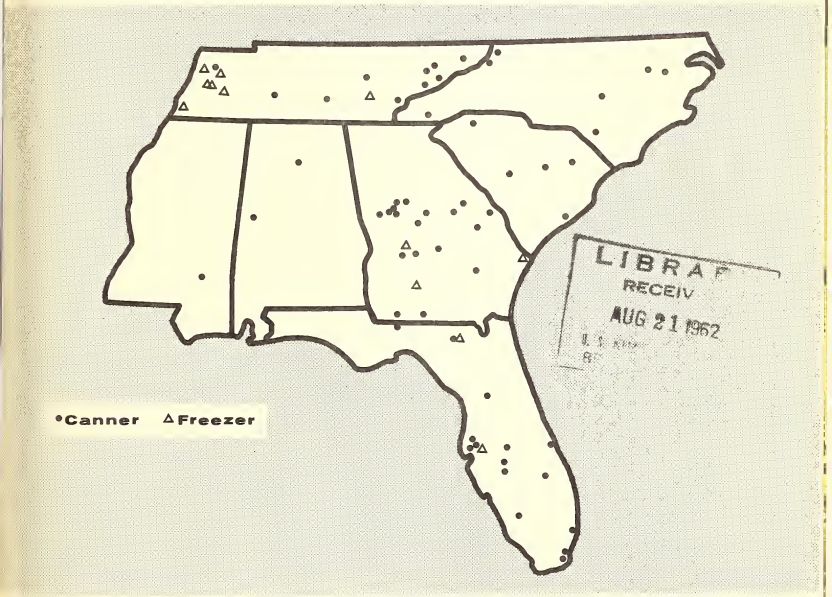
# THE SOUTHEASTERN VEGETABLE PROCESSING INDUSTRY:

## Raw Product Procurement, 1960






Marketing Research Report No. 560

UNITED STATES DEPARTMENT OF AGRICULTURE
Economic Research Service-Marketing Economics Division-Washington, D. C.
In cooperation with the Department of Agricultural Economics
Georgia Experiment Station-Experiment, Ga.

## PREFACE

This report, the second on the Southeastern vegetable processing industry, concerns raw-product procurement. The first report, Marketing Research Report No. 527, dealt with the location and number of vegetable processors and the volume and value of pack. The study is part of a broad appraisal of the economic potentials of processing as an outlet for vegetables produced in the Southeast.

The study was made cooperatively by the Marketing Economics Division, Economic Research Service, United States Department of Agriculture and the Department of Agricultural Economics, Georgia Experiment Station. It is a contributing project to Regional Marketing Project SM-8, "Evaluation of Alternative Vegetable Marketing Organizations and Handling Methods."

The study was carried out under the general supervision of Dr. Newton M. Penny, Head, Department of Agricultural Economics, Georgia Experiment Station, and Loyd C. Martin, Head, Horticultural Crops Section, Marketing Economics Division, United States Department of Agriculture.

The authors gratefully acknowledge the cooperation and support of the vegetable processors who contributed valuable information making this study possible. Mrs. Ula Vickers, National Canners Association, Washington, D. C., and Mr. E. J. Webster, Jr., National Association of Frozen Food Packers, Washington, D. C., also made valuable contributions.

## CONTENTS



Washington, D. C. August 1962

## SUMMARY

This study evaluates the economic feasibility of processing as a market outlet for vegetables produced in the Southeast. A survey of the vegetable processing industry was conducted in 1961 in Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee. Executives of 58 canning plants and 12 freezing plants were contacted.

Nearly 476 million pounds of vegetables valued at more than $16 million were processed by these plants in 1960. Green beans, tomatoes, pimientos, Irish potatoes, and turnip greens were the five leading vegetables and accounted for 59 percent of the total volume. Sixty-eight percent of the total volume was processed by canning plants and 32 percent by freezing plants. The volume processed by freezing plants ranged from 300,000 pounds to 45 million pounds per plant and for canning plants, 4,000 pounds to 38 million pounds per plant. The average volume per freezing plant was 12.5 million pounds and per canning plant 5.6 million pounds. The volume processed in individual States ranged from a high of 183 million pounds in Tennessee to a low of 3.5 million pounds in South Carolina. Eighty-three percent of the total volume was processed by plants in Tennessee, Georgia, and Florida.

Sixty-one percent of the total volume in 1960 was obtained within a 99 mile radius of the processing plants, 15 percent within a 100-199 mile radius, and 24 percent from a distance of 200 miles or more. In 1955, 75 percent of the total volume was obtained within a 99 mile radius of the plants, 83 percent in 1950, and 89 percent in 1945. The decline in local procurement was offset by an increased supply from other areas, the largest share coming from 200 miles or more from plants.

Thirty-six percent of the total volume for the six States was obtained through written contracts with farmers and 64 percent by direct noncontract purchases from farmers, brokers and commission agents, State farmers' or auction markets, and production on land owned or leased by processors. The procurement methods most preferred by processors in order of preference were: Direct noncontract purchases from farmers, written contracts, brokers and commission agents, production on land controlled by the processor, and purchases from State farmers' or auction markets. Processors expressed some dissatisfaction with written contracts and claimed that farmers often do not honor fully the terms of the contracts, selling all they can on the open market and the remainder to processors.

# THE SOUTHEASTERN VEGETABLE PROCESSING INDUSTRY:

# RAW PRODUCT PROCUREMENT, 1960

By M. B. Allen, Cooperative Agent
Economic Research Service and
Georgia Experiment Station
Experiment, Georgia

and

F. W. Williams, Agricultural Economist
Marketing Economics Division
Economic Research Service
U. S. Department of Agriculture

## INTRODUCTION

Traditionally, production of vegetables in the Southeastern States has been primarily for fresh market outlets. 1/ Though processing has been a minor outlet for most vegetables, it has served an important role in absorbing the surplus production of those vegetables which could not be disposed of profitably through existing fresh market outlets. In addition processing has provided a market for some vegetables grown exclusively for this purpose. In these roles, the processing industry has added appreciably to market stability, an important factor in vegetable production.

Vegetable processing in the Southeastern States is not new, but the total volume processed is small compared with other areas, such as the Pacific Coast or Midwest. The competitive position of many of the plants currently operating in the Southeast is constantly being challenged by plants in other areas more strategically located with respect to certain raw vegetable supplies. Southeastern vegetable producers and processors are aware of the necessity of improving farm production techniques and processing technology to improve their competitive position.

### The Problem

Vegetable production in the Southeast has changed markedly in recent years. Many farmers with small acreages have ceased vegetable production; density of production has shifted from one area to another; and the number of acres harvested has declined. The resulting decrease in total production has been partially offset by increased acreage on some farms, increased yields through introduction of new varieties, improved disease and insect control, and the development and adoption of new production techniques.

Processors are directly concerned with raw vegetable procurement to supply the needs of their processing facilities. As a result of production changes in the Southeast since the establishment of many of the present plants, processors are changing their procurement methods, seeking supplies in more distant areas, and, in some instances, are producing vegetables on land owned or leased by them.

1/ Southeastern States in this report include Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee.

The purpose of this report is to provide information and analyses of processors' procurement volumes, areas, and methods. The report, therefore, may assist processors and growers to understand better the nature of the procurement problem and needed adjustments in a constantly changing economic situation.

## Method of Study

A survey of 61 firms that operated 70 vegetable canning and freezing plants was made within the 7-State Southeastern Region (map on cover page and table 1). Information was obtained through personal interviews with executives of these firms in the spring of 1961. The survey included all plants known to process fresh vegetables in the Southeast. Data were obtained for the calendar year 1960 except in a few cases. Firms which processed only soup, juice, condiment, relish, pickle, sweetpotatoes, and fruit, and firms in other States that procured their raw product supplies in the 7-State area were excluded. Firms processing fruit, juice, sweetpotatoes, and specialty products were included only if they also processed fresh vegetables.

# RAW PRODUCT PROCUREMENT 2/

## Volume and Value

A total of 475,728,916 pounds of vegetables valued at $16,271,183 were procured for processing by Southeastern processors (table 2). Thirty-one different vegetables contributed to the total volume. 3/ The volumes of these vegetables ranged from 91.6 million pounds of green beans to only 3 million pounds of turnip roots. Green beans, tomatoes, pimientos, Irish potatoes, and turnip greens were the five leading vegetables processed and accounted for 59 percent of the total volume canned or frozen.

No attempt was made in the study to include plants specializing in the processing of sweetpotatoes, cabbage, onions, and rutabagas. Where information for these commodities is given it represents the volume processed as a part of a multi-product operation.

Many of the vegetables procured retained their identity through the processing operation while others were combined to form product mixtures. Turnip roots were generally procured when available, processed, and bulk packaged to be available for combining with turnip greens at a later time.

---

2/ Procurement refers to obtaining raw vegetables from farmers through contractural arrangements, direct noncontract purchases, brokers or commission agents, state farmers' or auction markets, and to the production of vegetables on land owned or leased by processing firms.

3/ The presentation of data for individual vegetables is limited to 19 to avoid revealing the identity of individual plants. The volume of 12 other vegetables was aggregated.

Table 1.--Number and location of vegetable canners and freezers, 7 Southeastern States, 1960

| State | Canners | | Freezers | | Total | |
|---|---|---|---|---|---|---|
| | Firms | Plants | Firms | Plants | Firms | Plants |
| | Number | Number | Number | Number | Number | Number |
| Alabama | 1 | 2 | 0 | 0 | 1 | 2 |
| Florida | 15 | 15 | 1 | 2 | 16 | 17 |
| Georgia | 16 | 18 | 3 | 3 | 19 | 21 |
| Mississippi | 1 | 1 | 0 | 0 | 1 | 1 |
| North Carolina | 7 | 7 | 0 | 0 | 7 | 7 |
| South Carolina | 5 | 5 | 0 | 0 | 5 | 5 |
| Tennessee | 8 | 10 | 4 | 7 | 12 | 17 |
| Total | 53 | 58 | 8 | 12 | 61 | 70 |

## Volume by Type of Processor 4/

Sixty-eight percent of the total volume was processed by canning plants and 32 percent by freezing plants (table 3). The difference in the amount processed by the two types of processors was due in part to the number of plants of each type. Twelve freezers and 58 canning plants were included. The volume processed by freezing plants ranged from 300,000 pounds to 45 million pounds per plant and for canning plants, 4,000 pounds to 38 million pounds per plant. The average volume per freezing plant was 12.5 million pounds and per canning plant 5.6 million pounds.

## Volume by States

The total volume of raw product varied in the individual States. The 12 freezing plants were located in three States: Florida, Georgia, and Tennessee. Canning plants were located in all of the States and ranged from 1 in Mississippi to 18 in Georgia. No plant processed more than 9.5 percent of the total volume for all plants combined.

Tennessee had the highest volume of processed vegetables of any State in the area. The volume in individual States ranged from a high of 183 million pounds in Tennessee to a low of 3.5 million pounds in South Carolina. Eighty-three percent of the total volume in the Southeast was processed by plants in Tennessee, Georgia, and Florida.

# PROCUREMENT AREA

## Current Supply Area

The prime consideration in establishing some of the new canning or freezing plants in the Southeast was the availability of and proximity to raw vegetable supplies.

4/ Processor refers only to canners and freezers of fresh vegetables.

Table 2.--Volume and value of individual vegetables procured for processing, 70 plants, 7 Southeastern States, 1960

| Vegetable 1/ | Raw product volume | | Value 2/ | |
|---|---|---|---|---|
| | Pounds | Percent | Dollars | Percent |
| Green beans | 91,642,910 | 19.3 | 5,791,773 | 35.6 |
| Tomatoes | 76,845,591 | 16.2 | 1,266,316 | 7.8 |
| Pimientos | 49,580,790 | 10.4 | 2,440,499 | 15.0 |
| Irish potatoes | 32,325,200 | 6.8 | 575,623 | 3.5 |
| Turnip greens | 30,764,915 | 6.5 | 482,027 | 3.0 |
| Field peas 3/ | 26,467,715 | 5.6 | 1,062,335 | 6.5 |
| Blackeye peas | 24,047,953 | 5.0 | 996,811 | 6.1 |
| Sweetpotatoes | 23,074,000 | 4.8 | 443,482 | 2.7 |
| Okra | 20,042,100 | 4.2 | 974,981 | 6.0 |
| Cabbage | 20,000,000 | 4.2 | 194,000 | 1.2 |
| Sweet peppers 4/ | 18,474,357 | 3.9 | 501,782 | 3.1 |
| Mustard greens | 11,282,160 | 2.4 | 172,380 | 1.1 |
| Spinach | 11,079,010 | 2.3 | 242,487 | 1.5 |
| Squash | 9,452,000 | 2.0 | 265,176 | 1.6 |
| Collard greens | 8,502,165 | 1.8 | 147,604 | .9 |
| Lima beans 5/ | 6,047,800 | 1.3 | 403,896 | 2.5 |
| Corn | 5,690,000 | 1.2 | 70,050 | .4 |
| Kale | 5,280,450 | 1.1 | 96,643 | .6 |
| Turnip roots | 3,031,900 | .6 | 57,632 | .4 |
| Other 6/ | 2,097,900 | .4 | 85,686 | .5 |
| Total | 475,728,916 | 100 | 16,271,183 | 100 |

1/ Arrayed in order of raw product volume.
2/ Value of raw vegetables delivered to processing plants.
3/ Includes cream, lady, southern, and white acre peas.
4/ Includes bell and green peppers.
5/ Includes butter beans.
6/ Includes broccoli, cauliflower, eggplant, onions, and rutabagas.

Agricultural adjustments taking place in the Southeast are influencing the availability of vegetables for the fresh market and for processing. Several recognized changes are: (1) A reduction in cropland acreage, (2) an increase in livestock production, (3) a reduction in the number of commercial farms, and (4) an increase in the number of noncommercial farms (part-time and residential farms). A full appraisal of the extent to which these changes have affected the availability of supplies of vegetables is beyond the scope of this study. However, data were obtained to provide a comparison between procurement areas in 1960 and those of selected years prior to 1960.

A listing of vegetables according to distances from which they were procured in 1960 is presented in table 4. The raw product procured by plants in the various States does not necessarily indicate the State or area in which the vegetables were grown. Many plants obtained raw products from several adjacent States and, in some instances, from production areas scattered throughout the United States.

Table 3.--Volume of individual vegetables processed, by type of processor, 70 plants, 7 Southeastern States, 1960

| Vegetable 1/ | Canner | | Freezer | |
|---|---|---|---|---|
| | Pounds | Percent | Pounds | Percent |
| Green beans | 59,676,620 | 65 | 31,966,290 | 35 |
| Tomatoes | 76,845,591 | 100 | 0 | 0 |
| Pimientos | 49,580,790 | 100 | 0 | 0 |
| Irish potatoes | 20,532,200 | 64 | 11,793,000 | 36 |
| Turnip greens | 13,752,275 | 45 | 17,012,640 | 55 |
| Field peas 2/ | 15,925,000 | 60 | 10,542,715 | 40 |
| Blackeye peas | 640,000 | 3 | 23,407,953 | 97 |
| Sweetpotatoes | 21,324,000 | 92 | 1,750,000 | 8 |
| Okra | 4,002,000 | 20 | 16,040,100 | 80 |
| Cabbage | 20,000,000 | 100 | 0 | 0 |
| Sweet peppers 3/ | 18,228,000 | 99 | 246,357 | 1 |
| Mustard greens | 5,687,315 | 50 | 5,594,845 | 50 |
| Spinach | 4,421,270 | 40 | 6,657,740 | 60 |
| Squash | 3,726,000 | 40 | 5,726,000 | 60 |
| Collard greens | 2,207,965 | 26 | 6,294,200 | 74 |
| Lima beans 4/ | 806,800 | 13 | 5,241,000 | 87 |
| Corn | 5,340,000 | 94 | 350,000 | 6 |
| Kale | 2,058,000 | 39 | 3,222,450 | 61 |
| Turnip roots | 0 | 0 | 3,031,900 | 100 |
| Other 5/ | 1,028,000 | 49 | 1,069,900 | 51 |
| Total | 325,781,826 | 68 | 149,947,090 | 32 |

1/ Arrayed in order of raw product volume.
2/ Includes cream, lady, southern, and white acre peas.
3/ Includes bell and green peppers.
4/ Includes butter beans.
5/ Includes broccoli, cauliflower, eggplant, onions, and rutabagas.

Sixty-one percent of the total volume of vegetables processed were obtained within a 99 mile radius of the plants. Tomatoes were the largest volume item obtained within this area. Fifteen percent of the total volume was assembled within a 100-199 mile radius. Green beans were the largest volume item obtained from this area. Twenty-four percent of the volume was obtained from a distance of 200 miles or more. Most of the Irish potatoes were obtained from this distance. One plant reported that potatoes were obtained from 16 States to provide its requirements during the year.

## Trends in Supply Procurement

Data obtained for years prior to 1960 indicated that procurement areas for vegetables processed in the Southeast are being extended (table 5). Only 61 percent of the total volume was procured within a 99 mile radius of the plants in 1960 compared with 89 percent in 1945. The largest relative change occurred between 1955 and 1960. This decline in local procurement was offset by an increased supply from other areas, the largest share coming from 200 miles or more from plants.

Table 4.--Volume of individual vegetables procured from specified distances, 70 plants, 7 Southeastern States, 1960

| Vegetable 1/ | Procurement distance | | | | | |
|---|---|---|---|---|---|---|
| | 0-99 miles | | 100-199 miles | | 200 miles and over | |
| | 1,000 pounds | Percent | 1,000 pounds | Percent | 1,000 pounds | Percent |
| Green beans | 46,218 | 51 | 20,427 | 22 | 24,998 | 27 |
| Tomatoes | 52,141 | 68 | 6,894 | 9 | 17,810 | 23 |
| Pimientos | 28,441 | 58 | 17,536 | 35 | 3,604 | 7 |
| Irish potatoes | 5,572 | 17 | 2,627 | 8 | 24,126 | 75 |
| Turnip greens | 27,109 | 88 | 229 | 1 | 3,427 | 11 |
| Field peas 2/ | 16,442 | 62 | 3,738 | 14 | 6,288 | 24 |
| Blackeye peas | 14,218 | 59 | 358 | 2 | 9,472 | 39 |
| Sweetpotatoes | 12,704 | 55 | 3,945 | 17 | 6,425 | 28 |
| Okra | 17,491 | 87 | 1,082 | 5 | 1,469 | 8 |
| Cabbage | 15,000 | 75 | 0 | 0 | 5,000 | 25 |
| Sweet peppers 3/ | 5,746 | 31 | 12,728 | 69 | 0 | 0 |
| Mustard greens | 9,426 | 84 | 1,190 | 10 | 666 | 6 |
| Spinach | 3,924 | 35 | 2,161 | 20 | 4,994 | 45 |
| Squash | 9,168 | 97 | 246 | 2 | 38 | 1 |
| Collard greens | 7,326 | 86 | 0 | 0 | 1,176 | 14 |
| Lima beans 4/ | 6,048 | 100 | 0 | 0 | 0 | 0 |
| Corn | 5,690 | 100 | 0 | 0 | 0 | 0 |
| Kale | 5,044 | 96 | 0 | 0 | 236 | 4 |
| Turnip roots | 1,964 | 65 | 0 | 0 | 1,068 | 35 |
| Other 5/ | 657 | 31 | 0 | 0 | 1,442 | 69 |
| Total | 290,329 | 61 | 73,161 | 15 | 112,239 | 24 |

1/ Arrayed in order of raw product volume.
2/ Includes cream, lady, southern, and white acre peas.
3/ Includes bell and green peppers.
4/ Includes butter beans.
5/ Includes broccoli, cauliflower, eggplant, onions, and rutabagas.

Table 5.--Total vegetables procured from specified distances, 70 processing plants, 7 Southeastern States, 1945, 1950, 1955, and 1960

| Year | 0-99 miles | | 100-199 miles | | 200 miles and over | |
|---|---|---|---|---|---|---|
| | Percent | Relative change | Percent | Relative change | Percent | Relative change |
| 1945 | 89 | | 9 | | 2 | |
| | | - 6 | | + 1 | | + 5 |
| 1950 | 83 | | 10 | | 7 | |
| | | - 8 | | + 4 | | + 4 |
| 1955 | 75 | | 14 | | 11 | |
| | | -14 | | + 1 | | +13 |
| 1960 | 61 | | 15 | | 24 | |
| Net change | -- | -28 | -- | + 6 | -- | +22 |

A summary by individual States in the 7-State area is presented in table 6. Plants in each of the States procured their 1960 supplies from areas more distant from the plant site than in previous years. Georgia plants obtained 52 percent of their supplies from within a 99 mile radius of the plants in 1960 compared with 90 percent in 1945. The greatest shift in procurement area occurred in Mississippi where 38 percent of the 1960 volume was obtained within a 99 mile radius compared with 100 percent in 1945.

Table 6.--Proportion of vegetable supplies procured from specified distances, by States, 1945, 1950, 1955, and 1960

| State | 0-99 miles | 100-199 miles | 200 miles and over |
|---|---|---|---|
| | Percent | Percent | Percent |
| Alabama | | | |
| 1945 | 100 | 0 | 0 |
| 1950 | 90 | 0 | 10 |
| 1955 | 90 | 0 | 10 |
| 1960 | 70 | 7 | 23 |
| Florida | | | |
| 1945 | 66 | 34 | 0 |
| 1950 | 68 | 28 | 4 |
| 1955 | 69 | 23 | 8 |
| 1960 | 58 | 22 | 20 |
| Georgia | | | |
| 1945 | 90 | 5 | 5 |
| 1950 | 83 | 5 | 12 |
| 1955 | 63 | 25 | 12 |
| 1960 | 52 | 15 | 33 |
| Mississippi | | | |
| 1945 | 100 | 0 | 0 |
| 1950 | 75 | 25 | 0 |
| 1955 | 75 | 10 | 15 |
| 1960 | 38 | 43 | 19 |
| North Carolina | | | |
| 1945 | 100 | 0 | 0 |
| 1950 | 100 | 0 | 0 |
| 1955 | 100 | 0 | 0 |
| 1960 | 89 | 2 | 9 |
| South Carolina | | | |
| 1945 | 100 | 0 | 0 |
| 1950 | 77 | 17 | 6 |
| 1955 | 77 | 17 | 6 |
| 1960 | 75 | 16 | 9 |
| Tennessee | | | |
| 1945 | 98 | 0 | 2 |
| 1950 | 91 | 4 | 5 |
| 1955 | 83 | 5 | 12 |
| 1960 | 64 | 14 | 22 |

However, the procurement of vegetables from more distant locations does not necessarily reflect deficiencies in production nearer the plants. Most plants, when initially established, processed a limited number of vegetables. 5/ Some were established to process nonvegetable products and later added vegetables, many of which were not locally produced. Also, fresh market competition for locally produced vegetables often makes procurement from more distant areas desirable, even essential.

The vegetable processing industry apparently recognizes the need for: (1) Expanding the number and volume of product lines to attract large-scale buyers, (2) increasing volume to utilize plants and labor more efficiently, and (3) maintaining high quality standards. Achieving these objectives with local vegetable supplies would require a highly concentrated production area supplying many different vegetables of high quality in large volume. Since the Southeast has no such area many plants extend their procurement areas to the limits set by product perishability and transportation costs.

No plant in the Southeast operates year-round on locally produced vegetables. To increase output and plant efficiency, processors have been forced to seek raw vegetable supplies from increasingly greater distances. If supplies are limited to locally produced vegetables, plants must discontinue operations for extended periods during the year.

## PROCUREMENT METHODS

Most vegetable production in the Southeast is characterized by small, scattered acreages. As a result, the problems encountered by processors in assembling produce for processing is more complex than in areas where production is highly concentrated. Processors have met this challenge with several different procurement methods and combinations of methods. Respondents in the survey were asked to estimate the percentage of each vegetable obtained through written contracts and by other means. Also, they were asked to estimate, without regard to individual vegetables, the proportion of their total volume accounted for through noncontract direct purchases.

Thirty-six percent of the total volume for the area was obtained by processors under written contracts with farmers and 64 percent from other sources (table 7). Ninety-eight percent of the pimientos and 93 percent of the sweet peppers were obtained by contracts. Conversely, none of the supply of bell peppers, broccoli, cauliflower, eggplant, green peppers, Irish potatoes, lima beans, onions or rutabagas were purchased by contract. The importance of procurement methods used by processors in the Southeast is shown in table 8.

Sixteen different vegetables were grown on land owned or leased by processors in 1960. Green beans, turnip greens, and cabbage represented 77 percent of the total volume from this source.

5/ Williams, F. W. and Allen, M. B., The Southeastern Vegetable Processing Industry: Location and Number of Plants - Composition, Volume, and Value of Pack, 1960. Mktg. Res. Rpt. No. 527, Econ. Res. Serv., U. S. Dept. Agr., Washington, D. C. Feb. 1962, p. 11.

Table 7.--Volume of individual vegetables obtained through specified methods, 70 plants, 7 Southeastern States, 1960

| Vegetable 1/ | Written contracts | | Other sources | | Total |
|---|---|---|---|---|---|
| | Pounds | Percent | Pounds | Percent | Pounds |
| Green beans | 6,279,030 | 7 | 85,363,880 | 93 | 91,642,910 |
| Tomatoes | 156,382 | 2/ | 76,689,209 | 100 | 76,845,591 |
| Pimientos | 48,497,323 | 98 | 1,083,467 | 2 | 49,580,790 |
| Irish potatoes | 0 | 0 | 32,325,200 | 100 | 32,325,200 |
| Turnip greens | 14,738,905 | 48 | 16,026,010 | 52 | 30,764,915 |
| Field peas 3/ | 16,647,650 | 63 | 9,820,065 | 37 | 26,467,715 |
| Blackeye peas | 8,739,000 | 36 | 15,308,953 | 64 | 24,047,953 |
| Sweetpotatoes | 4,257,000 | 18 | 18,817,000 | 82 | 23,074,000 |
| Okra | 12,099,258 | 60 | 7,942,842 | 40 | 20,042,100 |
| Cabbage | 13,000,000 | 65 | 7,000,000 | 35 | 20,000,000 |
| Sweet peppers 4/ | 17,178,000 | 93 | 1,296,357 | 7 | 18,474,357 |
| Mustard greens | 3,603,074 | 32 | 7,679,086 | 68 | 11,282,160 |
| Spinach | 6,847,675 | 62 | 4,231,335 | 38 | 11,079,010 |
| Squash | 5,982,000 | 63 | 3,470,000 | 37 | 9,452,000 |
| Collard greens | 4,414,427 | 52 | 4,087,738 | 48 | 8,502,165 |
| Lima beans 5/ | 1,041,000 | 17 | 5,006,800 | 83 | 6,047,800 |
| Corn | 4,000,000 | 70 | 1,690,000 | 30 | 5,690,000 |
| Kale | 1,812,462 | 34 | 3,467,988 | 66 | 5,280,450 |
| Turnip roots | 883,000 | 29 | 2,148,900 | 71 | 3,031,900 |
| Other 6/ | 0 | 0 | 2,097,900 | 100 | 2,097,900 |
| Total | 170,176,186 | 36 | 305,552,730 | 64 | 475,728,916 |

1/ Arrayed in order of raw product volume.
2/ Less than 0.5 percent.
3/ Includes cream, lady, southern, and white acre peas.
4/ Includes bell and green peppers.
5/ Includes butter beans.
6/ Includes broccoli, cauliflower, eggplant, onions, and rutabagas.

Table 8.--Total volume of all vegetables obtained through specified methods of procurement, 70 processing plants, 7 Southeastern States, 1960

| Method of procurement | All vegetables | |
|---|---|---|
| | Pounds | Percent |
| Written contracts | 170,176,186 | 36 |
| Direct noncontract purchases from farmers | 165,104,920 | 35 |
| Brokers and commission agents | 96,833,221 | 20 |
| State farmers' or auction markets | 6,715,700 | 1 |
| Produced by processing firms | 36,898,889 | 8 |
| Total | 475,728,916 | 100 |

## Trends in Volume Obtained Through Various Methods

Additional estimates were obtained to compare procurement methods used in 1960 with those used in 1955 and to determine which methods are most desirable. The 1960 raw product volume was used as a base on the assumption that product lines were essentially the same in 1955. Plant managers also were asked which method or combination of methods they consider ideal for their plants.

A comparison of the procurement methods for 1955 and 1960 is presented in table 9. The volume obtained through specified methods was essentially the same for both years. Processors considered direct noncontract purchases from farmers the most desirable method of procurement.

Production of vegetables by processors was limited to a small number of firms. The amount of supplies represented by this method of procurement changed little between 1955 and 1960.

Processors selected direct noncontract purchases as the preferred procurement method and written contracts with farmers as their second choice. However, the amount obtained by contract decreased by 3 percentage points from 1955 to 1960. Objections to contractual arrangements were offered by several processors who had experience with them.

## Problems With or Objections to Written Contracts

Plant managers who contracted for any part of their vegetable supplies were asked whether or not they had experienced any problems with or had objections to contractual arrangements. The replies obtained from 17 managers are outlined below. The two most frequent were that farmers often would not honor the terms of the contract and that they sell all they can for the fresh market and only the balance to processors. No attempt was made to evaluate these remarks and farmers were not contacted for their opinions of vegetable contracting.

Contract provisions such as planting, fertilization, insect control, delivery, contingency, and binding clauses should be studied so that a valid appraisal of contracting in the Southeast can be made. However, discussions of these and other provisions of vegetable contracting are available in reports published in other regions. 6/

## INDUSTRY OUTLOOK

Canners and freezers were generally optimistic about the future of processing in the Southeast. Managers expressed awareness of the changing complexity of agriculture and industry in the area and its impact on the future of their processing operations. They indicated a need for research aimed at increasing yields of vegetable crops and reducing disease.

---

6/ Kelly, R. A., The Vegetable Canning Industry in Illinois, Methods of Procurement, Types of Pack, Sales and Distribution, Contracts with Growers. Bul. 612, Ill. Agr. Expt. Sta. June 1957, pp. 41 and 42.

Kline, R. G., and Cravens, M. E. Grower-Processor Agreements in the Sweet Corn for Processing Industry. North Central Region Pub. No. 86, Ohio Agr. Expt. Sta. June 1958.

The Southeast is the primary source of several vegetables such as pimientos, okra, field peas, and leafy greens. Processors in the region believe their volume can be increased to meet the needs of a growing population. More uniform quality and increased demand for convenience foods are other important factors encouraging production of vegetables for processing.

Table 9.--Total volume obtained through specified methods of procurement in 1955 and 1960 and the combination of methods considered as ideal by Southeastern vegetable processors

| Method of procurement | Year | | Considered "ideal" by processors 1/ |
|---|---|---|---|
| | 1955 | 1960 | |
| | Percent | Percent | Percent |
| Written contracts | 39 | 36 | 40 |
| Direct noncontract purchases from farmers | 35 | 35 | 44 |
| Brokers and commission agents | 19 | 20 | 8 |
| State farmers' or auction markets | 1 | 1 | 2 |
| Produced by processing firms | 6 | 8 | 6 |
| Total | 100 | 100 | 100 |

1/ "Ideal" is defined as describing methods of procurement that would best satisfy the needs of any given plant at its present location.

Problems and objections reported by processors contracting for vegetable supplies in 7 Southeastern States in 1960 were:

| Remarks | Times expressed |
|---|---|
| Farmers often won't honor terms of contract | 5 |
| Farmers sell on open market all that they can and sell balance to processor | 4 |
| Problems with harvesting vegetables at proper time with resulting lower quality | 3 |
| Processor cannot exercise sufficient control over quality or quantity | 3 |
| Farmers in area have not had experience with contracts and are afraid to enter into such agreements | 1 |
| Farmers with small acreages are the only ones that want to contract and they aren't equipped to control vegetable insects and diseases | 1 |
| | 17 |


Growth Through Agricultural Progress