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AGRICULTURAL EXTENSION DIVISION
UNIVERSITY OF MINNESOTA

F. W. Peck, Director

MINNESOTA FARM BUSINESS NOTES

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THE TREND IN FARMERS' EARNINGS IN 1928 TO 1931

Prepared by G. A. Sallee and W. P. Ranney

Records kept by farmers in various parts of Minnesota in cooperation with the Department of Agriculture of the University of Minnesota and the United States Department of Agriculture furnish the basis for studying farmers' earnings and the factors and methods affecting those earnings. This report shows the average earnings of a group of farmers in southeastern Minnesota and of another group in southwestern Minnesota for several years past. The farms in southeastern Minnesota are primarily dairy farms; those in southwestern Minnesota are livestock farms specializing in the production of beef cattle and hogs. They are representative of types of farming commonly found in these areas.

Dairy Farmers' Earnings in Southeastern Minnesota

Table 1. Receipts, Expenses, and Earnings for 39 Dairy Farms in Dodge, Freeborn, Goodhue, Rice, Steele, and Waseca Counties

Items	Average per Farm			
	1928	1929	1930	1931
<u>Cash Receipts</u>				
Dairy products	\$1856	\$1870	\$1554	\$1151
Dairy cattle	816	782	682	478
Hogs	1414	1713	1955	1162
Poultry and eggs	515	579	622	524
Crops	556	681	570	408
Miscellaneous	392	480	406	326
Total cash receipts	\$5549.	\$6105	\$5689	\$4049
<u>Cash Expenses</u>				
Power and machinery	646	885	843	538
Buildings, fencing and tiling	200	324	195	100
Hired labor	404	390	392	299
Feed and misc. livestock expense	742	625	646	435
Purchases of productive livestock	286	366	380	149
Seed, twine, threshing, etc.	198	209	245	219
Taxes	285	284	304	291
Miscellaneous	119	112	119	99
Total cash expenses	2880	3195	3124	2130
Net cash receipts	2669	2910	2565	1919
Change in farm inventory	+401	+961	-452	-1138
Farm produce used in the house	361	762	323	253
Gross income less cash expenses	3431	4225	2436	1034
Board for hired labor	133	132	159	101
Returns to capital and family labor	3298	4093	2277	933
Interest @ 5% on farm inventory	1447	1457	1365	1226
Unpaid family labor	287	1734	329	210
Operator's labor earnings	1564	2329	583	-503

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The financial statements in Table 1 are figured on an owner basis with interest on the investment charged at the rate of 5%; on some of these farms, interest was actually paid at a higher rate on a portion of the investment. In calculating the interest on the investment, the value of the land in 1929, 1930 and 1931 was figured as 96%, 84% and 71%, respectively, of its value in 1928. The only effect of this decrease in land value on the earnings, as here presented, is in a reduced interest charge, as it is not included in the change in inventory. Board for hired labor was calculated at the rate of \$20 per month the first three years, and \$15 per month in 1931. The value of unpaid family labor was estimated in terms of equivalent hired labor, the rate, including board, being \$60 a month for the first three years and \$45 a month in 1931.

The data in Table 1 show that there was not much variation in the net cash receipts on these 39 farms in 1928, 1929 and 1930, but there was a large decrease in this item in 1931, when it amounted to a thousand dollars less than in 1929. The cash receipts were over \$2000 less in 1931 than in 1929, while the cash expenses had decreased only a little more than \$1000.

Due to the pronounced changes in the total inventory value of the farm property from one year to another, the earnings of the operator for his own labor and management varied much more widely than did the net cash receipts. These earnings varied from \$2329 in 1929 to a loss of \$503 in 1931. In the latter year, the operator on the average not only failed to get any pay for his own labor, but after meeting all expenses, he failed to realize 5% on his investment.

Some of the reasons for these variations in earnings may be found in Table 2.

Table 2. A Comparison of Various Facts Related to the Organization and the Earnings of 39 Dairy Farms in Southeastern Minnesota

Items	Average per Farm			
	1928	1929	1930	1931
Total acres	187	186	188	188
Crop acres	129	126	131	131
Days of productive work	687	677	726	756
Days of productive work per worker	333	329	334	361
Units of productive livestock per 100 acres	19	20	21	23
Pounds of butterfat per cow	244	261	257	253
Eggs per hen	96	105	115	118
Pigs weaned per litter	6.3	6.9	6.5	6.3
% tillable land in high return crops	33	34	36	36
Yield per acre:				
Corn, bu.	42.6	50.2	51.3	35.4
Oats, bu.	46.7	52.3	57.0	43.3
Barley, bu.	36.4	39.1	29.3	27.4
Alfalfa, tons	2.6	3.2	3.0	2.7
Price received for products sold:				
Butterfat (mfg. cream), per lb.	\$.53	\$.51	\$.40	\$.30
Eggs, per doz.	.28	.28	.22	.16
Hogs, per 100 lbs.	8.45	9.71	9.04	5.50

There was practically no variation in the average size of these farms in the four years as the same farms were included each year. There was a trend towards a higher degree of intensity of operation; that is, more livestock, and more of the intensive crops which in most cases show higher net returns per acre. This made more days of productive work per farm, and enabled the farmers to accomplish more work per worker. As an average for all the productive livestock, there did not appear to be much change in production per animal unit over the four-year period. The causes for the large decreases in net cash receipts and in operator's labor earnings from 1929 to 1931 are, - first, a big drop in prices, and second, the low crop yields in 1931, due to the effects of a severe drouth.

Farmers' Earnings in Southwestern Minnesota

The average earnings on 13 beef-cattle and hog farms in Rock and Nobles Counties in 1929, 1930 and 1931 are presented in Table 3. These earnings have all been adjusted to a full owner basis. The receipts and expenses include those of the landlord as well as of the operator. Board for hired labor was charged at \$28 per month in 1929, \$25 in 1930, and \$20 in 1931. Unpaid family labor was estimated at 25 cents an hour in 1929, 20 cents in 1930, and 15 cents in 1931. All interest actually paid has been omitted and interest at 5% charged on the total investment. In calculating the interest on the investment, the value of the land in 1930 and 1931 was taken as 86% and 66%, respectively, of its value in 1929. The decrease in land value is not included in the change in inventory.

Table 3. Farm Receipts, Expenses, and Earnings on 13 Farms in Rock and Nobles Counties

Item	Average per Farm		
	1929	1930	1931
<u>Cash Receipts</u>			
Cattle	\$4318	\$4454	\$2575
Dairy products	580	381	241
Hogs	2883	2709	2046
Sheep and wool	255	105	86
Poultry and eggs	297	266	199
Crops	1772	1189	682
Miscellaneous	263	181	200
Total cash receipts	\$10368	\$9285	\$6029
<u>Cash Expenses</u>			
Hired labor	575	638	469
Feed bought	1067	1448	1126
Cattle bought	1537	1441	797
Hogs bought	441	361	190
Other livestock bought	285	76	29
Other livestock expense	108	112	102
Seed, twine, threshing, etc.	348	344	187
Machinery and power	826	683	347
Buildings, fencing, tiling, etc.	447	322	63
Taxes	451	470	451
Miscellaneous	133	142	113
Total cash expenses	6218	6037	3874
Net cash income	4150	3248	2155
Changes in inventory	+374	-2283	-3300
Farm produce used in the house	384	758	364
Gross income less cash expenses	4908	1329	290
Board for hired labor	254	248	-3010
Returns to capital and family labor	4654	1081	-855
Interest @ 5%	2546	2191	134
Wage for unpaid family labor	395	2941	-989
Operator's labor earnings	1713	351	2542
		-1461	203
			1935
			-2924

The first of these three years was one of high crop yields and profitable livestock prices. (See Table 4.) The last two years were marked by rapidly falling prices and by reduced crop yields due to unusually hot, dry summers. As a result of favorable prices and an abundant crop in 1929, livestock production was increased in 1930. The falling prices in 1930 and the decreased feed supply, particularly of hay, resulted in a decided decrease in the production of cattle in 1931. The price and feed situation were more favorable to hogs than beef cattle and these farmers increased their hog production again in 1931.

Table 4. Comparison of Facts Related to the Organization and the Earnings of 13 Farms in Rock and Nobles Counties

Item	Average per Farm		
	1929	1930	1931
Total acres per farm	366	365	366
Crop acres per farm	275	272	277
Pounds of cattle produced	24041	27969	20672
Pounds of hogs produced	28785	32237	39454
Prices received:			
Cattle, per 100 lbs.	\$11.89	\$9.04	\$6.16
Hogs, per 100 lbs.	9.50	7.90	4.47
Butterfat, per lb.	.44	.36	.25
Eggs, per doz.	.28	.21	.15
Crop yields per acre:			
Corn, bu.	37.6	30.9	22.0
Oats, bu.	49.5	55.4	32.9
Barley, bu.	33.5	25.0	20.5
Flax, bu.	12.0	13.2	5.0
Alfalfa, ton	1.7	1.8	1.0

The declining cash receipts from livestock and livestock products were largely the result of the decline in prices. The combined weights of cattle and hogs sold were larger in both 1930 and 1931 than in 1929. The decline in receipts from crops was due to decreased production as well as to declining prices.

Expenses also were reduced, especially in 1931, but to a lesser degree than receipts. Because of short crops, it was necessary to curtail livestock purchases and to increase the quantity of feed bought. Crop expenses were reduced largely because of reduced yields and a lower price for twine. Machinery and power expenses were cut approximately in half by the postponement of purchases of new implements and equipment. Buildings, fencing, and tiling expenses were drastically reduced through the postponement of all but absolutely necessary construction and repairs. Taxes showed little decline except that due to a lower value of livestock on hand.

Net cash income, the amount available for paying investment and living expenses and for providing for depreciation, declined rapidly. When adjustments are made for non-cash items and interest, there was nothing left in 1930 and 1931 to pay for the labor of the operator and his family. In 1931, there was not even anything left to pay interest on the capital invested.

These data indicate the trend in farmers' earnings for the past four years, but are not intended to represent an average level of the earnings of farmers either in these areas or in the state as a whole. The farms studied were larger and in general better managed than the average of these counties. They represent the level of earnings of the better farmers in two of the best farming sections of the state.

MINNESOTA FARM PRICES FOR MAY 1932

Prepared by Adena E. Erickson

The index number of Minnesota farm prices for the month of May 1932 was 43.1. When the average of farm prices of the three Mays of 1924-25-26 is represented by 100, the indexes for May of each year from 1924 to date are as follows:

May 1924 -	84.3
" 1925 -	106.1
" 1926 -	110.1
" 1927 -	109.0
" 1928 -	113.4
" 1929 -	112.6
" 1930 -	98.7*
" 1931 -	63.5*
" 1932 -	43.1*

*Preliminary

The price index of 43.1 for the past month is the net result of decreases in the prices of farm products in May 1932 over the average of May 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, May 15, 1932 with Comparisons*

	May 15, 1932	Apr. 15, 1932	May 15, 1931	Av. May 1924-25- 26	% May 15, 1932 is of Apr. 15, 1932	% May 15, 1932 is of May 15, 1931	% May 15, 1932 is of May 15, 1924-25-26
Wheat	\$.49	\$.53	\$.62	\$1.31	92	79	37
Corn	.30	.35	.43	.65	86	70	46
Oats	.20	.22	.21	.35	91	95	57
Barley	.32	.38	.29	.59	84	110	54
Rye	.29	.35	.24	.75	83	121	39
Flax	1.08	1.18	1.34	2.32	92	81	47
Potatoes	.32	.32	.65	.83	100	49	39
Hogs	2.70	3.40	6.20	9.60	79	44	28
Cattle	3.70	4.10	5.40	6.38	90	69	58
Calves	4.40	4.60	7.20	8.07	96	61	55
Lambs-sheep	4.43	5.24	7.08	11.39	85	63	39
Chickens	.105	.105	.131	.189	100	80	56
Eggs	.10	.09	.11	.22	111	91	45
Butterfat	.18	.19	.23	.40	95	78	45
Hay	9.26	10.28	8.60	11.49	90	108	81
Milk	1.08	1.14	1.47	1.95	95	73	55

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