

IMPACT OF CHANGING MARKET ORGANIZATION  
AND STRUCTURE OF THE PACIFIC NORTHWEST CANNED  
FRUIT AND VEGETABLE INDUSTRY

by

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# IMPACT OF CHANGING MARKET ORGANIZATION AND STRUCTURE ON THE PACIFIC NORTHWEST CANNED FRUIT AND VEGETABLE INDUSTRY

## CHAPTER I

### INTRODUCTION

The processing of fruits and vegetables is an important agricultural industry in the Pacific Northwest. In 1959, the dollar value of vegetables sold by producers in this area was 45.6 million and for fruits and berries the dollar value sold was 129.7 million (52, p. 16-20). Of these fruits and vegetables, approximately 85 percent of the vegetables and 60 percent of the fruits were sold to processors. In this same year the canning plants in this area processed 20.3 million cases of vegetables and 7.8 million cases of fruits and berries. Compared to 1949, this was a 48.3 percent increase in the canned vegetable pack, while the fruit and berry pack was approximately the same as in the earlier period.

Accompanying this general increase in the production of canned fruits and vegetables have been numerous changes in the market structure and organization of the industry. Every segment of the canned food industry and market has been affected by these changes, including retailers, processors and producers. These changes have largely been in response to the impact of mass merchandising by

large retail units and have been reflected to the farm producers and the processors as signals to alter the choice of product specifications offered and also, in many cases, the scale and method of operation. For example, the growth in mass merchandising has increased the demand for large volumes of uniform quality fruits and vegetables. Because of this demand, many processors have had to increase the size of packout to meet the quantity demanded, and also, have been required to provide technical and, in some cases, financial assistance to farm producers in an effort to secure uniform quality.

In past research, little systematic effort has been devoted to an examination of the relationship between changes in market organization at one functional level such as the retail level, and desirable structural and operating changes at other levels such as processor and producer levels. The responsibility for performing the many production, processing, and distribution activities associated with preparing canned fruits and vegetables for final consumption is decentralized among a large number of different firm units. The task of coordinating the operations carried on by such a complex of firms is complicated. It is evident that market prices, such as those determined in many open markets, often serve unsatisfactorily in coordinating activities at different functional levels. Collins and Jamison provide a general answer as to why market prices may

serve unsatisfactorily in coordinating activities at different functional levels (10, p. 364):

"...The complexity of the demand function plus the uncertainty surrounding interfirm relationships in general make it difficult, if not impossible, for the producer to translate a price quotation (particularly if this is only an estimate of future price at time of harvest) first into a set of product characteristics that is implied and then into a set of production operations to achieve this result."

Price, generally, does not provide the necessary device for coordinating activities between the retail level and processor level such as timing of delivery, conditions of delivery (mode of transportation, credit terms, etc.) and in some cases quality and appearance attributes of the product. In order to gain control over these activities, the large-scale retailers have caused the emergence of administrative agreements such as contractual agreements or even outright formal integration of the wholesaling and processing functions. This has caused structural changes to which both the processors and farm producers have had to adjust.

During this period of uncertainty and transition in the food industry, farm producers and processors are raising questions as to specific adjustments most appropriate in their individual situation both immediately and in the long run. The recognition of the need to adjust, the decision concerning the appropriate adjustment to be made, and the actual initiation of the adjustment is a matter of real



concern to the processor and producer as well as to the economy of the Pacific Northwest. Therefore, the purpose of this study is to first outline the changes, and the causes of these changes, which have occurred at the various functional levels of the food industry; and secondly, to assess the impact of these changes on the processor and producer in terms of immediate and long run adjustments which are appropriate to their individual situation.

Changes which occur at any functional level of the market are, generally, the result of: (1) a need to adjust to actual or anticipated changes in consumer demand; (2) a need to adjust to a change which has occurred at a functional level closer to the consumer; (3) the desire to lower unit costs and hence obtain greater profits; or (4) some combination of the above. The effect, or impact, of a change made at one functional level, upon another functional level is measured here in terms of the actual change made at the other level to accommodate the original change. Thus, a cause and effect relationship is hypothesized between the changes at the different functional levels of the market which must be considered in the organization of this study. Therefore, the following order of presentation will be adhered to.

Chapter II presents the changes in consumer demand for food products over the past 10 years, with special emphasis upon changes

in the demand for canned fruits and vegetables. Chapter III presents the immediate effects or impact of changes in consumer demand for canned fruits and vegetables in the form of retail level changes made to accommodate these changes in consumer demand. In order to present the changes which have occurred at the retail level, this chapter also presents the changes which were the result of retailer's desires for higher profits. Chapter IV presents the immediate effect of changes which have occurred at the retail level in the form of changes which were made by processors during the past 10 years to accommodate these retail changes, plus changes initiated by processors in an attempt to achieve lower unit costs and thereby gain higher profits. Because this thesis is primarily concerned with processors and producers, this chapter is in greater detail than the previous chapters. Special emphasis is placed on the raw product procurement policies and practices of the processor. Changes in these policies and practices directly effect producers. The final chapter, Chapter V, analyzes and summarizes the aggregate, changing canned fruit and vegetable market and its effects upon the producer and processor in terms of immediate and long run adjustments which are most appropriate to their individual situation.

#### Objectives

The objectives of this study are: (1) to determine the changes

which have occurred at each functional level of the food industry with respect to changes in structure and sales and procurement policies at each level, with special emphasis being placed on the changes which have occurred during the past decade at the processor level; (2) to determine the causes of these changes at each functional level and to determine, analyze and evaluate the effect of these changes on the structure of the canning industry, and the sales and procurement policies of the processor; and (3) to present the implications of these changes as to both immediate and long run adjustments needed at the processor and producer levels of the canned food industry.

### Procedure

Interviews were held with several food retailers, food brokers and officials of various canning firms throughout the Pacific Northwest to obtain some indication as to the general areas of change during the past decade in the market organization and structure of the canned food industry. The data and information obtained during these interviews were used to design more specific questions which were incorporated into a questionnaire. This questionnaire was administered during the summer of 1960 to 33 canning firms operating 45 plants in the Pacific Northwest. Nineteen of these firms were in

Oregon, 12 in Washington and 2 in Idaho.

The questionnaire was designed to cover the canning industry's present-day structure and sales and procurement policies, as well as the changes, and effect of these changes, in the structure and policies which have occurred over the past decade. More specifically, the questionnaire was designed to cover the following broad areas of change: (1) structural changes, such as size of firm, number of firms, product mix of firms, and type of ownership; (2) changes in sales and promotional policies and practices, such as method of sale, sales outlets, area of market, use of processor versus private labels, pricing policies, selling arrangements and terms of sale; and (3) changes in procurement policies and practices, such as method of procurement, type and amount of cooperation expected from the farm producer, and services provided to the farm producer.

For the purpose of simplifying the presentation and analysis of these changes, the canning firms were classified into groups. After consultation with canning firms, food retailers and food brokers, it was decided that classifying the firms on the basis of their annual packout would produce groups more homogeneous with respect to other important characteristics than might be possible if some other basis were used: e. g., type of products, ownership or location. Therefore, the firms were classified by size of annual packout, and

the changes were analyzed and evaluated with respect to their immediate and future impact on the processors of each size group as well as on the farm producers.

In addition to the data obtained from the interviews with officials in the canning industry and food distribution agencies, published material of federal and state statistical agencies and trade journals of the canning industry were used for directive, explanative and comparative purposes during the course of this study. Information regarding changes at the retail level was largely obtained from secondary sources because several studies have been made in this area which provide a substantial basis for this phase of the study.

#### Scope and Limitations

This study is limited to the Pacific Northwest, which includes all of the canning firms in Oregon, Washington and Idaho. The directory of firms was obtained from the Northwest Cannery and Freezers Association in Portland, Oregon. The directory is a complete listing of all firms in existence in the Pacific Northwest during the period between 1949 and 1961.

Processing firms which canned less than 5 percent of their total annual pack were not considered as canners and were excluded from this study. It was felt that the sales practices and marketing

procedures for their canned pack were not in conformance with the other canning firms in the industry. Usually, these firms canned surplus or by-product items from their freezing operations and were only concerned about covering the costs involved in the canning of these products. None of these firms attempted to establish a permanent market or a definite sales policy regarding such products. In most cases, the product was sold under government bid.

Data was gathered from 33 of the 38 existing firms in the Pacific Northwest in 1960 that canned over 5 percent of their annual packout. All of the 38 firms were contacted but, in some cases, company policy prevented the completion of the questionnaire, and in two cases, recent changes in management made it impossible to obtain data for previous years. Occasionally, individual firms felt that a particular question was of a confidential nature and preferred to omit an answer. Therefore, not every question was answered by all 33 firms.

The two most significant limitations in the information requested were cost data and the exact annual packout of the individual firm, especially of those firms with annual packs of over 1,000,000 cases. Although average cost figures were obtained for a large portion of the canning firms in the Pacific Northwest only general statements concerning trends of these costs will be made because of the confidential

nature of the data. Because exact annual packout data were not disclosed by many firms the size classification groups which were used were designed to be broad enough to insure the procurement of information from the maximum number of firms but narrow enough to have significant meaning in the analysis that follows.

## CHAPTER II

## THE CHANGING CONSUMER MARKET

The satisfaction of consumer wants is the primary objective of all productive and distributive processes. It is the consumer who, through his choice and preferences, indirectly determines what products shall be produced and what services shall be provided with them. The consumer wants certain services and commodities in a given form, at a certain time and at a certain place. These wants will be provided for if their provision is profitable to producers and distributors.

Changes in consumer wants may result from changes in consumer customs or habits, or they may result from the acceptance of a new product introduced by producers or distributors. Which ever the case may be, adjustments are generally made at the various functional levels of the market in order to accommodate the new consumer demands. Therefore, for an understanding of many of the adjustments which have occurred in the organization and/or structure of a market, it is essential to have a knowledge of the changes which have occurred in the consumption patterns of consumers.

This chapter attempts to present the changes, and the causes of these changes, in the consumption patterns for canned fruits and vegetables. Thus, the chapter is divided into two major sections:



(1) the changing consumption situation; and (2) factors causing change in the consumption situation. Further, because canned fruits and vegetables are only one form in which fruits and vegetables are consumed, it is important to analyze changes in the total consumption of fruits and vegetables first, and then analyze changes in the various forms of consumption, placing special emphasis on the changes in consumption of the canned form.

### The Changing Consumption Situation

#### Total Consumption

During 1950 people in the United States consumed 45.4 billion pounds of fruits and vegetables, whereas in 1960 they consumed 54.9 billion pounds, an increase of 9.5 billion pounds. 1/ When converted to a per capita basis, consumption of fruits and vegetables has increased from 299 pounds in 1950 to 305 pounds in 1960, an increase of 6 pounds per person.

#### Form of Consumption

Accompanying the overall increase in consumption of fruits and

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1/ Because this study is only concerned with changes which affect the Pacific Northwest canning industry, fruit and vegetable data exclude commodities which are not produced or processed in the Pacific Northwest, such as pineapple, citrus fruits, and baby foods. Fruit and vegetable consumption data pertain to consumption of commercially produced commodities only.

vegetables have been changes in the use of individual items and in the form (fresh, frozen, or canned) in which these products are used by consumers. The consumption of the three forms of fruit has changed only slightly over the past decade. Fresh fruit consumption declined from 66 percent to 63 percent of the total fruit consumption, while consumption of canned fruits increased from 32 to 34 percent and consumption of frozen fruits increased from 2 to 3 percent of the total (49, p. 29).

The change in per capita consumption of the various forms of vegetables has been considerably greater than was the case with fruits. The consumption of fresh vegetables has decreased from 59 percent to 50 percent of the total vegetable consumption, while consumption of canned vegetables has increased from 38 to 42 percent and consumption of frozen vegetables has increased from 3 to 8 percent of the total (50, p. 20). Some salad items, such as lettuce and celery, used principally in the fresh form, have maintained their positions, but for many items that are used in both fresh and processed forms, the fresh form has lost considerable ground.

The growth in the use of the frozen and canned forms has played a large part in the decline in the use of the fresh. For some vegetables per capita consumption in the frozen form has increased at the expense of both the fresh and the canned forms. Appendix Table

A presents the United States fresh, frozen and canned per capita consumption of four important vegetables grown and processed in the Pacific Northwest. Fresh consumption of all four items (asparagus, snapbeans, beets and green peas) has declined over the decade, while consumption of the canned and/or frozen forms has increased enough to maintain total per capita consumption at about the same level. The consumption of frozen peas has increased at the expense of both the fresh and canned forms.

In general, the per capita consumption of canned apples, peaches, pears, asparagus, beets, carrots, corn, snapbeans, and tomatoes has increased during the past decade, while the per capita consumption of canned apricots, cranberries, pumpkin, squash and spinach has remained relatively stable, and the per capita consumption of canned berries, cherries, plums, lima beans, and green peas has declined. The decline in per capita consumption of all items, except plums, was at least counterbalanced by an increase in consumption of the frozen form. The overall per capita consumption of plums declined during the period.

In addition to changes in quantities demanded and in individual canned items preferred, there appears to be a trend in consumer preferences toward smaller size containers for family use. Table 1 shows the percent of the total Pacific Northwest packout which was

packed in each of the various size containers in selected years between 1950 and 1960.

Table 1. Percent of total Pacific Northwest canned pack by size of container, selected years, 1950-1960. 1/

Size of Container	Percent of total Pacific Northwest canned pack					
	1950	1952	1954	1956	1958	1960
			<u>Percent</u>			
8 oz.	7.9	9.4	9.8	10.1	8.6	9.1
No. 303	38.5	47.4	52.5	53.0	53.5	54.7
No. 2	17.0	2.1	.6	1.9	.1	----
No. 2-1/2	12.2	13.4	13.6	12.2	10.4	9.7
No. 10	15.1	19.5	17.5	18.8	20.1	19.9
Misc. <u>2/</u>	9.3	8.2	6.0	4.0	7.3	6.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

1/ Pack data obtained from Northwest Cannery and Freezers Association, Portland, Oregon.

2/ Includes No. 1 tall, No. 12 oz. vac., No. 3 cyl., and No. 300.

The first five containers listed in Table 1 are the containers generally purchased by consumers for family use. The No. 10 container is predominantly purchased by institutions such as restaurants, hospitals, schools and hotels. As may be seen in the table, there has been a significant decline in the use of No. 2

containers, which hold approximately 5 servings, and to a smaller extent, a decline in the use of No. 2-1/2 containers which hold 5-7 servings. 2/ The decline in the use of these two sizes has been counterbalanced by an increase in the use of the smaller size containers, the No. 303, which holds 3-4 servings and the 8 oz., which holds 1-2 servings. The greatest increase has occurred in the use of the No. 303 container which is used for both fruits and vegetables. The use of the 8 oz. container has remained relatively stable for fruits but has increased considerably for vegetables.

The increased use of No. 10 containers, which hold 24-25 servings, indicates an increased demand by the institutional market. A recent survey of institutions revealed that 93 percent of all canned vegetables and 81 percent of all canned fruit was purchased in No. 10 containers (46, p. 29). The increase in use of No. 10 containers has been predominantly for vegetables. The use of the No. 10 container for fruits has remained relatively stable, with one exception, an increase in the use for cherries. A sizeable decline in the use of the No. 10 container for berries has occurred. This decline has been offset by an increased pack of bulk frozen berries.

In summary, the total consumption of fruits and vegetables has increased by 22 percent during the past decade. Within this increase

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2/ One serving is equivalent to approximately one-half cup.

have been changes in the form of consumption. Fresh fruit and vegetable per capita consumption has declined while the per capita consumption of the frozen and/or canned form has increased enough to, in most cases, at least counterbalance the decline in fresh consumption. For some commodities, consumption of the frozen form has increased at the expense of both the fresh and the canned form. And finally, there appears to be a trend in consumer preferences toward small size containers for canned products and an increase in demand for canned fruits and vegetables by the institutional trade.

#### Factors Causing Change in the Pattern of Canned Fruit and Vegetable Consumption

The changes mentioned above in the pattern of canned fruit and vegetable consumption are related to a combination of influences, stemming from changes in a number of major socio-economic factors. The important ones among these include population growth, increasing consumer incomes, the continued shift of the population from rural to urban areas and the accompanying decline in production of food for own use, relatively stable prices for canned fruits and vegetables, and changes in consumer buying and shopping habits.

#### Total Consumption

A large portion of the increased overall consumption of fruits

and vegetables is explained by the increase in population from 151.7 million in 1950 to 179.9 million in 1960, an increase of 18.6 percent.

3/ The remaining portion of the increase in total consumption is explained by the increase in per capita consumption. The overall increase in per capita consumption may be explained, at least partially, by increased consumer real income during the period 1950-60. The income demand curve for most fruits and vegetables slopes positively to the right. Hence, an increase in per capita consumption should accompany an increase in income. However, it must be mentioned that for some items such as potatoes, the income demand curve slopes negatively to the right and therefore, as income increases per capita consumption decreases. This phenomena is generally explained by consumers shifting from high calorie foods such as potatoes to lower calorie foods as their incomes increase. In canned fruits and vegetables however, it appears that the positive sloping income demand curve is the prevailant type of curve.

Per capita disposable income was 40 percent larger in 1960 than in 1950. 4/ Consumer prices also rose sharply during the period, but the gain in income was greater. This can be shown by comparing various consumer price indexes with an index of per capita disposable income. The consumer price index for all items, which

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3/ See Appendix Table B.

4/ See Appendix Table B.

includes shelter, all durable and non-durable commodities and all services, rose from 102.8 to 126.4 and the retail price index for food increased from 101.2 to 119.6 during the period 1950-60, whereas the per capita disposable income index rose from 109.8 to 157.9 5/

In addition to a rise in real per capita income, the distribution of income changed in such a way as to greatly reduce the number and proportion of persons whose family budget limitations may prevent them from buying the kinds and total amounts of fruits and vegetables they desire. In 1949, 68.1 percent of the U.S. families received annual incomes of less than \$4,000.00, whereas in 1959 only 32.8 percent of the families were in this group. 6/ The median family income increased from \$3,107.00 in 1949 to \$5,417.00 in 1959, an increase of \$2,310.00.

A third factor which has effected the overall consumption of commercially produced fruits and vegetables is the fact that the rural population has been moving to urban areas. In 1950, 41 percent of the U. S. population was classified as rural, whereas in 1960, only 37 percent was classified as rural. Of the families remaining on farms, fewer were on a subsistence basis, growing food primarily

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5/ See Appendix Table B.

6/ See Appendix Table C.



for their own use. As a result, a larger portion of the total population consumed commercially grown fruits and vegetables.

### Form of Consumption

In explaining the changes in the form of consumption of fruits and vegetables, especially the relative increase in consumption of canned items, increasing consumer real incomes appear to play the dominant role. Table 2 presents the average annual expenditure per family and the percentage of families having expense for commercially canned fruits and vegetables. 7/ An examination of this table reveals that, in general, families with higher incomes have higher expenditures for canned fruits and vegetables and, in addition, a greater percentage of the families in each group purchase canned fruits and vegetables. Only 67.9 percent of the families with annual incomes less than \$2,000 purchased canned fruits and vegetables, whereas, 91.1 percent of the families with annual incomes over \$6,000 purchased these items. The average annual expenditure for canned fruits and vegetables of the less than \$2,000 income group was

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7/ Tables 2 and 4 are compiled from data obtained from a U. S. Department of Agriculture survey which was held in 1955. The survey was based on a national probability sample of approximately 6,000 families of 2 or more persons. Institutions and persons living on military reservations were not included. The survey was designed to obtain information on patterns of family food consumption and expenditures when the families were grouped according to income and urbanization.

Table 2. Average annual expenditure per family and percentage of families having expense for commercially canned fruits and vegetables, by income and urbanization, 1955 (47, p. 11-19). 1/

Money income after income taxes	Expense for commercially canned fruits and vegetables used at home				Families having expense for commer- cially canned fruits and vegetables used at home			
	Urban	Rural non-farm	Rural farm	All urbanization	Urban	Rural non-farm	Rural farm	All urbanization
<u>Dollars</u>	<u>Dollars</u>				<u>Percent</u>			
Under 2,000	29.12	21.32	23.40	25.48	81.4	61.5	59.5	67.9
2,000-3,999	46.28	43.68	34.32	44.20	88.0	85.1	74.6	85.6
4,000-5,999	52.00	49.40	43.16	50.96	91.8	90.6	83.9	90.9
6,000 and over	55.12	58.20	53.04	55.64	89.8	95.0	88.5	91.0

1/ Includes expenses for all commercially canned fruits and vegetables except baby and junior foods.

\$25.48. This amount increased as the income increased with the average expenditure for families with over \$6,000 income reaching \$55.64, or slightly more than twice the expenditure of the under \$2,000 income class.

If it is assumed that as a family increases its income it will adopt consumption habits similar to those families already in the new income class, these figures have considerable meaning in the explanation of the increased consumption of canned fruits and vegetables. In 1940, 27.0 percent of the United States population was classified in the less than \$2,000 income class and 12.2 percent was classified in the over \$6,000 income class. By 1960 these percentages had changed to 13.4 percent in the less than \$2,000 income group, and 42.3 percent in the over \$6,000 income group. Hence, a very significant shift in the distribution of income causing the emergence of many more families in the higher income groups which had relatively higher expenditures for canned foods.

In addition to the income effect, the shift of population from rural to urban areas must also be considered as one of the more important factors which has caused the increased consumption of canned fruits and vegetables. If it is assumed that families who move from rural to urban areas adopt consumption habits similar to those families already in urban areas it appears that the consumption of

canned fruits and vegetables by these families will increase. Table 2 shows that for all income levels, a greater percentage of urban families purchased canned fruits and vegetables than did rural families. Also, for all income levels, the per family annual expense for canned fruits and vegetables was greater for urban than for rural families. As the percent of total population which is classified as urban is becoming larger each year, more families are spending more money for canned fruits and vegetables.

The effects of increased consumer income have not been entirely confined to an increased demand for a larger quantity of canned fruits and vegetables. Retailers interviewed during this study have stressed the definite increased demand for more uniform quality products. It appears that when consumers have more income to spend, they become more conscious as to the quality of the products they buy. It should be stressed that the demand, in many cases, is not always for higher quality, but many times for more uniform quality. For example, there is a definite demand for an unripened, firm apricot for use in salads. The apricots must be uniform in appearance and size and must remain firm. The only method by which processors can assure these attributes is to pack the apricot before it is entirely ripe. When the ripe apricot is canned, it loses part of its firmness and will not be accepted by the buyer even

though ripened apricots are considered as higher quality by grading standards.

Another factor which has contributed to the increased consumption of canned fruits and vegetables over the past decade is the relative stability of canned fruit and vegetable prices. Table 3 shows the annual average prices of canned peaches, cream style corn and green peas for the years 1951-1960.

As can be seen in the table, the annual average price of these commodities has remained relatively stable over the 10 year period. When the monthly prices are examined it is found that the monthly variation is not sizeable. The price of peaches ranged from a monthly low of 32.5 to a high of 36.5 cents, the price of corn ranged from a monthly low of 16.6 to a high of 19.8 cents and for peas the range was from 19.6 to 22.1 cents. There was, however, sizeable variation in the monthly prices of the fresh form of these commodities. Fresh fruits and vegetables must be sold at or soon after harvest, whereas the canned item is available throughout the year. When the fresh product first appears on the market, prices are generally high and decrease as more and more of the product becomes available. The relative stability of the prices of canned items is explained by the even flow of product to the market throughout the year.

Table 3. United States average retail food prices, selected canned fruits and vegetables, 1951-60 (55). 1/

Commodity <u>2/</u>	Annual average retail price									
	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
	<u>Cents</u>									
Peaches	33.7	33.8	33.8	32.8	34.1	34.8	34.6	34.2	35.5	33.6
Corn, cream	NA	18.8	19.0	18.2	17.1	17.9	17.2	17.7	19.3	19.2
Peas, green	21.6	20.9	21.3	21.4	21.5	21.5	21.5	21.1	20.4	20.7

1/ Prices are average prices of 46 U.S. cities, ranging in size from 2,500 population to New York City. Sales tax is not included in price.

2/ Peaches, No. 2-1/2 can; corn, No. 303 can; peas, No. 303 can.

The change in consumer preference toward smaller container sizes for family consumption can be explained, in part, by changes in family size over the past 10-20 years. Although the average size of the U.S. family has remained rather stable during this period, changes have occurred in the composition of the size groups. There has been a decline in the number of families having five or more children and a decline in the number of families having less than two children; hence an increase in the number of families having 2-4 children (35, p. 65). Urban families, generally, are smaller than rural families; therefore, the population movement from rural to urban areas is also a contributing factor to the changing composition of family size groups.

The increased demand for canned fruits and vegetables by the institutional trade can be explained basically, by two factors. The first, and most important, is that consumers are eating more food away from home. The dollar volume of purchased meals and beverages consumed outside the home increased by 29 percent between 1950 and 1955. Many factors have caused this increase, of which the most important appears to be increasing consumer income. Table 4 presents the average annual expenditure per family and the percentage of families having expense for food eaten away from home, classified by income and urbanization. As may be seen in the table, the higher

Table 4. Average weekly expenditure per family and percentage of families having expense for food eaten away from home, by income and urbanization, 1955 (47, p. 11, 13). 1/

Money income after income taxes	Expenses for food away from home				Families having expenses for food away from home			
	Urban	Rural	Rural	All	Urban	Rural	Rural	All
	non-farm	farm	farm	urbanization		non-farm	farm	urbaniza- tion
<u>Dollars</u>	<u>Dollars</u>				<u>Percent</u>			
Under 2,000	2.25	1.05	1.07	1.53	62.6	46.0	52.0	54.8
2,000-3,999	3.68	3.41	2.31	3.45	81.8	77.8	75.1	79.6
4,000-5,999	5.36	4.41	3.53	5.01	86.0	85.6	78.6	85.4
6,000 and over	10.33	7.94	4.14	9.58	92.0	87.1	80.4	90.5

1/ Includes alcoholic beverages, meals, between meal snacks and beverages, and supplements to packed lunches.



the income, the greater the expense for food eaten away from home.

The average weekly expense for food eaten away from home by families in the over \$6,000 income class was almost 6-1/2 times as great as the expenditures of families with income below \$2,000.

If it is assumed, once again, that families, when they increase their income, adopt the consumption habits of those families already in that income class, the significance of increased consumer incomes is evident. There appears to be a direct relationship between income and expenditures for food purchased and eaten away from home.

The population shift from rural to urban areas also appears to affect the expense for food eaten away from home. As may be seen in Table 4, in all income classes, the urban families had greater expenses for food eaten away from home and also, a larger percent of the urban families, in each income group, had expenses for food eaten away from home. Urban families in the over \$6,000 income group had more than twice the expense for food eaten away from home than did rural families in the same income group.

The second factor which appears to explain the increased demand for canned fruits and vegetables by institutions is related to management's attempt to offset rising labor costs, by increasing their use of labor-saving devices. One of the more common labor-saving devices is the use of partially or fully prepared foods, such as

canned fruits and vegetables. The use of canned fruits and vegetables shifts many operations such as shelling peas, pitting cherries and peeling peaches and tomatoes, which are generally performed manually in institutions, to a commercial processing firm. The commercial processing firm can perform these operations at a lower per unit cost than the institutions, because of economies of size. Hence, the total cost of the product to the institution is less (providing that the cost savings are passed on, at least in part, to the institution).

Consumer shopping and buying habits. The remaining portion of this chapter will deal with changes in consumer shopping and buying habits. Most of the changes in consumer shopping and buying habits which have affected the organization and structure of the canned fruit and vegetable industry have been changes directly associated with the purchase of the canned items as has been indicated above. However, some changes have not been directly associated with the purchase of canned fruits and vegetables, but, nevertheless have had an impact upon the canning industry. Changes in consumer shopping and buying habits have been the result of the consumer's demands for convenience. Part of the demand for convenience reflects the desire of working women for foods which permit fast, easy meal preparation, as well as the desire of non-working women for such foods, so that they may have more leisure time and more time with the family. The

result of these desires has been an increase in the demand for convenience foods, frequently referred to as foods with "built-in maid service". Canned fruits and vegetables are considered as convenience foods because they seldom require more preparation than heating in the case of most vegetables, or use in salads in the case of most fruits.

Another part of the demand for convenience reflects the desire of shoppers to reduce their total shopping time so that they may spend more time at other activities. This desire has led to the acceptance of one-stop shopping facilities where the consumer can purchase all of her food requirements plus items used regularly to maintain her household such as soaps, brooms, mops, cooking utensils, glassware, floor wax and many other home aids. The fact that, in addition to maintaining a household-needs department, many retail grocery stores have profitably added cosmetic and beauty aid bars, toy and furniture departments, record libraries and camera departments is further evidence of consumers acceptance of one-stop shopping facilities.

The creation of one-stop shopping facilities has had an impact throughout the marketing system. It has directly affected the retail level of the market by requiring display space for non-food items which in turn requires either expansion of retail store shelf space or

a reapportioning of existing shelf space. When retail stores have chosen to reapportion existing shelf space, some shelf space previously allotted to food items must be cleared for the non-food items. Canned fruits and vegetables are one of the food items which have suffered the loss of shelf space. This loss has indirectly affected the sales policies of the processors of canned fruits and vegetables.

The specific changes which have been made in the structure and organization of the canning industry and market in response to changing consumer demands for canned fruits and vegetables and changing consumer shopping and buying habits are presented in the following two chapters.

## CHAPTER III

## THE CHANGING RETAIL - WHOLESALE FOOD MARKET

Modifications in the organization and operating policies within the retail food market are, basically, the result of an attempt to accommodate changes or anticipated changes in consumer demands in an attempt by retailers to increase or at least maintain profits. 1/

Because the retailer has direct and constant contact with the consumer, he has assumed the position of prime mover in initiating changes in the food industry that are designed to accommodate changes in consumer choices and preferences. Some of these changes must be made at the retail level and some must be made at the processor and/or producer level. Changes, such as increasing parking space at stores, offering one-stop shopping facilities and locating new stores in areas convenient to consumers must be made by the

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1/ Grocery retailing is considered, in this study, as the food retailing industry. Grocery stores accounted for 92 percent of the total food sales in 1960 while specialty food stores, such as meat and fish markets, bakery product stores, fruit and vegetable markets, candy and nut stores and delicatessens accounted for the remaining 8 percent. Canned fruits and vegetables are seldom stocked in specialty stores and, therefore, sales and procurement policies of these stores do not effect the canning industry to any noticeable degree.

retailer. Still other changes, such as those accommodating preferences for higher, more uniform quality products must be made by the processor and producer. The retailer's function in initiating these changes is to pass the consumer demand on to the processor and to insure that this demand is satisfied.

In addition to initiating changes designed to accommodate changes in consumer demands, retailers initiate changes in organization and operating policies that are designed to increase their profits. In general, to increase profits, retailers use one or more of the following methods: (1) increase volume of sales; (2) reduce the cost of merchandise bought for sale; and (3) improve store operating efficiency.

The changes effected by retailers, whether they are designed to increase profits or to accommodate changes in consumer demands, affect one or more of the following: (1) the general structure of the retail food industry, i. e. : the number and size of retail firms and stores; (2) the sales policies and practices of retailers; (3) the procurement policies and practices of the retailers. The remainder of this chapter is divided into these three areas. A rather broad outline of the changes in each of these areas will be presented, with particular attention given to the rate and nature of the changes which have had an impact upon the processors of canned fruits and vegetables.

The last part of this chapter, which deals with the changes in procurement policies and practices of retailers, will include the changes which have occurred at the wholesale level of the food industry. Although the wholesaling function is still performed, the independent profit seeking wholesaler has been disappearing as the function is increasingly made a part of the retail organization. In the words of Willard W. Cochrane, "the wholesaling function in the food trade has become rather completely integrated into the retailing function" (8, p. 405).

### Number and Size of Retail Firms and Stores

#### Retail Firms

Retail grocery firms are divided into two groups; independent retailers (firms operating ten or fewer retail stores), and corporate chains (firms operating eleven or more retail stores). Independent retailers are further classified as affiliated independents (independent retailers who are affiliated in some manner with wholesalers) and unaffiliated independents. The affiliated independents may be either voluntary independent retailers (independent retailers who belong to voluntary merchandising groups which are sponsored by wholesalers and who operate under a common name, such as IGA or Red and White) or cooperative independent retailers (independent

retailers who are stockholder members of a cooperative wholesale buying group, such as Certified Grocers of California).

The number of retail grocery firms decreased from 351,587 in 1952 to 254,881 in 1959, a decrease of 96,706 firms. When these firms are classified according to the number of stores they operate, as is done in Table 5, it can be seen that between 1952 and 1958 the number of chains has decreased 14.2 percent, the number of one-store independents has decreased 33.8 percent, the number of 2-3 store independents has increased 23.5 percent, and the number of 4-10 store independents has decreased 8.5 percent. The increase in number of 2-3 store firms is very likely due to horizontal integration among the one-store firms.

The decrease in total number of retail firms does not give a meaningful description of the changing structure of the retail food industry. The analysis must be carried further by examining the proportion of total stores and total sales which are accounted for by the two types of retailers. This is done in Table 6, which compares the percentage of total grocery stores and sales accounted for by chains, affiliated and unaffiliated independents. In 1950, chains operated 6.41 percent of the grocery stores and accounted for 37.43 percent of total grocery sales, whereas independent retailers operated 93.59 percent of the grocery stores and accounted for



Table 5. Number of firms classified by number of stores operated by the firm, 1952-60 (28, p. 6).

Year	Number of firms			
	1 store firms	2-3 store firms	4-10 store firms	over 10 store firms
1952	348,817	1,890	620	260
1953	334,722	2,013	617	249
1954	326,649	2,234	618	249
1955	315,700	2,301	613	249
1956	282,733	2,464		854
1957	271,199	2,508		823
1958	257,901	2,335	576	223
1959	251,710	2,381		790
1960	230,910	<u>1/</u>	<u>1/</u>	<u>1/</u>

1/ Data not available.

62.57 percent of total sales. These percentages were almost the same in 1960, indicating little change in the relationship of chains to independents.

However, within the independents themselves, a very significant change has occurred in the relationship of affiliated to unaffiliated firms. Affiliated independents increased their share of the total stores from 30.45 percent to 32.30 percent, while increasing their share of total sales from 32.79 percent to 48.29 percent. Unaffiliated independents experienced a decline from 63.14 percent to 59.99 percent of total stores and a decline from 29.78 percent to 12.83 percent of the total sales. The significance of the change in the

Table 6. Comparisons of the percentage of total grocery stores and sales accounted for by chains, affiliated independents and unaffiliated independents, 1950-60. 1/

Year	Chains		Affiliated Independents		Unaffiliated Independents	
	Percent of total stores	Percent of total sales	Percent of total stores	Percent of total sales	Percent of total stores	Percent of total sales
1950	6.41	37.43	30.45	32.79	63.14	29.78
1951	6.09	35.29	30.96	35.46	62.94	29.25
1952	5.93	35.45	31.00	35.31	63.06	29.24
1953	6.40	35.94	27.58	35.04	66.02	29.02
1954	6.45	36.31	27.53	35.79	66.03	27.90
1955	6.51	36.18	29.42	39.51	64.06	24.31
1956	7.15	37.06	29.03	43.93	63.82	19.01
1957	7.35	37.83	29.45	44.14	63.20	18.03
1958	6.81	38.58	32.28	44.84	60.91	16.58
1959	7.02	38.70	33.87	47.02	59.11	14.28
1960	7.71	38.88	32.30	48.29	59.99	12.83

1/ Computed from Appendix Tables D and E.

percentage of total stores and total sales accounted for by the two types of independents will be brought out in the last section of this chapter. A more thorough analysis of this change will be made in that section.

### Retail Stores

The number of retail grocery stores declined from 362,600 in 1953 to 260,100 in 1960, a decline of over 28 percent. During the same period, total sales of grocery stores increased from \$34,715 million to \$52,600 million, an increase of almost 52 percent. This indicates a significant increase in sales per store. However, the rate of increase varies among the different size stores.

For purposes of analysis, the grocery stores are divided into three size classifications according to annual sales: (1) the supermarket with annual sales over \$375,000; (2) the superette with annual sales between \$75,000 and \$375,000; and (3) the small store with annual sales less than \$75,000. Table 7 compares the percentage of total grocery stores and sales accounted for by each of the above size groups. It also divides each size group by type of ownership, i. e., independent or chain.

The most significant change in number and size of stores has been the increase in number of supermarkets and decline in number of superettes and small stores. Between 1953 and 1960 the number of

Table 7. Comparisons of the percentage of total grocery stores and sales accounted for by type of ownership and size of store, selected years, 1953-60. 1/

Size and type of ownership of stores	Percent of total stores				Percent of total sales			
	1953	1958	1959	1960	1953	1958	1959	1960
Supermarkets	5.2	10.5	11.4	12.8	48.3	68.2	69.2	68.8
Chain	2.8	5.4	5.8	6.6	29.0	31.9	36.8	37.4
Independent	2.4	5.1	5.6	6.2	19.3	36.3	32.4	31.4
Superettes	19.5	21.0	20.0	22.5	32.0	24.5	24.1	23.1
Chain	2.5	1.3	1.1	1.0	6.8	2.3	1.8	1.4
Independent	17.0	19.7	18.9	21.5	25.2	22.2	22.3	21.7
Small	75.3	68.5	58.6	64.7	19.7	7.3	6.7	8.1
Chain	.3	.1	.2	.1	.2	.1	<u>2/</u>	<u>2/</u>
Independent	75.0	68.4	68.4	64.6	19.5	7.2	<u>6.7</u>	<u>8.1</u>

1/ Computed from Appendix Table F.

2/ Less than 1%.

supermarkets increased by over 76 percent, while the number of superettes decreased by 16 percent and the number of small stores decreased by over 38 percent.

Total sales of both supermarkets and superettes increased during this period while the sales of small stores decreased. In 1950, supermarkets accounted for 48.3 percent of total sales, superettes accounted for 32.0 percent and small stores accounted for 19.7 percent. By 1960 these percentages had changed to 68.8 percent by supermarkets, 23.1 percent by superettes and only 8.1 percent by small stores.

In general, there has been a decline in total number of stores, but the decline has occurred only in the number of smaller size stores. The number of larger stores has increased dramatically during the past decade. This increase has been brought about largely by the building of new supermarkets as contrasted with enlarging existing stores. In 1960 alone, 3,000 new supermarkets were built.

Within the past 2 or 3 years another change in the size of store has begun to take place. While there are no data available on exact numbers or size, the development of bantam supermarkets and drive-in stores should be mentioned. There appears to be a consumer demand for longer store operating hours so that they can obtain items at practically any time of day. Supermarkets, because of high fixed

costs, cannot operate during the later evening hours when the volume of sales is low. Therefore, a few chains have opened small stores which require a minimum of employees, stocked with fast turnover items and operated for 18 to 24 hours per day, seven days per week.

### Sales Policies and Practices

The overriding goal of modern large-scale food retailers is increased volume. The retailer seeks to expand sales as a means of increasing profits, and he seeks to do this in the cultured setting of great consumer mobility and changing consumer demands. Hence, the sales policies and practices of food retailers must not only be designed to increase the volume of sales but also be accepted by consumers.

The structure of local markets is typically one of a few large stores which account for the bulk of the sales, with a number of small stores accounting for the remainder. Economic theory suggests that if sales are concentrated in the hands of a few large firms, these firms tend to avoid price competition, and concentrate their efforts on a variety of non-price forms of competition as the means of increasing their sales volume. Such appears to be the case with grocery retailing, recognizing that weekend specials are commonplace.

There are basically three reasons why intense price competition does not prevail in grocery retailing. First, retail stores in total could not induce consumers to increase materially the total quantity of food purchased by any minor price changes. The combined demand schedule for all food is estimated to have a price elasticity of  $-.20$  to  $-.25$  (5 and 9). Therefore, if retailers were to lower price by 10 percent, the total quantity of food demanded would increase only 2 to 2.5 percent. Under these circumstances, the total revenue of the retailer after the price reduction would be lower than the total revenue before the price reduction.

Increasing the total quantity of food consumed by consumers is, however, not the major motivation which individual retailers have for lowering prices. Price reductions may attract customers from a rival retailer. This will happen only if the rival does not detect the price reductions or if he lets them pass unnoticed. Here is encountered the second reason why intensive price competition is generally avoided. Of all the business strategies open to the firm, price strategy is the easiest to detect, to counteract, and hence to defeat. A price decision requires no gestation period, at least for those who follow, and to accomplish its purpose requires quick and efficient communication to the public. Rational retailers intent on maximizing profits will therefore channel their competitive effort

where the time period required for rivals to defeat it is sufficiently long to make the effort profitable.

The third reason why intensive price competition is avoided is attributed to various state and federal fair-trade laws which are designed to protect any firm against unfair competitive practices of any other firm. Probably the most significant of these laws is the Robinson-Patman Act which prohibits the suppliers of retail stores from favoring any buyer in terms of services or price. This act states, in short, that price reductions to the retailer must be justified by the existence of actual differences in the cost of manufacture, sale or delivery resulting from the differing methods or quantities in which said merchandise is sold or delivered to the retailer. It states further that if price reductions are made, they must be available to all retailers on the same basis. In essence, the act is designed to prevent unjustified lower procurement costs which would enable a retailer to lower his sale price and maintain the same margin of profit. The mere existence of this act creates an atmosphere of caution among the retailers when considering price strategies.

In addition to the Robinson-Patman Act, an additional restraint is present in the use of price strategies. Various Congressional committees are constantly seeking to eliminate any monopolistic practices in the food industry. Since price cutting by large retailers is often regarded as prima-facie evidence of monopolistic actions,



these firms are kept under close surveillance, which in itself tends to reduce price cutting practices.

Although intensive price competition is generally avoided by grocery retailers, this does not mean that all symptoms of price competition have disappeared. Such pricing has in many cases become a common part of a package of special inducements to encourage consumers to shop in a particular store. The use of weekend price specials are probably the most common of these special inducements. Price specials however, are often the result of price cutting by suppliers and not retailers. That is, suppliers cooperate with retailers on special sales. When this is done, the price cutting is really a competitive problem among suppliers not retailers.

In general, the predominant form of competition in grocery retailing is non-price competition. Non-price competition may assume the form of product and/or service differentiation such as, the use of private labels, product mix of the store and services provided by the store, and extensive local advertising and promotion. The remainder of this section discusses these four types of non-price competition.

#### Private labels

Private labels have been developed by a major portion of the

grocery retailers. 2/ Table 8 presents the results of a 1958 Super Market Merchandising study of 127 grocery retailing firms concerning the percentages of firms which had private labels and also the percentages of total sales which were accounted for by private labels of these firms (29). The survey revealed that 78.7 percent of these firms had private labels. When the firms were classified according to size, it was found that the percentage having private labels did not vary significantly among size groupings. When individual commodities were singled out, it was found that 60 percent of the firms carried private labeled canned vegetables and 54 percent carried private labeled canned fruit.

In general, larger firms have a larger percent of their sales in private labels than do the smaller firms. As may be seen in Table 8, 1-3 store firms had 4.8 percent of their total sales in private labels, whereas the 26-99 store firms had 11.3 percent in private labels. A & P, the nation's largest chain is reported to have had 25 percent of its grocery items under its own label in 1957 (17, p. 443). Safeway, the nation's second largest chain, had 10 percent of its grocery items under private label in the same year (39, p. 87).

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2/ Private labels are those labels owned by retailers or wholesalers and sold exclusively in their own stores, as contrasted with manufacturer owned labels.

Table 8. Percent of grocery retailers selling groceries under private label in 1958, and percent of total grocery sales accounted for by private labels, selected years, 1953-58 (29, p. 94).

Firm size	Number of firms 1958	Percent of firms with labels 1958	Percent of total grocery sales accounted for by private labels		
			1953	1956	1958
		<u>Percent</u>		<u>Percent</u>	
1-3 stores	24	83.3	1.0	2.8	4.8
4-10 stores	55	72.7	1.9	4.5	7.4
11-25 stores	26	84.6	5.2	6.3	11.8
26-99 stores	22	81.8	5.9	8.2	11.3
All firms	127	78.7	5.0	7.0	10.7

The volume of private-label sales has been increasing each year. Table 8 shows that the percent of total grocery sales of all firms accounted for by private labeled products increased from 5.0 percent in 1953 to 10.7 percent in 1958. I. G. A., the largest affiliated independent retailer group, reported that its private label business increased from 15 percent in 1953 to 30 percent of total sales in 1958 (39, p. 93). Clover Farm Stores Corp., a cooperative retailer group of 3,000 retailers, increased its private label sales from 19 percent in 1953 to 27 percent of total sales in 1958 (39, p. 93).

Not only have private label sales been increasing, but it appears that retailers plan to expand this phase of their operation. According to the above cited Super Market Merchandising study, companies operating 59.4 percent of the stores intend to add new private labeled products in the future, contrasted to only 2.6 percent which plan to cut down on their own labels (29, loc. cit.). Still another survey by Super Market Merchandising found that 77.7 percent of the 98 companies included in the study planned more private labels (39, p. 86).

The basic economic nature underlying the development of private labels is that they increase the retailer's profit margin. Private labeling is a form of product differentiation through which the retailer attempts to gain competitive advantage relative to similar products sold in his store as well as similar products sold by rival stores.

The private label in itself makes the product a differentiated product from products sold by rivals. Labels make it difficult for consumers to compare prices among stores and among similar products within a store, and, if comparisons are made, enables the store to explain that noncomparable goods are being compared. Hence, retailers with private labeled products are able to initiate sales policies which are at least partially independent from those of rivals.

The foregoing statement should not be interpreted as indicating that private labeled products are usually sold at prices which exceed those of manufacturer labeled products. 3/ On the contrary, private labeled products are typically priced below manufacturer labeled products. In fact the policy which is adhered to by most grocery retailers requires that private labeled products must be at least equal in quality to competing labeled products, must sell at lower prices for the same size container and must provide larger gross margins.

Grocery retailers are able to obtain private labeled merchandise from the manufacturer at a lower price than he can obtain the manufacturer's own labeled product. There are two reasons for this: First, the manufacturer does not have the expense involved in advertising and promoting the private labeled product which he does have with his own labeled product; second, the retailer possesses greater bargaining power over price because the label is his own. When a manufacturer packs his own labeled product he has a differentiated product that may enable him to maintain bargaining power with the buyer, but, when he packs under a private label he no longer is selling a differentiated product in the sense that many different manufacturers can also pack under the private label. The retailer sets forth the

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3/ The term manufacturer includes not only the manufacturer in the traditional sense, but all forms of food processors.

specifications which must be met and then manufacturers bid for the business. In this sense, retailers have greater bargaining power than when purchasing manufacturer labeled products.

In short, the retailer can obtain private labeled products at a lower price and of the same quality as manufacturer labeled products. Hence, he is able to sell the same quality product at a lower price and at least maintain the same margin of profit. Through promotional activities the retailer attempts to convince the consumer that his product is at least as good quality as the higher priced products, and if he is successful he is able to increase his volume of sales as well as maintain his margin of profit.

Canned fruits and vegetables has been one of the major products in which grocery retailers have initiated and expanded private label programs. Private labeled canned products have been highly successful as a means of gaining competitive advantage. An indication of this success is provided by a recent survey of 80 chains in which was asked the question, "In what lines in your stores do private labels have their greatest strength?" The leader, by a wide margin, was canned fruits and vegetables (34). Because of this success, it is highly probable that retailers will continue to expand private labeled canned fruits and vegetables. The implication of this will be discussed at some length in the next chapter.

## Promotion and Advertising

In order to increase the sales of private labeled items and non-labeled items such as fresh produce, retailers have expanded their promotion and advertising programs. 4/ The objective of promotion and advertising is to install in the consumer the belief that the retailer's private label possesses desirable qualities distinct from and superior to those of other labels in the chain of related items. The consumer must be informed about unique features of the commodity and he must be properly impressed by them. In order to accomplish this, retailers have initiated store wide promotion programs, with special emphasis on display type promotion. Progressive Grocer research found that special display lifts sales by 700 to 800 percent (36, p. F5, 1960 report). Advertising expenses increased from \$49.4 million in 1947 to \$233.5 million in 1957. As a percent of total grocery sales, advertising expenses rose from .48 percent in 1947 to .92 percent in 1957 (29, Table 37, p. 134).

Generally speaking, the basic method of communication with potential customers is through daily newspapers. A recent survey by the Super Market Institute found that 97 percent of retail grocers use

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4/ Promotion and advertising of processor labels is initiated by processors. The cost of advertising and/or promotion is borne solely by the processor or jointly between processor and retailer.

newspapers, 62 percent used radio, 60 percent used circulars and handbills and 32 percent used television. Ninety percent of the firms spent more on newspaper advertising than any other (42, p. 16, 1961 report).

In the past many retailers, especially the smaller firms, have been financially unable to initiate an extensive advertising program, but this has been largely eliminated through cooperative advertising plans. Generally, the cooperative advertising plans are initiated by cooperative or voluntary retailer groups. Although this plan has generally been advantageous to all concerned, there still exists the problem of what items are to be advertised and at what price. This problem arises because the member firms are not under one management, and therefore, each has his own choice of items and prices to be advertised.

All promotion and advertising is not directly concerned with a particular product. Some plans are directed toward attracting consumers to a certain store. Probably the most used of these plans are the use of trading stamps and price specials. Trading stamps have been generally successful in attracting customers because they appeal to customers as a means of obtaining an item of value without a direct outlay of money. The use of trading stamps by grocery retailers began on a large scale during the early 1950's. By 1956,



trading stamps were issued on 30 percent of the total grocery sales, costing grocery retailers approximately \$200 million (48, p. 6).

Price specials generally take the form of pricing certain items at or near cost in many instances, in an attempt to attract consumers to the store. While the consumers are in the store to purchase the low-priced items, it is expected that sufficient amounts of other goods will be purchased to make the retailer's total profit larger than if he had not made use of the special. In addition, price specials are sometimes used to introduce a new item to the consumer. When price specials are used to introduce new items, they are usually supplier oriented for the purpose of encouraging retailers to stock their item. Hence, they are originally a competitive tool of suppliers and not of retailers.

Promotional devices are introduced and tested continually. The most current device which has been introduced is the register tape appliance plan. Through this plan retailers offer to deduct, from monthly installments on home appliances purchased in their store, 5.5 percent of the consumer's total grocery purchases each month as recorded on their sales tapes. The purpose of this promotion plan is to tie the consumer to the store for all their purchases while they pay for the appliance.

### Product Mix

The storewide policy of limiting stocks to fast moving items, engaging in much promotional activity, and pricing products with a relatively small markup has been, until recently, the over-riding principle of mass merchandising grocery retailers. The objective has been to increase the total volume of sales and thereby increase profits. A faster turnover of stocks not only increases the volume of sales but also reduces such unit expenses as those for interest, taxes and insurance on merchandise, and store and storage space.

Today, however, the policy of limiting stock to fast moving items is no longer a storewide policy. As consumers realized the convenience of one-stop shopping facilities, the grocery retailer found that to be competitive with other retailers he must provide a wide variety of non-food items as well as food items. Non-food items such as housewares, toys, stationary, etc. are relatively slow turnover items, but have relatively high markups. Here lies one of the major management problems today: how far to go in stocking slow moving non-food items to meet competition. Essentially, retailers must balance the drawing power and the high markup of non-food items against the lower rates of turnover.

It appears that the advantages derived in recent years from

stocking non-food items have been sufficient to encourage additional stocking of these items. In 1950, non-food sales amounted to \$200 million, whereas in 1960, non-food sales amounted to \$2, 225 million, an increase of over 900 percent. In contrast, during the same period, food sales increased 51 percent. In 1960, the sales of all categories of non-foods combined accounted for 5.2 percent of total super market sales (approximately 4 percent of all grocery sales), 8.4 percent of total gross profits, and 20-35 percent of net profits (37, p. 6). 5/ More than 90 percent of supermarkets sell drugs, cosmetics, housewares, and stationary, and between 70 and 80 percent sell children's books, magazines, toys, and hardware. Twenty percent of all health and beauty aids and nearly 30 percent of all tobacco products are sold through grocery stores (21, p. 21, col. 2).

The stocking of additional non-food items has had a decided effect upon food manufacturers, especially canned fruit and vegetable processors. Whereas non-food items accounted for 5.2 percent of the total supermarket sales in 1960, they required 8.1 percent of the total selling area. This has decreased the shelf space which was previously allotted to food products. The retailer has had to reapportion the available shelf space to accommodate the non-food items. The items

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5/ See Appendix Table G for percent of total sales and total gross profit accounted for by each of the major non-food groups.

generally deleted are duplicate products under different labels. Because retailers have been attempting to promote private labels, the processors' labels, in many cases, have been deleted or the variety reduced. This of course diminishes the number of market outlets available for processor labeled products.

In addition to the increase in number of non-food items stocked by the retailer, there has been an increase in the overall number of different items stocked. The average number of items carried by grocery stores has increased from 3,000 in 1946 to 6,000 in 1960 (36, p. F3, 1961 edition). The portion of this increase not accounted for by non-food items has been concentrated in new convenience products, especially frozen foods. Frozen foods have increased their share of total grocery sales from 3.5 percent in 1954 to 4.5 percent in 1960 (42, p. 18, 1961 report). New products of all types are being introduced regularly. One study found that the average grocery firm is adding 6.8 new items and dropping 4 each week. These figures were arrived at after elimination of all deals and seasonal items (37, p. 5).

### Services

In addition to making modifications in product mix, retailers have added or expanded services designed to accommodate consumers

preferences for convenience.

In response to consumer preferences for one-stop shopping facilities and in addition to adding more items in the store, more supermarkets are being located in suburban shopping centers. In 1960, 55 percent of the new supermarkets were located in shopping centers, whereas in 1955 only 43 percent were so located (41, p. 8). The typical new supermarket offers parking for 120 cars, ranging from 90 cars in stores with selling area below 10,000 sq. ft., to 250 cars in stores with selling areas above 15,000 sq. ft. (41, p. 7). The number of grocery stores having self service meat departments has increased from 7,800 in 1952 to 24,100 in 1960 (42, p. 18, 1961 report).

The above listing of new or expanded services is not exhaustive, but those mentioned should suffice to indicate the extent of the changes which have been initiated to accommodate the changes in consumer preferences for convenience.

#### Procurement Policies and Practices

The procurement policies discussed in this section will be limited to those pertaining to procurement of food items. There are two reasons for this. First, non-food items are ordinarily supplied by rack jobbers and, therefore, do not require retailer oriented

procurement policies other than to decide whether or not to stock these items. 6/ However, it should be mentioned that there does appear to be a tendency for some retailers to take over this function as they become more familiar with the items and sources of supply. Second, this study is primarily concerned with changes in procurement policies as they affect processors of canned fruits and vegetables. Procurement policies for non-food items are not of the same nature as, nor do they affect, the procurement policies for food products.

Basically, retail food procurement policies are designed to keep the costs of procurement within a competitive level while maintaining an adequate, regular supply of products with quality attributes desired by the consumer. Today's mass merchandising food retailers also require emphasis on fast moving items in the store's stock. Hence, procurement policies must be oriented toward frequent deliveries of many different items as well as maintaining desired quality.

Procurement policies of food retailers have been adjusted to meet the above requirements by changes in: (1) methods of purchasing;

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6/ A rack jobber is a wholesaler of non-food items who arranges with the retailer to stock and maintain an assortment of goods in a fixture or rack in a particular space in the store. A specific percent of markup is guaranteed to the retailer. The rack jobber selects the items and arranges proper displays, making shifts whenever he considers such action advisable.

(2) supply channels; and (3) transportation policies.

### Methods of Purchasing

As a by-product of the development of private label retailing, the practice of specification buying has become one of the more important changes in retail procurement policies. As retailers developed their own labels, it became necessary, in order to maintain consumer acceptance of the private label, to provide the consumer with an adequate, regular supply of the product with the quality attributes desired. In order to meet this requirement, retailers began to specify to processors the quality standards, volume and delivery schedules required. Then, the processors bid for the business primarily on the basis of price, along with their ability to deliver the specified qualities and quantities on schedule.

In a further attempt to assure the above requirements were met, the large retail firms created their own purchasing departments and began to by-pass the processor's broker to deal directly with the processor. Both chains and affiliated independent retailers became actively engaged in direct buying from the processor. Their purchasing departments were created as central buyers which determined what items would be stocked and what quantity would be purchased for the whole chain or for all members of the affiliated

group. In addition to gaining closer coordination between the retailer and the processor, central buying made possible the securing of lower prices by quantity buying and also made possible central planning of sales promotion.

Central buying has become the predominant form of chain buying. However, because: (1) the average volume of sales per store has risen to such high levels; (2) competition has become so intense; and (3) size of store and labor force have expanded so rapidly, chains are beginning to delegate more authority and responsibility to the individual stores as to what products they will stock.

### Supply Channels

Traditionally, retailers specialized in the retailing function, food processors specialized in manufacturing, and retailers and processors dealt with one another through intermediary firms performing the wholesaling function. However, as it became necessary to adjust retailer procurement policies to meet the needs of mass merchandising techniques and the development of private label selling, adjustments were also necessary in this traditional relationship between the retailer, wholesaler and processor.

Greater coordination between the retailer, wholesaler and processor was required in order to assure the retailer of an adequate



regular supply of product with the quality attributes desired by the consumer. Basically, this has been accomplished by retailer integration of the other functional levels. There have been two forms of integration involved in achieving the degree of coordination required. First, non-ownership integration or specification buying, and second, ownership integration. As specification buying was discussed previously, the remainder of this section is devoted to the methods through which closer coordination has been obtained between the three functional levels by means of the ownership form of integration. The first part deals with achieving closer coordination between the retailer and wholesaler and the second part deals with achieving closer coordination between the retailer and processor.

Retail-wholesale. Corporate chain retailers and independent retailers have not used the same methods of achieving closer coordination with the wholesaler. For this reason the chain and the independent retailer are discussed separately.

Chains have essentially by-passed the traditional wholesaler and taken their business direct to the processor. The wholesaling function has in no way been eliminated or reduced, but it has been increasingly integrated with the retailing function of the corporate chain or with the processing function. One study reported that, during 1958, 86.4 percent of the merchandise purchased by corporate

chains was purchased directly from processors or producers. Only 2.8 percent was purchased from completely unaffiliated wholesalers (21, p. 28).

The corporate chains have increasingly built as well as acquired wholesaling facilities. Although there is no data pertaining to the building of new facilities, the data pertaining to the number of acquired wholesaling facilities should suffice to illustrate the extent of corporate chain entrance into the wholesaling function. Between 1949 and 1958, 35 of the 165 corporate chains included in the 1959 Federal Trade Commission study, acquired 20 wholesale operations with 21 establishments and, in addition, made 46 acquisitions in which 145 warehouses were acquired (21, p. 23).

Not all of the wholesaling function has been integrated with the retailing function. Some of this function has been passed back to the processor. The 33 processors interviewed during this study indicated that, on the average, they have increased their storage capacity by 2-3 times over what it was in 1950. About one-half of this increase was due to the overall increase in the output of the plants, but the rest is attributed to the direct buying practices of corporate chains.

It is quite obvious that the larger chains tend to integrate more than do the smaller chains, that is, the importance to chains of the completely unaffiliated wholesaler decreases as the size of the chain

increases. Table 9 shows the percentage of merchandise purchased by corporate chains from wholesalers in 1958. The largest size group of chains purchased less than one percent of their merchandise from wholesalers, while the smaller size group purchased 33 percent from wholesalers. Because the chains are increasing in size it seems highly probable that there will be a tendency toward even more direct buying in the future.

Table 9. Percentage of corporate chain merchandise purchased from wholesalers, by size of chain (classified by annual sales), 1958 (21, p. 29).

Annual sales (millions)	Percent of merchandise bought from wholesaler
<u>Dollars</u>	<u>Percent</u>
Under 10	33.0
10 to 25	19.1
25 to 50	8.7
50 to 100	7.3
100 to 500	1.6
Over 500	0.5

The principal reason why chains have adopted direct buying practices and thereby integrated wholesaling function with retailing is that it gives them greater control over their supply. Buying from processors frees the chain from dependence upon wholesalers for the type of

product in the volume required at the time that it is needed.

In addition, direct buying usually reduces procurement costs. The number of bargaining transactions and ownership transfers is reduced, and wholesaler's commissions and broker's fees are eliminated. There may also be a reduction in procurement costs by the establishment of warehouse facilities conveniently adjacent to retail store outlets, as many chains have done.

It would seem that grocery wholesaling is on its way out as a function in the marketing channel. But this is not the case. In fact, each year since 1954 the percentage increase in grocery wholesaler sales has been greater than the percentage increase in retail food sales. This great growth in wholesale sales rests on various factors, but most of all on the concept of retailer-wholesaler teamwork. This concept, accepted throughout the wholesale industry, has been developed most fully among voluntary and cooperative groups of independent retailers.

The movement toward food retailing through associations of independent retailers and wholesalers has accelerated during recent years. As may be seen in Table 10, independent retailers affiliated with wholesalers have increased their share of the total independent sales from 52.4 percent in 1950 to 79.0 percent in 1960.

Table 10. Comparisons of the percentage of total independent stores and sales accounted for by affiliated independents and unaffiliated independents, 1950-60. 1/

Year	Affiliated independents		Unaffiliated independents	
	Percentage of independent stores	Percentage of independent sales	Percentage of independent stores	Percentage of independent sales
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
1950	32.3	52.4	67.7	47.6
1951	33.0	54.8	67.0	45.2
1952	33.0	54.7	67.0	45.3
1953	28.7	54.7	71.3	45.3
1954	28.7	56.2	71.3	43.8
1955	30.8	61.9	69.2	38.1
1956	30.8	69.8	69.2	30.2
1957	31.2	71.0	68.8	29.0
1958	34.6	73.0	65.4	27.0
1959	36.4	76.7	63.6	23.3
1960	35.0	79.0	65.0	21.0

1/ Computed from Appendix Tables D and E.

The emergence of affiliated retailer groups was brought about by the belief of many wholesalers and retailers that their mutual financial well-being would be advanced by closer cooperation.

Retailers believed they could achieve lower procurement costs through group actions and wholesalers found it necessary to offset declines in their sales volume incident to the growth of corporate chains. Hence, the emergence of the two types of affiliated retailer groups: the cooperative independent retailers and the voluntary independent retailers. Table 11 shows the percentage of total independent retail stores and sales which was accounted for by each of the types of affiliated and the unaffiliated retailers in 1960.

Table 11. Comparisons of percentages of total independent stores and sales accounted for by voluntary retailers, cooperative retailers and unaffiliated retailers, 1960 (36, p. F21, 1961 edition).

Type of retailer	Number of stores	Percent of independent stores	Total sales (millions) Dollars	Percent of independent sales
		Percent	Dollars	Percent
Voluntary	48,000	20.0	13,620	42.5
Cooperative	36,000	15.0	11,780	36.5
Unaffiliated	156,000	65.0	6,750	21.0
Total	240,000	100.0	32,150	100.0

In 1960 there were 525 voluntary retailer groups operating 48,000 stores with sales of \$13.62 billion. These groups accounted for 42.5 percent of total independent retailer sales and 25.9 percent

of total chain and independent food sales. It has been estimated that approximately 60 percent of these sales were to member stores and 40 percent to non-member stores (21, p. 27). The 1958 Federal Trade Commission study reported that, of the 330 voluntary retailer groups reporting, one-third of them came into existence after 1953 and two-thirds after 1943 (21, p. 27).

The phenomenal growth of voluntary retailer groups is explained by the new approach taken by wholesalers toward the retailer. Wholesalers realized that in order to increase, or at least maintain, their volume of sales it was necessary for the retailers to move a larger volume through their stores. Hence, wholesalers began to organize retailers into a group and assist them in their advertising and promotion programs, store layout arrangements, accounting systems, and management problems. In return the retailers purchased a large portion of their merchandise through the wholesaler. Today 90 percent of the groups provide advertising programs for their members and about 60 percent provide management training programs (21, p. 27). In short, wholesalers now see their function in relation to the retailer not as one of selling to retailers at a profit but of selling through retailers for a mutual profit which is in the long run interest of both.

Cooperative retailer groups were formed, not as a wholesaler

oriented group, but as retailer oriented. The purpose was to achieve lower procurement costs by buying in larger quantities and eliminating the wholesaler commission. In 1960, there were 200 such groups operating 36,000 stores which accounted for 36.5 percent of the total independent retail sales and 22.4 percent of the total chain and independent retail food sales. It has been estimated that 97 percent of the members' sales are purchases from the cooperative. The 1959 Federal Trade Commission study reported that, of the 146 reporting cooperatives, 13 were formed since 1951. The study also reported that the sales of the 146 cooperatives were \$2,031 million in 1958 as compared to \$544 million for the 133 cooperatives in 1951 (21, p. 26).

Both types of affiliated retailer groups have emphasized the sale of private labeled products under a group label. In 1960, 84.22 percent of the voluntary retailer groups and 83.24 percent of the cooperative retailer groups had private labels. As with corporate chains, the affiliated independents have initiated specification buying to assure the maintenance of consumer preference for their label.

Although voluntary and cooperative retailer groups have contributed much toward the increase in wholesale grocery sales, they have not been the only group to do so. Institutional wholesalers have continuously increased their sales. Consumers spend 25 percent of



their food dollar for food eaten away from home. The institutional wholesaler supplies the institutions in which the food is eaten. In 1938, 13 percent of all food products entering the domestic civilian distribution was marketed by institutions. This percentage increased to 17 percent by 1958.

Retailer-processor. Although retail integration of the processing function was used first and most extensively by corporate chains, it is now used by the affiliated independents as well. Table 12 shows the extent of vertical integration by the three retail groups into food manufacturing. The data are based on 165 corporate chains, 330 voluntary retailers and 146 cooperative retailers that were included in the 1959 Federal Trade Commission study.

Retail integration of the processing function has been accomplished chiefly, if not entirely, by means of merger with processing firms. 7/ The reason mergers are preferred to internal expansion appears to be that mergers provide the easiest means of overcoming the technical and management know-how barriers to entry. Between 1949 and 1958, 35 of the 165 corporate chains included in the Federal Trade Commission study made 51 acquisitions of manufacturing operations with 58 establishments. During the same period,

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7/ Mueller and Garoian found that mergers were used exclusively by corporate chains to enter new fields (28, p. 18).

Table 12. Number of firms integrated and number of establishments operated by corporate chains, voluntary retailers and cooperative retailers, 1954 and 1958 (21, p. 28).

Type of retailer	1954		1958	
	Number of firms integrated	Number of establishments operated	Number of firms integrated	Number of establishments operated
Corporate chain	52	299	63	340
Voluntary retailer	25	33	29	44
Cooperative retailer	5	7	5	7

cooperative retailers made 2 acquisitions and voluntary retailers made 6 (21, p. 28).

The leading products manufactured by chains in 1958 were bakery goods, coffee, meat, dairy and canned products. Mueller and Garoian estimate that in 1958 chains manufactured the following percentages of their requirements of these products: baking, 39; coffee, 38; evaporated milk, 20; canned products, 6.8; and meat 5.0 (29, p. 125). In 1958, chain manufactured products sold through chain stores accounted for 7.6 percent of the total grocery chain store sales. Although this percentage has decreased slightly over

the years, the most significant change in retailer integration has been that more retailer groups have become integrated and that retailer groups have entered more fields of grocery manufacturing.

The reason why food retailers have been able to integrate into so many fields is that they have been able to overcome the two main barriers to entry into these fields, i. e. : establishing a market for their own labeled products and obtaining the necessary capital. Corporate chains and affiliated independent groups have access to substantial financial resources from which they are able to obtain the necessary capital requirements for entry. Moreover, vertical integration by food retailers into food manufacturing is possible because they have developed private labels which are acceptable to consumers and have therefore established a market for the output of a processing firm.

The development of private labeled products not only allows food retailers to enter the processing of these products, but also, in many cases, allows the retailer to gain most of the advantages of vertical integration without actual ownership of the processing firm. One of the major objectives of vertical integration is to gain closer coordination between the processing function and the retailing function. Through the development of private labeling and its by-product, specification buying, it is possible to achieve the necessary coordination without resorting to the problems of ownership of the processing

firm. Such appears to be the case with the processing of canned fruits and vegetables.

Table 13 shows the number of canned fruit and vegetable firms and plants operated by the 20 largest corporate chains. It is assumed that the number of canning firms operated by the 20 largest corporate chains is a major portion of all canning firms operated by all corporate chains and affiliated retailers. This assumption is made because in 1958 the 20 largest corporate chains operated over 90 percent of all chain manufacturing plants (29, p. 174), cooperative retailers did not operate any canning plants between 1954 and 1958, and voluntary retailers operated only 3 plants in 1958 and 2 in 1954 which were engaged in canning, freezing or preserving (a breakdown as to whether these firms were canning, freezing or processing plants is not available) (21, p. 28).

As seen in Table 13, there has been very little integration effort by the 20 largest corporate chains into the processing of canned fruits and vegetables. Therefore, it appears that the processors of canned fruits and vegetables have adjusted to the specification buying practices of the retailer and the necessary coordination between the retailer and processor has been achieved.

### Transportation Policies

Changes in procurement policies have also effected changes in

Table 13. Number of canned fruit and vegetable firms and plants owned and operated by the 20 largest corporate chains, selected years, 1940-57 (29, p. 174). 1/

	1940	1943	1947	1948	1949	1955	1957
Firms	3	2	2	2	2	3	3
Plants	3	2	3	5	4	5	5

1/ The selected years are the years in which there occurred a change in the number of firms and/or plants from the previous year. For example, there was no change from 1940 to 1943, that is in 1940, 1941, and 1942 corporate chains operated 3 firms and 3 plants.

the composition and frequency of shipment as well as in the mode of transportation required by the retailer. These changes have been to a large extent the result of mass merchandising and direct buying practices of the grocery retailer. The principle of fast turnover stocks used by today's mass merchandising retailers requires frequent deliveries of many different items to maintain these stocks. By-passing the wholesaler through direct buying practices means that these shipments must come from the processors.

Buyers of merchandise have always attempted to purchase in carload lots because per unit transportation costs for full carload shipments are less than one-half the costs of less than carload shipments. The traditional wholesaler took advantage of the full carload

rates because he was able to purchase this quantity from the supplier, store the merchandise and sell to the retailers as they required it. But today, the retailer owned warehouses as well as the retail stores operate on a fast turnover basis and therefore cannot, or will not, purchase large quantities from a supplier unless the supplier can supply them with a diversified shipment of commodities. As most suppliers, especially processors of canned fruits and vegetables, are not diversified enough to ship a full carload comprised of small amounts of various items, smaller shipments are required from each supplier.

To assist retailers in obtaining the full carload rates and still operate on a fast turnover basis, railroads initiated the stop-in-transit privilege. This privilege allows the retailer to order small quantities from various processors and still achieve the lower costs of full carload shipments. For example, the retailer may purchase one-third of a carload of apples from Yakima, one-third of a carload of beans from Salem and one-third of a carload of peaches from Medford. The car will begin at Yakima, stop in Salem and Medford at no extra cost. In short, instead of buying in small lots from wholesalers, the retailer today can buy in small lots from the processor and still gain the same advantage of full carload rates as the wholesaler does. In effect, the procedure has transferred much of

the storage and handling function, previously performed by the wholesaler, back to the processor.

In addition to changes in the composition and frequency of shipments, there has also occurred a change in the mode of transportation, especially in the transportation of Pacific Northwest processed fruits and vegetables. Because more frequent shipments are required by retailers, water shipments from the Pacific Northwest are being replaced by rail or truck shipments. In 1951, 28 percent of the west coast shipments of canned fruits and vegetables to the Northeast were by water. By 1957, this percentage changed to 19 percent (13, p. 16). The underlying reason for this change is that retailers, operating under a fast turnover of stock policy, cannot wait for shipments to arrive via water. They require much faster transportation and hence have required processors to ship by either rail or truck.

A similar change has occurred in mode of transportation required by west coast retailers. A large portion of west coast shipments are now delivered in trucks rather than by rail. The purpose of the change was to receive the shipments faster. Many of the larger retail chains and affiliated independents on the west coast now have their own fleet of trucks and pick up their orders at the processing plant. Under such an arrangement, retailers have been able to effect savings in transportation costs and time.

## CHAPTER IV

THE CHANGING PACIFIC NORTHWEST FRUIT AND  
VEGETABLE CANNING INDUSTRY

Changes are constantly occurring in the organization and structure of the fruit and vegetable canning industry. Many of these changes have been the result, both directly and indirectly, of changes initiated by food retailers to accommodate changes in consumer choices and preferences. Still other changes have been initiated by processors of canned fruits and vegetables in an attempt to increase or at least maintain profits. The purpose of this chapter is to describe and analyze the changes which have occurred in the fruit and vegetable canning industry of the Pacific Northwest during the past ten years. The basis of this chapter is the data obtained from the questionnaire administered to the canning firms in the Pacific Northwest during 1960.

This chapter is in somewhat greater detail than the previous chapters because the major emphasis of this study is concerned with the changing organization and structure of the processing and producing levels of the canning industry and market. Therefore, the following major areas are discussed in this chapter: (1) the size and composition of the Pacific Northwest canned pack, with emphasis



placed on the importance of the Pacific Northwest canned pack in the national market; (2) the size and number of canning firms and plants; (3) the type of business organization of the canning firms; (4) the location of the canning plants; (5) the product mix of the canning firms; (6) the seasonality of plant operation; (7) the sales policies and practices of the canning firms; and (8) the procurement policies and practices of the canning firms.

The changes which have occurred at the producer level are included in the section dealing with procurement policies and practices of the processors. It is through the processors' procurement policies and practices that producers are informed of changes in consumers' choices and preferences. For example, a preference for more uniform quality products is transmitted from retailers to processors by means of specifications of precise quality required, and in turn is transmitted from the processors to producers by means of specifications, usually set forth in grower-processor contracts. The producer then adjusts his production techniques to accommodate the specifications set forth by the processor.

#### Size and Composition of Pack

During the period from 1949 to 1959 the total Pacific Northwest canned fruit, berry and vegetable pack increased from 21.7 million

to 28.1 million cases, an increase of 6.4 million cases. Although the total canned pack increased during this period, the fruit pack remained about the same and the berry pack actually decreased. Hence, almost the entire increase in the packout of the Pacific Northwest firms was accounted for by the increased pack of vegetables. The canned vegetable pack increased from 13.8 million cases in 1949 to 20.3 million cases in 1959, an increase of 48.3 percent, and the canned fruit pack increased from 7.3 million in 1949 to 7.4 million cases in 1959, an increase of about 1 percent, whereas the canned berry pack decreased from 0.764 million cases in 1949 to 0.332 cases in 1959, a decrease of about 58 percent. 1/

If the fruit, berry and vegetable packs are broken down into the component commodities it is found that during the period from 1949 to 1959: (1) the pack of all individual canned fruits declined except red tart cherries and peaches, which increased, and apricots, pears and purple plums which remained the same; (2) the pack of all individual canned berries declined except strawberries, which increased, and gooseberries which remained the same; and (3) the pack of all individual canned vegetables increased except pumpkin and squash, which

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1/ See Appendix Table H.

declined slightly, and beets and peas which remained the same.

If the Pacific Northwest pack accounted for the same percentage of the total United States pack each year, it would be expected that the Pacific Northwest pack of a commodity would be highly correlated with the United States per capita consumption of the item. The Pacific Northwest pack, however, has not accounted for the same percentage of the United States pack each year. The Pacific Northwest canned vegetable pack, as a percent of the total United States pack, increased from 10.5 to 12.0 percent between 1949 and 1959, while the canned fruit pack decreased from 16.9 to 11.6 percent and the canned berry pack decreased from 14.9 to 7.7 percent of the total United States pack. It should be noted that the United States pack excludes the fruits, berries, and vegetables that were not packed in the Pacific Northwest, such as citrus fruits, blackeyed peas, okra, bananas, etc.

Although the above figures indicate the general importance of the Pacific Northwest canning industry to the national market, it should be emphasized that certain commodities have greater importance than others. Also, certain commodities have increased or decreased their share of the national market more than others. Table 14 is designed to

Table 14. Pacific Northwest canned pack as a percent of total United States canned pack, specified commodities, 1949, 1954 and 1959. 1/

Commodity	Percent of total U.S. pack		
	1949	1954	1959
	<u>Percent</u>		
Apples	8.8	9.9	5.4
Cherries, dark sweet	18.6	31.4	25.0
Cherries, light sweet	34.8	31.2	42.3
Cherries, red tart	3.3	5.7	6.4
Peaches	3.9	3.2	4.1
Pears	57.6	55.3	38.4
Plums, purple	99.8	98.7	90.3
Blackberries	38.9	38.1	40.4
Boysenberries	48.8	54.6	45.3
Gooseberries	74.4	99.9	79.1
Loganberries	99.8	98.4	95.3
Raspberries, red	40.8	<u>2/</u>	20.3
Strawberries	33.7	36.2	73.2
Asparagus	6.4	8.5	8.6
Beans, green and wax	20.1	23.1	28.5
Beets	15.6	15.4	14.4
Carrots	27.8	24.8	24.1
Corn	7.4	10.0	11.2
Peas	20.3	18.6	23.1
Peas and carrots	<u>2/</u>	30.3	32.4

1/ Calculated from data in Appendix Table H.

2/ Data unavailable.

show both the importance and the change in importance of specified Pacific Northwest canned fruits, berries and vegetables in the national market.

As may be seen in the table, Pacific Northwest canned loganberries and purple plums accounted for over 90 percent of the total United States pack of these two items in 1959. Seven commodities accounted for over 40 percent of the United States pack, fourteen accounted for over 20 percent of the United States pack and sixteen accounted for over 11 percent of the United States pack of these items.

In order to determine the change in the importance of these items in the national market during the period from 1949 to 1959, the average annual rate of change in the percent of the total United States pack accounted for by each specified Pacific Northwest packed commodity was calculated and is presented in Appendix Table F. As a percent of the total United States pack, the Pacific Northwest pack of canned apples, light sweet cherries, pears, plums, boysenberries and peas declined. The most significant declines occurred in pears and purple plums, declining respectively, 2.1 and 1.5 percent per year. The most significant increase in the share of the United States pack occurred in strawberries and green beans. Strawberries, in 1959, accounted for 54.1 percent more of the total United States pack than in 1949 and green beans accounted for about

10 percent more.

It can be summarized that: (1) the Pacific Northwest canned fruit pack declined during the period as a percent of the total United States pack while remaining about the same in number of cases packed; (2) the Pacific Northwest canned berry pack declined during the period in both number of cases and as a percent of total United States pack (which indicates the Pacific Northwest is decreasing its pack of canned berries at a faster rate than other areas of the United States; and (3) the Pacific Northwest canned vegetable pack has increased in both number of cases and as a percent of the United States total pack (which indicates the Pacific Northwest is increasing their canned vegetable pack at a greater rate than the other areas of the United States).

#### Size and Number of Firms

In this study a processing firm is not considered as a canning firm unless at least 5 percent of its total packout is canned products, that is, any firm which freezes more than 95 percent of its total packout is not considered to be a canning firm. The reason is that these firms do not have sales policies which are representative of the firms which can more than 5 percent of their total pack. Generally, the amount of raw product which is canned by these firms depends

upon the demand for the frozen form and/or the portion of the raw product which is a by-product of the freezing operation. Hence the firm's sales policies are not oriented toward securing a steady market for their canned items, but rather at attempting to secure a price at which the cost of canning can be recovered.

### Number of Firms

The number of canning firms and the number of plants operated by these firms has declined drastically since 1949. In 1949 there were 65 firms operating 87 plants in the Pacific Northwest. By 1961, the number of firms decreased to 38, a decrease of 42 percent, and the number of plants decreased to 57, a decrease of 34 percent. Table 15 shows the number of firms and number of plants in operation each year during the 13 year period. As may be seen in the table, both the number of firms and plants decreased rather regularly each year after 1951 even though firms were both entering and leaving the canning business.

During the period 1949 to 1961 seven firms entered the canning business, of which five began operations in 1950. Of these seven firms, one converted two years after opening to freezing only and the remaining six went out of business after one to eleven years of operation. In short, there were no successful entries into the canning business during the 13 year period.

Table 15. Number of canning firms and plants in operation in the Pacific Northwest, 1949-61. 1/

Year	Number of firms	Number of plants
1949	65	87
1950	68	88
1951	69	89
1952	64	82
1953	59	75
1954	58	74
1955	58	73
1956	56	72
1957	50	65
1958	43	59
1959	42	58
1960	41	58
1961	38	57

1/ Data obtained from Northwest Cannery and Freezers Association records.

In addition to the 6 firms that began operations after 1949 and failed, 13 of the 65 firms that were operating in 1949 also went out of business during the 13 year period. The major factors contributing to the failure of these 19 firms in order of importance were: (1) difficulty of obtaining and maintaining a place in the market for their products; (2) increasing complexity of technology; (3) increasing capital requirements; and (4) lack of continuous, sufficient supply of raw product for efficient operation.



During this same period 11 of the original 65 canning firms converted to freezing only. Seven of these firms converted in 1957 and 1958. It appears that the difficulty of obtaining a place in the market for the firms' frozen products is not as great as it is for canned products. This is because frozen products are being rapidly accepted and demanded by the consumer. This was emphasized in Chapter II. Also, frozen products have not been on the market, in many cases, long enough for consumers to associate quality with certain labels. Because of this, freezers do not find the same degree of difficulty, as do canners, when they attempt to place a new labeled product on the market.

The remaining 3 firms that went out of the canning business during the period were acquired by other canning firms and are still being operated.

### Size of Firms

Data concerning the size of the firms that went out of operation during the period covered by this study were not available. Therefore, the discussion of firm size is limited to the 33 firms that were interviewed in 1960.

The size of firms is measured by the actual cases of canned fruits, berries and vegetables packed annually. If a firm both

freezes and cans, only the canned pack is considered in the size classification.

Table 16 is a two way table showing the movement of individual firms from one size class to another during the period from 1950 to 1960. The initial distribution of firms (in 1950) is shown in the last column, and the final distribution (in 1960) is shown in the last row of the table. The diagonal cells show the number of firms remaining in the same size class between 1950 and 1960, and the cells off the diagonal show the movement of firms from one size class to another. For example, in 1950 seven firms canned less than 100,000 cases of fruits and vegetables, whereas in 1960 only five of these firms remained in the same size classification, one firm increased its annual pack to between 100,000 and 249,999 cases and one firm increased its annual pack to between 250,000 and 499,999 cases.

As may be seen in the table, 20 firms remained in the same size class, 9 firms increased their annual pack enough to shift them into the next size class, and 4 firms increased their annual pack enough to move two classifications higher. None of the 33 firms decreased their volume of output over the period. It should be mentioned that all of the 6 firms which canned over 1,000,000 cases in 1950 increased their annual pack, in most cases considerably, over the ten year period. But, because the information concerning how much they increased is considered confidential, the

Table 16. Cross classification of firms by size and by year, 33 firms, Pacific Northwest, 1950 and 1960.

Size of firm 1950	Size of firm (in cases) 1960						Total 1950
	Below 100,000	100,000 to 249,999	250,000 to 499,999	500,000 to 749,999	750,000 to 999,999	1,000,000 and over	
<u>Cases</u>							
Below 100,000	5	1	1				7
100,000-249,999		3	6	1			10
250,000-499,999			3	1			4
500,000-749,999				3	1	2	6
750,000-999,999							
1,000,000 and over						6	6
Total 1960	5	4	10	5	1	8	33

exact increase was not obtained.

Only one of the 13 firms which increased its pack enough to move into another size class achieved its increase in size by acquiring another firm. However, since the questionnaire was administered, two of the 33 firms have been acquired by two of the remaining firms. These acquisitions involved firms of all sizes. Two of the acquiring firms packed over 1,000,000 cases annually while the third packed approximately 450,000 cases annually. The acquired firms packed, respectively, over 1,000,000 cases, 450,000 cases and 150,000 cases per year.

Firms gave two major reasons for expanding their annual output. First, the increased volume is necessary in order to meet the increased demands of buyers. If the firm is unable to meet these demands, the buyer will turn to a firm which can. Second, increased volume is necessary for achieving lower processing costs which result from the use of larger more specialized equipment. Much of the specialized canning equipment is designed to handle relatively large volumes of products at the most efficient level of operation. The change to specialized equipment has been, during the past 10 years, encouraged by the rapidly increasing average hourly wages of labor in the canning industry. Between 1950 and 1958 the average hourly earnings of labor in the canning industry increased by

37.1 percent (33, p. 26).

In addition to the desire to increase the volume of canned output, there was another reason why at least one of the acquisitions took place. By acquiring a firm which packs different items than the acquiring firm, the firm is in a better position to meet the buyer's demand for a full line of items. A full line pack is also important when a firm is attempting to establish or maintain a label of its own. Practically all of the firms emphasized the necessity of maintaining a full line of products in order to successfully establish a label of their own, unless the item they pack is a specialty item which is in great demand.

Most of the analysis that follows is based on the size classifications mentioned in this section with the one exception, that the two annual packout classes, 500,000-749,999 and 750,000-999,999, are combined. The reason for the combination is that only one firm was in the 750,000-999,999 class and any analysis of this size class would reveal that firm's operating policies. Therefore, the following size classifications are used:

Size Class	Number of Firms	Average pack per firm <u>1/</u>
<u>Cases</u>		<u>Cases</u>
Below 100,000	5	90,000
100,000-249,999	4	175,000
250,000-499,999	10	345,000
500,000-999,999	6	675,000
1,000,000 and over	8	1,633,000

1/ An average was not obtained for the annual packout of all 8 firms

### Type of Business Organization of Firms

Four principal types of business organization were in use, by the 33 firms included in the study, during the period 1950 to 1960. They were non-cooperative corporations, hereinafter referred to as corporations, cooperatives, individual proprietorships and partnerships. In 1960 there were 18 corporations, 10 cooperatives, 3 individual proprietorships and 2 partnerships. The only change which occurred between 1950 and 1960 was the conversion of 2 partnerships into individual proprietorships.

As may be seen in Table 17, the individual proprietorship and partnership forms of business organization were limited to firms packing less than 500,000 cases per year. The absence of individual proprietorship and partnership type of business organization in the larger size firms can be explained, basically, by two disadvantages these types of organizations have as compared to the corporate form of business organization. The most important disadvantage is that individual proprietorship and partnership owners are subject to unlimited liability. Should the assets of an unsuccessful proprietorship or partnership be insufficient to satisfy the claims of creditors, those creditors can file claims against the proprietor's or the

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in the 1,000,000 and over class. However, an average was obtained for six of the eight firms and will be used to represent the class.

Table 17. Number of firms by size of firm and by type of business organization, 33 firms, Pacific Northwest, 1960.

Size of firm	Type of Business Organization				Total
	Corporation	Cooperative	Individual Proprietorship	Partnership	
<u>Cases</u>					
Below 100,000	4			1	5
100,000-249,999	1		2	1	4
250,000-499,999	5	4		1	10
500,000-999,999	3	3			6
1,000,000 and over	5	3			8
Total	18	10	3	2	33

partners' personal property. It is generally felt that the risk of claims against personal property increases as the size of the firm increases because the amount of credit involved in the formation and operation of the firm increases with the size of operation.

The second disadvantage is the difficulty of obtaining credit by an individual proprietor or by partners. Usually, finances are limited to what the owner or owners have in their bank account and to what they are able to borrow, whereas a corporation is able to

finance its operation both by borrowing and through the sale of stocks and/or bonds. Corporations are thus able to tap a source of funds not obtainable by individual proprietorships or partnerships.

In short, individual proprietorships and partnerships find it more difficult to expand their organization than the corporate form of business organization. This is borne out by the fact that only one of the five firms classified as either individual proprietorship or partnership increased its annual case packout enough to move into another size classification during the 10 years included in this study. It should be mentioned that all of the cooperatives were incorporated, hence the advantages of incorporation also pertain to cooperatives.

The cooperative firms have experienced relatively greater increases in both size of firms and number of firms that increased in size. Three out of the 4 firms that shifted two size classifications were cooperatives and 5 out of the 9 firms that shifted one size classification were cooperatives. In all, 80 percent of the cooperatives increased in size during the 10 year period, as compared to less than 30 percent of the corporations. These percentages exclude the growth of the 6 firms that packed over 1,000,000 cases in 1960.

Active control of production practices, which may be facilitated in the highest degree possible through grower cooperative organizations, appears to be the major reason for the successful expansion



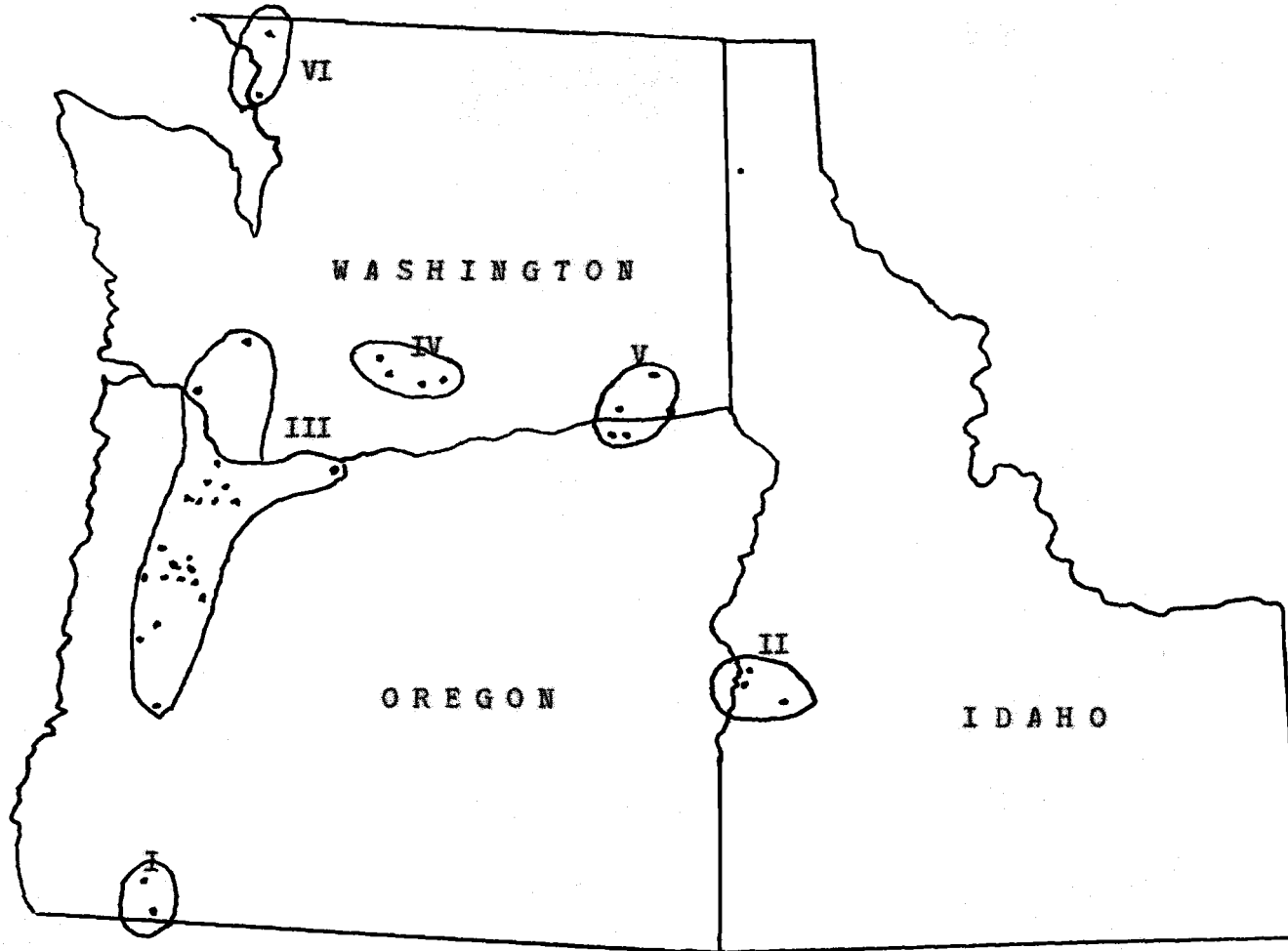
of the output of cooperatives. Because production practices of member-growers have been controlled by means of contractual agreements, adjustments could be made to correlate the product features desired by the market and the features of the grower's product. Although contractual agreements were also used by most of the other canning firms, no other group of firms under a single type of business organization procured 100 percent of their raw products under contractual agreements.

The 18 corporate firms operated 26 plants averaging 1.44 plants per firm. Two corporations operated 4 plants, which was the largest number of plants per firm of all the 33 firms. The 10 cooperatives operated 14 plants, averaging 1.40 plants per firm. All multiple plant cooperatives were two plant firms. None of the individual proprietorships or partnerships were multiple plant firms.

#### Location of Firms

The location of fruit and vegetable canning plants generally follows the geographical pattern established by the fruit and vegetable producing areas. Figure 1 shows the six major production areas in the Pacific Northwest: Area I, the Medford-Ashland area; Area II, the Lower Snake River Valley area; Area III, the Willamette Valley area; Area IV, the Yakima area; Area V, the Blue Mountain

Figure 1. Location of canning firms' headquarters, Pacific Northwest, 1960.



area; and Area VI, the Puget Sound area. 2/

Figure 1 also shows the distribution of the canning firms' headquarters within the six areas. The location of the canning plants within an area depends upon a variety of factors, among which are: volume and kind of raw product available; perishability of the raw product; and availability of labor supply, waste disposal, water supply and transportation facilities.

#### Product Mix of Firms

The fruit and vegetable processing plants located in the Pacific Northwest handle a variety of products. During the 1960 season, 21 different vegetable products, 15 different fruit products and 11 different berry products were processed by Pacific Northwest canning firms. Table 18 shows the more important products processed by the 33 firms included in this study. The table also shows the number of firms and the percent of the total firms in the study that processed each of the selected products. Two products, green beans and purple plums, were handled by almost 50 percent of the firms, and eight products were handled by at least one-third of the firms.

The product mix of an individual plant is limited to the various raw products which can be delivered to the plant without serious

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2/ The Willamette Valley area includes, in addition to the Willamette Valley, portions of Southwest Washington and the Hood River area.

Table 18. Number of firms canning selected products, 33 firms, Pacific Northwest, 1960.

Product	Number of firms <u>1/</u>	Percent of total firms <u>1/</u>
Apples or apple products	6	18.2
Apricots	5	15.2
Cherries, dark sweet	11	33.3
Cherries, light sweet	11	33.3
Cherries, RSP	11	33.3
Peaches, freestone	9	27.3
Pears, Bartlett	9	27.3
Plums, Purple	16	48.5
Plums, Green Gage	7	21.2
Blackberries	11	33.3
Boysenberries	12	36.4
Gooseberries	6	18.2
Loganberries	5	15.2
Raspberries, red	8	24.2
Raspberries, black	3	9.1
Strawberries	7	21.2
Youngberries	3	9.1
Asparagus	8	24.2
Beans, green and wax	15	45.5
Beets	6	18.2
Carrots	8	24.2
Corn	11	33.3
Lima beans	1	3.0
Peas	6	18.2
Peas and carrots	4	12.1
Pumpkin and squash	2	6.1
Tomatoes and tomato juice	2	6.1

1/ Totals do not add to 33 firms or 100 percent because most firms pack more than one product.

deterioration of quality. Quality deterioration depends upon the perishability of the raw product and the distance the product must be

transported. In the Pacific Northwest, production areas are, for many raw products, too far apart to allow shipment to another area without quality deterioration. For example, green beans are not processed by any plants in the Medford-Ashland area or the Lower Snake River Valley area because the perishability of green beans prohibits their shipment to these areas from the production areas.

Table 19 shows the relationship between the size of the canning firm and its product mix. The 33 firms canned, on the average, slightly over 6 raw products per firm. The smallest firms, below 100,000 annual case packout, averaged 3 raw products canned per firm, whereas the largest firms, canning over 1,000,000 cases annually, averaged over 9 raw products canned per firm. In general, with each increase in size classification there was an increase in the average number of raw products canned per firm.

Relationship of the type of raw product canned and the size of the firm is most evident among the group which packed less than 100,000 cases per year. This group predominantly packed fruit products. In all the remaining size classifications both fruit and vegetable canners were included. The product mix of these plants was determined by the location of the plant in relation to the available raw products.

Table 19. Number of firms canning specified number of raw products by firm size, 33 firms, Pacific Northwest, 1960.

Firm size 1960	Number of raw products canned <u>1/</u>													
	1	2	3	4	5	7	8	9	12	13	16	17	Avg.	
<u>Cases</u>														
Below 100,000		2	1	2									3.0	
100,000-249,999	2			1					1				4.5	
250,000-499,999		4	1	2			1	1	1				4.8	
500,000-999,999					1	2	2	1					7.3	
1,000,000 and over			1	2					2		1	1	1	9.4
Total	2	6	3	7	1	2	3	4	2	1	1	1	6.1	

1/ There were no firms canning 6, 10, 11, 14, or 15 commodities.

During the ten year period covered by this study there has been little change in the number of items canned by the smallest firms and the largest firms. But there has been considerable change in the number of items canned by the firms which packed between 250,000 and 999,999 cases annually. These firms have increased the number of items canned by an average of over 2 items per firm.

Although all 33 firms did not increase the number of items handled, most of the firms made some changes in the specific items handled. Over 50 percent of the firms located in the green bean producing areas added green beans during the period, and over 60 percent of the firms located in the asparagus producing areas added

asparagus to their pack. Four firms added cherries and 4 firms added purple plums. The most significant commodity discontinued by firms was tomatoes. Only 2 of the 33 firms canned tomatoes in 1960. Other items discontinued were: berries, by 2 firms; purple plums, by 2 firms; corn, by 2 firms; and pears and beets, by 1 firm.

It must be emphasized that the number of items that a firm handles is limited, in most cases, to the products that are produced in the area of the plant. This is the reason why the larger corporations have plants located in different areas. By doing this, they are able to diversify their pack and provide the consumer with a full line of products under one label.

#### Seasonality of Plant Operation

Most of the fruits and vegetables grown for processing in the Pacific Northwest must be harvested and processed as soon as they mature. Figure 2 shows the approximate processing seasons for selected fruits, vegetables and berries in the Pacific Northwest. An examination of Figure 2 reveals that the processing seasons tend to be concentrated in the late summer and fall months. It should be noted that these processing seasons are approximate and could vary due to weather conditions at time of harvest. Also the processing

Figure 2. Approximate Pacific Northwest processing seasons for selected canned fruits, vegetables and berries.

Raw product	Processing seasons											
	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Apples									XXXXXXXXXX			
Apricots							XXXXXXXXXX					
Cherries, dark sweet							XXXXXX					
Cherries, light sweet							XXXXXXXXXX					
Cherries, RSP							XXXXXX					
Peaches, freestone								XXXXXX				
Pears, bartlett								XXXXXXXXXX				
Plums								XXXXXX				
Blackberries								XXXXXXXXXX				
Gooseberries						XXXX						
Loganberries							XXXXX					
Raspberries, red							XXXXXXXXXX					
Raspberries, black							XXXXXX					
Strawberries							XXXXXXXXXX					
Asparagus				XXXXXXXXXX								
Beans, green & wax								XXXXXXXXXX				
Beets								XXXXXXXXXXXXXXXXXX				
Carrots									XXXXXXXXXXXXXX			
Corn								XXXXXXXXXX				
Lima beans								XXXXXXXXXX				
Peas						XXXXXXXXXXXX						
Pumpkin									XXXXXXXXXX			
Squash									XXXX			
Tomatoes								XXXXXXXXXX				



season of individual commodities can be extended through spacing of planting dates and/or through introduction of varieties with varying dates of maturity.

Although the processing of the individual commodity is highly seasonal, canning firms are able to extend their operating season either through diversification of products handled or, for certain products such as apples, storage of the raw product or, such as berries, freezing the berries until they can be processed into jam or jelly at some later time. In general, diversification of product mix is the more important method of extending the firms' processing season.

Table 20 shows the average length of operating season for the 33 firms during the past 10 years. The average operating season was 5.1 months. Fifty-eight percent of the firms operated less than 6 months and 82 percent operated less than 8 months of the year.

When the thirty-three firms are classified according to their annual packout, it is found that the nineteen firms having an annual packout of less than 500,000 cases, operated an average of 3.9 months per year, whereas, the remaining fourteen firms, having an annual packout over 500,000 cases, operated an average of 6.8 months per year. These data indicate the role that diversification of

Table 20. Average length of operating season, 33 firms, Pacific Northwest, 1950-1960. 1/

Months	Number of firms
Below 2	4
2-4	7
4-6	8
6-8	8
8-10	5
10-12	<u>1</u>
Total	33

1/ The firms indicated that the length of operating season had not changed significantly over the 10 year period; therefore, one average length of season is presented for the period.

product mix plays in lengthening the processing season. 3/ The increase in length of the processing season enhances the desirability of employment in the canning industry and increases the possibility of maintaining an adequate and more permanent labor force with the likelihood of increased labor efficiency and lower labor costs per

3/ Table 19, page 97 shows that, as the average size of the firm increased, the average number of products handled increased; hence, the larger firms are more diversified.

unit of output. However, most of the labor in the canning industry is still employed on a seasonal basis. Only about 20 percent of the total labor force is employed year-round. This 20 percent includes administrative, selling, maintenance and field personnel. The remaining 80 percent is made up of a high proportion of women and young and old persons who are available for or desire work only a part of the year. During the 1958 season, female employment in Oregon's fruit and vegetable canning industry accounted for, as a monthly average, 49.3 percent of the total employment. During the peak month of the canning season, 59.8 percent of the total employment was female (33, p. 22).

Although the Pacific Northwest canning industry has not significantly lengthened the working season of labor, it has increased the number of employees per firm during the past 10 years. Thirty-two firms reported the peak number of employees in 1950 and 1960. In 1950 these firms employed 14,075 employees and in 1960 they employed 16,686, an increase of about 19 percent. Table 21 shows the average number of employees per firm for the firms in each size classification.

#### Sales Policies and Practices

During World War II many canning firms greatly expanded

Table 21. Average number of employees per firm, by size classification, 32 firms, Pacific Northwest, 1950 and 1960. 1/

Size of firm	Average number of employees	
	1950	1960
<u>Cases</u>		
Below 100,000	70.0	80.0
100,000-249,999	113.8	142.5
250,000-499,999	238.0	272.0
500,000-999,999	565.0	833.3
1,000,000 and over	<u>937.5</u>	<u>999.5</u>
All firms	426.5	505.6

1/ Only 32 firms reported the number of employees.

their operations. During these years the canning industry experienced favorable prices and food shortages which enabled the large volume of products to be marketed with little or no sales effort and promotion. However, following the war, the days of food shortages disappeared and canned fruit and vegetable processors began to experience increasing difficulty in marketing their products. Sales promotion and marketing know-how once again became important requirements in distributing canned fruits and vegetables.

In addition to the need for increasing sales promotion efforts,

processors have had to adjust many other sales policies and practices in order to conform to changing retail requirements. Many established products and merchandising methods of the late 1940's and early 1950's are no longer acceptable by today's mass merchandising retailers.

Pacific Northwest processors of canned fruits and vegetables during the past 10 years have made changes in their sales policies and practices in the following areas: (1) area of sales; (2) type of buyers sold to; (3) method of sales; (4) type of selling arrangements with buyers; (5) terms of sale; (6) labeling policies; and (7) pricing policies.

#### Area of sales

Data pertaining to area of sales was not obtained on the questionnaire because it was felt by the processors who pretested the questionnaire that it would be extremely difficult to determine the exact location of each sale. However, each processor was asked if he had made any major changes in the area of sales during the past 10 years. Nineteen of the 33 firms indicated that no change had been made, 13 indicated that they had made a major change toward selling more of their products closer to home while only 1 firm indicated a major change toward selling further away from

home. 4/

Two reasons were given for the change toward selling a larger portion of their pack to buyers closer to home. First, because mass merchandising retailers demand more frequent deliveries and deliveries at shorter notice than they did 10 years ago, processors have had to change from water shipments to rail shipments to the eastern markets. Rail shipments are considerably more expensive than water, hence it has become more difficult to compete pricewise with processors located closer to the eastern markets. In order to compete, Pacific Northwest processors have had to make transportation allowances on the products shipped to these markets. Essentially, the transportation allowance has decreased the margin of profit of these products.

Second, processors have experienced a more rapid expansion in demand in western markets than in other areas during the past 10-20 years. The major reason for this increase has been the increase in population. During the past 10 years, the population of Washington, Oregon and California has increased by over 40 percent as contrasted with the 18.6 percent increase in the total United States population (54, p. 12). Furthermore, processors expect this trend to continue.

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4/ Selling closer to home refers to selling on the West Coast as opposed to selling in the East.

### Type of buyers

The information regarding the type of buyers is based on replies of 31 firms rather than 33 firms because 2 firms did not answer this section of the questionnaire. These 31 firms reported sales to 7 major types of buyers during the 10 year period. They were wholesalers, national and regional chains, institutions, independent retailers, export buyers, government agencies and other canners. Table 22 presents the percentage of the total packout of the 31 firms which was sold to each type of buyer, and the number of firms which sold to each type of buyer in 1950 and 1960.

Wholesaler. Wholesalers, as a group, were the most important type of buyers throughout the 10 year period. All 31 firms sold a part of their annual pack to wholesalers each year between 1950 and 1960. However, the type of wholesaler to which some processors were selling has changed during the period. In general, the firms which packed less than 250,000 cases per year continued to sell almost exclusively to unaffiliated wholesalers while the firms which packed over 250,000 cases per year, especially the firms which packed over 1,000,000 cases per year, decreased their sales to unaffiliated wholesalers and increased their sales to cooperative and voluntary wholesale-retail groups,

Table 22. Percentage of total packout sold to specified type of buyer and number of firms selling to specified type of buyer, 31 firms, Pacific Northwest, 1950 and 1960.

Type of buyer <u>1/</u>	Percent of total packout sold to buyer		Number of firms selling to buyer	
	1950	1960	1950	1960
	<u>Percent</u>			
Wholesaler	61.6	47.1	31	31
National chain	13.9	20.0	21	24
Regional chain	6.4	11.0	17	18
Institutions	9.3	12.1	16	17
Independent retailers	0.8	0.6	4	3
Export buyers	1.5	1.2	8	8
Government agencies	5.8	5.9	17	20
Other canners	<u>0.7</u>	<u>2.1</u>	<u>3</u>	<u>5</u>
Total	100.0	100.0	<u>2/</u>	<u>2/</u>

1/ Wholesaler includes both unaffiliated wholesalers and affiliated wholesaler groups (cooperative and voluntary retailer-wholesaler groups). National chains are chains with stores throughout the United States. Regional chains are chains with stores confined to one region of the United States, such as the Pacific Northwest.

2/ Total does not equal 31 because some firms sold to more than one buyer.

Approximately 65 percent of the total pack of the firms packing



less than 250,000 cases per year was sold to wholesalers in both 1950 and 1960. The reason why these smaller firms continued selling to wholesalers is that these firms generally can not supply the quantity nor the variety of products which are demanded by the large retail buyers. Wholesalers, on the other hand, purchase large quantity shipments of as few as one item, store the item, and distribute in small quantities as needed by retailers. Hence, the traditional wholesaler still acts as the intermediary firm between the small processor and the large retailer firms which have not fully adopted direct buying practices.

A few of the smaller processors reported that wholesalers purchased a major portion of their pack at or soon after pack time. By selling in this manner, these firms were able to eliminate most storage costs and greatly reduce the length of time during which they must finance the cost of raw products and materials.

National and regional chains. The major portion of the decline in sales to wholesalers over the 10 year period can be attributed to the increase in sales to national and regional chains. Although the increase in sales to both types of chains was about the same, the increased sales to national chains came largely from larger canners, whereas the increased sales to regional chains came from all sized firms.

Only 4 of the 9 firms which packed less than 250,000 cases in 1960 sold products to national chains, whereas 20 of the 24 firms which packed over 250,000 cases sold to these buyers. Between 1950 and 1960, 4 of the 24 larger firms began selling to national chains, 6 increased the percentage of their total packout sold to national chains, while only 3 firms decreased the percentage of their total pack sold to these buyers. In contrast, the 4 smaller firms, which sold to national chains in 1960, also sold to them in 1950. Two of these firms, however, did increase the percentage of their total pack sold to these buyers.

The smaller firms which did not sell to national chains claimed that if they did sell to these buyers, they would have to commit too large a percentage of their total pack to the one buyer. They did not want to rely on one buyer for the purchase of a major portion of their total pack because of the uncertainty of continued patronage from year to year and also the possibility of cancellation of the reservation within a given year.

Although a major portion of the canned fruits and vegetables purchased by national chains came from the larger firms, in general the purchases were made only from the diversified firms. Of the two firms which packed over 1,000,000 cases per year and which packed 4 or fewer items, one did not sell to national chains and the

other sold only 2 percent of its pack to these buyers. 5/ The greatest increase between 1950 and 1960 in the percentage of total pack sold to national chains occurred in the firms which packed 7 or more items.

In contrast to the 8 firms which increased the proportion of their total pack sold to national chains, 12 firms increased the proportion of their total pack sold to regional chains. Firms in every size class increased their sales to regional chains. However, as was the case with sales to national chains, there was a smaller proportion of the smaller firms selling to regional chains than of the larger firms. Only 3 out of the 9 firms which packed less than 250,000 cases per year sold to regional chains whereas, 14 out of the 22 larger firms sold to these buyers. However, 2 of the 3 smaller firms sold over 70 percent of their total packout to regional chains in 1960. One of these firms increased its sales to regional chains from 30 to 70 percent of its total packout while the other increased from less than 10 percent to over 70 percent of its total packout sold to regional chains during the period.

Institutions. Sales to institutions were made indirectly through institutional wholesalers, except for 2 firms which sold to

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5/ The third firm which packed over 1,000,000 cases per year and which packed 4 or fewer items did not answer the questions pertaining to types of buyers.

local institutions which picked up their orders at the processing plant. The reason why processors sold through institutional wholesalers was because most processors were unable to provide the diversified line of products that institutions such as restaurants, hotels and schools require. In addition, such institutions have very limited storage space and therefore, must receive small deliveries frequently. Institutional wholesalers are located near these institutions and, therefore are able to deliver the small frequent deliveries at less cost than the processor.

The remaining portion of the decline in sales to wholesalers during the 10 year period, not attributed to the increase in sales to chains, is attributed to the increase in sales to institutions. Although only one additional firm sold products to institutions in 1960 as opposed to 1950, 5 of the 16 firms increased their percent of sales to institutions over the decade. None of the 16 firms decreased their sales to institutions during the period. Only firms which packed over 100,000 cases per year sold to institutions. The reason for this is that the firms which packed less than 100,000 cases in 1960 did not have the equipment for packing products in No. 10 containers.

In the remaining size classifications, about the same proportion of the firms in each class sold to institutions. However, there were

some differences in the percentage of the firms' pack which was sold to institutions. Firms which packed between 100,000 and 249,999 cases per year and which sold to institutions, sold an average of 15 percent of their pack to institutions in 1950 and an average of 20 percent in 1960. Firms in the 250,000-499,999 class, which sold to institutions, sold an average of about 10 percent to institutions throughout the period, while firms packing over 500,000 cases per year sold an average of 18 percent of total pack to institutions in 1950 and an average of 22 percent in 1960.

Independent retailers. Sales to independent retailers have been relatively unimportant throughout the period. Four firms sold to independent retailers in 1950 and only 3 in 1960. The only sales made by these firms to the independent retailers were sales to local stores which came to the cannery for the products.

Export buyers. Sales to export buyers remained about the same during the 10 year period. One firm stopped selling to export buyers and one began during the period, but neither sold over 2 percent of their total pack in this channel of trade. One firm, which was in the over 1,000,000 annual case packout class, sold 10 percent to export buyers throughout the period. The remaining six firms, in all size classes except under 100,000 annual case packout, sold

5 percent or less of their annual pack to export buyers. Hence, the majority of the sales to export buyers were made by firms which packed over 1,000,000 cases per year.

Government agencies. Sales to government agencies, as a percent of the total pack, remained about the same over the 10 year period. A total of 20 firms sold some of their pack to government agencies between 1950 and 1960. One firm, which sold 50 percent of its pack to the government in 1950, did not sell any by 1960. This firm packed less than 100,000 cases per year throughout the period and the reason given for stopping sales to the government was that the firm felt 50 percent of its pack, which was the amount required to fill the government contract, should not be committed to one buyer. This reason was also given by other small firms as the reason why they did not sell to government agencies. In 1960, there were no firms which packed less than 250,000 cases per year which sold to the government.

Of the remaining 22 firms which packed over 250,000 cases per year, 20 firms sold to governmental agencies. These firms sold from 2 to 20 percent of their pack to these buyers. The firms, which packed from 250,000 to 499,999 cases per year, averaged about 10 percent of their total pack sold to governmental agencies, firms packing 500,000 to 1,000,000 cases per year sold, on the average,

8 percent to these buyers and firms packing over 1,000,000 cases per year sold, on the average, 5 percent of their total pack in this channel of trade.

Other canners. Sales to other canners increased from 0.7 percent of the 31 firms' total pack in 1950 to 2.1 percent in 1960. The increase occurred predominantly in the size classes from 100,000 to 499,999 annual case packout. Inter-canner sales are made to firms that sell products under their own label. By obtaining an item or items which the purchasing firm does not pack, it is able to offer a more complete line of commodities in the market. The ability to offer a full line of products in the market was considered, by processors, as one of the most important factors in maintaining and establishing a market for processor labeled products.

In summary, the major change in the type of buyers which purchase Pacific Northwest canned fruits and vegetables has been the change from unaffiliated wholesalers to affiliated wholesaler-retailer groups and chains. Essentially, for the processor, this has meant a change from selling to buyers who purchase items in large quantities to buyers who purchase items in relatively small quantities because they attempt to operate their stores and warehouses on a rapid turnover basis. This change has brought with it some important changes in the size of shipments to buyer, frequency of shipments

to buyer and period of time over which the processor must supply his products to the buyer.

In general, the average size of shipments has decreased, the frequency of shipments has increased and the period over which the processor must supply his products to the buyer has lengthened. Thirteen of the 33 processors indicated that the average size of shipment of any one item in 1960 was only one-fourth as large as in 1950, ten firms indicated the average shipments were one-half as large as in 1950 and only 5 firms indicated no change over the period. These 5 firms either sold all or a major portion of their pack to unaffiliated wholesalers. As the size of these shipments decreased over the period, the frequency of shipments increased. Shipments were made to buyers in 1950 on the average of every 6-8 weeks. By 1960, shipments were being made every 2-4 weeks.

The smaller more frequent shipments have been the cause of higher processor handling costs. However, the higher transportation costs which have been due to the inability to ship in full car lots, have been partially offset by the use of pooled cars. A pool car is a car load of a number of small lots shipped to several consignees. These cars are routed to central points for subsequent distribution to buyers. The small lots may be from one processor or they may be pooled from two or more processors.



The size of the market and the individual orders received from the market largely determine the extent to which pool cars are used. In some of the smaller markets where pool-car shipments cannot be readily handled, it is necessary to resort to less-than-carload shipments when small lots are shipped by rail.

In addition to small more frequent shipments to buyers, the period of time over which these shipments must be made has increased during the past 10 years. Processors have indicated that one of the biggest changes in the requirements of buyers is that they must be supplied with the product on a year round basis. This is because of the growth of buyers who operate their stores and warehouses on a rapid turnover basis. The requirement that processors supply the buyer on a year round basis is clearly seen in the terms set forth in the buyer-processor contracts and reservations. 6/

By accommodating these requirements of buyers, i. e.: smaller more frequent shipments and shipments throughout the year, processors have assumed part of the storage function which was originally part of the wholesaler's responsibility. By assuming a part of the storage function, processors have increased their financial requirements. These financial requirements are capital to expand storage facilities and services and capital to carry inventory. Financing

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6/ The terms of the contracts and reservations are presented in the section under selling arrangements.

costs have increased, on the average, 54 percent between 1947 and 1959. Included in these financing costs are interest expenses, bank charges, property tax and insurance on merchandise. In addition, 22 out of the 33 firms which answered this part of the questionnaire indicated that they had increased their storage capacity by an average of 50 percent over the 10 year period. Part of this increase was due to the fact that part of the storage function had been transferred to the processor and the remainder due to the increased packout of these firms.

#### Method of Sale

Method of sale refers to that method through which the processor contacts and makes sales to the buyer. There were three methods used by the firms in this study: (1) selling through a broker; (2) selling directly to the buyers; and (3) selling through a cooperative sales organization. Table 23 shows the percentage of the total packout which was sold by each method of sale and the number of firms which used each method in 1950 and 1960.

Broker. Sale through brokers remained the most important method of selling throughout the 10 year period even though the percentage of the total packout of the 32 firms which was sold through this method declined from 79.2 to 66.1 percent.

Table 23. Percentage of total packout sold by specified method of sales and number of firms selling by specified method of sales, 32 firms, Pacific Northwest, 1950 and 1960. 1/

Method of sales	Percent of total packout sold by method of sales		Number of firms selling by method of sales	
	1950	1960	1950	1960
	<u>Percent</u>			
Broker	79.2	66.1	26	25
Direct selling	10.7	13.4	18	17
Sales cooperative	<u>10.1</u>	<u>20.5</u>	<u>5</u>	<u>7</u>
Total	100.0	100.0	<u>2/</u>	<u>2/</u>

1/ All 33 firms reported their method of sales, but the annual packout of one firm was not obtained and therefore it is not included in this table. However, it should be noted that this firm sold 100 percent of its pack directly to buyers and that the firm packs considerably more than 1,000,000 cases per year. Hence, if this firm were included in the above table it is quite likely that the percentage of the total pack of all the firms which sold direct to buyers would increase considerably.

2/ Total does not equal 32 because some firms used more than one method of selling.

Although the overall sales through brokers declined during the period, the firms which packed less than 250,000 cases per year actually increased their sales through brokers. In 1960, only one firm in this size class sold less than 70 percent of its total pack

through brokers, whereas in 1950 three firms were in this category. Two of these three firms changed from selling over 95 percent of their pack directly to buyers to over 95 percent through brokers. The third firm sold 100 percent of its pack through a sales cooperative throughout the period. Only one firm which packed less than 250,000 cases per year decreased its use of brokers, but it still sold 70 percent of its total pack in this manner in 1960.

The decline in the use of brokers occurred in the firms which packed over 250,000 cases per year. Of the 15 firms which packed between 250,000 and 1,000,000 cases per year in 1960, 5 decreased the percentage of their total pack which was sold through brokers (one changed to 100 percent through a sales cooperative and the other 4 to direct sales to buyers), and only 2 firms increased their sales through brokers between 1950 and 1960. However, 10 of the 15 firms in this group were selling 65 percent or more of their total pack through brokers in 1960.

Of the firms which packed over 1,000,000 cases per year, one firm decreased its sales through brokers by 50 percent and one firm changed entirely to sales through a sales cooperative. There were no firms in this size class that increased the proportion of their total sales which were sold through brokers during the period. However, 4 of the 7 firms continued to sell over 95 percent of their total pack through brokers and 5 sold over 70 percent.

Because sales through brokers is the most important method of sales, especially by the smaller firms, it is felt that a brief discussion of the food broker and his activities is necessary at this time.

A food broker may be defined as an independent sales agent who solicits buyers, (wholesalers, chain stores, etc.) and assists in negotiations of sellers' sales of canned goods to buyers in his trade areas (a) in the name of the seller, (b) for the account of the seller, (c) subject to the control of the seller, and (d) for compensation in the form of commissions or brokerage based on sales results paid by him to the sellers, exclusively. The food broker does not buy and sell in his own name and does not have custody or possession of or other control over the products sold by his sellers.

A food broker usually prefers to have a definite area in which he is the sole supplier of a particular canner's product. This strengthens the broker's position with his customers. Each broker may also sell for many canners, although, generally does not sell competing products. It is through selling for many non-competing firms that the broker can generally achieve lower per unit sales cost than the individual firms, if they were each to attempt to do their own selling. The broker is able to divide his operating costs among his several principals, thereby effecting

sales at a lower cost to all.

In addition to the possibility of achieving lower sales cost, the canner who uses brokers has the advantage of knowing in advance exactly what his sales cost will be in relation to the price of the item. This is because the broker only receives compensation for the product actually sold. The usual form of compensation is a percentage of dollar sales. The brokerage fee charged the firms included in this study, ranged from 2 percent to 3 percent of dollar sales in 1950, and from 2-1/2 to 3-1/2 percent in 1960. In 1960, four firms reported brokerage fees of 2-1/2 percent, nineteen firms reported 3 percent and two firms reported 3-1/2 percent brokerage fees. The higher brokerage fees were usually charged for selling the less well-known brands of canned goods.

In addition to the usual brokerage fee, the broker may receive a promotion fee of between 1-1/2 percent to 2 percent of dollar sales if he contracts to promote the product. Twelve firms reported that the broker promoted their product in 1960 and 10 in 1950. The promotion service usually takes one of three forms: (1) the broker endeavors to get the buyer to tie in with the canner's advertising and other promotional plans; (2) he endeavors to arrange for cooperative advertising between principal and buyer; or (3) if requested, some brokers provide on a straight cost basis specialty salesmen

to work with retailers in arranging displays and promoting the line. Canners reported that the first and second forms of promotion service were the predominant ones used by them.

The use of brokers is especially advantageous to the small canner. The small canner usually requires only a few months services of a salesman. He cannot secure the services of a competent salesman for only a few months each year, neither can he afford to keep his salesman on the payroll during the entire year. Brokers can be called upon when the product is ready for sale, used during that period, and be available again the following year. The expense involved is only the brokerage fee.

There also appears to be a definite advantage of using brokers to help the canner establish his brand in a new territory. A well established broker has the confidence of buyers in his area. He, therefore, may encounter less sales resistance than would a strange salesman. Therefore, the results of introducing a new item or a new brand are more immediate and less costly than would be the case with canner's salesmen.

Brokers are, however, not always an ideal agency. If they were all sales would be transacted through brokers. The advantages of using brokers is in part offset by their somewhat impersonal interest in the transaction. To be sure, their fee depends on negotiating a

deal successfully, but they are not laboring under quite the same incentive as is a canner's own sales force. They are not subject to the same control nor the same stimulation. Some brokers may have favorite processors and may not always give equal representation to all their clients. It is hard for a distant processor to know whether failure to sell in a certain market is due to the weakness of the broker or to his failure to quote a competitive price. Therefore some firms have their own sales force and sell direct.

Direct selling. In general, direct sales to buyers has declined in importance for the firms which pack less than 250,000 cases per year and increased in importance for the firms packing over 250,000 cases per year during the past 10 years. The reason for the decline in direct sales by the smaller firms is that the sales cost per unit to sell direct to the buyer the relatively small volume which they pack is greater than the cost of selling through a broker. Also, the national and regional chains which engage in direct buying practices do not generally buy from the small processor because he cannot supply a sufficient volume of products for the chain's operation,

Thirteen of the 23 firms which packed over 250,000 cases per year in 1960 sold a part of their pack directly to buyers. Only one firm in this size group stopped direct selling practices during this period. Five of the 13 firms increased the percentage of their total



pack which was sold directly to buyers and only two decreased the percentage sold direct during the period. For the 13 firms as a whole, the percent of pack sold direct increased over the decade.

Direct sales by the firms in this study were almost entirely limited to sales to national and/or regional chains. Processors indicated that, in general, direct sales policies were the result of direct buying practices of chain stores and not the result of an attempt by processors to sell to all of their outlets directly.

There were, however, a few of the larger processors which packed over 500,000 cases per year that maintained their own sales department. These firms pack a considerable portion of their total pack under their own label and their primary purpose of maintaining a sales department is to maintain and increase the market for this label. These firms felt that more direct control over their salesmen is possible and also, that more incentive exists because the salesmen are members of the firm doing the selling.

In 1960, the direct selling costs of the firms reporting, varied from 2-1/2 to 7 percent of dollar sales, averaging about 5 percent. This cost is comparable with the cost of selling through a broker when the broker promotes the product.

Sales cooperative. During the past 10 years, sales through sales cooperatives have increased from 10.0 to 20.5 percent of the total packout of the 32 firms which reported their method of sales.

In 1960, there were 6 firms selling 100 percent, and one firm selling 90 percent of their pack through sales cooperatives. Two of these firms began selling through the sales cooperative during the period, whereas the remaining 5 firms sold the same percentage of their pack in this manner each year throughout the period.

There were two such cooperative sales organizations in the Pacific Northwest during the 10 year period. Both of these organizations were processor-oriented and were formed to provide certain benefits to their members which the members could not realize from individual efforts. More explicitly, the general purpose of organizing the sales cooperatives was to provide a central sales office designed to develop sales, promote interest in the products, coordinate the distribution of packs, to gather information and facts regarding market and crop conditions, to stabilize market conditions, to make possible the offering of a more complete assortment of products under one sales outlet, and to effect more economical handling of sales between packers and distributors.

Both of the sales organizations have developed their own label. This has been a very successful venture in that their members pack various commodities between them and the organizations have been able to offer a full line of products under their labels. Both of the organizations have enforced quality standards so that they have been

able to provide not only a complete line but also a complete line of quality products. One of the sales organizations has created associate memberships in order to procure items not available in the Pacific Northwest such as winter vegetables in California and lemon products.

In short, the major advantages obtained by the member firms have been: (1) they have achieved lower sales costs than they would have had, had they attempted to sell individually because the sales organization distributes the overhead of sales costs over all the firms (the firms that reported their sales cost through the cooperatives, reported an average cost of slightly less than 5 percent of dollar sales); (2) they have acquired highly specialized salesmen and product promotion services which, on an individual basis, they may not have been able to afford; (3) they have achieved more market power in the sense that the sales organization has been able to provide more market services, such as providing a large volume of a full line of quality products; and (4) they have been able to effect lower transportation costs because the sales organization has been able to ship full car shipments to buyers by pooling members' products, whereas the individual packers could only ship partial cars which are more expensive per unit of product.

### Selling Arrangement

In both 1950 and 1960, over 80 percent of the total pack of the 31 firms which answered the questions pertaining to sales arrangements, was sold by arrangement with the buyer prior to the packing season, usually one to three months before pack. The remainder of the pack was sold on the open market after the pack was completed. The arrangements between the processors and buyers were of 2 types: reservations and contracts. Table 24 shows the percentage of the total pack of these firms which was sold under contract, under reservation and in the open market as well as the number of firms which utilized each of these arrangements in 1950 and 1960.

Sales on the open market generally represent the portion of the firm's pack which is held for speculative purposes. More than half of the firms included in the study indicated that they held some portion of their pack for this purpose. However, only a few of the firms, all of which packed over 500,000 cases per year, increased the percentage of their total pack sold on the open market. In general, most of the firms continued to sell approximately the same percentage of their packout on the open market each year, which indicates very little change over the past 10 years.

Although there was no major change in the percentage of the firms' packout which were sold in the open market and under an

Table 24. Percentage of total packout which was sold under specified type of selling arrangement and number of firms selling under specified type of selling arrangement, 31 firms, Pacific Northwest, 1950 and 1960.

Type of selling arrangement	Percent of total pack sold by type of selling arrangement		Number of firms selling by type of selling arrangement	
	1950	1960	1950	1960
	<u>Percent</u>			
Contract	60.4	21.0	26	17
Reservation	23.7	59.7	16	30
No arrangement	<u>15.9</u>	<u>19.3</u>	<u>18</u>	<u>17</u>
Total	100.0	100.0	<u>1/</u>	<u>1/</u>

1/ Total does not equal 31 firms because some firms utilized more than one type of selling arrangement.

arrangement with buyers before the pack season, there has occurred a major change in the type of arrangement made with the buyer. Sales under reservation increased from 23.7 percent of the total pack sold in 1950 to 59.7 percent in 1960, while sales under contracts decreased as a percent of total pack from 60.4 percent in 1950 to 21.0 percent in 1960.

Essentially, the terms of a contract and reservation are the same, with the exception that under a contract both the processor and

the buyer are legally bound to carry out the terms as stated, whereas under a reservation neither the processor nor the buyer is legally bound to carry out the terms as stated. A reservation simply reserves a specified quantity of products until a specified time. For example, a retailer may reserve 800 cases of canned corn. He agrees to take 200 cases during each of four 2-month periods. If he does not call for the 200 cases by the end of a period, the processor is released from the reservation and can sell elsewhere.

A few processors indicated that buyers have achieved greater bargaining power because of the use of reservations in buying products under private label. Price is generally set at the time of original reservation, subject to approval at the time of shipment. Hence, in reality the prices are set at time of shipment. Because the buyer is able to obtain products under his own label from many different processors, he may choose to purchase his requirements from another processor and not honor the terms of the original reservation if the price adjustment at the time of shipment is not satisfactory to him. As the processor usually plans his production to approximately coincide with the reservations which are placed with him, and because the number of prospective buyers has declined, the processor usually meets the price requirements of the buyer. Although a few firms indicated that this had occurred the majority

indicated that the reservation was honored in the same manner that a firm contract would be.

Of the 31 firms, 8 reported that 95 percent or more of the pack under reservation was actually taken, 16 reported that 90 percent or over was taken and 28 firms reported that 80 percent or more of their pack under reservation was actually taken according to the terms of the reservation. Hence it appears that this potential bargaining power of the buyer is not being exploited in any serious way. The reason is that if a buyer has acquired the reputation for not honoring his reservations, processors do not make the original reservation for him if other sales possibilities prevail.

Even though a major portion of the reservations have been honored, there still exists some uncertainty in certain cases as to whether all of the pack under reservation will be taken. This uncertainty has increased the costs of some processors. If this uncertainty exists, the processor usually will not label all the cans for the buyer at time of pack. Rather, he will wait until the shipment is called for and then attach the labels. This procedure entails double handling of the cans which of course increases costs. Although this practice is adhered to by a few processors, it must be emphasized that the majority of the processors indicated that they do label the products at pack time for their major buyers that buy from them year after

year. These buyers account for the major portion of the firm's packout, as indicated by the fact that 20 of the 31 firms reported that they sold over 90 percent of their pack to the same buyers each year and 27 firms reported selling over 80 percent to the same buyers.

Because of the change in type of buyers, i. e. : from unaffiliated wholesalers to affiliated wholesaler-retailer groups and chains which operate on a rapid turnover basis and therefore require that the processor supply them throughout the year, there has been some change in the terms of both contracts and reservations which concern the times at which the products must be taken from the processor's warehouse. Although there were various arrangements in both 1950 and 1960, processors indicated that in general the periods of time at which the products are to be taken from their warehouses has been extended. In 1950, many firms had terms which stated all products must be taken within 6 months and many other firms had terms which stated that the last of the pack must be taken out of the warehouse by April 1, or approximately 6-8 months after pack.

In 1960, however, most of the terms call for final removal of products from the processors warehouses by June 1. The specific arrangements vary from removal of 10 percent of the product under reservation or contract each month, to one-third removed by December 1, one-third by March 1 and the remainder by June 1. Many of



the reservations or contracts call for removal of one-fifth to one-third of the order at pack time.

It should be mentioned that not all reservations or contracts call for final removal by June 1 because the final date depends upon the product. For example, final removal of products which are packed early in the season such as peas will be called for in April and final removal of products which are packed later such as carrots may not be called for until at least June.

### Terms of Sale

Processor policies concerning the terms of sale include the negotiations with retailers over discounts and allowances. There were four major types of discounts or allowances which the processors included in this study granted to their buyers: (1) quantity; (2) advertising and promotion; (3) transportation; and (4) cash.

Quantity discounts. The quantity discount is a reduction allowed from the invoice price because of the quantity purchased. Such discounts are based typically on the quantity ordered at a given time. The major reasons given by processors for granting these discounts were: (1) they can reduce the costs of labeling by labeling one large order rather than many smaller orders; (2) they can reduce certain warehousing costs by stacking large orders in one area so as to

minimize costs of moving from stack to the loading platform; (3) they can reduce the frequency of calls made by their salesman; and (4) they are able to reduce such costs as billing and collecting.

Processors indicated that because buyers are, in general, larger than 10 years ago, the granting of quantity discounts has become prevalent throughout the industry. However, under the Robinson-Patman Act, quantity discounts are legal only if the seller can prove that the discount does not exceed the cost savings from the quantity purchased. There appears to be considerably more caution applied in the granting of quantity discounts than has been the case in the past because of the difficulty in justifying them according to the specifications of the act. Also, since buyers are also guilty, if they knowingly accept a discount which is not justified by the specifications of the act, the buyers tend to resist the temptation to bargain for such a discount.

Advertising and promotional allowances. Advertising and promotional allowances are granted by the processor when the buyer agrees to advertise and/or promote the processor labeled product. Over 90 percent of the firms in this study reported that they granted these allowances in 1950, however most of the firms indicated that they now grant a larger number of buyers and that the allowances have increased as a percent of sales during the period. In 1960, the

most common advertising allowance was 5 cents per case.

Three major reasons were given for making advertising and promotional allowances. First, processors, especially the smaller processors, feel that the buyer can advertise the product at a lower cost than the processor because the buyer is able to spread this cost over a larger number of items. Second, many processors feel that consumers have built up a loyalty to the buyer's store. By having the buyer advertise his product, some of the prestige of the store may carry over to the product. Third, by allowing a promotional discount the processor is assured of display space for his product. This factor has become increasingly important during the past few years because of the overall lack of display space in retail stores. In fact, it is not uncommon for retailers to actually sell shelf space to the processors for their products.

Transportation allowances. Transportation allowances were granted by 31 of the 33 firms in the study. The allowances were made to meet competition from processors of other areas which were more favorably located freight wise to the market. For example, all plants which sold in the Portland market quoted prices F. O. B. Portland.

Transportation allowances have decreased the margin of profit considerably for processors located great distances from the market

area, but in order to compete with processors nearer the market the allowances had to be granted. This is especially true when a processor is packing private labeled products. If the processor is packing his own labeled product which he has successfully differentiated from products packed by processors located close to the market, he may be able to offset the transportation costs, either partially or wholly, by securing a higher price for his product in the market. But when the processors in both areas can supply private labeled products that meet the specifications set forth by the buyer, price determines which processor gets the contract. In order to make a competitive bid, the processor located further away from the market must make allowances for the transportation costs. This, of course, assumes that the processors in both areas have the same production costs.

Cash discounts. Cash discounts are a reduction in price given by processors to buyers in return for prompt payment of sale invoices. Although processors granted cash discounts throughout the 10 year period, the terms of the discounts have changed considerably.

Three methods of payment were offered to buyers during the 10 year period: draft, open account and time payments. The first two, draft and open account, provided for a specific discount if the account was paid within a specified time. Drafts usually called for payment, at a 2 percent discount, on either the date of invoice or,

for water shipments to eastern markets, the date on which the shipment was received. Open accounts usually called for payment within 30 days of the date of invoice with a 2 percent allowance if paid within 10 days.

The third method of payment, time payments, provide relatively long periods of time to pay the account, usually with no carrying charge. There were a variety of arrangements under the time payments some of which were: one-half payment prompt and one-half in 45 days; one-third payment in 10 days, one-third in 30 days and one-third in 60 days; one-third payment in 30 days, one-third in 60 days and one-third in 90 days with a 1 percent carrying charge.

In 1950, 38.0 percent of the total sales of the 33 firms were by draft, 59.4 percent by open account and 2.6 percent by time payments. By 1960, these percentages had changed to 18.2 percent by draft, 74.7 percent by open account and 7.1 percent by time payments. In short, the use of cash discounts have continued but the period of time before the discount is considered void has been extended and also, some increase has occurred in the extension of credit.

In general, the lapse of time between shipment and receipt of payment has increased slightly over the past 10 years. Payment was received from west coast buyers from 10-20 days after shipments in

1950 and from 10-25 in 1960. The average lapse of time between shipment and payment was 13 days in 1950 and 16 days in 1960.

For east coast shipments the average lapse of time between shipment and payment was 30 days in 1950 and 35 days in 1960. However, many firms claimed that, because their shipments to east coast markets had declined, their overall lapse of time between shipment and payment remained about the same over the 10 year period. For those firms which the lapse of time between shipment and payment increased during the period, it meant an additional time required for the processor to finance his raw product and materials. This also contributed to the 54 percent increase in financing costs of processors between 1947 and 1959.

The increase in the use of time payments is predominantly attributed to the increased sales to institutional wholesalers. These buyers require credit terms because their buyers, the institutions, require credit. Processors indicated that national and regional chains, because of their rapid stock turnover policies, have in general not needed credit terms for their purchases.

An additional type of discount, brokerage discounts, should be mentioned because it is possible that these discounts will be granted more frequently in the future. None of the firms which answered this section of the questionnaire indicated that they granted brokerage

discounts.

Brokerage discounts are granted by sellers when the buyer, because of direct buying practices, makes it unnecessary for seller to employ a broker. However, under the Robinson-Patman Act, it is illegal to grant brokerage discounts if the seller employs a broker for any part of his sales. All of the firms which answered this section of the questionnaire employed a broker either directly or by association with one of the sales cooperatives and therefore, could not legally grant brokerage discounts. However, if retailers continue to expand direct buying practices it seems likely that some processors will be selling all their pack directly and will be granting this discount.

### Pricing Policies

Actual price data pertaining to opening prices and price adjustments throughout the season were not obtained from the processors because they considered this information confidential. However, processors did indicate the general type of pricing policies followed throughout the 10 year period and the factors which they considered when setting their opening prices.

Two types of pricing policies were followed by the 32 firms which answered this section of the questionnaire. Both types depended upon the inventory policy which the processor attempted to

follow. First, the processor that had an inventory policy designed to supply his customers with a year round supply followed a pricing policy designed to maintain a fairly constant price throughout the year. Second, the processor who attempted to sell as fast as he can liquidate his pack followed a pricing policy designed to obtain as high a price as possible at the beginning of the period.

In 1950, 25 of the 32 firms reported that they attempted to follow the policy of selling their pack as soon as possible during the season. However, by 1960 only 6 firms indicated that they still attempted to follow this policy. These six firms were all in the size classification below 250,000 cases per year and sold predominantly to unaffiliated wholesalers. The major reason given by these firms for attempting to sell their entire pack as soon as possible were, in order of importance: (1) insufficient volume of products to supply customers on a year round basis; (2) need to make payments on debts incurred in the processing of the pack; (3) uncertainty of future price changes; and (4) inadequate storage facilities to store the entire pack for any extended period of time.

In general, the remaining firms changed from attempting to sell as early as possible in the season to supplying their customers throughout the year. It appears that this was not a processor oriented change, but rather a change which was made in order to accommodate their



buyers' rapid stock turnover policies. Although this change has necessitated additional storage costs, processors report that they do not in general consider these costs in pricing their products. Rather they have accepted the principle of providing supplies on a year round basis as one of the requirements that they must fulfill in order to secure and maintain a market for their products.

Because processors attempted to supply their buyers on a year round basis, major emphasis was placed on the setting of opening prices in such a manner that a minimum of price adjustments were required during the year. To illustrate this pricing procedure, Figure 3 presents the average monthly prices per case of 303 containers of cut, fancy, 3-sieve Blue Lake beans. As may be seen in the figure, the average monthly prices do not vary to any appreciable extent. When statistically tested for monthly variation, it was found that there was no significant variation in the monthly prices. 7/

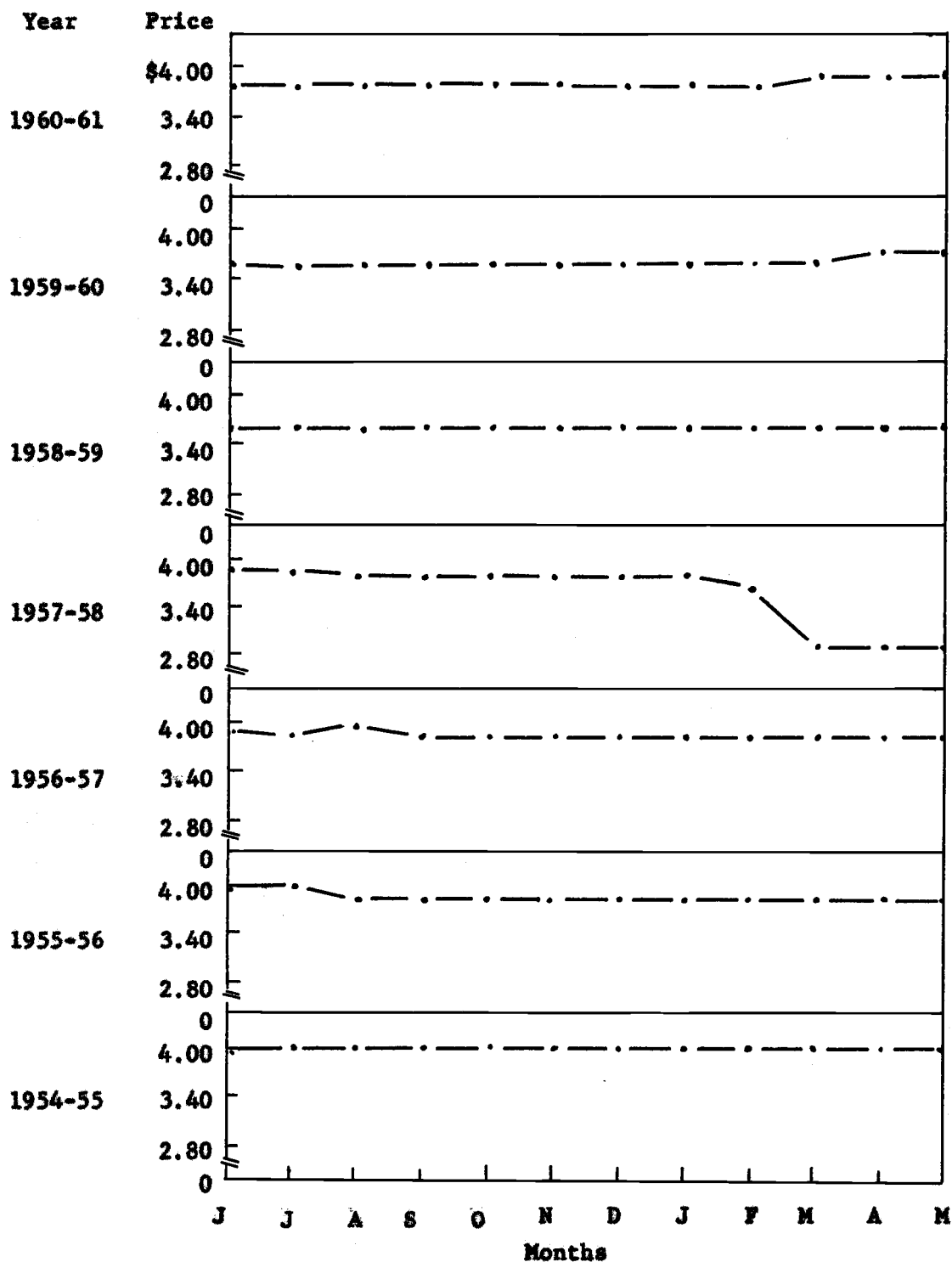
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7/ Analysis of variance of monthly variation in price per case of 303 containers of cut, fancy, 3-sieve Blue Lake beans.

Source of variation	Degrees of freedom	Mean square	F
Years	6	.3193	
Months	11	.0140	.5714
Error	66	.0245	<u>a/</u>

a/ Not significant at the 5 percent and 1 percent level. There was no significant variation in the monthly prices of cut, fancy, 3-sieve Blue Lake beans.

Figure 3. Average monthly prices of twenty-four 303 containers of cut, fancy, 3-sieve Blue Lake beans, 1954-61/<sup>1</sup>.



<sup>1</sup> Prices obtained from Canning Trade, weekly issues, 1954-1961.

The normal packing season for green beans begins in July and continues through August. Opening prices are quoted sometime during this period. Opening prices depend upon the conditions existing at pack time and upon the conditions which are expected to exist throughout the year. As these conditions are rarely the same from one year to the next, opening prices vary from one year to the next. This is the case with green bean prices as shown in Figure 3.

Because opening prices are set according to market expectation and not perfect knowledge of the market, it may become necessary to adjust opening prices at some later time so that they coincide with the supply and demand situation. This adjustment usually occurs after the January inventory. However, as seen in Figure 3, green bean prices have been adjusted only 3 out of the 7 years. It appears then, that processors of green beans have been relatively successful in analyzing prevailing and future market conditions for their product.

Processors considered 4 factors in setting their opening prices throughout the 10 year period. They were: general market conditions at time of pack and the outlook during the year in regards to supply and demand factors; competitive pricing; raw product procurement costs; and processing costs. Although processors considered each of these factors throughout the period, they indicated a change in the order of importance of these factors in their pricing policy.

In 1950, processors ranked raw product procurement costs and processing costs as first and second in their importance in determining opening prices. General market conditions at pack time and future outlook of the market was ranked third, with competitor pricing practices as least important. In 1960, processors ranked general market conditions at pack time and outlook of the market as most important, followed, in order, by competitor pricing policies, processing costs and raw product procurement costs. In short, the consideration of general market conditions and outlook and competitor pricing policies have become increasingly important factors in determining the firms' opening prices while the costs of procuring and processing the products have assumed second importance.

The most apparent reason for the change in the importance of the four factors in setting opening prices is the increased importance of specification buying by the corporate chains and wholesaler-retailer buying groups. Today, processors must compete for the private label market, in most cases entirely on the basis of price because they are essentially selling undifferentiated products to these buyers. The buyers are of course intent on procuring their products at the lowest possible price. Therefore, careful analysis of the market conditions at pack time, outlook conditions and competition of other processors must be made before the opening prices are determined.

Although most of the firms indicated that they considered the above named factors in setting opening prices, three of the small firms indicated that their opening price policy was to accept the opening prices of one of the larger firms. However, all indications point toward the barometric type of price leadership in these cases. 8/ In each of the three cases a different firm was named as the firm whose opening prices were accepted. Also in each case, the reason given as to why the firm accepted the opening price of the larger firm was that the larger firm was considered to have superior ability to assess market conditions.

#### Labeling policies

Each of the 32 processors that answered this section of the questionnaire packed both their own labeled products and private labeled products throughout the 10 year period. In 1950, 34.1 percent of the total packout of the 32 firms was sold under processor labels and 65.9 percent under private labels. By 1960 these percentages changed to 36.6 percent sold under processor labels and 63.4 percent under private labels.

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8/ Barometric price leadership is where the largest or the old experienced and respected firm assumes the task of evaluating the changing market conditions with regard to demand, costs, competition of related products and the phase of the business cycle, and in perspective of such factors sets the price which the other firms accept as long as it performs well (3, p. 273).

Although the percentage of the total pack of the 32 firms which was sold under processor labels increased slightly during the period, seven firms, all of which packed less than 500,000 cases per year, actually decreased the percentage of their total pack sold under their own label. Only 3 of the 19 firms which pack less than 500,000 cases per year increased sales under their own label whereas 7 of the 13 which packed over 500,000 cases per year increased sales. The remaining 6 firms that packed over 500,000 cases per year maintained the same percentage of their pack under their own label throughout the 10 year period.

In general, the firms which packed less than 500,000 cases per year sold a smaller percentage of their pack under their own label than the firms which packed over 500,000 cases per year. In 1960, five of the 19 firms which packed less than 500,000 cases per year sold over 20 percent of their pack under their own label (the largest percentage was 65 percent), whereas 8 of the 13 firms which packed over 500,000 cases per year sold over 40 percent of their pack under their own label. Of these 8 firms, two firms, both of which packed over 1,000,000 cases per year, sold 95 percent of their pack under their own label throughout the period.

In summary, the firms which pack over 500,000 cases per year generally have a relatively high percentage of their pack under their

own label and have tended to increase this percentage over the 10 years. On the other hand, firms which pack less than 500,000 cases per year generally sell a relatively low percentage of their pack under their own label and have tended to decrease this percentage over the 10 year period.

The smaller firms generally limited the sales of their own labeled products to either local markets or to some specialty item which the processor has successfully differentiated from similar items packed by other processors. The major reason for this is that the quantity which these processors pack is not sufficient to justify the extensive advertising and promotion program which is required to develop and maintain consumer demand for the products. Advertising and promotion expenses in a local market are usually at a minimum. Local advertising is relatively inexpensive as compared to regional or national and also, some local patronage is obtained simply because the processor and his products are local. Some small processors have been able to successfully differentiate certain specialty items such as pickles, spiced pears or preserves which retailers continue to stock because they have been accepted by the consumer. The relatively small quantities of these products demanded do not generally justify the development by retailers of these items under their private label.

Although some of the smaller processors have been relatively successful in selling a portion of their total pack under their own label, most of these firms sell a major part of their pack as wholesaler private labeled products.

When processors sell a major portion of their pack under private labels they are subject to a number of operating disadvantages. They are not in a strong strategic position because these processors are reduced to bulk suppliers of specification items with no real merchandising program. Unless the processor enjoys peculiar advantages in production or remains very efficient, his volume of business is precarious and may easily be lost. He must frequently compete on a strictly price basis (because many different processors usually can meet the specifications set forth by the buyers) and hence may lose to a more efficient competitor and suddenly find himself without a market. One of the chief interests of the buyer who purchases for private labeling is in securing goods at the lowest possible price. Buyers will, therefore, purchase goods wherever they can secure the greatest economies consistent with obtaining satisfactory service. In short, it appears that when a processor sells primarily under private labels, he is in a somewhat hazardous position as he is not building equity of his own and may be subject to buyers' whims and devastating price competition.



In order to protect themselves from becoming a bulk supplier of specification items, many processors, generally the larger processors, have attempted to expand the portion of their total pack which is sold under their own label. Accordingly they seek new products and new methods of preservation which cannot easily be duplicated either by retailers or by specialized processors satisfied to sell under retailer specifications. In short, they have attempted to differentiate their product to the extent that retailers will find it profitable to give them space within their stores.

In addition, processors have greatly expanded their promotion and advertising programs. Nationally, canners spent 1.8 percent of gross sales in 1947 and 2.6 percent in 1957 for advertising (44, p. 5). Of the 28 firms which indicated their advertising expenditures for 1960, nine had none, 11 spent less than 1 percent of gross sales and 8 spent from 1 to 5 percent of gross sales for advertising. All of the 19 firms that had advertising expenses indicated that this expense had increased during the 10 year period.

Because of the emphasis placed on increasing sales under processor labels, processors were asked to indicate the factors which they considered as important in establishing and maintaining their own label. Processors indicated that three prerequisites were necessary before attempting to establish a market for their own labeled products.

The most important prerequisite for establishing the firms own label is that the product have high, uniform quality. Eighteen firms placed this prerequisite as most important. The presentation of a diversified line of products was ranked as the second most important prerequisite. Many processors indicated that until they offered a full line of products, they were relatively unsuccessful in establishing their own label on the market. The exception to the maintenance of a diversified line is the practice of packing a specialty item. Firms indicated that this was an alternative to offering a diversified line when the location or limitations of the plant prohibited the packing of a diversified line.

The third ranked prerequisite, but ranked first by most of the firms who sold their labeled products directly to chains, was the ability to supply the volume of products required by the market and to be able to supply these products on a year round basis. Processors indicated that in order to reap the rewards of the promotional work carried on, it is essential to maintain a continuity of supply and keep buyers' shelves stocked at all times. Failure to do this would mean that the impact of the promotional effort was temporarily lost and that the job of promotion would have to be initiated all over again.

If the processor can meet the above prerequisites, then the most important factor in obtaining and maintaining a market for their

labeled product is to establish and maintain an effective merchandising program. An effective merchandising program must include close coordination with the retailer and knowledge of consumer shopping habits and attitudes of store personnel as well as extensive advertising, point of sale promotion and display materials and attractive labels.

Processors indicated that choice of label was particularly important today. Because of the increasing importance of self-service and the decreasing availability of shelf space in stores, processors placed special emphasis on presenting their product with an attractive, clean and bright label which would contain special appeal to the consumer. A canned food product may be of high uniform quality but, unless the label plus promotion of the product has sufficient appeal to tempt the consumer to buy, it will not be able to maintain a space on the self-service retailer's shelf very long. Its rate of turnover is of primary consideration in maintaining the right to that shelf space.

#### Procurement Policies and Practices

Many of the product specifications now desired by today's mass merchandising food retailers can be provided only as the result of a rather narrowly defined combination of actions by both the producer

and processor. Others may be largely satisfied by the producer but only if the specifications are transmitted to the farm level with sufficient precision. Hence, in order to satisfy the desires of the food retailers as well as to insure the quantity and quality of raw products which is necessary for efficient operation of the canning plant, the procurement policies and practices of canned fruit and vegetable processors must be designed to: (1) insure that the desired product specifications are transmitted effectively to the farm level; and (2) insure the necessary coordination of processor and grower decisions concerning such activities as planting and harvesting dates, acreage planted, varieties planted, and delivery schedule for the raw products.

Processors have in general attempted to satisfy the above goals of procurement policies and practices by adjustments in their methods of procurement and by offering services designed to help growers adjust their production practices more rapidly and effectively. The remainder of this chapter is designed to: (1) examine the methods of procurement and changes in these methods during the past 10 years with special attention given to the use of contractual agreements; and (2) examine the services which have been provided by processors to growers during the same period.

### Method of Procurement

There were four methods by which the 33 fruit and vegetable processing firms included in this study procured raw products. They were, by common agreement with the growers, by purchasing on the open market, by producing for their own use, and by contract with growers to grow a certain acreage of a specified crop. Table 25 shows the percentage of the raw products of the 33 firms which was procured by each of the four methods, and the number of firms which used each method of procurement in 1950 and 1960.

The actual method or methods of raw product procurement used by the firms varied from one fruit or vegetable to another, and among different processors for the same fruit and vegetable. Some firms used one method for some raw products and another for other raw products, and still other firms used two or more methods for procurement of the same raw product. In 1960, 20 of the firms in the study used only one method of procurement, 11 firms used two methods and 2 firms used three methods of procurement.

Common agreement. Common agreements are basically a continued outlet arrangement between the grower and the processor. Only two firms used this arrangement during the 10 year period and

Table 25. Percent of raw products procured by specified method of procurement and number of firms using specified method of procurement, 33 firms, Pacific Northwest, 1950 and 1960.

Method of procurement	Percent of raw products procured by specified method		Number of firms using specified method	
	1950	1960	1950	1960
	<u>Percent</u>			
Common agreement	0.9	0.8	2	2
Open market	5.7	4.9	9	9
Self-produced	1.7	2.5	6	6
Contractual agreement	<u>92.0</u>	<u>92.1</u>	<u>29</u>	<u>31</u>
Total	100.0	100.0	<u>1/</u>	<u>1/</u>

1/ Total does not equal 33 because some firms used more than one method of procurement.

the arrangement only applied to the procurement of berries. Both firms procured about the same amount of their raw products in this manner each year throughout the period. Both firms packed less than 250,000 cases per year in 1950 and 1960.

Open market. Only 9 firms purchased raw products on the open market during the 10 year period. Only 3 of these firms packed over 250,000 cases per year. Two of the 3 firms packed only canned fruit and purchased the major portion of this fruit on the open

market. The other firm purchased only berries in the open market, the berries accounting for less than 10 percent of the firm's raw product.

The remaining 6 firms which purchased on the open market packed less than 250,000 cases per year. In general, these firms procured only apples, pears, peaches and cherries in the open market. In 1950, five of these firms purchased over 80 percent of their raw products in this manner, but by 1960, only three of these firms continued to purchase over 80 percent in the open market. Of the remaining three firms, two changed to procurement of a major portion of its raw products by contract, and the third firm decreased its pack of fruit and began to pack vegetables which the firm produced itself.

Self produced. Six processors produced part of their raw products throughout the ten year period. Processor produced raw products were limited to vegetables, of which the predominant ones were green beans, asparagus, and peas. In general, the larger firms produced a larger share of their raw products than did the smaller firms. Of the 3 firms which packed over 500,000 cases per year, one increased between 1950 and 1960 its production of raw products from 30 to 50 percent of the total raw products procured by the firm, while the other two firms produced, throughout the period, over 75 percent

of their asparagus and/or peas which accounted for over 40 percent of their requirements. Two of the 3 firms which packed less than 500,000 cases per year, produced about 10 percent of their raw products throughout the period, and the third firm, which packed less than 100,000 cases per year, increased its production of raw products from 10 to 80 percent of the total raw products procured.

Contractual agreement. Contractual agreement was the major method of raw product procurement by most of the 33 firms throughout the 10 year period. Ninety-two percent of the total raw products procured by the 33 firms were produced under contractual agreements in both 1950 and 1960. In 1950, 29 firms procured all or part of their raw products by use of contracts. Nineteen of these firms, of which 10 were cooperatives, procured 100 percent of their raw products under contractual agreement. The 4 firms which did not procure any raw products under contract, procured over 80 percent of their raw products by common agreement with growers. All 4 of these firms packed less than 250,000 cases per year. By 1960, only 2 firms did not use contracts and both of these firms packed less than 100,000 cases per year.

Because of the importance of contracts to both the processor and the grower, it is felt that the reasons for the use of contracts and the provisions of the contracts should be discussed in some detail.



The economic rationale for some form of coordinated decision-making over the activities of growers and the processing firms lies in their dependence on one another for raw product outlets and raw product supply. Procurement problems of growers are largely associated with uncertainty of a source of supply or a market for the raw products. The use of contracts between growers and processors has provided a solution to many of these problems.

Procurement problems of processors can be classified under three major headings: (1) obtaining adequate volume of raw products; (2) obtaining desired quality of raw products; and (3) obtaining delivery of raw products to coincide with production schedules of the plant.

Processors are particularly concerned that an adequate volume of raw product be available for two reasons. First, a minimum volume of raw product is necessary to make efficient use of plant facilities and, secondly, processors usually have commitments with buyers for a certain volume of canned goods which the processor must fulfill if he is to retain this market.

In a perfectly competitive market, one in which there are many buyers and sellers, each buyer purchases an insignificant amount of the total supply, and therefore does not affect the price. But in markets of relatively few buyers, this is no longer true. Price competition at time of harvest will not increase total supply, rather, only

increase the price. This is the case with the canning industry.

Relatively few processors (buyers), and price competition at time of harvest will only tend to bid up the price of the raw products. Therefore, rather than bidding up the price in an attempt to obtain a larger share of the supply of raw products, or simply playing a passive role in accepting a share of the available supply, processors have a strong incentive to make special ties with growers long before the time of harvest. This tie has taken the form of contractual agreements with the growers for, generally, a certain acreage of the raw product.

The incentive to reduce uncertainties as to total quantity of raw product available is reinforced by the processor's desire to control location of the raw product production. Processors desire to control location for two basic reasons. First, the processor attempts to keep raw product hauling expenses at a minimum and secondly, he wishes to reduce the possibility of an insufficient supply of raw product or even a complete loss of a raw product supply due to abnormal weather conditions or diseases in a particular area. To reduce this uncertainty, the processor contracts with growers in different parts of the production area, keeping in mind the minimization of hauling costs.

The second procurement problem of the processor concerns the

obtaining of desired quality of raw product. In addition to the necessity of meeting minimum quality standards of the United States Food and Drug Administration, canners must also meet the quality specifications set forth by their market. Growers often are inclined to select varieties of products on the basis of agronomic characteristics, such as high yields or early maturity, with insufficient heed paid to processing characteristics. Fruit and vegetable processing today is a mass-production operation, and some physical characteristics are essential to the speed and effectiveness of the canning process. Some of the more important physical characteristics that canners desire are: the absence of defects such as cuts and bruises; uniform size and color; and absence of disease, worms or molds in the raw products. Low quality products mean that the canner can expect higher processing costs. It is therefore quite evident that the canner desires to control the kind and quality of the product he will receive because he wishes to minimize processing costs. By exerting control over the production of the raw product, the canner can, to a large degree, control the quality he will receive. For example, he can require that disease and insect control be exerted, that certain kinds of disease resistant varieties be planted, and that certain kinds of fertilizer be applied in order to affect color, size and maturity dates of the raw product.

The third procurement problem of processors is to assure the timing of deliveries of raw products to coincide with the plant operating schedule. Unless some form of coordinated decision-making between the grower and processor exists as to delivery dates, the plant may become over supplied with raw products at a given time.

Canners also have incentive to reduce per unit processing costs by operating their plants near capacity for as long a period as possible in order to spread overhead costs over a greater volume of output. It is their desire then, to receive raw products in sufficient volume each operating day and also over as long a period as possible. Variety and planting dates affect the date of crop maturity and hence delivery. Through the use of contractual arrangements between the processor and grower it is possible to control the variety planted and the planting dates in such a manner as to insure delivery of raw products to best conform to the canners' desires, provided, of course, that some other factor such as abnormal weather does not interfere.

The use of grower-processor contracts have also helped in the solving of production and marketing problems of growers. The problems confronting the grower are, basically, what to produce and how much to produce. The answer to both of these problems depends, to a large extent, upon the market available for the various products the grower can produce. In evaluating production alternatives, some

estimate of the product's sale price must be made. If the product is to be sold on the open market, price is uncertain until the time of harvest, whereas, price uncertainty can be effectively resolved for many products by contracting with processors for a certain, given price. 9/ Contractual arrangements between the firms included in this study and vegetable growers, included price setting well in advance of planting dates. This enables growers to appraise the potential profitability of the various products and hence, aids them in their production decisions.

Uncertainties of available markets and prices take on added significance to most fruit and vegetable growers because their out-of-pocket production costs are substantial. Growers must invest in land preparation, seeds or plants, fertilizers, disease and insect control measures, weeding, irrigation and harvesting before they receive any payment for their produce. Many growers must borrow in order to finance the products production. If the grower's produce is committed to a processor, lending institutions are more favorable toward financing all or part of the growers expenses without other forms of collateral. Some contracts even include provisions such that the processor can finance the growers expenses. In short, the use of contractual arrangements seem to be of mutual advantage

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9/ Price is generally not specified in advance for most fruit products.

toward the solving of both the procurement problems of the processor and the related production and marketing problems of the grower.

It should be emphasized that the procurement problems of the processor and the related production and marketing problems of the grower cannot be entirely solved by using processor-grower contracts. For example, unusually favorable or unfavorable weather conditions can cause problems, the solution to which are beyond the control of either the processor or the grower. But, evidenced by the fact that over 92 percent of all raw products procured in 1960 by the firms in this study was procured under contract, and also by the fact that this percent has not significantly changed over the past decade, it appears that this method of raw product procurement has been an effective aid in solving many of the above mentioned problems of the growers and processors.

The actual provisions of a contract will vary according to the type and kind of raw product, as well as between processors for the same raw product, depending upon each processor's quality requirements and certain limitations of a processor's facilities. For example one processor may require the grower to use only seed furnished by him, whereas, another processor will not have this provision because he does not have facilities to handle seeds. The following general areas are the major areas covered by contractual provisions in the contracts reviewed during this study.

Cultural practices. All contracts reviewed had some provision concerning cultural practices. The most common provision was that the grower agrees to plant, cultivate, fertilize, irrigate and practice disease and insect control. Some contracts stated that representatives of the canning firm could enter upon the grower's land from time to time to inspect the crop. However, most of the canners reported that today they need exercise practically no supervision of growers practices. The major role that the canner plays in the production of the crop is to advise the grower as to the kind of insecticides or weedicides and the time or times for dusting and spraying the crops. Processors did require, however, in all contracts that growers record any and all insecticides used on the crop. This was not entirely the case 10 years ago.

Seeds or plants. Twenty-nine of the firms included in this study specified the variety of product which was to be grown by the grower, but less than half of the firms specified that the seeds or plants must be purchased only from the processor. When it was specified that seed was to be purchased from the processors, the price was usually quoted in the contract. These contracts also excluded any warranty on the part of the

processing firm as to quality of the seeds supplied or any guarantee of crop therefrom.

Harvesting and delivery. Harvesting and delivery operations were made the responsibility of the grower in most contracts. Although facilities were provided by the canner in some cases, the contracts reviewed had no provisions which explicitly stated that harvesting must be done by the processor. However, all the contracts stated or implied that harvesting and delivery were to be accomplished according to the instructions of the contracting firm, and also contained provisions which allowed the contracting firm to refuse to accept any deliveries not made in accordance with these instructions. The contracts stated that the raw product must be delivered on the day of harvest, and that, where applicable, certain type containers were to be used for hauling. For example, tote bins were to be used in the hauling of green beans. In most of the contracts the processor agreed to supply the tote bins if at all possible, but specified that the processor was not to be held liable to the grower if the supply of tote bins was exhausted before the grower requested them.

Prices and pricing. Price was agreed upon when the contracts



were signed and so stated in the vegetable contracts, but not in most fruit contracts. There were two methods of pricing used by the contracts reviewed. The most prominent method was to price according to grades because this method enabled processors to offer an incentive to the growers to produce a superior product and also awarded those growers who produced a superior product. The second method was to price on an ungraded basis and pay the grower an average flat rate per unit of product.

Grades and grading. Most of the contracts of the processors who paid according to grade, included in the contract the grades and their respective prices. The contracts stated that the products would be weighed, inspected, graded and accepted or rejected at the processing plant. The contracts provided for processor rejection of the product if it did not meet the grade and size specifications. An example seems appropriate to show the extent of the grade and size classifications in a customary contract. The following is an example from a customary green bean contract. "The beans are to be reasonably straight, young, fresh, firm, tender and fairly well formed; are to be free from leaves, clusters, stems, vines, foreign material, decay, rust, scars, all life cycle

stages of insects, disease and injury or damage from any cause; are to comply with the pesticide residue and other requirements of the Federal and State Pure Food Laws and Regulations; and are otherwise to be of the quality and conditions needed by the Company." In addition to requirements such as above, the contracts also stated specifications pertaining to maximum percentage of culls which will be accepted in a single shipment.

Payment. All contracts contained some provision to cover payment to the grower. Usually the provision states that the grower will be paid within two or three weeks after delivery. The actual method varies from payment for the weeks delivery on the following Friday to payment on the 5th day of the month for all deliveries between the 15th and the end of the preceeding month, and on the 20th day of the month for all deliveries between the 1st and the 15th day of such month. The contracts also provide for the deduction of all amounts the grower owes the processor before payment to the grower.

Non-liable provision. The contracts reviewed contained provisions to insure that the grower would not be liable for non-delivery of the product caused by conditions beyond his control, such as acts of God or inability to procure labor or equipment

for harvesting or delivering the product. The contracts also contained provisions to insure that the processor would not be held liable for non-purchase or delayed purchase caused by conditions beyond his control, such as: the delivery of total product on a given day beyond the normal daily processing capacity of the plant; strike or other labor difficulties; inability to secure labor, supplies or equipment; accidents to equipment; and government regulation or action.

Cancellation provisions. Contracts which provided for cancellation, required written notice of the cancellation and also specified a time limit. In most cases, a contract had to be cancelled before the seed was in the ground.

Although contractual arrangements between the grower and processor did not always require the processor to carry out a certain practice for the grower or require him to provide a certain service to the grower, many processors offered these services and/or practices in order to facilitate more rapid adjustments in growers' production practices so that they would conform to processors' specifications. The following section discusses the grower services that were provided regardless whether or not the processor and grower were bound together under a contractual agreement.

### Grower Services Provided by Processors

The services offered by processors during the past 10 years may be classified into the following groups: providing technical and management advice; financing; providing seed, fertilizer and spray materials; and providing harvesting equipment. Table 26 shows the number of processors which provided the above services to their growers in 1950 and 1960. The firms are classified as to their size in 1960 in order to show how the amount of services offered varied among the different sized firms.

In general, the proportion of firms providing services to their growers and the number of services provided to growers increased as the size of the firms increased. Only two of the five firms which packed less than 100,000 cases per year provided at least 3 of the specified services for their growers during the 10 year period. The most apparent reason for this difference is that the smaller firms procured a large portion of their raw products on the open market whereas the larger firms used one of the other methods of procurement.

It also should be mentioned that during the 10 year period, the number of services and the number of firms providing services in each size class increased except the smallest and largest size classes.

Table 26. Number of processors providing specified services for growers, classified by size of firm in 1960, 33 firms, Pacific Northwest, 1950 and 1960.

Grower service provided	Number of firms providing specified service in size groups											
	Below 100,000		100,000 to 249,999		250,000 to 499,999		500,000 to 999,999		1,000,000 and over		All firms	
	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960
Technical and management service	1	1	1	3	7	8	6	6	8	8	23	26
Seed	1	1	2	3	5	7	4	4	7	7	19	22
Fertilizer and spray material	2	2	1	3	4	6	5	5	6	6	18	22
Financing	1	1	0	2	5	6	6	6	5	5	17	20
Harvesting equipment	0	1	1	1	2	4	1	1	2	3	6	10
Total number of firms in each size class	5		4		10		6		8		33	

One firm in each of these two classes added the service of providing harvesting equipment, but that was the only increase in services provided. The reason for this was because the small firms continued to deal predominantly on the open market and most of the services were already supplied by the larger firms.

## SUMMARY AND CONCLUSIONS

The objectives of this study are to: (1) determine the changes, as well as the causes of changes, in the organization and structure of the canned food industry and market; and (2) to assess the impact of these changes upon the Pacific Northwest canned fruit and vegetable processors and producers in terms of the immediate and long run adjustments most appropriate to their individual situation.

It is hypothesized that the retail level of the food industry has triggered many of the important changes in the food industry. Therefore it is first of all appropriate to outline the changes, and the causes of these changes, that have occurred at the retail level. Changes at the retail level have been the result of an attempt to accommodate changes or anticipated changes in consumer choices and preferences, as well as an attempt to decrease per unit costs and hence, increase or at least maintain profits.

In addition to conscious or clearly defined demands, there are latent demands which may be brought to consumer consciousness or realization by sales activities of the retailer. Changes in goods and services originate, basically, in the minds of retailers, processors and producers. Consumers then, make the final decision as to what goods and services they prefer.

During the past decade the consumption of canned fruits and vegetables has increased 25 percent. A major part of this increase is attributed to the 18.6 percent increase in national population, the remainder indicates an increase in the per capita consumption of these items. However, the increased per capita consumption is not wholly a result of an increased consumption of fruits and vegetables as a whole, but also a result of the substitution of consumption of the canned form of these items, especially canned vegetables, for the fresh form.

Among the major factors which influenced the increased consumption of canned fruits and vegetables, in addition to increased population are: (1) relatively stable prices for canned fruits and vegetables throughout the year which has encouraged regular consumption of these products; (2) increased purchasing power of consumers resulting from both increased real income and more even distribution of income; (3) the continued shift from rural to urban areas and the accompanying decline in the production of food for own use; (4) the continued improvement and standardization of quality attributes of canned fruits and vegetables causing these products to become highly substitutable for the fresh form; and (5) the increased preference of consumers for food items with "built-in maid service" designed to make meal preparation more convenient.



Consumer preference for convenience has not been limited to meal preparation but also has extended to their shopping and buying habits in general. This preference has led to the establishment of one-stop shopping facilities (the provision of non-food as well as food items in retail grocery stores), self-service and improved store layouts that provide for faster flow of customers and less delay at check-out stands.

A final change in consumer preferences which affect the canning industry is the change in size of container desired by consumers. There appears to be an increased demand for the No. 303, 8 oz. and No. 10 containers. The use of No. 303 and 8 oz. containers has replaced the use of No. 2 and to a smaller extent the No. 2-1/2 containers, both of which hold more servings than the No. 303 or 8 oz. Smaller size families and the preference for individual servings to provide more variety in meals seem to explain the desire for smaller size containers for family use. The increased demand for products packed in the No. 10 container reflects an increased demand for canned products by the institutional trade.

#### Changes in Food Retailing

Food retailers increased their volume of sales between 1950 and 1960 by 94.2 percent, or, from \$27.1 billion to \$52.6 billion.

This increased volume of sales has been handled by a decreasing number of stores. The number of grocery stores has declined 35.1 percent during the period, from 400,700 in 1950 to 260,050 in 1960. In short, the growing volume of products sold by grocery retailers has been handled by larger and larger retail stores. In 1939, the average size of the retail store was 1,200 square feet, whereas in 1959, the average size reached 15,000 square feet (10, p. 358).

The increased average store size is predominantly due to the growth in number of supermarkets during the period. In 1953, supermarkets accounted for 5.2 percent of the total number of grocery stores and 48.3 percent of the total grocery sales. By 1960, these percentages changed to 12.8 percent of the stores and 68.8 percent of the sales. Also contributing to larger store volumes has been the increased utilization of facilities through longer hours and evening and Sunday openings.

In addition to increasing the volume of goods sold, retailers have initiated the policy of rapid stock turnover. A fast turnover of stocks not only increases the volume of sales, but also reduces unit expenses for such cost items as interest, taxes, insurance on merchandise, and store and storage space.

Further, retailers have broadened the line of items carried. The number of items handled by retail grocery stores has increased

two-fold between 1946 and 1960. This increase is partially due to the increase in number of convenience food items carried, such as canned and frozen dinners, and partially due to the dramatic increase in number and sales of non-food items. Between 1950 and 1960 non-food sales increased by nine times. In many respects, today's supermarket resembles the general store except that it is in an urban rather than a rural environment.

During the 10 year period, retailers have added or expanded many services designed to attract new and hold regular customers to their store. In addition to stocking more non-food items which accommodates consumer preferences for one-stop shopping, retailers have enlarged parking areas, provided self-service facilities and located their stores in the suburban areas where population has tended to center.

Retailers today place greater emphasis than ever before on sales promotional activities and advertising designed to increase their store's volume of business. Advertising expenses, as a percent of total grocery sales, has risen from .48 percent in 1947 to .92 percent in 1957. Weekend price specials have become commonplace among retail stores. Give-away programs, coupon and trading stamp programs have been initiated by most retailers.

In a further attempt to increase total profits, retailers have

increased their emphasis on private labeled products. Many reasons are advanced concerning this increased emphasis, but perhaps the most convincing clue is the price differential that appears to be widening between the processor labeled products and the private labeled products. For many years the average differential ranged between 5 and 10 percent, but today the price advantage held by many private labeled products has become greater, often ranging between 10 and 20 percent (36, p. F-6, 1959 edition). With this price advantage retailers may lower the sale price and use the private labeled product as a promotional device, or they may sell at the same price as the processor labeled products and enjoy a wider margin of profit.

In order to secure and maintain consumer acceptance of their private labeled products, retailers have had to provide the consumer with an adequate, regular supply of the product with the quality attributes desired. It was necessary to reflect these requirements accurately to the processors and producers of the products. Price alone, has in many cases served unsatisfactorily in reflecting these requirements back through the various functional levels of the market. Retailers began to by-pass brokers in order to buy direct from processors on a specification basis. Specification buying is where the retailer specifies to the processor quality standards, volume and delivery schedules required, and then processors bid for the business

primarily on the basis of price, along with their ability to deliver the specified qualities and quantities on schedule.

Chain and independent stores both figure prominently in all of the above developments. There has been very little change in the relative position of chain and independents in total food sales in the past 10 years. In 1950 chains operated 6.4 percent of the grocery stores and accounted for 37.4 percent of grocery sales. By 1960, these percentages had changed to 7.7 percent of the stores and 38.9 percent of the sales.

Both chains and independents have increased their promotional efforts, expanded services, increased size of stores, increased the number of items handled and placed greater emphasis on private labeled goods. However, the method by which the two types of retailers have attempted to gain closer coordination with processors has not been the same. While chains have tended to formally integrate the wholesaling function within their organizations and by-pass the traditional wholesaler, independents have tended to form buying groups which either affiliate with the traditional wholesaler or forms its own wholesaling organization.

In addition to achieving closer coordination with processors, independents have had an additional purpose for forming buying groups and affiliating with wholesalers. Chains, because of their size have

been able to achieve economies of buying, such as receiving maximum quantity discounts, shipping full carload lots, as well as achieving lower per unit advertising costs by large scale advertising. Independents on the other hand, do not generally have sufficient sales volume to obtain the advantages of mass buying nor are they able to achieve size economies which are possible in spreading advertising and other promotional costs over more sales. By forming groups which buy for all its members, independents have been able to achieve many of these economies of size formerly enjoyed by only the chains.

As retailers initiated or extended the above adjustments in their operating policies and practices, adjustments have been needed at the other functional levels of the market. Fruit and vegetable canners have made many adjustments in their operating policies which have been designed to directly accommodate the new requirements of the retail level. In addition, processors have had to relay certain retail requirements, such as quality attributes which could only be obtained by growing a certain variety of the fruit or vegetable, to the producer.

#### Changes in Processing Industry

To satisfy the increased demand for canned fruits and vegetables

Pacific Northwest processors have increased their output by 29.4 percent during the past 10 years. As the consumption of these products has increased by only 25 percent during the same period, Pacific Northwest processors have increased their share of the total United States market. In 1950, the Pacific Northwest pack accounted for 10.5 percent of the total United States pack, whereas in 1960 it accounted for 12.0 percent. However, fruits, vegetables and berries did not contribute to this increase equally. In fact, canned berry production declined during the period in both the number of cases packed and as a percent of United States production. Canned fruit production remained about the same in number of cases packed but declined as a percent of United States production, while canned vegetables increased in both number of cases packed and as a percent of United States total pack. In short, there has been a trend during the 10 year period toward increasing the pack of vegetables and decreasing the pack of fruit and berries.

The increased volume of canned fruits and vegetables has been packed by a decreasing number of firms. In 1949, 65 firms packed 21.7 million cases, whereas in 1959, 42 firms packed 28.1 million cases. Hence, the average packout per firm has more than doubled over the 10 year period. Two reasons were given for this expansion of output per firm. First, the increased volume was necessary in

order to meet the increased demands of buyers and second, increased volume was necessary for achieving lower per unit processing costs.

Of the 27 firms that went out of the canning business between 1949 and 1961, 13 firms went out of business, 11 converted to freezing only and 3 were acquired by another canning firm. The major factors contributing to the failure of the 13 firms were, in order of importance: (1) difficulty of obtaining and maintaining a place in the market; (2) increasing capital requirements; (3) increased complexity of technology; and (4) lack of continuous, sufficient supply of raw products. In addition to these factors, the canners that converted to freezing gave the following reasons for converting to freezing: (1) less difficult to obtain a market for frozen products under their own label; and (2) increased consumer acceptance of frozen products.

Only 7 firms began operations during the 13 year period, of which 1 converted to freezing only and the remaining six failed before the end of the period. From these failures it can be concluded that the barriers to entry into the canning industry are extremely difficult to overcome. By far the most difficult barrier to overcome is to obtain a market for the products. Buyers require assurance that quality will be uniform, that delivery schedules will be met, and that the quantities they need will be supplied throughout the year. Normally, buyers will deal only with those processors who have proven in the



past their ability to satisfy these requirements. New firms have had little or no success in capturing part of this market.

In addition to increasing the volume of canned fruits and vegetables packed, Pacific Northwest firms have also altered the composition of products packed. In addition to discontinuing packing of commodities such as canned berries whose demand had declined during the period, and adding commodities such as green beans and asparagus whose demand had increased, many processors have attempted to increase the overall number of items processed by their firm. This attempt has in general occurred in the medium sized firms (250,000 - 999,999 annual case packout). The larger firms have been diversified throughout the period and the smaller firms either do not find an available supply of a variety of raw products or they do not have the capital required to convert their operations so that a variety of items can be processed.

Processors have attempted to diversify for two reasons. First, the processing season may be extended by processing commodities which are harvested at different times. If the processing season is extended, fixed costs of the plant are spread over a greater volume of products and thereby the plants' average costs are lower. In addition, lengthening of the processing season enhances the desirability of employment in the canning industry and increases the possibility of

maintaining an adequate and more permanent labor force with the likelihood of increased labor efficiency.

Second, processors claim that a full line of products is essential in establishing and maintaining a processor label on the market (unless the processor has a specialty item). If the processor cannot process a full line of products himself he must turn to other processors for the products he does not have. It should be mentioned that processors have increased inter-canner shipments over the period which indicates an increase in obtaining products from other firms. Availability of raw products is the major limiting factor as to how far a firm can diversify its production processes.

During World War II, processors greatly expanded their operations to supply the increased war demands. However, following the war, processors found themselves with excess capacity and began to experience increasing difficulty in marketing their products. During this period processors initiated or extended many practices, such as reservation selling and granting various types of discounts, which were designed to increase their sales. Today these practices have become commonplace throughout the industry.

Among the more important changes in processor operating policies which were initiated in the late 1940's and have been extended during the 10 year period covered by this study are the following:

First, the storing of products throughout the year so that the buyer could obtain products as he needed them. Essentially this practice has shifted the storage function to canners and thereby shifted the risk of price changes from retailers (or wholesalers) to the canner. Processors during the past 10 years have, on the average, doubled their storage space. Price under reservations is not set until time of shipment and, under reservations the buyer is not legally held to buy the quantity specified. Thus, if a price reduction occurs in the market, the processor is generally forced to meet the reduced price or else the buyer will not give shipping instructions.

Second, the granting of various types of discounts designed to encourage buyers to buy from a particular processor. The major change here is that today all processors are forced to grant these discounts, whereas in the early 1950's many firms were able to attract buyers because of quality products without granting discounts. Among the more important discounts are quantity discounts, cash discounts and transportation discounts.

The terms of cash discounts have changed during the past 10 years such that the period of time between receipt of shipment and the date when cash discount on payment becomes void has been extended by approximately 10-20 days. This practice has lengthened the period of time during which canners must finance raw product

procurement and materials cost.

Processors have more recently been attempting to eliminate transportation allowances by concentrating their sales efforts more on local markets. Between 1951 and 1957 the percentage of the West Coast pack shipped to the East decreased from 24 to 11 percent (13, p. 16). All processors except one, reported they were concentrating sales efforts in the western markets.

Over 90 percent of processor sales were made to either chains, wholesalers and/or institutional buyers throughout the 10 year period. Sales to independent unaffiliated retailers, export buyers and government agencies accounted for less than 10 percent of the total sales and in general the same firms sold throughout the period to these buyers. However, it should be mentioned that in general, firms that packed less than 250,000 cases per year did not sell to the government or export buyers.

Although sales to wholesalers remained the most important single market for Pacific Northwest canned fruits and vegetables, accounting for 46 percent of the sales in 1960, important changes have occurred in this type of wholesaler, as well as in the other major buyers during the 10 year period. The traditional unaffiliated wholesaler has remained the major market for products of firms which packed less than 250,000 cases per year. This is because the

smaller processors do not pack the quantity, or variety, nor do they have the storage facilities to enable them to supply retailers on a year round basis. Firms packing over 250,000 cases per year have, however, decreased their sales to unaffiliated wholesalers and increased their sales to affiliated wholesaler-retailer groups and national or regional chains. Sales to national and regional chains have doubled during the period.

The change in type of buyers has resulted in a change from selling to buyers who purchase items in large quantities to buyers who purchase in small quantities. This is because retailers have, through direct buying practices, tended to by-pass the traditional wholesaler. The result has been an increase in the number of shipments and a decrease in the size of shipments to buyers. This has increased per unit warehousing and handling costs of the processor.

In addition to the increased sales to chains and affiliated wholesaler-retailer groups, Pacific Northwest processors have increased their sales to institutional buyers. This is largely due to the increased demand from restaurants, hotels and institutions. However, sales are not made directly to these agencies but rather through institutional wholesalers. This is because of the unusually small shipments required by most restaurants and hotels.

Pacific Northwest processors used three methods of contacting and making the sale to buyers throughout the 10 year period. Sales

through brokers remained the most important method of selling throughout the period even though the percentage declined from 79.2 to 66.1 percent.

The fact that firms in all size classifications utilized the services of brokers can be attributed to the use of brokers for the selling of their own labeled products. Only a very small number of the largest firms included in the study maintained their own sales department rather than utilize brokers. However, where processors utilized the services of brokers to arrange for sales under retailer private labels in 1950, in 1960 these sales were made directly to chain buyers. This change accounted for much of the decrease in sales through brokers.

Although the overall sales through brokers declined throughout the period, the processors which packed less than 250,000 cases per year increased sales through brokers. Sales through a broker who has continuing contact with buyers and who can divide the fixed costs involved among several sellers has become the most efficient method of selling by most small canners.

Direct sales to buyers by canners increased from only 10.7 percent in 1950 to 13.4 percent in 1960. Firms that packed over 250,000 cases per year and that packed private labeled products increased direct sales considerably more than small firms. This was not a

processor oriented change but rather, one which was initiated at the retail level.

The third method of sales was to sell through a cooperative sales organization. Sales through cooperatives more than doubled during the 10 year period. The major advantage of selling through a sales cooperative is the achievement of additional market power in the sense that the sales organizations have been able to provide buyers with more services, such as a larger volume of a full line of quality products. The individual member firms were not able to do this at competitive cost, and hence could not obtain a share of the increasing chain and affiliated wholesaler-retailer groups' market.

Pricing policies of Pacific Northwest processors have become dependent upon the inventory policy which the processor attempts to follow. Since retailers began to by-pass the traditional wholesaler and therefore, have required processors to supply them on a year round basis, processors have in general tended to follow an inventory policy designed to supply buyers with a year round supply and to price the products such that a relatively stable price prevails throughout the year. This has meant that processors have had to concentrate their efforts on determining an opening price for their products which would not only be competitive at the time of opening prices but also be competitive throughout the year. Such was not the case 10 years ago

when processors set the opening price in an attempt to sell his pack as rapidly as possible after the products were packed.

In order to determine an opening price which will remain relatively constant throughout the year, processors have placed much more emphasis on analyzing market conditions at time of pack, outlook of supply and demand conditions and competitor pricing policies than they did 10 years ago. Price competition has become much more intense during the period because almost all firms, except the smaller firms, can meet the non-price requirements set forth by buyers. Some of these smaller firms have indicated that they have no pricing policy of their own, but simply accept the prices set by the larger firms.

The percentage of the total packout of the firms included in this study which was packed under processor labels increased slightly over the 10 year period, from 34.1 percent in 1950 to 36.6 percent in 1960. However, the firms which packed less than 500,000 cases per year in general decreased the percentage of their pack sold under their own label, while the firms which packed over 500,000 cases per year increased this percentage. In addition, the smaller firms generally had a relatively low percentage of their total pack under their own label as compared to the larger firms.

The most obvious reason why the firms that packed less than



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500,000 cases per year packed a relatively low percentage of their total pack under their own label than did the larger firms is because they do not pack a sufficient volume or variety of products to justify the extensive advertising and promotion program which is required to develop and maintain consumer demand for their products. On the other hand, the larger, more diversified firms can and do pack a sufficient volume and variety of products to enable them to offer a full line of products under their label. Processors indicated that the offering of a full line of products and the ability to supply these products on a year round basis were the most important prerequisites for establishing a processor label in the market, providing of course that these products are of high uniform quality.

If the above prerequisites can be satisfied, then an effective merchandising program must be established and maintained. One of the most effective merchandising tools today is the use of clean, bright, attractive labels. With the increased emphasis on self-service in retail stores and the decreased availability of shelf space, the label of a container must contain a special appeal to consumers so they will purchase the product.

The purpose for placing major emphasis on the development and maintenance of processor labeled products, as opposed to selling on a specification basis under retailer private labels, is that by doing so

the processor builds up good will of his own with consumers. Also, he prevents possible devastating price competition with other packers in an attempt to gain a share of the retailer market.

Processors have placed increasing emphasis during the past 10 years on insuring that desired product specifications set forth by retailers and/or desired by the processor for packing under his own label be met. These requirements have been transmitted to growers. In addition, the processor has had to insure the necessary coordination of his and growers' decisions concerning such activities as planting and harvesting dates, varieties and acreage planted and delivery schedule of raw products to the plant. Price alone has not, in general, satisfactorily insured that the above requirements would be satisfied. Therefore, processors have concentrated their efforts on designing procurement methods which would insure that the above specifications be met.

Although Pacific Northwest canners used three methods of procurement during the 10 year period, the use of contracts was by far the most predominant method. Only 5.7 percent of the firms' products in 1950 and 4.9 percent in 1960 were procured on the open market and then, the method was used only by either the smaller packers and/or fruit and berry procurement.

Processors, in order to gain the necessary coordination between

growers and themselves, either produced their raw products themselves or entered a contractual agreement with growers. Although only 2.5 percent of the raw products procured in 1960 were produced by processors, it was almost twice as much as was produced by them in 1950. In addition, this method increased percentage-wise more than any other method.

The major method of raw product procurement was by contractual arrangement. At least 92 percent of all raw products were procured by this method throughout the 10 year period. This indicates that the use of contractual agreements have been accepted as commonplace among processors and growers. Contracts have been an effective aid in solving many of the procurement problems of processors such as: (1) obtaining adequate volume of raw products; (2) obtaining desired quality of raw products; and (3) obtaining delivery of raw products to coincide with production schedules of the processing plants.

In addition, contracts have aided in the solution of many related production and marketing problems of growers such as: (1) what products should they produce; and (2) how much should they produce. Through contractual agreements with processors, growers are assured of a market for their products and in addition, for vegetable products, price uncertainty is resolved by agreeing on a price before planting. This practice allows the producer to more accurately

evaluate production alternatives because the price of the product is known and does not have to be estimated.

### The Outlook for Pacific Northwest Cannery

The following section of this chapter deals with the immediate and long run adjustments which appear to be most needed by Pacific Northwest canning firms; most needed in light of the changes which have and are occurring in the organization and structure of the canned food industry and market. For this appraisal the Pacific Northwest canning firms are divided into two classes: (1) small firms (those firms packing less than 500,000 cases per year); and (2) large firms (those firms packing 500,000 or more cases per year).

In general the small firms are characterized by:

- Inadequate volume to supply the increasing demands for private labeled products by the large corporate chains and wholesaler-retailer buying groups.

- A relatively small portion of their pack sold under their own label and inadequate volume to justify a high powered, long range advertising, merchandising and sales promotion program which is essential to increase the sales of their own label products.

- Inadequate storage facilities and financing to enable them to supply buyers on a year round basis.

- A lack of the variety of items needed to supply buyers demands or which is needed to lengthen the processing season so that fixed costs may be spread over greater volume.

- Inadequate capital for extensive expansion of plant facilities.

Under the above conditions it can be concluded that a small canner has three possible alternatives whereby he can meet the needs of the emerging retail structure or attempt to offset conditions which make success in the future increasingly difficult. First, he can go out of business. Assuming that the production capacity vacated will be absorbed by remaining processors, this would enhance the market position of the remaining firms.

Second, the small firm may merge with another processor. This alternative may enable the smaller processor to supply the retailers' requirements for volume, variety, year round supply and may even provide financial resources for plant expansion and the establishment of an adequate advertising and sales promotion program to increase the sales of his own labeled product.

The third alternative would be to consolidate sales with other firms by employing a common sales agent. Essentially this form of horizontal integration is countervailing power without loss of the identity of the individual firm. In addition, processors are able to meet the requirements of retailers and pack private labeled products, or are able to establish the promotional program essential to increased sales of processor labeled products.

Some form of sales cooperatives seem to be the appropriate method of achieving the desired degree of association among smaller

firms. A sales cooperative can be designed to concentrate on promoting interest in its products, coordinate the distribution of the products of its members, gather information and facts regarding market and crop conditions, effect more economical handling of sales among packers and distributors, and to make possible the offering of a more complete line of products under one sales outlet. A sales cooperative is, however, not a panacea. It cannot overcome plant inefficiencies and high unit processing costs.

There appears to be many economies which are achieved in production as the plant size increases. These economies give opportunity to offer products on the market at a lower price and still maintain the same margin of profit. Hence, even though economies may be achieved by group selling, large firms may achieve additional economies which are not possible among smaller firms. As there is no charity or compassion in the market place, small firms must be competitive in price and service or go out of business.

Some small processors may be able to survive because they have a specialty item under their own label. This allows them some degree of control over price and hence, may yield a satisfactory profit. However, if the demand for this specialty item increases, retailers may attempt to place this item under their own label. Then, the processor will be reduced to a supplier of this item competing on a

price basis with other processors, which may be difficult or impossible. The final outcome in this case results in failure or merger or a common sales agency. It appears that the ability of small firms to stay in business depends mostly upon their ability to increase size and gain economies associated with the volume of products processed.

In contrast to the conditions which characterize small processors, large processors are in general characterized by:

- A relatively large portion of their packout under their own label.
- Adequate storage facilities.
- A diversified pack.
- Adequate sources of capital for further expansion.

- Adequate volume of products and adequate financing to, thus far, enable them to supply buyers on a year round basis and to justify the maintenance of a sufficient advertising and sales promotion program to maintain a place in the market for their labeled products.

Large processors have been relatively successful in adjusting to the changing market organization and structure of the canned food industry, however, continued adjustments will be necessary as conditions change. It appears that the canning industry will continue to be faced with: (1) increased consumer demand for canned products, at least increasing as fast as population; (2) fewer buyers; it is



estimated that there will be 2, 825 retail buying offices in 1965 as compared to 3, 041 in 1959 (37, p. 7); (3) larger buyers; (4) increased non-food sales in supermarkets; and (5) increased efforts of chains and wholesaler-retailer groups designed to increase the portion of their sales under private labels. In short, it appears that processors will be faced with increased competition within the industry and more dependence on retailers' policies and practices.

Two reasons exist for the possible decrease in the market for processor labeled products and the increased share accounted for by retailer labeled products. First, retailers are in constant contact with consumers and are able to place emphasis on point of sale promotion for their brands, as well as restrict the shelf space allotted to processor brands. Second, it appears that real differences between brands are diminishing in the minds of consumers, hence the lower priced private labeled products may become more and more acceptable to consumers.

However, at the present time both processors and retailers agree that processor brands which are effectively differentiated and promoted must be carried to maintain the reputation of the retail store. Hence, it appears that large processors, in order to escape being bulk suppliers of retailer labeled products, must place increasing emphasis on advertising and promotion programs for their

products and continue seeking new products and new methods of preservation which cannot easily be duplicated by either retailers or by specialized processors satisfied to sell to retailer specifications.

The Outlook for Pacific Northwest Producers  
of Fruits and Vegetables for Processing

Pacific Northwest producers of processing fruits and vegetables are faced with: (1) a smaller and smaller number of buyers (processors) who are demanding a larger and larger volume of products; (2) increased effort of processors to secure products with specific quality attributes; and (3) increased effort of processors to secure delivery of products to coincide with production schedules of their plant. In short, it appears that producers will become more dependent upon processors' policies and practices.

Processors' policies and practices are aimed at achieving the maximum degree of coordination of growers and their own production and marketing activities. This coordination has been achieved relatively well through the use of grower-processor contractual agreements. Hence, it is expected that the use of grower-processor contracts will be continued, and in fact, emphasized even more in the years ahead.

Large processing firms desire to do business with large growers. Costs of procurement may be lowered as a result of dealing with a

small number of large growers, as opposed to a large number of small growers. Hence, the grower of processing fruits and vegetables will have to produce a relatively large quantity of uniform quality products that will be marketed at specified times.

The grower of tomorrow must be technologically oriented, ready to make changes in production as conditions warrant. Willingness and ability to gear production and marketing to the needs of processing firms will result in a reasonable return to resources employed. Production of the raw materials needed in processing is as essential as any of the marketing functions. One depends on the other.

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## APPENDIX

Table A. United States per capita consumption of selected canned, frozen and fresh vegetables, 1950-60 (50, p. 23-25).

Commodity and form of consumption	Annual per capita consumption										
	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960 <u>1/</u>
	<u>Pounds</u>										
<b>Asparagus</b>											
Fresh	.9	.8	.8	.8	.7	.7	.8	.8	.8	.8	.7
Canned	.7	.7	.7	.8	.8	.7	.8	.8	.8	.8	.7
Frozen	.1	.1	.2	.2	.2	.2	.2	.2	.2	.2	.2
<b>Beans, snap</b>											
Fresh	3.9	3.8	3.4	3.5	3.3	3.4	2.8	2.9	2.6	2.5	2.6
Canned	3.4	3.2	3.4	3.5	3.6	4.0	4.1	3.9	4.2	4.2	4.2
Frozen	.4	.5	.5	.6	.6	.7	.7	.7	.8	.8	.8
<b>Beets</b>											
Fresh	1.1	.9	1.0	.9	.8	.8	.8	.7	.7	.6	.6
Canned	1.2	1.6	1.4	1.4	1.4	1.3	1.5	1.4	1.5	1.5	1.4
Frozen <u>2/</u>											
<b>Peas, green</b>											
Fresh	.7	.6	.5	.4	.4	.4	.3	.3	.3	.3	.3
Canned	5.4	5.4	5.1	5.0	4.9	4.8	4.9	4.8	4.7	4.9	4.4
Frozen	.9	1.0	1.2	1.3	1.4	1.3	1.5	1.6	1.6	1.6	1.8
<u>1/</u> Preliminary											
<u>2/</u> No data available											

Table B. Consumer price indexes and per capita disposable income index, 1950-60 (18, p. 143 and 173).

(Index numbers 1947-49= 100)

	Consumer price indexes			Per capita disposable income (dollars)	Per capita disposable income index	Population (in thousands)
	All items <u>1/</u>	All commodi- ties <u>2/</u>	Food <u>3/</u>			
1950	102.8	101.2	101.2	1,369	109.8	151,683
1951	111.0	110.3	112.6	1,474	118.2	154,360
1952	113.5	111.7	114.6	1,520	121.9	157,028
1953	114.4	111.3	112.8	1,582	126.8	159,636
1954	114.8	110.2	112.6	1,582	126.8	162,417
1955	114.5	109.0	110.9	1,660	133.1	165,270
1956	116.2	110.1	111.7	1,742	139.7	168,176
1957	120.2	113.6	115.4	1,804	144.6	171,198
1958	123.5	116.3	120.3	1,826	146.4	174,054
1959	124.6	116.6	118.3	1,905	152.7	177,080
1960 <u>4/</u>	126.4	117.4	119.6	1,969	157.9	179,922

1/ Includes shelter, all commodities and all services.

2/ Includes all durable and non-durable goods.

3/ Includes only retail prices of foods consumed at home.

4/ Preliminary estimates by Council of Economic Advisors.

Table C. Distribution of United States families by money income and urbanization, 1949 and 1959  
(53, p. 270 and 54, p. 320).

Money income	Percent of families							
	1949				1959			
	Urban	Rural	Rural	All	Urban	Rural	Rural	All
<u>Dollars</u>	<u>Percent</u>				<u>Percent</u>			
	non-farm	farm	urbanization		non-farm	farm	urbanization	
Under 2,000	18.2	30.7	60.2	27.0	10.0	13.5	36.0	13.4
2,000-3,999	42.6	44.3	28.3	41.1	18.0	19.0	30.6	19.4
4,000-5,999	23.8	16.6	7.0	19.7	25.2	26.6	16.5	24.9
6,000 and over	<u>15.4</u>	<u>8.4</u>	<u>4.5</u>	<u>12.2</u>	<u>46.8</u>	<u>40.9</u>	<u>16.8</u>	<u>42.3</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table D. Estimated number of grocery stores by type of ownership, 1950-60 (36, 1951-1961 editions). 1/

Year	Chains	Independents		Total independents	Total all stores
		Affiliated	Unaffiliated		
1950	25,700	122,000	253,000	375,000	400,700
1951	24,000	122,000	248,000	370,000	394,000
1952	22,396	117,000	238,000	355,000	377,396
1953	23,224	100,000	239,376	339,376	362,600
1954	22,869	97,600	234,171	331,771	354,640
1955	22,365	101,000	219,935	320,935	343,300
1956	22,167	90,000	197,833	287,833	310,000
1957	21,949	88,000	188,851	276,851	298,800
1958	19,400	92,000	173,600	265,600	285,000
1959	19,700	95,000	165,800	260,800	280,500
1960	20,050	84,000	156,000	240,000	260,050

1/ Prior to 1951, independents are defined as firms operating less than four retail stores and chains are defined as firms operating four or more retail stores. Beginning with 1951, independents are defined as firms operating ten or less retail stores and chains are defined as firms operating eleven or more retail stores.

Table E. Estimated sales of grocery stores by type of ownership, 1950-60 (36, 1951-1961 editions). 1/

Year	Chains	Independents		Total independents	Total all stores
		Affiliated	Unaffiliated		
<u>Million dollars</u>					
1950	10,140	8,882	8,068	16,950	27,090
1951	10,718	10,770	8,884	19,654	30,372
1952	11,670	11,624	9,626	21,250	32,920
1953	12,475	12,165	10,075	22,240	34,715
1954	13,385	13,193	10,282	23,475	36,860
1955	14,260	15,571	9,584	25,155	39,415
1956	15,900	18,846	8,154	27,000	42,900
1957	17,400	20,306	8,294	28,600	46,000
1958	18,625	21,645	8,005	29,650	48,275
1959	19,475	23,662	7,188	30,850	50,325
1960	20,450	25,399	6,751	32,150	52,600

1/ Prior to 1951, independents are defined as firms operating less than four retail stores and chains are defined as firms operating four or more retail stores. Beginning with 1951, independents are defined as firms operating ten or less retail stores and chains are defined as firms operating eleven or more retail stores.

Table F. Estimated number and sales of grocery stores by size and by type of ownership, selected years, 1953-60 (36, 1954, 1959, 1960 and 1961 editions).

Size and type of ownership of stores	Number of stores (thousands)				Total sales (millions)			
	1953	1958	1959	1960	1953	1958	1959	1960
					<u>Dollars</u>			
Supermarkets	18.9	30.0	32.0	33.3	16,760	32,900	34,800	36,175
Chain	10.3	15.4	16.2	17.1	10,060	15,400	18,500	19,675
Independent	8.6	14.6	15.8	16.2	6,700	17,500	16,300	16,500
Superettes	70.6	59.7	56.1	58.4	11,100	11,850	12,150	12,150
Chain	8.6	3.7	3.1	2.6	2,345	1,100	950	750
Independent	62.0	56.0	52.0	55.8	8,755	10,750	11,200	11,400
Small	273.0	195.4	192.4	168.4	6,855	3,525	3,375	4,275
Chain	1.0	.4	.4	.4	70	25	25	25
Independent	272.0	195.0	192.0	168.0	6,785	3,500	3,350	4,250
Grand Total	362.6	285.0	280.5	260.1	34,715	48,275	50,325	52,600



Table G. Percent of total sales and total gross profits accounted for by the major non-food groups in supermarkets, 1960 (37, p. 6).

Non-food group	Percent of total sales	Percent of gross profits
	<u>Percent</u>	
Health and beauty aids	2.30	3.7
Housewares	.92	1.4
Magazines	.58	.9
Soft goods	.53	.8
Toys	.35	.6
Records	.30	.5
Stationery	<u>.23</u>	<u>.5</u>
Total	5.20	8.4

Table H. Pacific Northwest and United States total canned pack, 1949-59. 1/ 2/

Year	Vegetables <u>3/</u>		Fruits <u>4/</u>		Berries <u>5/</u>	
	Pacific Northwest	United States	Pacific Northwest	United States	Pacific Northwest	United States
	<u>Cases</u>					
1949	13,794,320	131,860,000	7,259,207	42,900,000	683,137	4,590,000
1950	15,574,024	139,784,554	5,833,451	45,342,507	243,256	3,802,000
1951	18,076,061	171,679,053	7,032,016	49,537,189	373,564	4,354,000
1952	16,522,070	164,579,117	6,426,535	43,584,493	539,793	3,942,000
1953	16,628,681	169,213,743	6,510,402	46,643,477	443,601	4,166,000
1954	16,653,499	154,028,943	7,703,554	47,675,641	368,291	4,355,900
1955	16,746,835	153,350,932	8,302,814	54,913,733	358,921	4,086,000
1956	22,384,656	196,256,987	8,220,373	58,844,372	238,669	4,112,200
1957	20,702,429	173,451,231	6,114,188	53,478,730	422,477	4,286,000
1958	18,629,194	179,622,105	6,661,699	62,521,000	403,707	4,393,500
1959	20,325,521	170,300,000	7,454,110	64,387,000	331,733	4,328,000

- 1/ Vegetables converted to 24/2 basis; Fruits and berries converted to 24/2-1/2 basis.
- 2/ U.S. pack data obtained from National Cannery Association, Washington, D.C. Pacific Northwest data obtained from Northwest Cannery and Freezers Association, Portland, Oregon.
- 3/ Vegetables include asparagus, green and wax beans, beets, carrots, corn, peas and carrots, peas, pumpkin, squash, and tomatoes and tomato juice.
- 4/ Fruits include apples, apricots, cherries, peaches, pears, and purple plums.
- 5/ Berries include blackberries, boysenberries, gooseberries, loganberries, red and black raspberries and strawberries.

Table I. Average annual change in percent of United States total pack accounted for by Pacific Northwest pack, selected commodities, 1949-59.

Commodity	Percent change
Apples	- 0.2075
Cherries, dark sweet	0.7616
Cherries, light sweet	-0.6240
Cherries, red tart	0.3653
Peaches	0.1110
Pears	-2.1042
Plums, purple	-1.5172
Blackberries	0.4682
Boysenberries	-0.8004
Gooseberries	0.0390
Loganberries	0.2031
Raspberries, red	<u>1/</u>
Strawberries	4.9163
Asparagus	0.1511
Beans, green and wax	0.8913
Beets	0.0292
Carrots	0.6220
Corn	0.2543
Peas	-0.2169
Peas and carrots	<u>1/</u>

1/ Continuous data not available.