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# Assessing the Effectiveness of Farm Supply Cooperatives: A Comparison of Farmer and Manager Viewpoints

*Larry Burt and M.E. Wirth*

This paper reports the results of a survey of attitudes of commercial farmers and supply cooperative managers about agricultural supply cooperatives. Cooperative managers and farmers frequently made significantly different responses to questionnaire statements. With a few exceptions, farm size and farmer age did not appear to influence perceptions about supply cooperatives. Whether a farmer was a cooperative member was important in some cases. Lower prices in lieu of easy credit and patronage refunds were found to be acceptable to farmers, but not at the expense of good service. Managers placed great importance on member loyalty to the supply cooperative without regard to price considerations.

## Introduction

Many commercial farmers use cooperatives to market products, obtain supplies, or procure needed services. The downturn in the agricultural sector during much of the 1980s, combined with the financial difficulties of many farm credit lenders, weakened the position of many cooperatives. In particular, farm supply cooperatives, the focus of this study, faced financial stress due to decreased demand for farm inputs along with an increased demand to finance accounts unable to obtain lines of credit from traditional lending sources. Supply cooperatives were also pressed by privately owned input suppliers that were competing effectively for large farm accounts.

Farm supply cooperatives in the Willamette Valley of western Oregon, the study area, faced additional problems typical of a diverse agricultural area. About 75 crops with gross sales exceeding \$1 million are grown commercially in the Willamette Valley. Supply cooperatives in such an area may be pressured to provide a wide variety of services and products required to meet the needs of farmers of all the different crops grown in the area.

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*Larry Burt and M.E. Wirth are respectively associate professor, Department of Agricultural and Resource Economics, Oregon State University, and professor of agricultural finance, Department of Agricultural Economics, Washington State University.*

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Less obvious, but perhaps as important, supply cooperatives like other types of businesses face the difficulty of dealing with large as well as small farmer account sizes. As a part of that problem, large farming operations frequently maintain low-dollar-volume accounts with supply cooperatives. For some cooperatives farm size may be important in assessing policy decisions with respect to any related high versus low dollar-volume accounts and to better understand the causes for nonparticipation in cooperatives. Furthermore, age of the farm operator may affect participation.

The purpose of this research was to determine: (1) farmer versus manager perceptions about farm supply cooperatives; (2) differences in perceptions between farmer groupings related to membership or nonmembership in a farm supply cooperative; and (3) variation in perceptions based on size of farm operation and age of the farmer. The major sources of data were mail surveys of Willamette Valley farmers and supply cooperative managers. This paper summarizes the results of those surveys.<sup>1</sup>

## Review of Literature

To prepare for the study, an extensive literature review related to perceptions about supply cooperatives was completed. No studies were found that focused exclusively on issues related to serving farmers who produce many different crops, or farmer-versus-manager perceptions about supply cooperatives. However, there have been a number of studies that focused exclusively on farmer attitudes within fairly uniform agricultural settings.

Examples of studies primarily concerned with farmer supply purchases included Gensch and Wissman. Gensch found that Iowa fertilizer cooperatives could compete effectively with private dealers provided they possessed key attributes identified in a farmer survey: honest management, on-time deliveries, relative large size, willingness to negotiate price, and a business that also markets grain. Wissman concluded that supply cooperatives were valued by farmers in the Virginia, Delaware, and Kentucky areas he studied. However, customer loyalty and limited price discounting were found only with respect to fuel and not for feed, fertilizers, or pesticides.

Other studies that focused at least partially on supply cooperatives included a survey of young farmers in northern Missouri (Osburn et al.). The respondents were generally satisfied with the supply-types of cooperatives they patronized. However, they expressed no commitment to purchases at their supply cooperatives versus privately owned businesses. Indifference to the cooperative business form and its principles was found to be widespread.

In a study that included farmers in Indiana, Illinois, and Iowa, little difference was found on perceptions of cooperative and privately owned business performance (Schrader et al.). Farmers felt slightly more loyal to cooperatives and gave them somewhat higher management evaluations. But price was found to be an important factor in farmer decisions on where to buy or sell.

In another study of Indiana and Illinois farmers, cooperatives were perceived to have an advantage over privately owned firms in the areas of fairness and serving farmers' special needs (Boynton and Babb). Privately owned firms, however, were perceived to have advantages in the areas of prices, financial performance, and efficiency. Price was the most important factor for farmer choice of a fertilizer supplier. Dependability of supply was ranked second.

## Survey and Analytical Procedures

The study data were collected by mail questionnaires using standard mail and telephone follow-up procedures. Survey materials were sent to the 19 farm supply

cooperative managers in the study area. There were 13 usable questionnaires returned, a 68-percent response rate. With the help of area Extension agents and farm supply cooperative managers, 1,300 commercial farmers in the study area were identified. The farmers were classified with respect to their annual farm cash receipts as: small (\$20,000–\$39,999), medium (\$40,000–\$99,999), and large (at least \$100,000).

By design, half the farmers were supply cooperative members and the other half were not members. Each farmer was sent the survey materials. A total of 674 usable questionnaires were returned, a 52-percent response rate.

Manager responses to the questions were compared with those submitted by the farmers. As a part of the analysis, farmers were placed in categories based on cooperative membership, operator's age, and farm size. Mean responses were calculated and compared for each combination of groupings. Analysis of variance techniques including Tukey's studentized range test (Morrison) were used to estimate the statistical significance of differences in mean responses between groupings. In all cases differences at the 5 percent level or lower were defined as statistically significant.

The survey respondents were asked to answer each questionnaire statement by circling one of the following to indicate their feelings:

<u>Opinion</u>	<u>Number Score</u>
Strongly Agree	1
Agree	2
Neutral	3
Disagree	4
Strongly Disagree	5

### **Summary of Issues Addressed in the Survey**

In drawing conclusions from analysis of the survey data, it was helpful to group the questionnaire statements into the following issue areas: (1) Prices, (2) Membership, (3) Service, (4) Cooperative Management, (5) Patronage Refunds, (6) Returns to Farmers, and (7) Competitive Environment. Although some of the questionnaire statements addressed more than one issue, the groupings were based on the primary focus of each statement.

In general the study results indicated that farm size was not a statistically significant factor associated with expressed farmer attitudes and perceptions about supply cooperatives. Moreover, farm size was not a statistically significant factor with respect to farmer patronage levels at supply cooperatives. Except as noted below, farmer age was not generally associated in any significant ways with farmer attitudes toward supply cooperatives nor was it a factor in farmer purchasing habits.

### **Prices**

Farmers and managers had strong feelings about prices (table 1). The mean responses to price statements were, for the most part, significantly different from neutral. Generally, farmer's and manager's responses were significantly different, and in several cases they were also opposite. With respect to price issues, farmer members and nonmembers for the most part did not differ significantly in their responses.

The mean responses showed that farmers wanted lower prices, but not at the expense of good service. In general they were willing to sacrifice patronage refunds

**Table 1.—Questionnaire Statements and Comparison of Farmer and Cooperative Manager Responses Related to Prices, Membership, Service, Cooperative Management, Patronage Refunds, Returns to Farmers, and Competitive Environment.**

Questionnaire Statements	Do the Means Differ Significantly from Neutral? Yes or No (neutral = 3.00)			Were Member Responses Significantly Different from Nonmembers? Yes or No
	Managers	Members	Nonmembers	
	-----Mean Responses-----			
<i>Prices</i>				
It would be better to have lower cooperative prices instead of:				
(1) good service	Yes 4.00	Yes 3.69	Yes 3.43	No
(2) patronage refunds	No 2.62	Yes 2.57	Yes 2.49	No
(3) co-op principles	Yes 3.69	No 3.10 <sup>a</sup>	No 2.96 <sup>a</sup>	No
(4) easy credit.	Yes 4.00	Yes 2.77 <sup>a</sup>	Yes 2.69 <sup>a</sup>	No
Farmers would generally pay higher prices for supplies if it were not for competition from co-ops.	Yes 2.08	Yes 2.76 <sup>a</sup>	No 2.86 <sup>a</sup>	Yes
Generally, cooperative members should patronize their cooperatives even if they pay higher prices than at competing businesses.	No. 2.62	Yes 4.00 <sup>a</sup>	Yes 3.97 <sup>a</sup>	No
Cooperatives would get more patronage if they were more competitively priced.	Yes 1.92	Yes 1.92	Yes 2.14	No
Cooperative prices for services and products should be the same regardless of quantities purchased.	Yes 4.08	Yes 3.21 <sup>a</sup>	No 3.13 <sup>a</sup>	Yes
<i>Membership</i>				
Cooperatives should discourage large nonmember farmers from patronizing the cooperative.	Yes 4.46	Yes 3.82 <sup>a</sup>	Yes 3.56 <sup>a</sup>	Yes
Cooperatives should encourage patronage by small nonmember farms.	Yes 1.69	Yes 2.00	Yes 2.05	No
Cooperatives should seek the membership of large farms over the membership of small farms.	No 3.31	Yes 3.88 <sup>a</sup>	Yes 3.74 <sup>a</sup>	No

Questionnaire Statements	Do the Means Differ Significantly from Neutral? Yes or No (neutral = 3.00)			Were Member Responses Significantly Different from Nonmembers? Yes or No
	Managers	Members	Nonmembers	
-----Mean Responses -----				
Cooperatives would get more patronage if they lowered membership requirements.	Yes 3.54	Yes 3.29	Yes 2.76 <sup>a</sup>	Yes
Most cooperative members are not very informed about the operation of their cooperative.	Yes 2.15	Yes 2.39	Yes 2.46	No
<i>Service</i>				
Cooperatives offer better service than competing businesses.	No 2.69	Yes 3.22 <sup>a</sup>	Yes 3.33 <sup>a</sup>	No
Cooperatives would get more patronage if they hired friendlier personnel.	Yes 2.38	Yes 2.89 <sup>a</sup>	No 2.91 <sup>a</sup>	No
Cooperatives are instrumental in introducing new products and technology to local farmers.	Yes 1.46	Yes 2.54 <sup>a</sup>	Yes 2.81 <sup>a</sup>	Yes
Cooperatives are no longer serving small farmers' needs adequately.	Yes 3.77	No 3.00 <sup>a</sup>	Yes 2.49 <sup>a</sup>	Yes
<i>Cooperative Management</i>				
Cooperatives generally are not managed efficiently.	Yes 3.54	Yes 2.70 <sup>a</sup>	Yes 2.65 <sup>a</sup>	No
Cooperative managers and board members care more about cooperative survival than member needs.	No 3.08	Yes 2.62	Yes 2.54	No
<i>Patronage Refunds</i>				
Members generally benefit by patronage refunds of cooperatives.	Yes 2.38	Yes 2.70	Yes 2.68	No
Cooperatives would get more patronage if they lowered patronage refund revolve time.	Yes 2.31	Yes 2.80	Yes 2.74	No
<i>Returns to Farmers</i>				
Young farmers should expect to receive as many benefits from cooperatives in the future as others have in the past.	Yes 2.38	Yes 2.51	Yes 2.66	No
Cooperatives help their members attain a higher standard of living through increased profits.	No 2.62	No 2.93	No 2.98	No

Questionnaire Statements	Do the Means Differ Significantly from Neutral? Yes or No (neutral = 3.00)			Were Member Responses Significantly Different from Nonmembers? Yes or No
	Managers	Members	Nonmembers	
-----Mean Responses -----				
<i>Competitive Environment</i>				
There are few significant differences between cooperatives and competing businesses.	No 3.23	Yes 2.57 <sup>a</sup>	Yes 2.50 <sup>a</sup>	No
Cooperatives would get more patronage if they located closer to other shopping needs.	No 2.54	No 2.99	No 2.78	No
Cooperatives would get more patronage if they did more advertising.	Yes 2.31	Yes 2.71	Yes 2.71	No
<sup>a</sup> Indicates responses significantly different from the managers' responses.				

and easy credit to receive those lower prices. They were neutral with respect to sacrificing cooperative principles if it led to lower prices for their input purchases. In contrast, managers disagreed with the idea of lower prices at the expense of cooperative principles. Member farmers felt that cooperatives were important in keeping prices at competing businesses low. The managers were even more convinced about that idea. Nonmembers were neutral on this issue.

Farmers strongly disagreed with managers who felt farmers should be loyal to the cooperative regardless of higher prices. Younger farmers in particular were less likely to be loyal if cooperative prices were higher. In general, farmer and manager responses stressed the need that supply cooperatives offer lower prices to stay competitive.

Member farmer's and manager's responses indicated that price discounts based on quantity purchased were acceptable. However, member farmers (primarily the oldest) agreed less than managers with the concept of quantity-triggered price discounts. Furthermore, nonmember farmers were neutral with respect to quantity-triggered price discounts.

### Membership

Mean responses of all groups of farmers and managers implied that nonmembers, both large and small, should not be discouraged from patronizing cooperatives (table 1). Managers felt even more strongly than farmers that large nonmember farms should not be discouraged from patronizing the cooperative. Likewise, member farmers felt more strongly than nonmembers that large nonmembers should not be discouraged from buying at supply cooperatives. Farmers in general would not want to see large farms favored for membership over small farms. Managers, however, were neutral on this issue.



Nonmembers felt that patronage would increase if membership requirements were lower. In contrast, members and managers agreed that lower membership requirements would not increase patronage. In general, managers and all farmers agreed that members were not well informed about the operation of their supply cooperatives.

### **Service**

As indicated earlier, both farmers and managers believed service should not be sacrificed to obtain lower prices (table 1). However, both member and nonmember farmers did not think that cooperatives provided better service than competing businesses. In contrast, the managers were neutral with respect to that viewpoint.

Hiring friendlier personnel would influence patronage according to managers. Member farmers believed that to a much lesser extent. Furthermore, nonmember farmers were neutral in regard to friendlier personnel increasing patronage. All groups believed that cooperatives were effective in disseminating new technology, but managers were significantly more in agreement than farmers with this idea.

The managers did not agree that supply cooperatives are no longer serving the needs of small farmers. Member farmers were neutral on this service issue. However, nonmember farmers had a significantly opposite view to that of the managers by agreeing that supply cooperatives are no longer serving the needs of small farmers.

### **Cooperative Management**

Farmers held a critical view of supply cooperative management (table 1). Not surprisingly, managers took a significantly opposite view. They disagreed that supply cooperatives are generally not managed efficiently.

Both farmer groups felt that cooperative managers and board members were concerned more with survival of the supply cooperative than with member needs. They indicated that the leaders of supply cooperatives should put member needs ahead of any concerns about the economic viability of the cooperative. By implication, doing this would make the cooperative more economically viable. The managers, however, were neutral on this issue.

### **Patronage Refunds**

Both farmers and managers believed patronage refunds to be beneficial, but they also thought cooperatives could get more business by reducing the revolve time (table 1). As noted in the prices section, all farmers were in agreement that it would be acceptable to sacrifice patronage refunds to gain lower prices.

### **Returns to Farmers**

Farmers and managers were in agreement about the continuing benefits of supply cooperative membership for young farmers (table 1). The younger farmers tended to be the most doubtful about the longer-term benefits of membership. Furthermore, all groups were neutral on whether patronizing supply cooperatives would bring them higher living standards.

### **Competitive Environment**

Farmers indicated they believed that there were few substantial differences between cooperatives and privately owned firms (table 1). The corresponding manager

responses were neutral. All groups were neutral on whether supply cooperatives would get more business if they located closer to other shopping outlets. However, farmers and managers both agreed that supply cooperatives would get more patronage if they did more advertising.

### **Cooperative Principles**

When considering all the statements in the survey questionnaire that related to cooperative principles (table 1), it was generally apparent that farmers did not regard cooperative principles highly and were at best neutral when asked if cooperative principles should be sacrificed for lower prices. Without regard to their level of understanding about them, many of the farmer respondents would have no trouble abandoning cooperative principles in order to buy their inputs at lower prices.

The farmers did not feel there were notable differences between cooperatives and privately owned firms. Furthermore, many of them felt members were poorly informed about the operations of their cooperatives. Farmers would not be loyal to cooperatives if they had to pay higher prices, and they seemed to reject egalitarian principles of equal prices and easy credit. Although managers, to the contrary, expressed a need for farmer loyalty to the supply cooperative, they were in agreement with the farmer respondents in regard to the acceptability of sacrificing some cooperative principles if it led to lower price levels for inputs being sold by the cooperative.

### **Implications of the Study**

Price competitiveness appears to be very important to farmer respondents who purchase inputs at supply cooperatives. In that regard they would likely be willing to sacrifice easy credit or higher levels of patronage refunds to get more favorable prices for the products they are purchasing from these cooperatives. Inferior service, however, was clearly not an acceptable offset to lower prices.

Manager respondents in many respects identified with these ideas. However, they put a high premium on farmer loyalty to the supply cooperative even to the point of paying higher prices for some inputs. Based on the survey results, this attitude is clearly contrary to that of the farmers and may encourage low patronage. However, both farmers and supply cooperative managers saw a need to operate the cooperative in a businesslike manner.

There may be a number of possible approaches to implement these seemingly inconsistent operating goals and still maintain adequate equity capital balances in the cooperative. One idea might be to institute discounts for volume sales. Both farmers and managers found that concept to be acceptable and, if implemented, could be an immediate way for some patrons to realize lower prices. Tightening credit policies might also result in savings, which eventually could be passed on to customers in the form of lower prices. Similarly, lower prices could be offered if members would agree to accept lower patronage refunds.

Another perhaps more creative way to reduce prices might be to encourage farmers to buy a package of necessary inputs for a given crop. Conceptually, this might include all services and technical help that, if sold in larger volume, might provide economies of size that would benefit the cooperative. If these input packages were offered at lower prices, compared with separate purchases, even smaller farmers might realize gains. In addition to benefiting farmers by lowering prices, this package plan could lock in sales and possibly result in further savings for the cooperative.

As a part of creating innovative pricing strategies for supply cooperatives in areas such as the study region, it is important that supply cooperatives maintain a high level of awareness about their customers' needs. As illustrated in this study, important perception differences between supply cooperative managers and members may be a problem. It might be very useful for a supply cooperative to develop a database containing customer information that could be used to develop strategies. That might enable them to tailor goods and services specifically to individual customer needs. Such a database would conceivably contain current farm enterprise information, addresses and locations of farm land, outbuildings, etc. for each patron. It might also contain information on the farmer's attitudes and perceptions obtained by any number of formal as well as informal data-gathering procedures, as suggested by Dalecki and Perry.

Finally, it is clear that supply cooperatives in the study area, and perhaps elsewhere, need to renew their efforts to build member commitment and patron loyalty. Many farmer respondents saw little difference between cooperative and privately owned input suppliers. Cooperative management needs to find some way to impress members that a cooperative is not just another business, but offers some special characteristics that can be of benefit to members. The respondents, rather than see a supply cooperative go under if it is not price competitive, might respond positively to continuing educational efforts by management to help renew commitment to the cooperative form of input supplier.

With many farmers showing a lack of knowledge about cooperatives, it may be appropriate in any educational program to include the study of cooperation itself, e.g., the philosophy of cooperation and the ideological values underlying it. Such a process would encourage patrons to accept or reject the concept of cooperation. Furthermore, it might just increase the ideological commitment of farmers to supply cooperatives.

### Note

1. For a complete discussion of the survey instruments, analytical approach, and details of the findings, see Hartley and Burt.

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