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AGRICULTURAL EXTENSION DIVISION
UNIVERSITY OF MINNESOTA

F. W. Peck, Director

MINNESOTA FARM BUSINESS NOTES

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Prepared by the Division of Agricultural Economics
University Farm, St. Paul, Minnesota

FARM INCOME IN MINNESOTA
Prepared by Warren C. Waite

The gross cash income from the sale of the sixteen principal Minnesota agricultural products in 1936 is likely to be around 300 million dollars. This is the largest income since 1931, and exceeds the income from the sale of the same products in 1935 by about 70 million dollars.

The income from the sale of products in each of the important groups--crops, livestock and livestock products--increased. Crop prices in the early part of the year were below those in the corresponding period of 1935, but the crop of the preceding fall provided a larger quantity of physical sales. In the latter part of the year, crop prices were well above 1935. The increase in the income from the sales of livestock resulted largely from a greater volume of physical sales of both hogs and cattle. Prices of hogs were above those of 1935 in the first half of the year but lower in the second half. Cattle prices were lower thruout nearly all the year. The income from livestock products is determined largely by the income from butterfat. Prices of butterfat were higher than in 1935 during most of the year, especially during the summer and fall while production was not greatly different.

The total physical volume of sales in 1937 probably will be smaller than in 1936. The short crop last fall will materially reduce crop marketings in the early portion of the year, has forced earlier than usual marketings of livestock, and a reduction of spring farrowings of hogs. While a large crop in 1937 would increase crop marketings, it would probably also result in a retarded rate of marketing of livestock. Butterfat production ordinarily does not change greatly from year to year. It appears probable, however, that agricultural prices will rise sufficiently to increase the income from gross cash sales above those of this year.

Estimates of the gross cash income for the past thirteen years are given in Table 1. The gross cash income is the total of the sales of the sixteen princi-

Table 1

Gross Cash Income from the Sale of Sixteen Principal
Minnesota Agricultural Products, 1924 to 1936

Year	Gross cash sales (million dollars)	Year	Gross cash sales (million dollars)	Benefit payments (million dollars)
1924	342	1931	235	-
1925	395	1932	155	-
1926	398	1933	177	3
1927	366	1934	218	16
1928	367	1935	231	20
1929	384	1936*	300*	7*
1930	326			

*Preliminary estimate.

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pal agricultural products--butterfat, hogs, cattle, wheat, eggs, milk, corn, flax, oats, barley, potatoes, calves, chickens, hay, rye and lambs-sheep. The amounts of the principal products sold each month, multiplied by their farm price, constitute the cash income for each month. The sum of the twelve calendar months is the estimated annual cash income. A number of minor crops have been omitted. These sixteen products, however, constitute about 95 per cent of the sales of all agricultural products. The figures do not represent the total value of agricultural production and no allowance has been made either for the value of farm products used by the family or for changes of inventory value of livestock or crops. Cash income from other sources than the sale of farm products is not included.

The position of agriculture is influenced by its expenses as well as by its gross cash income. Data are less readily available for estimating expenses than for estimating income. Cash expenses for farm operation, including taxes and interest appear to have been about 160 million dollars in 1936. The net cash income from farm operation thus appears to have been about 140 million dollars.

The cash expenses as thus estimated are the sum of the annual estimates for the following twenty items: taxes, interest on indebtedness, hired labor, stocker and feeder cattle, hogs and sheep, veterinary charges, stallion fees, threshing, twine, sacks, spray materials, gasoline, auto and truck licenses, machine repairs, building repairs, farm papers, organization fees, insurance, fertilizer and electricity. These data represent the cash operating expenses of farmers and do not represent all of the cash outlay.

Changes in the Sources of Gross Cash Income

There have been important changes in the composition of the gross cash sales of Minnesota agricultural products in the past decade. Some of the factors underlying these changes are indicated by the indexes shown in Table 2. The three

Table 2

Indexes of Prices, Quantities Sold and Gross Cash Sales
of Minnesota Agricultural Products by Important Groups of Commodities,
1924 to 1936
(Average of 1924-25-26 equals 100)

	Indexes of Prices			Indexes of Quantities Sold			Indexes of Value		
	Crops	Live- stock	Livestock products	Crops	Live- stock	Livestock products	Crops	Live- stock	Livestock products
Average of									
1924-25-26	100	100	100	100	100	100	100	100	100
1927	98	103	107	70	105	106	68	108	114
1928	88	105	112	78	100	107	69	105	119
1929	95	111	110	75	100	112	71	111	124
1930	79	98	86	69	104	120	54	101	103
1931	50	64	64	75	114	121	38	73	77
1932	38	42	46	65	103	123	24	43	57
1933	54	41	46	72	110	124	39	45	58
1934	82	49	57	61	118	116	49	58	66
1935	72	91	72	49	76	113	35	69	81
1936	80*	95*	80*	85*	120*	115*	68*	114*	92*

*Preliminary.

important groups of products--crops, livestock and livestock products--all suffered from large price declines in the depression and have subsequently increased in price. The prices of crops, however, fell somewhat earlier and further than the prices of livestock and livestock products. The rise in crop prices during the recovery period was also earlier than the other groups. There were also marked differences in the quantities of physical products sold in these three groups. Crop sales have been markedly smaller in quantity than in the base period in nearly all recent years, and amounted to only about two-thirds as large a quantity in 1932 and 1934. On the other hand, there has been a tendency for the quantity of livestock and livestock products sold to increase throughout the entire period. The physical sales of livestock appear to have been around 10 per cent larger and livestock products 15 per cent larger in recent years than in the base period of 1924-25-26. The livestock products index is heavily weighted with butterfat and the index in consequence largely traces the changes in the sales of this product.

The decline in the sale of crops appears to have been occasioned by two circumstances. Between the base period of 1924-25-26 and 1929 the reported acreage of cash crops (wheat, rye, flax and potatoes) declined nearly 20 per cent while that of the feed crops (corn, oats and barley) increased. Cash crops provide the bulk of the crop sales so that with only slightly lower yields, there was a considerable decrease in the physical volume of crop sales.

After 1930 the reported acreage of both cash and feed crops increased and by 1935 the reported acreage of cash crops was as great as in the base period and acreage of feed crops nearly 10 per cent larger. During this period, however, there were a number of years of low yields especially for cash crops, which kept the volume of crop sales low. A return of yields to the level of those in the base period would evidently result in a physical volume of crop sales about that of the base period.

The production of livestock and the physical quantities sold appear to have increased in all sections of the state. In the southern part, there has been some increase in the importance of hogs relative to cattle while in the north just the reverse tendency appears to have been in operation. The largest relative change, however, has been the increase in sheep which has occurred throughout the entire state. The increase in the volume of butterfat sales took place over the entire state, with a somewhat larger relative increase in the southwest. Egg and poultry sales have also increased greatly.

The low prices and reduced marketings of crops combined to lessen greatly crop sales as a source of income in the state. In 1932 crops provided only about one-fourth of the income in dollars that they had in the base period 1924-25-26, and constituted only 20 per cent of the total gross cash income in contrast with 34 per cent in the base period. Increased marketings helped to sustain the income in both the livestock and livestock products groups. Livestock sales reached their highest relative importance in 1930 when approximately 42 per cent of the income was derived from this source, while livestock products were relatively most important in 1932 when 42 per cent of the income was derived from this source.

MINNESOTA FARM PRICES FOR NOVEMBER 1936

Prepared by W. C. Waite and W.B. Garver

The index number of Minnesota farm prices for the month of November 1936 was 93. When the average of farm prices of the three Novembers 1924-25-26 is represented by 100, the indexes for November of each year from 1924 to date are as follows:

November 1924 - 92	November 1931 - 53
" 1925 - 105	" 1932 - 39
" 1926 - 104	" 1933 - 49
" 1927 - 96	" 1934 - 65
" 1928 - 96	" 1935 - 76*
" 1929 - 99	" 1936 - 93*
" 1930 - 77	

*Preliminary

The price index of 93 for the past month is the net result of increases and decreases in the prices of farm products in November 1936 over the average of November 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index

November 15, 1936, with Comparisons

	Nov. 15, 1936	Oct. 15, 1936	Nov. 15, 1935	Av. Nov. 1924-25- 26	% Nov. 15, 1936 is of Oct. 15, 1936	% Nov. 15, 1936 is of Nov. 15, 1935	% Nov. 15, 1936 is of Nov. 15, 1924-25-26
Wheat	\$1.23	\$1.25	\$.97	\$1.32	98	127	93
Corn	.98	.94	.45	.66	104	218	148
Oats	.39	.37	.21	.36	105	186	108
Barley	.93	.98	.37	.58	95	251	160
Rye	.75	.73	.37	.95	103	203	79
Flax	1.90	1.87	1.57	2.22	102	121	86
Potatoes	1.00	1.00	.29	.89	100	345	112
Hogs	8.70	9.20	8.60	10.06	95	101	86
Cattle	6.40	6.30	6.10	5.67	101	105	113
Calves	7.40	7.30	7.80	8.63	101	95	86
Lambs-sheep	7.56	7.55	7.93	10.90	100	95	69
Chickens	.10	.119	.142	.158	84	70	63
Eggs	.296	.243	.27	.41	122	110	72
Butterfat	.35	.35	.31	.45	100	113	78
Hay	8.02	8.26	5.54	11.81	97	145	68
Milk	1.92	1.97	1.66	2.29	97	116	84

*Except for milk, these are the average prices for Minnesota as reported by the United States Department of Agriculture.

Indexes and Ratios of Minnesota Agriculture*

	Nov. 1936	Oct. 1936	Nov. 1935	Av. Nov. 1924-26
U.S. farm price index	88.0	88.0	79.0	100.0
Minnesota farm price index	93.0	96.0	76.0	100.0
U.S. purchasing power of farm products	105.0	105.0	98.0	100.0
Minnesota purchasing power of farm products	111.0	114.0	95.0	100.0
U.S. hog-corn ratio	9.2	9.4	15.1	13.4
Minnesota hog-corn ratio	8.9	9.8	19.1	15.6
Minnesota egg-grain ratio	16.8	14.1	24.5	26.2
Minnesota butterfat-farm-grain ratio	22.9	23.2	43.0	40.7

*Explanations of the computation of these data are given in Farm Business Notes No.