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Production Trends in Minnesota Agriculture

Table I - Relative Production of the Different Classes of Livestock in Minnesota*
 (Based on Animal Units**)

Kind of livestock	1890		1900		1910		1920	
	Animal units	% of total	Animal units	% of total	Animal units	% of total	Animal units	% of total
Horses & mules	495,034	24.0	781,210	26.0	854,101	23.2	977,746	22.7
Cattle	1,291,214	62.6	1,802,793	60.0	2,330,371	63.3	2,709,262	62.9
Swine	142,322	6.9	243,377	8.1	290,836	7.9	417,804	9.7
Sheep	65,067	3.3	63,098	2.1	73,629	2.0	64,609	1.5
Poultry	66,005	3.2	114,177	3.8	132,534	3.6	137,832	3.2
Total	2,062,642	100	3,004,655	100	3,681,471	100	4,307,253	100

There has been a steady increase in the amount of livestock on Minnesota farms from decade to decade since 1890. Livestock production has become but little more intensive, however, than in the earlier years. This is indicated by the number of crop acres per animal unit by decades. In 1890 there were 4.08 crop acres per animal unit; in 1900, 5.03; in 1910, 4.02; and in 1920, 4.02. While the total livestock on farms has increased steadily it has increased only a little more rapidly than new crop land has been added to Minnesota farms.

The percentage proportion of horses and sheep has steadily tho slowly declined since 1900. Poultry has remained comparatively stable. The greatest fluctuation has been in cattle and swine. In 1920 the decrease in horses and sheep is offset by the increase in swine, which appear to be gaining more rapidly than any other class of stock. The figures used are from the census reports and no attempt has been made to separate dairy cattle from other cattle.

The introduction of more corn and the increased proportion in acreage of feed crops such as oats and barley since 1920 has laid the foundation for more intensive stocking of farms. The use of sweet clover pasture will permit carrying many more animals per acre than the old type of timothy and clover or blue-grass pasture. The use of alfalfa and soybeans for hay will permit still further intensification of livestock production. These should be the next steps forward in the livestock program for Minnesota. If taken, and then followed by herd improvement thru close culling and better feeding and care, they should lead to much better and more stable farm incomes.

* The tables are compiled from data furnished by the Bureau of Agricultural Economics, United States Department of Agriculture.

** An animal unit is the approximate equivalent, from the standpoint of manure produced and feed required, of a mature cow or horse. It is customary to count as an animal unit 2 head of young cattle or colts, 4 calves, 5 mature hogs, 10 pigs or shoats, 7 sheep, 14 lambs or 100 fowls. The term is used for purposes of comparing different classes of animals and to compute total amount of livestock on farms.

Table II - Crop Acreages and Per Cent of Total Crop Land in Each Crop

Crop	1890		1900		1910		1920		1924	
	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
Wheat	3,372,283	35.8	6,561,894	43.4	3,280,788	22.2	3,792,000	22.7	1,527,000	9.0
Oats	1,582,524	16.8	2,207,457	14.6	2,970,444	20.1	3,424,493	20.5	4,266,000	25.0
Corn	904,299	9.6	1,436,359	9.5	2,009,853	13.6	2,372,088	14.2	4,512,000	26.4
Hay & forage	2,712,898	28.8	3,159,990	20.9	3,945,813	26.7	5,011,453	30.0	3,974,000	23.2
Flax	301,433	3.2	559,474	3.7	354,680	2.4	283,982	1.7	659,000	3.8
Barley	357,952	3.8	876,935	5.8	1,566,503	10.6	818,537	4.9	962,000	5.6
Potatoes	103,618	1.1	151,196	1.0	221,674	1.5	334,097	2.0	367,000	2.1
Rye	65,938	.7	120,957	.8	266,010	1.8	651,489	3.9	766,000	4.5
Buckwheat	-	-	-	-	-	-	-	-	50,000	.3
Other	18,840	.2	45,358	.3	162,562	1.1	16,705	.1	*20,000	.1
Total	9,419,785	100	15,119,570	100	14,778,337	100	16,704,844	100	17,103,000	100

*Estimated.

In the agriculture of Minnesota wheat was in the ascendancy from 1870 until 1900 when it reached the peak in production. The surplus production culminating in 1900 was followed by a period of disastrously low prices. Black stem rust and insect pests reduced yields and also discouraged wheat growers. As a consequence the percentage of crop land in wheat - 43.4 in 1900 - was reduced to 22.2 in 1910.

The decrease in wheat acreage was followed by significant increases in four other crops, namely, hay and forage, oats, barley and corn. In this period barley was replacing wheat as a cash crop it having found a place in the rapidly growing brewing business then developing in Minnesota. The increase in corn acreage was quite significant but the greatest increases were in hay and forage crops and in oats and barley. Corn was not yet regarded as a safe crop for large acreages. During the next decade wheat maintained its place in the crop production program because of the influence of the world war. While there was no increase in acreage during this time neither was there a decrease.

Since 1920 because of low prices and small yields due to black stem rust the wheat acreage has again been materially reduced until in 1924 a total of only 1,438,000 acres of spring wheat and 89,000 acres of winter wheat were raised. This represents only 9 per cent of the total land in crop, the lowest relative acreage in the history of the state. In the decade between 1910 and 1920 the greatest decrease in crop acreage was in barley. This decrease is due no doubt to the loss of the brewing industry as a market for the product. The flax acreage also suffered a material reduction due to the prevalence of flax wilt on the old land and to the small amount of new land coming under cultivation. To offset the decrease in wheat acreage there has been a decided increase in corn production since 1920. The proportion of land in the crop has risen from 14.2 per cent in 1920 to 26.5 per cent in 1924. The proportion of land in oats has been increased $4\frac{1}{2}$ per cent and the flax acreage has been doubled between the years 1920 and 1924.

The above table shows that the shift in crops in Minnesota has been away from wheat and radically toward corn with a material increase in the oat acreage. There have been increases also in the proportion of land in rye, potatoes and flax. There has been a striking increase in the legume forage crops of the state also as indicated in the report on alfalfa acreage in the December 1924 issue of the Farm Management Service Notes (No. 25). This legume increase should be strongly encouraged in support of better agricultural program for the state.

Crop Outlook for 1925

Statistically farm crops are in a strong position. There is an apparent world shortage of bread grains which the next crop may or may not fully overcome. At the present time nearly all crop products are selling at relatively better prices than livestock or livestock products, except eggs, wool and lambs. The demand for wheat and flax continues strong with consequent rising prices. Crop conditions in countries that compete in the production of wheat and flax are reported to be unfavorable. There is a possibility that good prices may stimulate an unfortunately large acreage of these crops. Farmers should keep in mind the fact that it is easily possible to overproduce wheat and flax in the United States and Canada and thus violently reduce prices and profits. However, operators of large farms in sections where corn is not a sure crop are likely to again find wheat and flax among their most profitable enterprises in 1925.

The short corn crop of last year will result in empty cribs early in the spring. This is almost sure to result in good prices for corn next fall the promise early in the summer of a "bumper corn crop" will likely cause a decline in price in late summer or early fall. Those farming in sections where corn ordinarily does well should provide for the usual acreage or more.

Oats and barley prices are high in sympathy with corn prices. Both crops are substituted for corn as feed when that crop runs short. It is much more difficult to maintain good prices for these feed crops than for the bread grains and corn. The acreage of either oats or barley should be further increased very cautiously except under conditions where they form the main feed crops or where they normally yield a large crop of premium quality.

The acreage of potatoes, sugar beets and other intensive crops should not expand rapidly in view of the shortage of farm labor and high wages. Where surplus labor is available and soil and climatic conditions are favorable they may be grown to advantage.

Farmers should continue to expand the acreage of sweet clover pasture and of alfalfa for hay. Attention to improving the quality of tame grass pastures by top dressing and reseeding will bring its reward in greater economy in livestock production. Land kept in grass or legumes will gather strength for greater production when again needed for cultivation.

Only 75 per cent of the usual fall plowing was done in 1924. This will be a handicap in small grain growing and especially for wheat and oats if the spring should open late.

Livestock Outlook for 1925

Sheep still maintain their position as the most profitable class of livestock. Wool is ⁱⁿ strong demand and likely to remain so thruout the year. Breeding ewes are consequently relatively high priced. It is a poor time to speculate but those needing sheep permanently in their farm business may well buy a modest foundation as opportunity is offered.

The short corn crop has sent hogs to market early and the supply is sold short. It is probable that a short pig crop will be farrowed. Prices for pork are likely to go higher in late spring and early summer. The hog raiser who farrows his pigs early and finishes at six to seven months is likely to make good profits. Farmers in corn territory should maintain a good acreage of corn and grow a large crop of pigs. It is likely to be one of the best combinations of the year.

Not much can be said of the beef business. Those who raise their cattle on pasture and cheap byproducts with a short finishing period may come out whole and preserve their foundation for the better times coming.

Dairy conditions promise to be as good as last year. In fact there is a prospect for some improvement provided a business depression does not occur to limit the buying power of consumers. Poultry likewise is holding up strongly but prices would be seriously disturbed by a curtailment of buying power. Neither dairying nor poultry can stand more than normal expansion.

Farmers with well matured plans for the conduct of their farm business should not disturb their regular program. So far as possible without extra expense they can well place emphasis on corn, forage crops, hogs and sheep. The normal production of other products seems advisable.

A. B.