IMPLICATIONS OF STRUCTURAL CHANGES IN THE ECONOMY OF THE COMMERCIAL FARM FIRM ON FARM SUPPLY FIRMS

by Melvin E. Sims*

New era farm operators will not support the inefficiencies of yesterday. The rebellion may result from their own determination or it may accrue from the rewards of our free competitive economy. Regardless of its origin, the firms that supply the expendable inputs to farmers are caught up in an evolving process of innovation, integration, and accelerated efficiency. This process is accompanied by the extension of broader and more personalized services, improved product quality, and the complementary delivery of new technological advances.

The result of these forces appears to project a rather uncertain future for the farm supply firms. Lower margins on the one hand and increased costs on the other generally spell disaster for those who are either unable or unwilling to adjust to the changes which are occurring about them. As it gasps its last breath of solvency, the company proclaims, "I'd rather fight than change."

This, however, need not be the case; tomorrow can be bright, exciting, and captivating for those who find the solutions. Margins will be smaller, but the new efficiencies and innovations and greater volume can generate a satisfactory return for the resources which are applied.

As the commercial farmer negotiates on a price for a specific supply item, he commands increasing attention as his volume increases. He is inclined to bargain for a year's supply at one time. He is willing to schedule delivery within rather broad limits and is ready to provide adequate storage and handling facilities. There will be a growing tendency, I believe, toward lumping all the items together which are the least bit compatible, so as to exert the greatest leverage with this total volume. For instance, the farmer might bargain for his annual supply of feed, plant food, and petroleum from one supplier. In addition, he may agree to sell his grain and perhaps other farm production items through the same organization if the terms are sufficiently attractive. Depending upon credit status, the last idea may originate with the merchant.

In addition to pooling his own purchasing requirements, the farmer will force continued economies, also through group action. His participation in cooperatives or in proprietary corporations engaged in related business is actually a means of integration for the farmer. It provides him with an opportunity to share in the profit of another segment of the food industry. Cooperatives, for the most part, will engage in responsible price administration, so that the health of the industry can be maintained.

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Innovation in Farm Supply Firms

The constant pressure for competitive advantage will continue to foster innovation. The dry bulk blending concept in plant food distribution is an excellent example. The change was initially resisted because it tended to make existing central, chemical mixing plants obsolete, or at least surplus. It placed one of the three central plants operated by FS in the surplus category. Regardless of this problem, the process of blending dry ingredients and applying it to the soil in bulk has proven to be the easiest and most efficient method of applying large quantities of plant food to the soil. During the past few years the entire industry has moved rapidly in this direction.

There is considerable interest in slurry and liquid mixed fertilizer and in handling of liquid feed. A major breakthrough in altering the level of usable protein in corn could be on the horizon. Increased governmental supervision of agricultural chemicals could change the structure and relative position of supply firms. Perhaps feed companies should become more aggressive in assisting farmers to develop their own feed processing. Feed additives (probably in the form of pre-mixes) quality control, and technical service would be important contributions to the success of such a farm unit.

Innovations will be adopted more rapidly by farmers than was true in the past. The acceptance of hybrid corn was fairly rapid, but the conversion to the picker sheller is probably twice as fast. Modern communications media are more effective. Farmers are more mobile and travel more extensively than in the past. It is not uncommon to hear of a farmer checking or investigating possible useful ideas in California, Europe, or elsewhere around the globe.

This means that the supply firms have less time to adjust. It means that they must accurately predict at an earlier date the future trend of farming. It means that more emphasis and resources must be applied to research. The successful firm will be bringing about change rather than following change.

Integration in Farm Supply Firms

Both vertical and horizontal integration continues at a rapid pace. This is especially true in the plant food industry. Most of the major plant food companies now have basic production in at least two of the three primary elements - nitrogen, potassium, and phosphorous. A few have control of all three. There are some who believe that sulphur will soon be added to the primary list and provide the opportunity to integrate still further. Those who have historically been engaged in distribution and also perhaps manufacturing are acquiring basic production facilities. Those who have historically been engaged in basic production in one element and perhaps in manufacturing are now tying in with basic production in the other elements and integrating into manufacturing and distribution.
Activity in horizontal integration is of a more recent period. Major petroleum companies have moved into the plant food industry within the past two years. A major chemical company, W.R. Grace, has recently purchased a feed company as well as a seed company. This type of activity could very well develop into a trend and be the prelude to the full implementation of the service center concept.

There appears to be considerable interest currently in the service center approach to retail distribution. It is not particularly new, because some organizations exist which have built their entire system on this pattern. Actually, it appears to be a departure from the era of specialization to the old general store concept. It will resemble the old general store, however, only in diversity of product. It will be a well staffed, dynamic, and efficient operation.

We have general agreement, I believe, that the farmer of tomorrow will be better educated and more astute. He will be more management oriented than his father was. He will have considerable technical knowledge in certain fields, but the technological changes will be too rapid for him to keep abreast in all areas. He will seek technical advice from others. He may seek this advice from the farm adviser or a professional farm management service, because of their unbiased position. It will be easier for him to accept it from the well informed sales manager, or his specialist, who will bring the information to his farm.

The service center will have competent persons at their disposal, will win the confidence of the farmer in one product line and, therefore, attract his patronage in others. This complementary promotion, as between product lines, is a significant reason for the service center trend. Of course, the opposite can be true—a blunder or error in one area can lose the customer in all categories. There is always the hazard of the overzealous sales representative who presses sales at the expense of the farmer's best interest. The problem of securing salesmen and/or specialists who possess the required skills will continue to present a pressing problem. There will be too much at stake to risk incompetence; the value of repeat business will not permit promiscuity; success will be linked with integrity.

One stop service enables the farmer to become more intimately acquainted with his dealer and supply organization. More contacts are made because of the greater number of transactions. A common trade-mark can be used for more efficient advertising. Credit administration is simplified when a fewer number of open accounts are maintained by the farmer.

As the farmer becomes a more skilled purchasing agent, he will use all the volume he can assemble as a bargaining tool. A farm unit which has an annual requirement of 12,000 gallons of power fuels, 6,000 gallons of LP-gas, 100 tons of feed, 150 tons of plant food, and $1,000 worth of agricultural chemicals will command more attention from one supply firm than it would from any combination of two or more. A $20,000 order will justify the time of an agronomist to assist in planning a fertility and chemical program, and the
time of an animal nutritionist to help solve a livestock feeding problem. The competent farm operator will gladly schedule an afternoon during the winter months, in his office on the farm, to consider new products, schedule delivery of supply items, and negotiate the terms for his next season's requirements.

Increased Efficiency in Farm Supply Items

The obvious solution to the pressure of more aggressive bargaining on the part of farmers and greater concessions by competition in an effort to attract new business, is increased volume and greater efficiency on the part of the supply firm. Procurement and manufacturing have been reduced to a rather exact science. Departures from the conventional distribution pattern seem to hold the most promise for increased efficiencies.

A rather detailed study of petroleum distribution to farmers was conducted by FS Services, Inc. Tachograph recorders were installed in the delivery trucks and time and cost records were accumulated. It was determined that power fuels could be delivered to a farmer who would contract for 10,000 gallons or more per year, provide at least 2,000 gallons storage, and accept delivery at option of company for three cents per gallon less than the farmer who used less than 500 gallons per year and had less than 300 gallons storage. In fact, the study revealed that a delivery of 75 gallons or less at one stop was a money losing proposition under current margins. If farmers could acclimate to the practice of night-time deliveries, delivery equipment could be utilized around the clock at considerable savings. Of course, the advent of a self-contained atomic power unit which would supply energy for the life of the tractor would eliminate this distribution problem.

Large volume feed accounts which can accommodate 10-20 ton bulk feed trucks can receive product direct from the mill at a significant saving. The drop-trailer program is an intriguing economizer. Bagged feed supplements are manufactured directly into a dry cargo van. A tractor pulls the trailer to a retail service center during the night, drops the loaded trailer, and spots the empty back at the mill. The retail outlet sells and delivers the fresh feed directly from the trailer during the following day. Any remainder is moved into the warehouse at the close of the business hours.

Extra trailers are required in the drop-trailer program, but the tractors are employed day and night. The tractor and driver are not delayed during the unloading process. The local company can schedule the unloading task during a slack period and can actually use the trailer for warehouse, thus eliminating one handling. Significant savings are available to the integrated firm.
More Personalized Services

Commercial and industrial organizations have become rather proficient in the techniques of long range planning. As the farming operation becomes larger and more complex, more time and effort must be applied to planning. Credit institutions and supply firms can lend valuable assistance in this area. The formulation of a simple budget would be a helpful tool to many farmers. Extension people, materials handling equipment firms, and electrical power use advisors have become quite active in the area of farmstead planning.

This philosophy may not continue, but farmers as a group have been reluctant to employ engineers and technicians to assist in solving problems. They apparently would prefer that these costs be buried in the price of the buildings or equipment. The rapid transition from ear corn to shelled corn harvesting has demanded changes in storage facilities and the addition of drying equipment. The firms supplying farmers with this type of building and equipment have generally provided the engineering and lay-out work for the improvement. As farmstead mechanization and automation continues to be employed on more farms, which is certain to happen, the supplying firms will be expected to provide this personalized service.

The decision-making process on the modern farm will become more refined. Too much has been left to hunches and guesses in the past. We are currently trying to decide in our farming operation which application of capital will bring the greatest return - another mechanical cattle feeding set-up or a confined swine finishing house. It is not easy for one who is more used to handling tractors and animals than figures to solve this problem and have confidence in his conclusion. There is considerable interest in providing computer service to farmers. At least two large firms supplying farmers have a contractual arrangement whereby their computers can be programmed to solve specific problems for individual farmers. Pennsylvania State University and possibly others are supplying this service. The cost, I believe, is $150 per problem solution. Banks and financing institutions are studying the possibility. The desire for this type of service is almost certain to be present; who will provide the service and who will be willing to pay for it remains uncertain.

Farm Supply Credit Service

It is easy to build a case in favor of the farmer obtaining his total line of credit from a regular established credit institution. It is cheaper and a greater variety of credit services are available from the experts. It would seem logical that the farmer of tomorrow with his better education and increased credit requirement would devote the amount of time necessary to establish a line of credit with an institution which would provide the most efficient and effective service.
Yet, there is a sizable amount of credit extended by merchants today. "The Balance Sheet of Agriculture"\(^1\) lists a total of $6,720,000 in debts owed to non-reporting creditors as compared to a total of $16,185,000 in total non-real estate farm debts, excluding Commodity Credit Corporation loans. Merchant and dealer credit and individual lenders comprise the major portion of non-reporting creditors. The farmer is already established with his supply firm and it is often a more convenient source of credit. The supply salesman appears to be somewhat more aggressive in selling his product than is the case with the credit representative. This need not be the situation and may change in the future. At the present, however, it seems that the supply salesman, in his eagerness to complete a sale, is willing to deliver the credit package to the farm.

More supply firms will probably provide a credit institution in the future; many, of course, already have. It does not necessarily follow, however, that a greater percentage of the total credit will be supplied by this route. I would expect that the greatest shift would be from open accounts to the formalized credit institution.

The advantages of a wholly owned credit corporation to a supply firm are as follows:

1. An opportunity to tie in more effective credit administration
2. Potential sales advantage by offering a total package
3. Reduces the shopping around by the customer - more convenient
4. A uniform program
5. Ability to compete with competitor programs
6. Helps relieve the working capital problem.

There is risk involved. It will not solve all the accounts receivable problems, and the operation may not cover costs - at least in the early stages.

**Capital Leasing**

Leasing as a device to acquire more capital or credit will probably continue to a limited degree. Here again, credit from normal channels will probably be somewhat lower in total cost. Building and equipment dealers may meet this cost and extend additional amounts of credit over and above that normally extended by conventional credit institutions because of their sales margin.

The presence of equipment which is subject to frequent obsolescence may spark additional interest in the leasing field. Row spacing could be an example. An operator with leased equipment could more readily adjust to narrow row farming than one who is locked in by equipment with several years of life remaining.

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\(^1\)Page 19 of Agriculture Information Bulletin No. 290, Economic Research Service, United States Department of Agriculture.
Leasing of a building or storage facilities by a tenant to be placed on leased acreage should grow in popularity. Firms supplying this type of capital items bear the risk of repossessing an item which may be difficult to remove but also have a chance of receiving the full price in rent and still owning the unit. There is a tax advantage to some operators but the lease agreement must not be interpreted as a conditional sales contract by the Internal Revenue Service.

It is my opinion that more interest will develop in rental equipment. The rental of cars, trucks, and trailers is now commonplace. A self-propelled forage windrower, for instance, is an expensive piece of equipment. If custom operators are not available or custom operators are somewhat careless, farmers like to rent expensive machines which are used only a few days a year.

A major deterrent to an equipment rental program is, of course, the repair aspect. The rent must be high enough to cover the cost of making repairs for the damage done by the unskilled operator, the careless and wreckless operator, the unfamiliar operator, and those who tend to be somewhat less attentive when another person's property is involved. If a contract could be developed which would provide incentive for proper care and maintenance of the machine, implement firms could cultivate a thriving business in rental of high cost machinery.

**SUMMARY**

The implications of structural changes in the economy of the commercial farm to farm supply firms are numerous. The farmer will become a more sophisticated purchasing agent and will demand and receive a price which will result in narrower margins for the supply firm. He will continue to concentrate his volume and to bargain more effectively. This will also bring pressure on present margin structures. The farmer will seek additional services which will help him solve his technical problems, his credit and capital problems, and he will expect to exploit the new developments of research carried on for him.

The supply firm will employ greater amounts of capital and a higher caliber of people to meet the demands of tomorrow's farmers. More highly skilled people as farm operators must be matched by improved management in farm supply firms. More emphasis will be placed upon merchandising as compared to production. The narrower margins will be overcome by greater volume, further integration - both horizontal and vertical, additional efficiencies, and by new developments which result from research and innovation.

Success will not come easy; it never has. Some will suffer defeat. For those organizations which have people with imagination, vision, brilliance, and determination, the future holds a thrilling experience.