FARM BUSINESS NOTES

Prepared by the Divisions of Agricultural Economics and Agricultural Extension
Paul E. Miller, Director Agricultural Extension

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Farm Income in Minnesota

Rex W. Cox

The cash income of 1,169 million dollars received by Minnesota farmers from the sale of agricultural products in 1950 was only two per cent below the level of 1,191 million dollars in 1949 but approximately 12 per cent below the peak of 1,329 million dollars in 1948 (table 1). At their present level, however, sales are more than three times their prewar average of 330 million dollars in 1935-39. The decline of cash farm income in 1950 was slightly less for Minnesota than for the country as a whole.

University Farm Radio Programs

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Among the various groups of products, cash receipts from sales of crops and livestock products other than meat animals and dairy products declined sharply. Receipts from the sale of eggs alone showed a 16 per cent drop from the previous year. The decline in sales of the two groups of products more than offset the seven per cent increase in sales of livestock and the slight increase in sales of dairy products.

The relative importance of the various sources of cash farm income in any year depends on the volume of marketings and prices received. In 1950, sales of livestock, including hogs, cattle and calves, sheep and lambs, furnished more than two-fifths of the total cash sales; crops, more than one-fourth; dairy products, less than one-fifth; and other livestock products, mainly poultry and eggs, about one-eighth of the total (table 2). The income from sales of livestock has ranked first throughout the period under consideration.

In the period 1935-39 and up through 1946, crops and dairy products furnished about the same proportion of the total cash sales, but during the past four years, cash income from crops has exceeded that from dairy products by a significant amount. Sales of poultry products amounted to about 12 per cent of the total cash sales in 1935-39. The proportion reached a peak of 20 per cent in 1945 and was slightly under 13 per cent in 1950.

The decline in net cash income—that is, the cash income remaining after cash production expenses are deducted—was somewhat greater than the decrease in gross cash income, because of the upward swing in cash expenses. The rise in total expenses in 1950 is the result of increases in cost of purchased feed and livestock, interest charges, taxes, and motor vehicle operating costs which are only partly offset by declines in costs of other items. With larger numbers of animals fed and feed prices up, the total cost of purchased feed was higher, while higher prices of livestock purchased increased expenditures for livestock.

Taxes are up to meet increased costs of local government, and interest payments have risen along with farm indebtedness, particularly short term debt. Larger number of motor vehicles on farms and higher costs for fuel, tires, and repairs account for a rise in total cost of operation. Cost of hired labor in 1950 probably neared that of 1949.

Comparison of the index of prices paid for production and living items and the index of cash income indicates how

Table 1. Annual Cash Sales of Agricultural Products by Minnesota Farmers, Averages 1935-39 and 1940-44; Annual 1945-1950

Products	1935-39	1940-44	1945	1946	1947	1948	1949	1950*
	(million dollars)							
Crops	80	134	191	245	373	416	352	317
Livestock	126	270	311	390	526	473	459	490
Dairy products	86	139	184	242	242	260	209	212
Other livestock products†	38	100	174	180	183	180	171	150
Total	330	643	860	1057	1324	1329	1191	1169

* Preliminary.
† Includes poultry, eggs, and miscellaneous livestock products.

Table 2. Percentage Distribution of Cash Sales of Agricultural Products by Minnesota Farmers, Averages 1935-39 and 1940-44; Annual 1945-50

Products	1935-39	1940-44	1945	1946	1947	1948	1949	1950
	(per cent of total)							
Crops	24.2	20.8	22.2	23.2	28.2	31.3	29.6	27.1
Livestock	38.1	42.0	36.2	36.9	39.7	35.6	38.5	41.9
Dairy products	26.2	21.6	21.4	22.9	18.3	19.6	17.5	18.2
Other livestock products	11.5	15.6	20.2	17.0	13.8	13.5	14.4	12.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

changes in these costs affect the buying power of cash income. This comparison is shown in table 3, the final column of which gives the ratio of the index of cash income to the index of prices paid. The ratio reached a peak in 1947 of more than twice that of the base period, 1935-39.

The ratio of 173 in 1950 means that the buying power in this year was 73 per cent higher than in the base period. However, this does not indicate that the amount of income available for savings was 73 per cent larger in 1950.

Table 3. Comparison of Indexes of Minnesota Cash Farm Income and Prices Paid for Commodities and Services Used in Farm Production and Living, Averages 1935-39 and 1940-44, Annual 1945-50

	Index of		Ratio of index of cash income to index of prices paid
	Cash income	Prices paid	
1935-39	100	100	100
1940-44	195	121	161
1945	261	151	173
1946	320	165	194
1947	401	191	210
1948	403	207	195
1949	361	200	181
1950	354	205	173

A comparison of prices received by Minnesota farmers in 1949 and 1950 shows that prices of cereal grains and soybeans—particularly corn, oats, barley, and soybeans—averaged higher in 1950 (table 4). However, farmers received 81 cents less for flaxseed and 28 cents less for potatoes. With the exception of hogs, prices of livestock were up markedly in 1950 compared with the previous year. Cattle prices had the greater advance—$4.03 per 100 pounds. The prices of dairy products averaged practically the same in the two years but chicken and egg prices were down sharply in 1950. This slump accounts for the decline in gross cash income received for these commodities.

Table 4. Comparison of Prices Received by Minnesota Farmers from the Sale of Various Products, 1949 and 1950

Commodity	1949	1950	Change from 1949 to 1950	Commodity	1949	1950	Change from 1949 to 1950
Wheat (bu.)	$2.02	$2.05	$ .03	Hogs (cwt.)	$18.03	$17.88	$—.15
Corn (bu.)	1.06	1.22	.16	Cattle (cwt.)	19.63	23.66	4.03
Oats (bu.)	.59	.70	.11	Calves (cwt.)	24.28	27.78	2.90
Barley (bu.)	1.13	1.30	.17	Sheep, lambs (cwt.)	21.46	23.44	1.98
Rye (bu.)	1.21	1.22	.01	Butterfat (lbs.)	.67	.67	
Flaxseed (bu.)	4.30	3.49	—.81	Milk (cwt.)	3.00	3.06	.06
Potatoes (bu.)	1.38	1.12	—.26	Chickens (lbs.)	.22	.17	—.05
Soybeans (bu.)	2.15	2.43	.28	Eggs (doz.)	.40	.31	—.09

Cash receipts from farm marketings of crops, livestock, and livestock products will probably show a substantial increase in 1951, with prospects for livestock and livestock products more favorable than for crops. Farmers' total costs of production are likely to rise substantially in 1951 with practically all items contributing to the increases. Even so, the rise in costs will probably be less than that indicated in cash receipts. In consequence, the net cash income may be materially increased in 1951 over 1950.

During the current year less will be heard about support programs than ceiling prices on agricultural products. Under the provisions of the Defense Production Act of 1950, price ceilings for agricultural products generally may not be established below the higher of the following prices after adjustment for grade, location, and seasonal differentials: (1) the parity price or (2) the highest price received by producers in the period May 24-June 24, 1950. As of December 15, United States farm prices of many commodities were below parity. Such commodities include cereal crops, flaxseed, potatoes, dairy products, hogs, and chickens. However, prices of cattle, calves, and lambs were well above parity. As is indicated in table 5, the highest price received by producers in the May 24-June 24 period is likely to determine the lowest possible ceiling prices for cattle, calves, lambs, and possibly soybeans unless the law is changed or unless the index of prices paid by farmers advances a great deal more than is expected. For the other commodities on which ceilings may be placed, the parity price will constitute the basis of ceilings.

Table 5. Actual Prices, November 15; Highest Prices, May 24-June 24, 1950; and Parity Prices, November 15, 1950, of Various Commodities*

Commodity	Actual price, Dec. 15	Highest price, May 24-June 24	Parity price, Dec. 15	Commodity	Actual price, Dec. 15	Highest price, May 24-June 24	Parity price, Dec. 15
Wheat (bu.)	$2.03	$1.93	$2.31	Hogs (cwt.)	$17.70	$17.80	$19.90
Corn (bu.)	1.45	1.36	1.68	Cattle (cwt.)	25.40	25.70	18.00
Oats (bu.)	.85	.80	.99	Calves (cwt.)	28.90	25.90	20.20
Barley (bu.)	1.19	1.12	1.54	Lambs (cwt.)	27.40	24.80	19.80
Rye (bu.)	1.37	1.21	1.79	Butterfat (lbs.)	.65	.60	.73
Flaxseed (bu.)	3.59	3.68	4.53	Milk (cwt.)	4.45	3.43	4.58
Potatoes (bu.)	.89	1.27	1.83	Chickens (lbs.)	.22	.22	.30
Soybeans (bu.)	2.70	2.80	2.65	Eggs (doz.)	.58	.30	.53

* The price as reported on June 15, 1950, is assumed to approximate the highest price of the period May 24-June 24.

Shifts in Red River Valley Farming

ANDREW VANVIG

The State Farm Census reveals changes that have occurred in crop and livestock production in the Red River Valley of Minnesota since 1921. The agricultural importance of this area is illustrated by the fact that in 1949, the six Red River Valley counties[1] produced 62 per cent of the wheat, 62 per cent of the potatoes, 34 per cent of the barley, and about 17 per cent of the flax grown in the entire state.

An agricultural area tends to specialize in producing the product or products for which its advantage over other areas is greatest or its disadvantage is the least. However, the pattern of agricultural production in any area is never completely fixed or permanent. Shifts in the kinds and amounts of crops and livestock raised are constantly taking place as farmers adjust to changing economic conditions.

Shifts which have taken place in the kinds and acreages of the different crops grown in the Red River Valley are indicated in table 1. The acreage planted to corn increased steadily from 1925 to 1945, with some decline since 1945. The development of shorter growing season hybrids helped

[1] Kittson, Marshall, Polk, Norman, Clay, and Wilkin counties.

push the corn-producing area northward, but most of the increase in corn has occurred in the southern counties.

Table 1. Trend in Acreage of Selected Crops in the Red River Valley of Minnesota

Period	Kind of crop						
	Corn	Oats	All wheat	Barley	Flax	Rye	Potatoes
	(1,000 acres)						
1921-24	143	468	599	189	98	170	138
1925-29	124	475	454	344	142	60	92
1930-34	147	472	474	330	158	41	99
1935-39	151	421	633	366	154	56	83
1940-44	212	431	508	354	195	29	84
1945-49	192	475	609	354	236	18	64

Wheat and barley acreages have remained relatively constant in the Valley during the last 25 years, although some shifts have occurred. In general, there is less wheat and barley grown in the southern counties now and more in the northern counties. In the northern counties barley is commonly grown as a cash crop on summer fallow land.

Flax has become an important cash crop in recent years. Favorable prices, improved varieties, and the use of weed sprays have encouraged expansion of the flax acreage. The acreage devoted to rye and potatoes has declined steadily. With the decline in acreage, potato production has become localized in a few small areas and more of the acreage is now grown by fewer specialized growers.

Shifts have also taken place in the numbers of livestock in the Red River Valley. The number of all cattle and calves in the area increased steadily until 1945. Since the war cattle numbers have declined sharply. The number of milk cows, estimated at 75,000 on January 1, 1950, is lower than at any time during the last 25 years. Much of the decline in livestock numbers probably has taken place on the heavy soil areas near the river. In recent years cash crop production has been very profitable, so many farmers are able to earn a good income without livestock.

The continued decline in livestock numbers in the area since the war and the increased emphasis upon the production of salable cash crops raise serious questions regarding future agricultural production in the area. Can the productivity of these soils (high in their native state) be maintained without livestock? Will it be profitable to plant more legumes and grasses to maintain crop yields even though no livestock are kept to utilize the roughages? Farmers are becoming concerned about adjustments to maintain and improve the productivity of the area.

Changes in Production on Dairy Farms In Southeastern Minnesota, 1930-1949

WILLIAM E. MCDANIEL

The amount of livestock and livestock products marketed from southeastern Minnesota dairy farms increased sharply from 1930 to 1949. This is indicated by farm records of the Southeastern Minnesota Farm Management Service. Although members of the service are above average in managerial ability, the changes in their sales are indicative of the trend in the area. The sales in physical quantities of the major livestock and livestock products from 160-acre dairy farms in southeastern Minnesota for the years 1930, 1940, and 1949 are shown in table 1.

Table 1. Major Livestock and Livestock Product Sales in Physical Quantities from 160-Acre Dairy Farms in Southeastern Minnesota, 1930, 1940, and 1949

	1930	1940	1949
Number of farms	66	30	34
Dairy cows (number)	3.7	3.7	5.0
Other dairy cattle (number)	9.3	8.8	10.2
Butterfat (pounds)	3,073	3,093	4,948
Hogs (pounds)	13,991	15,599	20,643
Eggs (dozen)	1,330	1,540	3,941

Increased sales are due in part to the additional numbers of livestock maintained on the farms. The major types of productive livestock on the farms are shown in table 2. Increased production per cow and hen, as shown in table 2, has also contributed to increased sales.

Table 2. Major Types of Productive Livestock and Production Per Cow and Hen on 160-Acre Dairy Farms in Southeastern Minnesota, 1930, 1940, and 1949

	1930	1940	1949
Cows (number)	14	12	17
Butterfat per cow (pounds)	239	254	301
Hogs produced (pounds)*	13,217	14,134	19,901
Hens (number)	158	182	251
Eggs per hen (number)	110	128	195
Total productive livestock units	30.5	32.8	38.3

* The difference between pounds of hogs produced (as shown above) and pounds of hogs sold (table 1) is accounted for by purchases and change in inventory.

The increase in the number of productive livestock has not made necessary an increase in the amount of farm labor. The additional labor needed in the livestock enterprises was made available by the displacement of labor through the adoption of labor-saving machinery in farm production. The number of workers on these farms has not changed materially from 1930 to 1949.

The additional feed required, because of increase in livestock numbers and increased consumption per head, has been obtained in the following ways:

1. Increased purchases of commercial feed — the amounts of commercial feeds purchased in the years 1930, 1940, and 1949 were 2, 4, and 15 tons, respectively.

2. Release of feed formerly used by horses—the average number of horses declined from five in 1930 to 1.7 in 1949.

3. Increased production of livestock feed on the farm—the yield per acre of corn and oats has increased during the 20-year period. In addition, acres of crops for livestock feed have increased while cash crops have decreased. Legume and legume mixtures for hay increased from 14 acres in 1930 to 24 acres in 1949 on the 160-acre farms.

The combination of many changes in the methods of agricultural production has resulted in the increased farm output. Every farmer should continually study his farm business with the purpose in mind of taking advantage of new methods of production which would result in higher net farm income. Farm account records are valuable guides to adjustments in production that increase earnings.

Minnesota Farm Prices for November-December, 1950

Prepared by ARNOLD B. LARSON

The index number of Minnesota farm prices for November, 1950, is 247.0. For December the index is 252.6. This index expresses the average of the increases and decreases in farm product prices in the given month of 1950 over the corresponding month 1935-39, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, November-December, 1950, with Comparison*

	Nov. 15, 1950	Dec. 15, 1950	Dec. 15, 1949		Nov. 15, 1950	Dec. 15, 1950	Dec. 15, 1949
Wheat	$ 1.96	$ 2.06	$ 2.02	Hogs	$17.20	$17.50	$14.60
Corn	1.27	1.37	1.04	Cattle	26.60	26.20	18.70
Oats	.76	.80	.64	Calves	29.40	30.20	24.70
Barley	1.30	1.38	1.23	Lambs-sheep	26.16	27.13	19.87
Rye	1.25	1.39	1.25	Chickens	.163	.165	.166
Flax	3.18	3.64	3.57	Eggs	.373	.463	.330
Potatoes	.75	.75	1.15	Butterfat	.69	.70	.68
Hay	14.00	14.50	14.60	Milk	3.35	3.30	3.10
				Wool†	.60	.62	.44

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

† Not included in the price index number.

Corn prices rose fairly uniformly throughout the year and reached their highest level in December. The price of hogs was down seasonally for the month and these factors working together resulted in the lowest hog-corn ratio since June, 1948. The beef-corn ratio, on the other hand, although down somewhat from November, was still at the high level of the last two years.

The butterfat-farm grain ratio averaged 29.1 in 1950, compared to an average of 33.9 in 1949. The egg-grain ratio showed an even greater proportionate decline, from an average of 16.1 in 1949 to 11.4 in 1950.

Indexes and Ratios for Minnesota Agriculture*

	Nov. 15, 1950	Average Nov., 1935-39	Dec. 15, 1950	Average Dec., 1935-39
U. S. farm price index	259.4	100	266.8	100
Minnesota farm price index	247.0	100	252.6	100
Minn. crop price index	240.4	100	250.2	100
Minn. livestock price index	294.0	100	300.7	100
Minn. livestock product price index	180.6	100	186.7	100
U. S. purchasing power of farm products	122.9	100	124.7	100
Minn. purchasing power of farm products	117.0	100	118.0	100
Minn. farmers' share of consumers' food dollar	59.5†	47.1	60.0‡	46.9
U. S. hog-corn ratio	13.0	14.4	12.2	13.5
Minnesota hog-corn ratio	13.5	17.3	12.8	15.9
Minnesota beef-corn ratio	20.9	15.1	19.1	14.0
Minnesota egg-grain ratio	13.8	24.6	16.2	20.7
Minnesota butterfat-farm-grain ratio	28.4	39.7	27.1	40.4

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

† Figure for August, 1950.

‡ Figure for September, 1950.

UNIVERSITY FARM, ST. PAUL 1, MINNESOTA

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Cost of Living Index

ARNOLD B. LARSON

The index of cost of living (Consumers' Price Index of the Bureau of Labor Statistics) rose to a record level of 175.6 in November. This means the cost of living in November was about 75 per cent above the level in the base period, 1935-39. This was the second consecutive month in which the index was above the previous record high of 174.5 reached in August and September, 1948.

The cost of food at retail has a very significant influence on the index of cost of living because foods account for about 40 per cent of the cost of all items used in the index. However, the cost of food usually changes most rapidly.

This is indicated in part by comparing the indexes of cost of living and food prices. At the beginning of 1950 the index of cost of living was 166.9, while the food price index was 196.0. Both indexes showed a slight decline during February, but in subsequent months and continuing until midyear, both indexes increased, although the percentage increase was greater for food prices. During the remainder of the year, the cost of living index continued to rise, with the index of food prices remaining about the same. Hence the rise in the cost of items other than food apparently was responsible for the increase in the cost of living during the latter part of 1950.

Monthly Indexes of Cost of Living and Retail Food Prices, 1950 (1935-39 = 100)

Month	Cost of Living	Food Prices
Average 1949-50	169.1	201.9
January	166.9	196.0
February	166.5	194.8
March	167.0	196.0
April	167.3	196.6
May	168.6	200.3
June	170.2	204.6
July	172.5	210.0
August	173.0	209.0
September	173.8	208.5
October	174.8	209.0
November	175.6	209.0

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