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AGRICULTURAL EXPERIMENT STATION

FARMERS' ELEVATORS IN MINNESOTA 1914-1915

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FARMERS' ELEVATORS IN MINNESOTA

By E. Dana Durand and J. P. Jensen

INTRODUCTION

Two bulletins dealing with farmers' elevators in Minnesota have already been published by the Division of Research in Agricultural Economics of the University of Minnesota. The first, No. 146, is a general bulletin dealing with coöperative organizations and giving only limited information regarding elevators.[1] The second, No. 152, is devoted entirely to elevators.[2]

Under the law coöperative organizations of Minnesota are required to report annually to the state University, and it is proposed to publish in bulletin form the most important facts concerning each class of coöperative concerns. The present bulletin is based on the reports for the crop year 1914, covering in most cases business from July 1, 1914, to June 30, 1915.

NUMBER AND KIND OF ELEVATORS

The number of coöperative elevators in Minnesota is gradually increasing. As pointed out in Bulletin 152, the line of distinction between coöperative elevators and others is not always sharply drawn. It has been deemed proper to include with coöperative concerns all elevators in which farmers own at least 50 per cent of the capital stock. Under this definition there were on January 1, 1916, 296 coöperative elevators in the state. This is about one fifth of the total number of elevators and local mills that buy grain from farmers.

The Minnesota Railroad and Warehouse Commission, to which all elevators and other concerns handling grain are required to report, includes in its list of local establishments mills that purchase grain from farmers as well as elevators proper. On January 1, 1916, the Commission's list included 1,428 concerns, of which, however, a few had probably been closed or were duplicated, owing to change in ownership. Terminal elevators are not included. Of these 1,428 concerns, 248 were mills, leaving the number of elevators proper about 1,180, of which coöperative elevators form almost exactly one fourth.

Table I shows by counties the number of elevators and of mills

[1] Weld, L.D.H. Statistics of Coöperation among Farmers in Minnesota, 1913. Minn. Agr. Exp. Sta. Bull. 146:1-22, 1914.

[2] Weld, L.D.H. Farmers' Elevators in Minnesota. Minn. Agr. Exp. Sta. Bull. 152:1-24, 1915.

that buy grain from farmers, the elevators being classed as coöperative, line, and individual. Line elevators are those which are owned by concerns having headquarters in central markets, while the term "individual" is for brevity applied to all concerns locally owned and not coöperative, notwithstanding that a good many are owned by firms or even corporations rather than by individuals. Following the practice of the Federal Office of Markets the line and individual elevators, that is, the elevators which are not coöperative, will be together referred to as "proprietary."

TABLE I

ORGANIZATIONS BUYING GRAIN FROM FARMERS, BY COUNTIES, 1914-15

County*	Elevators			Mills	Total
	Coöperative farmers'	Line	Individual		
Becker	2	6	0	2	10
Benton	0	1	2	1	4
Big Stone	5	17	3	2	27
Blue Earth	2	8	4	6	20
Brown	5	4	0	11	20
Carver	1	7	2	3	13
Chippewa	6	13	4	4	27
Chisago	0	0	0	2	2
Clay	7	17	10	1	35
Clearwater	3	0	0	0	3
Cottonwood	6	6	5	0	17
Crow Wing	0	0	2	0	2
Dakota	3	4	5	2	14
Dodge	5	1	3	0	9
Douglas	4	7	6	0	17
Faribault	5	16	4	1	26
Fillmore	4	10	11	3	28
Freeborn	4	11	4	2	21
Goodhue	8	8	2	10	28
Grant	7	12	3	0	22
Houston	4	0	2	0	6
Hubbard	0	0	0	1	1
Hennepin	0	1	4	0	5
Jackson	5	7	3	1	16
Kanabec	0	0	0	1	1
Kandiyohi	6	7	2	3	18
Kittson	4	19	2	3	28
Lac qui Parle	6	17	7	5	35
Le Sueur	2	8	4	2	16
Lincoln	5	6	5	2	18
Lyon	11	20	7	9	47
McLeod	4	13	5	1	23
Mahnomen	0	6	1	0	7
Marshall	4	13	6	9	32
Martin	7	9	7	5	28
Meeker	4	8	4	1	17
Mille Lacs	0	2	0	0	2
Morrison	0	5	1	1	7
Mower	2	13	12	1	28
Murray	8	11	2	0	21
Nicollet	3	5	1	2	11
Nobles	11	13	12	0	36

TABLE I—*Continued*

ORGANIZATIONS BUYING GRAIN FROM FARMERS, BY COUNTIES, 1914-15

County	Elevators			Mills	Total
	Coöperative farmers'	Line	Individual		
Norman	5	21	6	0	32
Olmsted	1	7	6	2	16
Otter Tail	10	15	9	5	39
Pennington	2	1	1	8	12
Pipestone	10	10	4	1	25
Polk	9	39	5	7	60
Pope	4	10	7	0	21
Ramsey	0	0	1	0	1
Red Lake	3	2	0	7	12
Redwood	14	10	8	9	41
Renville	11	20	12	4	47
Rice	3	3	4	3	13
Rock	9	13	7	0	29
Roseau	3	0	1	6	10
Scott	0	3	5	2	10
Sibley	2	9	6	4	21
Stearns	3	14	6	4	27
Steele	3	2	5	3	13
Stevens	3	10	7	0	20
Swift	6	13	4	3	26
Todd	0	3	4	9	16
Traverse	2	12	8	0	22
Wabasha	0	15	10	4	29
Wadena	0	1	2	3	6
Waseca	3	2	0	5	10
Washington	1	2	2	3	8
Watonwan	4	10	1	5	20
Wilkin	7	17	4	0	28
Winona	3	5	3	1	12
Wright	2	14	3	5	24
Yellow Medicine	10	11	4	5	30
State	296	625	302	205	1,428

* In counties not listed there are no elevators.

While some of the 296 elevators listed as coöperative do not possess all of the characteristics and pursue all of the practices commonly considered as appropriate to a coöperative concern, they are all substantially controlled by farmers and much the larger proportion of them possess some, and many of them all, of the customary characteristics of a coöperative organization. In most of them each stockholder has only one vote regardless of the amount of capital stock he may own. In many there is a limit to the number of shares of stock one person may own. In a considerable number the dividends on stock are limited and the remaining profits are distributed on a patronage basis.

At the end of the bulletin are listed the elevators classed as co-

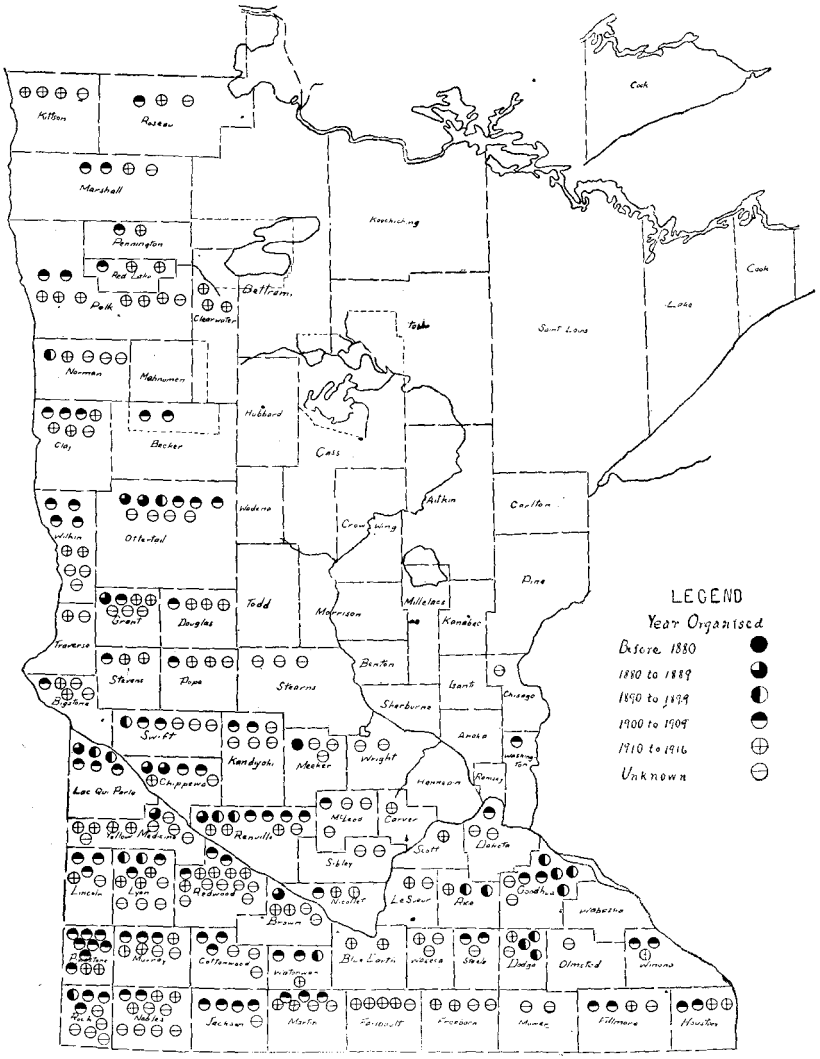

Fig. 1. Coöperative Elevators in Each County and the Decade of Their Organization

The map includes two elevators in Wilkin County, one in Scott, and one in Chisago which were reported late and are not considered elsewhere in the bulletin.

operative. The arrangement is alphabetical by the towns in which they are located. This division will be glad to receive information as to the correctness of this list, with a view to adding any which should be added and omitting any which are not properly classed as coöperative or controlled by farmers. It is believed that the list is approximately complete and accurate.

DATE OF ORGANIZATION

Of the 296 farmers' elevators included in this list, information concerning the year of organization is available for 204 and is given in Table II. In a good many cases the present officers of farmers' elevators do not know when their elevator was organized. The significance of the reports in some other cases is affected by the fact that one or more reorganizations have taken place, and it is not certain whether the date given is that of the first organization or that of the latest reorganization. Nevertheless, the table gives a fair idea of the growth of the coöperative elevator system in the state. The great majority of elevators have been organized since 1900. One dates back to 1876 and another to 1884, but the total number reported as organized before 1900 is only 30. Marked activity in the formation of coöperative elevators appears from 1904 to 1906, and again from 1909 to 1914, the years 1912 and 1913 showing a greater number or-

[illegible]	2
1890	2
1893	3
1894	2
1895	3
1896	3
1897	4
1898	1
1899	4
1900	6
	10
	16
1906	16
1907	7
1908	9
1909	11
1910	10
1911	15
1912	22
1913	21
1914	14
1915	5

GEOGRAPHIC DISTRIBUTION OF ELEVATORS AND OF BUSINESS

Much interest attaches to the local distribution of coöperative elevators, and especially to the proportion of the total number of elevators which they constitute in the different sections of the state and the proportion of the total grain business handled by them in different sections.

Figure 1 shows the number of coöperative elevators in each county in 1915. Each circle represents one coöperative elevator, the differences in the circles referring to the period of organization.

As would naturally be expected there are in general more coöperative elevators in regions of large grain production than elsewhere, and this map is less significant than Figure 4 with respect to the relative importance of the coöperative elevators as compared with others. The southwestern part of the state raises more grain than any other except the Red River Valley, and coöperative elevators are particularly numerous there. The small number of coöperative elevators in counties adjoining the Twin Cities and in the entire northeastern part of the state is chiefly attributable to the small grain production. Coöperative elevators are comparatively few in the Red River Valley, notwithstanding the fact that it is a great grain region.

The earliest coöperative grain elevators in Minnesota appear to have been organized in the middle western counties. None of the elevators reported as organized before 1890 was located in the two southern tiers of counties, none east of the center of the state, and none much north of the center. The elevators dating before 1890 are in Meeker, Otter Tail, Grant, Lac qui Parle, Chippewa, Yellow Medicine, Renville, and Brown counties. Between 1890 and 1899 several elevators were established in the counties just south of the Twin Cities, Goodhue, Rice, and Dodge, but most of the elevators established at that time were in the same western counties in which elevators had been established during the preceding decade.

TABLE III

PROPORTION OF GRAIN HANDLED BY FARMERS' ELEVATORS

County	All elevators	Farmers' elevators	Percentage of grain handled by farmers' elevators
*Becker	.....	.....	54.0
*Benton	618,073	.....	0.0
Big Stone	1,693,938	330,744	19.5
*Blue Earth	.....	.....	3.2
Brown	2,224,293	1,118,156	50.3
*Carver	419,557	.....	?
Chippewa	2,210,949	1,098,130	49.7
*Chisago	.....	.....	0.0
Clay	2,124,128	704,074	33.2
Clearwater	116,733	111,733	100.0
Cottonwood	2,570,314	1,551,595	60.3
*Crow Wing	.....	.....	0.0
Dakota	1,399,781	460,995	33.0
Dodge	931,566	581,653	62.4
Douglas	752,836	211,536	28.1
Faribault	2,975,948	1,036,254	34.9
Fillmore	1,176,004	366,329	31.2
Freeborn	881,138	307,145	34.9
Goodhue	3,114,847	1,740,718	55.9
Grant	1,519,789	705,820	46.4
*Hennepin	.....	.....	0.0

TABLE III—*Continued*

PROPORTION OF GRAIN HANDLED BY FARMERS' ELEVATORS

County	All elevators	Farmers' elevators	Percentage of grain handled by farmers' elevators
*Hubbard	.....	.....	0.0
Jackson	3,106,061	1,982,358	63.8
*Kanabec	.....	.....	0.0
Kandiyohi	911,578	418,731	45.9
Kittson	1,072,658	338,632	31.5
Lac qui Parle	2,551,920	743,795	29.1
*Le Sueur	.....	.....	8.4
Lincoln	759,785	628,616	82.7
Lyon	4,343,227	2,784,329	64.1
McLeod	1,325,974	671,031	50.6
*Mahnomen	235,038	.....	0.0
Marshall	3,558,578	968,719	27.2
Martin	3,821,680	1,843,797	48.3
Meeker	988,255	203,411	20.6
*Mille Lacs	.....	.....	0.0
*Morrison	315,388	.....	0.0
*Mower	.....	.....	10.0
Murray	2,113,783	1,038,325	49.1
Nicollet	635,267	310,631	48.9
Nobles	5,049,947	2,555,248	50.6
Norman	2,397,080	664,762	27.8
*Olmsted	.....	.....	28.6
Otter Tail	2,248,301	696,469	31.0
*Pennington	.....	.....	21.3
Pipestone	2,266,389	1,327,796	58.6
Polk	3,287,552	562,813	17.1
Pope	796,387	201,078	25.2
*Ramsey	.....	.....	0.0
Red Lake	498,876	315,396	63.3
Redwood	5,201,044	2,833,531	54.5
Renville	3,460,591	1,591,771	46.0
Rice	979,618	324,538	33.1
Rock	3,710,984	1,255,114	33.8
Roseau	414,773	260,564	62.8
*Scott	607,139	.....	0.0
*Sibley	.....	.....	27.3
Stearns	1,430,325	373,350	26.0
Steele	915,587	406,448	4.3
Stevens	1,287,763	256,165	19.8
Swift	2,162,872	1,008,672	46.6
*Todd	431,877	.....	0.0
*Traverse	.....	.....	19.1
*Wabasha	1,852,550	.....	0.0
*Wadena	181,008	.....	0.0
Waseca	1,170,871	520,779	44.4
*Washington	.....	.....	12.0
Watonwan	2,583,602	924,214	35.8
Wilkin	1,088,443	592,572	54.6
Winona	624,647	357,343	57.3
*Wright	.....	.....	21.2
Yellow Medicine	3,364,187	2,026,333	60.3
State	111,667,146	43,489,482	38.9

*Number of bushels not printed to avoid disclosure of individual business.
Reports from Houston County inconsistent.

Since 1900, elevators have been established over a much wider area, including many in the two southern tiers of counties and a considerable number in the Red River Valley. It is noteworthy that in the central southern part of the state, including Faribault, Freeborn, Blue Earth, Waseca, Nicollet, LeSueur, and McLeod counties, practically all the coöperative elevators date since 1910, altho there are a few for which the date of organization is not given and which may have been established earlier.

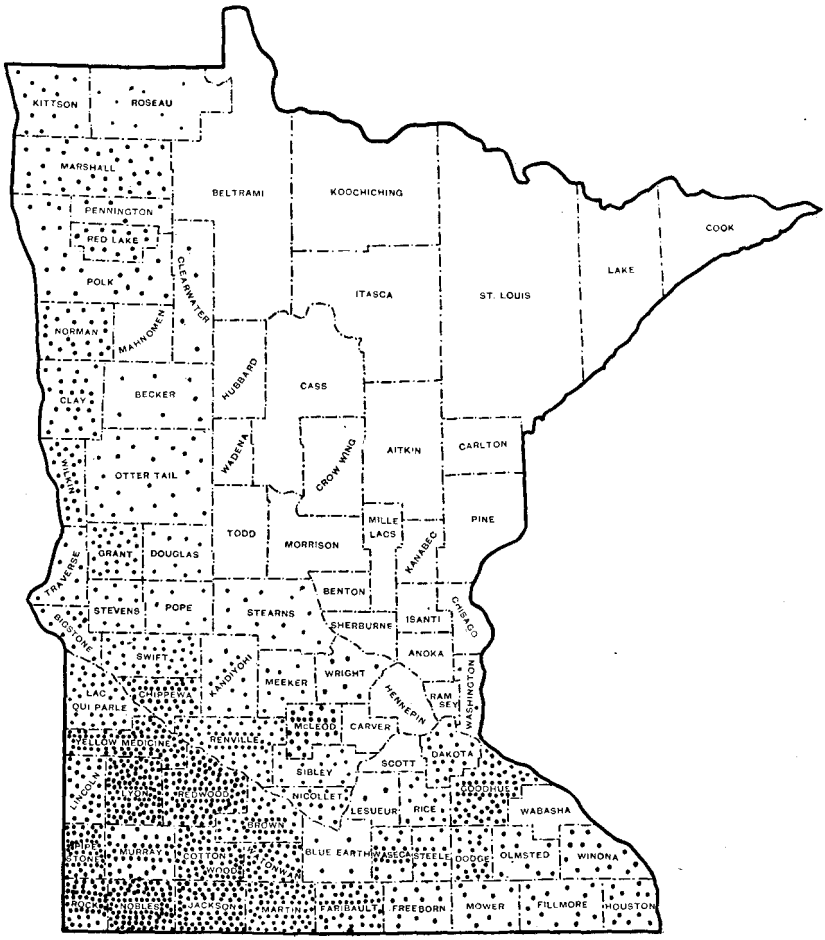

Fig. 2. Amount of Grain Handled by Farmers' Elevators in Each County
Each dot represents 30,000 bushels

The 1,428 local elevators and mills buying grain from farmers reported to the State Railroad and Warehouse Commission that they handled approximately 112,000,000 bushels of grain during the crop year 1914-15. Of this amount the farmers' elevators handled over

43,000,000 bushels, or nearly two fifths. These figures are given in Table III which also shows the data by counties. In the case of all counties having less than three non-coöperative elevators or less than three farmers' elevators, absolute figures are omitted to avoid disclosing the business of individual organizations, but percentages are given for all counties where there are any elevators except Houston, where the figures available are inconsistent. This table may be conveniently studied in connection with Figures 2 and 3 which show by counties the volume of business of coöperative elevators and of other elevators and mills, respectively. Each dot in these maps represents 30,000 bushels. In counties where no dots appear there are no concerns of the class covered, and it will be seen that in a good many counties of the northeastern section of the state there are no grain elevators of any sort.

Figure 4 shows in a different way the relative importance of the business of coöperative elevators in each county. The various degrees of shading indicate what proportion of the total is handled by the coöperative concerns—the denser the shading, the higher the proportion handled. In several of the counties in which there are no coöperative elevators, there are also no elevators of any other kind. Such counties are indicated on the map by a black circle.

The figures for these tables and maps are derived from the reports made by elevators to the Railroad and Warehouse Commission, supplemented by special reports for coöperative concerns collected by the Division of Research in Agricultural Economics.

It will be seen from Table II and the maps that the proportion of the grain business done by the coöperative elevators varies greatly in different parts of the state. In one county, Clearwater, all of the business is done by coöperative concerns. On the other hand, in Benton, Carver, Chisago, Crow Wing, Hennepin, Hubbard, Kanabec, Mahnomen, Mille Lacs, Morrison, Ramsey, Scott, Todd, Wabasha, and Wadena counties no coöperative elevators are reported and all the business is done by other concerns. In several of the counties of southwestern Minnesota, as Yellow Medicine, Chippewa, Lyon, Redwood, Pipestone, Brown, Cottonwood, Nobles, and Jackson, all important in grain-production, the coöperative elevators do half of the business or more, but in few of the counties of southeastern, central, or northwestern Minnesota does their proportion reach 50 per cent.

It does not appear that there is a very close relation between the date at which farmers' elevators were first organized in a given county and the proportion of the business they now control in that county; but the fact that in the southeastern part of the state and in the Red River Valley generally the coöperative elevators have much less than half of the total business, may possible be connected with the fact

that comparatively few coöperative elevators were organized in these regions before 1900.

No sufficient information is at present available to indicate the reasons for the variation in the relative importance of coöperative elevators in the several parts of the state. Doubtless it is affected to some extent by the nationality of the farming population, by the degree of mixture of different nationalities, by the policies of the noncoöperative elevators in their dealings with grain-growers, and by numerous other factors.

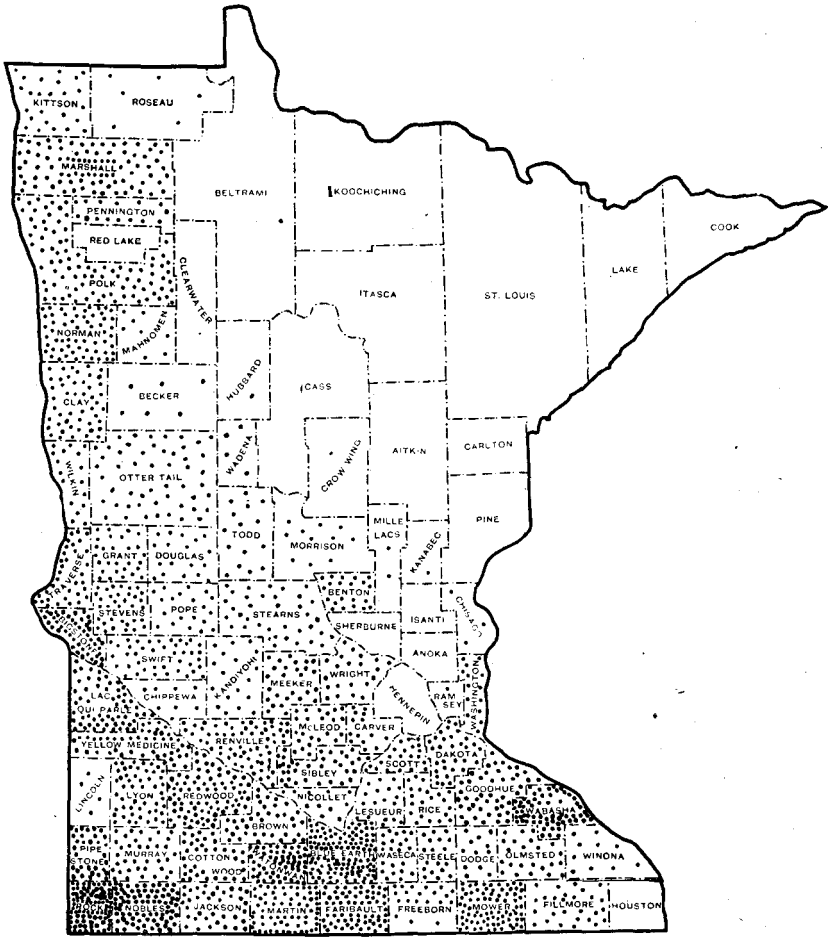

Fig. 3. Amount of Grain Handled by Noncoöperative Elevators in Each County
This includes line elevators, individual concerns, and mills, except in counties having terminal elevators. Each dot represents 30,000 bushels.

It is noteworthy that the coöperative elevators are larger than the other concerns, or at any rate do a larger volume of business. As

already stated, the 296 elevators classed as coöperative handled 43,489,000 bushels in 1914-15, or an average of 148,000 bushels each. Approximately 1,130 other elevators and mills buying grain from farmers handled about 68,000,000 bushels, or an average of 60,000 bushels each. If mills were excluded, the average for proprietary elevators would perhaps be somewhat larger, but it is safe to say that on

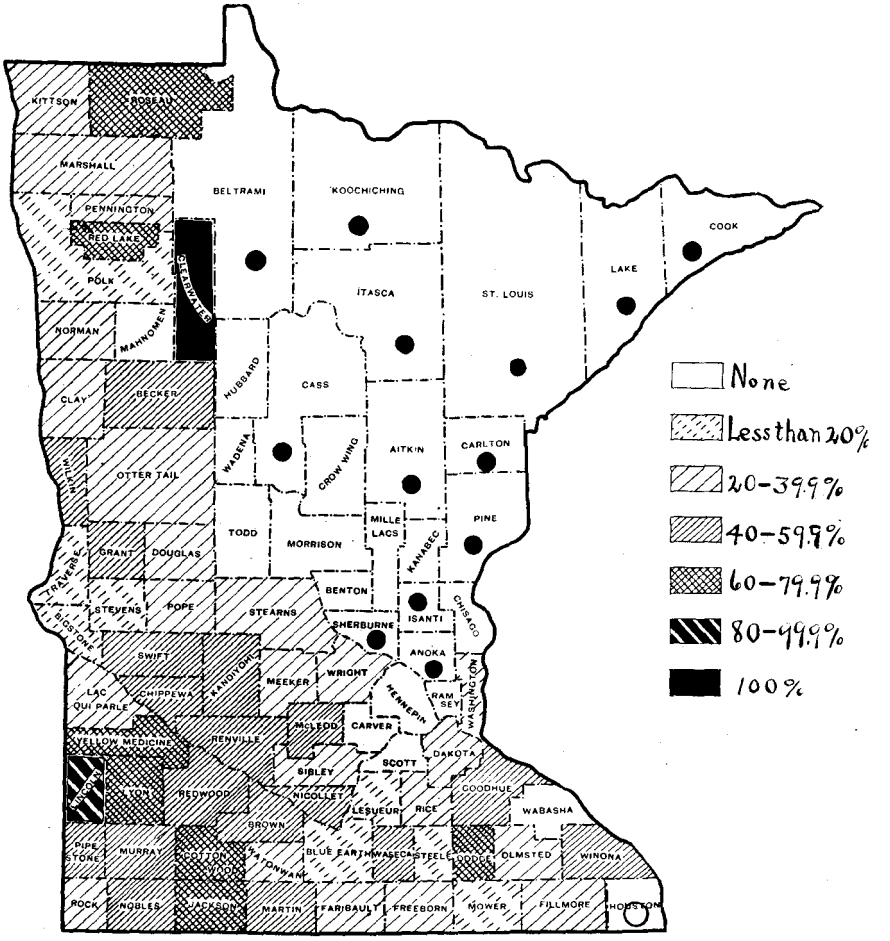

Fig. 4. Percentage of Total Grain Handled by Farmers' Elevators in Each County
A large dot indicates that in the county thus marked there is no elevator of any kind handling grain. A circle indicates that the data for the county thus marked (Houston) were inconsistent.

the average each coöperative elevator does at least twice as much business as each proprietary concern. Altho no information is available as to the cost of operation of proprietary elevators, it seems probable that on account of their smaller business, their expenses per unit of grain handled must be higher than those of the coöperative elevators.

MEMBERSHIP

In Bulletin 152 a calculation was made of the number of members of farmers' elevator companies, including stockholders who are not farmers or patrons, as well as others. It was estimated that the average number of members to a company was 128. In the later schedule, on which this bulletin is based, questions were asked only as to the number of members who were patrons and the number of patrons who were not members. Altho the reports were not complete, the total number of stockholders who were patrons in 1915 is approximately thirty-three thousand, an average of about one hundred and twelve to a company. There are on the average, however, eighty-five patrons who are not stockholders, or a total of approximately twenty-five thousand for all elevators. This makes the total number of patrons about fifty eight thousand, an average of nearly two hundred to the elevator. The total number of farmers in the state in 1910 was about one hundred and fifty six thousand and has probably changed little since, so that considerably over one third of the farmers do business with the coöperative elevators.

CAPITAL STOCK

Practically all the farmers' elevators are organized as stock corporations, mostly under the general corporation law and not under the special law authorizing the organization of coöperative corporations. The amount of capital stock varies greatly, and is by no means always proportionate to the volume of business. Table XIII shows the classification according to their amount of stock for 38 companies that reported on this point. The average capital stock for all the companies was about sixty-five hundred dollars.

GROSS RECEIPTS AND OPERATING EXPENSES

In Bulletin 152 (page 10) is given the cost of handling grain per bushel for the year 1913-14, based on the returns of only those farmers' elevators that confined their business to buying and selling grain. This table showed costs ranging from $2\frac{1}{2}$ cents per bushel for the smaller elevators to $1\frac{1}{6}$ cents per bushel for the largest. The expenses in general decrease regularly with the increase in volume of business.

A large proportion of the farmers' elevators handle commodities other than grain in considerable amounts. It is interesting, therefore, to compare the ratio of operating expense to gross receipts from all sources for the companies classified according to the volume of their business. This is done in Table IV on the basis of the reports for the

year 1914-15. Figures sufficiently complete and accurate were available from only 166 elevators, but they probably represent substantially the conditions for all coöperative elevators. The elevators are classed in eleven groups according to the volume of business, as indicated by gross receipts, and the table shows, for those of each group, the highest and lowest percentage of operating expenses to gross receipts and the average percentage. This average is computed, not by adding the actual figures of receipts and of expenses for all elevators of the class and dividing the one by the other, but by calculating for each elevator the ratio of operating expense to gross receipts, adding these ratios for all elevators of the class and dividing by the number of elevators. This "simple average," however, undoubtedly gives approximately the same figure as a true average computed in the other way, and moreover, from a certain standpoint is a more significant average. The averages from Table IV are shown graphically in Figure 5.

TABLE IV

RELATION OF OPERATING EXPENSES TO GROSS RECEIPTS

Class (according to gross receipts)	Number of elevators in class	Percentage of operating expenses to gross receipts		
		Highest	Lowest	Average*
$10,000–$50,000	15	16.2	2.8	5.3
50,000– 75,000	27	9.6	2.1	3.6
75,000–100,000	30	7.0	1.9	3.3
100,000–125,000	24	5.0	1.8	2.7
125,000–150,000	26	3.8	1.4	2.2
150,000–175,000	13	3.5	1.1	2.0
175,000–200,000	9	2.9	1.5	2.1
200,000–225,000	6	3.4	1.1	2.2
225,000–250,000	6	2.7	1.5	2.1
250,000–275,000	5	2.7	1.4	2.0
275,000 and over	5	3.3	1.0	1.6
All classes	166	16.2	1.0	2.6

*Simple average of percentages for the several elevators in each class.

It is seen from Table IV that the large majority of the elevators have gross receipts ranging from $50,000 to $150,000 per year, 107 of the 166 elevators falling within these limits. The average gross receipts of all the elevators reporting amounted to $122,000.

The average ratio of operating expense to receipts was 2.6 per cent. While within each class of elevators the ratio of expenses to receipts varies widely, nevertheless there is a distinct tendency toward lower ratios for concerns with the larger volume of business. In nearly all cases the column showing the highest ratio of operating expense to gross receipts indicates a fall in this ratio with each increase in the

volume of business. The same is true of the column showing the lowest ratio and still more of that showing the average ratio. Thus for the 15 elevators having less than $50,000 of gross receipts each, the average ratio of operating expense to gross receipts is 5.3 per cent; for those having $50,000 to $75,000, it is 3.6 per cent; for those having $75,000 to $100,000, 3.3 per cent; and so on until for the 5 elevators with a business exceeding $275,000 the average ratio of operating expense to gross receipts is only 1.6 per cent. For all four of the groups with a volume of business less than $125,000, the ratio of operating expense to gross receipts exceeds the average for all elevators, while for all groups with a larger volume of business the ratio falls below the average.

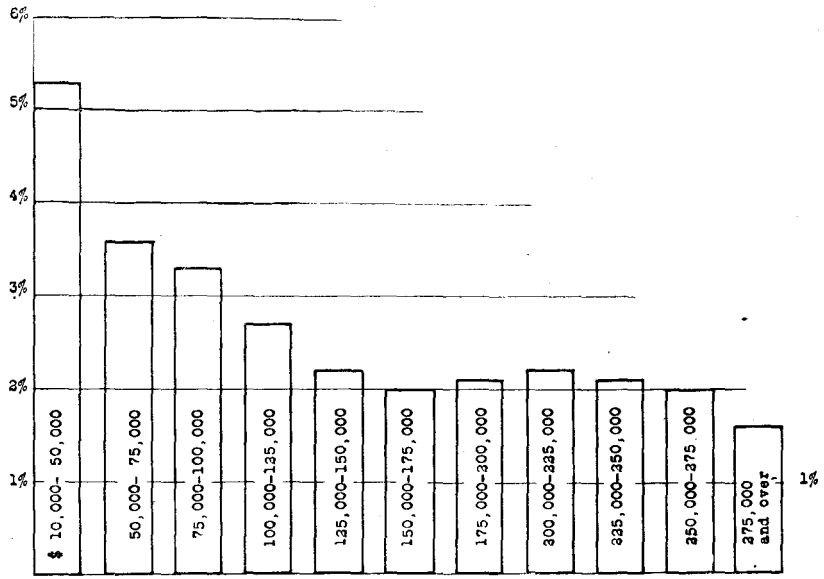

Fig. 5. Percentage Which Operating Expenses Form of Gross Receipts in 164 Elevators, Grouped According to Amount of Their Gross Receipts

These figures emphasize the well-known fact that a considerable expense must be incurred by a business concern regardless of its volume of business, and that economy is, at least up to certain limits, gained by increasing the amount of business handled. It will be noted that after the limit of $150,000 of gross receipts has been reached, there is no considerable change in the ratio of operating expense to gross receipts until the class of concerns with over $275,000 of gross receipts is reached. In other words, as the business increases from a very small to a moderate size, the ratio of expense falls rapidly, but

with further increase in volume it naturally becomes more difficult to reduce the operating ratio. It will be noted that the elevators reporting the lowest ratio in the class with from $150,000 to $175,000 gross receipts and in that with from $200,000 to $225,000, have practically as low a ratio (1.1 per cent) as the most successful elevator in the class having a business exceeding $275,000 (1 per cent).

The variations in the ratio of gross receipts to operating expenses within each group, which are very considerable, indicate, of course, that size is not the only element in determining the expense ratio. Another factor of some importance doubtless is the difference in the kind of business done. Concerns which handle relatively more of the products requiring considerable expense will naturally have a higher ratio than those whose business is chiefly in products easily handled. The skill of individual managers, of course, accounts for much. Probably in some cases the exceptionally high or exceptionally low figures are due to extraordinary circumstances, and there may be instances in which they are attributable to errors in accounting methods.

PROFITS

Profits as such—an excess of total income over total outgo—are not necessarily desirable in a coöperative organization. In a strictly coöperative marketing concern the object is to enable the patrons to obtain the highest possible amount for the commodities which they market, and it is immaterial to them whether this is accomplished by turning over to the patrons directly, as a price for their commodities, all that they bring, less expenses, or by paying them a smaller amount in the first instance and subsequently dividing among them any balance or profit remaining. In the case of coöperative creameries, it is the practice to pay, as a price for butterfat, practically all that the butter sells for currently less actual cost of operation, so that at the end of the year little or no profit remains to be divided.

Such a policy, however, is scarcely practicable in the coöperative marketing of grain, particularly because of the considerable and rapid fluctuations which often take place in the price of grain, and because of the considerable variations in operating expenses from time to time, due to the fluctuations in the volume of business. It is desirable for a coöperative elevator to retain some margin between its receipts and its payments to patrons, greater than the immediate operating expense. This margin serves as a safety fund. After the year's business has been completed, the amount still retained, or the larger part of it, may safely be distributed among the patrons.

As a matter of fact, moreover, not all of the farmers' elevators are strictly coöperative in their methods of doing business. A good

many of them are controlled by stockholders who desire as high returns as possible on their investment. Whereas in the more strictly coöperative concerns only a limited interest or dividend on the capital invested by the various members is permitted, a good many of the farmers' elevators do not so limit the dividends. In such cases it may happen that the only restriction on the amount of profits sought by the manager of the elevator is that imposed by competition; in other words, that the elevator, instead of paying the farmers for their grain all it can afford to pay, pays only what it is compelled to pay to get their business.

Under these conditions variations in the rate of profit of farmers' elevators are not necessarily indications of relative success or failure, of efficiency or inefficiency of management. These variations in profit may also reflect differences in policy as regards the relative emphasis on the interest of stockholders and of patrons, or as regards the margin between buying price and selling price considered necessary for safety. However, considerable interest attaches to the figures showing the variations in the ratio of profit to gross receipts. In Table V these ratios are shown for elevators classified according to the volume of their business, the method of presentation being the same as for the ratio of operating expense to receipts. The average percentage of profits to gross receipts is, as before, calculated by adding the ratios for the individual elevators in the class and dividing by the total number.

TABLE V

RELATION OF PROFITS TO GROSS RECEIPTS

Class (according to gross receipts)	Number of elevators in class	Percentage of profits to gross receipts		
		Highest	Lowest	Average*
$10,000–$50,000	16	6.9	0.0	3.1
50,000– 75,000	29	7.7	−0.3†	2.9
75,000–100,000	30	6.6	0.0	2.7
100,000–125,000	24	5.8	0.8	2.7
125,000–150,000	27	6.3	−0.1†	2.8
150,000–175,000	12	4.9	0.3	2.5
175,000–200,000	9	5.4	0.3	1.9
200,000–225,000	6	5.3	0.7	2.3
225,000–250,000	7	6.7	1.6	3.5
250,000–275,000	4	4.7	0.7	2.1
275,000 and over	5	6.2	1.2	3.2
All classes	169	7.7	−0.3†	2.7

*Simple average of per cents for the several elevators in each class.
†A minus sign indicates a loss.

Table V shows that there is no very close relation between the volume of business of the elevators and the percentage which profits

form of the gross receipts. For the 169 elevators reporting on this point, the average ratio of profit was 2.7 per cent; and for the various classes the average ranges from 1.9 for the 9 elevators having between $175,000 and $200,000 gross receipts, to 3.5 per cent for the 7 having between $225,000 and $250,000 gross receipts. However, it is noticeable that the only classes which show averages below the general average for all elevators are among those having more than $150,000 of gross receipts.

Too much significance should not be attached to these averages for the several groups, as it will be noted that within each group there are very considerable variations between the lowest and the highest percentages of profits to gross receipts. On the whole, it may perhaps be concluded that smaller elevators tend to require a somewhat greater proportion of profit than larger. This may be attributable to the fact that elevators with a small volume of business require relatively more investment per unit of business than those with a larger volume, and in order to obtain an equal rate of return for capital must collect a larger rate of profit on business handled.

GROSS MARGINS

The margin between the amount paid by elevators for the products they handle and the amount received for sales consists, of course, of operating expense plus profits. Since it has already been shown that the elevators with the smaller volume of business have a higher ratio of operating expense to gross receipts than the elevators with the greater volume, and also a slightly higher ratio of profit to gross receipts, it follows that the gross margins for the small elevators average materially higher than for the larger. Table VI shows the percentage which the gross margin forms of the gross receipts for elevators classed according to the amount of gross receipts.

The average gross margin between price paid and price received for products handled for all elevators reporting on this point was 5.3 per cent of the gross receipts, the ratio varying from 8 per cent for the group of elevators having less than $50,000 gross receipts down to 4 per cent for some of the larger classes. The variations between the classes correspond roughly to those already discussed in connection with the table relating to operating expenses.

More significant is a comparison of the relation between profit and operating expense as elements in making up the total margin between price paid and price received for products. Such comparison is made in Table VII, which repeats the more important facts from Tables IV, V, and VI and then shows what percentage of the gross margin for each class of elevators consists of profits and what percentage of expenses.

TABLE VI

RELATION OF GROSS MARGIN TO GROSS RECEIPTS

Class (according to gross receipts)	Number of elevators in class	Percentage of gross margin to gross receipts		
		Highest	Lowest	Average*
$10,000–$50,000	16	22.6	2.8	8.0
50,000– 75,000	27	11.1	2.4	6.6
75,000–100,000	29	11.0	2.4	5.9
100,000–125,000	21	9.1	2.8	5.3
125,000–150,000	26	8.7	2.2	5.1
150,000–175,000	12	7.0	2.1	4.5
175,000–200,000	9	7.2	2.1	4.0
200,000–225,000	6	7.5	2.8	4.8
225,000–250,000	7	7.2	3.1	5.5
250,000–275,000	4	6.4	2.1	4.0
275,000 and over	5	7.6	2.2	4.8
All classes	162	22.6	2.1	5.3

*Simple average of per cents for the several elevators in each class.

TABLE VII

DISTRIBUTION OF GROSS MARGIN BETWEEN PROFITS AND EXPENSE

Class (according to gross receipts)	Average gross margin, percentage of gross receipts	Average percentage of gross receipts		Percentage of gross margin	
		Profit	Expense	Profit	Expense
$10,000–$50,000	8.0	3.1	4.9	38.8	61.2
50,000– 75,000	6.6	2.9	3.7	44.0	56.0
75,000–100,000	5.9	2.7	3.2	45.8	54.2
100,000–125,000	5.3	2.7	2.6	51.0	49.0
125,000–150,000	5.1	2.8	2.3	55.0	45.0
150,000–175,000	4.5	2.5	2.0	55.5	44.5
175,000–200,000	4.0	1.9	2.1	47.6	52.4
200,000–225,000	4.8	2.3	2.5	47.9	52.1
225,000–250,000	5.5	3.5	2.0	63.6	36.4
250,000–275,000	4.0	2.1	1.9	52.5	47.5
275,000 and over	4.8	3.2	1.6	66.7	33.3
All classes	5.3	2.7	2.6	51.0	49.0

For all the reporting elevators combined the gross margin is almost equally divided between profits and expenses, 51 per cent going to the former and 49 per cent to the latter. For the three classes which have the smallest volume of business, however, the expense constitutes considerably over one half of the margin, whereas for all but two of the other classes, the expense constitutes less than half of the margin. In the case of elevators having over $275,000 gross receipts, the ex-

penses formed only one third of the margin and the profits two thirds, and for the elevators having between $225,000 and $250,000 of business, the proportions are not very different.

It is evident from Tables VI and VII that coöperative elevators with a small volume of business must find it more difficult to compete with noncoöperative elevators than those with a large volume of business. Because their expenses are relatively higher, and because they must seek a larger ratio of profit on sales, their gross margins must be materially higher than those for the larger elevators, which means, since they can hardly sell their grain for more, that they must pay farmers less than the larger elevators.

TURNOVER AND OPERATING EXPENSES

The capacity of the coöperative elevators varies considerably, as shown on page 12 of Bulletin 152, already referred to. The analysis following shows the correlation between the operating expenses and the rapidity of the turnover of the business, as determined by the ratio of the number of bushels of grain handled to the capacity of the elevator. The expense ratio is necessarily based on total expenses and total receipts, including those not connected with the grain business, but so large a proportion of the business is in grain that this can not affect the ratio given to any considerable extent.

A considerable number of elevators have given complete reports as to the bin capacity of their plants, and from these reports it appears that the average capacity is about 22,750.[3] Some elevators have a capacity of as much as 50,000 bushels, and there is a tendency to build larger structures to replace the older and smaller ones, which become unprofitable in the course of time.

The average amount of grain and flax handled by these elevators in 1914-15 was 5.5 times as large as the average capacity of the elevators. In one case the grain handled amounted to 15.5 times the capacity of the elevator. It should be remembered that not a whole year, but often only a few months, are allowed for filling and emptying an elevator as often as indicated. Lack of space and of bins sometimes seriously hampers the volume of business. Nevertheless it is to be expected that the more rapidly grain passes through the elevator the lower will be the ratio of operating expenses to receipts; for this almost necessarily means that more grain can be handled with the same amount of expense for labor, fuel, superintendence, and other items.

If all the elevators which reported on these points and which handled more grain than 5.5 times the capacity of their bins be put in

[3] This figure is lower than the estimate made in Bulletin 152, where the average is given as 27,000 bushels.

one group, and all those which handled less in another, the average operating expense for the first group is 2.4 per cent of gross receipts, while for the latter it is 3.3 per cent. This calculation is made from a small number of elevators, and it is probable that the average for each of the groups would be changed slightly if more complete data were available.

If the same elevators be grouped in four groups, first according to whether they have above or below the average capacity, and second, according to whether they are above or below the average in the ratio of grain handled to the capacity of the elevator, we have the following results. For the larger elevators, those having the larger ratio of grain handled to capacity (the more rapid turnover) show an average operating expense of 1.7 per cent of the gross receipts, and those having the smaller ratio an operating expense of 2.8 per cent. For the smaller elevators, those with the larger ratio of grain handled to capacity show an expense of 3.3 per cent; and those with the smaller ratio an expense of 3.6 per cent. Plainly, a large capacity and a large ratio of grain handled to capacity are advantageous, and when found together, provide the most fortunate combination for doing business.

COMMODITIES HANDLED OTHER THAN GRAIN

The majority of coöperative elevators handle commodities other than grain. This part of the business consists largely in buying supplies of various kinds in large lots to distribute among members and other customers. In other words, it is a purchasing rather than a marketing function. Moreover, a few coöperative elevators market for their members and patrons commodities other than grain, as livestock and seeds.

Coal, seeds, feed, twine, wood, tile, salt, flour, lumber, cement, oils, fencing, and machinery are commodities more or less frequently distributed by coöperative elevators, tho seldom does a single concern handle all those listed.

The reports of some of the elevators were not specific as to whether they handled products other than grain. Others indicated that they handled such products, but did not show what particular products. Of the entire number of elevators, 24 reported that they handled nothing but grain and flax, and 149 specified definitely that they handled products other than grain and flax. Table VIII shows, on the basis of these 149 returns, the number of elevators handling each class of commodities; it refers only to those sold to patrons, not those bought from them.

Table IX classifies the 173 coöperative elevators reporting on this point according to the proportion of their total receipts derived from

sources other than grain and flax. For two fifths of these elevators the receipts from these other sources exceeded 10 per cent of the total receipts, while for 23 of them they exceeded 20 per cent.

TABLE VIII

FARMERS' ELEVATORS BUYING COMMODITIES FOR PATRONS

Commodity	No. of elevators
Coal	112
Feed	88
Flour	71
Twine	51
Salt	30
Seeds	17
Machinery	13
Wood	9
Lumber	9
Tile	8
Cement	4
Fencing	3
Oil	3

TABLE IX

PERCENTAGE OF GROSS RECEIPTS FROM COMMODITIES OTHER THAN GRAIN AND FLAX

Per cent	No. of elevators
More than 50	1
40–50	5
30–40	6
20–30	11
15–20	12
10–15	24
5–10	50
Under 5	40
None	24
Total	173

Tables X, XI, and XII show the relation of the gross margin, operating expense, and profit to the gross receipts for nine groups of elevators arranged according to the percentage of their gross receipts which is derived from other commodities than grain and flax. The aim is to determine whether or not the elevators that handle extensively other commodities than grain and flax find it necessary to take a wider gross margin, to incur larger operating expenses, and to take a larger ratio of profit than those which handle little or none of such commodities. The tables in each case include as many of the 173 elevators mentioned above as gave clear reports regarding the data in question.

It appears from Table X that those elevators which handle relatively large amounts of commodities other than grain and flax require, on the average, a slightly larger gross margin than those which do not, and especially than those which handle such commodities in moderate amounts only. It is noticeable also that the spread between the highest and lowest gross margin for each group is much wider in case of those elevators which handle other commodities than grain and flax.

TABLE X

RELATION OF GROSS MARGIN TO GROSS RECEIPTS AS AFFECTED BY CHARACTER OF BUSINESS

Class (according to percentage of gross receipts from other commodities than grain and flax)	Number of elevators	Percentage of gross margin to gross receipts		
		Highest	Lowest	*Average
Over 50	2	10.2	2.7	6.7
40–50	5	7.6	2.9	5.6
30–40	5	10.0	3.2	5.6
20–30	10	10.5	2.1	6.1
15–20	10	11.0	3.1	6.1
10–15	20	10.0	2.4	6.1
5–10	47	11.1	2.1	5.1
Under 5	38	12.6	2.0	5.3
None	17	8.8	2.8	5.7
All elevators	154	12.6	2.0	5.3

*Simple average of the percentages for the separate elevators in the class.

Probably the actual gross margins taken by the elevators handling other commodities than grain and flax average somewhat larger than appears from the table. A practice followed by many elevators is to keep a separate account of each carload of twine, flour, posts, or other commodities distributed. Where this is done, the expense of handling such lots is frequently not included in the general expense account, but the amount of the selling price is generally included in the gross receipts; therefore the ratio of reported expenses to gross receipts is reduced. This is especially true of those elevators which handle only a moderate amount of commodities other than grain and flax.

TABLE XI

RELATION OF OPERATING EXPENSE TO GROSS RECEIPTS AS AFFECTED BY CHARACTER OF BUSINESS

Class (according to percentage of gross receipts from commodities other than grain and flax)	Percentage of expense to gross receipts		
	Highest	Lowest	Average*
Over 50	6.3	1.0	3.6
40–50	7.0	1.1	3.1
30–40	9.6	1.9	3.8
20–30	8.4	1.4	3.5
15–20	6.8	1.7	3.6
10–15	6.4	1.8	2.8
5–10	6.9	1.4	2.6
Under 5	5.7	1.0	2.4
None	7.0	1.8	3.3
All elevators	9.6	1.0	2.6

*Simple average of the percentages for the separate elevators in the class.

The actual operating expenses are, on the average, considerably lower for the elevators that handle other commodities, but only to the extent of less than 15 per cent of their gross receipts, than for those of whose gross receipts such commodities contribute a larger per cent. On the other hand the ratio of operating expense for such elevators is also lower than that for those which handle only grain and flax. This may be at least partly accounted for by two known facts: (1) The practice, already referred to, of keeping a separate account of special lots. To the extent to which the smaller operating expenses can be thus explained, they are, of course, fictitious. But, (2) there are reasons for believing that the operating expense in such cases is really smaller. Such commodities, when handled in moderate amounts, often do not require any extra labor or equipment, especially when handled during the less busy season at the convenience of both the elevator and the patrons. Where, however, they constitute a large percentage of the total gross receipts, extra help and equipment are often necessary. The very small figures for lowest operating expense in the two groups handling commodities other than grain and flax to the extent of 40 per cent or more of their gross receipts, prove that such extra labor and equipment need not increase the operating expense, provided the business is large enough and well enough managed to utilize such labor and equipment efficiently. In practically all cases where a large proportion of miscellaneous commodities are handled at a low cost, as in the two cases referred to, the gross receipts are over $200,000.

TABLE XII

DISTRIBUTION OF GROSS MARGIN BETWEEN EXPENSE AND PROFIT AS AFFECTED BY CHARACTER OF BUSINESS

Class (according to percentage of gross receipts from commodities other than grain and flax)	Percentage of gross receipts			Percentage of gross margin	
	Gross margin	Expense	Profit	Expense	Profit
Over 50	6.7	3.6	3.1	53.8	46.2
40–50	5.6	3.1	2.5	55.4	44.6
30–40	5.6	3.8	2.8	67.8	32.2
20–30	6.1	3.5	2.6	57.4	42.6
15–20	6.1	3.6	2.5	59.1	40.9
10–15	6.1	2.8	3.3	45.9	54.1
5–10	5.1	2.6	2.5	51.0	49.0
Under 5	5.3	2.4	2.9	45.3	54.7
None	5.7	3.3	2.4	57.9	42.1
All elevators	5.3	2.6	2.7	49.0	51.0

It should not be concluded, because the operating expenses are larger, on the average, where the proportion of commodities other than grain and flax exceeds 15 per cent of the gross receipts, that it is not

advantageous for the elevators to deal in such commodities in excess of that proportion. It may very well be that the cost to the patrons of such commodities is less when handled by the elevator than it would otherwise be, even if they are more expensive to handle than grain and flax.

The effect of the practice of handling various commodities, in moderate amounts, at least, is shown in a different way by noticing what part of the gross margin is applied as operating expenses. From Tables IX and X, showing gross margins and operating expenses for the three groups handling such commodities to the extent of from 0.1 per cent to 15 per cent of their gross receipts, it is seen that these three groups have the lowest gross margin and operating expense. From Table XII it is seen that of the gross margin, already lower than for the other groups, these three groups of elevators are able to figure into "profit" a larger proportion than any other group.

RELATION OF CAPITAL STOCK TO GROSS RECEIPTS

There is a wide variation in the ratio between the capital stock and the gross receipts of coöperative elevators; in one case the capital stock was equal to 59 per cent of the gross receipts; at the other extreme it amounted to only 2 per cent. The average was 5 per cent. In only a few cases does the capital stock exceed 10 per cent of the gross receipts, and when it does, it is probably due to special circumstances, as incompleteness of reports, reports for first year of business, or particular losses.

Naturally, the organizations with the larger gross receipts have the smaller proportionate capital stock, because a proportionately low capital stock often indicates that the plant is run more nearly at its maximum capacity than where the capital is proportionately high. Table XIII, based on reports from 38 elevators, shows the highest, lowest, and average capital stock, in percentage of gross receipts, for five groups, arranged according to amount of gross receipts:

TABLE XIII

RELATION OF CAPITAL STOCK TO GROSS RECEIPTS

Class (according to gross receipts)	Number of elevators in class	Percentage of capital stock to gross receipts		
		Highest	Lowest	Average*
Less than $50,000	5	59.0	4.8	25.0
$50,000– 100,000	10	11.3	4.2	5.8
100,000– 150,000	12	6.7	2.3	4.8
150,000– 200,000	6	4.6	2.1	3.1
Over $200,000	5	8.0	2.6	4.7

*Simple average of the percentages for the several elevators in the class.

From Table XIII it appears that the correlation existing between capital stock and gross receipts is similar to that between operating expenses and gross receipts. In general, the larger the gross receipts, the smaller the ratio of capital stock to gross receipts. Here then is another reason why it is good policy for farmers, especially stockholders, to be loyal to their own concern. The smaller the business in proportion to the capital stock, the more difficult it is to pay adequate dividends on the capital stock.

The question of the ratio of the capital stock to the probable gross receipts is not the only one to consider in fixing the amount of capital stock for a coöperative elevator. In few, if any, cases is the coöperative elevator fully financed by the subscribed capital stock. Other sources, as banks, individual lenders, and commission men provide, in most cases, the greater part of the working capital, while the capital stock is intended, generally, to cover the plant and equipment. On pages 11 and 12 of Bulletin 152, appears a summary of the practices of coöperative elevators for 1914-15 in securing their working or current capital.

DIVIDENDS

The practices in distributing the profits of the coöperative elevator may vary widely. Where sufficient profit is made to declare any dividend at all, a stock dividend is almost invariably paid. Of the 296 elevators included in this report, 72 made no statement regarding disposition of profits; 36 reported that they paid no dividend of any kind; 111 reported that they paid dividends on stock only; and 77 distributed a part of their profits in a manner which entitles them to be classified as paying a patronage dividend. All but one of these 77 elevators reported paying a stock dividend before any distribution was made on business done.

Table XIV shows the rates of dividends on stock for the 147 elevators reporting, which did not distribute any patronage dividend.

TABLE XIV

DIVIDEND RATES ON CAPITAL STOCK

Rate of dividend, per cent	No. of elevators	Rate of dividend, per cent	No. of elevators
None	36	20	12
1	2	25	5
5	5	28	1
6	4	30	4
7	6	32	1
8	16	40	2
8⅓	1	43½	1
10	36	50	3
12	1	100	5
15	4	250	1
16	1		

Of the 147 elevators, 76 distributed 10 per cent on their capital stock or over in dividends; 36 paid no dividend at all. But at the other extreme, 9 paid 50 per cent or more, and one reported paying as much as 250 per cent. Probably some of these very high dividends represent in part the earnings of earlier years, or are due to the fact that the capital stock is only a small part of the actual capital of the companies. In some cases the high dividends are justified on the ground that for many years previous no dividend on stock has been declared, or that such dividends have been low and irregular. However, there is little doubt that a high return to capital is put before the interests of the patrons by a good many elevators. So far as this is true they fall short of realizing the strictly coöperative ideal.

Altho 77 elevators reported paying a patronage dividend, the reports in many cases are not clear either as to the rate of dividend paid, the aggregate amount paid, or the method of distribution.

The apportionment of patronage dividend admits of many variations. The first line of cleavage is found between stockholders and patrons who are not stockholders. Some elevators limit the distribution of patronage dividend to stockholders, while others, apparently more numerous, distribute that kind of dividend to all customers. A variation in this practice, which, however, is rare and does not occur in the reports for the year 1914-15, is to pay a patronage dividend to stockholders at double the rate at which it is paid to non-stockholders. Another variation is to distribute a preferred patronage dividend to stockholders. This, too, was not reported for 1914-15.

In all except possibly one of the cases where elevators pay a patronage dividend, there is a limit fixed as to the stock dividend that may be paid. This limit varies from 2 per cent in one case to 15 per cent in another. One elevator distributed a patronage dividend but no stock dividend. Cases where the limit is 8 per cent are fairly common, but 10 per cent seems to be the most general figure, the theory apparently being that 10 per cent is a just return on the capital invested in view of the risk and waiting involved. In general there seems to be no evidence that the claim of stock to dividends is cumulative, in other words, that back dividends on stock must be made up before patronage dividends can be paid from the profits of a given year. In the case of some other coöperative organizations, especially in certain countries of Europe, stock dividends are made cumulative.

The patronage dividend is distributed according to several different methods. There is first the straight dividend, distributed on the basis of the value of the business done, regardless of whether the business was buying or selling. Where the buying and selling are done on approximately equal margins for all commodities handled, this method seems to be just enough, and it certainly is simpler than any other.

Table XV shows the rate of stock and patronage dividends paid by 9 individual coöperative elevators that followed this practice. Instead of the name of the particular elevator each has, for convenience, been given a number.

TABLE XV

DIVIDEND RATES FOR ELEVATORS PAYING PATRONAGE DIVIDEND TO ALL CUSTOMERS

Elevator number	Stock dividend paid	Patronage dividend to all customers
	Per cent	Per cent
1	10	1.3
2	10	1.7
3	10	2.0
4	8	2.5
5	8	2.5
6	8	4.0
7	6	3.0
8	5	3.75
9	5	4.0*

*Paid to stockholders only.

Another practice is to pay a patronage dividend as a percentage of the value of business, on grain and flax only, considering other commodities handled as sidelines. Where such other commodities are distributed at a lower profit than that on grain and flax, there may be reasons for preferring this method of distributing a patronage dividend. Besides, the risk on some commodities, as machinery, may be considerable, and it may be felt that some allowance should be made for this fact in distributing dividends.

According to another method the dividend takes the form of a specific number of cents per bushel of grain, which is sometimes the same for all kinds of grain regardless of the difference in their value per bushel or in the profit per bushel. Such a dividend may not be limited to grain and flax, but may be distributed on other commodities handled, as coal, flour, or feed. This system could conceivably be used in effect to lower or raise the margins on which the various commodities are handled, and, in particular commodities, as an inducement to customers. From another point of view, however, it would seem difficult justly to apportion dividends of this sort among patrons. Table XVI shows the rates of patronage dividend paid, according to this method, by seven elevators, the first five excluding sidelines from their patronage dividend and the last two admitting them to some share in the distribution of the profit.

The actual amount of patronage dividends paid naturally varies very much. The highest rate reported is 5 per cent of business done.

TABLE XVI

DIVIDEND PAID IN ADDITION TO STOCK DIVIDEND

Elevator No.	Per cent paid on stock	Cents per bushel						Cents per ton of coal	Cents per sack	
		Wheat	Oats	Barley	Corn	Rye	Flax		Flour	Feed
1	2	5	5	5	5	5	5	..	..	..
2	10	2*	2*	2*	2*	2*	2*	..	..	..
3	10	3	†	1	1	†	1	..	..	..
4	6	5	2	4	4	9	9	..	..	..
5	10	3	3	3	3	3	3	..	..	..
6	8	1	1	1	1	1	1	50	10	10
7	0	1*	1*	1*	1*	1*	1*	25*	..	..

*Paid to stockholders only.
†Not reported.

Unless peculiar local conditions necessitate transacting business on a larger margin, there is no good reason why the dividend should ever go higher than that figure. It would seem as well to pay farmers higher prices for their products or sell them commodities at lower rates, so that the customers would not have their money tied up in the funds of the elevator. In fact, if it were safe for elevators to run their business with only enough profit to pay a fair return on capital stock, it would be quite as satisfactory to patrons to have no patronage dividend, but to take their profit in a higher price for grain or a lower price for goods bought.

In ten counties, namely, Blue Earth, Carver, Kandiyohi, Kittson, Mower, Pope, Red Lake, Swift, Traverse, and Wright, all the farmers' elevators reporting pay patronage dividends. In twenty others, namely, Marshall, Polk, Clearwater, Becker, Douglas, Lyon, Rock, Watonwan, Brown, McLeod, Nicollet, Le Sueur, Scott, Dakota, Rice, Goodhue, Washington, Waseca, Steele, and Dodge, no elevator reported paying a patronage dividend. In the remaining counties having farmers' elevators, there is a difference in practice on this point.

It is difficult to explain, in the absence of a detailed study of the problem, why there is such a difference in practice. In general it can be said that in the counties in which the practice of paying a patronage dividend prevails, the percentage of foreign-born citizens and of those whose parents are foreign-born, are considerably above the average. It is suggested that these people may have been familiar with this practice in Europe, and have continued it in this country. This is known to have been the case in several instances. Several elevators reported that while they had not hitherto distributed a patronage dividend, they had made provision for doing so, and several others were considering the proposition. This shows that the practice is growing.

In general, the larger and more successful coöperative elevators

practice paying patronage dividends. Yet the average percentage which expenses form of the gross receipts is but little less in case of the elevators that paid patronage dividends than for those that did not. Efficiency in management and coöperative distribution of profits may go together, but do not always.

It will be remembered that of the total number of patrons only 55 per cent were stockholders. In many cases the percentage is very much smaller. In fact, several instances are reported where the number of patrons who are not stockholders is several times larger than the number of those who are. In such a case if a large stock dividend should be declared—and several such were actually declared—it is readily seen that the distribution of the returns from products handled for patrons is not made strictly according to coöperative principles. The same is true where, as often happens, there is no relation between the amount of stock held by the several stockholders and the amount of business furnished by them to the elevator.

ACCOUNTING METHODS

One of the greatest needs of the farmers' elevators is better accounting methods. There are several reasons why a uniform accounting system is desirable. Statistics may be more easily collected, distributed, and interchanged among the various elevators. This would prove of great value. Managers and bookkeepers could more easily acquire a knowledge of elevator accounting and more readily move from one elevator to another, which would tend to make the elevator manager's job more of a profession, and the men more efficient. Managers would know better how to buy if they could easily ascertain the cost of handling per unit of products. It would be of great educational advantage if the patrons and possible patrons of an elevator could readily know and discuss the details of the business. This is already well understood by some managers, who send out printed circulars of explanation with the annual reports.

The Office of Markets and Rural Organization, at Washington, has made a study of this problem and has devised a system which is successfully used in many elevators. This system has been published in Bulletin No. 236, and may be had on application to the Office of Markets.[4]

It is important that the financial transactions of a farmers' elevator, as disclosed by its books, should be summarized from time to time in convenient and clear statements. Such statements are particularly required at the close of the business year.

[4] Humphrey, J.R., and Kerr, W.H. A System of Accounts for Farmers' Coöperative Elevators. U. S. D. A. Bull. 236:1-30, 1915.

The accompanying statements are adapted from an annual report furnished by the manager of one of the Minnesota elevators and used by his permission. They include a statement in considerable detail of the purchases and sales of the year, an itemized expense account, a profit and loss account, and a financial statement, or balance sheet. These statements are published as being suggestive for managers and others whose work it is to prepare and interpret annual reports of the coöperative elevators. Fractions of bushels have been omitted, which accounts for any discrepancy in the column headed "Amount."

REPORT OF BUSINESS DONE

Wheat

	Amount Bu.	Value	
On hand July 1, 1914	422	$ 320.72	
Purchased	148,224	159,773.96	
Total	148,646	$ 160,094.68	
Shipments	142,508	153,926.46	
Balance (minus)	6,138	$ 6,168.22	
Cut off July 1, 1915, at $1.13	3,678	4,156.14	
Shortage	2,460	.....	
Loss			$ 2,012.08

Flax

	Amount Bu.	Value	
On hand July 1, 1914	598	$ 855.14	
Purchased	4,055	5,921.45	
Total	4,653	$ 6,776.59	
Shipments	4,086	6,419.85	
Balance (minus)	566	$ 356.74	
Cut off July 1, 1915, at $1.58	508	803.00	
Shortage	58	.....	
Gross gain			$ 446.26

Barley

	Amount Bu.	Value	
On hand July 1, 1914	1,500	$ 600.03	
Purchased	25,059	13,474.30	
Total	26,559	$ 14,074.33	
Shipments	24,480	13,952.92	
Balance (minus)	2,079	$ 121.41	
Cut off July 1, 1915, at $0.58	2,132	1,237.00	
Overage	53	.....	
Gross gain			$ 1,115.59

Oats

	Amount Bu.	Value	
On hand July 1, 1914	3,942	$ 1,103.82	
Purchased	28,906	11,717.95	
Total	32,848	$ 12,821.77	
Shipments	30,265	12,914.99	
Balance (plus)	2,582	$ 93.22	
Cut off July 1, 1915, at $0.40	2,582	1,032.98	
Gross gain			$ 1,126.20

Corn

	Amount Bu.	Value	
On hand July 1, 1914	1,347	$ 727.84	
Purchased	89,633	49,899.45	
Total	90,981	$ 50,627.29	
Shipments	90,258	52,105.43	
Balance (plus)	722	$ 1,478.14	
Cut off July 1, 1915, at $0.64	747	478.08	
Overage	24	.....	
Gross gain			$ 1,956.22

Twine

	Amount Lbs.	Value	
On hand July 1, 1914	2,900	$ 277.77	
Purchased	20,000	1,940.00	
Total	22,900	$ 2,217.77	
Sold	14,755	1,584.15	
Balance (minus)	8,145	$ 633.62	
Cut off July 1, 1915	8,145	792.49	
Gross gain			$ 158.87

Coal

	Amount Tons	Value	
On hand July 1, 1914	104	$ 762.55	
Purchased	598	4,795.39	
Total	703	$ 5,557.94	
Sold	545	4,541.42	
Balance (minus)	157	$ 1,016.52	
Shortage	15	.....	
On hand July 1, 1915	142	$ 1,048.02	
Gross gain			$ 31.50

Other Sources

Screenings sold	$ 1,211.63	
Gain on futures	131.28	
Storage collected	72.15	
Interest	96.70	
Total		$ 1,511.76

Itemized Statement of Expenses for the Year

Manager's salary	$	1,200.00
Labor		1,191.85
Board of directors' salary		226.00
Inspection of scales		5.80
Stationery		15.50
Workmen's compensation insurance premium		25.20
Heating stove		17.50
Personal property taxes		219.95
Site lease		12.00
C. N. D.'s		18.50
Gasoline (105 gallons)		18.55
Electric current 3,872 K. W.		261.45
Freight on repair goods		12.05
Man-lift		54.05
Warehouse license		1.00
Post-office box rent		1.80
Interest		776.11
Nails, brooms, etc		67.51
Inspection of cars and cooperage		4.95
Paper car-liners, protection, leakage, transit		18.00
Postage		27.68
Drayage		36.45
Interest on stocks		282.50
Repairs		254.90
Telephone rent, telephone charges and telegrams		4[illegible]
Insurance		23
Bonding manager		3.
	$	5,065

Profit and Loss Account

Profits			Loss and Expenses		
Flax	$	446.26	Loss on wheat	$	2,012.0[illegible]
Barley		1,115.59	Salaries		2,617.85
Oats		1,126.20	Insurance		299.95
Corn		1,956.22	Interest		776.11
Coal		31.50	Dividends		282.50
Twine		158.87	Repairs		254.90
Other sources		1,511.76	Current and Gasoline		280.00
Balance (loss)		*730.69*	Sundries		553.70
	$	7,077.09		$	7,077.09

FINANCIAL STATEMENT

Assets

Elevator	$	7,000.00
Furniture and fixtures		2,448.37
Accounts receivable		4,756.83
Bills receivable		1,342.47
Cash in banks		1,453.93
Cash on hand		265.95
Grain in transit (car corn)		775.50
Merchandise on hand		9,879.99
Total assets	$	27,923.04

Liabilities

Stock paid in	$	4,750.00
Money borrowed		4,500.00
Bills payable		1,890.00
Accounts payable		1,762.07
Accounts with commission firms		7,408.93
Checks outstanding		854.62
Undivided profits		6,757.42
Total liabilities	$	27,923.04

In one respect the statement is not typical. It shows a loss on the business for the year, which is not generally the case with the farmers' elevators of the state, and which is also not usual for this elevator, as appears from the considerable amount of undivided profits of previous years. For the most part there are profits to distribute. Where this is the case, the final statement of the year might well include a brief account of the disposition of the year's profits, especially where a patronage dividend is distributed. This is done by several elevators, and below is given such an account from another elevator, slightly modified.

DISPOSITION OF PROFITS

8 per cent dividend on $8,075 stock	$	629.55
1 cent dividend per bushel on grain		2,538.10
50 cents dividend per ton on coal		334.00
10 cents dividend per sack on flour and feed		299.30
Transferred to "Undivided profits"		138.44
Total	$	3,939.39

In many cases, also, parts of the net profit are transferred to a fund or funds variously called sinking fund, reserve fund, or contingent fund. From these funds improvements and repairs are made, the cost of which is not properly a part of the regular operating expenses. Where separate funds are maintained, it is desirable to include accounts of them in the annual statement. Such an account is published herewith, as taken from the annual statement of still another elevator.

CONTINGENT FUND

Receipts

On hand July 1, 1914	$	2,692.64
Credited profits of 1913-14		558.01
Refund for over-charges on freight		43.96
	$	3,294.61

Disbursements

Paid for repairs and improvements	$	125.74
Balance on hand June 30, 1915		3,168.87
	$	3,294.61

METHOD OF ORGANIZATION

The methods of organizing and incorporating farmers' elevators were discussed in Bulletin 152, and sample forms of articles of incorporation and by-laws were presented. Information was also given as to the method of changing from incorporation under the general stock corporation laws to incorporation under the special law relating to coöperative organizations. Those desiring information on these points are referred to that Bulletin, which will be supplied on application to the Office of Publications, University Farm, St. Paul.

FARMERS' ELEVATORS IN MINNESOTA, JANUARY 1, 1916

Name	Location	County
Adrian Co-operative Grain Company	Adrian	Nobles
Airlie Elevator Company	Airlie	Pipestone
Farmers Co-operative Society	Alpha	Jackson
Altura Elevator Company	Altura	Winona
Farmers Elevator Company	Alvarado	Marshall
Farmers Elevator Company	Amiret	Lyon
Farmers Co-operative Grain Company	Appleton	Swift
Farmers Independent Elevator Company	Arco	Lincoln
Farmers & Merchants Elevator Company	Argyle	Marshall
Farmers Elevator Company	Ashby	Grant
Farmers Elevator Company	Ashcreek	Rock
Farmers Co-operative Elevator Company	Atwater	Kandiyohi
Farmers Elevator Company	Audubon	Becker
Farmers Elevator Company	Avoca	Murray
Roseau County Farmers Co-op. Elevator & Mercantile Co	Badger	Roseau
Myers Warehouse & Produce Company	Bagley	Clearwater
Farmers Co-operative Elevator Company	Balaton	Lyon
Farmers Elevator Company	Barnesville	Clay
Farmers Elevator Company	Barrett	Grant
Battle Lake Farmers Company	Battle Lake	Otter Tail
Beaver Creek Elevator Company	Beaver Creek	Rock
Merchants & Farmers Grain Company	Belgrade	Stearns
*Farmers Elevator Company	Bellingham	Lac qui Parle
Farmers Grain & Fuel Company	Belview	Redwood
Benson Market Company	Benson	Swift
Farmers Elevator Company	Bigelow	Nobles
Farmers Elevator & Fuel Company	Bigstone (P. O. Ortonville)	Big Stone
Farmers Elevator Company	Bird Island	Renville
Farmers Elevator Company	Blooming Prairie	Steele
Farmers Elevator Company	Blue Earth	Faribault
Farmers Merc. & Elevator Company	Bombay (P. O. Wanamingo)	Goodhue
Brandon Farmers Grain Company	Brandon	Douglas
Farmers & Merchants Union Elevator Co.	Brandon	Douglas
Farmers Grain & Shipping Association	Breckenridge	Wilkin
Farmers Elevator Company	Brewster	Nobles
Farmers Co-operative Elevator Company	Brooks	Red Lake
Farmers Elevator Company	Brooten	Stearns
Farmers Elevator Company	Brushvale	Wilkin
Farmers Elevator & Supply Company	Burr	Yellow Medicine
Farmers Elevator Company	Butterfield	Watonwan
Peoples Co-op. Stock & Grain Company	Caledonia	Houston
Farmers Elevator Company	Campbell	Wilkin
Farmers Elevator Company	Cannon Falls	Goodhue
Farmers Elevator & Supply Company	Canby	Yellow Medicine
Farmers Grain Company	Canby	Yellow Medicine
Farmers Grain & Mercantile Company	Carlisle (P. O. Fergus Falls)	Otter Tail
Farmers Co-operative Elevator Company	Castle Rock	Dakota
Cazenovia Co-operative Elevator Co	Cazenovia	Pipestone
Farmers Elevator Company	Ceylon	Martin
Farmers Elevator Company	Chandler	Murray
Chokio Equity Exchange	Chokio	Stevens
Farmers Elevator Company	Clara City	Chippewa
Farmers Elevator Company	Clarkfield	Yellow Medicine
Farmers Co-op. Produce Association	Clearbrook, R. 2	Clearwater
Farmers Elevator Company	Cleveland	Le Sueur
Clinton Farmers Elevator Company	Clinton	Big Stone
Clitherall Grain Association	Clitherall	Otter Tail

*Probably out of business.

Name	Location	County
Farmers Elevator Company	Cokato	Wright
Farmers Elevator Company	Comfrey	Brown
Comstock Elevator Company	Comstock (P. O. Sabin)	Clay
Farmers Equity Company	Correll	Big Stone
Farmers Elevator Company	Cottonwood	Lyon
*Co-operative Fuel & Commission Co	Crookston	Polk
Dalton Grain & Lumber Company	Dalton	Otter Tail
Danube Elevator Company	Danube	Renville
Farmers Elevator Company	Darfur	Watonwan
Farmers Elevator Company	Dassel	Meeker
Equity Co-operative Elevator Company	Dawson	Lac qui Parle
Farmers Elevator Company	De Graff	Swift
Farmers Grain & Fuel Company	Delhi	Redwood
Carson Farmers Elevator Company	Delft (P. O. Windom, R. 2.)	Cottonwood
The Dennison Farmers Merc. & Elev. Co.	Dennison	Goodhue
Dodge Center Elevator Company	Dodge Center	Dodge
Farmers Elevator Company	Donnelly	Stevens
Doran Grain Producers' Association	Doran	Wilkin
Farmers Elevator Company	Dotson, (P. O. Springfield)	Brown
Farmers Elevator Company	Dundee	Nobles
Farmers Elevator Company	East Grand Forks	Polk
Easton Farmers Elevator Company	Easton	Faribault
Farmers Warehouse Association	Echo	Yellow Medicine
Farmers Elevator Company	Eden Valley	Meeker
Edgerton Farmers Co-operative Assoc	Edgerton	Pipestone
Elbow Lake Grain Company	Elbow Lake	Grant
Farmers Milling & Elevator Company	Ellendale	Steele
Farmers Elevator Company	Elmore	Faribault
Farmers Shipping Association	Emmons	Freeborn
Farmers Elevator Company	Erdahl	Grant
Co-operative Warehouse Association	Erhard	Otter Tail
Erskine Elevator Company	Erskine	Polk
Farmers Co-operative Elevator Company	Fairfax	Renville
Farmers Grain & Stock Company	Fairfax	Renville
Farmers Co-operative Elevator Company	Faribault	Rice
Farmers Elevator Company	Farwell	Pope
Farmers Co-operative Elevator Company	Fergus Falls	Otter Tail
Garfield Elevator & Mercantile Company	Fertile	Polk
Forada Co-operative Manufacturing & Warehouse Association	Forada	Douglas
Farmers Elevator Company	Fosston	Polk
Farmers Elevator Company	Franklin	Renville
Farmers Elevator Company	Frost	Faribault
Farmers Co-operative Commission Co	Fulda	Murray
Farmers Elevator Company	Garfield	Douglas
Farmers Independent Elevator Company	Garvin	Lyon
Farmers Elevator Company	Georgetown	Clay
Farmers Elevator Company	Ghent	Lyon
Gibbon Farmers Elevator Company	Gibbon	Sibley
Farmers Co-operative Grain & Produce Association	Gonvick	Clearwater
Glencoe Farmers Elevator, Live-Stock & Produce Company	Glencoe	McLeod
Farmers Elevator Company	Glenwood	Pope
Goodhue Elevator & Mercantile Company	Goodhue	Goodhue
Farmers Co-operative Exchange Co	Good Thunder	Blue Earth
Granada Grain & Implement Company	Granada	Martin
Farmers Grain Company	Grand Meadow	Mower
Farmers Elevator & Milling Company	Granite Falls	Yellow Medicine

*Probably out of business.

Name	Location	County
Roseau County Farmers Co-operative Elevator & Mercantile Company	Greenbush	Roseau
Greenwald Elevator Company	Greenwald	Stearns
Farmers Grain & Trading Company	Grove City	Meeker
Farmers Elevator Company	Gully	Polk
Farmers Elevator Company	Hadley	Murray
Farmers Elevator Company	Hallock	Kittson
Farmers Co-operative Elevator Company	Halma	Kittson
Halstad Elevator Company	Halstad	Norman
*Farmers Equity Shipping Association	Hamburg	Carver
*Hamburg Farmers Equity Co-operative Association	Hamburg	Carver
Farmers Co-operative Elevator Company	Hampton	Dakota
Hancock Market Company	Hancock	Stevens
Farmers Elevator Company	Hanley Falls	Yellow Medicine
Farmers Elevator Company	Hardwick	Rock
Farmers Elevator Company	Hartland	Freeborn
Hastings Farmers Elevator Company	Hastings	Dakota
Farmers Elevator Company	Hawley	Clay
Farmers Elevator Company	Hayward	Freeborn
Farmers Elevator & Mercantile Company	Hayfield	Dodge
Hazel Run Produce Company	Hazel Run	Yellow Medicine
Farmers Grain & Exchange Company	Hector	Renville
Hector Elevator Company	Hector	Renville
Farmers Co-operative Elevator Company	Hendricks	Lincoln
Hendrum Co-operative Elevator Co.	Hendrum	Norman
Herman Market Company	Herman	Grant
Farmers Co-operative Elevator Company	Heron Lake	Jackson
Hills Mercantile Company	Hills	Rock
Farmers Grain Company	Hoffman	Grant
Hokah Grain & Stock Company	Hokah	Houston
Farmers Co-operative Association	Holland	Pipestone
Holloway Co-operative Farmers Elevator Company	Holloway	Swift
Houston Co-operative Elevator Company	Houston	Houston
Humboldt Elevator Company	Humboldt	Kittson
Farmers Co-operative Elevator Assn	Hutchinson	McLeod
Huntley Farmers Elevator Company	Huntley	Faribault
Farmers Co-operative Stock Company	Ihlen	Pipestone
Iona Farmers Co-operative Stock Co.	Iona	Murray
Farmers Independent Elevator Company	Ivanhoe	Lincoln
Farmers Co-operative Association	Jackson	Jackson
Farmers Elevator Company	Janesville	Waseca
Farmers Elevator Company	Jasper	Pipestone
Farmers Co-operative Elevator Company	Jeffers	Cottonwood
Kanaranzi Elevator Company	Kanaranzi	Rock
Farmers Union Elevator Company	Kandiyohi	Kandiyohi
Farmers Grain & Stock Company	Kasson	Dodge
Kennedy Farmers Elevator Company	Kennedy	Kittson
Farmers Elevator Company	Kenneth	Rock
Kenyon Farmers Merc. & Elevator Co.	Kenyon	Goodhue
Kerkhoven Farmers Elevator Company	Kerkhoven	Swift
Kilkenny Grain Company	Kilkenny	Le Sueur
Kragnes Elevator & Mercantile Co.	Kragnes (P. O. Moorhead)	Clay
Farmers Elevator Company	Lafayette	Nicollet
Farmers Co-operative Association	Lake Benton	Lincoln
Farmers Co-operative Elevator Company	Lakefield	Jackson
Farmers Elevator Company	Lake Park	Becker
Farmers Co-operative Elevator Assn	Lake Wilson	Murray
Farmers Elevator Company	Lamberton	Redwood
Farmers Elevator Company	Lansing	Mower

*There is probably only one elevator in Hamburg. Only one is given on the map in Carver County.

Name	Location	County
Farmers Elevator Company	Lawndale	Wilkin
Farmers Co-operative Elevator Company	Lester Prairie	McLeod
Lewiston Elevator Company	Lewiston	Winona
Farmers Elevator Company	Lismore	Nobles
Farmers & Merchants Co-op. Assn	Litchfield	Meeker
Rice County Farmers Co-op. Elev. Co.	Lonsdale	Rice
Farmers Mercantile & Elevator Co.	Louisburg	Lac qui Parle
Farmers Elevator Association	Lowry	Pope
Lucan Grain & Fuel Company	Lucan	Redwood
Farmers Co-operative Elevator Company	Luverne	Rock
Farmers Elevator Company	Lynd	Lyon
Madison Farmers Merc. & Elevator Co.	Madison	Lac qui Parle
Magnolia Mercantile Company	Magnolia	Rock
Farmers Elevator Company	Mantorville	Dodge
Farmers Elevator Company	Marietta	Lac qui Parle
Farmers Company	Marshall	Lyon
Farmers Elevator Company	Maynard	Chippewa
Mentor Co-operative Company	Mentor	Polk
Farmers Elevator Company	Milroy	Redwood
Farmers & Merchants Supply Company	Minneota	Lyon
Farmers Elevator Company	Monterey	Martin
Co-operative Elevator & Trading Co	Montevideo	Chippewa
Farmers & Merchants Elevator Company	Montevideo	Chippewa
Farmers Elevator Company	Moorhead	Clay
Morgan Farmers Elevator Company	Morgan	Redwood
Farmers Co-operative Grain Company	Morton	Renville
Farmers Elevator Company	Mountain Lake	Cottonwood
Murdock Farmers Elevator Company	Murdock	Swift
Farmers Elevator Company	Nashua	Wilkin
Farmers Mercantile & Elevator Co.	Nassau	Lac qui Parle
Newfolden Farmers & Merchants Elevator Company	Newfolden	Marshall
Farmers Elevator Company	New London	Kandiyohi
New Prairie Farmers Elevator Company.	New Prairie (P. O. Starbuck)	Pope
New Richland Elevator	New Richland	Waseca
Farmers Elevator Company	New Ulm	Brown
Nicollet Farmers Exchange Company	Nicollet	Nicollet
Farmers Mercantile & Elevator Co.	Northfield	Rice
Farmers Elevator Company	North Redwood	Redwood
Farmers Elevator Company	Oakland	Freeborn
Farmers Elevator Company	Odessa	Big Stone
Farmers Co-operative Elevator Company	Okabena	Jackson
Farmers Co-operative Elevator Company	Oklee	Red Lake
Farmers Elevator Company	Olivia	Renville
Farmers Co-operative Company	Org	Nobles
Ormsby Farmers Grain Company	Ormsby	Watonwan
Farmers Elevator & Fuel Company	Ortonville	Big Stone
Farmers Co-op. Elevator & Merc. Co.	Ostrander	Fillmore
Farmers Elevator & Mercantile Company	Owatonna	Steele
Co-operative Warehouse Association	Pelican Rapids	Otter Tail
Farmers Elevator Company	Pennock	Kandiyohi
Lee Elevator Company	Perley	Norman
Perley Trading Company	Perley	Norman
Farmers Elevator Company	Peterson	Fillmore
Pine Island Elevator Company	Pine Island	Goodhue
Farmers Co-operative Company	Pipestone	Pipestone
Farmers Grain & Supply Company	Porter	Yellow Medicine
Farmers Elevator Company	Raymond	Kandiyohi
Farmers Co-operative Company	Reading	Nobles
Farmers Elevator Company	Redwood Falls	Redwood
Farmers Elevator Company	Renville	Renville
Farmers Elevator Company	Revere	Redwood
Perham Holding Company	Richdale	Otter Tail
Farmers Elevator Company	Roseau	Roseau

Name	Location	County
Farmers Grain & Mercantile Company	Rothsay	Wilkin
Farmers Grain & Mercantile Company	Round Lake	Nobles
Farmers Elevator Company	Rowena (P. O. Wabasso)	Redwood
Farmers Elevator Company	Rushford	Fillmore
Farmers Co-operative Grain & Supply Co.	Rushmore	Nobles
Farmers Independent Elevator Company	Russell	Lyon
Farmers Elevator & Trading Company	Rustad	Clay
Farmers Co-operative Association	Ruthton	Pipestone
St. Charles Elevator Company	St. Charles	Winona
Farmers Elevator Company	St. Clair	Blue Earth
Farmers Co-operative Elevator Company	St. Hilaire	Pennington
St. James Farmers Grain Company	St. James	Watonwan
Sacred Heart Produce Company	Sacred Heart	Renville
Farmers Co-operative Elevator Company	Sanborn	Redwood
Farmers Grain & Fuel Company	Seaforth	Redwood
Farmers Elevator Company	Shakopee	Scott
Shelly Elevator, Stock & Lumber Co.	Shelly	Norman
Sherburne Farmers Elevator Company	Sherburne	Martin
Farmers Co-operative Elevator Assn.	Silver Lake	McLeod
Farmers Co-operative Elevator Assn.	Slayton	Murray
Farmers Elevator Company	Sleepy Eye	Brown
Springfield Farmers Elevator Company	Springfield	Brown
Spring Grove Stock & Grain Company	Spring Grove	Houston
Farmers Elevator Company	Steen	Rock
Farmers & Merchants Elevator Company	Stephen	Marshall
Farmers Elevator Company	Stewartville	Olmsted
Stillwater Equity Market Company	Stillwater	Washington
Storden Grain Company	Storden	Cottonwood
Farmers Co-operative Produce Company	Taunton	Lyon
Farmers Elevator Company	Tenney	Wilkin
Thief River Falls Exchange Elev. Co.	Thief River Falls	Pennington
Farmers Elevator Company	Tintah	Traverse
Farmers Elevator Company	Tracy	Lyon
Farmers Elevator Company	Triumph	Martin
Farmers Elevator Company	Truman	Martin
Farmers Elevator & Supply Company	Tyler	Lincoln
Farmers Produce & Elevator Company	Trail	Polk
Farmers Elevator Company	Traverse	Nicollet
Farmers Elevator Company	Trosky	Pipestone
Underwood Grain Association	Underwood	Otter Tail
Vesta Grain & Fuel Company	Vesta	Redwood
Farmers Elevator Company	Vining	Otter Tail
Farmers Grain & Fuel Company	Wabasso	Redwood
Farmers Elevator Company	Wanamingo	Goodhue
Farmers Elevator & Mercantile Company	Waseca	Waseca
Watson Produce Company	Watson	Chippewa
Farmers Elevator Company	Waverly	Wright
Myers Warehouse & Produce Company	Wegdahl	Chippewa
Farmers Elevator Company	Welcome	Martin
Farmers Elevator & Supply Company	Wendell	Grant
Farmers Elevator Company	Westbrook	Cottonwood
Farmers Mercantile & Elevator Company	West Concord	Dodge
Farmers Co-operative Elevator Company	Wheaton	Traverse
Farmers Co-operative Elevator Company	Willmar	Kandiyohi
Farmers Elevator Company	Wilmont	Nobles
Co-operative Elevator Company	Windom	Cottonwood
Farmers Elevator & Mercantile Company	Winger (P. O. Erskine)	Polk
Winthrop Farmers Elevator Company	Winthrop	Sibley
Farmers Co-operative Elevator Company	Wirock	Murray
Wolverton Elevator Company	Wolverton	Wilkin
Equity Elevator & Trading Company	Wood Lake	Yellow Medicine
Farmers Elevator Company	Woodstock	Pipestone
Farmers Co-operative Company	Worthington	Nobles

Wykoff Shipping Association	Wykoff	Fillmore
Farmers Elevator & Mercantile Company	Wylie	Red Lake
Farmers Mercantile & Elevator Company	Zumbrota	Goodhue

One elevator, reported from Chisago County, is not listed because its existence is uncertain.