

# FARM BUSINESS NOTES

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NO. 323

UNIVERSITY FARM, ST. PAUL

December 30, 1949

## Farm Income in Minnesota

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The cash income from sales of agricultural products by the farmers of Minnesota showed the first marked decline in 1949 since the beginning of the war. Sales seem to have been down fully 15 per cent from the peak level of 1,300 million dollars reached in 1947 and 1948. At their present level, however, sales are still approximately three times their prewar average in 1935 to 1939.

The physical quantity of products sold during the year was somewhat smaller than in 1948, and prices were lower on the average for the year as a whole. Expenses, as is usual in such circumstances, did not decline as much as sales, and the net income secured by farm operators was probably down by at least one-fifth. The decline of cash income in Minnesota exceeded that for the country as a whole.

The most marked change in Minnesota agricultural production was the expansion of the hog enterprise for the purpose of utilizing the record corn crop harvested in 1948. Total milk production was increased despite a smaller number of cows on farms, by heavier rates of feeding. Turkey production was also increased. Egg production was less than in 1948 throughout most of the year. Total crop production was generally above the average of the last ten years but less than the record crop of a year ago, especially in the feed grains. This was a combination of smaller yields and acreages. Corn and spring wheat acreages had been expanded, but the acreages of most of the other crops were curtailed. Feed supplies were ample for the livestock during the year and carry-overs were large.

There were no spectacular changes in prices received by farmers for their agricultural products until the decline in hog prices toward the close of the year. The Minnesota farm price index showed a continuing gradual decline until July and then remained approximately unchanged for several months. For the year as a whole, the index was about 85 per cent of its level in 1948.

The magnitude of the 1948 to 1949 decline in cash sales of agricultural products from Minnesota farms places

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this year among the seven years showing the largest declines from the preceding year in the period from 1910 to date. In view of this, it is instructive to review the characteristics of the other periods of drastic decline. These occurred in the periods 1919 to 1921, 1929 to 1932, and 1937 to 1938. The 1919 to 1921 decline was the post World War I collapse, the 1929 to 1932

period was the beginning of the great depression, and the 1937 to 1938 decline came at the end of considerable accumulations of agricultural stocks. Some of the characteristics of these declines are indicated in the accompanying table.

A major factor in these declines has, of course, been sharp decreases in prices received by farmers for the products which they sell. The quantities of products sold do not change greatly. The notable exception is in the 1937 to 1938 period where the quantities of sales increased by an exceptional amount and considerably offset the effect of the price decline upon income. This was in large part, the result of the recovery of livestock production which had been drastically reduced in the state by the droughts of 1934 and 1936. The changes in the prices paid by farmers are indicated in the last columns of the table. As is well known, the changes in prices received were smaller than prices paid.

Minnesota agriculture is largely dependent upon the livestock enterprises for its cash sales. The average percentage of the sales for the five-year period, 1944-1948,

Table 1. Changes in Various Indexes During Periods of Important Declines in Minnesota Farm Income, 1910 to 1949\*

Period	Cash sales of Minn. farm products	Minn. farm prices	Quantity of Minn. cost sales	U.S. index of prices paid by farmers	Minn. farm wage rates
1919-21	-44	-46	+ 4	-39	-17
1929-32	-60	-58	- 4	-51	-26
1937-38	- 9	-20	+13	- 2	- 5
1948-49	-20	-15	- 5	- 2	- 5

\* The average for the year at the beginning of the designated period is taken as 100, and the change is expressed as a percentage of this value. A minus indicates a decrease and a plus an increase.

Table 2. Proportion of Minnesota Cash Farm Sales Derived from Particular Products During the Five-year Period, 1944-1948

Commodity	Per cent of total income	Commodity	Per cent of total income
Hogs .....	22.2	Wheat .....	2.8
Dairy products .....	20.6	Soybeans .....	2.3
Cattle and calves .....	14.4	Turkeys .....	2.2
Chickens and eggs .....	12.8	Barley .....	1.9
Corn .....	5.2	Sheep, lambs, and wool .....	1.6
Flax .....	5.2	Potatoes .....	1.3
Oats .....	3.0	Other .....	4.5
			100.0

derived from the principal products of the state are shown in table 2. Hogs and dairy products each provided about one-fifth of the income, and they alternated as the principal source of income. Cattle and calves, and chickens and eggs were in third and fourth place as a source of income. If the income from turkeys was included with that of chickens and eggs, the poultry enterprise of the state produced slightly more of the cash income than was derived from the sale of cattle and calves in these years. In regard to crops, corn and flax led in importance in terms of cash sales. In several of the recent years under the stimulus of high price supports, flax was the largest source of cash income among the crops. The relatively minor contribution of wheat and potatoes to the total sales of the state was worthy of note in view of the earlier prominence of Minnesota as a wheat state and its present importance among the late crop potato states.

The decline in prices and in consequence the decline in income this year was reduced materially by the price support program of the government. The principal features of this program for the important Minnesota agricultural products has been summarized in table 3. Considerable purchases of butter, dry milk, dried eggs, and potatoes were made in the state. The purchase of dried eggs in Minnesota amounted to 16.0 million pounds by August and this was 28 per cent of all the purchases made by the Commodity Credit Corporation in the United States up to that time. Purchases of dairy products in the United States up to November 15 were about 100 million pounds of butter, 385 million pounds of dry milk solids, and 23 million pounds of cheese. A significant portion of these purchases was made in Minnesota.

With the prospect of continued large production of agricultural products in the United States and in Minnesota, it is evident that the level of future income will depend largely upon the levels of support provided by the government. During 1949, prices reached levels where the commodities providing nearly three-fifths of the income for Minnesota agriculture were subject to some sort of government support action. In some cases, such as with turkeys, the purchases or loans were a minor factor in the price, but for others they were an important factor in the price received by farmers. The supports announced for hogs did not result in market purchases of pork products by government in 1949, but there is fair prospect that live hog prices will fall sufficiently to receive support action. If this should occur, then about four-fifths of Minne-

Table 3. Price Support Program for Important Minnesota Agricultural Commodities

Commodity	Average U.S. prices as a percentage of parity Nov. 15, 1949	Price support or purchase program
Butterfat .....	93	Butter purchased at 62 cents for U.S. Grade A in carload lots, after July 27, 1949. Cheese purchased at 31¾ cents for U.S. Grade A in carload lots, after July 27, 1949.
Milk, wholesale .....	100	Dry milk spray powder purchased at 12¼ cents until Sept. 1, then advanced 1½ cents.
Hogs .....	90	Purchase of pork products to maintain seasonally adjusted rates to farmers at 90 per cent of Sept. 15, 1949 parity price of \$17.60. Amounts to \$16.20 in March for U.S. Average.
Beef cattle .....	148	
Chickens .....	84	
Eggs .....	77	Purchase dried eggs from processors who paid 85 cents per dozen to producers for shell eggs.
Turkeys .....	99	Purchase at 90 per cent of parity or about 31 cents per pound through September, 1949.
Flaxseed .....	88	90 per cent of parity beginning July 1, 1949 for the 1949 crop, 60 per cent of parity as of March 1, 1950.
Corn .....	66	Loans and purchase agreement at 90 per cent of September 15, 1949 parity price.
Wheat .....	90	Loans and purchase agreement at 90 per cent of June 15, 1949 parity price through January, 1950.
Oats .....	69	Varies by counties, average 65 cents for the U.S.
Soybeans .....	85	Loans and purchase agreement at 90 per cent of August, 1949 parity.
Potatoes .....	76	60 per cent of parity price.

sota products by value would be receiving some government price support.

## Financial Status of Minnesota Agriculture

REX W. COX

The valuation of the assets of Minnesota agriculture will approximate 5¼ billion dollars on January 1, 1950. Inasmuch as creditors will have a claim of only 352 million dollars, the equity of the proprietors will be 4.9 billion.

The increase in valuation of farm real estate during the past ten years is due almost wholly to an increase in price per acre. The increase in acre value during this year has been slight. Indications are that real-estate prices have passed their peak.

Valuation of crop and livestock inventories will show a decline of about 12 per cent during this year. It is estimated that there has been a net gain in the inventory valuation of farm machinery and motor vehicles.

The total of currency on hand, bank deposits, and U. S. bonds owned by farmers on January 1, 1950 will be more than five times the amount as of January 1, 1940, but only slightly higher than at the beginning of the present year.

**Estimated Assets, Liabilities, and Proprietorship of Minnesota Agriculture, January 1, 1940 and 1950**

	1940	1950
million dollars		
<b>Assets</b>		
Real estate .....	\$1,443	\$2,707
Other physical assets		
Crops .....	\$141	\$470
Livestock .....	257	578
Machinery and motor vehicles .....	193	550
Total .....	591	1,598
Total physical assets .....	\$2,034	\$4,305
<b>Financial</b>		
Currency and deposits .....	\$149	\$510
U. S. Bonds .....	10	315
Equity in cooperatives .....	36	120
Total .....	195	945
Total assets .....	\$2,229	\$5,250
<b>Liabilities</b>		
Real-estate mortgages .....	\$376	\$242
Nonreal-estate debt .....	88	110
Total liabilities .....	464	352
Proprietorship .....	1,765	4,898
Total liabilities and proprietorship .....	\$2,229	\$5,250

There are some indications that these reserves have passed their peak volume.

Farm real-estate mortgage debt declined from 376 million dollars in 1940 to 237 million dollars at the beginning of 1948. The estimate for January 1, 1950 is 242 million dollars. It is likely that the upward trend will continue during the coming year. At the present time this debt is only nine per cent of the real-estate valuation compared with about 26 per cent in 1940. Nonreal-estate debt is expected to show a marked increase during the year just ending.

Although farm income declined materially in 1949, the financial status of Minnesota agriculture at the start of 1950 still is very favorable. The equity of the proprietors is at a high level because of the moderate debt obligations, and the financial reserves continue at a comparatively high level. It is likely that the balance sheet of agriculture at the end of 1950 will show a decline of asset valuation, some depletion of reserves, and further increase in debt load.

## Changing Composition of Cash Farm Expenses

WILLIAM E. MCDANIEL

Cash farm expenses reached an all time high in 1948. With prices of farm products declining, farmers will need to study their expenses more carefully, with the aim of producing products as efficiently as possible. Some indication of the changing composition and trends of cash farm expenses can be obtained from the records of the Southeastern Minnesota Farm Management Service.

The periods of 1928-29 and 1945-48 were years of relatively high price levels and high net incomes for farmers. As is shown in the following table, the average cash farm expense in the association has increased from \$2,443 in the first period to \$9,009 in the second. With this increase, there has been some change in the composition of the expenses.

Although considerably more new power, machinery, and equipment were purchased in 1945-48 than in 1928-29, the proportion of total expense for these items was 15 per cent in both periods (see table). The greatest increase in the proportion of the total expense was four per cent for feed bought and four per cent for miscellaneous livestock and crop expenses. The greatest decrease in the proportion of the total expense was eight per cent for taxes, insurance, and miscellaneous items.

Examination of expenses from 1928-29 to 1930-34 will give some indication of what may happen to the trend of farm expenses with a general decline in price level.

Power, machinery, and equipment upkeep increased from 12 per cent of the total expense in 1928-29 to 15 per cent in 1930-34. The expense for new power, machinery, and equipment declined from 15 to 11 per cent of the total expense. As the farmer's income declines, he tends to hold down his total outlay for machinery by purchasing less new machinery and by repairing and using old machinery for a longer time.

The percentage of total expense represented by both livestock purchased and feed bought changed slightly from 1928-29 to 1930-34. These two cash expenses cannot always be economically reduced by decreasing total volume purchased in periods of declining prices. Feed expenses can be reduced per unit of product produced, however, by adapting more efficient methods of feeding.

Although members of Southeastern Farm Management Service are above average in managerial ability and operate larger and more productive units, the changes of the composition of their expenses, indicated in the table, are indicative of trends generally occurring in farming.

**Cash Farm Expenses and Per Cent Each Class is of Total Expenses, Southeast Minnesota Farm Management Association**

	1928 to 1929	1930 to 1934	1945 to 1948	1928 to 1929	1930 to 1934	1945 to 1948
Average number of farms .....	148	140	171			
Average size in acres .....	170	199	224			
<b>CASH FARM EXPENSES</b>				dollars		
Livestock purchased .....	306	223	899	13	12	10
Miscellaneous livestock and crop expenses .....				10	11	14
Feed .....	440	313	2,000	18	16	22
New power, machinery, and equipment .....				15	11	15
Power, machinery, and equipment, upkeep .....	290	287	1,194	12	15	13
New real-estate improvements .....	131	81	696	5	4	8
Real-estate upkeep .....	52	32	304	2	2	3
Hired labor .....	273	243	813	11	12	9
Taxes, insurance, and miscellaneous .....				14	17	6
Total .....	2,443	1,954	9,009	100	100	100
Per acre .....	14.37	9.82	40.22			

## Minnesota Farm Prices for November, 1949

Prepared by W. C. WAITE and ARNOLD B. LARSON

The index number of Minnesota farm prices for November, 1949, is 215.5. This index expresses the average of the increases and decreases in farm product prices in November, 1949, over the average of November, 1935-39, weighted according to their relative importance.

**Average Farm Prices Used in Computing the Minnesota Farm Price Index, November, 1949, with Comparisons\***

	Nov. 15, 1949	Oct. 15, 1949	Nov. 15, 1948		Nov. 15, 1949	Oct. 15, 1949	Nov. 15, 1948
Wheat .....	\$ 2.01	\$ 2.01	\$ 2.14	Hogs .....	\$15.20	\$17.70	\$22.40
Corn .....	.94	.99	1.12	Cattle .....	19.20	20.40	20.70
Oats .....	.60	.55	.70	Calves .....	23.90	24.20	25.50
Barley .....	1.29	1.25	1.29	Lambs-sheep ..	20.29	20.02	21.15
Rye .....	1.19	1.25	1.50	Chickens .....	.178	.178	.248
Flax .....	3.61	3.47	5.75	Eggs .....	.385	.440	.500
Potatoes .....	1.20	1.10	1.20	Butterfat .....	.68	.68	.70
Hay .....	14.50	14.56	16.00	Milk .....	3.20	3.25	3.70
				Wool† .....			

\* These are the average prices for Minnesota as reported by the United States Department of Agriculture.

† Not included in the price index number.

The Minnesota farm price index declined 11.2 points from October to November. The November price index, 215.5, is the lowest for any month since June, 1946, when price controls were removed. However, it is still above the figure for any month previous to that time.

Hog and cattle prices declined 14 and 6 per cent respectively. Egg prices were 12 per cent lower. The 5 per cent drop in the price of corn did not offset these declines, and all feed ratios were lower.

**Indexes and Ratios for Minnesota Agriculture\***

	Nov. 15, 1949	Nov. 15, 1948	Nov. 15, 1947	Average Nov. 1935-39
U. S. farm price index .....	224.6	254.7	269.7	100
Minnesota farm price index .....	215.5	261.3	286.5	100
Minn. crop price index .....	219.0	248.4	395.6	100
Minn. livestock price index .....	236.7	299.1	295.1	100
Minn. livestock product price index .....	182.2	212.1	214.6	100
U. S. purchasing power of farm products .....	116.1	127.9	138.2	100
Minn. purchasing power of farm products .....	111.4	131.2	146.8	100
Minn. farmers' share of consumers' food dollar .....	58.0†	59.7	63.6	47.1
U. S. hog-corn ratio .....	15.3	18.0	11.0	14.4
Minnesota hog-corn ratio .....	16.2	20.0	11.2	17.3
Minnesota beef-corn ratio .....	20.4	18.5	8.4	15.1
Minnesota egg-grain ratio .....	16.0	18.7	10.2	24.6
Minnesota butterfat-farm-grain ratio .....	33.5	30.9	22.6	39.7

\* Explanation of the computation of these data may be had upon request.

† Figure for August, 1949.

### UNIVERSITY FARM, ST. PAUL 1, MINNESOTA

Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Division and United States Department of Agriculture Cooperating, Paul E. Miller, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.

## Minnesota Farmers' Share and Purchasing Power

ARNOLD B. LARSON and WARREN C. WAITE

The farmers' share of the dollar paid for food at retail by consumers and the purchasing power of farm products have similar general movements.

For example, using the average of 1935-39 as a base and equal to 100; the index of the farmers' share of the consumers' food dollar and the index of the purchasing power of farm products in 1940 were 90.5 and 88.4 respectively. In 1943 they were 131.2 and 128.1.

The Minnesota farmers' share of the consumers' food dollar relates Minnesota farm prices of food products to their retail prices. The purchasing power of Minnesota farm products relates the prices of all Minnesota farm products to the prices of goods farmers buy. Since farm prices of food and of other farm products tend to move together, and retail prices of food and of goods farmers buy show a similar relationship, farmers' share and purchasing power of farm products fluctuate together.

The purchasing power of farm products was low in relation to the farmers' share of the retail food dollar in 1944 and 1945, and high in 1947 and 1948.

**Minnesota Farmers' Share and Purchasing Power**

Year	Minn. farmers' share of food dollar	Farmers share as per cent of 35-39 average	Minnesota purchasing power
1935-39 .....	47.6	100	100
1940 .....	43.7	90.5	88.4
1941 .....	49.9	104.8	107.0
1942 .....	57.0	119.7	117.4
1943 .....	62.5	131.2	128.1
1944 .....	62.1	130.4	121.3
1945 .....	63.5	133.4	121.0
1946 .....	63.9	134.2	133.5
1947 .....	63.4	133.1	145.9
1948 .....	60.9	127.9	140.1
1949* .....	56.6	119.9	118.1

\* Average for first 8 months.

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