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## HOW TO MAKE AND ANALYZE AN ANNUAL REPORT FOR COUNTRY GRAIN ELEVATORS

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### INTRODUCTORY

Practically every business concern makes reports of various kinds, at various times, for various purposes. No report is perhaps more commonly made than the annual report, and few, if any, are as important. Its importance lies in the fact that if properly constructed it conveys information regarding the strength or weakness of the business, the progress made during the fiscal period, and by comparison with previous periods indicates the general trend of affairs. Intelligent management, the keystone of success, is possible only when reliable information of this nature is readily available.

Obvious as it is that the annual report should be regarded as an important document, a casual examination of reports actually prepared and submitted to directors and stockholders not only reveals an apparent lack of appreciation of what an adequate report should contain, but it is evident from the form in which many of them appear that much of the significant information they do contain is either hopelessly obscured or can be obtained only with considerable difficulty.

The purpose of this bulletin is (1) to indicate what should go into an adequate annual report and to suggest a form; (2) to indicate briefly how to get out of the report the significant information it contains. This bulletin should be of interest to managers, officers, directors, stockholders, and patrons of country elevators, and in a general way to all others with whom these organizations transact business, and to coöperative organizations in general.

### WHAT THE REPORT SHOULD SHOW

Naturally, a report for any specific purpose should contain the information specifically wanted. However, the term "annual report" is rather vague to those not familiar with accounting because it does not specifically indicate what its contents should be. Altho a large variety of material may be included in the

annual report, certain data must be shown if it is to serve its purpose fully. The most essential part of the annual report is the financial statement—that is, not a mere statement of receipts and disbursements, but a statement showing the assets, liabilities, and present worth of the business. This statement shows the condition of affairs at a *particular* time. It does not, however, indicate the progress made *during* the fiscal period. A comparison of the net worth of one fiscal year with that of another will indicate whether a gain or loss has occurred during that period. But in order adequately to explain this gain or loss, a profit and loss statement is necessary. This statement shows not only that a gain or loss has resulted from the year's operations, but indicates the *sources* of gains and losses. This statement, considered in connection with others, makes possible the determination of the relative profitableness of the various enterprises or departments of the business and helps to point out the leaks and opportunities for the exercise of economy in operation.

For ordinary purposes the two foregoing statements constitute a complete annual report. In order to avoid confusion they should be prepared in summarized form. However, as an aid in a thoro analysis of these two statements, details regarding the quantities and values of the various commodities handled, the gross profits by commodities, inventories, various percentages, etc., are desirable and are of interest in themselves. These data may be classified in various ways—by months, by years, by commodities, etc. Various percentages and ratios may be calculated which will indicate the relation existing between various factors. These percentages or variations in them from year to year or month to month may be of considerable significance. Some practical applications of the foregoing will be pointed out in the analysis of the annual report.

### SUGGESTED FORM OF ANNUAL REPORT

As previously pointed out, the form in which the material is presented will largely determine whether or not the vital information the report contains may be readily interpreted. The two things to be emphasized in the report suggested herewith are: (1) The contents of the report—that is, the items themselves and the manner in which they are classified; and (2) the form, or the arrangement of the items or classes of items in the report. Altho some changes may be advisable in specific instances, the report suggested should serve as a guide with respect to both the form and the contents.

### ANALYSIS OF THE ANNUAL REPORT

Without a careful analysis of the annual report much of the benefit to be derived from its preparation is lost. In order to point out some of the information of vital importance which may be obtained by such an analysis, the accompanying report will be discussed briefly. Altho space will not permit of an exhaustive analysis, the material presented should suggest many other items of interest to the enterprising manager.

#### Statement of Resources and Liabilities

As previously stated, the main purpose of the statement of resources and liabilities is to show the condition of affairs on a certain date, usually, but not necessarily, the last day of the fiscal year. The first question which the management will want answered has to do with the solvency of the company. A mistaken notion seems to be more or less common that the size of the cash

balance in the bank indicates the financial condition of the company, and the bigger the cash balance the better the condition. Nothing can be further from the truth. Comparisons must be made between the total value of all property and other things of value in the possession or under the control of the company, and the total of all claims against the property or business. If the value of the property exceeds the value of the claims, a "surplus," as the difference is called, exists; that is, if the business were dissolved and the property converted to cash, and all the claims were satisfied, there would remain a balance of cash on hand, which would then be distributable to the stockholders in addition to the par value of the shares held. If the claims or liabilities exceed the value of the property, the concern is said to be insolvent; that is, it cannot satisfy its creditors' and stockholders' claims one hundred cents on the dollar. Under such circumstances, or even before, the creditors and stockholders may petition the court to declare the concern bankrupt and to wind up its affairs.

It is seen, in the accompanying report, Exhibit (A), page 4, that the value of the total assets is \$15,090 and of the liabilities \$6,090, leaving a margin of \$9,000. That is, after the claims of all creditors are satisfied, there will remain \$9,000, representing the contribution made by the stockholders plus the net earnings left in the business, the latter constituting the surplus. Deducting the par value of the outstanding certificates of stock, there still remains a surplus of \$3,000.

Assuming that the values of all items in the statement are correct, the existence of a surplus normally indicates that all claims could (in case of dissolution) be paid dollar for dollar. In the ordinary stock corporation the market value of outstanding stock is measured largely by the size of this surplus. In a coöperative association, however, the size of the surplus is of less significance in this respect, inasmuch as the aim is not to make the stock valuable or to pay large stock dividends, but to pay to the growers all the net returns, which would normally leave no surplus. However, even in a coöperative organization it is desirable to maintain a reasonable surplus to provide a portion of the working capital and to safeguard the financial condition in case of unexpected losses and the usual risks involved in the operation of the business.

A word of caution must be sounded against placing too much significance in the mere existence of a surplus at the end of any particular fiscal year, as it may have resulted because of unusual circumstances. It is necessary to know the history of the surplus for several years: In the case under analysis it is seen that of the \$3,000 surplus existing at the close of business June 30, \$500 was added from the profits of the fiscal year just closed. If the present surplus has been maintained, or if similar additions had been made during a series of years, it is obvious that the concern is at least holding its own.

However, we are not primarily interested in the condition of the concern in case of its dissolution, but in the going concern and in its prospects to continue as such. This distinction is important because concerns showing a perfectly sound condition, in so far as ultimate solvency is concerned, have been forced into bankruptcy. Difficulties are likely to arise when too large a proportion of the assets are of such a character that they can not readily be converted into cash to meet the demands of current obligations. It is therefore necessary to make a comparison between the total "quick" assets and the total obligations due or likely to fall due within a relatively short time, usually less than a year.

ANNUAL REPORT OF THE BLANK FARMERS' ELEVATOR COMPANY,  
BLANK, MINNESOTA  
(For the fiscal year ending June 30, 1919))

EXHIBIT (A) STATEMENT OF RESOURCES AND LIABILITIES

RESOURCES:

Cash on hand.....	\$ 175.00	
Cash in bank.....	4,660.00	\$4,835.00
Notes receivable (trade).....	\$1,400.00	
Accounts receivable (trade).....	600.00	
	<u>\$2,000.00</u>	
Less allowance for bad debts.....	100.00	
	<u>\$1,900.00</u>	
Due from Superior Commission Co.....	200.00	2,100.00
Investments (Liberty bonds).....		500.00
Inventories:		
Barley, 212 bu. at \$1.30.....	275.00	
Oats, 1,200 bu. at 65c.....	\$780.00	
Less outstanding storage tickets		
1,000 bu. at 65c.....	650.00	130.00
		<u>405.00</u>
Total Current Resources.....		<u>\$7,840.00</u>
Buildings .....	\$6,000.00	
Less allowance for depreciation.....	1,500.00	\$4,500.00
Machinery and equipment.....	\$2,800.00	
Less allowance for depreciation.....	1,000.00	1,800.00
Furniture and fixtures.....	\$ 800.00	
Less allowance for depreciation.....	200.00	600.00
Total Fixed Resources.....		6,900.00
Prepaid insurance .....	\$ 250.00	
Inventory of printing and stationery.....	50.00	
Salaries advanced .....	50.00	
Total Deferred Charges.....		<u>350.00</u>
<b>TOTAL RESOURCES .....</b>		<b>\$15,090.00</b>

LIABILITIES:

Notes payable, bank for loans.....	\$1,000.00	
Notes payable, construction .....	500.00	\$1,500.00
Accounts payable, merchandise.....	\$ 150.00	
Due Sterling Commission Co.....	1,000.00	1,150.00
Patronage dividends declared.....		1,189.00
Notes receivable discounted.....		1,400.00
Accrued liabilities:		
Interest .....	\$ 60.00	
Taxes .....	450.00	
Wages .....	75.00	
Stock dividend at 7 per cent.....	266.00	851.00
Total Current Liabilities.....		<u>\$6,090.00</u>

NET WORTH:

Capital stock (Authorized \$10,000).....	\$6,000.00	
Surplus, end of previous year.....	\$2,500.00	
Added for year ending 6/30/19.....	500.00	3,000.00
Total Net Worth.....		<u>\$9,000.00</u>

TOTAL LIABILITIES and NET WORTH

\$15,090.00

**EXHIBIT (B) PROFIT AND LOSS STATEMENT**

	1919	1918
<b>NET SALES</b> .....	\$252,642.00	\$234,536.00
Inventory beginning of year.....	4,740.00	1,340.00
Purchases for year, net.....	244,867.00	231,890.00
<b>Total</b> .....	\$249,607.00	\$233,230.00
Less inventory end of year.....	3,027.00	4,740.00
	\$246,580.00	\$228,490.00
Less shrinkage and scale loss.....	597.00	600.00
	\$245,983.00	\$227,890.00
<b>Gross Profit on Sales</b> .....	\$6,659.00	\$6,646.00
<b>Other income:</b>		
Screenings sold .....	\$ 469.00	\$ 670.00
Interest earned .....	300.00	140.00
Storage collected .....	344.00	35.00
<b>TOTAL GROSS INCOME</b> .....	\$ 7,772.00	\$ 7,491.00
<b>EXPENSES:</b>		
<b>Operating:</b>		
Salaries and labor (manager and helpers).....	\$ 2,400.00	\$ 2,000.00
Power, light, and heat.....	308.00	520.00
Repairs .....	370.00	530.00
Telegraph, telephone, and postage.....	140.00	126.00
Shrinkage and scale loss.....	597.00	600.00
Depreciation: Bldgs. \$300; mchy. \$280; furn. fix. \$80	660.00	660.00
Miscellaneous operating .....	136.00	350.00
<b>Total Operating</b> .....	\$ 4,611.00	\$ 4,786.00
<b>General:</b>		
Salaries (officers and office help).....	\$ 150.00	\$ 500.00
Office supplies .....	70.00	67.00
Interest on debt.....	275.00	400.00
Insurance .....	340.00	375.00
Taxes .....	225.00	185.00
Miscellaneous .....	146.00	267.00
<b>Total General</b> .....	\$ 1,206.00	\$ 1,794.00
<b>TOTAL EXPENSE</b> .....	\$ 5,817.00	\$ 6,580.00
Available income .....	\$ 1,955.00	\$ 911.00
Less patronage dividend.....	1,189.00	645.00
<b>NET PROFIT</b> .....	\$ 766.00	\$ 266.00
Surplus, beginning of year.....	\$ 2,455.00	\$ 2,455.00
Plus account receivable omitted at time of last closing of books	75.00	
	2,530.00	
Less portion of taxes of last year not reserved for.....	30.00	
Surplus as adjusted.....	\$ 2,500.00	\$ 2,455.00
Plus net profit for fiscal year.....	766.00	266.00
	\$ 3,266.00	\$ 2,721.00
Less stock dividend declared.....	266.00	266.00
<b>SURPLUS END OF FISCAL YEAR</b> .....	\$ 3,000.00	\$ 2,455.00

EXHIBIT (C) STATISTICAL AND TRADING STATEMENT  
GRAIN

	Wheat		Oats		Barley		Rye		Flax		Corn		Total	
	Bu.	Value	Bu.	Value	Bu.	Value	Bu.	Value	Bu.	Value	Bu.	Value	Bu.	Value
NET SALES* .....	45,000	\$93,500	49,296	\$32,333	13,450	\$17,290	1,200	\$2,280	946	\$3,358	51,940	\$71,890	161,832	\$220,651
Inventory beginning of year.....	1,800	3,600	.....	.....	500	650	.....	.....	.....	.....	.....	.....	2,300	4,250
Purchases, net .....	44,100	90,500	49,490	31,103	13,162	17,110	1,220	2,318	946	3,032	52,000	70,745	160,918	214,808
Less inventory end of year.....	45,900	94,100	49,490	31,103	13,662	17,760	1,220	2,318	946	3,032	52,000	70,745	163,218	219,058
	710	2,060	200	130	212	275	1	2	.....	.....	.....	.....	1,123	2,467
Less shrinkage and scale loss.....	45,190	\$92,040	49,290	\$30,973	13,450	\$17,485	1,219	\$2,316	946	\$3,032	52,000	\$70,745	162,095	\$216,591
	190	387	†6	†4	.....	.....	19	36	.....	.....	60	82	263	501
Cost of Sales.....	45,000	\$91,653	49,296	\$30,977	13,450	\$17,485	1,200	\$2,280	946	\$3,032	51,940	\$70,663	161,832	\$216,090
Gains .....		1,847		1,356						326		1,227		4,756
Losses .....						195								195
GROSS GAIN .....							-3							\$4,561
Gross Gain(+) or Loss(-), cents per bushel.....		+4.1		+2.75		-1.5		...		+34.4		+2.4		+2.8

\* Net amount after deducting stored grain sold and merchandise returned, if any.

† Add overage.

EXHIBIT (C) STATISTICAL AND TRADING STATEMENT—Continued  
MERCHANDISE

	Soft Coal		Flour		Feed		Twine		Salt		Total Value
	Tons	Value	Pounds	Value	Tons	Value	Pounds	Value	Bbls.	Value	
NET SALES* .....	1,000	\$10,600	45,123	\$3,399	170	\$10,062	42,000	\$6,254	772	\$1,676	\$31,991
Inventory beginning of year.....	50	450	.....	.....	.....	.....	.....	.....	22	40	490
Purchases, net .....	1,000	9,600	45,123	3,248	170	9,582	42,000	5,904	850	1,725	30,059
	1,050	\$10,050	45,123	3,248	170	9,582	42,000	5,904	872	1,765	30,549
Less inventory end of year.....	40	360	.....	.....	.....	.....	.....	.....	100	200	560
	1,010	\$9,690	45,123	3,248	170	9,582	42,000	5,904	772	1,565	29,989
Less shrinkage and scale loss.....	10	96	.....	.....	.....	.....	.....	.....	.....	.....	96
Cost of sales.....	1,000	\$9,594	45,123	3,248	170	9,582	42,000	5,904	772	1,565	29,893
GROSS GAIN .....		\$1,006		\$151		\$480		\$350		\$111	\$2,098
Gross Gain, per cent of Gross Sales.....	9.5		4.45		4.75		5.6		6.7		6.6

\* Net amount after deducting stored grain sold and merchandise returned, if any.

The current assets should exceed the current liabilities by a reasonable margin, which margin should be considerably larger if the property is mortgaged or if the business is financed by sale of bonds. The ability to meet obligations promptly gives an elevator a tremendous advantage in its business dealings. Furthermore, a favorable credit rating depends largely upon it.

Our statement shows current assets amounting to \$7,840 as compared with current liabilities of \$6,090. This hardly affords a sufficient margin even in the season of light grain movement. Any sudden demand on the part of the creditors may result in financial embarrassment. The current liabilities include \$1,189, the amount of patronage dividends declared. Deducting this amount from the current liabilities results in a more favorable showing. In ordinary commercial enterprises it is considered desirable that the current assets be at least twice the current liabilities. An average taken from several elevator statements at the close of the business season in June and July shows current assets amounting to approximately three times the current liabilities.

Ordinarily, capital stock and surplus should provide the funds for financing the fixed assets. When this is the case, the current needs, which fluctuate widely during the season, will be met by short-time obligations, thus making it possible to vary the amount of working capital according to the needs. Certainly the needs for fixed capital should not be met by current obligations. In this respect we find our statement shows a reasonably sound state of affairs, as the capital liabilities more than meet the cost of the fixed assets and contribute a considerable amount to working capital. However, there is a tendency among country elevators for the capital and surplus to be approximately twice as large as the fixed assets, thus meeting to a greater extent the needs for working capital and decreasing interest expense.

The length of time the concern has been doing business will of course influence the relation existing between these items, and this and other factors must be borne in mind in connection with an analysis of this kind.

A favorable condition exists with respect to the outstanding accounts. It is evident that the accounts are being collected promptly or converted to bankable notes, all of which have been discounted at the bank. Only \$600 remains on the books in open accounts receivable. It is important to know, however, whether these are new accounts not yet due, or whether they represent "slow pay" or uncollectable accounts. A large amount of outstanding accounts in the absence of trade notes receivable may indicate a loose policy with respect to the extension of credit. Further light will be thrown on this point by comparing the amount of outstanding accounts at the end of the year with the total charge sales for the year. It may be the policy to transact business, as far as possible, on the cash basis, in which event the \$600 outstanding at the end of the year might be anything but a favorable showing.

It is seen that notes have been given to the extent of \$1,500, and \$1,150 is due creditors on open accounts, making a total of \$2,650. With the possible exception of \$150 due for merchandise, interest is accumulating on this amount. In view of the large bank balance, good business management would require a reduction of these outstanding claims. However, stock and patronage dividends and accrued expenses may be due, and the balance in the bank may have been allowed to accumulate in order to meet these obligations.

Certain information of a vital nature can be obtained only from a comparison of statements for different periods or of different concerns. To illustrate this point the 1919 statement is compared with that of 1918 (Table I). Certain vital information regarding the progress for the period is disclosed at a glance.

The net worth has increased \$545, of which \$500 was appropriated from net earnings and \$45 resulted from surplus adjustments. Of great significance is the fact that the ratio between current assets and current liabilities has materially improved. The current assets have increased \$1,060 whereas the current liabilities have decreased \$245, which is a favorable indication. Notes and accounts payable have decreased \$1,565 and the available balance of cash in the bank is ample to meet the requirements at the close of the business season. The total assets have increased \$300 and liabilities have decreased \$245.

TABLE I. COMPARISON OF SPECIFIED ITEMS FOR THE YEARS  
1918 AND 1919

	1919	1918	Increases + Decreases -
<b>RESOURCES:</b>			
Cash .....	\$4,835	\$3,680	+\$1,155
Bonds .....	500		+ 500
Notes and accounts receivable.....	2,100	2,200	- 100
Inventory .....	405	900	- 495
Total current resources.....	\$7,840	\$6,780	+\$1,060
Buildings .....	\$6,000	\$6,000	
Less reserve for depreciation.....	1,500	1,200	
	\$4,500	\$4,800	- \$300
Machinery and equipment.....	2,800	2,800	
Less reserve for depreciation.....	1,000	720	
	1,800	2,080	- 280
Furniture and fixtures.....	800	800	
Less reserve for depreciation.....	200	120	
	600	680	- 80
Total fixed resources.....	\$6,900	\$7,560	- \$660
Deferred charges .....	350	450	- 100
<b>TOTAL RESOURCES.....</b>	<b>\$15,090</b>	<b>\$14,790</b>	<b>+ \$300</b>
<b>LIABILITIES:</b>			
Notes payable .....	\$1,500	\$2,500	-\$1,000
Accounts payable .....	1,150	1,715	- 565
Dividend payable, patronage.....	1,189	645	+ 544
Notes receivable discounted.....	1,400	800	+ 600
Accrued liabilities .....	851	675	+ 176
Total current liabilities.....	\$6,090	\$6,335	- 245
<b>NET WORTH:</b>			
Capital stock outstanding.....	\$6,000	\$6,000	
Surplus end of previous year.....	\$2,500	\$1,955	
Added current year.....	500	500	
Surplus end of year.....	3,000	2,455	+ 545
Total net worth.....	\$9,000	\$8,455	+ \$545
<b>TOTAL LIABILITIES and NET WORTH.</b>	<b>\$15,090</b>	<b>\$14,790</b>	<b>+ \$300</b>

Altho many of the changes are too small to be of great significance when only two years are compared, similar favorable changes over a series of years could safely be regarded as a fair indication of the progress being made. In every case where figures are available, comparisons of several years should be made.

### The Profit and Loss Statement

The profit and loss statement, Exhibit (B), shows, in summarized form, the sources of revenue, the items of expense and other sources of losses, and the net gain or loss for the period, all of which information is of interest in itself. The analysis, however, becomes much more interesting and valuable when the results of two or more fiscal periods are compared. For instance, comparing the statements for the years 1918 and 1919, Exhibit (B), page 5, it is instantly noted that net sales have increased in value, gross profits have increased slightly, total expenses have decreased, but operating profit has more than doubled, making possible the distribution of a patronage dividend nearly double that of the previous year, and resulting in a net profit of \$500 more than in the previous year. The operations for 1919 were obviously carried on, on a narrower margin than those of the previous year, for in spite of the increased net sales the gross margin is practically the same. This may be partly explained by the decreased sales of screenings. It is noted that the operating expenses decreased slightly but that overhead expenses decreased more than 25 per cent. The decrease was accomplished in several ways, namely, through a reduction of interest expense, a slight decrease in insurance, and a 50 per cent reduction in miscellaneous expense. Radical action was apparently taken with respect to the salaries of officers and office help. If this item was decreased by releasing the bookkeeper or other necessary assistants, the wisdom of the saving in this direction may be questionable. Increased earnings from interest and storage are also to be noted.

Attention has been called to the advantage of the detailed profit and loss statement with a view to locating possible leaks and decreasing the expenses. It will be noted that the operating expenses have decreased slightly compared with the decrease in overhead expenses. Ordinarily, decreases in the operating expense can be made only with difficulty, altho improvements in the methods of operation, kind of power used, improved machinery, etc., may result in reducing the operating costs. A saving has been made in light, heat, and power, and in miscellaneous expense, but salaries and labor increased \$400. The reduction of repair expense may be due to neglecting to make needed repairs, or to more careful operation. Shrinkage and scale loss is still excessive. Either the scales are incorrect or claims are not being entered and collected for losses in transit. Other possible causes of shrinkage and loss should be investigated.

The ratio of operating expense to total expense should always be watched and an attempt made to explain extraordinary variations from year to year. A comparison with the same items for other elevators may reveal the fact that some of them are entirely out of proportion to others and may suggest a remedy. There is a tendency among country elevators for the operating expenses to be slightly more than twice the overhead expenses, altho considerable variation exists.

The gross profit in 1919, based on net sales, is found to be 3.1 per cent and in 1918, 3.2 per cent. The total expenses have decreased in a slightly greater proportion, the ratios being 2.4 per cent and 2.8 per cent respectively. Assuming the elevator has a capacity of 25,000 bushels, then the total number of bushels

of grain handled is  $6\frac{1}{2}$  times the capacity. Bulletin No. 164 of the Minnesota Experiment Station,<sup>1</sup> on pages 23 and 24, indicates that in 1915, the operating expenses of elevators with the larger capacity and larger turnover were 1.7 per cent of the gross sales, and the expenses of the larger elevators with the smaller turnover, were 2.8 per cent. For the smaller elevators, those with the larger ratio of grain handled to capacity showed expenses of 3.3 per cent and those with the smaller ratio showed 3.6 per cent. Our ratio of 2.4 per cent, therefore, is an excellent showing, altho the result may be due partly to the high prices prevailing in 1919.

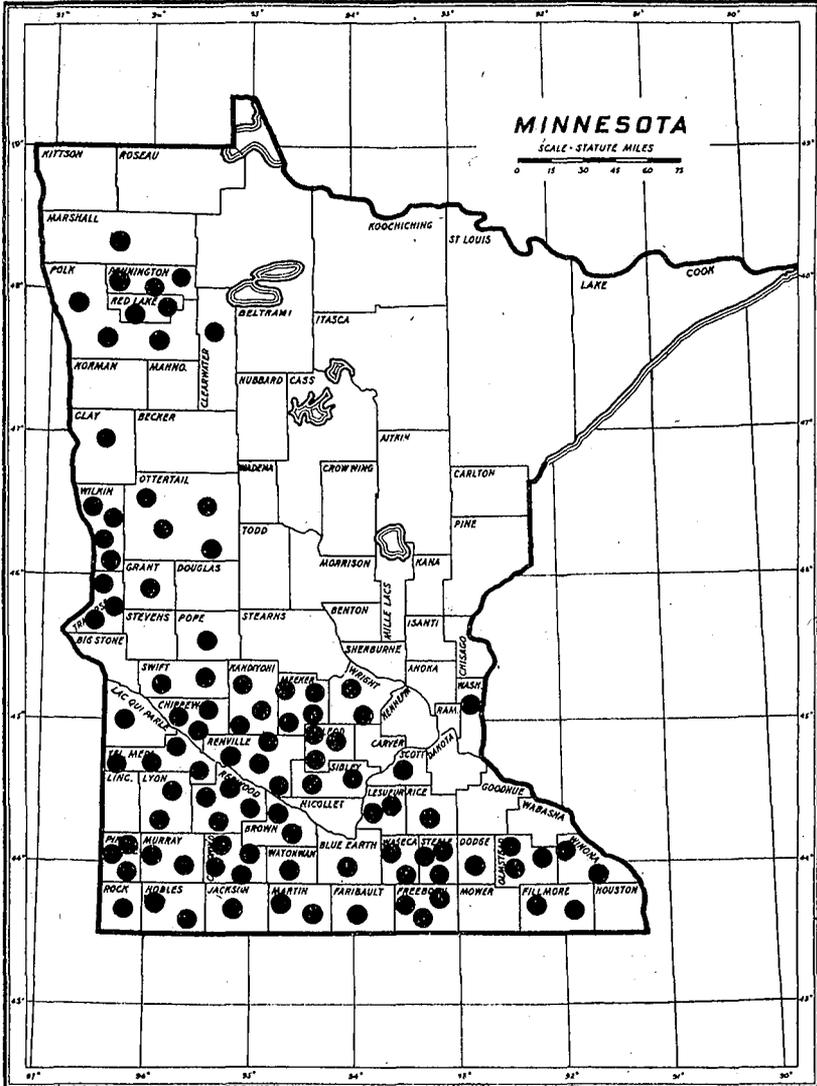
### Statistical and Trading Statement

The detailed information contained in the statistical and trading statement, Exhibit (C), page 6, assists in explaining some of the facts revealed by the statements previously discussed. It shows the relative importance of the various commodities handled, as well as their relative profitableness. The points of especial interest in this statement have to do with the volume of business done in bushels of grain, and sales value of other merchandise. The total amount of grain handled was 161,832 bushels. The total gross sales of grain and merchandise were more than a quarter million dollars. Merchandise other than grain constituted 12.7 per cent of all sales. The margin of gross profit on grain was 2.1 per cent of the gross sales, or 2.8 cents per bushel on all grain handled. The gross margin on merchandise other than grain was 6.6 per cent of gross sales.

The relative margin taken on each kind of grain or merchandise handled is indicated, and makes possible interesting comparisons. The loss on barley may be due to the small quantity handled, necessitating holding it for considerable periods of time during which prices have declined. The gross margin of 34.4 cents per bushel on flax may be explained in the same way, except that the price fluctuated in the opposite direction. Greater risks are involved in handling flax and a larger initial margin must be provided for. A fair margin appears to have been taken on wheat and oats, but the margin on corn can hardly be considered sufficient, because of the risk due to heating and extra cost of shelling. If it is found necessary to hold shelled corn in the bin, it may have to be "run" to prevent heating, thus increasing the cost of handling. Gains or losses on hedging transactions, if any, should of course be taken into consideration in calculating the relative gross margins. It may also be necessary to consider accrued gains or losses on open option sales or purchases.

Nothing worthy of special mention is apparent in connection with the handling of side-lines, except that a fair margin appears to have been taken on all of them. The ratio of gross profit to sales is much greater on merchandise than on grain, and this is to be expected. Too frequently elevators fail to make the side-lines bear their fair share of the operating costs, arguing that the expense would be practically no less if the side-lines were not handled, and that any gain on merchandise is therefore a net gain. Bulletin No. 164, previously referred to, points out that additional risks are always involved where large quantities of side-lines are handled and that the gross margin required is slightly greater. This, however, does not mean that the side-lines can not be handled at a considerable saving to the patrons even tho a margin is taken which will adequately cover the cost of handling them.

<sup>1</sup> Farmers' elevators in Minnesota, 1914-15, by E. Dana Durand and J. P. Jensen.



Ninety-eight farmers' elevators in Minnesota are using, or are about to adopt, the uniform system of elevator accounting devised by the Federal Bureau of Markets.

In the analysis of the statistical and trading statement, as in the case of the previous statements discussed, much light is thrown on important questions of management by comparisons with similar figures for preceding years. For convenience of comparison, some of the most significant figures for the year 1919 have been assembled in Table II, together with similar figures for the preceding year.

TABLE II. COMPARISON OF SPECIFIED ITEMS FOR THE YEARS 1918 AND 1919

	1919	1918
Total gross sales.....	\$252,642	\$234,536
Total gross sales of grain.....	220,651	213,095
Total gross sales of merchandise.....	31,991	21,441
Gross profit on all sales.....	\$6,659	\$6,646
Gross profit on grain.....	4,561	5,960
Gross profit on merchandise.....	2,098	782
Screenings sold, storage collected, etc. ....	1,113	845
Total gross profit.....	7,772	7,491
Total expense .....	\$5,817	\$6,580
Available income .....	1,955	911
Patronage dividend .....	1,189	645
Net profit .....	766	266
Average gross margin on all grain, cents per bushel.....	2.8	3.3
Average gross margin on all grain, per cent of gross sales.....	2.1	2.5
Average gross margin on merchandise, per cent of gross sales.....	6.6	0.3
Total gross profit, per cent of gross sales.....	3.1	3.2
Total expense, per cent of gross sales.....	2.4	2.8
Available income, per cent of gross sales.....	0.8	0.4
Patronage dividend, per cent of gross sales.....	0.5	0.3
Net profit, per cent of gross sales.....	0.3	0.1

### BASIS OF THE ANNUAL REPORT

Throughout the discussion the figures presented in the various statements have been taken at their face value. Altho the question of what may legitimately be included in the amounts opposite the various items will not be discussed because of lack of space, it must be fully realized that the value of the statement depends upon whether or not the figures themselves are correct. In order that complete assurance may be had regarding this point, there must not only be an honest desire on the part of the management to present true figures, but it is also necessary that the management know what constitutes true figures with respect to valuation of plant, inventory of grain and merchandise, allowances for depreciation and doubtful accounts, accrued expenses, sinking funds, reserves, surpluses, etc. This is important not only from the viewpoint of solving problems of management, but from the viewpoint of adjustment of fire losses, safeguarding the credit standing, obtaining and holding the confidence of the community, and in general promoting the best interests of the company.

Honesty and conservatism, however, will avail little unless backed by a reliable accounting record, which will be the case only where an adequate system of records is kept in an intelligent manner. Intelligent bookkeeping calls for a certain amount of technical knowledge, for double entry bookkeeping is a science. The frequent transfer of managers from one elevator to another, in most of which different systems are in use, is one of the greatest obstacles in the way of their acquiring a knowledge of the fundamental principles of

bookkeeping. The general adoption of a uniform system would do much to solve the difficulty. Several bulletins are now available on the subject of elevator bookkeeping and management, and others will undoubtedly be forthcoming from time to time. Regular and short courses in agricultural colleges and schools make it still more possible for progressive managers to gain special training. The Federal Bureau of Markets, in cooperation with the Department of Agriculture of the University of Minnesota, maintains a local representative with headquarters at University Farm, St. Paul, whose duty it is to assist country organizations with their problems in accounting and business practices generally.

No system of accounts which is not a double entry system can be regarded as adequate. More and more of the elevators are adopting the system of grain elevator accounting\* devised by the Federal Bureau of Markets. (See Figure 1.) This system has recently been revised and brought up to date, and it is hoped that eventually all elevators will adopt it with the view to standardizing their accounting procedure.

The question of uniformity with respect to bookkeeping in country elevators and other organizations deserves special consideration. It is generally conceded that one of the weakest points in the cooperative movement is the management. The adoption of a uniform system would do much toward promoting a higher standard of management. The comparisons made in the foregoing between the results of the two years considered are of significance only so far as the figures for the two years were obtained in the same manner. Similar comparisons with other elevators would be of still greater value. Only by uniform methods can figures be obtained which can safely be compared.

After all has been done that adequate systems and intelligent bookkeeping can do there still remains the important and much neglected annual audit by a disinterested expert. Bookkeepers in other local business establishments, who are often called upon to perform this service, are seldom qualified either by training or experience to assume this responsibility. Many a loss and failure could have been avoided had the actual situation been known in ample time. The cost involved may seem high, but after both the bookkeeping system and the procedure have been standardized a considerable reduction in the cost can reasonably be expected. In either event, the auditing service should be regarded as insurance, failure to provide which may, as in case of fire, result in loss and ruin.