

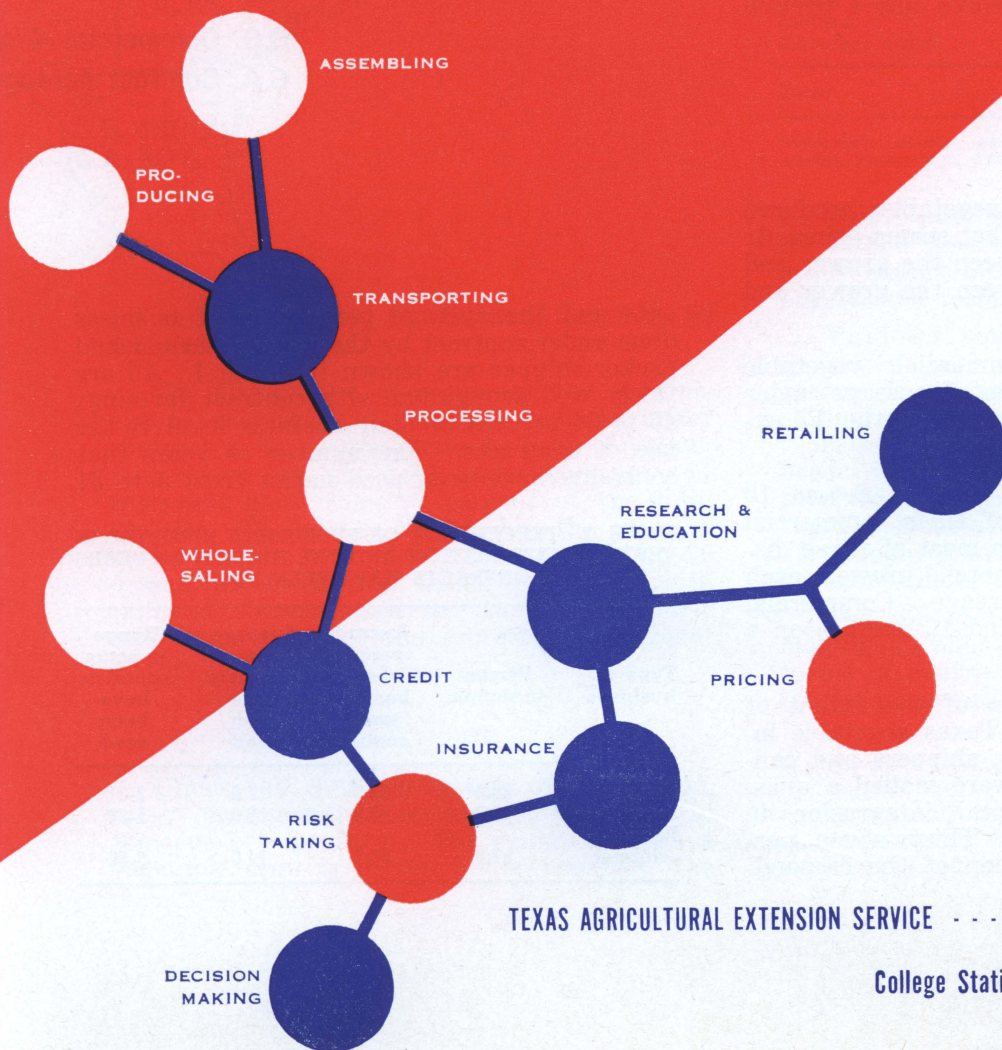
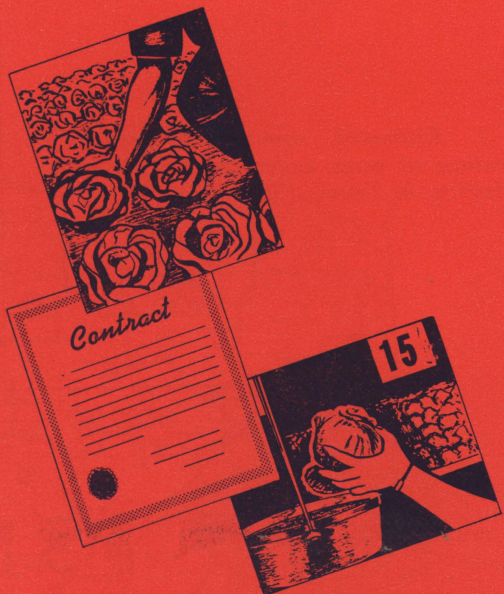
VERTICAL INTEGRATION

IN TEXAS AGRICULTURE

Vegetables

INTEGRATION of vegetable production for canning and the fresh market has existed in Texas for some time. Some form of contract among growers, packers, shippers and processors has been practiced for more than 30 years.

Integration combines part or all of the phases of growing, packing and shipping-point selling that are done through cooperatives, individuals or private firms. Local packer-shippers and farm supply dealers have the greatest influence on integration in the production of vegetables for the fresh market. Including melons, about half of the vegetables produced for the fresh market are grown under some form of an integrated operation.



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Extent in the U. S. and Texas

Vegetables are marketed as fresh produce or for processing. It is estimated that 90 percent of the vegetables produced for canning and freezing in the United States are now grown under some form of contract. Contracts range from a simple agreement calling for the processor to take the entire output of a grower's crop at an agreed price to detailed contracts specifying items such as date of planting, variety, cultural and spray program, schedule of prices by grades, sizes and variety, and, in some cases, payment schedules.

The Southern States rank lowest in the percentage of vegetables marketed for processing under contracts because the fresh market production surplus in the South is used for local processing.

The terminal market or a retail chain operator often establishes contracts with local grower-shippers. Therefore, vertical integration may begin with various people in the marketing system and may involve only a portion of it.

Fresh-market Vegetable Production in Texas

Vertical integration of vegetables produced in Texas for the fresh market seems primarily to be an arrangement between the grower and the packer-shipper or between the grower and canner.

The number of commercial vegetable growers and the proportion of acreage under contract have been estimated for the 12 extension districts in Texas, Figure 1.

Growers in districts 5, 6, 7, 8, 9 and 10 have a small percentage of their commercial acreage under contract. In most of these districts there are many commercial growers each with a small vegetable acreage. Commercial growers in districts 1, 2 and 12 operate on a larger scale.

To obtain an indication of the extent of vertical integration in the Texas vegetable industry, about 150 growers, shippers and canners selected at random, were mailed a questionnaire concerning vertical integration in their businesses in 1958. Thirty-seven percent responded. Distribution of the respond-

ents and the average percentage of business done under contract by the canner, farmer and packer-shipper are shown in Table 1. All are fairly well acquainted with contract farming; 45 to 64 percent of their business involves the use of contracts. The number of years that contracts have been used varies from 5 to 31

TABLE 1. PERCENTAGE OF BUSINESSES INVOLVED IN VERTICAL INTEGRATION AND THE NUMBER OF YEARS CONTRACTS HAVE BEEN USED

Type of business	Percent in sample	Average percent of business under contract	Average years contracts have been used	Range in years contracts have been used
Canner	28.9	63.7	17.0	5-31
Farmer	13.3	45.0	18.0	1-30
Packer-shipper	57.8	59.7	14.0	3-50

for canners, 1 to 30 for farmers and 3 to 50 for packer-shippers.

The distribution of crops and the percentage of the reported acreage produced under contract in Texas are shown in Table 2. Nineteen crops are produced under contract; 11 represent more than 97 percent of the total acreage. The packer-shipper has the greatest variety of crops under contract. About 99 percent of the acreage under contract is with canners. Green beans are the most popular crop under contract and represent 22 percent of the total acreage.

Management Practices

Under the contract system of production, many management decisions are shifted to someone off the farm. For example, when a vegetable crop is grown under contract, the

farm operator can expect the contract to stipulate one or more of the following: the variety, when to plant, amount of seed to use, when and how to fertilize, insecticides to use and when to apply them, how and when to harvest and the grade and quantity to produce.

At the same time, the producer has a guaranteed market. For this guarantee, the buyer

TABLE 2. RELATIVE IMPORTANCE OF CONTRACT PRODUCTION OF VARIOUS VEGETABLES BY TYPE OF OPERATION, 1958

Vegetable	Canning percent of total acreage	Farmer percent of total acreage	Packer-shipper percent of total acreage
Green beans	39.5		.3
Carrots	4.7		24.4
Onions		17.8	24.2
Southern peas	24.0		
Beets	10.5		7.7
Tomatoes	9.6		7.9
Broccoli		60.0	2.8
Cabbage	.6	8.9	8.6
Cantaloupe			9.5
Sweet corn	7.0		2.0
Lettuce		8.9	5.4
All other crops ¹	4.1	4.4	7.2
Total	100.0	100.0	100.0

¹Cucumber, pepper, parsley, spinach, cauliflower, sweet potato, greens, watermelon, miscellaneous.

expects to purchase a product of uniform quality at the time he needs it. Integrators generally supply management supervision and financial and technical assistance.

Various contractual arrangements have developed in the Texas vegetable industry among the farmer, the canner and packer-shipper, as shown in Table 3. *Cash loan* types represent less than 2 percent of the contracts used. This may be because of the great risk involved in producing vegetables and the easy, rapid movement into and out of production. The producer maintains all of the managerial decisions under a cash loan contract.

The *contract to buy* is the most popular, making up about 16 percent of the total. All forms of contracts listed in Table 3 are used by the packer-shipper at one time or another.

Future Considerations

It is likely that the use of vertical integration contracts, which have been successful in the Texas vegetable industry, will continue.

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Fig. 1 Estimated commercial growers and percentage of acres under contract by extension districts in Texas, 1958.

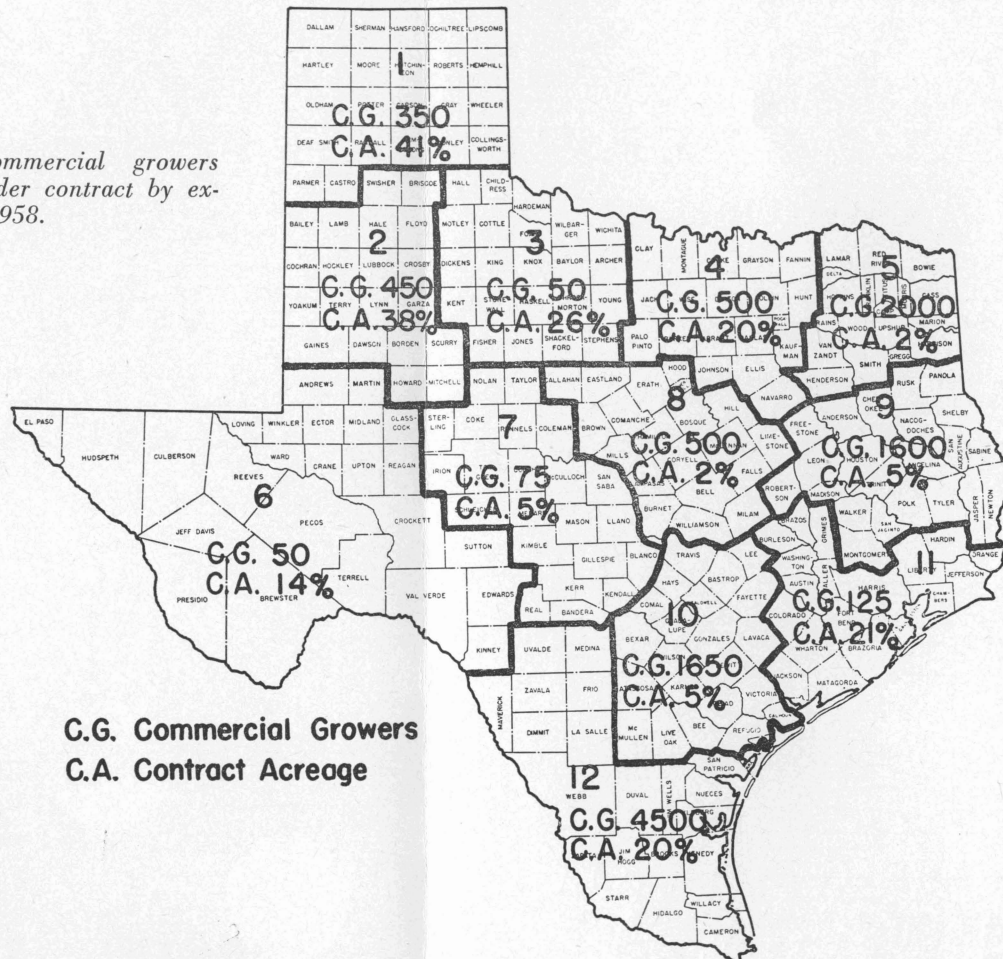


TABLE 3. DISTRIBUTION OF TYPES OF CONTRACTS USED BY A SAMPLE OF CANNERS, FARMERS AND PACKER-SHIPPERS IN TEXAS, 1958

Type of contract	Canner	Farmer	Packer-shipper	All businesses
	Percent			
To market	2.8 ¹	15.4	12.9	10.9
To buy	30.6		12.9	15.8
On price	30.6		8.6	12.7
On loans			2.6	1.8
On rent of land		23.1	6.0	6.1
Labor		15.4	8.6	7.3
Fertilizer		7.7	6.0	4.8
Equipment		7.7	6.9	5.5
Water		7.7	6.0	4.8
Picking	13.9	23.0	12.9	13.9
Pre-grading	5.5		3.5	3.7
Hauling	11.1		12.1	10.9
Other ²	5.5		1.0	1.8
Total	100.0	100.0	100.0	100.0

¹Canner marketed some pickles fresh.

²Refers to two seed advancements and one growing agreement.

Ninety-seven percent of the firms responding to the questionnaire were satisfied with contracts in their business, Table 4. Seventy-nine percent indicated that they planned to use contracts in the future. Present trends show that private firms will be the integrators in Texas.

TABLE 4. FUTURE USE OF CONTRACTS IN THE TEXAS VEGETABLE INDUSTRY

Question	Answer		
	Yes	No	
	Percent		
Do you give or receive working contracts on the crop you produce?	72	28	
Do you plan to use contracts in the future?	79	21	
Do you find working contracts satisfactory?	97	3	
	Written	Oral	Both
Type of contract	52	21	27
Do you make managerial decisions when there is a contract?	58	6	36

Cautions and Opportunities

The vegetable producer should study carefully any proposed arrangement involving vertical integration to determine its probable effect on his business. In joining a cooperative or private venture a grower should realize that he is entering into a business contract of significance to his operations.

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Advantages

1. Financing arrangements usually associated with vertical integration help the farmer in obtaining more capital, improving his facilities, expanding his operation and reducing risk.

2. Vertical integration often includes provisions for technical assistance and economic advice which help the farmer reduce production costs, improve quality and standardize his products.

3. Contract arrangements assure the packer-shipper and canner a rather stable supply of the quantity and quality of raw products desired.

4. Vertical integration reduces the market risk of the individual growers.

5. Vertical integration may assure an orderly marketing system for all parties involved.

Disadvantages

1. Unless the farmer personally integrates his operation, any increases in returns resulting from increased efficiency may not be shared by him.

2. Farmers may be forced to increase the scale of their operations to make the best use of labor-saving equipment and to utilize their resources fully.

3. The individual operator loses his chances of gambling with the market and making a "killing."

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 fifth 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. A third leaflet discussed seed production and a fourth, beef cattle.

By bringing together current knowledge and practices on vertical integration in Texas agriculture, the staffs 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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