

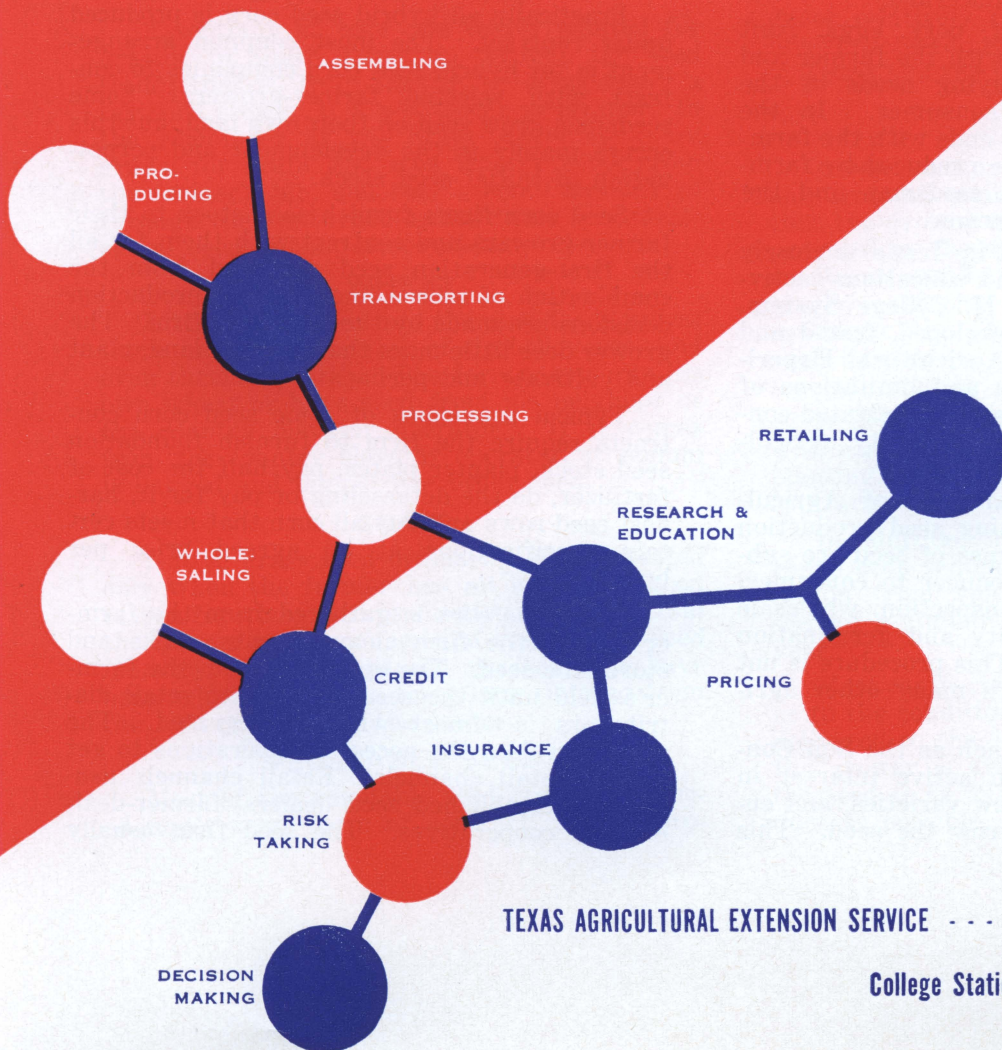
VERTICAL INTEGRATION

IN TEXAS AGRICULTURE

Seed Production



VERTICAL INTEGRATION has existed in some form for many years in the planting seed industry. In recent years, a more scientific agriculture has accelerated the demand for better seed. The seed industry, in an effort to supply a quality product, has integrated many steps in the production process. Virtually, all integration has occurred through contractual arrangements. Indications are that this trend toward vertical integration will continue.



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Extent in the U. S. and Texas

Today, a large part of our planting seed is produced under contract. For example, an estimated 90 percent of the hybrid corn and grain sorghum seed produced in Texas is under contract.

It is estimated that less than 10 firms produce most of the seed for any one vegetable crop in the nation.

Cottonseed for planting purposes has been grown under contract for many years in Texas. This procedure may involve the gin and farmer, cooperative and farmer or the professional seedsman and farmer. Contract arrangements in the production and marketing of cottonseed are many and varied. Many are verbal while others involve numerous obligations by the farmer and the seedsman.

Differences in the Seed Business

There is a great difference in the seed business and other agricultural commodities, as far as vertical integration is concerned.

The production of beef, pork, eggs, fruit and milk generally begins with the farmer and ends in satisfying the buying needs of the housewife or commercial consumer. In the seed business, it begins and ends with the farmer, because seed usually are produced by farmers under contract with a seedsman and the ultimate buyer also is a farmer.

The production of seed in Texas is closely allied with the research and educational activities of The Texas A. & M. College System. Many planting seed are developed, tested and distributed by the Texas Agricultural Experiment Station. The merits and limitations of crops, both old and new, are demonstrated continuously to farmers through county agricultural agents.

The Texas State Department of Agriculture enforces laws governing seed production and distribution. Many types of seed are subject to inspection from producer to consumer. This consists of on-farm inspection, wholesale and retail inspection, purity and germination tests and other services. This procedure is not so rigorously followed with many other agricultural commodities.

Government agencies such as the Soil Conservation Service, take an active interest in finding and distributing new varieties, and encouraging individuals to grow the seed. This

is particularly true of grass and legume seed. Efforts of these agencies often result in some form of vertical integration. One man, for instance, may contract with his neighbors to grow the grass and legume seed. The contractor assumes transportation, cleaning, sacking and retailing responsibilities. In certain instances, this effort helps to speed up a supply of desirable new varieties into circulation.

Production of good seed depends on suitable soils, isolation from other varieties and a good growing season. Many integrated seed producers are moving their growing operation to irrigated areas to assure moisture when needed.

Another difference of vertical integration within the seed business as opposed to other agricultural commodities is that relatively few farmers are involved in production while many farmers are consumers of the end product.

Specific Crops

CORN AND GRAIN SORGHUM

Practically all hybrid seed corn is produced under contract. The most common arrangement is for hybrid seed corn companies to contract with selected farmer-growers. Some seedsmen grow seed on their own land, but this occurs mainly in the development and perpetuation of initial seed stock.

Seed corn firms furnish seed stock to their farmer-growers and contract with them for all the first-generation seed produced from the combination of inbred lines. Many production decisions are made by the seed corn firm. The grower does little more than furnish land, plant and cultivate and perhaps harvest.

Typical provisions of some seed corn contracts require the firm to furnish foundation seed stock, planter plates, pay half the cost of fertilizer, do the detasseling or pay for it, harvest seed rows and buy all corn that meets certain specifications at an agreed price per bushel.

After the corn is gathered from the farmer's field, the firm cleans, treats, sacks and stores the seed. The operation from the farmer's field until the seed are sold to retail distributors is almost wholly integrated. The seed firm does the necessary operations to get it into retail channels. Retail channels usually are established seed dealers, farmer-dealers and cooperatives. The seed firm usually

Production

advertises extensively to point out the merits of its particular product. Production of hybrid grain sorghum seed generally follows this pattern.

COTTONSEED

An example of the many ways cottonseed are produced under contract follows:

A major seed cooperative in Texas furnishes cotton planting seed to several growers. These seed are outstanding in quality, true to variety and have been delinted and treated. When the cotton produced by these seed is picked and ginned, the farmer-grower returns, pound for pound, the amount of seed he originally received. After the amount planted has been returned, the farmer-grower is paid \$10 per ton above the current area oil mill price for all seed acceptable for planting purposes, from the crop produced with the original seed furnished by the association. The association contract usually is made on a 10-year basis.

Other firms engage in like practices, but many operate on a 1 to 5-year contract.

OATS AND BARLEY

Essentially all oats and barley planted for grazing in South Texas go through the seed trade; that is, from farmer, or occasionally a certified grower, to a wholesaler or retailer. In the remainder of the State where oats are grown for grain, the seed usually come from the farmer's bin, and only a small amount go through the seed trade unless there is a shortage of seed in the farmer's bin.

WHEAT

Little wheat goes into the seed trade unless there has been a series of drouth years, and even then very little. The farmer replants his own wheat or buys seed from his neighbor or the country elevator operator. If it comes from the country elevator operator, it seldom is bagged and tagged like other seed.

GRASS

Native grass seed ordinarily are harvested only when the farmer has an unusually good season for grass seed production. They go from the farmer to the jobber and stay in the seed industry. The introduced grasses that have been sold in the State for a long time go from the seed producer to the jobber.

VEGETABLE SEED

Most of the vegetable seed crop is produced under some form of contract. Texas pro-



An example of vertical integration in the cottonseed business. This plant is owned by 362 cooperatives, representing 50,000 farmers. It furnishes a large percentage of the cottonseed used in Texas.

duces relatively few vegetable seed. Only a few flowerseed crops are grown under contract in Texas and the production is relatively small.

Obligations of Growers

A seedsman is interested in obtaining seed only from his own stock. The contracts specify that the grower will plant only the seed stock provided by the seedsman. After harvest, the seedsman usually expects to get all of the high-quality seed that are produced. Under most contracts, the seedsman performs operations such as roguing, harvesting, threshing, cleaning and bagging.

A contract grower is expected to comply with certain requirements such as methods of planting, isolation and roguing, stated in the contract.

In addition, the grower is expected to arrange crop sequences that will avoid contamination from volunteer plants growing from seed of a similar crop produced the preceding year.

Most contracts contain certain requirements as to the condition in which the seed are to be delivered to the seed company. In combining, the grower is expected to separate and clean the seed so as to deliver as high quality a product as possible.

In some areas where a seed firm has considerable contracted acreage, it may supply the necessary harvesting and threshing equipment to the growers on some sort of central basis. The harvested seed must be delivered to the seed company on a specified date.

Obligations of Seedsmen

After receiving the seed, the seedsman assumes the responsibility of further processing them without charge to the grower. The seed usually must have a certain minimum percentage germination. This percentage varies with the crop and, in some instances, with the variety. Payment to the grower is based on the yield of recleaned seed, gin run or field run.

Payment is made on a price per pound, per bushel or 100 weight, as specified in the contract. Price is determined by various factors of which the following are among the more important: kind of crop, variety, locality of production, price being paid by competitors and competition of nonseed crops.

Advantages

1. Seedsmen can take advantage of the ability of good farmers to help produce an adequate supply of seed under contract.

2. Seedsmen usually can get volume production at less cost from contracting with farmers for the use of their land than they could from owning the land.

3. To the farmer who has the contract to produce, vertical integration assures a market at a known price for his product and helps spread risks.

4. To the consuming farmer, vertical integration in the seed business tends to increase quality, lower price and provide a ready supply of desirable seed.

5. Integration helps to speed up new technology.

6. It helps farmer-growers to gain bargaining power. Seedsmen usually contract with farmers of proved ability.

7. It helps farmer-growers obtain operating capital because loan repayment capacity is increased and risk is reduced.

8. It helps free seedsmen from growing tasks and leaves them free to merchandise.

Problems

1. Farmers who produce seed under contracts are few in number. The number who can get in is limited.

2. Farmers surrender some freedom they enjoy as independent operators.

3. Large sums of money are needed by the contracting institution to carry on a vertically integrated seed business.

4. Frequently, the farmer-grower is dealing with new varieties and does not know their problems, yield and other characteristics.

Future Considerations

American agriculture, with its ever-increasing efficiency and scientific approach, will continue to expect high-quality planting seed.

The demand for high-quality seed will necessitate the most modern production techniques and scientific know-how. The ever-increasing number of hybrids being introduced means that more stringent control measures will have to be followed. The trend is to intensified team effort in producing fine seed. This involves the farmer, seedsmen, agricultural colleges, financial institutions, wholesalers, retailers and others. The integration of many steps will continue.

Vertical integration is the linking together of two or more stages of production, processing or marketing activities under one management. The key feature of vertical integration is the centralization of decision-making, risk-bearing and supervision.

This is the third leaflet in the series "Vertical Integration in Texas Agriculture." Similar releases on crops and other livestock important to the Texas economy will follow. The first leaflet dealt with the setting. The second leaflet discussed hogs in vertical integration.

By bringing together current knowledge and practices on vertical integration in Texas agriculture, the staff of the Texas Agricultural Extension Service and Texas Agricultural Experiment Station in the Department of Agricultural Economics and Sociology hope to help you make wise decisions in this matter.

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