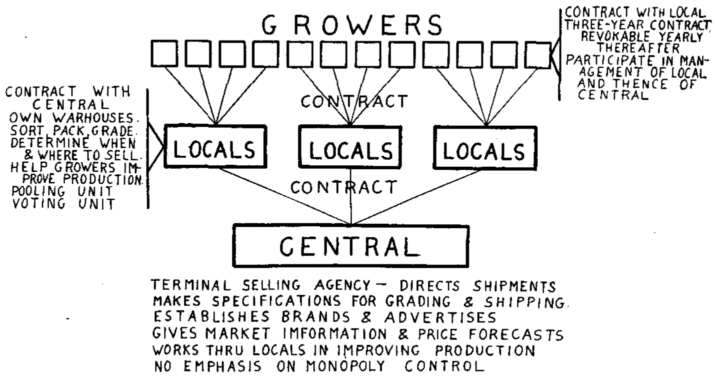
Bulletin 211 April 1924

UNIVERSITY OF MINNESOTA
AGRICULTURAL EXPERIMENT STATION

COOPERATIVE CENTRAL MARKETING ORGANIZATION

JOHN D. BLACK AND H. BRUCE PRICE
DIVISION OF AGRICULTURAL ECONOMICS

A GENERALIZED FEDERATED MARKETING ORGANIZATION



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CONTENTS

CO-OPERATIVE CENTRAL MARKETING ORGANIZATION

By J. D. Black and H. B. Price

INTRODUCTION

Much interest has developed in Minnesota of late in the problem of extending co-operative marketing into the central market. Within the last three years, six central or federated marketing organizations have been established in the state. Minnesota now has eleven such organizations, and just at present an egg-marketing organization is in process of formation and the Minnesota Potato Exchange is being reorganized.

The purpose of this bulletin is to answer as many as possible of the questions that are constantly being asked concerning co-operation in the central market. Before writing this bulletin, the authors collected all available information concerning the various federated and so-called "commodity" marketing organizations in the United States, corresponded with marketing specialists and others in the various states where these are operating, and interviewed many of the men who have made first-hand studies of them.

It has been difficult to sift out the facts from this mass of material. Most of the published information has been furnished by the promoters, officers, or managers of such organizations, who can be expected to make the best possible showing for their organizations, for their very existence absolutely requires that the public retain confidence in what they are doing. A marketing organization always gets credit for being successful when the market favors it, and the contrary when the market turns the other way. A large number of the newer organizations have not yet gone through the experience of an unfavorable market year, and what will happen to them when they do remains to be seen.

For the same reasons, it is impossible on most controversial points to state any definite conclusions. The method which is here generally followed, and must be followed for the present, is merely to give the facts or opinions on both sides.

Many of the problems of central marketing, however, have already been analyzed more or less thoroly by economists and marketing specialists, so that it is possible to state the principles upon which such analysis is based and show their application.[1]

[1] Recognition should here be given to O. B. Jesness, of the University of Kentucky, and H. W. Ballantine, of the University of Minnesota Law School, for help with many sections of this bulletin and for their careful reading and criticism of the manuscript.

PROBLEMS TO BE SOLVED

The method of approach to the subject in hand which seems best adapted to the situation in Minnesota is to name the various marketing problems which are inadequately handled by our present system of local co-operatives acting singly, and then to discuss the methods by which these problems are being attacked by various central marketing organizations now operating, and the results which are being obtained. It is a good principle of pedagogy to "proceed from the known to the related unknown." Minnesota farmers are now quite familiar with co-operation in the local market. Minnesota Bulletin No. 202 reports 4500 local co-operatives in Minnesota in 1922. Of this number 2060 were selling organizations, 210 were buying organizations, and 500 were production organizations. The increase in the number of selling organizations during the last five years was 500. The 1920 census reports that 78,314, or 43.9 per cent, of the farmers of Minnesota sold produce through co-operatives. No other state shows as high a percentage. At the same time that the number of co-operatives has been increasing, their members have been acquiring a better understanding of the principles of organization and the technic of successful management. It seems best, therefore, to discuss the new problems as much as possible in terms of the old, and to use wherever possible the language with which Minnesota farmers are already familiar.

Following are listed sixteen problems which local co-operatives acting alone have thus far been unable to solve satisfactorily. Some of these no doubt can be solved by the local co-operatives in time, but improvement is coming slowly, and it would surely seem that a properly organized and managed overhead or central marketing organization could help greatly. Also, some of these problems, it will be evident, are really problems of the local market rather than of the central market, but since they too seem to need an overhead or central market organization to handle them, they have all for the sake of convenience been thrown into one general class.

1. *Control of quality.*—The principal weakness of local co-operatives has been their failure to control the quality of the product. This has resulted in two great losses, the loss from low prices and a poor demand for a poor product, the loss from not being able to secure regular, satisfied customers for an uneven product.

In a year of heavy production of potatoes, it certainly is wise for all producers to sort closely and put only a good quality upon the market. Yet the fact is that of 2228 cars of Minnesota potatoes inspected in 1920-21, 566 cars, or 24 per cent, were rejected. More than one-third of the losses from rejections were due to "scab" and "undersize." Better sorting and grading could have saved much of this. The same is true of "blemish" and "old frost," two other important causes of loss. The deductions averaged $30 per car, not all of which, of course, was loss.

Local potato-shipping associations seem to be making slow headway with the problem. The trouble would seem at first glance to be with the managers, either that they do not know how to grade and sort or that they do not take it seriously enough or that they have lacked the courage or the power to do it. In the latter case, it is really the producers who are to be blamed. They are too often obsessed with the benighted philosophy that it is their business to produce, and the business of the market to find the buyers, a philosophy which negatives the very purpose of co-operation.

Similarly, local creameries have not made enough headway in controlling quality. Of 88 creameries covered in a survey in 1920, only 26 were grading cream. Of a 10-cent average spread that year between the best and poorest grades of butter, at least 4 cents was due to differences in quality of the cream. The cream received was put in five grades in the survey, numbered 1 to 5; and 18 per cent of the creameries were in grade 5, and only 30 per cent in grade 1.

Co-operative egg shipping depends for its very existence upon improving the quality of eggs delivered. Recently there has been some real development in this field, but the resistance of the producers is still strong in many places. Co-operative grain elevators offer small inducement to farmers to deliver better and cleaner grain. Livestock shipping associations make practically no effort at all to improve the quality of the stock.

We may therefore conclude that one great need in co-operative marketing is a system by which quality of the product is controlled. We shall later discuss some of the methods now in use for doing this. It may be that it is not so much a new system that is needed as that the matter shall be taken with more seriousness.

2. *Standardizing production.*—This is closely related to controlling quality. Marketing has always been complicated by the fact that producers in any territory have insisted upon growing a large number of varieties. It sometimes takes the form of keeping different types of livestock. The evil is most apparent with potatoes and eggs.

The idea of standardizing production should be expanded to include using pure seed, treating it properly to prevent disease, and caring for the crop in such a way that all the product from one marketing area will be alike not only as to variety, but also as to condition and freedom from disease.

3. *Adjusting production to consumption.*—Local co-operatives acting singly have not been able to get information to the producers as to the kind of produce wanted and to get them to act upon this information. The public market news service is constantly collecting such information and making it public; but it is not reaching and taking hold of the producers as it should. An overhead organization can undoubtedly accomplish much more than is now being accomplished along this line.

4. *Stabilizing production.*—Not only does the type of product need to be adjusted to consumption, but also the quantity. The keeping of the volume of agricultural production as a whole, and of particular products, adjusted to demand, is the most important problem of the day in the economics of agriculture. The succession of periods of over-planting followed by over-production and low prices, and the periods of under-planting followed by high prices, is one of the greatest evils of our agriculture. It is bad for the producer and bad for the consumer; it is a great social waste. The problem it presents, however, is indeed a difficult one. Local co-operation, of course, can do little or nothing with it, except perhaps in the case of local milk producers' associations and local fruit and vegetable associations. We shall later discuss what central marketing or overhead organizations can do with it.

5. *Controlling consumption to fit production.*—Acreage may be adjusted to consumption, but yields will vary. Hence some years there will be large crops to sell, and other years small crops. Also, as there is considerable question as to whether even plantings ever can be perfectly adjusted to consumption, there are likely to be whole periods of over-production. Consumption will increase as prices fall; but perhaps not rapidly enough to take all the crop. Or the price may have to fall so low to move the crop that it will not pay to harvest and transport it. There are methods of attacking this problem which seem to have given results, but they are beyond the reach of a local co-operative.

6. *Controlling the flow to market.*—Many products are produced at one season and consumed over the year. Others, like butter, have a season of heavier production, and consumption spread throughout the year. For both these classes of products, some one must provide storage. The producers, for various reasons, have generally been disposed to let others perform this function. They are frequently criticized for doing this. Many of them believe that they suffer great losses because of it. Let us take the case of two products, potatoes and wheat. Table I gives the average monthly price of these products

over a series of years. Any potato grower who held potatoes from October till March every year from 1909 to 1919 received an average of 17 cents per hundredweight to pay him for his labor of putting them in storage and taking them out, for cost of storage space, for losses from decay, shrinkage, and in some cases freezing, and for interest on his investment in potatoes. In the case of wheat, any farmer holding from September till May from 1904 to 1913 received 6.3 cents for his labor, losses, and expense. Neither of these margins will more than cover the costs of storage. How, then, does the producer lose by throwing these two commodities on the market in the fall? The answer is that he does not lose by so doing. We are constantly being misinformed even by well-meaning people on this point.

TABLE I
SEASONAL VARIATION IN AVERAGE PRICE OF WHEAT AND POTATOES

	Wheat, price per bushel*	Potatoes, price per hundredweight†
September	$0.976	$1.12
October	0.982	1.01
November	0.960	0.99
December	0.967	1.01
January	0.993	1.01
February	0.996	1.13
March	0.989	1.18
April	0.990	1.14
May	1.039	1.28
June	1.040	1.26
July	1.044	1.30
August	1.027	1.33

* Average price of No. 1 Northern at Minneapolis, 1904-1913.
† Average monthly farm price for Minnesota potatoes, 1909-1919.

But this is not the whole story. In some years the price of potatoes rises from October to May enough to pay handsomely those who store them. In the twelve years from 1909 to 1921 four years paid well for storage and eight years did not pay for it. In five of these eight years the spring price was actually lower than the fall price. In the eight years for which data on ownership of storage stocks are available, the dealers on January 1 held an average of 25.6 per cent of the potatoes in stock, and the growers, 74.4 per cent, as is shown in Table II. But in the four years when the rise in prices did not pay for storage, the dealers on January 1 held only 23.8 per cent of the stock, and the growers, 76.2 per cent of it; and in the four years when storage paid, the dealers on January 1 held 29.0 per cent of the potatoes in stock, and the growers, 71.0 per cent. In other words, it makes a good deal of difference in whose hands the potatoes are when the price rises; and in whose hands when it falls. Apparently the producers were outdone in these eight years in the game of deciding when to store and when not to store. It is a mistake to say that they lost because of selling in the fall, for in four years out of eight they lost by not selling enough in the fall.[2] But they lost because they did not gauge the market correctly.

TABLE II*

Relation of Prices to Ownership of Stocks of Potatoes on January 1, 1916 to 1923†

Year	Production per capita (U.S.)‡	Price per bushel (U.S.)			Proportion of stock on January 1 held in Minnesota by	
		Fall§	Jan. 1	Spring¶	Dealers	Growers
	Bu.	Cents	Cents	Cents	Per cent	Per cent
1915-16......	3.58	57.1	70.6	97.1	28.0	72.0
1916-17......	2.82	131.3	147.3	262.8	38.0	62.0
1917-18......	4.28	124.2	121.0	82.7	20.0	80.0
1918-19......	3.95	130.0	116.1	115.2	24.0	76.0
1919-20......	3.08	159.5	178.6	370.2	24.0	76.0
1920-21......	3.79	123.2	105.6	71.0	20.0	80.0
1921-22......	3.36	123.7	108.6	107.3	27.0	73.0
1922-23......	4.13	63.5	59.3	77.2	26.0	74.0

* Minnesota Experiment Station Bulletin No. 195, p. 51.

† Monthly Crop Reporter, February, 1921.

‡ Based on revised production figures.

§ October, November, December.

¶ April, May, June.

7. *Distribution of product.*—A large number of individual producers or locals acting independently are very likely to send too much produce to one market and not enough to another. An agency is needed in every market to report its current needs back to shippers; and then there must be an overhead agency of some kind to instruct or counsel each shipper as to where to ship.

8. *Inspection.*—Likewise some agency is needed in all the important markets to inspect cars upon arrival or in transit, put them in proper condition before delivery to the buyer or before they are offered for sale, and certify to the shipper as to their condition. Private agencies can not always be relied upon to render this service, and governmental inspection takes care only of certification as to condition.

9. *Claims.*—The handling of claims against railroads and other agencies for damage in transit, overcharges, unwarranted rejections, and the like is too difficult for the managers of most locals.

10. *Selling.*—Besides the problems of when to sell and where to sell, discussed under 6 and 7, is the problem of connecting with an actual buyer of one's produce. To be sure, there are commission merchants, brokers, jobbers, and several other types of functionaries in the central market who render this service. Many of the men performing these functions are highly skilled, and the business organizations to which they belong are efficient and trustworthy and are

[2] For a fuller discussion of this point, see Minn. Agr. Exp. Sta. Bul. 195, pp. 50-54; also Minn. Tech. Bul. 10.

rendering their service at a low per-unit cost. This is especially true with staple commodities. But there are many others who can not be described in this way. There are always some of them who engage in doubtful business practices. Moreover, the business itself is of a nature to make the shipper distrustful. It is therefore going to be increasingly difficult to get farmers to turn over their produce to commission merchants to be sold and be satisfied with what they get. When the commission merchants and brokers organize for the purpose of controlling doubtful practices, they are likely also to establish rates. These rates are sure to be high enough to keep many of the less efficient in business. The effect of this is to multiply the number of commission merchants and reduce the earnings of all till they are not far above expenses.

For all these reasons, a definite conviction has been maturing in the minds of producers that they must ultimately take over the function of selling. Just how much of the whole system they will take over, they do not always know. In some cases, they are ready to go to the consumer; in most cases, however, they wish to go only to the manufacturer, the auction company, or the jobber.

11. *Financing.*—A local association ordinarily has to pay the interest rates that prevail in the local market. (This is not the case with local elevators.) These may be 8 or even 10 per cent in many places in Minnesota. An overhead organization with adequate control over the product and proper warehousing facilities can borrow money at the rates prevailing in the central market or even in the large financial centers of the East. Moreover, by standardizing production and grading, it can improve the basis of credit and thus develop systems of financing not otherwise possible. This is one of the important functions of an overhead organization.

12. *Bargaining and price policy.*—More people believe in co-operative marketing because of faith that it will rob "middlemen" of bargaining and monopoly advantages than for any other reason. Some even expect by means of co-operation to secure monopoly advantage to themselves. When buyers co-operate with each other either on the basis of an agreement, formal or tacit, or merely as a result of having grown up in the market together, or for any other reason, in such a way as to enable them to buy to better advantage than they would if the market were a perfect one with absolutely free competition, we are likely to say that the buyers are using monopolistic methods. When a group of producers act similarly, the same thing is true. The price resulting may be only slightly higher than a purely competitive "perfect" price would be, or it may be considerably higher. In the first case, we say there is a small monopoly element in the price; in the second case, a large monopoly element.

If the buyers are bidding against each other, but still are able to buy for less than a "perfect market" price because they are more skillful as buyers than the producers are as sellers, as a result of knowing the commodities better or knowing the market news or being able to interpret it better or because they are not in such urgent need of buying as the producers are of selling or merely because there are fewer of them, which gives each buyer many more chances to buy than each seller to sell, we are likely to look upon the advantages to the buyer as "bargaining" advantages. There may be upon occasion similar bargaining advantages to the seller. The better organized the market, the fewer the bargaining gains. When a farmer sells hogs to a country buyer, or grain to a country elevator, there are likely to be bargaining advantages to one side or the other in the deal. In the central market, with numerous commission men and buyers in constant touch with each other, there is much less of bargaining loss and gain.

We are likely to overstate the amount of bargaining gains and losses in a really competitive market. Even if the sellers are ill-informed as to the market or the commodity, if the buyers are equally well informed they may bid against each other and force the one who gets the deal to pay every cent that the commodity is worth. There will even be overbidding at times, resulting in bargaining losses to buyers. Only in case one buyer is more skillful or better informed than his competitors can he take advantage of the ignorance of the sellers. In such a market, therefore, bargaining gains are not likely to occur.

The moment, however, that the buyers cease to bid against each other freely and begin to exchange favors, to divide the territory, or to divide the offerings, then the monopoly element enters. It may be very small in some cases, and yet still be present.

In actual practice, it is extremely difficult to determine where bargaining gains stop and monopoly gains begin. The two are likely to be closely interwoven. And there is likely to be considerable of one or the other or both in many markets, especially in local and retail markets, and an appreciable amount of one or the other or both in nearly all markets.

At present the producer of farm products is usually on the losing side in the game of petty bargaining and monopoly practice. The reasons for this are obvious. He is always a relatively small unit. He is frequently more or less isolated and does not know at what prices other sales are being made. He does not know market conditions. He does not know how to interpret market reports. There is little chance for him to develop tacit understandings with other producers.

We may concude, therefore, that as a general thing the individual producer and the local co-operative are not in a strong enough position as sellers to realize a full competitive price for their products.[3] Hence the need for "collective bargaining." The purpose of collective bargaining is to put the seller on equal bargaining terms with the buyer, to take away from the buyer all bargaining or monopoly gains, if present. It does not, rightfully interpreted, include securing any monopoly advantage for the sellers, altho there is no reason why it should not include any bargaining gains that can be obtained. Obviously collective bargaining can not be practiced effectively by a single local co-operative, except in the case of milk producers' associations and the like.

A central agency is surely in a stronger bargaining position than a large number of locals acting separately. Also a central agency is in a better position to control the flow of produce to market, to direct its distribution, and to take advantage of brands and advertising, than are individual locals, all of which with certain types of commodities may serve as strong support to a bargaining policy.

How much is likely to be gained, however, merely from collective bargaining as such, is highly problematical with many commodities. In other words, could the California Fruit-Growers' Exchange secure better prices for its growers if it turned to a policy of collective bargaining? Is it not at present by its policy of keeping its locals informed as to the state of the market, directing the distribution of cars and advertising of brands, securing all possible advantages without doing any collective bargaining? Would the Minnesota Co-operative Creameries Association, Inc., get a higher average price for its butter *merely* by setting up its own selling agencies in the central markets instead of selling through present agencies? Would it be able to do this even if it controlled most of the high-grade creamery butter that is made in the United States? Or is not its hope for gain in improving quality, standardizing its product and establishing brands, and advertising these brands so as to give consumers of the United States a chance to know what really good butter is? All these things can be done without any attempt at collective bargaining.

Milk producers' associations have of course gained greatly by collective bargaining; but they operate in a limited local market with relatively very few buyers who themselves in many markets had already organized for bargaining purposes. Where buyers are acting concertedly, there is nothing else for sellers to do but to organize and act the same way. This situation probably existed in the Burley tobacco market.

[3] A full competitive or "perfect" price really is a "fair" price. There is no other definition of *fair* price which is of any value.

Whether, therefore, collective bargaining by the central organization can secure a better average price for a crop than selling by locals, excluding the gains from standardizing, advertising, control of flow to market and the like, which can be practiced by a federation the same as by a centralized organization, depends upon the commodity and how its market is organized. In general, the tendency is to overstate the gains to be obtained in this way. With most commodities, they do not even approximate the possible gains from improving the local marketing agencies. Where strong co-operative local marketing agencies are not already organized, as with cotton and tobacco, and both local and central co-operative marketing machinery are set up at the same time, as with cotton and tobacco recently, the gains may be quite appreciable, but it must be remembered that the gains are from both, and it is possible that the gains from collective bargaining by the central agency may be a small part of the whole gain, unless the buyers are in strong bargaining or even monopoly positions, as was the case with Burley tobacco. It has long been recognized that the point of weakness in cotton marketing is the local market.

13. *Elimination of competitive wastes.*—Our present system of individually-acting local co-operatives has not yet eliminated many of the wastes of our competitive marketing system. For example, livestock is still "filled" after it reaches the central market; and grain is still mixed uneconomically merely to take advantage of crudities in market grades. Furthermore, only to a limited extent has the number of competitors in any market been reduced. In many cases, indeed, the co-operative has simply added one to the number; and in a good many places, local co-operatives are actually competing with each other.

14. *Improving business practices.*—The greatest weakness in our present system of dependence upon local co-operatives is that a large number of the locals are very poorly organized and managed. The biggest chance for savings in marketing costs is in the local market; but a co-operative organization which is not more efficient than its independent competitors does not lower costs in the least—in fact, it may add to them. The efforts spent upon strengthening local organization and educating managers have made sure progress, but slow. Groups of farmers will insist upon setting up weak organizations, and no amount of advice will stop them. Men will be chosen for managers who lack the capacity of being educated. And the managers themselves either can not afford to go to the expense of acquiring the necessary training in business practices, or they are so wise in their own conceit that they think they do not need training. Lastly, the very members and directors of the organizations will sometimes wreck them by voting as dividends what should be kept as reserves.

Furthermore, public support has never been adequate to the needs of such an educational program; and it is not likely to be adequate to it in the future. Legislatures are likely at any time to insist that the co-operative organizations must finance such work themselves. Hence one turns to an overhead organization as offering the best means to the end desired.

15. *Utilization of by-products.*—The co-operative creameries do not at present, it seems to men familiar with the problem, utilize their buttermilk and skimmilk by-products as well as they might. But a small local unit can not afford to install the necessary equipment. Only by combining with other local units can enough by-product material be provided to make it profitable to invest in such equipment. This is given merely as a sample of the type of by-product problem which requires a larger organization unit than the local co-operative. Potatoes, eggs, fruit, and grain present similar problems.

16. *Research.*—A very great amount of research is needed in problems of marketing. Some of these are technical problems of grading, packing, packaging, processing, car-loading, and storage. Others are economic and business problems—price analysis, seasonal and geographical variations in consumption, trends in consumption, foreign competition, cost analysis, factors of efficiency in organization. The local co-operative can do nothing with these problems. The United States Bureau of Agricultural Economics and the various state experiment stations can help considerably with many of these problems; but they can not do enough, not half enough, and they can not touch some types of them at all. It is rather the business of the publicly supported research agencies to work out methods and let others apply them to their particular needs. Several of the large co-operative organizations have shown that they can do this very well; they have accomplished things along this line in a few years which the established marketing agencies had not accomplished in a generation. There is danger, of course, in having overhead organizations do some of this work; but with public agencies to supervise them, only great public gain will result.

FORM OF ORGANIZATION

It is the practice to say that there are two distinct types of co-operative organizations operating in the central market, namely the "federated" type, and the "commodity" or "cenralized" type. The term "centralized" is the better term for the latter type. Co-operative marketing, except in a few instances, such as the handling of fuel and feed and occasionally livestock, by grain elevators, or the handling of eggs by creameries, always has been by commodities. The use of the term "commodity" for the centralized type of organization suggests that this is a distinct feature of this type of organization, which is contrary to the facts. The two types of organizations do, however, differ somewhat in this respect, as will be explained. The essential difference between the two types of organizations is that the centralized organizations believe that it is absolutely necessary that all, or a large part, of any one crop or commodity shall be under the control of one organization, so that the movement of the crop to market can be absolutely regulated, and the price at which the crop is sold can be arranged by bargaining between this organization acting as a unit and the buyers; whereas, in the federated organization, control more largely resides in the local co-operative unit, the central organization often merely acting as a selling agent for the locals, and ordinarily making little or no effort at collective bargaining. The difference between the two is therefore in the degree of centralization and control. The sense in which the term "commodity" applies to the centralized type of organization is in the sense of "all of one commodity marketed as a unit"; but the term itself does not suggest this meaning and it is not ordinarily so understood.

Furthermore, when the various organizations are closely examined, it becomes very difficult at times to determine in which class some of them belong. It thus appears that centralization is largely a matter of degree, and that successful organizations are actually functioning all the way from one extreme to the other.

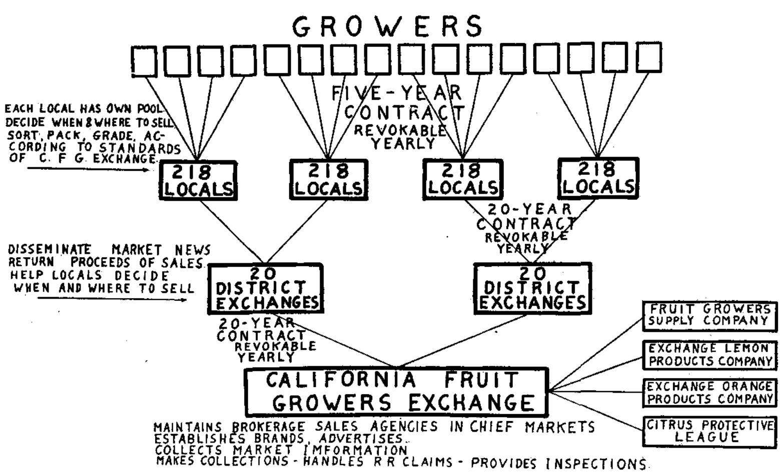
Another essential difference between the different organizations is in the extent to which they have carried "integration." The term "integration" as applied in industry refers to the control of several steps in one industry by one organization. Thus the United States Steel Corporation mines its own ore, transports it on its own railroads and boat lines, smelts it in its own furnaces, and finally turns it out of its own mills as finished steel rails. In the field of marketing, integration refers to the control of several steps in the marketing process by one organization. When the farmers of Minnesota federated their local livestock shipping associations and began selling their livestock in the central market, they carried integration one step forward. There is a considerable difference between co-operative organizations in this respect.

It is sometimes thought that integration is simply eliminating the middlemen. As a matter of fact, it usually merely substitutes employees of the organization for the regular middlemen agencies. However, if the integration does not make it possible for fewer men to do the work, or the same number to do it better, it has not really been very successful. Hence it can honestly be said that integration usually does reduce the number of men engaged, altho it does not necessarily reduce the number of agencies.

Following is a brief description of several important organizations. They have been selected to illustrate different degrees of centralization and integration:

California Fruit Growers' Exchange.—The California Fruit Growers' Exchange is a federation of 20 district exchanges. The district exchanges are in turn federations of 218 local associations whose membership includes about 10,500 citrus fruit growers. The organization is decentralized, the district exchanges having been created by the local associations and the California Fruit Growers' Exchange by the district exchanges. Authority is delegated, so to speak, from grower to local associations, from local associations to district exchange, and from district exchange to the California Fruit Growers' Exchange.

ORGANIZATION OF CALIFORNIA FRUIT GROWERS EXCHANGE



The whole system is held together by a series of contracts. The grower signs a contract with the local association, from which he may withdraw by filing a notice with the secretary of the association during a specified period or before a certain date of any year. Most associations have five-year contracts, altho a few contract for one year, and others for three years. A twenty-year contract, revokable at the end of any year upon notice, is made between the district exchanges and the locals. Each district exchange has a similar contract with the California Fruit Growers' Exchange.

The services rendered by the California Fruit Growers' Exchange are as follows: (1) To establish sales agencies in the principal cities and markets of the United States and Canada. These agencies are in charge of representatives who are directly responsible to the California Fruit Growers' Exchange. The exchange, however, sells fruit only on confirmation of a district exchange or a local association. In practice, selling is no doubt frequently left to the central, but the local is nevertheless final authority in the matter. (2) To make collections and transmit the proceeds to the shippers through a district exchange. (3) To prosecute claims against railroad and car companies and to handle all litigation growing out of the marketing of fruit. (4) To educate producers as to the best methods of production and preparation for market. (5) To advertise and to develop new markets for citrus fruits. (6) To collect and disseminate market information, especially with respect to the movement of citrus fruits, and price and demand conditions. (7) To inspect cars enroute and at destination.

The purposes of the district exchange are as follows: (1) To act as a clearing house for the local associations by disseminating the market information collected by the California Fruit Growers' Exchange. (2) To order cars for the local associations. (3) To receive the returns for fruit through the central exchange and to return the proceeds to the locals. (4) Where the exchange has received authority from a local association, to sell the fruit shipped by the local.

The local associations sort, pack, and grade the fruit delivered by members. Many of them prune and fumigate the orchards and pick the fruit for members. They also have authority to sell the fruit; but as a matter of fact, most of them have discovered that the district exchanges are in a better position than they are to direct the movement of fruit to market and to determine when to sell, and so they have delegated this authority to them. The identity of the fruit delivered at a local packing plant is maintained, however, and each association receives the returns from its own fruit. Each local has its own grade pools, which are generally monthly pools, altho the length of the pool varies with the different associations and with the seasons. Occasionally an association handles the fruit for each member individually. Most of the associations have their own box labels, which become known to members of the trade.[4] Most of them also use the Sunkist and Red Ball brands, which are owned by the California Fruit Growers' Exchange, for their best grades. The local associations may use these brands only when their fruits meet the specifications determined by the central exchange.

[4] The jobbers do their buying in terms of local association brands—"Sunkist" and "Red Ball" are trade names for use in advertising among the consumers.

It can not be too strongly urged that this organization has obtained its results by performing such services as standardizing, developing markets, and distributing its product, and has in no way attempted to control or fix prices.

Affiliated organizations render valuable service to the members of the exchange. For instance, the Fruit Growers Supply Company secures for them their packinghouse and orchard supplies; the Exchange Lemon Products Company produces citric acid from lemons that can not be marketed as fresh fruit; the Exchange Orange Products Company utilizes oranges that are not suitable for shipment; and the Citrus Protective League handles all the public policy questions that relate to the industry as a whole. A movement is now under way to form an independent steamship company to transport exchange products through the Panama Canal to eastern seaboard markets.

Michigan Potato Growers' Exchange.[5]—The Michigan Potato Growers' Exchange is a federation of local potato shipping associations. Organized in 1918, it has experienced a steady growth in number of members and in volume of business. With only 28 associations affiliated with it during its first year of business, the number had increased to 97 at the end of the second year, and is 130 at the present writing.

This is a non-stock, non-profit corporation whose membership fee is $100. Each association member is also required to deposit with the exchange a negotiable, non-interest bearing promissory note for $500. This note is available for settlement of any liquidated damages resulting from the failure of the local to live up to its contract with the central. Moreover, the note may be used as banking collateral in case additional operating capital is needed.

Like the California Fruit Growers' Exchange, the Michigan Potato Growers' Exchange has little authority over the management of the locals. It has practically no control of the financing, grading, or shipping of potatoes at the local market. It receives potatoes at such time and in such condition as the local associations choose. However, the educational work which the exchange has conducted has improved the methods of handling and grading, and hence the quality of potatoes, to the point where the volume of good quality potatoes handled permits of the adoption of a private brand by the exchange.

Two sets of contracts are used in this marketing system, one between the growers and the local associations, and one between the locals and the central. Their provisions are similar. Each is a continuous contract, but a grower in a local may withdraw at the end of any year by giving proper notice. Each grower is required to deliver all or a

[5] This organization is considering the adoption of several centralized features.

specified part of his potatoes to the local, and the same for the locals and the exchange. The "liquidated damages" of 10 cents per hundred-weight to be collected upon failure of a local to deliver the crop as provided in the contract, really represents little more than the overhead expense which the central organization incurs in planning to market the potatoes of a local. Any association may sell its potatoes outside of the exchange, providing it is offered a better price than it can expect to receive through the exchange, and providing it pays the exchange the flat rate of 8 cents per hundred-weight that is regularly charged for handling potatoes.

The basis of selling is the pool. The exchange pools by grade all potatoes received on a given day. The pooling period of the locals varies from one day to two weeks depending upon the season and local circumstances. Both the exchange and the locals charge a flat rate for handling all potatoes. During its first three years of operation, the exchange sold all potatoes through a national brokerage firm. In 1921 it established its own sales organization and has since used it with good success. This marketing system has no subsidiary organizations to render special service to its members. Supplies, however, are handled as a department of the exchange.

Minnesota Co-operative Creameries Association, Inc.—This is an association of 427 of the 645 co-operative creameries in Minnesota and 14 in Wisconsin, formed to assist in their production and marketing problems. It is a co-operative stock corporation, the stockholders of which are co-operative creameries. It is managed from the headquarters at St. Paul; but there are 16 district associations, each of which employs a manager. These managers are responsible both to the central association and to the district association by which they are employed. In addition to supervising the assembling of butter into carloads for economical shipment to the central market, these managers are expected to assist creamery managers to produce a better and more uniform quality of butter.

The association has representatives in New York City, Chicago, and Philadelphia, the chief markets for Minnesota creamery butter. These representatives inspect all butter that is consigned to them, audit and check the freight bills, check the price received against market quotations, and give personal attention to the contractual relations between creameries and wholesale butter receivers. As originally organized, the association discouraged the consignment of butter to its representatives and was merely a service organization. At present, however, a new plan is being developed which provides for pooling and selling. Butter will be assembled at St. Paul and Duluth, where it will be inspected, graded, weighed, pooled according to quality, and sold under an association brand.

The adoption of this new plan is calling for an additional contract, called a "marketing agreement," which runs for two years. The original contract, however, remains in force, under which the member creameries agree to market their butter through the association for two years, and agree to pay a liquidated damage of one-half cent per pound on all butter marketed through other agencies. This contract may be revoked at the end of any year after the first two-year period. This is a feature of their organization that is worthy of notice, especially since the co-operative creameries of Minnesota, which produced 67.5 per cent of the state butter in 1922, have attained this position without the general use of contracts between creameries and patrons. The prejudice against the membership contract naturally arising from these circumstances was nevertheless put aside by the creameries in the case of the central organization in order to insure it a dependable and large volume of business during its formative period. The short term of the contract, and the moderate liquidated damages are, however, a concession to the attitude of Minnesota co-operatives toward this feature of co-operative central marketing organization. Only 12 of the 427 creameries exercised their privilege to withdraw from the original contract at the close of the first two-year period. The savings realized by shipping butter in carload over less than carload lots is approximately one-half cent per pound. The cost of the association during the first year of operation was one-fourth cent per pound of butterfat made by the member creameries plus one-eighth cent per pound of butter shipped. The new marketing agreement has only one charge, one-half cent per pound on all butter shipped.

The organization also maintains a regular retail and jobbing department with a full line of creamery supplies for its members. The manager states that during the first eight months of operation this department's costs were approximately four per cent of sales. As regular retail prices were charged, a refund of $40,000 was made possible.

A distinguishing feature of the association even under the new contract is its decentralized character as compared with other associations marketing a correspondingly large volume of branded products. The creameries are of course to be required to make butter according to specifications laid down by the central association—only then can a standardized product be secured; but the local creamery associations are to own their plants and participate in formulating the policies of the marketing system. Moreover, the districts are so organized that each can continue to market butter if for some reason it becomes separated from the parent organization.

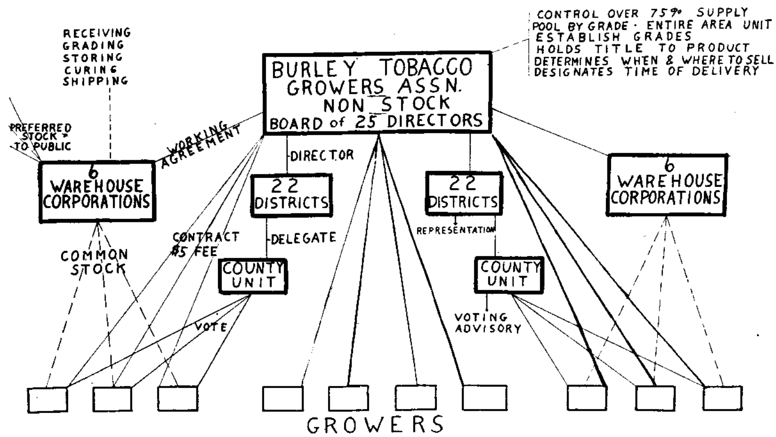
Central Co-operative Livestock Commission Association.—The Central Co-operative Livestock Commission Association is a federation of about 400 local livestock shipping associations in the South St. Paul market area. It integrates local shipping, commission selling, and speculating. Moreover, it represents the most decentralized type of overhead marketing organization in operation. There is at present no membership contract between the local and the central. Nor is there any pooling of livestock except a limited amount of daily pooling of hogs that expedites the selling of large receipts. The association merely sells livestock on consignment as other commission companies do, and with the exception of stocker and feeder cattle, which it sells to its stocker and feeder department, sells through the same outlets.

This association has relied upon its relation to the local co-operative livestock shipping movement and upon the reduction in selling costs accompanying its large and increasing volume of business. It has emphasized volume of business only in order to realize the economies of large-scale selling, and not with a view to controlling the price of livestock, other than by eliminating short-time fluctuations by regulating shipments, and possibly by a limited amount of collective bargaining some time in the future.

California Prune and Apricot Growers' Association, Inc.—This was organized in 1917 as a stock company, but it was changed in 1920 to a non-stock organization. It is now a good example of the extreme centralized type of organization. Prune and apricot producers now become members of the central organization upon the payment of a $10 membership fee. The organization is controlled by a board of 15 directors. One is appointed by the governor of California, and the other 14 are elected by a voting board of 39 members. The members of the voting board are elected for a term of seven years by the members from 12 districts.

The warehouses, processing plants, and other physical equipment necessary for marketing prunes and apricots are owned by the Growers' Packing and Warehousing Association, Inc., a corporation subsidiary to the California Prune and Apricot Growers' Association. The warehousing corporation owned and operated thirty manufacturing and warehousing properties in 1922. It was financed by the issue of $3,500,000 of capital, half of which was common and was sold to the California Prune and Apricot Growers' Association, and half of which was preferred and was sold to the investing public. The warehousing corporation contracts with the central prune and apricot association to store and process its fruit. The standard payment of $7 per ton charged for this service in 1920 was sufficiently profitable that a good margin of profit remained after meeting operating expenses. This was used to pay dividends on capital stock and to accumulate a surplus to retire the outstanding preferred stock. The constitution of the corporation provides that the preferred stock shall be retired by 1928.

ORGANIZATION OF THE BURLEY TOBACCO GROWERS ASSN.



FIVE YEAR NON-REVOKABLE CONTRACT BETWEEN GROWER & ASSOCIATION

All prunes and apricots are pooled according to quality and the length of the pool is a season or crop year. Upon delivery of the fruit, the grower receives two-thirds the value of his crop. All apricots must be delivered not later than September 15, and prunes must be turned over to the association on or before November 10. Within three months thereafter, the grower receives from 75 to 90 per cent of the value of his crop, and the balance at the close of the year when the pool is closed.

The membership contracts are a significant feature of this marketing system. There are four-year binding contracts with three additional years at the option of the association, which makes virtually a seven-year contract from which the member can not withdraw. The damages of 2 to 4 cents per pound of prunes and 4 cents per pound of apricots for breach of contract are much larger relative to the value of product than the damages imposed by such organizations as the Michigan Potato Growers' Exchange. And altho they are specified in the contract as being "liquidated" and are so recognized by the courts, they indicate nevertheless a disposition to tie the producer close to the association by making withdrawal expensive. This spirit is further evidenced by a clause in the contract wherein the grower agrees that the association is entitled to an injunction to prevent breach or threatened breach of contract.

This association is typical of the centralized marketing co-operatives in being organized to dominate the market. For example, the prune and apricot growers have always required the support of at least 75 per cent of the prune and apricot acreage of the state and their association has actually received a larger proportion of the crop than this. The fruit is fed to the market at prices that are forecasted at the opening of the season as being able to move the entire crop, and is sold through brokers to wholesalers. Grades and packages that are specified by the central association to the subsidiary packing corporation furnish a sound basis for the advertising of prunes and apricots to consumers.

Northwest Wheat Growers Associated.—This organization is typical of centralized organizations dealing with large numbers of widely scattered co-operators. In its original form it was a co-partnership of the state wheat marketing associations of Idaho, Washington, and Oregon. However, in 1923 this association was succeeded by an incorporated co-operative stock company called the American Wheat Growers' Associated, which is controlled by a board of directors whose members are appointed by the nine state co-operative wheat marketing associations that are under contract to market wheat through it.

The American Wheat Growers Associated is the exclusive sales agency for its members, and no wheat is handled for non-members. The wheat producers are not members of this central market association directly, as in the case of the prune and apricot growers' association, but are instead organized into state associations which are non-stock corporations. The growers contract to deliver their wheat to a state association for a period of from five to six years, the length of the contract varying with the different associations. The liquidated damages of 25 cents a bushel that are assessed against individual producers for breach of contract are obviously imposed chiefly to compensate for interference with the so-called orderly marketing plans of the marketing system.

The member delivers his wheat to a country elevator at his convenience, receiving therefor a warehouse receipt which he sends to the state association. The state association arranges to advance its members 75 per cent of the market value of the wheat at the time of delivery, and further advances are made from time to time as the grain is sold, the final payments being made at the end of the season when the pool is closed.

Each state association therefore operates its own pool: it decides when the grain in its pool is to be sold and finances the carrying of the grain until it is ready to sell. When the state association is ready to sell, it demands the delivery of grain from the local warehouses. The American Wheat Growers' Associated then finances the grain from the time it leaves the local market until it is sold.

Elevators are not owned or operated by either the state associations or the central association. This system is feasible because the existing public warehousing facilities are sufficiently adequate that subsidiary warehousing corporations are not needed to handle the grain at the local markets. The same thing is true in the central markets. The American Wheat Growers' Associated leases a small amount of terminal elevator space in order to be able to clean and condition grain or to store temporarily until the grain can be sold to advantage. It also has leased terminal storage so as to be able to store grain for country elevators whose warehouse receipts the association holds, in order to insure itself the delivery of grain produced in the communities where its members reside.

Wheat is pooled by grades on a state basis, the identity of the grain of each state pool being maintained by the central selling agency. However, all the grain furnished by a state association is marketed as a single pool. This makes it possible to sell the entire amount at one time if it seems advantageous. The distribution of the returns among the different grades is made on the basis of the prevailing price differentials for the different grades during the season. Some of the state associations are attempting to apply the same principle to the payment for grain of the same grade but of different quality. At the present time, however, only variations in quality due to different localities are included in their program; no recognition is made of differences in quality of grain as between individual producers.

This centralized marketing system is unusual in trying to control the market when handling only a small proportion of the wheat marketed. However, the proposed program of the new American Wheat Growers Associated includes the control of not less than 65 per cent of the total crop acreage.

The theory upon which the time of selling wheat is determined is that of selling a certain proportion of the crop each month, with such departures therefrom as seem justified on the basis of an analysis of the market. Each state organization makes its own decisions, but is advised by the central office. Obviously the success of such a program depends largely upon the ability of the organization to out-guess the market.

Twin City Milk Producers Association.—The Twin City Milk Producers Association is an organization of 4700 milk producers in the St. Paul-Minneapolis market-milk producing area. It controls approximately 70 per cent of the fluid milk marketed in the Twin Cities. Its purpose is to bargain with distributors as to the price of milk, and to handle the surplus. The bargaining is done monthly and the official basis for the arbitrated price is the average price of Twin Daisy and Young America cheese on the Plymouth, Wis., market and the average price of "New York Extra" butter during the preceding month; however, local consumption, local supply, and several other factors affecting the price are also taken into consideration in the final price. The surplus milk is manufactured into butter, cheese, dry milk, and ice cream, in 14 plants, 13 of which the association owns and one of which it rents. These plants are located in the heavy market-milk producing area near the Twin Cities. It should be pointed out that no distinction is made between market milk and surplus milk when paying farmers. The only differential is that based on cost of hauling market milk.

The handling of the surplus requires a large investment in plants. In 1923 this amounted to $420,000. The capital is raised by requiring each member to buy a $50 share for every four cows. Milk is handled for members only. The membership contract is self-renewing, but it may be cancelled any year if due notice is given to the association. Members agree to deliver all their milk excepting what they may consume or retail locally. Membership is in the central market association—there are no local marketing associations.

Interstate Milk Producers Association.—This is an association of milk producers in the Philadelphia market-milk producing area. It is purely a bargaining organization which bargains with distributors and manufacturers of dairy products for the price of milk. The association does not convert the surplus into finished products, that is done by private manufacturing concerns with whom the association has a working agreement.

Like virtually all other milk-marketing associations, this organization pools the milk and contracts with its members for the delivery of all their milk not used for farm consumption. The contract is self-renewing, but may be revoked by a member on 30 days' notice at the end of each six-months period.

Market milk is distinguished from surplus milk. The price paid for the former is a bargained price. The price paid for the latter is the daily average price of New York 92-score solid-pack butter for the month preceding, plus 20 per cent. The proportion of milk of a given producer that is market milk and the proportion that is surplus is calculated by taking the average monthly production of October, November, and December as his basic production. For this amount of milk for each month thereafter the producer receives the bargained price. He also receives the bargained price on 10 per cent above his average monthly production during May, June, and July, and 5 per cent above his basic output in August. Quantities of milk produced above these amounts receive a surplus price which is below the bargained price. Winter production is thereby encouraged by paying winter producers a higher price throughout all the season of plentiful production.

PRINCIPAL DIFFERENCES BETWEEN TYPES OF ORGANIZATION

The foregoing examples present nearly all the features of organization that are to be found anywhere in the United States. Additional examples could be included of the centralized type, but those given cover all the variations. Most of the centralized organizations are at present built according to one plan and have a common origin. As time goes on, they will be differentiated more and more to fit the marketing problems of different commodities and the special conditions existing in different regions. The federated organizations, on the other hand, will probably be more alike than they are at present. In the following attempt to point out the principal differences between the two types, the point of view is that of the organizations as they are at present.

1. *Proportion of supply controlled.*—The centralized organizations and the milk producers' associations consider it vital to their success to control all or a large part of the supply, for without this they are handicapped greatly in their collective bargaining and control of the flow of their product to market. The decentralized or federated types of course strive toward the same end, but they do not consider it vital to their success. They are interested in it principally because it means the volume of business so necessary to economy of operation.

This, however, is not an essential difference between the two types of associations. More and more the federated organizations are finding competition with outsiders irksome in various ways. For example, they can not keep them from shipping to the same markets and at the same time. Or they are beginning to feel, whether rightly or wrongly, that the buyers have a stronger hand than they in the central markets and are manipulating prices in their own interests.

2. *Price policy.*—The federations, as the California Fruit Growers' Exchange, the Minnesota Co-operative Creameries, Inc., the Michigan Potato Growers' Exchange, and the Minnesota Co-operative Livestock Commission Company, sell their product in regular established central markets or exchanges and take whatever prices prevail at the time, using the same commission merchants, brokers, and auction companies as their independent rivals. The centralized organizations, on the other hand, frequently attempt to name the price at which they will sell. They may even insist on that price and sell only so much of their product at any time as the market will take at that price. Thus some of them have been left at times with a considerable part of a year's crop on their hands. More generally, however, their price program is what is known as "collective bargaining," which means that they will higgle over the price with buyers and get the best price they can. In principle, they prefer to do their bargaining with large receivers as near the point of actual consumption as possible; but as a matter of fact, many of them are at present selling their product in the regular exchanges and using the usual agencies. They may, however, have a vision of doing differently some day.

In this respect, the milk producers' associations even outdo the centralized organizations; but not consciously and by intent. If all the producers in a city territory are in one association, there can be no price except a collectively bargained price. Collective bargaining came into existence in this field, therefore, as an inevitable consequence of organization. The term itself they borrowed from the labor unions to describe a practice they had already long followed.

In the end, we shall probably discover that price policy depends more upon the commodity than upon the form of organization. It is one thing to "establish" prices for localized commodities like raisins and walnuts, and quite another for wheat and cotton.

3. *Controlling time of movement to market.*—Federations like those above described usually let the locals decide when they shall sell. They may give information as to the state of the market or even specific advice, but the decision rests with the locals. The centralized associations, on the other hand, after securing control of a large part of the supply themselves, assume responsibility for feeding it to the market. Such authority of course is necessary to the collective bargaining policy named above—no board of directors could agree to sell at a certain price without having at the same time authority to deliver the product when and where it saw fit.

The milk producers' associations deal with a perishable product and of course can not hold it off the market; but they can direct that some of the supply be delivered to creameries, cheese factories, or condenseries. Several, like the Twin City Milk Producers' Association, own these subsidiary plants.

4. *Ownership of the product.*—In the federated organizations, title to the product frequently remains in the hands of the producers themselves, or occasionally in the local associations; and the central organization merely acts as agent. The California Fruit Growers' Exchange is a good example of this. In the centralized organizations, the producer usually delivers title with his product. This is deemed necessary as a basis of financing and also as an absolute guarantee that the organization will be able to deliver to buyers at the prices they name or agree upon. In some cases, however, the organization is merely given authority in the membership contract to sell it when and where it sees fit. Federations can, if they see fit, make the same provisions in this respect as centralized organizations.

5. *Control over distributing the product.*—All organizations make an effort to send their product to the right market at the right time. Some of them have an elaborate organization for doing this; others depend upon the market news service furnished by the U.S. Bureau of Agricultural Economics; others turn this function over to commercial distributing agencies. The point of difference between the federated and centralized type in this respect is that federations may allow the locals to decide to which market to ship, as does the Minnesota Co-operative Creameries Association, Inc., whereas the latter always assume this function, altho they may delegate it to a commercial or public agency. The potato marketing federations, however, usually assume full responsibility in this respect.

In their efforts to distribute the product, there is a tendency for the centralized organizations to go around the central markets and deal directly with customers in the central market territory. For example, Elgin, Ill., may normally depend upon getting its supply of potatoes through the Chicago market—a centralized potato concern might try to sell direct in carload lots to receivers in that city. This is part of the so-called "merchandizing" program.

6. *Control of quality.*—One method of trying to control quality of product is to give the central organization absolute power to determine grades and classes and to rule out all produce that does not conform to specifications. Another method is to retain control of grades and quality in the local associations, but try to educate the locals into improving their quality and turning out a more uniform product. The former method is espoused by the centralized organizations, the latter by the federations and the milk producers' associations. As a device

to assist with the latter method, many federations have one or more brands which have certain specifications, which the locals usually make every effort to meet. The California Fruit Growers' Exchange has two brands which it uses in this way. The Wisconsin Cheese Producers' Federation uses its Mello-Creme brand in the same way.

7. *Area of the pool.*—Control of quality and grades is closely related to pooling. Practically all co-operative associations pool whether local or central. The co-operative grain elevator is one of the few which "buys for cash." The vital question with respect to pooling is the area of the pool; and it may be said that in general the federations pool by local units, and the centralized organizations by larger units. Thus the whole prune crop of the California Prune and Apricot Growers' Association is handled as a unit, altho separated in grades.

This is not, however, a necessary difference between the two types. Federations can pool over large areas as well as any other type of marketing organization, provided the commodity is a sort that will allow it. The Minnesota Co-operative Creameries Association, Inc., for example, until recently pooled entirely by local units; it is now working on a plan to pool the product from all of its creameries. Also the various plans for handling on a centralized basis the crops produced in several states, as cotton and potatoes, have usually restricted the area of the pool to one state at least.

Nevertheless, this has frequently been presented as one of the fundamental features of the centralized type of organization. It has sometimes been presented under the caption of "marketing by commodity, not by territory." As a matter of fact, the centralized associations pay as much attention to territory as any other—the only difference is as to whether the local association shall be the unit when it comes to *pooling* quality, as with the California Fruit Growers' Exchange, or the county, or the state, or a district, or the whole producing area. The correct statement on this point would be that some of the organizers of centralized associations *deem it absolutetly necessary to successful centralization that the local association lose its identity in the pool.*

8. *Selling methods.*—The ideal frequently set up for the centralized associations is that of a manufacturing concern, such as a soap manufacturing company, which markets its product clear through to the retailer. Translated into an agricultural situation, the proposal would be to get, let us say, the apples produced in one district in the United States into one pool, grade them, package them, give them brand names, advertise them, and then sell them to wholesalers and jobbers in the central or local market.

Such a description fits very well what is now being done by the raisin growers, prune growers, and several other centralized organizations. But it also fits the California citrus fruit growers, a federation, and the new program of the Wisconsin cheese producers, another federation, and the new program of the Minnesota creameries, another federation. There is no reason why federations can not have brands and advertise as well as centralized organizations. It is the type of commodity and not the type of organization that mostly determines whether it pays to use brands and advertise.

9. *Status of the local association.*—It is in this respect that the two types of associations most differ. The federations retain the local association as a unit in the organization in the matter of voting, of selecting representatives and directors, of determining matters of major policy such as can not be delegated to the board of directors, and also in the matter of contractual arrangements. In a federation the contracts are between the central organization and the local, rather than between the central and the producer. The producers are members in the local association, and the local associations are members in the central. The local association is also, as already explained, usually the pooling unit, and is reserved some measure of control of the sorting and packing, time of selling, and even the market to which shipped. No single one of these controls, however, is essential to the federated type—an organization might still be a federation if it took all these controls out of the hands of the locals. The essential things are the voting arrangements, the contractual arrangements, and the membership.

The contrary of all this is membership directly in the central organization, and contracts directly between the central and the member, and representation in the central organization on a district or county or some other basis. Thus the local absolutely goes out of existence as a part of the organization, and all the functions performed as part of a federation are performed by the central—with a single exception, namely, the *warehousing.* The centralized organizations recognize that the warehousing usually must be done at local shipping points. So they set up county or local warehousing organizations, each of which may be independent, but which are generally all owned by one large warehousing corporation, which is a separate institution from the selling organization, altho in a sense subsidiary to it, and kept under its control by either stock ownership or an interlocking directorship. The warehousing company is hired under contract to receive the produce of the members of the central, and to sort, grade, pack, and store it as necessary according to specifications named in the contract.

In some of the more recent centralized organizations which market commodities produced in every county of a state, as eggs, the above-described plan has been modified to the extent of having the membership in a county unit, and having two sets of contracts, one between the county units and the members, and another between the county unit and the central unit. If several states become organized on this basis, there may need to be still another set of contracts. The county unit may of course be left out in some cases.

10. *Use of membership contracts.*—Actually, federations make less use of membership contracts than do centralized organizations; but this need not be the case. Federations are really in as good a position to use contracts as centralized organizations. In the past, federations have usually used two sets of contracts, one between the locals and the members, and another between the locals and the central. Or in many federations there is no contract between the locals and the members. This is especially true in Minnesota. It is likely to be true wherever local co-operation was well developed before central marketing co-operation began.

11. *Length of membership contracts.*—Federations most frequently use one-year contracts with self-renewing provisions, or five-year contracts or longer with provision for termination upon notice at the end of any season. The centralized organizations, on the other hand, use contracts ranging from 3 to 14 years in length, 5 years being the most common period, and seldom have any provisions for termination before the end of the period. The contract used by the Michigan potato growers is a good example of the former; that used by the prune and apricot growers is a good example of the latter.

12. *Liquidated damages and penalties.*—The amount which a member is required to pay in case he violates his membership contract by selling to an outsider is variously called "maintenance assessment," "liquidated damage," and "penalty." It may represent an attempt at estimating in advance the pro-rated fixed costs of the association which a member can be expected to pay whether he delivers his produce to it or not—this is a "maintenance assessment." Or it may represent an attempt to estimate in advance the damage to the association from having a member violate his contract, the member agreeing by signing the contract that it is a reasonable estimate—this is a liquidated damage and usually represents a higher rate than the maintenance assessment. Or the amount named may be without reference to fixed costs or damages, both parties admitting that such costs or damages can not be estimated in advance, which usually means a still higher rate.

In general, federations make use of the "maintenance assessment" principle, or a moderate liquidated damage. The centralized associations incline to heavy liquidated damages. Also the centralized organizations are beginning to provide for the issuance of injunctions against members selling to outsiders, the theory being that no liquidated damage or penalty provides adequate return to the association for the loss of prestige it suffers from having a contract violated, and hence breach of contract must absolutely be prevented.

13. *Non-member business.*—Few centralized associations handle any produce for non-members. The mere idea of it is anathema to them. Many of the federations follow the same practice. Where, however, the local units which were federated were handling non-member business at the time, the practice has usually been continued. Thus most of Minnesota's federations handle whatever non-member business comes to them through the locals.

14. *Method of combining the marketing of two or more products.*—The local associations which have been federated in Minnesota and elsewhere have frequently combined two or more commodities or types of business. The most frequent combination is that of buying and selling. The supply business for Minnesota co-operative grain elevators represents an average of about eighteen per cent of their total business. It is therefore not very important from the mere volume standpoint. However, a careful study of the audits of a large number of such elevators in 1921 shows that the net trading profit from the supply business was of very great assistance to them in offsetting that year's losses from handling grain. Probably about fifteen elevators also handle livestock; but the two types of business are usually operated upon entirely different bases, and hence can be handled independently of each other. Many potato shipping associations also handle supplies. And probably 50 co-operative creameries are handling eggs. This represents the extent to which local co-operatives in Minnesota have been combining different types of business.

Whenever such local units have been federated, the tendency has been to federate the supply business along with the other. Thus the Michigan Potato Exchange has a supply department. The Minnesota Co-operative Creameries, Inc., actually created a department for furnishing creamery supplies to its member creameries. In all these cases, these departments are regular departments of the business on the same standing as the selling business.

The centralized organizations in the first place are not very favorably disposed toward making such combinations; and in the second place, prefer to set up an entirely distinct organization for each commodity or type of business. Then if there are good economic reasons for having the same marketing unit actually handle both, as with eggs and butter, the matter can be arranged by having one organization contract with the other to furnish the service.

15. *Stock vs. non-stock corporations.*—The federations are more frequently organized on a capital-stock basis than the centralized organizations. The reason for this is principally that the local units of which they are the outgrowth were organized in the days before non-stock incorporation was provided for by law. A special reason why the centralized organizations have stressed non-stock incorporation and urged provision for it upon state legislatures, is that it was supposed to enable them to conform better with the exemption provisions of the Clayton amendment to the anti-trust act. Whether non-stock incorporation, however, will give co-operative organizations any greater freedom in bargaining and control of movement to market, is very much to be doubted. This matter will be discussed later.

The subsidiary warehousing corporations which are frequently set up by the centralized organizations are usually on a capital-stock basis, frequently without any co-operative features. This is because it is easier to raise the necessary capital on this basis. A common device is to make half of the stock preferred, and to sell this to anyone who will take it, provision being made for retiring a certain part of it each year out of deductions from returns to the growers. In the end, therefore, the growers are members in a non-stock selling organization, and also stockholders in a capital-stock warehousing corporation.

16. *Legalistic vs. democratic program.*—It will be apparent from the foregoing that the program of the centralized organizations is fundamentally a legalistic program involving tying the growers firmly to a rigid, formal organization set up frequently according to political divisions, with all the necessary provision for compelling members to obey all the prescriptions. The federation program, on the other hand, is more democratic, proposing to accomplish the same ends by leadership and education and incentive, leaving the member more free to follow instructions or not as he sees fit, but having faith that if the central federation performs its part faithfully and well, the members will do the same; and its organization is built up on the basis of natural social and economic groupings. This, after all, is the most important difference between the two types of organizations.

It is evident from the foregoing that a few features can almost be called distinctive of the centralized type of organization. They may be enumerated as follows:

1. Abolition of the local co-operative unit as a pooling unit.

2. Membership in the central organization or some mechanical subdivision of it, rather than in the local unit; and membership contracts on the same basis.

3. Complete control of the product—as to when to sell it and where to sell it, and how to grade and pack it.

4. Control of all or a large part of the supply so as to be able to name a price and make it effective. This feature is likely to become less distinctive where the centralized plan is applied to grain, livestock, and other commodities produced over a wide territory.

It can generally be said that as a federation takes on one or more of these features, such as No. 1 and No. 3, it is verging toward the centralized type; and on the contrary, any centralized organization which does not include all these features is verging in the other direction.

It will be apparent that the California Fruit Growers' Exchange is almost a pure federation. Its practices with respect to No. 3 partake somewhat of the nature of centralization. The Minnesota Cooperative Creameries Association, Inc., is now taking on No. 1, and also No. 3, to a limited extent. Other federations are contemplating the same thing.

On the other hand, a very large number of centralized organizations do not practice No. 4, altho they may wish they could.

Applying these four differences as a test, the co-operative central marketing organizations are probably roughly divided as follows: 50 per cent federated and 50 per cent centralized. This conclusion is based upon information received from 100 such organizations located in 33 states. Centralized organizations predominate in the West and South, and federations in the North Central states where local co-operation is best developed.

This number does not include the milk producers' associations which can not properly be placed in either class. They can not be called federations, because in most cases there never were any local units to federate. The circumstance that the territory they include is identical with the supply area was not a matter for them to decide—it was inevitable. And it was inevitable that they would attempt to include as many of the producers as possible. Furthermore, with the producers thus organized and the distributing business in a relatively few hands, collective bargaining and price fixing by commissions were the only two possible ways of establishing a price, and naturally the former was chosen. And the collective bargaining nowadays of the milk producers' association is genuine collective bargaining—they seldom attempt to name a price and let the buyers take it or leave it, as do some of the centralized organizations.

The best way to describe a milk producers' association is therefore to say that it is a local co-operative unit which happens to coincide with a whole market area. Because of these latter circumstances, it inevitably takes on certain features which resemble those of the centralized organizations. But no process of either centralization or federation has ever taken place.

Milk producers' associations, however, vary a good deal in their methods. At one extreme are the associations which take over the whole supply, take care of the surplus, deduct expenses, and distribute the proceeds on a pooling basis; and at the other extreme, those which simply make a bargain with the distributors by which prices at different seasons and with different surpluses are more or less automatically adjusted between producers and distributors. The first type resembles the centralized organization more than does the latter. The Twin City Milk Producers' Association is of the first type.

It is no doubt true that the milk producers' association movement has had a very great influence upon the development of centralized organizations. The transition from an organization handling all the market milk in a given area and selling on a collective bargaining basis, to a similar organization handling all the raisins or prunes in California, is an easy transition to make. Whether all the same principles and practices are equally applicable is another question.

Danish co-operation.[6]—Danish co-operative marketing associations market eggs, meat, and butter at the central market. After making due allowance for any differences between the legal systems of Denmark and the United States which affect the corporate character of the associations and the contractual relations, there appear to be many points of similarity in the co-operative movement in the two countries. The Danish Egg Export Company, however, is the only one that resembles in any respects the centralized type of association in the United States. Altho this company is a federation of locals, it exercises much authority over the form of organization and the method of handling eggs by the local egg circles. The bacon and butter export societies are clearly of the federated type. The available data indicate that much autonomy is left to the local slaughtering houses and creameries, and there is not the slightest effort of any kind to control the supply and set the price.

As to their use of membership contracts, Mr. Christensen writes as follows:

[6] The facts here presented were obtained from the following sources: Faber, "Co-operation in Danish Agriculture;" articles in the International Review of Agricultural Economics; conversations with Professor Jens Warming, Professor of Economics at the University of Copenhagen, who lectured at the University of Minnesota in 1922; and with Mr. Finn T. B. Friis, Scandinavian-American fellow in Agricultural Economics at the University of Minnesota in 1921; and from Mr. C. L. Christensen of the United States Bureau of Agricultural Economics, who was Scandinavian-American fellow in Denmark in 1922-23.

"My experience and studies in Denmark induce me to say that the Danish membership contract is a very vital part of Danish co-operation. This is especially true in the light of the Danish plan of financing co-operative enterprises. Their membership contract comprises a two-fold feature, namely, the delivery pledge for a definite period, and the joint financial security pledged by the members. The success achieved by the Danish co-operatives is, in a measure, due to the strong financial position which their membership contract makes possible, together with an assured volume of business. The most active leaders in Danish co-operation today consider their membership contract an important feature in their co-operative organization."

In one important respect, however, there seems to be much confusion in this country. The long contracts of the co-operative creameries, often extending over a fifteen-year period, which are frequently cited as evidence of the legal nature of the movement, may be cancelled at the end of any season, while the contract of the egg circles is of only one year's duration. Less complete data are available for the contracts of the centrals. However, an authority on Danish co-operation states that "a member creamery may withdraw from an export society at a given time each year if six to nine months' notice is given."[7] The egg circles are under a one-year contract with the egg export company. These facts seem to disprove the belief that the long-time, irrevocable contracts of the American centralized organizations are of Danish origin. This conclusion is further substantiated by the impressions of Danish students traveling in the United States who maintain that American co-operation is much more legalistic than Danish co-operation.

The Danish co-operatives all pool, but their pooling methods resemble our ""buying for cash" in most important particulars. For example, when a member delivers his product to a local co-operative plant, it is carefully graded and a quotation is placed upon it based upon the weekly market quotation. An advance is then made which, in the case of hogs, is about 90 per cent of their market value. "This large advance payment is possible," says Mr. Christensen, "because Danish products move so regularly and quickly from producers to consumers." Butter delivered to the export society on Monday is sold to English buyers by the middle of the week. In effect, therefore, this system is one which pays strictly according to quality, and on the basis of current market quotations, like the system of "buying for cash" used by our local elevators, and which, also like it, advances nearly the

[7] Faber, Co-operation in Danish Agriculture, p. 81.

whole of the net sales price at the time of delivery. The principal difference in this respect is that our elevators make a somewhat larger advance, frequently having nothing whatever to prorate later. It is hedging and on-track selling which makes it possible for our elevators to follow such a practice.

But altho the Danish system in effect closely approximates our "buying for cash," in principle it is quite different, and principles sometimes have an important bearing. For example, the members of Danish co-operatives are not in a position to higgle with the manager over the price as are the members of our local elevator companies.

Little information is available as to the period of pooling prices. In the case of butter, it seems to be a week. It is ordinarily assumed that the pooling unit is the whole country. This could well be the case in a country so small as Denmark, especially when accompanied by the careful grading and price-quoting system thus followed. Neither is information available as to how expenses are prorated, as to which are charged against each shipment and which prorated over the year per unit of product.

As to control of quality, altho it is the government which is charged with the duty of enforcing specifications as to national brands, the co-operatives are really responsible for it. "Over 98 per cent of the co-operative creameries," says Mr. Christensen, "had voluntarily agreed to adopt and did use the 'Lur Brand' mark before the farmers succeeded in making it compulsory by legislation."

That little thought is given to controlling a large proportion of the supply, is clear from the fact that none of the central market associations have a dominating position in the export trade. There are seven different co-operative export companies, and all of them combined handled 20.3 per cent of the butter export in 1914.[8] The co-operative bacon companies exported five-sixths of the bacon in 1916, but the largest society handled less than 25 per cent of the total export.[9] While there is only one egg export society, it handled less than 15 per cent of the Danish export trade in that product.[10] In view of the fact that Denmark has a homogeneous, settled population and a territory less than one-fourth the area of Minnesota, these facts have great significance to American co-operators who are marketing similar products.

[8] Faber, Co-operation in Danish Agriculture, p. 84.

[9] International Review of Agricultural Economics, May 1916, p. 16.

[10] Many Minnesota people were greatly surprised to hear Professor Warming, in reply to a direct question on this point, state that the Danish export societies made no effort to control the price; that their only concern was to put a good quality of product on the market.

ORGANIZATION AND MANAGEMENT PROBLEMS

In this section of the bulletin, it is proposed to discuss the various problems which confront a central marketing or overhead organization operating on a co-operative basis; to present the methods that are being followed for handling these problems by the various organizations, both federated and centralized, now in the field; and in many cases to attempt to evaluate the different methods.

The task of improving our marketing system has usually been approached from two angles: One, that of making our present types of marketing agencies more efficient; the other, that of substituting more efficient types of marketing business units. There has always been more interest in the second method than in the first. This is thoroly in keeping with the American habit of mind of always trying to improve conditions by changing the system in place of trying to get better men to run the system. If city governments do not function well, let us get a new scheme of government! If our industrial system is not functioning to suit the wage-earners and the public, let us try a socialistic system! If our marketing system is not functioning to suit the public and the farmers, let us have a new marketing system!

As a matter of fact, the chances for increase in efficiency of our present marketing units are very great. For example, the costs per bushel for handling grain by the country grain elevators of Minnesota, range as much as 7 cents; the costs of potato shipping associations have a range of 12 cents per bushel; the costs of Minnesota creameries for making and selling butter range as much as 5 cents per pound; the costs of livestock commission merchants in South St. Paul probably differ more than 100 per cent; and the costs of grocery stores in Minnesota probably vary as much as 10 cents per dollar of sales. There are probably as great differences in the quality of the service and quality of the product as in cost; and some of the high-cost concerns are giving the poorest service. If our present marketing units could all be made as efficient as the best one-third of those we now have, we would probably have made our present marketing system more efficient than any system we will get for a long time to come. But the task of making our present marketing units more efficient is a difficult one. Improvement comes very slowly with our present facilities for education and extension. Furthermore, the system of competition under which we are now operating constantly interferes with any program of improvement by multiplying the number of competing units, thus keeping the volume of business so small that costs can not possibly be low, and by bringing into the field constantly a fresh supply of weak, struggling, inexperienced new units.

Small wonder, therefore, that the public mind turns to the possibility of some new and better marketing system. The differences between our present system for marketing any commodity and any new ones that will be developed will be of the following sorts: (1) Certain functions that are now being performed by one, such as bargaining over the price, sorting, grading, packing, assembling, storing, etc., will be performed by others. Butter, for example, which was assembled in New York City, or out in the counties, may be assembled in St. Paul and Duluth. Or eggs may be sorted, graded, and assembled at some country station in place of in the central market. Or the grade and price of a particular farmer's grain will not be determined by the local elevator manager, but in the central market. Or the commission merchants in grain will no longer combine dealing, handling on consignment, and financing, some other agency taking away one or two of these functions. Or more potatoes will be stored at local shipping points and less at the central markets. Or an auction market will be substituted for sale by commission merchants on consignment, or vice versa.

Second, the control of these functions may be placed in different hands. For example, in place of allowing large private distributing agencies to buy the fruit at the orchard, and control the handling and distribution and selling all the way to the retailer, the growers of the fruit may organize and exercise this control clear to the retailer; or perhaps only to the jobber if this seems best. On the other hand, a large organization of consumers may reach back and exercise control clear to the local market. Or some wholesale receiver may assume control of the movement and handling of the product clear back to the producer on one hand, and ahead to the retailer on the other. Or a retailers' organization may reach out for more control. These changes are taking place all the time. As already explained, this reaching out for control of other marketing functions or stages is *integration*.

Co-operative central marketing of farm products usually comes into this process of reorganization in the form of an attempt of the growers to extend their control further toward the consumer.

The theory upon which this process of integration is based is that when each little business unit operates by itself it is powerless to control many of the conditions so essential to its efficiency. For example, the retailer has no control over the quantity of spinach that will reach his city on a given day. Country buyers acting individually can not control the amount of livestock that will reach St. Paul on a given day. The wholesale receivers can not control sufficiently the sorting and grading of the produce they receive. As a result, the whole process is disjointed and broken up into different stages which do not fit into each other properly. If, therefore, some control can be set up somewhere, the various parts of the marketing process can be fitted together into a smooth-working whole. This theory is more than a hypothesis. It is substantiated by a large volume of facts and experience. The U. S. Bureau of Agricultural Economics with its grading and inspection and market news service has been struggling to combat these evils of the present system ever since it was founded as the old "Bureau of Markets." It has made much headway with the program. But the task in its entirety is too large for, and unsuited to, public agencies. Co-operative organization is peculiarly adapted to handling many aspects of it. An earlier section of this bulletin, however, has made it clear that the local unit acting alone is not able to handle many of these problems. Hence some overhead or central market organization is needed. This organization may preserve the local units in much their original form, taking away from them very few of their functions—in which case it is clearly a federation. On the other hand, it may take away from the locals, as such, all their important functions, in which case it is clearly of the centralized type. It may change few of the functions of the existing agencies in the central market, of the brokers, commission merchants, jobbers, and the like; or it may set up new types of agencies with entirely different combinations of functions, thus forcing the brokers, commission merchants, and jobbers out of business as such.

POOLING

Following are taken up the problems in as logical order as possible.

The first of several questions arising under the head of pooling is the question of whether to "pool" or "buy for cash." As already pointed out, the Danish co-operatives pool, but according to a system which closely resembles buying for cash in important particulars. Minnesota grain elevators and many potato shipping associations buy for cash. It is a method which our elevators probably developed by themselves out of experience with private elevators. It is also used by our co-operative stores, but they may have borrowed it from the British Rochedale system. Minnesota creameries, on the other hand, and all but a few of the livestock shipping associations, and part of the potato shipping associations, operate on a pooling basis. The Danes give credit for their methods both to our co-operative creamery plan and to the British Rochedale plan.

Let us first consider which is the better system from the standpoint of price policy. In doing this, we need to look at price from two points of view, one that of arriving at a price for a particular lot of produce that truly represents its quality, and the other that of obtaining a "good" price for the whole crop. Any one grower is interested in prices from both points of view. He not only wants the general price to be as high for everybody as it should be, but also wants to get as good a price as his particular quality of produce deserves.

Let us consider the question of pooling vs. buying for cash from these two points of view. Under a system of buying for cash, the manager of the local unit passes judgment upon the quality of each lot of produce delivered, and makes a price offer in accordance therewith. Under a pooling system, any of three things may be done: (1) All the produce delivered may be thrown into one pool regardless of quality and sold at one price. This is the method used by most co-operative creameries and to some extent by livestock and potato shipping associations. (2) The local manager may grade it before throwing it into one pool, and then split the proceeds between the grades according to market differentials at the time, or on some arbitrary basis.[11] (3) The produce may be actually separated into different lots according to grade, sold in separate grade lots, the actual proceeds from each grade pool being divided between the growers in that pool. Occaasionally the second and third of these methods are combined, that is, more grades are assigned than there are pools, and two or more grades are sold as one grade pool and the proceeds split between the grades in the pool on some arbitrary basis or otherwise.

Occasionally a large producer insists that his crop shall be handled separately and sold separately. Such a method is neither pooling nor buying for cash, so far as quality is concerned. This is the way cattle are usually handled by livestock shipping associations. The identity of each member's cattle is preserved to the point of sale.

The foregoing explanation is in terms of local co-operatives; but it fits central marketing as well. For example, the central marketing unit may actually buy for cash the produce supplied by each local. There are no instances of this in the United States, but the egg export society in Denmark closely approximates it. A more common practice is to sell the produce of each local separately, as is done by the California Fruit Growers' Exchange. Or all the produce received by the central in one day or a week from all locals may be sold as one or two grade pools and the same price retured for all. This is the method at one time used by the Minnesota Potato Growers' Exchange, and now used by the Michigan Potato Growers' Exchange. Or the produce may be graded on delivery at the locals, or at some central warehouse, and altho sold by the central as a unit, the proceeds from its sale may be

[11] Minnesota Bulletin No. 201 explains how this is done by livestock-shipping associations.

split between growers by grades according to some system of differentials. Such a system has been followed with wheat to some extent. Or, lastly, the produce may be actually separated into different lots by grades, either at the local receiving station, as is done with tobacco and cotton, or after being shipped to some central point, as is now proposed for Minnesota butter, after which it is sold as separate grade pools.

The principal difficulty with the system of buying for cash is that it assigns to the local manager a task which he is frequently unable to perform properly. For example, many of the managers of co-operative elevators do not know enough about grain and grain grades and how grain prices are determined, to bid safely and yet successfully upon a lot of grain. A study of the records of local elevators year in and year out convinces one that it is very frequently an accident when they come out at the end of the year with a trading profit for any particular kind of grain. Perhaps the profits from wheat are due to the fact that the wheat from this particular locality is high in gluten content this year, but the local manager often learns nothing of this. Perhaps he is over-grading all his oats for the year. Perhaps he miscalculates the margins which are needed for flax. Such results mean that some of the growers have been underpaid, and some overpaid.

To estimate the quality and price for a lot of potatoes is almost as difficult as for grain. And besides, there is no future market in which to hedge. Managers of potato shipping associations are in general the least able of any group of managers to handle their price problems.

The principal reason that more livestock is not graded by local managers before shipment is that the members do not have confidence in the grading. One of the reasons for the popularity of shipping livestock co-operatively is that many farmers feel that by shipping in this way they get what their livestock is actually worth in the central market and not what some local buyer may offer them.

Another objection to buying for cash is that the determining of the grade and price for any member's produce when he delivers it may develop into a bargaining issue, the grower holding out for as good a price as he can get, and the buyer paying what he must in order to obtain the produce. If this is the case, it will happen that the grower who is the better bargainer, or perhaps the grower who is most influential in the organization, will get the better price. If there is a competing elevator in town, it may be the member who is most ready to sell outside the association who gets the better bargain. Of course, if membership contracts are used, as in Denmark, there can be no such bargaining—if the member and manager can not agree as to grade or price, some system must be provided for settling their differences.

Closely related to the foregoing is the constant danger that managers buying for cash will over-pay in order to get the business. A co-operative association is usually not in as good a position to stand losses from such a source as is an independent, because it has paid out a good part of its earnings in good years as dividends, whereas the proprietor has kept them all to himself.

Pooling produce without regard to quality, however, is a far greater evil. For example, creameries that do not grade cream are doing great injustice to their best patrons. Producers delivering a high quality of cream to a poor creamery in a community of poor dairymen receive perhaps 10 and possibly 20 per cent less for their product than producers delivering poor cream to a good creamery in a good dairying neighborhood. Grading the cream in two classes only partly relieves this situation. Creameries must find a still better way out of this difficulty. This is a problem with which the Danish creameries are not confronted to such an extent as are Minnesota creameries, because they receive milk instead of cream, and it is almost uniformly good.

Minnesota Bulletin 201 shows that pooling hogs without regard to quality may make a difference of 2 per cent or more in the price received by any member.

The objection is equally great when central organizations pool the produce of several locals without due regard to quality, as did the Minnesota Potato Exchange at one time, and as is being done in Maine today.

Whatever system of marketing is adopted, it must not be one that will discourage turning out a high quality of product. Confronted by these two alternatives, the Danish co-operatives have developed a system which is still pooling, but operates like buying for cash in paying for quality. In this connection the Danish local managers are probably more competent judges of quality and price than our managers. It must be remembered also that the Danes use membership contracts.

The intermediate system of having the local manager grade the product entering into a pool saves the local manager from needing to know much about prices, altho it still requires him to judge quality. It is therefore a more workable system in most cases. It also fits in better with the use of membership contracts. One objection to it, however, is that grades are usually too crude to cover the quality differences. When buying for cash, a local manager may pay 85 cents to $1 for different lots of potatoes bought on a given day; whereas if he were to grade, he would probably put the potatoes in four or five quality classes. The Danish system meets this objection.

Applied in the central market, this intermediate is more workable, for more competent graders can be employed, and the greater volume of product handled permits finer classification.

Where, however, the product is actually assembled in some central warehouse, and can there be sorted into grades and sub-grades, there is no reason why it can not also be sold in separate grade and sub-grade lots. In such a case, the identity of each member's produce is maintained to the assembling and sorting point, and each member can know how much of his produce went into each grade and sub-grade. Where this is possible, therefore, the very best possible job can be done of obtaining prices according to quality. This is actually being done by some of the county egg units operating in Minnesota today. It is being done in other states with modifications, for cotton, tobacco, prunes, and raisins.

Unfortunately, however, it is not possible thus to assemble many products, to say nothing about maintaining the identity of each producer's output to the assembling point. It will be difficult as a general proposition with grain handled in bulk, and with potatoes. Where this is true, the next best procedure is to have the produce graded and classified by the local manager, loaded by him in separate grade lots as far as possible, and shipped to the central market to be sold by carlots, or perhaps in carlot grade pools after the grade of each carlot has been determined.

It appears from this discussion, therefore, that altho buying for cash is a fairly good method of distributing returns according to quality if the local managers are competent to judge quality and judge the market, it will be better with many commodities to have the local manager merely assign a grade to each member's produce, letting some central agency do the actual sorting; and with some other commodities, to have the local manager merely receive each member's produce and pass it on to the assembling point in its original package, there to be sorted and to receive its grade. Which plan is best will depend upon the type of the commodity, the form in which it is handled, the facilities of the local warehouses, and above all upon the skill of the local managers.

The other point with respect to price is whether the growers as a whole get as good a price under a system of buying for cash as under a pooling system. This raises the question as to whether it is possible for a local to buy for cash but sell in a pool. If it is, then there would be no difference so far as prices are concerned. But obviously such an arrangement is not suited to long period pools, for it would entail a heavy financial burden to carry the crop till the pool was closed, even tho much could be borrowed on warehouse certificates, and the still greater risk of having the pool price run lower than the buying price, which could easily happen one year in three. It might be suited, however, to butter, eggs, fruit, and other perishables with short pool periods.

Locals which buy for cash, however, can still have a central selling agency. Such an agency can not pool; hence it can not engage in collective bargaining in the usual sense. If, however, it has the agency for a large volume of the product, it can exert its influence on minor price movements very effectively. It can also control distribution and flow to market, and use brands and advertise. Hence we can conclude that for most commodities and most purposes, buying for cash by the locals is as well suited as pooling to raising the level of prices of the crop as a whole.

There are arguments for and against pooling from other standpoints than price; chief of these are the following:

1. It saves the co-operative organization from assuming any financial obligation for the produce delivered—the grower has to take the chance as to what it will sell for instead of the organization. This is a very important advantage with commodities having no futures market, as potatoes, apples, prunes, eggs, etc. Especially if the organization as such is to do any storing of such commodities, it can not with any reasonable degree of safety pay cash and take a chance on a falling market. Buying for cash shifts the risk-bearing to the association as such, with the result that the association may have to bear the brunt of price reversals that really should impend upon the members. If the market turns bad while several carloads of potatoes are on the road or in storage, the association will be charged with the loss. It may even fail in consequence.[12] It hardly seems reasonable that a co-operative association should fail because of exigencies over which it has little control; which are, in fact, proper risks of the members themselves in any co-operative body.

2. It saves the organization from estimating its expenses in advance. Expense per unit depends upon volume of business, and in many cases it has not been possible to estimate volume of business in advance. This has been especially true with local associations operating without a membership contract.

3. As used by a central marketing agency, it fits in better than buying for cash with a program of controlling the flow to market. If an organization buying for cash were to try to "feed the market," it would at times need large financial resources in order to carry its stock

[12] Minnesota Bulletin No. 195, p. 26.

of produce, even tho it was able to borrow on its warehouse certificates. On a pooling basis, the grower, receiving as he does an advance of only part of the value of his produce, really bears a good part of the financial burden.

4. It is sometimes argued that pooling a whole crop allows closer sorting and grading than would be possible on a cash plan. Of course it is just as possible, physically speaking, to assemble a whole crop at one or several points for sorting and grading if bought for cash as if pooled; but the financial burden is very much greater, for assembling a whole crop in this way means that it must be held from the time it is assembled until it is marketed. With a commodity produced continuously, like butter, eggs, and bacon, however, financing on a cash basis would be too great a burden. It is interesting to note that the Danes do not pool such commodities.

5. An argument against pooling has frequently been advanced that it means the mixing of different qualities of product and reducing them to the same level of prices. This certainly is true of pooling in some of its cruder forms as practiced with potatoes and cream. But it need not be the case, and probably will not be, with some of the newer organizations.

6. Pooling is sometimes said to be a form of insurance, in that it guarantees the grower the average price received for the produce of the grade which he delivers. Thus every grower of No. 2 Northern wheat, if this were to be made a grade pool, would get the same price no matter when he delivered; whereas on a cash basis, those selling in the fall might get $1 per bushel, and those selling in the spring might get 80 cents, or vice versa. Thus the same effect is accomplished as if the grower himself had sold a certain part of his crop each month. This is a good argument for pooling only if we can be sure that the central organization sells its crop on the basis of a certain part each month. Just as soon, however, as the central organization begins to judge the market, and to sell at what it thinks are propitious times, all the insurance vanishes—the organization, instead of the grower, is now judging the market. Of course it may judge more wisely than the grower, but this does not constitute insurance.

Buying for cash is sometimes objected to on the score of its not being good co-operation. Exactly why a grower who insists upon a system of payments that shall secure for him a price commensurate with the quality of his product should be accused of not being a good co-operator is not very clear. And there is no essential difference, so far as co-operative principle is concerned, between paying a grower something less than 100 per cent of the value of his product, say 98 per cent, at the time of delivery, and the rest subsequently, as a patronage dividend, and advancing 70 per cent as a loan at time of delivery and the rest subsequently when the produce is sold. To be sure, in the one case the grower is sure of his 98 per cent, and in the second case he is not sure of anything, not even the 70 per cent, till the crop is sold. But this is a mere quibble, for if the local manager has overpaid for all produce, it will all have to be made up by underpayments or assessments later. And if he has overpaid only this one farmer, probably it is because he has overgraded his produce; and mistakes in grading will be made with any system. If "buying for cash" is a good method of handling differences in quality, let us use it—there are no valid objections to it on the score of co-operative principle. But is it, after all, a good method of handling differences in quality? Our discussion has shown that it is far from ideal under Minnesota conditions. The number of grade pools is really a question of selling, of the number of grades the market wants, and the number of brands it pays to advertise. Paying producers for quality is another affair and may require additional arrangements.

Number of grade pools.—The cream delivered to many local creameries ranges all the way from "sour and old" to "sweet," and the butter made from this cream sells for prices ranging at least ten per cent. A system of grade pools which provided properly for these differences would overtax the facilities of the ordinary creamery. It is likely that the potatoes delivered to most local warehouses vary fully as much in quality as does cream. In addition, they may be of two or three varieties. But few local warehouses at present have facilities for handling more than two or three lots at a time. It may in the end prove feasible to transport cream longer distances and thus assemble a sufficient quantity to warrant keeping different grades separate in manufacturing; but it is quite certain that it will never be economical to haul potatoes farther to local warehouses than they are being hauled at present; nor to re-sort and re-grade them at central points at present prices. The best that can be hoped for is that most of the potatoes in any locality will eventually be handled by one large warehouse, and that this will make it possible to handle four or five grades or varieties of potatoes at one time. But even this number of grade pools will not take care adequately of differences in quality. There really should be more quality classes than there are grade pools, or some system of rating potatoes which is finer than the grades used in the grade pools.

The same question as to number of selling pools and providing for differences in quality arises with eggs, butter and cheese, and grain. How many grade pools of eggs should there be? How many brands should there be? And the further question as to how the difference in quality of each farmer's eggs shall be provided for. Of course merely separating them into "firsts," "seconds," and "culls" is much better than our present marketing system.

The problem of grade pools for grain is more difficult than for potatoes in that differences in quality are harder to determine, and are based on more variables (such as test weight, color, moisture, dockage, gluten content), and in that gluten content is not an official grading factor; but easier in that mixing of grades is not so objectionable, and that grain can actually be accumulated in central market points, and if desirable, put in condition for the market. Also a careful system of grades and inspection has been developed which makes it more feasible to throw grain from many different sources, and sold in many different markets, into one grade pool. But for the very same reason there must be more grade pools, or else careful recognition of differences within the grade pools. In this case also, it is doubtful if it will be feasible to have as many grade pools as there are quality classes recognized as a basis of providing for differences in price.

Area of pool.—The advantages of having the local the unit of the pool and maintaining the identity of the prduct of each local clear through to the buyer, as is done by the Minnesota Co-operative Creameries Association, Inc., at present, are as follows:

1. The local unit, which is also in such cases the governing unit, receives the full consequences of its own care or carelessness in accepting and handling the product, and assumes full responsibility for it. Just as soon as the product of several locals is combined, any one local may try to "get away with as much as it can"—it then becomes the responsibility of the central management to see that no local does this, which means that "government has been imposed upon them," and government is not co-operation.

2. Many of the differences between the products of different localities can not be measured in terms of existing grades, or any grades that are likely to be developed. A conspicuous case of this is the gluten content of wheat, which varies so much by localities and from year to year. It is especially true with fruits and vegetables. Cumberland points out that in the case of oranges the smaller locals get along with their pooling much better than the larger ones because of differences in type and quality of fruit delivered.[13] About the only way to arrive at a market valuation for these local differences is to put the product of the various localities on the market separately. Another method is perhaps to determine arbitrary differentials based upon the past experi-

[13] Cumberland, Co-operative Marketing, p. 107.

ence of the association in selling the produce; but obviously this is an inaccurate procedure. At the other extreme is pooling the whole crop as a unit, as is done with prunes and raisins. At one time the Minnesota Potato Exchange made a daily pool of all cars of potatoes from any local in the state. Where the producing area is small, and the crop is uniform, there can be no objection to this. But where, as with potatoes, different types and varieties are grown in the various parts even of one state, obviously the United States is too large a pooling unit. In fact, one state like Minnesota is likely to be too large a pooling unit. The proper basis for division of a state on this basis is the producing district. It is not necessary that the pooling unit and the brand unit shall be the same, as is demonstrated by the California Fruit Growers' Exchange. It is frequently advisable, however, to have them the same.

Where it is feasible to make the whole producing area the pooling unit, the system has some obvious advantages. It makes it somewhat easier to control the movement of the commodity to market, to direct its distribution, and probably also to control its quality. Also sorting and grading can be made more nearly uniform. But if the producing area is large, it will require the setting up of more powerful machinery of control in the central board of management.

Intermediate between the national or state pooling unit are the district and county pooling units. Undoubtedly the district unit is the better in most cases.

The objection to the local as a pooling unit which is most loudly expressed is that it does not exercise vigorous enough control over grading, preparing for market, and the like, and that the central board never has power enough to make the locals conform to specifications in sorting and grading. It is therefore argued that the control of such matters should be taken out of their hands and placed in the hands either of a national board or a state board or a district or county board. It is not certain that even a county board will have power enough to force any one local to obey its instructions. In this respect, a district board would be still more powerful.

The merit of the foregoing argument depends somewhat upon one's premises. Control from above will undoubtedly give results more immediately. Whether it will give better results in the end remains to be demonstrated. But immediate results are frequently necessary if a new organization is going to weather its early storms. There are many who believe, however, that locals can control quality if they want to—that the real difficulty is that they have not sufficiently realized its importance.

Most Minnesota farm products are of the sort which can not be pooled on a national basis. It is doubtful if some of them can be pooled to advantage on a state basis. The district basis has already been adopted with eggs, and the state unit with potatoes and wheat. There is a vast difference between the pooling of a product like eggs, produced in every county of the state, and pooling a crop like raisins, produced in only a few counties.

Pooling expenses.—Costs of local handling of grain, butter, and livestock vary greatly between co-operatives. Creamery costs vary from less than 3 to more than 8 cents per pound of butter. Elevator costs vary from 3 to 9 cents per bushel of grain. Freight varies with the size of the load and the loading of the car. Shrinkage and also losses vary in transit. Central market expenses vary for many reasons. The problem of prorating expenses among the growers in a pool is therefore frequently very difficult. Minnesota bulletin 201 discusses this problem for livestock shipping associations. Different systems of prorating a light mixed car of livestock, it is shown, varied the expenses charged to certain shippers as much as 20 per cent.

This problem is now being handled in a fairly satisfactory way by the local associations acting singly. But when the produce of a considerable area is pooled, the question arises as to what expenses are to be charged against all growers in the pool alike, and which varied by localities. Surely freight must be varied by localities unless the commodity is one with high specific value. Will local warehouse expenses also be thus varied? Some produce must be carried for longer periods than other. Losses in storage may be considerable in certain pools. Potatoes, for example, sometimes shrink and decay in storage. Special processing may need to be given some lots of produce in a pool. How are these expenses distributed? These are all special problems that arise when pooling is undertaken over a wide area.

Expenses must also be distributed between different pooling periods. When the year is the pooling period, this is largely a question of creating reserves and sinking funds on an equitable basis. With monthly or weekly pools, it is also a question of distributing annual salaries and fixed costs. One of the most difficult of expenses to distribute equitably is that of advertising. Some kinds of advertising should be partly charged to certain pools and partly distributed over all pools; and some should all be thus distributed. Losses in shipment can not always fairly be charged to the pool affected. The same is true of losses in storage. Lastly, if the association mismanages and acquires a burden of debt, should the liqudation of it be imposed on the basis of past business or future business?

Pooling period.—This is not much of a problem for produce which matures all at one season, like grain or cotton or tobacco. But butter at different seasons has a different price and different production costs; likewise eggs, livestock, and to some extent, potatoes, small fruits, and vegetables. Local co-operatives are handling the problem of the period of the pool in various ways, usually ways that are pretty well suited to the commodity in question. It is not difficult in most cases to take over the same policies and use them in a larger pooling area.

Distinction must be made between the period for pooling prices and the period for pooling expenses. As already explained, the fixed expenses of the organization, and some of the current expenses, should be pooled over a whole year, per unit of the commodity handled. The local livestock shipping associations, for example, have found that freight should be pooled over a year, for it is wrong to charge a member who happens to get his livestock in a light or mixed car a higher freight rate than one who gets his livestock in a heavily-loaded "straight" car. The best pooling period for prices of livestock, however, is a single shipment; or possibly a week in some cases.

Creameries are at present pooling prices on a monthly basis in most cases; but the central agency of the creameries, it would seem, should have a shorter period than this, probably a week.

The question of storage affects the pooling period. If the crop is a perishable one which must be sold as fast as it matures, the length of the period will be short and based largely on how prices vary from day to day and week to week. If the product is semi-perishable, like butter and eggs, some of it has to go into storage. If the co-operative organization does its own storing, it must either make the whole year the pooling period, or give each local, county, or district unit the option as to whether it wants its product stored or sold, or devise some workable basis of dividing the stored product among the different units. A method which has sometimes been used is to return to the local the prevailing market price for its product, put part of it in storage, and take a chance that the price will rise high enough to defray extra costs. If a profit is made, this is prorated to the producers. This simply means that "buying for cash" has been adopted as a basis for handling produce to be stored; and it has been adopted for its very worst use. No central market co-operative organization can afford to take the risks involved in buying at current prices and storing. Another method is to store the same percentage for each member or each local or county unit, and set up a separate storage pool on a season basis. This is a far better method. One difficulty with letting the local or county unit decide whether to sell or to store is that it may interfere with feeding the market.

The yearly pool is frequently recommended for potatoes. One difficulty is that a good share of the available potato storage is on farms. This means that potatoes on farms, unsorted and ungraded, with all sorts of chances for freezing and rot must be accepted as part of a certain yearly pool. Obviously they will need to be sorted and graded carefully when they are delivered. Furthermore some method must be devised for paying the grower for the use of his storage. A succession of monthly pools would accomplish this, but it would raise the question as to who would decide into which weekly or monthly pool any member's potatoes would enter, and if the member were given the option, it might be hard to feed the market properly at times, at least for the first few years.

A very similar problem arises in the case of grain. Simply putting all grain into one pool regardless of when it is delivered will not suffice —there must at least be some method devised for paying for farm storage.

CONTROLLING TIME OF MOVEMENT TO MARKET

It was pointed out in the first section of the bulletin that the market for many commodities is not well enough organized that one can depend upon the market price at any time to reflect true production and consumption conditions. Potatoes were cited as a case in point. Potato growers have surely lost heavily by trying to judge such a market. It seems plausible, therefore, that an overhead organization with a properly manned statistical department, can improve upon present methods. The same is probably true, but not equally true, for eggs, butter, cheese, livestock, and wool, and possibly true for grain. However, the task is a very difficult one. It is far more difficult than is realized by nine out of ten of those who are advocating it. Few indeed of the overhead organizations that are now attempting it are properly equipped for it. Equipped as they are, they are pretty certain to *guess* wrong more times than right in any ten-year period.

The problem will be discussed under two assumptions, one that the organization controls most of the supply, the other that it does not.

Controlling the time of movement to market with most of the supply under one control.—There are two ways in which the organization may go about this, one to forecast the highest price that will sell the crop and to sell only at this price; the other, to "feed the market," to determine what proportion of the crop should be consumed during any period, and to release only this amount, letting the prevailing market forces set the price. The first method is more likely to be used with specialty commodities whose market is limited and not well organized, and which are sold at private sale, and the second with staple commodities sold in public exchanges and the like. There really is a third method which is a sort of variant of the second, consisting of forecasting the price as under the first method and releasing less when the price falls under the forecast and more when it goes above.

Operating under the first method, and with most of the supply under the control of the organization, a regularly quoted market price ceases to exist. Those who wish to buy and sell no longer have any market quotations to which they can refer. The only prices that exist are those at which the organization is willing to sell. Under such circumstances, the organization must itself study the market and decide upon the price which is "necessary" to sell the crop.

The method of forecasting the highest price which will sell the crop is that outlined in Minnesota Technical Bulletin No. 10, "Factors Influencing the Price of Potatoes in the St. Paul-Minneapolis Market," together with recent changes and additions.[14] It has been applied also in Circular 66 of the New Jersey State Department of Agriculture.[15] This method is based upon the fact that a scientific study of the factors to be considered gives a better basis for judgment than the rough impressions based upon ordinary observation. It involves collecting all the data available on the factors which influence price, such as the volume of production, the prices of other commodities, the changes in demand, and the like, for as many years as possible and studying them by special methods to determine what effect each factor has had in determining the prices which have resulted each year. The effect of each factor is expressed mathematically so that any one, after a little study, can make use of the conclusions.[16] Finally, the effects of the several factors can be combined into one "formula."

Another advantage in putting the conclusions into mathematical form is that then they can be tested by applying them to past years and seeing how well they check with what actually happened. Table III compares the actual prices of potatoes with the prices calculated by the formula for the 21 years from 1902 to 1923. In only two years did the actual price differ from the calculated price by more than 20 cents per hundred pounds. These were years in which the price ran very high. Not only were there no other years in which the difference exceeded 20 cents, but in 10 of these years the difference was 5 cents per hundred pounds or less.

[14] By Holbrook Working.

[15] By F. V. Waugh.

[16] This discussion of forecasting was supplied by Professor Holbrook Working, author of Minnesota Technical Bulletin No. 10.

Such a test as this gives a very reliable indication of the accuracy to be expected in applying the results of such a study. The principal difficulty with the formula is that the government crop estimates are not sufficiently accurate. But much improvement has been made in these estimates in the last few years, and new methods that are being developed promise even greater improvements. There is no reason why the acreage figures, which have been the least dependable, can not be made highly accurate if it is worth the cost; and we shall presently be convinced that it is worth all it costs. Another difficulty is that new or special conditions may develop in any year which will disturb the application of the formula. But these new conditions can be discovered in time to make allowance for them.

TABLE III

COMPARISON OF ACTUAL AND CALCULATED PRICES OF POTATOES IN ST. PAUL AND MINNEAPOLIS, 1902-23

Year	Actual price per hundredweight	Calculated price per hundredweight	Difference between actual and calculated price, cents per hundredweight
1902	$0.57	$0.59	+ 2
03	1.10	0.91	—19
04	0.49	0.49	0
05	0.77	0.97	+20
06	0.70	0.69	— 1
07	0.90	0.89	— 1
08	1.17	1.26	+ 9
09	0.58	0.64	+ 6
1910	0.90	0.86	— 4
11	1.39	1.34	— 5
12	0.66	0.61	— 5
13	1.03	1.03	0
14	0.68	0.63	— 5
15	1.03	0.92	—11
16	2.82	3.48	+66
17	1.63	1.46	—17
18	1.76	1.89	+13
19	3.64	2.86	—78
1920	1.13	1.21	+ 8
21	1.56	1.56	0
22	0.75	0.82	+ 7
23	...	1.20	....

In the scientific study of prices, as in most other fields, it is necessary to advance gradually, a step at a time. In Minnesota Technical Bulletin No. 10 it was shown how the price necessary to move the potato crop could be determined quite accurately by calculating the trend of the "normal" price of potatoes and considering the deviations from this normal which were required on account of two factors, the total United States production of potatoes, and the value of the dollar as measured by the general price level. These are not the only factors affecting the price, but being by far the most important, very good results could be obtained by considering these two factors alone. It should be noted that a later study shows that the calculations of the price necessary to move the crop can be improved by considering separately the effects of the late crop and the effects of the early crop. Still other factors may be considered and will be considered as rapidly as the study can be advanced. One of the most important of these other factors is loss in storage, as was pointed out in Minnesota Technical Bulletin No. 10. It will not be difficult to get reliable figures on these losses as soon as there is a general demand for them. Furthermore, it should be possible to obtain fairly accurate forecasts of the probable loss in storage so that the expected loss can be allowed for early in the season in calculating the price which will be necessary to move the crop.

The forecasts can also be improved by making separate studies of the factors which influence the price early in the fall and late in the spring. During most of September, the size of the early crop should be given more consideration, and the size of the late crop less consideration, than later in the season. Similarly, the proper price during May and most of April should be determined with some consideration of the size of the very early southern crop. Separate studies of the prices of different varieties of potatoes and the different quality of potatoes raised in different regions will also help considerably. One step in this direction has been made in Circular 66 of the New Jersey State Department of Agriculture, in which it is shown that a large production lowers the price of Giants more than it does the price of Cobblers. Many of these studies can be made only after production figures are given in more detail than at present, and after much more detailed price figures have been collected, but there is no reason why the necessary figures can not be obtained as soon as there is a general realization of the need for them.

When all this has been done, the calculation of the price necessary to move the crop will be merely a matter of a little arithmetic and the resulting figure will probably be accurate to within a small percentage. Then the determination of the highest price which will move a crop will be a matter of calculation rather than guesswork. The prospects are, therefore, that in the future we shall be able to forecast, with a high degree of accuracy for forecasts, the highest price that will move the potato crop. Armed with such a forecast, the organization can say at any time that it has ample reasons for thinking that the price should be, say 85 cents a bushel some October, and refuse to sell for less.

Unfortunately, however, no formulas for other commodities have yet been developed. Some work has been done, however, with apples and several other commodities; the Bureau of Agricultural Economics is working diligently on the problem. Consequently we can hope to have some sort of formula for most commodities before many years. But for very few of them, however, will the formula be so dependable as for potatoes. Take wheat, for example. The price of wheat must be based upon world conditions and it is very difficult to get accurate figures on world production and other conditions which affect the price at which the wheat crop can be sold. Furthermore, wheat is harvested every month in the year and there is never a time when we can say as we can of potatoes, "This is the supply which must be sold during the next six or eight months; what is the highest price which will move this crop?" With wheat it is always necessary to change the estimates of the proper price as production conditions change in Kansas or Argentina, in Russia or India. Even with wheat, however, scientific studies give a much better basis for estimating the proper price than rough guesses based on ordinary observation; and most commodities are more like potatoes than wheat. The price at which corn can be sold is affected only slightly by foreign production and demand, while that of hay is almost unaffected by foreign conditions. Cotton and wool are more like wheat, but oats and barley, butter and eggs, are like corn in being principally affected by production and demand in the United States.

A formula, however, with only a fair coefficient may be worth using. An organization which follows it will be right oftener than wrong in a ten-year period. This will be far better than guessing wrong five years in seven as the potato growers of Minnesota have done.

Furthermore, a few years' experience with using such a formula will reveal some of the factors that are responsible for its difficulties, and the organization will be able to incorporate these factors in the formula if they are measurable, or else make some rough allowance for them if they can not be measured. For example, it may be found from experience that when butter prices reach a certain point, substitutes begin to be used very freely, and it may not be possible to expresss this fact to advantage in the one formula; or that in years with a large amount of unemployment, apple prices do not rule as high as normally.

There are many who believe that all that is required to name a necessary price is to use "horse sense and do a little figuring." The answer to such a statement is that there are scores, even hundreds in some cases, of operators in our grain and produce exchanges who are proceeding on this basis, and that somehow or other by such methods they arrive at greatly different conclusions as to what the price should be. Most of them are intelligent shrewd men who know the market in which they are operating. It is only because there is a large number of them in a market that the market prices resulting are at all dependable. The combined judgment of all is frequently a very good judgment; and then sometimes it is not.

One can be very sure that the judgment of the ordinary board of directors of a centralized organization is not dependable in such a matter; and the judgment of the growers is even worse. One of the principal reasons for the present plight of the California raisin growers is that the directors and members refused to accept a price low enough to move the crop. The organization has guessed the price wrong five years in eight. Our central marketing organizations are sure to suffer many losses in the future before they learn this lesson. For some time to come, whenever there is a large crop or a period of over-production in any commodity, the members will likely insist upon too high a price. It will take them a long time still to learn that there is absolutely no connection between the cost of production of any particular crop and the price which will sell it. In the end, however, they will learn to respect the conclusions of their statistical departments.

The other method, ordinarily referred to as "feeding the market," seems more simple than forecasting necessary price. As a matter of fact, it is not, because we do not have the necessary information as to rate of consumption of most commodities. Of course, an organization can simply sell a certain fractional part of its crop each month and say that it is "feeding the market." And it will in many cases do better with such a policy than it is doing at present, for after all, this is simply one form of hedging or insurance. But if the organization controlled most of the supply, it would find that such a method gave peculiar results; it would find that the one-twelfth of the crop released for December might not be enough, and the one-twelfth released for July might be too much. Prices would be erratic under such a program. To correct this, the organization would need to determine the normal consumption for the different months and even weeks. But the normal consumption is different at different prices, with different-sized crops. Hence before this problem was really solved, it would become just as involved as forecasting necessary price. This method, obviously, looks to the regular machinery of the market, the exchange, auctions, and the like, for the actual determination of prices; but it controls the supply factor in the process. On the whole, it means assuming a somewhat smaller responsibility than does forecasting necessary price.

Practically speaking, the principal difference between the two methods is this: Suppose the trade thought that the price of 85 cents per bushel indicated by the organization for potatoes was too high, and held off buying, and the consumers took up the issue and joined in the attack; then the organization would have to hold its crop till the trade and the consumers came to terms, or else reduce its price presently. Under the second method, the organization would release its potatoes at the rate determined in advance whether it considered the price was high enough or not, expecting that within a month or two it would rise to its proper level and higher. As a matter of fact, under this method, the organization would not be directly concerned with the price prevailing—its concern would be with feeding the market at the proper rate, letting the market settle the price. Obviously the second method would be much less likely to rouse public disapproval. It would have the further advantage in its application that if it turned out that the rate of releasing necessary to sell the crop was over- or under-estimated at the start, it could be changed, and the public need know nothing about it.

Under the third method, described as a variant of the second, the organization would study the rate of consumption, and also forecast necessary price, and if it found that its rate of release did not maintain the price at the level forecasted, it would reduce its rate of release. Practically speaking, this is the form which any program of feeding the market would finally take.

It should be clear by this time that neither the second method nor its variant is possible without public exchanges or similar machinery as places where prices can be established. It is the ambition, however, of some of the centralized organizations to dispense with the exchanges and similar agencies. They have even proposed it for grain and cotton. If they accomplish this, the second method is impossible—the method then will have to be forecasting necessary price and selling on that basis.

Controlling flow to market with a small part of crop under control.—If most of the crop is produced outside the association, there is sure to be enough market organization that market prices can be quoted. All that the organization needs to do is to forecast necessary price, and sell whenever the market price reaches this level. So far as its own members are concerned, they are amply taken care of. The market as a whole may not have been fed properly; but they have at least handled their problem so as to come out on top. The method will be the same whether the organization is selling privately to dealers, or disposing of its crop in the public exchanges.

To obtain a proper flow to market on this basis for all the crop, all that will be necessary will be to set up other organizations, say in other districts or states, and let them follow the same program. The more districts having such organizations following such a policy, the better ordered the flow to market.

Need the district or state organizations be combined in order to secure concerted action? There seem to be no valid arguments for it. It is true that their forecasts of necessary price might not all agree; and that one might be willing to sell at, say, 10 cents less per bushel than some others. But all that the other organizations would need to do would be to hold off and let the one close out its stock. Their market would be all the better subsequently. The chances are that the combined judgments of all the different organizations as to necessary price would be a better forecast than that of any one. The effect of having several organizations acting independently would therefore be a better ordered flow to market than if all acted in concert. This statement refers, of course, only to the time of flow to market—it does not refer to distribution to different markets.

How large a proportion of the crop needs, therefore, to be under one control? So far as controlling the time of movement to market is concerned, the only essential thing is to have as much of the crop as possible under some intelligent control—there is no purpose whatever in having it under one control. In fact, the task is made more difficult if the whole crop is under one control. The arguments for having the whole crop under one control are, to the surprise of many, not on grounds controlling the time of movement of the crop to market.

THE MONOPOLY PROBLEM

The real reason that the centralized organizations desire control of the supply of a crop is that they believe that our present central marketing agencies are obtaining monopoly gains other than the profits they make from outguessing the growers on the course of prices. They believe that the dealers act together and keep the prices down in the fall, and raise them in the spring; or manipulate them from day to day or week to week in such a way as to gain from it. They may even admit that the average price at which the crop sells for any one year reflects production and consumption very accurately, and that no attempts at manipulation, however concerted, can long prevent demand and supply from producing this effect; and still maintain that for a month or two, perhaps several months, the dealers manage to keep market prices out of line with market conditions; and that they make a profit from these manipulations.

All that the authors can say on this point is that it has seldom been conclusively demonstrated that such is or is not the case for any given commodity. None of the data usually published on this point, such as the price averaged by months over a ten-year period, is complete proof. Popular evidence on this point likewise has little value. A few years ago the editor of one of our local farm journals was convinced that the price of wheat was thus being manipulated, and advised his readers to hold their wheat till spring, because the price would surely rise to $3. A wheat growers' organization in the Southwest gave the same counsel. As a matter of fact, the price of No. 1 Northern wheat averaged about $1.45 during the following month of May, and it is now admitted by nearly every one that the market was faithfully reflecting market conditions at the time. This merely illustrates the nature of popular evidence on the subject. What little evidence there is of a dependable nature indicates that if there is conspiracy of this nature in the central market, it is a minor factor in market price so far as our staple farm products are concerned. It may, however, be a minor factor in the price of a bushel, and yet amount to a large sum on all the bushels handled in one of our large markets.

The foregoing statement will not apply to some of the specialty crops with a limited number of buyers and dealers, and usually with privately arranged sales. If there are only a few buyers, as in the case of tobacco, even public markets may be manipulated to their advantage.

The same conclusions fit the case of bargaining gains also. In the restricted markets they may amount to considerable; with large well-organized markets they can not amount to much per unit of product, altho they may mean much for all dealers in the aggregate. Take the case of wheat: assuming that the commission merchants are acting in good faith and getting the most they can for a carload of wheat, how much chance is there for the millers to obtain the wheat at less than its value because of the superior knowledge or bargaining skill of their buyers? The prevailing judgment on this point is that on individual cars of an unusual sort the miller buyers may occasionally "get a bargain," but seldom on the usual run of wheat.

The still commonly accepted way of fighting monopoly practice is to root it out wherever it can be proved to exist. This is the theory upon which our legislatures and courts are still proceeding. Some day we may decide that this program is hopeless and accept monopoly as an established practice. The moment, however, that we do this, we must also adopt public price fixing. We can not give any organization a monopoly of its field and let it name its own prices. There may in fact be organizations at present which are exercising monopoly power and yet controlling their own price policies; but no legislature or court has ever recognized the two as co-existent. We have said of our railroads, our streetcar systems, our lighting systems, that they are essentially monopolies, for it is not feasible ordinarily to have two or more of them operating in the same territory; and we have straightway set about fixing their rates.

If the growers suspect monopoly practice in the marketing of their commodities, they have three recourses: One is to demand that the government stop it—we seem to have lost much of our faith in the efficacy of this remedy. Another is to demand that the government fix or regulate prices—as it is now doing with commission rates on livestock, formerly established by monopolistic action. The last is to set up a counter organzation—which is the method sponsored by many farm leaders today.

What shall be the methods of such a counter-organization? Need it control the crop? How large a proportion of the crop need it control?

Let us suppose, first, that it controls one-third of the crop. If its analysis of the market were to show that the price any fall was lower than market conditions indicated, it could refuse to sell. The combination could of course obtain what it wanted for the time being from the two thirds of the crop not under control, but unless it had power to keep the price down the whole year through, it would have to raise its bids to the proper level and higher before the end of the season. Of course, the growers of the other two thirds of the crop might suffer from having the price held down in the fall, but all they need to do is to set up additional organizations which can likewise analyze the market and decide what price they ought to receive. It might be irksome to the other organizations to have one of them underselling in the fall, but it would do them no harm; in fact, it would usually make it easier for them to get their price later in the season. Only on condition that an organization wanted to get more than market conditions warranted, would independent action by several district or state associations be objectionable. Concerted action is therefore necessary only if it is desired to "unduly enhance the price." A combination of buyers can therefore be frustrated by several organizations of producers acting independently as well as by one large organization controlling most of the supply, or by several organizations acting in unity.

The foregoing conclusion is predicated on the assumption that the combination of buyers does not have power to maintain the price to the producers at a lower level than warranted throughout the whole season, and from season to season. It is entirely possible that combinations exist which do have this power. They exist in other fields, and why not with certain types of farm products? The basis for it if they do, will be in their control over the prices that consumers pay. If the price to consumers is kept at a high level, the rate of consumption will be reduced very greatly with certain types of commodities, appreciably even with staple commodities. If the combination can hold up consumers' prices and reduce the rate of consumption, it can keep prices down to the producers and leave some of them with their crop on their hands at the end of the season. In such a case, some measure of concerted action by all growers' organizations would probably be necessary to obtain even a "fair" price.

So far as bargaining advantage is concerned, and likewise the petty daily and weekly manipulations of prices alleged to exist in our speculative markets, a small group of independently active growers' organizations with selling agencies in the central market could probably be as effective as need be without attempting unity of action.

Monopoly price.—What is monopoly price? And which types of concerted action are monopolistic and which not? A commonly accepted definition of monopoly describes it as "that substantial unity of action on the part of one or more persons engaged in some kind of business which gives exclusive control more particularly, altho not solely, with respect to price.[17] This definition of monopoly helps us greatly, but it does not disclose all the shades and variations in rapidly developing monopoly practice. Take simple collective bargaining, for example: Collective bargaining meets, in part at least, the foregoing test of monopoly. It is accepted by the courts as monopoly. Yet economists do not ordinarly look upon a collectively bargained price as a monopoly price. The difference is that both sides of the market are organized and acting in unity, so that neither is able to name and establish a monopoly price. If either side obtains an advantage, we are disposed to look upon it as bargaining rather than monopoly advantage. Of course, under certain circumstances, it may approach pure monopoly, as will be explained later.

Take the case of a growers' organization which controls most of the supply of potatoes and forecasts the price which will move the crop, and refuses to sell except at that price. There is surely unity of action here; but is the resulting price a monopoly price? Or is it not simply a case of a fixed-suppy-goods price, the supply being fixed a year at a time? The economic dictum concerning fixed-supply goods is that their price is one at which demand is equated with the fixed supply, which means that since the supply is fixed in advance, the price varies solely with demand. If demand is what "makes" the price

[17] Ely, "Outlines of Economics," p. 190.

in such a case, of what import is unity of action upon the part of the growers? The whole crop must be sold, and sold at a price which equates with demand. To be sure, the growers may set their price too high in the fall, or at any time of year that they please, but will they not have to lower it as much or more later in the year to dispose of what is left? If we could be sure that the answer to the last question was affirmative, we could say definitely that the price that might be named by a growers' organization for a crop of potatoes was not monopoly price, except in the sense of a temporary monopoly.

We can not be sure, however, that the price policy and selling campaign of such an organization can not be managed in such a way that a higher aggregate price is obtained than would be the case if the whole crop were sold in a freely competitive market. Perhaps starting the price off a few points high in the fall may give the growers a somewhat higher average price for the year than if the opposite policy were followed. If such is the case, there will be an element of monopoly in the price.

Such an organization may also resort to such devices as sending a part of the potato crop to a by-product starch factory, and obtain in consequence a larger aggregate price for the crop than if all had been sold as table stock. The demand curve for several of our farm products is of such shape as to make this possible—in other words, the price of some farm products falls very rapidly after the crop reaches a certain point, e.g., a potato crop of more than 400,000,000 bushels, so that taking a small part of the crop out of the regular channels of trade may stiffen the market very appreciably. Prices resulting from such practice may have an element of monopoly in them.

Section 2 of the Capper-Volstead Act states that "if the Secretary of Agriculture shall have reason to believe that any such association monopolizes or restrains trade in interstate or foreign commerce to such an extent that the price is unduly enhanced by reason thereof," he may order the association to desist, and in case it does not observe his order, may turn the matter over to the Department of Justice for prosecution. Will a collectively bargained price be interpreted as "unduly enhanced?" Surely not unless there are some unusual elements involved, such as attempts to restrict output. Will a price set by a farmers' organization for a year's potato crop be interpreted as "unduly enhanced"? Probably not, except in case of radical perversion of supply amounting in effect to "dumping" part of the crop. The assumption in both cases will be that there is either no monopoly element in the price, or so small a monopoly element as not to offset the benefits to the public from having the flow to market regulated.

The same general conclusion will apply to products like milk which are produced continuously and to crops which may be carried over from one year to another, as are wheat and cotton. If the effort of the organization is merely to obtain the best price possible for what the members voluntarily produce, no charge of undue monopoly will be sustained even tho the organization decides to carry over a considerable part of the crop and hold the price for the current year above what it would be without such interference. The assumption is that the purpose of such a program is to secure a better utilization of the total crop than is obtained under the present system. If there were coupled with this, however, a program of curtailing next year's production, the case might be wholly different. This case will be discussed later. Similarly, a milk producers' association would probably be permitted to maintain a higher price to distributors, and hence to consumers, during any season of the year, than would prevail without such interference, if the effect of such a program is solely to secure a better balanced seasonal production, and not in any way to raise the average price to consumers over a long period.

In short, it appears that the Capper-Volstead Act permits almost any form of temporary monopoly provided it does not have the effect of raising the average price to the ultimate buyers, the average representing a period long enough to smooth out irregularities in production due to seasonal differences, weather, production periods, and the like.

It will be apparent that the expression "unduly enhance the price" is an unfortunate one, for it is not likely that the courts in interpreting the law *will permit any actual enhancing of the price to the consumers over a period of time.* However, they will permit it temporarily, and also locally, as will be explained in the next section, in the interests of both producers and consumers.

It has been said by some that the law and the courts have gone so far as to declare that the combined efforts of farmers *are not injurious, but beneficial* to the public interests.[18] The Minnesota special co-operative act passed by the last legislature has a statement as follows:

> "No association organized hereunder (meaning this act) shall be deemed to be a combination in restraint of trade or an illegal monopoly; or an attempt to lessen competition or fix prices relatively; nor shall the marketing contracts or agreement authorized in this act be considered illegal or in unlawful restraint of trade, or as part of a conspiracy or combination to accomplish an improper or legal purpose."[19]

[18] J. D. Miller, Cornell Law Quarterly, pp. 293-308.
[19] Chapter 264, Sec. 28, Laws 1923.

It is very doubtful, however, if the mere declaration in the law of a thing as not injurious or improper or monopolistic will make it such in the eyes of the courts. The philosophy of the Capper-Volstead Act is certain to be accepted as the final philosophy on this point. Even tho it is doing business wholly within state lines, no Minnesota co-operative association will be permitted long to "unduly enhance" the price to consumers.

The first co-operatives to secure a special definition on this point were the milk producers' associations. Laws were passed in many states permitting them to bargain collectively without molestation. Accordingly they have had some interesting experience in this matter. It would seem that such an association with nearly complete membership, and with plants for converting surplus milk into butter, cheese, and condensed milk, could name a price at which it could sell to distributors and adhere to it, turning whatever milk was not taken at this price over to its dairy-product plants. Actually, this is seldom attempted today for several reasons, one of which is that the distributors usually have been in a position to get milk elsewhere if necessary, and another that such a policy has proved to be costly whenever it has been attempted. The prices obtained by milk producers' associations are therefore in a real sense collectively bargained prices. Their subsidiary plants are not so much for the purpose of enabling them to name a price as merely to furnish a means of utilizing seasonal surpluses, and also to simplify their pooling problem. But it is not entirely clear that milk producers' associations can not obtain small monopoly gains in many areas almost indefinitely; and that they may not now be doing it. We are due for further interesting developments even in this field.

Control of output.—We are now ready to discuss the problem of controlling the output by reducing the acreage and the like, and the relation of this to the Capper-Volstead Act and other federal and state acts. A co-operative organization depends in considerable measure for its fortunes and its standing with its members upon the prices it obtains, whether it is responsible for them or not. Hence it is not surprising that co-operative organizations have occasionally tried to check over-expansion of the sort indicated.

In fact, many new co-operative organizations are at present unduly exercised over this matter. They are laboring in the fear that the great increase in price which they expect to produce will cause an increase in production that will take away all their gains. In the case of certain organizations, like those in California, producing in a limited territory the whole country's supply of a commodity, it is a matter of considerable concern, but not with producers of staple products grown over a large area, and particularly not with those whose prices are closely related to world prices. Let us illustrate with several different commodities. Take raisins first. Suppose that economies in the distribution of raisins save one cent a pound. At first the producers will get all of this. As a result, acreage will increase, and price will decrease. Consumers will take more at the lower price, and acreage will decrease somewhat in turn. The final result will be a somewhat larger production and consumption at a somewhat higher price. In other words, the one cent saving in distribution costs will be divided between producer and consumer.

The way in which a given saving in distribution costs will be divided between producer and consumer varies with commodities, depending upon two things, (1) the effect of a given increase in price on acreage, and (2) the effect of the same decrease in price on consumption. If a rise of one cent in the price of raisins decreases consumption more than a rise of one cent in the price increases production, then the producers will get more than half the saving. This is likely to be the case with specialty crops which have, as we say, an elastic demand. If the opposite is true, then the consumers will benefit more than the producers. This is the case with staple crops with inelastic demands.

In the case of potatoes, produced as they are in many states, the analysis is slightly different. If the Minnesota oganization alone saves 5 cents a bushel in distributing costs, the increase in acreage resulting in Minnesota will not lower the level of prices the country over, or in the nearest central market, very greatly. Hence the producers will get nearly all the saving. An average increase of 5 cents per bushel in potato prices over a 5-year period would surely not increase the potato acreage of Minnesota by more than 25,000 acres; and this increased acreage would lower prices in the St. Paul-Minneapolis market by only 1.2 cents.[20]

If all the other potato states organize, however, and make the same saving in distributing costs, then the acreage in all states will be increased and the saving will be divided between producers and consumers according to the principles above outlined.

In the case of wheat, a saving in distributing costs of 5 cents a bushel would increase acreage only in the United States, which means that the producers in the United States would get the greater part of these savings. In the case of cotton, the United States produces so large a part of the world's supply that a saving of a cent a pound in distributing costs in the United States would very appreciably increase the world's supply, and hence give to the producers here only a part of the savings.

[20] Minnesota Technical Bulletin No. 10, p. 16.

The present situation in California is somewhat peculiar. In a period of rising prices and incomes, their advertising was abnormally effective in increasing consumption. Tariff subsidies also increased prices and stimulated production. The increase in prices to the producer was therefore decidedly abnormal. In the second place, most of the California products were from orchards and vineyards which require several years to come into bearing. The abnormally high prices increased the averages from the beginning, but only recently increased the production. There will be a period just ahead fraught with considerable difficulty, but eventually will come a time when more normal gains from advertising and efficient distribution will produce more normal increases in acreages, and we will not be able to point to California experience as proving that over-production robs growers of all the advantages of organization.

One of the reasons for the present fear of this bogy in this section of the country is the exaggerated notions many have as to the size of the savings likely to be experienced. It can safely be said for nearly all Minnesota products that the savings from co-operative marketing, appreciable though they will be, will not be great enough to disturb greatly our present farm organization and balance of enterprises. The gains in poultry prices will no doubt stimulate poultry production appreciably. The savings in the cost of distributing potatoes and improvements in production likely to result in the next ten years will only go part way toward offsetting the effect of the present high freight rates. Other production will be affected even less.

It may be argued by some that the producers' organization should have the power to keep acreages from increasing at all, following a rise in prices due to better distribution; that the consumers should be kept from getting any of the benefits of these improvements. The answer to this is that the benefits of no improvements are allowed to accrue solely to the maker of them. Even the man who invents a machine, protected as he is by patents, does not receive all the savings resulting from the use of his machine—if he did, who would use his machine? We can be certain that growers' organizations will not be allowed by monopolistic control of output to keep consumers from sharing in the savings of the better distribution they organize.

As a matter of fact, the public should be about as much interested in checking over-expansion and stabilizing production as are the producers. Variations in yields can not be controlled. But over- and under-production are usually in part due to periods of over- and under-expansion of the particular product. For example, there may have been a period of over-planting of apple trees, or of keeping too many brood sows, or too rapid expansion of the potato or corn acreage.

Cycles of over- and under-production do not cause as much concentrated hardship to the consumers as to the producers, as the effect on them is spread out; but their aggregate effect is nearly as great. Consumers have been paying abnormally high prices for butter and eggs, largely because of the under-expansion of dairy and poultry farming during the 1916-20 period. The low hog prices of the present period will probably be followed by under-expansion and high prices. No greater problem confronts agriculture today than the smoothing out of these ebbs and flows in production, and keeping production properly adjusted to the growth of population and incomes, and to the swing of the business cycle.

Are we, however, ready to turn over to growers' organizations this whole job of stabilization of production? Probably not; and for various reasons. Stabilization of production by producers means control of output; and control of output is the basic condition of full-fledged monopoly. It need not mean monopoly at once, but it may at any time develop into it, which amounts to almost the same thing so far as the public mind is concerned.

We never have intentionally granted such power to any producer, or group of producers; and we certainly shall not remain contented while the production of our foodstuffs and clothing is thus being controlled. It may be that we are now subject to such control in anthracite coal, gasoline, and steel, but if so, we are not accepting the fact peacefully, and are still struggling. We would manifestly struggle much more violently if it were our food and clothing that are thus being controlled. However, the strongest argument against monopoly control by agricultural producers is not on the score of morals and justice—it is on the score of expediency, for those who try it are sure to be badly worsted in the outcome. Yet grant to the producers of almost any farm product in the United States the power to control output, and in their present state of understanding of the subject they would frequently control it to the point of monopoly. Exception of this statement would probably need to be made more often for market-milk producers than for any other group, for it is they that have had most experience with the problem.

Any group of producers who had come to understand the problem and used its power to stabilize production in the common interest would, of course, be immune from attack under the Capper-Volstead Act or any similar act. It is thus possible even to control output and yet not "unduly enhance the price."

Whether or not a farmers' organization that was controlling acreage or output was unduly enhancing the price would be difficult to determine. By what standard shall it be determined whether output has been controlled and how much? Who can tell what the acreage would have been if no control had been attempted? Until elasticity of supply, that is, the effect of price changes and other factors upon subsequent acreages, has been analyzed, no real answer can be made to these questions.

Another attack on the problem which has been proposed is to determine cost of production, and expect the courts to declare any price not unduly enhanced which does not secure the producers more than cost of production. This is a proposal to define the term "unduly" in the same manner that "unreasonable" is defined when applied to rates of return on capital invested in public utilities. In this sense, only that rate of return on capital is "reasonable" which is necessary to attract the required capital; and similarly, any price would not be "unduly enhanced" which was not accompanied by over-production. But if production were controlled, there would be no way of applying this test. A true cost-of-production figure, however, would represent exactly that price which is necessary to secure adequate production, which would just take the necessary land, labor, management, and capital goods away from competing uses. Unfortunately, however, a cost-of-production figure of the sort needed for this purpose is not possible of determination for most farm products. In the first place, one can only surmise what returns to management and labor will keep up the supply of farmers in this line of production. Generally speaking, past farm incomes have been more than adequate to keep up the supply of farmers. Similarly, one can only guess at the return to the other members of the family which is needed to keep them in this line of production. It will be realized at once that if a larger return than this were allowed either the farmer or his family, production would be stimulated to the point of over-production, if not restricted by the organization, which would mean that the price was being "unduly enhanced." Again, many farm products will continue to be produced at very low return to man-labor or horse-labor, or even to land, merely because they, in whole or in part, fill in a more or less vacant period of the year or place in the rotation. If larger returns than this were allowed, production in these lines would be over-stimulated. Obviously it will be difficult to determine, even approximately, what the necessary returns to labor and land are for such products. As a practical scheme of determining whether prices are unduly enhanced, this method therefore has little to offer. The error in the results would ordinarily greatly exceed the probable enhancement of the price.

If the courts could determine whether or not prices had been unduly enhanced, it is not likely that any control of output that resulted in any actual increase in price to consumers over a period of time would intentionally be tolerated. Moreover, as already explained, it is not likely that all the gains from stabilizing production would be allowed to accrue to the producers.

It seems to the authors of this bulletin that the problem is better approached from another angle. First, let some impartial public agency, as the United States Department of Agriculture, determine in advance what acreage is necessary to meet the demands of the growing population, and then give the growers' organizations carte blanche to keep the average down to that figure if they saw fit. The acreage would have to be based on average yields, which means that there would still be over- and under-production; but it would be reduced to the minimum. In making its determination, the Department of Agriculture would need to consider world as well as domestic conditions if the product was one which entered into world trade. It would frequently need to decide whether to calculate upon an export, an import, or a self-sufficing domestic basis. Its decisions would also have to be made with reference to relative prices and costs at different volumes of production. The acreage determined would in theory be one which would yield the grower as good a return as he could obtain from any competing products. This determination would not be easy to make, and would require more information for many products than is now available at all times.

One method of actual control of production would simply be for the Department of Agriculture to give wide publicity to its findings as to desirable acreages and let each individual grower make his own decision. We have no right to decide on the basis of past experiences with control of production that such a method is futile, for it surely has not been given a fair trial. The information of this sort promulgated in the past has been altogether too general and miscellaneous. Mistakes would be made, it is true, but fewer than are now being made, or would be made by an organization. Furthermore, the public would feel certain that its interests were being protected.

We may not be willing to let growers' organizations decide upon the acreage, but we should welcome their services in making any decision effective that had been made by an impartial governmental agency. It seems to the authors that growers' organizations furnish the best available means for making such decisions effective. Such organizations are close to the actual growers, have their confidence, and are in a position to reduce such decisions to terms of district and even individual acreages.

Many difficult problems of supervision and control would arise in connection with such a program; but it is doubtful if they would be any more difficult than those which are arising at the present moment.

Growers' organizations of many sorts are even now making plans for controlling acreages. "Limitation of acreage" is an announced purpose of one of the new Minnesota organizations. The Department of Agriculture has the task under the Capper-Volstead Act of determining whether any activities of this sort in which growers' organizations engage have the effect of unduly enhancing the price. It will have the difficult tasks, as already pointed out, of deciding whether restriction programs have been effective, and what effective reduction of acreage does enhance the price unduly, and what sort of tactics will be permitted in exercising such control. Even now, certain organizations are using a certain amount of intimidation in securing signatures for contracts. Will such tactics be permitted? Will organizations be allowed to specify acreage for each grower and use public opinion to enforce them? Will organizations be allowed to urge their members to pull out one-tenth of their trees or vines?

Many people have been in the habit of solacing themselves with the thought that no program of acreage control by growers' organizations can be effective. In fact, all our legislative and court decisions favorable to growers' organizations are founded on this belief. In general, this belief is well founded so far as the present is concerned. Even now, however, with certain types of commodities and under certain conditions of production, acreage control programs may be so effective as greatly to influence the level of prices in certain years or sequences of years, and undoubtedly introduce an appreciable monopoly element. As time goes on, the technic of such control will improve, and we shall be confronted by more or less persistent and effective control of output. The moment that organizations begin to demonstrate that they can control acreage, and do control it to the disadvantage of the public, court decisions will change, and legislation will change. The Clayton Act specifically exempts agricultural and horticultural associations, along with labor organizations, from operation of the Sherman Antitrust Act. The so-called "standard act" now on the statutes of about thirty states, as already pointed out, gives full and complete exemption to all co-operative marketing associations organized under it. The courts, however, have already interpreted the Clayton Act in the case of labor organizations in such a way as to rule against monopolistic practices; and we can be certain that they will do the same for farmers' organizations. In fact, the Capper-Volstead Act has already declared that they will not be permitted "unduly" to enhance the price. That this latter act recedes from the extreme position taken in the Clayton Act indicates that the public has been thinking on the subject, has concluded that growers' organizations can be monopolistic, and has declared against it. State courts will surely interpret the "standard act" in the same way.

As no overhead organization will be given the power to say how many acres a member shall grow, and enforce its orders, and in consequence the means of control will be education and publicity, it is likely that a federation will be fully as effective in such a program as a centralized type of organization, if not more effective.

CONTROL OF DISTRIBUTION OF PRODUCT

There are two principal questions connected with control of distribution, one, that of machinery and methods for doing it, and the other, that of its possibilities of monopoly and restraint of trade.

The problem of machinery and methods is closely related to the selling program. If nothing is shipped until it is sold, the problem becomes merely one of deciding in which markets to establish selling agencies or seek for customers. Many commodities, however, are not sold until after they arrive at the central market or distributing point, and in such cases shipments must be carefully directed to prevent gluts.

The machinery for doing this is (1) some agency for collecting the information as to probable demand in different markets; and (2) some other agency to direct shipments to the right market. The machinery for the first may be either a federal or a state market news service or a service set up by a large co-operative organization or a combination of the two or a commercial agency with a nation-wide distributing service. The United States Department of Agriculture has rendered excellent service in this field, and it could do much more if the appropriation for it were increased. One advantage in having the government do this is that it can use the same general organization for different producing areas coming onto the market at different periods (for example, peach-growing regions), or for different commodities having different seasons (for example, canteloupes, oranges, lemons, grapefruit, peaches, apples, and potatoes). The producers of no one of these commodities could afford to maintain as good a reporting service as the government can provide at moderate cost.

Shipments may be directed by district and local associations on the basis of the information furnished, or delegated to a central agency. The second plan is more likely to be successful, especially with a highly perishable commodity. In a few cases, the task has been delegated to a representative of the United States Department of Agriculture.

Still another plan is to employ a commercial agency with a nation-wide organization to collect the market news and direct the shipments. This plan has been used successfully by many organizations and has much to recommend it.

In the case of potatoes, there is need that shipments from different districts to one market be brought under one control. In seasons of heavy production in particular, large markets have frequently been glutted by disordered shipping. An agency for performing this one service alone could be set up jointly by the several state or district organizations shipping into the same territory.

Strictly speaking, deciding when to ship and where to ship are two different functions. It may be desirable to reserve the former in the local or district, and delegate the latter to a central agency. Federations are likely to follow such a plan. No plan of giving the local or the district agency authority over distribution of shipments is likely to give satisfaction much of the time. Here is a case in which centralized control seems absolutely necessary. The California Fruit Growers' Exchange seems to be coming to the same conclusion.

Monopoly aspects.—An organization which has power to direct the shipment of the whole available supply is in a position to establish a "local" monopoly and make prices higher in one market than another. Unless, however, it did this intentionally and over a period, it would not be guilty of monopoly practice. On the other hand, a milk producers' organization which supplied several cities and purposely kept prices higher in one city than in another because of local competition or differences in population; or which sold part of its supply as market milk, part as butter, part as cheese, etc., and purposely raised the price of market milk above the normal competitive level because of its control of the supply, would surely be subject to prosecution. The Capper-Volstead Act will permit local monopolies only if they are temporary or accidental. Discrepancies between prices in different markets resulting from an honest attempt to distribute the crop to best advantage would not be questioned.

It is because of the danger of local monopoly that some have favored extending still further government participation in the control of distribution.

Still another way to control distribution is to assist organizations of wholesale receivers in the central markets.

CONTROL OF QUALITY

Control of quality usually requires control of methods of production as well as of harvesting, sorting, and packing. Closely associated with it is standardizing production by selecting varieties and types. The two steps in such a program are deciding what methods to use and what varieties and types to standardize; and getting the members and local managers to follow the methods chosen. The first should be determined by an overhead organization in close co-operation with local units. It requires a knowledge of market requirements as to grade and quality, and also an understanding of local conditions. Mere local preferences should also be given as much weight as possible.

The various plans for getting the members to follow specifications have already been discussed somewhat. When the product is one which can be sorted, as prunes, apples, eggs, or oranges, control of local warehousing operations may be all that is necessary. It is with products of this kind that the centralized type of organizations have been most successful. With such commodities it is relatively easy to establish standard market grades and brands. With products which absolutely require full co-operation of the grower, such as cotton, wheat, and butter, a long-time educational program is necessary. With potatoes, the problem is partly one of educating the growers, and partly one of training and controlling local warehousemen. The Michigan Potato Exchange has employed field men to train the local managers, but has given them no authority over grades. It has made fair progress, but undoubtedly could have made more if the central had been given more authority to enforce grade specifications. But quality will never really be established till the growers have been fully enlisted in the program, and this is a slow process.

The best machinery for improving quality in this country is therefore a local agency to furnish the necessary contacts with the grower, educate him, and enlist his support in the program; and a central organization to lay down the grade specification to be followed by the local warehousemen. One of the jobs of the local agency is to interpret and justify these grade specifications to the growers.

As is generally known, in Denmark and various other countries public authority has been invoked in controlling quality. It might have its uses in this country.

DISPOSING OF SURPLUS CROPS

Chief of the uses of advertising is to dispose of a surplus crop. The public is never fully enough aware of the existence of a large crop and low prices. A low price properly advertised will sell many more strawberries or prunes or apples than a still lower price left to the usual channels of publicity. There are usually certain weeks in the season for any crop when the supply is greatest. Selling campaigns accompanied by moderate prices can prevent gluts on such occasions. If advertising of such products was more largely reserved for large crops and peaks of the season, it would probably be more useful to growers in the end than general miscellaneous advertising.

The other important use for advertising, in connection with brands, will be discussed later. It should be stated at this point, however, that a fall in the price of an advertised brand increases its sale more than it does that of unbranded goods.

The California Fruit Growers' Exchange converts a large proportion of its large crops into by-products. The Wisconsin cherry growers can their surplus crops. Potato growers should develop this as one of their possibilities.

SELLING

The function of selling, of locating the best markets at any time, finding purchasers, developing regular customers and good-will, etc., is referred to frequently in recent discussion as "merchandising." It is argued by some that all manufacturers merchandise their own product and therefore the farmer must do it. This argument will stand a little examination. By no means do all manufacturers *merchandise* their own products. In some cases, it apparently works out most economically to have jobbers do it for them. Perhaps farm products are in this class. Let us examine a little further.

The tendency in recent years is for manufacturers to go around the middlemen when they are selling goods that are ready for personal consumption. This is because brands are being used more generally, and manufacturers of branded goods generally wish to control the marketing of them as far toward the consumer as possible. There is a similar tendency for such goods as automobiles, sewing machines, and typewriters, that require special salesmanship. But these two classes by no means comprise all manufactured goods. There are the long lists of staple and unbranded goods, such as hardware, cotton goods, staple groceries, and canned goods, that are sold through jobbing or wholesale agencies; also the goods that are sold under jobbers' brands; and the staples branded by manufacturers which tend to be sold through jobbing channels.[21]

A comparison of farm and manufactured products indicates that the former do not lend themselves to merchandising as readily as do the latter. Only one fourth of all agricultural products are ready for consumption when they leave the farm; the other three fourths must

[21] For a further discussion see Clark, Principles of Marketing, Ch. X.

be processed before they can be sold to ultimate consumers. A part of the one fourth may be classed as staples, the demand for which is already created, which means that they can not be advertised economically, partly because they are primarily the raw materials for making staple products, and partly because the manufacturer has the control of the distinctive character of the finished product which makes advertising worth while. Something may be accomplished in finding new purchasers and developing regular customers for the raw materials of the farm, but it will be for other reasons than for most of the integration in the manufacturers' market. Those manufacturers, as pointed out above, who do sell direct to retailers and consumers, do so primarily to utilize their advertising, and they have the advantage over the agricultural producer in that they are selling products which are more largely specialties and hence better adapted to this method of selling. The appeal to manufacturers' practices is therefore not very convincing.

As far as advertising itself is concerned, we shall eventually discover that the consumption of many commodities can not be greatly increased by advertising campaigns. We shall discover even that advertising of such products as oranges, raisins, and cranberries has serious limitations, especially if all of them are advertised at the same time.

According to figures prepared by the California Fruit Growers' Exchange, the consumption of oranges in the United States and Canada increased only 60 per cent faster than the population during the first ten years of advertising. On the other hand, the per capita consumption of lemons remained stationary, altho it should be noted that the domestic demand has shifted from Italian to California lemons and that while only one fourth of the lemons consumed were produced in California in 1903, three fourths of them came from California in 1919. During the twelve years of advertising, 1907-19, the total advertising expenditures for the Sunkist brand were $2,500,000.[22] We shall also discover that increasing consumption of a commodity in a period of depression and with numerous other national organizations competing is a far different thing from bidding against a few rivals for the extra dollars in pay checks in a period of rising wage-levels. But in the end we will still find that growers organizations can make certain advantageous uses of advertising.

We must conclude from the foregoing that it is by no means certain that farmers will profit in all cases by merchandising their products clear through to the retailer, or even to the jobber. Each commodity must be studied on its own merits. Take wheat, for example:

[22] Sunkist Advertising, by Don Francisco, Advertising Manager, California Fruit Growers' Exchange. The California Citrograph, January, 1920.

at present grain companies in some central markets are making a business of supplying small millers, who have no facilities of their own for making milling and baking tests, with wheat mixtures which will produce flour of certain specifications. Here is a chance for a limited amount of merchandising, in which a grocers' organization might possibly engage to advantage.

As another example, take butter. For some time, the theory has been advanced that much more high grade creamery butter could be sold if it were branded and properly advertised. The Minnesota Co-operative Creameries, Inc., is about to try an experiment to test this theory. If it is successful, here will be another case in which merchandising by producers is worth while. Butter is essentially a manufactured product; but the experiment is sure to be a significant one. The argument has been advanced that by means of advertising centralizers are able to sell 90-score butter as readily and for as good a price as 92-score butter is sold for without advertsing, and that therefore advertising will add greatly to the demand and price for 92-score butter. It remains to be seen whether the same people who now pay, say 55 cents, for 90-score centralizer brands will pay 58 or 60 cents for advertised 92-score branded butter.

Whether it will pay merely to sell potatoes to satisfied carlot customers, or to create brands and advertise, remains to be determined; also whether in the latter case it will pay to reach merely to the carlot buyer with brands and advertising, or to the retailer, or clear through to the consumer.

What about merchandising corn, oats, hay, livestock, and market milk?

Even if merchandising does not prove worth while with some commodities, there are still chances for small gains from merely reaching farther into the central market than at present. Integration does not necessarily carry with it merchandising methods; for example, the Central Co-operative Livestock Commission Association.

An organization may have one or two brands, but seldom more. It is never planned, at least at the start, to brand the whole output. but only the best of it. Eventually the whole output may qualify under one or two brands. The Danes have practically reached this goal with butter and bacon; but Danish agriculture is much more homogeneous than ours.

If only a part of the output is to be branded, no high degree of control of quality is essential to the use of brands. The better the control, however, the more will qualify for the brand. The control, however, has to reach clear back to the grower in most cases.

INTEGRATION

The question as to how much will be gained from merchandising is therefore closely related to the question as to how far toward the consumer it pays to integrate. The relation between the two questions is obvious in the case of potatoes. Should a crop like apples have its distribution controlled clear to the retailer, like soap and automobiles, or should distribution be controlled only to the wholesaler or jobber? Your manufacturer might say that as he was advertising clear through to the consumer, he ought to control his marketing at least to the retailer. But carrying distribution of apples through to the retailers would mean sending salesmen out to find buyers in the consumer's market, or else setting up special central market agencies for performing the usual functions of wholesalers and jobbers. However, it is doubtful if it would pay any one apple district to do this. The present agencies for doing this handle apples of all different varieties, coming from all districts, for consumption at all seasons; furthermore, they frequently combine apples with other produce.

Another angle on this problem is the following: In recent discussion of the advantages of co-operative central marketing, the statement has frequently been made that it means having the prices which growers receive controlled by "supply and demand at the point of consumption, rather than at the point of production." The phrase is very likely to mislead; but properly understood, its point is as follows: It is assumed that if the retailer-jobber-wholesaler combination of middlemen is given a supply of the commodity only as fast as the consumers will take it, in the first place, the prices the growers receive will rise and fall strictly parallel with the price the consumers pay, and in the second place, there will be less spread between growers' and consumers' prices. In theory, at least, it would look as if the first of these contentions were surely true. And there are two probabilities as to ways in which it might reduce the spread between consumer and grower. One is that the new system may reduce the number of persons and amount of capital required to perform the marketing functions between grower and retailer, or organize these functions on a basis which will enable a larger proportion of lower-priced employees to do the work. The other is that if prices to consumers more closely parallel growers' prices, consumption will be more responsive to production, and a large crop will be consumed at a faster rate than at present, and that gluts in the market will more quickly disappear. In other words, the present system has a large number of loose links in it which should take up the slack, and keep prices to consumers from dropping when they should, with the result that the rate of consumption is impeded, and prices to growers are still further reduced.

This is just another way of stating the argument for "integration," that is, having more of the steps in the marketing process under one control. As already indicated, integrated marketing promises much; but it has its limitations also. There will be some commodities whose distribution it will not help in the least; others it will help very greatly. Undoubtedly the possible gains from it have on the whole been greatly exaggerated. We can not conclude that just because the price to consumers does not respond immediately and proportionately to wholesale prices, the retailers and jobbers are making too much money. At any given time a jobber may be taking either a wider or narrower margin than is necessary to keep him in business—it is his average margin that is most significant. Similarly, retailers at any one time may be receiving less than necessary margins on some of their goods, and more than necessary margins on the rest. There are many reasons why it is not advisable for retailers to jump all their prices up and down along with jobbers' and wholesalers' prices. The practical question connected with this whole problem of integration is how far to integrate, how far down the line toward the consumer it will pay a growers' organization to assume control. It will be different for different commodities.

STATUS OF THE LOCALS

For various reasons, certain groups of co-operative leaders have conceived a disliking for the local as a unit in a co-operative marketing system. As one manager expressed it, "For a $50 share, the members expect $10,000 worth of authority over the affairs of the association. Everybody tries to be boss." This is seen especially at the time of receiving, sorting, and grading the product; but it is likely to show itself at any time that the manager has dealings with the members. It arises partly from a selfish interest of the members in getting the best possible consideration for their product; and partly from conceit of the members in the wisdom of their own notions as to what is best for the association. Obviously where such an attitude is pronounced, it interferes with carrying out consistently any kind of sorting, grading, or selling policy. In such a scheme of organization, the locals may behave the same way in their dealings with the central as the members do in their dealings with the local. In order to escape annoyances of this sort, the centralized organizations have gone to the other extreme and done away with the locals completely.

There is developing, however, a clear concensus of opinion in those parts of the country that have had extensive experience with co-operation, that the centralized organizations go too far, and that some type of local unit is necessary. Those who hold this view approach the problem from various angles. Those who have had experience with the centralized types of organization are likely to say that it is absolutely necessary that the association have adequate local representation in every community, that there must be a vital contact between the central and the members, and that it must be possible to reach the members through such a contact at any and all times. Nothing short of a local which is a definitely functioning part of the organization can give this vital steady contact.

In territory where federations are the rule, one is likely to hear the following point of view expressed: (We quote exactly the manager of one federation.) "We have been thirty years building up our system of local co-operatives. We know that they do not go the whole way, and that many of them are poorly organized and managed. But as far as they go, they are secure. If we were to allow them to lose their identity in a large marketing scheme, and it should fail, our work of thirty years would be largely wiped out. If we preserve the identity of our locals, we can fail and try again till we do succeed."

The weakness of the centralized organization seems to be in what looks like its strength. The members of such an organization apparently do not feel themselves co-operators who are participating in a collective enterprise, but rather as having made a very important contract with a somewhat distant business organization. One of the sayings that has been handed down about co-operation is that there can be no co-operation without the will to co-operate, but such a saying seems out of place in a strongly centralized organization. The will to co-operate practically ends when the contract has been signed, and authority at once is set up in its place. Also, as one would expect, the members are frequently not sufficiently loyal to such an organization, and turn upon it and attack it in its adversity. The ordinary human being has not the capacity of being loyal to an abstraction—it must be loyal to something concrete. A local association which they have helped organize, with whose personnel they come in frequent contact, whose policies they discuss on many occasions, is such a concrete embodiment.

Charles J. Brand, for many years chief of the United States Bureau of Markets, analyzes the problem thus: "The second fundamental principle is that the local union should be completely, perfectly, and strongly organized, and should be the foundation stone of the marketing structure to be raised above it. The reasons for emphasizing this point are that only in this way can each individual grower be brought into intimate participation in the many business activities that are involved in the distribution of their products. If the local association

THE UNIVERSITY OF MINNESOTA
Department of Agriculture

November 10, 1924.

In the middle paragraph of page 82 of our bulletin No. 211 on cooperative marketing which we sent you, appears the following statement:

"The citrus fruit growers' and walnut growers' organizations of California are federations preserving the status of the local units; the raisin and prune and apricot growers' organizations are strongly centralized with no local units. At present writing, the latter two associations are in financial difficulties and are being reorganized; and one of the major features of the new plans is the establishing of some kind of local unit."

This statement should not include the prune and apricot growers' association. Please make the correction in your copy or copies at once.

Yours truly,

John D. Black

Chief of Division.

is not a genuinely functioning body, it is not long before the grower loses sight of the fact that he is a part of a co-operative enterprise. He can see little difference between a distant co-operative sales agency and a private sales agency operated for individual profit. On the other hand, if his local organization handles an important part of the business and he is present at its frequent and regular meetings, or on its board of directors, he is soon educated to the extent and complexity of the marketing problem and forthwith becomes a more valuable member of the community.

"In the type of organization generally called the centralized type of organization, the growers are to some extent, at least, merely interested spectators. They are taking in the game, rooting, cheering, but not actually participating beyond the point of turning over the product."[23]

The citrus fruit growers' and walnut growers' organizations of California are federations preserving the status of the local units; the raisin [redacted] growers' organizations are strongly centralized with no local units. At present writing, the latter two associations are in financial difficulties and are being reorganized; and one of the major features of the new plans is the establishing of some kind of local unit. There is a strong preponderance of opinion among students of co-operation in California that the local unit, as retained by the citrus fruit growers and walnut growers, is vital to successful co-operation. These organizations look upon their local units as the very foundation work of their existence. They know that if the central organization should meet with disaster, the locals would still remain, and continue to function as locals till a new overhead organization could be set up.

In territory where locals already exist, the trend with few exceptions is in the direction of preserving the locals. The only question is as to how much control will be reserved in the locals. In territory where no locals exist, the question is as to the type of locals to establish. Some experimenting will be done with local "advisory councils," or "talking locals" as they are sometimes called; but it is likely that they will generally prove inadequate, and that in the end the local warehouse will become the center of a local unit with a considerable measure of control over local policies.

But in federated territory with locals well developed, there is an even stronger trend in the other direction. The California Fruit Growers' Exchange is exhibiting this tendency; also the Michigan Potato Growers' Exchange, and the Minnesota Co-operative Creameries, Inc.

[23] Better Crops, Nov. 1923, p. 62.

The two particular controls which are being more strongly established in the central are control of distribution and control of sorting and grading.

The judgment of the authors is that in the future we shall have intermediate types of organizations representing various degrees between the extreme federated type—like the California Fruit Growers' Exchange—and the extreme centralized type—like the California Sun-Maid Raisin Growers before it was reorganized. No type will be accepted as "standard" even for one commodity. Some organizations will succeed best on a rather strongly centralized basis. As Mr. Brand expresses it, "Some crops and some situations call for one, and some call for another." In general, however, the tendency will be for the authority of the local to be curtailed in the matter of sorting, grading, and packing, and in controlling distribution of the product. The time of delivery of the crop and time to sell will in a majority of cases be left with the members and the locals. For some time the locals will have more control in regions where they previously existed than in regions where they were created subsequently to or as a part of a large central marketing organization. In some cases, contracts will be between the members and the locals; and in some cases, perhaps, between the members and the central even tho membership is directly in the locals.

One of the important functions of the central organization will be the strengthening of the locals by improving their organization and management. The details of this will be discussed later. It sometimes appears as if those who would dispense with the locals because so many of them are inefficient have never considered the possibilities of bettering them and making them as useful as possible.

One of the arguments that has been advanced for doing away with the local is that the selling must be separated from the warehousing, so as to conform with the non-profit stipulations of the Clayton Act. The theory upon which this was based was made ancient history by the passage of the Capper-Volstead Act, which gives equal privileges to both the stock and the non-stock type of organization. There is no legal objection whatever to having the warehousing unit also a voting and managerial unit in a selling program.

A much better argument for separating the two functions is on the score of financing, as will be explained later.

THE MEMBERSHIP CONTRACT

The membership contract is the instrument that legally binds the membership to an association. It is usually in the form of a simple, express contract which specifies the conditions of membership, the rights and obligations of the member, the functions and services of the association, and the remedies to be resorted to in case of breach.

Purposes of membership contracts.—The uses of membership contracts are as follows:

1. To assure in advance a sufficient volume of business.
2. To let the association know in advance how much business it will have, so that it can make adequate plans for it.
3. To furnish a basis for credit to the association and to the growers.
4. To furnish a basis for control over distribution of the product.
5. In some cases, to furnish a basis for more control of quality.
6. In some cases to furnish a basis for collective bargaining and control over time of movement to market.
7. To prevent competitors from disrupting the organization.

The type and form of contract to be used in any situation should be based on adaptability to the foregoing seven purposes, or such of them as are important in the particular situation.

Title to the product.—Of 54 contracts analyzed from this point of view, 41 specifically transfer title to the product to the association, and the other 13 are agency contracts. Of the 41 contracts specifically transferring title, 39 are for centralized organizations and two are for federations. Of the 13 agency contracts, 8 are for federations and 5 for centralized organizations. Of the 41 which transfer title, 25 are called "purchase and sale agreements" in the contracts, 14 simply specify transfer of title, and 2 are called agency contracts in spite of the fact that they specifically transfer title.

The exact legal interpretation to be given to these different types of contracts is somewhat uncertain, especially the transfer-of-title contracts. It has been argued that as the association has no claim upon any profits from produce sold by it, the transfer of title to it has been merely a convenience in making sales for the benefit of the members, and that the association really has only taken the produce in trust. If this interpretation is correct, it means that the accounts of each pool must be segregated and no returns of one pool can be carried over to another as reserves or as assets of any kind; and that the commodities in any one pool can be pledged only to secure advances for members in that pool. Prof. Ballantine, of the University of Minnesota Law School, believes that this contention is unsound, that "the fact that the price is to be governed by the amount realized in re-sale after deducting proper expenses, is not a strong indication of trust relationship . . . ., that it is a mere method of determining the purchase price . . . . that when the crops are delivered, they become the corporation assets."[24] Prof. Ballantine also argues on the same grounds that the dictum that "the growers have at all times a beneficial interest in the net proceeds of the pool," as stated in the Texas Cotton Association case, is based on a wrong theory.

The supposed advantage of transferring title to the association is that bankers, finance corporations, and the like will not advance money on produce held in a warehouse under an agency contract. It is doubtful if this distinction will be made for very long; for it would seem that an agency contract giving control over time of delivery, distribution, sorting, and grading is as good a basis for credit as a purchase-and-sale contract.

For all other of the seven purposes of membership contracts, an agency contract can be entirely adequate.

The prevalence of the transfer-of-title contract among the centralized associations is probably to be attributed to a belief on the part of its originators that it made them safer from possible attack in the courts for "restraint of trade." An organization could not be accused of restraining trade when it was simply selling its own product. Of course, it might still be attacked as a monopoly. Under the Capper-Volstead Act, however, an association would be equally subject to attack for restraint of trade under either a transfer-of-title or an agency contract.

Between whom?—It is undoubtedly true that the terms of a contract directly between the central organization and the grower are likely to be executed somewhat more promptly and decisively than the terms of a series of two contracts, one between grower and local, and the other between local and central. However, a high degree of promptness and decisiveness is not necessary to assure an adequate volume of business, furnish a basis of credit, control quality, or control time of delivery, or for any other of the purposes of contracts. At least, what little of desirable promptness and decisiveness is not secured can surely in most cases be sacrificed for the sake of the advantages of maintaining the local unit. The one possible exception to this is in the control of sorting and grading. Yet the California Fruit Growers have solved even this problem with local units, and the method they have used of laying down and enforcing specifications for their brands is rather generally applicable. Some of the members of locals may, it is true, object to the vigorous sorting by the manager of the local, frequently needed, but the central can be given enough power over the local to induce it to exert its authority over a recalcitrant member if necessary. As a matter of practical administration, force should

[24] 8 Minn. Law Review, 1 (Dec. 1923).

seldom be resorted to by either the central or the local. The management of either will be weak almost in proportion to the number of times it needs to show its authority. Infinitely more can be accomplished by instruction and suggestion and by developing incentives than by show of authority. The local is in a much better position to use such methods effectively than is a distant central organization hiring through a cross-contract the services of a local warehouse and manager.

It is sometimes argued that a local can not or will not enforce its contracts. If need be, the central can help the locals to enforce their contracts. Furthermore, there are likely to be far fewer contracts to enforce if they are made out between the member and the local. No more serious charge can be made against some of our present central marketing organizations than that they have so many violations of their contracts. There is something seriously at fault with the promotion or management of an organization from 2 to 5 per cent of whose members violate contracts.

As already explained, it is feasible to have the grower's membership in the local unit, and a separate crop contract between the grower and the central. Such an arrangement, however, has nothing to recommend it over a contract between the grower and the local, unless some financing agency conceives a preference for it.

Length of contract.—The foregoing analysis shows, however, that associations using contracts of different lengths have apparently succeeded; in fact, some are succeeding without any contract whatever. If experience shows anything, it is that there is no one proper term of the contract. The conditions under which an association is operating, its purpose, and the attitude of the people with whom it is dealing, should determine the length of the term. Just why certain leaders are insisting that the 5- to 7-year contract is the sine qua non of successful co-operative organization is difficult to understand. Even such a well known centralized organization as the Sun Maid Raisin Growers, with its present 14-year contract, now provides that members may withdraw from the contract at the end of any two-year period. It has more recently shortened rather than lengthened the period at which members may cancel their contracts.

A membership contract ought to run long enough to give an association an opportunity to demonstrate its possibilities. With some commodities, two years or even less may be enough; with others, five years may be needed. It is difficult to see why more than five years will ever be needed. The factors determining the time required to demonstrate success are as follows: (1) With some commodities the price is not sufficiently predictable that an association may not go wrong several years in succession. Table III shows that an association following the predicting formula upon which it is based would have been safe on this score even with a one-year contract all years but five and with a two-year contract probably all years but two. With wheat, this would not be the case; but a wheat-growers organization has no business trying to forecast the price for the present—it must either use the regular futures market for hedging, in which case a two-year contract would be adequate, or else sell the same proportion of its crop each month or season every year, in which case high and low years should compensate sufficiently over a five-year period. So far as prices are concerned, an egg marketing association needs only a very short contract unless it attempts to store. If it stores eggs on the basis of a good predicting formula, it should ordinarily need not more than three years to come out even on the ups and downs of prices. If it does not have a good formula, it is doubtful if it should do any storing. (2) With some commodities, a large nation-wide selling organization may need to be set up, which will take several years to develop properly. A long-time advertising campaign may need to be undertaken, or it may take a few years to build up quality in the product. If there is any danger that the association will make an unfavorable showing the first few years while these things are being accomplished, the contract should be long enough to cover them. Most of the California organizations come in this category. Their market is nation-wide, and time was required to develop their selling program. (3) If all the financing that is needed is a crop at a time, a one-year contract will be adequate for any sound plan of financing. If, however, warehouses need to be built and paid for, and the like, it may not be possible to borrow the money unless the contract ties up the member long enough to insure the payment of the loan. The Burley Tobacco Growers needed a five-year contract for this reason.

The plan of having the contracts automatically renewable seems to be thoroly workable, and a one-year interval is by all means the best suited to most conditions. Another point of view with respect to this question is of great importance but frequently ignored, namely, that an association which can not demonstrate its competency in a reasonable period has no right to be holding growers by a long-term contract. The contract should really have mutuality in it. In essence, the grower says: "We think that in a period of, say three years, you should be able to demonstrate whether you can succeed with your plan. We give you three years in which to do it. If at the end of that time you have not done it, we are free to withdraw; or at the end of any year subsequently when your plan finally fails to achieve results." The grower might add: "If we gave you five or seven years, you would be having an unfair advantage over us after the third year." In view of the fact that many of the new organizations now starting will not justify themselves in a reasonable period, this point needs emphasis.

In this connection, it is also necessary to explain that long-term contracts give no guarantee that an association will have the specified amount of time in which to experiment with selling methods, to try its hand at out-guessing the market. If the association makes a bad break or two, it will go under just as surely at the end of the first, second, or third year as if it had only a one-year contract. In fact, it is probable that certain organizations have been able to continue after the first year only because they had a one-year contract which gave the discontented ones a chance to withdraw. If these had been tied with a five-year contract, they would have disrupted the organization in order to be free. The long-term contract merely gives more assurance that the members will not break away for minor and petty reasons, of which there are a good many different sorts, or because of small mistakes made by the management.

In general, the tendency in the matter of length of contract is toward a two- or three-year period at the start, with annual automatic renewals thereafter. This self-renewal arrangement will presently, of course, put a large part of our co-operative marketing on a one-year basis, as in Denmark today. Only the organizations just starting will have members tied for more than a year. There are those who are favoring a five-year contract for all occasions; and those who, like the cheese producers of Wisconsin, will not even approve a two-year contract, but these are the extremes.

Other economic considerations.—The use of contracts to assure necessary volume of business is especially important if a large selling or warehousing system is to be developed. Where locals are already well established, however, and the produce is to be sold through regular channels already established, as with butter, livestock, and grain in Minnesota, the organization would probably be assured of a sufficient volume of business without contracts. Some locals would break away, but new ones would constantly take their places. Some locals would fail from lack of patronage, but there would always be enough left to keep up the volume.

When a member does break away from a local and sells to a competing agency, it is exasperating to the organization deserted. Most of us are so autocratic that our first reaction in such a case would be to reach out for some kind of power to compel the member to sell to his organization. The membership contract is an easy device for providing the organization with such power. In fact, it might readily prove to be too easy a device and be overworked. This particular use of membership contracts is actually about the least important of any.

There are, however, many instances of the competing agencies resorting to unfair tactics on a rather large scale; and it is fitting and proper in such cases that membership contracts should be used as a weapon of defense.

In the matter of control of quality, contracts can be made to cover such specific things as the variety of potatoes or cotton grown, or the breed of hens kept, or the type of seed planted, and thus be of assistance in standardizing production. It should not be used in such a way as to appear to force members into keeping breeds of poultry they do not like.

There have been suggestions that the contract could also be made to include the number of acres to be planted, or number of cows to be kept, and thus serve as a device for regulating production. The difficulties of enforcing such a feature of a membership contract, to say nothing about its questionable legal aspects, are enough to condemn it as unworkable.

Form of contract.—The actual declaration of agreement may be incorporated in the preamble to the articles of association, with the details of business relationship, handling of the crop, etc., included in the by-laws. This is one of the older forms of contract. A slight variation from this is to have the declaration of agreement included in the by-laws along with the special provisions as to business relationships. Still another form is to put the actual declaration of agreement in a concluding chapter or "testimonium clause," which specifies as a condition of membership compliance with the foregoing by-law arrangements as to business relationships, handling of the crop, and other items. In all these cases, the member signs the crop contract when he signs the constitution and by-laws.

A more common arrangement today is a combination document which puts the crop and marketing agreement in a separate place, but specifies in the by-laws that the contract which follows is to all intents and purposes a part of the by-laws. The member may sign both documents, or only the contract, it being assumed that he must read the by-laws and approve them before he signs the contract.

Legal aspects.—In three principal cases, according to Prof. Ballantine, exclusive dealing contracts of farmers' organizations have been declared illegal. Chief of these cases is *Reeves* v. *Decorah Farmers' Co-operative Society,* a 1913 case, in which, however, a penalty was involved.[25] The court ruled that the "plaitiff was placed at a disadvantage and could not compete with the society in purchasing hogs from its members, and the members were not free to deal with the

[25] 160 Iowa 194.

plaintiff." Thus the language of this decision is sweeping, and raises doubt as to the legality of all exclusive dealing contracts whether with a penalty provision or not. However, the general trend of all recent decisions, even in Iowa, has been in the opposite direction, and Prof. Ballantine concludes as follows: "Contracts between co-operative associations and their members for exclusive dealing over a period of years, especially where authorized by statute, have now been upheld by a number of states as not being an undue restraint of trade. It is recognized that they are part of a system of collective marketing, that the purpose is merely to secure a fair and reasonable price for the products, and that such contracts are not to be condemned when they are not in fact hostile to the public welfare."[26]

Liquidated damages.—Of 67 contracts of central marketing organizations examined, 61 specify amounts to be paid by the member in case of failure to deliver his product to the organization. These are in nearly all cases called "liquidated damages." They are no doubt sufficiently high in some cases that they amount to penalties. A penalty, strictly speaking, is an amount in excess of a reasonable allowance for such damage. Penalties of this sort are illegal and can not be collected. The term, however, is sometimes loosely used to represent any form of payment for breach of contract. The court may, therefore, be called upon at times to determine whether that which is called a penalty may not be merely a liquidated damage. There is considerable probability that the usual courts of first resort will accept the naming in the contract of such a payment as a penalty, as proof that it is more than a reasonable estimate of damages suffered, especially if the amount named is a little high. On the other hand, the courts may also have to declare that what is called a liquidated damage may also be a penalty in addition and therefore unenforceable to that extent.

Thirty-nine of the 61 associations whose contracts provide for liquidated damages also include a clause giving the association the right to secure an injunction to prevent breach or to secure a decree for specific performances. The contract of one association entitles it to an injunction without liquidated damages or penalty. Of the 40 associations which are entitled to an injunction by the terms of their contracts, 39 are of the centralized type. This indicates clearly the origin of the provision. Except in the one California case, in which a state statute interfered, the courts have allowed such injunctions and have granted specific preference. "The theory upon which this decision is based is that the damage to the association can not be computed in any definite way, and that the only adequate remedy is to

[26] 8 Minn. Law Review, 1 (Dec. 1923).

force delivery of the crop to the association and prevent the member from selling to others."[27] Professor Ballantine is of the opinion that the courts would have considered themselves authorized to administer these remedies even if it were not provided for in specific pursuits. And providing for it in a contract does not assure the association such relief unless the special circumstances are such that granting it is in accordance with the usual principles of equity.

Similarly, any person who wrongfully induces another to commit a breach of contract may be held liable to a tort action, and no specific statute is needed to provide for this in a membership contract. The Minnesota statute, however, now provides a particular penalty of $500 for each such offense in the case of marketing contracts.[28]

Adaptation to special conditions.—The provisions of the contract as to length, title to the product, control of quality, remedies for breach, etc., should be adapted to the special circumstances connected with the marketing of each commodity and the special reforms required for a better marketing program; and they should also to a large extent, altho not altogether, be adjusted to fit the ideas of the constituency. The California egg producers were urged to adopt a long-term "standard contract"; they decided upon a one-year contract, and have not found adequate reasons for changing to a longer one. The Wisconsin Cheese Federation encountered so much criticism of its two-year contract originally adopted that in 1920 it changed to a one-year contract. If a particular group of growers does not like the liquidated damage idea, it can provide maintenance assessments instead, which surely can not be considered unreasonable.

The efficacy of membership contracts is usually greatly exaggerated. Their most important reason for being is that they furnish the basis for a membership drive and reduce the matter of membership to very definite terms. Their second most important reason for being is that financial agencies granting loans like to have the basis for their credit made as definite as possible. For most marketing organizations, especially overhead or central marketing organizations, contracts will make success somewhat more probable; in some cases a great deal more probable; in more cases, only a little more probable. In few cases are they absolutely essential to success. At present the membership contract is something of a fetish; we shall need a good bit more experience with it before we understand its true usefulness.

[27] H. W. Ballantine, "Co-operative Marketing Associations," 8 Minn. Law Review, 1 (Dec. 1923).

[28] H. W. Ballantine, "Co-operative Marketing Associations," 8 Minn. Law Review. : (Dec. 1923).

FINANCING

As previously suggested, there are two problems connected with the financing of a co-operative central marketing organization, (1) that of providing for the organization itself, and whatever plants and equipment and working capital it needs, and (2) that of financing the handling of the product.

In regard to the latter problem, its difficulties are increased by having the season the period of the pool, for this means that every member in the organization is entitled to ask for an advance at time either of delivery of his product or registration of his product in the pool; and that most of them do ask for it, whether they really need the money or not. If the month were the period of the pool, many growers, amply able to carry their crop themselves, would enter it in a later pool. There would still be some of the crop in the early pool to carry over till late in the season, but the amount of carrying that the association would need to finance would be greatly reduced. Nor would such a plan interfere with "feeding the market" provided the central association was given authority to call for an earlier delivery if necessary, or had won the confidence of the members in the soundness of its policy.

This raises the question as to the distribution of the interest expense of a pool. The proper method is to charge each grower receiving an advance his share in the interest and overhead cost of it. A simpler method frequently would be to charge the interest against the whole pool and credit those who do not ask for an advance. If either of these practices is followed, there will be less tendency to ask for advances unless necessary.

One danger connected with such loans is that the advances will be too large. Two important associations are at present in financial difficulties because they forecasted too high a price, and advanced more money than thir crop sold for later. Besides, they had a lot of the crop left on their hands at the end of the season. One would expect bankers always to be sufficiently conservative in a matter of this kind, but apparently they are not. An association really has nothing to gain in the end from securing too large a loan; but its disposition will usually be to get all that it can.

Another danger is that in a year of heavy production some of the crop will be left on hand at the end of the season, making it necessary for the association to carry it over. This is likely to be the case with cotton, tobacco, and wool, as manufacturers and dealers frequently carry large stocks of these in advance of current needs. This means that the loans will need to be renewed, perhaps several times. Very few credit institutions today are in a position to do this renewing and feel comfortable about it. Even the War Finance Corporation felt constrained under such circumstances to urge its borrowers to sell their crop for what they could get and pay off their obligations.

The trouble some associations are having with matters of this kind is causing them to consider other methods of financing, such as building up a reserve. Others are inducing the growers to wait for their returns till the pool is closed. Short-period pools make this easier. Having each association carry its own reserve would, of course, be very uneconomical, as its funds would not be advantageously used much of the year. Our credit institutions are certainly in the best position to furnish funds for crop movement and will no doubt in time adjust their practices to the needs of such financing.

One important factor in the attitude of banks on this subject is their fear that associations, like individuals, will frequently get foolish notions that the price is altogether too low and want to hold for a higher price. It is generally agreed that growers should be put in a position where they can borrow and hold their crop if they want to; but it is also generally agreed that at first this new freedom may do them more harm than good. Associations financing the growers are likely to blunder along in the same way for several years. This has already been demonstrated in numerous instances. The solution of this difficulty is the setting up of statistical departments capable of demonstrating, as can now be done for potatoes, what risk a bank is assuming in financing an association which may try to hold its crop.

Fixed capital.—Minnesota co-operatives can provide for fixed capital in several ways, as follows: By selling shares of stock to growers under the general co-operative laws of Minnesota, as revised by the last legislature (Chap. 264), or under the special co-operative act passed by the last legislature (Chap. 264); by selling preferred stock to non-members in addition, if desired, as provided for in both acts; by selling memberships in a non-stock corporation as provided for by the last session of the legislature in both acts (see Sec. 1 of Chap. 326). The provision for this in the general co-operative law, however, leaves all the details to be developed in the by-laws.

The device of selling preferred stock as a means of obtaining support from persons not elegible to membership has been advocated for some time in Minnesota and should be made use of freely in preference to borrowing from banks because of its greater elasticity in the matter of dividends. Local co-operatives will find it as useful as will the central co-operatives.

Memberships differ from shares of stock in that no dividends are paid on them. They can be as large as shares of stock, but usually are not. One principal reason for this is that the signing up of members and of crop contracts is usually either one and the same act, or done at the same time, and the campaign would go much more slowly if a large initial membership fee were required. The fee asked is therefore frequently only large enough to pay the promotion expenses and keep the organization going till the first crop is ready to sell. If more funds are needed than can be obtained in this way, as, for example, if warehouses must be built or bought, a common device, as already explained, is to set up a second corporation for this purpose, in many cases with both preferred and common stock. The campaign to raise the funds for this corporation can proceed much more slowly if need be; and if it does not succeed, perhaps warehouses can be rented for a year or two, or cars can be loaded at sidings.

The method just outlined therefore has much to recommend it as a practical program for getting a new organization started when considerable capital is needed. Where this is not the case, or where most of the warehousing needed is at local points, and warehouses are already built and owned by local co-operatives, it may be possible to make the membership fee large enough to cover all requirements, and if so, it is to be preferred.

The special co-operative act provides that the membership fees may be varied according to the volume of business to be handled for each member. This is important where the differences in volume are considerable.

No general statement can be made as to whether the stock or non-stock form of organization is to be preferred. If organized in conformity with Minnesota co-operative laws, one represents as good co-operative principle as the other. They enjoy the same privileges under the provisions of the Capper-Volstead Act; and undoubtedly will in the courts of Minnesota. Capital-stock organizations have not always handled their affairs in such a way as to be exempt from income taxation; but they can do so if they will make the effort, and it will be as easy for them as if they were non-stock companies. A disadvantage of the non-stock type of organization is that it still is more or less untried, and there are many uncertainties with respect to it. Most of the stockholders in a capital-stock organization have a feeling of financial responsibility for it because of their investment, which is lacking in a non-stock organization. Under the Minnesota constitution stockholders in co-operative marketing enterprises have double liability no matter under which act incorporated; under the non-stock arrangement their liability is probably limited to the amount of their unpaid membership fee.

All these differences, however, are of minor significance. The type of commodity and marketing problem is the most important factor in determining which form is to be preferred. Livestock shipping associations, and federations of these, which need very little capital, whose membership is bound to be changing because of the shifting about of farmers, especially of tenants, should choose the non-stock form, combining with it some arrangement by which shippers become members almost automatically. Creameries, with their large investments in plant and equipment, should organize on the capital-stock basis; but a federation of creameries could well be organized without stock. An egg association, on the other hand, might need to build district warehouses, which would probably require it to sell shares of stock.

NON-MEMBER BUSINESS

Both Minnesota co-operative acts provide for handling non-member business if desired, the special Capper-Volstead Act providing that it must be less than half of the total business. The general act provides that earnings on non-member business may be kept on the books as credits toward shares of stock. If this practice is followed, such earnings can not possibly be classified as profits under the United States revenue act.

Undoubtedly the best plan for a new organization is to assure itself where possible of a sufficient volume of business at the beginning by the use of membership contracts. Unless this can be done, it is probably not wise to start. The question remains, however, as to whether the way to handle those who do not sign is to refuse to handle their business altogether, or to handle it on some equitable basis. The first reaction of most persons is that the first course is the proper one. It is to be doubted if it is usually the right course to pursue. In most cases the outsiders will have no difficulty in finding buyers for their produce, and frequently at equally good prices. Their business brings buyers to the territory. The result is that the growers are split into two rival factions, each firm in its own convictions. This is conspicuously the case in New York to-day, and to a lesser extent in California. The other plan will be to offer to handle the produce of non-members, or such of it as facilities are available for, on a service-charge basis high enough to compensate amply for overhead and risk. In this way the outsiders will gradually be drawn into the organization, and will at all times have a more friendly feeling toward it. This does not mean that they will never be asked to sign contracts, but merely that they will not be interdicted for not doing so. In a territory with a good deal of tenancy, many new growers will move into the district each season, and it will take time for some of these to see the value of the association to them.

The principal argument advanced against this method is that growers will not join if they know they can get their crop handled anyway. The answer is that a service charge can be determined which will be high enough to make them prefer to join, and yet not so high as to make the association liable to pay income taxes.

The question is especially important in districts where locals have been built up without membership contracts and it becomes advisable, for the sake of financing central marketing operations and the like, to introduce membership contracts. There are sure to be at the start a good many members who object to the principle of the membership contract. It will be unwise to try to force them out of the local. Hence some special way will need to be developed for handling their business.

In the case of grain elevators, a central supply department of a federation of locals could be of great service and introduce some genuine economies. There is, however, more chance for conflict of interest to develop because in some sections even of Minnesota the supply business is almost as important as the grain business, and many farmers sell no grain whatever. Whatever arrangement is made, the supply business should be preserved as an important sideline of the local elevator business wherever the combination has proved economical in the past.

IMPROVING THE ORGANIZATION AND MANAGEMENT OF THE LOCALS

Federations in some states have already done splendid work in strengthening the locals and improving their methods. One of the first programs undertaken is installing uniform accounting systems and furnishing auditing service. This alone will improve management surprisingly, for it has the effect of revealing the causes of loss in any elevator and also showing why certain elevators have lower costs and furnish better service than others. An even more important service that the central can render is to prevent local co-operatives from starting where they will not be successful, and to help organize new co-operatives where they are needed, especially to help them with their financing. One of the first things that the central should undertake is a survey of the territory to determine how many locals are really needed and where they should be located. This will then become the plan toward which they will work as rapidly as feasible. The accounting and auditing service can be imposed upon the locals and made obligatory as part of the contract; or it can be furnished to the locals gratis.. The second plan will work better than the first in many cases. The foregoing are only two examples of help which the centrals can furnish the locals. There is no detail of business practice which can not be analyzed and standardized. In time we shall come to look upon this as one of the principal functions of central organizations.

MINNESOTA CO-OPERATIVE ACTS

Co-operatives in Minnesota, either central or local, can now organize under either of two acts, which we will refer to as the General Co-operative Act and the Special Act. Professor Ballantine has pointed out fourteen differences between these two acts.[29] The most important of these may be summarized as follows:

1. Associations filing under the special act can not have contracts for longer terms than five years; and any person inducing a member to violate his contract shall be guilty of a misdemeanor, and shall be liable in civil suit for the penal sum of $500 for each offense. A contract for sale is also specifically defined as delivering title absolutely and unreservedly except for recorded liens—as already explained there has been some doubt on this point. (Agency contracts are also provided for.) These are the only new developments provided in the special act in the matter of membership contracts. The act, it is true, authorizes liquidated damages for breach of contract, but this remedy was already available and had been utilized in the state for some time. It also authorizes the use of injunctions to prevent breach of contract, and decrees to compel specific performance; but these remedies were already available at equity, altho probably not so available as they are under the specific statute. The act also declares that no association organized and operating according to its provisions "shall be deemed to be a combination in restraint of trade or an illegal monopoly;" but this has very little significance, for in the first place, the courts will judge co-operative associations alike in this respect whether they are organized under the general act or the special act (the general act authorizes collective buying and selling); and in the second place, it is very unlikely that the courts of Minnesota will permit any action by co-operative associations that will "unduly enhance the price" no matter what the language of the special act may be.

It thus appears that the contribution of the special act in the matter of marketing contracts is principally to assemble the various legal considerations bearing upon them and outline a plan for such a contract. The only new developments are the first three mentioned, and these

[29] 8 Minn. Law Review 1 (Dec. 1923).

are not of first-rate significance. Except in these three particulars, associations will be on the same basis in the matter of membership contracts under whichever act they are incorporated. Everything else in the special act is by way of sugggestion or is not new. The general act does not specifically provide for membership contracts; but no specific provision is needed.

2. The general act merely authorizes incorporation without capital stock. The special act outlines the conditions of such incorporation in considerable detail, and in particular provides that liability is limited to the amount of the unpaid membership fee, and that the by-laws shall define the property rights of members in the association, and that accordingly the interest of a member in the association upon his death or withdrawal or expulsion from it must be appraised and paid to him or his heirs. The purpose of this is no doubt to save non-stock associations from filing federal income tax statements. It would appear that non-stock incorporation can be better managed under the special act, except certain informal organizations, such as livestock shipping associations.

3. The general act has elaborate provisions as to distribution of income, building up reserves for depreciation and other possible losses, for new buildings and equipment, and for a permanent surplus, which the special act has not. These provisions were made thus specific partly to save capital-stock corporations from being held liable to pay federal income taxes. It is likely that the simpler provisions of the general act as to reserves are not well adapted to a pooling business.

4. The special act provides that only growers can own common stock; the general act has no such prohibition.

5. The general act provides that preferred stock shall not carry voting power. The special act leaves this matter open.

6. The general act authorizes the stating of a debt limit; the special act does not.

7. The special act provides for a referendum of matters of policy to the stockholders or members, and also for the recall of officers and directors. The general act has nothing of this sort.

8. The general act provides in Section I for other than marketing co-operation.

The remaining differences are of still less consequence. It thus appears that the two acts are not as radically different in their effect as is commonly supposed. They principally supplement each other. Each could benefit from the inclusion of some of the provisions of the other. Neither alone is as well adapted as it might be to the sort of co-operative marketing that is likely to develop in the state. The general act was greatly improved at the last session of the legislature.

It is likely that it will be still further amended. It is almost certain that the special act will be appreciably modified in time. In the end, the two acts will surely be combined.

SUMMARY

Any analysis of co-operative associations in the central markets soon reveals the fact that there are two imporant types so far as as methods of operation, form of organization, and purposes are concerned. These are the so-called "federated" type and the "centralized," sometimes called "commodity," type. Altho different organizations within each type vary greatly, four important differences are always present. Stated in terms of the centralized type of organization, these differences are as follows: (1) Abolition of the local co-operative unit as a pooling unit; (2) membership in the central organization or some mechanical subdivision of it, rather than in the local unit; and membership contracts on the same basis; (3) complete control of the product—as to "when" to sell it and as to "where" to sell it, and how to grade and pack it; (4) control of all or a large part of the supply in order to be able to name a price and make it effective. This latter feature is likely to become less distinctive when the centralized plan is applied to grain, livestock, and other commodities produced over a wide territory.

No clear-cut classification can be made on this basis. It can generally be said, however, that as a federation takes on one or more of these features such as No. 1 or No. 3, it is verging toward the centralized type, and on the contrary, any centralized organization which has locals, which leaves the control of when and where to ship mostly with the local, or which in other respects does not have all of these four characteristics, is tending in the other direction. The Minnesota Co-operative Creameries Association, Incorporated, for example, is a federation, but is now taking on No. 1 and No. 3 to some extent. On the other hand, the Sun-Maid Raisin Growers, which meets all the tests of a centralized association, is organizing locals which are expected to play an important part in marketing California raisins.

When these four differences were applied as a test to one hundred central market co-operatives located in thirty-three states, the organizations were found divided about equally between the centralized and the federated types. Centralized organizations predominate in the south and west, where the chief products are perishable, are poorly standardized, and are marketed through decentralized marketing systems. Federations are more common in the North Central states, where local co-operation is best developed and where the principal products are staples, are better standardized, and are marketed through centralized marketing systems.

Milk producers' associations obviously do not fit into this classification and they are not included in the number of organizations summarized. They are really locals that coincide with the whole market area and that emphasize the control of a large part of the supply because the milk distributing business is in a relatively few hands.

Other characteristics, as the length and use of the membership contract, provision for damages for breach of contract, method of incorporation (stock vs. non-stock with subsidiary warehousing corporations), handling non-member business, combining the marketing of two or more products, selling methods, and the degree of integration, might also be noted. These differences, however, when applied as tests to the centralized and federated associations, do not prove to be decisive. Fo example, centralized associations are predominantly non-stock corporations; yet many federations, as the Michigan Potato Exchange, take the non-stock form. The way in which these two types of associations handle marketing problems at the central market is after all much more important than these distinctions in form of organization.

An analysis of the form of organization of these associations does show, however, that the program of the centralized type is fundamentally legalistic and involves tying the growers firmly to a rigid, formal organization frequently set up according to political divisions, with all the necessary legal devices to compel members to obey all the provisions. The federation program, on the other hand, is more democratic. It proposes to accomplish the same end by leadership, education, and incentive, and leave the member more free to follow instructions or not as he sees fit. It has faith that if the central federation performs its part well, the members will be loyal to it. Its organization is therefore built on the basis of natural social and economic groupings. This is the most important difference between the two types of organization. It is a significant fact that Danish co-operatives are very similar in this respect to the federations of Minnesota and neighboring states.

These two types of organizations have developed under different conditions of production and marketing and they have obtained their different characteristics largely if not wholly from the different problems with which the organizations were confronted in the central market. Some of these central market problems and the way in which they are handled by overhead associations are as follows:

Control of quality.—It has been pointed out that local co-operatives, by failing to market a product of uniformly good quality, have been unable to obtain good prices for products and to develop regular outlets for them. Managers of the locals are too often ignorant of central market requirements, or indifferent to them; and when they know the kind of product wanted, they do not always have the co-operation of producers.

A central co-operative association can therefore provide market specifications for the local markets. It may enforce them and it may also help the local market to secure the co-operation of the growers to make the specifications effective. The amount of authority to enforce these specifications that should be left to the central should probably depended upon the type of commodity. Associations of the centralized type, for example, have been most successful in marketing products graded and packed locally and sold by brand. Where the improvement in quality requires the full co-operation of producers in the standardization of varieties and methods of production, as for wheat, livestock, or butter, the federated type is more effective because it has locals to maintain the contacts between the central and the producers. Local warehouse or manufacturing associations might establish these contacts. However, in centralized associations, the warehouse is usually owned by a corporation organized on a district or state basis.

Standardizing production.—This is essential to improvement in quality and to economical marketing. The federation with its superior local contacts is better organized than the centralized type, however, to enlist the support of producers in the matter of selecting pure seeds and reducing the types or varieties produced to a few that are best adapted to conditions.

Adjusting production to consumption.—Public and private agencies disseminate a great deal of market information that is useful in helping growers to decide what to produce, but a large part of it does not reach them. A central organization may therefore render an important service in interpreting and supplementing such information and providing the means of getting it to the growers. Here again the federation offers the superior facilities for getting the information across to the growers.

Stabilizing production.—Co-operation has done very little to eliminate the great social waste that results from cycles of over-production and under-production. Local co-operation obviously can do very little with it, except perhaps in the case of local milk producers' associations and local fruit and vegetable growers' associations. Central market co-operation has also done very little with it, partly bcause most co-operatives have been busily engaged in handling more immediate marketing problems, and partly because they have been uncertain of the legality of control of output. The Clayton amendment specifically exempts horticultural and labor organizations from the provisions of the Sherman Anti-Trust Act. About thirty states also exempt co-operative associations from the anti-trust laws of their states. However, these laws have never been thoroly tested and it is probable that the courts will not uphold a policy of restriction of output that raises prices over any considerable period. More recently the Capper-Volstead Act exempts co-operatives from the federal anti-trust laws only providing they do not "unduly enhance" the price.

There are three possible methods of trying to handle this problem. The first method is to permit co-operatives to control production. However, such a policy would probably ultimately result in a disadvantage to the producer. Moreover, such a policy offers no protection to the public against unreasonably high prices. The second method is to try to determine "necessary price" and expect the courts to declare any price not unduly enhanced that does not call forth more than the necessary supply. The objections to this are that necessary price is very hard to determine, and that growers would not be satisfied with such a price if they got it. A third method is to let some impartial public agency determine in advance the acreage that is needed to supply the growing population, assuming normal yields, and then to permit growers' organizations to restrict acreage to that price if they wish. The public's interest is thereby protected; producers' organizations would not be engaged in a losing game of matching wits with better organized groups; and for the present at least the collection and analysis of market information would be better done than when undertaken by the co-operatives.

Undoubtedly overhead organizations furnish the best means of disseminating the information. However, as no organization will be given authority to say how many acres a member shall grow, and as the means of control will be education and publicity, it is likely that a federation will be fully as effective in such a program, if not more effctive, than a centralized type of organization.

Controlling consumption to fit production.—Advertising and publicity campaigns to increase consumption to take care of an increasing production, or of a surplus resulting from large yields, can undoubtedly be handled more efficiently by an overhead organization than by locals. In fact, except perhaps in the case of local milk-producers' associations and local fruit and vegetable associations producing for a local market, the locals are not fitted to conduct such campaigns independently. Many overhead organizations will of course discover that it will not pay. Those marketing staples, such as grain, cotton, and livestock, for example, or those marketing products that must be processed, which constitute about seventy-five per cent of the value of farm products, will probably find it not worth while. On the other hand, the experience of several organizations marketing luxuries or semi-luxuries that are ready for consumption indicates that advertising such products pays. It should be noted, however, that most of these campaigns have tested advertising chiefly during a period of rising incomes when the consumption of all luxuries was increasing.

Examples of successful advertising by both federations and centralized organizations might be given. The essential to success in such a program is a large volume of standardized products. This does not necessarily mean a large proportion (85 or 90 per cent) of the supply; nor is it necessary that the central do the enforcing of the specifications. In general, however, the centralized organizations with authority to enforce specifications are more likely to secure proper conformity to them than are the federations.

Controlling the flow to market.—The problem of determining when to sell differs as between those overhead organizations that control most of the supply and those that control only a small proportion. Under the first condition, a regularly quoted price ceases to exist. The organization is therefore forced to study the market and decide upon the price that is necessary to move the crop; or it must know the rate of consumption so that it can market at a rate that will realize the greatest possible return. Whichever method is used, the organization must have much more information than is now available. It must know the factors affecting supply and demand, the location of stocks, and the like. Moreover, it will probably discover that the most practical procedure is to use a combination of the two methods. If a forecasted price is used, a knowledge of the rate of consumption will be needed to determine whether the forecasted price is proving to be too low or too high. Conversely, a forecasted price will be a check on the methods of feeding the market. Such a method can not of course be used without organized exchanges.

If an association had only a small proportion of the crop under control, on the other hand, there will be enough of a market organization that market prices can be quoted. All the association will need to do then is to determine the necessary price and sell when the market price reaches this level. The objection that the association can not handle the problem to the advantage of its members under these conditions is not valid, for altho the market as a whole may not be properly fed, if the particular association accurately forecasts price it will not need to sell below that price in order to dispose of its whole supply. For the same reason, an association may successfully forecast price with other co-operatives in the field, if its method of forecasting is good. For example, if competing associations sell below its forecasted price, the association needs only to wait until their supply is exhausted. The price will then be as high as the forecasted price, probably higher, as supplies are consumed relatively too fast because of the too low price during the first part of the season. Several associations, each handlng a small proportion of the supply, may therefore secure results as good as one controlling most of the supply. In fact, during the experimental stage, the mistakes of several small associations would probably be less serious than the mistakes of one large association.

The problem of stabilizing prices is therefore much more difficult than most people who consider it realize. Moreover, the present method of trying to outguess the market is failing more times than it succeeds, and it probably will continue to fail. What is needed is better information regarding the factors affecting price. This calls for the development of statistical methods to determine and measure these factors. In other cases it will require the securing of more information than is now collected. This means that much statistical research work must be done before associations can make much headway with the problem. Much has already been done in forecasting the price of potatoes, however; and other products are being studied. The preparation of methods for forecasting prices and feeding the market will obviously progress much more slowly for some products than for others. But eventually a body of method and experience will be accumulated that will enable overhead organizations to improve greatly upon their present guessing of the market.

Distributing the product.—An overhead organization can render a valuable service by directing shipments to the right market. This is especially true of those products, as potatoes, that are distributed through decentralized marketing systems. The collecting of the necessary demand information may be done by public agencies, by commercial agencies with nation-wide distributing service, or by the co-operative company itself. The directing of the shipments should be left to the central agency, particularly when perishable products are marketed. No plan of giving control to the local or the district is likely to be satisfactory. Here, then, is where centralized control of a large part of the supply seems very desirable.

Inspecting the product.—A central organization can supplement the services of dealers, when it is selling through some agency other than its own, and of public inspectors, by examining cars upon arrival and putting them into condition for sale.

Hndling claims.—The handling of claims against railroads and other agencies for damage in transit, overcharges, unwarranted rejections, and the like is a problem too difficult for country shippers.

Selling.—Producer-owned selling agencies probably command greater confidence from farmers and local associations than private agencies. Whether they deserve this confidence depends entirely upon the individual agency with which the co-operative is compared. Most private agencies are efficient and trustworthy; but unfortunately there are some that can not be so described. Producers are therefore interested in having their own representatives in the central market.

Co-operators are not agreed as to how much of the channel of distribution overhead organizations should control. In practice, they generally go no further than the central wholesale market, altho there appears to be a rather prevalent idea that co-operative associations should control the product clear through to the consumer. It is pointed out in previous discussions that this idea is held in the mistaken belief that manufacturers usually completely control the marketing of their products. Some savings may be effected by such a policy. Most of those that have gone further than the jobber, commission merchant, or auction company, however, are those that are selling an advertised, branded product whose outlets they want to control in order to utilize the large investment in advertising. This, by the way, is the principal reason for integration in the manufacturers' market.

Bargaining and price policy.—Closely associated with this belief in integration is the faith of producers that overhead organizations will realize some bargaining advantages. The individual producer and local co-operative are not in a position to realize a full competitive price for their products. Co-operation may put them on an equal basis with the buyer; it may even give them an advantage. It is very easy to exaggerate these gains, however, as in a freely competitive market the bidding of buyers against each other forces them to pay a price that gives to the seller any advantage that they have in sources of market information and the like. The gains will be larger for products marketed by private sale than for those marketed through exchanges and auctions.

Financing.—An overhead organization with adequate control of the product and proper warehousing facilities, can borrow money at the rates prevailing in the central market or even in the large financial centers. Moreover, the basis of credit may be improved by standardization of production and grading. The cotton growers' associations have made some notable showings in interest charges.

Elimination of competitive wastes.—Duplication of service and uneconomical practices are wastes of the competitive system of marketing that the local co-operatives have not eliminated. Nor have overhead organizations made much headway with the problem. Here and there, however, they have stopped the needless competition of locals.

Improvement of business practice.—No stage in the marketing process offers so many opportunities for improvement as the local market co-operatives. Poor management, uneconomical practices, and inadequate accounting systems make this probably the most inefficient link in the chain of middlemen. Public support is inadequate to carry on the necessary educational work. An overhead organization is therefore the best means of developing sound principles of business practice among locals.

Utilization of by-products.—The volume of business of local co-operatives is too small for the economical development of by-products. Only by the federation of locals or the formation of central organizations can otherwise wasted materials often be utilized.

Development of research.—A large amount of research is needed if these problems of marketing are to be properly handled. The limited resources and location of the locals make it impossible for locals to do anything with them. Public agencies can assist, but there are many problems which they can not properly handle. The overhead organizations must therefore supplement the research of public agencies. Several of the large co-operatives have already shown that they can do this very well.

It is evident from the foregoing discussion that the central market problems of co-operatives are many and complex. Success in handling them requires careful planning and intelligent management. Moreover, the proper kind of organization depends upon the relative importance of the marketing problems to be handled. Federations can handle those problems that require the co-operation of the individual producer better than the centralized organization; whereas the centralized type that emphasizes the control of a large proportion of the supply can handle the distribution of products between markets to advantage. The type of organization is not important in handling such problems as when to sell, utilization of by-products, and bargaining. Intelligent management is the essential to success with these.

Pooling.—Pooling by central marketing organizations involves three important management problems, namely, paying for quality, prorating expense, and the pooling period. Each of them differs from similar problems of the local only in degree. The pool of an overhead organization must draw its product from a large area. Hence it usually has such a wide variation in quality that the existing grades do not give a sufficiently fine classification to provide for all recognized price differences. The result is that proper payment is not made for quality. Payment may be made on the basis of prevailing values for quality. At present, however, few pooling methods as used over wide areas pay adequately for differences in quality.

Pooling expenses likewise becomes more difficult as the market area increases. Such questions arose as the division of expenses between localities and growers. For example, shall losses in transit be charged to all growers or only to the locality from which the product is shipped? Charging the proper expense to different kinds of shipments also becomes more difficult.

The pooling period is not important for products that are produced all at one season. However, if production is continuous, and costs and prices are seasonal, it becomes important to select a pooling period that makes it possible for the farmers to be paid on the basis of the price that prevails at the season of the year for which he has planned the producing and marketing of his product. The question of storing complicates the pooling problem.

The local.—A local association is a desirable feature of an overhead organization. It establishes between the central organization and the individual producer the contact needed for carrying on educational and publicity work, while at the same time the producer's active participation in the management of the local commands his sympathy for and loyalty to the policies of the central. Moreover, in case the central fails, the locals still provide a market, and the foundation for the building of a new central organization.

The status of the local in any marketing system should depend upon the nature of its marketing problems. The tendency among federations is to curtail the authority of the local in the matter of sorting, grading, and packing, and controlling distribution. Centralized organizations, on the other hand, are organizing locals. Future organizations will therefore doubtless represent various degrees between the extreme federated type and the centralized type, each adapted to the problems of the specific product marketed.

CONCLUSION

In its very inception, this bulletin has placed much more emphasis upon form of organization than it deserves. The whole drift of thought at present is in that direction. One might conclude from discussions of co-operative marketing that all that is necessary in order to attain success is to organize according to the right plan, that all our efforts at co-operation in the past have been more or less futile because our plan has been wrong. Accepting this philosophy, we put on a membership campaign, expecting to work out marketing methods later—satisfied that if only we can get enough of the crop signed up, we can not fail with our marketing—and expecting growers to take it upon faith that we shall be able subsequently to work out successful marketing methods. The over-emphasis previously noted upon membership contracts, liquidated damages, and the like, is but an instance of this.

As a matter of fact, the most enthusiastic and successful membership campaign that was ever made might easily be followed by failure because of a poor system of grades, a poor pooling plan, or a foolhardy attempt to outguess the market. Such things have happened, and will happen again and again in the future. The real problems of co-operative marketing are the problems of control of quality, pooling, forecasting necessary price, and feeding the market, financing, distribution, and the like. It is upon our success in solving these that success in central marketing will largely depend. Unfortunately it takes time to solve such problems. But our co-operative marketing enthusiasts do not wait. To organize is the thing, seems to be their dictum—the question of marketing methods will be handled when it arises! For their over-confidence in this matter, many will pay the price of failure.

The problems of control of quality, pooling, feeding the market, and others must be worked out for each product. There is no one method of pooling that will fit all commodities; neither will it always be possible to reason out in advance what pooling plan will work best for any commodity or any one district—what the period should be, what the area unit should be, what grade pools there should be, and how pooling and storage shall be arranged. The same is true for all marketing problems.

As one examines the history and records of co-operative central marketing organizations in this country and abroad, one conclusion stands out clearly from the start, namely, that there is no magic formula that insures success on every occasion. Developing successful co-operative marketing methods in the central market is a slow, hard process, as it has been in the local market. We hear much of the marvelous success of co-operative marketing in Denmark; yet the Danish farmers feel that they are about as far from having solved their marketing problems as are the farmers of Minnesota. The same is conspicuously true of California farmers. Great progress has already been made in Denmark, in the United States, and in other parts of the world; but the task is only well begun.

The importance of the foregoing statement can not be exaggerated. Many promoters of marketing organizations have a way of presenting their proposal as the last word in perfection, as if practically certain of success, and almost guaranteed to save farmers from whatever economic plight they may find themselves in at the time. In the almost inevitable reaction that follows, the whole cause of co-operative marketing suffers severely. It would have been much better if their proposals had been fairly presented in the first place, with a full and free discussion of all the problems and difficulties likely to appear, and a fair statement of the extent to which the then prevailing predicament of the farmers was due to faulty marketing; and a conservative estimate of the gains likely to result from the proposed organization.

Perhaps it is appropriate to ask at this point what gains reasonably can be expected from a central marketing organization. No one really has any basis for predicting the amount of such gains. But if promoters are going to make heroic guesses on the subject, students of co-operation owe it to the public to do the same. Hence the gains will vary greatly as between commodities because of differences in the degree of organization of the present market for them. As a sort of rough average of all commodities, the authors believe that the *potential* gains on Minnesota products from several of the most important improvements in our marketing system, or in production as it relates to marketing, rank in importance about as follows:

1. By stabilizing production—adjusting it to changes in demand and to changes in the business cycle, and eliminating cycles of production.
2. By improving the organization and management of the locals or in other ways performing the local market functions more efficiently.
3. By improving the quality of production by standardization of varieties, better selection and treatment of seed, better care of the crop, better harvesting methods, etc.
4. By controlling the time of movement to market.
5. By better sorting and grading.
6. By better distribution between markets.
7. By advertising, especially advertising an extra large crop, and by developing new markets.
8. By securing equality or better in the matter of bargaining, and taking away from buyers any possible monopoly advantage they now enjoy.

Obviously, the ranking of these eight points for butter is much different from the ranking for wheat or corn or livestock or potatoes. Also the ranking for Kentucky or Texas or California would be different from that for Minnesota.

Also, the foregoing ranking is on the basis of potential gains, not probable gains. Altho potential gains from stabilizing production are great, the probable gains from this source are not very great in the next few years—this is a problem for generations, even centuries. As to gains *reasonably possible* in the next ten years, the ranking would be more as in the second column of Table IV. As to gains *probable* in the next ten years, the ranking will be more as in the third column of this table. The reason that No. 4 is put so far down in the last list is that in the next ten years, in view of our present understanding of the problem, the mistakes that will be made may entirely offset the gains.

TABLE IV
ESTIMATED RANKING OF SOURCES OF GAIN FROM CENTRAL MARKETING CO-OPERATION IN MINNESOTA

Sources of gain	Potential gain	Possible gains in next ten years	Probable gains in next ten years
Stabilizing production	1	7	8
Improving the locals	2	1	4
Improving quality produced	3	4	3
Controlling flow to market	4	2	6
Better sorting and grading	5	3	1
Better distribution of product	6	5	2
Advertising and developing markets	7	6	5
Price control (monopoly and bargaining)	8	8	7

The probable gain to producers and consumers in the next ten years from these eight sources will probably range for the various Minnesota products from less than 2 per cent to more than 10 per cent, with an average of less than 5 per cent. It must be remembered that livestock, grain, and dairy products constitute the bulk of Minnesota's production, and upon these commodities the gains will be relatively small. Of this 5 per cent or less of gain thus so boldly predicted, the producers will receive the larger part, especially if other states and other countries fail to make equal improvement in their marketing of the same products.

In the end marketing will be efficient in proportion to the intelligence, skill, and understanding of those who are responsible for it. One of the weaknesses of co-operative marketing of farm products is that responsibility for it rests in the last analysis upon the farmer, and farmers suffer severely from a vast amount of misinformation on matters relating to marketing and prices. Milk producers' associations, for example, suffered a great deal at the start and still suffer at times because of mistaken notions of their members as to the relation between price and cost of production. A state wheat growers' association even as late at 1922-23 decided to hold its wheat for a higher price partly because the management believed that the price of wheat could not possibly stay so far below the cost of production for more than another month or two. Surely it is highly necessary that those who are presenting plans for better marketing shall on all occasions use only right information, correct analysis, and sound arguments. Better frequently that a particular organization wait a few years before getting under way, than that it be sold to the people on the basis of a whirlwind campaign of misinformation and exaggeration. It may take a generation or two to root out the evil that is thus planted, and all the while it is bearing bitter fruit.

In this connection, it can not be too strongly urged that the proper basis upon which to put over a campaign for membership is not one of developing or appealing to class hatred. The Capper-Volstead Act and the Minnesota co-operative acts are not "vicious class legislation," as is sometimes stated even by their defenders. They are legislation in the public interest, never would have been passed on any other basis, and would not stand the test of the courts on any other basis. An old-fashioned concept of class legislation made it include any legislation designating a special class for special treatment. The criterion at present is whether it benefits or injures one class. As J. D. Miller, of the Dairyman's League, so well states: "The law is not so poor a thing that it prevents the state from authorizing combinations that will promote the public good at the same time that it prohibits combinations detrimental to the public good."[30] The co-operative marketing program should be presented to the growers on the basis that it will inure to the common good as well as to themselves. It should be presented to the general public as well as to the growers; and it should be presented to the public fearlessly on the basis here outlined.

For the same reasons it is bad policy to go before the business men of the territory which is being organized and tell them that they must support the campaign because their prosperity depends upon the prosperity of the farmers. They should be told instead that this is a program dedicated to the common good, that Congress and the state legislature have authorized such programs and furnished the legal basis for them, in the faith that they will redound to the common good, and that altho it will help make the growers in their territory more prosperous, it will also make the nation more prosperous, and all its citizens, including their fellow townspeople, except the very few who may lose their business altogether.

Even more important is it that campaigns be conducted in a spirit of broad-minded tolerance. Growers will be found everywhere who object to five-year contracts. The pressure which has been brought upon them to sign has occasionally been so strong as clearly to amount to intimidation. The never-failing result of such tactics has been a growing feeling of ill-will in the community, preparing the way for bitter factionalism. Even within the last year, fields and buildings have been destroyed in such conflict. This, surely, is not the way out.

[30] 7 Cornell Law Quarterly, pp. 293-308.

The foregoing is offered as an interpretation, in terms of Minnesota's conditions, of co-operative central or overhead marketing organization as at present developed. The subject is one which is rapidly developing in both economic and legal aspects. A few years hence, some of the tentative conclusions above presented may need to be modified. The authors will be ready to make these modifications whenever they seem called for by new facts and new experience. It is not likely, however, that the principles upon which the conclusions of this bulletin are based will be modified very greatly in the near future.