

# THE MARKET FOR CORRUGATED BOXES IN THE AUGUSTA, GEORGIA, AREA

*Prepared for*  
AUGUSTA COMMITTEE OF 100

by Jack R. Hinton  
Augusta Area Branch  
INDUSTRIAL DEVELOPMENT DIVISION

1967



Engineering Experiment Station  
GEORGIA INSTITUTE OF TECHNOLOGY  
Atlanta, Georgia

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## SUMMARY

Augusta, Georgia, is the center of a large and rapidly growing corrugated box market. Within a radius of only 30 miles from Augusta, total box consumption for 1966 is estimated at \$5.2 million. The demand of existing purchasers is expected to rise to nearly \$8.0 million by the end of 1969 -- a 53% increase in three years.

A survey of users of corrugated boxes in the 30-mile radius revealed that only 2% of this demand currently is being supplied by corrugated box plants within 100 miles of the order points. In fact, no box manufacturer of sufficient size to serve the market area exists within 60 miles of Augusta. Although some of the distant purchasing is done for "backhauling" purposes, this arrangement probably represents less than 10% of total consumption.

Over 70% of the survey respondents, representing 50% of the total market, indicated that a new corrugated box plant was needed or desirable in the area. Such a facility could expect over 90% of its orders to be for standard liners of normal strength.

About 70% of the interviewed firms purchase on open order, and the same number utilize more than one supplier.



## SURVEY RESULTS

### Introduction

Augusta, Georgia, is the industrial center of the Central Savannah River Area. Its preeminent position and its rapid growth in manufacturing employment in the past decade, coupled with the lack of a sizable corrugated box manufacturer within 60 miles, suggested that an opportunity might exist for establishing a corrugated box plant in the area. Further impetus to undertaking a study of the market for corrugated boxes in the Augusta area was provided by inquiries from many persons in the industrial, service, and development fields.

### Methodology

This study began with a survey of probable consumers of corrugated boxes within a 30-mile radius of Augusta, an analysis of which is presented on the following pages. (See Map 1.) From manufacturing directories 51 firms were selected to form the study base. Each firm was either visited or mailed a questionnaire concerning its use of corrugated boxes.

Of the 32 firms which replied (a 63% response), four were not users of corrugated boxes. The remaining 28, upon whose responses this analysis of the box requirements of the Augusta area is based, answered the questionnaire in part or in whole, depending on the availability of records or their capability of replying to certain questions. In the following discussion, the number who responded to each question is indicated.

### Current Market Size

The firms which replied represent 90% of the total estimated 1966 corrugated box market, or \$4.7 million of a \$5.2 million total.

Chemicals, paper, and their allied products constitute one-half of the total market, and the remainder of the market is split among food, textiles, apparel, machinery, and "all other"<sup>1/</sup> categories. (See Table 1.)

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<sup>1/</sup> Furniture, fixtures, fabricated metal products, stone-clay-glass products, hospital supplies, and warehousing.

Map 1  
MARKET AREA SURVEYED

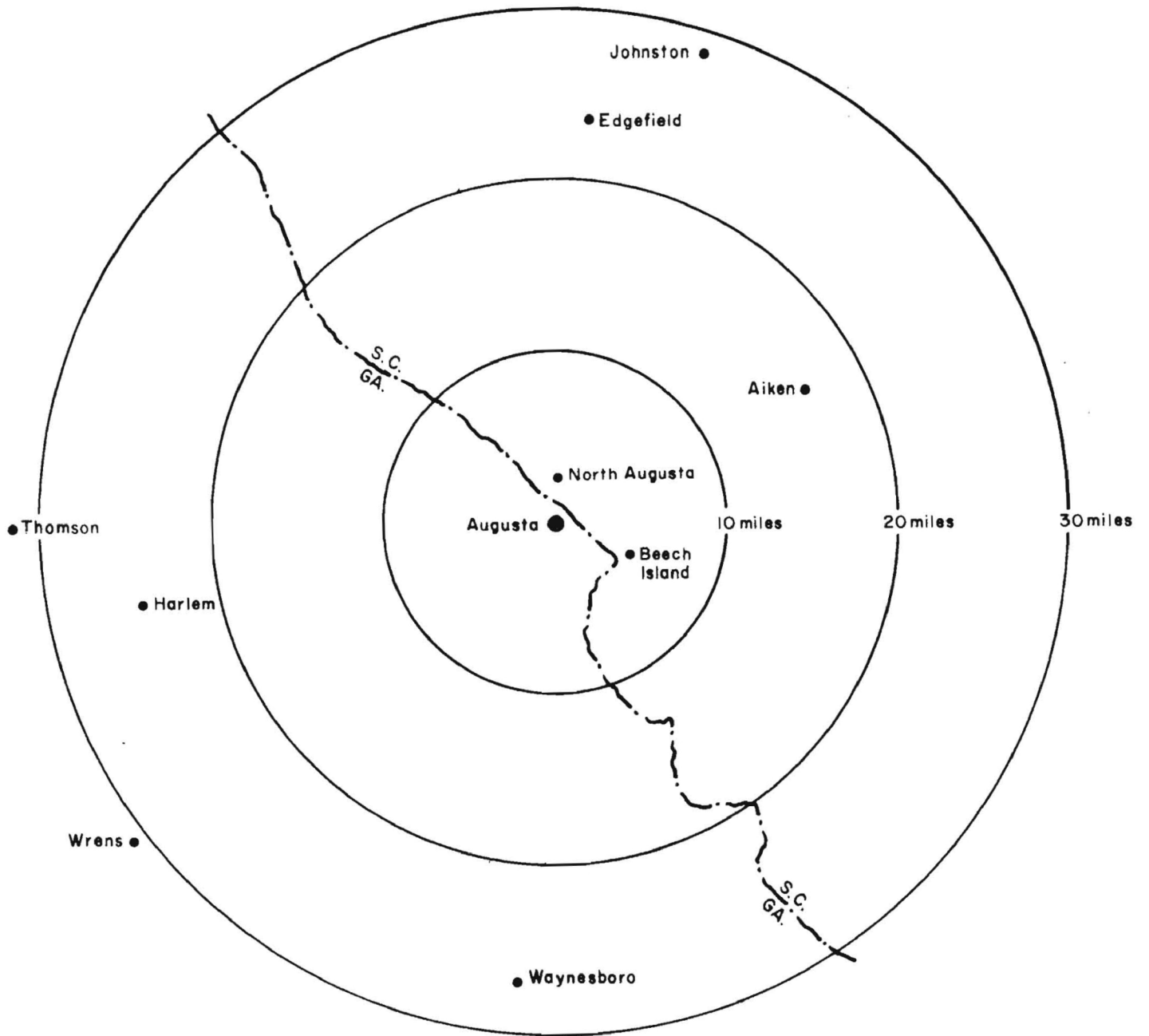
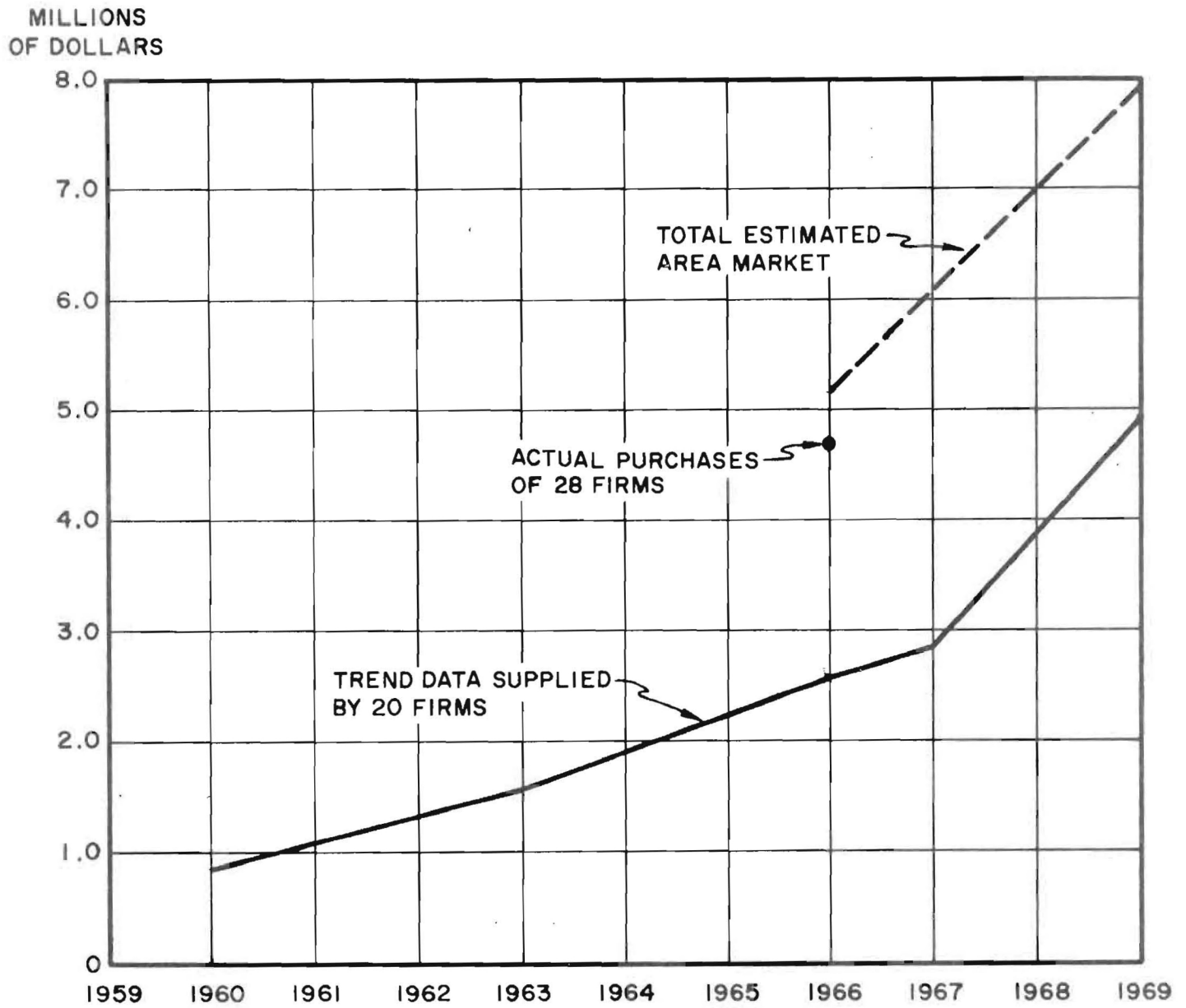


Figure 1  
ESTIMATED GROWTH OF AREA MARKET



### Reaction to Potential Box Plant

Slightly over 70% of the 26 respondents to this question believed that a new corrugated box plant would benefit them either in service or price, whereas 19% were satisfied with present sources. The remaining 11% were undecided. Those businesses which believed a new plant would be desirable represent 50% of the total 1966 market, or purchases of slightly over \$2.6 million.

### Pattern of Box Purchases

All 28 firms purchased their supplies from box manufacturers; however, three firms split orders with glass-container suppliers. In each case a single glass-container manufacturer was used, indicating that little, if any, order splitting was deemed necessary once a satisfactory package was established.

Twenty firms purchased from box manufacturers on open order and the remaining eight through annual contracts.

Twenty-one purchasers bought from two or more suppliers. The remaining seven who relied on a single supplier represent purchases of \$328,000, or only 6% of the total 1966 market.

All but four companies originated box orders from their local offices. Three of the four companies which ordered from a remote location did so on an annual contract basis.

### Sources of Boxes

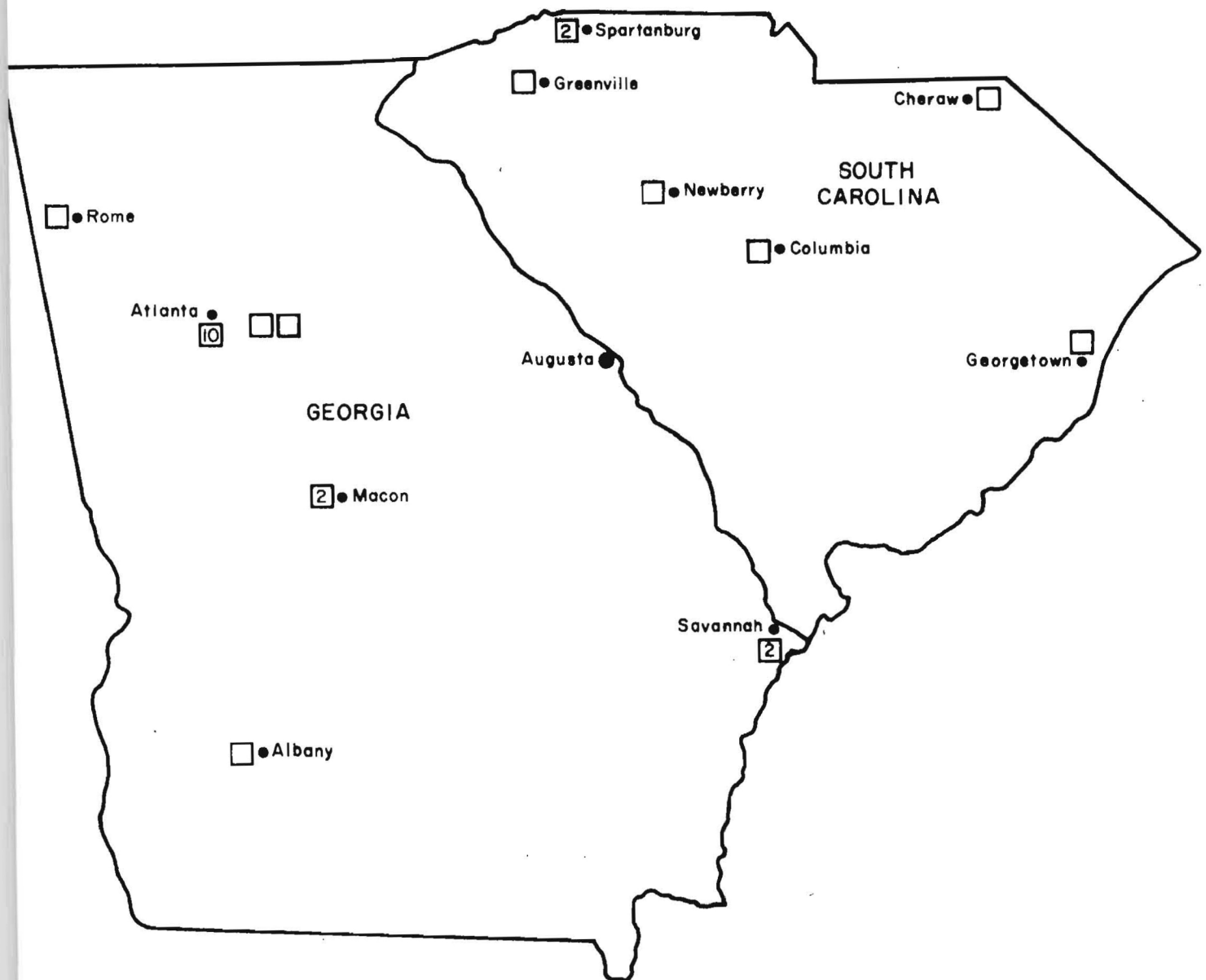
Bettendorf Publications lists 25 primary producers and converters of corrugated boxes in Georgia and South Carolina. (See Map 2 and Table 2.) The nearest facility of any appreciable size is at Newberry, South Carolina, approximately 60 miles from Augusta. All other producers of sufficient size or capability to serve the Augusta area are at least 100 miles away.<sup>1/</sup>

From the 27 companies which revealed their sources of boxes, the following pattern was established:

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<sup>1/</sup> However, a small paperboard and corrugated box converter is located in Augusta.

Map 2  
CORRUGATED BOX PLANTS IN GEORGIA  
AND SOUTH CAROLINA



Source: Official Container Directory, Bettendorf Publications, May, 1967.

Table 2  
CORRUGATED BOX PLANTS IN GEORGIA  
AND SOUTH CAROLINA

Ace Box Company East Point, Georgia	St. Regis Paper Company Corrugated Container Division Atlanta, Georgia
American Box and Paper Company Atlanta, Georgia	Union Camp Corporation Atlanta, Georgia
Continental Can Company, Inc. Corrugated Container Division Atlanta, Georgia	Union Camp Corporation Savannah, Georgia
Gaylord Container Division Crown Zellerbach Corporation Atlanta, Georgia	Weyerhaeuser Company Shipping Container Division Lithonia, Georgia
Inland Container Corporation Macon, Georgia	Wil-Mac Container Corporation Conyers, Georgia
Inland Container Corporation Rome, Georgia	Chicago Mill and Lumber Company Cheraw, South Carolina
The Kane Paper Corporation Cochran Field Macon, Georgia	Gaylord Container Division Crown Zellerbach Corporation Greenville, South Carolina
Martin Containers, Inc. Atlanta, Georgia	International Paper Company Container Division Georgetown, South Carolina
Mead Containers Division Atlanta, Georgia	Mead Containers Division Spartanburg, South Carolina
Owens-Illinois Forest Products Division Atlanta, Georgia	Owens-Illinois Forest Products Division Newberry, South Carolina
Potlatch Forests, Inc. Maxwell Division Albany, Georgia	Palmetto Container Company Columbia, South Carolina
Quality Container Corporation Savannah, Georgia	Union Camp Corporation Spartanburg, South Carolina
St. Joe Paper Company Atlanta, Georgia	

Source: Official Container Directory, Bettendorf Publications, May, 1967.

<u>Location of Suppliers</u>	<u>No. of Purchasing Firms</u>
Less than 100 miles	3
100 to 199 miles	18
200 to 299 miles	8
Beyond 300 miles	<u>3</u>
Total	32

The total indicates multiple sources for some purchasers.

Only 2% of the total amount consumed is purchased from corrugated box plants within 100 miles of the order points. Similarly, 2% is purchased from points beyond 300 miles. The vast majority of orders are given to manufacturers 100 to 200 miles away.

Those who purchase boxes from locations beyond 200 miles also order from locations closer to Augusta. The purpose in splitting orders with manufacturers in the 200-plus mile range is to eliminate freight costs by backhauling boxes to the Augusta area. In each case, "backhauling" purchases composed only a fraction of the individual company's total orders.

#### Backhauling Practices

Less than one-fourth of the responding businesses (6 of 28) backhauled boxes to the Augusta area. Much of the backhauling is done in the Southeast, ranging from Tennessee and North Carolina to Florida. One large consumer backhauls occasionally from the New York and New Jersey metropolitan areas and another does so from Pennsylvania.

The businesses which backhaul represent \$1.7 million in box consumption, or 33% of the total 1966 area market. It is likely, however, that less than 10% of the total market is actually backhauled.

#### Order Requirements

Firms representing 85% of the total area market indicated the following requirements:

<u>Exterior Liner</u>		<u>Test Strength</u>	
Kraft	- 81%	Under 200 lb.	- 33%
Off-white	- 16%	200 lb.	- 63%
Bleached White	- 3%	Over 200 lb.	- 4%

When questioned concerning their special box requirements, the respondents had few preferences or comments. Glassine-treated (1%), paraffin-coated (0.5%), and laminated (3%) boxes were the only specialty requirements mentioned.

Twenty-seven firms responded to questions concerning alterations in box design. All 27 box consumers indicated that no changes in box specifications would be needed for items which they currently were shipping in corrugated boxes, although one respondent mentioned the possibility of waterproofing in the future. Several firms stated that all of their products were shipped in corrugated boxes. None of the rest could suggest any changes in box capabilities that would permit or cause them to substitute corrugated boxes for the other types of containers used in transporting their remaining products.

#### Critical Analysis of Present Suppliers

A large majority of the companies generally were satisfied with box design and strength and were receiving prompt service in response to problems and complaints. Over 20% (5 of 24 responding firms), however, believed that prices for goods purchased were unsatisfactory.

Availability of stock in the suppliers' warehouses also was considered inadequate by 20% of the respondents (4 of 20). Although only about 8% of the respondents expressed dissatisfaction with delivery time, this, along with adequacy of supply, could become a more serious problem to purchasers in the future. Since the corrugated box market is growing rapidly in the Augusta area, greater demands will be placed on stock warehouses to provide faster delivery time and a larger supply of boxes.