

	Chicago ¹	Kansas City ¹	Omaha ¹	St. Louis ¹	St. Joseph ¹	Sioux City ¹	St. Paul ¹	Slaughtered under Federal inspection ²
1934	228	217	236	210	222	237	215	221
1933	243	231	260	215	236	258	223	231
1932	240	229	253	210	230	254	211	230
1931	233	228	257	206	228	255	219	233
1930	236	223	255	202	228	262	231	231
1929	238	231	254	204	232	253	234	232
1928	235	235	254	205	237	257	225	229
1927	239	235	261	208	240	260	217	233
1926	247	237	258	212	241	240	215	235
1925	234	233	243	211	229	236	218	226
1924	234	225	245	200	231	243	213	222
1923	238	218	256	186	233	256	214	225
1922	239	...	256	181	235	259	221	226
1921	234	...	257	185	235	252	212	226
1920	235	...	246	183	235	246	218	...
1919	233	...	245	...	227	251	...	...
1918	234	...	249	...	230	248	...	...
1917	215	...	...	...	228	225	...	...
1916	210	...	...	...	219	231	...	...
1915	219	...	...	...	...	...	...	...
1914	231	...	...	...	...	...	...	...
1913	228	...	...	...	...	...	...	...
1912	226	...	...	...	...	...	...	...
1911	228	...	...	...	...	...	...	...
1910	235	...	...	...	...	...	...	...
1909	218	...	...	...	...	...	...	...
1908	216	...	...	...	...	...	...	...
1907	231	...	...	...	...	...	...	...
1906	226	...	...	...	...	...	...	...
1905	222	...	...	...	...	...	...	...
1904	220	...	...	...	...	...	...	...
1903	227	...	...	...	...	...	...	...
1902	220	...	...	...	...	...	...	...
1901	226	...	...	...	...	...	...	...
1900	223	...	...	...	...	...	...	...
1899	237	...	...	...	...	...	...	...
1898	234	...	...	...	...	...	...	...
1897	242	...	...	...	...	...	...	...
1896	246	...	...	...	...	...	...	...
1895	230	...	...	...	...	...	...	...
1894	233	...	...	...	...	...	...	...
1893	240	...	...	...	...	...	...	...
1892	223	...	...	...	...	...	...	...
1891	221	...	...	...	...	...	...	...
1890	234	...	...	...	...	...	...	...
1889	248	...	...	...	...	...	...	...
1888	229	...	...	...	...	...	...	...
1887	228	...	...	...	...	...	...	...
1886	228	...	...	...	...	...	...	...
1885	239	...	...	...	...	...	...	...
1884	240	...	...	...	...	...	...	...
1883	248	...	...	...	...	...	...	...
1882	232	...	...	...	...	...	...	...
1881	240	...	...	...	...	...	...	...
1880	246	...	...	...	...	...	...	...
1879	248	...	...	...	...	...	...	...

Source: 1. Drovers Journal Yearbook of Figures 1934 Edition.
2. U. S. D. A. Bureau of Agricultural Economics, "Livestock, Meats and Wool Market Statistics and Related Data, 1934."



AGR. ECON. CHART NO. B-207

IOWA STATE COLLEGE

Fig. 34. The chart shows that estimates based on pig surveys are fairly accurate in forecasting the number of hog marketings. The forecasts for Iowa were more accurate than for the United States. Data in table 32.

TABLE 32. ACCURACY OF PIG SURVEYS IN FORECASTING HOG MARKETINGS.

Iowa			
Marketing Year	Hog marketing in percentage of previous year	Pig Crop Year	Pig crop in percentage of previous year
1923-24.....	107.4	1923	103.1
1924-25.....	89.5	1924	86.1
1925-26.....	92.3	1925	90.6
1926-27.....	103.0	1926	100.8
1927-28.....	111.3	1927	105.8
1928-29.....	96.7	1928	96.6
1929-30.....	100.8	1929	100.8
1930-31.....	104.7	1930	105.4
1931-32.....	105.6	1931	108.5
1932-33.....	93.5	1932	92.1
1933-34.....	99.9	1933	100.4
1934-35.....	75.0 ¹	1934	66.8
1935-36.....	.....	1935	99.0 ²

United States			
Marketing Year	Hog marketing in percentage of previous year	Pig Crop Year	Pig crop in percentage of previous year
1923-24.....	106.9	1923	102.5
1924-25.....	85.4	1924	81.0
1925-26.....	85.0	1925	90.0
1926-27.....	101.4	1926	100.0
1927-28.....	109.0	1927	106.0
1928-29.....	99.5	1928	94.0
1929-30.....	93.4	1929	94.6
1930-31.....	93.3	1930	96.0
1931-32.....	97.1	1931	109.0
1932-33.....	105.4	1932	102.4
1933-34.....	84.2	1933	100.6
1934-35.....	79.0 ¹	1934	65.0
1935-36.....	.....	1935	90.0 ²

TABLE 31. POUNDS OF HOGS MARKETED FOR EACH POUND OF HOGS SLAUGHTERED ON FARMS.

Regions	1924-28	1929	1930	1931
United States.....	3.48	3.75	3.64	4.17
North Atlantic States.....	0.62	0.82	0.76	0.63
North Central States.....	8.34	8.72	8.49	9.47
North East Central.....	5.14	5.11	4.86	5.30
Northwest Central.....	11.49	12.30	11.96	13.16
Iowa.....	22.21	24.62	24.81	25.34
South Atlantic States.....	0.31	0.32	0.30	0.27
South Central States.....	0.53	0.62	0.52	0.42
Western States.....	2.88	3.08	2.66	3.28

Source: Based on the figures for "Shipments and Local Slaughter" and "Farm Slaughter" reported in the "Preliminary Report on Farm Value, Gross Income and Cash Income from Farm Production," Part 1, U. S. D. A., Bur. of Ag. Ec. (Summarised Annually in Yearbook of Agriculture.)

¹Estimated.
²Est. from June 1, 1935 pig survey and breeding intentions for fall of 1935.
 Source: "Livestock in Iowa Agriculture," Leslie M. Carl, Sr. Ag. Statistician, U. S. D. A., Des Moines, Iowa.

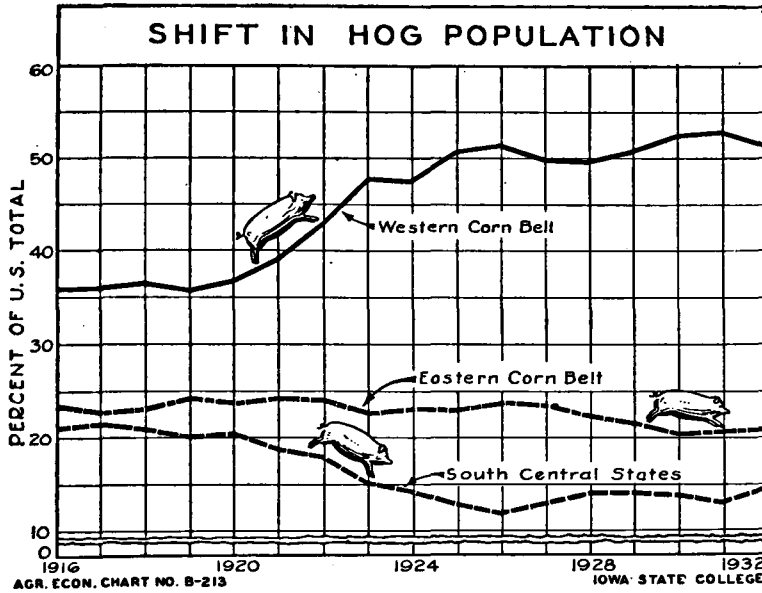
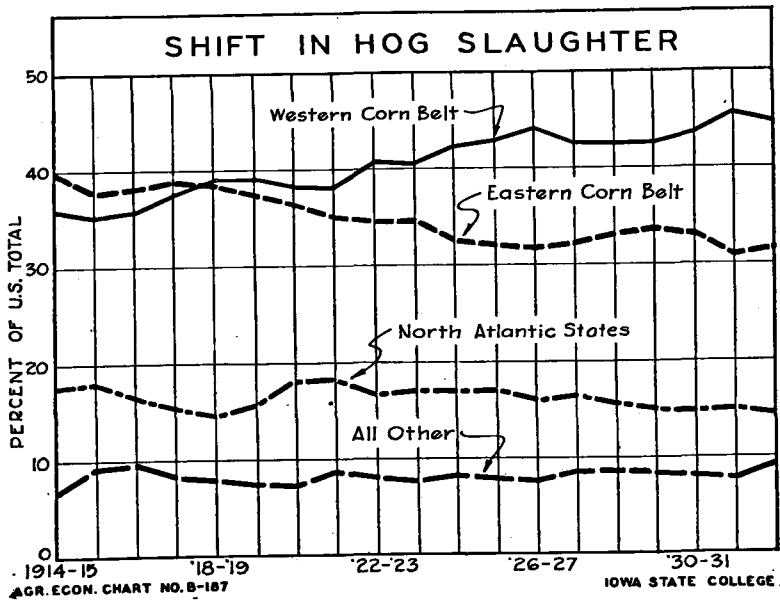


Fig. 35. Most of the increase in hog numbers in the United States since 1914 occurred in the western Corn Belt states. The other Corn Belt states lost approximately what the western states gained.

Fig. 36. Important changes have occurred in the geographic distribution of hog slaughter since the World War. The proportion of hogs slaughtered in the five western Corn Belt states has increased greatly, while that in other regions has decreased or continued relatively unchanged.

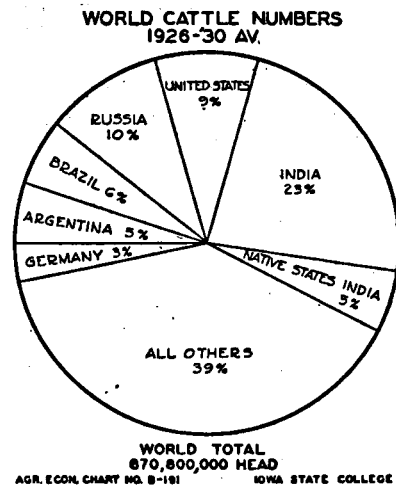


AGRICULTURAL ECONOMIC FACTS

TABLE 84. MARKETING OF CATTLE FROM IOWA FARMS ANNUALLY AND MONTHLY 1920-1984-Continued.

Table with columns for Year, Total movement, Monthly percent, Stock yards (Numbers, Percent), and Packing houses (Numbers, Percent). Data spans from 1928 to 1934.

Source: U. S. D. A., Bureau of Agricultural Economics, Office of Leslie M. Carl, Des Moines, Iowa.



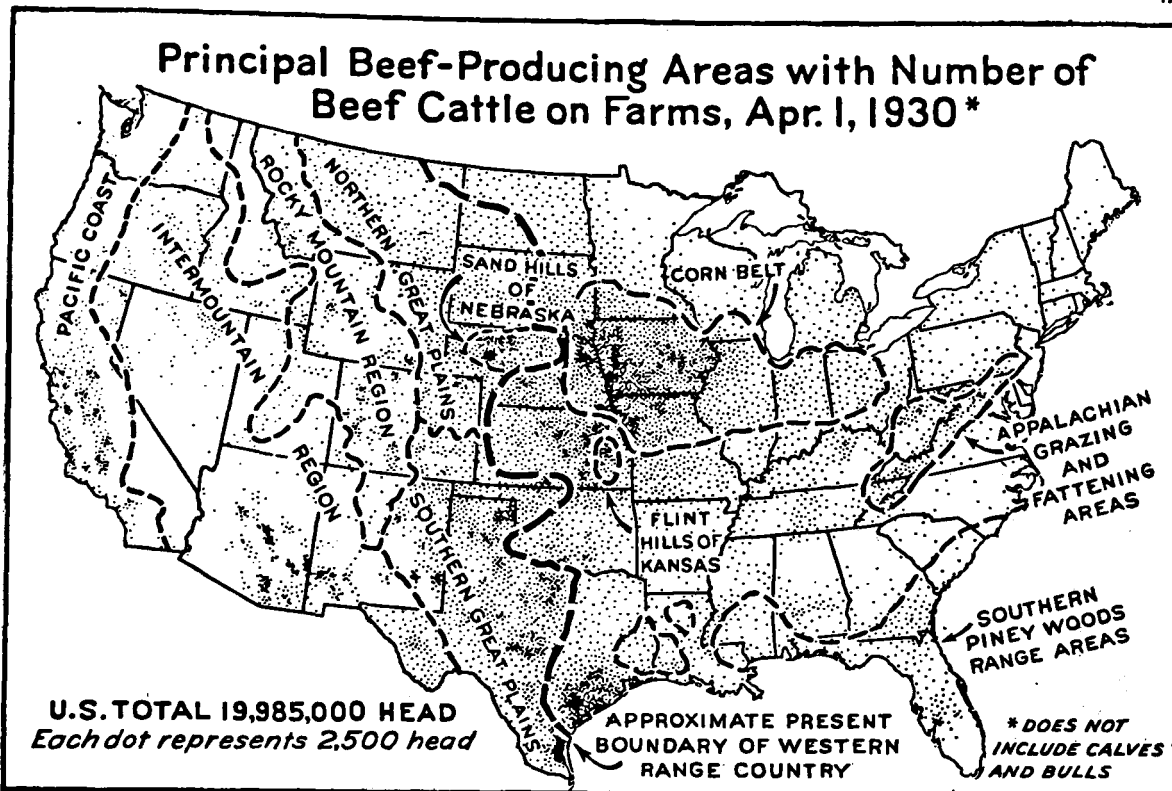
WORLD TOTAL 670,800,000 HEAD AGR. ECON. CHART NO. B-181 IOWA STATE COLLEGE

Fig. 37. The United States ranks third in world production of cattle, averaging 9 percent for 1926-30.

TABLE 85. SHIPMENTS OF STOCKER AND FEEDER CATTLE INTO IOWA. 1926-1930

Table with columns for Month, Omaha (Five-year average, Percent of annual average), Kansas City (Five-year average, Percent of annual average), Sioux City (Five-year average, Percent of annual average), and St. Paul (Five-year average, Percent of annual average).

Source: U. S. D. A., Bureau of Agricultural Economics, from reports of the Bureau of Animal Industry.



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Fig. 38. The map shows that Iowa is a leading state in beef production. Although it did not have the largest number of cattle on farms, it ranked first in the value of production.

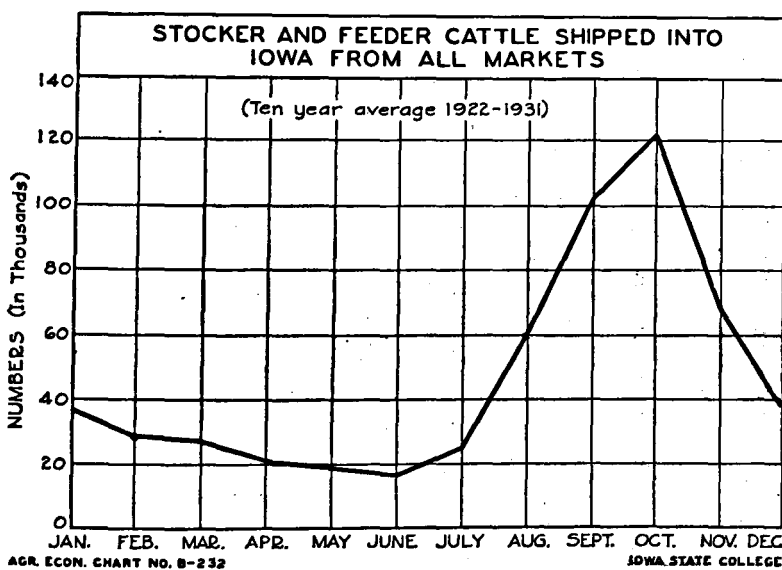


Fig. 39. The chart shows that a large percentage of the stoker and feeder cattle are shipped into Iowa in August, September, October and November.

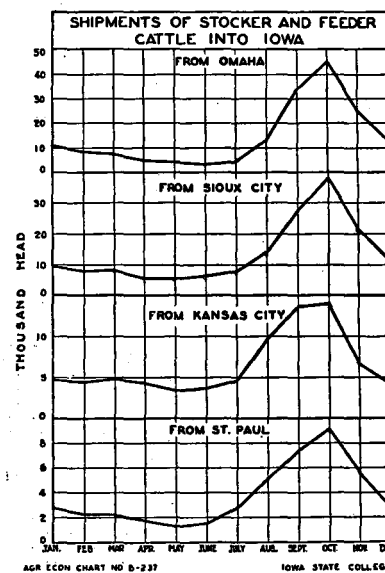
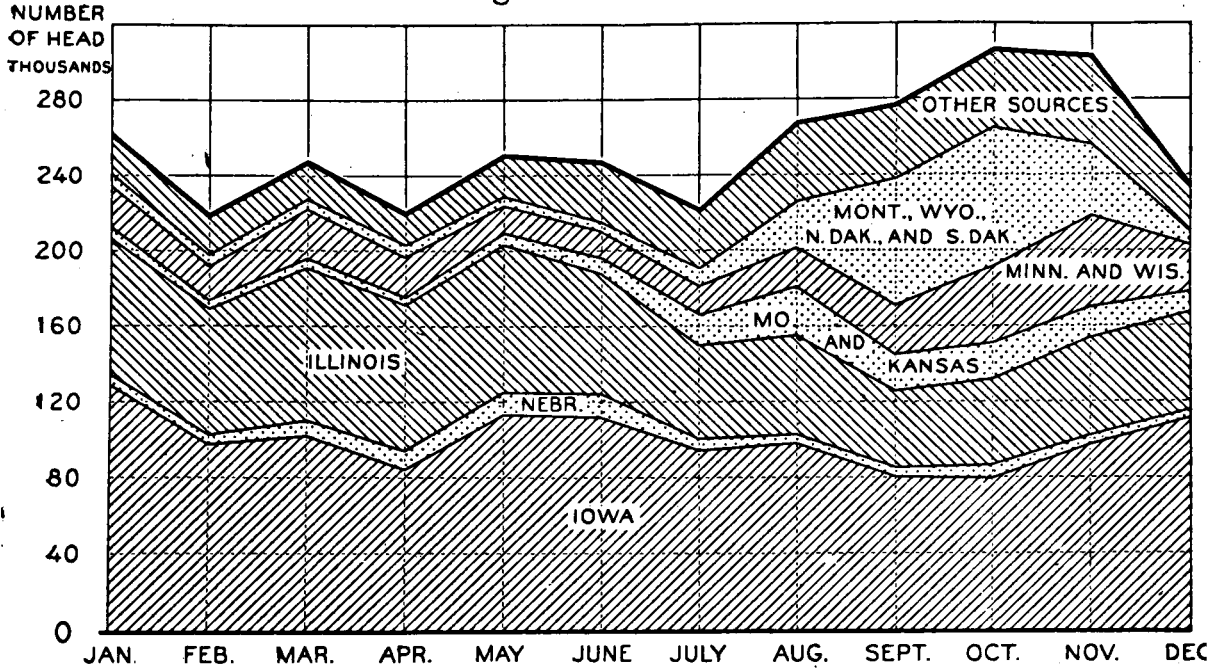


Fig. 40. Over a 5-year period from 1926-30, Omaha sent more stoker and feeder cattle into Iowa than any other market. Sioux City was a close second, with Kansas City, third. Data in table 35.

AGRICULTURAL ECONOMIC FACTS
 STATE ORIGIN OF CATTLE RECEIPTS AT CHICAGO
 Average of 1926 and 1927



U. S. DEPARTMENT OF AGRICULTURE

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Fig. 41. The chart shows when Iowa and other states market their cattle.

TABLE 86. FIVE-YEAR AVERAGES—SHIPMENTS OF BEEF STEERS—
 IOWA TO CHICAGO.

	Average all grades	Choice and prime	Good	Medium	Common	Cheap
1925-29						
January.....	59,280	2,333	14,128	29,452	12,241	926
February.....	46,109	1,981	11,875	24,518	7,282	454
March.....	47,110	2,140	13,265	22,838	8,304	562
April.....	45,601	3,936	14,202	21,874	5,171	418
May.....	58,184	5,177	20,081	27,038	5,337	552
June.....	58,608	9,476	26,186	19,020	3,107	819
July.....	49,538	11,414	22,409	12,563	2,712	500
August.....	51,159	8,995	27,708	11,807	2,409	240
September.....	45,041	6,741	23,589	10,716	3,668	329
October.....	41,008	6,046	20,814	9,005	4,675	467
November.....	46,054	4,486	17,413	16,231	7,353	571
December.....	54,657	3,543	17,160	22,352	10,802	711
Totals.....	602,350	66,268	228,830	227,354	73,260	6,548
1922-26						
January.....	72,799	1,670	12,124	38,286	18,556	2,163
February.....	56,853	1,483	9,120	30,789	14,206	1,255
March.....	58,222	2,160	11,136	30,176	12,888	1,367
April.....	58,263	3,657	12,731	31,187	9,439	1,249
May.....	72,983	4,963	20,666	35,912	9,923	1,519
June.....	68,258	10,186	22,437	28,534	5,704	1,397
July.....	60,152	9,712	22,948	21,935	4,382	1,175
August.....	58,200	10,312	26,357	17,866	3,052	613
September.....	51,625	8,035	26,005	13,369	3,473	743
October.....	51,490	10,262	18,965	14,809	6,377	1,077
November.....	56,707	5,501	15,778	23,892	10,236	1,300
December.....	76,639	3,988	14,457	37,252	19,017	1,925
Totals.....	742,191	71,929	212,724	324,502	117,253	15,783
1923-27						
January.....	70,289	2,299	1,432	36,441	15,822	1,406
February.....	55,981	2,135	11,615	29,455	11,951	825
March.....	55,641	2,208	12,755	27,891	11,784	1,003
April.....	56,098	3,709	14,491	28,251	8,640	1,007
May.....	69,459	4,844	19,886	34,183	9,373	1,172
June.....	68,743	9,400	25,616	28,018	4,669	1,039
July.....	59,536	8,852	23,825	21,847	4,152	860
August.....	61,087	9,535	29,797	18,109	3,179	468
September.....	49,937	6,368	25,169	14,069	3,762	571
October.....	47,866	8,195	17,379	15,144	6,198	950
November.....	53,949	5,330	15,123	22,672	9,686	1,139
December.....	70,473	3,966	15,004	32,469	17,183	1,681
Totals.....	719,059	66,842	224,978	308,629	106,399	12,121

BASEBOOK OF IOWA

**TABLE 36. FIVE-YEAR AVERAGES—SHIPMENTS OF BEEF STEERS—
IOWA TO CHICAGO—Continued.**

	Average all grades	Choice and prime	Good	Medium	Common	Cheap
1924-28						
January.....	64,621	2,426	14,654	31,713	14,593	1,235
February.....	51,572	2,083	12,070	27,325	9,440	653
March.....	52,432	2,101	13,159	26,284	10,088	799
April.....	48,971	3,312	13,866	25,029	6,172	392
May.....	63,909	4,584	19,792	32,306	6,542	685
June.....	63,686	9,037	26,218	24,052	3,555	860
July.....	52,964	9,955	21,368	17,772	3,313	556
August.....	53,341	9,713	26,614	14,422	2,316	276
September.....	45,373	7,632	21,861	11,724	3,753	403
October.....	41,971	8,196	17,479	10,382	5,351	563
November.....	49,941	5,113	15,136	19,968	8,884	841
December.....	63,838	3,827	15,531	29,936	13,809	1,385
Totals.....	652,838	67,978	217,748	270,373	137,809	8,847
1922-31						
	10-Year totals	Prime and choice	Good	Medium	Common and cheap	
January.....	593,753	16,001	133,454	299,115	145,183	
February.....	470,923	13,176	99,255	251,684	106,808	
March.....	485,014	16,743	116,810	246,264	105,197	
April.....	501,324	31,252	134,668	254,252	81,152	
May.....	625,284	44,646	203,506	290,468	86,664	
June.....	615,484	89,210	245,563	223,579	57,132	
July.....	539,254	103,185	233,195	158,240	44,634	
August.....	539,778	95,406	269,104	139,542	35,726	
September.....	485,218	86,174	253,449	104,988	40,607	
October.....	444,917	84,589	192,973	108,653	58,702	
November.....	477,607	50,755	161,665	177,858	87,329	
December.....	605,414	34,564	154,429	269,518	146,903	
Totals.....	6,383,970	665,701	2,198,071	2,524,161	996,037	

Source: U. S. D. A., Bureau of Agricultural Economics, Office of Leslie M. Carl, Des Moines, Iowa.

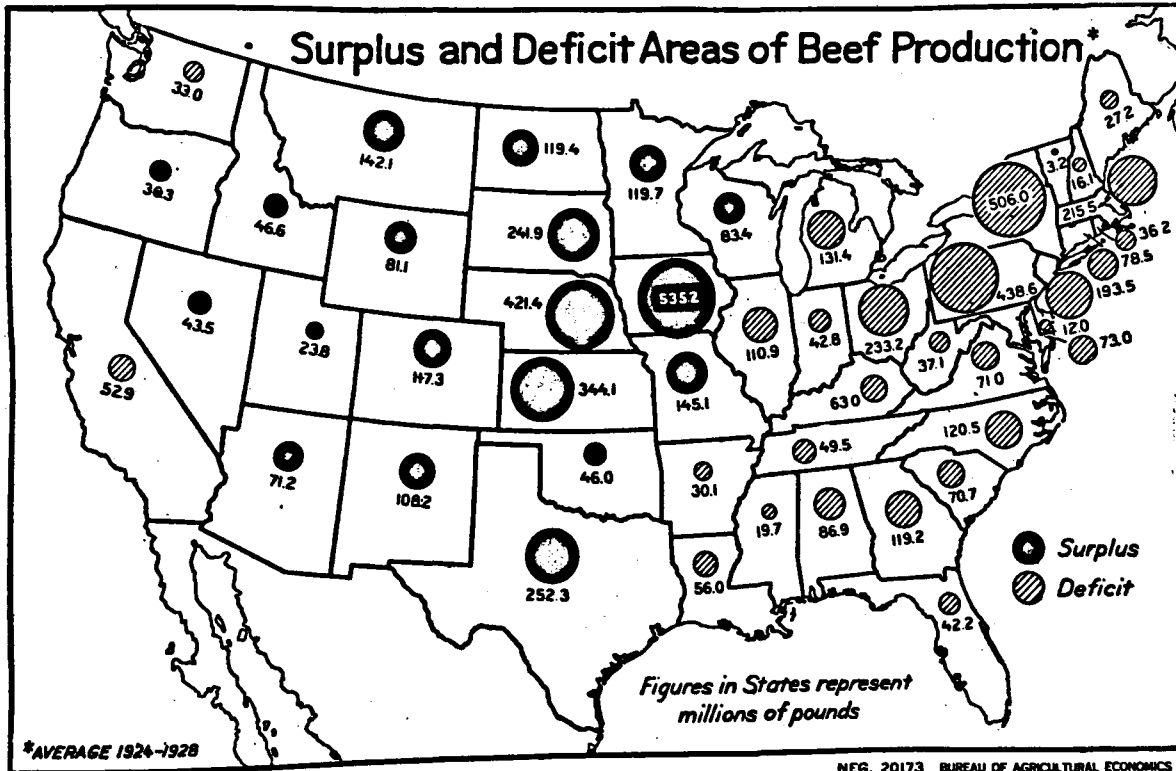


Fig. 42. The chart shows that Iowa is the leading state in the production of beef in excess of consumption. A large

percentage of Iowa's beef goes to the east where there is a deficit in production.

IOWA CATTLE
1935

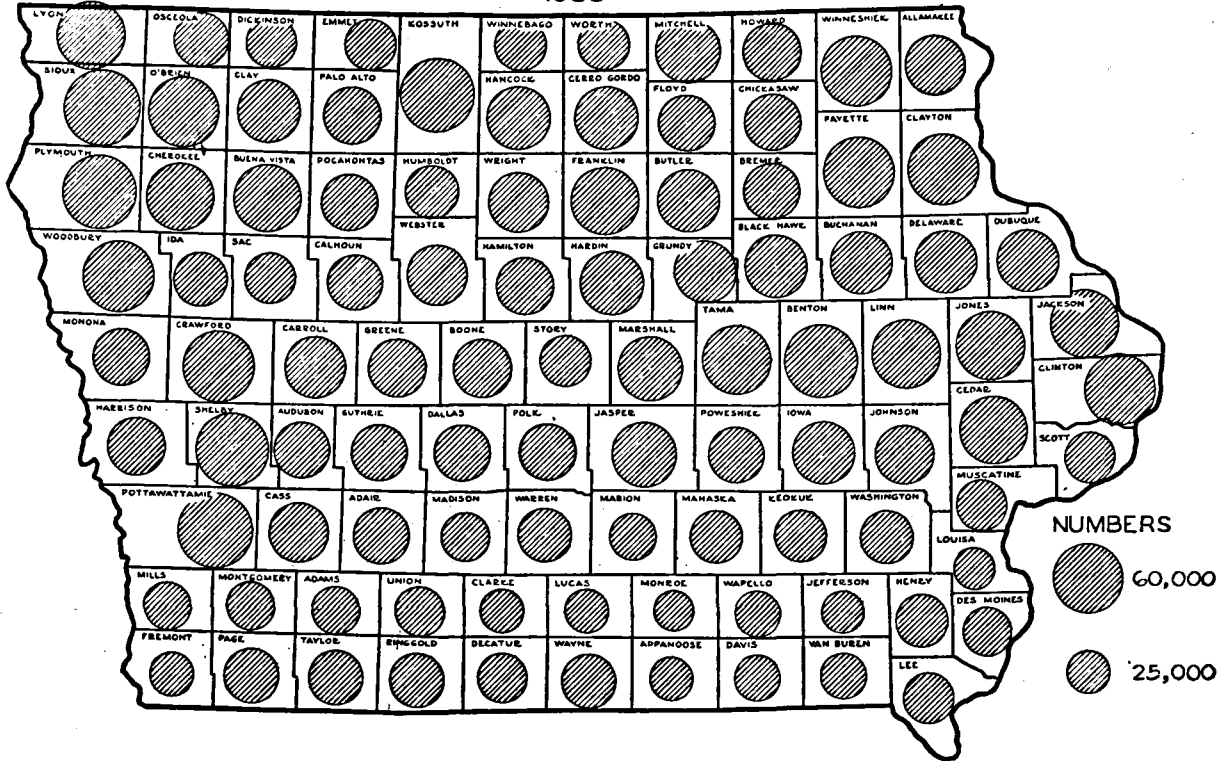


Fig. 43. The map shows the variation in cattle numbers among counties. Data in table 33.

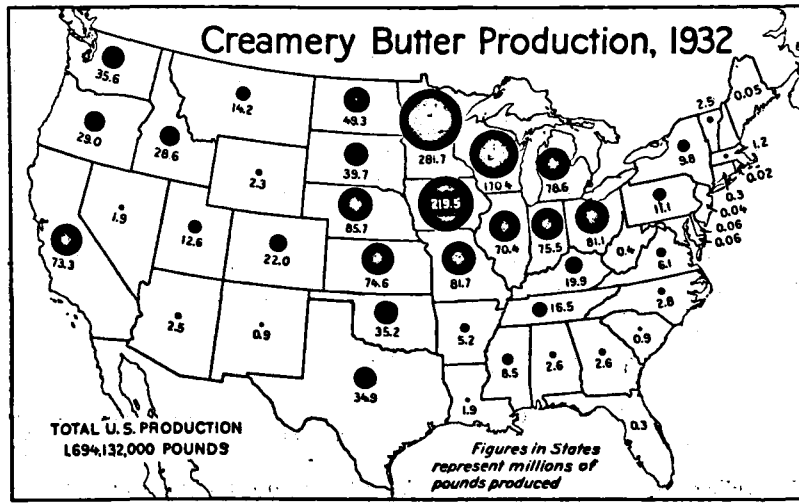


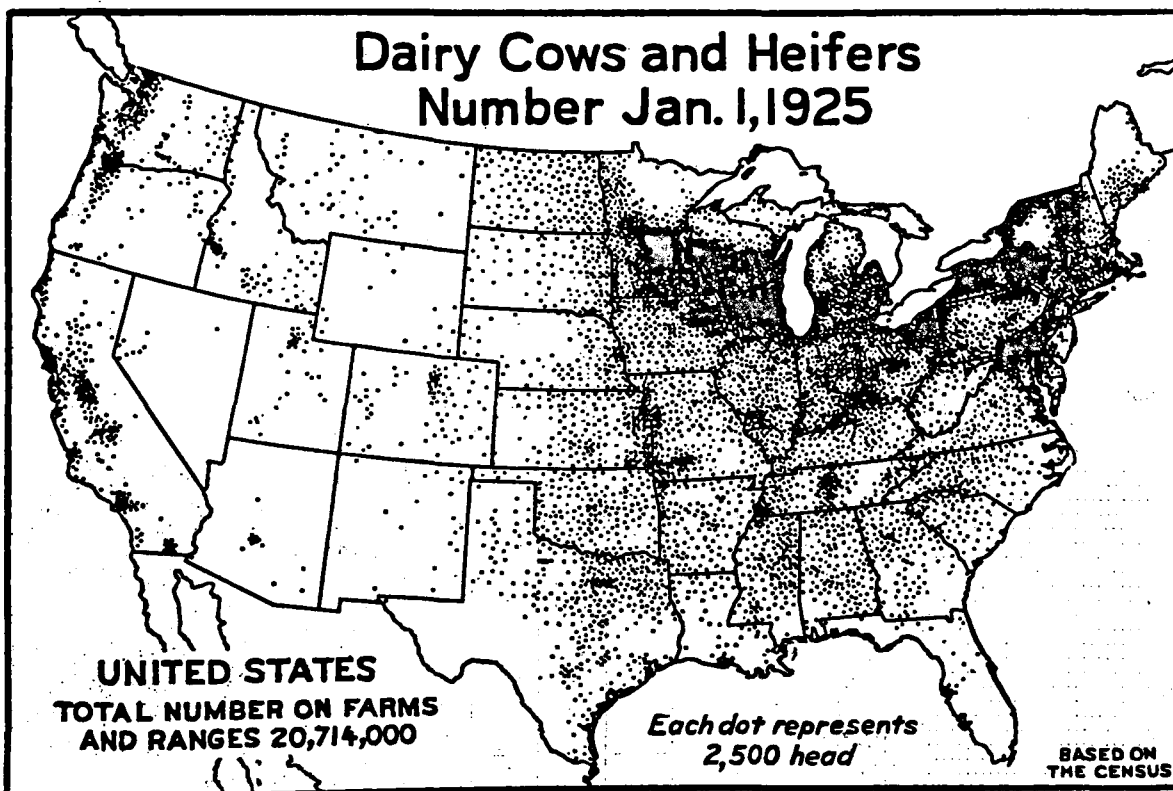
Fig. 44. The map shows that Iowa is in the center of the production of creamery butter. It ranks second only to Minnesota in production of creamery butter.

PERCENT GROSS DAIRY INCOME IS OF GROSS FARM INCOME (1929-'32 AV.)



Fig. 45. Iowa, though an important dairy state, gets only a small part of its farm income from dairy products when compared with other important dairy states. Wisconsin and

New York get about half their farm income from dairy products and sales of calves.



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Fig. 46. The chart shows that the eastern half of the United States, especially the northeastern part, has the most

dairy cows and heifers on farms. The northeastern part of Iowa has a larger number of cattle than any other part.

IOWA COWS AND HEIFERS
- 2 YRS. OLD AND OVER -
1935

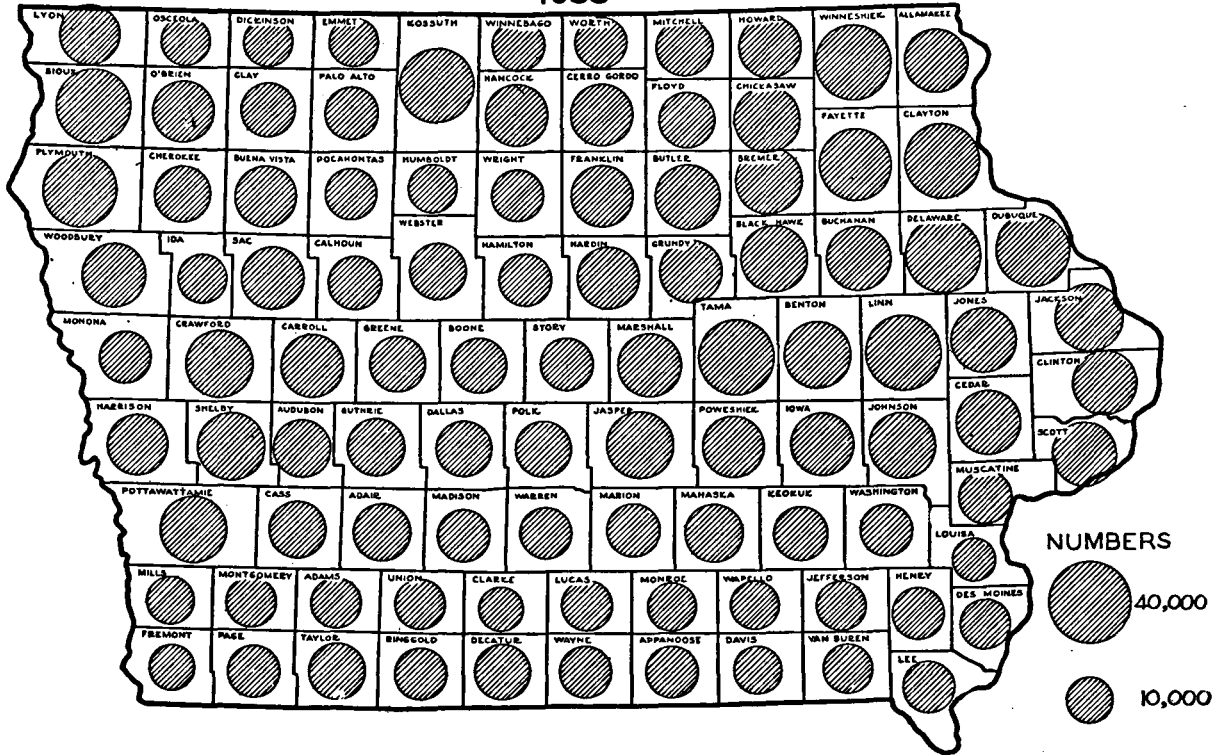


Fig. 47. The chart shows the variation among counties in the number of dairy cows on farms in Iowa. Data in table 33.

TABLE 87. IOWA CREAMERY BUTTER PRODUCTION (Lbs.).

Year	(pounds)
1910	93,911,000
1911	96,695,584
1912	91,738,573
1913	96,953,183
1914	92,865,921
1915	89,834,005
1916	97,628,788
1917	94,269,685
1918	83,348,309
1919	90,915,938
1920	89,179,612
1921	98,740,419
1922	124,168,089
1923	132,878,353
1924	140,497,549
1925	165,834,574
1926	172,257,863
1927	192,442,103
1928	196,068,448
1929	214,561,518
1930	216,318,540
1931	217,770,516
1932	219,100,377
1933	237,436,657
1934	237,824,902

Source: 47th Annual Report of Iowa Dairy Food Division.

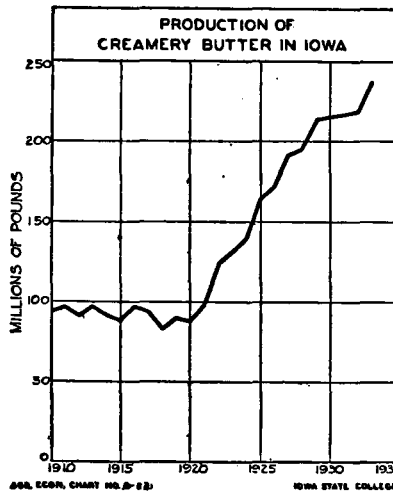


Fig. 48. Creamery butter production has increased sharply since 1920. Since that time butter prices have been relatively higher than most other Iowa products, so that farmers have found it profitable to go into dairying more intensely than before. As a result both butter and milk production have doubled in the last 14 years.

Cows kept for milk have increased in the state by approximately half a million animals since 1900. This has of course increased the total production of dairy produce. Another factor in this increase was increased production per cow.

Data in table 37.

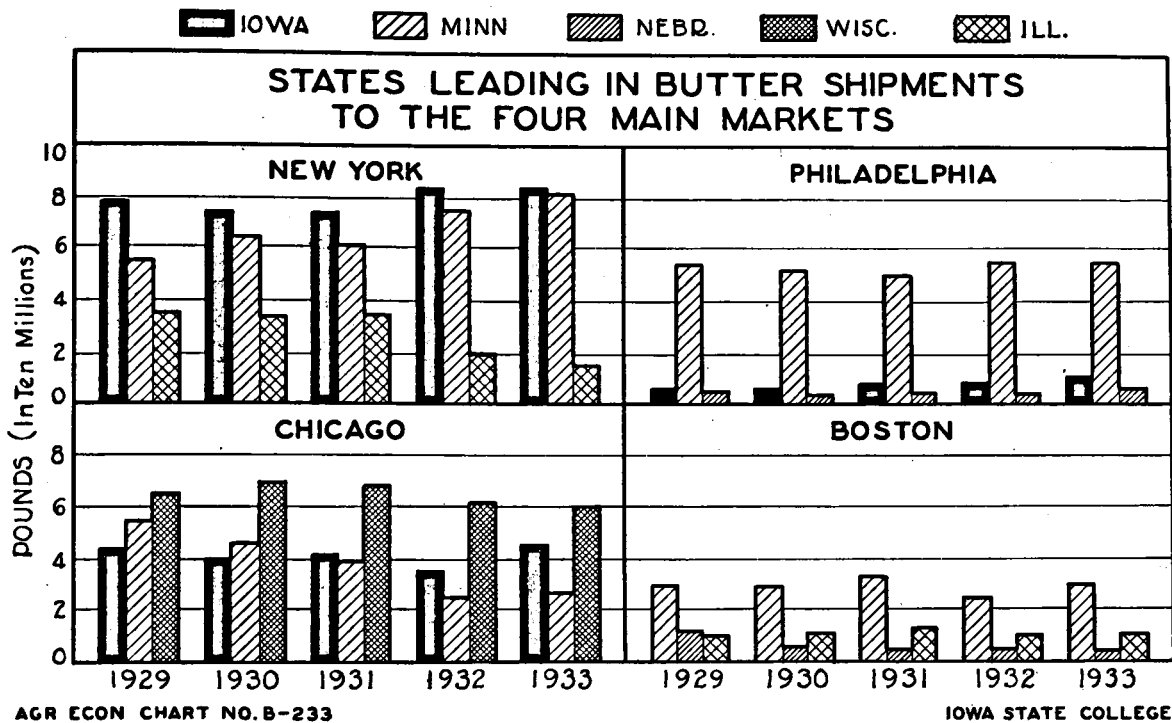


Fig. 49. Iowa ships more butter to New York than any other state. Wisconsin leads in supplying the Chicago market. Though Minnesota ships less butter than Iowa to New York, it ranks first in the Philadelphia and Boston markets.

Sheep and Lambs: Origin of Market Receipts by Months, 1929

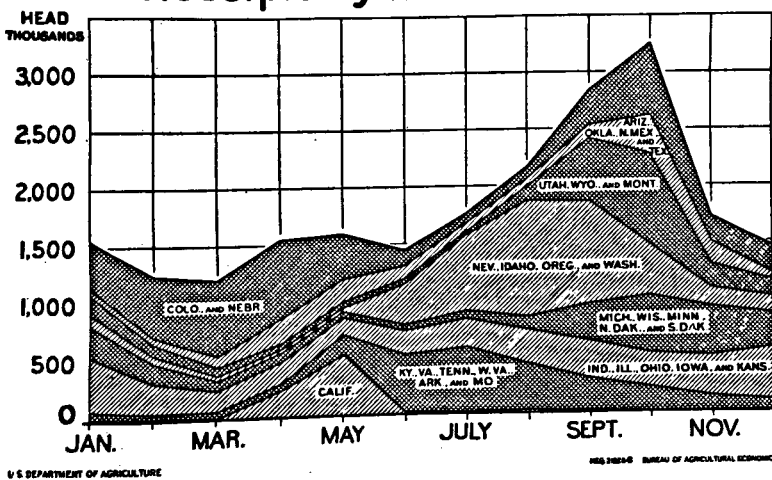


Fig. 50. The chart shows that there is considerable variation in the months when the various states market their sheep. The largest numbers of sheep are marketed in September and October.

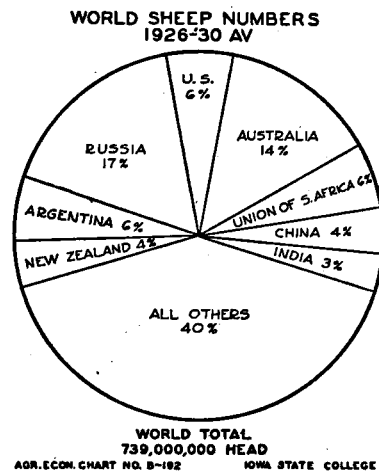


Fig. 51. The United States had 6 percent of the world sheep on the average in 1926-30.

IOWA SHEEP
1935

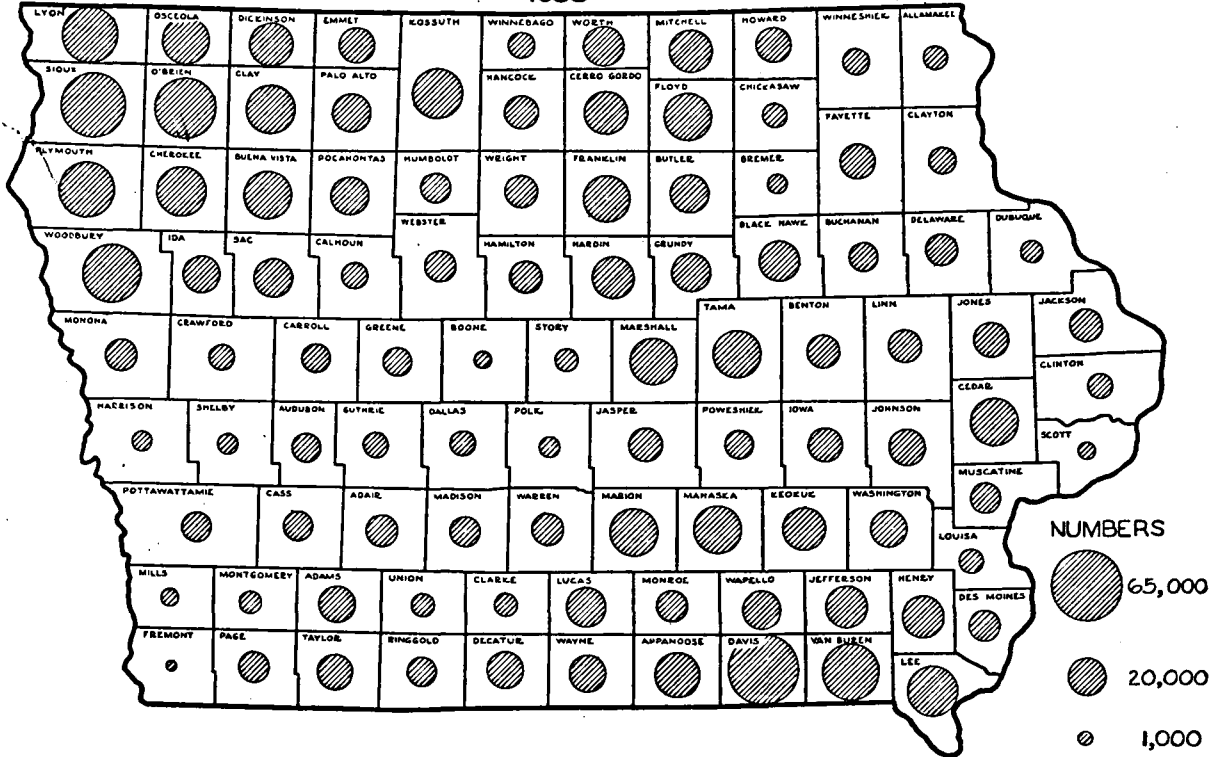
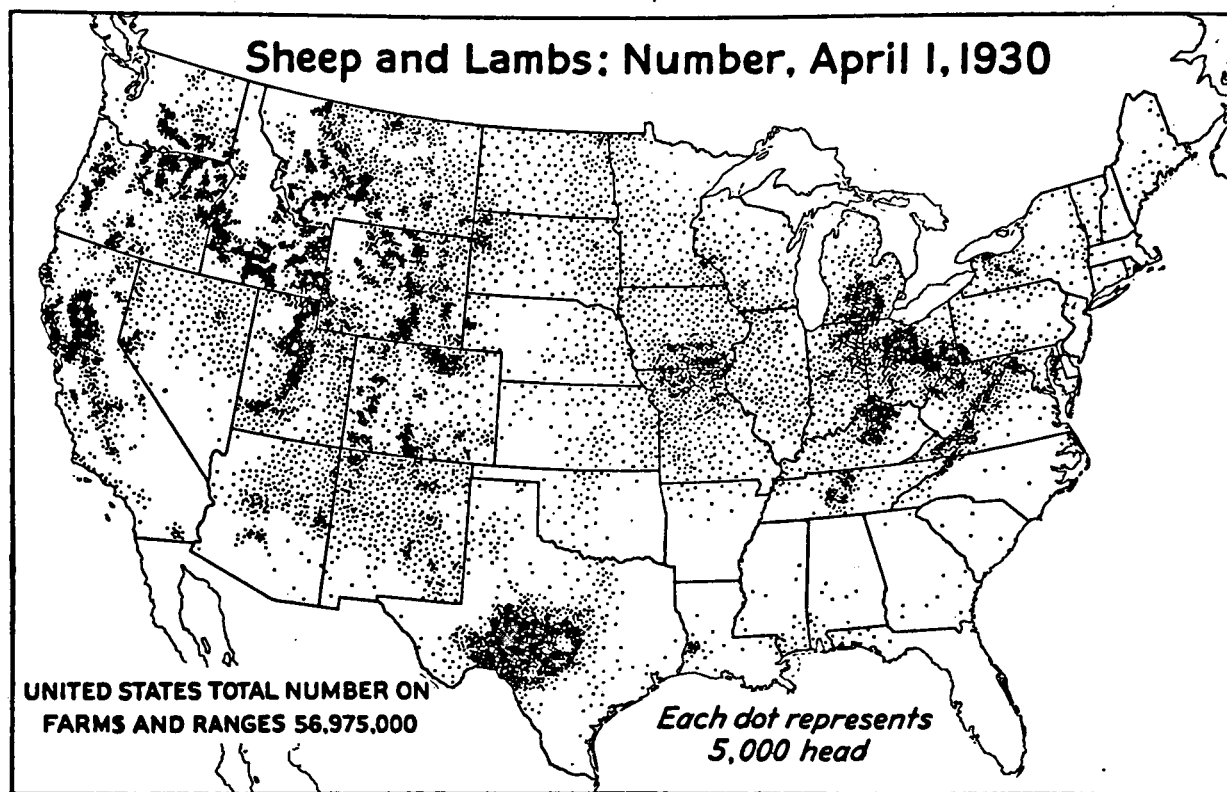


Fig. 52. The chart shows the variation of sheep numbers among counties and that the southern part of Iowa has the most sheep.
Data in table 33.

TABLE 38. MARKETING OF SHEEP FROM IOWA FARMS, ANNUALLY AND MONTHLY 1920-1933.

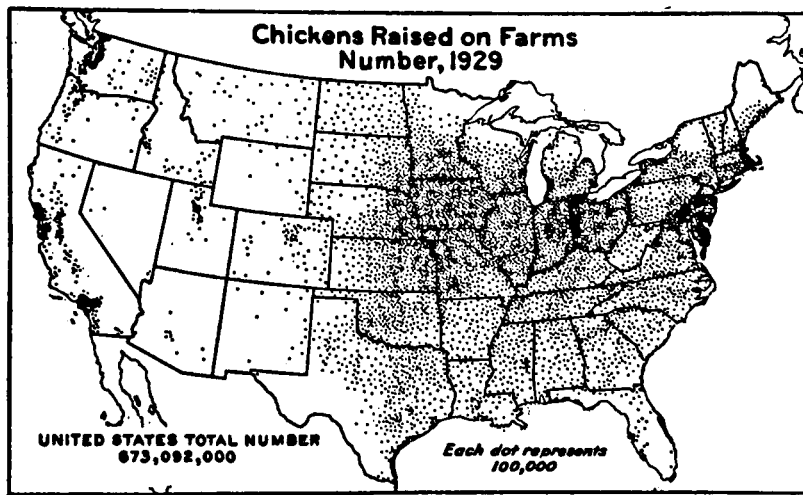
	Total movement	Monthly percent	Stock yards		Packing houses		Total movement	Monthly percent	Stock yards		Packing houses	
			Numbers	Percent	Numbers	Percent			Numbers	Percent		
1920												
January	163,745	17.0	163,406	99.8	339	.2	93,470	13.4	92,500	99.0	970	1.0
February	99,754	10.4	99,530	99.8	224	.2	42,866	6.1	42,352	98.8	514	1.2
March	20,452	2.1	20,401	99.8	51	.2	15,136	2.2	14,888	98.3	248	1.7
April	15,087	1.6	14,860	98.5	227	1.5	13,912	2.0	13,628	98.0	284	2.0
May	18,383	1.9	17,631	95.9	752	4.1	17,397	2.5	16,866	96.9	531	3.1
June	37,461	3.9	36,879	98.4	582	1.6	46,601	6.7	45,627	97.9	974	2.1
July	49,568	5.1	48,836	98.5	732	1.5	58,798	8.4	57,955	98.6	843	1.4
August	51,153	5.3	50,381	98.5	772	1.5	70,089	10.0	68,988	98.4	1,101	1.6
September	89,166	9.2	88,480	99.2	686	.8	81,835	11.7	80,202	98.0	1,633	2.0
October	93,418	9.7	92,705	99.2	713	.8	78,905	11.3	78,275	99.2	630	.8
November	139,227	14.4	138,518	99.5	709	.5	90,414	12.9	89,891	99.4	523	.6
December	186,560	19.4	185,734	99.5	826	.5	90,229	12.8	89,875	99.6	354	.4
Annual	963,974	100.0	957,361	99.3	6,613	.7	699,652	100.0	691,047	98.8	8,605	1.2
1921												
January	175,498	17.3	174,299	99.3	1,199	.7	80,736	11.5	80,251	99.4	485	.6
February	77,257	7.6	76,289	98.7	968	1.3	56,942	8.1	56,840	99.8	102	.2
March	42,275	4.2	41,669	98.6	606	1.4	24,512	3.5	24,448	99.7	64	.3
April	17,479	1.7	17,002	97.3	477	2.7	17,682	2.5	17,609	99.6	73	.4
May	27,650	2.7	27,249	98.5	401	1.5	20,095	2.9	19,718	98.1	377	1.9
June	63,748	6.3	62,863	98.6	885	1.4	32,832	4.7	32,206	98.1	626	1.9
July	41,917	4.1	41,028	97.9	889	2.1	39,878	5.7	39,379	98.7	499	1.3
August	86,023	8.5	85,222	99.1	801	.9	54,537	7.8	53,605	98.3	932	1.7
September	81,076	8.0	80,019	98.7	1,057	1.3	57,997	8.3	57,393	99.0	604	1.0
October	114,387	11.3	113,436	99.2	951	.8	65,700	9.4	64,829	98.7	871	1.3
November	155,589	15.4	155,165	99.7	424	.3	106,792	15.3	106,156	99.4	636	.6
December	130,508	12.9	130,008	99.6	500	.4	141,772	20.3	141,407	99.7	365	.3
Annual	1,013,407	100.0	1,004,249	99.1	9,158	.9	699,475	100.0	693,841	99.2	5,634	.8



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Fig. 53. The map shows that the western states and Texas are the important sheep producing states. Iowa has a little above the average number of sheep on farms.



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Fig. 54. The map shows that most of the chickens are raised in the eastern half of the United States. Iowa, however, has more chickens on farms than any other state.

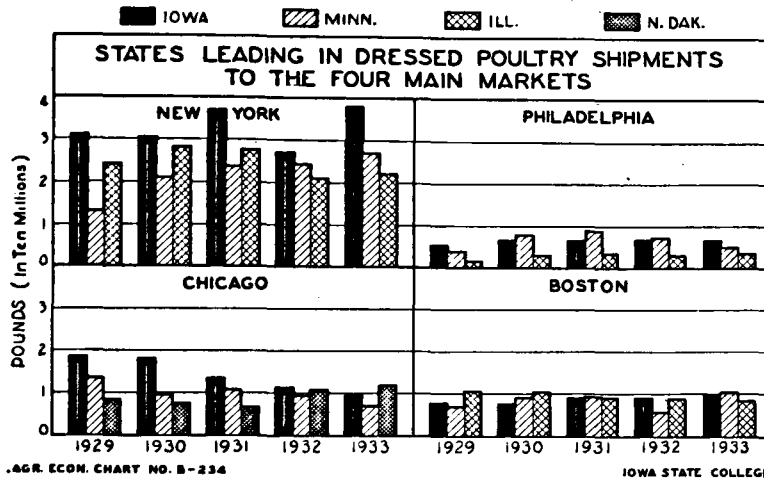


Fig. 55. As is shown in the chart, Iowa shipped more dressed poultry to New York than any other state. Iowa formerly ranked first in Chicago but has been decreasing its shipments to the latter market and now ranks second. Iowa also ships some poultry to Philadelphia and Boston.

Fig. 56. Iowa ranks first in shipment of eggs to New York, Chicago and Boston.

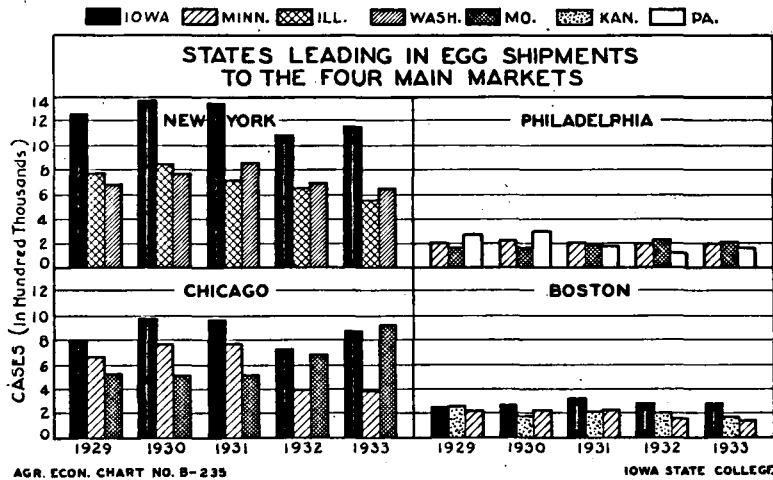
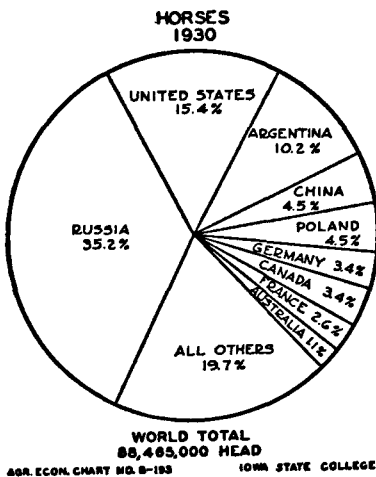


Fig. 57. Horses are widely distributed throughout the world. The United States has 15.4 percent of the world total horse population, being exceeded only by Russia with an estimated total of 35.2 percent.



IOWA HORSES & MULES 1930

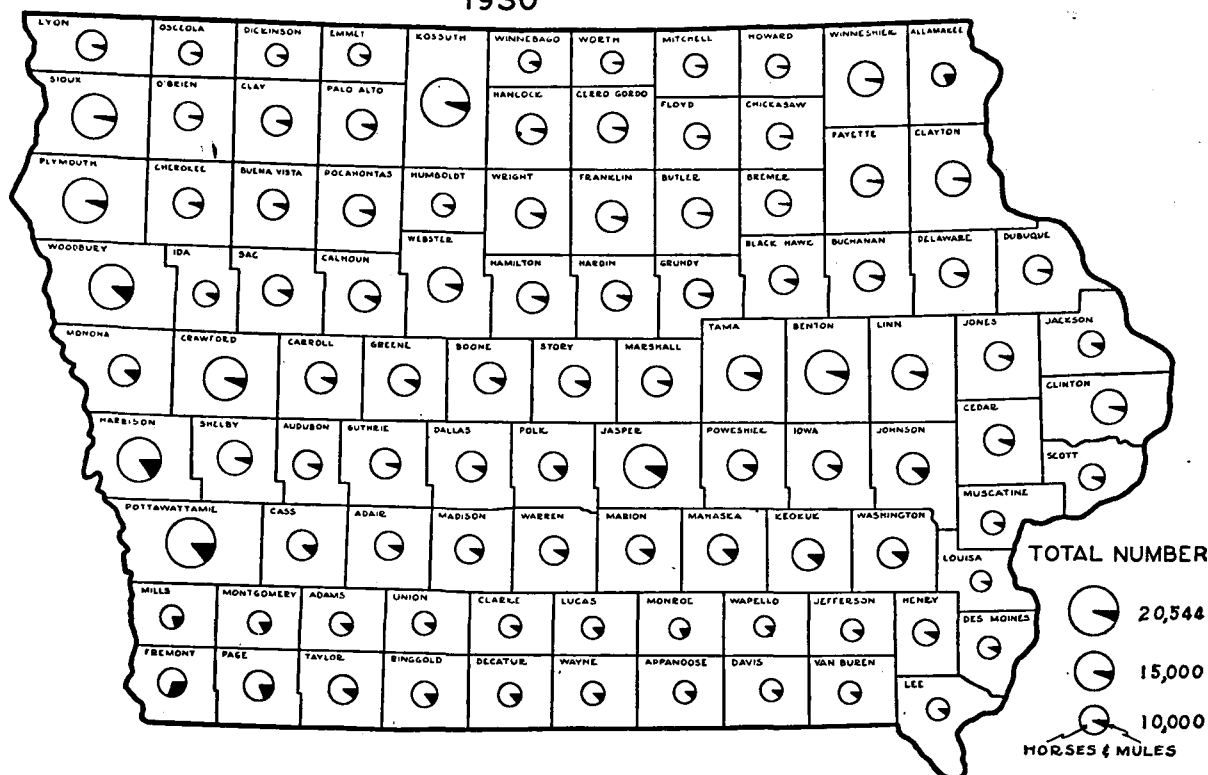


Fig. 58. The map shows the variation among counties in the number of horses and mules.
Data in table 33.

Crops

Iowa leads the nation not only in livestock production, but also in production of feed grains. Most of Iowa's farm land is devoted to producing feed for the herds and flocks. About a third of the land in farms in the state is planted to corn alone. A relatively small proportion of the crops produced in Iowa are shipped out in their original form. Most of them go out in the form of hogs, beef, pork or lard.

The chart shown here in fig. 59 illustrates the changes in acreages of the leading crops during the past 34 years. Before 1900 wheat was one of the most important cash crops of Iowa, but since that time it has gradually diminished in acreage and has been replaced by corn and oats. Corn and oats are the leading cash crops of the state, as well as the main feeds produced on farms.

Corn brings in more income than all other Iowa crops combined. In the 5 years from 1928 to 1932 Iowa farmers produced nearly a fifth of the corn in the United States, while Illinois, the second largest producing state, harvested one-eighth of the country's crop. Seven states in the Corn Belt produced over half of the nation's corn during this 5-year period.

Second to corn as a cash crop and second in acreage is oats. Iowa also leads the United States as an oat producer with Illinois second and Minnesota third.

Iowa's third ranking crop is hay. Most of it is fed to animals on farms, and only small quantities are sold. Alfalfa production has shown consistent increases in acreage for some time, although mixed timothy and clover still is the most popular hay crop. Soybeans are rapidly becoming more popular, not only as a

hay crop, but as a source of protein supplement in the form of the harvested beans. The chinch bug menace of the last 2 years has increased soybean acreage tremendously, since this crop is immune to the bug's ravages.

Though these three crops stand head and shoulders above the others, Iowa produces a variety of other crops. Rye, barley and wheat are all fairly important and many minor crops, such as popcorn, seed crops, potatoes and sugar beets rank high in certain sections of the state. Ida and Sac counties, for instance, have large acreages in popcorn and produce a big portion of the nation's total. Iowa leads all other states in production of timothy seed. Onions, cabbages, fruits and even tobacco are grown in Iowa. The accompanying and following charts, maps and tables give statistics concerning the more important ones.

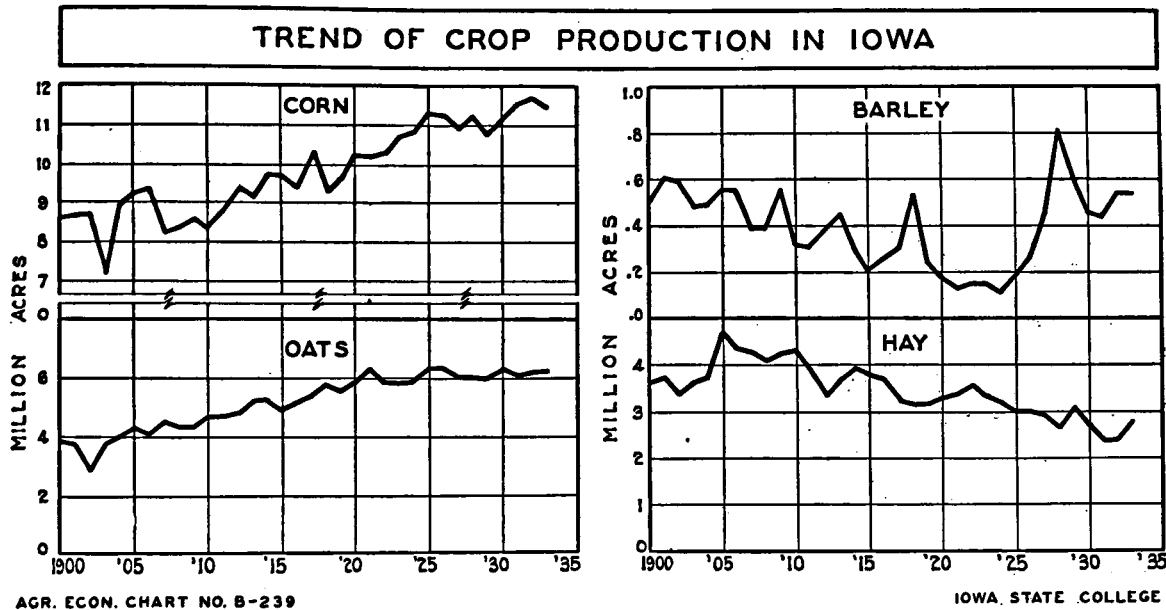


Fig. 59. The trend of corn and oat acreage has been upward since 1900. Barley acreage decreased from 1900 to

1924. Since then the trend has been upward. The trend in hay acreage has been downward since 1905. Data in table 39.

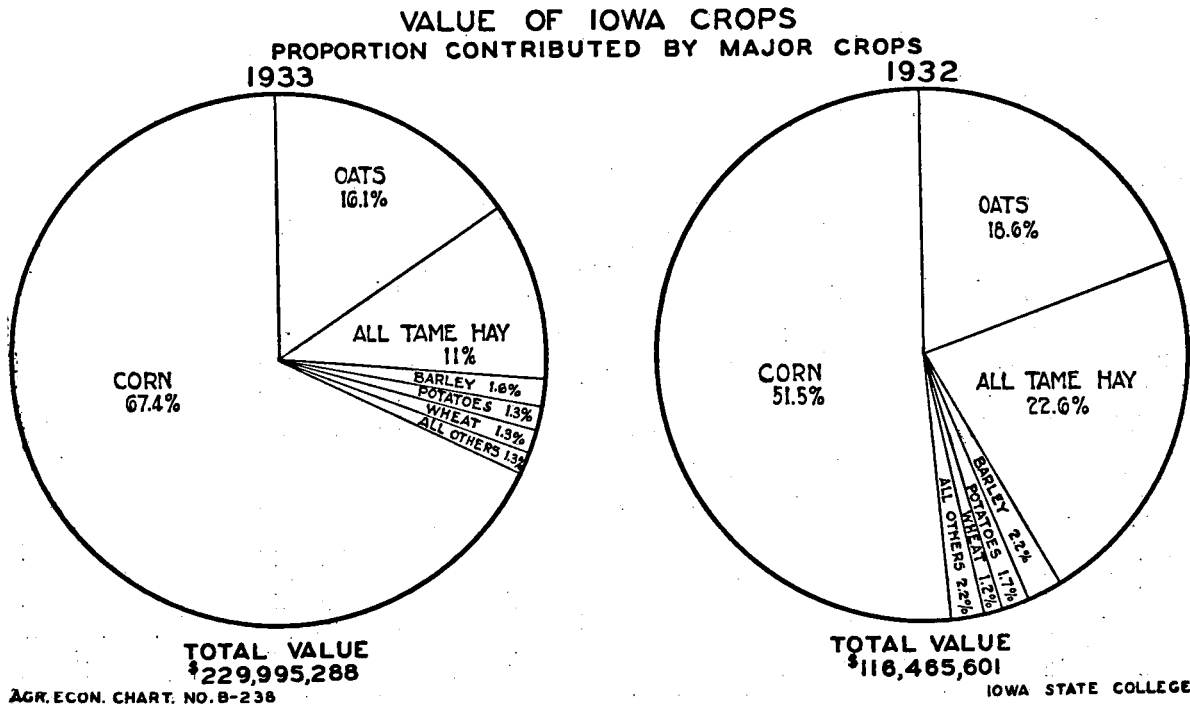


Fig. 60. Corn is the leading crop in Iowa, followed by oats and tame hay. Barley, potatoes, wheat and other crops are of minor importance. Iowa crops were worth \$229,-

995,000 in 1933. Of this, 67.4 percent was from corn, 16.1 percent from oats and 11 percent from tame hay. Data in table 41.

TABLE 89. PRODUCTION AND VALUE OF IOWA CROPS, 1880-1934—Continued.

Rye (000 omitted)					Soybeans (Total sown alone)					Potatoes (000 omitted)					
Year	Acres	Yield	Production	Value	Year	Acres	Yield	Production	Value	Year	Acres	Yield	Production	Value	
1880	41	14.0	574	\$ 218	1880					1880	107	95.0	10,165	\$ 3,558	
1890	101	16.0	1,609	821	1890					1890	170	48.9	8,322	6,749	
1900	104	15.6	1,622	697	1900					1900	150	72.5	10,851	4,340	
1901	54	15.8	860	413	1901					1901	136	37.4	5,098	4,589	
1902	52	17.0	883	353	1902					1902	138	87.0	12,052	4,098	
1903	123	15.6	1,923	846	1903					1903	113	53.6	6,083	4,562	
1904	100	15.2	1,517	819	1904					1904	113	125.9	14,256	3,992	
1905	71	18.0	1,284	667	1905					1905	111	84.0	9,352	4,676	
1906	63	17.5	1,093	525	1906					1906	115	101.4	11,698	5,615	
1907	52	17.2	900	549	1907					1907	117	83.9	9,847	6,105	
1908	51	17.1	869	548	1908					1908	119	89.9	10,658	6,288	
1909	42	13.4	557	334	1909					1909	138	90.0	12,428	6,587	
1910	30	13.8	407	248	1910					1910	133	75.3	9,987	4,794	
1911	44	15.1	668	528	1911					1911	118	77.4	9,126	6,479	
1912	73	18.0	1,322	807	1912					1912	120	94.0	11,278	4,962	
1913	75	15.8	1,179	696	1913					1913	112	52.2	5,865	4,985	
1914	72	14.2	1,025	789	1914					1914	86	98.4	8,454	4,903	
1915	62	14.2	886	683	1915					1915	100	82.5	8,218	4,356	
1916	37	12.5	461	530	1916					1916	89	46.6	4,132	7,232	
1917	48	14.6	707	1,116	1917					1917	100	85.4	8,562	11,301	
1918	69	12.4	860	1,273	1918					1918	97	73.3	7,072	9,349	
1919	87	16.0	1,389	1,847	1919*		471			1919	78	43.2	3,387	6,571	
1920	39	16.1	631	739	1920†		1,000			1920	66	111.9	7,333	8,947	
1921	38	16.2	622	455	1921†		2,000			1921	76	43.0	3,282	4,595	
1922	55	19.7	1,088	773	1922		4,684			1922	69	104.9	7,287	4,518	
1923	51	17.6	904	596	1923		13,529	13.3	94	217†	70	84.2	5,879	4,527	
1924	36	15.0	545	355	1924***		24,066	8.4	145	340	1924	73	115.8	8,482	4,665
1925	32	16.4	522	417	1925		15,971	18.0†	142†	370†	1925	56	63.7	3,587	8,430
1926	31	17.2	533	437	1926		21,516	17.0†	187†	440†	1926	50	77.9	3,905	6,638
1927	43	14.0	595	512	1927		44,084	10.7	241	482	1927	51	84.3	4,275	4,275
1928	49	14.6	708	609	1928		56,192	15.8	327	583	1928	60	130.7	7,812	3,984
1929	44	14.5	643	546	1929		71,887	13.7	484	809	1929	52	103.3	5,326	7,457
1930	45	14.9	665	319	1930		111,470	13.7	860	1,161	1930	45	70.0	3,128	4,066
1931	41	14.4	588	235	1931		136,872	15.4	727	436	1931	46	53.5	2,435	1,461
1932	41	12.8	509	122	1932		185,113	17.7	818	344	1932	49	109.1	5,296	1,960
1933	33	13.0	434	239	1933		210,855	16.9	1,388	808	1933	53	68.7	3,611	2,889
1934	44	7.5	330	290	1934		716,853	11.3	1,767	1,590	1934	59	65.9	3,921	2,744

* Data obtained from the Census.
† Estimated.
*** Data unreliable.

Alfalfa
(000 omitted)
Tons

Year	Acres	Yield	Production	Value
1880				
1890				
1900	2	2.72	6	
1901				
1902				
1903				
1904				
1905	10	2.48	26	\$ 107
1906				
1907				
1908				
1909	23	2.86	66	559
1910	24	2.72	66	
1911	30	2.33	71	
1912	47	2.27	106	
1913	80	2.37	189	
1914	132	2.08	275	3,443
1915	153	2.41	368	4,113
1916	143	2.78	396	4,641
1917	115	2.22	255	5,978
1918	120	2.03	244	5,848
1919	158	3.22	507	11,712
1920	180	3.01	544	10,458
1921	187	2.93	550	7,102
1922	192	2.61	500	7,401
1923	230	3.00	691	11,221
1924	276	3.05	842	11,156
1925	245	2.41	590	10,331
1926	272	2.30	626	12,207
1927	301	2.82	850	13,596
1928	336	2.84	954	15,743
1929	405	3.08	1,248	18,714
1930	451	2.70	1,220	18,910
1931	486	1.89	918	11,020
1932	537	2.80	1,504	12,029
1933	609	2.30	1,404	11,582
1934	663	1.76	1,163	22,101

Flax Seed
(000 omitted)

Year	Acres	Yield	Production	Value
1880	103	10.0	1,034	\$1,034
1890	284	10.5	2,979	3,277
1900	109	11.2	1,223	1,834
1901	104	8.8	917	1,183
1902	95	8.0	755	755
1903	41	8.7	353	277
1904	51	11.5	591	679
1905	18	9.8	174	156
1906	19	10.7	205	199
1907	43	10.8	462	453
1908	41	11.3	462	466
1909	17	10.0	174	224
1910	20	8.6	170	388
1911	39	4.5	179	357
1912	24	9.9	238	312
1913	15	7.9	122	166
1914	16	7.4	115	139
1915	6	6.9	45	70
1916	8	8.5	65	134
1917	8	9.9	83	237
1918	15	8.2	123	401
1919	11	9.4	107	418
1920	11	10.5	115	207
1921	8	8.8	73	111
1922	6	10.4	60	124
1923	6	9.4	60	126
1924	7	9.9	72	162
1925	10	10.5	103	226
1926	15	11.1	162	315
1927	19	10.2	192	374
1928	19	9.7	188	372
1929	13	8.5	109	300
1930	20	11.4	225	349
1931	23	7.5	171	205
1932	19	9.1	170	139
1933	28	6.2	174	270
1934	16	5.5	87	146

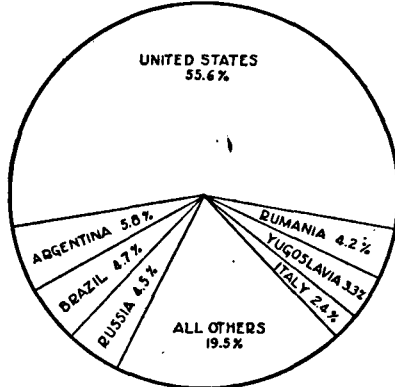
TABLE 40.

10-Year Average Yield of Iowa's Leading Crops, 1921-30

	Iowa	United States
Corn	39.0	26.1 bushels per acre
Oats	35.2	29.6 bushels per acre
Barley	28.6	22.8 bushels per acre
Wheat (winter)	19.8	14.7 bushels per acre
All tame hay	1.39	1.31 tons per acre

Source: U. S. D. A. Yearbook of Agriculture.

WORLD CORN PRODUCTION 1933-34



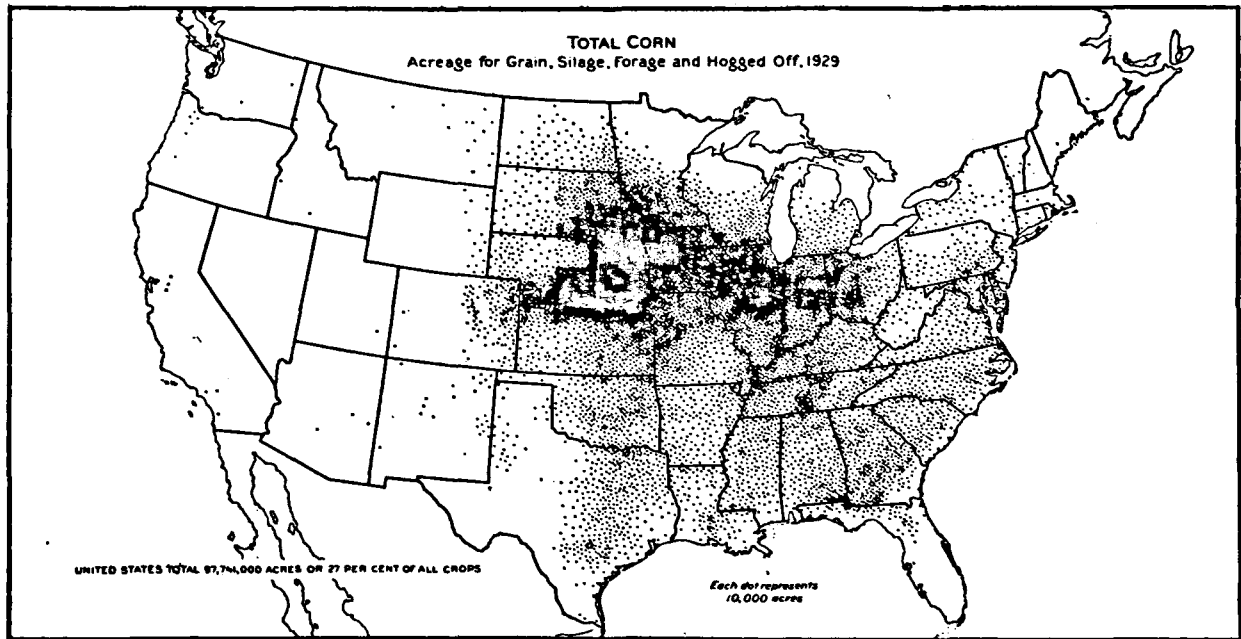
WORLD TOTAL
4,234,000,000 BU.

AGR. ECON. CHART NO. 8-248 IOWA STATE COLLEGE

Fig. 61. The United States has a unique position in the world's production of corn, with a production of 55.6 percent. Argentina, the second ranking country, produced less than one-ninth as much.

TABLE 41. VALUE OF IOWA FARM CROPS, AS OF DECEMBER 1, 1932, and 1933.

	Value in dollars		Percentage	
	1932	1933	1932	1933
Corn.....	\$ 60,050,089	\$155,066,475	Corn.....51.5 percent	67.4
Oats.....	21,704,594	37,140,100	Oats.....18.6 percent	16.1
Tame hay.....	26,274,664	25,238,469	All tame hay.....22.6 percent	11.0
Barley.....	2,554,177	3,648,191	Barley.....2.2 percent	1.6
Potatoes.....	1,959,665	2,888,900	Potatoes.....1.7 percent	1.3
Wheat.....	1,351,055	2,922,409	Wheat.....1.2 percent	1.3
Wild hay.....	934,974	804,130	Rye, wild hay, apples, soybeans, and timothy seed.....2.2 percent	1.3
Timothy seed.....	712,021	807,798		
Apples.....	459,074	432,044		
Soybeans.....	343,686	807,798		
Rye.....	122,266	238,974		
Total.....	\$116,465,601	\$229,995,288	100.0 percent	100.0



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Fig. 62. The map shows that Iowa is in the center of the corn producing area.

IOWA CORN ACREAGE
1933

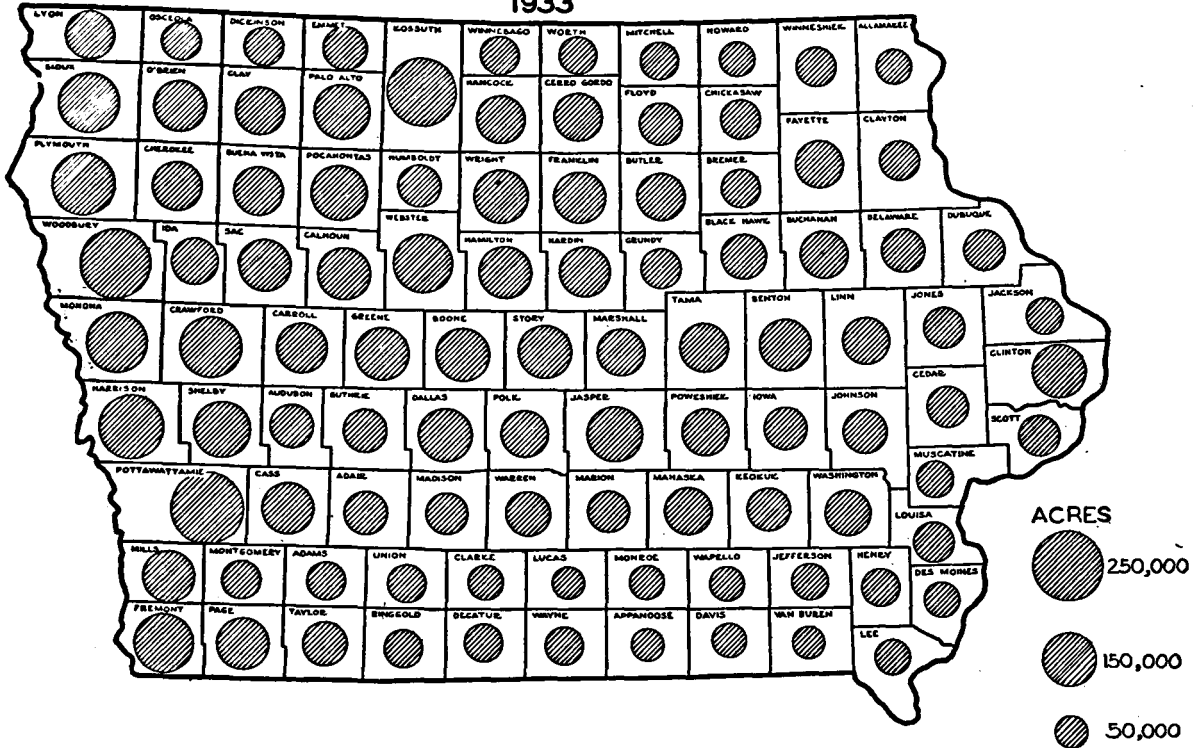


Fig. 63. The above map shows Iowa's corn acreage in 1933. Every county in the state is a heavy producer. Acreage in corn is more concentrated in the north central section than in the rest of the state. Data in table 42.

IOWA CORN UTILIZATION
1933

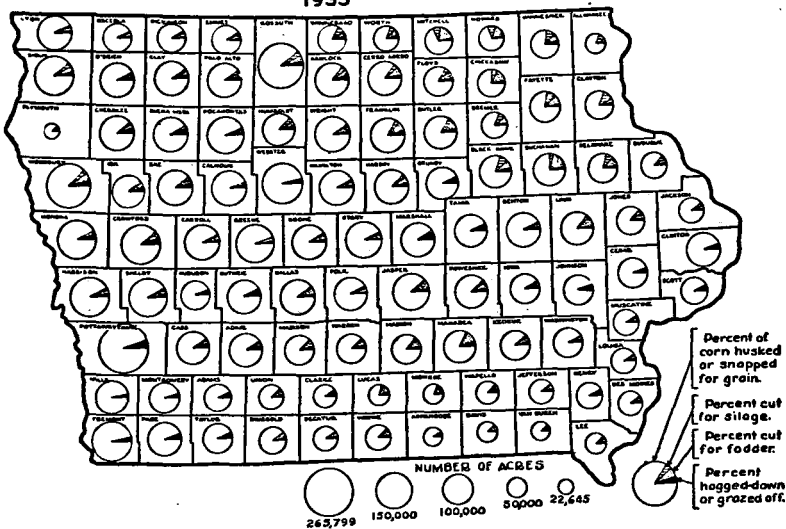


Fig. 64. In keeping with the livestock program of the state, most of the corn crop is husked or snapped for grain. Usually over 90 percent of the grain is harvested in this manner. This does not mean that 90 percent of the crop is sold as grain. On the contrary, most of it is fed to livestock and marketed indirectly in this manner. The balance of the crop is cut for silage or fodder or hogged-down. The amount of corn husked for grain varies over the state according to the livestock set-up. In the dairy section more of the corn is utilized as fodder or silage, and a correspondingly smaller amount is husked. Data in table 42.

TABLE 42. IOWA CORN PRODUCTION 1892-93—Continued.

County	1932							1933						
	Acres	Bushels per acre	Production	Utilization percent				Acres	Bushels per acre	Production	Utilization percent			
				Husked	Cut for silage	Cut for fodder	Hogged-down or grained				Husked	Cut for silage	Cut for fodder	Hogged-down or grained
Lucas.....	55,570	34.9	1,939,393	88	2	6	4	54,995	25.7	1,413,372	81	3	12	4
Madison.....	105,492	44.4	4,683,845	91	1	5	3	100,209	45.0	4,509,405	90	1	6	3
Marion.....	107,295	43.6	4,678,062	94	1	3	2	103,210	35.9	3,705,239	88	2	8	2
Monroe.....	50,561	35.2	1,779,747	91	1	6	2	49,956	24.2	1,208,935	83	2	12	3
Ringgold.....	88,770	32.5	2,885,025	89	1	7	3	82,445	34.8	2,869,086	92	0	6	2
Union.....	76,159	40.1	3,053,976	89	1	3	4	69,236	42.4	2,935,606	90	1	6	3
Warren.....	103,510	41.9	4,337,069	91	2	4	3	97,899	42.8	4,190,077	89	2	6	3
Wayne.....	75,172	30.3	2,277,712	93	0	4	3	71,242	30.8	1,481,834	90	1	6	3
Davis.....	51,795	32.0	1,657,440	93	0	6	1	50,127	29.2	1,463,708	91	0	7	2
Des Moines.....	71,697	48.8	3,498,814	94	1	2	3	67,419	40.3	2,716,986	92	1	3	4
Henry.....	76,769	49.5	3,800,066	94	0	3	3	72,929	45.5	3,318,270	93	1	3	3
Jefferson.....	69,406	40.9	2,838,705	93	1	4	2	67,029	39.2	2,627,537	91	1	5	3
Keokuk.....	110,714	45.3	5,015,344	93	1	3	3	104,826	40.0	4,193,040	91	1	5	3
Lee.....	59,265	38.7	2,293,556	91	2	3	4	55,950	34.8	1,947,060	90	3	4	3
Louisa.....	74,580	48.0	3,579,840	94	1	3	2	70,132	41.5	2,910,478	92	2	4	2
Mahaska.....	120,184	44.3	5,324,151	90	1	5	4	114,159	35.5	4,052,644	86	1	9	4
Van Buren.....	48,268	35.4	1,708,687	91	1	5	3	48,234	33.8	1,630,309	91	1	5	3
Wapello.....	62,433	39.3	2,453,617	91	2	3	4	60,611	37.1	2,248,668	90	2	4	4
Washington.....	111,958	51.5	5,765,837	93	1	2	4	105,549	47.9	5,055,797	94	1	2	3
Total.....	11,720,280	42.7	500,417,407	90.7	2.1	4.2	3.0	11,527,166	43.6	500,214,435	90.9	2.2	4.4	2.5

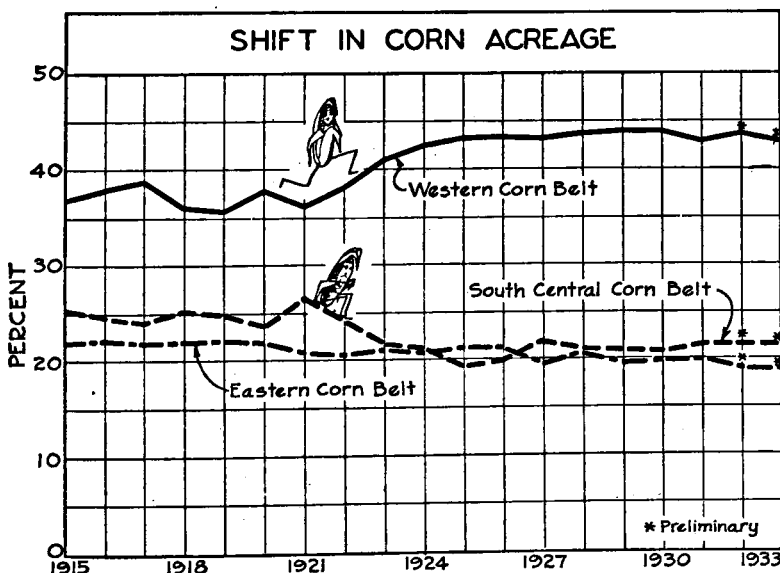


Fig. 65. The chart shows that there has been a shift in the corn acreage from the south central and eastern Corn Belt to the western Corn Belt.

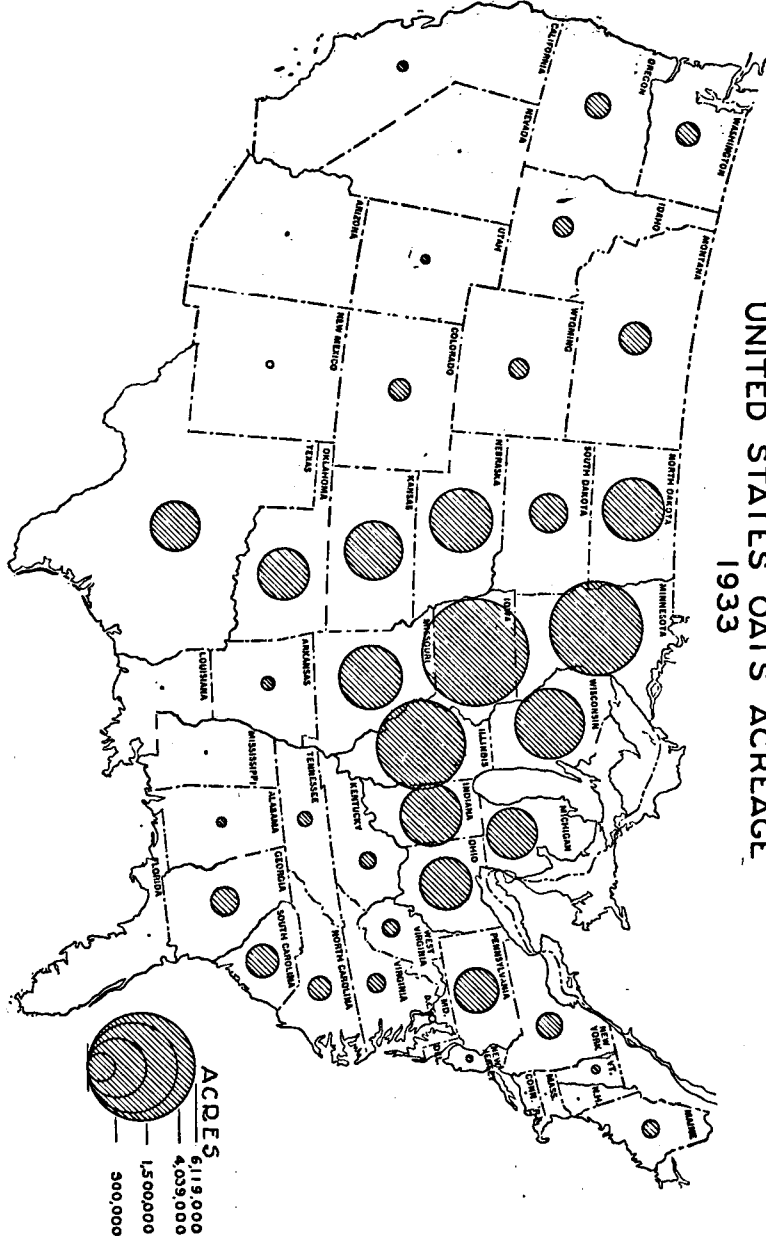
UNITED STATES OATS ACREAGE
1933

Fig. 66. Iowa is in the center of oat production in the United States and ranks first in its production. Illinois, Minnesota and Wisconsin are other important states.

TABLE 48. IOWA OATS.

Districts and counties	1932			1933		
	Acres	Bus. per acre	Total bushels	Acres	Bus. per acre	Total bushels
Northwest						
Buena Vista.....	94,115	37.1	3,488,909	97,628	18.6	1,815,520
Cherokee.....	63,235	36.8	2,327,647	69,146	21.4	1,482,618
Clay.....	87,122	36.4	3,173,664	85,876	14.0	1,202,096
Dickinson.....	52,320	29.9	1,814,393	53,511	16.6	886,608
Emmett.....	60,754	31.5	1,911,419	67,291	19.9	1,336,882
Lyon.....	100,492	40.6	4,078,178	95,687	24.1	2,309,451
O'Brien.....	80,202	39.9	3,202,032	81,253	23.3	1,890,502
Osceola.....	69,230	39.3	2,718,336	67,676	29.1	1,966,641
Palo Alto.....	101,952	34.8	3,546,003	105,496	14.6	1,538,496
Plymouth.....	92,695	32.9	3,060,995	99,484	17.4	1,735,881
Pocahontas.....	113,897	36.7	4,180,767	118,449	19.6	2,318,527
Sioux.....	117,293	40.1	4,700,041	114,736	20.3	2,326,960
For district....	1,033,307	37.0	38,202,384	1,056,233	19.7	20,810,182
North Central						
Butler.....	76,046	31.5	2,392,888	83,666	26.8	2,238,992
Cerro Gordo.....	82,110	35.9	2,945,267	87,887	26.8	2,352,225
Floyd.....	75,325	36.1	2,721,445	81,080	25.6	2,078,277
Franklin.....	84,297	37.5	3,157,325	90,476	29.7	2,687,311
Hancock.....	92,612	32.3	2,989,442	101,141	25.2	2,546,427
Humboldt.....	76,476	38.8	2,964,825	81,754	21.2	1,729,304
Kossuth.....	184,149	35.9	6,606,178	189,972	18.9	3,584,090
Mitchell.....	74,470	37.7	2,804,886	78,239	23.7	1,857,525
Winnebago.....	61,110	37.4	2,286,025	65,202	22.4	1,461,992
Worth.....	61,734	32.6	2,011,246	67,905	29.1	1,976,391
Wright.....	96,617	37.1	3,580,265	104,573	28.1	2,935,142
For district....	964,946	35.7	34,459,792	1,031,895	24.7	25,447,676
Northeast						
Allamakee.....	45,452	36.6	1,662,234	42,779	25.6	1,093,440
Black Hawk.....	62,864	36.9	2,318,133	67,409	31.3	2,112,138
Bremser.....	56,135	37.1	2,085,232	59,381	31.8	1,888,761
Buchanan.....	65,450	36.1	2,356,647	70,516	30.4	2,141,284
Chickasaw.....	65,043	32.3	2,102,624	68,685	21.3	1,462,620
Clayton.....	79,577	42.4	3,370,584	79,120	27.3	2,157,559
Delaware.....	64,985	40.5	2,632,073	67,894	31.3	2,128,318
Dubuque.....	57,326	38.2	2,188,755	59,332	30.0	1,778,387
Fayette.....	83,122	37.4	3,107,260	86,823	27.7	2,403,942
Howard.....	66,161	37.3	2,466,614	69,972	20.2	1,413,276
Winneshiek.....	80,697	34.0	2,739,983	77,989	18.6	1,452,614
For district....	726,812	37.2	27,033,139	749,990	26.7	20,032,339
West Central						
Audubon.....	52,558	29.0	1,525,435	49,694	10.1	501,229
Calhoun.....	116,842	39.1	4,565,401	120,016	20.8	2,497,386
Carroll.....	77,416	32.1	2,482,762	78,237	15.4	1,203,963
Crawford.....	79,858	30.4	2,426,218	62,690	7.7	480,379
Greene.....	90,539	40.1	3,628,356	95,253	25.9	2,464,967
Guthrie.....	59,921	30.9	1,853,915	59,903	12.9	774,251
Harrison.....	46,285	28.7	1,326,976	27,704	8.7	239,648
Ida.....	50,147	32.6	1,633,014	52,923	11.4	604,050
Monona.....	42,266	32.9	1,389,752	39,409	17.1	673,184
Sac.....	75,299	30.8	2,320,932	78,338	16.9	1,327,445
Shelby.....	74,423	30.2	2,251,076	64,811	9.1	589,158
Woodbury.....	74,335	31.0	2,301,670	74,002	13.1	972,961
For district....	839,889	33.0	27,705,507	802,989	15.4	12,328,621
Central						
Boone.....	87,618	38.0	3,333,364	90,516	29.3	2,655,981
Dallas.....	71,963	39.8	2,863,211	76,104	22.3	1,700,512
Grundy.....	71,945	35.6	2,560,854	75,845	33.3	2,523,837
Hamilton.....	105,546	33.3	3,518,337	111,094	30.6	3,401,354
Hardin.....	78,099	33.6	2,621,636	84,675	29.8	2,523,854
Jasper.....	70,216	36.7	2,580,116	75,936	26.6	2,019,813
Marshall.....	64,837	34.2	2,220,347	67,792	30.6	2,070,111
Folk.....	54,228	36.2	1,962,880	58,023	22.7	1,317,486
Poweshiek.....	58,361	36.3	2,121,344	62,341	27.4	1,707,973
Story.....	90,315	35.4	3,200,986	93,870	29.8	2,794,447
Tama.....	76,283	35.4	2,701,329	78,545	31.1	2,442,771
Webster.....	136,541	39.8	5,430,667	141,099	25.5	3,592,363
For district....	965,952	36.4	35,115,071	1,015,770	28.3	28,750,502

BASEBOOK OF IOWA IOWA OATS ACREAGE 1933

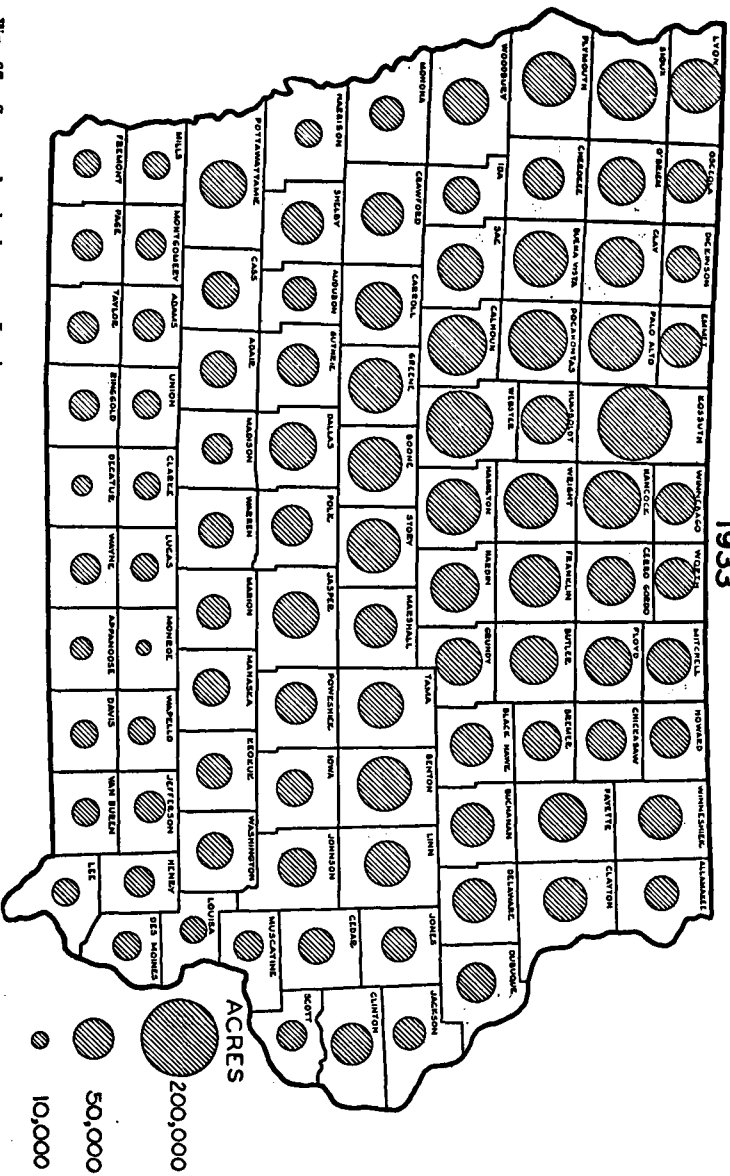


Fig. 67. Surpassed only by corn, Iowa's oat crop ranks second in acreage, production and value for the farmers of the state. Because of climatic conditions and soil types, oat production is heavier in the north central and northwest sections of the state.

Oats are used chiefly as a supplementary feed in the livestock industry where corn is the primary feed. The oat crop has entered into the rotation scheme of the state and for many years has been Iowa's most reliable small

grain. The crop is valuable as a cash grain in the northwest and north central counties. Data in table 46.

East Central						
Benton.....	89,047	38.4	3,416,180	92,819	35.1	3,256,649
Cedar.....	49,924	41.6	2,076,511	53,719	36.9	1,981,824
Clinton.....	58,048	39.2	2,275,527	61,019	31.1	1,897,481
Iowa.....	46,851	35.8	1,677,970	50,032	29.9	1,495,352
Jackson.....	40,764	35.0	1,427,101	43,868	26.6	1,164,961
Johnson.....	49,902	35.9	1,793,421	55,511	30.4	1,685,238
Jones.....	46,166	41.6	1,921,972	47,635	32.9	1,567,418
Linn.....	67,616	38.4	2,595,543	71,088	33.2	2,358,292
Muscatine.....	29,931	37.3	1,115,753	29,927	29.0	868,748
Scott.....	40,171	44.5	1,788,336	38,991	34.2	1,334,644
For district....	518,420	38.7	20,088,316	544,609	32.3	17,610,607
Southwest						
Adair.....	49,923	31.7	1,583,562	52,278	13.7	716,848
Adams.....	35,280	33.3	1,173,175	33,358	17.5	584,648
Cass.....	52,990	28.8	1,524,822	53,989	14.1	763,195
Fremont.....	18,338	25.6	468,767	21,340	18.0	384,407
Mills.....	23,612	28.2	665,814	26,642	16.1	429,589
Montgomery.....	32,819	31.6	1,027,448	34,429	17.3	600,573
Page.....	31,298	32.7	1,023,833	33,692	20.9	703,092
Pottawattamie.....	75,452	28.0	2,109,662	72,627	12.6	914,351
Taylor.....	40,780	32.2	1,311,788	37,623	14.9	560,067
For district....	360,192	30.2	10,888,871	366,178	15.4	5,656,770
South Central						
Appanoose.....	24,644	28.3	697,288	19,864	13.0	258,227
Clarke.....	32,234	27.5	884,963	27,132	9.8	265,189
Decatur.....	30,380	28.4	742,030	17,744	10.0	177,418
Lucas.....	27,428	30.4	834,020	22,174	10.9	241,724
Madison.....	39,985	36.9	1,475,800	37,335	13.8	514,916
Marion.....	46,362	35.0	1,621,438	45,944	21.9	1,008,210
Monroe.....	20,495	27.6	565,345	16,459	10.9	178,801
Ringgold.....	38,149	27.6	1,052,731	31,810	9.7	308,906
Union.....	30,213	31.8	961,980	28,488	14.5	413,001
Warren.....	38,952	33.0	1,284,151	40,778	16.0	651,174
Wayne.....	40,074	26.6	1,067,141	34,467	11.4	392,370
For district....	368,916	30.3	11,186,651	322,195	13.7	4,409,936
Southeast						
Davis.....	26,956	26.7	718,654	23,220	15.4	357,327
Des Moines.....	30,288	35.6	1,076,816	29,791	24.6	733,823
Henry.....	31,729	35.0	1,110,634	30,513	25.5	779,114
Jefferson.....	31,206	33.8	1,053,285	31,622	18.9	598,059
Keokuk.....	48,049	34.2	1,645,269	47,657	22.3	1,063,029
Lee.....	25,569	29.7	758,174	22,975	18.6	426,345
Louisia.....	28,148	32.9	926,930	26,002	24.1	627,742
Mahaska.....	50,152	36.3	1,821,837	51,386	22.5	1,154,392
Van Buren.....	23,519	26.6	656,432	21,621	15.9	343,654
Wapello.....	25,071	30.8	771,681	23,999	18.2	421,992
Washington.....	48,957	37.9	1,856,506	48,900	26.5	1,295,328
For district....	369,644	33.5	12,366,208	356,786	21.9	7,799,905
For state.....	6,148,078	35.3	217,045,939	6,246,645	22.9	142,846,538

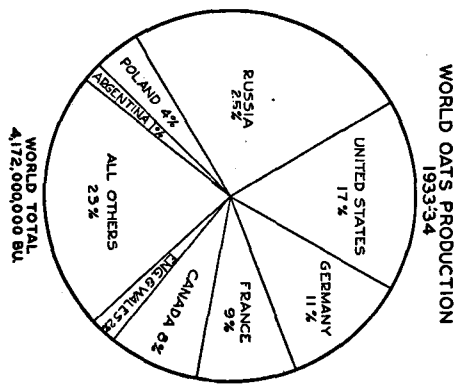
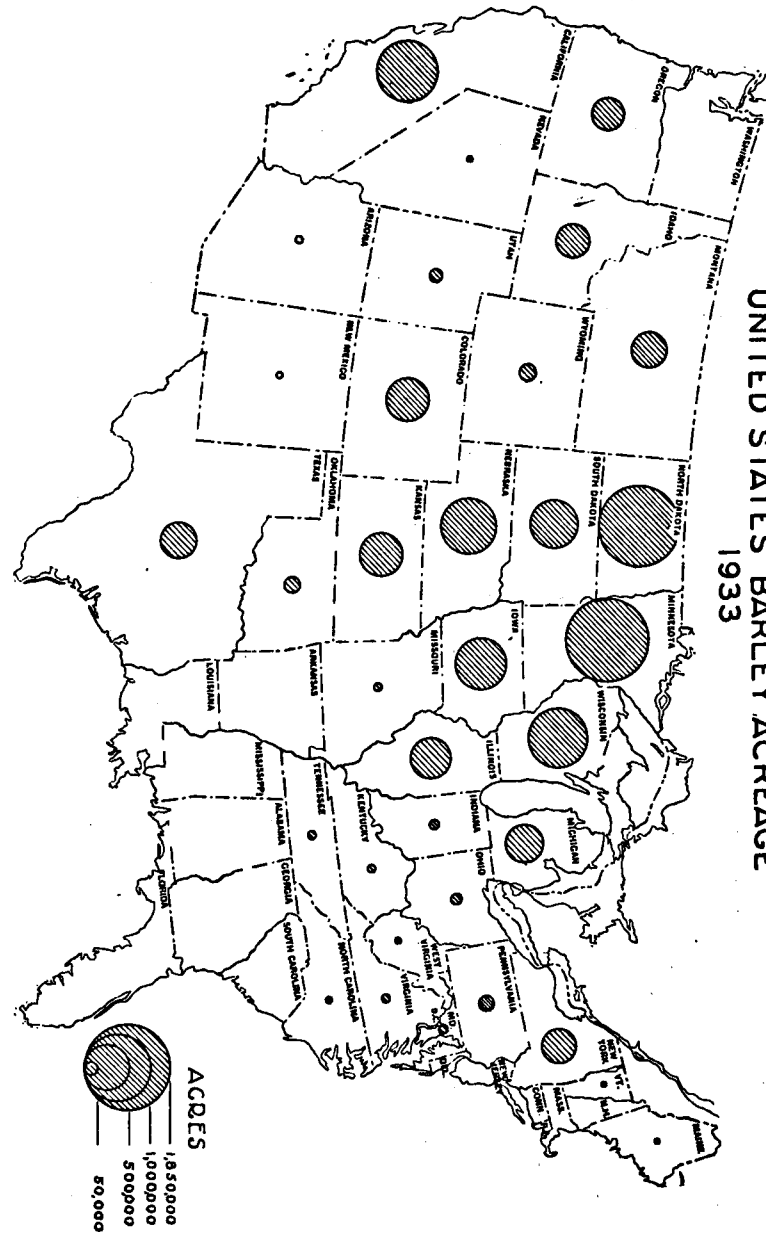


Fig. 68. Oats is a hardy crop and is widely grown in the agricultural countries of the world. The United States, with 17 percent of the total ranks second to Russia in oat production.

TABLE 44. IOWA BARLEY

Districts and counties	1932			1933		
	Acres	Bushels per acre	Total bushels	Acres	Bushels per acre	Total bushels
Northwest						
Buena Vista.....	8,700	23.3	202,592	7,668	14.2	108,892
Cherokee.....	24,916	25.5	634,301	24,627	15.9	392,671
Clay.....	15,066	25.1	378,005	15,799	12.6	199,322
Dickinson.....	16,870	22.5	380,003	17,585	12.9	226,928
Emmett.....	11,856	18.4	217,903	11,152	13.9	154,964
Lyon.....	17,459	30.7	535,830	22,890	15.1	345,442
O'Brien.....	25,018	28.3	706,773	27,842	17.4	484,053
Osceola.....	12,948	27.7	358,428	16,047	22.3	357,872
Palo Alto.....	5,717	20.7	118,619	5,600	11.2	62,458
Plymouth.....	32,201	24.5	788,137	36,481	13.2	481,531
Pocahontas.....	2,723	21.5	58,642	2,556	14.6	37,314
Sioux.....	23,871	29.6	707,400	28,430	14.2	403,364
For district.....	197,345	24.0	5,086,633	216,677	15.0	3,254,811
North Central						
Butler.....	2,359	20.1	47,441	2,268	19.7	44,609
Cerro Gordo.....	5,476	24.7	135,235	4,854	21.3	103,178
Floyd.....	3,956	22.5	88,861	3,746	18.2	68,010
Franklin.....	6,108	23.1	140,828	5,128	22.4	114,648
Hancock.....	4,245	19.8	83,959	3,995	21.2	84,637
Humboldt.....	4,409	24.7	108,751	3,196	15.3	48,744
Kossuth.....	5,821	22.6	131,587	5,182	13.5	69,909
Mitchell.....	5,059	26.5	134,145	3,264	19.4	63,215
Winnebago.....	5,064	25.4	128,557	3,832	16.9	64,692
Worth.....	2,139	24.4	52,119	2,908	23.0	66,912
Wright.....	4,847	20.6	99,812	4,282	21.9	93,973
For district.....	49,483	23.3	1,151,295	42,655	19.3	822,527
Northeast						
Allamakee.....	8,324	30.3	252,572	7,396	19.8	146,341
Black Hawk.....	3,758	22.4	84,162	3,036	24.0	73,000
Bremer.....	1,018	23.1	23,562	734	23.1	16,981
Buchanan.....	1,144	23.1	26,371	1,031	18.7	19,258
Chickasaw.....	2,670	21.1	56,251	2,139	15.4	32,834
Clayton.....	6,639	31.4	208,546	6,879	20.0	137,532
Delaware.....	2,622	33.2	87,032	2,563	24.9	63,908
Dubuque.....	3,905	27.7	108,105	4,041	19.7	79,594
Fayette.....	4,151	26.0	108,042	3,960	19.7	77,864
Howard.....	4,348	25.0	108,799	3,780	16.6	62,580
Winnebago.....	11,962	26.3	314,598	9,776	15.9	155,372
For district.....	50,541	27.3	1,378,040	45,335	19.1	865,264
West Central						
Audubon.....	4,369	19.6	85,532	4,395	8.8	38,539
Calhoun.....	1,181	19.8	23,392	1,718	14.7	25,296
Carroll.....	6,317	21.3	134,569	6,915	12.6	87,428
Crawford.....	12,360	20.2	249,103	7,800	4.4	34,366
Greene.....	1,291	22.9	29,575	1,212	19.5	23,676
Guthrie.....	4,138	17.9	74,019	3,960	9.1	35,977
Harrison.....	2,710	18.7	50,762	2,721	9.3	25,386
Ida.....	14,959	18.8	280,534	13,265	7.2	95,986
Monona.....	5,314	21.2	112,491	7,336	15.6	114,231
Sac.....	14,946	17.4	260,266	13,056	11.7	153,011
Shelby.....	6,292	21.4	134,369	5,602	9.1	51,150
Woodbury.....	9,812	22.6	221,855	12,192	11.8	143,506
For district.....	83,689	19.8	1,656,467	80,172	10.3	828,552
Central						
Boone.....	1,872	24.2	45,217	2,277	22.1	50,394
Dallas.....	1,757	22.8	40,017	1,595	10.1	16,162
Grundy.....	4,046	23.5	94,935	4,843	23.5	113,729
Hamilton.....	1,768	22.2	39,201	1,742	23.1	40,250
Hardin.....	4,461	21.8	97,035	3,696	22.8	84,119
Jasper.....	4,254	21.4	91,048	3,288	15.9	52,271
Marshall.....	8,727	20.4	178,090	6,203	22.6	140,182
Polk.....	1,993	21.2	42,320	1,645	14.3	23,501
Poweshiek.....	2,480	22.7	56,400	3,043	18.4	56,063
Story.....	1,730	19.5	33,672	1,927	21.4	41,191
Tama.....	10,343	21.9	226,664	9,836	22.7	223,393
Webster.....	1,411	25.2	35,510	2,662	19.3	51,278
For district.....	44,842	21.9	980,109	42,757	20.9	892,533

Fig. 69. The north central states are the leading producers of barley. The bulk of the production occurs where the rainfall is less than 35 inches.



IOWA BARLEY ACREAGE
1933

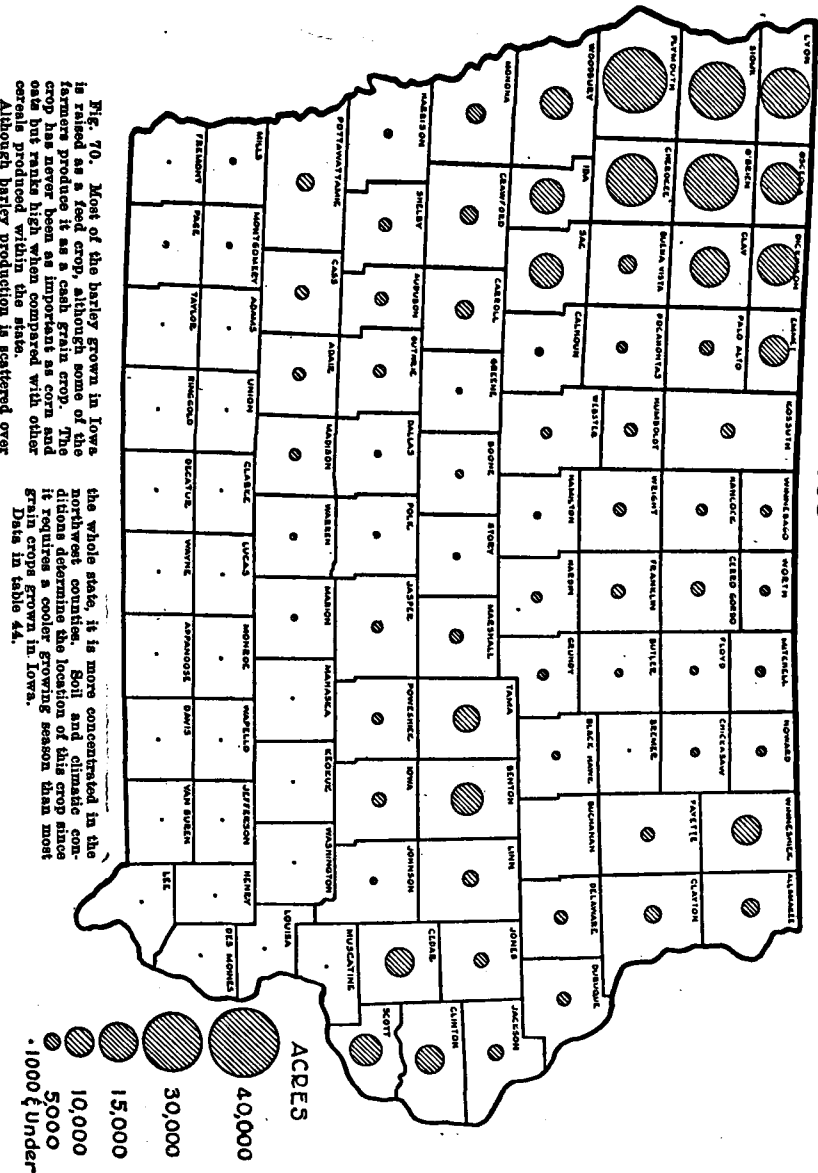


Fig. 70. Most of the barley grown in Iowa is raised as a winter crop, although some of the farmers produce it as a summer crop. The winter crop has never been as important as corn and oats but ranks high when compared with other cereals produced within the state. Although barley production is scattered over the whole state, it is more concentrated in the northwest counties. Soil and climatic conditions determine the location of this crop since it requires a cooler growing season than most cereals in this State.

District	Total Acres	% of Total	Total Bushels	% of Total	Total Value
East Central					
Benton	9,920	23.2	230,459	12.310	23.2
Cedar	7,642	26.6	203,606	9,322	21.7
Clinton	7,094	26.6	188,979	9,364	17.5
Iowa	4,145	23.1	95,923	4,436	18.5
Jackson	4,085	25.1	102,355	4,217	17.8
Johnson	1,717	25.2	43,283	1,716	21.8
Jones	4,726	31.6	149,421	5,683	25.6
Linn	3,933	23.1	86,775	4,276	22.9
Muscataine	2,295	24.0	55,185	3,278	15.8
Scott	8,135	29.5	239,623	11,752	19.5
For district	53,682	26.0	1,395,629	66,354	20.6
Southwest					
Adair	3,736	18.7	69,795	3,527	9.6
Adams	1,345	24.3	32,659	1,144	13.7
Cass	7,009	17.4	122,261	5,028	11.0
Fremont	863	18.9	16,292	777	17.3
Grundy	2,705	17.5	47,356	2,038	11.7
Montgomery	2,215	22.8	50,500	885	15.6
Page	3,220	23.6	76,052	2,179	16.3
Pottawattamie	8,580	17.0	146,103	6,005	10.3
Taylor	1,979	22.9	45,332	916	9.4
For district	31,652	19.2	606,350	23,499	11.8
South Central					
Appanoose	636	14.2	9,058	20	0.8
Clarke	1,366	16.2	22,110	638	5.9
Decatur	1,611	10.8	6,620	14	0.2
Lucas	1,565	18.9	29,534	466	7.5
Madison	5,191	23.9	124,252	3,999	9.9
Marion	2,098	26.1	54,720	1,525	18.0
Monroe	796	18.9	15,045	528	3.9
Ringgold	1,032	13.5	13,889	74	5.2
Union	2,499	19.5	48,619	1,447	9.1
Warren	2,479	21.5	53,390	2,001	12.5
Wayne	869	12.5	10,876	46	7.6
For district	19,142	20.3	388,113	10,758	10.6
Southeast					
Davis	265	14.8	3,933	16	5.0
Des Moines	178	20.8	3,702	247	11.1
Henry	86	24.6	2,113	244	13.5
Jefferson	276	19.4	3,361	204	12.0
Keokuk	1,627	22.8	37,157	995	13.4
Lee	647	13.1	8,471	19	12.1
Louis	332	24.5	8,135	349	13.4
Mahaska	1,151	20.5	24,006	954	13.8
Van Buren	31	20.5	637	22	13.0
Wapello	747	21.0	15,664	365	9.2
Washington	853	22.4	19,069	962	15.6
For district	6,193	20.7	128,248	4,377	13.4
For state	536,569	23.8	12,770,884	532,584	15.9

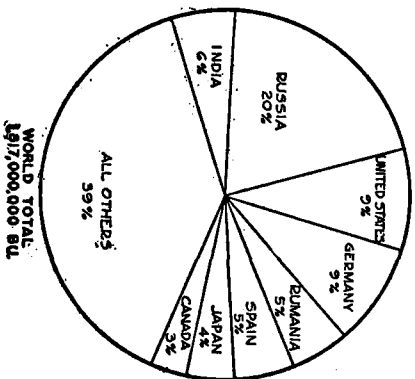
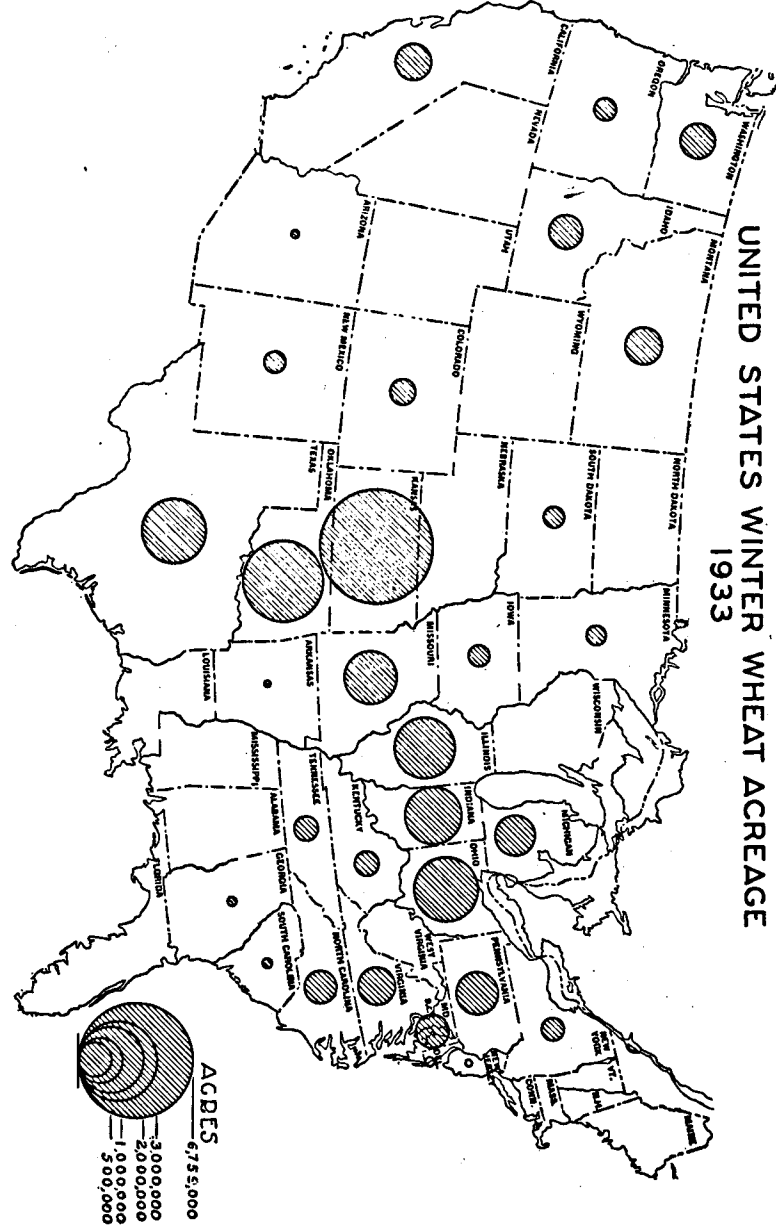


Fig. 71. The United States and Germany raised a total of 1,395,629 bushels of barley production in 1933-34. The United States produced 663,354 bushels or 9 percent of the world production. Because it is a hardy crop, it is widely grown throughout the world.

TABLE 45. IOWA WINTER WHEAT.

Districts and counties	1932			1933		
	Acres	Bushels per acre	Total bushels	Acres	Bushels per acre	Total bushels
Northwest						
Buena Vista.....	74	11.9	877	22	15.7	345
Cherokee.....	47	25.0	1,175	32	17.3	552
Clay.....	218	14.2	3,097	59	10.5	618
Dickinson.....	509	14.2	7,245	151	10.8	1,633
Emmett.....	832	17.4	14,473	178	15.3	2,725
Lyon.....	147	26.1	3,855	167	18.0	3,005
O'Brien.....	19	27.4	520	8	16.3	130
Osceola.....	39	12.0	468	75	11.2	838
Palo Alto.....	724	13.7	9,883	540	10.5	5,695
Plymouth.....	2,341	18.3	42,803	950	18.6	17,692
Pocahontas.....	345	18.0	6,203	171	15.9	2,726
Sioux.....	588	23.0	13,517	303	12.3	3,723
For district.....	5,883	17.7	104,096	2,656	14.9	39,682
North Central						
Butler.....	357	9.9	3,534	193	14.9	2,877
Cerro Gordo.....	344	13.0	4,465	53	13.0	729
Floyd.....	270	16.6	4,483	117	14.2	1,657
Franklin.....	68	16.9	1,151	49	18.9	924
Hancock.....	287	17.5	5,022	29	14.0	405
Humboldt.....	294	16.2	4,765	76	12.4	946
Kossuth.....	645	10.4	6,740	141	9.1	1,289
Mitchell.....	626	10.8	6,755	66	11.0	724
Winneshaw.....	264	14.1	3,713	21	15.7	330
Worth.....	514	19.4	9,994	416	9.3	3,859
Wright.....	200	19.7	3,936	33	11.8	389
For district.....	3,869	14.1	54,558	1,194	11.8	14,129
Northeast						
Allamakee.....	560	18.7	10,490	337	10.8	3,628
Black Hawk.....	306	18.7	5,727	280	17.3	4,836
Bremer.....	144	19.0	2,733	201	12.7	2,562
Buchanan.....	373	13.0	4,850	427	11.8	5,029
Chickasaw.....	602	16.8	10,140	109	8.6	933
Clayton.....	384	20.4	7,819	502	13.4	6,709
Delaware.....	210	18.3	3,853	150	13.8	2,068
Dubuque.....	210	20.7	2,962	173	15.4	2,670
Fayette.....	838	13.1	10,955	330	15.0	4,942
Howard.....	255	16.1	4,094	134	9.4	1,253
Winneshek.....	410	17.9	7,335	307	8.8	2,692
For district.....	4,225	16.8	70,958	2,950	12.7	37,322
West Central						
Audubon.....	361	18.5	6,661	462	15.0	6,933
Calhoun.....	133	13.8	1,830	197	13.0	2,566
Carroll.....	872	18.1	15,815	1,108	15.2	16,816
Crawford.....	1,546	18.5	28,556	1,040	8.6	8,970
Greene.....	235	17.5	4,113	148	19.6	2,900
Guthrie.....	1,061	14.5	15,385	1,472	14.2	20,851
Harrison.....	7,572	14.0	105,647	10,111	19.4	195,723
Ida.....	30	21.7	650	11	8.0	88
Monona.....	26,664	14.0	373,763	21,368	19.8	422,232
Sac.....	123	15.6	1,909	126	8.5	1,070
Shelby.....	462	17.4	8,025	475	11.9	5,651
Woodbury.....	16,594	14.6	242,786	13,528	16.4	221,820
For district.....	55,652	14.5	805,140	50,046	18.1	905,620
Central						
Boone.....	595	16.5	9,803	574	21.6	12,418
Dallas.....	5,478	18.6	101,860	6,084	18.1	110,154
Grundy.....	91	19.8	1,800	56	16.5	926
Hamilton.....	129	20.6	2,663	374	22.9	8,582
Hardin.....	91	12.4	1,130	82	19.2	1,576
Jasper.....	3,701	19.6	72,398	3,747	20.1	75,432
Marshall.....	928	19.0	17,621	1,512	20.7	31,276
Folk.....	6,547	20.2	132,249	7,682	19.3	148,485
Poweshiek.....	464	16.7	7,753	464	18.1	8,420
Story.....	820	15.6	12,760	901	20.4	18,349
Tama.....	1,264	18.7	23,578	1,157	18.1	20,961
Webster.....	126	16.4	2,069	120	16.2	1,939
For district.....	20,234	19.1	385,684	22,753	19.3	438,518

Fig. 72. Wheat is widely distributed; important winter wheat states. Iowa, Kansas, Oklahoma, and Texas are the is of minor importance.



UNITED STATES WINTER WHEAT ACREAGE
1933

BASEBOOK OF IOWA 1933 IOWA WINTER WHEAT ACREAGE

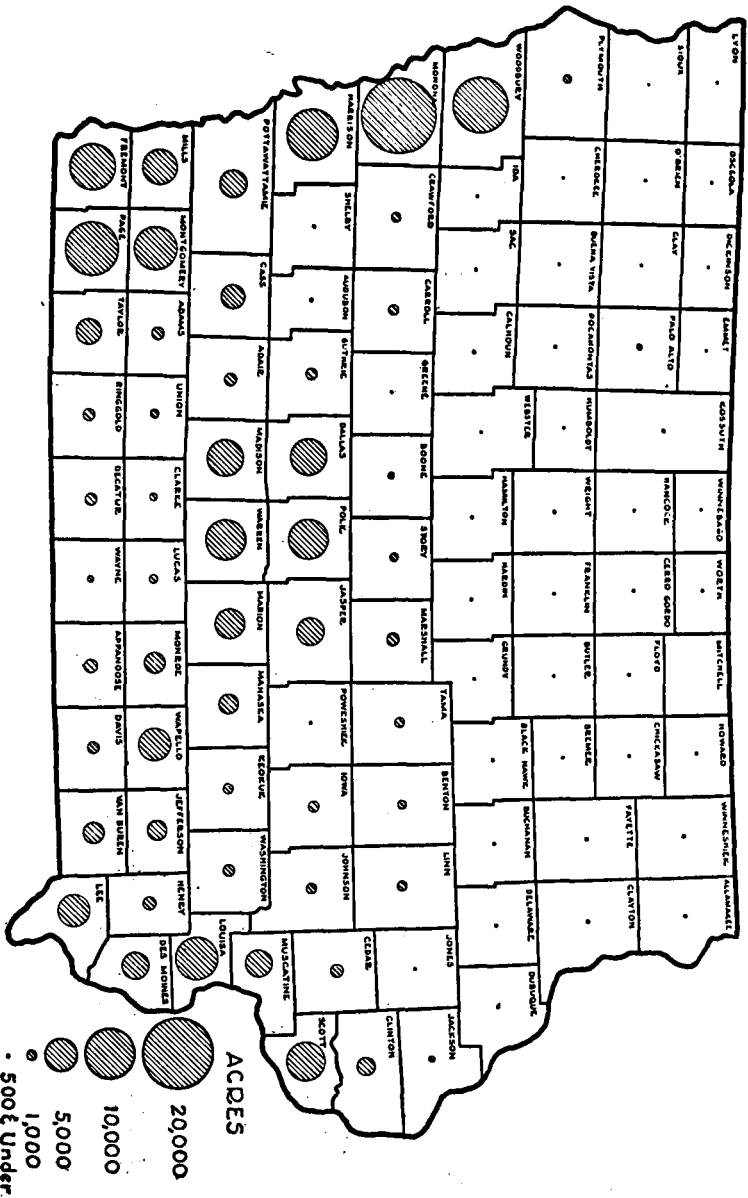


Fig. 78. Winter wheat ranks fourth in Iowa's grain crop production in acreage, total production and value. In some counties it is of major importance and in others the acreage

is only a trifle of the total area. Some of the crop is planted as both crop, especially that raised in the wheat growing sections. In the counties where it is only a minor crop, it is

consumed by the animals as a supplementary feed. Data in table 45.

District	Total Acreage	Total Value	Total Production (bushels)	Total Value (dollars)
East Central				
Benton	778	20.6	16,022	725
Cedar	1,598	21.0	33,507	1,812
Clinton	2,285	21.3	48,580	2,444
Iowa	2,369	16.0	37,951	1,687
Jackson	583	17.6	10,258	509
Johnson	1,143	18.9	21,579	1,211
Jones	186	18.4	3,428	165
Linn	1,157	21.1	24,384	990
Muscatine	3,777	19.3	73,018	3,918
Scott	6,803	21.5	146,117	6,303
For district	20,679	20.1	414,844	19,764
Southwest				
Adair	1,812	13.4	24,347	1,736
Adams	1,997	14.7	29,333	1,674
Cass	4,068	16.2	65,710	3,244
Fremont	7,501	14.4	108,000	8,154
Mills	5,564	16.1	89,747	5,421
Montgomery	7,254	17.8	129,413	6,814
Page	10,659	18.8	200,512	10,406
Pottawattomie	5,037	17.1	85,881	3,984
Taylor	5,233	13.8	72,098	3,669
For district	49,125	16.4	805,041	45,102
South Central				
Appanoose	1,871	9.9	18,437	1,723
Clarke	769	9.7	7,452	851
Decatur	1,889	9.0	17,025	1,401
Lucas	1,390	10.1	14,022	1,098
Madison	4,885	18.4	89,729	5,864
Marion	5,919	21.3	83,290	4,230
Monroe	2,953	11.7	34,474	2,974
Ringgold	2,463	10.6	26,148	1,528
Union	1,123	13.1	14,738	905
Warren	6,342	16.7	105,805	7,150
Wayne	1,621	7.8	12,672	594
For district	29,225	14.5	423,792	28,318
Southeast				
Davis	1,001	9.8	18,635	1,698
Des Moines	6,135	15.8	97,417	5,942
Henry	5,243	15.7	35,174	2,878
Jefferson	2,570	13.6	34,863	2,521
Keokuk	2,083	17.0	35,352	1,424
Lee	5,908	13.5	79,596	4,661
Louisia	6,173	18.1	111,965	6,949
Mahaska	3,294	18.4	60,514	2,783
Van Buren	3,657	10.1	37,050	3,010
Wapello	4,343	14.9	64,515	4,826
Washington	1,905	18.2	34,632	1,567
For district	40,212	15.2	609,713	35,259
For state	229,104	16.0	3,673,826	208,042

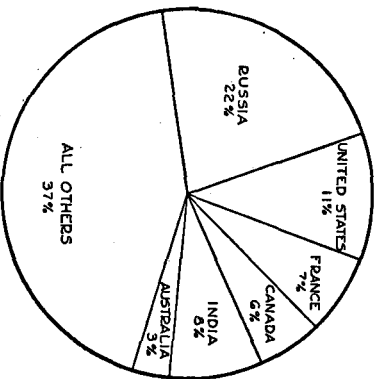


Fig. 74. The United States ranks second to Russia in world wheat production. In 1933-34 the United States produced 529 million bushels, or 11 percent of the world total. Other leading countries are France, Canada and India.

WORLD WHEAT PRODUCTION 1933-34

WORLD TOTAL
4,632,000,000 BU.

UNITED STATES SPRING WHEAT ACREAGE 1933

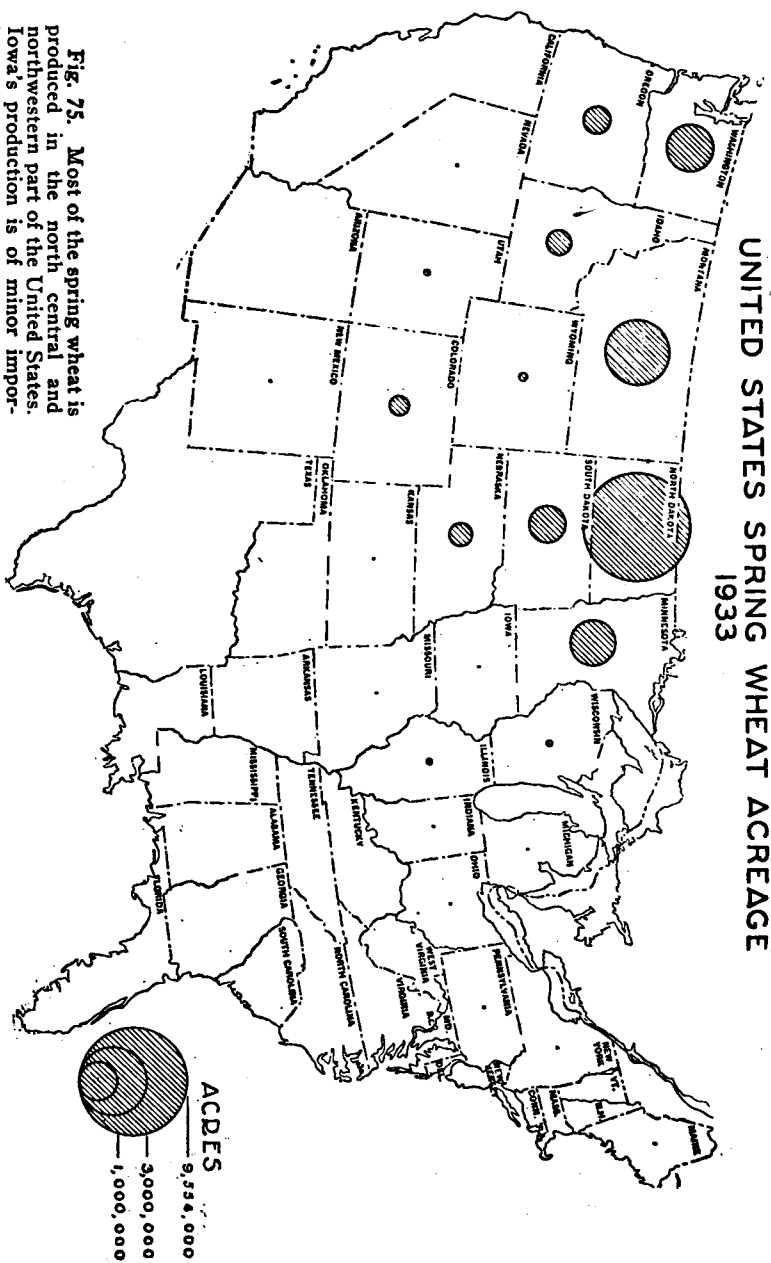


Fig. 75. Most of the spring wheat is produced in the north central and northwestern part of the United States. Iowa's production is of minor importance.

TABLE 46. IOWA SPRING WHEAT

Districts and counties	1932			1933		
	Acres	Bushels per acre	Total bushels	Acres	Bushels per acre	Total bushels
Northwest						
Buena Vista.....	113	12.2	1,380	81	14.8	1,196
Cherokee.....	94	16.3	1,530	157	12.9	2,028
Clay.....	104	16.3	1,696	318	10.7	3,396
Dickinson.....	300	15.1	4,539	195	12.0	2,331
Emmett.....	47	18.3	860	96	9.3	892
Lyon.....	276	19.8	5,458	303	12.9	3,907
O'Brien.....	101	16.5	1,664	193	16.5	3,192
Osceola.....	136	16.7	2,268	480	10.1	4,831
Palo Alto.....	26	20.2	524	76	10.5	800
Plymouth.....	1,397	11.7	16,292	1,535	12.7	19,527
Pocahontas.....	132	15.1	1,989	150	12.9	1,928
Sioux.....	257	18.0	4,633	526	12.5	6,598
For district.....	2,983	14.4	42,833	4,110	12.3	50,626
North Central						
Butler.....	150	13.3	1,999	212	14.2	3,003
Cerro Gordo.....	128	15.9	2,038	172	11.2	1,932
Floyd.....	92	12.6	1,163	84	12.5	1,049
Franklin.....	158	15.2	2,405	245	16.0	3,931
Hancock.....	159	16.0	2,538	118	12.1	1,429
Humboldt.....	114	15.7	1,789	155	15.3	2,374
Kossuth.....	115	12.5	1,432	189	12.6	2,375
Mitchell.....	321	14.8	4,747	691	13.5	9,327
Winnebago.....	73	13.8	1,007	229	15.3	3,497
Worth.....	245	14.4	3,538	298	14.3	4,261
Wright.....	3,112	13.3	4,145	256	17.9	4,580
For district.....	1,867	14.4	26,801	2,649	14.3	37,758
Northeast						
Allamakee.....	458	19.6	8,964	609	13.0	7,932
Black Hawk.....	138	12.1	1,671	308	14.8	4,548
Bremer.....	120	13.8	1,652	153	12.8	1,959
Buchanan.....	129	16.1	2,071	126	12.6	1,585
Chickasaw.....	158	12.8	2,029	162	11.5	1,865
Clayton.....	669	18.7	12,494	867	15.4	13,311
Delaware.....	272	17.0	4,635	303	15.6	4,719
Dubuque.....	520	17.6	9,159	738	15.8	11,683
Fayette.....	258	15.3	3,953	312	12.4	3,875
Howard.....	253	12.4	3,134	284	10.5	2,982
Winneshiek.....	656	14.0	9,174	625	10.5	6,540
For district.....	3,631	16.2	58,936	4,487	13.6	60,999
West Central						
Audubon.....	120	15.9	1,905	169	5.8	979
Calhoun.....	37	18.9	698	80	12.0	959
Carroll.....	573	15.0	8,589	591	11.2	6,613
Crawford.....	1,699	11.5	19,548	1,722	5.3	9,179
Greene.....	99	14.8	1,467	137	16.6	2,272
Guthrie.....	107	13.2	1,414	288	9.7	2,783
Harrison.....	7,689	8.8	67,879	5,132	11.8	60,358
Ida.....	42	12.7	533	55	8.7	480
Monona.....	5,701	7.8	44,562	4,836	14.5	70,235
Sac.....	82	10.9	890	67	16.3	1,090
Shelby.....	528	12.6	6,632	420	7.6	3,191
Woodbury.....	485	10.0	4,860	565	15.6	8,832
For district.....	17,162	9.3	158,977	14,062	11.9	166,971

BASEBOOK OF IOWA

IOWA SPRING WHEAT ACREAGE
1933

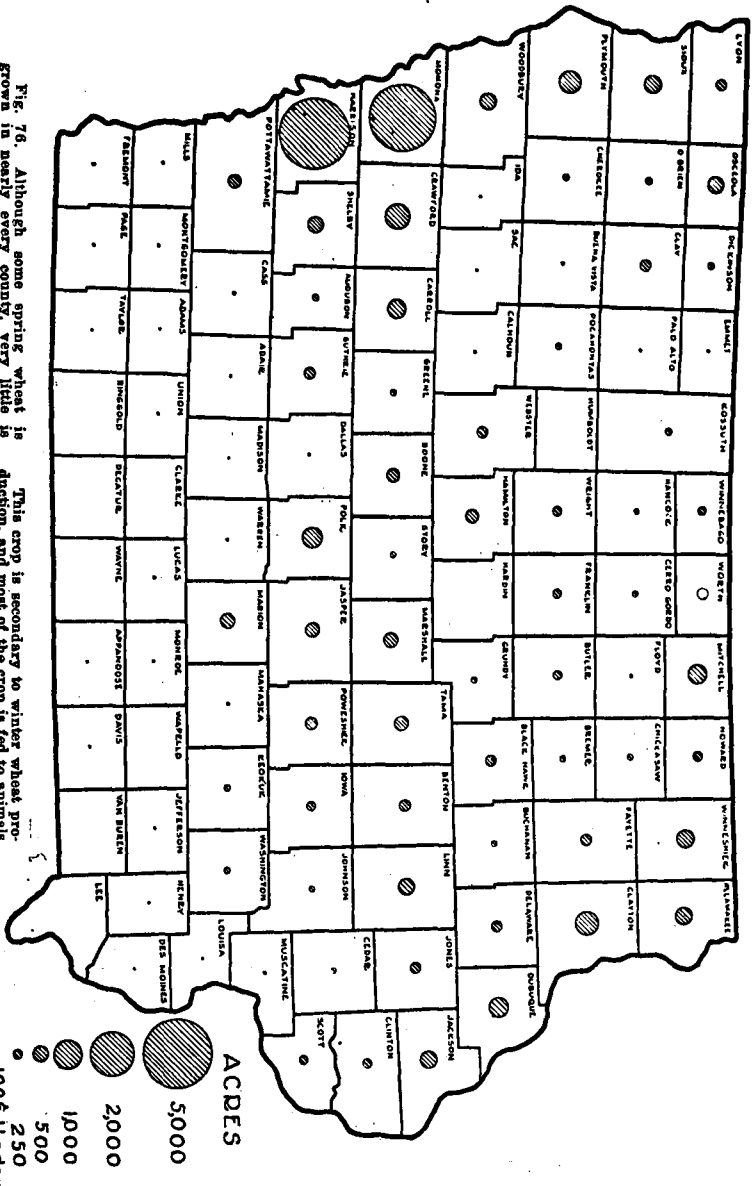


Fig. 76. Although some spring wheat is grown in nearly every county, very little is grown in the southern section. Most of the production is centered in the extreme central and western part of the state, largely in Monona and Harrison Counties.

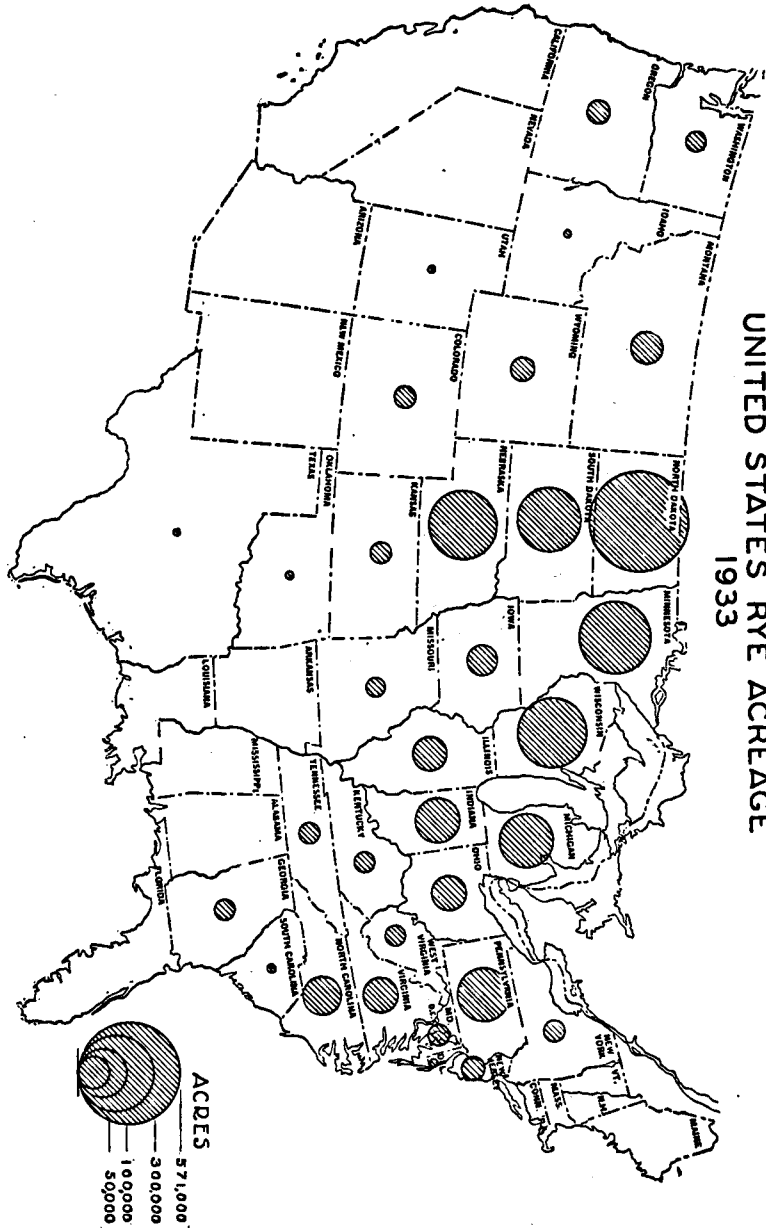
This crop is secondary to winter wheat production and most of the crop is fed to animals on the farms where it is produced. Iowa's acreage of this crop is not sufficient to make it a ranking commercial producer. Data in table 46.

Central						
Boone.....	244	16.8	4,094	355	19.9	7,052
Dallas.....	130	17.7	2,297	33	17.8	589
Grundy.....	114	19.0	2,152	114	15.4	1,752
Hamilton.....	286	12.2	3,475	375	15.0	5,608
Hardin.....	100	15.4	1,539	97	20.2	1,959
Jasper.....	496	12.6	6,273	423	11.0	4,673
Marshall.....	281	13.9	3,908	401	17.7	7,114
Polk.....	900	13.9	12,497	768	14.9	11,415
Poweshiek.....	379	11.8	4,464	382	14.9	5,685
Story.....	212	15.5	3,285	182	18.8	3,425
Tama.....	365	15.2	5,557	440	13.6	5,974
Webster.....	248	16.0	3,973	300	16.8	5,034
For district.....	3,755	14.3	53,514	3,870	15.6	60,280
East Central						
Benton.....	320	17.1	5,460	286	19.4	5,552
Cedar.....	97	16.1	1,563	128	16.8	2,154
Clinton.....	319	15.8	5,056	285	12.7	3,612
Iowa.....	293	14.1	4,141	254	14.3	3,639
Jackson.....	590	12.6	7,408	608	11.8	7,184
Johnson.....	183	19.8	3,620	135	20.0	2,703
Jones.....	336	13.6	4,557	324	15.4	4,992
Linn.....	350	16.3	5,688	532	15.6	8,301
Muscatine.....	250	17.5	4,369	97	16.9	1,641
Scott.....	443	16.3	7,242	255	17.1	4,370
For district.....	3,181	15.4	49,104	2,904	15.2	44,148
Southwest						
Adair.....	105	10.7	1,120	33	10.6	349
Adams.....	4	12.5	50	17	10.6	180
Cass.....	144	10.3	1,487	113	15.4	1,737
Fremont.....				13	17.5	228
Mills.....	71	9.6	683	110	15.0	1,654
Montgomery.....	66	8.4	554	60	10.1	603
Page.....	4	10.0	40	15	5.3	80
Pottawattamie.....	626	9.0	5,622	349	11.9	4,153
Taylor.....	15	6.7	100	86	13.4	1,153
For district.....	1,035	9.3	9,656	796	12.7	10,137
South Central						
Appanoose.....	65	4.9	317	40	5.0	200
Clarke.....	13	6.3	82			
Decatur.....	2	10.0	20	38	5.5	210
Lucas.....	44	13.3	583			
Madison.....	46	15.0	690	64	9.2	587
Marion.....	372	13.5	5,022	409	13.6	5,552
Monroe.....	48	9.0	431	59	6.8	400
Ringgold.....	57	20.7	1,178			
Union.....	10	19.9	199	13	13.6	177
Warren.....	59	7.7	456	112	11.0	1,236
Wayne.....	1	10.0	10			
For district.....	717	12.5	8,988	735	11.4	8,362
Southeast						
Davis.....	34	9.1	310	2	11.0	22
Des Moines.....	38	11.1	420	8	5.0	40
Henry.....	55	14.1	776	37	18.4	681
Jefferson.....	65	13.0	846	31	14.2	440
Keokuk.....	273	10.3	2,807	205	13.0	2,662
Lee.....						
Louisa.....	59	12.9	760	22	8.0	175
Mahaska.....	212	14.4	3,063	61	15.0	917
Van Buren.....	51	8.0	409			
Wapello.....	31	13.9	430	154	12.9	1,981
Washington.....	111	14.9	1,651	176	17.4	3,062
For district.....	929	12.3	11,472	696	14.3	9,980
For state.....	35,260	11.9	420,281	34,309	13.1	449,261

TABLE 47. IOWA RYE

Districts and counties	1932			1933		
	Acres	Bushels per acre	Total bushels	Acres	Bushels per acre	Total bushels
Northwest						
Buena Vista.....	248	14.8	3,661	128	15.2	1,951
Cherokee.....	140	19.7	2,754	53	16.9	895
Clay.....	950	14.2	13,515	756	14.1	10,658
Dickinson.....	938	16.1	15,136	621	16.8	10,454
Emmett.....	1,360	8.7	11,765	813	10.3	8,645
Lyon.....	531	23.7	12,574	641	18.0	11,511
O'Brien.....	230	16.1	3,706	177	18.8	3,333
Osceola.....	487	23.0	11,189	510	18.7	9,517
Palo Alto.....	2,883	7.2	20,678	955	7.7	7,352
Plymouth.....	2,373	19.5	46,306	2,333	15.3	35,664
Pocahontas.....	439	12.2	5,334	316	14.6	4,634
Sioux.....	501	17.7	8,849	580	14.2	8,260
For district.....	11,080	14.0	155,467	7,883	14.3	112,874
North Central						
Butler.....	758	8.2	6,216	539	8.7	4,674
Cerro Gordo.....	522	13.1	6,825	176	12.4	2,176
Floyd.....	605	11.5	6,939	187	14.8	2,766
Franklin.....	371	9.9	3,664	344	14.7	5,058
Hancock.....	229	12.2	2,796	319	14.8	4,714
Humboldt.....	212	9.7	2,050	153	13.8	2,112
Kossuth.....	433	12.6	5,435	215	13.2	2,843
Mitchell.....	639	12.5	8,013	90	16.2	1,454
Winnebago.....	82	10.8	889	106	11.6	1,231
Worth.....	543	12.1	6,549	330	14.0	4,627
Wright.....	86	12.4	1,069	94	19.9	1,867
For district.....	4,480	11.3	50,445	2,553	13.1	33,522
Northeast						
Allamakee.....	527	12.6	6,654	212	11.2	2,369
Black Hawk.....	1,114	8.8	9,792	758	9.8	7,432
Bremer.....	266	13.7	3,633	262	12.8	3,360
Buchanan.....	898	10.1	9,107	586	9.8	5,743
Chickasaw.....	364	10.0	3,626	176	10.7	1,883
Clayton.....	856	13.6	11,659	607	11.7	7,087
Delaware.....	979	11.3	11,062	673	9.3	6,260
Dubuque.....	136	16.6	2,257	247	11.1	2,750
Fayette.....	662	13.0	8,601	323	12.4	4,012
Howard.....	1,261	10.4	13,165	296	8.9	2,624
Winneshiek.....	322	14.5	4,664	125	9.8	1,227
For district.....	7,385	11.4	84,220	4,265	10.5	44,747
West Central						
Audubon.....	119	10.7	1,273	96	10.8	1,039
Calhoun.....	245	11.4	2,782	87	20.7	1,798
Carroll.....	45	13.0	585	86	17.0	1,460
Crawford.....	298	14.4	4,293	211	10.3	2,178
Greene.....	150	16.2	2,429	135	18.4	2,489
Guthrie.....	102	12.4	1,267	90	12.0	1,079
Harrison.....	336	15.9	5,357	220	14.5	3,197
Ida.....	173	13.0	2,250	104	9.9	1,034
Monona.....	252	14.1	3,545	373	11.1	4,143
Sac.....	37	12.8	472	38	18.5	704
Shelby.....	191	16.7	3,193	120	12.7	1,521
Woodbury.....	1,083	16.1	17,413	1,698	17.7	30,112
For district.....	3,031	14.8	44,859	3,258	15.6	50,754
Central						
Boone.....	30	18.7	560	96	18.5	1,772
Dallas.....	210	13.2	2,768	163	16.7	2,725
Grundy.....	40	12.1	483	76	17.4	1,321
Hamilton.....	86	12.4	1,068	162	25.3	4,098
Hardin.....	189	13.0	2,450	252	16.3	4,120
Hardin.....	208	14.3	2,978	301	10.7	3,232
Jasper.....	606	12.9	7,835	292	16.4	4,796
Marshall.....	308	15.2	4,679	378	14.9	5,618
Folk.....	90	14.6	1,314	74	9.2	680
Poweshiek.....	146	15.4	2,247	247	17.1	4,235
Tama.....	334	12.3	4,105	190	9.3	1,768
Webster.....	272	16.6	4,522	232	15.9	3,691
For district.....	2,519	13.9	35,009	2,463	15.5	38,056

Fig. 77. Rye is widely distributed, the leading states. Iowa is of minor importance. Most of the rye grown in feed. with North Dakota, Minnesota, Wisconsin, Nebraska, and South Dakota



UNITED STATES RYE ACREAGE 1933

BASEBOOK OF IOWA

IOWA RYE ACREAGE
1933

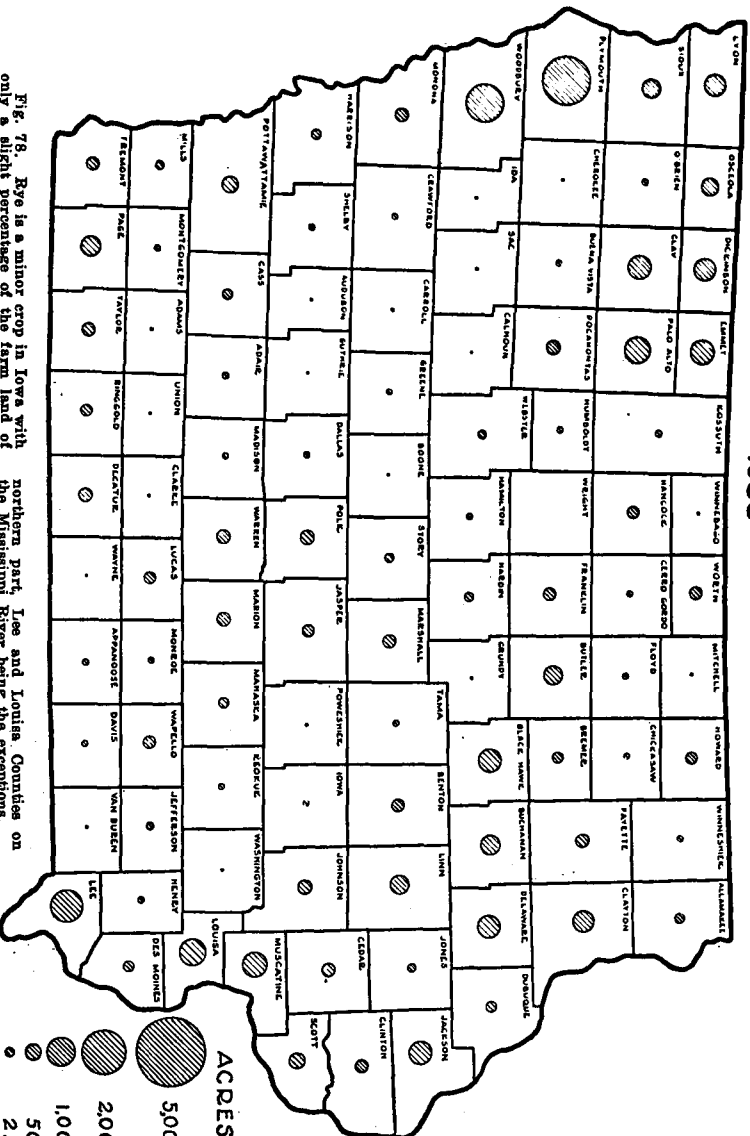


Fig. 78. Rye is a minor crop in Iowa with only a slight percentage of the farm land of the state devoted to its production. In some counties, Plymouth and Woodbury especially, it is of considerable importance. Some rye is produced in all counties of the state, but in general, more is produced in the northern part. Lee and Louisa Counties on the Mississippi River have the largest acreage. More of the rye is consumed by animals on the farms where it is grown. In some of the heavier producing counties, some of the surplus is marketed to be used for breadmaking. Data in table 47.

East Central						
Benton.....	495	11.1	5,518	446	15.0	6,687
Cedar.....	379	14.2	5,363	307	13.6	4,163
Clinton.....	406	12.6	5,128	399	14.2	5,664
Iowa.....	154	13.4	2,061	204	12.0	2,441
Jackson.....	842	11.8	9,914	760	10.3	7,854
Johnson.....	274	12.2	3,330	365	11.7	4,276
Jones.....	369	12.6	4,639	240	10.7	2,573
Linn.....	803	11.6	9,349	644	13.1	8,443
Lyon.....	1,086	10.4	11,247	839	9.5	8,010
Muscatine.....	577	9.1	5,243	452	9.3	4,219
For district.....	5,385	11.5	61,792	4,656	11.7	54,330
Southwest						
Adair.....	148	11.2	1,662	179	10.1	1,816
Adams.....	162	11.7	1,890	58	16.5	955
Cass.....	119	8.9	1,055	233	11.8	2,750
Fremont.....	228	14.4	3,285	426	14.7	6,242
Mills.....	88	17.9	1,576	210	27.2	5,717
Montgomery.....	88	13.8	1,210	141	16.8	3,370
Page.....	606	12.1	7,333	550	13.6	7,478
Pottawattamie.....	88	13.4	1,176	455	15.8	1,185
Taylor.....	328	10.0	3,287	311	11.2	3,481
For district.....	1,855	12.1	22,474	2,563	14.8	37,994
South Central						
Appanoose.....	142	6.9	986	123	6.9	849
Clarke.....	94	9.5	895	85	7.8	653
Decatur.....	430	5.3	2,271	337	9.8	1,970
Lucas.....	214	9.6	2,065	241	9.0	2,167
Madison.....	113	14.5	1,641	134	18.3	2,454
Marion.....	219	15.8	3,457	298	14.4	2,278
Monroe.....	162	9.4	1,518	162	8.4	1,360
Ringgold.....	110	5.9	652	243	11.5	2,798
Union.....	135	8.3	1,127	99	9.7	962
Warren.....	203	13.7	2,778	278	15.0	4,164
Wayne.....	130	6.4	837	36	5.6	202
For district.....	1,952	9.3	18,237	2,036	10.7	21,867
Southeast						
Davis.....	172	7.9	1,360	137	8.8	1,206
Des Moines.....	334	10.8	3,601	245	13.1	3,206
Henry.....	26	12.5	323	115	11.1	1,278
Jefferson.....	166	10.8	1,786	212	9.3	1,966
Keokuk.....	259	10.2	2,641	191	10.0	1,907
Lee.....	889	11.3	10,052	1,245	10.5	13,066
Louisa.....	1,013	9.1	9,203	964	10.7	10,272
Mahaska.....	194	15.5	3,008	229	13.5	3,088
Van Buren.....	95	7.2	680	52	9.7	503
Wapello.....	326	9.3	3,044	292	9.6	2,850
Washington.....	98	12.7	1,241	89	11.4	1,012
For district.....	3,572	10.5	36,939	3,771	10.7	40,354
For state.....	41,259	12.3	509,442	33,448	13.0	434,498

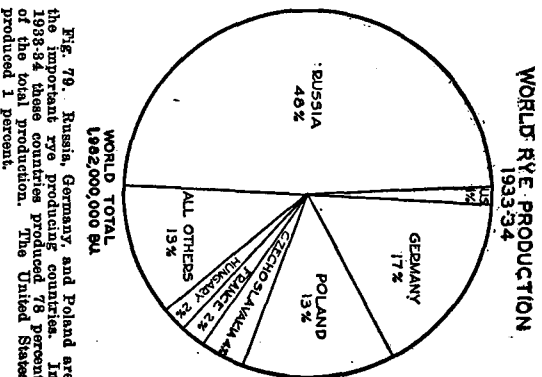


Fig. 79. Russia, Germany and Poland are the important rye producing countries. In 1933-34 these countries produced 78 percent of the total production. The United States produced 1 percent.

UNITED STATES BUCKWHEAT ACREAGE 1933

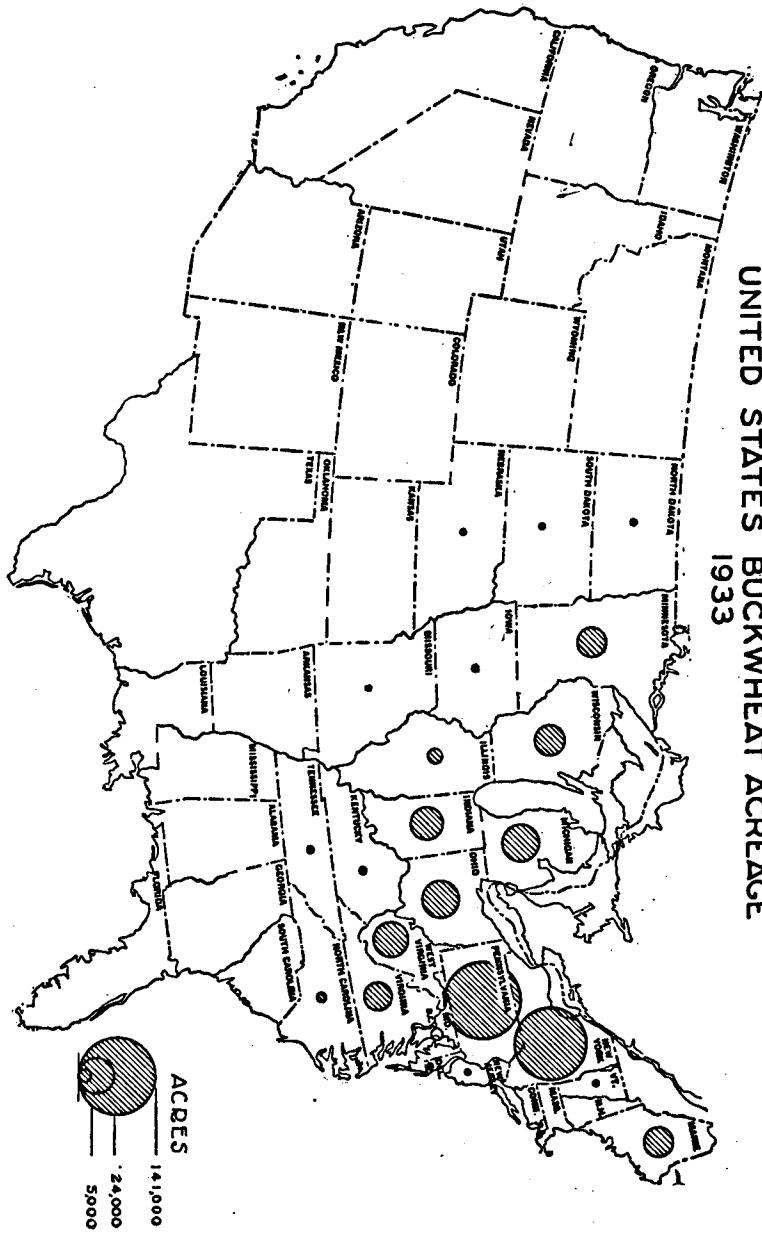


Fig. 80. Most of the buckwheat in the United States is produced in the northeastern part of the United States. New York and Pennsylvania in 1933, with an acreage of 147,000 and 138,000 respectively, had over half the total acreage of buckwheat. Iowa had 14,000 acres.

TABLE 48. IOWA BUCKWHEAT.

Districts and counties	1932			1933		
	Acres	Bushels per acre	Total bushels	Acres	Bushels per acre	Total bushels
Northwest						
Buena Vista.....				18	8.3	150
Cherokee.....				6	3.5	21
Clay.....						
Dickinson.....						
Emmett.....	41	8.0	330			
Lyon.....				6	11.7	70
O'Brien.....						
Osceola.....	4	20.0	80	8	7.0	56
Palo Alto.....						
Plymouth.....				4	14.0	56
Pocahontas.....	24	14.1	338	91	10.3	940
Sioux.....						
For district.....	69	10.8	748	133	9.7	1,293
North Central						
Butler.....	67	17.4	1,163	143	11.4	1,649
Cerro Gordo.....	40	14.3	570	79	20.0	1,583
Floyd.....	37	10.1	375	62	17.6	1,089
Franklin.....				13	15.8	204
Hancock.....	8	11.9	95	28	12.5	350
Humboldt.....						
Kossuth.....						
Mitchell.....	272	11.3	3,087	346	13.8	4,777
Winnebago.....	3	4.0	12			
Worth.....	422	13.6	5,721	568	15.7	8,895
Wright.....	34	9.6	325	13	19.2	250
For district.....	883	12.9	11,348	1,254	15.0	18,797
Northeast						
Allamakee.....	32	16.9	540	10	2.4	24
Black Hawk.....	26	9.2	240	98	15.0	1,470
Bremer.....	10	15.0	150	23	6.9	158
Buchanan.....	48	15.2	731	85	11.5	977
Chickasaw.....	99	18.9	1,867	124	14.8	1,833
Clayton.....						
Delaware.....	5	25.0	125	60	8.4	503
Dubuque.....						
Fayette.....	111	17.2	1,908	158	12.8	2,018
Howard.....	747	12.3	9,151	892	12.4	11,085
Winnesiek.....	36	21.5	774	23	12.4	286
For district.....	1,114	13.9	15,486	1,473	12.5	18,354
West Central						
Audubon.....				2	25.0	50
Calhoun.....	16	14.4	230			
Carroll.....	10	21.7	217			
Crawford.....	2	13.5	27			
Greene.....						
Guthrie.....				59	8.7	516
Harrison.....	6	7.5	45	9	7.8	70
Ida.....						
Monona.....	91	16.5	1,504	10	5.0	50
Sac.....	8	25.0	200	25	22.2	555
Shelby.....						
Woodbury.....	16	6.2	100	99	8.2	810
For district.....	149	15.6	2,323	204	10.1	2,051
Central						
Boone.....				2	10.0	20
Dallas.....				12	4.8	57
Grundy.....				25	18.0	450
Hamilton.....	44	22.3	980	8	5.0	40
Hardin.....						
Jasper.....						
Marshall.....				50	10.6	530
Polk.....				16	8.8	140
Poweshiek.....				3	6.7	20
Story.....	5	15.0	75	2	18.0	36
Tama.....						
Webster.....	10	5.0	50			
For district.....	59	18.7	1,105	118	11.0	1,293

IOWA BUCKWHEAT ACREAGE 1933

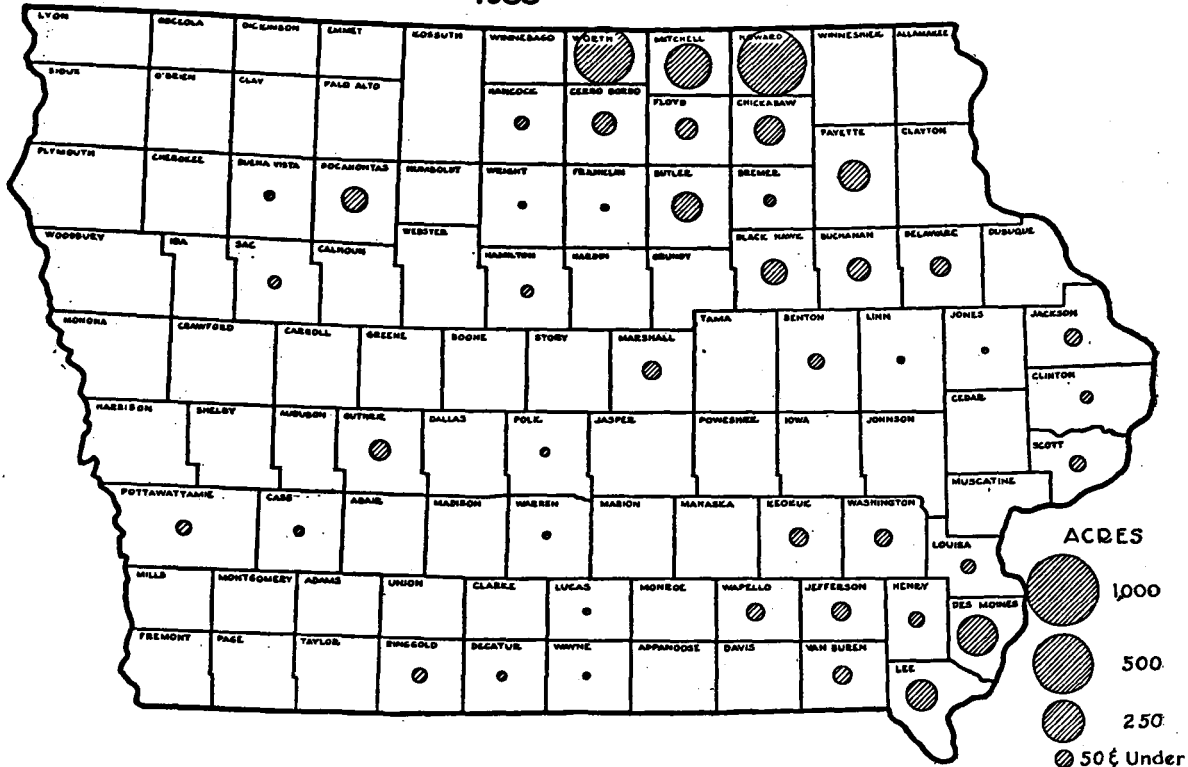


Fig. 81. Buckwheat is a minor crop in Iowa. The total acreage in 1933 was less than 5,000 acres, with many of the counties reporting no acreage of this crop.

Three groups of counties, the north central, the northwest and southeast, are the heaviest producers of the grain. Howard and Worth

counties are first ranking producers of buckwheat. Data in table 48.

	9	20.0	180	35	6.4	224
East Central						
Benton	108	9.4	1,016	25	14.6	364
Cedar	2	12.5	25	44	23.4	37
Iowa	13	11.5	150	13	16.2	210
Jackson	5	15.0	192	16	14.2	227
Linn	8	15.0	75	42	18.9	795
Muscatine				38	5.3	200
Scott						
For district	143	11.5	1,638	218	14.4	3,150
Southwest						
Adair	1	15.0	15	10	13.0	130
Adams	12	10.0	120	17	13.2	40
Cass				10	6.0	225
Clinton	15	7.3	110	5	10.2	60
Montgomery	4	5.0	20	3	10.2	51
Page	12	33.3	400	31	27.0	495
Pottawattamie	8	2.5	20	1	27.0	27
Taylor						
For district	52	13.2	685	79	12.9	1,018
South Central						
Appanoose	3	8.3	25	4	8.0	32
Chariton	2	23.5	47	11	13.5	230
Dallas	1	13.0	15	14	13.0	191
Lucas				3	18.0	34
Madison	27	10.1	212	5	11.8	59
Martinsburg	2	13.0	350	28	12.7	356
Monroe	2	10.0	20	7	4.3	30
Ringgold	38	4.3	165	13	10.5	136
Union	14	11.8	165	13	12.7	165
Wayne						
For district	108	9.2	999	104	12.0	1,253
Southeast						
Davis	1	9.0	9	19	12.3	234
Dea Moines	3	11.7	35	268	14.5	3,891
Henry	3	13.3	40	33	15.9	526
Jefferson	14	17.9	250	51	10.0	511
Keokuk	7	15.9	111	49	16.3	799
Lee				189	15.7	2,976
Muska	15	10.0	150	31	8.4	260
Van Buren	12	16.8	230	2	15.0	30
Wapello	6	8.3	50	42	10.6	310
Washington				43	6.3	182
For district	63	14.0	880	777	13.6	10,588
For state	2,640	13.3	35,212	4,360	13.3	57,797

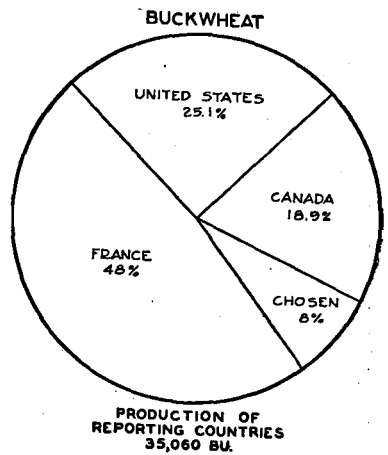


Fig. 82. Buckwheat is a minor world crop. Since a number of the countries failed to report the amount raised, it was impossible to obtain a world total. Of the countries reporting, the United States produced 25.1 percent, or a total of 85,060 bushels.

AGRICULTURAL ECONOMIC FACTS
IOWA POPCORN ACREAGE
1933

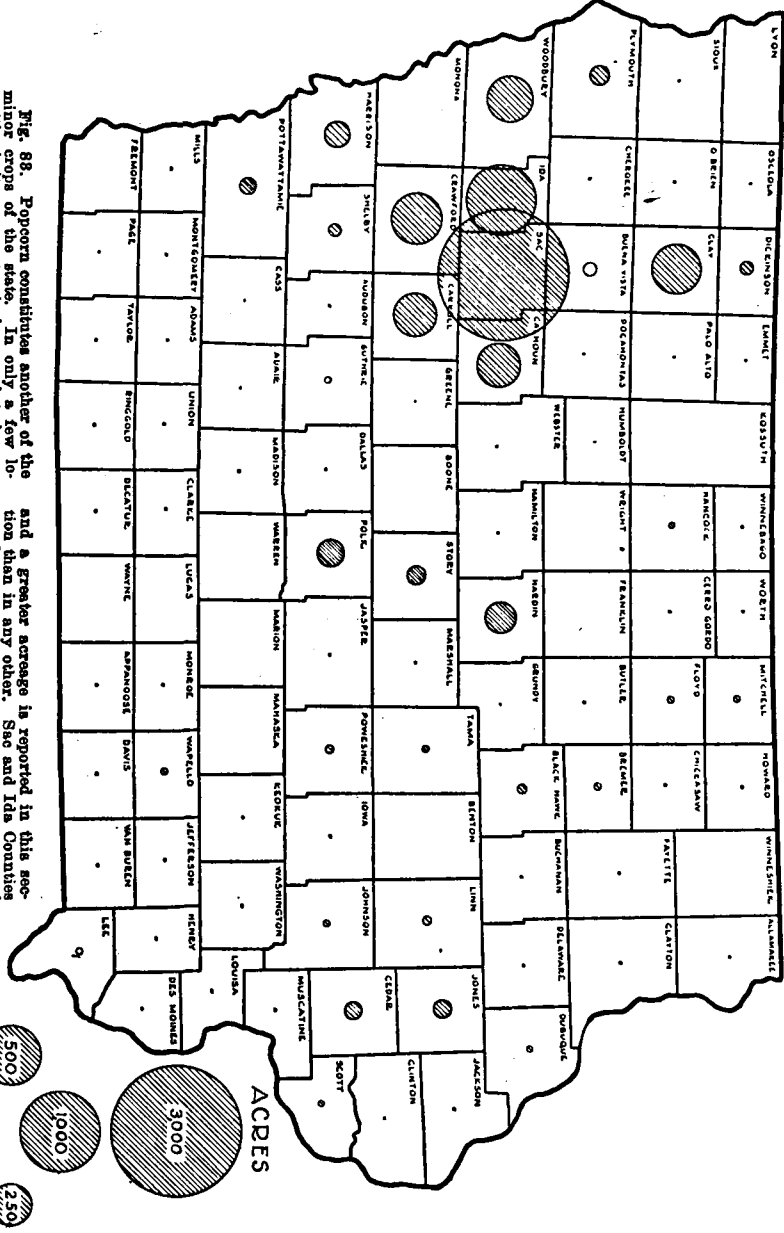


Fig. 88. Popcorn constitutes another of the minor crops of the state. In only a few localities is it grown extensively enough to have a definite commercial value. Most of the popcorn is raised for home consumption and little sold on the market. In the western counties its production is concentrated and a greater acreage is reported in this section than in any other. Sac and Ida Counties are heavy producers. This western group of counties produces over 50 percent of the popcorn of the state and is the heaviest popcorn growing section in the United States. Data in table 49.

TABLE 49. IOWA POPCORN.

Districts and counties	1932		1933	
	Acres	Total pounds	Acres	Total pounds
Northwest				
Buena Vista.....	159	218,500	34	62,490
Cherokee.....	26	46,800	6	9,660
Clay.....	424	740,700	347	624,200
Dickinson.....	2	560	30	73,000
Emmet.....	131	201,620	2	3,400
Lyon.....	7	10,000	11	15,888
O'Brien.....	3	5,400	8	15,415
Osceola.....	3	25,500	3	6,300
Palo Alto.....	336	438,060	10	6,400
Pocahontas.....	1	1,200	66	114,800
Sioux.....	13	19,750	5	4,100
For district.....	1,110	1,708,090	527	942,303
North Central				
Butler.....	34	39,050	7	12,360
Cerro Gordo.....	5	6,850	4	12,600
Floyd.....	1	2,450	12	20,900
Franklin.....	4	3,600	16	30,400
Hancock.....	2	2,850	5	8,760
Humboldt.....	1	1,500	12	16,500
Kossuth.....	31	43,000	7	17,210
Mitchell.....	3	4,400	2	1,800
Winnebago.....	9	7,800	..	..
Wright.....	90	111,500	65	120,530
Northeast				
Allamakee.....	1	1,200	4	6,000
Black Hawk.....	52	60,600	27	40,800
Bremer.....	5	6,000	16	24,000
Buchanan.....	5	3,680	3	6,250
Chickasaw.....	18	19,215	8	5,600
Clayton.....	2	2,661	3	1,870
Delaware.....	4	4,950	4	5,000
Dubuque.....	14	15,200	12	7,000
Fayette.....	13	18,100	10	9,400
Howard.....	..	..	7	8,700
Winneshiek.....	..	..	2	2,350
For district.....	114	131,606	96	116,970
West Central				
Audubon.....	43	59,200	4	4,000
Calhoun.....	332	611,600	306	796,800
Carroll.....	538	922,500	302	595,100
Crawford.....	1,086	1,870,500	376	426,300
Greene.....	2	2,100	10	15,560
Guthrie.....	9	14,105	11	19,675
Harrison.....	235	354,600	98	54,475
Ida.....	2,609	4,033,000	903	1,369,240
Monona.....	10	14,000	..	..
Sac.....	7,405	12,429,900	3,037	5,495,000
Shelby.....	60	94,600	30	50,300
Woodbury.....	399	754,300	316	285,860
For district.....	12,728	21,160,405	5,393	9,112,800
Central				
Boone.....	8	20,620	6	8,000
Dallas.....	79	148,290	6	8,600
Grundy.....	2	7,000	1	1,500
Hamilton.....	1	600	7	16,770
Hardin.....	148	239,663	139	270,245
Jasper.....	4	6,900	4	6,000
Marshall.....	17	21,000	10	15,080
Polk.....	19	21,220	105	160,400
Poweshiek.....	48	85,750	19	36,600
Story.....	106	8,858	58	89,500
Tama.....	2	3,300	11	17,500
Webster.....	7	6,350	2	2,100
For district.....	441	742,693	368	632,295

UNITED STATES TAME HAY ACREAGE
1933

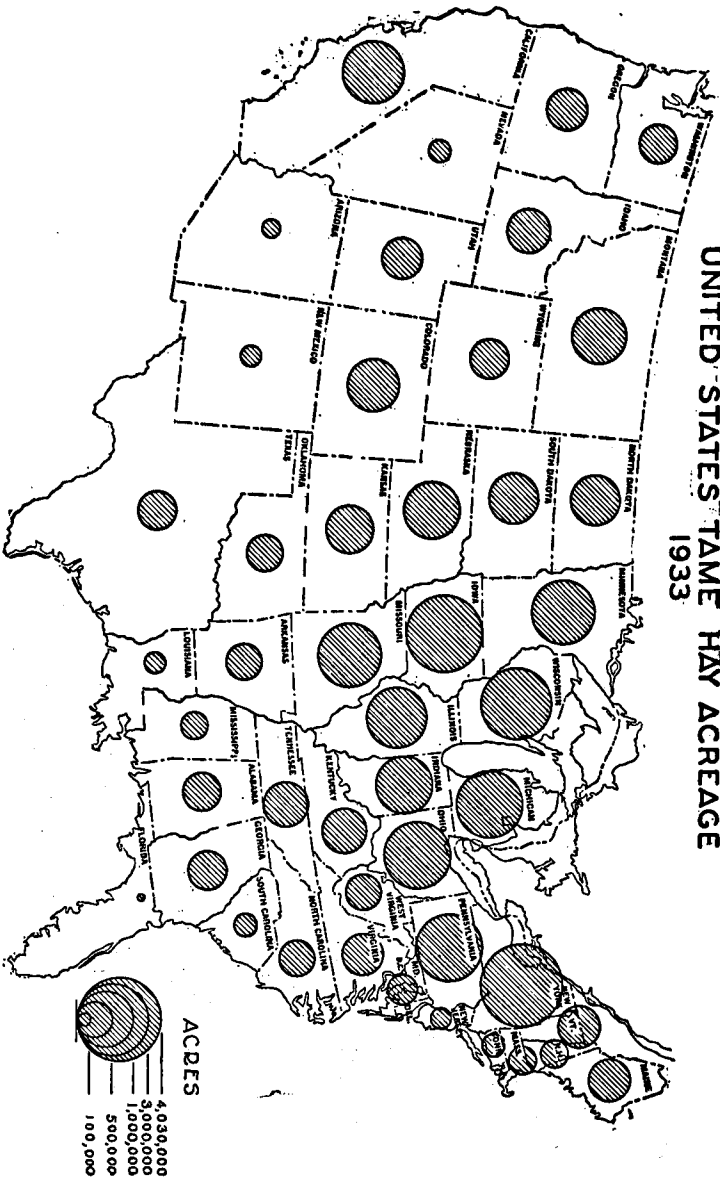


Fig. 84. Though tame hay is widely distributed throughout the United States, the north central states have harvested. Iowa ranks second in the number of acres harvested.

East Central				
Benton.....	35	69,000	..	..
Cedar.....	66	179,370	41	65,475
Clinton.....	4	7,000	1	1,000
Iowa.....	2	2,840	3	2,050
Jackson.....	2	1,700	1	1,200
Johnson.....	23	26,500	15	17,000
Jones.....	54	58,300	45	126,200
Linn.....	44	57,460	21	29,260
Muscatine.....	20	24,800	3	4,000
Scott.....	10	13,200	11	15,700
For district.....	260	440,170	141	261,885
Southwest				
Adair.....	22	23,560	4	6,660
Adams.....	2	2,400	2	2,100
Cass.....	18	23,600	2	3,000
Fremont.....	17	32,790	..	..
Mills.....	16	28,727	6	11,584
Montgomery.....	26	20,800	5	7,000
Pace.....	3	3,998	7	10,800
Pottawattamie.....	111	224,060	40	64,700
Taylor.....	51	50,895	3	5,950
For district.....	266	410,830	69	111,794
South Central				
Appanoose.....	4	4,650	2	2,310
Clarke.....	13	7,450	1	1,200
Decatur.....	7	4,200	1	1,600
Lucas.....	2	3,480	..	..
Madison.....	3	4,995	2	2,000
Marion.....	2	1,500	..	..
Monroe.....	..	..	1	2,500
Ringgold.....	25	27,120	3	2,170
Union.....	22	30,300	3	1,760
Warren.....	36	54,793	..	..
Wayne.....	2	1,700	..	..
For district.....	116	140,188	13	13,540
Southeast				
Davis.....	35	65,950	1	560
Des Moines.....	11	10,400	1	1,550
Henry.....	2	3,200	10	3,000
Jefferson.....	7	5,300	1	2,100
Keokuk.....	7	9,500	5	7,200
Lee.....	20	10,425	15	8,790
Louiss.....	8	9,700	1	1,200
Mahaska.....	2	3,000	..	..
Van Buren.....	12	8,450	2	2,047
Wapello.....	35	34,900	13	16,540
Washington.....	2	3,050	9	21,252
For district.....	141	163,875	58	64,239
For state.....	15,266	25,009,375	6,730	11,376,356

IOWA TAME HAY ACREAGE
1933

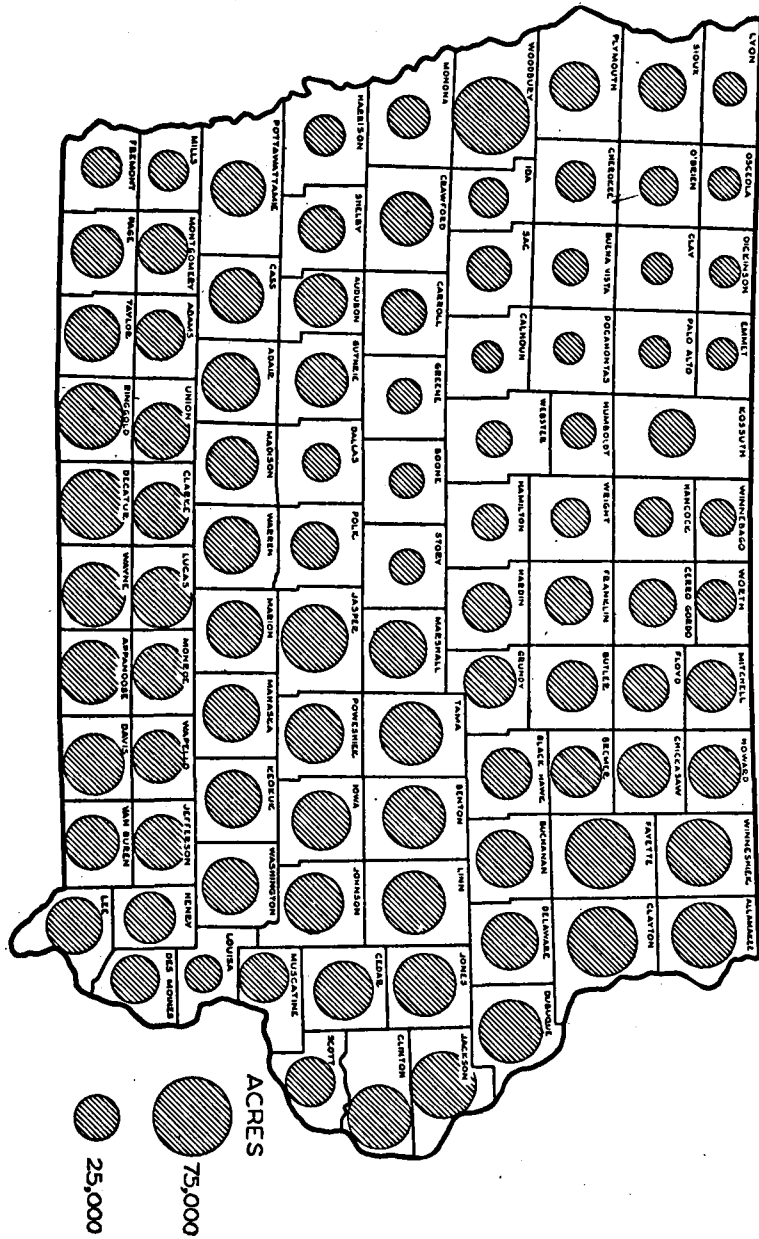


Fig. 85. The map shows that tame hay is grown more in the east half and southeast quarter than in the north-west quarter of the state.

TABLE 50. IOWA TAME HAY.

Districts and counties	1932			1933		
	Acres	Tons per acre	Total tons	Acres	Tons per acre	Total tons
Northwest						
Buena Vista.....	19,176	2.59	49,673	18,290	1.92	35,059
Cherokee.....	19,076	2.03	30,792	20,873	1.14	23,838
Clay.....	15,186	2.14	32,448	16,976	1.43	24,215
Dickinson.....	9,459	2.16	20,418	10,137	1.47	14,887
Emmet.....	10,263	2.03	20,812	10,574	1.73	18,298
Lyon.....	15,198	2.12	32,157	16,487	1.82	29,978
O'Brien.....	17,593	2.39	42,134	19,112	1.69	32,360
Osceola.....	9,916	2.11	20,901	11,074	2.22	24,637
Palo Alto.....	12,921	2.31	29,853	12,062	1.64	19,757
Plymouth.....	28,483	1.81	51,571	31,777	1.27	40,492
Pocahontas.....	14,635	2.42	35,472	13,745	1.80	24,680
Sioux.....	24,158	2.35	56,883	25,951	1.85	47,899
For district.....	196,064	2.20	431,114	207,058	1.62	336,100
North Central						
Butler.....	27,334	1.68	45,961	30,487	1.31	39,905
Cerro Gordo.....	24,257	1.44	35,034	25,640	1.14	29,171
Floyd.....	24,936	1.53	38,145	26,951	1.19	31,944
Franklin.....	22,617	1.68	37,918	24,836	1.69	41,864
Hancock.....	19,974	1.65	32,877	20,664	1.27	26,344
Humboldt.....	13,840	2.45	33,239	12,805	1.94	24,815
Kossuth.....	28,098	2.07	58,297	25,655	1.24	31,710
Mitchell.....	26,227	1.46	38,388	29,458	1.09	32,120
Winnebago.....	16,358	2.20	35,914	17,060	1.90	32,437
Worth.....	18,966	1.71	32,368	21,540	1.44	30,991
Wright.....	14,606	1.93	28,161	14,954	1.65	24,679
For district.....	236,913	1.76	416,302	250,050	1.38	345,980
Northeast						
Allamakee.....	44,703	1.30	58,095	52,501	1.19	62,357
Black Hawk.....	33,400	1.66	55,531	37,916	1.60	60,835
Bremer.....	24,403	1.79	43,659	27,163	1.52	41,301
Buchanan.....	34,288	1.63	55,750	37,630	1.17	43,941
Chickasaw.....	32,013	1.28	40,924	33,086	0.92	30,284
Clayton.....	52,143	1.21	62,992	61,649	1.05	64,977
Delaware.....	38,899	1.18	45,709	44,757	1.29	57,914
Dubuque.....	50,531	1.18	59,392	55,460	1.33	74,015
Fayette.....	53,678	1.59	85,570	59,284	1.35	80,077
Howard.....	32,544	1.36	44,099	37,921	0.92	34,927
Winnebick.....	49,446	1.57	77,623	56,977	1.14	65,208
For district.....	446,048	1.41	629,344	504,343	1.22	615,836
West Central						
Audubon.....	24,559	1.94	47,554	28,299	1.38	39,105
Calhoun.....	10,864	2.21	24,034	11,372	1.55	17,616
Carroll.....	25,058	1.82	45,659	26,027	1.43	37,329
Crawford.....	32,558	2.13	69,214	34,046	1.32	44,843
Greene.....	11,886	2.12	25,176	13,398	1.74	23,307
Guthrie.....	26,172	1.44	37,749	33,328	0.99	32,936
Harrison.....	20,347	2.39	48,657	19,603	1.77	34,760
Ida.....	18,765	2.04	38,225	18,709	0.99	18,603
Monona.....	17,179	2.26	38,798	22,592	1.45	32,754
Sac.....	22,970	1.90	43,619	24,149	1.28	30,885
Shelby.....	23,125	2.36	54,480	26,172	1.62	42,381
Woodbury.....	32,115	2.39	76,596	34,240	1.57	53,814
For district.....	265,598	2.07	549,761	291,935	1.40	408,333
Central						
Boone.....	14,540	1.81	26,345	15,930	1.81	28,861
Dallas.....	15,018	1.83	27,499	18,781	1.44	27,080
Grundy.....	25,564	1.59	40,671	28,432	1.46	41,393
Hamilton.....	13,413	1.92	25,734	14,395	1.82	26,140
Hardin.....	20,028	1.81	36,289	23,761	1.83	43,500
Jasper.....	37,663	1.63	61,354	47,410	1.31	62,316
Marshall.....	29,575	1.47	43,583	38,292	1.43	54,551
Polk.....	20,918	1.85	38,764	24,140	1.51	36,542
Poweshiek.....	35,481	1.42	50,555	44,207	1.32	58,553
Story.....	14,572	2.01	29,362	15,914	1.81	28,863
Tama.....	43,810	1.45	63,473	50,307	1.49	74,752
Webster.....	15,903	2.05	32,594	15,652	1.94	30,319
For district.....	286,476	1.66	476,223	337,221	1.52	512,870

BASEBOOK OF IOWA IOWA ALFALFA ACREAGE 1933

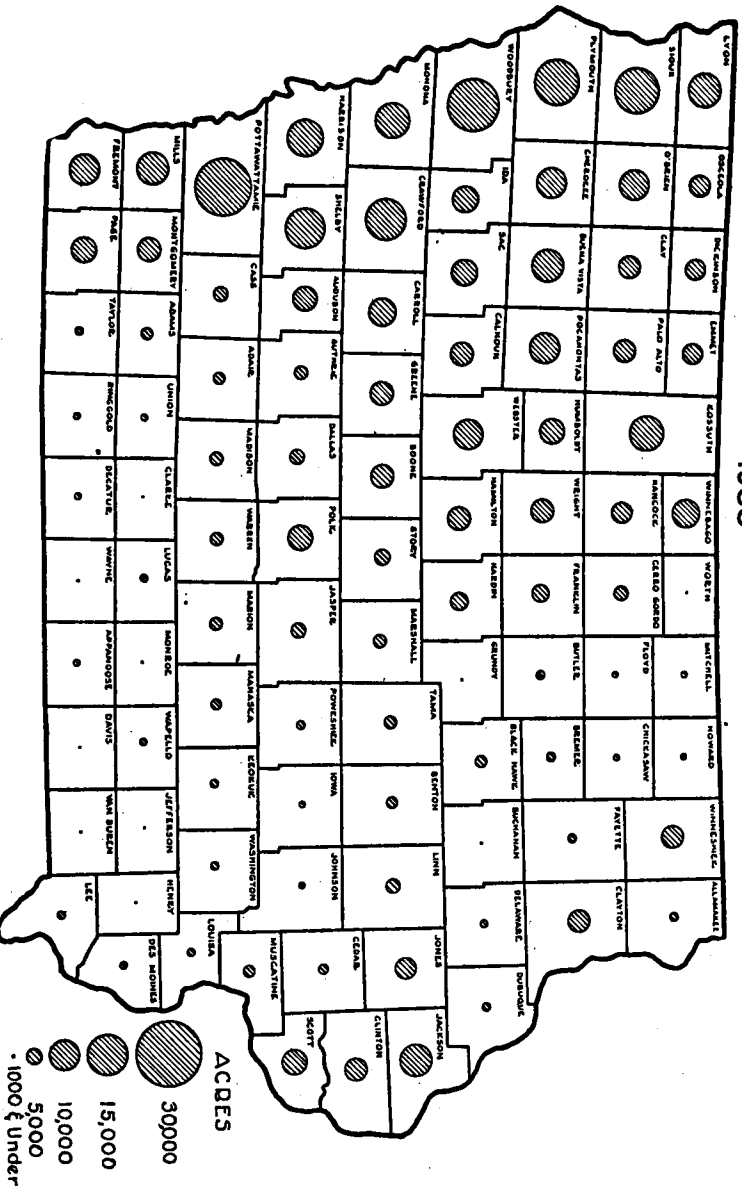


Fig. 86. In 1914, 132,000 acres of Iowa land were devoted to the production of alfalfa. Now over half a million acres are producing the crop and the acreage is still increasing.

The yields per acre are greater than any other kind of hay, it is fairly drought resistant, and, being a legume, it fits well into the rotation and soil building plans of the farmers.

Production is heaviest in the northwestern, north-central, west central, central, and southwestern groups of counties. Alfalfa comprises about a third of the entire hay crop of the state. Data in table 51.

East Central					
Benton.....	43,764	1.38	60,612	48,884	1.64
Cedar.....	41,310	1.36	56,372	46,054	1.61
Clinton.....	48,071	1.52	73,132	55,297	1.47
Iowa.....	37,594	1.31	49,122	43,203	0.72
Jackson.....	50,719	1.26	63,712	58,317	1.70
Johnson.....	43,653	1.37	60,014	46,877	1.26
Jones.....	43,092	1.34	57,754	49,073	1.45
Linn.....	45,221	1.32	59,638	52,070	1.42
Muscatine.....	26,157	1.57	40,997	27,932	1.49
Scott.....	30,976	1.89	58,685	33,878	1.97
For district.....	410,557	1.41	580,038	461,585	1.47
Southwest					
Adair.....	35,363	1.34	47,401	45,253	0.78
Adams.....	22,303	1.49	33,318	31,813	1.26
Cass.....	31,701	1.62	51,237	40,060	1.03
Fremont.....	19,200	1.96	37,652	20,279	1.90
Mills.....	15,411	2.74	42,263	17,093	2.18
Montgomery.....	22,139	1.62	35,887	28,148	1.45
Page.....	26,579	1.62	43,127	34,545	1.64
Pottawattamie.....	35,959	2.30	82,685	41,080	1.66
Taylor.....	23,327	1.37	31,906	41,049	1.11
For district.....	231,982	1.75	405,476	299,320	1.35
South Central					
Appanoose.....	42,876	0.99	42,258	51,914	0.81
Clarke.....	29,355	0.86	25,225	41,503	0.58
Decatur.....	39,876	0.99	39,348	55,762	0.68
Lucas.....	34,822	1.08	37,551	44,110	0.63
Madison.....	25,780	1.49	38,526	34,399	0.99
Marion.....	37,572	1.55	58,345	41,498	1.17
Monroe.....	31,793	1.10	34,824	37,335	0.75
Ringgold.....	34,037	0.85	29,067	52,920	0.76
Union.....	23,889	1.09	26,005	36,281	0.66
Warren.....	34,849	1.38	48,096	41,348	0.88
Wayne.....	44,455	0.93	41,123	58,731	0.60
For district.....	379,304	1.11	420,368	495,801	0.76
Southeast					
Davis.....	43,467	1.00	43,583	50,119	0.85
Des Moines.....	24,987	1.64	41,052	27,466	1.43
Henry.....	29,559	1.31	38,810	33,823	1.06
Jefferson.....	31,454	1.17	36,765	38,750	1.09
Keokuk.....	36,015	1.36	49,112	45,334	1.15
Lee.....	38,090	1.43	54,634	40,765	1.19
Louisia.....	20,266	1.50	30,401	22,630	1.26
Mahaska.....	36,579	1.28	46,852	44,850	0.97
Van Buren.....	27,264	1.22	45,516	42,142	1.00
Wapello.....	31,480	1.22	38,327	34,913	0.76
Washington.....	36,623	1.31	47,859	42,800	1.27
For district.....	365,784	1.29	472,911	423,592	1.08
For state.....	2,818,726	1.55	4,381,537	3,270,905	1.26

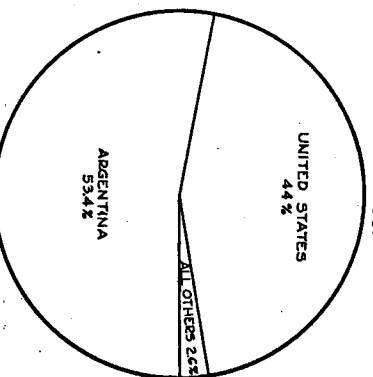


Fig. 87. Though alfalfa is widely distributed and probably originated in western Asia, the largest acreages are reported by Argentina and the United States. Since only a few countries report its acreage, the extent of its production is not definitely known.

IOWA TIMOTHY ACREAGE

1933

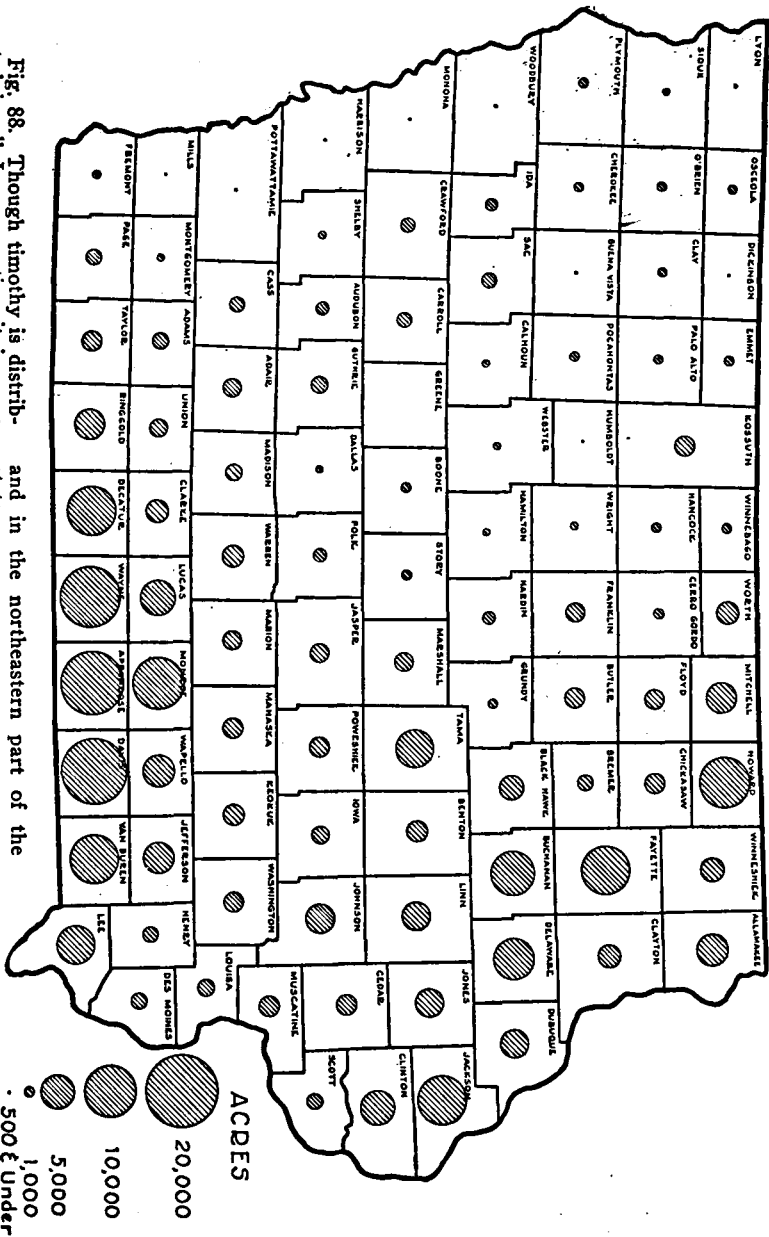


Fig. 88. Though timothy is distributed in all Iowa counties, it is more concentrated in a few southern counties and in the northeastern part of the state. Data in table 52.

TABLE 51. IOWA ALFALFA.

Districts and counties	1932			1933		
	Acres	Tons per acre	Total tons	Acres	Tons per acre	Total tons
Northwest						
Buena Vista.....	11,424	3.25	37,128	10,799	2.54	27,429
Cherokee.....	9,684	2.52	24,404	9,880	1.44	14,227
Clay.....	8,123	2.77	22,501	7,993	2.06	16,466
Dickinson.....	5,717	2.75	15,722	6,026	1.88	11,329
Emmet.....	6,238	2.55	15,907	6,104	2.17	13,246
Lyon.....	12,696	2.33	28,947	13,592	2.00	27,184
O'Brien.....	9,173	3.14	28,803	10,057	2.27	22,829
Osceola.....	6,378	2.58	16,455	7,029	2.79	19,611
Palo Alto.....	8,216	3.00	24,648	7,336	1.92	14,085
Plymouth.....	21,653	1.98	42,873	21,184	1.63	34,530
Pocahontas.....	9,858	2.85	28,095	9,392	2.25	21,132
Sioux.....	20,304	2.48	50,354	21,099	2.05	43,253
For district.....	129,464	2.59	335,837	130,491	2.03	265,321
North Central						
Butler.....	2,494	2.81	7,008	2,674	2.33	6,230
Cerro Gordo.....	4,298	2.54	10,907	5,674	2.11	11,972
Floyd.....	1,565	3.09	4,836	1,931	2.17	4,190
Franklin.....	4,755	2.80	13,314	6,143	2.65	16,279
Hancock.....	5,435	2.70	14,675	6,549	2.13	13,949
Humboldt.....	8,728	3.15	27,493	8,349	2.51	20,956
Kossuth.....	13,896	2.84	39,465	13,250	1.68	22,260
Mitchell.....	980	2.95	2,891	1,119	2.61	2,921
Winnebago.....	7,096	3.14	22,281	9,065	2.46	22,300
Worth.....	2,161	2.97	6,418	3,442	2.65	9,121
Wright.....	6,596	2.70	17,809	7,243	2.39	17,311
For district.....	58,004	2.88	167,097	65,439	2.25	147,489
Northeast						
Allamakee.....	1,708	3.25	5,551	2,688	3.30	8,870
Black Hawk.....	3,354	3.25	10,900	4,433	2.56	11,348
Bremer.....	2,298	3.11	7,147	2,569	2.79	7,168
Buchanan.....	655	3.25	2,129	888	2.48	2,202
Chickasaw.....	663	2.63	1,744	1,136	2.31	2,624
Clayton.....	3,606	2.92	10,530	6,514	2.65	17,262
Delaware.....	1,612	2.54	4,094	2,765	2.56	7,078
Dubuque.....	2,114	3.25	6,870	3,430	3.16	10,839
Fayette.....	1,493	2.93	4,374	2,575	2.65	6,824
Howard.....	923	3.25	3,000	1,419	2.37	3,363
Winneshek.....	4,780	3.03	14,483	6,239	2.46	15,348
For district.....	23,206	3.05	70,822	34,656	2.68	92,926
West Central						
Audubon.....	7,798	2.94	22,926	8,891	2.58	22,939
Calhoun.....	6,258	2.75	17,210	7,072	1.96	13,861
Carroll.....	7,811	2.78	21,715	9,421	2.08	19,596
Crawford.....	13,474	3.11	41,904	15,211	2.21	33,616
Greene.....	6,127	2.90	17,768	7,256	2.30	16,689
Guthrie.....	3,979	2.50	9,948	4,522	2.41	10,898
Harrison.....	13,501	2.90	39,193	14,301	2.11	30,175
Ida.....	7,913	3.00	23,739	8,169	1.68	13,724
Monona.....	12,449	2.60	32,367	13,397	1.89	25,320
Sac.....	7,738	2.68	20,738	8,461	2.12	17,937
Shelby.....	13,298	3.13	41,623	14,964	2.26	33,819
Woodbury.....	23,890	2.70	64,503	24,495	1.82	44,581
For district.....	124,236	2.85	353,594	136,160	2.08	283,155
Central						
Boone.....	6,647	2.50	16,618	7,645	2.41	18,424
Dallas.....	5,791	3.00	17,373	6,833	2.68	18,312
Grundy.....	1,226	2.67	3,273	1,451	2.52	3,657
Hamilton.....	6,424	2.57	16,510	7,253	2.38	17,262
Hardin.....	5,000	2.78	13,900	6,544	3.02	19,763
Jasper.....	5,633	2.60	14,646	6,001	2.54	15,243
Marshall.....	4,491	2.67	11,991	5,565	2.65	14,747
Polk.....	7,134	2.78	19,833	8,814	2.49	21,947
Poweshiek.....	2,470	2.54	6,274	3,247	2.63	8,540
Story.....	5,693	2.70	15,371	6,149	2.65	16,295
Tama.....	4,015	3.53	14,173	5,111	2.94	15,026
Webster.....	8,763	2.80	24,536	10,009	2.42	24,222
For district.....	63,287	2.76	174,498	74,622	2.59	193,438

BASEBOOK OF IOWA
IOWA SWEET CLOVER HAY ACREAGE
1933

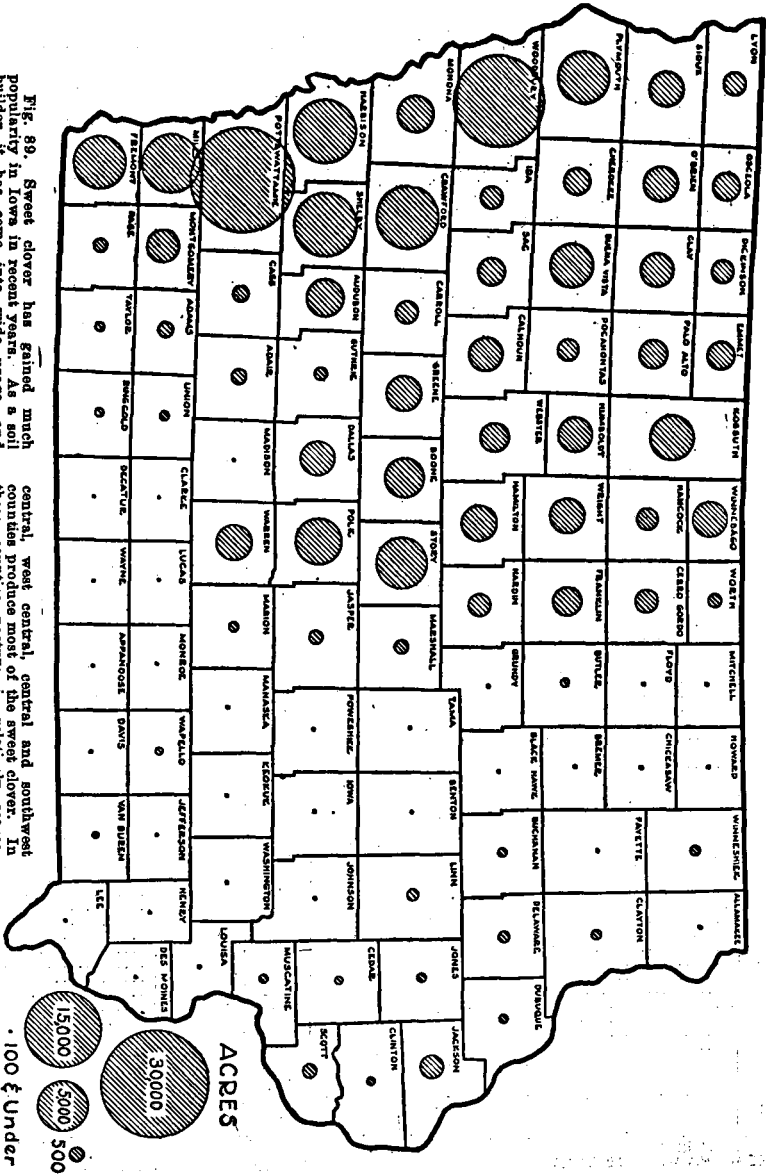


Fig. 89. Sweet clover has gained much popularity in Iowa in recent years. As a soil builder it has come into wide usage, and although it was once regarded as an objectionable weed, it has become an important factor in the state's agriculture. Data in table 54.

East Central					
Benton.....	2,916	3.65	10,643	3,589	2.83
Cedar.....	2,300	3.70	8,510	3,018	2.80
Clinton.....	4,987	2.90	14,462	6,931	2.67
Iowa.....	1,172	3.50	4,102	1,751	2.85
Jackson.....	7,663	2.90	22,223	12,085	3.11
Johnson.....	1,402	2.58	3,617	1,865	2.59
Jones.....	3,469	2.92	10,129	5,849	3.02
Linn.....	3,307	3.60	11,905	5,034	2.71
Muscatine.....	3,519	3.06	10,788	4,087	2.20
Scott.....	6,255	3.21	20,078	7,612	2.96
For district.....	36,900	3.15	116,437	51,821	2.84
Southwest					
Adair.....	3,532	2.56	9,042	3,925	2.21
Adams.....	3,466	2.86	9,913	3,758	2.53
Cass.....	4,653	3.00	13,959	5,657	2.56
Fremont.....	8,176	2.69	21,993	9,529	2.58
Mills.....	9,675	3.55	34,346	10,778	2.91
Montgomery.....	6,616	2.56	16,937	7,349	2.55
Page.....	7,201	2.84	20,451	8,957	2.44
Pottawattamie.....	23,780	2.72	64,682	26,077	2.17
Taylor.....	1,736	3.08	5,347	2,100	2.73
For district.....	68,835	2.86	196,670	78,130	2.45
South Central					
Appanoose.....	896	2.50	2,240	1,178	2.32
Clarke.....	772	2.37	1,830	863	2.16
Decatur.....	878	2.45	2,151	1,249	2.17
Lucas.....	1,615	2.23	3,601	1,809	1.87
Madison.....	4,059	2.75	11,162	4,472	1.93
Marion.....	4,193	3.18	13,334	4,587	2.38
Monroe.....	938	2.75	2,580	977	1.98
Ringgold.....	818	2.16	1,767	1,024	2.00
Union.....	1,070	2.81	3,007	1,430	2.52
Warren.....	4,251	2.42	10,287	5,101	1.89
Wayne.....	425	1.92	816	425	1.90
For district.....	19,915	2.65	52,775	23,115	2.09
Southeast					
Davis.....	432	2.25	972	504	1.73
Des Moines.....	1,620	3.08	4,990	1,713	2.51
Henry.....	682	2.92	1,991	828	2.67
Jefferson.....	402	3.17	1,274	424	2.90
Keokuk.....	1,418	2.57	3,644	1,448	1.00
Lee.....	1,895	2.55	4,832	2,199	2.48
Louisa.....	1,110	2.65	2,942	1,231	2.32
Mahaska.....	2,515	2.71	6,816	3,014	2.44
Van Buren.....	577	2.87	1,656	692	1.98
Wapello.....	1,424	2.28	3,247	1,605	2.42
Washington.....	1,114	3.17	3,531	1,355	2.57
For district.....	13,189	2.72	35,895	15,013	2.30
For state.....	537,126	2.80	1,503,625	609,447	2.30

TABLE 52. IOWA TIMOTHY HAY.

Districts and counties	1932			1933
	Acres	Tons per acre	Total tons	Acres
Northwest				
Buena Vista.....	1,346	1.28	1,723	433
Cherokee.....	2,261	1.21	2,736	822
Clay.....	1,392	0.93	1,295	714
Dickinson.....	836	1.11	928	479
Emmet.....	1,207	1.11	1,340	834
Lyon.....	599	1.11	665	336
O'Brien.....	1,794	1.36	2,440	844
Osceola.....	1,180	1.06	1,251	802
Palo Alto.....	1,400	0.73	1,022	831
Plymouth.....	1,878	1.05	1,972	981
Pocahontas.....	1,726	1.35	2,330	921
Sioux.....	1,071	1.44	1,542	706
For district.....	16,690	1.15	19,244	8,703
North Central				
Butler.....	7,197	1.46	10,508	2,310
Cerro Gordo.....	5,309	1.06	5,628	1,417
Floyd.....	13,348	1.35	18,020	3,058
Franklin.....	6,891	1.26	8,683	2,111
Hancock.....	2,215	0.96	2,126	1,047
Humboldt.....	713	0.93	663	450
Kossuth.....	2,610	0.77	2,010	2,262
Mitchell.....	14,980	1.36	20,373	4,607
Winnebago.....	2,328	1.17	2,724	1,101
Worth.....	5,971	1.52	9,076	2,631
Wright.....	2,451	1.02	2,500	841
For district.....	64,013	1.29	82,311	21,835
Northeast				
Allamakee.....	20,466	1.03	21,080	4,943
Black Hawk.....	8,787	0.97	8,523	3,739
Bremer.....	4,377	1.23	5,384	1,977
Buchanan.....	11,814	1.44	17,012	6,057
Chickasaw.....	5,035	1.00	5,035	2,350
Clayton.....	27,888	1.01	28,167	3,391
Delaware.....	18,978	1.03	19,547	5,699
Dubuque.....	19,779	0.94	18,592	3,998
Fayette.....	17,108	1.30	22,240	7,414
Howard.....	11,481	1.09	12,514	9,726
Winneshek.....	10,363	1.12	11,607	3,614
For district.....	156,076	1.09	169,701	52,908
West Central				
Audubon.....	4,928	1.09	5,372	1,343
Calhoun.....	1,245	1.21	1,506	800
Carroll.....	3,573	0.97	3,466	1,232
Crawford.....	5,970	1.20	7,164	1,766
Greene.....	1,725	1.08	1,863	695
Guthrie.....	3,925	0.95	3,729	2,012
Harrison.....	157	1.53	240	108
Ida.....	2,595	1.01	2,621	1,100
Monona.....	383	1.48	567	234
Sac.....	3,078	1.22	3,755	1,256
Shelby.....	2,044	1.03	2,105	784
Woodbury.....	639	1.09	697	319
For district.....	30,262	1.09	33,085	11,649

TABLE 53. IOWA CLOVER.

Districts and counties	1932			1933
	Acres	Tons per acre	Total tons	Acres
Northwest				
Buena Vista.....	2,145	1.71	3,668	2,727
Cherokee.....	2,987	1.74	5,197	6,017
Clay.....	896	1.59	1,425	1,576
Dickinson.....	154	0.94	145	695
Emmet.....	322	0.99	319	383
Lyon.....	135	1.29	174	418
O'Brien.....	1,424	1.64	2,335	3,034
Osceola.....	355	1.36	483	733
Palo Alto.....	443	1.24	549	351
Plymouth.....	659	1.41	929	999
Pocahontas.....	471	1.70	801	384
Sioux.....	772	2.00	1,544	1,008
For district.....	10,763	1.63	17,569	18,325
North Central				
Butler.....	1,032	1.88	1,940	2,761
Cerro Gordo.....	337	1.56	526	1,894
Floyd.....	59	1.60	94	1,430
Franklin.....	1,025	1.60	1,640	2,933
Hancock.....	649	1.22	792	1,321
Humboldt.....	333	1.52	506	242
Kossuth.....	1,028	2.19	2,251	965
Mitchell.....	117	1.62	190	2,314
Winnebago.....	427	1.63	696	1,055
Worth.....	317	1.62	514	2,284
Wright.....	468	1.42	665	933
For district.....	5,792	1.69	9,814	18,132
Northeast				
Allamakee.....	1,262	1.54	1,943	5,401
Black Hawk.....	2,767	1.78	4,925	3,851
Bremer.....	2,870	1.74	4,994	3,163
Buchanan.....	426	2.00	852	1,053
Chickasaw.....	743	1.43	1,062	1,581
Clayton.....	1,209	1.45	1,753	9,439
Delaware.....	832	1.26	1,048	3,702
Dubuque.....	1,472	1.06	1,560	9,524
Fayette.....	702	1.47	1,032	5,020
Howard.....	91	1.48	135	1,559
Winneshek.....	1,464	1.67	2,445	3,236
For district.....	13,838	1.57	21,749	47,529
West Central				
Audubon.....	3,111	1.80	5,600	9,728
Calhoun.....	751	1.64	1,199	720
Carroll.....	4,971	1.60	7,954	7,464
Crawford.....	4,637	1.54	7,141	7,857
Greene.....	634	1.60	1,014	1,800
Guthrie.....	6,449	1.38	8,900	13,228
Harrison.....	162	1.74	282	136
Ida.....	3,010	1.52	4,575	4,079
Monona.....	20	2.24	45	96
Sac.....	6,815	1.66	11,313	6,988
Shelby.....	2,561	1.24	3,176	5,668
Woodbury.....	357	1.64	585	418
For district.....	33,458	1.55	51,784	58,182

TABLE 54. IOWA'S SWEET CLOVER ACREAGE

Districts and counties	1932	1933
	Northwest	
Buena Vista.....	3,146	3,943
Cherokee.....	2,108	1,331
Clay.....	2,981	2,355
Dickinson.....	1,469	1,130
Emmet.....	1,621	1,619
Lyon.....	1,680	1,194
O'Brien.....	2,069	2,475
Osceola.....	1,233	1,631
Palo Alto.....	1,131	1,542
Plymouth.....	5,040	6,411
Pocahontas.....	1,358	885
Sioux.....	2,613	2,485
For district.....	26,449	27,001
North Central		
Butler.....	43	117
Cerro Gordo.....	344	1,172
Floyd.....	71	28
Franklin.....	1,345	1,724
Hancock.....	2,156	1,080
Humboldt.....	2,914	2,614
Kossuth.....	4,809	4,563
Mitchell.....	114	37
Winnebago.....	2,376	2,726
Worth.....	604	399
Wright.....	3,873	3,518
For district.....	18,649	17,978
Northeast		
Allamakee.....	67	62
Black Hawk.....	92	58
Bremer.....	72	12
Buchanan.....	93	177
Chickasaw.....	8	5
Clayton.....	170	138
Delaware.....	100	210
Dubuque.....	140	151
Fayette.....	108	50
Howard.....	7	45
Winneshek.....	202	164
For district.....	1,059	1,072
West Central		
Audubon.....	2,723	2,816
Calhoun.....	2,674	2,300
Carroll.....	1,135	923
Crawford.....	15,345	9,712
Greene.....	3,331	3,504
Guthrie.....	450	321
Harrison.....	13,951	11,084
Ida.....	2,302	954
Monona.....	8,488	3,646
Sac.....	2,694	1,583
Shelby.....	11,904	11,472
Woodbury.....	15,338	21,779
For district.....	80,335	70,094

Central				
Boone	1,947	1.04	2,025	1,082
Dallas	1,456	0.83	1,208	676
Grundy	4,231	1.27	3,374	809
Hamilton	1,279	1.13	1,445	791
Hardin	3,333	1.05	4,700	1,282
Jasper	3,839	1.05	4,031	2,217
Marshall	7,065	0.97	6,853	2,029
Polk	2,257	0.87	1,964	1,273
Poweshiek	8,461	1.30	10,999	3,039
Story	1,918	1.42	2,724	930
Tama	19,201	1.09	20,929	6,582
Webster	1,835	0.90	1,652	819
For district	56,822	1.12	63,904	21,529
East Central				
Benton	15,587	0.97	14,149	3,340
Cedar	15,019	0.98	14,719	3,189
Clinton	19,939	1.22	24,326	5,619
Iowa	13,917	1.05	14,613	2,540
Jackson	20,186	0.82	16,553	7,921
Johnson	8,930	0.94	8,394	4,188
Jones	25,196	1.16	29,227	4,039
Linn	17,244	0.97	16,727	4,149
Muscatine	5,737	1.09	6,253	13,127
Scott	7,224	1.39	10,041	1,941
For district	147,979	1.05	155,002	40,053
Southwest				
Adair	5,521	0.92	5,079	2,423
Adams	3,451	0.90	3,126	1,170
Cass	4,439	0.93	4,128	1,832
Fremont	1,626	1.13	1,837	899
Mills	1,076	1.23	1,323	524
Montgomery	2,530	1.08	2,732	751
Page	5,375	1.01	5,429	1,944
Pottawattamie	1,434	1.03	1,477	367
Taylor	9,089	0.90	8,180	3,023
For district	34,541	0.96	33,291	12,933
South Central				
Appanoose	15,606	0.70	10,924	14,285
Clarke	4,372	0.73	3,192	3,576
Decatur	14,561	0.75	10,921	8,091
Lucas	6,215	0.87	5,407	5,726
Madison	3,145	1.11	3,491	1,859
Marion	4,803	0.96	4,611	2,842
Monroe	10,901	0.84	9,157	9,965
Ringgold	7,701	0.76	5,853	4,397
Union	6,585	0.84	5,531	2,023
Warren	5,249	0.94	4,934	3,279
Wayne	14,550	0.71	10,330	13,365
For district	93,688	0.79	74,351	69,408
Southeast				
Davis	14,464	0.77	11,137	16,306
Des Moines	2,641	1.24	3,275	1,980
Henry	2,909	0.93	2,705	1,973
Jefferson	7,494	0.90	6,745	4,169
Keokuk	9,089	1.12	10,180	3,325
Lee	7,480	0.93	6,956	7,005
Louisa	3,229	1.13	3,649	2,286
Mahaska	4,830	0.87	4,202	3,180
Van Buren	8,804	0.90	7,924	8,585
Wapello	7,933	0.98	7,774	5,080
Washington	6,263	1.02	6,388	3,060
For district	75,136	0.94	70,935	56,749
For state	675,207	1.04	701,824	295,767

Central				
Boone	991	1.38	1,368	1,711
Dallas	3,011	1.08	3,252	6,276
Grundy	2,410	1.56	3,760	7,192
Hamilton	829	1.55	1,285	1,262
Hardin	1,145	1.57	1,798	5,682
Jasper	18,258	1.61	29,396	28,560
Marshall	6,503	1.54	10,015	21,094
Poweshiek	3,688	1.63	6,011	5,748
Story	9,449	1.34	12,662	18,690
Tama	910	1.70	1,547	2,192
Webster	4,889	1.50	7,334	13,508
	538	1.40	753	811
For district	52,621	1.50	79,181	112,726
East Central				
Benton	2,607	1.24	3,233	11,717
Cedar	3,905	1.37	5,350	11,905
Clinton	3,322	1.49	4,950	11,854
Iowa	4,776	1.36	6,495	12,380
Jackson	3,194	1.00	3,194	9,408
Johnson	10,186	1.44	14,668	16,833
Jones	702	1.30	913	11,162
Linn	1,663	1.33	2,212	9,518
Muscatine	3,459	1.52	5,258	6,987
Scott	4,942	1.85	9,143	10,980
For district	38,756	1.43	55,416	112,744
Southwest				
Adair	8,991	1.30	11,688	19,881
Adams	7,293	1.36	9,918	19,378
Cass	12,506	1.55	19,384	24,892
Fremont	4,080	1.46	5,957	4,573
Mills	2,395	1.24	2,970	3,306
Montgomery	8,248	1.30	10,722	15,251
Page	5,609	1.25	7,011	15,907
Pottawattamie	3,155	1.82	5,742	6,926
Taylor	1,981	1.24	2,456	25,188
Fordistrict	54,258	1.40	75,848	135,302
South Central				
Appanoose	2,157	1.20	2,588	5,016
Clarke	5,943	1.00	5,943	8,532
Decatur	3,972	1.08	4,290	5,527
Lucas	6,465	1.10	7,112	10,978
Madison	10,349	1.30	13,454	18,209
Marion	16,662	1.50	24,993	20,330
Monroe	4,300	1.44	6,192	7,342
Ringgold	1,884	1.09	2,054	12,013
Union	2,687	1.17	3,144	10,837
Warren	14,094	1.30	18,322	19,705
Wayne	5,108	1.25	6,385	8,373
For district	73,621	1.28	94,477	126,862
Southeast				
Davis	3,406	1.30	4,428	5,439
Des Moines	9,259	1.70	15,740	9,928
Henry	10,485	1.33	13,945	12,907
Jefferson	8,939	1.08	9,654	12,491
Keokuk	8,478	1.36	11,530	19,314
Lee	7,118	1.32	9,396	10,091
Louisa	5,307	1.50	7,960	6,679
Mahaska	17,564	1.25	21,955	26,880
Van Buren	9,990	1.30	12,987	12,860
Wapello	6,472	1.30	8,414	11,968
Washington	13,979	1.35	18,872	20,655
For district	100,997	1.34	134,881	149,212
For state	384,104	1.41	540,719	779,014

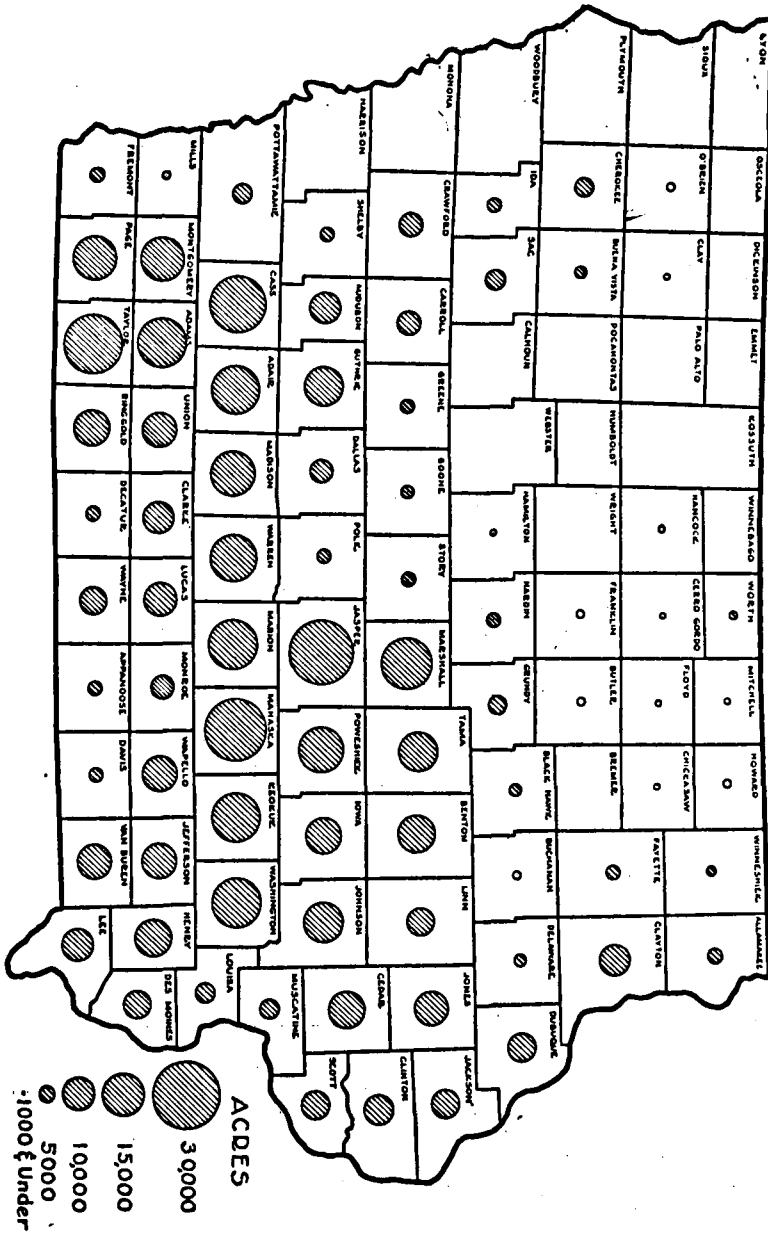
Central			
Boone	3,333	3,761	
Dallas	3,654	3,253	
Grundy	20	75	
Hamilton	1,612	2,788	
Hardin	1,171	1,167	
Jasper	221	964	
Marshall	221	301	
Polk	4,423	4,753	
Poweshiek	214	98	
Story	5,149	6,062	
Tama	115	56	
Webster	1,257	1,662	
For district	22,133	24,415	
East Central			
Benton	56	79	
Cedar	122	114	
Clinton	51	114	
Iowa	21	36	
Jackson	468	1,043	
Johnson	42	62	
Jones	51	173	
Linn	148	218	
Muscatine	1,472	129	
Scott	218	332	
For district	2,649	2,280	
Southwest			
Adair	323	515	
Adams	142	573	
Cass	1,144	600	
Fremont	5,191	6,486	
Mills	4,676	7,519	
Montgomery	1,484	2,446	
Page	440	355	
Pottawattamie	33,318	29,929	
Taylor	48	157	
For district	46,766	48,580	
South Central			
Appanoose	61	61	
Clarke	100	62	
Decatur	36	31	
Lucas	84	107	
Madison	169	100	
Marion	138	179	
Monroe	9	2	
Ringgold	74	112	
Union	150	189	
Warren	2,996	3,415	
Wayne	79	84	
For district	3,896	4,342	
Southeast			
Davis	5	25	
Des Moines	19	53	
Henry	102	77	
Jefferson	36	36	
Keokuk	4	26	
Lee	49	19	
Louisa	93	84	
Mahaska	160	84	
Van Buren	33	110	
Wapello	39	115	
Washington	54	47	
For district	558	676	
For state	202,494	196,438	

AGRICULTURAL ECONOMIC FACTS
IOWA CLOVER HAY ACREAGE
1933

TABLE 55. IOWA MIXED CLOVER AND TIMOTHY.

Districts and counties	1932			1933
	Acres	Tons per acre	Total tons	Acres
Northwest				
Buena Vista.....	2,774	1.72	4,771	2,548
Cherokee.....	2,877	1.67	4,805	2,642
Clay.....	2,988	1.40	4,183	3,141
Dickinson.....	1,896	1.40	2,654	2,308
Emmet.....	1,551	0.92	1,427	1,480
Lyon.....	826	1.24	1,024	753
O'Brien.....	3,804	1.75	6,657	3,602
Osceola.....	1,235	1.38	1,704	1,732
Palo Alto.....	1,561	1.00	1,561	1,494
Plymouth.....	1,896	1.24	2,351	2,361
Pocahontas.....	1,490	1.84	2,742	1,842
Sioux.....	1,408	1.78	2,506	787
For district.....	24,306	1.50	36,385	24,690
North Central				
Butler.....	12,856	1.70	21,855	17,921
Cerro Gordo.....	9,968	1.30	12,958	12,607
Floyd.....	6,549	1.46	9,562	16,467
Franklin.....	7,736	1.45	11,217	11,659
Hancock.....	9,209	1.26	11,603	9,026
Humboldt.....	2,795	1.16	3,242	2,650
Kossuth.....	7,856	1.43	11,234	5,580
Mitchell.....	6,651	1.56	10,376	18,049
Winnebago.....	4,548	1.64	7,459	4,034
Worth.....	8,735	1.59	13,889	11,844
Wright.....	3,109	1.45	4,508	4,271
For district.....	80,012	1.47	117,903	114,108
Northeast				
Allamakee.....	20,652	1.40	28,913	38,495
Black Hawk.....	11,892	1.50	17,838	17,651
Bremer.....	9,757	1.85	18,050	13,243
Buchanan.....	15,306	1.70	26,020	22,615
Chickasaw.....	21,991	1.32	29,028	24,271
Clayton.....	16,926	1.20	20,311	40,232
Delaware.....	11,180	1.10	12,298	27,409
Dubuque.....	24,337	1.18	28,718	36,882
Fayette.....	25,003	1.70	42,505	36,153
Howard.....	13,670	1.34	18,318	17,749
Winneshiek.....	31,710	1.50	47,565	42,017
For district.....	202,424	1.43	289,564	316,717
West Central				
Audubon.....	7,231	1.52	10,991	7,083
Calhoun.....	2,019	1.67	3,372	2,156
Carroll.....	7,693	1.40	10,770	6,945
Crawford.....	6,098	1.52	9,269	4,705
Greene.....	1,147	1.30	1,491	1,987
Guthrie.....	9,280	1.30	12,064	9,366
Harrison.....	2,258	1.74	3,949	1,186
Ia.....	4,484	1.36	6,098	4,123
Monona.....	407	1.53	623	816
Sac.....	4,386	1.47	6,447	6,211
Shelby.....	2,599	1.51	3,924	2,259
Woodbury.....	1,472	1.57	2,311	809
For district.....	47,074	1.44	67,809	46,646
Central				
Boone.....	1,993	1.32	2,631	2,895
Dallas.....	1,495	1.24	1,854	1,720
Grundy.....	14,111	1.54	21,731	16,557
Hamilton.....	3,203	1.34	4,292	3,673
Hardin.....	8,341	1.51	12,595	8,226
Jasper.....	6,430	1.40	9,002	8,273
Marshall.....	7,288	1.43	10,422	7,255
Folk.....	2,752	1.42	3,908	3,113
Poweshiek.....	13,103	1.47	17,951	18,037
Story.....	3,194	1.51	4,823	3,866
Tama.....	11,437	1.29	14,754	23,135
Webster.....	2,644	1.25	3,305	2,613
For district.....	75,991	1.41	107,268	99,363

Fig. 90. Most of the clover hay is produced in the southern courses of the state. This crop has long been the important hay crop of the state, but ranks fourth when alfalfa, timothy and mixed timothy and clover are compared with it. The percentage of land devoted to the production of this crop in the last few years has shown a steady decline. Other crops, especially alfalfa, have been taking its place. Data in table 53.



BASEBOOK OF IOWA

IOWA MIXED TIMOTHY & CLOVER ACREAGE 1933

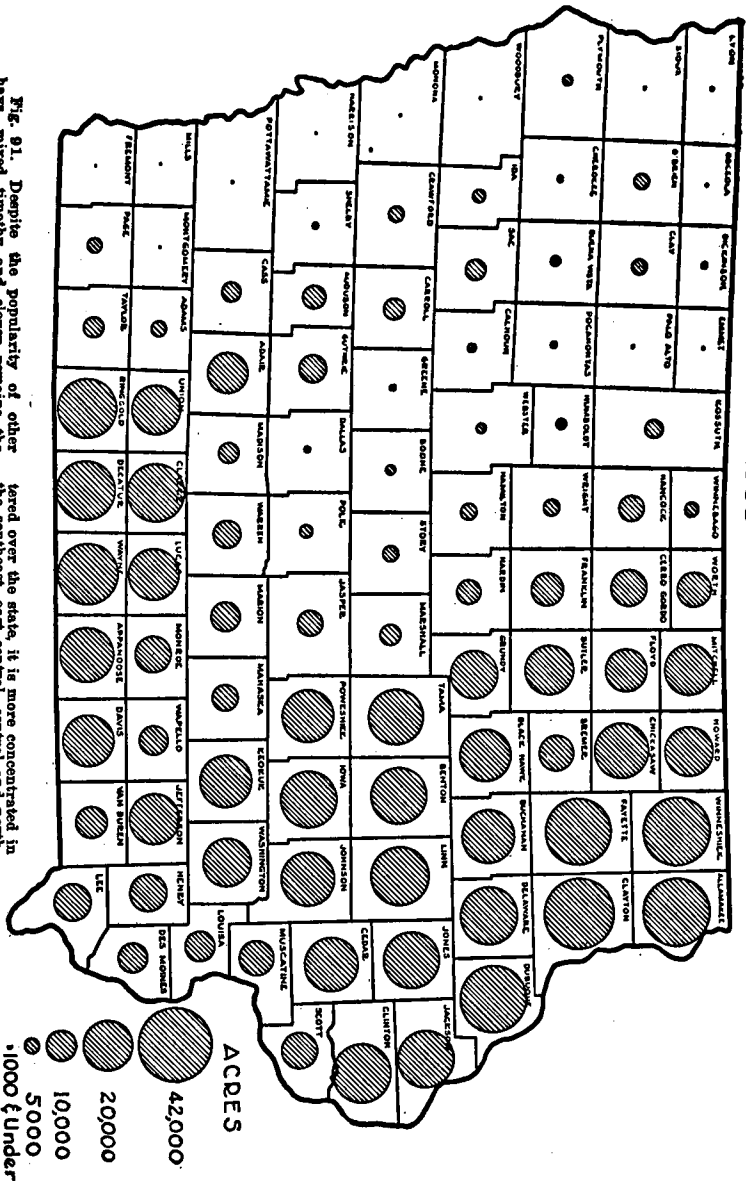


Fig. 91. Despite the popularity of other hay crops and timothy and clover remain the main crops of Iowa. For the last 2 years, the total acreage devoted to this crop of mixed timothy and clover has increased. Although the production is general and scattered over the state, it is more concentrated in the southeast, east central, central and north-central groups of counties. Winnebago County, of mixed timothy and clover. Data in table 55.

East Central				
Benton.....	16,153	1.30	20,999	26,241
Cedar.....	17,537	1.37	24,026	26,788
Clinton.....	17,877	1.52	27,173	29,748
Iowa.....	15,430	1.33	20,522	25,464
Jackson.....	18,039	1.13	20,384	27,765
Johnson.....	21,300	1.45	30,885	23,010
Jones.....	10,314	1.25	12,892	25,961
Linn.....	15,072	1.12	16,881	28,071
Muscatine.....	9,283	1.36	12,625	10,447
Scott.....	9,883	1.56	15,417	12,183
For district.....	150,888	1.34	201,804	235,678
Southwest				
Adair.....	13,792	1.24	17,102	15,389
Adams.....	4,749	1.29	6,126	4,643
Cass.....	8,449	1.37	11,575	5,723
Fremont.....	667	1.62	1,081	702
Mills.....	637	1.50	956	748
Montgomery.....	1,860	1.25	2,325	2,374
Page.....	3,715	1.33	4,941	4,237
Pottawattamie.....	2,245	1.40	3,443	1,310
Taylor.....	4,382	1.22	5,346	6,583
For district.....	40,496	1.30	52,595	41,709
South Central				
Appanoose.....	16,844	1.00	16,844	22,532
Clarke.....	16,268	0.75	12,201	25,554
Decatur.....	15,309	1.06	16,228	30,652
Lucas.....	15,469	1.00	15,469	19,066
Madison.....	5,269	1.27	6,692	6,127
Marion.....	8,852	1.27	11,242	10,789
Monroe.....	10,635	1.08	11,486	13,242
Ringgold.....	18,767	0.77	14,451	29,468
Union.....	9,959	1.00	9,959	18,292
Warren.....	7,612	1.43	10,885	9,386
Wayne.....	18,785	0.91	17,094	30,316
For district.....	143,769	0.99	142,551	215,424
Southeast				
Davis.....	18,149	1.05	19,056	20,040
Des Moines.....	6,591	1.45	9,557	10,007
Henry.....	10,704	1.29	13,808	13,928
Jefferson.....	11,213	1.26	14,128	18,338
Keokuk.....	12,598	1.45	18,267	18,920
Lee.....	12,600	1.37	17,262	13,497
Louisia.....	6,977	1.45	10,117	9,149
Mahaska.....	4,764	1.19	5,667	8,182
Van Buren.....	10,585	1.18	12,490	11,314
Wapello.....	7,782	1.34	10,428	10,715
Washington.....	11,304	1.31	14,808	15,077
For district.....	113,267	1.29	145,590	149,167
For state.....	878,227	1.32	1,161,469	1,243,502

AGRICULTURAL ECONOMIC FACTS

TABLE 56. IOWA SOYBEANS.

Districts and counties	1932					1933				
	Acres sown with other crops	Acres sown alone	Acres harvested for beans	Bushels per acre	Total bushels	Acres sown with other crops	Acres sown alone	Acres harvested for beans	Bushels per acre	Total bushels
Northwest										
Buena Vista.....	144	261	94	15.3	1,435	114	384	304	13.2	4,013
Cherokee.....	107	80	33	19.1	630	108	99	70	18.2	1,275
Clay.....	251	141	21	13.5	283	138	230	72	12.5	900
Dickinson.....	55	98	36	9.0	325	25	204	147	11.1	1,625
Emmet.....	.....	197	62	17.0	1,055	18	321	52	15.0	782
Lyon.....	.....	58	9	24.4	220	17	43	7	14.4	101
O'Brien.....	2	453	245	18.3	4,473	127	558	418	14.1	5,897
Osceola.....	.....	208	56	20.2	1,120	23	164	71	20.1	1,425
Palo Alto.....	2	238	35	13.3	465	64	462	40	15.9	635
Plymouth.....	11	12	1	15.0	15	2	21	7	23.6	165
Pocahontas.....	.....	211	82	12.9	1,055	.....	192	36	19.4	697
Sioux.....	2	58	15	13.3	200	12	112	38	16.6	630
For district.....	602	2,015	689	16.4	11,276	648	2,790	1,262	14.4	18,145
North Central										
Butler.....	396	3,411	455	14.5	6,587	247	4,874	644	13.6	8,751
Cerro Gordo.....	49	3,204	352	15.2	5,360	99	2,874	473	15.7	7,445
Floyd.....	7	2,561	432	11.6	5,015	36	3,491	657	14.3	9,382
Franklin.....	189	794	21	13.0	272	219	1,250	163	15.0	2,440
Hancock.....	144	1,085	128	19.6	2,505	43	1,697	335	16.2	5,421
Humboldt.....	16	128	37	19.1	705	25	224	65	17.3	1,123
Mitchell.....	2	497	161	15.5	2,501	35	1,280	250	19.0	4,743
Kossuth.....	143	2,040	257	16.0	4,102	219	3,083	538	15.6	8,390
Winnebago.....	17	154	21	7.9	165	59	470	48	14.9	715
Worth.....	59	281	54	7.5	407	96	574	85	12.0	1,024
Wright.....	26	711	79	18.1	1,430	103	1,023	244	18.3	4,460
For district.....	1,048	14,866	1,997	14.5	29,049	1,181	20,840	3,502	15.4	53,894
Northeast										
Allamakee.....	13	235	33	18.1	596	19	212	55	13.9	765
Black Hawk.....	320	8,521	2,649	18.0	47,717	393	10,869	3,762	16.7	62,719
Bremer.....	440	3,066	353	15.2	5,354	452	3,853	297	14.7	4,377
Buchanan.....	699	6,502	1,234	15.2	18,764	908	8,340	2,404	13.0	31,353
Chickasaw.....	82	1,952	276	16.5	4,553	7	2,277	516	15.5	8,016
Clayton.....	542	1,298	89	15.2	1,352	534	1,397	215	12.6	2,713
Delaware.....	1,160	5,268	616	16.0	9,882	808	4,644	835	13.9	11,579
Dubuque.....	248	1,485	84	11.2	940	216	801	229	11.3	2,599
Fayette.....	776	7,071	791	15.8	12,515	814	7,190	1,252	11.9	14,858
Howard.....	443	1,868	55	11.4	629	644	2,404	256	12.6	3,233
Winnesiek.....	1,028	377	68	19.3	1,315	356	479	116	14.3	1,662
For district.....	5,751	37,643	6,248	16.6	103,617	5,151	42,466	9,937	14.5	143,874
West Central										
Audubon.....	148	256	148	14.5	2,139	75	140	71	17.9	1,270
Calhoun.....	37	65	14	24.0	336	270	148	64	19.1	1,220
Carroll.....	140	52	10	13.0	130	40	78	48	13.2	633
Crawford.....	30	33	.....	.....	.....	10	.....	.....	.....	.....
Greene.....	1,461	1,235	439	22.2	9,738	773	1,421	650	22.6	14,671
Guthrie.....	47	524	184	16.4	3,010	129	893	288	20.1	5,775
Harrison.....	265	4	.....	15.0	30	70	41	31	8.6	266
Ida.....	2	49	25	13.0	325	.....	57	10	15.0	150
Monona.....	.....	24	19	18.2	345	33	78	2	10.0	20
Sac.....	32	114	30	17.5	525	123	202	73	16.7	1,220
Shelby.....	60	92	25	17.9	448	17	178	34	26.2	890
Woodbury.....	20	76	6	15.0	90	5	8	.....	.....	.....
For district.....	2,242	2,524	902	19.0	17,116	1,545	3,244	1,271	20.5	26,115
Central										
Boone.....	577	765	245	19.8	4,851	353	811	275	24.9	6,856
Dallas.....	1,014	846	280	19.5	5,456	935	1,446	609	18.1	11,027
Grundy.....	107	3,418	930	19.4	18,000	11	3,884	2,383	19.4	46,161
Hamilton.....	32	168	42	15.0	630	11	306	72	18.1	1,306
Hardin.....	481	1,163	225	19.6	4,415	361	1,876	600	18.1	10,860
Jasper.....	314	1,915	772	17.0	13,191	321	1,403	804	16.6	13,343
Marshall.....	243	3,637	1,730	20.8	35,935	199	3,920	2,789	19.1	53,347
Polk.....	153	2,318	613	20.1	12,295	169	2,527	1,002	21.1	21,158
Poweshiek.....	170	643	220	17.1	3,771	43	822	618	11.8	7,275
Story.....	19	750	163	17.5	2,845	109	1,211	344	18.7	6,416
Tama.....	125	4,094	2,108	21.8	45,943	206	4,590	3,533	19.7	69,631
Webster.....	25	349	110	20.8	2,287	10	279	157	20.3	3,180
For district.....	3,260	20,066	7,438	20.1	149,619	2,728	23,075	13,186	19.0	250,560
East Central										
Benton.....	374	4,988	892	19.5	17,406	294	4,873	2,188	17.7	38,731
Cedar.....	222	1,209	359	23.7	7,500	460	1,612	1,009	19.1	19,242
Clinton.....	.....	423	47	15.4	725	13	341	80	14.1	1,128
Iowa.....	703	1,256	123	16.5	2,024	885	1,115	453	17.9	8,108
Jackson.....	8	148	10	17.7	177	19	77	5	8.6	43
Johnson.....	376	1,190	242	18.9	4,582	371	912	429	15.8	6,792
Jones.....	29	1,651	128	20.8	2,668	24	1,095	519	18.7	5,841
Linn.....	527	5,008	740	17.1	12,683	467	4,548	1,433	14.2	20,330
Muscatine.....	382	2,652	302	16.9	5,097	320	1,725	308	15.6	4,817
Scott.....	795	1,047	320	15.3	4,960	580	606	264	15.5	4,092
For district.....	3,416	18,972	3,163	18.3	57,822	3,433	16,904	6,488	16.8	109,124
Southwest										
Adair.....	1,070	2,376	813	17.2	13,986	807	2,609	998	16.1	16,108
Adams.....	13	1,009	186	19.0	3,535	173	1,050	357	14.2	5,066
Case.....	235	193	111	16.3	1,806	252	284	144	19.4	2,795
Fremont.....	100	44	20	21.8	436	10	53	16	23.8	380
Mills.....	.....	26	20	20.0	400	.....	26	.....	.....	.....

TABLE 56. IOWA SOYBEANS—Continued

Districts and counties	1932					1933				
	Acres sown with other crops	Acres sown alone	Acres harvested for beans	Bushels per acre	Total bushels	Acres sown with other crops	Acres sown alone	Acres harvested for beans	Bushels per acre	Total bushels
Montgomery.....	16	792	295	17.0	5,023	.....	923	633	17.6	11,148
Page.....	87	336	79	13.7	1,079	.....	247	619	15.2	2,958
Pottawattamie.....	.....	51	24	12.7	305	.....	.....	47	35	545
Taylor.....	342	2,598	538	16.4	8,833	.....	709	3,147	1,752	22,112
For district.....	1,863	7,425	2,086	17.0	35,403	2,198	8,758	4,130	14.8	61,112
South Central										
Appanoose.....	368	6,567	1,180	14.7	17,336	258	8,124	3,260	14.3	46,511
Clarke.....	54	1,684	434	16.8	7,309	64	1,907	730	14.4	10,509
Decatur.....	148	3,359	1,149	12.7	14,594	112	4,984	1,901	11.9	22,711
Lucas.....	199	2,541	822	13.2	10,848	387	2,637	1,119	15.7	17,543
Madison.....	213	1,365	611	16.3	9,973	324	1,132	795	17.9	14,202
Marion.....	301	3,034	1,463	14.7	21,503	835	1,124	626	16.3	10,192
Monroe.....	403	2,035	382	14.4	5,503	70	2,188	917	13.1	12,012
Ringgold.....	124	2,142	402	10.3	4,121	103	3,854	1,053	12.3	12,913
Union.....	553	1,601	293	15.3	4,496	820	1,844	581	15.1	8,755
Warren.....	267	1,436	371	17.7	6,551	367	1,569	658	18.7	12,322
Wayne.....	585	5,025	1,124	15.6	17,577	1,160	5,065	2,415	14.3	34,523
For district.....	3,215	30,789	8,231	14.6	119,811	4,500	34,128	14,055	14.4	202,193
Southeast										
Davis.....	154	7,311	1,463	15.4	22,564	332	9,074	4,160	15.2	63,275
Des Moines.....	1,391	5,470	1,959	23.9	46,774	1,078	6,636	3,916	18.6	72,715
Henry.....	1,027	3,329	1,584	25.1	39,694	560	6,446	3,485	23.1	80,666
Jefferson.....	248	3,488	1,502	14.5	21,720	231	2,966	1,688	18.9	31,971
Keokuk.....	619	2,898	780	17.6	13,751	780	2,646	1,476	18.4	27,142
Lee.....	1,776	6,404	1,267	19.5	24,758	2,391	8,808	2,963	17.0	50,427
Louisia.....	480	3,092	902	16.9	15,250	703	3,179	1,473	13.2	19,397
Mahaska.....	745	3,264	635	17.7	11,245	386	1,790	888	17.7	15,740
Van Buren.....	187	5,082	1,176	15.5	18,209	30	6,531	1,746	16.2	28,263
Wapello.....	57	6,685	2,619	17.9	46,928	173	6,414	3,936	20.3	80,094
Washington.....	868	3,790	1,708	19.7	33,694	738	4,160	2,707	19.8	53,622
For district.....	7,547	50,813	15,595	18.9	294,587	7,402	58,650	28,438	18.4	523,312
For state.....	28,944	185,113	46,349	17.7	818,300	28,786	210,855	82,269	16.9	1,388,329

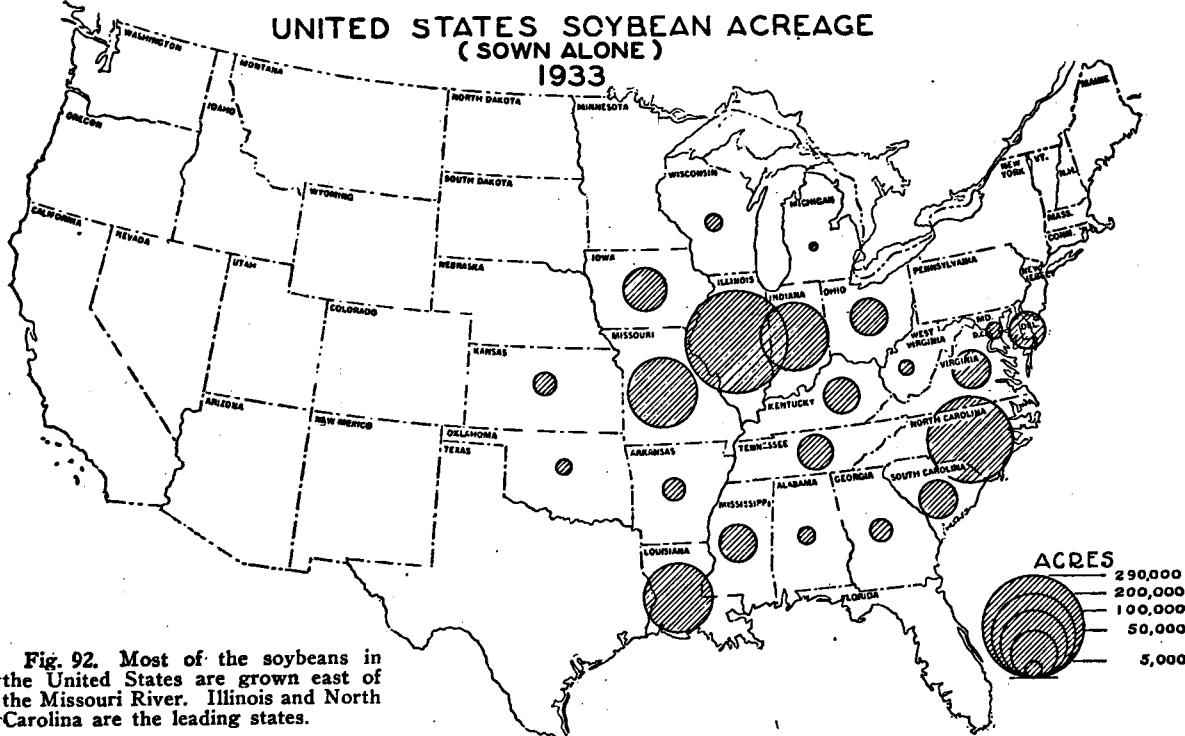


Fig. 92. Most of the soybeans in the United States are grown east of the Missouri River. Illinois and North Carolina are the leading states.

AGRICULTURAL ECONOMIC FACTS
IOWA SOYBEAN ACREAGE
SOWN ALONE
1933

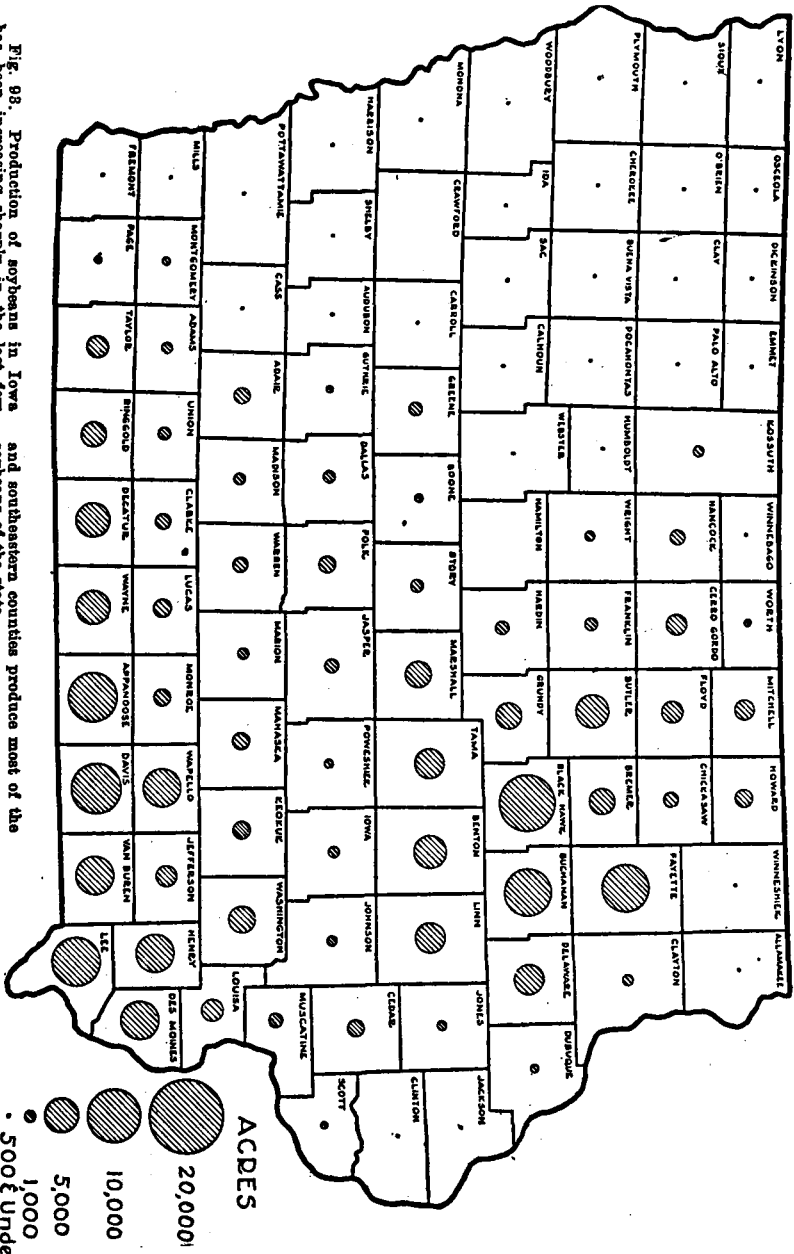


Fig. 98. Production of soybeans in Iowa has been increasing sharply in the last few years. The crop is used in many parts of the state. The northern counties are just beginning to use soybean hay during times of seed production. A small percentage is sown alone in Iowa and another including south central and southeastern counties produces most of the soybeans of the state. The crop is used in many parts of the state. The northern counties are just beginning to use soybean hay during times of seed production. A small percentage is sown alone in Iowa and another including south central and southeastern counties produces most of the soybeans of the state.

TABLE 57. IOWA WILD HAY.

Districts and counties	1932			1933		
	Acres	Tons per acre	Total tons	Acres	Tons per acre	Total tons
Northwest						
Buena Vista.....	1,821	1.45	2,640	1,741	0.92	1,602
Cherokee.....	3,328	1.22	4,060	3,649	0.67	2,445
Clay.....	3,257	1.23	4,006	3,043	0.70	2,130
Dickinson.....	3,228	1.00	3,228	3,257	0.92	2,996
Emmet.....	1,550	0.84	1,302	1,450	0.86	1,247
Lyon.....	6,101	1.51	9,213	5,791	1.02	5,907
O'Brien.....	2,906	1.15	3,342	2,958	0.55	1,627
Osceola.....	3,105	0.75	2,329	2,851	0.92	2,623
Palo Alto.....	6,327	1.45	9,174	6,255	0.46	2,877
Plymouth.....	10,488	0.72	7,551	9,057	0.87	7,880
Pocahontas.....	1,545	0.85	1,313	1,853	0.54	1,001
Sioux.....	8,904	1.42	12,644	9,123	0.92	8,393
For district.....	52,560	1.16	60,802	51,028	0.80	40,728
North Central						
Butler.....	5,721	1.17	6,694	5,788	1.30	7,524
Cerro Gordo.....	2,974	1.17	3,480	3,869	0.92	3,559
Floyd.....	951	1.08	1,027	1,045	0.92	961
Franklin.....	1,885	1.22	2,300	2,155	1.00	2,155
Hancock.....	3,851	0.35	5,199	3,869	0.42	1,625
Humboldt.....	1,350	1.00	1,350	1,411	1.05	1,482
Kossuth.....	7,160	0.84	6,014	8,453	0.50	4,226
Mitchell.....	766	0.96	735	1,042	0.92	959
Winneshago.....	7,919	1.05	8,315	7,830	0.95	7,438
Worth.....	7,028	0.84	5,904	6,494	0.98	6,364
Wright.....	1,427	1.17	1,670	1,307	0.87	1,137
For district.....	41,032	1.04	42,688	43,263	0.87	37,430
Northeast						
Allamakee.....	471	1.35	636	542	0.92	499
Black Hawk.....	3,219	0.84	2,704	3,070	0.92	2,824
Bremer.....	10,331	1.40	14,463	10,409	1.17	12,179
Buchanan.....	5,447	1.17	6,373	5,584	0.92	5,137
Chickasaw.....	5,518	1.10	6,070	6,672	0.92	6,138
Clayton.....	649	0.84	545	875	0.92	805
Delaware.....	2,471	0.72	1,779	2,422	0.67	1,623
Dubuque.....	344	0.80	275	266	0.92	245
Fayette.....	6,044	1.09	6,588	5,302	1.09	5,779
Howard.....	4,879	1.22	5,952	4,833	0.86	4,156
Winneshiek.....	3,595	1.17	4,206	3,322	0.86	2,857
For district.....	42,968	1.15	49,591	43,297	0.98	42,042
West Central						
Audubon.....	576	1.34	772	553	1.67	924
Calhoun.....	368	0.84	309	465	0.42	195
Carroll.....	2,146	0.85	1,824	2,055	0.42	863
Crawford.....	2,751	1.40	3,851	2,637	0.59	1,556
Greene.....	1,163	1.09	1,268	1,186	0.75	890
Guthrie.....	1,022	1.34	1,369	1,256	1.17	1,470
Harrison.....	2,449	1.34	3,282	2,321	0.80	1,857
Ida.....	689	1.28	861	695	0.42	292
Monona.....	1,395	1.22	1,702	1,400	0.55	770
Sac.....	1,239	0.96	1,189	1,272	1.09	1,386
Shelby.....	1,195	1.34	1,601	1,082	0.86	931
Woodbury.....	2,890	1.34	3,873	3,056	0.66	2,017
For district.....	17,883	1.22	21,901	17,978	0.73	13,151

UNITED STATES WILD HAY ACREAGE
1933

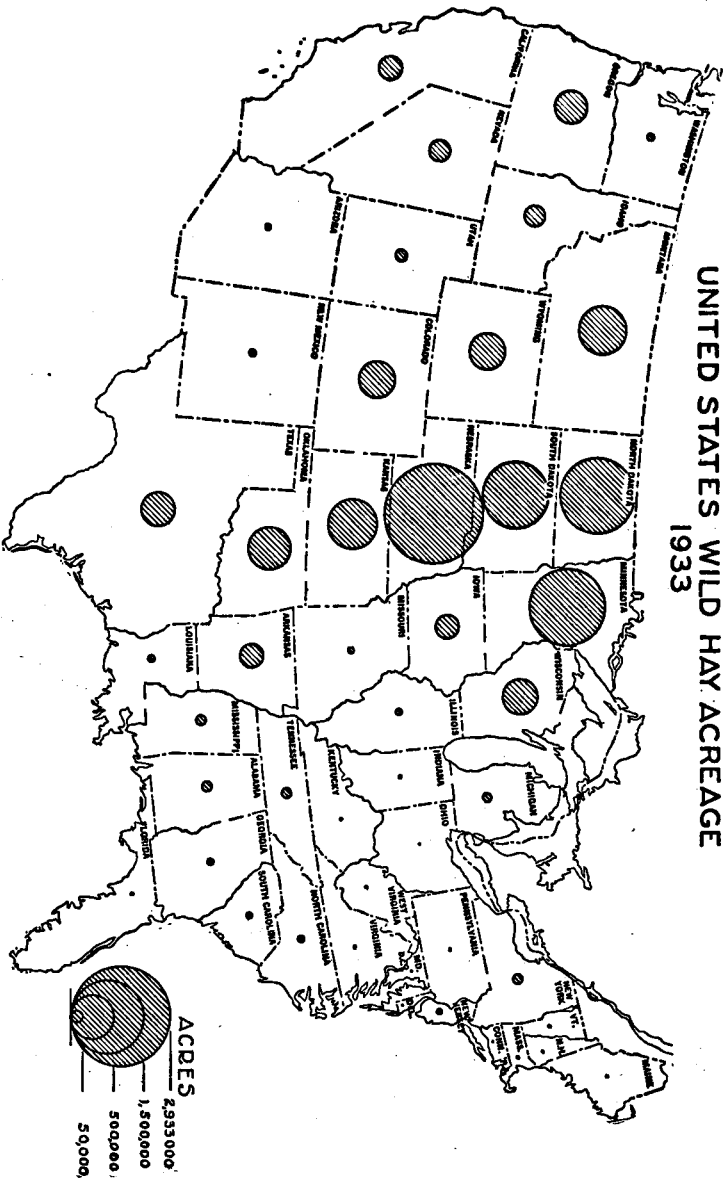


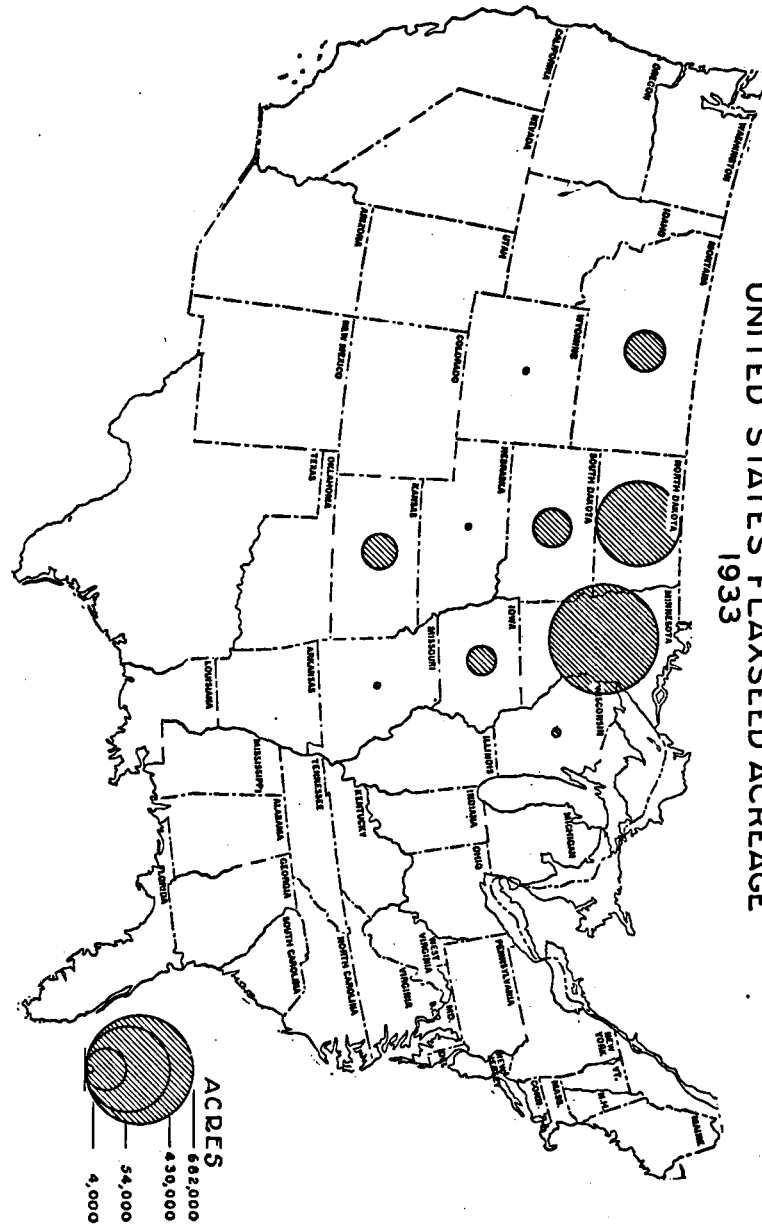
Fig. 94. The north central and wild hay. In 1933, Nebraska, Minnesota were the leading states. Iowa was of western states produce most of the sota, North Dakota and South Dakota minor importance.

Central						
Boone.....	2,330	0.84	1,957	2,195	0.88	1,932
Dallas.....	530	1.10	583	572	0.92	526
Grundy.....	1,814	1.00	1,814	1,907	1.05	2,002
Hamilton.....	1,028	1.39	1,429	1,069	0.92	983
Hardin.....	1,560	1.22	1,903	1,600	0.92	1,472
Jasper.....	17	0.84	14	60	0.42	25
Marshall.....	99	0.75	74	111	0.92	102
Polk.....	752	1.00	752	725	1.09	790
Poweshiek.....	27	0.85	23	11	0.92	10
Story.....	777	1.17	909	1,008	0.92	927
Tama.....	322	0.85	316	319	0.93	293
Webster.....	2,053	0.85	1,745	1,942	0.42	816
For district.....	11,359	1.01	11,519	11,519	0.86	9,878
East Central						
Benton.....	703	1.34	942	557	0.92	512
Cedar.....	63	1.50	94	57	1.05	60
Clinton.....	912	1.34	1,222	979	1.25	1,224
Iowa.....	386	1.10	427	346	0.92	318
Jackson.....	445	1.34	596	388	1.92	745
Johnson.....	315	1.10	346	280	0.96	269
Jones.....	38	1.00	38	39	1.00	39
Linn.....	1,204	0.70	843	999	0.92	919
Muscatine.....	234	1.00	234	325	1.15	374
Scott.....	856	1.00	856	763	1.17	893
For district.....	5,158	1.09	5,598	4,733	1.13	5,353
Southwest						
Adair.....	991	1.60	1,586	1,448	0.82	1,187
Adams.....	903	1.45	1,309	1,072	0.82	879
Cass.....	295	1.10	324	384	1.42	545
Fremont.....	535	1.85	990	748	1.42	1,062
Mills.....	1,403	1.70	2,385	1,425	0.97	1,382
Montgomery.....	276	1.70	469	247	0.80	198
Page.....	255	1.80	459	344	1.42	488
Pottawattamie.....	2,134	1.80	3,841	2,634	1.32	3,477
Taylor.....	361	1.60	578	344	1.42	488
For district.....	7,153	1.67	11,941	8,646	1.12	9,706
South Central						
Appanoose.....	811	1.22	989	761	0.92	700
Clarke.....	26	1.80	47	32	0.75	24
Decatur.....	78	1.25	98	100	0.80	80
Lucas.....	54	1.20	65	121	0.62	75
Madison.....	553	1.22	675	574	0.42	241
Marion.....	111	0.84	93	78	0.45	35
Monroe.....	16	0.84	13	60	0.75	45
Ringgold.....	139	1.34	186	97	0.92	89
Union.....	498	1.80	896	606	0.80	485
Warren.....	238	1.34	319	427	0.42	179
Wayne.....	14	1.20	17	83	0.80	66
For district.....	2,538	1.34	3,398	2,939	0.69	2,019
Southeast						
Davis.....	5	0.84	4	14	0.55	8
Des Moines.....	.....	.....	.....	16	0.90	14
Henry.....	.....	.....	.....	4	0.65	3
Jefferson.....	.....	.....	.....	.....	.....	.....
Keokuk.....	38	1.35	51	38	0.80	30
Lee.....	35	1.25	44	18	0.80	14
Louis.....	64	1.00	64	103	1.15	118
Mahaska.....	87	1.35	117	138	0.82	113
Van Buren.....	.....	.....	.....	5	0.74	4
Wapello.....	42	1.25	52	16	0.65	10
Washington.....	2	1.25	2	5	1.02	5
For district.....	273	1.22	334	357	0.89	319
For state.....	180,924	1.15	207,772	183,760	0.88	160,826

TABLE 58. IOWA FLAX SEED.

Districts and counties	1932		1933	
	Acres	Total bushels	Acres	Total bushels
Northwest				
Buena Vista.....	722	7,670	711	3,187
Cherokee.....	83	791	102	570
Clay.....	816	7,841	1,189	5,584
Dickinson.....	1,674	17,364	1,781	8,362
Emmet.....	1,071	9,343	1,814	8,012
Lyon.....	882	12,420	2,064	12,307
O'Brien.....	1,143	14,621	2,736	20,189
Osceola.....	1,672	21,146	3,575	29,494
Palo Alto.....	233	2,489	355	1,478
Plymouth.....	...	...	39	250
Pocahontas.....	639	5,336	732	3,277
Sioux.....	462	5,769	1,187	8,124
For district.....	9,397	104,790	16,285	100,834
North Central				
Butler.....	24	205	11	81
Cerro Gordo.....	319	1,945	246	1,108
Floyd.....	171	1,118	187	1,583
Franklin.....	71	384	92	401
Hancock.....	96	619	166	1,140
Humboldt.....	96	755	81	132
Kossuth.....	336	1,537	572	3,750
Mitchell.....	2,097	15,331	1,464	11,243
Winnnebago.....	643	4,851	336	1,806
Worth.....	1,410	9,070	1,799	12,054
Wright.....	40	250	60	510
For district.....	5,303	36,065	5,014	33,808
Northeast				
Aallamakee.....	28	500	170	679
Black Hawk.....	47	374	58	680
Bremer.....	...	...	10	58
Buchanan.....	10	103	11	22
Chickasaw.....	102	392	112	455
Clayton.....	...	...	32	235
Delaware.....	15	175	22	182
Dubuque.....	55	595	47	264
Fayette.....	1,294	4,439	320	1,084
Howard.....	507	3,062	365	1,963
Winnebick.....	...	...	...	...
For district.....	2,058	9,640	1,147	5,622
West Central				
Audubon.....	40	600	125	437
Calhoun.....	16	210	43	129
Carroll.....	223	2,515	592	2,623
Crawford.....	17	100	14	52
Greene.....	83	530	94	272
Guthrie.....	95	572	83	179
Harrison.....	...	...	...	...
Ida.....	...	...	35	109
Monona.....	200	1,400	12	20
Sac.....	88	838	135	750
Shelby.....	10	80	28	23
Woodbury.....	2	25	46	62
For district.....	774	6,870	1,207	4,656
Central				
Boone.....	10	100	133	826
Dallas.....	87	815	584	1,489
Grundy.....	18	170	32	332
Hamilton.....	86	760	266	2,192
Hardin.....	70	625	99	852
Jasper.....	56	430	153	819
Marshall.....	257	2,553	242	2,549
Polk.....	87	751	479	2,644
Poweshiek.....	...	...	35	318
Story.....	33	314	313	2,536
Tama.....	60	520	143	1,449
Webster.....	35	700	54	230
For district.....	799	7,738	2,533	16,236

Fig. 95. Minnesota and North Dakota are the leading flax producing states. In 1933 they produced 4,365,000 bushels and 1,802,000 bushels respectively of the total of 6,947,000 bushels produced in the United States.



IOWA FLAXSEED ACREAGE
1933

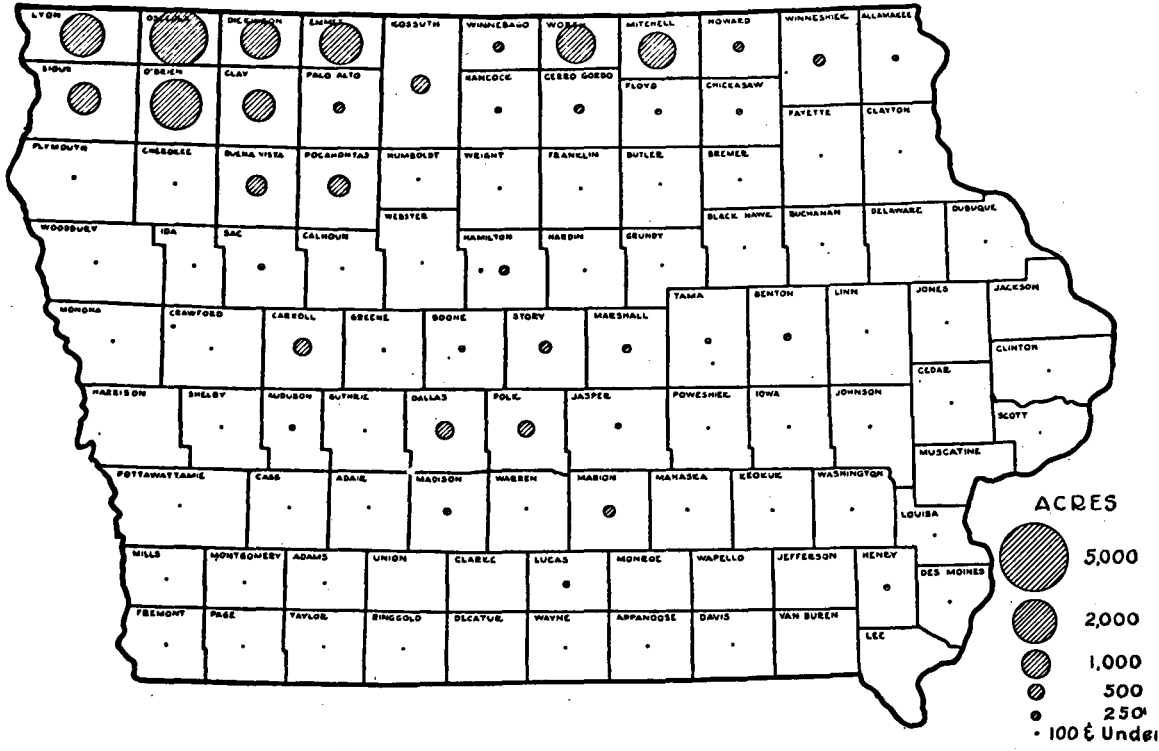


Fig. 96. Flaxseed, a minor crop, is generally grown as a cash crop. The southern counties raise very little of it and nearly 90 percent in the northwest, the north central and northeast counties. Mitchell, Dickinson and Osceola Counties have been important producers of the crop, while many of the southern counties did not report any acreage. Data in table 58.

1,255	3,278	1,334	5,230
202	445	286	1,000
640	1,630	475	2,221
66	134	41	174
18	8	15	15
20	5	53	63
22	24	4	42
23	4	4	4
25	4	4	4
26	4	4	4
27	4	4	4
28	4	4	4
29	4	4	4
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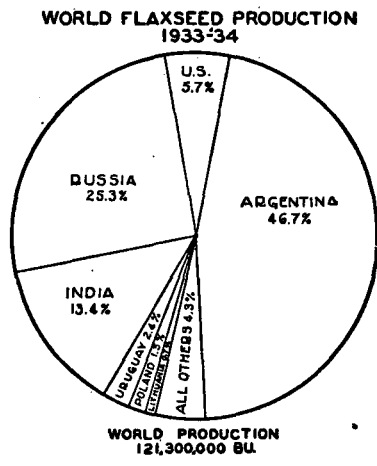


Fig. 97. Argentina, Russia and India are the leading flax producing countries. In 1933-34, the United States produced 6,947,000 bushels, or 5.7 percent of the world total.

AGRICULTURAL ECONOMIC FACTS

TABLE 59. IOWA SEED CROPS—1932-33.

County	1932									1933								
	Timothy seed			Clover seed*			Sweet clover seed			Timothy seed			Clover seed*			Sweet clover seed		
	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.
Buena Vista	5	9.6	48	34	0.68	23	73	3.5	256				32	2.12	68	15	3.9	58
Cherokee	45	4.4	199	20	1.50	30	44	2.4	105				52	0.56	29	82	3.0	248
Clay	110	5.4	592	62	0.63	39	83	3.6	297	21	1.9	39	35	0.71	25	87	1.3	115
Dickinson	56	5.0	279				74	2.7	202				14	1.50	21	108	2.3	244
Emmet	3	3.3	10	54	0.70	38	53	5.3	280	3	6.7	20	42	1.81	76	58	3.8	220
Lyon							30	4.3	130				17	1.53	26	123	4.0	493
O'Brien	97	5.1	494	6	0.83	5	158	2.7	427	142	3.5	493	86	0.80	69	56	4.8	270
Osceola	280	7.1	1,996	31	1.45	45	24	0.5	12				59	0.71	42	183	3.0	558
Palo Alto	8	9.4	75				93	1.1	102				25	0.84	21	6	1.3	8
Plymouth	16	5.0	80	18	1.94	35							49	2.06	101	203	2.0	416
Pocahontas	5	6.2	31				20	2.0	40				33	1.55	51	137	1.9	258
Sioux	58	6.3	367				29	4.2	122							60	4.2	253
Butler	415	4.6	1,916	12	0.92	11				428	3.4	1,436	595	0.95	564	28	0.7	20
Cerro Gordo	308	5.5	1,679							192	3.0	377	192	1.06	203	6	2.3	14
Floyd	1,135	5.0	5,677				20	1.2	25	829	3.6	2,986	89	1.01	90	37	1.2	45
Franklin	190	6.0	1,136	5	1.20	6				168	4.4	732	270	0.78	211	27	1.1	29
Hancock	71	5.5	390				38	2.8	106	4	2.5	10	102	0.68	69	42	2.5	107
Humboldt	43	5.2	354	4	2.50	10	10	7.5	75							12	0.8	10
Kossuth	10	8.1	81	60	1.38	83	57	2.3	130				10	1.90	19	16	4.8	77
Mitchell	2,388	5.0	11,932				10	1.5	15	2,892	2.9	8,490	709	0.83	586			
Winnebago	59	6.1	360	22	1.14	25	2	4.0	8	15	2.0	30	82	1.82	149	91	0.5	45
Worth	169	7.7	1,293	22	1.27	27	4	3.0	12	125	2.1	665	206	1.01	209	41	2.6	106
Wright	27	6.4	175				50	0.9	45				72	0.75	54	11	3.1	34
Allamakee	1,258	5.2	6,587	457	1.10	501	12	0.5	6	692	2.9	2,027	3,339	1.17	3,918	6	3.8	23
Black Hawk	390	6.8	2,640	63	0.86	44	25	0.8	20	329	4.8	1,583	799	0.99	792			
Bremer	134	4.1	544	16	1.06	17				63	4.1	260	171	1.13	194			
Buchanan	776	4.5	3,459	92	0.85	78				1,055	3.8	3,964	1,551	1.13	1,759	24	0.8	20
Chickasaw	4,092	4.1	16,745	29	0.59	17	2	2.0	4	3,286	2.4	8,035	497	0.92	456	5	3.0	15
Clayton	702	5.5	3,842	656	0.85	555	5	1.0	5	453	2.7	1,228	6,616	1.14	7,574	16	1.1	17
Delaware	958	5.4	5,178	197	1.43	272	2	0.5	1	919	3.7	3,430	2,647	1.04	2,746	14	1.2	17

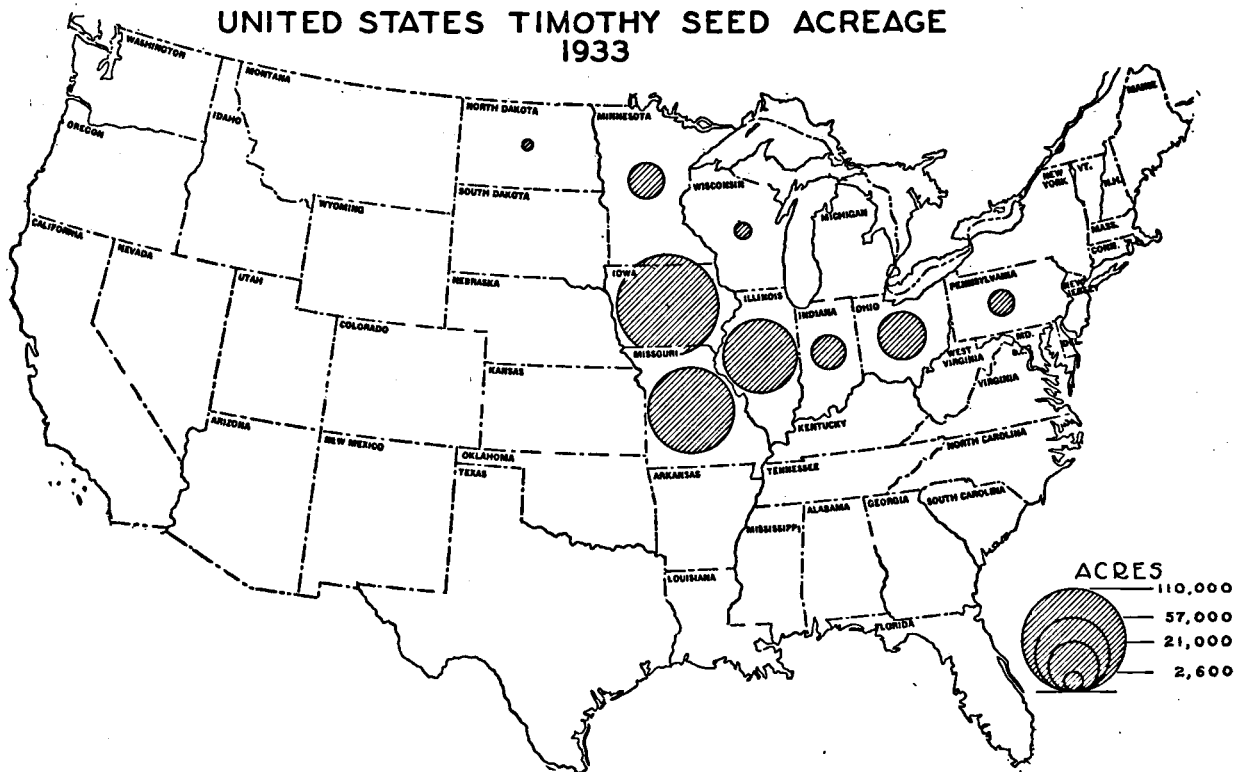


Fig. 98. Iowa, Missouri, and Illinois are the leading timothy seed producing states. In 1933 they had 110,000 and 48,000 and 57,000 acres respectively, of the total of 281,100 acres for the United States.

TABLE 59. IOWA'S SEED CROPS—1932-1933—Continued

County	1932									1933								
	Timothy seed			Clover seed			Sweet clover seed			Timothy seed			Clover seed			Sweet clover seed		
	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.
Dubuque.....	565	4.6	2,623	507	0.79	400	12	3.3	40	522	3.6	1,896	4,238	0.89	3,782	14	3.2	45
Fayette.....	1,850	4.5	8,331	464	0.98	456	8	1.5	12	1,924	3.2	6,187	3,359	1.11	3,727	11	1.1	12
Howard.....	4,299	4.6	19,934							3,759	2.7	10,261	353	0.97	343	19	1.8	34
Winnebuck.....	3,533	4.3	15,234	62	0.95	59	4	2.0	8	2,060	2.3	4,642	598	1.05	626	20	2.4	49
Audubon.....	1,435	5.2	7,455	166	0.73	121	16	0.6	10				424	0.65	276	45	1.6	73
Calhoun.....	16	6.4	103				35	1.3	45	3	5.0	15	28	0.89	25	128	3.9	493
Carroll.....	108	3.7	401	46	1.02	47	18	1.4	25	11	1.5	17	320	0.77	245	20	1.8	36
Crawford.....	130	3.3	434	145	0.78	113	297	2.1	631				511	0.59	301	348	3.3	1,275
Greene.....	16	5.4	86	21	0.33	7	81	2.0	165	14	1.6	22	194	1.47	285	98	2.3	229
Guthrie.....	3,182	4.0	12,578	1,244	0.82	1,024	148	2.2	331	1,050	1.1	1,123	2,215	0.69	1,528	106	0.8	84
Harrison.....	25	4.0	100				479	2.3	1,096				43	1.07	46	802	4.0	3,178
Ida.....	94	5.2	486	36	0.67	24	270	3.8	1,028	23	1.4	33	229	1.02	234	398	4.8	1,911
Monona.....							310	3.2	982				18	0.83	15	956	3.5	3,379
Sac.....	111	6.4	712	44	1.32	58	119	1.9	230	5	0.4	2	87	1.00	87	7	3.6	25
Shelby.....	232	5.8	1,353	525	1.37	719	103	2.3	233	5	4.0	20	1,041	1.00	1,043	257	3.5	905
Woodbury.....	7	3.6	25	44	1.09	481	896	2.5	4,782				34	1.12	38	2,210	3.2	6,989
Boone.....	11	2.0	23	61	1.05	64	124	2.3	273	10	5.0	50	145	1.23	179	431	2.6	1,105
Dallas.....	21	7.3	154	610	0.85	517	44	2.1	94	2	6.0	12	1,151	0.87	1,000	90	1.1	99
Grundy.....	603	6.2	3,716	80	0.75	60				229	4.8	1,108	442	0.72	318			
Hamilton.....										5	5.0	25	6	0.50	3	40	2.6	102

IOWA TIMOTHY SEED ACREAGE
1933

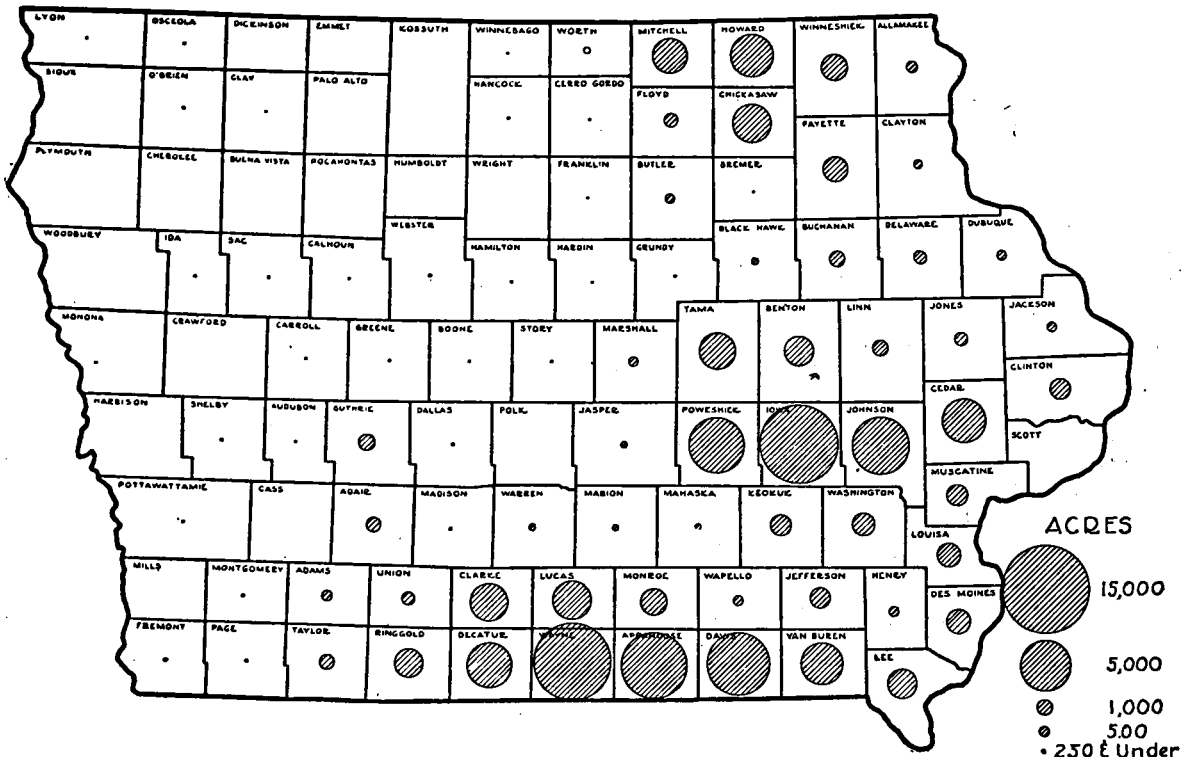


Fig. 99. Timothy seed production is no longer as important as it once was, but in certain sections it is still an important crop. The bulk of the seed is produced in the north-

east, east central, southeast and south central groups of counties. These sections are heavy hay producers, so it is natural that seed pro-

duction should also be centered in the same locality. Data in table 59.

AGRICULTURAL ECONOMIC FACTS

TABLE 59. IOWA'S SEED CROPS—1982-1988—Continued

County	1932									1933								
	Timothy seed			Clover seed			Sweet clover seed			Timothy seed			Clover seed			Sweet clover seed		
	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.
Hardin	50	5.6	282	65	1.22	79				63	4.0	251	497	1.05	524	42	1.1	47
Jasper	375	5.0	1,888	2,530	0.85	2,158				299	2.9	873	5,666	0.61	3,430	65	2.2	145
Marshall	719	6.0	4,329	455	0.65	295	6	1.0	6	552	2.7	1,511	2,164	0.71	1,530	90	3.4	310
Polk	52	5.7	295	460	0.81	372	35	2.7	93				1,050	0.72	760	87	1.2	107
Poweshiek	5,593	5.6	31,209	1,761	0.95	1,675	10	1.0	10	5,835	3.4	19,613	4,553	0.58	2,645	19	3.4	65
Story	80	4.6	370	25	1.80	45				10	6.0	60	104	1.23	128	51	5.4	273
Tama	2,574	5.4	13,785	248	0.92	227				2,755	2.9	8,011	3,718	0.96	3,559			
Webster	30	7.4	222	19	1.05	20	88	1.1	94	6	1.0	6	42	1.48	62	51	1.7	88
Benton	1,273	6.6	8,400	10	1.30	13	13	0.8	11	2,259	4.0	9,101	1,342	1.10	1,481	15	2.0	30
Cedar	3,008	5.3	16,063	525	0.78	411	2	1.1	2	4,243	4.3	18,279	2,807	0.96	2,704	14	0.6	8
Clinton	615	5.2	3,228	404	0.96	388	26	1.5	30	1,200	3.4	4,099	2,760	0.84	2,314			
Iowa	11,824	4.7	55,860	1,348	1.05	1,421				12,970	3.1	39,644	3,792	0.86	3,248	11	1.4	15
Jackson	494	4.5	2,216	704	0.96	678	40	0.9	37	566	3.0	1,713	5,246	0.99	5,188	34	1.6	53
Johnson	4,470	5.4	24,220	1,528	1.10	1,677	25	0.4	11	6,812	4.4	30,079	5,434	0.93	5,057			
Jones	485	6.7	3,252	14	1.21	17	1	1.0	1	743	3.4	2,509	3,529	0.91	3,224	71	1.1	79
Linn	758	5.9	4,467	261	0.87	226				1,082	3.6	3,861	4,665	1.04	4,861	25	0.8	20
Muscatine	815	5.2	4,203	325	1.27	412				1,349	3.8	5,136	1,877	1.03	1,932	12	2.5	30
Scott	414	5.6	2,317	503	1.18	595	2	1.0	2	597	4.2	2,511	2,980	1.09	3,245	46	1.0	47
Adair	3,105	4.2	12,951	2,227	0.80	1,791				806	1.8	1,489	3,164	0.33	1,049	66	2.0	135
Adams	891	4.7	4,188	602	0.87	522	38	3.1	116	453	2.2	978	1,668	0.36	607	26	4.1	106
Cass	977	4.5	4,413	2,352	0.67	1,586	62	1.9	119	181	1.8	322	3,262	0.34	1,112	58	1.4	81
Fremont	96	3.1	300	1,032	1.07	1,101	14	0.3	4	24	2.9	70	1,568	0.75	1,177	88	4.0	353
Mills	51	4.2	212	53	1.32	70	81	3.6	293				237	0.95	226	34	3.5	120
Montgomery	197	4.3	847	1,253	0.92	1,159	5	2.0	10	10	1.5	15	2,633	0.50	1,313	76	3.7	279
Page	345	4.6	1,600	900	0.82	739	10	0.9	9	76	2.0	150	4,907	0.58	2,860	24	2.1	51
Pottawattamie	238	5.0	1,195	159	0.61	97	84	2.5	208	60	1.7	100	1,031	0.75	771	266	1.7	465
Taylor	2,522	4.7	11,841	161	0.56	90				952	2.2	2,128	5,071	0.40	2,040	56	2.9	161
Appanoose	9,152	4.2	38,358	841	0.87	729	6	5.0	30	9,487	3.0	28,700	2,583	0.90	2,335	4	2.0	8
Clarke	8,573	4.4	38,139	1,736	0.65	1,130	36	0.8	27	3,068	2.4	7,274	1,349	0.36	490	43	0.7	32
Decatur	9,453	3.9	37,036	738	0.70	520	9	0.4	4	4,649	2.2	10,081	1,542	0.49	759	6	1.3	8

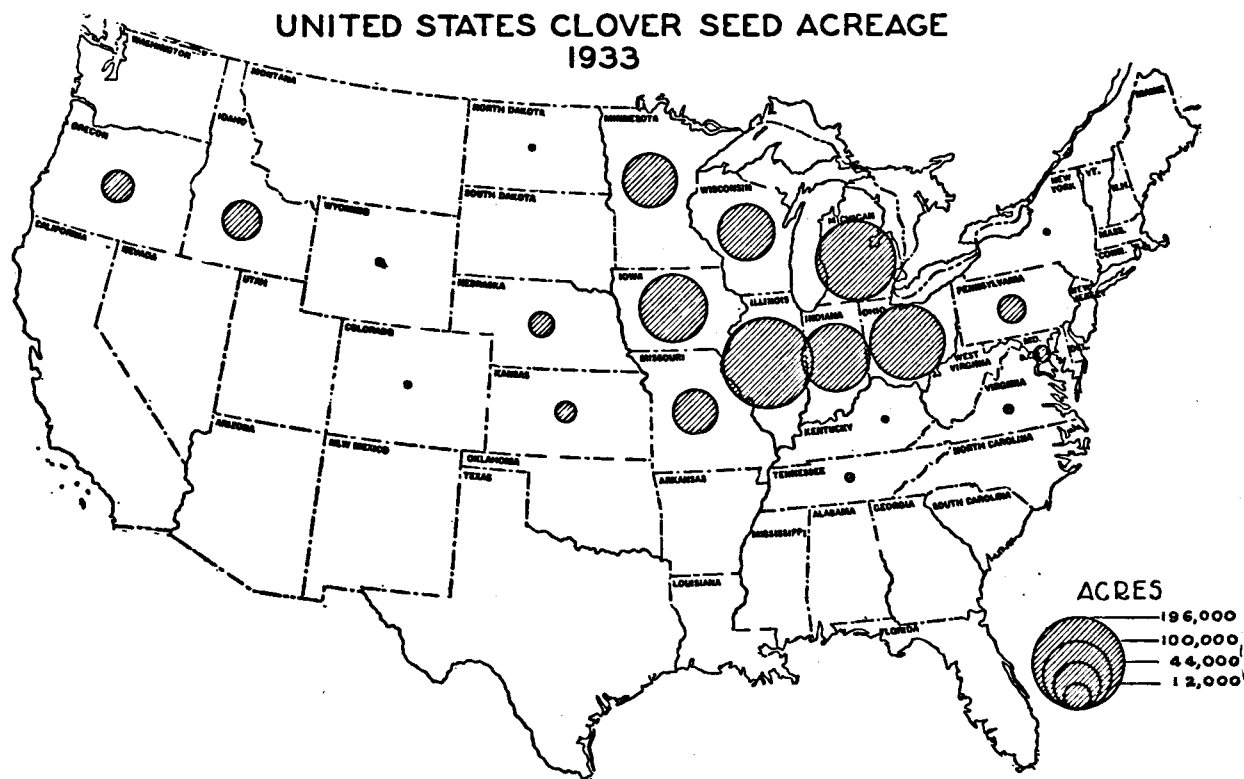


Fig. 100. The North Central States had a large proportion of the 1933 United States clover seed acreage of 1,096,000 acres.

Although the total amount of clover seed produced in Iowa is not as large as in some states, it is a large item in the United States total.

TABLE 59. IOWA'S SEED CROPS—1932-1933—Continued

County	1932									1933								
	Timothy seed			Clover seed			Sweet clover seed			Timothy seed			Clover seed			Sweet clover seed		
	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.	Acres	Bush. per acre	Total bush.
Lucas	6,355	4.2	26,591	3,452	0.64	2,218	19	3.9	74	3,273	2.4	7,941	4,243	0.51	2,177	55	4.8	266
Madison	1,049	4.7	4,927	3,317	0.91	3,016	14	2.2	31	153	1.1	170	2,805	0.50	1,394	21	1.0	21
Marion	471	3.8	1,778	3,875	0.92	3,565	32	2.3	75	313	2.2	677	4,713	0.59	2,792	49	2.9	142
Monroe	2,874	4.4	12,512	733	0.74	545	19	1.0	19	1,829	2.7	4,938	2,444	0.54	1,320	77	1.2	94
Ringgold	9,337	4.3	39,858	558	0.62	354	41	0.8	33	743	2.1	1,591	2,665	0.41	1,095	106	2.2	231
Union	3,930	4.8	18,807	661	0.68	449	20	1.1	22	327	3.8	1,259	3,333	0.48	1,612	25	0.9	22
Warren	979	4.6	4,531	3,095	0.82	2,543	42	0.8	35	12,200	2.5	30,668	3,157	0.48	1,504	6	1.0	6
Wayne	16,799	3.9	64,904	2,211	0.71	1,579	5	1.0	5	8,188	2.8	23,167	3,168	0.89	2,812			
Davis	8,169	3.3	26,873	1,493	0.93	1,384				1,654	4.7	7,737	3,480	0.81	2,834	5	0.6	3
Des Moines	861	6.4	5,503	2,997	0.94	2,827												
Henry	656	4.5	2,958	2,391	1.01	2,408				685	4.1	2,799	2,371	0.78	1,854			
Jefferson	2,367	4.1	9,641	3,434	0.78	2,690				1,222	3.6	4,433	4,862	0.60	2,904			
Keokuk	1,765	5.1	8,927	1,098	1.02	1,121				1,487	3.0	4,530	5,960	0.58	3,431	16	0.4	7
Lee	2,106	5.0	10,518	4,190	1.01	4,218				2,167	4.3	9,299	4,490	0.71	3,186	2	1.5	3
Louisia	1,237	6.2	7,710	1,858	0.88	1,642	8	1.9	15	1,767	4.4	7,807	2,886	0.81	2,338			
Mahaska	371	4.3	1,605	1,589	0.64	1,022				270	3.5	956	4,383	0.52	2,276	29	3.6	103
Van Buren	4,456	4.0	17,790	6,237	0.94	5,856				3,879	3.6	14,063	6,368	0.78	4,947	40	3.3	132
Wapello	1,523	4.1	6,317	1,045	0.71	747	20	5.0	100	485	3.2	1,533	2,360	0.61	1,447	48	3.8	180
Washington	1,567	5.2	8,153	4,379	0.91	3,976				1,560	3.8	5,863	7,288	0.82	5,956			
State total	166,148	4.5	749,496	77,767	0.87	67,981	5,685	2.5	13,936	127,051	3.1	394,048	190,459	0.75	142,688	9,389	3.0	28,069

IOWA CLOVER SEED ACREAGE
1933

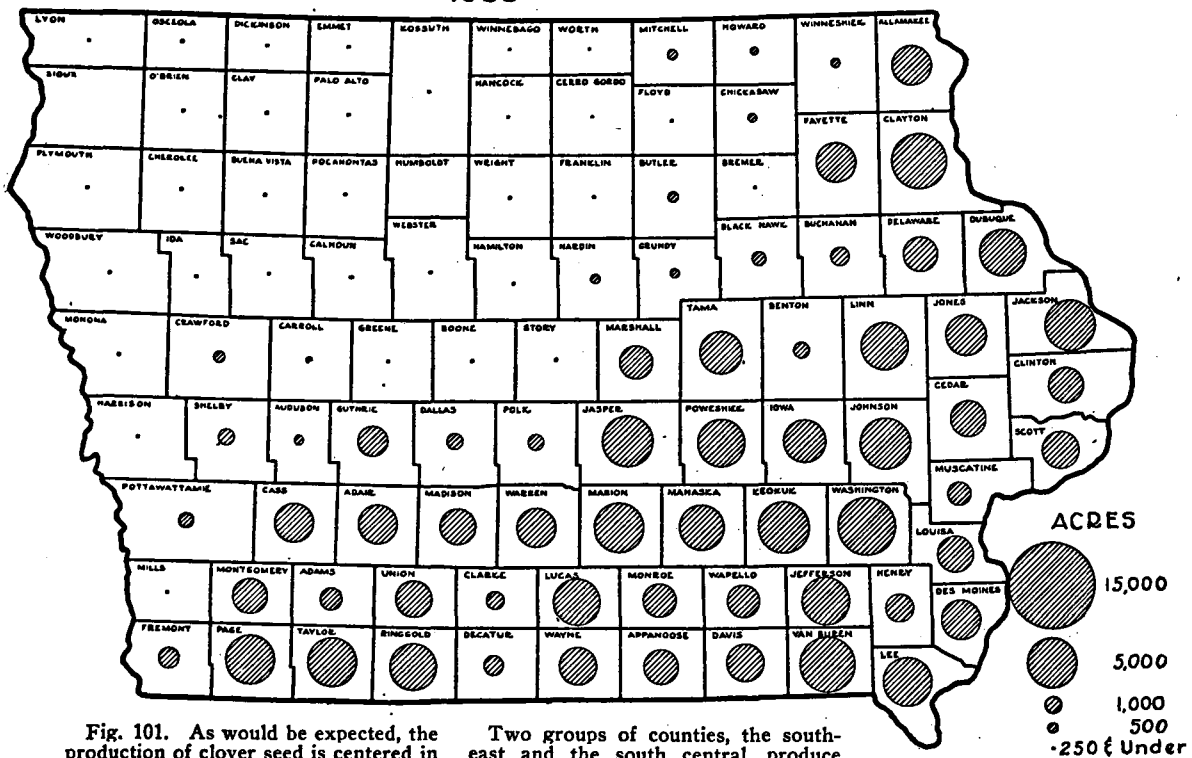


Fig. 101. As would be expected, the production of clover seed is centered in those counties which produce most of the clover hay in the state.

Two groups of counties, the south-east and the south central, produce most of the clover seed. Data in table 59.

UNITED STATES SWEET CLOVER SEED ACREAGE 1933

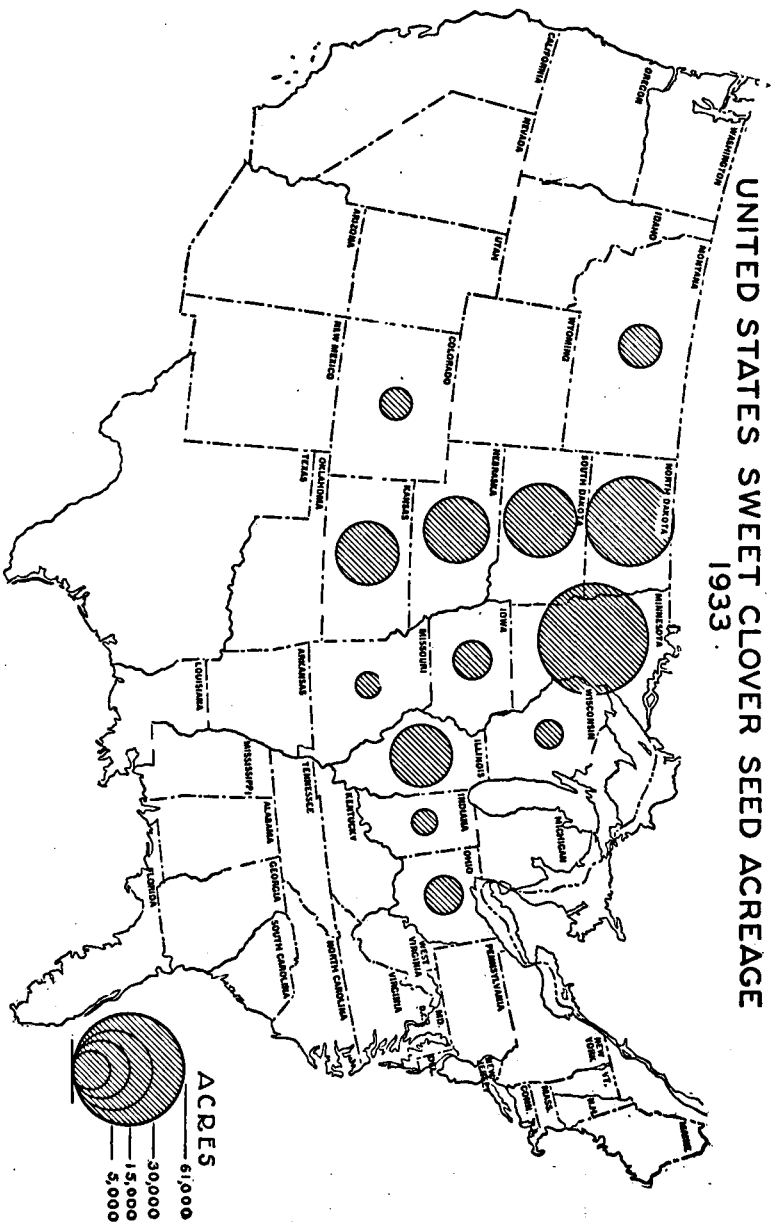


Fig. 102. The north central states produced a large percentage of the sweet clover seed in 1933. In that year the United States harvested 212,900 acres and 709,700 bushels of seed. Sweet clover seed production is another of

the crops that is of relatively small importance in Iowa as a whole but is important in the sections where the production is concentrated. Production is concentrated in the extreme west central part of the state, a section

that relies much upon sweet clover as a seed and pasture crop. On a less concentrated scale, production is scattered through the western third of the state.

TABLE 60. IOWA PASTURES.

Districts and counties	1932	1933
	Pastures Total acreage	Pastures Total acreage
Northwest		
Buena Vista.....	59,991	54,800
Cherokee.....	78,661	74,828
Clay.....	69,133	64,161
Dickinson.....	47,654	44,055
Emmet.....	42,968	40,470
Lyon.....	60,855	57,622
O'Brien.....	62,336	60,730
Osceola.....	39,879	37,552
Palo Alto.....	59,051	56,705
Plymouth.....	111,906	106,535
Pocahontas.....	45,904	43,302
Sioux.....	74,452	70,712
For district.....	752,790	711,972
North Central		
Butler.....	89,902	84,685
Cerro Gordo.....	80,197	76,305
Floyd.....	72,209	68,107
Franklin.....	74,844	71,145
Hancock.....	68,289	63,194
Humboldt.....	38,619	36,451
Kossuth.....	97,588	91,056
Mitchell.....	67,553	64,857
Winnebago.....	49,333	46,197
Worth.....	57,079	53,571
Wright.....	61,560	56,759
For district.....	757,173	712,327
Northeast		
Allamakee.....	155,626	160,596
Black Hawk.....	89,886	84,041
Bremer.....	76,338	72,661
Buchanan.....	101,490	96,360
Chickasaw.....	90,265	87,737
Clayton.....	189,532	181,422
Delaware.....	110,024	102,330
Dubuque.....	144,111	135,740
Fayette.....	151,067	140,610
Howard.....	91,847	84,417
Winnesiek.....	142,860	141,199
For district.....	1,343,046	1,287,113
West Central		
Audubon.....	74,424	74,481
Calhoun.....	50,331	45,717
Carroll.....	76,311	73,210
Crawford.....	114,824	114,255
Greens.....	64,777	61,330
Guthrie.....	116,927	112,402
Harrison.....	90,256	94,866
Ia.....	53,226	49,830
Ida.....	97,020	98,737
Sac.....	63,563	60,883
Shelby.....	82,743	79,988
Woodbury.....	100,076	95,929
For district.....	984,478	961,628

IOWA PASTURE ACREAGE
1933

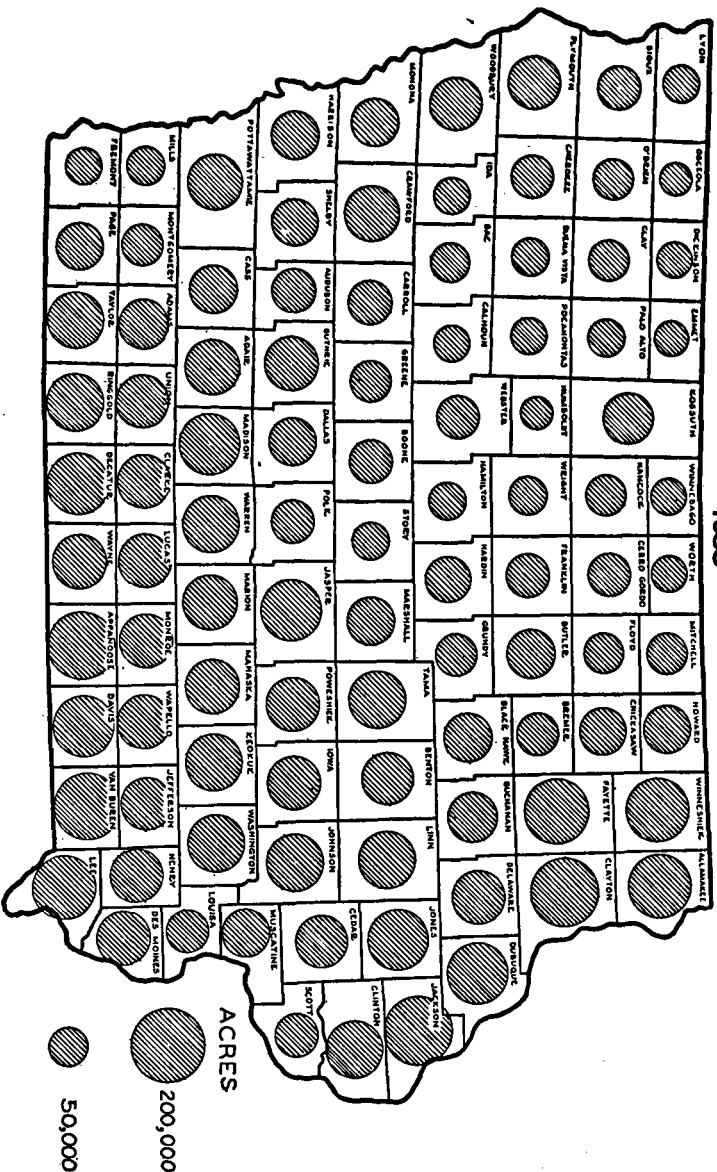


Fig. 103. In connection with the state's livestock program, pasture is very important in the Iowa production scheme. For the raising of dairy and beef cattle and sheep, pasture is essential. The acreage pastured throughout the state is pretty well distributed over the entire area. It is concentrated somewhat in the southern pasture area, although the dairy areas also report a considerable portion of land under pasture. The highest areas are in the northwest and north central counties. Bluegrass, timothy, clover, sweet clover, red clover, and mixed combinations are the popular varieties of pasture raised in Iowa. Data in table 60.

Central		
Boone.....	74,468	74,263
Dallas.....	92,126	91,383
Grundy.....	71,303	69,732
Hamilton.....	60,866	59,261
Hardin.....	75,983	74,320
Jasper.....	140,133	136,605
Marshall.....	88,893	85,021
Polk.....	78,567	76,640
Poweshiek.....	114,945	109,812
Story.....	59,654	57,346
Tama.....	132,851	128,927
Webster.....	79,933	76,710
For district.....	1,069,722	1,040,020
East Central		
Benton.....	110,742	106,673
Cedar.....	110,299	104,903
Clinton.....	135,529	128,544
Iowa.....	115,171	108,526
Jackson.....	193,087	185,565
Johnson.....	130,098	122,515
Jones.....	138,663	133,619
Linn.....	135,248	129,217
Muscatine.....	81,875	80,862
Scott.....	77,916	73,960
For district.....	1,228,628	1,174,384
Southwest		
Adair.....	119,296	113,655
Adams.....	96,261	97,952
Cass.....	102,389	98,900
Fremont.....	53,631	55,223
Mills.....	59,892	59,011
Montgomery.....	66,118	63,853
Page.....	95,621	92,946
Pottawattamie.....	128,312	119,304
Taylor.....	118,348	116,069
For district.....	839,866	816,913
South Central		
Appanoose.....	154,258	150,049
Clarke.....	104,819	103,299
Decatur.....	144,780	142,828
Lucas.....	112,444	112,209
Madison.....	142,884	142,189
Marion.....	117,878	119,138
Monroe.....	135,728	129,218
Ringgold.....	129,249	126,829
Union.....	105,715	104,256
Warren.....	129,388	126,420
Wayne.....	123,517	119,319
For district.....	1,400,660	1,375,754
Southeast		
Davis.....	147,723	146,814
Des Moines.....	91,162	92,542
Henry.....	107,325	105,199
Jefferson.....	113,936	108,590
Keokuk.....	127,456	125,972
Lee.....	135,045	137,608
Louisia.....	78,499	75,119
Mahaska.....	115,412	112,348
Van Buren.....	161,208	156,233
Wapello.....	104,200	104,723
Washington.....	119,271	121,361
For district.....	1,301,237	1,286,509
For state.....	9,677,602	9,366,620

UNITED STATES POTATO ACREAGE
1933

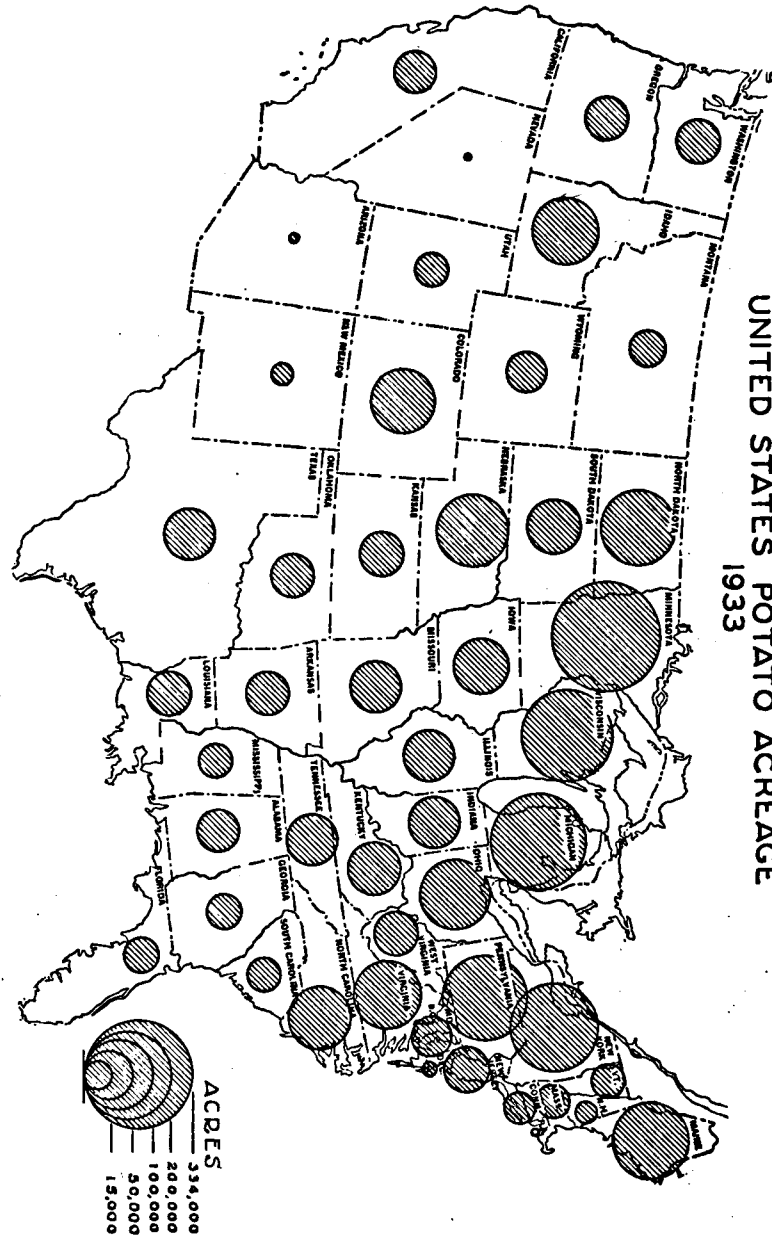


Fig. 104. The bulk of the United States potato production is found in the northern states along the Canadian border and the Great Lakes. Maine, Minnesota, New York, Wisconsin, Pennsylvania and Michigan are the leading states. Growing conditions seem to be the best in Maine where the yield was 280 bushels per acre as compared with 100.3 for the United States.

TABLE 61. IOWA POTATOES.

Districts and counties	1932			1933		
	Acres	Bushels per acre	Total bushels	Acres	Bushels per acre	Total bushels
Northwest						
Buena Vista.....	516	142	73,272	606	92	55,752
Cherokee.....	681	91	61,971	749	70	52,430
Clay.....	342	137	46,854	366	112	40,992
Dickinson.....	461	89	41,029	428	77	32,956
Emmet.....	582	117	68,094	867	95	82,365
Lyon.....	1,035	118	122,130	1,044	95	99,180
O'Brien.....	668	100	66,800	695	95	66,025
Osceola.....	656	92	60,352	648	98	63,504
Palo Alto.....	294	92	27,048	451	113	50,963
Plymouth.....	952	91	86,632	1,093	68	74,324
Pocahontas.....	240	104	24,960	264	79	20,856
Sioux.....	915	109	99,735	1,003	98	98,294
For district....	7,342	106.1	778,877	8,214	90	737,641
North Central						
Butler.....	689	110	75,790	779	49	38,171
Cerro Gordo.....	602	105	63,210	644	48	30,912
Floyd.....	479	99	47,421	534	73	38,982
Franklin.....	870	123	107,010	853	62	52,886
Hancock.....	1,445	94	135,830	2,184	129	281,736
Humboldt.....	229	80	18,320	1,262	100	26,200
Kossuth.....	901	145	130,645	1,110	125	138,750
Mitchell.....	1,502	87	130,674	1,372	60	82,320
Winnebago.....	418	132	55,176	458	84	38,472
Worth.....	704	98	68,992	546	68	37,128
Wright.....	443	103	45,629	524	85	44,540
For district....	8,282	106.1	878,697	9,266	87	810,097
Northeast						
Allamakee.....	759	113	85,767	832	65	54,080
Black Hawk.....	518	137	70,966	454	50	22,700
Bremer.....	758	145	109,910	722	70	50,540
Buchanan.....	414	118	48,852	370	44	16,280
Chickasaw.....	334	80	26,720	296	37	10,952
Clayton.....	1,307	99	129,393	1,290	58	74,820
Delaware.....	538	115	61,870	584	45	26,280
Dubuque.....	1,429	78	111,462	1,604	50	80,200
Fayette.....	857	120	102,840	965	61	58,865
Howard.....	342	84	28,728	358	42	15,036
Winneshiek.....	730	96	70,080	770	53	40,810
For district....	7,986	106.0	846,588	8,245	55	450,563
West Central						
Audubon.....	456	89	40,584	495	82	40,590
Calhoun.....	162	113	18,306	120	102	19,380
Carroll.....	1,076	113	121,588	1,094	107	117,058
Crawford.....	763	110	83,930	905	57	51,585
Greene.....	161	145	23,345	166	127	21,082
Guthrie.....	215	115	24,725	304	65	19,760
Harrison.....	504	106	53,424	680	47	31,960
Ida.....	368	85	31,280	454	71	32,234
Monona.....	562	113	63,506	709	64	45,376
Sac.....	650	85	55,250	713	104	74,152
Shelby.....	796	126	100,296	847	62	52,514
Woodbury.....	1,255	96	120,480	1,400	44	61,600
For district....	6,968	105.7	736,714	7,957	71	567,291
Central						
Boone.....	199	107	21,293	146	61	8,906
Dallas.....	188	106	19,928	195	51	9,945
Grundy.....	1,051	109	114,559	954	72	68,688
Hamilton.....	429	106	45,474	468	84	39,312
Hardin.....	422	129	54,438	413	59	24,367
Jasper.....	156	123	19,188	147	50	7,350
Marshall.....	361	109	39,349	423	58	24,534
Polk.....	350	103	36,050	415	42	17,430
Poweshiek.....	288	130	37,440	289	53	15,317
Story.....	86	103	8,858	120	45	5,400
Tama.....	729	96	69,984	686	59	40,474
Webster.....	210	95	19,950	328	77	25,256
For district....	4,469	108.9	486,511	4,584	63	286,979

IOWA POTATO ACREAGE
1933

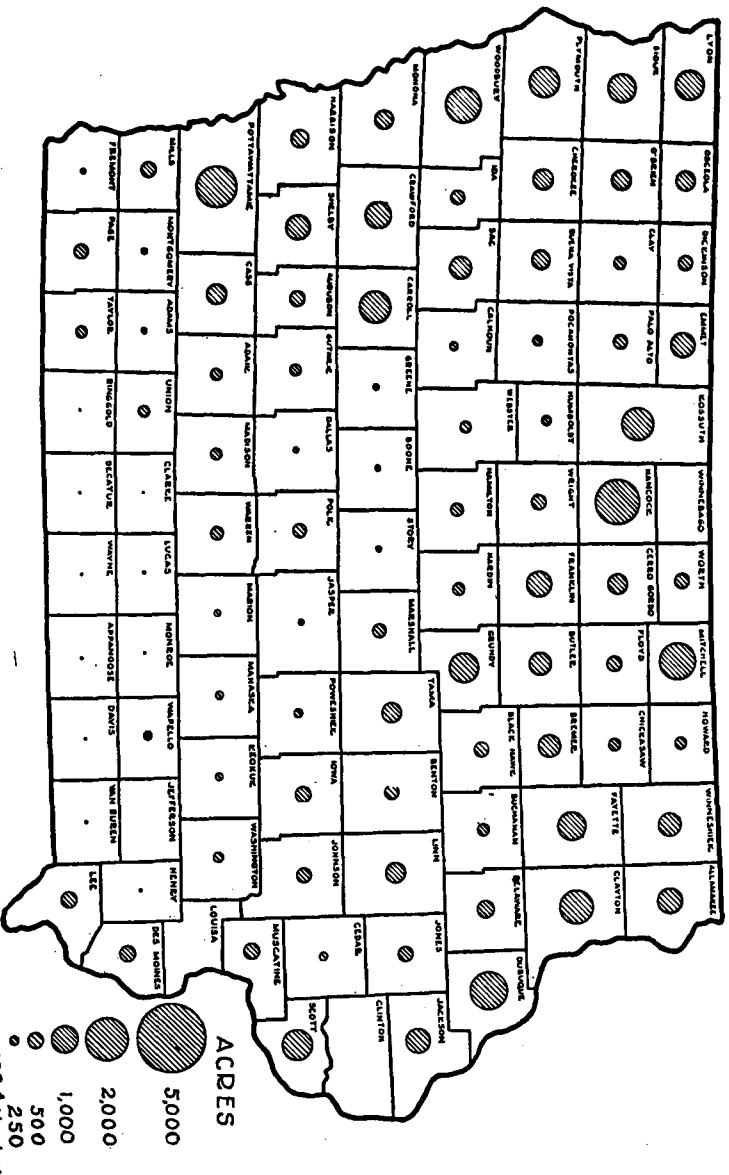
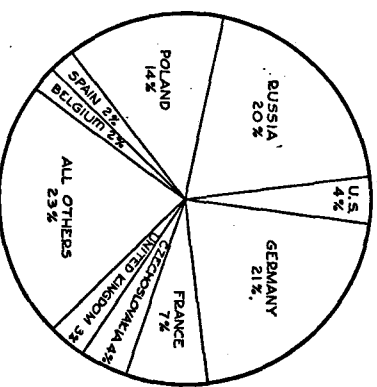


Fig. 105. As a state, Iowa is not a commercial producer of potatoes. It is far from the potato family, but only a few produce enough of a

surplus for distribution outside the farm. Much of this in the northern part of the state usually produces a surplus of potatoes, and it is from these parts that a few are marketed

each year. On the whole, the acreage devoted to the production of potatoes is only a negligible part of the state's total area. Data in table 61.

District	Total	Per Acre	Total	Per Acre	Total
East Central					
Benton	504	132	66,528	467	53
Cedar	251	174	43,674	212	98
Clinton	419	99	41,481	334	61
Iowa	653	160	104,480	580	45
Jackson	716	127	90,932	798	76
Johnson	405	128	51,840	513	59
Jones	455	83	37,765	512	44
Linn	881	118	103,858	641	56
Muscatine	528	113	59,664	552	40
Scott	1,133	115	130,295	1,077	59
For district	5,945	122.9	730,617	5,695	57
Southwest					
Adair	183	107	19,581	307	44
Adams	101	114	11,514	111	49
Cass	648	121	78,408	753	59
Fremont	110	115	12,650	145	45
Mills	363	102	37,026	494	62
Montgomery	195	117	22,815	175	52
Page	418	119	49,742	478	38
Pottawattamie	1,580	111	175,380	1,833	59
Taylor	258	101	26,058	289	42
For district	3,856	112.3	433,174	4,585	54
South Central					
Appanoose	78	109	8,502	71	61
Clarke	49	109	5,341	57	40
Decatur	129	101	13,029	76	61
Lucas	44	101	4,444	58	40
Madison	180	103	18,540	308	56
Marion	129	74	9,546	154	38
Monroe	14	95	1,330	16	60
Ringgold	58	113	6,554	63	67
Union	102	95	9,690	274	46
Warren	276	107	29,532	398	46
Wayne	20	91	1,820	14	60
For district	1,079	100.4	108,328	1,489	49
Southeast					
Davis	72	128	9,216	55	32
Des Moines	502	104	52,208	533	31
Henry	47	112	5,264	11	40
Jefferson	109	103	11,227	94	51
Keokuk	235	124	29,140	229	53
Lee	597	111	66,267	509	58
Louisa	234	122	28,548	269	36
Mahaska	218	119	25,942	244	52
Van Buren	113	123	13,899	74	39
Wapello	248	117	29,016	256	29
Washington	259	101	26,159	271	43
For district	2,634	112.7	296,886	2,545	43
For state	48,561	109.1	5,296,392	52,580	69



WORLD POTATO PRODUCTION
1933-34

Fig. 107. Though potatoes are a native American crop, northern Europe leads in production of this important crop. In 1934, Germany, Russia, and Poland produced 55 percent of the world total. In the same year, the United States produced 4 percent or 820,509,000 bushels.

UNITED STATES APPLES
(BUSHELS HARVESTED)
1933

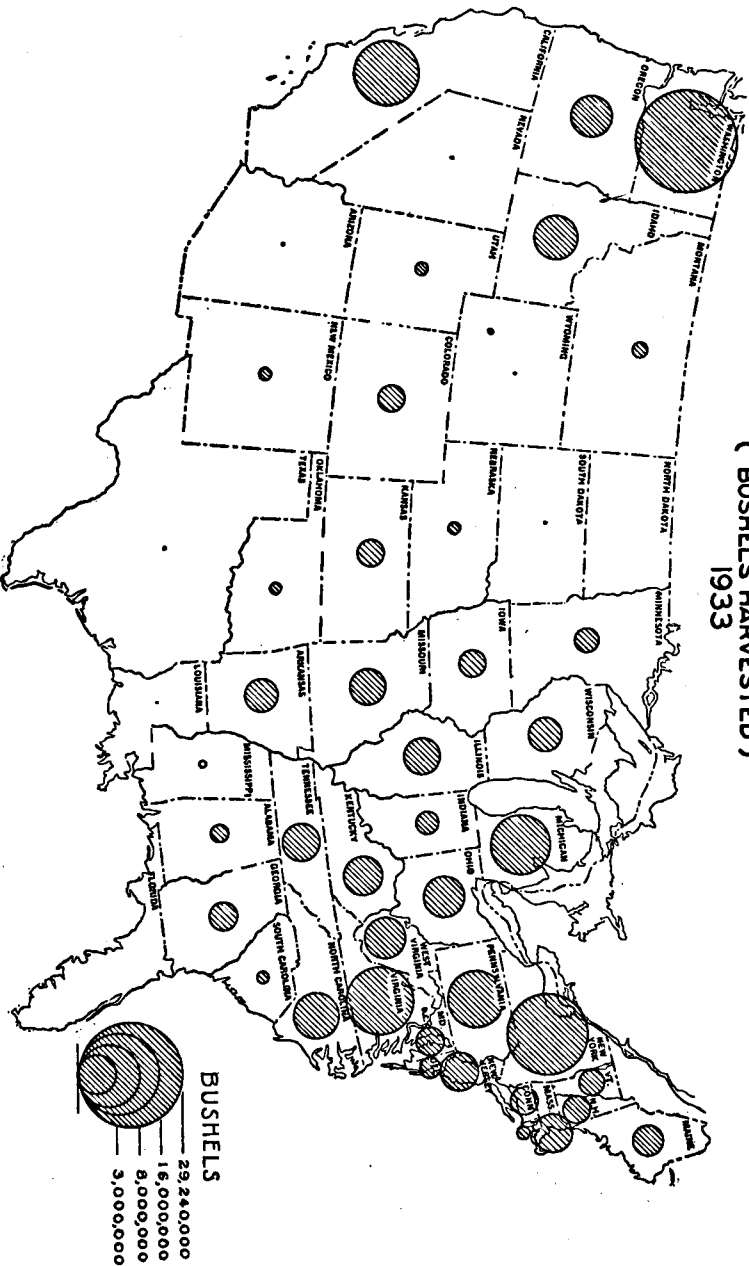


Fig. 107. The bulk of the United States' apple production is harvested far western states, Washington and Oregon. New York are the leading states. The proportion of its crop. Iowa is not important in apple production.

TABLE 62. IOWA APPLES.

Districts and counties	1932	1933
	Total bushels harvested	Total bushels harvested
Northwest		
Buena Vista.....	160	202
Cherokee.....	2,028	112
Clay.....	4,625	199
Dickinson.....	1,059	776
Emmet.....	329	265
Lyon.....	2,686	457
O'Brien.....	4,277	2,369
Osceola.....	2,871	339
Palo Alto.....	1,118	284
Plymouth.....	2,273	1,765
Pocahontas.....	90	6
Sioux.....	2,848	241
For district.....	24,364	7,015
North Central		
Butler.....	1,578	1,738
Cerro Gordo.....	260	3,701
Floyd.....	252	139
Franklin.....	802	886
Hancock.....	707	1,865
Humboldt.....	1,045	539
Kossuth.....	1,649	2,107
Mitchell.....	510	737
Winnebago.....	238	1,498
Worth.....	751	1,380
Wright.....	250	2
For district.....	8,042	14,592
Northeast		
Allamakee.....	3,067	987
Black Hawk.....	3,536	1,949
Bremer.....	3,784	1,859
Buchanan.....	4,276	1,867
Chickasaw.....	1,217	356
Clayton.....	7,569	2,901
Delaware.....	8,792	1,879
Dubuque.....	12,263	4,076
Fayette.....	5,832	2,851
Howard.....	700	326
Winnesiek.....	8,544	1,675
For district.....	59,580	20,726
West Central		
Audubon.....	2,788	2,557
Calhoun.....	354	313
Carroll.....	395	180
Crawford.....	432	398
Greene.....	95	116
Guthrie.....	593	1,706
Harrison.....	48,753	36,951
Ida.....	734	246
Monona.....	1,695	1,087
Sac.....	370	76
Shelby.....	813	206
Woodbury.....	8,613	2,900
For district.....	64,822	46,736

BASEBOOK OF IOWA
IOWA APPLES
BUSHELS HARVESTED
1933

BASEBOOK OF IOWA

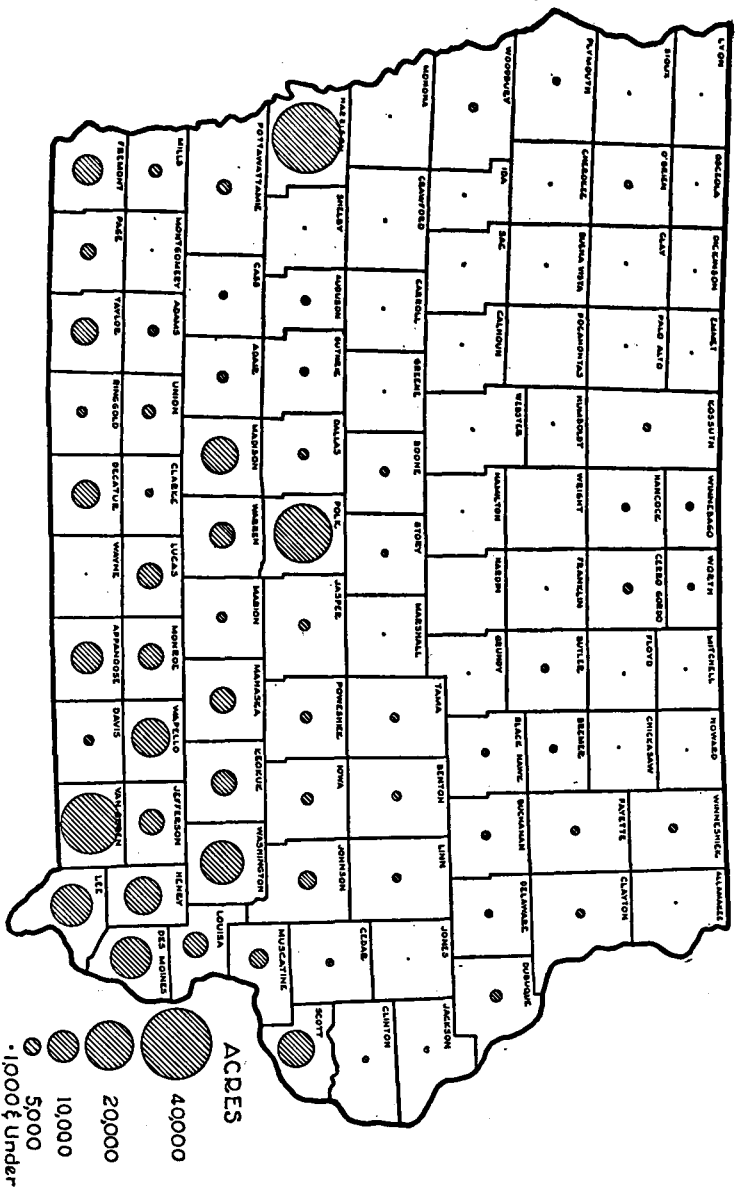


Fig. 108. Apple production in Iowa is not an important factor in the production set-up of the state, but in the areas surrounding the larger cities of Iowa, the production is of commercial importance. The map shows that most of the apple areas where the climate and soil are better adapted to fruit production than in the northern and western areas. Data in table 62.

Central		
Boone	3,232	2,329
Dallas	5,067	4,092
Grundy	1,105	914
Hamilton	1,663	960
Hardin	2,293	2,807
Jasper	6,079	3,026
Marshall	3,461	932
Polk	45,891	24,386
Poweshiek	3,497	3,164
Story	3,774	1,536
Tama	5,455	1,773
Webster	1,912	299
For district	83,428	46,218
East Central		
Benton	9,241	3,592
Cedar	3,334	2,505
Clinton	2,093	1,323
Iowa	6,665	5,789
Jackson	5,310	1,873
Johnson	7,261	7,840
Jones	1,905	572
Linn	9,677	2,722
Muscatine	5,016	8,577
Scott	11,025	11,332
For district	61,527	46,125
Southwest		
Adair	1,836	3,102
Adams	229	2,916
Cass	850	1,677
Fremont	16,801	10,360
Mills	2,834	4,711
Montgomery	186	764
Page	2,424	6,408
Pottawattamie	2,468	5,215
Taylor	1,696	8,136
For district	29,324	43,289
South Central		
Appanoose	901	10,707
Clarke	1,021	1,838
Decatur	3,021	9,077
Lucas	5,678	7,270
Madison	14,546	13,391
Marion	5,221	3,072
Monroe	3,369	7,188
Ringgold	477	2,826
Union	667	5,564
Warren	14,903	8,244
Wayne	50	1,046
For district	49,854	70,223
Southeast		
Davis	298	3,623
Des Moines	6,892	15,265
Henry	3,699	12,268
Jefferson	1,018	6,626
Keokuk	3,928	8,538
Lee	6,571	14,987
Louisa	3,510	8,458
Mahaska	5,524	8,719
Van Buren	39,065	27,625
Wapello	7,689	13,255
Washington	8,939	17,756
For district	78,133	137,120
For state	459,074	432,044

CHAPTER IV. IOWA FARM REAL ESTATE

IOWA is unsurpassed by any state in the quality and extent of cultivated land. It presents mainly a friable black loam. It is easily tilled where necessary, is in the main free from stumps and stones, and requires little commercial fertilizer. It has two main types of soil; the glacial drift or ice-formed and the loess or wind-blown. There is relatively little waste land in the state.

With remarkable fertility and a steady and sufficient rainfall, the state has for many years been among the first in value of products derived exclusively from the soil.

The total number of farms in the state in 1935 was 221,986 as compared with 214,928 in 1930, an increase in 5 years of 7,058. The number of farms increased probably because many families lost their means of support during the depression and moved to small acreages around the cities.

There was a slight increase from 1925 to 1935 in the acreage in farms. In 1935 the total acreage in farms was 34,019,332, while in 1925 it was 33,280,813. About 96 percent of the total area of Iowa is in farms, and about 79 percent of the area in farms is in land available for crops. The average acreage per farm in 1935 was 154.8 acres.

Only 39.2 percent of Iowa's farms were being operated by full owners in January 1935, 10.5 by part owners and, with the exception of a few being operated by professional farm managers, all the rest were in the hands of tenants.

Ownership of the Land

Although individuals still own 89.9 percent of the farm land in Iowa, the acquiring of land by corporations is important. Corporate-owned land represents ownership tragedies. It means, in most cases, that some individual was unable to meet interest and principal payments and lost the land. Prior to 1929 the acreage owned by corporations was negligible. In 6 years corporations have acquired about 10 percent of the land in Iowa. In other words, out of the 99 counties in Iowa, the

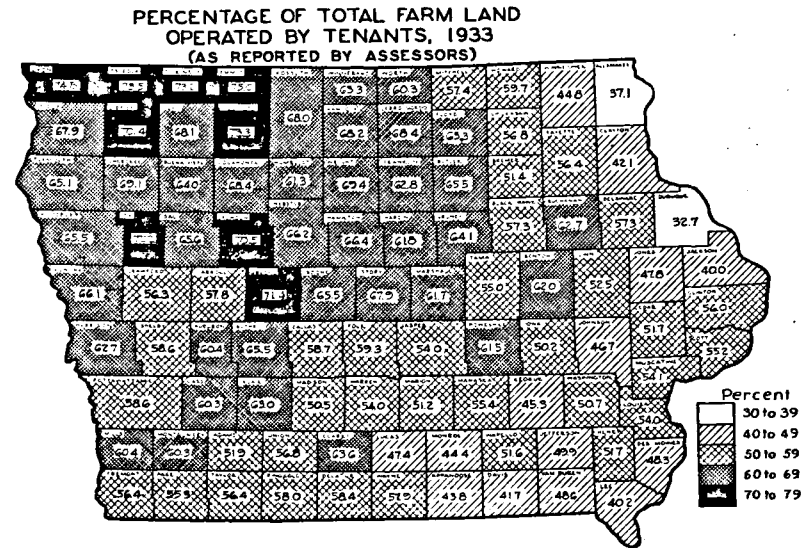


Fig. 109 shows the variations in the different counties in tenancy in Iowa. Emmet County with 33 percent tenancy in 1933 was highest. Dubuque County with 75 percent tenancy had the lowest. Source: Iowa Agr. Exp. Sta. Bull. No. 328, W. G. Murray and W. O. Brown.

equivalent of 10 of them, as of Jan. 1, 1935, were owned by corporations.

Of particular interest is the temporary character of corporate ownership. Since the main business of lending companies is insurance, banking and making farm loans, the farms they have acquired represent a side issue. It is reasonable to expect, therefore, that these companies will be interested in selling their farms rather than operating them.

While 10 percent of the land is corporate-owned, there is a striking lack of uniformity in the location of the holdings. In fig. 112, which shows the percentage of each township in the state, three areas of heavy concentration are evident. One is the south central part of the state, another is in north central Iowa, and the third a small area in western Iowa.

Numerous reasons can be advanced for the unusually large corporate holdings in some areas and the comparative absence of holdings in others. Of first importance, in all probability, is the tendency of loan agencies to overvalue and overloan on the less productive land and to undervalue and loan conservatively

on the more productive land. Another reason accounting for the location of corporate holdings is that in some sections the corporations

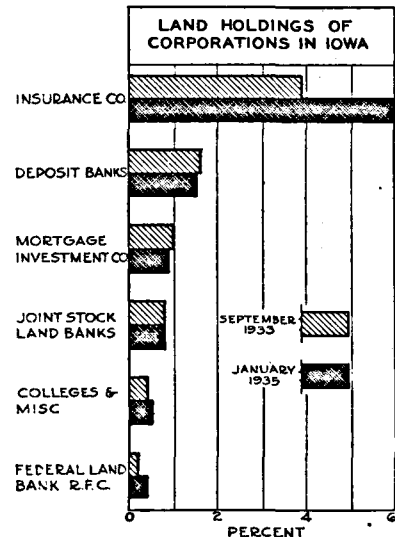


Fig. 110. Insurance companies have acquired large blocks of farm land in Iowa since September, 1933, when their holdings were already high. Other types of corporations have not changed their holdings much.

BASEBOOK OF IOWA

IOWA LAND VALUES 1934

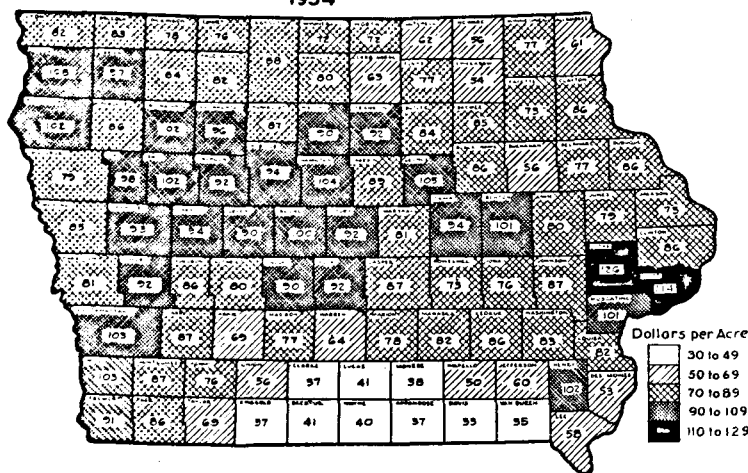


Fig. 111. As can be seen on the map, Cedar County had the highest average land value in 1934. Land values varied considerably from county to county but generally the lowest values were found in the southern part of Iowa. Data in table 68.

loaned less than in other sections. Among other factors which account for the variations in corporate holdings are unusually heavy or light taxes. Where heavy taxes have been levied, corporate holdings have tended to be larger.

Insurance companies rank first among the corporate groups holding Iowa farm land. On Jan. 1, 1935, they held over half of the corporate-owned land. Deposit banks are second largest in land holdings.

Land Values and Cash Rentals

The trends of land values and cash rentals in Iowa for the years 1912-1934 are shown in fig. 117.

Land values and cash rentals both moved steadily upward from 1912 to 1919, increasing at an average rate of about 10 percent each year. In other words, during these years the rise in the value of land alone was equivalent to 10 percent annual income on the investment. From 1919 to 1920 the per acre value rose from \$192 to \$255, an increase of 33 percent. This was during the period of the boom.

During 1921 values dropped 10 percent and in the following year, 1922, they dropped 17 percent. From then to 1929 land values de-

clined at the rate of about 5½ percent per year. The year 1929 marked the end of the first post-war period of land value liquidation.

There were probably many landowners in 1929 who preferred to accept a low rate of return on their farm investment rather than offer their farms for sale at the level of

the opportunity a part of their

In late 1921 products again turned and this decline was reflected in other considerable drop in land values in 1930. In 1931 the prices of farm products fell even more in 1930, and this again resulted in a drop in land values. In 1932 and 1933 the prices of farm products continued their descent, and land values moved downward with them.

In 1934 land values are reported at \$80 per acre as compared with \$65 in 1933. This rise over 1933 values may be attributed to the higher farm products prices of late 1933 and early 1934. But it may also be partly due to the fact that owners of farm land did not then value their money at as high a rate as before, since the rate of return on alternative investments was down. Interest rates have gone down in the last few years and farm owners know that they can-

IOWA CASH RENTS 1934

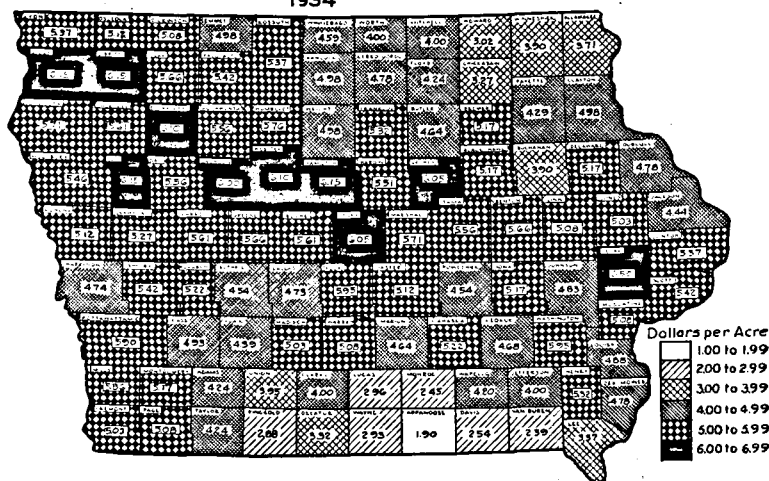


Fig. 112. Cedar County had the highest cash rentals in Iowa in 1934. In general, the lowest rents were paid in the southern part of Iowa. Data in table 68.

BASEBOOK OF IOWA

TABLE 63. NUMBER, VALUE, ACREAGE AND USE OF IOWA FARMS, 1935—Continued

	Number of farms	Operated by:				Total value of farms	Average value	Value per acre	Acres in farms	a per
		Full owners	Part owners	Managers	Tenants					
Tama.....	2,781	1,101	320	28	1,332	33,394,494	12,008	74.81	446,384	160.
Taylor.....	2,295	838	226	26	1,205	18,284,437	7,967	54.03	338,404	147.5
Union.....	1,662	613	168	11	870	12,518,415	7,532	47.48	263,636	158.6
Van Buren.....	1,945	870	249	17	809	9,200,282	4,730	31.13	295,516	151.9
Wapello.....	2,123	931	262	15	915	12,936,820	6,094	50.12	258,131	121.6
Warren.....	2,623	1,114	351	14	1,144	18,121,050	6,909	51.84	349,568	133.3
Washington.....	2,452	1,059	292	13	1,088	27,571,340	11,244	80.32	343,283	140.0
Wayne.....	1,938	679	234	16	1,009	12,110,368	6,249	37.26	324,996	167.7
Webster.....	2,799	936	297	14	1,552	38,632,176	13,802	88.18	438,116	156.5
Winnebago.....	1,753	610	173	11	959	18,543,273	10,578	73.70	251,611	143.5
Winneschick.....	2,933	1,516	376	8	1,033	25,427,160	8,669	59.54	427,055	145.6
Woodbury.....	3,334	1,180	270	48	1,836	39,054,926	11,714	73.38	532,261	159.6
Worth.....	1,491	532	154	16	789	15,780,724	10,584	63.52	248,425	166.6
Wright.....	1,999	580	171	8	1,240	32,770,018	16,393	91.28	358,988	179.6

TABLE 63. NUMBER, VALUE, ACREAGE AND USE OF IOWA FARMS, 1935—Continued

	Crop land harvested	Land available for crops	Plowable pasture	Woodland pasture	Other pasture	Woodland not pastured	All other land in farms
State.....	18,925,893	26,984,111	5,769,836	2,060,105	3,237,612	252,139	1,825,185
Adair.....	171,543	300,703	107,274	9,208	29,401	1,234	18,310
Adams.....	104,883	210,439	73,902	12,437	24,647	980	14,463
Allamakee.....	134,517	195,146	51,476	115,503	35,908	12,355	15,480
Appanoose.....	111,755	223,424	94,196	43,859	36,936	1,817	13,825
Audubon.....	157,421	251,054	78,542	4,113	11,515	678	14,933
Benton.....	262,349	356,485	69,990	18,089	45,185	2,655	23,578
Black Hawk.....	203,340	263,856	43,191	16,665	36,665	1,685	20,007
Boone.....	228,210	279,774	32,022	27,834	17,122	2,283	18,489
Bremer.....	164,592	200,592	31,848	13,423	38,319	1,699	15,172
Buchanan.....	205,895	255,514	32,702	15,728	62,298	2,270	18,040
Buena Vista.....	258,576	312,525	32,985	5,333	21,476	623	21,654
Butler.....	222,085	266,185	32,679	12,255	52,901	2,485	19,846
Calhoun.....	264,943	326,572	42,717	2,250	7,921	246	19,353
Carroll.....	233,794	308,947	61,089	5,480	20,251	1,165	21,045
Cass.....	179,457	314,902	112,285	9,918	9,918	6,751	17,250
Cedar.....	186,600	289,861	83,847	20,087	21,442	2,615	16,795
Cerro Gordo.....	228,258	278,881	37,592	5,023	43,468	3,559	20,505
Cherokee.....	243,755	275,864	17,549	5,785	58,159	2,485	20,183
Chickasaw.....	178,016	222,486	34,529	12,986	57,436	1,778	15,998
Clarke.....	89,626	177,554	48,245	24,934	46,834	2,607	12,530
Clay.....	238,352	289,414	36,255	5,708	28,466	905	20,602
Clayton.....	194,902	290,175	81,487	83,265	55,354	15,126	19,930
Clinton.....	224,258	353,951	108,307	17,124	23,444	4,240	18,392
Crawford.....	259,009	387,113	103,764	15,893	21,353	689	24,212
Dallas.....	198,357	278,268	38,203	31,657	33,066	1,787	21,735
Davis.....	98,289	214,197	87,965	39,593	38,802	2,430	12,854
Decatur.....	111,554	250,323	109,191	41,192	19,882	2,360	18,792
Delaware.....	199,437	264,919	56,652	21,819	45,351	2,694	17,138
Des Moines.....	109,658	162,560	28,419	33,653	36,053	2,171	11,476
Dickinson.....	160,793	204,588	32,224	1,834	14,896	844	12,715
Dubuque.....	171,671	247,324	59,919	47,529	44,292	8,085	18,400
Emmet.....	171,677	211,762	25,851	3,602	14,876	395	15,226
Fayette.....	235,413	308,181	58,862	24,575	89,521	4,767	22,178
Floyd.....	192,852	243,172	39,241	9,836	36,357	981	17,505
Franklin.....	246,134	303,183	44,625	4,685	33,920	997	20,730
Fremont.....	175,373	265,741	51,097	12,490	10,142	3,327	19,586
Greene.....	248,201	297,822	31,021	15,687	24,334	662	18,148
Grundy.....	204,248	257,423	38,835	892	40,409	1,532	16,469
Guthrie.....	179,402	283,492	73,579	30,870	33,166	2,116	20,409
Hamilton.....	258,714	320,816	44,490	9,472	11,834	1,059	20,048
Hancock.....	245,732	313,773	53,556	1,542	15,153	586	22,209
Hardin.....	232,636	284,102	39,344	16,140	29,749	1,686	19,231
Harrison.....	241,429	346,312	60,938	35,680	11,055	4,899	29,398
Henry.....	119,409	175,076	34,357	28,906	44,778	1,057	11,411
Howard.....	157,403	222,489	50,544	6,422	46,376	2,209	15,926
Humboldt.....	199,291	246,372	30,696	4,600	7,728	496	16,833
Ida.....	181,965	238,457	42,822	1,411	18,368	393	14,870
Iowa.....	138,850	288,919	117,424	18,349	26,302	14,757	18,819
Jackson.....	141,110	231,524	73,113	59,194	67,666	4,947	16,542
Jasper.....	211,852	336,087	84,280	19,199	69,702	4,234	23,663
Jefferson.....	109,772	175,828	39,904	30,410	44,488	1,174	10,604
Johnson.....	167,353	290,577	100,005	29,247	25,511	5,460	16,849
Jones.....	161,461	264,733	87,006	31,741	32,193	4,363	16,042
Keokuk.....	145,570	254,241	83,204	26,585	54,870	2,888	20,006
Kossuth.....	440,081	535,830	69,856	5,828	24,055	1,888	36,382
Lee.....	121,850	179,426	39,013	71,950	27,314	2,349	15,299
Linn.....	225,785	308,836	57,889	34,308	53,071	4,821	22,540
Louisa.....	104,385	166,279	29,337	26,096	24,472	4,808	11,501
Lucas.....	92,494	179,028	73,007	42,753	27,220	2,130	13,249
Lyon.....	267,355	314,799	30,976	4,563	25,666	1,148	18,106

AGRICULTURAL ECONOMIC FACTS

TABLE 63. NUMBER, VALUE, ACREAGE AND USE OF IOWA FARMS, 1935—Continued.

County	Crop land harvested	Land available for crops	Plowable pasture	Woodland pasture	Other pasture	Woodland not pastured	All other land in farms
Adair	112,406	220,937	59,031	35,001	70,711	1,655	18,164
Albion	141,193	246,570	71,311	24,682	60,943	2,476	16,583
Amesbury	127,615	230,228	78,222	33,060	58,392	4,852	20,239
Ashtabula	214,122	288,766	58,359	16,424	31,449	1,244	19,230
Calmar	153,952	225,937	49,341	12,505	5,226	3,340	17,750
Carroll	178,552	245,241	53,454	11,289	14,173	1,623	15,441
Cass	207,278	331,899	49,236	38,556	17,045	3,888	25,731
Cedar	69,897	175,456	77,871	37,573	36,500	2,235	10,295
Delaware	150,063	230,298	57,128	10,029	9,696	621	14,186
Des Moines	125,078	186,669	37,126	23,101	27,451	1,948	12,023
Dubuque	257,376	297,335	29,152	837	35,758	1,729	18,302
Emmett	187,009	219,010	23,382	851	16,970	929	13,546
Franklin	179,184	278,251	72,764	7,771	34,087	1,829	17,938
Grant	250,762	310,848	37,847	3,941	16,911	1,165	20,363
Greene	347,399	451,591	59,174	4,800	53,090	1,805	28,486
Hamilton	269,459	331,514	39,667	1,085	7,160	289	23,150
Harrison	180,133	253,546	46,806	30,736	25,513	2,141	18,082
Hawthorn	351,391	498,498	103,873	26,425	23,843	4,862	32,666
Henry	152,993	284,131	112,891	8,299	49,993	2,315	15,408
Howard	117,781	260,929	94,208	18,950	31,239	2,573	17,125
Iowa	244,289	303,735	40,144	4,147	31,030	625	19,782
Jackson	158,618	230,963	53,765	13,534	17,544	1,066	12,419
Jasper	226,934	331,357	85,843	6,372	12,464	462	19,655
Jessup	354,068	409,605	33,010	3,158	41,145	712	24,017
Keosauqua	241,606	297,141	33,604	18,513	16,285	643	19,969
Keokuk	239,532	358,319	97,314	21,110	37,999	3,581	25,375
Kossuth	152,658	268,489	77,720	17,078	32,522	1,820	18,495
Linn	93,309	163,426	37,688	16,785	66,726	2,611	14,088
Linn	98,104	156,689	39,611	71,464	51,171	3,358	12,834
Linn	97,111	170,129	48,742	34,372	39,438	1,852	12,340
Linn	126,747	240,036	68,863	22,164	65,380	3,255	18,733
Linn	144,134	259,975	79,452	25,243	36,732	4,320	17,013
Linn	143,193	270,616	93,082	23,005	17,111	1,014	13,250
Linn	311,402	372,877	42,088	29,046	10,429	1,430	24,334
Linn	171,828	208,991	29,390	2,089	19,982	1,543	19,006
Linn	209,839	307,441	88,950	46,366	45,144	7,868	20,236
Linn	311,814	455,069	76,830	23,437	20,629	3,240	29,886
Linn	162,411	204,902	30,507	4,711	22,371	1,310	15,131
Linn	250,961	308,821	36,472	6,386	21,470	878	21,433

Source: U. S. Farm Census, 1935.

not receive as high a rate on their money as in former years if they loan it out instead of using it to buy land. Therefore, to receive the same income they are willing to pay more for land than formerly.

Figure 117 shows the relationship between land values and cash rentals. Since they were more affected by speculative buying of land, land values soared to higher and fell to lower levels than did rents. In 1913 land was \$118 per acre and rent was \$5.41 per acre. In 1920 at the peak of the boom, land had more than doubled and was worth \$255 per acre. During the same year, rent was \$9.13 per acre, which represented about a 69 percent rise. There has also been a lag in rents during the years 1930 to 1934. The relative amount of decrease in rent has been less than the relative decrease in the value of land.

Farm Mortgages

Iowa's total farm mortgage debt increased steadily from a total debt of \$149 millions in 1889 to \$1,618

millions in 1923. Since 1923 it has been gradually decreasing until on Jan. 1, 1935, it stood at \$924 millions.

Iowa's debt increased rapidly from 1915 to 1921 along with the war-time expansion in prices. The greatest upward spurt in total indebtedness was recorded in 1920. In that year there was a gain of some 400 millions in the state total. A great deal of this debt, however, was incurred in the latter part of 1919 and was not brought to light until 1920 when the mortgage transactions were recorded on March 1. From 1915 to 1919 prices of farm products were rising faster than the cost of producing them, and farmers wanted to put more land into production. They acquired more land and borrowed money to pay for it on the assumption that farm prices would stay at high levels until the land was at least paid for.

Despite the drop in farm prices in 1920, the debt continued to increase. This situation is shown in fig. 116 and was brought about by the many

insecure notes on farm land. Creditors found it necessary to protect themselves by obtaining second or third mortgages. This increase more than offset the reduction in debt in 1921-23 due to foreclosures and other forced sales. In 1923 the debt reached a peak of \$1,618,447,000.

Farm prices took an upward turn in 1925 but the rise was not sufficient to noticeably ease the mortgage situation. Farmers until this time had been using up their outside resources for the payment of taxes and interest, but these sources of revenue were fast becoming exhausted and foreclosure, assignment of the land or some scaling down of the debt became necessary.

Since 1923 there has been a gradual decrease in the debt but this does not necessarily mean that Iowa farmers were being relieved. Instead it indicates that many farmers had their backs to the wall and were forced to give up their farms since they could no longer carry the cost of keeping up the mortgage. Many of the holders of mortgages, how-

BASEBOOK OF IOWA
CORPORATE OWNED LAND

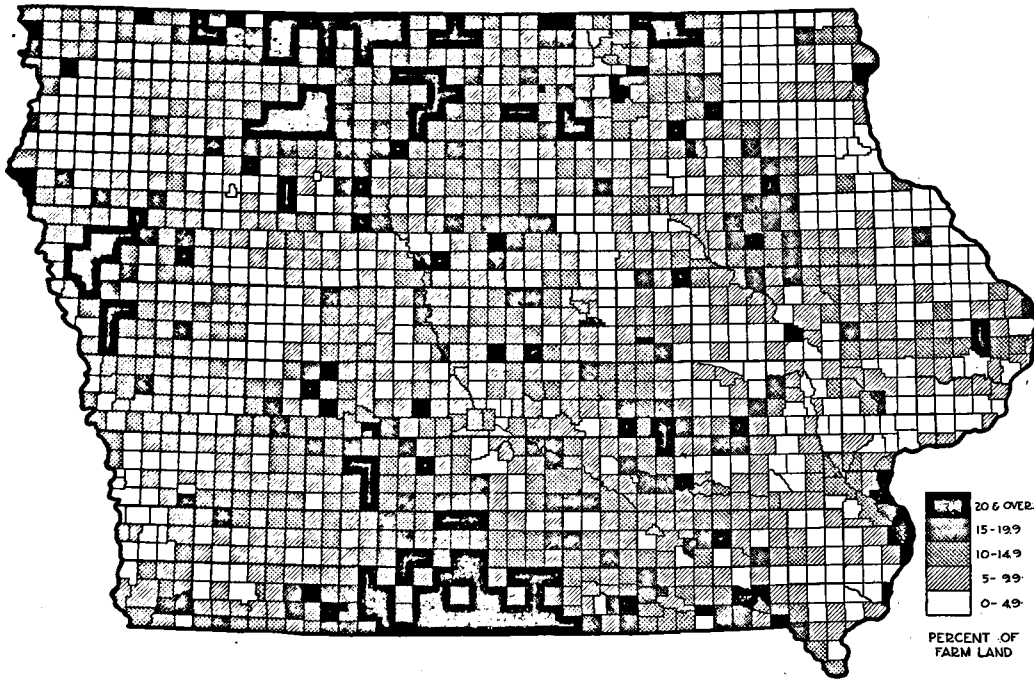


Fig. 113. The shading on this map shows where the land holdings of corporations are concentrated in Iowa. The black districts are areas in which corporations over-estimated the value of the land when they made loans.

ever, have preferred to let the farmer try to make a living off of the land rather than be responsible for its up-keep during the past lean years.

Compared with U. S.

The value of land and buildings per mortgaged farm in Iowa exceeds the average value of mortgaged farms in the United States as a whole. The debt per Iowa farm would therefore be expected to run higher than the average debt per farm for the nation. In 1930 the debt per mortgaged farm in Iowa was \$9,626 while that per farm in the United States was \$3,561.

The ratio of the debt to the value of the farm is larger for Iowa than for the United States. In 1930 the debt in Iowa on the mortgaged farms was 48.5 percent of the value of the farm while in the United States it was 39.6. In other years the figures have been closer. Figure 121 shows

FARM MORTGAGE HOLDINGS, 13 TOWNSHIPS

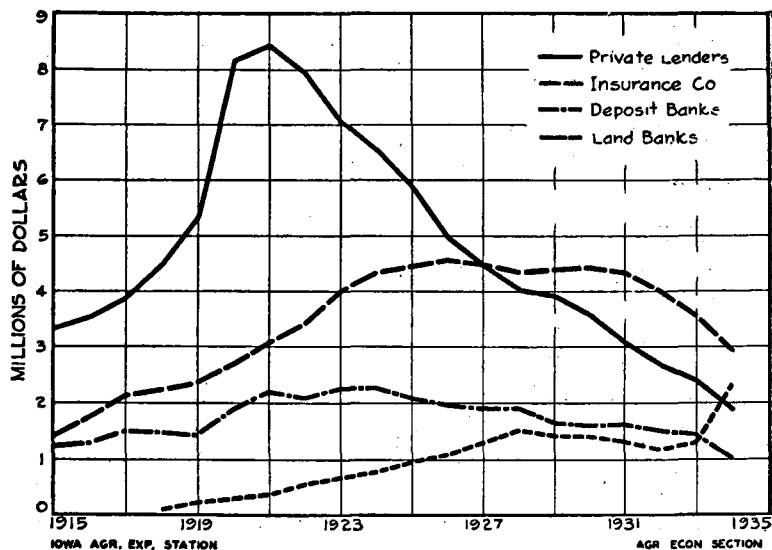


Fig. 114. The above graphs show the trends in holdings of farm mortgages in Iowa by different lenders. Private lenders monopolized the field until recent years. Corporate lenders have come sharply into the picture since the war. Data in table 77.

AGRICULTURAL ECONOMIC FACTS

TABLE 64. CORPORATE-OWNED LAND IN IOWA BY COUNTIES.

County	Acreage—January, 1935				Percentage of Total Land in Farms—January, 1935				
	Insurance companies	Banks	Others	Total	Insurance companies	Banks	Farm credit administration	Others	Total
Adair	36,235	5,429	12,300	53,964	10.1	1.5	2.3	1.2	15.1
Adams	14,150	2,168	5,285	21,603	5.5	.8	1.4	.7	8.4
Allamakee	19,751	10,413	14,381	29,693	1.3	2.8	3.2	.7	8.0
Appanoose	19,751	9,507	7,051	36,309	6.5	3.2	1.5	.8	12.0
Audubon	17,207	7,316	5,212	29,735	6.1	2.6	1.4	.4	10.5
Benton	15,407	3,867	5,705	24,979	3.5	.9	.2	1.1	5.7
Black Hawk	12,324	5,774	7,615	25,713	3.7	1.7	1.1	1.2	7.7
Boone	7,128	5,950	12,581	25,659	2.0	1.7	.6	3.0	7.3
Bremer	7,169	3,474	1,793	12,436	2.7	1.3	.4	.3	4.7
Buchanan	37,585	8,323	8,671	54,579	10.8	2.4	1.2	.3	15.7
Buena Vista	15,945	1,162	7,714	24,821	4.5	.3	1.3	.8	6.9
Butler	18,539	2,133	4,689	25,361	5.3	.6	.7	.6	7.2
Calhoun	17,424	2,902	3,247	23,573	4.9	.8	.8	.1	6.6
Carroll	6,681	2,170	1,447	10,298	1.9	.6	.2	.2	2.9
Cass	22,849	1,607	7,690	32,146	6.4	.5	.8	.1	9.1
Cedar	10,234	6,928	4,745	21,907	2.9	2.0	.5	.4	6.3
Cerro Gordo	41,934	4,078	17,108	63,120	12.2	1.2	1.6	3.3	18.3
Cherokee	14,049	4,287	6,837	25,173	4.0	1.2	1.0	.9	7.1
Chickasaw	22,251	3,299	10,087	35,637	7.3	1.0	1.7	1.7	11.7
Clarke	39,387	3,322	12,725	55,434	15.2	1.3	3.9	.9	21.3
Clay	28,907	2,870	13,588	45,365	8.3	.8	2.1	1.9	13.1
Clayton	1,926	7,657	4,622	14,205	.4	1.7	.3	.7	3.1
Clinton	15,920	12,084	7,281	35,285	3.9	2.9	.2	1.6	8.6
Crawford	26,225	3,826	5,009	35,060	5.8	.9	.5	.6	7.8
Dallas	18,514	4,666	11,839	34,429	5.1	1.3	.5	.6	9.5
Davis	17,939	5,739	10,851	34,529	5.9	1.9	2.7	.8	11.3
Decatur	53,654	7,626	22,954	84,234	16.8	2.4	5.0	2.2	26.4
Delaware	14,620	6,327	6,238	27,185	4.1	1.9	1.1	.7	8.9
Des Moines	1,863	10,743	8,845	21,451	.8	4.5	1.7	1.9	8.9
Dickinson	32,524	2,661	14,096	49,281	14.0	1.2	2.2	3.9	21.3
Dubuque	3,183	3,746	5,475	12,404	.9	1.0	.4	1.2	3.5
Emmett	40,787	4,114	11,258	56,159	16.5	1.6	2.0	2.6	22.7
Fayette	27,280	3,850	7,462	38,592	6.2	.9	.6	1.0	8.7
Floyd	20,463	3,113	13,134	36,710	6.8	1.1	1.6	2.7	12.2
Franklin	22,487	1,544	3,278	27,309	6.2	.4	.4	.6	7.6
Fremont	17,731	3,683	5,357	26,771	5.8	1.2	.4	1.4	8.8
Greene	20,639	6,084	7,087	33,810	5.9	1.8	.8	1.1	9.6
Grundy	6,659	3,002	3,460	13,121	2.1	.9	.5	.7	4.2
Guthrie	25,901	5,274	17,719	48,894	7.2	1.5	3.4	1.4	13.5
Hamilton	29,853	9,738	7,191	46,782	8.3	2.7	.1	1.8	12.9
Hancock	36,531	3,294	11,992	51,817	10.4	1.0	1.6	1.7	14.7
Hardin	22,329	5,318	7,019	34,666	6.4	1.6	1.0	.9	9.9
Harrison	24,261	7,468	8,112	39,841	5.6	1.8	.9	1.0	9.3
Henry	3,693	3,391	4,481	11,565	1.4	1.3	.5	1.2	4.4
Howard	37,557	4,261	9,165	50,983	13.2	1.5	2.1	1.1	17.9
Humboldt	22,697	4,614	8,168	35,479	8.5	1.8	1.7	1.3	13.3
Ida	24,425	3,702	4,113	32,240	9.0	1.4	.8	.7	11.9
Iowa	13,182	6,342	5,994	25,518	3.7	1.7	1.0	.7	7.1
Jackson	2,660	9,429	3,285	15,374	.7	2.4	.5	.4	4.0
Jasper	17,179	4,032	13,059	34,270	3.8	.9	2.0	.9	7.6
Jefferson	8,285	6,875	8,900	24,060	3.2	2.7	1.9	1.5	9.3
Johnson	14,753	3,620	3,511	21,884	4.0	.9	.3	.7	5.9
Jones	6,379	9,144	2,783	18,306	1.8	2.6	.3	.6	5.3
Keokuk	16,850	5,817	7,804	30,471	4.8	1.6	.8	1.5	8.7
Kossuth	86,582	11,523	17,896	116,001	14.4	2.0	1.3	1.7	19.4
Lee	4,894	3,343	12,749	20,986	1.7	1.2	1.0	3.5	7.4
Linn	13,627	5,865	9,593	29,085	3.3	1.4	.4	1.9	7.0
Louisa	6,270	12,801	10,916	29,987	2.7	5.6	1.4	3.4	13.1
Lucas	12,484	4,094	10,956	27,534	4.9	1.6	3.0	1.3	10.8
Lyon	24,308	1,665	11,097	37,070	6.7	.5	.4	2.6	10.2
Madison	23,219	11,669	13,117	48,005	6.8	3.4	1.4	2.2	13.8
Mahaska	15,407	9,821	14,478	39,706	4.5	2.8	1.1	3.1	11.5
Marion	29,745	4,898	8,115	42,758	8.8	1.4	1.1	1.3	12.6
Marshall	14,268	3,479	5,593	23,340	4.0	1.0	.8	.8	6.6
Mills	9,644	2,050	2,449	14,143	3.7	.8	.1	.8	5.4
Mitchell	19,529	1,718	8,332	29,579	6.9	.6	1.8	1.2	10.5
Monona	27,588	5,104	19,750	52,442	6.8	1.3	2.9	1.9	12.9
Monroe	13,537	3,536	8,653	25,726	5.3	1.4	1.0	2.4	10.1
Montgomery	12,616	1,850	5,094	19,560	4.8	.7	1.5	.3	7.3
Muscatine	3,120	5,662	6,405	15,187	1.2	2.2	.5	2.0	5.9
O'Brien	20,026	1,660	4,014	25,700	5.6	.5	.6	.5	7.2
Oscola	23,325	2,680	4,865	30,870	9.4	1.1	.8	1.0	12.3
Page	15,714	2,406	5,891	24,011	4.8	.7	1.5	.3	7.3
Palo Alto	48,643	3,774	20,322	72,739	14.0	1.1	2.3	3.6	21.0
Plymouth	12,471	6,096	14,005	32,572	2.4	1.2	1.2	1.6	6.4
Pocahontas	24,939	5,301	10,402	40,642	6.9	1.4	.9	2.0	11.2
Polk	10,714	3,578	9,808	24,100	3.2	1.0	.6	2.5	7.3
Pottawattamie	19,420	5,389	9,628	34,437	3.3	1.0	.3	1.4	6.0
Poweshiek	24,684	6,723	16,625	48,032	6.8	1.8	2.5	2.2	13.3
Ringgold	43,212	12,762	14,035	70,009	13.1	3.9	3.1	1.2	21.3
Sac	13,042	3,007	2,218	18,267	3.8	.9	.1	.5	5.3
Scott	3,031	3,329	4,840	11,200	1.1	1.2	.7	1.1	4.1
Shelby	17,694	2,584	5,690	25,968	4.7	.7	.7	.9	7.0
Sioux	14,693	2,190	6,413	23,296	3.1	.5	.4	.9	4.9
Story	25,636	7,607	8,597	41,840	7.2	.9	.9	1.5	11.8
Tama	26,288	4,058	4,944	35,290	6.0	.9	.6	.6	8.1

TABLE 64. CORPORATE-OWNED LAND IN IOWA BY COUNTIES—Continued

County	Acreage—January, 1935				Percentage of Total Land in Farms—January, 1935				
	Insurance companies	Banks	Others	Total	Insurance companies	Banks	Farm credit administration	Others	Total
Taylor	32,698	3,282	10,282	46,262	9.9	1.0	1.6	1.5	14.0
Union	19,581	3,903	9,130	32,614	7.6	1.5	1.9	1.7	12.7
Van Buren	11,999	4,126	17,498	33,623	4.2	1.4	4.9	1.2	11.7
Wapello	8,171	7,274	7,962	23,407	3.2	2.9	1.6	1.5	9.2
Warren	16,847	2,716	10,411	29,974	4.8	.8	1.6	1.3	8.5
Washington	8,663	6,925	6,116	21,704	2.6	2.1	.6	1.1	6.4
Wayne	65,253	3,632	10,790	79,675	20.4	1.1	2.5	.9	24.9
Webster	29,183	5,221	17,150	42,554	4.6	1.2	1.2	2.8	9.8
Winnebago	28,855	3,614	8,832	41,301	11.7	1.4	1.7	2.0	16.8
Winneshek	5,304	3,606	3,214	12,124	1.3	.9	.3	.4	2.9
Woodbury	58,356	6,468	21,895	86,719	11.3	1.2	2.6	1.7	16.8
Worth	18,949	2,372	7,418	28,739	7.6	.9	1.7	1.4	11.6
Wright	29,497	3,877	9,090	42,464	8.1	1.1	1.3	1.2	11.7
Total	2,043,730	499,001	888,701	3,431,432	6.0	1.5	1.2	1.4	10.1%

Source: Iowa Agr. Exp. Sta. Bul. No. 328. W. G. Murray and W. O. Brown.

these ratios for 10-year intervals since the start of the century.

Purpose of Farm Loans

Most of the mortgages on Iowa land were made for the purchase of the land. Next in importance was the need for money to renew loans when they expired. Table 76 shows the division of the loans and that from 1915 to 1920 most of the money was used to purchase land. In the 13 counties used in the survey of mortgage conditions more than \$4 millions were loaned in 1920 to buy land.

After 1920 many of the loans were made to renew loans that were then coming due from purchases in previous years. Many renewals were natural since farm incomes had dwindled from the days in which the farm was bought and the usual term of a loan was 5 years. The farmer who had insufficient income to pay off the mortgage made between 1915 and 1920 had to have it renewed or extended between 1921 and 1930.

Much of the present debt total can be traced back to the hectic buying days of 1917 to 1920. Farm prices in those days were rising very rapidly, more rapidly in fact than the costs of producing farm goods. Farmers were optimistic and wanted to put more land into production. To increase their holdings they bought land at the prevailing prices, paid what they could on it and secured the rest with a mortgage. Prices dropped and with them went

many a farmer's hopes of eliminating his indebtedness in a few years as he had planned.

Sources of Loans

Insurance companies have come to the front in the last few years as sources of farm loans. Insurance companies on Jan. 1, 1935, comprised 40 percent of the lenders. This figure had grown from 22 percent in 1915.*

Private investors have gone into the minority with the rise of insurance companies, dropping from 61 percent in 1920 to 20 percent by Jan. 1, 1935. On the basis of the 1935 figures the Federal Land Bank is third and deposit banks fourth in the number of mortgages held.

While private investors and deposit banks were willing to make the loans in the buying period of 1915 to 1920, the insurance companies and the land banks were on hand to extend credit to the farmers in the renewal period from 1920-30.

How Loans Were Cancelled

The renewal of existing loans has been the way in which most of the farm loans since 1915 have been cancelled. Figure 124, furnishing the information at 5-year intervals, shows that every year until 1930, a large percentage of the loans were made to renew some of the mortgages that had been made between 1915 and 1920.

After 1930, however, the farmer was no longer able to carry the debt

on his farm, and foreclosures and other forced sales began to be the chief means of cancellation. By 1932 forced sales were responsible for the cancellation of 66.5 percent of the total debt in the 13 townships used in the mortgage survey. In the same year only 17.5 percent of the debt was cancelled through renewals as compared with 67.2 percent in 1915 when credit was not difficult to obtain. In 1933 the forced sales declined slightly to 62.3 percent. In 1934 there was reversion to the former situation as renewals climbed back into first place with 61.2 percent due to Federal refinancing.

The actual sale of land has not been responsible for any great amount of debt cancellation except in 1920. This was the year in which the debt increased more rapidly than at any other time.

The increased renewals in 1934 may be indicative of some financial improvement among farmers. Corn-

TABLE 65. LAND HOLDINGS OF CORPORATIONS IN IOWA.

Corporate groups	Percentage of all land in farms	
	1933	1935
Insurance companies	3.4	6.0
Deposit banks	1.6	1.5
Mortgage investment companies	1.0	.9
Joint stock land banks	.6	.8
Colleges and miscellaneous	.4	.5
Federal land banks		
R. F. C.	.2	.4
Totals	7.2	10.1

Source: W. G. Murray, Ag. Econ. Sect., Iowa Agr. Exp. Sta.

*Based on 13 townships.

TABLE 66. DISTRIBUTION, NUMBER, ACREAGE AND COST OF FARM PROPERTIES HELD BY INSURANCE COMPANIES IN IOWA.

Year	Number counties in which land is held	Number of farm properties	Acreage involved	Cost to company	Per acre cost to company
1920.....	1	1	320	\$ 30,700	\$ 96
1921.....	1	1	200	11,500	58
1922.....	2	3	301	21,100	70
1923.....	8	8	1,371	137,000	100
1924.....	19	31	6,923	595,100	86
1925.....	31	56	12,923	1,149,400	89
1926.....	50	134	26,738	2,259,200	85
1927.....	65	180	40,097	3,453,800	86
1928.....	79	323	62,580	5,142,800	82
1929.....	86	445	87,099	7,074,300	81
1930.....	95	570	107,163	8,218,600	77
1931.....	94	912	167,644	12,860,700	77
1932.....	99	1,644	296,128	22,469,000	76
Total as of Dec. 31, 1932.	..	4,308	809,487	\$ 63,423,200	Ave \$78

Land held as of Dec. 31 taken from Schedule A; of Insurance Company's Annual Report. There is some lag in reports; some companies are not able to include the last few months of the current year's business.
Source: Iowa Agr. Exp. Sta. Bul. No. 807, W. G. Murray and R. C. Bentley.

FIRST MORTGAGE FORECLOSURE SALES

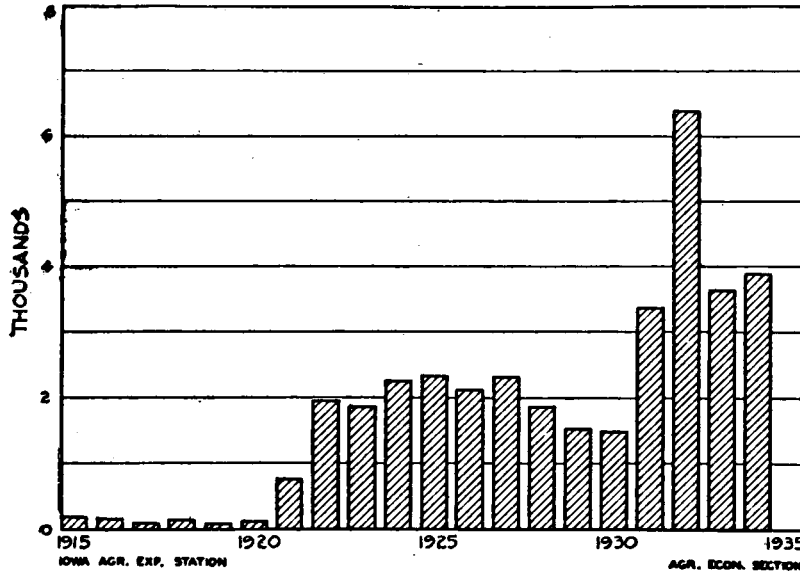
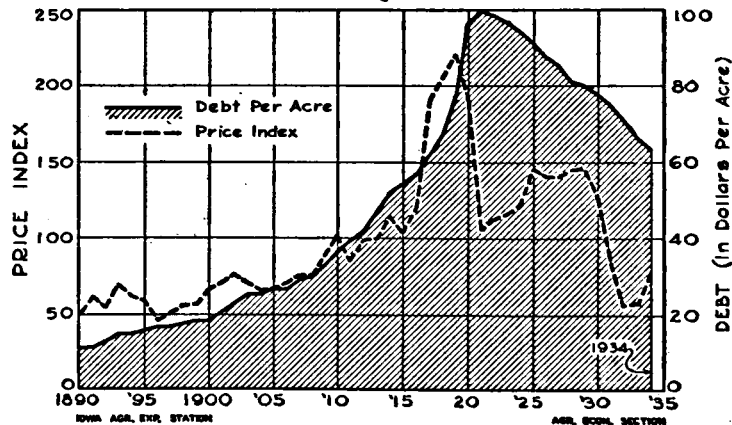


Fig. 115. The bars in the above chart represent foreclosure sales during the past 20 years in Iowa as estimated from data for 16 counties. The biggest foreclosure crop was harvested in 1932.

Data in table 83.

Fig. 116. The gap between debt and prices at the close of 1934 when compared with the situation existing in the period, 1910-1914, indicates the seriousness of present mortgage difficulties.

IOWA MORTGAGE DEBT AND FARM PRICES



hog payments and corn loans helped the farmer to meet interest and principal payments and the Federal farm credit agencies furnished an avenue for shifting debts to longer terms and easier interest rates.

Foreclosures and Judgments

In the last 12 years, 13 percent of the farm land in Iowa has been sold by sheriffs at foreclosure sales. In several cases some of the farms have been sold several times in the 12-year period. When these farms have been deducted there still remains 11 percent of the farms that have been subjected to foreclosure since 1921.

Between 1921 and 1932, \$327 millions of mortgages were cancelled by foreclosure. Another amount nearly as large was cancelled by assignments and the failure of junior mortgage holders to redeem the land after the first mortgage had been foreclosed.

These foreclosures and judgments were results of the selling and buying of 1915-20. The whole period

TABLE 67. PERCENTAGE OF TOTAL FARM LAND OPERATED BY TENANTS. (As reported by assessors)

Year	Percentage operated by tenants	Year	Percentage operated by tenants
1927.....	53.9	1931.....	55.4
1928.....	54.5	1932.....	57.7
1929.....	54.4	1933.....	58.6
1930.....	54.8		

Source: Iowa Ag. Exp. Sta. Bul. No. 828. W. G. Murray and W. O. Brown.

Fig. 117. Land values and cash rentals in Iowa moved steadily upward from 1912 to 1919. Land values went up \$63 per acre between 1919 and 1920. Rent increased from \$9.02 to \$9.13 per acre. In the next two years, 1922 and 1923, land values decreased from the peak of \$255 to \$194 per acre. In one year, 1920, rent decreased from \$9.13 to \$7.01, or \$2.12 per acre. Rent increased slightly from 1921 to 1929. From 1922 to 1929, land values dropped off uniformly at the rate of about 5½ percent per year. In late 1929 when the prices of farm products again turned downward, rents and values decreased rapidly. In 1934 land values and rents started to move up again.
Data in table 69.

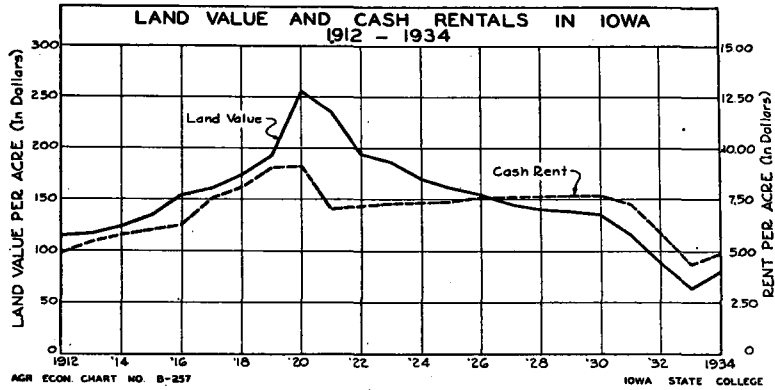


Fig. 118. Land values follow farm prices closely as this graph for Story County, Iowa, shows. Both farm prices and land values have turned up recently.
Data in table 70.

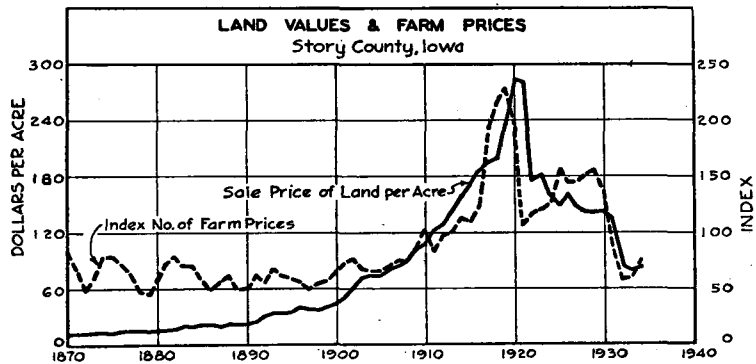


Fig. 119 shows that a larger percentage of the mortgages were in the higher brackets in 1921 than in 1932.
Data in table 74.

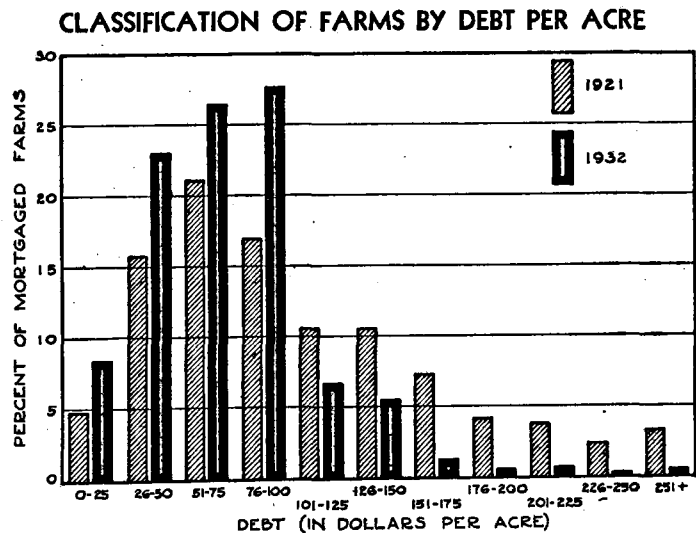


TABLE 68. LAND VALUES AND CASH RENTS IN IOWA MARCH 1. (DOLLARS PER ACRE)—Continued

County	1923		1924		1925		1926		1927		1928		1929		1930		1931		1932		1933		1934	
	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent	Land value	Cash rent
Tama.....	222	8.31	201	8.32	190	8.36	180	8.47	169	8.57	160	8.53	158	8.62	152	8.62	129	8.10	105	6.69	76	4.91	94	5.56
Taylor.....	152	6.60	139	6.58	132	6.59	126	6.66	119	6.72	114	6.67	113	6.72	109	6.70	93	6.28	77	5.17	55	3.78	69	4.24
Union.....	152	5.96	136	5.95	128	5.98	119	6.07	111	6.13	104	6.11	101	6.18	96	6.18	80	5.81	65	4.80	46	3.94	56	3.95
Van Buren.....	134	5.91	115	5.70	105	5.52	96	5.39	87	5.24	79	5.00	75	4.83	69	4.62	56	4.14	44	3.24	30	2.26	35	2.39
Wapello.....	123	5.88	111	5.92	105	5.99	99	6.11	92	6.21	112	7.01	86	6.33	82	6.36	70	6.02	57	5.00	41	3.69	50	4.20
Warren.....	157	6.18	142	6.31	134	6.48	126	6.70	118	6.91	149	8.73	110	7.23	106	7.37	90	7.06	73	5.94	52	4.44	64	5.08
Washington.....	212	8.13	191	8.21	179	8.33	169	8.52	158	8.69	86	5.16	145	8.90	139	8.98	117	8.52	95	7.10	68	5.25	83	5.95
Wayne.....	138	5.54	122	5.44	112	5.36	103	5.34	93	5.29	172	8.50	82	5.11	76	5.00	62	4.61	49	3.72	34	2.68	40	2.93
Webster.....	250	7.55	225	7.70	210	7.88	197	8.14	183	8.38	123	7.04	168	8.75	160	8.90	134	8.52	109	7.15	77	5.34	94	6.10
Winnebago.....	168	6.83	152	6.84	144	6.88	137	6.98	129	7.07	115	5.97	121	7.12	116	7.13	99	6.71	81	5.54	59	4.07	72	4.59
Winnesiek.....	140	5.80	130	5.80	126	5.84	123	5.93	118	5.99	132	7.99	116	6.05	114	6.05	99	5.70	83	4.70	61	3.45	77	3.90
Woodbury.....	178	7.45	162	7.52	154	7.63	147	7.79	139	7.95	119	5.91	131	8.14	126	8.21	108	7.78	89	6.48	64	4.80	79	5.46
Worth.....	159	5.55	146	5.60	138	5.66	132	5.78	125	5.88	155	7.79	118	6.02	114	6.06	98	5.74	80	4.77	58	3.52	72	4.00
Wright.....	215	7.68	194	7.66	184	7.69	174	7.78	163	7.84	88	6.22	152	7.86	146	7.84	124	7.35	101	6.06	73	4.44	90	4.98

Source: Millard Peck, formerly of the Economics Section, Iowa Agr. Exp. Sta. Original data from U. S. D. A., Bureau of Agricultural Economics.

TABLE 69. LAND VALUES AND CASH RENTS IN IOWA, 1912-1934.

Year	Land value (Dollars per acre)	Cash rent (Dollars per acre)
1912.....	115	4.85
1913.....	118	5.41
1914.....	124	5.76
1915.....	134	6.06
1916.....	153	6.25
1917.....	160	7.52
1918.....	174	8.17
1919.....	192	9.02
1920.....	255	9.13
1921.....	235	7.01
1922.....	194	7.18
1923.....	186	7.25
1924.....	171	7.28
1925.....	162	7.38
1926.....	155	7.54
1927.....	145	7.60
1928.....	140	7.64
1929.....	139	7.75
1930.....	135	7.65
1931.....	117	7.30
1932.....	90	5.88
1933.....	65	4.33
1934.....	80	4.88

Source: U. S. D. A. Bureau of Agr. Economics.

starting in 1900 and ending in 1919 marked the conversion of land values into mortgaged debts, with heavy pressure and finally foreclosure on the farmer whose land bore a mortgage larger than he could maintain.

The year 1923 marked the beginning of the liquidation of the land boom. The years that followed found land with debts that could not be maintained under the prevailing prices, being sold by the sheriffs of Iowa counties at the rate of 1 percent per year.

All of the foreclosures, assignments, and scaling down of the mortgages were getting under way as early as 1925 but did not become of great importance until 1931 when first mortgages became the problem. The drop in farm prices made it im-

TABLE 70. LAND VALUES AND FARM PRICES, STORY COUNTY.

Year	Sale price per acre	Index number of prices of farm products* (1910-14=100)	Year	Sale price per acre	Index number of prices of farm products* (1910-14=100)
1854	\$ 3.07	...	1900	\$ 47.52	65
	3.30	...	1901	53.02	71
	3.85	...		62.64	76
	5.57	...		72.39	69
	5.64	...		72.27	65
	5.39	...		74.18	66
	5.44	...		81.75	71
1861	5.05	...		86.10	76
	5.58	...		90.95	76
	4.59	...		104.15	88
	6.49	...		109.13	102
	7.26	...	1911	122.55	86
	6.49	...		128.13	99
	7.34	...		142.44	100
	7.99	...		162.64	113
	9.85	...		170.35	109
	10.25	84		184.93	124
1871	10.69	65		194.70	193
	11.85	50		200.02	214
	11.93	58		237.55	228
	12.39	78		289.29	197
	11.98	79	1921	284.60	104
	14.79	71		178.31	117
	14.96	63		180.45	120
	14.57	49		163.01	128
	14.67	46		150.14	154
	14.00	57		162.70	144
1881	15.97	70		150.00	145
	17.96	80		143.00	152
	21.01	71		143.79	154
	20.54	70		143.85	134
	21.29	57	1931	134.08	88
	21.92	50	1932	84.00	56
	20.37	56	1933	70.00	57
	22.30	60	1934	83.00	77
	21.40	48		.....	.....
	22.87	50		.....	.....
1891	26.62	61		.....	.....
	31.85	54		.....	.....
	37.45	68		.....	.....
	36.74	61		.....	.....
	36.01	58		.....	.....
	41.42	46		.....	.....
	39.46	50		.....	.....
	39.03	55		.....	.....
	42.51	57		.....	.....

* Information collected by Department of Agricultural Economics, Iowa State College, Ames, Iowa. Source: Iowa Ag. Exp. Sta. Bul. No. 328. W. G. Murray and W. O. Brown.

possible for the obligations to be met. The Iowa index of farm prices dropped from 127 to 86 between 1930 and 1931. The percentage of

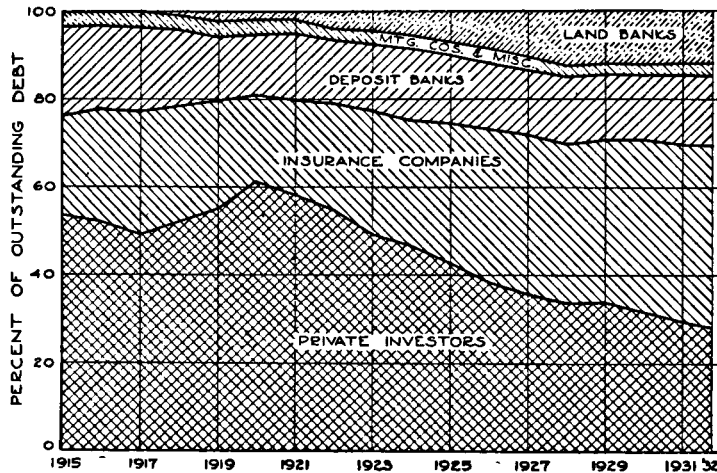
land sold at foreclosure sales increased and in 1932 when the index dropped to 56, foreclosures claimed 3 percent of the land.

TABLE 71. ESTIMATED LAND VALUE PER ACRE.
(1912-14 = 100)

Geographical division and state	1920	1925	1927	1929	1931	1932	1933
New England States	140	127	127	126	126	116	105
Middle Atlantic States	136	114	111	109	101	96	82
East North Central States	161	116	104	100	87	73	62
West North Central States	184	126	115	112	97	81	64
Minnesota	213	159	145	138	116	98	79
IOWA	213	136	121	116	98	80	58
Missouri	167	112	99	95	79	67	55
North Dakota	145	109	100	98	85	73	66
South Dakota	181	115	97	95	83	67	55
Nebraska	179	123	119	116	106	90	69
Kansas	151	115	113	113	103	89	70
South Atlantic States	198	148	137	132	116	96	80
East South Central States	199	141	133	129	117	97	79
West South Central States	177	144	139	136	121	97	82
Mountain States	151	105	101	101	100	82	69
Pacific States	156	146	143	142	140	118	96
UNITED STATES	170	127	119	116	106	89	73

Source: U. S. D. A. Bureau of Agricultural Economics, Cir. No. 854.

FARM MORTGAGE DEBT BY LENDERS



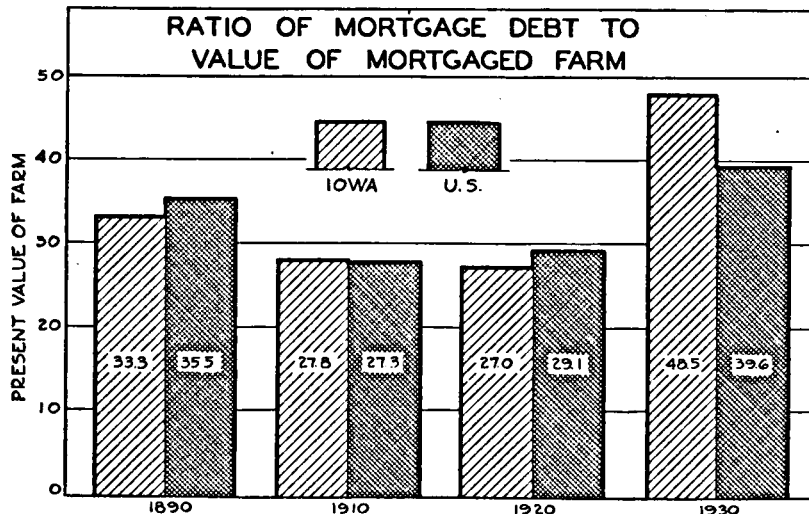
Private investors, deposit banks and mortgage companies did most of the foreclosing in the period from 1920-25, but from 1926 on a new group of mortgage holders gained importance. This group includes the institutional investors who held only first mortgages. Included in this classification are the insurance companies, the Federal Land Bank and joint stock land banks who in 1932 were responsible for 73 percent of the foreclosures.

Deficiency judgments have also increased in all but one of the last 12 years. In 1921 only 26.5 percent of the land foreclosure sales ended with the land bid in for less than

Fig. 120. Insurance companies and other corporations have been gradually taking the place of private investors as the source of farm loans. Data in table 77.

Fig. 121 shows that the mortgage debt per value of the mortgaged farm in Iowa decreased from 1890 to 1920 and increased rapidly from 1920 to 1930. In 1930, 48 percent of the land farmed was mortgaged. The chart also shows that Iowa's debt per value of the mortgaged farm increased more rapidly since 1920 than that of the United States.

Data in table 75.



BASEBOOK OF IOWA

TABLE 72. FARM MORTGAGE DEBT OF FARMS OPERATED BY FULL OWNERS, 1930.

County	Amount of mortgage debt (Dollars)	Ratio of debt to value (Percentage)	Mortgage debt per farm (Dollars)	Mortgage debt per acre (Dollars)	County	Amount of mortgage debt (Dollars)	Ratio of debt to value (Percentage)	Mortgage debt per farm (Dollars)	Mortgage debt per acre (Dollars)
Adair	5,564,667	53.04	10,539	63.88	Sac.	4,680,326	44.38	12,929	76.03
Adams	3,186,983	50.92	8,431	57.28	Scott	4,627,268	44.09	8,797	82.11
Allamakee	3,799,527	50.69	7,155	39.26	Shelby	7,865,239	48.53	13,153	79.03
Appanoose	2,338,748	49.36	4,650	34.76	Sioux	6,468,936	47.08	12,345	81.30
Audubon	5,274,356	52.18	10,403	74.39	Story	5,869,998	48.18	11,487	83.18
Benton	5,773,233	45.98	12,078	73.87	Tama	6,630,773	48.44	11,472	73.40
Black Hawk	5,227,382	49.01	9,187	75.26	Taylor	4,145,097	49.97	7,880	56.39
Boone	4,124,278	43.70	8,719	74.62	Union	2,752,722	47.68	7,562	54.61
Bremer	2,997,819	50.76	7,276	62.37	Van Buren	2,466,909	49.52	5,846	39.89
Buchanan	3,744,023	51.43	7,849	56.57	Wapello	2,749,059	47.58	5,599	51.72
Buena Vista	4,970,518	45.25	12,395	76.80	Warren	4,104,155	48.19	6,761	55.32
Butler	4,668,438	52.88	9,626	66.60	Washington	5,366,578	46.02	10,242	69.77
Calhoun	4,254,556	41.36	11,785	77.51	Wayne	3,047,843	56.08	6,927	43.07
Carroll	6,575,825	46.89	13,420	80.52	Webster	5,875,591	47.36	11,991	79.97
Cass	6,151,684	53.21	11,329	76.57	Winnebago	3,267,795	49.95	8,856	64.55
Cedar	6,607,297	51.87	12,905	86.00	Winneshiek	4,631,705	45.57	7,170	51.36
Cerro Gordo	3,524,032	47.00	9,013	63.47	Woodbury	7,776,880	45.11	10,624	70.32
Cherokee	3,929,502	50.36	12,647	73.87	Worth	3,041,810	48.34	8,568	55.44
Chickasaw	2,734,890	49.21	6,854	50.37	Wright	5,152,554	50.83	13,212	78.93
Clarke	2,961,016	58.53	7,896	48.31					
Clay	4,400,483	51.14	13,175	74.09					
Clayton	5,991,214	47.79	8,368	56.07					
Clinton	6,968,542	52.87	10,737	74.14					
Crawford	7,793,827	48.94	12,694	70.85					
Dallas	4,700,338	41.34	9,813	68.07					
Davis	2,357,424	51.25	4,901	34.80					
Decatur	2,677,231	56.42	5,989	39.24					
Delaware	4,551,357	51.35	9,582	62.79					
Des Moines	2,400,569	51.67	7,597	59.26					
Dickinson	2,546,233	52.01	11,023	66.16					
Dubuque	6,018,718	45.00	8,723	54.45					
Emmet	2,799,659	53.02	10,768	71.53					
Fayette	4,590,875	50.03	7,041	52.47					
Floyd	2,995,148	48.24	9,188	61.82					
Franklin	5,921,444	51.58	12,986	79.68					
Fremont	3,743,137	41.62	19,456	63.58					
Greene	4,429,258	47.10	12,420	78.84					
Grundy	4,403,634	45.19	12,405	74.03					
Guthrie	4,771,767	50.19	8,804	62.01					
Hamilton	5,723,611	47.38	12,101	83.37					
Hancock	3,994,801	46.39	10,349	65.24					
Hardin	6,392,548	50.74	12,510	80.36					
Harrison	5,996,226	46.66	8,517	63.44					
Henry	2,775,662	43.37	7,461	59.03					
Howard	1,891,259	45.51	6,567	45.28					
Humboldt	5,323,796	49.20	13,828	81.15					
Ida	4,449,386	49.94	15,396	84.59					
Iowa	5,359,457	51.40	10,849	72.78					
Jackson	4,787,527	55.56	8,269	49.50					
Jasper	7,390,301	52.09	10,453	74.82					
Jefferson	3,060,496	52.63	7,768	55.18					
Johnson	6,287,856	50.50	10,804	77.21					
Jones	5,098,875	52.25	10,427	67.49					
Keokuk	4,589,001	46.68	7,778	59.60					
Kossuth	7,609,932	48.08	12,022	69.51					
Lee	2,642,530	45.80	6,430	47.71					
Lincoln	6,531,280	46.14	7,439	74.84					
Louis	2,585,370	49.65	10,467	65.66					
Lucas	2,117,991	53.71	5,771	37.49					
Lyon	4,548,107	49.31	13,496	73.15					
Madison	4,730,994	49.23	8,617	58.63					
Mahaska	5,864,568	50.93	8,926	76.18					
Marion	4,208,109	51.51	7,679	57.11					
Marshall	5,016,092	47.53	10,428	73.71					
Mills	2,765,000	38.40	8,560	59.91					
Mitchell	3,377,167	44.88	8,443	55.53					
Monona	5,122,636	51.04	10,519	64.55					
Monroe	2,163,913	48.56	5,009	35.77					
Montgomery	4,211,888	48.47	11,477	77.12					
Muscatine	3,636,244	49.31	9,854	72.24					
O'Brien	4,815,792	50.05	13,230	80.96					
Osceola	2,725,693	50.83	12,561	69.92					
Page	5,248,246	46.80	10,093	71.53					
Palo Alto	3,999,577	50.60	11,833	69.63					
Plymouth	5,498,070	44.80	11,926	68.85					
Pocahontas	4,730,619	44.51	12,255	76.67					
Folk	4,884,385	40.18	6,539	81.62					
Pottawattamie	9,166,782	46.42	9,241	77.51					
Poweshiek	5,246,211	51.90	10,750	72.64					
Ringgold	3,422,947	52.11	6,860	44.07					

Source: U. S. Census, 1930.

TABLE 73. FARM MORTGAGE DEBT SITUATION IN IOWA, 1915-1934. ESTIMATES BASED ON DATA FROM 13 TOWNSHIPS.

Year, as of December 31	Total farm mortgage debt	Percentage of land mortgaged	Debts per acre of land mortgaged
1915	\$ 685,000,000	38%	\$ 54
1916	761,000,000	39	57
1917	865,000,000	42	62
1918	961,000,000	42	67
1919	1,070,000,000	42	77
1920	1,500,000,000	47	96
1921	1,610,000,000	48	100
1922	1,597,000,000	49	98
1923	1,618,000,000	50	96
1924	1,605,000,000	51	94
1925	1,531,000,000	50	91
1926	1,471,000,000	50	87
1927	1,394,000,000	49	85
1928	1,348,000,000	49	81
1929	1,311,000,000	49	80
1930	1,265,000,000	48	78
1931	1,197,000,000	48	75
1932	1,083,000,000	45	71
1933	998,000,000	45	66
1934	924,000,000	43	63

Source: Iowa Ag. Exp. Sta. Bul. No. 328. W. G. Murray and W. O. Brown.

TABLE 74. CLASSIFICATION OF FARMS BY DEBT PER ACRE OF LAND MORTGAGED IN 13 TOWNSHIPS.

Debt per acre	Number of farms		Percent	
	Dec. 31, 1921	Oct. 15, 1932	1921	1932
\$ 0-\$ 25	51	85	4.8	8.3
26- 50	169	234	15.9	22.9
51- 75	224	269	21.1	26.3
76- 100	180	280	16.9	27.4
101- 125	111	68	10.4	6.7
126- 150	111	53	10.4	5.2
151- 175	76	13	7.1	1.3
176- 200	44	7	4.1	.5
201- 225	40	7	3.8	.7
226- 250	23	2	2.2	.2
251 or more	35	5	3.3	.5
Total.....	1,064	1,021	100%	100%

Source: Iowa Ag. Exp. Sta. Cir. No. 142. W. G. Murray and R. O. Bentley.

TABLE 75. COMPARISON OF LAND VALUES AND MORTGAGE DEBTS ON FARMS IN IOWA AND THE UNITED STATES.

	Average value of land and buildings per mortgaged farm		Average amount of debt per mortgaged farm		Ratio of mortgage debt to value of mortgaged farm	
	United States	Iowa	United States	Iowa	United States	Iowa
April 1, 1930...	\$8,997	\$19,853	\$3,561	\$9,626	39.6	48.5
January 1, 1920...	11,465	34,662	3,356	9,358	29.1	27.0
April 15, 1910...	6,289	14,574	1,715	4,048	27.3	27.8
June 1, 1890...	3,444	3,964	1,224	1,319	35.5	33.3

Source: U. S. D. A. Bureau of Agricultural Economics.

TABLE 77. PERCENTAGE DISTRIBUTION OF OUTSTANDING DEBT BY LENDERS, 13 TOWNSHIPS.

Year as of December 31	Private investors	Insurance companies	Deposit banks	Mortgage companies misc.	Land banks	Total
1915	54	22	20	4	0	100
1920	61	20	14	3	2	100
1925	43	32	15	3	7	100
1930	32	39	15	2	12	100
1932*	27	42	16	3	12	100

* To Oct. 15, 1932.

Source: Iowa Agr. Exp. Sta. Cir. No. 142. W. G. Murray and R. C. Bentley.

TABLE 78. ESTIMATED FARM MORTGAGE HOLDINGS OF LENDERS IN IOWA, JAN. 1, 1935.

Lenders	Amount	Percentage of total
Insurance companies	\$369,000,000	40
Private investors	185,000,000	20
Federal Land Bank*	168,000,000	18
Land Bank Commissioner*	38,000,000	4
Joint stock land banks	35,000,000	4
Deposit banks	111,000,000	12
Miscellaneous	18,000,000	2
Total	\$924,000,000	100

*Actual figures from statements of condition, Federal Land Bank, Dec. 31, 1934, Farm Credit Administration, Washington, D. C., p. 14.

Source: Iowa Agr. Exp. Sta. Bul. No. 328, W. G. Murray and W. O. Brown.

TABLE 76. NEW LOANS CLASSIFIED BY PURPOSE, 13 TOWNSHIPS.

Year	Land purchase	Renewal land purchase	Miscellaneous	Total
1915	\$ 845,800	\$ 364,000	\$ 558,900	\$1,768,700
1916	899,400	639,000	383,900	1,922,300
1917	1,156,300	848,600	546,600	2,551,500
1918	1,356,100	366,400	298,100	2,020,600
1919	1,444,300	406,600	317,700	2,168,600
1920	4,111,800	683,100	894,500	5,689,400
1921	695,800	848,900	1,002,200	2,546,900
1922	249,000	1,197,000	651,200	2,097,200
1923	403,500	1,501,000	834,200	2,738,700
1924	343,700	919,100	746,524	2,009,324
1925	389,700	1,192,400	468,000	2,050,100
1926	434,521	738,771	645,066	1,818,358
1927	513,000	466,487	354,070	1,333,557
1928	233,300	701,250	748,177	1,682,727
1929	153,050	383,410	555,465	1,091,925
1930	154,294	502,200	521,637	1,178,151
1931	124,800	316,005	541,622	982,427
1932*	57,970	146,273	223,576	427,819

* To Oct. 15, 1932.

Source: Iowa Agr. Exp. Sta. Cir. No. 142. W. G. Murray and R. C. Bentley.

TABLE 79. LOANS CANCELLED AND REASONS FOR CANCELLATION, 13 IOWA TOWNSHIPS.

Year	Renewals (percent)	Sale of land (percent)	Forced Sales (percent)	Miscellaneous (percent)	Total (percent)
1915	67.2	11.4	.3	21.1	100
1920	40.9	34.4	...	24.7	100
1925	57.0	12.6	13.7	16.7	100
1930	47.8	6.2	22.7	23.3	100
1931	38.8	2.1	39.4	19.7	100
1932*	17.5	5.1	66.5	10.9	100
1933**	24.9	3.1	62.3	9.7	100
1934	61.2	2.0	21.3	15.5	100

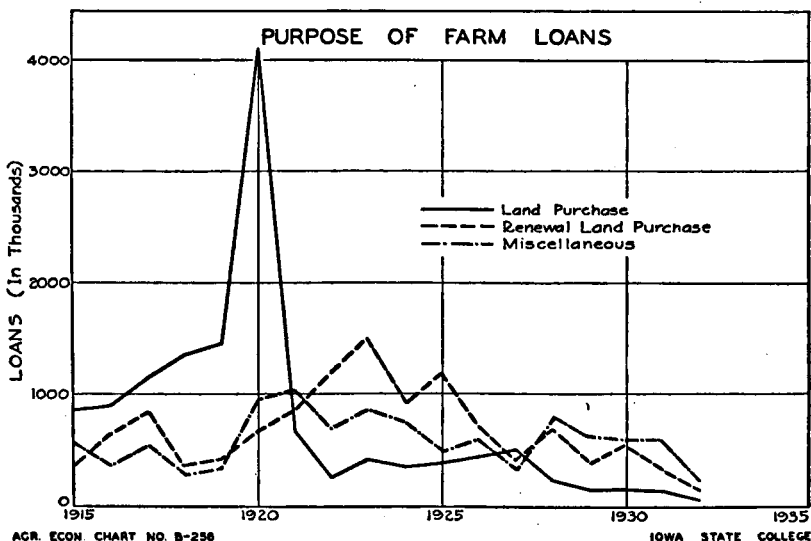
* Oct. 15.

** Dec. 1.

Source: Iowa Agr. Exp. Sta. Bul. No. 315. W. G. Murray.

Fig. 122. From 1915 to 1920, especially 1920, a large proportion of mortgage loans were used to buy land. After 1920 the loans were used mostly to renew mortgages on land purchased and for other purposes.

Data in table 76.



BASEBOOK OF

TABLE 80. LOANS PAID, CLASSIFIED BY REASON FOR PAYMENT, 13 TOWNSHIPS.

Year	Renewal	Sale of land	Forced sales	Miscellaneous	Total
1915.....	\$ 494,300	\$ 83,600	\$ 2,400	\$154,900	\$ 735,200
1916.....	770,900	281,800	.....	186,300	1,239,000
1917.....	952,100	369,700	2,000	288,700	1,612,500
1918.....	475,400	369,300	800	311,400	1,156,900
1919.....	592,900	361,600	3,600	233,300	1,191,400
1920.....	743,100	624,100	.....	447,600	1,814,800
1921.....	947,800	221,300	77,100	308,200	1,554,400
1922.....	1,465,200	209,700	331,300	202,300	2,208,500
1923.....	1,610,800	333,100	228,700	326,400	2,553,000
1924.....	1,250,300	314,900	307,200	258,800	2,131,200
1925.....	1,546,500	341,800	371,100	454,900	2,714,300
1926.....	932,950	113,900	909,064	408,723	2,364,637
1927.....	618,672	79,552	782,571	539,836	2,020,631
1928.....	1,253,645	33,344	431,474	366,342	2,084,805
1929.....	729,231	71,125	265,643	374,908	1,440,907
1930.....	753,453	97,500	358,696	367,482	1,577,131
1931.....	619,496	33,670	629,824	315,492	1,598,482
1932*.....	251,561	74,000	959,135	157,280	1,435,682

* To Oct. 15, 1932.
Source: Iowa Agr. Exp. Sta. Cir. No. 142. W. G. Murray and R. C. Bentley.

TABLE 82. FORECLOSURES BY PRIVATE INVESTORS AND INSURANCE COMPANIES IN 16 IOWA COUNTIES 1927-34.

Year	Number of foreclosure sales	
	Private investors	Insurance companies
1927.....	203	70
1928.....	152	61
1929.....	101	68
1930.....	100	66
1931.....	172	212
1932.....	267	485
1933.....	125	308
1934.....	108	431

Source: Iowa Agr. Exp. Sta. Bul. No. 328. W. G. Murray and W. O. Brown.

TABLE 81

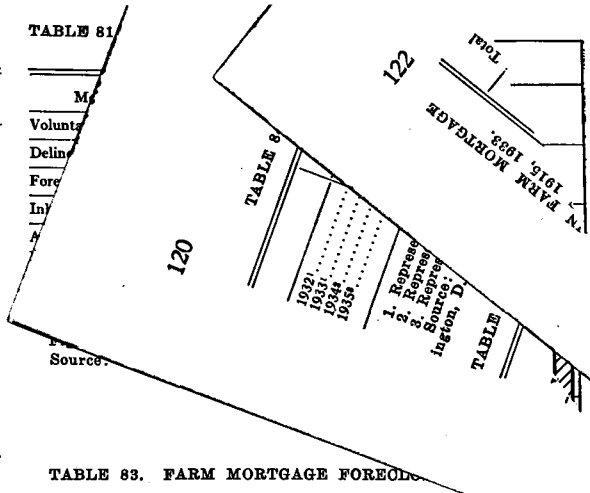


TABLE 83. FARM MORTGAGE FORECLOSURE RECORDS, 1915-1932.

Year	Number of foreclosures	Percentage of all land in farms	Total of judgments
1927.....	2,300	.97	\$ 25,000,000
1928.....	1,900	.86	21,000,000
1929.....	1,500	.67	17,000,000
1930.....	1,500	.59	15,000,000
1931.....	3,400	1.55	41,000,000
1932.....	6,400	2.91	76,000,000
1933.....	3,700	1.66	47,000,000
1934.....	3,900	1.80	49,000,000
Total.....		11.01	\$291,000,000

Total for the state estimated from complete records for 16 counties representing one-sixth of the state.

Source: Iowa Agr. Exp. Sta. Bul. No. 328. W. G. Murray and W. O. Brown.

TOWNSHIPS INCLUDED IN MORTGAGE SURVEY

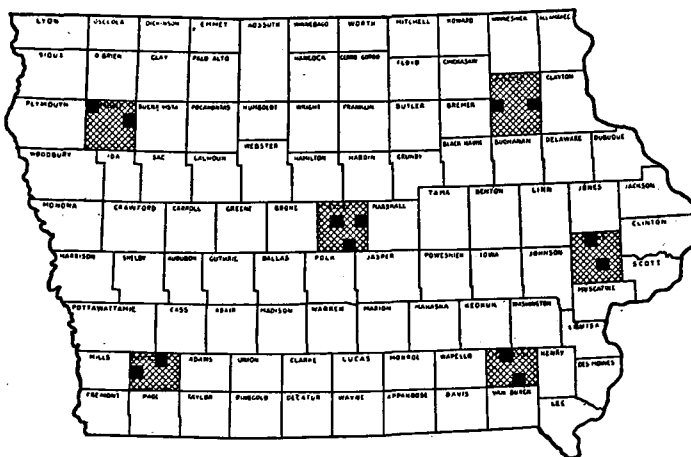


Fig. 123. The map shows the location of the 13 townships used by Mr. Murray and Mr. Bentley in their survey of mortgage conditions. Much of the data in this chapter is based on figures obtained in this survey.

the amount of the mortgage. By 1932, however, over 74 percent of the land failed to receive a bid that equalled the amount of the mortgage against it.

Since the advent of the insurance companies as sources of loans, deficiency judgments have increased in size. The aim of securing a bid that is less than the amount of the mortgage has been to make possible the appointment of a receiver so that the equivalent of rent may be collected from the property during the year that is allowed for the redemption of it.

Interest Rates*

In a study made of Story County, the 78 years of mortgage history were characterized by three distinct periods of interest rates. In the ear-

* Iowa Agricultural Experiment Station, Res. Bul. No. 156, W. G. Murray.

AGRICULTURAL ECONOMIC FACTS

NUMBER OF LOANS IN IOWA REAL ESTATE FORECLOSURES.

Year	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1914	122	270	175	192	172	150	94	209	186	186
1918	82	136	118	160	96	183	151	185	120	173
United States	174	81	178	95	116	75	83	103	132	172
1911	111	77	136	...	...	...	...	...	...	...

3,997
 1,465
 5,272
 3

2 percent of total population.
 1.4 percent of total population.
 27.9 percent of total population.
 U. S. Division of Research and Statistics, Federal Home Loan Bank Board, Wash-
 D. C.

TABLE 77. PERCENTAGE OF FORECLOSURES BY LENDERS IN 16 COUNTIES.

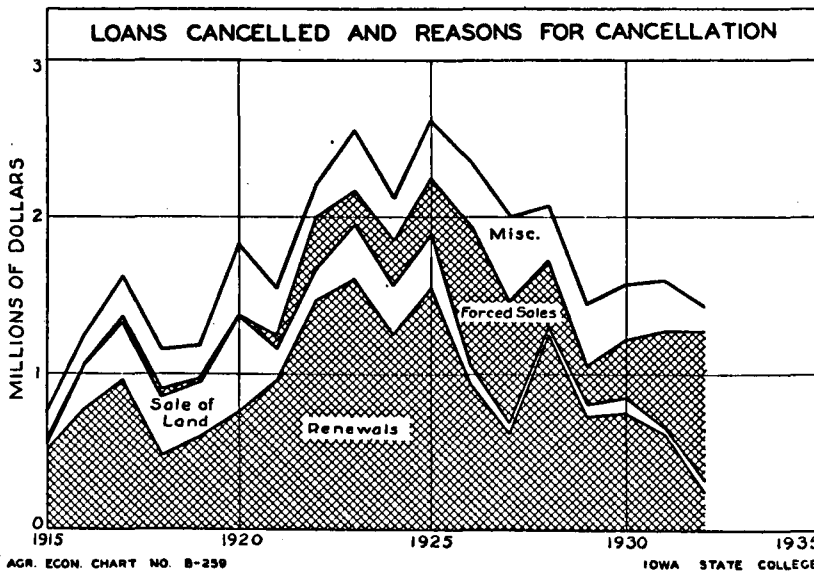
Year	Private investors	Insurance companies	Deposit banks	Federal Land Bank	Joint stock land bank	Mortgage co's and others	Total
1921	65.4	4.6	22.3	...	1.5	6.2	100.0
1922	68.9	2.5	18.9	...	.3	9.4	100.0
1923	59.2	3.9	25.7	...	.3	10.9	100.0
1924	58.2	5.9	24.0	...	1.1	10.8	100.0
1925	55.4	8.9	21.7	1.0	1.8	11.2	100.0
1926	59.2	10.7	19.7	.6	2.0	7.8	100.0
1927	53.7	18.5	19.0	.5	2.4	5.9	100.0
1928	49.5	19.9	20.8	1.6	3.6	4.6	100.0
1929	40.7	27.4	18.5	1.2	7.3	4.9	100.0
1930	41.2	27.2	18.9	.4	4.5	7.8	100.0
1931	31.2	38.5	13.4	2.4	10.2	4.3	100.0
1932	25.4	46.1	10.2	6.7	9.1	2.5	100.0
1933	20.8	51.3	8.2	5.3	12.2	2.2	100.0
1934	16.9	67.3	7.2	2.8	4.2	1.6	100.0

Source: Iowa Agr. Exp. Sta. Bul. No. 328. W. G. Murray and W. O. Brown.

TABLE 86. NUMBER OF FARMS PER 1,000 CHANGING OWNERSHIP BY FORECLOSURE, BANKRUPTCY AND RELATED CAUSES.

	1926	1927	1928	1929	1930	1931	1932	1933
Iowa.....	26.9	27.3	28.1	25.2	25.1	24.8	52.5	78.3
United States.....	17.4	18.2	17.6	14.8	15.7	18.7	41.7	54.1

Source: U. S. D. A. Bureau of Agricultural Economics, Cir. 209.



AGR. ECON. CHART NO. 8-259

IOWA STATE COLLEGE

Fig. 124 shows that renewal of existing loans has been the way in which most Iowa farm loans since 1915 have been cancelled. During the last few years forced sales have tended to take the place of renewals. Data in table 79.

liest, lasting from 1854 to 1880, the usual rate was 10 percent. In the next period, between 1881 and 1900, a transition from 10 to 5 percent took place. In the last period, interest rates remained almost continuously at 5 percent. (See fig. 127.)

An explanation of the prevailing high rate in the early years is to be found in the scarce supply of and the strong demand for funds. The drop in the sixties is explained by the interest rate charged on school fund loans. After 1863 loans were made from these funds at 8 percent instead of 10. In the next decade most of the loans made out of the school funds were 10 percent mortgages. In the seventies a foreshadowing of the break away from 10 percent mortgages was evident in the increased number of 9 percent mortgages.

The second period, 1881-1900, included a complete change from a frontier region of 10 percent mortgages to a well established farming area of 5 percent mortgages. The average rate of interest on all loans, as shown in fig. 127 started at 8.6 percent in 1880 and ended at 7.1 in 1890. The decline in interest rates in the 20 years, 1881-1900, was the result of improved security, increased funds with more competition among lenders, and the absence of any large amount of land purchase activity. The increase in value of land during these years while prices of farm products remained practically constant, indicated an improvement of land as security for loans.

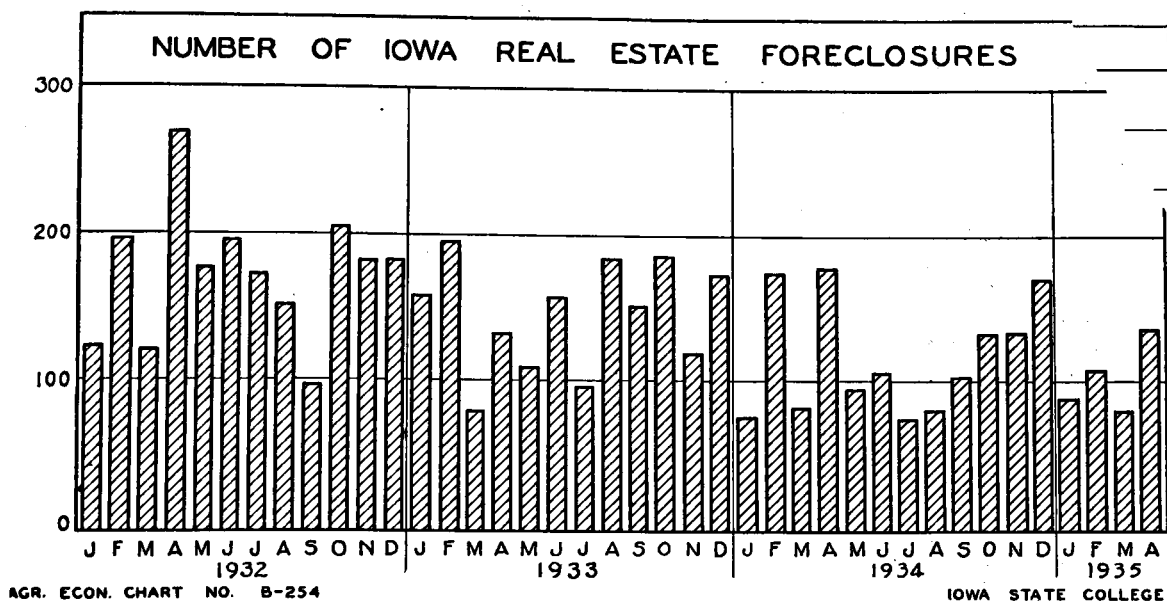
In the third period, 1901-1931, the rate of interest most commonly charged was 5 percent.

Term of Loans

In the same study of Story County, averages for the 78-year period indicate that 5-year loans made up 48 percent of the total of loans for which information was available. Next in order came loans specifying a term of less than 5 years, 29 percent being loans of this class. Installment loans came third with 13 percent and loans for more than 5 years came last with 10 percent of the total.

Although for the entire period

BASEBOOK OF IOWA



AGR. ECON. CHART NO. B-254

IOWA STATE COLLEGE

Fig. 125. The number of Iowa real estate foreclosures has decreased slightly since 1932. There is considerable

variation from month to month in the number of foreclosures. Figures rep-

resent about 30 percent of Iowa population. Data in table 84.

more 5-year loans were made than for any other term, records for the years 1854-70, showed a preponderance of loans with a term of 1 year or less. Of 378 loans made in the fifties, as shown in table 91, 193 were for 1 year or less, 85 for from 1 to 4 years and 11 months, and 82 for 5 years. The sixties, with 478 loans for 1 year or less, and 309 for 5 years, fall in the same category as

the fifties. One exception was the rise in installment loans from 12 in the fifties to 384 in the sixties.

The trend toward more 5-year loans which started in the decade, 1871-80, reached a climax in the decade, 1901-10, with 2,270 loans in this class or 64 percent of all loans carrying term information. In the years 1911-20, a smaller percentage of 5-year mortgages was counterbal-

anced by an increase in the percentage of long term installment and long term one-payment loans. The land banks with 126 loans to their credit were partially responsible for this as were also lenders who granted 10-year loans; a type of loan which increased in number to 204 in this period.

A further advance was scored by amortization in the decade, 1921-30, their total rising from 126 to 221. Contrary to the preceding decade, however, 10-year loans slumped to a total of 98. Loans with a term of from 6 to 9 years also declined in this recent decade. On the other hand, loans for less than 5 years increased. Thus a peculiar situation existed, increases being registered in long-term installment loans over 30 years and in loans under 5 years, and decreases being registered in all classes of loans in between. Although short-term loans increased in number, it was because the borrowers were forced to take whatever terms they could get, and the lenders, with the exception of land banks, chose short-term mortgages in order to keep their funds as liquid as possible.

TABLE 87. LAND VALUES, ACREAGE IN FORECLOSURE AND ACREAGE INVOLVED IN DEFICIENCY JUDGMENTS IN 15 COUNTIES.

County	Land values per acre 1930 census	Total acreage in percentage			Total 1921-32	Deficiency acreage in percentage		
		1921-25	1926-30	1931-32		1921-25	1926-30	1931-32
Boone.....	\$152	4.0	2.1	2.1	8.2	1.03	.73	1.79
Cedar.....	151	2.6	2.1	2.5	7.2	1.23	1.18	1.99
Cerro Gordo.....	115	7.0	6.8	5.8	19.6	...	...	...
Cherokee.....	140	2.9	2.5	3.0	8.4	.92	.91	1.95
Clarke.....	78	6.8	7.3	13.3	27.4	4.96	4.89	7.84
Fayette.....	95	2.6	5.2	3.7	11.5	1.02	1.75	2.85
Guthrie.....	113	7.0	4.9	5.8	17.7	2.83	3.32	5.28
Hancock.....	125	4.8	7.3	4.5	16.6	1.70	3.60	4.02
Harrison.....	122	6.7	4.9	3.8	15.4	3.52	2.27	3.14
Jefferson.....	95	3.2	4.2	3.4	10.8	1.09	3.21	3.01
Linn.....	143	3.5	3.2	2.5	9.2	.82	1.68	2.06
Lyon.....	135	2.4	2.0	5.4	9.8	.96	.98	4.15
Montgomery.....	145	2.6	1.8	3.7	8.1	.97	.96	3.34
Pocahontas.....	153	3.5	5.7	4.7	13.9	1.06	2.30	3.84
Story.....	154	4.3	4.8	4.2	13.3	1.05	.66	3.47
Average...	....	4.28	4.31	4.39	...	1.62	1.97	3.38

Source: Iowa Agr. Exp. Sta., Cir. 147. W. G. Murray and R. O. Bentley.

TABLE 88. NUMBER AND SIZE OF DEFICIENCY JUDGMENTS,
14 COUNTIES—1915-1932.

Year	Number			Amount		
	All judgments	Deficiency judgments	Percent of all judgments	Total judgments in deficiency cases	Deficiency	Percent of total judgments
1915.....	28	6	21.4	\$ 20,758	\$ 6,205	29.9
1916.....	27	4	14.8	25,702	7,912	30.8
1917.....	16	2	12.5	5,781	1,691	29.3
1918.....	24	4	16.6	42,583	32,186	75.6
1919.....	15	..	..	..	..	..
1920.....	23	4	17.4	47,619	22,362	47.0
1921.....	117	31	26.5	391,876	130,276	33.2
1922.....	292	83	28.4	1,111,086	266,567	24.0
1923.....	280	103	36.8	1,485,759	306,220	20.6
1924.....	337	132	39.2	1,887,476	365,046	19.3
1925.....	339	143	42.2	1,905,501	311,707	16.4
1926.....	310	137	44.2	1,578,493	257,818	16.3
1927.....	347	131	37.8	1,487,016	284,676	19.1
1928.....	277	124	44.8	1,370,305	344,128	25.1
1929.....	225	102	45.3	1,343,673	218,515	16.3
1930.....	224	129	57.6	1,317,789	227,191	17.2
1931.....	507	368	72.6	4,520,545	739,512	16.4
1932*.....	848	628	74.1	7,871,053	934,068	11.9
Total.....	4,236	2,131	50.3	\$26,413,015	4,456,080	16.9

* To Dec. 1, 1932.

TABLE 90. NUMBER OF MORTGAGES CLASSIFIED BY
RATE OF INTEREST CHARGED.

Years	Rate of interest						Total	Interest rate not given
	10	9	8	7	6	5		
1854-1860.....	235	1	3	5	12	1	257	158
1861-1870.....	847	4	278	31	63	1	1,224	302
1871-1880.....	2,776	196	359	89	69	2	3,491	408
1881-1890.....	462	26	1,967	481	662	5	3,603	223
1891-1900.....	8	1	932	1,448	1,315	393	4,097	147
1901-1910.....	1	..	186	207	998	2,133	3,525	81
1911-1920.....	4	..	161	265	1,266	2,369	4,065	361
1921-1930.....	4	..	361	315	940	1,409	3,069	711

Source: Murray, W. G.—Iowa Agr. Ex. Sta. Research Bul. No. 156.

TABLE 89. NUMBER OF DEFICIENCY JUDGMENTS AND
FORECLOSURE SALES BY LENDERS—16 COUNTIES

Year	Private investors	Insurance companies	Deposit banks	Mortgage companies	Federal land bank	Joint stock land banks	Miscellaneous	Total
1915.....	3	..	4	1	..	..	..	8
1916.....	5	..	..	..	..	..	..	5
1917.....	1	..	1	1	..	..	..	3
1918.....	3	1	1	..	..	..	..	5
1919.....	..	..	..	..	..	..	..	..
1920.....	3	..	..	1	..	..	..	4
1921.....	27	..	6	1	..	..	..	34
1922.....	76	1	11	8	..	..	..	96
1923.....	83	2	21	6	..	..	3	115
1924.....	92	6	30	13	..	2	2	145
1925.....	98	14	25	19	2	6	1	165
1926.....	91	12	37	7	2	5	1	155
1927.....	81	19	30	6	1	8	1	146
1928.....	64	13	38	8	5	11	..	139
1929.....	45	22	23	8	3	13	2	116
1930.....	58	30	29	7	1	9	8	142
1931.....	108	139	58	14	13	54	5	391
1932.....	183	365	75	12	62	84	6	787
1933*.....	68	178	35	8	34	63	1	387
Total.....	1,089	802	424	120	123	255	30	2,843

* To Dec. 1, 1933.

Source: Iowa Agr. Exp. Sta. Bul. No. 315. W. G. Murray.

TABLE 91. PERCENTAGE DISTRIBUTION OF MORTGAGES
GIVEN BY SPECIFIED TERM.*

Years	0 to 4 Yrs. 11 mos.	5 Years	5 Yrs. 1 mo. and over	Installment	Total
1854-60.....	73	22	2	3	100
1861-70.....	51	22	1	26	100
1871-80.....	37	33	6	24	100
1881-90.....	29	46	10	15	100
1891-00.....	27	52	10	11	100
1901-10.....	20	64	11	5	100
1911-20.....	20	56	16	8	100
1921-30.....	30	50	8	12	100
Total.....	29	48	10	13	100

* Based on a study of Story County.

Source: Murray, W. G., Iowa Agr. Exp. Sta. Res. Bul. No. 156.

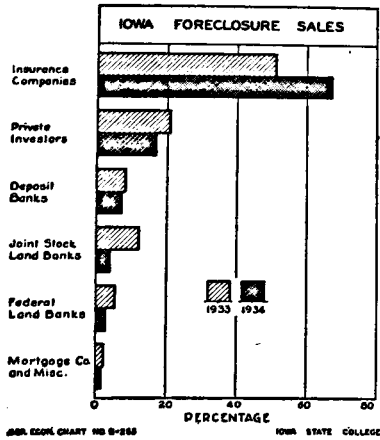


Fig. 126. Insurance companies foreclosed even a higher percentage of the total land foreclosed in 1934 than in 1933. In 1933 they foreclosed 51.3 percent, and in 1934 they foreclosed 67.3 percent.
Data in table 85.

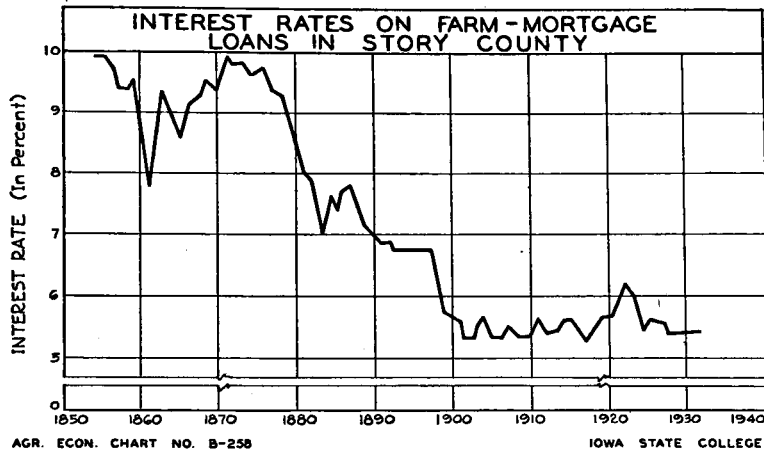


Fig. 127. The above chart shows that interest rates have been moving down since 1855 and now average between 5 and 5½ percent.

CHAPTER V. IOWA FARM TAXES

IOWA in 1934, with a total taxable farm acreage of 34,298,559, had \$30,425,323 of taxes levied to be collected in 1935 or a tax of 89 cents per acre.

From 1919 to 1932 farm taxes per \$100 of real estate value gradually increased until they were approximately three times higher than in 1919. The combined effects of land values gradually decreasing and taxes increasing brought about this change.

As is shown in fig. 129, prices increased more rapidly than taxes until 1919. Using 1913 as 100, taxes rose to 225 in 1922 and remained near that figure until 1931, when they declined to 202. In 1932 they declined to 183. In other words, taxes were 83 percent higher in 1932 than they were in 1913. Taxes have declined further since 1932. While taxes in 1932 were considerably higher than they were before the war, farm prices were only 55 percent of the pre-war level. The tax-paying power of Iowa farm products in 1932 was 30 percent of what it was in 1910-14. Since 1932 the situation has been helped by the increase in prices and the decrease in taxes.

The principal reason for the increase in taxes is that from year to year new functions, new services have been assigned to the various government agencies. People have been buying more government services, such as better schools, the safeguarding of the public health, and the care of unfortunates.

There has been a tendency in recent years to lighten farm property taxes in relation to total taxes. Over a long period, property taxes have not actually declined, but the proportion they make of total taxes has declined because of the increase in other taxes. Property taxes have declined considerably since 1930. In 1912 only 3 percent of state and local taxes were produced by sources other than the property tax. In 1935, about 35 percent came from other sources. Under the present law general state administrative expenses will be mostly financed by

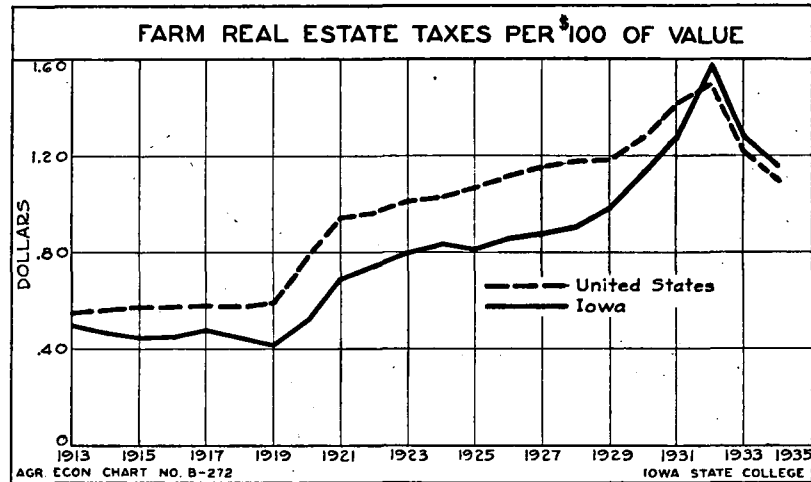


Fig. 128. Farm real estate taxes per \$100 of value increased rapidly from 1919 to 1932. Since then there has been a sharp decline. Iowa taxes averaged less than those for the rest of the country until 1932, but have been slightly more since then.

TABLE 92. TAX PAYING POWER OF IOWA FARM PRODUCTS.

Year	Index of Iowa taxes 1913=100	Index of hog prices 1910-14=100	Ratio of taxes to hog prices	Index of cattle prices 1910-14=100	Ratio of taxes to cattle prices	Index of corn prices 1910-14=100	Ratio of taxes to corn prices
1913	100	105	95	110	91	98	102
1914	100	105	95	115	87	115	87
1915	108	89	121	109	99	121	89
1916	115	117	98	121	95	134	86
1917	132	196	67	153	86	250	53
1918	136	224	61	184	74	252	54
1919	169	229	74	194	87	267	63
1920	197	177	111	160	123	219	90
1921	215	104	207	101	213	76	283
1922	225	116	194	108	208	91	247
1923	224	95	236	115	195	129	174
1924	220	100	220	116	190	159	138
1925	206	151	136	133	155	170	121
1926	204	159	128	125	163	115	177
1927	203	131	155	140	145	140	145
1928	206	117	176	171	120	153	135
1929	218	129	169	169	129	148	147
1930	222	120	185	144	154	132	168
1931	202	77	262	102	198	81	249
1932	183	44	416	77	238	44	416
1933	162	46	352	68	238	51	318
1934	152	57	267	78	195	108	141

Source: Agr. Ec. Sec. Iowa State College, Revised September 15, 1935.

the sales tax and other revenue, and will not be dependent upon the property tax.

The sales tax that went into effect in 1934 was intended to lighten the property tax. It assesses the tax on the retailer who passes it on to the consumer in the form of a levy of 2 percent of the price of the article. This tax makes it possible to collect

from many professional men and wage earners who otherwise would not have to pay direct taxes. The sales tax lightens the tax on property for the administrative functions of the government and puts a larger proportion directly upon the people who benefit from them.

Public schools are entirely dependent upon the property tax for their

TABLE 93. FARM REAL ESTATE TAXES PER \$100 OF VALUE.

Year	Iowa	United States
1913.....	\$.50	\$.55
1914.....	.46	.56
1915.....	.44	.57
1916.....	.45	.57
1917.....	.48	.58
1918.....	.44	.57
1919.....	.41	.59
1920.....	.52	.79
1921.....	.69	.94
1922.....	.75	.96
1923.....	.80	1.01
1924.....	.83	1.03
1925.....	.81	1.07
1926.....	.86	1.12
1927.....	.88	1.15
1928.....	.90	1.18
1929.....	.98	1.19
1930.....	1.14	1.28
1931.....	1.28	1.42
1932.....	1.59	1.50
1933.....	1.28	1.21
1934.....	1.16	1.11

Source: U. S. D. A. Bureau of Agr. Economics.

support. Differences in school facilities may often be explained by the differences in school taxes between districts.

The gasoline tax has taken from property a large percentage of its burden of supporting the upkeep and construction of highways. In 1912 about 93 percent of the highway funds came from property. While in 1934 only 27 percent came from the latter. A 3-cent tax on gasoline has been an important means of improving Iowa's highways.

Expenditures¹

Of the total tax income of the state (see table 96) the largest proportion is spent by the state government, nearly \$41,000,000 in 1934. The schools come next with about \$36,000,000. This does not include the institutions under the control of the State Board of Education. Counties spent nearly \$32,000,000 and towns and cities spent about \$12,000,000.

The charts in fig. 133 show the income and expenditures of the state government, the county governments and the public schools in 1931-32.

About half the state's expenditures are for roads. The institutions under state control take about one-quarter and the remaining quar-

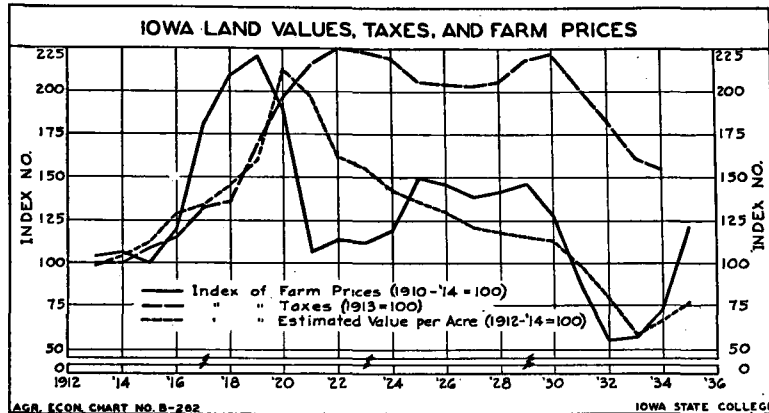


Fig. 129. The above chart shows the course of farm prices, taxes and land values in Iowa since 1913. It will be noted that taxes are far above their pre-war relationship with land values and farm prices. Data in table 94.

ter is divided among minor items, of which an important one is local receipts of the state schools spent by the board of education. All but one-eighth of the total money received by the state government goes for primary roads and state institutions.

The county governments also use about one-half of their funds for roads, about 28 percent for maintenance and about 21 percent for construction. Care of the poor and care of insane in state hospitals cost the average county about 15 percent of

total receipts, about the same as the cost of maintaining the county offices.

The school system of Iowa uses about 62 percent of its receipts for teachers' salaries. Interest and principal payments on the school bonds cost about as much as the fuel, rent and janitor charges.

These expenditure charts, it should be remembered, are made on the basis of 1931-32 figures and are not comparable with the tax figures in this section.

TABLE 94. IOWA TAX BURDEN PER ACRE.

Year	Tax per acre ¹	Land values ²	Percent tax is of land value	Index of farm prices ³	Index of taxes ¹	Index of estimated value per acre ³
1913.....	\$.56	\$ 118	.47	104	100	99
1914.....	.56	124	.45	107	100	104
1915.....	.60	134	.45	100	108	112
1916.....	.64	153	.42	120	115	128
1917.....	.74	160	.46	182	132	134
1918.....	.76	174	.44	209	136	145
1919.....	.94	192	.49	220	169	160
1920.....	1.10	255	.43	188	197	213
1921.....	1.20	235	.51	107	215	197
1922.....	1.26	194	.65	114	225	162
1923.....	1.25	186	.67	113	224	156
1924.....	1.23	171	.72	119	220	143
1925.....	1.15	162	.71	150	206	136
1926.....	1.14	155	.74	146	204	130
1927.....	1.14	145	.79	139	203	121
1928.....	1.32*	140	.94	141	206	117
1929.....	1.40	139	1.00	146	218	116
1930.....	1.40	135	1.00	127	222	113
1931.....	1.22	117	1.00	86	202	98
1932.....	1.12	90	1.20	55	183	80
1933.....	.98	65	1.50	57	162	58
1934.....	.89	80	1.12	74	152	67

Source: 1. U. S. D. A. Bureau of Agr. Economics.
 2. U. S. D. A. Circular 809. 1912-14 = 100.
 3. Agr. Econ. Sec., Iowa State College. 1910-14 = 100.
 * From 1928 on, the tax per acre was furnished by the State Board of Assessment and Review, Des Moines, Iowa.

¹ Hopkins, John A. The agricultural emergency in Iowa. VI. The Iowa tax situation—an analysis for farmers. Iowa Agr. Exp. Sta., Cir. 144. 1938.

Fig. 130. The bars in the chart show the level of total state and local taxes in Iowa for the years named. The line running through the bars shows the percentage of total taxes coming from the general property tax. In 1912 nearly all our taxes came from property. In 1935 nearly 40 percent of the tax bill was paid through other-than-property taxes.

Data in table 98.

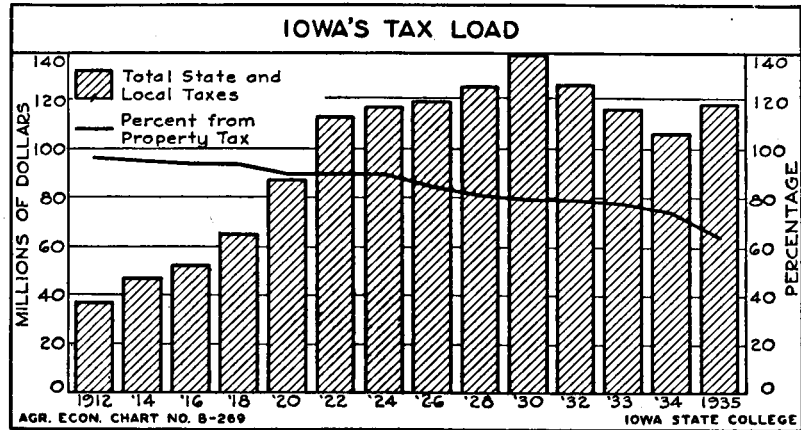


Fig. 131. The bars in this chart show the total taxes levied in Iowa for general state purposes, and the line running through the bars shows the percentage coming from property taxes. General state expenses were about three-fourths paid by property taxes in 1912. But in 1935 these expenses were met mostly by special taxes, income taxes, the sales tax and others, leaving less than 20 percent to be borne by property.

Data in table 99.

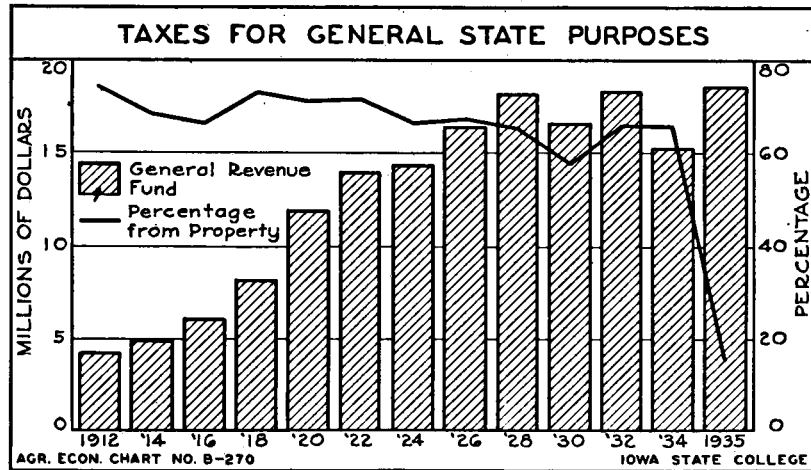
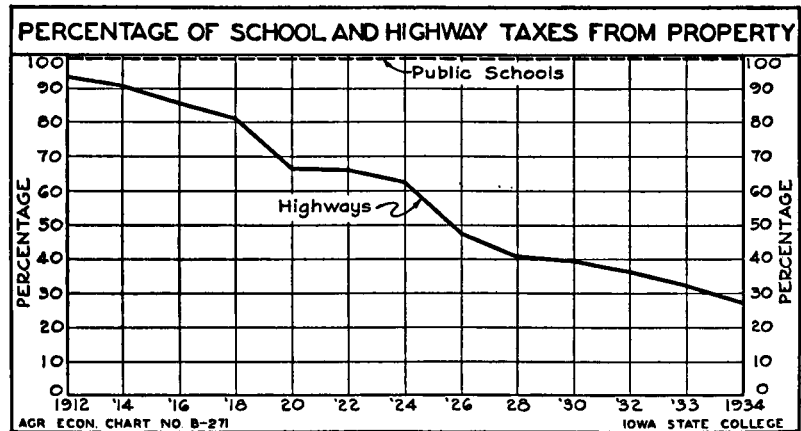


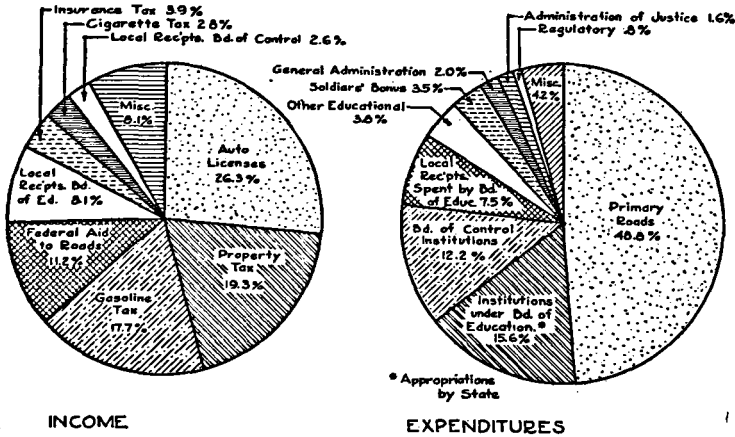
Fig. 132. Almost all school expenses in Iowa are paid from the general property tax. The burden of highway construction and maintenance, however, has been shifted to other taxes and now only slightly more than one-fourth is paid from property taxes.

Data in table 101.

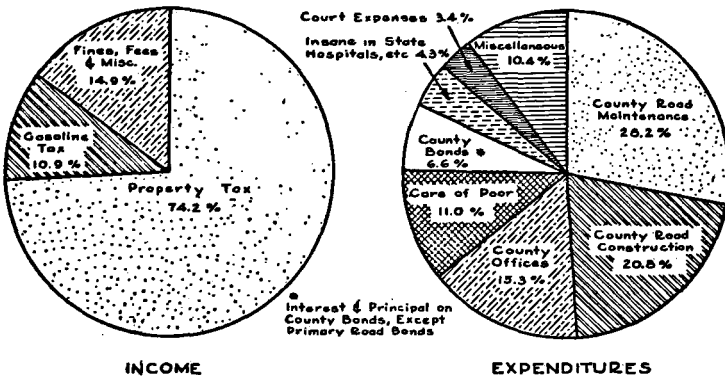


INCOME AND EXPENDITURES OF IOWA ADMINISTRATIVE UNITS *

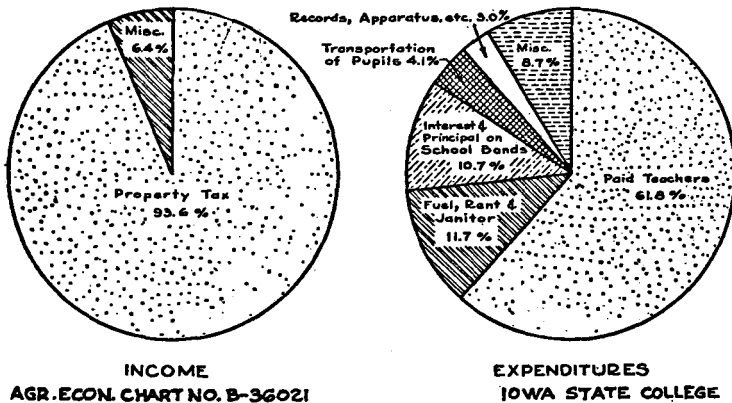
State Government



County Governments



Schools



Delinquent Taxes¹

Tax delinquencies have been the barometer of the farmer's ability to carry the tax load. Iowa has over 220,000 farms, comprising an area slightly in excess of 34 million acres. During the year 1932, the peak year of current tax delinquencies, more than 102,000 pieces of property failed to meet their tax payments on time. These delinquent properties represented over 12 million acres, or approximately 35 percent of the farm land in the state. This unprecedented delinquency was partly remedied as to number of properties in 1933. The percentage of total land area on which taxes were unpaid changed little, however. For 1929-1933, farm land involved in tax delinquency increased three-fold, from 4 million to 12 million acres.

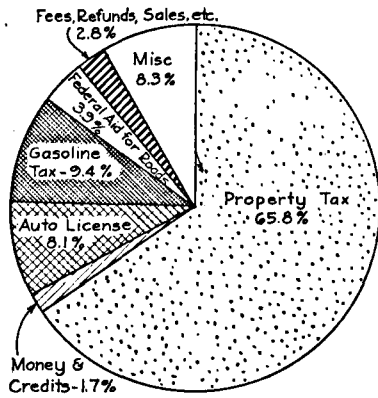
While the 250 percent increase in current delinquency from 1929 to 1932 showed the pressure of economic depression, the more significant and alarming fact was the accumulation and carrying forward of unpaid taxes of not only the current year but also of previous years. Total taxes unpaid at the close of the collection year increased from .2 percent in 1929, to 14 percent of the total levy in 1933, or a 69 fold increase for the 5 years.

The southern pasture area showed the largest percentage of farm tax delinquency during the earlier years, 1929-31, indicating the farm distress that existed in that area of the state prior to the general decline in prices. The effects of high mortgage indebtedness, relative to the productive value of the land, incurred during and following the World War was a contributing factor to the distress that already was apparent in southern Iowa prior to 1930.

¹ Bentley, R. C., and Himmel, John P. Tax delinquent farm land in Iowa. Iowa Agr. Exp. Sta., Bul. No. 325. 1935.

Fig. 133. The pieces in the "pie" charts shown at the left represent the proportions of state, county and school income coming from different sources and the proportions of total revenue going for specific purposes for the 1931-32 fiscal year.

SOURCES OF INCOME
ALL IOWA
ADMINISTRATIVE UNITS



AGR ECON CHART NO. B-38022 IOWA STATE COLLEGE

Fig. 134. This diagram shows the proportion of total state, county and city governmental income which comes from different tax sources.

The two livestock feeding areas of the state had the lowest percentage of delinquency and with the exception of 1933 remained in relatively the best condition. The dairy and cash grain areas held a position between the southern pasture and livestock areas until 1932 when some interesting changes took place. The cash grain area in 1932 and 1933 showed the highest delinquency in the state, even more than the southern pasture area. Up until 1933, the dairy area had more delinquency than either of the two livestock feeding areas.

The accumulative effect of unpaid taxes reached its peak in 1932. The most striking pyramiding of outstanding delinquent or of unpaid taxes was recorded in the cash grain area. The improvement of feed grain prices in 1933, however, was reflected in the relatively smaller increase in outstanding delinquency in the cash grain area that year as compared with the other states. The livestock feeding areas and the dairy area incurred the greatest increases in 1933 over 1932.

The relatively heavy tax delinquency in the southern pasture area, even prior to the drastic price decline of the thirties, makes it probable that, even before the emergency situation, this area was suffering from economic maladjustments mak-

TABLE 95. FARM TAXES IN IOWA.

Counties	1934	1934	1934	1935	1935
	Acres of land assessed	Net adjusted taxable value farm land	Average millage levied in rural districts*	Total tax	Tax per acre
Adair.....	356,005	\$ 15,418,821	17.00	\$ 262,119.96	.74
Adams.....	265,098	11,749,918	17.88	210,088.53	.79
Allamakee.....	396,764	11,875,484	18.72	222,309.06	.56
Appanoose.....	314,773	9,344,920	19.21	179,515.91	.57
Audubon.....	275,781	15,153,822	18.05	273,526.49	.99
Benton.....	440,939	25,237,366	17.37	438,373.05	.99
Black Hawk.....	340,143	18,553,915	17.82	330,630.77	.97
Boone.....	347,874	20,530,863	21.74	446,340.96	1.28
Bremer.....	265,613	13,940,626	14.77	205,903.05	.78
Buchanan.....	348,191	15,210,635	17.47	265,729.79	.76
Buena Vista.....	352,851	20,952,233	17.94	375,883.06	1.07
Butler.....	353,046	17,210,179	14.95	257,292.18	.73
Calhoun.....	349,537	20,621,411	16.22	334,479.29	.96
Carroll.....	351,684	20,678,603	12.84	265,513.26	.75
Cass.....	350,209	18,735,451	17.11	320,563.57	.92
Cedar.....	356,008	19,375,609	19.81	383,830.81	1.08
Cerro Gordo.....	345,720	16,868,972	18.37	309,883.02	.90
Cherokee.....	355,685	20,248,440	18.75	379,658.25	1.07
Chickasaw.....	309,082	12,450,730	14.53	180,909.11	.59
Clarke.....	266,960	9,692,768	16.23	157,313.62	.59
Clay.....	350,335	17,199,278	19.21	330,398.13	.94
Clayton.....	463,890	19,105,240	18.41	351,727.47	.76
Clinton.....	421,807	20,753,518	20.21	419,428.59	.99
Crawford.....	442,110	24,769,392	15.27	378,228.62	.86
Dallas.....	364,076	21,067,967	18.99	400,080.69	1.10
Davis.....	318,544	9,152,104	17.28	158,148.36	.50
Decatur.....	330,578	8,931,749	23.99	214,272.66	.65
Delaware.....	352,703	17,563,982	17.34	304,559.45	.86
Des Moines.....	252,132	11,405,609	22.35	254,915.36	1.01
Dickinson.....	231,783	9,821,485	22.29	218,920.90	.94
Dubuque.....	367,383	17,081,735	18.31	312,766.57	.85
Emmet.....	241,916	10,979,280	20.43	224,306.69	.93
Fayette.....	444,084	19,303,382	18.54	357,884.70	.81
Floyd.....	304,921	13,345,566	19.50	260,238.54	.85
Franklin.....	358,690	19,130,343	19.90	380,693.83	1.06
Fremont.....	311,288	14,875,378	24.72	367,719.27	1.18
Greene.....	355,086	19,763,393	18.55	366,610.94	1.03
Grundy.....	311,811	17,493,642	17.82	311,736.70	1.00
Guthrie.....	371,143	17,417,026	19.79	344,682.94	.93
Hamilton.....	354,486	19,598,515	17.73	347,481.67	.98
Hancock.....	350,329	15,936,131	17.63	280,953.99	.80
Hardin.....	348,406	19,313,825	17.11	330,459.55	.95
Harrison.....	430,370	19,765,839	19.68	388,991.71	.90
Henry.....	264,012	12,787,889	21.25	271,742.64	1.03
Howard.....	291,724	10,532,371	18.08	190,425.27	.65
Humboldt.....	267,690	13,828,322	15.91	220,008.60	.82
Ida.....	267,687	15,762,585	16.02	252,516.61	.94
Iowa.....	359,512	18,057,699	16.81	303,549.97	.84
Jackson.....	394,440	14,082,586	18.05	254,190.68	.64
Jasper.....	450,515	23,459,765	18.08	424,152.55	.94
Jefferson.....	267,819	10,884,672	19.62	213,557.26	.80
Johnson.....	382,309	19,467,381	17.56	341,847.21	.89
Jones.....	354,195	17,486,103	17.85	312,126.94	.88
Keokuk.....	355,836	16,911,197	18.31	309,644.02	.87
Kossuth.....	601,948	27,892,707	16.16	450,746.15	.75
Lee.....	310,829	13,509,319	17.26	233,170.85	.75
Linn.....	440,339	22,283,378	20.86	464,831.27	1.06
Louisa.....	244,482	10,864,271	23.65	256,940.01	1.05
Lucas.....	274,101	9,614,913	18.01	173,164.58	.63
Lyon.....	361,493	18,126,258	14.74	267,181.04	.74
Madison.....	350,324	15,683,678	17.63	276,503.24	.79
Mahaska.....	353,097	17,459,796	17.55	306,419.41	.87
Marion.....	347,890	17,009,019	18.17	309,053.88	.89
Marshall.....	351,392	20,589,979	21.05	433,419.06	1.23
Mills.....	260,776	12,633,496	19.69	248,753.54	.95
Mitchell.....	288,432	13,349,699	19.04	254,178.27	.88
Monona.....	422,491	17,795,524	20.53	365,342.11	.86
Monroe.....	267,903	8,695,521	18.50	160,867.14	.60
Montgomery.....	260,898	13,395,180	18.49	247,676.88	.95
Muscatine.....	263,516	12,611,590	18.44	232,557.72	.88
O'Brien.....	351,737	20,958,400	16.34	342,460.26	.97
Osceola.....	245,593	12,280,374	16.44	201,889.35	.82
Page.....	18,034,925	18,034,925	19.46	350,959.64	1.07
Palo Alto.....	350,024	16,956,054	19.68	333,695.14	.95
Plymouth.....	531,307	29,116,551	14.78	430,342.62	.81
Pocahontas.....	355,487	18,471,056	19.49	360,000.88	1.01
Polk.....	321,421	18,830,142	27.32	514,439.48	1.60
Pottawattamie.....	571,468	32,304,297	20.05	647,701.15	1.13
Poweshiek.....	366,101	18,253,897	17.93	327,292.37	.89
Ringgold.....	336,856	11,725,735	17.35	203,441.50	.60
Sac.....	355,220	21,569,911	14.41	310,822.42	.88
Scott.....	271,015	16,642,942	17.84	296,910.09	1.10
Shelby.....	364,898	19,748,288	15.97	315,380.16	.86
Sioux.....	469,039	27,838,075	13.44	374,143.73	.80
Story.....	346,873	20,274,693	19.82	401,844.42	1.16

BASEBOOK OF IOWA

TABLE 95. FARM TAXES IN IOWA—Continued.

Counties	1934	1934	1934	1935	1935
	Acres of land assessed	Net adjusted taxable value farm land	Average millage levied in rural districts*	Total tax	Tax per acre
Tama	445,676	24,130,402	17.93	432,658.11	.97
Taylor	326,731	13,426,681	15.38	206,502.35	.63
Union	263,108	9,475,453	21.46	203,343.22	.77
Van Buren	301,923	8,435,907	19.00	160,282.23	.53
Wapello	261,546	11,215,073	22.92	257,049.47	.98
Warren	349,171	16,640,538	19.50	324,490.49	.93
Washington	349,392	18,239,741	15.87	289,464.69	.83
Wayne	323,606	9,975,127	19.87	198,205.77	.61
Webster	438,375	23,949,224	20.98	502,454.72	1.15
Winnebago	246,972	10,360,519	20.30	210,318.54	.85
Winnesiek	425,028	18,634,271	14.94	278,396.01	.66
Woodbury	524,572	26,077,736	20.90	545,024.68	1.04
Worth	247,680	10,316,711	18.11	186,835.64	.75
Wright	355,019	18,122,210	16.64	301,553.57	.85
Total	34,298,559	\$1,664,404,973	18.28	\$30,425,322.91	.89

* Levied in 1934 to be collected in 1935.
Source: State Board of Assessment and Review.

TABLE 96. DISTRIBUTION OF TAXES IN IOWA.*

Source of income	Total	To state	To counties	To schools	To municipalities
Property tax levied	79,124,474	7,666,515	25,137,544	34,748,425	11,571,990
Money and credits levied	2,039,040	481,086	413,824	745,166	398,964
Auto licenses	9,799,161	8,816,443	982,718		
Gasoline tax	11,325,858	6,981,858	4,344,000		
Federal aid for roads	4,723,434	4,723,434			
Insurance tax	1,292,271	1,292,271			
Inheritance tax	851,168	851,168			
Equipment tax	27,512	27,512			
Cigarette stamp tax	1,194,494	1,194,494			
Fees, refunds, sales, etc.	3,336,390	3,336,390			
Funds from other road accounts	1,549,043	1,549,043			
Trust fund receipts aside from road funds	988,781	988,781			
Special funds for specific purposes	3,064,033	2,918,902		145,131	
Poll tax	307,889		307,889		
Delinquent road tax	253,561		253,561		
Motor vehicle carrier tax	312,226		312,226		
Truck operator	52,904		52,904		
Miscellaneous	8,870	8,870			
Fees, refunds, sales, etc., handled by county or local officials	(not available)		(not available)		
Total	120,251,109	40,836,767	31,804,666	35,638,722	11,970,954

* Tax levy made in 1933 to be collected in 1934.
Source: Board of Assessment and Review.

TABLE 97. COLLECTION OF TAXES IN IOWA.*

By state officials, July 1, 1933, to June 30, 1934	By county officials, January 1, 1933, to January 1, 1934
Inheritance tax	Rural districts property tax
Insurance tax	City and towns property tax
Equipment car tax	Moneys and credits including mill levy
Cigarette stamp tax	soldier bonus bonds
Motor vehicle fuel license tax	Trust fund motor vehicle fees
Fees, refunds, sales, etc.	Poll tax
Funds from other road accounts	Delinquent road tax
Trust fund receipts aside from road funds	Motor vehicle carrier tax
Federal aid for roads	Truck operator
Miscellaneous	Fees, refunds, sales, etc., handled by county and local officials
Total	Total

* Tax levy made in 1933 to be collected in 1934.
Source: Board of Assessment and Review.

ing it relatively difficult for farmers in southern Iowa to pay taxes. It is apparent that the cash grain area, because of the relatively greater decline of corn and oat prices, experienced the greatest price and income dislocation attributed to the agricultural emergency. That the cash grain area suffered the severest shock from the price decline which started in 1930 is evident from the fact that this area, which had the lowest delinquency in 1929 and 1930, recorded the highest percentage of outstanding delinquent taxes in 1932 and 1933. In contrast, the dairy area withstood the agricultural emergency better than any other area, measured in terms of unpaid farm real estate taxes. Farm prices of butter declined relatively less than other farm commodity prices affecting Iowa farm income.

There was considerable variation in the concentration of delinquency between counties and townships. One township, in 1933, showed as high as 81 percent of its land area delinquent, while others reported as low as 1 percent. Figure 135 helps to visualize the extent and distribution of delinquency and its increase for the 5-year period.

AGRICULTURAL ECONOMIC FACTS

TABLE 98. ALL STATE AND LOCAL TAXES.

Date	Property	Special	Total	Property percentage of total
1912.....	\$ 36,197,221.58	\$ 1,094,169.00	\$ 37,291,390.58	97.1
1914.....	45,415,792.83	1,732,486.20	47,148,279.03	96.3
1916.....	50,050,164.53	2,552,549.52	52,602,714.05	95.1
1918.....	61,760,475.49	3,612,342.82	65,372,818.31	94.5
1920.....	79,872,708.75	9,018,660.29	88,891,369.04	89.9
1922.....	104,225,257.31	10,302,164.22	114,527,421.53	91.0
1924.....	106,861,583.67	11,888,163.45	118,749,747.12	90.0
1926.....	101,709,575.19	18,634,450.01	120,344,025.20	84.5
1928.....	102,136,679.49	23,760,164.96	125,896,844.45	81.1
1930.....	110,754,929.08	29,063,263.07	139,818,192.15	79.2
1932.....	100,247,342.91	26,642,480.48	126,889,823.39	79.0
1933.....	91,243,765.00	25,251,009.49	116,494,774.49	78.3
1934.....	81,162,514.00*	25,833,368.88	106,996,102.88	75.9
1935.....	76,889,902.42**	42,364,514.83	119,254,417.25	64.5

* Reduced \$9,243,584.84, or the second half of the state tax levy, resulting from the allocation of funds from three-point tax receipts.
 ** Reduced \$4,000,997.99, resulting from the allocation of net income and retail sales tax money as provided by law.
 Source: Dr. J. E. Brindley, Research Department, State Board of Assessment and Review.

TABLE 99. GENERAL STATE REVENUE RECEIPTS.

Date	Property tax	Special taxes	Other revenue	Total	Property tax percentage of total
1912.....	\$ 3,054,273.96	\$ 608,869.00	\$ 466,447.86	\$ 4,129,590.82	74.0
1914.....	3,358,287.04	759,746.70	775,848.16	4,893,881.90	68.6
1916.....	4,038,659.61	872,625.14	1,189,713.53	6,100,998.28	66.2
1918.....	6,065,554.15	1,064,747.02	1,182,934.46	8,313,235.63	73.0
1920.....	8,446,755.68	1,511,458.21	1,950,778.14	11,908,992.03	70.9
1922.....	9,853,496.95	2,378,776.16	1,524,020.29	13,756,293.40	71.6
1924.....	9,515,764.82	2,908,700.25	1,895,165.55	14,319,630.62	66.5
1926.....	11,012,772.22	3,345,032.45	2,050,045.46	16,407,850.13	67.1
1928.....	11,660,935.80	3,862,238.78	2,418,061.53	17,941,236.11	65.0
1930.....	9,557,071.70	4,357,453.84	2,644,161.87	16,558,687.41	57.7
1932.....	12,013,201.76	3,946,052.63	2,268,673.64	18,227,928.03	65.9
1934.....	9,973,166.60	3,365,444.68	1,863,223.06	15,201,834.34	65.6
1935.....	2,836,840.39*	13,706,387.78	1,974,659.75	18,517,887.92	15.3

* No property tax was levied for the state general revenue fund for this fiscal year, but delinquent taxes of \$1,250,000 and a series of small levies by the counties amounting to \$1,586,840.39, are made a part of the general revenue fund largely for bookkeeping purposes. Otherwise no property tax would appear in this table for the fiscal year closing June 30, 1935.
 Source: Dr. J. E. Brindley, Research Department, State Board of Assessment and Review.

TAX DELINQUENT FARM REAL ESTATE

Fig. 135. This map shows the percentage of delinquent farm real estate taxes in the farming areas of Iowa in the years 1929 to 1933. The totals depicted here are the taxes that were not paid during the collection periods of the 4 years. The increasing length of the bars in the last two years indicates the greater inability of the farmer to meet his levy.

Data in table 105.

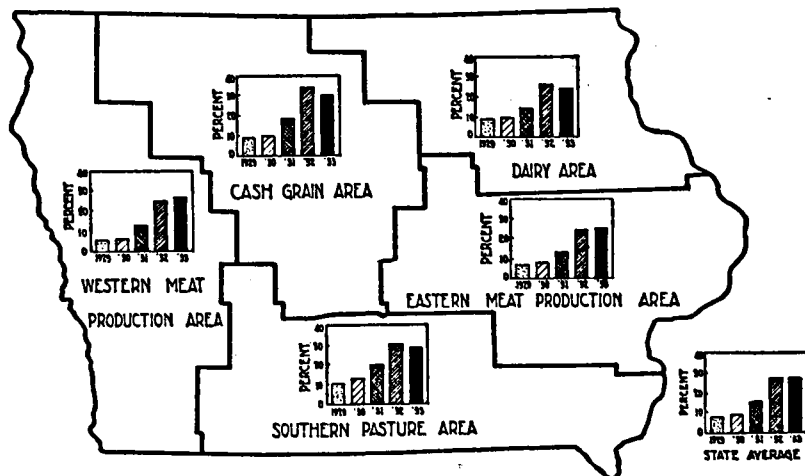


TABLE 100. SCHOOL TAXES.

Date	District	County	State aid	Federal aid	Total
1912	\$12,314,778.78	\$ 766,497.62	\$ 25,000	.....	\$13,106,276.40
1914	15,032,875.00	943,369.76	130,000	.....	16,106,244.76
1916	17,730,062.80	974,250.00	225,000	.....	18,929,312.80
1918	21,913,603.76	993,715.04	225,000	\$ 4,328.57	23,136,647.37
1920	31,317,275.86	1,104,174.12	400,174	37,145.09	32,858,769.07
1922	47,865,860.25	1,134,417.12	455,329	68,981.72	49,524,588.09
1924	45,833,194.38	1,120,145.07	457,168	70,529.22	47,481,036.67
1926	44,685,418.08	1,053,988.57	456,420	113,301.23	46,309,127.88
1928	45,678,774.30	1,019,464.98	469,385	128,808.72	47,296,433.00
1930	47,738,163.08	1,008,412.37	488,585	148,974.57	49,384,135.02
1932	45,571,234.26	922,634.61	490,440	166,895.00	47,151,203.87
1934	35,493,591.12	516,722.20	405,085	112,837.28	36,528,235.60

Source: Dr. J. E. Brindley, Research Department, State Board of Assessment and Review.

TABLE 101. HIGHWAY TAXES.

Date	Property	Motor vehicle	Gasoline	Total	Property percentage of total
1912	\$ 6,528,243.72	\$ 485,300.00	.....	\$ 7,013,543.72	93.1
1914	9,352,639.73	972,739.50	.....	10,325,379.23	90.6
1916	9,914,066.20	1,679,924.38	.....	11,593,990.58	85.5
1918	10,733,307.96	2,547,595.80	.....	13,280,903.76	80.8
1920	14,873,480.28	7,507,202.08	.....	22,380,682.36	66.5
1922	15,409,348.01	7,923,388.06	.....	23,332,736.07	66.0
1924	14,836,747.01	8,979,463.20	.....	23,816,210.21	62.3
1926	13,524,440.00	10,208,674.84	\$ 5,033,892.97	28,767,007.81	47.0
1928	13,611,653.04	10,692,766.65	9,138,707.68	33,443,127.37	40.7
1930	16,056,773.67	12,693,620.76	11,724,784.38	40,475,178.81	39.7
1932	12,616,378.09	11,589,067.34	10,795,088.42	35,000,533.85	36.0
1933	9,918,078.98	10,648,169.07	10,609,231.87	31,175,479.92	31.8
1934	7,722,498.23	9,997,307.80	11,331,038.00	29,050,844.03	26.6

Source: Dr. J. E. Brindley, Research Department, State Board of Assessment and Review.

TABLE 102. RECEIPTS OF SALES AND INCOME TAXES.

(After deduction for administrative expenses are made.)

Year	Sales tax	Income tax	Both taxes
Year ending June 30, 1935	\$11,331,811	\$2,109,951	\$13,441,761
June 30 to August 31, 1935	3,288,910	60,791	3,349,704
Estimated total to December 31, 1935			\$20,300,000

Source: Board of Assessment and Review.

TABLE 103. DISTRIBUTION OF THE SALES AND INCOME TAXES.

Year ending June 30, 1935	
Allocation to counties	6,988,202
Emergency relief	3,000,000
General State Fund	3,000,000
Administrative fund	403,072
Sales tax cash refunds	46,695
Income tax cash refunds	3,791
Total	13,441,761

Source: Board of Assessment and Review.

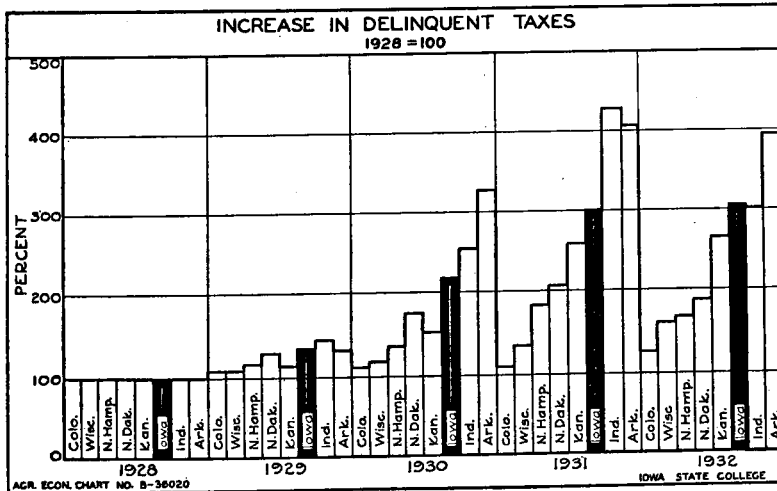


Fig. 136. In this chart, the amounts of delinquent taxes in several representative states in 1928 are taken as 100, and variations from 1928 are shown in percentages of that level. Iowa is represented by the black bar. Data in table 104.

TABLE 104. INCREASE IN DELINQUENT RURAL REAL ESTATE TAXES. (1928 = 100.)

	1928	1929	1930	1931	1932
Arkansas	100	132.1	327.2	406.6	393.8
Colorado	100	108.6	111.8	110.1	124.6
Indiana	100	147.1	253.5	426.5	302.9
Kansas	100	114.5	154.6	259.5	264.8
New Hampshire	100	116.5	136.1	187.1	168.6
North Dakota	100	129.4	178.5	208.3	190.0
Wisconsin	100	108.5	118.1	139.4	161.0
Iowa	100	135.2	219.5	300.7	306.7

Source: U. S. D. A. Bureau of Agri. Economics.

TABLE 105. IOWA FARM REAL ESTATE DELINQUENT TAXES, AS A PERCENTAGE OF TOTAL TAXES LEVIED, 1929-1938. (In percent)

Type of farming areas	1929	1930	1931	1932	1933
Cash grain.....	9	10	18	34	30
Southern pasture..	11	13	20	30	28
Western livestock.	6	7	13	25	27
Eastern livestock.	7	8	13	24	25
Dairy.....	9	10	14	26	24
State average.	8	9	16	28	27

The year indicates the year of collection. The 1929 collections are 1928 levies, etc.
Source: Iowa Agr. Exp. Sta. Bul. No. 325. R. O. Bentley and J. P. Himmel.

TABLE 106. DELINQUENT TAXES BY COUNTIES.*

County	Amount of taxes due	Interest or penalty	Publication costs	Total
Adair.....	\$ 51,760.84	\$ 5,058.34	\$ 515.24	\$ 57,334.42
Allamakee.....	68,711.90	7,035.65	873.18	76,620.73
Audubon.....	23,354.91	3,385.79	278.30	27,019.00
Benton.....	107,328.49	12,639.30	1,025.74	120,993.53
Black Hawk.....	525,092.87	59,289.95	5,282.84	589,665.66
Boone.....	198,594.34	29,195.15	1,408.17	229,197.66
Bremer.....	.....	.....	.....	53,629.99
Buchanan.....	65,030.68	6,023.39	1,063.81	72,117.88
Buena Vista.....	115,491.91	11,573.98	964.80	128,030.69
Butler.....	50,557.97	6,347.03	266.00	57,171.00
Calhoun.....	99,037.96	12,638.25	1,275.94	112,952.15
Carroll.....	40,917.47	5,585.02	663.60	47,166.09
Cass.....	69,195.63	6,948.56	425.30	76,569.49
Cedar.....	57,983.16	8,714.18	536.80	67,234.14
Cerro Gordo.....	363,966.50	44,354.61	4,478.90	412,800.01
Cherokee.....	80,539.49	8,988.16	667.06	90,204.71
Chickasaw.....	38,140.14	3,712.08	611.33	42,463.55
Clarke.....	53,197.03	5,839.07	692.25	59,728.35
Clay.....	131,484.78	14,523.90	825.69	146,834.37
Clayton.....	86,127.28	10,752.92	1,134.02	98,014.22
Clinton.....	302,440.17	41,705.80	Includes costs also	344,145.97
Crawford.....	.....	.....	.....	142,690.81
Dallas.....	98,810.24	17,252.74	986.50	124,099.80
Davis.....	21,528.41	2,520.15	205.60	24,254.16
Decatur.....	74,888.87	7,652.53	1,107.59	83,648.99
Delaware.....	53,786.35	5,118.43	379.30	59,284.08
Des Moines.....	116,012.75	16,146.53	Includes costs also	132,159.28
Dickinson.....	119,816.06	18,913.27	3,048.09	141,777.42
Dubuque.....	456,649.92	91,914.84	4,612.62	592,177.38
Emmet.....	64,228.76	8,459.66	297.80	72,986.22
Fayette.....	111,898.73	16,848.11	1,158.00	129,904.84
Floyd.....	94,925.15	9,453.20	1,177.13	105,555.48
Franklin.....	81,956.48	9,167.77	379.40	91,503.65
Fremont.....	87,242.39	13,014.40	589.10	100,845.89
Greene.....	50,487.07	2,961.54	377.70	53,826.31
Grundy.....	68,502.68	14,861.40	1,081.59	84,445.67
Guthrie.....	90,789.94	10,184.95	650.70	101,625.59
Hamilton.....	95,124.31	11,409.45	648.60	107,182.36
Hancock.....	107,512.05	18,182.79	829.10	126,523.94
Hardin.....	120,682.35	14,531.36	839.85	136,053.56
Harrison.....	205,944.53	27,473.03	1,188.00	234,605.56
Henry.....	67,303.53	10,295.55	306.07	77,905.15
Howard.....	51,335.74	5,273.58	520.40	57,129.72
Humboldt.....	113,479.78	14,988.43	330.60	128,798.81
Ida.....	61,577.02	5,792.80	243.70	67,613.52
Iowa.....	107,434.68	6,005.99	553.80	113,994.47
Jackson.....	69,680.67	10,656.77	706.78	81,044.22
Jasper.....	144,049.87	18,617.13	1,189.99	163,856.99
Jefferson.....	89,750.43	12,085.57	833.43	102,669.43
Jones.....	.....	.....	.....	57,701.35
Keokuk.....	99,324.37	13,833.58	1,092.20	114,250.15
Kossuth.....	46,749.68	4,647.62	636.60	52,033.90
Lee.....	42,809.63	7,916.09	413.94	51,139.66
Linn.....	.....	.....	.....	554,773.10
Louisa.....	108,962.11	20,189.98	Includes costs also	129,152.09
Lucas.....	34,071.47	5,154.68	538.70	39,764.85
Lyon.....	68,089.84	9,639.85	555.80	78,285.49
Madison.....	76,040.11	11,905.63	425.86	113,511.86
Mahaska.....	81,869.80	11,162.23	458.30	93,490.33
Marion.....	148,219.80	18,691.01	986.51	179,629.40

BASEBOOK OF IOWA

TABLE 107. NUMBER OF PROPERTIES AND ACRES OF FARM REAL ESTATE THAT BECAME DELINQUENT IN IOWA, 1929-1933.

Year of collection	Number of farm properties on which taxes became delinquent	Percentage of all farm properties on which taxes were delinquent	Number of acres of land on which taxes became delinquent	Percentage of all land on which taxes were delinquent
1929	36,761	17.47	4,117,798	12
1930	40,750	19.54	4,597,181	13
1931	53,503	29.68	7,458,221	27
1932	102,643	48.36	12,175,703	36
1933	89,410	42.13	12,075,831	35

Source: Iowa Agr. Exp. Sta. Bul. No. 325. R. O. Bentley and J. P. Himmel.

County	Total	Includes costs also	Total
Marshall	234,441.61	39,685.06	274,126.67
Mills	54,033.43	12,643.52	67,002.65
Mitchell	72,135.79	8,560.56	81,178.65
Monona	127,124.33	13,183.38	142,400.23
Monroe	106,096.15	15,793.60	122,986.75
Montgomery	84,053.80	10,370.91	95,063.80
Muscatine	32,747.46	3,868.16	36,907.42
O'Brien	47,136.25	4,259.01	47,225.93
Oscola	99,025.30	12,869.67	112,428.67
Page	173,375.66	23,533.57	197,776.93
Palo Alto	136,372.58	14,336.00	151,536.82
Plymouth	2,300,076.29	429,481.91	2,795,723.27
Pocahontas	453,844.53	26,620.13	484,079.69
Polk	159,992.25	21,227.11	182,998.56
Pottawattamie	69,760.11	9,999.48	80,404.29
Poweshiek	58,259.22	6,405.68	65,649.20
Ringgold	358,828.88	52,185.06	440,168.14
Sac	31,432.25	4,274.67	36,287.42
Scott	53,027.34	4,337.85	57,799.29
Shelby	272,536.58	33,957.47	306,494.05
Sioux	78,419.72	8,980.42	88,171.88
Story	133,715.94	18,006.83	152,895.17
Tama	50,882.57	7,897.44	59,499.49
Union	186,761.18	30,696.57	219,983.59
Van Buren	52,449.02	6,162.50	58,953.42
Wapello	84,769.71	16,475.89	102,304.49
Warren	498,378.72	113,661.73	612,040.45
Wayne	72,769.87	8,151.71	128,107.62
Webster	79,469.00	10,352.62	90,227.54
Winneshiek	122,012.01	14,673.33	136,685.34
Woodbury	405.80	405.80	405.80
Worth	136,685.34	136,685.34	136,685.34
Wright	12,182.078.88	12,182.078.88	12,182.078.88
Totals	\$12,369,416.78	\$15,514,489.71	\$15,514,489.71

* Feb. 3, 1935.
Source: Des Moines Register and Tribune. Data unavailable for Adams, Appanoose, Johnson, Taylor and Washington counties.

CHAPTER VI. TYPES OF FARMING IN IOWA

IOWA, located in the heart of the Corn Belt, has a high degree of uniformity in physical conditions. Thus, compared with other states, Iowa has relatively few types of farming; and the different types are similar.

The typical farm in some sections of the state devotes its resources primarily to cash crops, in other sections to dairy products and in still others to meat animals, such as hogs and beef cattle. In some areas the chief basis of feed in animal production consists of pasture land, in others mostly crop land, and so forth.

Iowa has been divided into seven types of farming by F. F. Elliott in his study, "Types of Farming in the United States." Gross income is the primary basis for classification of farms by type and for defining type of farming areas.¹ This division of Iowa into type areas gives the reader a clear picture of the agriculture of the state.

The total net area in farm land varies from 2 3/5 million acres in the South Central Pasture Area to 6 1/5 million acres in the Northeastern Dairy Area and the Western Meat Production Area. The two cash grain areas combined equal 9 1/10 million acres and the two pasture areas combined equal 6 9/10 million acres.

The Soils of Iowa

The various type of farming areas in Iowa are characterized by certain definite physical factors. Figure 137 gives the five large soil

¹The exact percentage of income which each source should represent of the total income before the farm was classified under a special type was difficult to ascertain. After experimenting with various percentages it was finally decided to classify a farm under a particular type if it received 40 percent or more of its income from a particular source. The use of a percentage greater than 40 would have resulted in segregating a few highly intensive farms into particular groups receiving a very high proportion of their income from one particular source. The classification, however, would not have been very satisfactory, since the major portion of the farms under such a procedure would have been thrown into a "general farm group." The use of a percentage less than 40 would have failed to differentiate clearly any one particular group of farms and would have thrown all farms into a very few large groups, thereby defeating the purpose of the classification.—Condensed from "Types of Farming in the U. S.," United States Department of Commerce, Bureau of the Census, Washington, Page 6.

areas in Iowa, which are the Wisconsin Drift, the Iowan Drift, the Missouri Loess, the Mississippi Loess and the Southern Iowa Loess. These five soil areas are the result of the action of geological forces which brought about their formation.

The map shows that the Iowan Drift compares roughly with the Northeastern Dairy Area. The dairy area, however, is somewhat larger, extending slightly into the northwestern part of the Wisconsin Drift and parts of the Mississippi Loess in the northeast. The Wisconsin Drift covers an area nearly coincident to the two cash grain areas, the Missouri Loess covers an area approximate to the Western Meat Production Area, the Southern Iowa Loess covers an area similar to the two pasture areas, and the Mississippi Loess covers an area similar to the Eastern Meat Production Area.

Precipitation

Rainfall in Iowa, with the exception of an occasional drouth year, is usually more than sufficient for crop needs. The average annual rainfall ranges from about 36 inches in the extreme southeast to about 26 inches in the extreme northwest.

The average decrease in rainfall from east to west is about 0.92 inches in 50 miles, and from south to north about 1 inch in 50 miles.

Figure 140 shows that in general the Northern Cash Grain Area receives the smallest amount of annual rainfall, while the Eastern Meat Production Area receives the most. The Southern Pasture Area and the Northeastern Dairy Area are probably next in rank. The widest variation within any one section comes in the Western Meat Production Area which has a small section on its northern border receiving 26 inches or less and another small area on its southern border receiving as high as 36 inches.

Growing Season

The average date of the last killing frost in spring is May 3, rang-

ing from about April 20 in the extreme southeast to about May 10 in the more elevated localities on the divide between the Big Sioux and Des Moines rivers. The average date of the first killing frost in autumn is Oct. 5, ranging from Sept. 25 in the extreme northwest to Oct. 15 in the extreme southeast. This makes the average length of the crop growing season 153 days, ranging from about 140 days in the northern part of the Big Sioux-Des Moines divide, to about 170 days along the Mississippi River from Scott to Lee Counties.²

Figure 143 shows that in general the Northern Cash Grain Area and the Northeastern Dairy Area have the shortest growing season while the North Central Cash Grain Area ranks next. The Eastern Meat Production Area and the South Central Pasture Area are next while the Southern Pasture Area experiences the longest growing season. The widest variation in length of growing season occurs in the Western Meat Production Area because it extends practically from the northern to the extreme southern boundaries of the state.

Size of Farms

Although farms vary considerably in size, not only for the state as a whole, but within each type area, the characteristic farm, indicated by the average, varies in size for each area. Figure 144 shows that the Northern Cash Grain Area is typified by large farms, the average being 193 acres. The Western Meat Production Area ranks second in average size of farm with 171 acres. The third ranking section is the North Central Cash Grain Area, its average size of farm being 167 acres; this is 6 acres larger than the average for the state (161 acres). The average sizes of farms in the remaining four sections are all less than the state average, the Northeastern Dairy Area average being

²The Book of Iowa—Article by Charles D. Reed, page 18.

IOWA SOIL AREAS

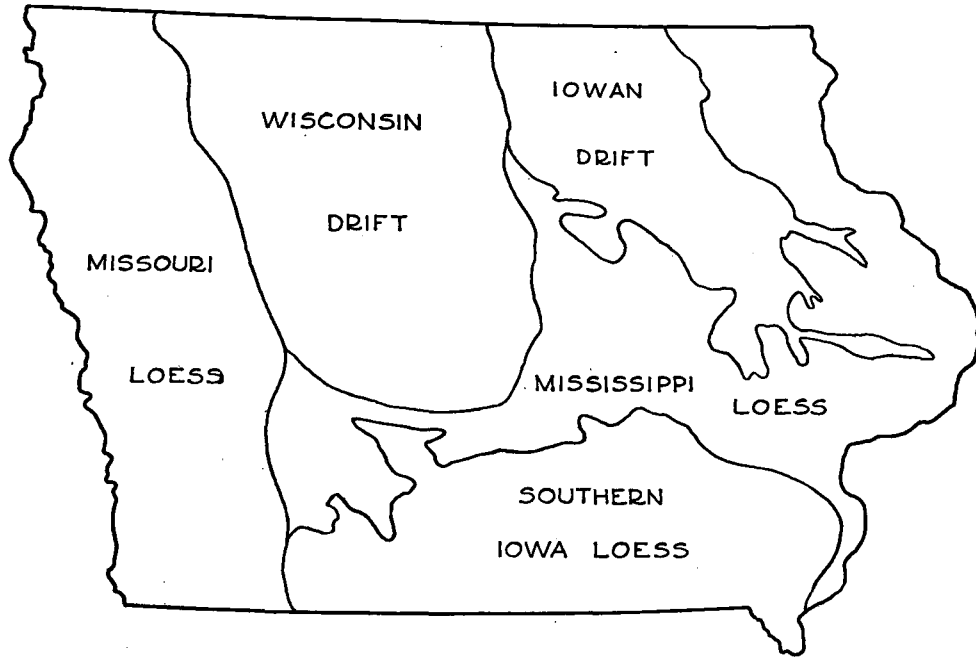


Fig. 137.

MAJOR SOIL TYPES OF IOWA

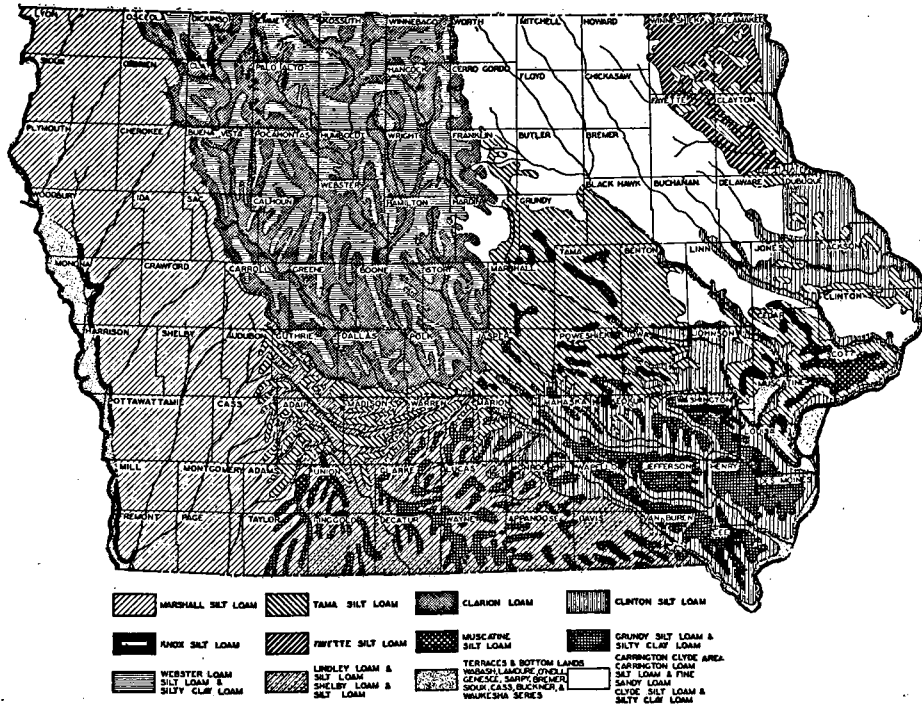
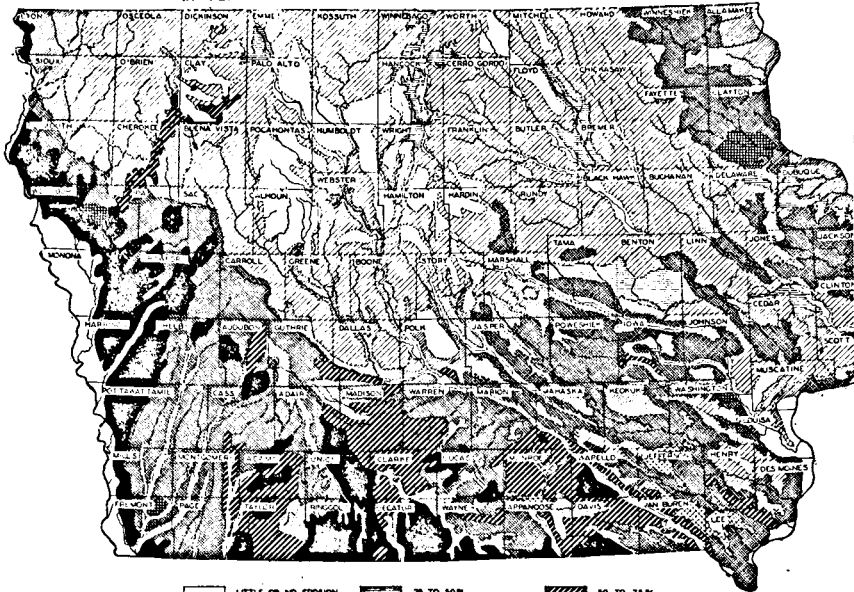


Fig. 138.

EXTENT AND SERIOUSNESS OF SOIL EROSION
IN IOWA

IN PERCENTAGE OF ORIGINAL SURFACE SOIL REMOVED BY EROSION



of Iowa Base Book.

AVERAGE ANNUAL PRECIPITATION IN INCHES
(BASED ON STATION RECORDS OF FORTY OR MORE YEARS)

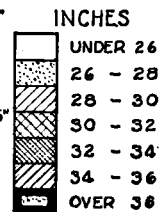
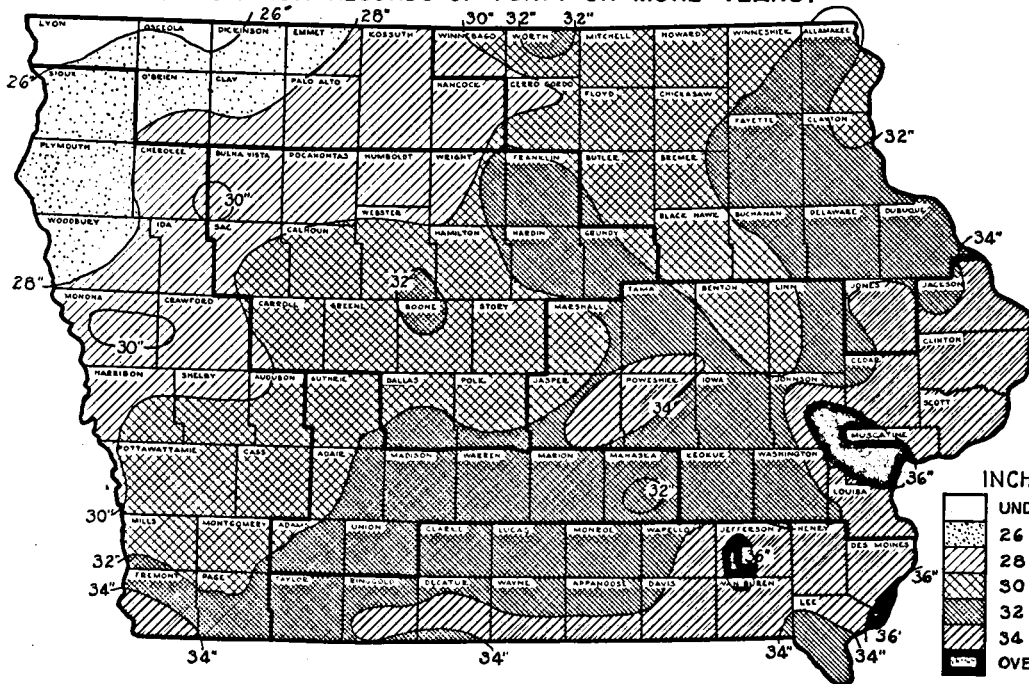


Fig. 140.

JULY NORMAL TEMPERATURE
(BASED ON A RECORD OF 105 STATIONS AND ADJUSTED TO A UNIFORM 46 YR. PERIOD)

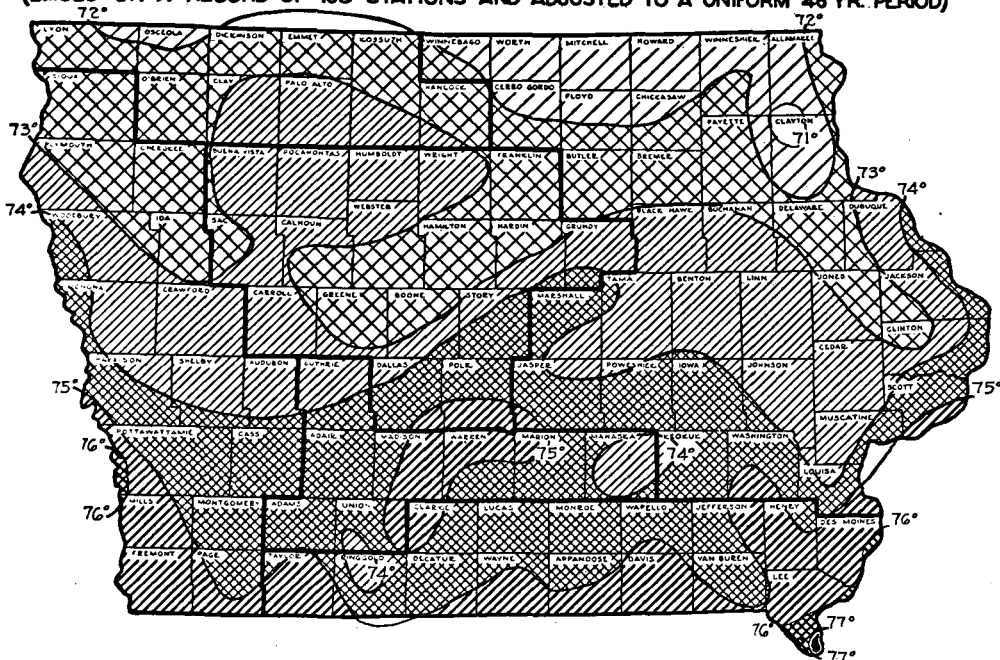


Fig. 141.

JANUARY NORMAL TEMPERATURE
(BASED ON A RECORD OF 105 STATIONS AND ADJUSTED TO A UNIFORM 46 YR. PERIOD)

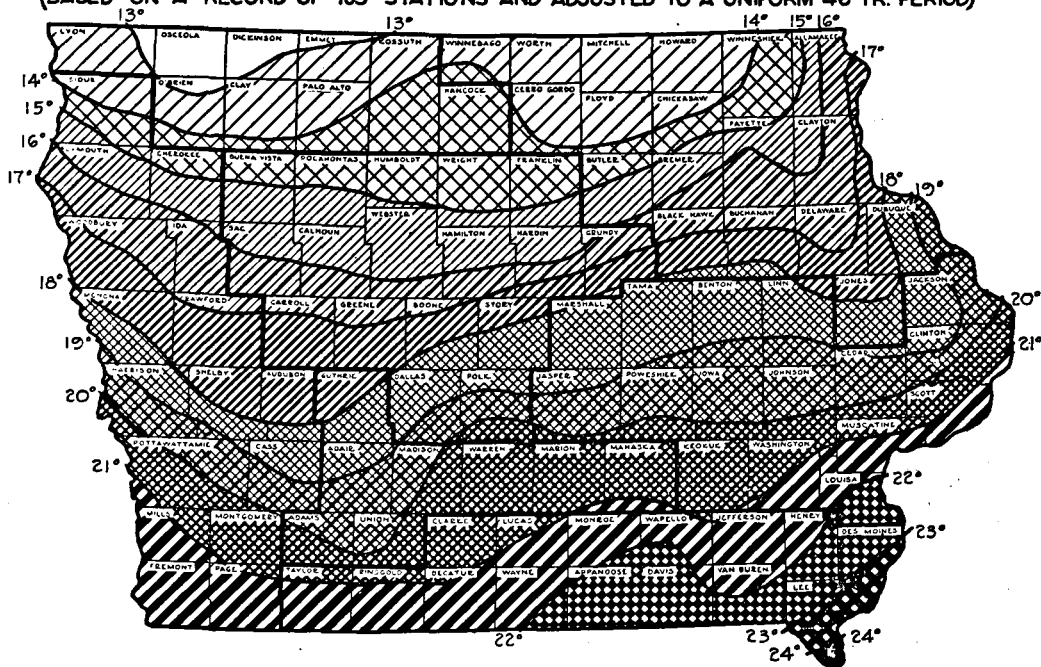


Fig. 142.

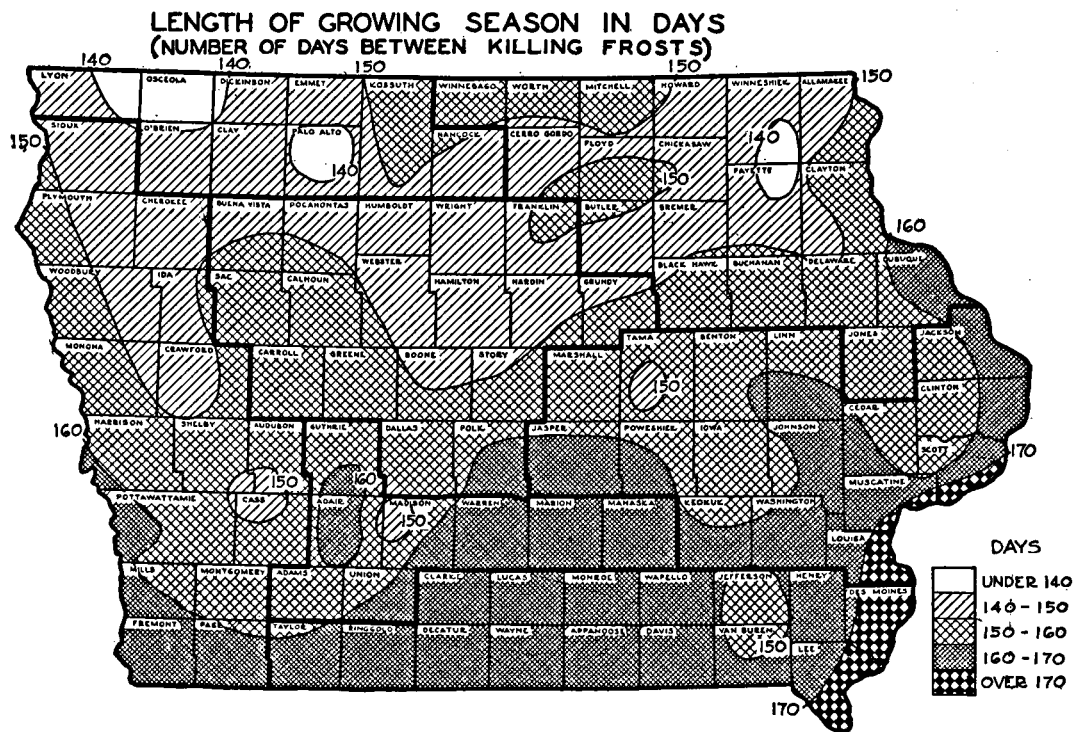


Fig. 143.

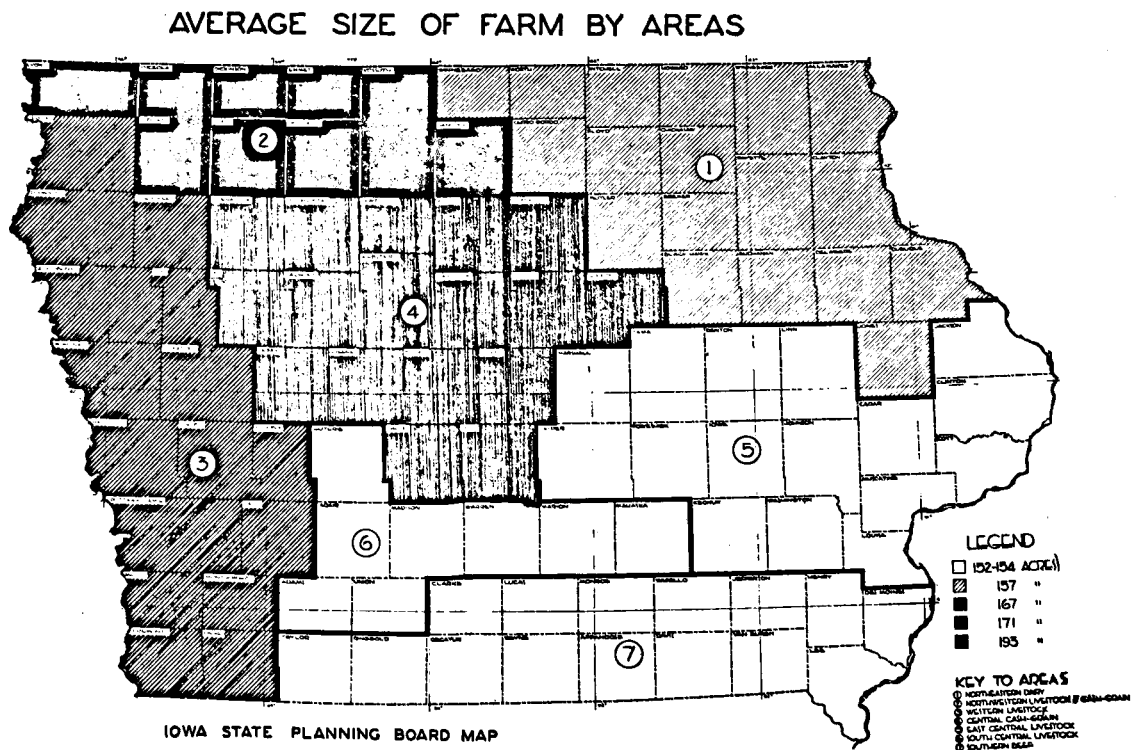


Fig. 144.

157 acres, the Eastern Meat Production Area 154 acres, the South Central Pasture Area 153 acres, and the Southern Pasture Area having the smallest average, 152 acres.

Percentage of Farm Land Which is Effective

The effective acreage shown by fig. 145 is arrived at by taking the total land in farms and deducting waste land, land devoted to timber, roads, buildings, feed lots and so forth. The effective acreage in each of the seven type areas varies but little; the smallest percentage of effective acreage is in the Northeastern Dairy Area, being 92 percent as against the state average of 93.3 percent, a difference of but 1.3 percent. The largest percentage of effective acreage is in the two cash grain areas, being 93.9 percent for each; this is but 0.6 percent above the state

average. The remaining areas fall on or near the state average of 93.3 percent.

Iowa Cropping System

How does Iowa use this vast area of farm land?

For the entire state, 64 percent of the area in farm land is normally devoted to crops.³ This 64 percent includes corn, small grain, legume hay and other hay—in other words, all farm land in the state (exclusive of waste land) not devoted to pasture, timber, buildings and roads. On the average, 6.7 percent of the farm land of the state is waste land or is devoted to roads, timber and buildings. Leaving an average of 93.3 percent of farm land in crops and pasture. Figure 145 shows the proportions of crop land, pasture

land and other land in farms for each of the seven types of farming areas.

The proportion of total land in crops varies among the different farming areas from around 75 percent in the Northern Cash Grain Area to only 49 percent in the Southern Pasture Area.

Slightly more than half, 54 percent, of Iowa's crop land is devoted to corn, the state's most important crop. The proportion of crop land devoted to corn in the different farming areas varies widely. Of the high proportion of land producing crops in the two cash grain areas, slightly more than half is devoted to corn—52 percent in the Northern Cash Grain Area and 56 percent in the North Central Cash Grain Area. The Western Meat Production Area has a smaller proportion of total farm land devoted to crops than the cash grain areas, but the

³The maps in this chapter are based on figures for years prior to the introduction of the Agricultural Adjustment Administration corn-hog and wheat programs.

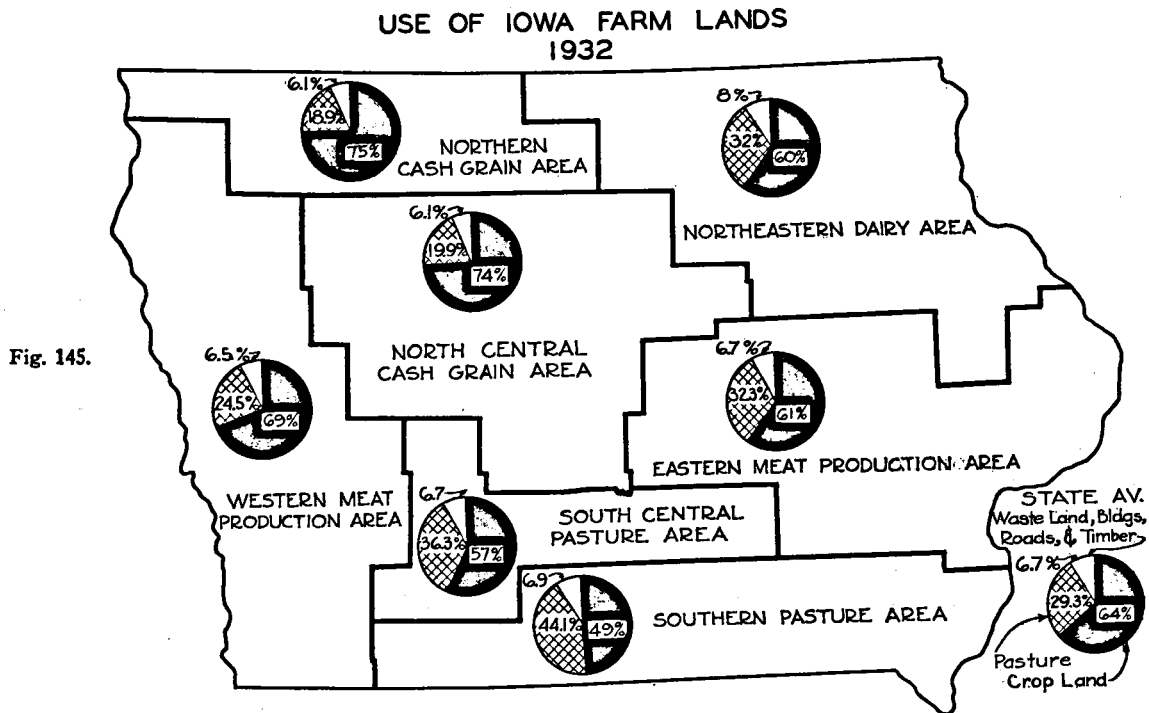


Fig. 145.

proportion of this crop land devoted to corn is higher than for either of the cash grain areas. The Southern Pasture Area not only has the smallest proportion of its farm land in crops but ranks next lowest to the Northeastern Dairy Area in proportion of crop land in corn.

About 32 percent of Iowa's crop land is in small grain. Different farming areas average all the way from 42 percent to 24 percent with the Northern Cash Grain Area ranking highest and the Southern Pasture Area lowest. Comparing figs. 145 and 146, notice the high proportion of the total farm land in the Northern Cash Grain Area and the North Central Cash Grain Area which are devoted to corn and oats. The farming areas are not only highly cultivated but have a very high proportion of their cultivated land in corn and oats.

About 13 percent of the crop land in Iowa is in hay, 4 percent in legume hay and 9 percent in

other kinds of hay.⁴ Variations among the different farming areas are marked. The Southern Pasture Area has 24 percent of its land in hay (19 percent of which is non-legume hay) the highest proportion of any area. The Northeastern Dairy Area has 18 percent of its crop land in hay of which 16 percent is in timothy and other kinds of non-legume hay. As would be expected from the high proportions of crop land in corn and oats, the cash grain areas have very low proportions of their land in hay. The Northern Cash Grain Area has only 6 percent and the North Central Cash Grain Area 7 percent in hay, and this proportion is about evenly divided between legumes and non-legumes.

Feed Units Produced

Previous comparisons have shown the relative importance of crop land and pasture land, corn

⁴Soybeans harvested for hay are included in hay figures.

and other principal crops with acreages of each as the basis of comparison for each of the types of farming areas. It is well understood, however, that an acre of pasture is not equal to the number of feed units produced by an acre of hay. Nor are the same number of feed units produced on an acre of oats as there are on an acre of corn. In order to give a graphic presentation of the relative importance of corn, small grain, hay and pasture, it was deemed advisable to reduce them all to a common basis, that of feed units produced per acre. Figure 151 and table 108 show the feed units produced per acre of total land in farms for the state as a whole and for each type of farming area. As would be expected, the North Central Cash Grain Area produces more total feed units per acre than any other area. The Western Meat Production Area ranks second. These two areas also rank first and second in feed units produced per acre of corn. The Southern

**USE OF IOWA CROP LAND
1932**

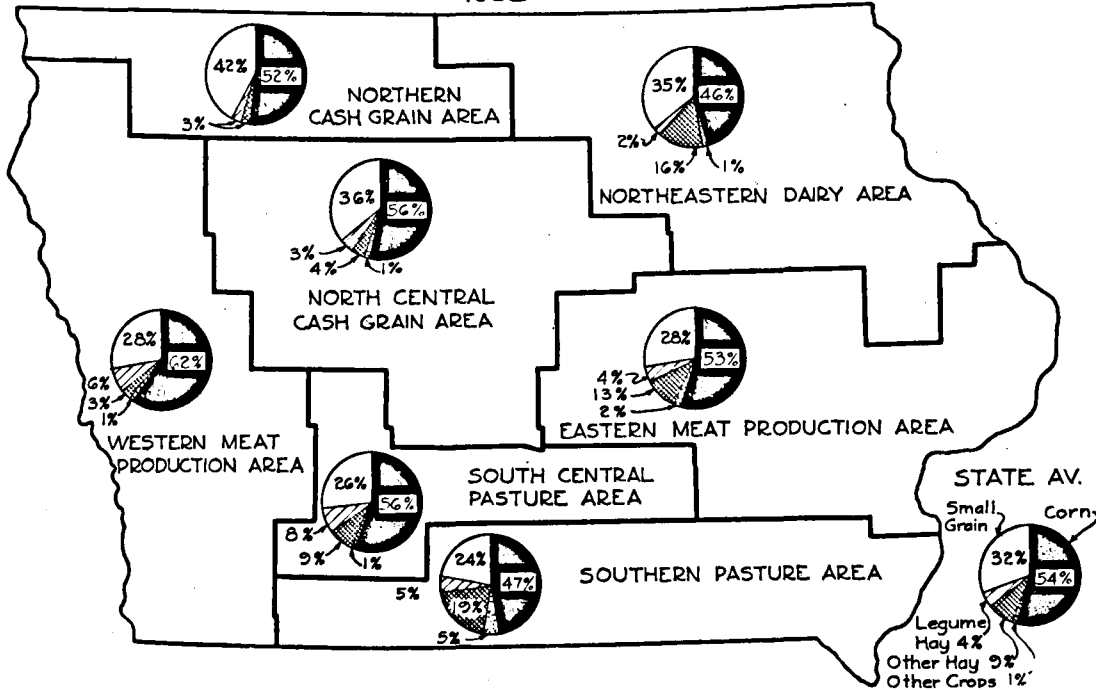


Fig. 146.

ACREAGE IN CORN
PERCENTAGE OF EFFECTIVE ACREAGE 1932

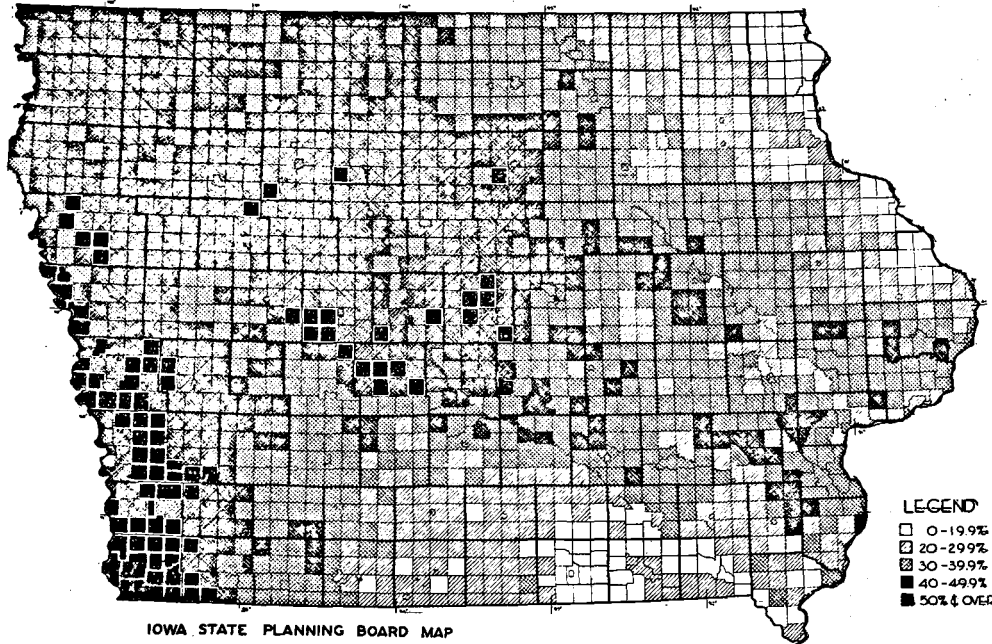


Fig. 147.

IOWA STATE PLANNING BOARD MAP

ACREAGE IN OATS
PERCENTAGE OF EFFECTIVE ACREAGE 1932

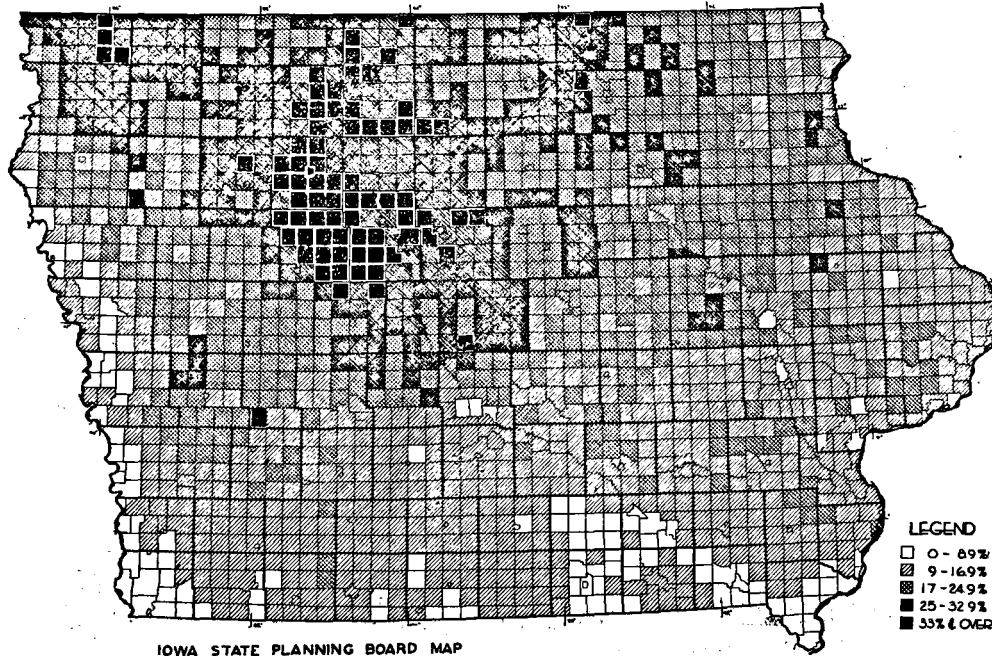


Fig. 148.

IOWA STATE PLANNING BOARD MAP

ACREAGE IN HAY
PERCENTAGE OF EFFECTIVE ACREAGE 1932

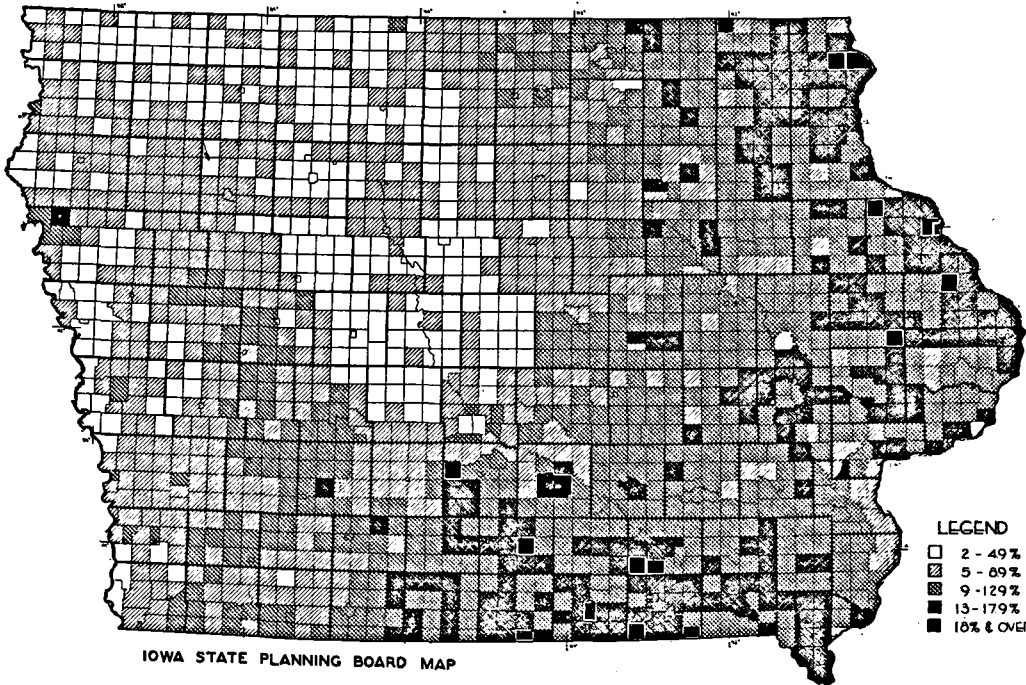


Fig. 149.

ACREAGE IN PASTURE
PERCENTAGE OF EFFECTIVE ACREAGE 1932

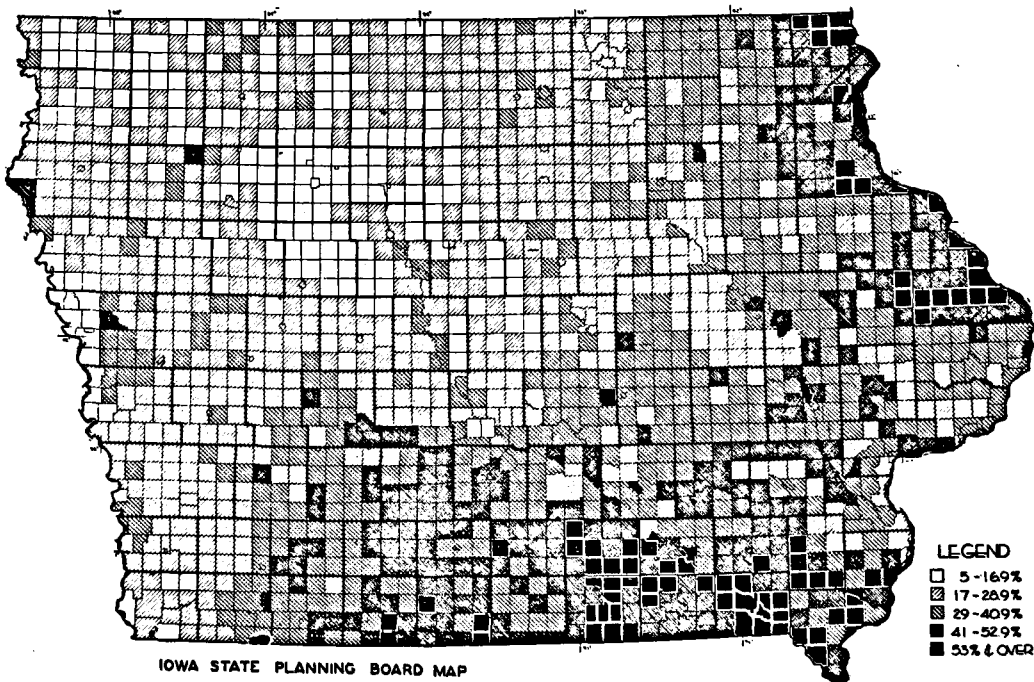


Fig. 150.

**FEED UNITS PRODUCED PER ACRE
AND DISTRIBUTION INTO PRINCIPAL TYPES OF FEED**

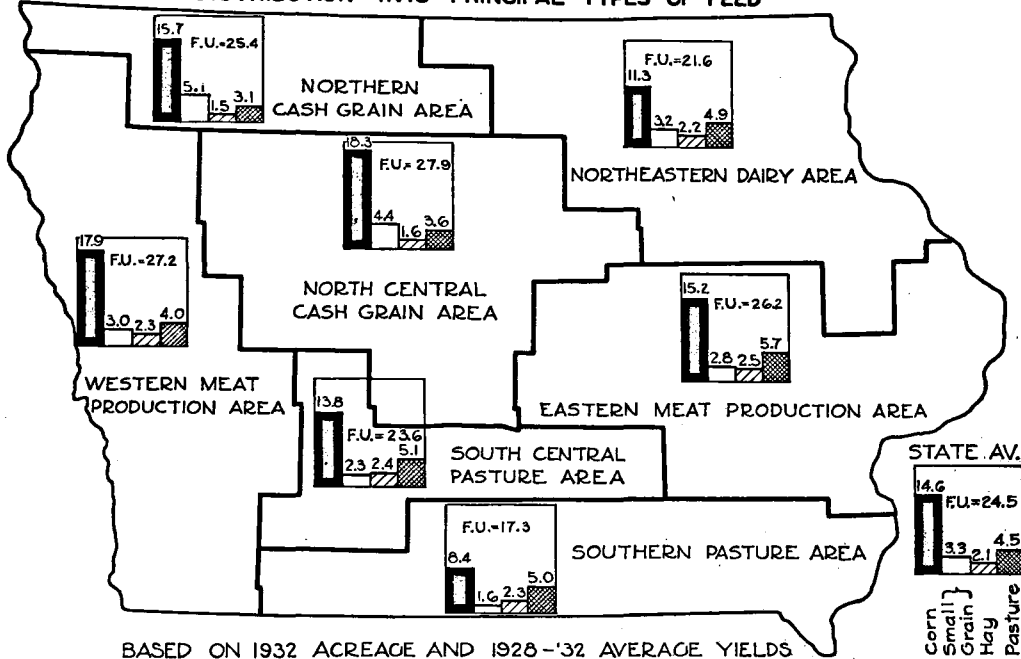


Fig. 151.

**AVAILABLE FEED UNITS PER ACRE
AND DISTRIBUTION INTO PRINCIPAL TYPES OF FEED**

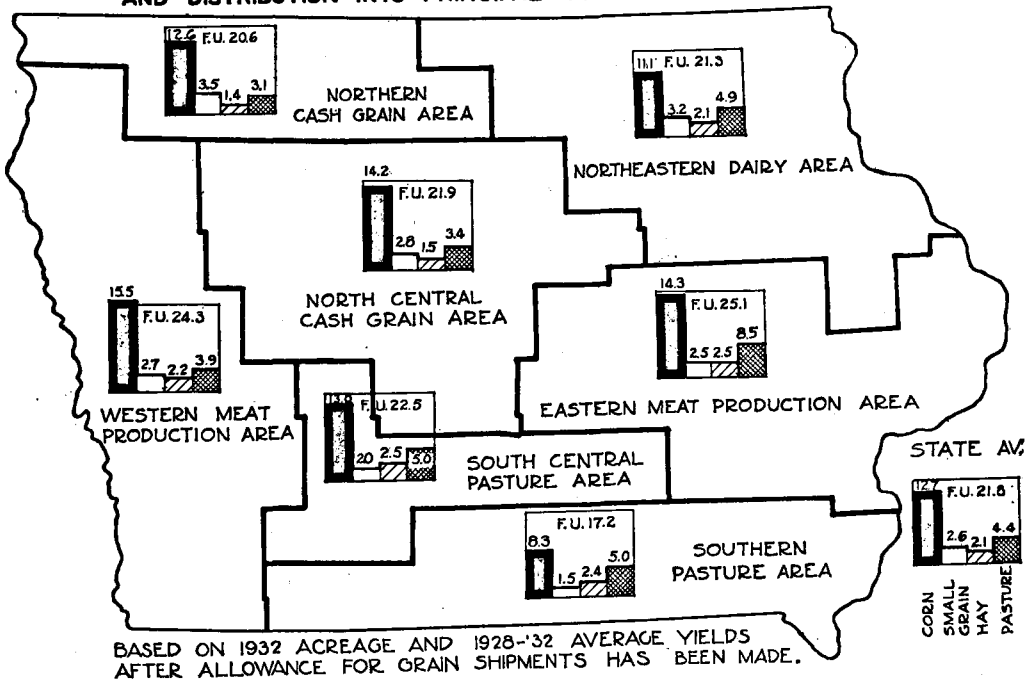


Fig. 152.

Pasture Area produces only 17.3 feed units per acre, but it is one of the high ranking areas in feed units per acre of pasture.

Figure 153 gives a better picture of the proportion of feed units produced in various types of feed than does fig. 151. Feed units derived from corn constitute 60 percent of the total feed units produced in the state. Pasture ranks second, supplying one-fifth of the total feed units.

The North Central Cash Grain Area, the Northern Cash Grain Area and the Western Meat Production Area have a much higher proportion of feed units from corn than the rest of the state. Pasture, on the other hand, produces relatively little feed in those areas.

Figure 159 shows net shipment of corn and oats combined in percentage of total production of feed units of grain for the various types of farming areas. The North Central Cash Grain Area ships out about 30 percent of its total production and the Northern Cash

Grain Area sells around 25 percent of its production. The other areas rank much lower. The Western Meat Production Area ships out considerable grain, particularly the fringe of counties immediately east of the Missouri River.

The charts on available feed units per acre give the amount of feed units available in the areas after all shipments are deducted.

Iowa Livestock System

Figure 162 and table 110 show the number of animal units for the state as a whole and for each type area, and the amounts of each, including hogs, cattle, horses and mules, sheep and poultry, per 100 acres of total land in farms. The Eastern Meat Production Area has more animal units per 100 acres (19.6) than any other section of Iowa. It ranks first in hog animal units per 100 acres with a total of 8.0 and second in cattle animal units with 7.0.

The Western Meat Production Area, the Northeastern Dairy Area and the South Central Pas-

ture Area rank next in total animal units with 18.7, 18.5 and 18.5, respectively. The meat area and the pasture area have 7.6 and 7.0 hog animal units per 100 acres, respectively, while the dairy area has 6.1. The dairy area, however, has more cattle animal units per 100 acres than either of the other two areas, with 8.2 as compared with approximately 6.6 for each of the other two areas.

The two cash grain areas which have around 17.5 animal units per 100 acres are below other sections of the state with the exception of the Southern Pasture Area which has only 14.5 units. The Southern Pasture Area ranks last in the production of all types of animal units per 100 acres with the exception of sheep, in which it is first. It produces 1.3 sheep animal units in comparison with .3 for the majority of the sections and .9 for the next highest area.

To summarize, the two meat areas and the dairy area rank highest in total animal units produced per 100 acres of total land in

PERCENTAGE OF FEED UNITS PRODUCED IN VARIOUS TYPES OF FEED

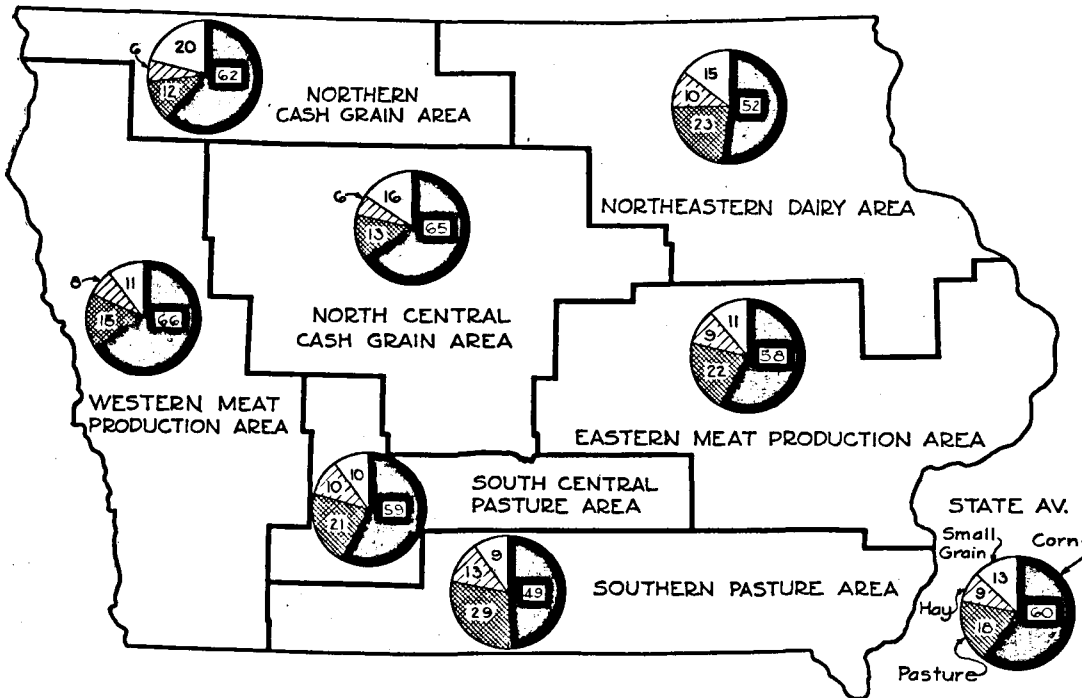


Fig. 153.

PERCENTAGE OF AVAILABLE FEED UNITS IN VARIOUS TYPES OF FEED

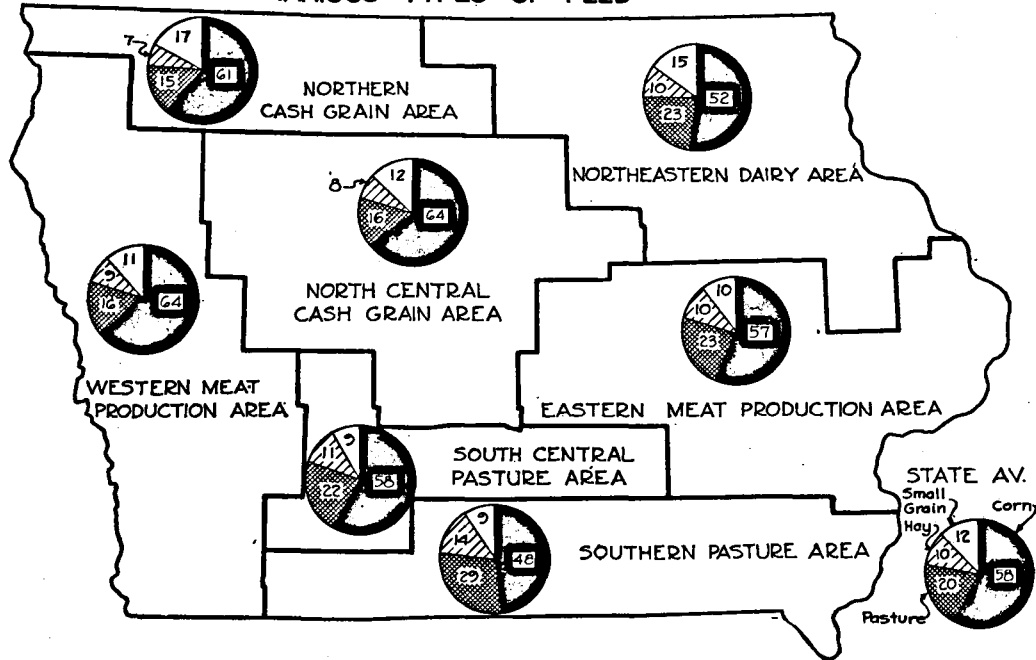


Fig. 154.

YIELD OF CORN (1928-'32 AV.)

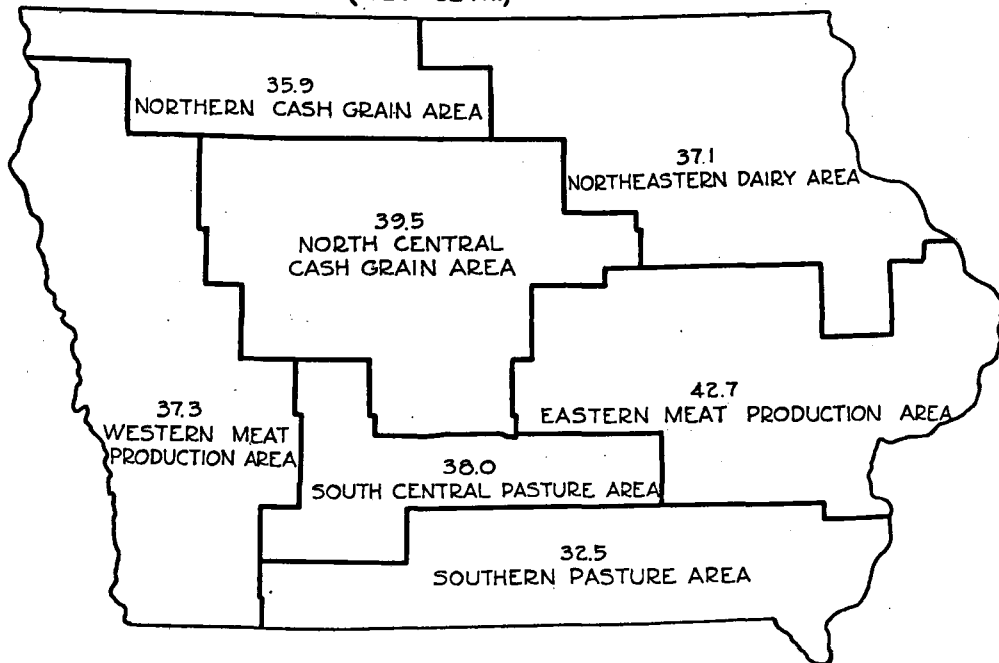


Fig. 155.

YIELD OF OATS
(1928-'32 AV.)

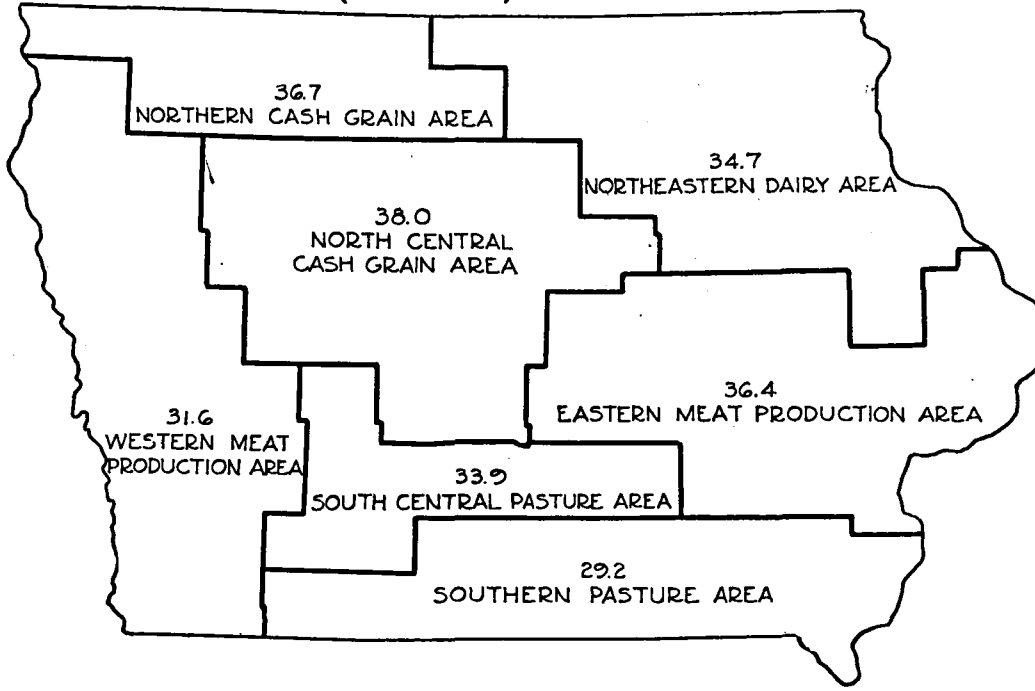


Fig. 156.

YIELD OF BARLEY
(1928-'32 AV.)

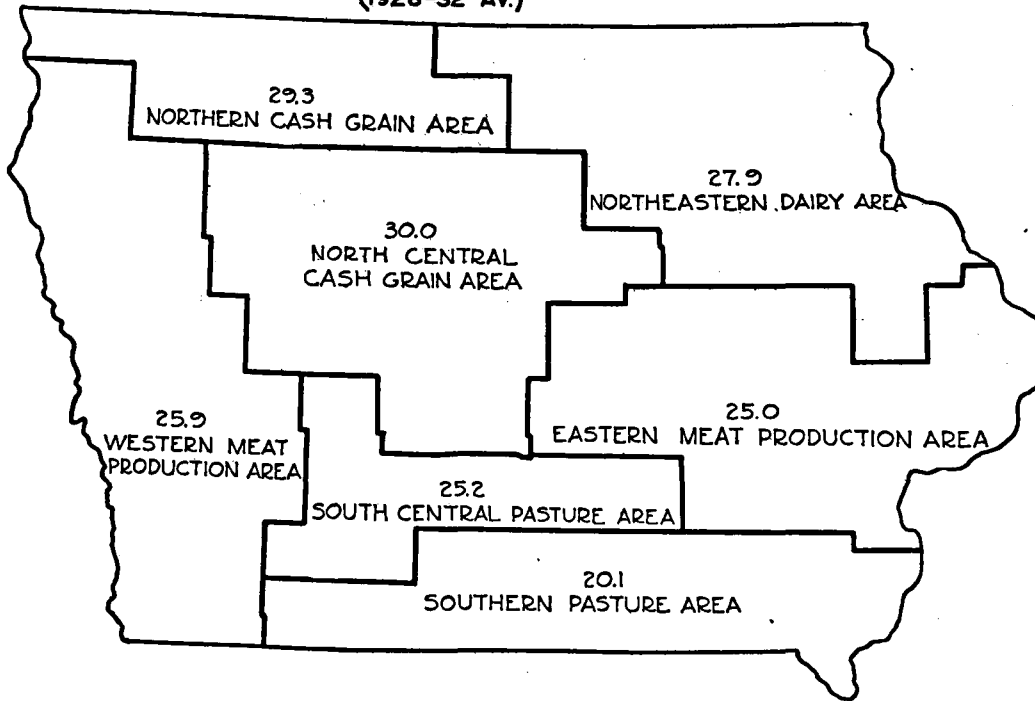


Fig. 157.

YIELD OF WHEAT
(1928-'32 AV.)

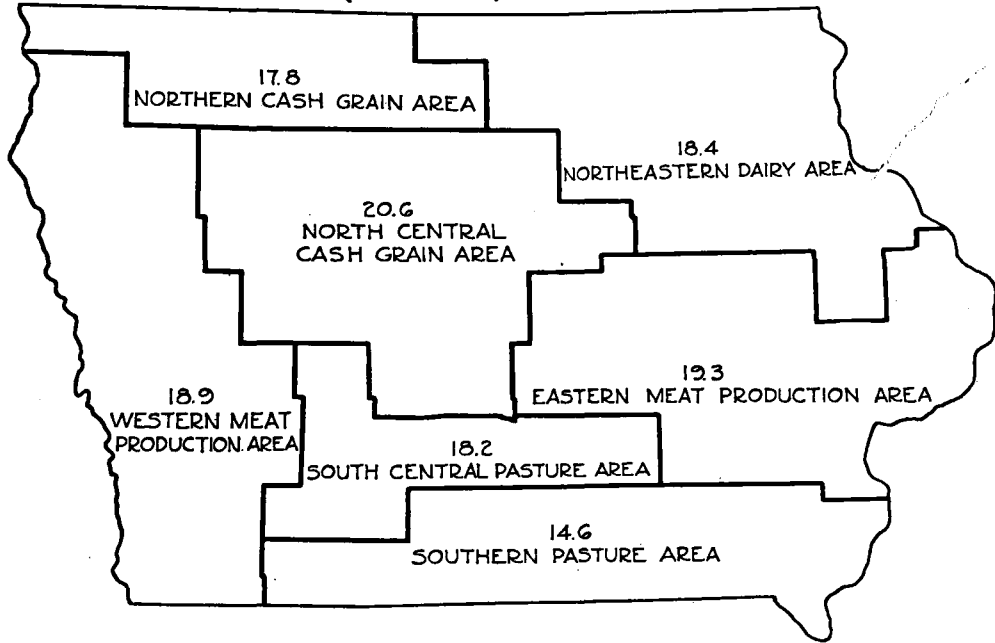


Fig. 158.

CORN AND OATS SHIPMENTS
(NET SHIPMENTS AS PERCENT OF TOTAL FEED UNITS 1929-1932)

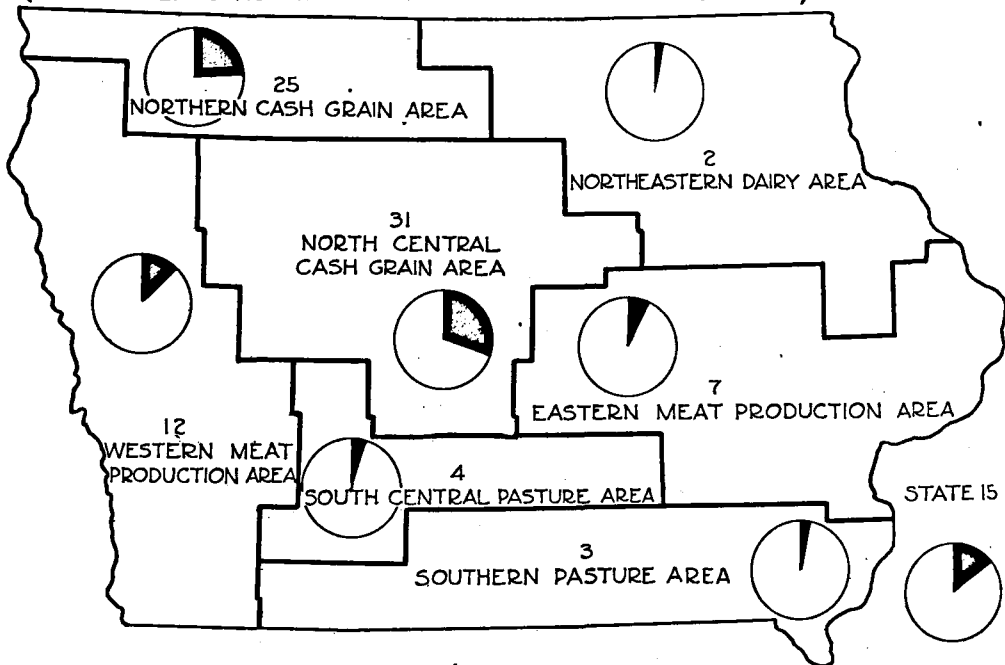


Fig. 159.

DISTRIBUTION OF TOTAL LAND IN HAY INTO PRINCIPAL KINDS OF HAY (1932)

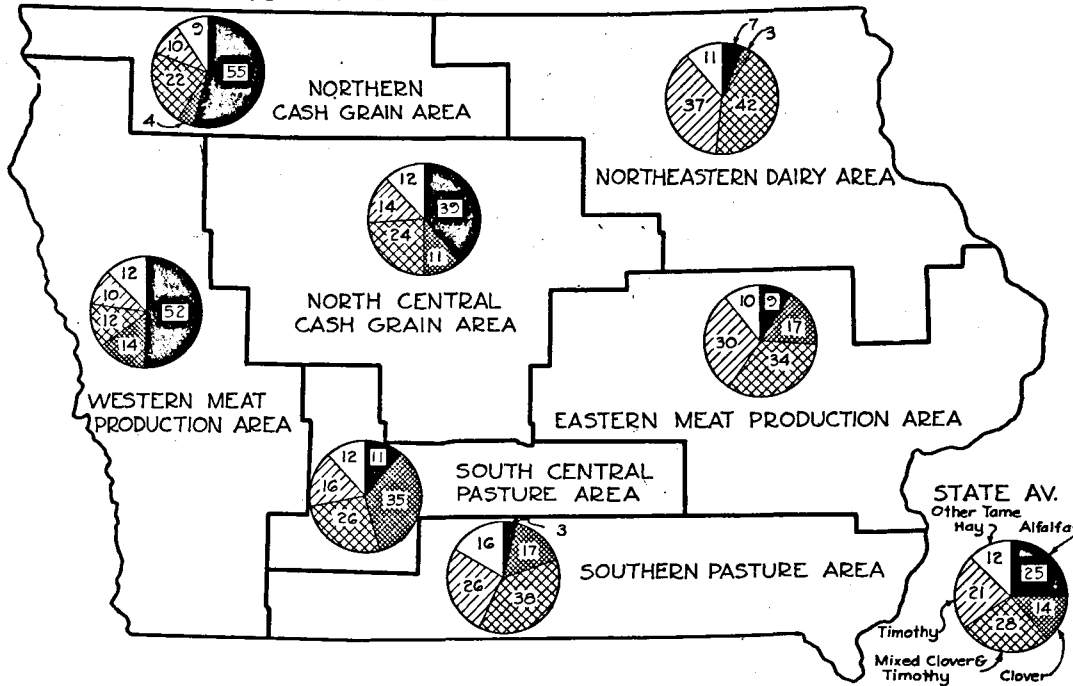


Fig. 160.

FEED UNITS PRODUCED PER ACRE OF TOTAL LAND IN FARMS

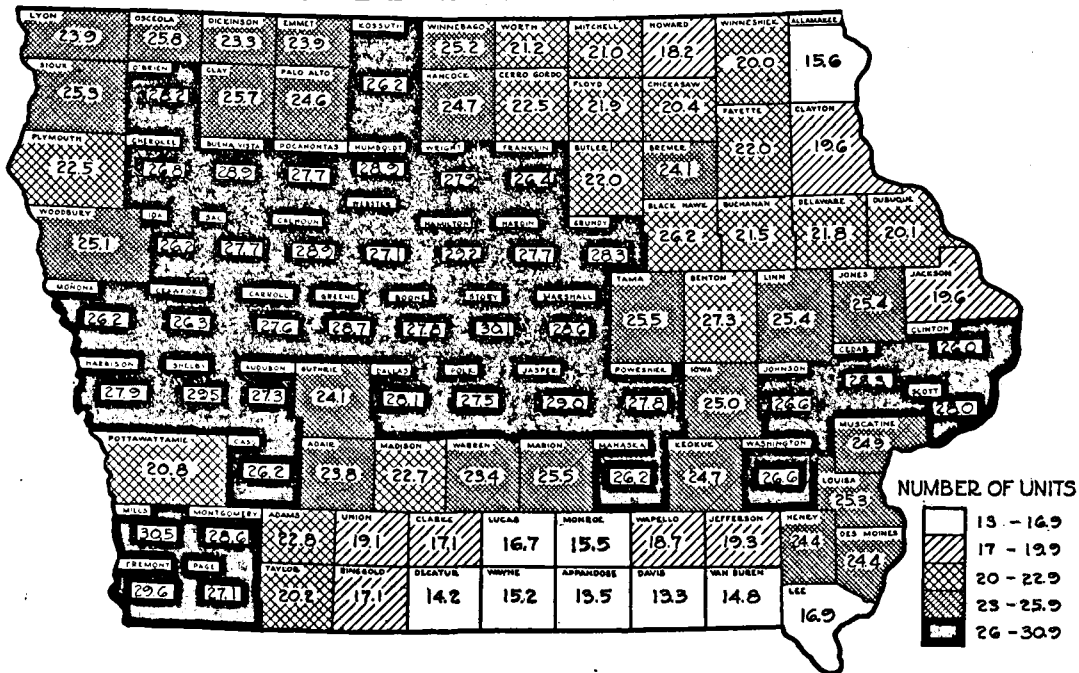
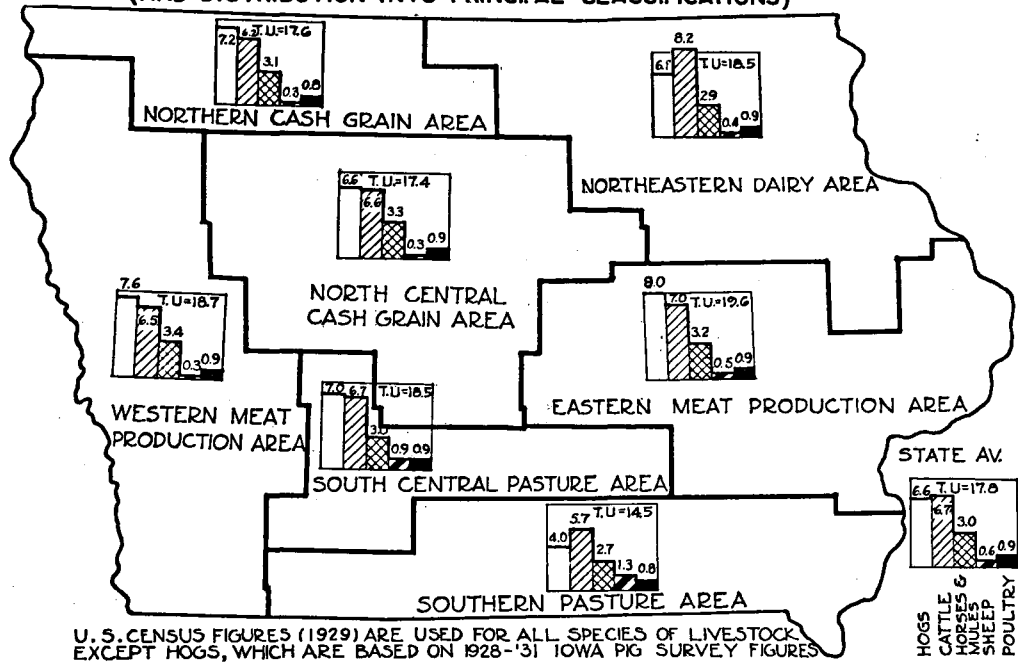


Fig. 161.

**ANIMAL UNITS PER 100 ACRES
(AND DISTRIBUTION INTO PRINCIPAL CLASSIFICATIONS)**



PERCENTAGE OF ANIMAL UNITS IN VARIOUS KINDS OF ANIMALS

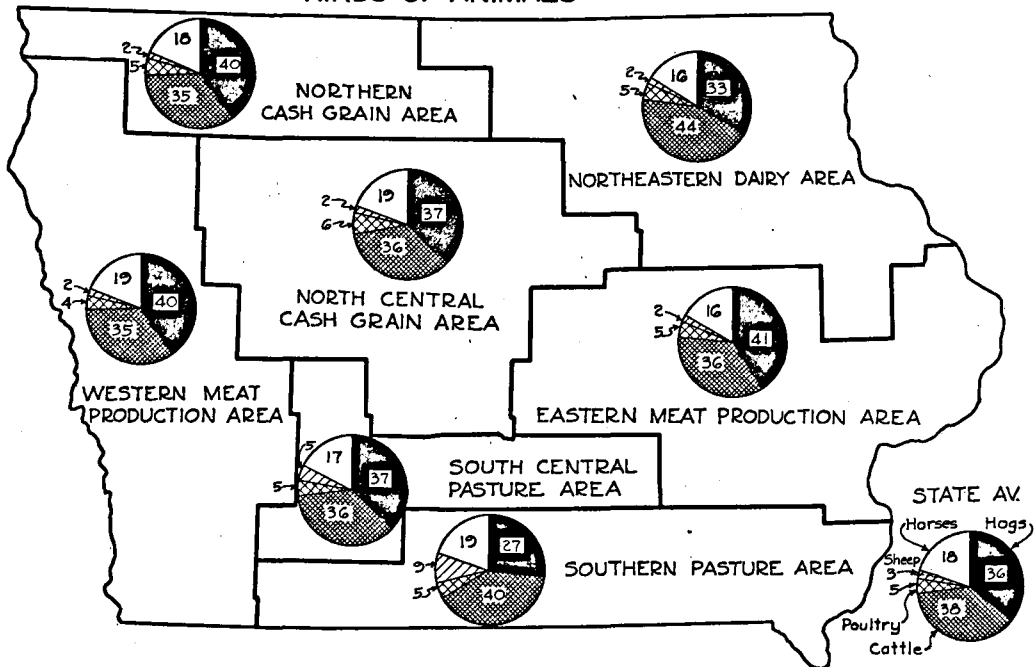


TABLE 108.
Total Feed Units Produced Per Acre of Total Land in Farms and Distribution into Principal Types of Feed by Feed Units.*

Feed units	Dairy Area	Northern Cash Grain Area	North Central Cash Grain Area	Western Meat Production Area	Eastern Meat Production Area	South Central Pasture Area	Southern Pasture Area	State
Corn.....	11.3	15.7	18.3	17.9	15.2	13.8	8.4	14.6
Small grain.....	3.2	5.1	4.4	3.0	2.8	2.3	1.6	3.3
Hay.....	2.2	1.5	1.6	2.3	2.5	2.4	2.3	2.1
Pasture.....	4.9	3.1	3.6	4.0	5.7	5.1	5.0	4.5
Total feed units.	21.6	25.4	27.9	27.2	26.2	23.6	17.3	24.5

*1 bu. corn = 1.00 feed units.
1 bu. oats = .48 feed units.
1 bu. wheat = 1.07 feed units.
1 bu. barley = .73 feed units.
1 bu. soybeans = 1.43 feed units.
1 ton alfalfa hay = 18.0 feed units.
1 ton clover hay = 18.0 feed units.
1 ton soybean hay = 18.0 feed units.
1 ton mixed hay = 15.0 feed units.
1 acre pasture = 88.7 feed units.

TABLE 109.
Total Feed Units Available Per Acre of Total Land in Farms and Distribution into Principal Types of Feed by Feed Units.

Feed units	Dairy Area	Northern Cash Grain Area	North Central Cash Grain Area	Western Meat Production Area	Eastern Meat Production Area	South Central Pasture Area	Southern Pasture Area	State
Corn.....	11.1	12.6	14.2	15.5	14.3	13.0	8.3	12.7
Small grain.....	3.2	3.5	2.8	2.7	2.5	2.0	1.5	2.6
Hay.....	2.1	1.4	1.5	2.2	2.5	2.5	2.4	2.1
Pasture.....	4.9	3.1	3.4	3.9	5.8	5.0	5.0	4.4
Total feed units.	21.3	20.6	21.9	24.3	25.1	22.5	17.2	21.8

farms. The meat areas rank highest in hog animal units and the dairy area in cattle animal units.

It can be seen by a study of fig. 162 that 5 out of 7 areas produce slightly more hog units than cattle units. The two areas (Northeastern Dairy Area and Southern Pasture Area) which produce more cattle units than hog units produce so many more of cattle that there are more cattle units than hog units per 100 acres for the state as a whole. For the state, 38 percent of the total animal units consist of cattle and 36 percent of hogs, making the combined cattle and hog units equal to nearly three-fourths of the total animal units. Of the remainder, 18 percent or nearly one-fifth consists of horse and mule animal units and less than one-tenth or 8 percent is made up of poultry and sheep animal units, 5 percent for the former and 3 percent for the

MILK PRODUCTION BY TYPE OF FARMING AREAS

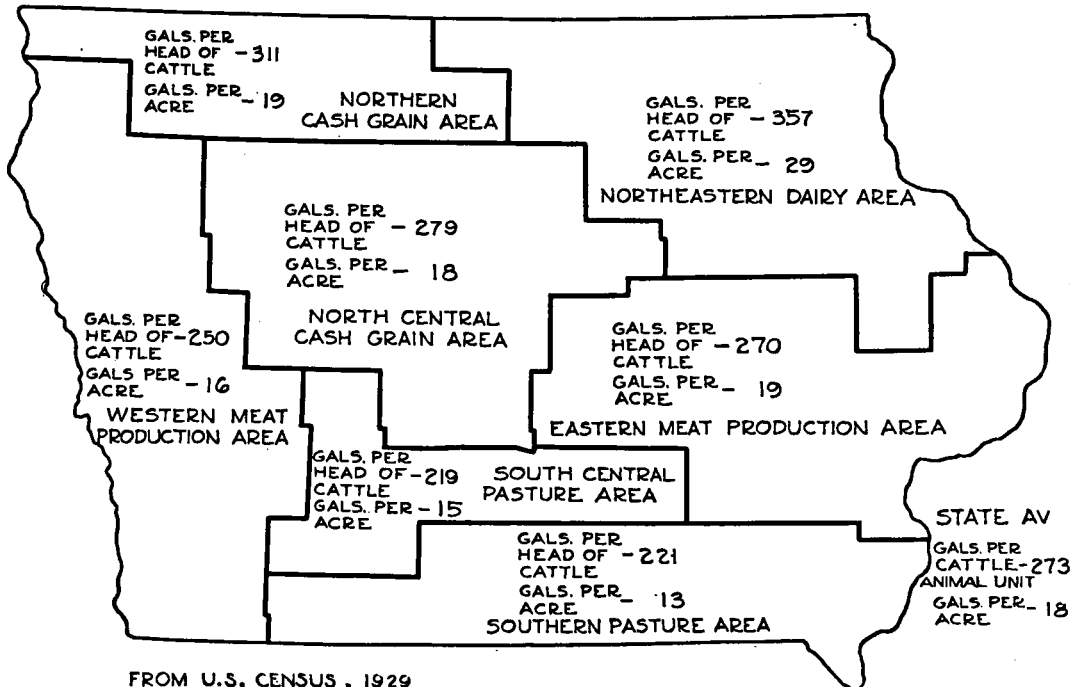


Fig. 164.

FROM U.S. CENSUS, 1929

latter. In the Northern Cash Grain Area and the Western Meat Production Area, hog units constitute 40 percent of the total units and cattle 35 percent, a difference of 5 percent in favor of the hogs. The smallest difference in favor of hogs is in the North Central Cash Grain Area where hog units comprise 37 percent, and cattle units 36 percent of the section's total.

In the Northeastern Dairy Area hogs comprise 33 percent of the total animal units and cattle 44

percent. In the Southern Pasture Area hogs comprise 27 percent of the total animal units, cattle 40 percent.

The percentage of the total animal units produced by horses and mules, sheep and poultry in the various type areas, vary but slightly from the state average.

Figure 164 shows the distribution by type areas of gallons of milk produced annually per 100 acres of land and milk produced per cattle animal unit. The dairy

area not only produces more gallons of milk per acre, 29 in contrast with 19 for the next highest area (Northern Cash Grain Area) and 13 for the lowest producing area (Southern Pasture Area), but also produces more milk per head of cattle, producing 357 gallons in contrast with 311 in the Northern Cash Grain Area, 279 in the North Central Cash Grain Area, 270 in the Eastern Meat Production Area, and but 221 in the Southern Pasture Area.

TABLE 110.
Total Animal Units Per 100 Acres of Total Land in Farms and Distribution into Principal Classes of Animals by Animal Units.*

Animal units	Dairy Area	Northern Cash Grain Area	North Central Cash Grain Area	Western Meat Production Area	Eastern Meat Production Area	South Central Pasture Area	Southern Pasture Area	State
Hogs.....	6.1	7.2	6.6	7.6	8.0	7.0	4.0	6.6
Cattle.....	8.2	6.2	6.3	6.5	7.0	6.7	5.7	6.7
Horses.....	2.9	3.1	3.3	3.4	3.2	3.0	2.7	3.0
Sheep.....	0.4	0.3	0.3	0.3	0.5	0.9	1.3	0.6
Poultry.....	0.9	0.8	0.9	0.9	0.9	0.9	0.8	0.9
Tot. animal units	18.5	17.6	17.4	18.7	19.6	18.5	14.5	17.8

*An animal unit is equal to: 1.0 head of cattle 2 yrs. and older, 2.0 head of cattle 1 to 2 yrs. old, 4.0 calves under 1 yr., 1.5 beef steers, 1.0 horse 2 yrs. old and older, 2.0 colts 1 to 2 yrs. old, 4.0 colts under 1 yr., 8.5 sows, 7.5 pigs, 7.0 sheep, 14.0 lambs, and 100.0 hens.

CHAPTER VII. IOWA FARM HOME CONVENIENCES¹

THE Iowa farmer lives in a two-story, seven-room frame house. That is the composite home taken from the results of a survey of rural housing conditions covering 18,789 Iowa farm homes.

The survey covered 10 counties and was taken in 8,298 owner and 10,491 non-owner homes. The information pictures the situation for the entire state and represents 221,200 families, including about a million people.

The typical Iowa farm home is a painted frame structure with more than one story and is more than 25 years old. Some differences are apparent among the counties, but on the whole only 2 percent of the houses reported are made of brick, stone or concrete and only 10 percent are one story.

There are some differences between the owners and non-owners. Owners more frequently live in one-story houses and in houses built of brick, but this is due to the fact that most of these owners' homes were built in the last 10 years and the prevailing trend has been toward homes of this type.

¹The data in this chapter were obtained from Iowa Ag. Exp. Sta., Res. Buls. No. 174 and 186, "The Status of Farm Housing in Iowa," and "The Status of Town and Village Housing in Iowa," by Margaret G. Reid, and from the United States Census.

One significant fact stands out: There has been relatively little building in the last 10 years.

The value of dwellings varies from county to county. Of the 10 counties surveyed, the top county was \$3,266 and the low was \$1,676 in 1930. The average value of farm dwellings in Iowa was \$2,293 in 1930. (See Table 113.)

The number of persons per family indicates to some extent the size of the home that is needed. There is, however, only a slight tendency for the larger families to live in larger homes. In the larger families, the available room per person is simply diminished and the house conforms closely to the seven-room standard of the state.

Owners generally take better care of their homes than tenants. Table 120 shows how different parts of the house were rated for owners and tenants. The explanation of the better condition of all parts of the owners' homes, floors, walls and every part listed in the table, is obvious. The owner living in his own house is able to detect and care for the defects that do arise. The renter finds it harder to get the needed repairs.

There seems to be no lack of water in Iowa farm homes. Wells and springs are adequately distributed but the problem of getting the water in the house con-

fronts most of the occupants. About one out of four families has water piped into the house and about half of this group has piped hot water. As would be expected, the percentage of owners having water piped into the house is greater than the non-owners. With only 25 percent of the homes having water piped into the house, the other 75 percent must carry the water into the house. The distance from the well was found to average 94 feet.

Although drinking water is well provided for, soft water is not so easily obtained. Only two out of three homes have a cistern for the storage of soft water, so that one-third of the families are without any source of soft water. The percentage of cisterns varied between the counties and reached a high of 90 percent in one. In this territory the cistern must have been a source of drinking water.

Hand pumps are quite common in the farm home, but various sources of power are used for pumping water, too. Electricity, gasoline motors, windmills or hydraulic rams are used to provide running water when the water supply is piped into the house. Figure 175 shows the distribution of water systems throughout the state. In the survey of housing conditions, only 24.1 percent of

BUILDING MATERIAL USED IN IOWA HOMES

1934		1934	
Frame, Unpainted	2.7%	Frame, Unpainted	2.2%
Stucco	1.5%	Stucco	3.5%
Brick, Stone	1.8%	Brick, Stone	3.6%
Log	0.2%		

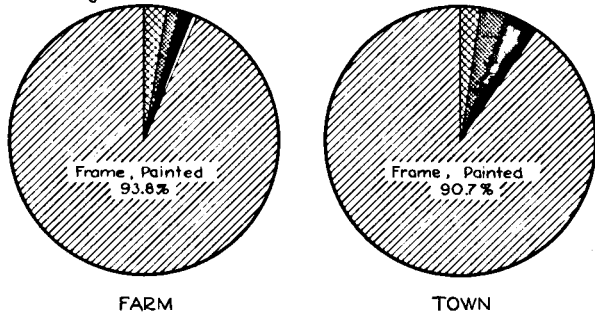


Fig. 165. The above diagrams give a comparison between town and farm homes in type of building material used. Town homes are more often made of brick, stone and stucco than are farm homes. Data in table 111.

NUMBER OF STORIES IN IOWA HOUSES

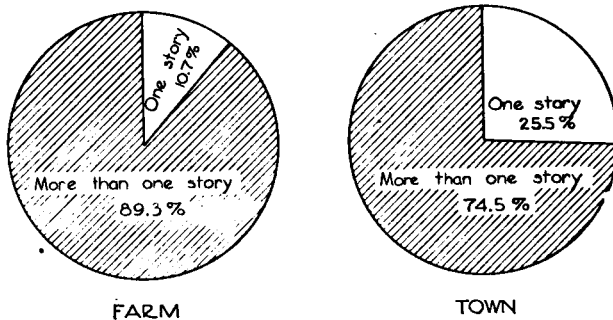


Fig. 166. Nearly nine-tenths of Iowa's farm homes have more than one story. About three-fourths of the town homes in the state are more than one story. Data in table 111.

TABLE 111. CONSTRUCTION AND AGE OF IOWA HOUSES, 1934.

	Percentage					
	Farm			All towns*		
	Total	Owners	Non-Owners	Total	Owners	Non-Owners
Building materials used						
Log	0.2	0.2	0.2	2.2	1.7	3.1
Frame, unpainted	2.7	2.7	2.8	90.7	90.9	90.2
Frame, painted	93.8	92.7	94.4	3.5	4.3	2.5
Stucco	1.5	2.1	1.1	3.6	3.1	4.2
Brick, stone or concrete	1.8	2.3	1.5			
Age of house						
Under 10 years	5.9	7.1	4.9	4.6	5.4	3.4
10 to 24 years	20.8	25.7	16.9	23.8	27.5	18.3
25 to 49 years	44.8	43.2	46.2	50.6	49.3	52.6
50 years and over	28.5	24.0	32.0	21.0	17.8	25.7
Number of stories						
One	10.7	11.5	10.2	25.5	23.7	28.1
More than one	89.3	88.5	89.8	74.5	76.3	71.9
Rooms, have						
Living rooms	96.5	97.7	95.6	97.1	98.4	95.3
Dining rooms	75.9	79.3	73.2	78.5	83.0	71.9
Kitchens	99.9	99.9	99.9	99.5	99.5	99.4
Workrooms	41.5	41.9	41.1	31.0	31.2	30.7
Washrooms for help	18.6	21.7	16.2	6.6	7.5	5.4
Bathrooms	21.7	30.6	14.8	40.6	47.5	30.8
Halls	58.1	61.8	55.7	56.2	61.0	49.2
Basements	71.0	74.9	67.8	78.3	82.6	72.0
Closets	84.9	86.7	83.5	83.7	86.3	80.0
Front or side porch	83.6	85.5	81.0	80.3	81.7	78.4
Back porch	72.7	73.5	72.0	64.9	65.9	63.5
Storage space for fruits and vegetables	90.0	91.3	89.0	88.5	91.3	84.4
Having rooms not in use	13.4	9.6	16.5	7.5	5.6	10.3

* Population of less than 2,500.
Source: Iowa Agr. Exp. Sta. Bulletins 174 and 186, Status of Farm Housing in Iowa and Status of Town and Village Housing in Iowa, Margaret G. Reid.

the farm homes had piped cold water.

Kitchen sinks are not uncommon in farm homes. Over 50 percent of the homes in the area surveyed report having this convenience. These figures apply only to sinks with a drain.

About one quarter of the homes have an improved outdoor toilet plus an indoor chemical or flush toilet. Many families express a need for improvements of this sort. Most of Iowa's farm homes, however, have an unimproved outdoor toilet. There is the usual difference between owners and

non-owners in this classification.

Bathrooms are not common in farm homes. Less than one-fifth report a bathtub while another fifth expressed a desire for one. This convenience is twice as common in owners' homes as in non-owners. There are very few showers and less than one family in six has a lavatory.

Sewage disposal is accomplished by means of a cesspool, septic tank or stream in 36 percent of the cases. Surface drainage is relied upon in 39 percent of the homes.

Nearly three-fourths of all Iowa

TABLE 112. FAMILIES OWNING HOMES.

Community	Percentage of families owning homes
Rural-farm	49.0
Rural-nonfarm	62.3
Towns of 2,500 to 10,000	58.8
Cities 10,000 to 100,000	53.7
Des Moines*	51.4
State as a whole	54.7

* Only city in Iowa having a population in excess of 100,000.
Source: Fifteenth Census of the United States, 1930. The percentages are based on those reporting.

TABLE 113. THE AVERAGE VALUE OF FARM DWELLINGS IN TEN IOWA COUNTIES, 1930.

County	Average value farmers' dwellings per farm (dollars)
Benton	2,591
Davis	1,676
Fayette	2,179
Madison	1,893
Mitchell	2,425
Scott	3,266
Shelby	2,650
Sioux	2,303
Story	2,310
Webster	2,425
All counties in state	2,293

Source: U. S. Census, 1930.

farmers read by the light of kerosene lamps. Persons living in their own homes use kerosene less extensively than do non-owners, but over 50 percent of the owners' dwellings are lacking more modern means of illumination.

Acetylene or piped gas is used very little throughout the state. The other one-fourth of the residents use electricity from either a power line or that produced from a home electric plant. More than twice as many owners use electricity for illumination as the persons living in rented houses.

For the most part, farmers are

AGE OF IOWA HOUSES 1934

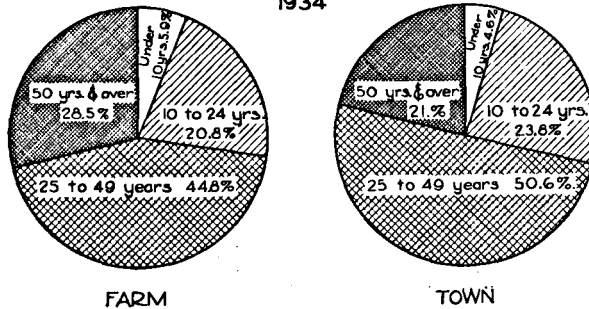


Fig. 167. The charts shown here give the percentage of farm and town houses falling into different age groups. Data in table 111.

PERCENTAGE THE DWELLING IS OF VALUE OF FARM LAND AND BUILDINGS 1934

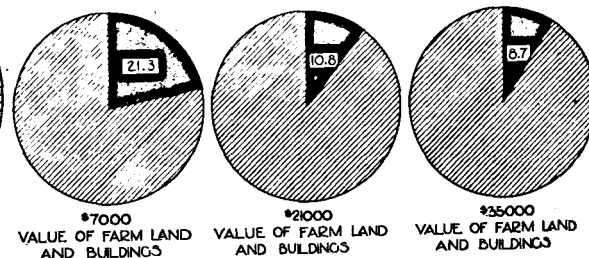


Fig. 168. The higher the valuation of the farm the less the proportion which the house is of the total valuation. Data in table 115.

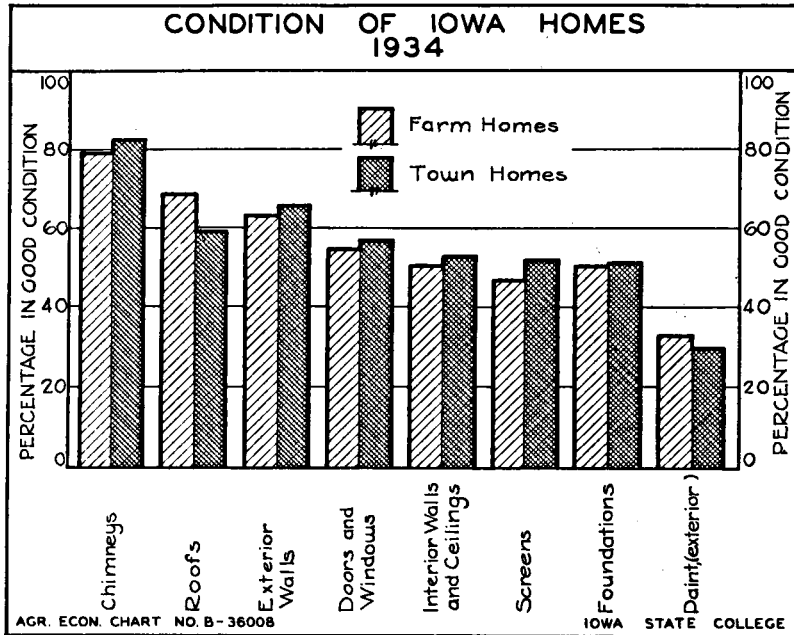


Fig. 169. The bars in this chart show the proportion of farm and town homes that are in good condition with respect to the different items named. Both show a striking need for paint. Data in table 120.

more interested in getting power from a power transmission line than they are from a home electric plant. Many farmers are several miles from a power line, and this factor has prevented some from having electricity. In other cases, the rates are considerably higher than those paid by the city dweller and farmers have felt that they could not afford the convenience of electricity.

TABLE 114. OWNER AND TENANT FARM DWELLINGS OF SPECIFIED VALUE, IOWA, 1930.

Value of Dwelling	Percentage	
	Owners	Tenants
Under \$1,000 (all)	11.6	18.7
\$1,000-\$1,499	14.0	20.2
\$1,500-\$1,999	13.2	16.8
\$2,000-\$2,999	24.5	24.1
\$3,000-\$4,999	23.9	15.5
\$5,000-\$7,499	10.0	3.9
\$7,500-\$9,999	1.8	0.5
\$10,000 and over	1.0	0.3

Source: U. S. Census, 1930.

Figure 174 shows the situation for the whole state and indicates that more than 20 percent of the farm homes were lighted by electricity in 1930.

Most farm homes are heated by stoves. This source of heat is

common in 62 percent of the homes with central heating ranging from 50 percent in one county to 12 percent in another. Many farmers have indicated that they desire hot air, steam or hot water

heating systems but, other than in the owners' homes, they are not widely used throughout the state. Figure 177 shows how Iowa town and farm homes compare in heating facilities.

TABLE 115. VALUE OF DWELLING AND OF LAND AND BUILDINGS IN IOWA, 1930.

Value of farm land and buildings (thousands of dollars)	Percentage the dwelling is of value farm land and buildings
7	21.3
9	17.8
11	15.6
13	14.0
15	12.9
17	12.0
19	11.4
21	10.8
23	10.3
25	10.0
27	9.6
29	9.3
31	9.1
33	8.9
35	8.7

Source: U. S. Census, 1930.

Few farms have adequate refrigeration facilities. Most of the refrigerators now in use in the farm homes are ice refrigerators with only a sprinkling of the mechanical type. Figure 177 shows this.

Farm cooking is accomplished over a coal or wood burning stove in most of the homes. Some families use a gasoline or kerosene stove and a few report using elec-

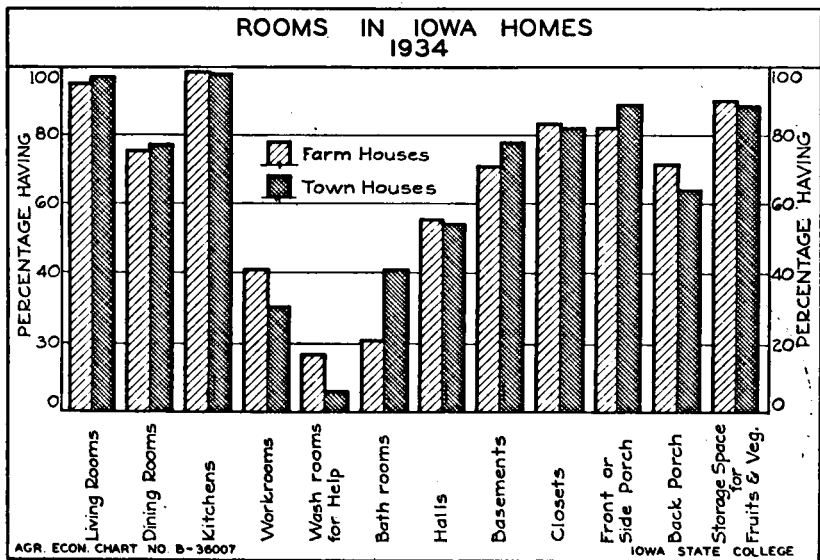


Fig. 170. The farm and town homes of Iowa show little difference in kinds of rooms. The biggest differences are in bath rooms and wash rooms. Source: Iowa Agr. Exp. Sta. Buls. 174 and 186, Margaret G. Reid.

tric stoves. Gas stoves are used in only a very few homes.

Most of the farm laundry is done in a room on the same level as the kitchen. Some families have a basement room for this operation while others are compelled to do it outdoors. A large number also do the washing in the kitchen of the home.

A large majority of the homes have power washers of some sort. Very few families reported or wanted fixed tubs for a part of their laundry apparatus. Owners ranked above the non-owners in laundry equipment.

Various other states have also compiled statistics on farm housing conditions. In comparison with these states, Iowa is much like Maryland. This is especially true of the percentage of unpainted and one-story buildings. Maryland also has few houses under 10 years of age. The houses in these two states have a higher average number of rooms than in

TABLE 116. SIZE OF FARM HOUSES IN REPRESENTATIVE STATES, 1934.

Items	Iowa	Florida	Kentucky	Maryland	Nevada	New Mexico	Arkansas
Number of houses in survey.	18,789	57,200	233,300	53,700	3,400	31,900	234,000
Average number of occupants.....	4.4	4.4	4.7	4.4	3.8	4.8	4.7
Average number of rooms.....	7.0	4.8	4.8	8.1	4.9	3.9	3.9
Average number of occupants per room.....	0.6	0.9	0.95	0.5	0.8	1.2	1.2
Average number of bedrooms.....	3.6	2.6	2.6	3.7	2.5	2.0	2.2

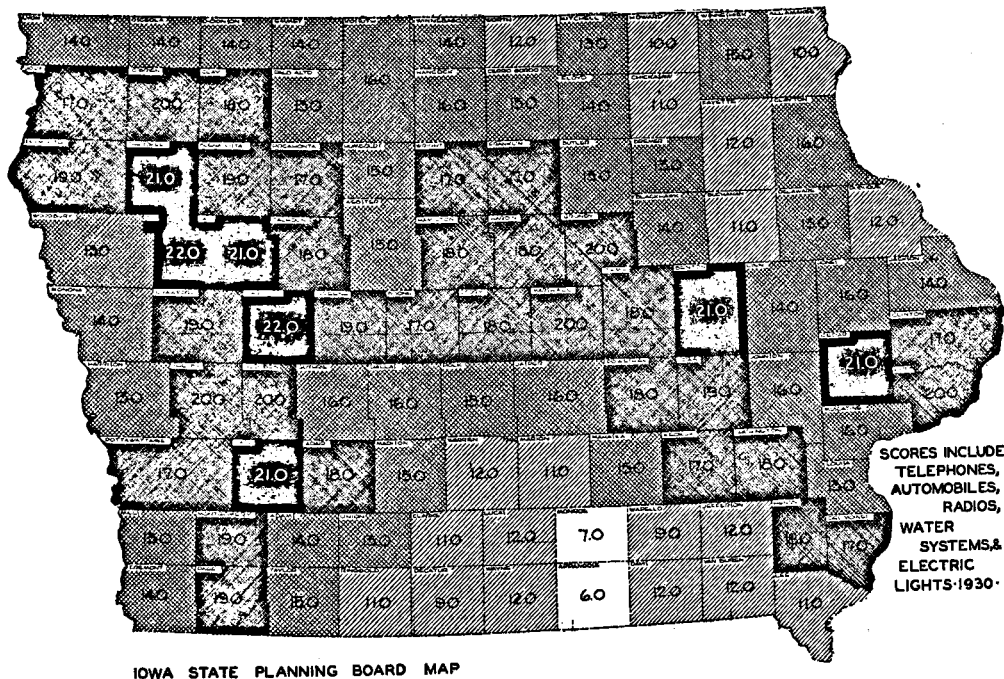
Source: Iowa Agr. Exp. Sta., Bul. 174.

TABLE 117. ROOMS PER FAMILY AND PER PERSON IN FARM HOUSES, 1934.

Number of occupants	Number of families		Rooms per family		Rooms per person		Percentage having less than one room per person	
	Owner	Non-owner	Owner	Non-owner	Owner	Non-owner	Owner	Non-owner
1	133	61	5.8	5.9	5.8	5.9	.....	.....
2	754	608	6.5	6.6	3.3	3.3	0.1	.....
3	795	982	7.0	6.7	2.3	2.2	1.1	0.8
4	817	1,069	7.2	6.8	1.8	1.7	1.3	1.6
5	598	862	7.2	7.0	1.4	1.4	5.4	6.6
6	434	537	7.4	7.2	1.2	1.2	11.7	13.4
7	248	355	7.5	7.0	1.1	1.0	29.0	37.2
8	140	204	7.2	7.3	0.9	0.9	56.4	54.4
9	79	123	7.3	7.0	0.8	0.8	77.2	85.3
10	43	57	7.7	7.0	0.8	0.7	90.1	96.5
11	18	29	6.5	7.2	0.6	0.7	100.0	96.5
12	10	22	7.6	7.2	0.6	0.6	90.0	100.0
13 and over	12	9	7.5	6.8	0.5	0.5	100.0	100.0
All	4,081	4,918	7.0	6.9	1.7	1.5	9.7	12.5

Based on 8,999 families in five Iowa counties.
Source: Iowa Agr. Exp. Sta., Bul. 174.

FARM HOME CONVENIENCES



IOWA STATE PLANNING BOARD MAP

Fig. 171. The data on this map are a combination of the rankings of the different counties on the five conveniences

shown in figs. 172 and 176. Ida and Carroll counties rank highest in this group of home conveniences.

AGRICULTURAL ECONOMIC FACTS

FARMS WITH RADIOS

PERCENTAGE OF FARM FAMILIES OPERATING RADIOS-1930-

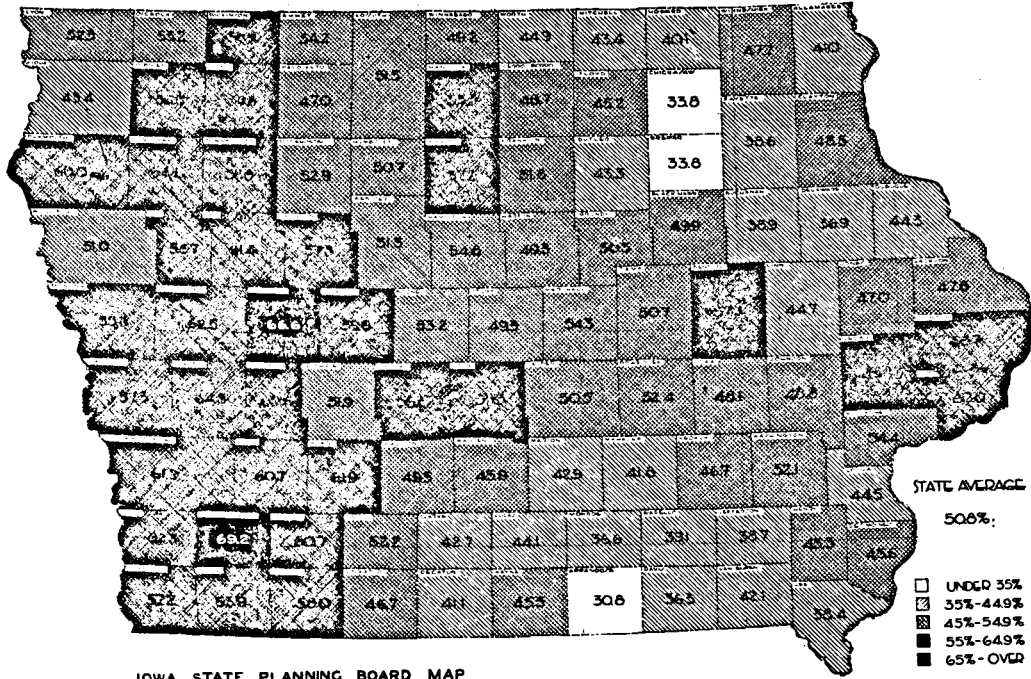


Fig. 172.

IOWA STATE PLANNING BOARD MAP

FARMS WITH TELEPHONES

PERCENTAGE OF FARMS EQUIPPED WITH TELEPHONES-1930-

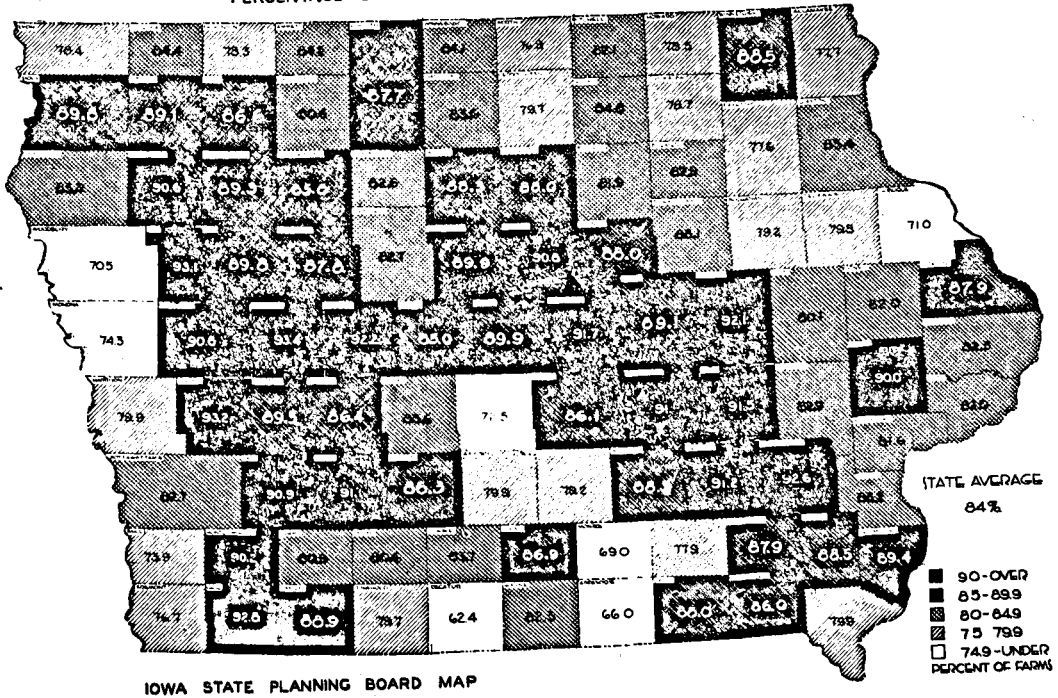


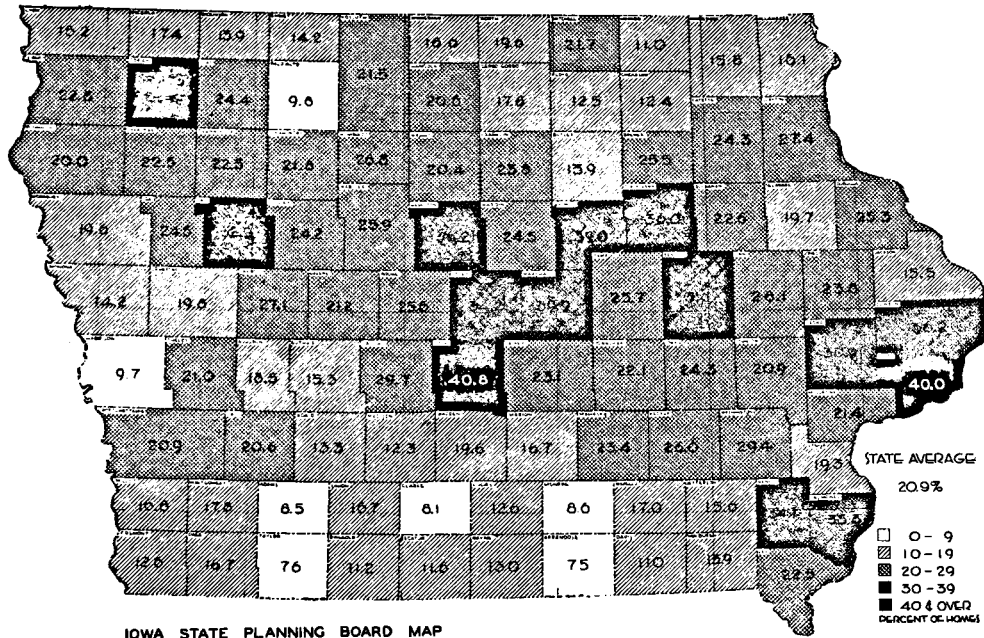
Fig. 173.

IOWA STATE PLANNING BOARD MAP

FARMS WITH ELECTRICITY

PERCENTAGE OF FARM HOMES WITH ELECTRICITY -1930-

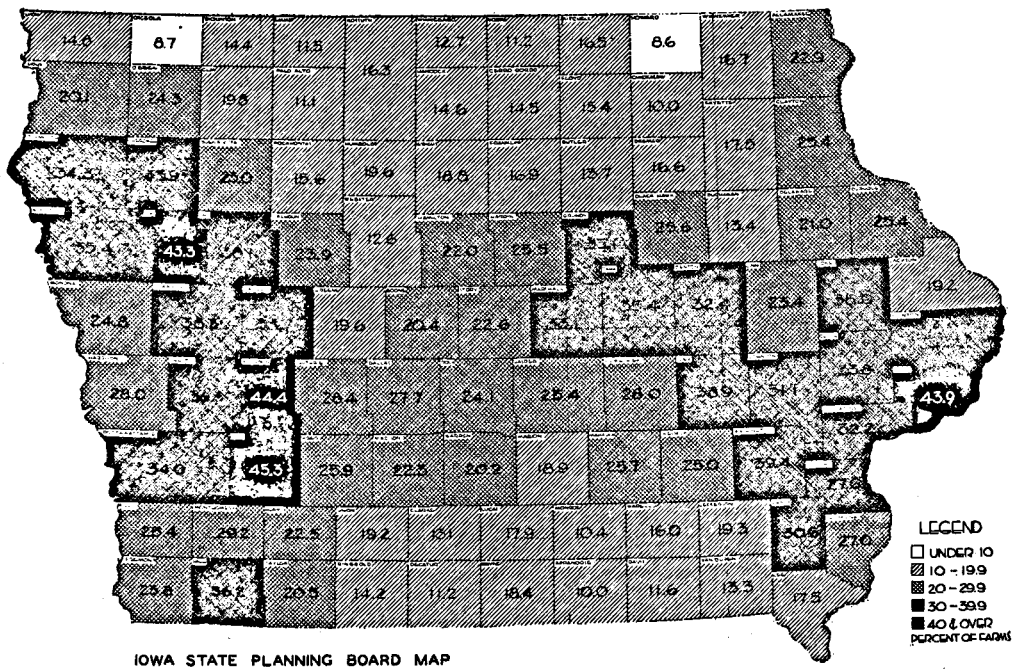
Fig. 174.



FARMS WITH WATER SYSTEMS

PERCENTAGE OF FARMSTEADS WITH RUNNING WATER IN THE HOUSE -1930-

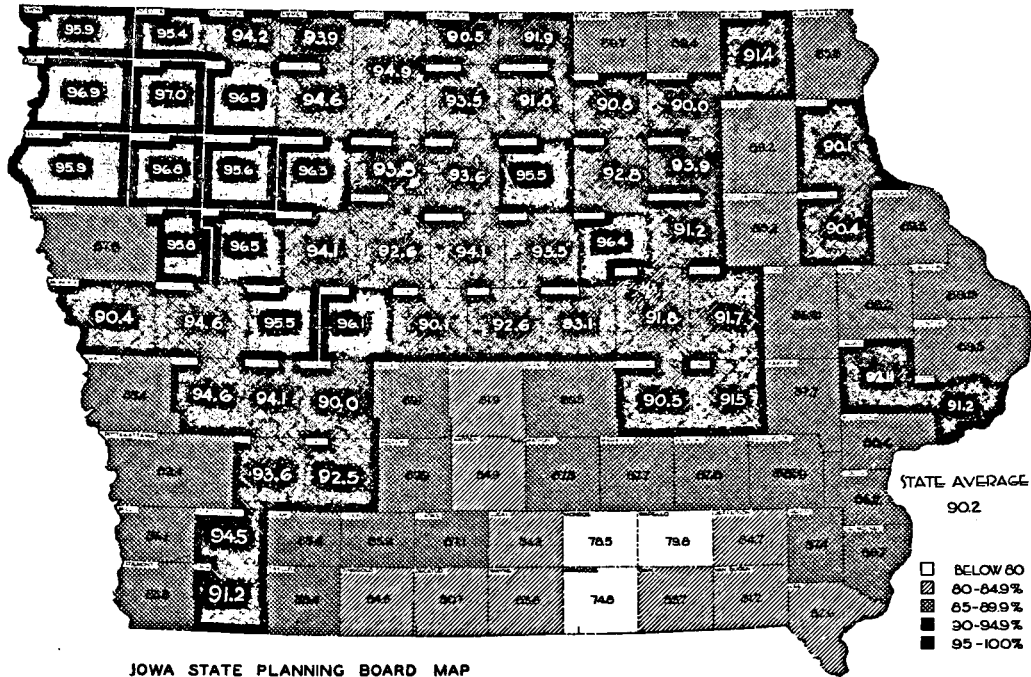
Fig. 175.



FARMS WITH AUTOMOBILES

PERCENTAGE OF FARMS HAVING AUTOMOBILES - 1930 -

Fig. 176.



IOWA STATE PLANNING BOARD MAP

TABLE 118. FARM HOUSES NEEDING REPAIR OR INSTALLATION OF CERTAIN ITEMS, 1934.

Items	Percentage	
	Owners*	Non-owners*
Paint, exterior.....	40.5	43.8
Screens.....	29.8	41.1
Interior walls and ceilings	25.6	36.6
Fences.....	24.8	34.8
Roof.....	22.8	26.8
Walks and drives.....	22.3	30.5
Foundation.....	20.2	32.3
Closets.....	18.7	26.8
Doors and windows.....	18.6	33.1
Bathtub.....	18.0	22.3
Lavatory.....	18.0	21.6
Flush toilet.....	17.3	20.9
Plantings.....	16.9	23.0
Lawn.....	16.2	25.4
Bathroom.....	15.7	19.1
Kitchen sink with drain	14.7	21.5
Floors.....	14.6	23.7
Piped cold water.....	13.5	17.2
Piped hot water.....	12.4	14.5
Cistern.....	11.7	18.4
Exterior walls.....	10.4	16.7
Power line.....	10.1	13.1

* Based on 18,789 houses in ten Iowa counties, 1934.
Source: Iowa Ag. Exp. Sta., Bul. 174.

TABLE 119. FARM HOUSING CONDITIONS IN REPRESENTATIVE STATES, 1934.

Items	Iowa	Florida	Kentucky	Maryland	Nevada	New Mexico	Arkansas
Number of homes in survey.	18,789	57,200	233,300	53,700	3,400	31,900	234,000
Kind of house.....	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Log.....	0.2	1.2	12.3	1.2	0.6	10.0	4.2
Unpainted frame.....	2.8	47.0	29.0	7.1	35.9	21.9	70.0
Brick, stone or concrete...	1.9	1.9	4.0	11.1	7.4	13.6	0.5
Age of house							
Under 10 years.....	5.9	36.0	18.0	7.1	21.2	23.8	20.8
50 and over years.....	28.5	5.1	23.6	48.8	10.3	9.1	9.5
One story.....	10.7	86.9	56.2	3.3	81.6	89.0	93.4
Rooms							
Dining rooms.....	75.9	59.4	54.0	85.8	52.4	27.9	39.6
Wash rooms for farm help	18.9	21.0	4.9	2.8	5.3	2.9	1.5
Bathrooms.....	21.2	25.5	6.3	18.3	39.4	11.1	3.3
Condition of house, good							
Foundation.....	51.2	24.8	51.0	68.7	40.4	50.8	19.6
Roof.....	60.8	29.9	46.4	60.3	46.3	34.5	28.9
Doors and windows.....	54.0	32.4	46.3	57.4	51.6	35.4	25.3
Paint, exterior.....	33.0	11.2	18.4	25.7	20.6	16.3	5.6
Interior walls and ceilings...	50.0	14.0	42.9	47.4	38.2	27.6	17.3

Source: Iowa Agr. Exp. Sta., Bul. 174.

Except for Iowa these data were taken from press releases of the U. S. D. A. Bureau of Home Economics. They are all subject to later revision. Data for Iowa are based on actual homes surveyed. For the other states the data are an estimate for the entire farm population.

any of the other states that have data available.

Nevada ranks highest in the proportion of bathrooms, piped hot water, kitchen sink with drain and power lines. Iowa is first in

the number of central heating units and lowest in fireplaces as sources of heat.

Maryland and Florida report a high percentage of ice refrigeration, and Iowa is exceptionally

high in the number of power washing machines. Walks, drives and fences are also more common in Iowa.

Compared with surrounding states, Iowa is third in the per-

TABLE 120. CONDITION OF IOWA HOMES, 1934.

	Percentage					
	Farm ¹			Town ²		
	Total	Owner	Non-owner	Total	Owner	Non-owner
Foundations						
Present condition						
Good	51.2	61.2	43.3	51.5	60.4	38.6
Fair	34.0	30.0	37.1	34.3	30.2	40.2
Poor	14.6	8.6	19.3	13.7	9.0	20.5
Repairs or alterations needed	19.8	15.5	23.2	20.6	17.9	24.4
Replacement or new installation needed	7.1	4.7	9.1	9.9	6.6	14.6
Exterior Walls						
Present Condition						
Good	63.6	70.9	57.9	65.5	73.1	54.5
Fair	29.9	25.2	33.6	29.2	23.6	37.3
Poor	6.5	4.0	8.5	5.3	3.3	8.2
Repair or alterations needed	11.2	8.6	13.3	12.9	10.3	16.6
Replacement or new installation needed	2.7	1.8	3.4	3.4	2.4	4.9
Roof						
Present Condition						
Good	60.8	64.2	58.1	58.7	62.5	53.3
Fair	27.7	26.7	28.5	28.2	26.9	30.1
Poor	11.7	9.4	13.6	13.0	10.6	16.6
Repairs or alterations needed	17.3	15.5	18.7	16.4	15.4	17.8
Replacement or new installation needed	7.7	7.3	8.1	14.6	13.3	16.4
Chimneys						
Present Condition						
Good	79.8	84.4	76.2	82.9	87.7	76.0
Fair	16.5	13.5	18.8	14.0	10.4	19.1
Poor	3.9	2.4	5.1	3.1	1.8	4.9
Repairs or alterations needed	7.2	5.7	8.3	6.8	5.2	9.2
Replacement or new installation needed	2.1	1.2	2.8	2.2	1.3	3.5
Doors and windows						
Present Condition						
Good	54.0	64.9	45.3	57.3	66.4	44.1
Fair	35.1	29.7	39.3	35.2	29.6	43.2
Poor	11.3	5.6	15.7	7.6	4.0	12.7
Repairs or alterations needed	20.9	15.0	25.5	20.9	17.1	26.3
Replacement or new installation needed	5.9	3.6	7.6	5.5	3.0	9.2
Screens						
Present Condition						
Good	46.6	54.2	40.6	50.8	58.1	40.1
Fair	30.3	30.0	30.6	34.3	32.0	37.7
Poor	19.0	13.7	23.2	14.6	9.8	21.5
Repairs or alterations needed	17.0	16.0	17.9	14.8	13.8	16.4
Replacement or new installation needed	19.0	13.8	23.2	20.1	15.1	27.3
Paint Exterior						
Present Condition						
Good	33.0	36.3	30.3	27.7	34.1	18.3
Fair	38.2	38.6	37.9	40.4	39.5	41.6
Poor	26.2	22.6	29.0	26.3	21.2	33.7
Repairs or alterations needed	17.7	17.0	18.3	13.0	12.2	14.1
Replacement or new installation needed	24.6	23.5	25.5	38.1	33.7	44.5
Interior Walls and Ceiling						
Present Condition						
Good	50.0	58.0	43.6	53.0	60.7	41.8
Fair	36.2	34.3	40.3	36.8	32.9	42.5
Poor	12.7	8.2	16.3	10.1	6.3	15.6
Repairs or alterations needed	23.8	19.8	26.9	25.2	21.4	30.7
Replacement or new installation needed	8.0	5.8	9.7	7.5	5.1	11.2
Floors						
Present condition						
Good	57.8	66.5	51.0	51.2	60.2	38.1
Fair	32.1	27.6	35.7	37.9	33.2	44.7
Poor	10.4	6.3	13.7	10.9	6.6	17.2
Repairs needed	12.8	9.8	15.3	18.0	14.0	23.9
Replacement needed	6.8	4.8	8.4	10.2	7.3	14.5
Stairs						
Present condition						
Good	66.6	72.1	62.3	58.6	65.4	48.7
Fair	20.0	16.5	22.8	20.5	17.2	25.2
Poor	3.9	2.4	6.8	3.7	1.9	6.3
Repairs needed	5.9	4.0	7.3	6.5	5.0	8.7
Replacement needed	2.6	1.4	3.5	2.7	1.4	4.5
Insulation						
Present condition						
Good	39.2	49.2	31.4	30.0	36.8	20.0
Fair	24.5	22.4	26.2	39.8	39.0	40.8
Poor	14.3	9.4	18.2	10.3	7.2	14.8
Repairs needed	5.2	4.0	6.1	4.5	4.0	5.2
Replacement needed	11.9	9.0	14.3	7.5	5.2	10.9
Replacement of house needed				6.5	3.9	10.4

* Population less than 2,500.
¹Based on 18,789 farm houses in 10 Iowa counties, 1934.
²Based on 8,587 town houses in 10 Iowa counties, 1934.
 Source: Iowa Agr. Exp. Sta., Buls. 174 and 186.

centage of homes having radio sets. Illinois is first with 55.6 percent and Wisconsin second with 51 percent.

The Iowa percentage of 48.5, however, is well above that for the nation as a whole. From the homes that reported, it is estimated that there were 12,048,762 radios in United States homes, or 40.3 of all homes, in 1930. Iowans owned 308,448 radios in 1930.

A higher proportion of New Jersey homes had radios in 1930 than those of any other state. The New Jersey percentage was 63.4.

Iowa farmers own more automobiles than any of their neighbors in surrounding states, according to the figures for 1930. In that year, the farmers of the state owned over a quarter of a million automobiles while Illinois was second of the bordering states with 192,873. In the same year, Minnesota was third and Wisconsin fourth. The total number of cars owned by farmers in the United States who reported to census takers in 1930 was 4,134,675.

Iowa farm homes also contain more telephones than do those of any of the bordering states. In 1930 there were 180,876 telephones in the rural dwellings as compared with 147,672 in Illinois farm homes, the next ranking state. In all, there were 2,139,194 telephones in the farm homes of the United States.

Out of the 994,202 rural homes in the United States having water piped into them, Iowa claimed 51,635 to lead its neighboring states in this home convenience. Illinois was second with Nebraska third.

By a close margin, Wisconsin had more farm homes lighted by electricity in 1930 than Iowa. There were 841,310 homes in the nation lighted electrically. Iowa had 46,042 and Wisconsin 46,565.

TABLE 121. IOWA HOME FACILITIES.

	Percentage					
	Farm			All Towns*		
	Total	Owner	Non-owner	Total	Owner	Non-owner
Kitchen sink with drain.....	53.8	61.1	48.0	63.6	68.8	56.0
Toilet facilities						
Improved outdoor toilet.....	10.3	11.3	9.6	3.7	4.2	3.0
Unimproved outdoor toilet.....	79.5	73.3	84.3	65.2	60.3	72.3
Indoor chemical toilet.....	0.7	1.0	0.4	0.6	0.6	0.4
Indoor flush toilet.....	14.8	22.1	9.0	38.2	44.1	29.7
Bathroom fixtures						
Tub.....	18.8	27.0	12.3	36.6	42.9	27.4
Shower.....	2.3	3.8	1.1	2.3	3.1	1.2
Lavatory.....	15.3	22.6	9.5	35.6	41.7	26.7
Disposal of sewage						
Town or village sewage disposal.....				23.5	25.8	20.3
Septic tank.....	7.0	11.0	3.9	9.6	11.9	6.2
Cess pool.....	20.0	23.3	17.4	17.4	18.8	15.4
Stream.....	8.6	9.5	8.0	4.9	5.2	4.6
Surface.....	39.0	35.5	41.7	11.2	10.7	12.0
Refrigeration facilities						
Ice refrigeration.....	15.1	17.8	13.0	27.6	28.5	26.3
Mechanical refrigeration.....	2.5	4.0	1.3	10.7	12.3	8.4
Cooking facilities						
Wood or coal stoves.....	95.4	94.5	96.1	71.9	74.1	68.8
Kerosene or gasoline stove.....	49.2	51.8	47.1	71.2	70.1	72.9
Gas stove.....	1.9	2.8	1.2	5.7	5.9	5.4
Electric stove.....	0.9	1.5	0.4	7.6	9.7	4.4
Laundry facilities						
Where done						
Out of doors.....	14.8	12.6	16.5	6.9	5.7	8.5
In kitchen.....	37.0	33.4	40.0	29.4	26.7	33.3
In basement.....	18.8	25.7	13.4	30.1	35.4	22.4
In special room on same level as kitchen.....	38.1	36.2	39.7	30.0	27.6	33.4
Equipment						
Fixed laundry tubs.....	2.6	3.4	1.9	1.0	1.1	1.0
Power washing machine.....	63.5	67.3	60.6	64.8	66.2	62.7
Hand washing machine.....	22.1	19.5	24.3	10.3	9.7	11.2

* Population less than 2,500.

Source: Iowa Agr. Exp. Buls. 174 and 186.

TABLE 122. FARM HOME FACILITIES IN REPRESENTATIVE STATES, 1934.

Items	Iowa	Florida	Kentucky	Maryland	Nevada	New Mexico	Arkansas
Number of houses in survey.....	18,789	57,200	233,300	53,700	3,400	31,900	234,000
Water supply							
Carrying water.....	77.6	63.8	89.6	66.9	43.2	80.3	85.9
Piped hot water.....	13.6	8.8	3.9	14.5	34.7	6.0	1.0
Kitchen sink with drain.....	53.8	24.0	8.9	31.5	62.6	16.3	3.5
Disposal of sewage							
Septic tank.....	7.0	14.0	1.2	4.4	12.5	1.2	0.7
Cesspool.....	20.0	5.0	1.8	8.6	15.6	11.0	0.5
Lighting							
Home electric plant.....	11.7	4.1	2.2	5.2	3.2	3.1	1.2
Power line.....	15.3	18.7	6.5	20.5	66.2	9.1	2.3
Heating							
Fireplaces.....	0.8	66.5	63.5	4.1	6.5	12.1	49.2
Central heating.....	29.4	0.4	2.7	12.7	3.8	1.3	0.1
Refrigeration							
Ice.....	15.1	43.2	22.5	41.5	31.8	16.9	12.0
Mechanical.....	2.5	5.4	2.4	3.7	7.6	3.8	1.1
Laundry done							
Out of doors.....	14.8	86.7	51.0	36.5	34.1	28.5	87.9
Power washing machine.....	63.5	3.8	6.0	22.1	29.4	15.6	1.3
Kerosene or gasoline stove.....	49.2	29.4	14.8	41.2	7.4	21.0	3.8
Gas or electric stove.....	2.8	3.5	1.7	3.3	9.9	4.4	0.3

Source: Iowa Agr. Exp. Bul. 174.

TABLE 123. RADIOS IN HOMES.

	Number of radios	Percentage of homes
United States.....	12,048,762	40.3
Iowa.....	308,448	48.5
Illinois.....	1,072,995	55.6
Minnesota.....	286,886	47.3
North Dakota.....	59,246	40.9
South Dakota.....	71,245	44.2
Nebraska.....	164,159	47.9
Wisconsin.....	563,265	51.0
Missouri.....	351,298	37.4

No division made for rural and non-rural.
Source: U. S. Census, 1930.

TABLE 124. MEDIAN VALUE OF FARM HOMES*.

State	Total \$2,135	Owners \$2,459	Tenants \$1,829
Adair.....	1,939	2,247	1,682
Adams.....	1,852	2,153	1,568
Allamakee.....	2,356	2,471	2,103
Appanoose.....	1,138	1,193	1,030
Audubon.....	2,141	2,505	1,810
Benton.....	2,434	2,800	2,144
Black Hawk.....	2,387	2,751	2,065
Boone.....	2,197	2,567	1,824
Bremer.....	2,639	2,879	2,328
Buchanan.....	1,830	2,088	1,640
Buena Vista.....	2,493	2,985	2,190
Butler.....	1,764	2,149	1,486
Calhoun.....	2,190	2,709	1,878
Carroll.....	2,564	2,941	2,203
Cass.....	2,172	2,558	1,757
Cedar.....	2,748	3,057	2,462
Cerro Gordo.....	2,320	2,749	1,997
Cherokee.....	1,991	2,534	1,739
Chickasaw.....	2,084	2,338	1,836
Clarke.....	1,427	1,565	1,298
Clay.....	2,163	2,736	1,837
Clayton.....	2,744	2,849	2,537
Clinton.....	2,789	3,060	2,522
Crawford.....	2,409	2,793	1,998
Dallas.....	2,076	2,490	1,704
Davis.....	1,455	1,577	1,254
Decatur.....	1,379	1,491	1,241
Delaware.....	2,429	2,731	2,145
Des Moines.....	2,247	2,545	1,785
Dickinson.....	1,660	2,170	1,459
Dubuque.....	2,716	2,836	2,418
Emmet.....	1,877	2,428	1,610
Fayette.....	2,129	2,392	1,816
Floyd.....	2,141	2,472	1,845
Franklin.....	2,285	2,837	1,857
Fremont.....	1,953	2,411	1,529
Greene.....	2,025	2,535	1,728
Grundy.....	2,364	2,845	1,993
Guthrie.....	1,706	1,936	1,482
Hamilton.....	2,521	2,920	2,235
Hancock.....	2,068	2,467	1,837
Hardin.....	2,469	2,893	2,162
Harrison.....	1,876	2,136	1,650
Henry.....	2,415	2,626	2,158
Howard.....	1,992	2,281	1,666
Humboldt.....	2,468	2,950	2,042
Ida.....	2,538	3,331	2,169
Iowa.....	2,468	2,836	2,002
Jackson.....	2,195	2,316	1,958
Jasper.....	2,170	2,512	1,728
Jefferson.....	2,009	2,257	1,609
Johnson.....	2,541	2,789	2,160
Jones.....	2,424	2,625	2,190
Keokuk.....	1,981	2,189	1,738
Kossuth.....	2,295	2,866	1,913
Lee.....	2,183	2,349	1,813
Linn.....	2,330	2,556	1,991
Louisa.....	2,014	2,530	1,633
Lucas.....	1,453	1,559	1,307
Lyon.....	2,059	2,612	1,831
Madison.....	1,515	1,784	1,312
Mahaska.....	1,984	2,264	1,693
Marion.....	1,657	1,827	1,467
Marshall.....	2,531	2,846	2,276

TABLE 124 (Cont'd)

State	Total \$2,135	Owners \$2,459	Tenants \$1,829
Mills	2,118	2,503	1,757
Mitchell	2,277	2,543	1,952
Monona	1,761	2,068	1,503
Monroe	1,221	1,290	1,054
Montgomery	2,590	2,929	2,219
Muscatine	2,655	2,872	2,415
O'Brien	2,571	3,135	2,321
Osceola	1,908	2,340	1,772
Page	2,330	2,741	1,883
Palo Alto	1,893	2,388	1,667
Plymouth	2,279	2,774	1,950
Pocahontas	2,349	2,800	2,057
Polk	2,074	2,369	1,735
Pottawattamie	2,212	2,623	1,850
Poweshiek	2,031	2,370	1,795
Ringgold	1,582	1,861	1,333
Sac	2,352	2,825	1,981
Scott	3,208	3,610	2,823
Shelby	2,434	3,093	1,893
Siox	2,160	2,756	1,815
Story	1,994	2,593	1,669
Tama	2,248	2,526	1,909
Taylor	1,838	2,129	1,566
Union	1,912	2,273	1,474
Van Buren	1,510	1,661	1,332
Wapello	1,860	1,984	1,596
Warren	1,546	1,769	1,322
Washington	2,550	2,872	2,176
Wayne	1,473	1,742	1,258
Webster	2,252	2,675	1,924
Winnebago	2,099	2,430	1,839
Winneshiek	2,605	2,685	2,452
Woodbury	1,938	2,447	1,655
Worth	2,170	2,450	1,870
Wright	1,959	2,574	1,604

* Median value is the mid-point of values in a series arranged from lowest to highest. Source: Special Report, U. S. Census, 1930.

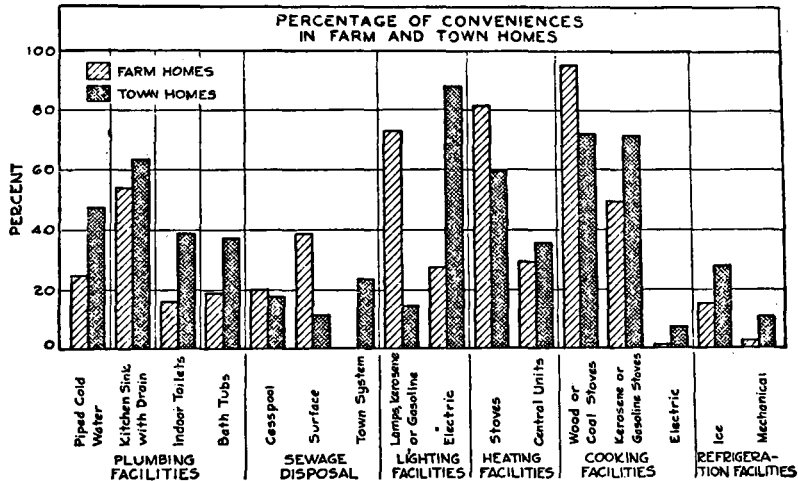
Fig. 177. Town homes in Iowa have the edge on farm homes in certain conveniences. Notice particularly that a much larger proportion of town homes have electric lighting than do farm homes.

TABLE 125. FARM CONVENIENCES.

	Autos	Telephones	Water piped into Homes	Lighted with Electricity
United States	4,134,675	2,391,194	994,202	841,310
Iowa	240,512	180,876	51,635	46,042
Illinois	192,873	147,672	42,391	34,231
Minnesota	185,717	114,693	23,124	23,342
Wisconsin	176,764	107,486	28,454	46,565
Missouri	176,466	137,712	21,308	20,223
Nebraska	141,144	93,888	39,357	21,380
North Dakota	78,798	31,878	5,844	6,192
South Dakota	81,923	44,608	12,089	9,070

Figures indicate conveniences on farms reporting.

Source: U. S. Census, 1930.



CHAPTER VIII. IOWA POPULATION

IOWA'S population history dates back to the eighteenth century. It was in 1795 that the Spanish government granted to Basil Giard the land that is known as Clayton County. In territorial days this grant was known as the Giard Tract.

At about the same time another settlement was taking place within the boundaries of the state. In the area between the converging Des Moines and Mississippi rivers, many traders and trappers were finding an advantageous place to carry on their business. They made friends with the Indians, many of the whites married Indian women and upon the basis of these friendly relations, the Indians granted to one Louis Honore Hudson the land extending

south of a line drawn west from Fort Madison and bounded by the Des Moines and Mississippi rivers.

The two grants, both bordering on the river, became important entries into the state. The southern tract, because of its accessibility, seemed to be more attractive and its agricultural prospects gave it an early lead in the settlement of Iowa.

The start of the new century found Iowa's territory in the hands of the United States because of the Louisiana Purchase in 1803. One of the first problems of the government was to untangle some of the strained relationships between the whites and the Indians that were a result of the land grants made by Spain. The original policy was to prohibit migration into the new ter-

ritory. With that in mind, troops were stationed along the river to drive out squatters and turn back new arrivals.

In 1832 the Blackhawk Purchase opened the territory for settlers and there was a rush of new arrivals in the district. Settlers interested in agriculture replaced the more transient traders and trappers, and in the next few years there was a tremendous increase in the population of the state. Indicative of the rapidity of the settlement is the fact that within scarcely more than a decade some 10,000 square miles were reduced to settlements and made to furnish a living for approximately 40,000 people.

In the 10 years between 1840 and 1850 the population grew rapidly,

DISTRIBUTION OF IOWA'S POPULATION

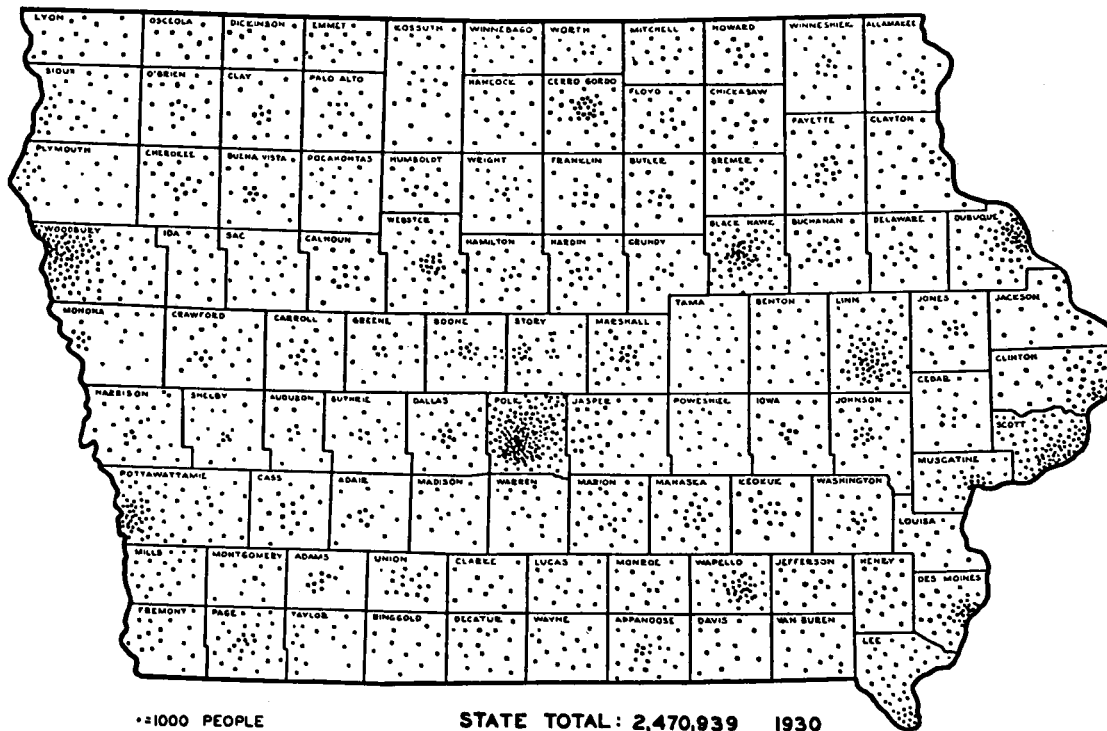


Fig. 178. The above map shows approximately how Iowa's population is distributed through the state. The dots around the cities would be much closer than indicated here, if the map were strictly accurate. Data in table 126.

and by the outbreak of the Civil War there were 674,913 people in the state. At that time there were 31 counties along the eastern and southeastern borders of the state that were in a condition of complete agricultural settlement.

There was a gain of over half a million people in the decade during which the Civil War was fought. This period marks the most rapid gain in the population of the state. The newly passed Homestead Act was responsible for this increase, and most of it took place in the latter part of the period. In the meantime the frontier was rapidly disappearing to the west. By 1880 nearly another half million people had been added to the inhabitants of the state.

By 1890 the population was nearing the 2 million mark, and practically all of the state was settled. Settlers were, in fact, forced to seek free lands outside the boundaries of Iowa.

In the first 10 years of the new century, the population figures showed the first decline in the history of the state when there was a net loss of 7,802 people. The number of people increased during the next two decades, and both the 1920 census and the 1930 census showed increases in population. In 1930 Iowa had a population of 2,470,939 or 44.5 inhabitants per square mile.

Figure 179 shows the growth of Iowa population since 1838. Natural increases were responsible for some of the growth, but Iowa, like most other states that lay in the path of the movement to the west, found its population greatly increased by the influx of settlers. The rural population increased most rapidly as was to be expected from the nature of the country. Later there was an increased trend toward settling in groups and the urban population started to increase.

The settlement of Iowa spread out, fanlike, from the southeastern part of the state. The counties along the Mississippi were the first to be settled. These were the most easily accessible and also were in the line of travel of settlers from Illinois and other states farther east. Gradually, the population began to spread out to all corners of the state. Even as

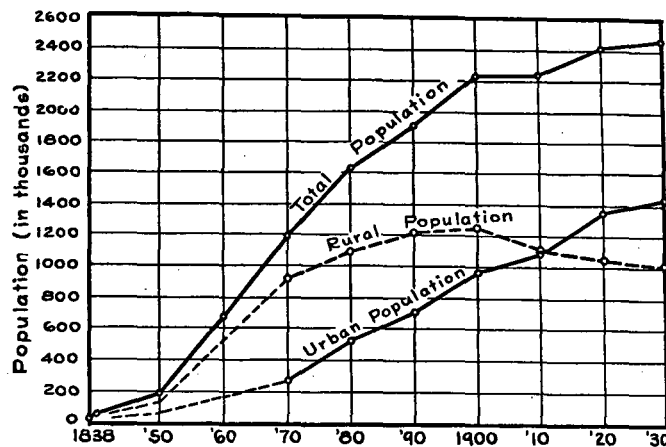


Fig. 179. The lines in this chart show the trends of total, rural and urban population in Iowa. Note that urban population has passed rural population in recent years. Data in table 127.

early as 1860 nearly half the state had a normal agricultural population—15 or more persons per square mile. In 1880 only a few counties in the northwest corner had less than a normal rural inhabitation, and by 1890 the whole state had a density of 15 or more people per square mile.

Figure 180 shows the progress of the settlement of the state. In 1840, it will be seen that most of the state was unsettled and only 50 years later, less than a normal lifetime, the state was able to boast a settlement of nearly 2 million people.

Since the settlement of Iowa there has been a change in source of the migrants into the state. In the early days of the state, many of the migrants who were responsible for the rapid increase in population came from the eastern states of Ohio, Indiana, Kentucky, Pennsylvania, Virginia and New York. Ohio was the heaviest contributor to this state's population. As the state became more settled migrants began to come from other places, and bordering states began to supply settlers.

Figure 181, in a series of maps, shows this change in the source of migrants. Now Nebraska, Missouri, Minnesota and Wisconsin are losing people who are coming to Iowa to live. All of the western states have lost some residents to Iowa, while formerly very few came east.

This change follows the westward movement of the center of popula-

tion in the same period. Development of western lands brought those seeking new fields out of the east and some of them remained in Iowa. Figure 183 shows the trend in migration since the early days of the state. While there are still many who were born in other states living in Iowa, the increase of incoming residents has ceased. Since 1880 migration has been reversed and more people have been going out of the state than have been coming in. This number reached its peak in 1900 and decreased some by 1910. Indications point toward a more stabilized situation in the future with fewer people leaving the state.

Reduction of the number of people leaving the state is one of the problems that must be solved by those who are planning for the future of Iowa. In the early days of the state this movement to other states was a matter of settling the country. As some of the settlers moved out to seek their fortunes farther west, others were coming in from the eastern states to settle in Iowa. More people were staying in the state than were going out and the population grew rapidly.

Now the situation is changed. The population is increasing slowly due to an excess of births over deaths, but more people are going out of the state than are coming in. Most of the people leaving are of the younger groups between the ages 20 and 30.

TABLE 126. IOWA POPULATION—1930.

Figure 182 shows the movement of the native white migrants born in Iowa who are residing in other states. The numbers have been increasing yearly since 1870. At that time a few went to the bordering states. In the years since the numbers going to more distant states have increased while the bordering states have also claimed many former Iowa residents. By 1930 California had called more Iowans to its borders than any of the states adjoining Iowa, and Colorado, Washington, Oregon and other western states had large numbers of Iowa-born people.

Urban-Rural Distribution

Since the agricultural possibilities are what brought the thousands of settlers flocking to Iowa, it is to be expected that in the early days at least Iowa residents would be predominately rural. That was the situation when the state was being settled. The pioneers were chiefly concerned with turning the 55,000 square miles of the state into as many fertile farms as possible. They made their own living with very little in the way of outside purchases, and they stayed with the soil, since there were not then many commercial opportunities.

The trend toward a larger urban population began about 1870. Several factors have been at work to bring this about. Industrial projects have sprung up offering work to those on the farms. Then there has been the advent of labor-saving machinery on the farm that enabled the farmer to get along with less help. Many hired men, sons and daughters were not needed on the farm any more so they went to the city to seek employment. Farmers retire sooner than they used to and usually move to town where they are numbered among the urban population. All of these factors have tended to concentrate the population in the cities.

Figure 185 shows the urban-rural distribution of the state's population since 1900. In that year over half of the population was classed as rural, but each year since then the rural population has been decreasing. In 1930, the census figures show that nearly 60 percent of the

County	Total	Male	Female	Urban	Rural ¹	Rural Farm	Rural Non-Farm
Adair	13,891	7,133	6,758	.....	13,891	9,044	4,847
Adams	10,437	5,373	5,064	.....	10,437	7,165	3,272
Allamakee	16,328	8,534	7,794	2,526	13,802	9,657	4,145
Appanoose	24,835	12,689	12,146	8,147	16,688	8,774	7,914
Audubon	12,264	6,368	5,896	.....	12,264	8,043	4,221
Benton	22,851	11,820	11,031	6,611	16,240	11,737	4,503
Black Hawk	69,146	34,403	34,743	53,553	15,593	11,047	4,546
Boone	29,271	14,965	14,306	11,886	17,385	10,764	6,621
Bremer	17,046	8,629	8,417	3,652	13,394	9,143	4,251
Buchanan	19,550	9,974	9,576	3,691	15,859	10,086	5,773
Buena Vista	18,667	9,544	9,123	4,157	14,510	9,388	5,121
Butler	17,617	8,983	8,634	.....	17,617	10,188	7,429
Calhoun	17,605	8,967	8,638	.....	17,605	9,693	7,912
Carroll	22,326	11,250	11,076	4,691	17,635	11,061	6,574
Cass	19,422	9,818	9,604	5,585	13,837	9,371	4,466
Cedar	16,760	8,670	8,090	.....	16,760	9,727	7,033
Cerro Gordo	38,476	19,511	18,965	26,370	12,106	9,141	2,965
Cherokee	18,757	9,746	8,991	6,443	12,294	8,989	3,305
Chickasaw	14,637	7,512	7,125	.....	14,637	9,002	5,635
Clarke	10,384	5,334	5,050	2,871	7,513	6,274	1,239
Clay	16,107	8,258	7,849	5,010	11,088	8,472	2,616
Clayton	24,559	12,852	11,707	.....	24,559	13,600	10,959
Clinton	44,377	22,455	21,922	25,726	18,651	11,823	6,828
Crawford	21,028	10,927	10,043	3,905	17,123	12,027	5,096
Dallas	25,493	13,070	12,423	5,881	19,612	10,625	8,987
Davis	11,150	5,695	5,455	.....	11,150	7,799	3,351
Decatur	14,903	7,645	7,258	.....	14,903	8,581	6,322
Delaware	18,122	9,250	8,872	3,413	14,709	10,703	4,006
Des Moines	38,162	18,722	19,440	26,755	11,407	7,460	3,947
Dickinson	10,982	5,675	5,307	.....	10,982	7,460	5,309
Dubuque	61,214	29,995	31,219	41,679	19,535	11,742	7,793
Emmet	12,856	6,596	6,260	4,940	7,916	5,962	1,954
Fayette	29,145	14,731	14,414	7,794	21,351	13,046	8,306
Floyd	19,524	10,037	9,487	8,039	11,485	7,893	3,592
Franklin	16,382	8,544	7,838	3,473	12,909	9,791	3,118
Fremont	15,533	7,984	7,549	.....	15,533	9,008	6,525
Greene	16,528	8,576	7,952	3,431	14,133	9,333	3,764
Grundy	14,133	7,312	6,821	.....	14,133	8,665	5,468
Guthrie	17,324	8,809	8,515	.....	17,324	10,131	7,193
Hamilton	20,978	10,874	10,104	7,024	13,954	10,310	3,644
Hancock	14,802	7,783	7,019	.....	14,802	9,501	5,301
Hardin	22,947	11,972	10,975	7,312	15,635	10,023	5,612
Harrison	24,897	12,935	11,962	4,230	20,667	13,349	7,318
Henry	17,660	8,932	8,728	3,743	13,917	7,968	5,949
Howard	13,082	6,768	6,314	3,069	10,013	7,655	2,358
Humboldt	13,202	6,901	6,301	.....	13,202	7,201	6,001
Ida	11,933	6,233	5,700	.....	11,933	7,009	4,924
Iowa	17,332	8,872	8,460	.....	17,332	10,713	6,619
Jackson	18,481	9,477	9,004	3,595	14,886	9,596	5,290
Jasper	32,936	16,915	16,021	11,560	21,376	13,468	7,908
Jefferson	16,241	8,174	8,067	6,619	9,622	7,474	2,148
Johnson	30,276	15,022	15,254	15,340	14,936	10,968	3,968
Jones	19,206	10,499	8,707	3,579	15,627	9,691	5,936
Keokuk	19,148	9,778	9,370	.....	19,148	10,898	8,250
Kossuth	25,452	13,219	12,233	3,985	21,467	15,800	5,667
Lee	41,268	21,051	20,217	28,885	12,383	8,983	3,400
Linn	82,336	40,586	41,750	60,445	21,891	14,024	7,867
Louisa	11,575	5,986	5,589	.....	11,575	6,165	5,410
Lucas	15,114	7,690	7,424	5,365	9,749	6,925	2,824
Lyon	15,293	7,963	7,330	.....	15,293	9,376	5,917
Madison	14,331	7,373	6,958	2,921	11,410	8,952	2,458
Mahaska	25,804	12,875	12,929	10,123	15,681	11,619	4,062
Marion	25,727	13,459	12,268	8,023	17,704	10,650	7,054
Marshall	33,727	16,965	16,762	17,373	16,354	10,694	5,660
Mills	15,866	8,214	7,652	4,269	11,597	7,590	4,007
Mitchell	14,065	7,251	6,814	2,964	11,101	7,985	3,116
Monona	18,213	9,522	8,691	2,538	15,675	11,041	4,634
Monroe	15,010	7,738	7,272	4,425	10,585	7,474	3,111
Montgomery	16,752	8,524	8,228	5,778	10,974	7,090	3,884
Muscatine	29,385	14,851	14,534	16,778	12,607	7,783	4,824
O'Brien	18,409	9,386	9,023	3,320	15,089	9,156	5,933
Osceola	10,182	5,310	4,872	.....	10,182	6,436	3,746
Page	25,904	13,102	12,802	11,464	14,440	9,510	4,930
Palo Alto	15,398	8,011	7,387	2,865	12,533	8,924	3,609
Plymouth	24,159	12,673	11,486	4,788	19,371	13,857	5,514
Pocahontas	15,687	8,034	7,653	.....	15,687	9,696	5,991
Polk	172,837	84,385	88,452	146,839	25,998	12,437	13,561
Pottawattamie	69,888	35,492	34,396	42,048	27,840	18,790	9,050
Poweshiek	18,727	9,438	9,289	4,949	13,778	9,660	4,118
Ringgold	11,966	6,094	5,872	.....	11,966	7,848	4,118
Sac	17,641	9,039	8,602	2,854	14,787	9,038	5,749
Scott	77,332	39,002	38,330	63,519	13,813	9,431	4,382
Shelby	17,131	8,867	8,264	3,145	13,986	10,691	3,295
Sioux	26,806	13,687	13,119	.....	26,806	15,451	11,355
Story	31,141	15,547	15,594	13,394	17,747	10,694	7,053
Tama	21,987	11,356	10,631	2,626	19,361	11,715	7,646
Taylor	14,859	7,434	7,425	.....	14,859	8,857	6,002
Union	17,435	8,753	8,682	8,615	8,820	6,263	2,557

TABLE 126. IOWA POPULATION—1930—Continued.

County	Total	Male	Female	Urban	Rural	Rural Farm	Rural Non-Farm
Van Buren.....	12,603	6,331	6,272	.....	12,603	7,265	5,338
Wapello.....	40,480	20,287	20,193	28,075	12,405	7,986	4,419
Warren.....	17,700	8,948	8,752	3,488	14,212	10,610	3,602
Washington.....	19,822	10,175	9,647	4,814	15,008	9,899	5,109
Wayne.....	13,787	6,930	6,857	.....	13,787	7,356	6,431
Webster.....	40,425	20,569	19,856	21,895	18,530	11,749	6,781
Winnebago.....	13,143	6,851	6,292	.....	13,143	8,145	4,998
Winneshiek.....	21,630	11,134	10,496	4,581	17,049	13,334	3,715
Woodbury.....	101,669	51,246	50,423	79,183	22,486	14,701	7,785
Worth.....	11,164	5,832	5,332	.....	11,164	7,068	4,096
Wright.....	20,216	10,372	9,844	6,649	13,567	9,389	4,178
Total.....	2,470,939	1,255,101	1,215,838	979,292	1,491,647	964,659	526,988

1. Towns are classified as urban if they have more than 2,500 inhabitants.
Source: U. S. Census, 1930.

population were classed as urban or living in incorporated places. Approximately 40 percent lived in cities of 2,500 or over.

Table 128 shows the number of cities according to their size. This table also shows the gain in urban population. Since 1890 there has been an increase of approximately a half million people in the cities. There are nearly 200,000 more people in villages, and the farm inhabitants have decreased by nearly the same amount.

Constituency of Iowa Population

Native born Americans have predominated in the flow of immigration to Iowa. The people who came into the state were from the eastern states of Indiana, Ohio, New York, Pennsylvania, the Virginias, the Carolinas and the New England states. They were English-speaking, native born residents of the same stock as the people who had settled the country along the Atlantic seaboard.

In 1856 only about 18 percent of Iowa's population had been born in the state. Over 65 percent had been born in other states and some 16 percent had been born abroad. By 1900, however, the set-up had changed, and nearly 60 percent of the residents had been born in the state, 27 percent in other states, and 13 percent foreign born. In 1930, 73 percent were born in the state, 20 percent in other states, and 7 percent foreign. It was not until 1890 that native-born Iowans comprised 50 percent of the population.

From fig. 189 it can be seen that German-born foreigners exceed by far those of any other country. In 1895 Ireland was in second place but by 1925 had dropped down to tenth place while Sweden was second to Germany.

Marriage and Divorce

There has been much publicity given to the belief that during the last 20 years the trend has been toward postponing marriage until later in life and that fewer people are marrying. There has been a slight increase, however, in the number of married persons between the ages of 15 and 34 in Iowa.

Iowans then are not putting off marriage nor are fewer of them marrying. From the available figures, it appears that the rural communities have more single men than the urban districts. There are more single women in the urban communities, probably because many of the younger women leave the rural districts to go to the city where they

either marry or obtain jobs in business or professional lines.

Although there is considerable talk about the increasing number of divorces, the number of Iowa people involved in divorces is not alarming. In 1920 only eight-tenths of one percent of the married people were reported as divorced. More divorces were obtained in urban communities than in rural. There were more widowed females in urban communities than in rural areas. Since city women are more likely to enter commercial careers, it follows that the percentage of widows is higher in cities than in the rural communities. They are less likely to marry than farm women who find it impossible to carry on alone with the business of farming.

Birth and Death Rates—Future Population

The rate of growth of Iowa's population has been steadily declining since 1840. During the second decade of the present century, the increase was 8.1 percent and only 10 years later it had dropped to 2.8.

According to recent estimates, Iowa's population has nearly reached the maximum that is predicted for the state. The total population of the state may never reach 3 million and the year 2,000 may find the total smaller than the present figure of 2,471,000.

Present indications are that the population may reach its maximum figure some time between 1960 and 1980, probably about 1970. An estimate by P. K. Whelpton places the probable population in that year

TABLE 127. IOWA POPULATION (1838-1930).

Year	Total Population	Rural (1)		Urban (2)	
		Population	Percent	Population	Percent
1930.....	2,470,939	1,026,725	41.6	1,444,214	58.4
1920.....	2,404,021	1,053,060	43.8	1,350,961	56.2
1910.....	2,224,771	1,117,642	50.2	1,107,229	49.8
1900.....	2,231,853	1,261,230	56.5	970,623	43.5
1890.....	1,911,896	1,209,634	63.3	702,262	36.7
1880.....	1,624,615	1,094,615(*)	67.4	530,000(*)	32.6
1870.....	1,194,020	914,020(*)	76.6	280,000(*)	23.4
1860.....	674,913	.....	.....	.....	.....
1850.....	192,214	.....	.....	.....	.....
1840.....	43,112	.....	.....	.....	.....
1838.....	22,859	.....	.....	.....	.....

1. Farm population and unincorporated hamlets.
2. Cities, towns and incorporated villages.
3. Approximately correct from 1915 Census of Iowa.
Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart.

at 2,662,000 people, only 200,000 larger than the present population.

The percentage increase in the population has dropped to almost nothing, and present conditions leave no room for an increase. Iowa's population will probably decrease for some time after the maximum point is reached.

Three important variables affect the future of the state's population. These are: The birth rate, the death rate and migration.

Since birth records have been kept, the state's birth rate has been on a constant decline. In 1840, 474 children per 1,000 women, 15 to 44 years of age, were born. By 1930 this number had dwindled to 83. By 1980 it is estimated that the number will drop to 66. It is probable that this decline will continue for a generation and after that time will come to a constant figure.

In 1840 there were 1,048 children between the ages of 0 to 4, per 1,000 women between the ages of 15 to 44, and by 1930 this number had dropped more than 50 percent to 413.

The decline has been less in the rural than in the urban districts. There are several reasons for the decline. Voluntary action probably explains most of them. Children are less of an economic burden on the farm. Some city women seek commercial careers to fill in their time, since their household duties are less exacting than on the farm. The social life of the farm is more often built around the family than in the city. For these reasons there is perhaps a greater tendency for the city families to restrict the number of children.

For the most part, however, there has been a decrease in the number of families rather than an increase in the number of childless families. The prediction that the decline in birth rates in the future will not be as rapid as in the past is based upon the presumption that all of the factors have been brought to bear upon the rate, and any future action will have less force and will not be as severe. The estimated birth rate for 1980 is 20 percent less than in 1930.

Natural Increase and Emigration

One of the reasons why Iowa's population has not increased more rapidly is because the movement of the people out of the state has obscured a part of the natural increase. The original population of the state, of course, came from other states. Illinois, Ohio, Indiana, New York

and other eastern states helped stock the state in its early days. But since then, Iowa's residents have started moving to other states. Even by 1870 there were large numbers of Iowa-born residents in the adjoining states.

Net migration from 1840 to 1850 was 135,000 people and the natural

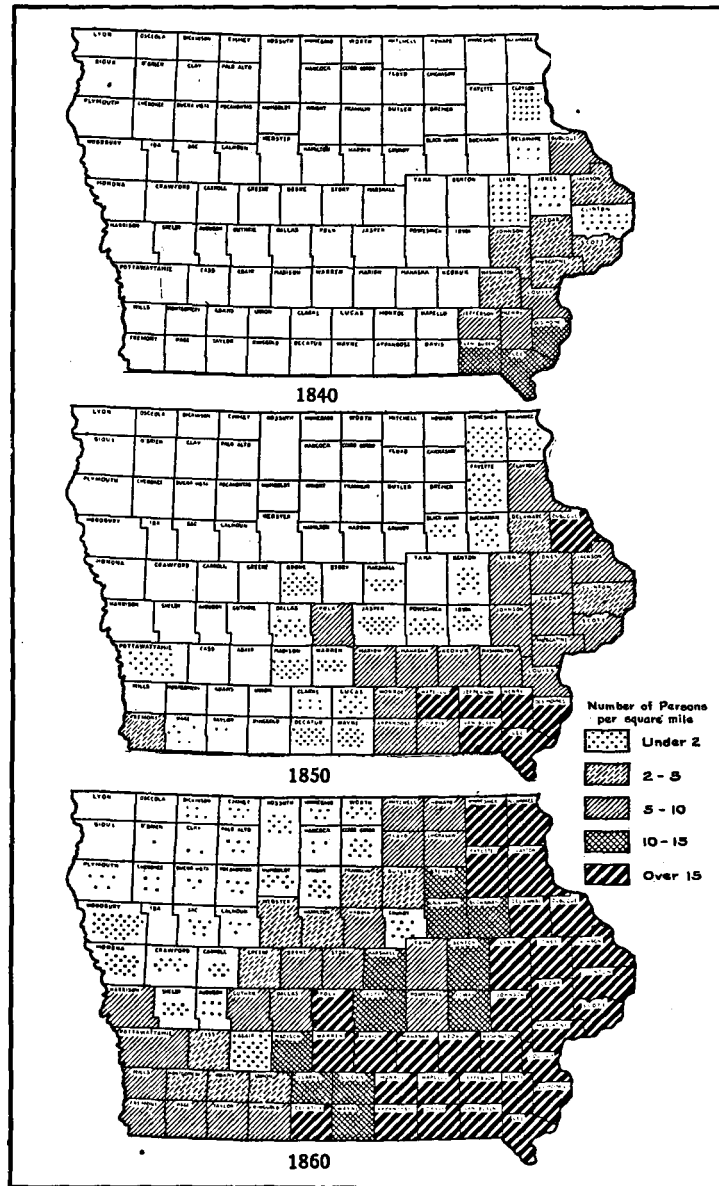
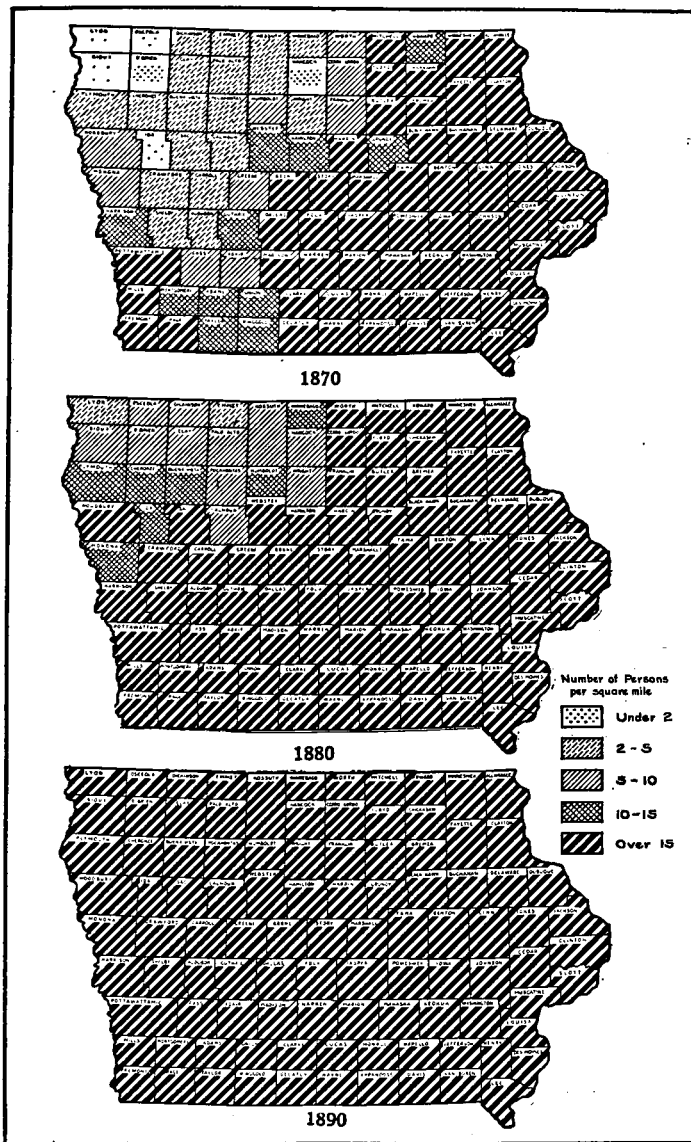


Fig. 180. The series of maps shown here picture the progress of settlement of the state by 10-year periods from 1840 to 1890. Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart.



increase was 14,000, giving a total increase of 149,000. In the 10 years from 1900 to 1910, however, the migration was a minus 343,000, the natural increase was 336,000, leaving a loss of 7,000 people to the state. Since 1910 the state's population has increased each decade. By 1980 it is expected that the death rate will have exceeded the birth rate and that the state will lose 11,000 people in the decade 1970-1980.

If the national government con-

tinues its policy of restricted immigration, Iowa with no undeveloped resources to be tapped, no water power to be utilized, and no prospect of expanded industrial activity has little chance of attracting people within its borders. In fact during the next 50 years, Iowa can expect to lose half of her natural increase through people moving to other states.

Until 1923 the number of deaths in the state was not recorded but

data from comparable areas indicate that death rates have been and still are decreasing. For all age groups the death rate for rural inhabitants is lower than that of urban inhabitants.

Expectation of Life

Increases in the expectation of life result in part from decreasing death rates of infants under 1 year of age. Further increase in expectation of life may be attributed to increased control of disease, improved health conditions in cities and to the increase in the percentage of the population that is native born. During the next 50 years it is probable that the death rate will be lowered 50 percent for children under 5 years of age. For those between the ages of 25 and 45, it will be lowered from 20 to 40 percent and for those between 45 and 75 it may be reduced less than 10 percent.

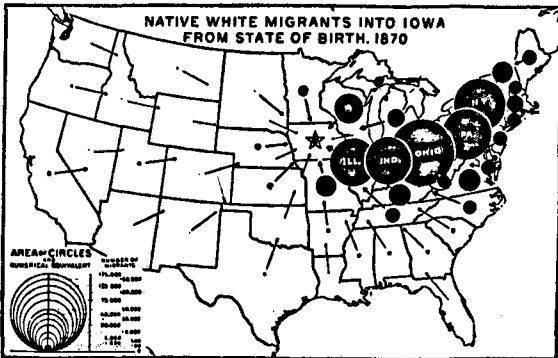
Table 132 shows the expectation of life at selected ages. In 1910 the average number of years of life which a young man 20 years of age might expect was 47.7 and by 1930 it had increased to 49.6. By 1980 the estimate is 51.9 for a 20-year-old person.

The records show that birth rates have been falling faster than death rates. Estimates show that if these rates continued to fall during 1934 and 1935 at the same rates as they did during 1930-33 the population of Iowa had a true rate of natural decrease by 1935 and will not reproduce itself on a permanent basis in the future. Some growth would occur for a few years, but once the population becomes stabilized, growth would end and a small decline in numbers commence.

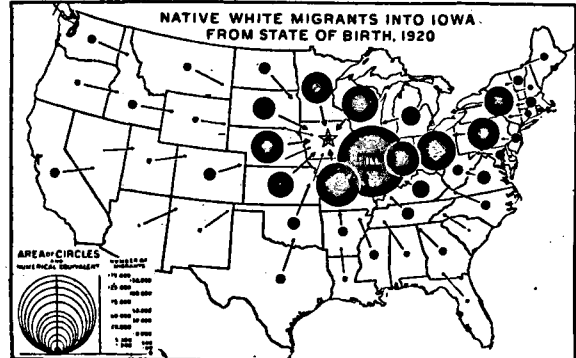
Future Population

Estimates on Iowa's future population indicate that there will be considerably more people in the advanced ages than at present. The number of children between the ages of 0 to 4 in 1930 was 220,000. The prediction for 1980 is 165,000. The numbers of people between the ages of 44-49 will increase and the number of people over 75 will double, from 57,000 in 1930 to 131,000 in 1980.

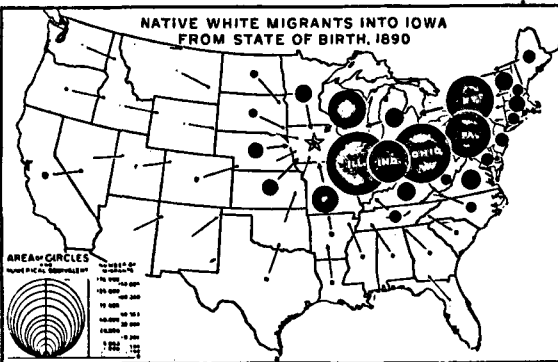
With these predictions in mind, the passing of one generation will



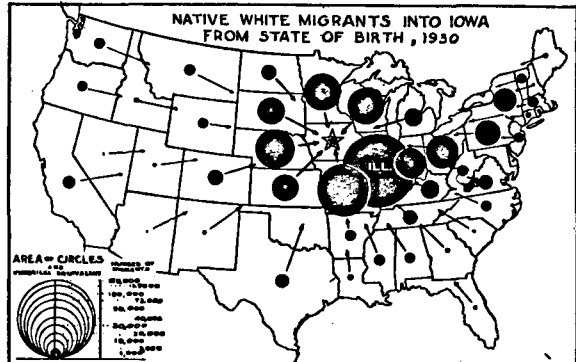
MAP 1



MAP 3



MAP.2



MAP4

Fig. 181. The four maps shown above represent the movement of people from other states into Iowa from 1870 to 1930. Note the heavy movement from the eastern states in early days as compared with the light movement from that section now.

Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart, and 1930 U. S. Census.

TABLE 128. POPULATION OF CITIES, VILLAGES, FARMS AND UNINCORPORATED HAMLETS. 1930, 1920, 1910, 1900 and 1890.

	1930			1920			1910			1900			1890		
	No.	Population	%	No.	Population	%	No.	Population	%	No.	Population	%	No.	Population	%
State total.....		2,470,939	100		2,404,021	100		2,224,771	100		2,231,853	100		1,911,896	100
Cities ¹ total.....	81	979,292	39.6	81	875,495	36.4	69	680,054	30.6	70	572,386	25.6	46	405,764	21.2
100,000 and over	1	142,559	5.8	1	126,468	5.3	.....	.....	.....	.....	.....	.....	.....	.....	.....
25,000-100,000	9	406,505	16.4	6	285,053	11.9	8	330,091	14.8	6	218,259	9.8	4	145,802	7.6
10,000-25,000	11	167,405	6.8	11	192,629	8.0	9	137,107	6.2	8	129,096	5.8	7	115,234	6.0
5,000-10,000	14	94,173	3.8	18	114,802	4.8	9	59,402	2.7	10	70,618	3.2	8	56,582	3.0
2,500-5,000	46	168,650	6.8	45	156,543	6.5	43	153,454	6.9	46	154,413	6.9	27	88,866	4.6
Villages ² total.....	836	464,922	18.8	828	475,466	19.8	715	427,175	19.2	601	398,237	17.8	416	296,498	15.5
1,000-2,500	123	186,409	7.5	129	192,550	8.0	114	172,417	7.7	116	173,057	7.8	.....	.....	.....
500-1,000	213	147,718	6.0	219	154,369	6.4	209	143,854	6.5	196	136,336	6.1	.....	.....	.....
Under 500	500	130,795	5.3	480	128,547	5.3	392	110,904	5.0	289	88,844	4.0	.....	.....	.....
Farm and Unincorporated Hamlets		1,026,725	41.6		1,053,060	43.8		1,117,642	50.2		1,261,230	56.5		1,209,634	63.3

1. Urban population derived from Federal census reports.
 2. Village population derived from Iowa census report on urban population.
 Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart.

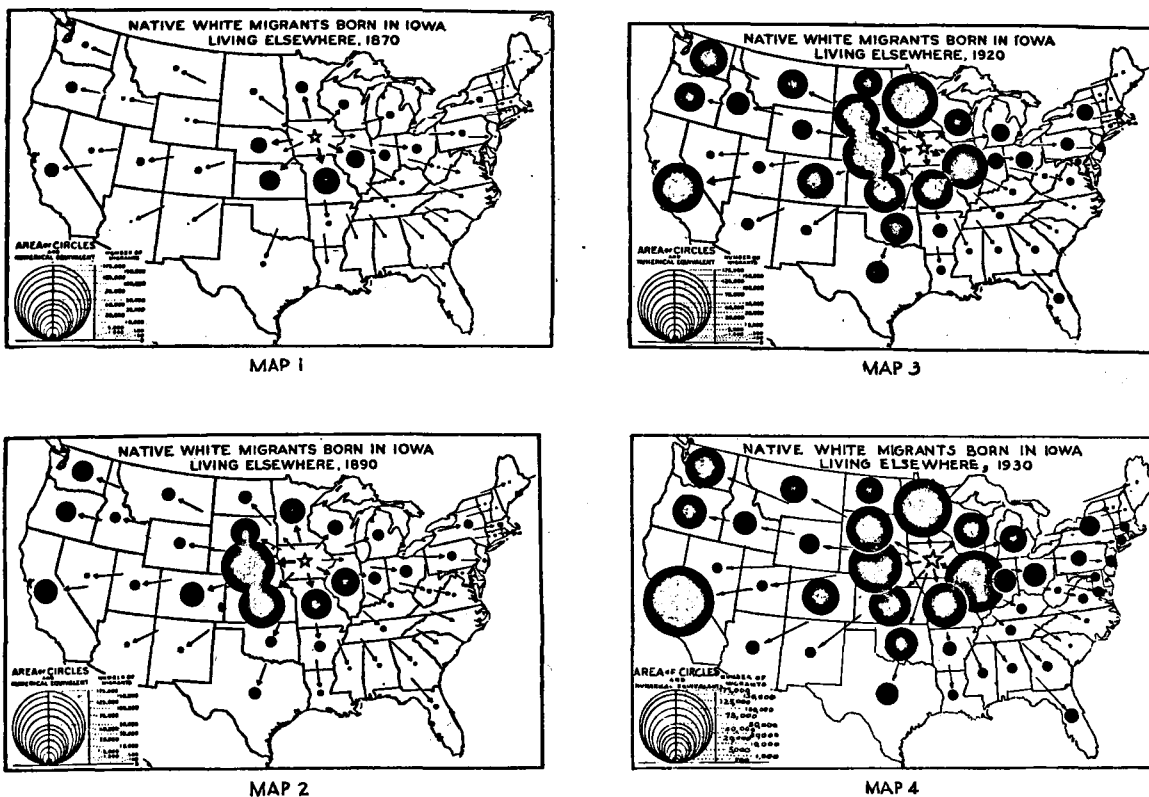


Fig. 182. These maps show the exodus of Iowans to other states. California has been the new home of many former Iowa dwellers in recent years.

Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart, and 1930 U. S. Census.

TABLE 129. FOREIGN BORN POPULATION LIVING IN IOWA FROM 1856 TO 1930 BY COUNTRY OF BIRTH.

	1930	1925	1915	1905	1895	1885	1856
Germany.....	53,901	61,518	88,450	110,187	132,347	120,396	29,706
Sweden.....	16,810	18,911	25,683	28,396	31,085	25,396	1,116
Denmark.....	14,698	15,455	18,955	17,290	17,043	12,250	.....
Norway.....	12,932	14,217	20,239	23,953	27,428	24,107	2,782
Netherlands.....	10,135	12,094	12,638	9,677	9,126	5,461	589
England.....	9,045	10,988	15,741	18,263	23,411	25,974	8,941
Austria.....	1,596	10,803	7,655	4,040	11,128	.....	1,426
Canada.....	6,333	8,411	10,980	14,306	17,882	19,087	6,133
Russia.....	4,482	8,197	9,896	3,825	2,100	.....	96
Ireland.....	5,957	7,786	14,299	22,578	33,006	42,524	20,896
Italy.....	3,834	4,513	6,261	1,645	710	.....	7
Scotland.....	2,871	3,450	4,947	5,693	7,037	7,993	2,170
Mexico.....	176	2,597	616	21	30	.....	1
Switzerland.....	2,096	2,403	3,160	3,845	2,694	.....	1,108
Greece.....	1,910	1,868	4,678	.....	.....	.....	3
France.....	1,435	1,564	1,883	1,719	2,329	2,486	1,807
Luxemburg.....	873	1,187	.....	.....	.....	.....	.....
Belgium.....	932	1,132	.....	.....	727	.....	1,511
Wales.....	1,183	958	2,048	2,621	3,439	3,436	595
Hungary.....	295	483	1,300	551	.....	.....	.....
Bohemia.....	.....	.....	9,500	9,098	.....	10,423	.....
Unknown.....	.....	.....	269	2,833	3,552	.....	4,565
All others.....	.....	5,640	4,971	1,801	5,354	10,871	447

Countries from each of which less than 1,000 had come are grouped as "All others."
Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart.

bring Iowa face to face with the problems of a stationary population.

There are many problems that must be faced. There is the changing age distribution that will decrease by one-third the proportion of the population under 20 and double the proportion over 65. The decrease in the number of children to be educated may be balanced by the need for more adult education. Pensions or other means of caring for the aged will become increasingly important. The total number of dependent people, however, both young and old is not likely to increase.

Stationary population will call for a stabilized agriculture. Farmers will no longer be able to depend up-

on a growing population as an outlet for their products.

These conditions call for careful planning on the part of those responsible for Iowa's future. Some of the slowing down effects may be harmful but if met carefully can be taken care of with maximum advantage to all.

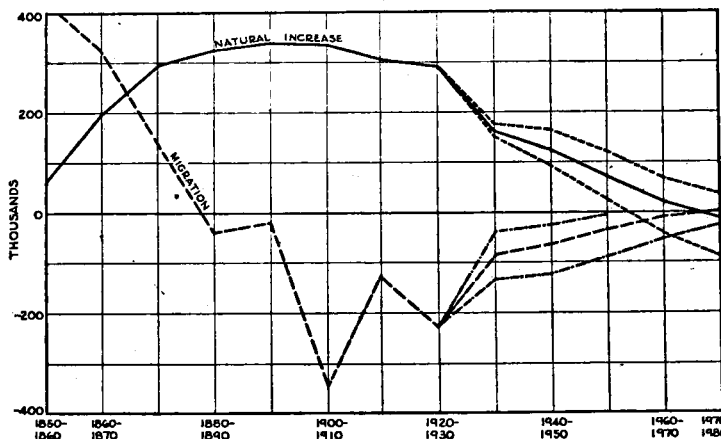


Fig. 183. This diagram shows the trends in the natural increase of Iowa population and migration. Since 1880 we have had a net out-movement of population from the state.

Source: Iowa Agr. Exp. Sta., Bul. No. 177, P. K. Wheelpton.

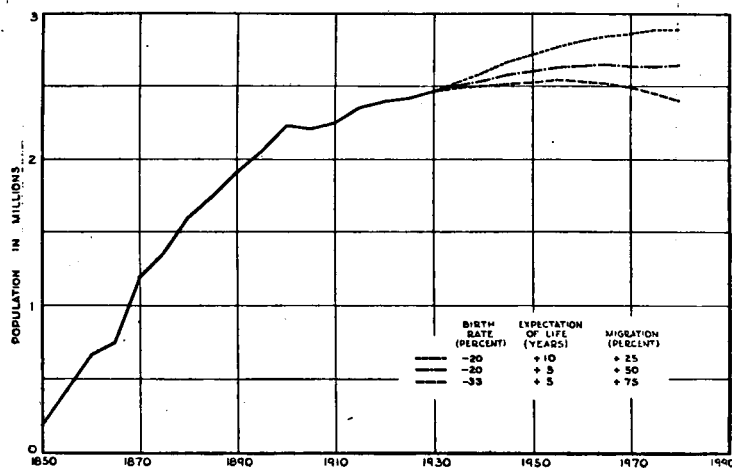


Fig. 184. This chart shows the trend of Iowa population with estimates for the next 50 years. Data in table 133.

TABLE 180. IOWA POPULATION FOREIGN BORN, BORN IN OTHER STATES AND BORN IN IOWA, 1856 to 1930.

	1856	%	1875	%	1885	%	1895	%	1900	%		
Foreign born.....	85,449	16.5	202,583	15.0	310,405	17.2	330,548	15.9	305,920	13.8		
Born in other states.....	337,138	65.1	592,893	43.9	615,517	35.2	593,451	28.6	600,353	27.0		
Born in Iowa.....	95,288	18.4	555,077	41.1	828,058	47.6	1,134,070	55.5	1,318,377	59.1		
Total.....	517,875		1,350,553		1,753,980		2,058,069		2,231,853			
	1905	%	1910	%	1915	%	1920	%	1925	%	1930 ¹	%
Foreign born.....	282,296	12.7	273,765	12.4	264,169	11.2	225,994	9.5	194,176	8.0	165,785	6.7
Born in other states.....	547,847	24.8	524,774	23.7	542,502	23.0	543,565	22.7	481,547	19.9	495,617	20.2
Born in Iowa.....	1,380,148	62.5	1,416,584	63.9	1,551,395	65.8	1,624,606	67.8	1,744,204	72.1	1,798,034	73.1
Total.....	2,210,291		2,224,771		2,358,066		2,404,021		2,419,927		2,459,436	

1. New York World-Telegram Almanac.
Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart.

POPULATION OF IOWA
URBAN, VILLAGE, AND RURAL

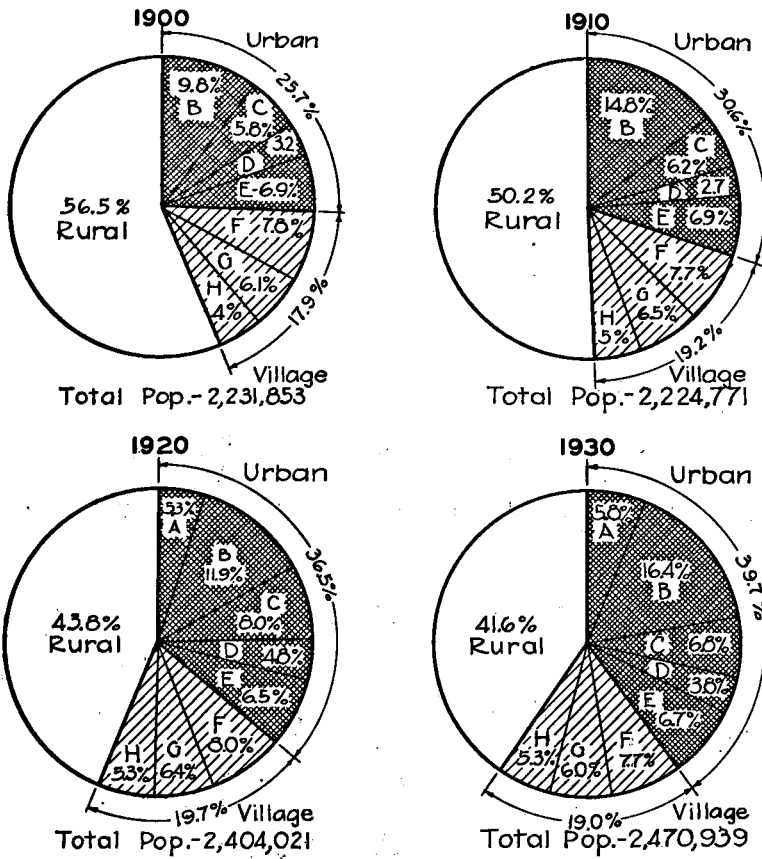
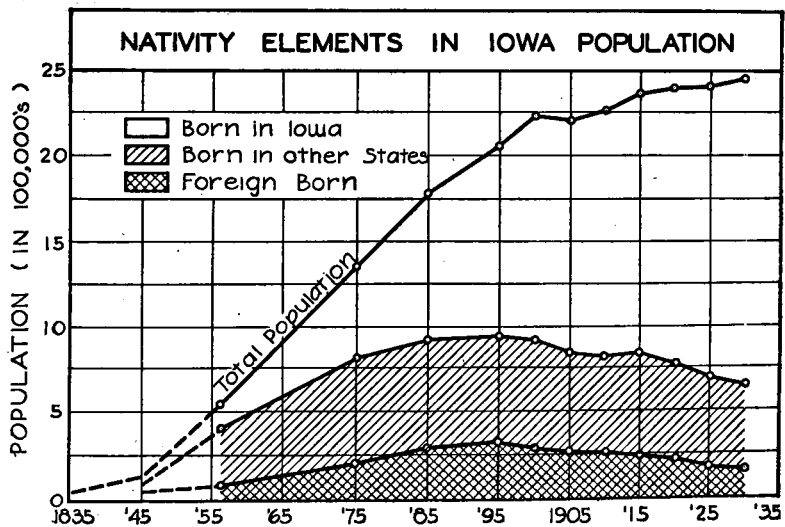


Fig. 185. These diagrams show the proportion of urban, village and rural people in Iowa. Notice the increase in the percentage of urban population. Data in table 128.

- A—100,000 and over
- B—25,000 to 100,000
- C—10,000 to 25,000
- D—5,000 to 10,000
- E—2,500 to 5,000
- F—1,000 to 2,500
- G—500 to 1,000
- H—Under 500

Fig. 186. This graph shows the trends of Iowa population by nativity elements. There has been a decline of "foreign born" and "born in other states" in recent years. Data in table 130.



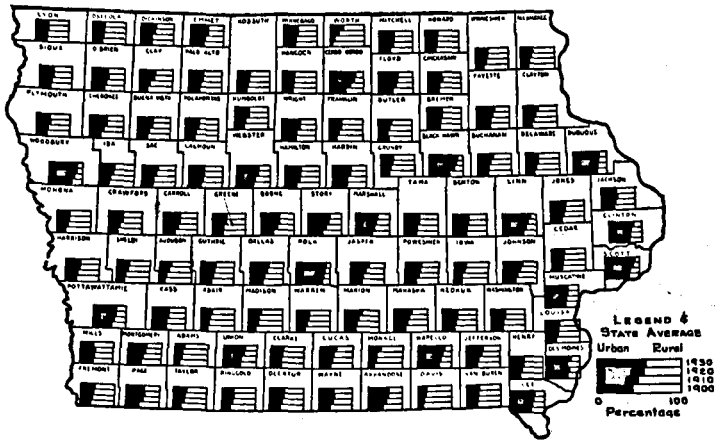


Fig. 187. The bars in the counties on this map represent proportions of urban and rural population. All incorporated places are included in "urban."

Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart.

CHANGE IN RURAL POPULATION

PERCENTAGE CHANGES IN RURAL POPULATION FROM 1920 TO 1930

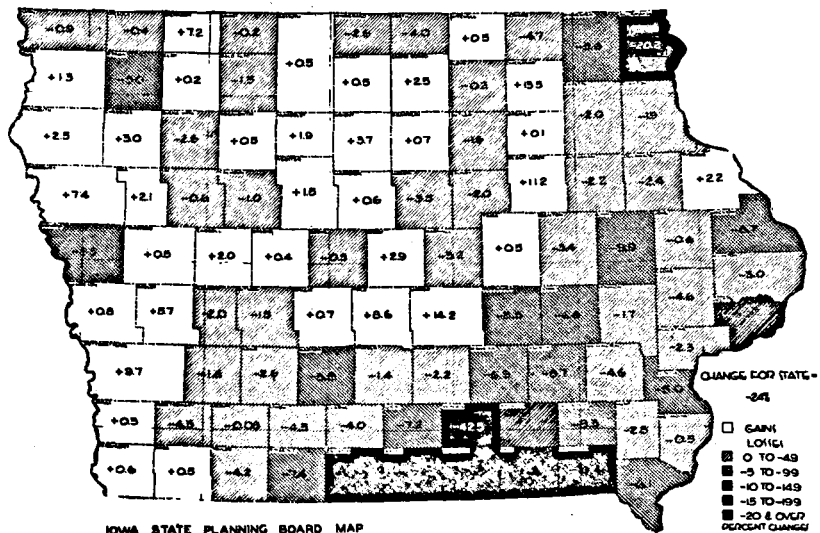


Fig. 188. The figures in this map show the net percentage change in rural population from 1920 to 1930. The 20 percent decline for Allamakee County is misleading, since Waukon graduated from the rural to the urban class between 1920 and 1930.

Source: U. S. Census, 1930.

TABLE 131. RACE AND NATIVITY ELEMENTS IN IOWA POPULATION.

	1930 ^a	1925 ¹	1910 ²	1900 ³	1890 ³
Total.....	2,470,939	2,419,927	2,224,771	2,231,853	1,911,896
Native white of native parents					
Number.....	1,697,538	1,574,647	1,303,526	1,261,068	1,063,967
Percent.....	68.7	65.1	58.6	56.5	55.6
Native white of foreign or mixed parentage					
Number.....	585,109	631,731	632,181	651,817	513,187
Percent.....	23.7	26.1	28.4	29.2	26.9
Foreign born white					
Number.....	165,735	192,486	273,484	305,782	323,932
Percent.....	6.7	8.0	12.3	13.7	16.9
Colored					
Number.....	22,557	21,063	15,580	13,186	10,810
Percent.....	.9	.8	.7	.6	.6

1. From 1925 Census of Iowa.
2. From 1915 Census of Iowa.
3. From 1900 U. S. Census.

Source: Iowa Agr. Exp. Sta., Bul. No. 275, W. L. Harter and R. E. Stewart.

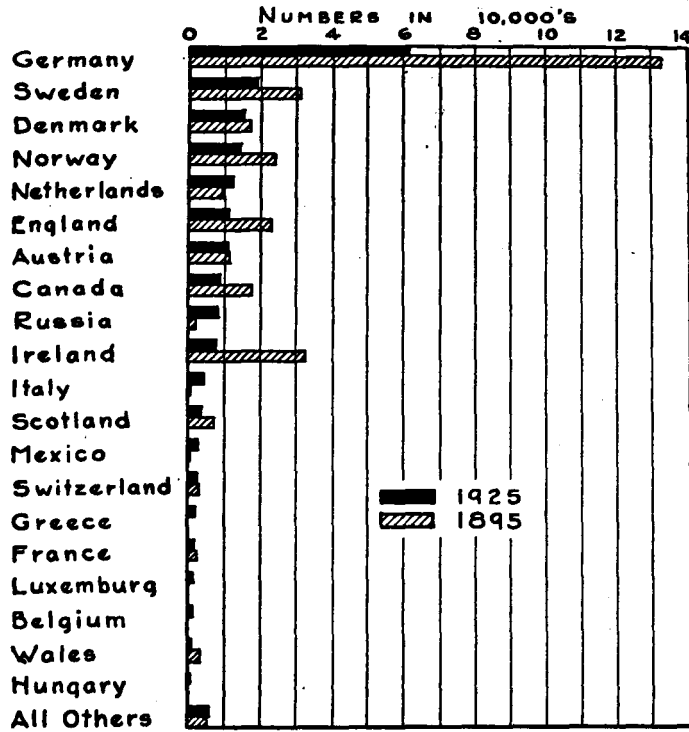


Fig. 189. The country of birth of Iowa's foreign born in 1895 and 1925 are shown in this chart. Germany has contributed more of Iowa's foreign born than any other country.

Source: Iowa Agr. Exp. Sta. Bul. No. 275, W. L. Harter and R. E. Stewart.

TABLE 132. EXPECTATION OF LIFE AT SELECTED AGES, IOWA¹.
(White Population)

	Average years of life remaining at age							
	0	10	20	30	40	50	60	70
1910.....	56.1	55.9	47.7	39.7	31.8	24.1	16.7	10.5
1920.....	58.4	56.1	47.6	39.5	32.0	24.2	16.7	10.5
1930.....	62.7	58.6	49.6	40.9	32.4	24.2	16.7	10.5
Future as estimated								
"Low"								
1940.....	63.6	58.6	49.6	40.9	32.4	24.2	16.7	10.5
1950.....	64.2	58.6	49.6	40.9	32.4	24.2	16.7	10.5
1960.....	64.8	58.6	49.6	40.9	32.4	24.2	16.7	10.5
1970.....	65.2	58.6	49.6	40.9	32.4	24.2	16.7	10.5
1980.....	65.4	58.6	49.6	40.9	32.4	24.2	16.7	10.5
"Medium"								
1940.....	64.1	59.2	50.2	41.5	32.8	24.5	16.9	10.6
1950.....	65.4	59.8	50.8	41.9	33.2	24.8	17.1	10.7
1960.....	66.5	60.4	51.3	42.4	33.6	25.1	17.2	10.7
1970.....	67.3	60.8	51.6	42.7	33.8	25.3	17.3	10.8
1980.....	67.7	61.1	51.9	42.8	34.0	25.4	17.4	10.8
"High"								
1940.....	65.9	60.7	51.6	42.7	34.0	25.6	17.8	11.0
1950.....	68.5	62.3	53.1	44.2	35.3	26.7	18.6	11.4
1960.....	70.5	63.6	54.4	45.4	36.5	27.7	19.3	11.7
1970.....	72.0	64.7	55.4	46.3	37.3	28.5	19.9	11.9
1980.....	72.7	65.3	56.0	46.8	37.8	28.8	20.1	12.0

1. Estimated from the death rates of the Scripps Foundation for Research in Population Problems.

Source: Iowa Agr. Exp. Sta., Bul. No. 177, P. K. Whelpton.

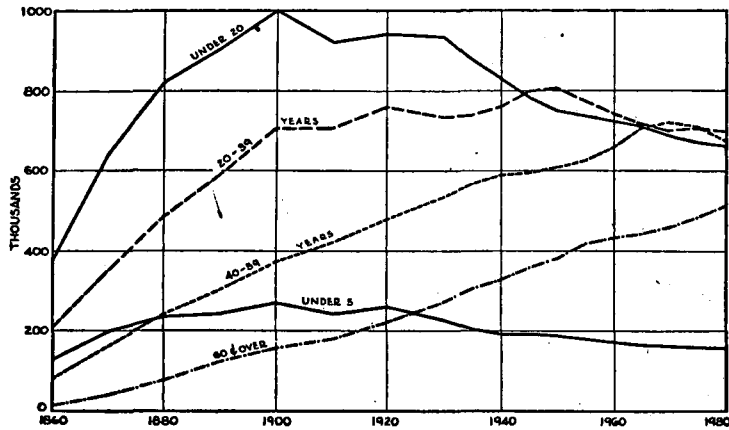


Fig. 190. The lines in this chart show the age changes in Iowa's population since 1860 with estimates to 1980. Note the expected decline in young people and increase in older persons for the future. Data in table 133.

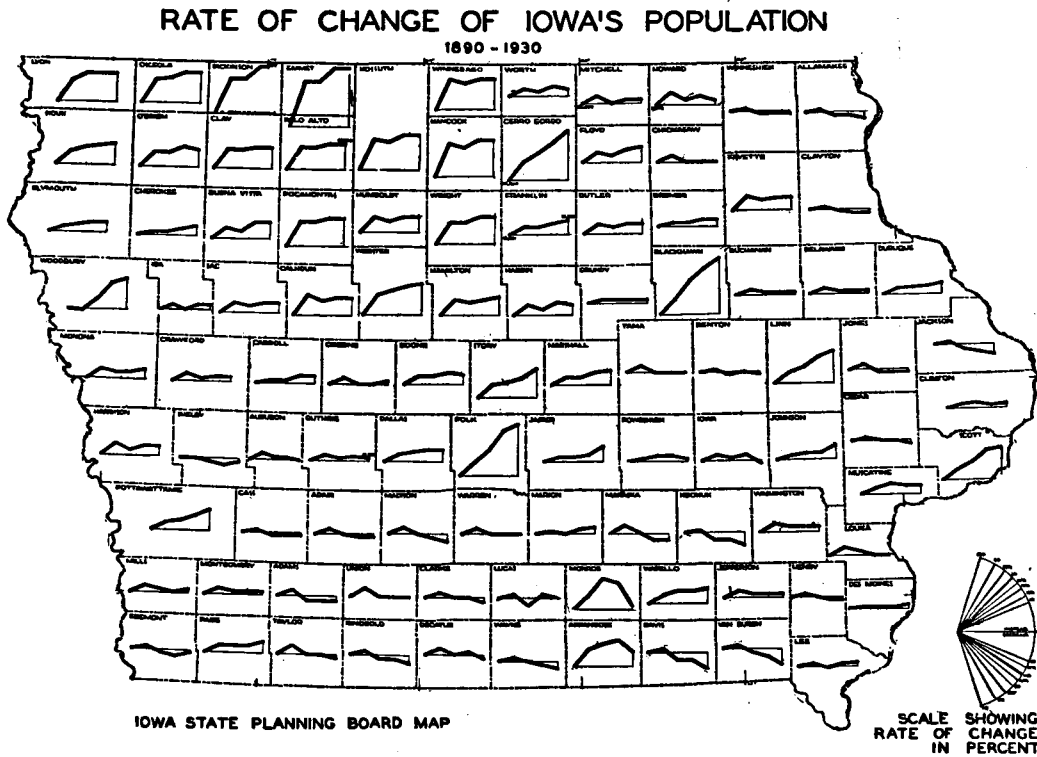


Fig. 191. The above map shows the rate of change of Iowa population since 1890. The counties with the large cities have grown most rapidly.

Source: U. S. Censuses, 1890-1930.

FARM POPULATION

DISTRIBUTION OF RURAL FARM POPULATION BY BROAD AGE GROUPS

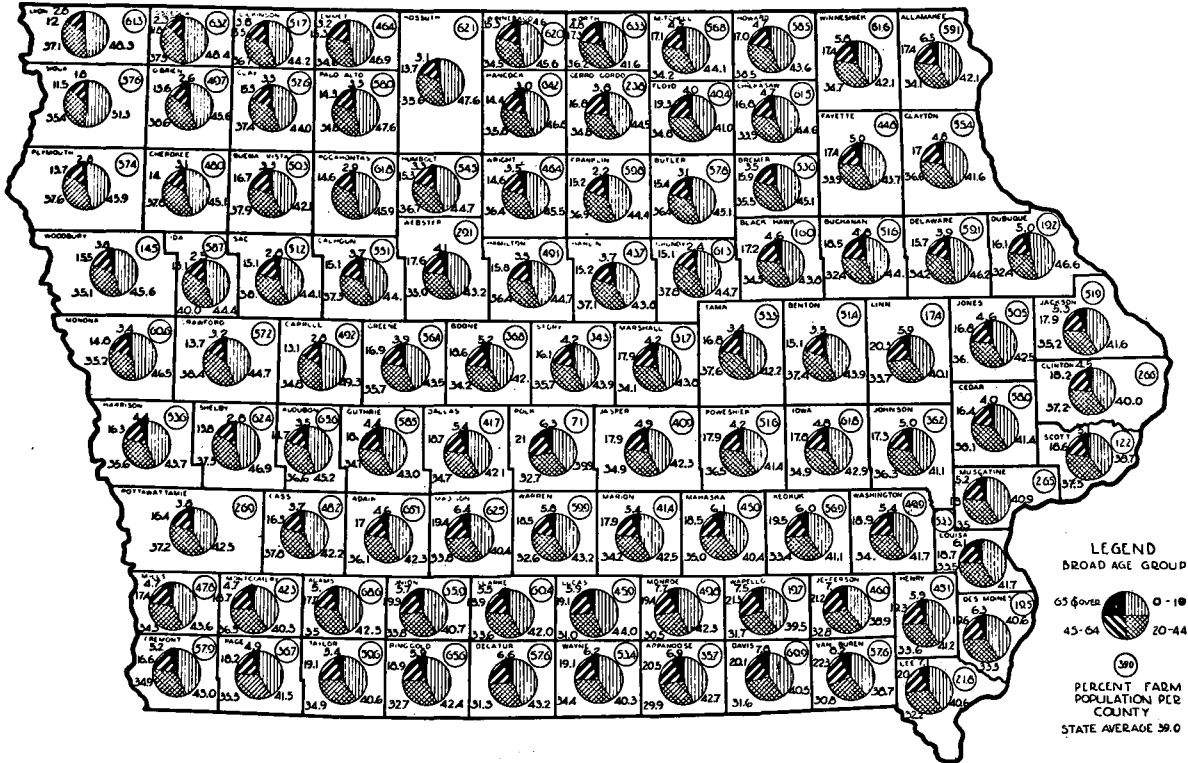


Fig. 192. The circles in the counties in the above map show the distribution of Iowa rural population by broad age groups.

Source: U. S. Census, 1930.

TABLE 183. FUTURE POPULATION OF IOWA*.
(Thousands)

Age	1930	1935	1940	1945	1950	1955	1960	1965	1970	1975	1980
0-4	220	196	193	194	191	184	177	171	169	167	165
5-9	243	222	197	195	196	195	188	181	176	174	172
10-14	236	238	217	193	191	193	192	187	180	175	173
15-19	224	231	233	213	190	188	191	191	185	178	174
20-24	201	216	224	227	208	185	185	188	189	184	177
25-29	180	192	207	216	220	202	181	182	185	186	182
30-34	175	173	185	200	210	214	198	178	179	183	184
35-39	178	169	167	179	195	205	210	194	175	176	180
40-44	158	171	163	161	174	190	200	205	190	172	173
45-49	145	151	164	156	156	168	184	194	200	186	168
50-54	126	137	143	156	149	149	162	177	188	194	180
55-59	108	118	128	134	147	141	141	154	169	179	185
60-64	92	98	107	117	123	136	130	131	142	157	167
65-69	73	80	85	93	102	108	119	114	115	125	138
70-74	54	58	64	68	75	83	87	96	83	93	102
75 plus	57	67	75	83	90	98	108	116	127	130	131
All ages	2,471	2,515	2,553	2,587	2,616	2,638	2,651	2,659	2,662	2,660	2,651

* Assumes expectation of life increases 5 years from 1930 to 1980, specific birth rates decline 20 percent and net migration from state equals 50 percent of natural increase.
Source: Iowa Agr. Exp. Sta. Bul. No. 177, P. K. Whelpton.

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