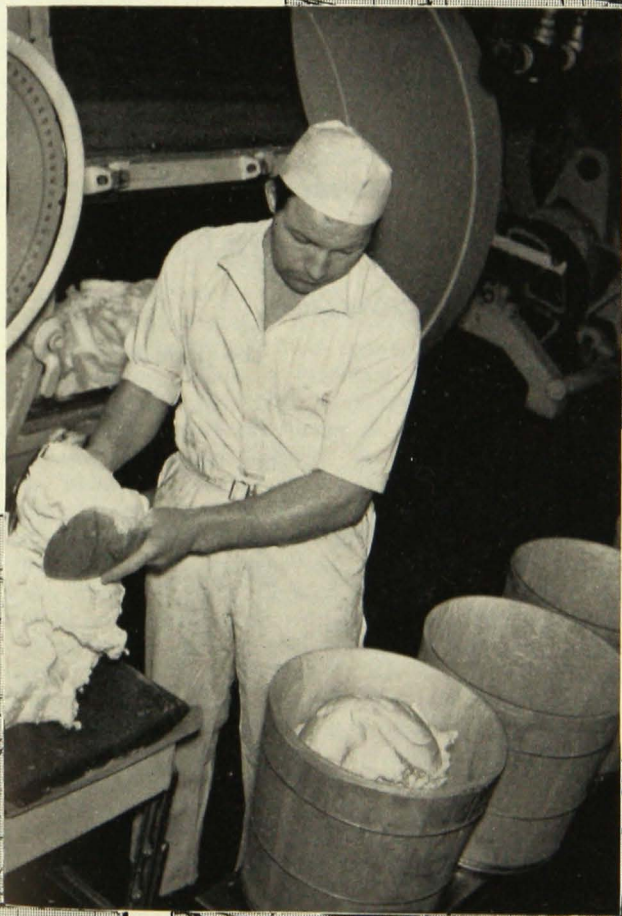


BETTER *Creamery* RETURNS



**E. FRE
KOLLE**

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UNIVERSITY OF MINNESOTA
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U. S. DEPARTMENT OF AGRICULTURE

Ways to Better Creamery Returns

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Ways to Better Creamery Returns

E. Fred Koller

"HOW CAN we get better returns from our cooperative creamery?" This question and many others like it are being raised repeatedly by the managers, directors, and patrons of more than 600 cooperative creameries in Minnesota. There are several answers to this question. This bulletin points out some of the more important factors affecting the returns which patrons receive from their cooperative creameries.

COOPERATIVE PRINCIPLES IMPORTANT

For more effective operation, cooperative creameries should be conducted in conformity with accepted cooperative principles. This is essential in maintaining the good will and loyal support of butterfat producers in the area the creamery serves. Among these principles are: (1) Democratic control by members, that is, the one-man one-vote principle; (2) the payment of limited returns on capital stock; and (3) distribution of net returns or savings in direct proportion to the business done with each patron of the cooperative.

Proper cooperative organization is also important to obtain exemption from state and federal income taxes or to qualify for loans from the Bank for Cooperatives. The creamery seeking exemption from income taxes must apply for exemption and should comply with the conditions stated below. Creameries which do not meet these requirements may avoid the income tax on that part of net income which is **declared** as patronage dividend before the end of the business year.

1. The association must be organized and operated by farmers on a cooperative basis, returning the proceeds of sales less necessary expenses to the producers on the basis of patronage.

2. "Substantially all" of the capital stock with voting power must be owned by producer-patrons.

3. Members and nonmembers must be treated alike in business dealings such as the distribution of patronage dividends.

4. Dividends on stock must not exceed 8 per cent or the legal rate of interest in the state, whichever is higher.

5. At least 50 per cent (in value) of the business of the association must be done with members.

6. Any reserves or surpluses set up by the association must be required by state law or must be reasonable reserves for necessary purposes of the cooperative business.

One of the principal difficulties which creameries confront in maintaining their cooperative character is that of keeping "substantially all" of the stock with voting power, generally common stock, in the hands of producers doing business with the association. New farmers in the community, especially tenants, are often not financially able, or otherwise reluctant, to purchase stock in the creamery. Many creameries have solved this problem by reducing the par value of stock to \$10, \$5, or \$1 so that the price of a share will not interfere with membership. Other creameries make periodic butterfat deductions from new patrons to be applied toward the purchase of stock.

Since retired and nonresident farmers are not considered **producer** members of a cooperative, a creamery should be certain that its by-laws provide for the automatic retirement of the shares of those no longer doing business with the association.

Better Returns Through . . .

Sound Financing

COOPERATIVE creameries require capital to finance physical facilities including buildings, churns, vats, trucks, and other equipment. Capital is also needed for current operating purposes such as to carry inventories, to carry receivables due from local stores and dealers to which butter is shipped, and for similar items. The average balance sheet of 143 Minnesota creameries shows that the capital required for all purposes is about \$32,838 (Table 1).

The capital used by a creamery is obtained from: (1) creditors from

whom the association borrows funds; (2) the members who have bought stock or otherwise invested in their cooperative; and (3) earnings or savings left in the business.

Minnesota creameries do not borrow large amounts. The plants included in table 1 borrowed about \$10,278 on the average, and about \$6,470 of this involved the use of the credit of patrons who waited for their butterfat payments under the pool plan.

Most creameries have obtained large amounts of capital by the sale of common stock.

Still larger amounts of capital, about \$12,088 on the average, were acquired by retaining earnings and product deductions in the business. This is shown in the surplus account. Under the Minnesota cooperative law the surplus account may be increased until it is equal to 50 per cent of the paid-in capital and may be increased beyond this proportion if the board of directors deems it advisable. However, income tax authorities object to surpluses in excess of 100 per cent of the paid-in capital on the ground that they arise from earnings or deductions on the business of all patrons but legally belong only to the stockholders.

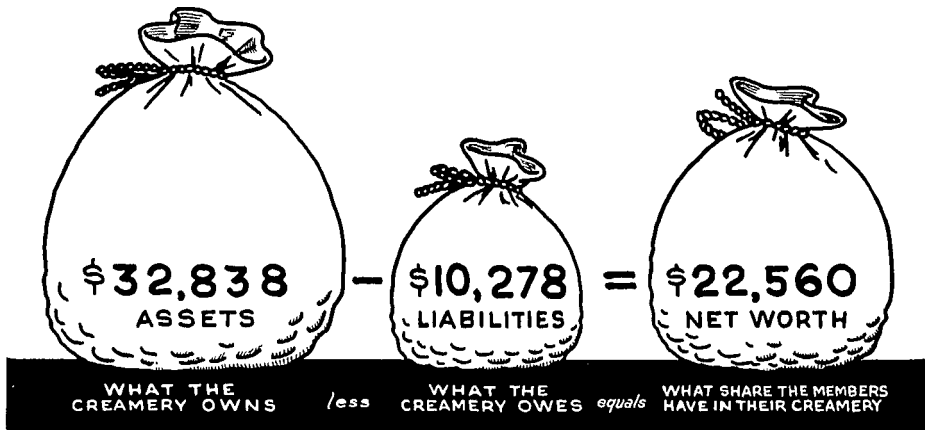


FIG. 1. THE MEMBERS' SHARE IN THEIR CREAMERY

Table 1. Average Balance Sheet of 143 Minnesota Cooperative Creameries, 1940

	Average value	Per cent of total assets
ASSETS		
(What the Creamery Owns)		
Current Assets:		
Cash	\$ 3,949	12.03
Receivables (from patrons, stores, butter handlers).....	4,254	12.95
Butter Inventory	1,203	3.66
Other Products and Supplies Inventory.....	1,722	5.25
Prepaid Expenses	122	.37
Total Current Assets	<u>\$11,250</u>	<u>34.26</u>
Investments: (mainly in other cooperatives).....	\$ 2,457	7.48
Long Term Assets:		
Land	974	2.97
Buildings (less reserve for depreciation).....	10,959	33.37
Machinery and Equipment (less reserve).....	7,004	21.33
Total Fixed Assets	<u>\$18,937</u>	<u>57.67</u>
Other Assets	194	.59
Total of All Assets	<u>\$32,838</u>	<u>100.00</u>
LIABILITIES		
(What the Creamery Owes to Others)		
Current Liabilities:		
Accounts Payable (to patrons and other suppliers).....	\$ 7,122	21.69
Notes Payable (to banks and others).....	1,169	3.56
Accrued Payables (owed for wages, taxes, etc.).....	698	2.12
Total Current Liabilities	<u>\$ 8,989</u>	<u>27.37</u>
Long Term Liabilities: (mainly mortgages and other long term debts to banks and others).....	1,289	3.93
Total Liabilities	<u>\$10,278</u>	<u>31.30</u>
NET WORTH		
(What Share the Members Have in Their Creamery, Which is Equal to What the Creamery Owns Less What it Owes)		
Capital Stock and Credits.....	\$ 7,094	21.61
Patrons' Equity and other Reserves	2,488	7.58
Surplus	12,088	36.80
Undistributed Net Income.....	890	2.71
Total Net Worth.....	<u>\$22,560</u>	<u>68.70</u>
Total Net Worth and Liabilities.....	<u>\$32,838</u>	<u>100.00</u>

To avoid unduly large surplus accounts some associations have set up patrons' equity reserve accounts. Under this plan earnings and retains deducted from products delivered are definitely allocated to the patrons' reserve accounts for repayment when no longer needed in the business.

Some creameries use the revolving fund plan of financing. Regular per pound butterfat deductions are made from the patrons to be repaid in the future when the capital of the association has reached a desired level. These deductions and repayments may be continued as long as the creamery needs such a fund. The plan places the burden of financing the association on the patrons in proportion to the use they make of the association. If common stock is issued for the deductions and revolved, the plan has the advantage of automatically making members of new patrons and gradually eliminating the nonproducer members.

FINANCIAL TESTS

The financial condition of the cooperative may be tested by observing the relationships between various balance sheet items.

The current solvency or current debt-paying ability of the association may be tested by comparing current assets with current liabilities. An association should have \$2.00 of current assets for every \$1.00 of current liabilities. Assuming that the balance sheet in table 1 is that of a typical creamery, we find that there are \$11,250 of current assets as compared with \$8,989 of current debts. This shows a relationship of \$1.25 of current assets to every \$1.00 of current debt, considerably below the desired standard. This rather common situation frequently results from severe competition between creameries which tempts them to pay more than is warranted for butterfat. A

low relationship between current assets and current debts is undesirable because the shortage of funds which it indicates may add to the cost of operation. Purchase discounts may be lost, supplies cannot be purchased in the most economical quantities, and there may be additional interest charges.

The net worth to total liabilities ratio shows to what extent the association has been financed by the members. A high ratio is favorable since it indicates that the association is financed primarily by the members and that the debt burden is low. A financially strong association should have at least \$2.00 of net worth to \$1.00 of debts.

Fixed assets, including plant and equipment, should be financed by member capital (net worth). For every \$1.00 of fixed assets there should be at least \$1.00 of capital provided by the members.

Better Returns Through . . .

Efficient Assembly

MOST MINNESOTA creameries were established in days of unimproved roads and horse and buggy transportation. With trucks and surfaced roads, the area which a creamery can serve has increased considerably. Because of this change there are more outlets for butterfat than needed in many communities. A reduction in the number of creameries would increase the volume of the remaining plants, reduce costs of operation, and improve prices paid patrons for butterfat. This is in line with the well-known principle that as the volume of a creamery increases up to the point of maximum capacity of plant, labor, and management, the cost per pound of butter made tends to decrease.

TRUCK TRANSPORTATION

The development of truck transportation has intensified the competition for butterfat. Today the butterfat supply in the immediate territory of a creamery may be withdrawn not only by neighboring plants but also by plants from 10 to 100 miles away. In a recent survey of 175 cooperative creameries in Minnesota all but 39 plants were confronted with competitors operating one or more trucks in their immediate supply areas. Three creameries reported as many as seven different dairy plants, some with several truck routes, assembling butterfat in their territories. This has resulted in the excessive overlapping of creamery territories and wasteful duplication of assembly services. These conditions have burdened butterfat producers with unnecessary costs, which are reflected in lower butterfat prices at the farm.

While present creamery truck arrangements are often uneconomical, the solution of the butterfat assembly problem does not lie in their undue restriction or elimination. If properly used, trucks should enable farmers to market their butterfat more efficiently. Some of the worst competitive problems arising from the use of trucks may be minimized or eliminated by a greater control over cream routes and haulers by the creamery. In some cases this has been effected by a contract with the hauler which brings his routes and activities under association control. Creameries which own their trucks are also in a better position to secure more efficient route arrangements. The ultimate solution of these competitive problems lies in the reduction of the number of creameries, preferably by means of a planned program of creamery consolidation.

To attract patrons some creameries offer a whole range of supplementary

services. Among these inducements are special financial services such as cash payment for each delivery of butterfat or liberal cash advances; receipt of cream on Wednesday and Saturday evenings; free buttermilk; and a variety of sideline services often offered on a liberal credit basis. In most instances these services involve additional costs which must ultimately be borne by the patrons.

ATTRACTING PATRONAGE BY PRICE

Although dairy farmers are frequently attracted to a creamery by the special services it offers, the price paid for butterfat is the main consideration. Because of the emphasis which farmers place on prices, butterfat buyers are constantly seeking by fair means or foul to make their prices as attractive as possible.



FIG. 2. TRUCKS ASSEMBLE MILK AND CREAM
OVER A LARGE TERRITORY

It is legitimate for a creamery to increase its volume of business by paying attractive prices for butterfat if it is able to do so because it has relatively lower operating costs or receives relatively higher net prices for its butter. The cooperative creamery, like other business organizations, deserves the support of producers on the basis of its relative economic efficiency and its ability to increase their net returns.

Some butterfat buyers pressed by competition may resort to unfair, unethical, or illegal methods in order to pay higher prices. Some competitors pay as much for butterfat as the efficient cooperative creamery merely because their accounting records are so inadequate that important expenses such as depreciation are neglected. There are other cases in which the capital of the creamery is gradually being reduced in an effort to maintain prices at a high level. Prosecutions by the state show that some butterfat

buyers manipulate cream weights, tests, and grades in order to pay higher prices and to cover up inefficient operations.

Creamery managers, boards of directors, and others providing guidance to creameries should do everything in their power to enable butterfat producers to choose their outlets on the basis of relative efficiency or highest net prices. Uniform accounting records and reports should be employed. Full cooperation should be given to state officials entrusted with the elimination of the illegal practices which stand in the way of farmers choosing their creameries on the basis of efficiency.

Better Returns Through . . .

Efficient Operation



FIG. 3. EFFICIENT MANUFACTURING METHODS ARE ESSENTIAL TO SUCCESS

THE PRICE which a creamery can pay for butterfat is determined mainly by the efficiency of its (1) manufacturing and (2) marketing operations. The most satisfactory measure of creamery manufacturing efficiency is the cost of manufacture per pound of butter.

A summary of the per unit operating cost for 168 cooperative creameries selected from all parts of the state is shown in table 2. The total operating cost of these plants averaged 2.49 cents per pound of butter. Of this total, 1.32 cents, or 53 per cent, was manufacturing expense, including packing supplies, fuel, taxes, insurance, and depreciation. Labor and management expense, including the wages of all employees in the plant, averaged 0.85 cents a pound or 34 per cent of all operating costs.

The total operating cost of individual plants varied from 4.233 cents to 1.126

Table 2. Comparison of Total Operating Costs of 168 Minnesota Cooperative Creameries with 30 High Return and 30 Low Return Plants, 1940

Operating cost items	168 creameries	30 highest return creameries	30 lowest return creameries	cents per pound of butter made		
Manufacturing expense:						
Packing supplies	0.330	0.277	0.451			
General supplies .....	.164	.144	.200			
Salt .....	.032	.035	.033			
Fuel .....	.175	.186	.194			
Power, light, water, refrigeration .....	.139	.129	.177			
Social security taxes .....	.028	.027	.034			
Property taxes .....	.095	.083	.133			
Insurance .....	.038	.033	.046			
Repairs .....	.084	.061	.087			
Depreciation (buildings) .....	.083	.066	.113			
Depreciation (equipment) .....	.151	.121	.213			
Miscellaneous .....	.001	.000	.004			
Manufacturing expense total	1.320	1.162	1.685			
Labor and management expense .....	.850	.786	1.141			
General and administrative expense .....	.304	.269	.411			
Interest on loans .....	.017	.005	.037			
Total operating costs	2.491	2.222	3.274			
Average volume (pounds of butter)	418,215	657,287	223,491			

cents per pound. Twenty of the 168 associations were highly efficient having costs below 2 cents per pound.

It is important that creamery managers, directors, and patrons understand the factors which contribute to the economical operation of these plants. Among the most important of these factors are (1) the volume of butter manufactured; (2) the quality of management; (3) the use made of supplies, labor, and the plant; and (4) prices and rates paid for supplies, labor, and borrowed funds.

EFFECT OF VOLUME

As shown in figure 4, total operating costs tend to decline as the volume increases. The average operating cost of nine plants manufacturing less than 125,000 pounds of butter annually was 3.404 cents per pound as compared with an average cost of 2.227 cents in 26

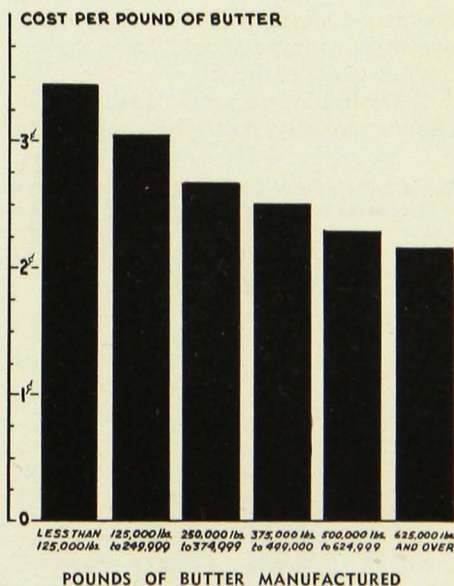


FIG. 4. OPERATING COSTS PER POUND GO DOWN AS VOLUME GOES UP

plants each producing more than 625,000 pounds of butter a year. The largest plant, a plant which manufactured about 1,700,000 pounds of butter in 1940, showed the lowest operating cost per pound of 1.126 cents. While not all plants could make corresponding cost reductions by increasing their volume, significant reductions would result from consolidations which would enable more plants to produce 500,000 to 750,000 pounds or more butter annually.

EFFECT OF MANAGEMENT

Good management consists of making those combinations of the plant, equipment, labor, supplies, and raw materials which will result in the lowest cost per pound of butter and in the end the highest per pound returns for butterfat. In most creameries this important responsibility rests with the operator-manager, who in turn is responsible to the board of directors. Great care should be exercised in selecting an operator-manager. The well-qualified operator-manager should have the following qualifications:

1. Desirable personal qualities, including honesty, initiative, good judg-

ment, and ability to get along with others.

2. Adequate technical training and experience in dairy plant operation.

3. Thorough understanding of the business problems and business methods of dairy plants.

4. Familiarity with cooperative principles and methods.

Creamery boards must realize that to attract men of this calibre good salaries must be paid. However, under normal conditions the added salary outlay will be more than repaid by the better than average results which such a manager may achieve for his creamery.

WHAT ONE CREAMERY DID

The following case of one of Minnesota's better cooperative creameries (Creamery A in table 3) illustrates what good management may do. In 1931 this creamery had total assets valued at \$43,844 and debts totaling \$28,297. Its output of about 300,000 pounds of butter was insufficient for its plant with the result that its operating costs were 4.893 cents a pound, compared with the state average of

Table 3. Volume of Output, Operating Costs, and Butterfat Returns of a Well-Managed Minnesota Cooperative Creamery Compared with Averages of Representative Creameries, 1931-1940

Year	Butter output		Operating cost		Butterfat returns	
	Creamery A	State* average	Creamery A	State† average	Creamery A	State* average
	1000 pounds		cents per pound butter		cents per pound butterfat	
1931	307.7	339.4	4.893	3.171	27.14	28.54
1932	301.3	340.0	4.134	2.733	18.71	20.29
1933	352.5	350.9	3.530	2.451	20.42	21.84
1934	390.0	316.2	3.289	2.651	26.10	27.15
1935	448.1	312.1	2.963	2.688	30.44	31.76
1936	542.0	332.0	2.548	2.631	36.23	36.74
1937	550.0	317.9	2.633	2.732	37.74	38.27
1938	589.1	352.5	2.421	2.551	30.40	30.43
1939	600.3	350.2	1.920	2.570	28.20	28.01
1940	603.6	367.8	2.158	2.491	33.28	32.48

* Computed from annual reports of the Minnesota Department of Agriculture, Dairy and Food.

† Average operating costs are based on studies of large numbers of creameries by the Division of Agricultural Economics, University of Minnesota.

3.171 cents (Table 3). Its butterfat payments to its patrons were more than a cent a pound below the average of all creameries in the state.

A well-qualified operator-manager was placed in charge. In ten years the output of this creamery has nearly doubled. Operating costs in 1940 were only 2.158 cents a pound. The 1940 butterfat returns to patrons were 0.80 cents above the state average. By 1940 total assets had been increased to \$59,000 and debt had been reduced to \$16,000.

Comparison of the operating results of 30 creameries showing the highest average butterfat return per pound with the 30 plants showing the lowest returns in a group of 168 plants further illustrates the importance of an adequate volume of output and good management in successful creamery operation (Table 2).

Better Returns Through . . .

Better Marketing

ALTHOUGH BUTTER prices are determined mainly by forces beyond the control of the local creamery, the local plant can make certain adjustments in marketing which may result in price improvements averaging from a fraction of a cent to several cents on every pound. Some of the adjustments which may be made are in: (1) markets in which butter is sold, that is, whether to patrons, other local consumers, or shipped; (2) sales organizations through which sales are made; (3) transportation arrangements; (4) methods of packaging; (5) quality of



FIG. 5. REFRIGERATION HELPS KEEP BUTTER QUALITY UP

butter; and (6) seasonal distribution of creamery marketings.

MARKET OUTLETS

About 85 per cent of the butter produced by local creameries in Minnesota is shipped out of the community. Half of the remainder is sold to patrons of the creamery and the other half to other local consumers.

Generally creameries have netted highest average market returns on their sales to patrons, slightly lower returns on other local sales, and the lowest from butter shipped. The advantage in selling in local markets is due largely to the elimination of some packaging costs, freight charges, and certain other selling charges. Although the opportunities of expanding butter sales in many local communities are limited, the situation in others is such that much could be gained from a well-directed local sales program.

SALES ORGANIZATIONS

When shipping butter, creameries may choose any of several organizations through which to sell. These include: (1) a cooperative sales organization; (2) wholesale receivers in the central markets; (3) chain stores; (4) meat packers; (5) large national dairy corporations; and (6) miscellaneous direct outlets such as hotel supply companies. Creameries may well devote considerable attention to the choice of the organization through which their butter is sold. Differences in the net price received for shipped butter occur because of the differences in the efficiency of these organizations, differences in their charges, differences in attitude toward various qualities of butter, and other reasons. These differences are frequently difficult to detect in a superficial comparison of quoted prices or average prices shown

on annual creamery statements. Creameries confronted with the problem of choosing an outlet which provides the best returns under their conditions might consult an impartial marketing analyst regarding the factors which are involved.

Under usual sales arrangements local creameries do not have much of a part in the marketing of their butter, as it passes through various distributive channels. Through their membership in a cooperative sales organization, creameries in this area have a larger part in market operations.

TRANSPORTATION ARRANGEMENTS

Transportation arrangements are important for Minnesota creameries which ship a large proportion of their products to eastern consumers. Butter is shipped by rail, truck, or both. Many creameries supplement these methods by shipping their butter over the Great Lakes during the summer. This effects a saving over all-rail shipments. Trucks have become increasingly important in transporting butter at a saving to concentration centers such as the Twin Cities, Duluth, and Chicago. Some of these truck lines are organized and operated on a cooperative basis with further advantages to the member creameries.

BUTTER QUALITY

Differences in the quality of butter sold account for significant differences in the net prices received. Although the quantities of high quality butter which have been placed on the market have increased greatly in recent years and somewhat reduced the price differences between the higher and lower grades, opportunities for considerable improvement of butter quality exist in certain areas of the state and in

certain creameries. Quality improvement programs directed toward better care of cream on the farm, on the highway, and in the plant should be continued. Emphasis on the production of high quality butter is important not merely because of the price differential between grades but also because of the part quality plays in maintaining and increasing consumers' acceptance of dairy products.

PACKAGING BUTTER

The principal types of containers used in shipping butter include new wooden tubs, reconditioned wooden tubs, fiber boxes, and fiber tubs. The kind of package used affects selling costs and settlement prices and in consequence directly affects the net price

received for butter. In most instances the type of package used depends upon the requirements of the buyer and the disposition to be made of the butter. Butter intended for trade on the exchanges or storage is generally packed in new wooden tubs. In recent years, however, there has been an increasing tendency for creameries to use the less expensive containers such as reconditioned tubs and fiber containers. The latter have the further advantage of light weights thereby effecting additional freight savings. Many creameries could to advantage study alternative methods of packaging and settlement prices and in consequence effect important savings. Offers in which the buyers furnish the packing supplies should be compared carefully with those in which the creamery assumes the full packing costs.



FIG. 6. STORAGE HELPS TO ADJUST SUPPLIES TO CONSUMPTION NEEDS

SEASONALITY OF SALES

The butter output of creameries varies widely during the year. Production in spring and early summer is generally much larger than in the fall and winter. Creameries which have increased their output during the fall and winter when butter prices are generally at their highest levels have effected significant improvements in the average prices received for butter and in turn the average prices which could be paid for butterfat. Shifts toward winter dairying involve additional labor and production costs for dairy farmers. However, careful analysis of the seasonal relationships between butterfat prices and cost of production should reveal many opportunities for farmers to improve their net returns by heavier production in the fall and winter. Changes in this direction will also enable creameries to maintain a more uniform output from month to month and consequently will make it possible to utilize their labor and plant more efficiently.

Better Returns Through . . .

By-products

RETURNS to creamery patrons in many areas are being improved by arrangements to process creamery by-products into products yielding relatively high returns. Increasingly the larger creameries of the state have added equipment to manufacture dry skim milk, dry buttermilk, and casein. Other plants have sold available by-products to central drying plants in their area. To date this development in Minnesota has been slow because skim milk and buttermilk have been valued more highly as farm feeds.

With the greatly enlarged demands for concentrated milk products for lend-lease shipments and the use of our own armed forces, greatly increased incentives have been offered to divert by-products into products for human consumption. These attractive conditions have encouraged many creameries to shift from the farm separated cream to the whole milk basis and to increase drying facilities. Although some additional milk drying capacity may be needed to supply our war-time requirements, creameries contemplating such additions should give careful consideration to existing capacity and that in the process of construction in their areas. A competitive race in which all or many creameries in an area install drying equipment to gain a temporary advantage over their neighbors should be avoided. Local creameries should work together and build the necessary facilities where several plants may be served to advantage and where these facilities may have the greatest value when this emergency is over.

War emergency demands for dairy products other than butter have shown the advantage of diversified, or the so-called flexible dairy plants. A flexible plant is one equipped to produce any of two or more dairy products such as butter, cheese, or other products depending upon the alternative market opportunities. Plants thus equipped may gain important price advantages under certain conditions. In the present emergency, plants which were prepared to shift from butter to cheese or from butter to evaporated milk had important advantages over one-product plants.

The establishment of larger cooperative dairy plants in the state would enable the patrons of these plants not only to derive gains from large-scale operations but also to obtain the advantages of flexible operations which are

possible in the larger well-capitalized plants. To establish plants of this kind it will be necessary to consolidate many of our small creameries into larger working units. If consolidation of creameries is to be effected and marketing efficiency improved, the dairy farmers who will be the principal beneficiaries of such a change must take a large and active part in bringing it about.

of earnings, to carry some of the overhead burden of the butter department, to meet the competition of cream stations and produce companies, and to give producers the advantages of co-operation on more of the items which they market and purchase.

Although the addition of sidelines has resulted in large advantages to many creameries, this may not be true in all cases. Whether or not sidelines should be adopted by a creamery depends upon: (1) the amount of unused plant, labor, and management capacity; and (2) provisions for these services by other institutions in the community. Duplications of services being rendered by other cooperatives should be avoided since the frictions which may result may offset any advantages. A point of maximum gain is soon reached in the addition of sidelines, since the operator-manager often is not qualified to manage a more varied and complicated business, or it may call for skills he does not possess. The primary job of a creamery is to market butterfat as effectively as possible. Where sidelines facilitate this objective they might well be added; otherwise the addition is questionable.

Better Returns Through . . . *More Sidelines*

RECENTLY many creameries have added sideline enterprises. The general types of sideline business in which creameries are engaged include: (1) handling of market milk and cream; (2) farm supply purchases; (3) sales of farm produce such as eggs and poultry; and (4) service enterprises such as cold storage lockers. Sidelines have been adopted for various reasons such as an added source



FIG. 7. AVERAGE RETURN AVAILABLE PER POUND OF BUTTERFAT HANDLED IN 168 PLANTS, 1940

Measure Your Creamery's Efficiency

VARIATIONS in the efficiency with which creameries have conducted all phases of their operations, including their manufacturing and marketing activities, may be measured by the net returns available on each pound of butterfat handled. "Net return available" represents the price the creamery could have paid for butterfat without showing net earnings (underpayment) or a net loss (overpayment) in its annual operating statement. The average net return available in 168 representative creameries in Minnesota in 1940 was 32.425 cents per pound of butterfat. The average available butterfat return of the 30 creameries showing the highest returns in the 168 plants was 33.542 cents per pound as compared with an average of 30.334 cents per pound in the 30 lowest return creameries (see figure 7).

In general, the 30 plants showing the highest butterfat return were plants showing well-balanced efficiency in all or nearly all phases of their operations. Almost invariably their management

was above average, plant operating costs were held at a low level, butter and other dairy products were sold to net the highest average prices, and almost without exception the volume of butter manufactured was large (Table 2).

The accomplishments of the 30 creameries showing the highest returns provide a standard or yardstick with which other creameries may compare their own operating results. In a large proportion of creameries in the state these comparisons should reveal opportunities to improve the efficiency of their operations. Creameries seeking to improve their returns may also to advantage seek the assistance of individuals and public agencies which are in a position to supply reliable information and guidance in efficient business organization and operation. Local creameries may call on the trained staff of marketing specialists of the Minnesota Agricultural Extension Division, St. Paul, Minnesota for services of this kind.

Members of cooperative creameries will be interested in other extension publications dealing with dairying and cooperatives. The following bulletins may be obtained through your local county agent or by writing the Bulletin Room, University Farm, St. Paul.

- 218. Feeding the Dairy Herd**
- 220. Marketing Costs of Minnesota Foods**
- 232. Know Your Cooperative**

UNIVERSITY FARM, ST. PAUL, MINNESOTA

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