

FARM BUSINESS NOTES

Prepared by the Divisions of Agricultural Economics and Agricultural Extension
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Minnesota Cooperatives at Mid-Century¹

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It is widely known that cooperative associations provide many business services needed by Minnesota farmers. A field survey of cooperatives conducted by the Division of Agricultural Economics in the summer of 1950 found that there were 1,341 of these associations engaged in marketing farm products, purchasing farm supplies, or performing related services in the state. This compares with a count of 1,365 associations in a similar survey made in 1936.

It should be noted that these totals include only the cooperatives which perform farm marketing and purchasing services and do not include associations providing electrical, telephone, credit, insurance, or other such services for farmers. Minnesota ranks first among the states not only in the number of cooperatives but also in number of members and volume of business.

Table 1. Number of Associations, Membership, Patronage, and Volume of Business of Minnesota Farmers' Cooperatives, 1949-1950

Type of association	Number of associations ¹	Number of members ²	Number of patrons ³	Volume of business ⁴ thousands
Dairy	540	131,794	135,620	\$ 340,443
Fruits and vegetables	12	1,573	1,333	4,532
Grain	235	97,360	173,531	556,158
Livestock	187	73,100	173,150	205,387
Poultry and eggs	33	13,512	16,040	17,771
Miscellaneous products	3	9,619	9,656	1,576
Farm supply	299	185,881	287,140	137,256 ⁵
Service ⁶	32	6,559	9,829	7,252
Total	1,341	519,398	806,299	\$1,270,375

¹ Figures include independent local associations, federations, and large-scale centralized associations.

² Figures include only Minnesota members.

³ Figures include only Minnesota patrons.

⁴ Volume is reported on a gross basis including out-of-state business without adjustment for inter-association transfers.

⁵ Figures include cooperative frozen food lockers, and trucking and warehousing associations.

⁶ Farm supply volume is larger than indicated here since other associations, such as grain and dairy associations, handle these items and include them in their total volume. In later reports these items will be segregated.

¹ A preliminary report of a study made with funds provided by the Research and Marketing Act of 1946.

University Farm Radio Programs

HI-LIGHTS IN HOMEMAKING

10:45 a.m.

UNIVERSITY FARM HOUR—12:30 p.m.

Station KUOM—770 on the dial

Dairy cooperatives are the most numerous with 540 associations or 40 per cent of the total (table 1). In 1936 about 643 associations were in the dairy group. Closing of dairy plants due to an inadequate volume of business and some consolidations account for much of the decline. In 18 cases creameries were classified in the poultry and egg group since their dairy volume had declined and

the poultry and egg volume had increased to the point of providing the larger proportion of total business volume. All of these creameries were located in the western counties of the state.

Farm supply cooperatives engaged in the purchase of petroleum products, feeds, fertilizers, farm machinery, groceries, and other supplies ranked second in number with 299 associations. Grain associations were third with 235 units. It should be recognized that many associations in the state handle more than one commodity line, but for purposes of this study each association was classified only once—on the basis of the commodity which represented the largest proportion of its total business.

The total number of Minnesota patrons reported by the marketing and purchasing cooperatives in the state was 806,299 (table 1). Since there are only about 179,000 farm operators in the state, this indicates that on the average farmers patronize somewhat over four cooperatives each. Some farmers may not do business with any cooperative and consequently the average number of associations patronized by active cooperators is probably larger. A farmer may do business with cooperatives of several types, such as dairy, grain, and farm supply, but he also may patronize two or more of a given type, such as supply associations. The fact that farm supply associations reported having 287,140 patrons in the state indicates that farmers often do business with more than one of these associations.

Membership in these cooperatives, as evidenced by ownership of voting stock or other membership interest, totaled 519,398 (table 1). Here too it is apparent that on

the average farmers in the state own shares in or have a voice in the control of three or more cooperatives.

Volume of Business

For the fiscal year 1949-50 the total volume of business of 1,341 cooperatives with headquarters in Minnesota was \$1,270,375,000 (table 1). This total included business handled for both Minnesota and out-of-state patrons and associations. This is an increase of more than a billion dollars over the gross business volume of \$228,566,000 transacted by 1,365 farmers' cooperatives in the state in 1936.

Much of this increase is attributable to the large increases in prices between 1936 and 1950. Some of the increase is explained by the rapid growth of a number of large-scale cooperative federations with headquarters in the state in this period. An example of this was the organization and subsequent growth of a major regional grain marketing association which occurred in this period. Three major regional farm supply cooperatives with headquarters in the Twin Cities experienced a very large growth over these years. A large regional dairy cooperative extended its operations to new areas and additional products. Many local associations, particularly farm supply associations, experienced a rapid growth in this period.

When business with out-of-state farmers is eliminated from the total indicated above, the gross business is \$832,541,000 for the fiscal year 1949-50. If business volume is adjusted further to account for the fact that in many cases the same products are handled successively by different cooperatives from the local level to the terminal level and are reported by each, net value of products handled cooperatively for farmers in the state is \$631,798,000.

The grain cooperatives ranked first in over-all business volume with a total of \$556,158,000 (table 1). The dairy, livestock, and farm supply associations ranked second, third, and fourth respectively. On the basis of net value of products handled for Minnesota farmers, and excluding interassociation transactions, dairy cooperatives ranked first, and grain and livestock cooperatives second and third respectively.

Financial Status

Total assets of the 1,341 associations, including buildings, equipment, investments, inventories, receivables, cash, and other resources, were \$227,382,000 at the mid-century point (table 2). The dairy cooperatives ranked first in total

Table 2. Financial Status of 1,341 Minnesota Farmers' Cooperatives at Close of Fiscal Year 1949-50

Type of association	Assets	Liabilities	Net worth	Net worth
				to assets
thousands of dollars				per cent
Dairy	\$ 86,568	\$34,236	\$ 52,332	60.5
Fruits and vegetables	1,480	346	1,134	76.6
Grain	59,874	23,754	36,120	60.3
Livestock	3,618	1,709	1,909	52.8
Poultry and eggs	3,151	1,202	1,949	62.3
Miscellaneous products	373	41	332	89.1
Farm supply	70,820	24,483	46,337	65.4
Service	1,498	559	939	62.7
Total	\$227,382	\$86,330	\$141,052	62.0

capital with a net investment of \$86,568,000, and the farm supply associations ranked second with \$70,820,000.

Of the total capital in these associations \$141,052,000, or 62 per cent, was obtained from members and patrons doing business with these organizations, or what may be termed owner sources. The largest proportion of these equities was obtained from net margins retained in the business and credited to individual member accounts. In 1936 the owner equities in these cooperatives totaled \$25,078,000, or 62 per cent of total capital at that time.

The remainder of the capital of these associations, \$86,330,000 or 38 per cent of the total, was obtained from various creditors. A part of this represented amounts owed to patrons for farm products delivered on a pooling basis. Other amounts owed were on open accounts payable to various suppliers and on notes payable to lending institutions and others.

Leading Counties

The Minnesota county which led in the number of farmers' marketing and purchasing cooperatives within its borders was Polk with 50 associations (table 3). Ottertail and Stearns Counties ranked second and third with 47 and 35 associations respectively. In determining the number of cooperatives in an area, branches and subsidiaries of associations were not included.

Table 3. Minnesota Counties Leading in Number of Farmers' Cooperatives and Those Leading in Volume of Business of Cooperatives, 1949-50

County	Number of cooperatives		County	Dollar volume of business	
	Rank	Number		Rank ¹	Volume
Polk	1	50	Ottertail	1	\$19,459,677
Ottertail	2	48	Olmsted	2	19,336,023
Stearns	3	35	Polk	3	18,647,284
Marshall	4	34	Redwood	4	13,927,390
St. Louis	5	32	Renville	5	13,642,020
Renville	6	28	Faribault	6	13,530,173
Faribault	7	27	Lyon	7	13,030,126
Freeborn	7	27	Lac qui Parle	8	11,763,199
Morrison	9	26	St. Louis	9	11,744,626
Douglas	10	25	Wadena	10	11,320,353
Redwood	10	25			

¹ Counties in Twin Cities area not included.

Farmers' marketing and purchasing cooperatives were located in 86 of the 87 counties of the state. Only Anoka County did not have a home office of this type of cooperative but did have a number of branch plants and outlets of associations which served the area from an adjoining county.

Ranking highest in dollar volume of business were the three counties in the Twin Cities area which held the homes of several large regional cooperatives—some of which served farmers in several states. Farmers' cooperatives which were headquartered in Ramsey, Dakota, and Hennepin Counties had a gross business volume in the fiscal year 1949-50 of 403, 196, and 132 million dollars respectively. These totals included the interstate business of these organizations and were not adjusted for duplications arising from interassociation transactions with local cooperatives.

Out in the state the leading counties in cooperative business volume were Ottertail, Olmsted, and Polk Counties with annual volumes of 19.5, 19.3, and 18.6 million dollars respectively (table 3). In Ottertail and Olmsted Counties dairy cooperatives accounted for a large proportion of the total volume. Grain associations supplied an important part of the total volume in Polk, Redwood, Renville, Faribault, Lyon, and Lac qui Parle Counties.

A Preliminary Report

This is a preliminary report of the findings in a study which has involved collection of a large amount of data from 1,341 farmers' cooperatives in the state. This brief summary has been made in advance of an analysis of the large bulk of the information, which will not be ready until a later date.

The completed reports covering the study will include information on the cooperative characteristics, tax status, patronage, membership, employed personnel, and management of cooperatives in the state. Considerable attention will be given to the financing of these organizations, including analyses of their financial structure, the extent and terms of their borrowings, member financing, and the use of revolving funds. Costs, net margins, and efficiency of operation will be analyzed. Dollar values and physical quantities of commodities and supplies handled will be summarized. Trends and changes in cooperative development since 1900, and particularly since 1936, will be reviewed.

A brief mimeographed summary of the basic statistics used in preparing this preliminary report is available. Grouping the cooperatives by commodity type and county, it includes information on their numbers, membership, patronage, financial status, and volume of business. This statistical supplement on farmers' cooperatives in Minnesota may be obtained by addressing the Division of Agricultural Economics, University Farm, St. Paul 1, Minnesota.

Financial Progress Made By Beginning Farmers

J. A. TYVAND

A study of the farm records kept by 69 veterans taking on-the-farm training in the public schools of the state shows that these farmers made a 77 per cent increase in their net worth from January 1, 1947, to January 1, 1950. The farmers studied were located in the southern two-thirds of Minnesota and included both owners and renters. In the case of tenant farmers the landlord's share of the farm capital has not entered into any of the calculations. The majority of the operators began farming in 1946.

Farm capital of these operators nearly doubled during the three years of this study, and liabilities were increased by 63 per cent (table 1). A large portion of the increase in liabilities was due to the purchase of real estate by a few of the operators. The ratio of assets to liabilities remained relatively constant, the operators maintaining a 56 per cent equity in the farm business.

Table 1. Net Worth Statement for 69 Farmers Enrolled in the Veterans' On-the-Farm Training Program, January 1, 1947-January 1, 1950

	Jan. 1, 1947	Jan. 1, 1948	Jan. 1, 1949	Jan. 1, 1950
Total farm capital	\$5,938	\$7,917	\$ 9,406	\$10,967
Personal assets	1,623	1,895	2,000	2,083
Total assets	\$7,561	\$9,812	\$11,406	\$13,050
Total liabilities	2,489	3,022	3,417	4,070
Net worth	\$5,072	\$6,790	\$ 7,989	\$ 8,980
Increase in net worth during year		\$1,718	\$ 1,199	\$ 991

A statement of average income and expenses indicates that the increase in farm capital was due largely to the purchase of machinery, equipment, and real estate (table 2). The livestock purchases remained relatively constant for the three-year period. These operators had available for personal living and savings a yearly income of approximately \$3,200. Of this amount approximately two-thirds was derived from the farm business and one-third from veterans' subsistence payments.

Table 2. Earnings of 69 Farmers Enrolled in the Veterans' On-the-Farm Training Program, 1947-1949

	1947	1948	1949
RECEIPTS:			
Livestock and livestock products	\$2,533	\$3,535	\$3,751
Crops	789	683	622
Other	203	368	439
Total sales	\$3,525	\$4,586	\$4,812
Increase in farm capital	1,979	1,489	1,561
Family living from the farm	359	400	386
Total receipts	\$5,863	\$6,475	\$6,759
EXPENSES:			
Livestock bought	381	371	409
Feed bought	537	564	575
Machinery, equipment, and real estate bought	1,383	1,677	2,361
Machinery, equipment, and real estate upkeep	652	773	781
Rent, taxes, interest paid	226	283	322
Custom work hired	168	224	232
Labor	82	93	118
Other operating expenses	331	352	368
Total purchases	\$3,760	\$4,337	\$5,166
Board for hired labor	40	45	45
Total expenses	\$3,800	\$4,382	\$5,211
Return to capital and family labor	2,063	2,093	1,548
Veterans' subsistence payments	1,175	1,151	1,150
Other non-farm income	157	56	121
Total available for living and savings	3,395	3,300	2,819

The \$1,581 increase in liabilities in the three years accounted for 32 per cent of the increase in farm capital. The remainder of the increase in farm capital was purchased with farm earnings or veterans' subsistence payments. The addition of veterans' subsistence payments to farm earnings provided the balance necessary to make the capital increases possible and yet maintain a reasonable standard of living.

It is highly improbable that these farmers would have made as rapid an increase in net worth had it been necessary for both capital increase and personal living to be financed entirely from farm earnings.

Minnesota Farm Prices for March-April, 1951

Prepared by ARNOLD B. LARSON

The index of Minnesota farm prices for March, 1951, is 279.2. For April the index is 280.9. This index represents the average of the increases and decreases in farm product prices in the given month of 1951 over the corresponding month of the period 1935-1939, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, March-April, 1951, with Comparisons*

	Mar. 15, 1951	April 15, 1951	April 15, 1950		Mar. 15, 1951	April 15, 1951	April 15, 1950
Wheat	\$ 2.17	\$ 2.18	\$ 2.06	Hogs	\$21.00	\$20.50	\$15.60
Corn	1.47	1.51	1.17	Cattle	30.00	30.40	21.60
Oats	.85	.85	.68	Calves	33.40	33.50	26.40
Barley	1.49	1.43	1.28	Lambs-Sheep	35.44	34.05	22.17
Rye	1.66	1.69	1.18	Chickens	.235	.248	.170
Flax	4.64	4.38	3.66	Eggs	.385	.390	.270
Potatoes	1.00	.95	1.20	Butterfat	.74	.74	.66
Hay	16.20	19.30	15.20	Milk	3.55	3.45	2.80
				Wool†	1.11	1.04	.42

* 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 continued to rise during March and April, though small decreases were noted in the United States farm price index for these months. Factors of importance in maintaining the increase in the Minnesota index have been increases in livestock prices, particularly those of cattle, and steady prices for butterfat during a period of seasonal increase in marketings.

The beef-corn ratio has been rising in recent months, while the hog-corn ratio has been declining. Other livestock-feed ratios have shown little change.

Indexes and Ratios for Minnesota Agriculture*

	Mar. 15, 1951	Average Mar., 1935-39	Apr. Average 15, Apr., 1951	Average 1935-39
U. S. farm price index	284.8	100	282.4	100
Minnesota farm price index	279.2	100	280.9	100
Minn. crop price index	207.0	100	222.9	100
Minn. livestock price index	352.6	100	355.6	100
Minn. livestock product price index	227.4	100	230.5	100
U. S. purchasing power of farm products	127.5	100	125.5	100
Minn. purchasing power of farm products	125.0	100	124.9	100
Minn. farmers' share of consumers' food dollar	58.7‡	48.3	58.3‡	47.9
U. S. hog-corn ratio	13.2	13.4	12.7	12.5
Minnesota hog-corn ratio	14.3	16.5	13.6	15.4
Minnesota beef-corn ratio	20.4	12.9	22.2	12.6
Minnesota egg-grain ratio	12.7	13.6	12.7	13.7
Minnesota butterfat-farm-grain ratio	26.8	32.4	26.9	31.8

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

† Figure for December, 1950.

‡ Figure for January, 1951.

Influence of Hog-Corn Ratio on Farrowing

ARNOLD B. LARSON

The most important factor affecting the size of the pig crop is the hog-corn price ratio during the breeding season. A study made by the Bureau of Agricultural Economics, USDA, shows that a hog-corn ratio which is above average during the breeding season usually results in an increase in the number of sows farrowing. This relationship is true for both the fall and spring pig crops. The relationships for Minnesota, as shown in the table below, are not quite as strong as they are for the entire United States.

The hog-corn ratio this spring is slightly below average, indicating a reduction in sows to farrow in the fall of 1951. However, Minnesota farmers plan a greater expansion in feed grain production than the rest of the U.S., and this should result in an increase in fall farrowing. The net effect should be a fall crop about equal to that of last year.

Relationship Between the Minnesota Hog-Corn Ratio and the Percentage Change in Fall Sows Farrowing, 1926-1951

Year	Hog-corn ratio average, March-July	Deviation from average hog-corn ratio	Per cent change from previous fall in sows farrowing	Year	Hog-corn ratio average, March-July	Deviation from average hog-corn ratio	Per cent change from previous fall in sows farrowing
1926	21.5	+7.5	+12	1939	18.2	+4.2	+22
1927	14.5	+ .5	- 7	1940	10.4	-3.6	0
1928	9.9	-4.1	-11	1941	16.4	+2.4	+20
1929	11.3	-2.7	+20	1942	19.2	+5.2	+19
1930	14.5	- .5	0	1943	15.6	+1.6	+12
1931	14.4	- .4	+13	1944	12.8	-1.2	-39
1932	11.1	-2.9	-15	1945	15.5	+1.5	+29
1933	14.7	+ .7	+ 6	1946	11.8	-2.2	-34
1934	8.8	-5.2	-51	1947	16.0	+2.0	+ 9
1935	11.3	-2.7	+76	1948	10.7	-3.3	+ 4
1936	19.3	+5.3	0	1949	16.9	+2.9	+23
1937	8.9	-5.1	- 7	1950	14.5	+ .5	+11
1938	18.5	+4.5	+ 8	1951	13.9*	- .1	

* 1951 average hog-corn ratio based on March and April only.

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