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# Minnesota AGRICULTURAL ECONOMIST



## Farm Service Centers

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The term farm service center is used to describe the farm input retailers who sold Minnesota farmers \$930 million of supplies and service in 1968.

The idea of one-stop farm service centers is not new. In fact, the old general store probably was the original one-stop shopping center. Likewise, farmer cooperatives have been supplying farmers with a complete line of farm inputs for many years.

Four types of farm service centers can be identified. The first is the cooperative type, which is owned and controlled by members; second, the private-integrated type, which is established and managed by a major input manufacturer; third, the private or independent type, which is not a cooperative or is not controlled by an input manufacturer; and fourth, the shopping center type, where the facility is constructed by a farm input company and part of the space is leased to other input retailers.

In this article, the future role of farm service centers is approached in terms of four principal purposes: (1) to identify the differences between the cooperative and private-integrated service centers and the shopping center input store; (2) to discuss factors that affect the location of farm service centers; (3) to point out why manufacturers want to enter the farm input field and what effect new input dealers will have on competition and efficiency in selling farm inputs; and (4) to relate the farmer's input needs to the changes taking place in farm input merchandising and their effects on the rural community.

### WHAT ARE FARM SERVICE CENTERS?

The definition of farm service centers depends on whom you ask. Mobil Oil defines a farm service center as "a retail facility offering crop input commodities and service as well as a limited selection of farm consumer merchandise."<sup>1</sup> This type of farm service center resembles many typical farm supply cooperatives. The basic difference is that the private-integrated service center would be under the direct control of an input manufacturer. A different concept in farm service centers is the shopping center type. The shopping center differs from the traditional input store in that different input

suppliers are located in the same building. The term one-stop service center implies that the farmer can do all of his shopping in one place.

When planning a one-stop service center, the sponsoring company agrees to build the shopping center, with its own farm supply or input store being one of the tenants. The remaining space in the shopping center is leased to either local or outside companies. Although at this writing no service centers of the shopping center variety are in existence in Minnesota, they are expected to include the following types of establishments: an oil company, animal health unit, feed and grain company, financial institution, livestock marketing and management com-

pany, lumberyard, machinery dealer, and possibly a discount grocery store.

The size of the farm input market is indicated by dollar sales of feed, seed, and fertilizer for the United States, Minnesota, and the Upper Midwest (table 1). In these three product lines, cooperatives have been able to retain their market share as total sales increased.

### DIFFERENCES IN FARM SERVICE CENTERS

Just what are the differences between the cooperative and the private-integrated farm input store and the shopping center type of service center? The primary economic difference is in the number of products handled by each firm or managerial unit (table 2). Generally, cooperative farm input suppliers carry more than one product. As shown in table 2, 38.7 percent of the supply cooperatives in Minnesota handle feed, seed, fertilizer, and pesticides, while only 13.7 percent of the independent firms carry all four products.

In multiproduct firms, each product line is under the direction of the store manager. As seasonal demands change, labor is shifted from one product line to another. Capital costs are kept low by having one central business office and store. Accounting for each product line is handled in a central location where customers' bills are consolidated. With the multiproduct firm, profits are calculated over the entire enterprise. Profits on one product offset losses on another product. In cooperatives, services that are not profitable may be performed because members demand them.

The farm service center of the shopping center type differs from the multiproduct store because it is composed of single product firms, each under the direction of a different managerial unit. Firms lease space in the center from the builder. Since a large number of different firms occupy a small area, the farmer is able to purchase all of his inputs just as if they were in one store. With such an arrangement, however, the shifting of labor from one product to another is not possible unless a labor pool can be developed. A firm that sells only fertilizer is forced to add part-time help during peak periods and to lay off workers at other times. The overhead costs are higher since each firm performs its own accounting function and hires a manager.

Why have single product firms been able to compete against multiproduct businesses? Table 2 shows that 29.6 percent of all independent firms are single product firms. A partial answer can be found by examining the profitability of selling a commodity as its sales increase.

<sup>1</sup>"Farm Service Centers." *Farm Chemicals*. October 1966. p. 15.

**Table 1. Sales of feed, seed, and fertilizer\***

Year and region	Feed			Seed			Fertilizer		
	Total sales†	Sales by cooperatives	Percentage of total sales	Total sales†	Sales by cooperatives	Percentage of total sales	Total sales†	Sales by cooperatives	Percentage of total sales
	million dollars			million dollars			million dollars		
1960-61									
Minnesota . . . . .	225.3	41.3	18.3	25.9	5.2	20.1	38.3	19.7	51.4
Upper Midwest . . .	924.0	147.5	15.9	100.2	19.2	19.2	146.8	62.1	42.3
United States . . . .	5,022.0	890.3	17.7	516.0	100.3	19.4	1,344.0	361.3	26.9
1967-68									
Minnesota . . . . .	240.0	63.3	26.4	33.0	7.5	22.7	77.3	42.4	55.0
Upper Midwest . . .	1,125.2	265.7	23.6	130.2	25.2	19.3	356.1	155.8	43.7
United States . . . .	6,461.0	1,169.1	18.1	673.0	129.2	19.1	2,105.0	664.6	31.6

\* Sources: Statistics of Farmer Cooperatives. FCS Report 1. USDA. Farm Income - State Estimates. FIS 214 Supplement. ERS, USDA.  
 † Total sales in the fiscal year are an average of total sales in the calendar years.

For example, when fertilizer first came on the market it was retailed by firms already selling some other product, such as a county grain elevator, creamery, or farm implement dealer. The sales of fertilizer in any one area were not large enough to make a specialized fertilizer dealership profitable. As the sale of fertilizer increased, it became profitable for firms to sell only fertilizer. If the expenses of the specialized business were low enough, prices were cut and non-specialized dealers were forced out. In this way, the fertilizer specialist had the potential of becoming a local monopoly, except that he was unable to charge a price higher than that which the non-specialist was charging. As more specialized fertilizer dealers entered the market, the selling of fertilizer became competitive.

**Table 2. Number of products retailed by farm input dealers in Minnesota\***

Commodities sold	Percentage of dealers	
	Cooperatives	Independents
Single product		
Feed . . .	0.8	8.2
Fertilizer	3.8	8.0
Seed . . .	4.8	13.4
Multiproduct		
Pesticides, feed, seed, fertilizer	38.7	13.7
Pesticides, feed, seed . . .	7.6	5.2
Pesticides, fertilizer, seed . . .	19.4	11.4
Other . . .	24.9	40.1
Total . . . . .	100.0	100.0

\* Source: Minnesota Department of Agriculture.

In short, as the demand for a product increases, single product businesses discover that it is profitable to enter the market. If average costs decrease as output expands, the single product firm can cut price and force the multiproduct firm out of the market or to a lower price. Conversely, the specialized firm is unable to raise his price above that which the multiproduct firm is charging.

Another reason why the single product firm is able to compete successfully is based on the fact that its principal competitor is the farmer cooperative. The cooperative is essentially a service organization controlled by its members. Services requested by members often are handled, even though they are not profitable. If unprofitable services such as offering soil testing, providing soft drinks, and carrying some general consumption items are not priced at their full cost, the losses must be made up elsewhere. This implies that the prices of some products are increased to cover the cost of providing services. If this is the case, then it is easier for the specialized dealers who do not provide services below cost to compete with the cooperative.

**LOCATION**

One important decision that a new farm supply retailer makes is where to locate. While many factors influence the selection of a site for a farm service center, profits are the over-riding consideration.

A retailer is in business to earn a satisfactory return on his labor and invest-

ment, which means he must hold down costs. Since costs vary geographically, they are one of the primary location determinants.

In deciding where to locate, the farm input retailer faces the basic choices of a large city or a smaller rural town. To identify the factors that influence such a decision, let's look at cost differences between large and small towns (table 3).

Semi-skilled labor is cheaper in small towns, reflecting the lower cost of living, while part-time and specialized labor may be scarce. Highly skilled labor, if needed, is costly and difficult to attract into small towns.

Finished goods procurement is more expensive the farther the service center is located from the main industrial center of the area. For farm service centers, the cost of procurement must be balanced against the cost of delivery to the buyer. The service center's market is limited by the distance over which it is profitable to deliver bulky items such as fertilizer, petroleum, and machinery. Consequently, the retailer faces a dual problem: the farther he is located from the main trading center, the higher his list price, and the farther he is located from the farmer, the higher his delivery charge.

In most cases, the retailer chooses to locate near the center of the market he expects to serve. This pattern may be changing, however, as farm size increases. Farmers who buy large units of merchandise may prefer to handle the delivery of goods to the farm themselves, thereby receiving a lower list price and

Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Roland H. Abraham, Director of Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota 55101.

**Table 3. Relative location costs**

	Costs	
	Small towns	Cities
Skilled labor . . . . .	High	Low
Semi-skilled labor . . . . .	Low	High
Land . . . . .	Low	High
Finished goods procurement . . . . .	High	Low
Taxes . . . . .	Low	High

quicker and cheaper delivery to various locations on their farms.

Land costs and taxes are lower in rural towns. Since service centers need substantial space, variations in land costs and taxes are important considerations.

Capital costs, as explained by interest rates, will vary from place to place, although it is impossible to say beforehand where the rates will be the lowest. In most cases, capital costs are likely to determine in which region of the country a firm locates rather than where in a region it will be placed.

Of the 80 farm shopping centers proposed by National Farm Stores, 29 percent were to be located in towns under 5,000 population; 39 percent in towns 5,000-10,000; 21 percent in towns 10,000-15,000; and only 12 percent in communities of over 15,000 people. Clearly, small towns were preferred by National Farm Stores, partly because of lower operating expenses and partly because of farmers' preferences and loyalties.

**OBJECTIVES OF MANUFACTURERS**

In recent years, several input manufacturers have started retailing farm inputs. Where is the pressure for the new centers coming from? Why are businesses entering the farm input arena? Why are established manufacturing businesses integrating vertically into retailing?

Each of these questions can probably best be answered with one word: technology. The biological and chemical revolution in agriculture has caused the

**Table 4. Consumption of fertilizer and pesticides\***

Year	Percentage of 1950		
	Fertilizer		Pesticides†
	U.S.	Minnesota	U.S.
1950 . . . . .	100	100	100
1955 . . . . .	132	171	104
1960 . . . . .	163	247	130
1965 . . . . .	238	366	189
1967 . . . . .	299	509	190

\* Sources: *Agricultural Statistics*, 1969. USDA. *Consumption of Commercial Fertilizers in the United States*. SRS, USDA.  
 † In 1966, 51 percent of the pesticides were used by farmers.

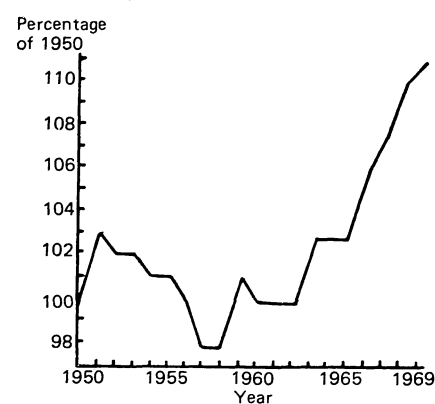
demand for farm inputs, especially fertilizers, insecticides, and mixed feeds, to expand rapidly. As shown in table 4, the use of fertilizer has tripled since 1950, and the use of pesticides has nearly doubled. Farm output is projected to increase one-third by 1980. In the same period, demand for purchased farm inputs is expected to increase by 50 percent.<sup>2</sup> New firms want to capture a part of the expanding market for farm inputs. Developing retail farm service centers is one strategy to attract input business from established firms and then capitalize on the growth potential.

After manufacturers enter the farm input market, they attempt to increase their sales as rapidly as possible in order to reduce unit costs. Suppose a manufacturer is producing 1,000 units of fertilizer at \$100 per unit, but he knows that if he can sell 2,000 units his cost will be only \$75 per unit. A savings of such magnitude is possible if the manufacturer has idle capacity. If, by opening farm service centers, the manufacturer can increase his sales from 1,000 to 2,000 units, he will be inclined to do so on the basis of his profit calculations. The savings of \$25 per unit of output can be used in establishing service centers, while the manufacturer will be as well off as before.

What reason, other than the lowering of per unit costs, is there for a manufacturer to integrate vertically into the farm input market? When a manufacturer invests in the production of farm supplies, he is undertaking a large risk. To deal with his risks, the manufacturer needs information about his expected costs and revenues. Only if he makes correct forecasts can he expect to build the most profitable size of plant.

The management of a large company has a good idea of its total costs, but it still must go into the marketplace to determine its sales and selling prices. Historically, the farm input market has been reliable. The use of inputs has increased slowly and the mix of inputs has been stable. Recently, because of the technical revolution in agriculture, the farm input market has become less predictable. Farmers are rapidly changing the type and amounts of inputs used on their farms. This means that information about which inputs farmers need and are willing to pay for is vital for the planning of manufacturers. In order to make production decisions, the manufacturer must have some control over his market. The manufacturer is exercising this control by

**Total farm inputs used in the United States (1950 = 100).**



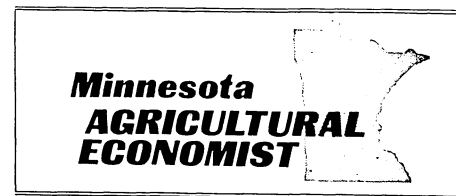
Source: "Handbook of Agricultural Charts, 1969." Agr. Handbook No. 373. ERS, USDA.

moving into retailing and by providing management services for the farmer.

Only by providing more services can the manufacturer easily dispense information about new products to farmers. Only with technical supervisors in the field can the manufacturer convince the farmer to use more and more farm inputs.

Traditionally, the quantity of farm inputs used on farms has been very stable. Recent changes in farming, primarily the adaptation of easily varied farm inputs, such as fertilizer, may invalidate this supposition. From 1950 to 1962, the percentage of farm inputs used (compared to 1950) varied between 98 percent and 103 percent (see the accompanying figure). Since 1965 the percentage of farm inputs used has increased steadily from 103 percent to 111 percent in 1969.

Imperfect knowledge by the farmer also may be responsible for the increased use of farm inputs. Farmers often do not apply enough inputs simply because of a lack of knowledge about their existence and/or effect. The use of field representatives in retail service centers is one way to improve the farmer's knowledge about farm inputs. These factors help explain the drive to set up retail centers and the emphasis on service.



Prepared by the Agricultural Extension Service and the Department of Agricultural and Applied Economics.

Views expressed herein are those of the authors, but not necessarily those of the sponsoring institutions.

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<sup>2</sup> Rex F. Daly. *Exploring the Future of the Agribusiness Industry*. Tennessee Farmers Cooperative 25th Annual Meeting, Nashville, Tennessee, December 5, 1969.

## COMPETITION AND EFFICIENCY

What effect will a new retail service center have on competition and efficiency? Before a service center is established, the parent company must engage in a substantial planning effort. At that time, size of plant, present technology, and labor practices must be evaluated. As a result of the evaluation, the proposed new facility, which may be a local business moving into a shopping center, should be of optimum or near optimum size. Unit costs of the new enterprise are likely to be lower than in competing firms.

The farmer likes vigorous price competition because it assures him of the lowest possible price for his inputs. Price competition certainly is sought as long as it does not produce a one-firm local monopoly. However, we would not expect farm service centers to engage in direct price competition. More likely, these firms will engage in nonprice competition for at least four reasons: (1) Local businessmen's reactions to price cuts may produce a bad local climate for a new store. (2) The service center can count on newness to stimulate initial demand. (3) The service center will offer more services that will result in a disguised price decrease. (4) The new business will not be able to change its price without its competitors reacting to the price change. In a new market, competitors' reactions are hard to anticipate and price changes will come slowly.

A new service center is likely to attract additional sales volume into a community by expanding its trade area. The additional sales of the new center also will generate sales for other local businesses. In the short run, however, the service center may take business away from established firms.

In a study of the Spencer, Iowa, trade area, it was estimated that the shopping center type of facility proposed for that community must capture 7.1 percent of

the estimated 1969 sales to be profitable.<sup>3</sup> This figure is somewhat deceiving because the shopping center's impact in some commodity lines would be much higher than in others. For instance, it would have to absorb 22.6 percent of the area sales of farm supplies and equipment and 14 percent of the general merchandise sales to be profitable, which would mean that some less efficient dealers would be driven out of business.

Will the new farm service centers offer the farmers anything more than they are now receiving? The shopping center stores are pushing the idea of "all the time they will save the farmer." In many cases the farmer is not too concerned with the amount of time he spends in town doing his purchasing, yet an important aspect of time must be mentioned: timeliness of delivery. When a farmer calls in an order for fertilizer, he wants it as quickly as possible. Available information simply does not support the contention that farm service centers will be able to make deliveries any quicker than present well-managed stores.

Who will be the farm service center's clientele? We know that farm size is expanding, not from technical efficiencies, but rather from savings in the purchase of farm inputs. Large farmers are bypassing the local farm input store and buying at the lowest possible price.

Where the farm service center fits into this picture is uncertain. Possibly the farm service center will be able to attract the larger farmer by charging him less than the small farmer and by providing a large selection of services. Whether large farmers are more interested in the lowest possible price or a price-service package is a question that needs to be answered.

For more than a decade, important changes have taken place in rural Ameri-

ca. Many small towns are declining, yet they are trying to maintain their identity and vitality. For some small towns, the farm service center offers an expanded local economic base. Farm service centers add to a rural community's agricultural base, rather than providing a new industrial base. For this reason, there will be limits to how far the farm input sector in any one community can be expanded.

## CONCLUSIONS

The name farm service center has caused a great deal of confusion. Basically, the term farm service center is used to denote a particular merchandising technique rather than any physical or economic structure. The particular merchandising technique stressed is service. This service is in the form of field representatives and custom application, with the intent of getting the farmer to use the optimum amounts of all farm inputs. Farm service centers use nonprice competition to attract customers from firms that are unable to provide a complete line of services and technical advice.

The increasing demand for farm inputs will cause changes in farm input retailing. These changes will affect all types of farm retailers.

In the past, there has been no strong tendency towards one type of farm supply retailer. Cooperatives, independents, and private-integrated firms all have been able to compete in the farm input market. It is likely that in the future we will see new types of farm retailers, such as the shopping center type of farm service center.

When new farm service centers are constructed, their location will depend on the costs of labor, land, and finished goods procurement. If the farm service centers are located in small towns, they will strengthen the community by providing added income and jobs. ■

<sup>3</sup> *Economic Impact of the Farm Agribusiness Center on the Local Area*. Market Development Department, Northern Natural Gas Company. November 1969, p. 7.

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