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MINNESOTA farm business NOTES



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Some Aspects of Management in Farm Supply Cooperatives

Victor F. Amann and E. Fred Koller

Minnesota is the leading state in the number of farm supply cooperatives. It is first in petroleum products purchased cooperatively and second in volume of farm supplies purchased cooperatively.

The sales of the local associations range from \$100,000 to nearly \$3 million annually. Most of these organizations are too small to hire highly specialized management; nevertheless their problems are complex and good management is essential to success.

The purpose of this article is to describe and analyze some aspects of management in farm supply cooperatives and to discuss some of the factors which determine success in these organizations. To do this, the authors made a study of a representative sample of 52 associations, widely distributed over the state. These associations primarily handle petroleum products, but they also handle feed, seed, fertilizer, and other farm supplies.

Selection and Training of Managers

Twenty-two of the managers in the fifty-two associations studied were promoted from within the organization and thirty were hired from the outside. In sixteen cases managers promoted from within the associations were selected from the rank of bulk truck drivers.

Thirteen of the managers who were selected from outside their present place of employment were managers elsewhere. Eleven of them were managers of other farm supply cooperatives and two were managers in other types of business (see table 1).

Managers who changed positions among cooperatives generally went from a smaller to a larger association. They had worked for cooperatives an average of 9.8 years and had 6.3 years of managerial experience. Many of them had worked as station attendants

and bulk truck drivers before they became managers. They generally had worked in more than one association before they came to their present place of employment. This gave them a variety of experiences under varying competitive situations.

Those who were promoted from within had an average of 6 years' experience before they became managers. None of them had worked in any other association. This gave them little opportunity to observe competitive and selling conditions other than those in the association which they managed.

Managers' Education and Training

It is generally felt that the manager's level of education and training helps make him more effective. Those with more education usually have less difficulty in learning new methods and will progress more rapidly, especially in the early years of their managerial career.

As is shown in table 2, nearly half of the managers had not completed high school, and only 9 of the 52 managers had education beyond high school.

The management training schools of the regional supply cooperatives can be attended by the local managers any time during their careers. Less than half of the managers participated (table 2). Managers with higher levels of education took more management training than did those with less education.

What Were the Results?

One test of managerial success is the net margins earned per dollar of sales. The 52 associations were classified according to this measure. A comparison of operating results was made between the 15 associations with the highest net margins and the 15 with the lowest.

The highs had average annual sales of \$582,400 and the lows had average annual sales of \$417,600. The annual sales for each bulk tank salesman av-

eraged \$104,680 for the highs and \$88,770 for the lows. The annual sales for each station employee averaged \$31,450 for the high net margin group and \$27,250 for the low group.

One of the factors which accounted for the differences in accomplishments was the management of employees. The low group averaged 10 employees per association; the high group averaged 8 employees, even though the highs had 25-percent larger annual sales.

There are several factors which may account for the difference in sales per truck salesman. It was found that seven

Table 1. Sources from which farm supply cooperative managers were selected, according to previous job and previous place of employment

Previous job	Previous place of employment	
	within the association	outside the association
Station attendant	3	2
Bulk truck driver-salesman.....	16	3
Bookkeeper	1	—
Assistant manager	2	4
Manager	—	13
Salesman	—	2
Regional fieldman	—	3
Farmer	—	3
Total	22	30

Table 2. Relationship between the level of managers' education and their participation in additional management training

Level of education	Took additional management training	
	some	none
Less than 8th grade	—	5
8th grade but less than high school	8	12
High school completed	11	7
More than high school	6	3
Total	25	27

(Continued on page 2)

managers in the high margin group sent their bulk salesmen to sales training schools. No bulk salesmen in the low margin group were sent. Presumably additional sales training does make a difference in selling results and the better managers recognize this fact.

The manager usually determines the method of compensating his employees. The commission method was very effective when used for paying bulk salesmen. Eight of the managers in the high group used this method while only one in the low group used it. The driver-salesmen compensated by commission had higher sales per man than the salaried drivers. They also had a 9-day shorter period for days' sales in receivables which was probably caused by placing responsibility for collecting accounts on commission bulkmen.

The high margin managers also had better credit control, because their sales were in receivables an average of 32 days as compared to 40 days for the low group.

Operating Results Compared

The association's operating statement is the method most often used to obtain a picture of management results. In table 3 a comparison is made between the average operating statement of the 52 associations and those of the high and low net margin groups.

One measure which shows differences in operating results is the comparative gross margins. The high group had a gross margin 2.30 percent above the average and 3.95 percent above the low group. Differences in gross margins may be due to: (1) differences in competitive situations, gasoline price wars, discounts, etc.; (2) differences in buying

practices; (3) differences in the proportion of total sales in products with high gross margins.

The associations with the lowest net margins had the highest operating expenses; this was due to higher administrative and general expenses.

Net other income was highest in the high margin group. The difference was largely due to the patronage refund received on purchases from the regional cooperative with which the local association is affiliated.

A factor which has an effect on net margins is the selection of products handled. Often the manager does not have control over which products the association will handle.

The high margin group had 86.5 percent of its total sales in petroleum products while the lows had 74.7 percent of their sales in petroleum products, as compared with the average of the 52

associations which had 84.0 percent in petroleum. Petroleum products usually have the highest margins.

Another high margin product is L.P. gas. The high group had 5.1 percent of their total sales in this product, the lows .93 percent.

The low net margin products which were more prevalent in the total sales of the low net margin associations were farm machinery and groceries. Often these lines were continued at the request of the patrons and the board of directors even though the manager wished to drop them. Because of this, the operating statement may not give a true picture of the manager's ability.

Employee efficiency, compensation, and credit control are measures which give a truer picture of managerial ability of a farm supply cooperative manager. These are areas of responsibility in which he has primary control.

A Food Stamp Program

Martin E. Abel

The USDA is operating eight pilot food stamp programs throughout the country. One is located in northern Minnesota and is, therefore, of current interest to people in Minnesota.

The Department of Agricultural Economics has completed an investigation of ways to increase food consumption in the United States.¹ One of the programs examined is a food stamp program.

What Is It?

A food stamp program supplements the food-buying power of low income consumers. It provides them with stamps or coupons that can be used to purchase food. A part of the value of the stamps represents an addition to regular food expenditures.

The program has two objectives. The first is to improve nutrition. Many low income families lack sufficient income to purchase a nutritionally adequate diet. The program increases their food-purchasing power and, thus, enables them to buy a more nutritionally adequate diet. The second objective is to increase total food consumption in the United States. We live in a country that has abundant amounts of food. However, this abundance has resulted

in a problem for agriculture—that of surpluses. Increasing food consumption is a way to reduce surpluses.

How Does the Program Work?

Families have to be certified as eligible in order to participate in the program and receive food stamps. Eligibility is based on income. All families with incomes below a specified level can participate. The size of the program can be controlled through the maximum income level specified for participation. The higher this maximum income level, the more families that are eligible to participate.

Participants receive stamps whose total value will enable them to purchase a nutritionally adequate diet consistent with their food preferences and desires. These stamps can be spent as money in grocery stores to buy food items. However, these stamps are not free to all participants. The amount they pay depends on their income. A family with no income receives all of the stamps free. A family with some income pays for—say—one-half of the value of the stamps. In general, the higher a family's income, the more it pays for the stamps. At the maximum level of income permissible for participation, a family pays for virtually the full value of the stamps.

Purchase of the stamps is one way to ensure an increase in food consumption of participants. The amount they pay represents the estimated value of

Table 3. Comparative operating statements of 52 Minnesota farm supply cooperatives, 1959

Item	52 associations	15 high margin associations	15 low margin associations
Total sales	\$480,236	\$582,409	\$417,645
		percent of sales	
Total sales	100.00	100.00	100.00
Cost of goods sold	78.41	76.11	80.06
Gross margin	21.59	23.89	19.94
Operating expense	15.85	15.84	16.80
Operating income	5.74	8.05	3.14
Net other income	3.07	4.31	1.97
Net margins	8.81	12.36	5.11

¹ For a detailed discussion see Univ. of Minn. Agricultural Experiment Station Technical Bulletins 231 and 238.

their regular food purchases. The difference between what a family pays and the value of the stamps represents the food subsidy. Therefore, the money a family normally spends for food cannot be diverted to other uses. It must go for the purchase of stamps. If participants are given a supplement to regular food expenditures in the form of free stamps, they can spend a part of their regular expenditures for non-food items and still consume the same amount of food. For example, if a family normally spends \$500 per year for food and is eligible for a food subsidy of \$250, then under the program, it pays \$500 to get \$750 worth of food stamps per year. If, however, the family is given \$250 worth of stamps free, it can use the stamps plus \$250 cash from regular food purchases for food leaving total food expenditures unchanged and \$250 that can be used for nonfood purchases.

The food stamps can be used for the purchase of any food item. Thus, consumers are able to satisfy a wide variety of food desires within their level of food expenditures. Variations in the types of foods consumed among regions of the country and different groups within a region are thus accommodated by the program.

Not all eligible families will participate. Some families have incomes near the maximum level for eligibility, and the difference between the value of stamps and what they have to pay for them is too small to make it worthwhile. Other families may be spending less for food than they have to pay for the stamps and are not willing to spend the extra money to get the stamps even though they could increase their food consumption.

Effect on Food Consumption

Estimated changes in food consumption that result from a food stamp program are presented in table 1. The results are based on the 1955 level of food consumption and domestic civilian population of the United States.

Estimated changes in total food consumption range from 1.0 percent at the low level of operation to 4.4 percent at the high level. Consumption of animal products, fruits, and vegetables increases the most. Consumption of dry beans and peas and grain products declines. This is because as the food-purchasing power of low income consumers is increased, they shift their consumption to high preference foods (e.g., animal products, fruits, and vegeta-

bles) and away from low preference foods (grain products). Consequently, producers of animal products, fruits, and vegetables benefit the most from the program. Producers of food grain products and dry beans and peas would not benefit. In fact, they would sell less of their products as a result of the program.

The estimated number of participants for alternative levels of program operation are presented in table 2.

Increases in total food consumption that can be obtained under a food stamp program are moderate. Even at the high level of program operation where 43.3 million people would participate (27.2 percent of the population), total food consumption would increase by only 4.4 percent.

The costs of achieving even a moderate increase in total food consumption are very high, and a substantial part of the Nation's population is involved. An expenditure of about \$550 million is required to obtain a 1.0-percent increase in total food consumption at the low level of program operation. At the moderate level, a \$1.5-billion expenditure results in a 1.9-percent increase in total food consumption. At the high level, a \$3-billion expenditure results in a 4.4-percent increase in total food consumption.

Relationship to Surpluses

How much can this approach reduce surpluses? It is estimated that food consumption has to increase by 8 percent to eliminate total surpluses in agriculture. This means, in part, a shift from the production of nonfood items to food items.

A food stamp program that operates at a high level can reduce the surplus by over one-half. However, this requires expenditures of about \$3 billion and involves 27 percent of the total population. It is not likely that a program of this size is politically acceptable. It would require a food subsidy to over one-fourth of the total population. At a more modest level of operation—the low level—the cost is \$550 million and total food consumption increases by 1.0 percent.

Improvement of Diets

Improvement of consumer diets is another feature and justification of the program. To the extent that consumers' diets are improved, the health and productivity of our Nation's people are also improved. Improved nutrition is of interest to the general public. Therefore,

the cost of the program should be weighed in terms of both the increases in food consumption that result and the improvement of participants' diets.

Summary

A food stamp program is of some interest to both the general public and agriculture. To the general public, it means better nutrition and, consequently, improved health and productivity of the Nation's population. To agriculture, it means increased consumption of farm food products.

The program does not, however, afford a way to increase food consumption sufficiently to eliminate agricultural surpluses. However, it is a help and until completely effective ways are found to solve the surplus problem, partial solutions achieved at reasonable costs cannot be ignored.

Table 1. Estimated percentage change in total food consumption of various foods and food groups for several levels of operation of a food stamp program, United States, based on 1955 level of food consumption and population

Food group	Level of program operation		
	low	moderate	high
All food	1.0	1.9	4.4
Milk and milk products (excluding butter)	1.9	3.4	5.8
Meat, fish, poultry	1.0	1.9	6.5
Eggs7	2.2	5.8
Dry beans and peas	-2.6	-5.9	-13.1
Nuts	3.4	4.1	5.6
Vegetables	1.4	2.4	4.4
Citrus fruits	1.0	1.7	7.0
Dried fruit	2.5	2.1	5.5
Other fruit	1.5	2.0	5.8
Grain products	-1.0	-1.7	-3.6
Fats and oils (including butter)4	1.1	3.1
Sugar and sweets	1.3	2.8	1.9

Table 2. Estimated number of participants at several levels of food stamp program operation, United States, based on 1955 levels of food consumption and population

Level of operation	Number of participants	Percent of U.S. population
	million	percent
Low	16.7	10.5
Moderate	23.6	14.8
High	43.3	27.2

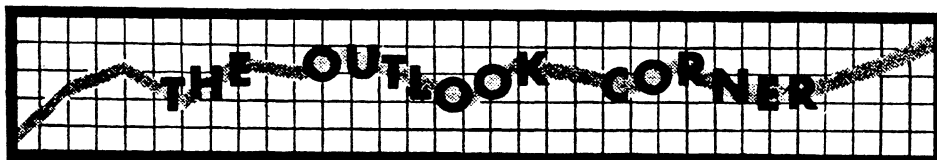
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Trends in U.S. Food Consumption

Projections of U.S. food consumption are based on analyses of historical trends and expected economic and social changes. The patterns of past and present food consumption are combined with anticipated changes in social and economic factors that affect food consumption to arrive at projections of future consumption.

Historical Trends

Consumption per person of farm foods rose almost 10 percent from 1930 to 1960, but only very slightly from 1950 to 1960. On the other hand, increases in population resulted in an increase in total use of farm foods of 60 percent.

Consumption trends per person have differed among commodities. Consumption of livestock products has increased over the last 30 years while consumption of food crops has declined over the same period.

Consumption of meat, poultry, and fish is a third higher than in 1930 and 15 percent above the average of 10 years ago. Increases in beef and poultry consumption have accounted for this change. Egg consumption is down a tenth from the 1950 average, but up a little from that of 1930.

Consumption of dairy products including butter is slightly higher than 30 years ago, but slightly below the 1950 level. But the average for dairy products other than butter is a fifth higher than in 1930 and equal to the 1950 level.

In general, we are consuming less of food crop products per person. Per person consumption of potatoes and sweet potatoes has fallen a third in the past 30 years, and about a tenth in the last 10 years. The average for cereal products is down almost a fourth from 1930, and a tenth from 1950. However, some items have moved contrary to the general trend—such as processed fruits and vegetables.

These changes in average per person consumption are the result of changes in consumers' incomes and preferences for food, and changes in food consumption patterns among different groups in our population.

After adjusting for changes in the price level, we find that income per person (after income taxes) has gone up 78 percent since 1929. Thus, consumers are able to buy more and better food today than 30 years ago.

Surveys show that the largest food consumption changes have occurred in rural nonfarm households, including those in small towns and in the country. The familiar off-farm movement of the population has raised the demand for commercially produced food—partly because these families can no longer produce their own food and partly because their higher incomes provide greater food-purchasing power.

Expected Changes

Based on this knowledge of the past, what appear to be future trends in food consumption? To arrive at future levels of food consumption, one starts with present levels of consumption per person. These data are then adjusted for the effect of expected increases in income. Finally, a further adjustment is made for population growth.

Census specialists project a 21-percent rise in population from 177 million in mid-1959 to 214 million in 1970. In addition, assuming continuation of the 3-percent annual growth rate for the U.S. economy in the 1950's, we would have a 15-percent increase in per capita

real income from 1959 to 1970. If we can step up the growth rate to 5 percent per year, a 42-percent increase in income by 1970 is possible.

The lower rate of economic growth would raise average food consumption per person about 2 or 3 percent. The higher growth rate would raise average food consumption per person by about 4 or 5 percent. When the expected increase in population is also accounted for, total United States food consumption would increase by 23 to 26 percent.

For major commodity groups, the current set of projections from 1959 to 1970 includes these estimates for changes in average consumption per person (the lower figure matching the lower rate of growth); meats and poultry, 5- to 10-percent increase; dairy products except butter, 2- to 4-percent increase; cereals and potatoes, 3- to 9-percent decline; food fats and oils, practically no change; fruits and vegetables, very slight increase.

The percentage changes in total consumption of major commodity groups will, of course, be larger due to the 21-percent increase in population that is expected. Total consumption will be higher in 1970 than in 1959 by 27 to 33 percent for meats and poultry and 23 to 26 percent for dairy products (excluding butter). Total consumption of cereals and potatoes will increase by 10 to 17 percent. The increase in population will more than offset the slight decline in consumption per person. Total consumption of fats and oils will increase by 21 percent. And consumption of fruits and vegetables will increase by slightly over 21 percent.

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