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AGRICULTURAL EXTENSION DIVISION
UNIVERSITY OF MINNESOTA

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MINNESOTA FARM BUSINESS NOTES

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

MINNESOTA COOPERATIVE CREAMERY OPERATION 1931-1933

Prepared by H. F. Hollands and E. F. Koller

Prices paid for butterfat by Minnesota cooperative creameries have varied considerably in recent years as is indicated by analysis of the records of all the cooperative creameries in the state which had complete annual reports for each of the years 1931, 1932 and 1933, and which obtained practically all of their revenue from the manufacture of butter. Patrons judge creameries largely by the price they pay for butterfat which, for the 66 creameries used in this analysis, averaged 27.89 cents in 1931, 20.19 cents in 1932, and 21.64 cents in 1933. The creameries in this study were well distributed geographically and differed from each other principally in volume.

Table 1

Average Price Paid per Pound of Butterfat by 66
Minnesota Cooperative Creameries for the Years 1931, 1932 and 1933
Grouped According to Pounds of Butter Manufactured*

	All Groups	Group I	Group II	Group III
No. of creameries:	66	30	26	10
	cents	cents	cents	cents
1931	27.89	26.99	27.20	29.36
1932	20.19	19.32	19.64	21.42
1933	21.64	20.85	21.25	22.61

*Group I, under 250,000 pounds; Group II, from 250,000 to 500,000 pounds; Group III, over 500,000 pounds.

Table 1 shows the average price paid for butterfat by each of the three groups of creameries classified on the basis of the average number of pounds of butter manufactured during the three-year period. The large volume creameries consistently paid higher prices for butterfat than did the smaller creameries. In 1931 the average price paid by the groups ranged from 26.99 cents (Group I) to 29.36 cents (Group III); and in 1933 it varied from 20.85 cents, paid by the small volume creameries, to 22.61 cents paid by the largest volume group.

The average balance sheet items as of December 31, 1931 and December 31, 1933 for the group of 66 creameries and for each of the volume groups are shown in Table 2. The sound financial condition of these creameries is indicated by analysis, some aspects of which are presented. The financial condition of these creameries improved between 1931 and 1933 as shown by the increase of net worth from 73.20 per cent of total assets in 1931 to 77.58 per cent in 1933. This was accompanied by a decrease in per cent of liabilities, the reduction in fixed liabilities from 7.64 in 1931 to 5.03 per cent in 1933 indicating a particularly

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Table 2

Average Balance Sheet Items of 66 Minnesota Cooperative Creameries
as of December 31, 1931 and 1933
Grouped According to Pounds of Butter Manufactured*

	All Groups		Group I		Group II		Group III	
No. of creameries:	66		30		26		10	
Year:	1931	1933	1931	1933	1931	1933	1931	1933
Assets:								
Current	$5,819	$4,629	$3,318	$2,524	$5,633	$4,279	$13,806	$11,853
Investment	1,026	1,349	707	966	1,326	1,697	1,203	1,591
Fixed	14,807	13,755	10,509	9,824	17,702	16,311	20,173	18,899
Other	1,069	1,102	864	805	1,140	1,051	1,503	2,128
Total Assets	22,721	20,835	15,398	14,119	25,801	23,338	36,685	34,471
Liabilities:								
Current	4,354	3,622	3,138	2,552	4,622	3,743	7,301	6,517
Fixed	1,735	1,049	1,347	628	2,850	1,938	none	none
Total Liabilities	6,089	4,671	4,485	3,180	7,472	5,681	7,301	6,517
Net Worth:								
Capital stock	5,488	5,229	4,770	4,745	6,193	6,036	5,808	4,584
Surplus	11,144	10,935	6,143	6,194	12,136	11,621	23,576	23,370
Total Net Worth	16,632	16,164	10,913	10,939	18,329	17,657	29,384	27,954
Total Liabilities and Net Worth	22,721	20,835	15,398	14,119	25,801	23,338	36,685	34,471

*Cents omitted.

favorable change in financial condition. None of the ten creameries in Group III had any fixed liabilities. Among the groups the stockholders of the largest volume creameries had larger equities than the owners in either of the other groups because of having large accumulated surpluses and no fixed liabilities. In 1931 the proportion of net worth to total assets was 70.87 per cent for the creameries in Group I as compared with 80.10 per cent for the Group III creameries. During the three years, the surpluses were not depleted in an effort to maintain butterfat prices for competitive purposes.

The ratio of current assets to current liabilities is the current ratio. It indicates to what extent the creamery is prepared to meet its current obligations, since it shows the number of dollars of current assets available to pay each dollar of current liabilities. The current ratio for the entire 66 creameries changed only slightly, declining from 1.34 in 1931 to 1.28 in 1933. The current position of the large volume creameries was considerably stronger than that of the smaller volume groups, being 1.82 in 1933 as compared with .99 for Group I, and 1.14 for creameries in Group II. There was considerable reduction in both current assets and current liabilities, the decline being due largely to lower butter prices and to lower butterfat and supply costs which made possible the same physical volume of creamery operation with a smaller amount of current funds. There was greater decline in current assets than in current liabilities, due partly to the number of banks which closed during 1932 and 1933 with the resulting shift of cash deposits into trust funds classified as "other assets".

The intensity and efficiency with which the plant and equipment were used was indicated by a turn-over ratio of the number of pounds of butter manufactured to the number of dollars of fixed assets. This ratio for the 66 creameries increased from 21.95 in 1931 to 23.06 in 1932 and to 24.94 in 1933. Among the groups

the largest volume creameries showed considerably more efficient use of fixed assets since they manufactured an average of 43.59 pounds of butter for each dollar of fixed assets in 1933 as compared with 20.85 pounds by Group II creameries, and with an average of 18.88 pounds by the creameries in the smallest volume group.

Comparison of Operating Costs

Important creamery expenses expressed in cents per pound of butter manufactured are given in Table 3 for the years 1931 and 1933. In every instance, the unit cost was lower in 1933 than in 1931. The consistently lower unit cost achieved by the large volume creameries is evident.

Table 3

Selected Average Expenses per Pound of Butter Manufactured for the Years 1931 and 1933 of 66 Minnesota Cooperative Creameries Grouped According to Pounds of Butter Manufactured

No. of creameries:	All Groups 66		Group I 30		Group II 26		Group III 10	
Year:	1931	1933	1931	1933	1931	1933	1931	1933
	cents	cents	cents	cents	cents	cents	cents	cents
Manufacturing expense	1.80	1.43	2.18	1.77	1.90	1.53	1.41	1.08
Labor expense	1.08	.80	1.33	1.02	1.09	.81	.87	.64
Supply expense	.88	.64	.98	.74	.91	.68	.76	.54
General and administrative expense	.32	.26	.41	.30	.34	.28	.23	.20

The reduction made in these selected expenses between 1931 and 1933 by the 66 creameries is expressed in terms of per cent decline in expense per pound of butter manufactured in Table 4. The largest reduction in manufacturing expense was 23.17 per cent made by the largest volume group. Group II creameries made a reduction of 19.34 per cent as compared with that of 18.57 per cent made by the smallest volume group.

Table 4

Per Cent Reduction in Selected Expenses per Pound of Butter Made by 66 Minnesota Cooperative Creameries from 1931 to 1933 Grouped According to Pounds of Butter Manufactured

No. of creameries:	All Groups 66	Group I 30	Group II 26	Group III 10
	per cent decrease	per cent decrease	per cent decrease	per cent decrease
Manufacturing expense	20.77	18.57	19.34	23.17
Labor expense	25.61	23.12	25.86	26.12
Supply expense	27.01	24.50	25.93	29.61
General and administrative expense	19.81	25.29	17.80	13.87

The major items of the "cost of dairy products sold", except butterfat, are labor and supplies and most of the reduction was made in these two expenses. The small volume creameries made a greater per cent reduction in general and administrative expenses than did either of the larger volume groups, but despite this reduction their general and administrative expense per pound of butter manufactured remained higher than that of the large volume creameries.

MINNESOTA FARM PRICES FOR APRIL 1935

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

The index number of Minnesota farm prices for the month of April 1935 was 91.2. When the average of farm prices of the three Aprils 1924-25-26 is represented by 100, the indexes for April of each year from 1924 to date are as follows:

April 1924	82.4	April 1930	100.9
" 1925	105.9	" 1931	70.8
" 1926	112.4	" 1932	46.2
" 1927	110.4	" 1933	39.9
" 1928	106.2	" 1934	52.5*
" 1929	112.2	" 1935	91.2*

*Preliminary

The price index of 91.2 for the past month is the net result of increases and decreases in the prices of farm products in April 1935 over the average of April 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, April 15, 1935, with Comparisons*

	Apr.15, 1935	Mar.15, 1935	Apr.15, 1934	Av. Apr. 1924-25-26	% Apr.15, 1935 is of Mar. 15, 1935	% Apr.15, 1935 is of Apr. 15, 1934	% Apr. 15, 1935 is of Apr. 15, 1924-25-26
Wheat	$1.02	$.96	$.72	$1.29	106	142	79
Corn	.80	.77	.35	.64	104	229	125
Oats	.50	.50	.26	.35	100	192	143
Barley	.84	.84	.48	.57	100	175	147
Rye	.55	.55	.47	.73	100	117	75
Flax	1.63	1.61	1.57	2.29	101	104	71
Potatoes	.37	.35	.55	.95	106	67	39
Hogs	8.30	8.60	3.40	9.69	97	247	86
Cattle	6.80	6.50	3.80	6.09	105	179	112
Calves	7.20	7.30	4.60	8.51	99	157	85
Lambs-sheep	7.03	7.10	7.07	11.44	99	99	61
Chickens	.131	.116	.085	.183	113	154	72
Eggs	.20	.18	.13	.22	112	153	90
Butterfat	.37	.33	.23	.42	112	161	88
Hay	17.52	17.28	8.40	11.62	101	209	151
Milk	1.73	1.65	1.24	1.98	105	140	87

*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*

	April 1935	March 1935	April 1934	Av. April 1924-26
U.S. farm price index	79.8	76.6	53.0	100.0
Minnesota farm price index	91.2	85.4	52.5	100.0
U.S. purchasing power of farm products	97.9	93.3	69.7	100.0
Minnesota purchasing power of farm products	111.9	104.0	69.1	100.0
U.S. hog-corn ratio	9.2	9.8	7.4	12.4
Minnesota hog-corn ratio	10.4	11.2	10.3	15.5
Minnesota egg-grain ratio	12.7	11.7	14.5	12.7
Minnesota butterfat-farm-grain ratio	23.5	21.1	28.3	36.8

*Explanations of the computation of these data are given in Farm Business Notes No. 144.