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THROUGH THE AGRI-CULTURE IN SERVICE
IN PERSPECTIVE

by

Enrique Abruna

A THESIS

Submitted to the School of Graduate Studies of Michigan
State University of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of

MASTERS OF ARTS

Department of Marketing and Transportation Administration
Curriculum in Food Distribution

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A STORE MODERNIZATION PROGRAM
THROUGH THE AGRICULTURAL EXTENSION SERVICE
IN PUERTO RICO

by
Enrique Abruna

AN ABSTRACT

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E. A. Brand

Statement of the Problem

The changes that are taking place in Puerto Rico are affecting the food marketing situation. The island, traditionally an agricultural country, is changing toward industrialization. With higher incomes as a result of "Operation Bootstrap," consumers are beginning to change their eating habits. More fresh fruits and vegetables, meats and dairy products are now consumed by Puertoricans than 15 years ago.

A number of modern food stores have been established in metropolitan San Juan to serve consumers looking for better services. There are still a considerable number of service type grocery stores--colmados--that are not keeping pace with changes taking place in food retailing in Puerto Rico.

The absence of a well organized educational program towards better food retailing techniques accounts in part for this situation. However, the Agricultural Extension Service of the Commonwealth in an effort to better food marketing, recently started an educational program for food handlers.

Procedure

The experience of the writer, dealing with food marketing problems in Puerto Rico, has been used to analyze the problem. Basic information in self-service merchandising

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was obtained from text books, trade magazines, government publications, and periodicals. The author also used ideas and information obtained from courses taken in the Food Distribution Curriculum at Michigan State University.

Summary and Conclusions

The following conclusions were reached in analyzing the problems involved in a store modernization program for Puerto Rico.

1. Puerto Rico is rapidly changing from an agricultural country to a manufacturing island.
2. Wholesaling at present, with few exceptions, operates on nearly the same basis it did 50 years ago.
3. Food retailing at present is experiencing a change toward self-service merchandising.
4. Present physical facilities for handling farm products are inadequate.
5. Fresh meat supplies are not adequate to meet the island's consumption.
6. A recently organized food distribution program is being conducted by the government of the Commonwealth.
7. The Agricultural Extension Service is a cooperative venture between the United States Department of Agriculture and the Puerto Rican Government.

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See.

8. The Puerto Rico Agricultural Extension Service, organized in 1932, is conducting educational programs for rural and urban people including production and marketing activities.

9. Self-service techniques have been adopted by progressive food retailers.

10. Self-service merchandising is being used in departments in the food stores.

11. To convert conventional types of service food stores into self-service outlets is not an expensive enterprise.

As the Spanish proverb says, "he, who would bring home the wealth of the Indies, must carry the wealth of the Indies with him," so it is in traveling, a man must carry knowledge with him if he would bring home knowledge.

Samuel Johnson.

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CHAPTER I

INTRODUCTION

Analyzing the results of the research conducted by various public and private agencies in Puerto Rico, it looks obvious that by improving the efficiency of our food stores and other outlets of the island's food distribution system it may well be possible to reduce food prices in Puerto Rico by as much as eight per cent, perhaps more. If average food store prices were reduced by this 8 per cent, it would amount to saving consumers about \$29,000,000 annually. It would represent a real income for the same amount to our consumers. Considering the size of families in Puerto Rico and still the low incomes compared with those in the main land, this would bring the greatest benefit to those in greatest need.

There are many small retail outlets in Puerto Rico known as "colmados". They really are the backbone of our retail marketing system, so there is a need to provide them with the necessary information through an educational program to face the competition of big supermarkets.

Of the 16,746 retail firms listed by the Census of Distribution as selling food, 14,139 are described as grocery stores. The Census describe such a store, known in Puerto Rico as the "colmado", as primarily engaged in selling processed foods and dry groceries, although fresh meat, vegetables and fruits may also be carried. It is these stores which are backbones of the retail marketing system--these are the stores that distribute the imported staple foods.¹

¹ John K. Galbraith and Richard H. Holton, Marketing Efficiencies in Puerto Rico, (Cambridge: Howard University Press, 1955), p. 14.

Need for the Study

During the last three years a number of big supermarkets have been established in Puerto Rico. The small operator, as a general rule, is working with the same old method that he learned twenty or thirty years ago. The increase in competition has caused a need for more efficient merchandising in the food stores. The Government of Puerto Rico organized a food distribution program to modernize the present marketing activities of food distributors. But one agency is not enough, perhaps not even two or three. There are so many complicated problems in the food retailing situation that the combined efforts of different agencies and organizations are needed. The Agricultural Extension Service being an educational agency is in a good position to educate food retailers in modern techniques of food stores operation.

Preview of Organization

This is the order in which the investigation will be presented:

1. A review of the present economic and social conditions of the Commonwealth of Puerto Rico including a birdseye view of the food distribution problems presented but enough tables are used to complement the written information.
2. The second part of this study is devoted to the organization and present situation of the Agricultural Extension Service both in the United States and Puerto Rico. Emphasis is given to the retailers educational program in

the United States as well as the methods used for the accomplishment of the program.

3. The third part of this research is a summary of the principles and techniques of self-service food merchandising. It covers the basic principles needed for converting service type stores into self-service ones.

4. Summary, conclusions and suggestions for further study.

Scope of the Study

This study is not striving to give a complete picture of the social and economic progress of Puerto Rico during the last years. Books have been published intending to cover the whole situation, but they rapidly become obsolete due to the dynamics of our economy. By studying the tables presented in this study, the reader can see why the Commonwealth of Puerto Rico is taken as an example of rapid economic growth. Every year a big number of foreigners visit Puerto Rico as students of the Point Four Program. A store modernization program like the one presented in this study can also serve to help other countries to improve their present food marketing conditions. This research is intended to cover only the aspects of store modernization through a planned educational program. Other aspects such as services, financial advise, or promotion to join organizations, are out of the scope of the study.

Method of Research

The information presented in this thesis was obtained primarily from secondary data. The nature of the study is adapted to the use of this source of data.

For the first part of the study covering the present economic life of Puerto Rico, information was obtained chiefly from government publications. The experiences of the writer working as a marketing agent for the Agricultural Extension Service were used.

For the second part that deals with the Agricultural Extension Service, the information was obtained from books at Michigan State University library, publications from the Puerto Rico Extension Service and personal experience of the author working during the last five years for that organization. The writer has conducted interviews with specialists working in the retailer educational program at the Extension Service of Michigan State University and at the Federal Agricultural Extension Service of Washington D. C.

For the last part of this study, the information was obtained from secondary data: books, periodicals and bulletins written about the food industry. The writer also used ideas and information obtained in courses taken in the Food Distribution curriculum at Michigan State University. It is the opinion of the author that the grocers on the island of Puerto Rico do not have enough information, as a general rule, on self-service techniques to justify the use of a survey

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among them, also those having the necessary knowledge to fill in a questionnaire are so few that a sample would not be representative. Therefore, the writer decided to use the secondary data available.

CHAPTER II

A GLIMPSE TO THE ISLAND

The Commonwealth of Puerto Rico, approximately one-hundred and ten miles long and 35 miles wide, lies at the eastern end of the West Indies chain known as the Greater Antilles. Puerto Rico is approximately 1,600 land miles southeast of New York, 1,000 miles from Miami, 65 miles east of the Dominican Republic and 500 miles north of Venezuela. The northern shore of the island is bordered by the Atlantic Ocean, its southern by the Caribbean Sea.

Puerto Rico is now self-governing under a constitution drafted by a constitutional convention, approved by island voters in a referendum. The act, authorizing full autonomy in island affairs under a home-written constitution, was passed by the United States Congress in 1950.

The total population according to the last census was 2,210,000, approximately one-third residing in cities and towns, and exceeding a concentration of 640 per square mile. San Juan, located on the north coast is the capital and largest city, with a population of about 600,000 persons.

Puerto Rico is a Spanish-speaking community. English, however, is a required subject in the public schools, which are patterned largely on the American system. For example, the 6-3-3 plan has been pushed. Higher education is available at six colleges and universities on the island. The

largest of these, the University of Puerto Rico, is state supported and is a land-grant college.

Maritime freight service, weekly between the principal sea ports of the United States and Puerto Rico, is provided by seven steamship lines. A number of the principal airlines of the United States operate daily flights between San Juan and Miami and San Juan and New York. A local airline provides daily air service between principal cities and between Puerto Rico and the Virgin Islands.

The dominant agricultural activity of Puerto Rico is the production of sugar cane. Under present conditions the island can produce about 1,350,000 tons of raw sugar annually. Federal law, however, limits exports to a lesser amount and in effect, prohibits the refining of most of the local crop in Puerto Rico. Next in agricultural importance is the dairy industry. To expand it further, there are plans to develop "sterilized milk",¹ which should also relieve the excess of fresh milk.

The pineapple industry is also growing very fast. A modern plant for processing the crop has been established at a cost many millions of dollars. High-grade coffee is grown, under shade, in the hills of Puerto Rico. The United States buys most of the island's tobacco for use as a filler in the production of cigars. In addition to these major products, the island abounds in citrus fruits, coconuts,

¹The process originated in Switzerland and consists of canning sterilized milk. Milk processed in this manner does not need either refrigeration nor preservatives.

long staple cotton, bananas, plantains, tropical root crops and horticultural products.

The tourist trade is a good source of income for Puerto Rico. Because of its geographical location, the island in recent years has become the travel crossroads of the Caribbean. Excellent air and maritime connections at modest cost, fine beaches and first-class accommodations make Puerto Rico an excellent vacation spot.

Since Spanish days, agriculture has been the main source of employment and income, but at the present time there is a strong trend toward industrialization. The present government, convinced that agriculture is not able to provide sufficient employment to raise the standard of living for a constantly increasing population, established the Industrial Development Company in 1942. In 1950 the industrialization program was further strengthened by the creation of the Economic Development Administration. This well-planned industrial program is producing excellent results. To date 402 industries have been established in Puerto Rico creating more than 32,000 jobs. It is expected that by 1960 there will be more than 60,000 factory employees. In 1957, for the first time in the history of Puerto Rico, income from manufacturing was higher than that from agriculture.

The Wholesaling Situation

Food wholesalers, as others in the food distribution system in Puerto Rico as a general rule, operate on the same

basis they identify themselves. There are many businessmen working in small scale operations with sales under \$500,000 per year. They can be classified as shippers, brokers, jobbers, manufacturers, representatives and exclusive distributors. Most of them handle specialized lines of groceries or processed dairy products. There are a number of specialized wholesalers and jobbers in meat and produce, importing merchandise from the United States and Dominican Republic.

Another factor that makes wholesaling inefficient is the large number of small scale wholesalers or intermediaries as they are called. The merchandise enters the island through an exclusive distributor in the San Juan area or in the big cities of the island. He sells to a wholesaler, and in many cases to another smaller wholesaler, then to the retailer and finally to the consumer. Through this route, each of the handlers adds to the cost of the goods and makes a large profit. Moreover the inadequate physical facilities of the wholesalers increase the cost of the goods. Most of the warehouse "facilities" on the island are on the San Juan waterfront. These buildings are with few exceptions, the same ones that were in use at the beginning of the century. Lack of platforms, absence of adequate truck routes and parking facilities, limited cold storage facilities are some of the marked deficiencies of these relic buildings. These faulty conditions limit the use of modern handling equipment.

Perhaps people connected with the grocery business in the United States do not realize that grocers in Puerto Rico

are unable to buy national brands as freely as they do so on the main land. On the island merchandise is imported by franchise dealers. They handle a limited number of nationally advertised products. These organizations although having the limitations and deficiencies previously mentioned, maintain a relative good control of business operations. They conduct a promotional campaign using the various communications media available. They have obtained excellent results since consumers as a rule, are brand-conscious asking for the advertised products wherever they go shopping. Usually these exclusive distributors have little real competition so their margins and earnings are large.

Although Puerto Rico has been traditionally an agricultural country, most of the basic foodstuffs including fresh fruits and vegetables are imported. The agricultural commodities locally produced are sugar cane, coffee, tobacco and pineapples. They are considered staple products for export. Small amounts of winter vegetables, tropical roots crops and bananas are exported to New York:

The metropolitan San Juan market is the most important wholesale market place in Puerto Rico in the receipt and distribution of locally grown products. Included in the imports are meat and meat products, lard, fats and oils; rice, beans, and other grains and cereals; canned and processed foods, dry groceries, fresh fruits and vegetables; poultry and poultry products and other foodstuffs of lesser importance from the volume standpoint. The locally produced products include fruits, vegetables, poultry, eggs, meat and some commercially canned goods.²

²U.S. Department of Agriculture, Production and Marketing Administration, Marketing and Facilities Research Branch in cooperation with the Department of Agriculture and Commerce, Puerto Rico. Marketing Facilities for Farm and Related Products at San Juan, P. R., (Washington, D. C., 1955), p. 11

The following facilities are available for handling imported food products in the San Juan area:

1. An area six-blocks of wharves.
2. A general wholesale market carrying all kinds of commodities in the Rio Piedras area.
3. A wholesale business in the Santurce area scattered through different territories.

Piers are maintained in San Juan by all shipping lines using the port. Some of the warehouses are adjacent to the wharfs, others are situated within a few hundred feet from it and some are separated from it by a roadway 80 to 100 feet in width. Each steamship line provides, without charge, warehouse space for storing merchandise for a period not to exceed 5 days.

All the unloaded highly perishable commodities must be moved immediately to cooler or freezer storage on retail outlets. Since retail outlets are limited in the volume they can store, they buy mostly on a day-to-day basis. Most wholesalers and brokers move as large a volume of the commodities unloaded as is possible within the period of grace granted by the shipping line.³

Retailing at Present

Our present food stores have not evolved from the general stores or other forms of retailing. They started as single line operations and still are at present. With the exceptions of the progressive owners, that have modernized their stores and of course the supermarkets, the bulk

³U. S. D. A., op. cit., p. 30.

of our food retail outlets are as nearly the same as grocery stores used to be in the mainland in the late twenties.

When Mrs. Consumer wished to buy her groceries, meats and produce, she generally had to visit three different shops. Cookies and crackers came out of the big barrel or box. Did the merchant know how much it cost to do business? Or how much profit he made? No statistics were kept, there was no measuring stick. Goods were simply sold at mark-up, and overhead expenses were considered only in connection with rent, light, paper, and ice. All meats were cut to order. Flattered meats were a rarity because customers would not buy them.⁴

Although the present conditions in food stores in Puerto Rico are not a pressure-copy of the above, similarities leave no doubt that there is a need for a native Saunders or a modern Cullen on the island.

The food business "panorama" of the island reveals many types of retailers, the commonest is the one "at the next corner" working chiefly in straight groceries. He may have 2 or 3 bags of onions and potatoes, a case of garlic, and in season, a limited supply of apples, pears, grapes and prunes.

Since the end of World War II many of these grocers have bought service type meat display cases. They use this equipment as an "all purpose" unit. They use it for meats, dairy and produce items. Despite this, more than 90% of the store volume comes from dry groceries.

There are no records (the writer has not found them) of the first self-service store opened in Puerto Rico. During

p. 9. ⁴ Zimmerman, M. M., The Super Market, (New York, 1955),

the war period the government of the island established a number of stores. The purpose was to overcome the "black market" practices of those days. They were operated by a public corporation named the Puerto Rico Agricultural Co. and known by the initial letters as P R A C O stores. These stores carried groceries, meats and produce. The grocery section operated on a self-service basis. Although they were a failure as business enterprises due principally to management deficiencies, they encouraged the grocers to endeavor in the self-service departmentalized store. Many of these stores were bought by private operators and today some of them are very profitable.

Consumer owned stores or cooperatives have been increasing in number since 1946. At that time the government approved a Cooperative Law that guaranteed to members their investments. Close government supervision of the organizations, educational programs and financing institutions helped in their development. These cooperative stores have been developed principally in the rural area and small towns. They work in nearly the same lines as the small retailers such as "over the counter sales", sales on credit, poor localization, ignorance of modern procedures in store management and a marked need for working capital. In 1950 these small cooperative stores organized a Central Wholesale.

In 1955 a grocer from New Jersey opened the first true super market on the island. Although there were other

stores of a relative good size and doing a good volume they did not fulfill the concepts of the definition of a super market.

A highly departmentalized retail establishment, dealing in foods and other merchandise, either wholly owned or concession operated, with adequate parking space, doing a minimum of \$1,000,000 annually. The grocery department, however, must be on a self-service basis and all sales are on a strictly cash and carry basis.

The advent of this new type of operation awoke some of the grocers. They started remodeling and modernizing programs for their stores. The result has been that a number of super markets are being built all around the island but especially in the San Juan area. A fairly good number of better retailers usually of the self-service type have developed. Advertising was unknown to grocers three years ago, but is now a necessary tool.

Physical Marketing Facilities For Farm Products

The inefficient marketing facilities for farm products in the San Juan, Santurce and Rio Piedras areas are so heavily burdened with inadequacies that the need for a complete revision of this situation can no longer be overlooked.

The marketing of agricultural products sold outside of Puerto Rico is left to brokers, agents, and commission merchants. Retail food stores get their supplies from truckers who buy from farmers, or they are obtained at the

⁵Ibid., p. 18.

public market places. Imported produce is bought from wholesalers and from brokers and distributing agents who perform the functions of wholesalers.

The lack of an orderly marketing system for farm products has greatly influenced the pattern of agriculture. It has prevented desirable diversification and limited production below that warranted by available resources. Lands which should be planted to food and other crops for local use are not utilized to the best advantage. There is a fear on the part of the farmers of producing food crops because of the risk that these may not be absorbed by the local market, thus forcing prices to low levels with the subsequent losses to the producers. As a direct result of this situation, farmers are more inclined to follow extensive production practices instead of intensive farming.

Consumers in most towns and cities need the food and other products that could be produced but are not available due to the limited volume that reaches these markets. When local products are available, they usually are of low quality and poor condition. The distribution of tomatoes, fruits, and some root crops has improved in the metropolitan San Juan area, due mostly to the educational activities conducted by the Agricultural Extension Services and other agricultural agencies.

As a result of the inadequacies and lack of the physical marketing facilities, farmers care very little about varieties and production. When a crop is harvested, the

portion to be sold is marketed without regard to grading or packing. The production moves to the market as harvested; the good mixed with the inferior. There is no grading for the local market and no commercial standards set until 1953, when standards were developed for a group of local products. Farm products reach the market in odd types of containers, most of which offer little protection in shipping or storing. Much of the production moves either in bulk or in bags. The indiscriminate packaging and handling that is employed slows down the buying and selling functions and prevents the development of buyer confidence in local products. All of this is reflected in both the price paid by the buyer to the farmer and that charged to the customer.

The improper handling and transporting reduces the keeping quality of the products in such a way that sales to the merchants are reduced or given at such low prices to avoid carrying the supplies back to the farm that this itself constitutes a theoretical surplus. Storekeepers do not want to risk stocking poor-keeping quality fruits and vegetables. Stocks usually are low and consumers are unable to satisfy their demands. Instead, wholesale and retail outlets prefer to handle imported substitutes such as Irish potatoes, onions and others.

The bulk of the food commodities finds its way to the consumer through the municipal market places. These markets serve as concentration points for agricultural produce. Wholesale and retailing functions are mostly performed by

the same operators and are intermingled. The physical facilities are inadequate and are used mainly for retailing wearing apparel, food, and beverage stands. As not operated, these municipal markets serve neither the wholesaling nor the retailing functions effectively. The lack of parking space, the absence of loading and unloading platforms, the multiple activities performed that are not related to the marketing of agricultural products, and the crowded conditions at these municipal markets result in confusion and prevent the free expression of the economic forces of supply and demand.

The municipal markets of the metropolitan San Juan area, located at Rio Piedras and Santurce, Ponce and Mayaguez operate with fairly large volumes of produce, but there is a tendency to glut them with commodities which most other markets may be lacking. None of the municipal markets have refrigerated facilities for perishables, and few private commercial cold-storage facilities are available.

With the exception of a limited amount of open street and sidewalk space at the Rio Piedras and Santurce markets, there are no facilities for farmers and truckers. The limited space available offers no protection to the produce offered for sale.

Present Supplies of Meat in Puerto Rico

Although some goats and sheep are produced for slaughter, cattle is the Island's most important source of meat, hogs ranking second. Large land areas with small

populations are most adaptable to the raising of beef cattle. In Puerto Rico, just the opposite condition exists, too many people and too little land. The island has, for many years, imported meat to supplement its inadequate local supply. Perhaps this is the main reason why Puerto Rico is not a meat-eating country.

During 1955, average consumption of all meats including poultry was around sixty pounds per person. This is approximately one-third of the meat consumption per person in the United States. Low incomes partly explain this, but there is also a scarcity of good quality meats. The future promises a different picture because of the rapidly rising income in Puerto Rico and plans for improving the quality of meats.

Cattle production is more or less distributed throughout the island. In the south and southwestern areas of the land, it is not suitable for cultivation because the rainfall is low, and consequently more are raised for beef. They are maintained in the open range without any special care or management for finishing to the market. The predominating breeds are the crosses of native cattle with Zebu or Indian humped cattle and also blood from the dairy breeds such as Holstein and Guernsey.

In 1952, the Department of Agriculture of Puerto Rico established a program for the purpose of improving the pasture land on the island, and with good results. Farmers are using idle land for cattle grazing consequently the quality of the cattle is improving. The Land Authority, a

public corporation engaged in the agricultural business, is also conducting a program for the improvement of beef cattle. Private concerns, especially sugar cane growers, are now using part of their land to raise improved breeds such as Hereford, Santa Gertrudis, Shorthorn, Brown Swiss, and Charelois.

Present Marketing Practices for Livestock

As mentioned previously, beef cattle offered for sale in Puerto Rico are not fed properly. Producers depend largely on pasture for finishing cattle, calves and goats. Table garbage and root crops are used for finishing hogs. At present, the island does not produce corn and other grains in sufficient quantity for feeding farm animals.

Marketing Live Animals

The farmer may either lead or truck his animals to the market place or wait for an independent buyer who visits the farm in his truck.

Farmers with meat animals for sale make sales in two ways. They sell them to an independent buyer, who usually owns a truck, or they take them to one of the market places. The market places in general use are near the central part of the cities and towns near the "plaza" or certain vacant lots in or near many cities and towns, where weekly or bi-weekly sales are made. In any event, the farmer makes his own sale to the buyer, since the auction method is not in use.⁶

There are 18 private sales lots on the island. The farmers or independent buyers pay from 10 to 25 cents per animal for the use of the lot. More livestock is sold in these open lots than in any other type of market.

⁶U. S. D. A. op. cit., p. 109.

Slaughtering Facilities

In 1957 there were 76 abattoirs operating in Puerto Rico; 71 are municipally owned and the other 5 belong to private concerns. The abattoirs provide fresh meat to consumers daily and a market place for meat animals produced in Puerto Rico. In a study conducted by the United States Department of Agriculture in cooperation with the Department of Agriculture of Puerto Rico, many deficiencies in the operation of public abattoirs were pointed out.

The abattoirs vary greatly in size, shape, and design. They are "hulls" of buildings, with a killing floor, a hoist, and a carcass rack. The carcass rack is generally in a room of the killing room. Windows or doors are not screened for protection against flies or other insects, and there is no cooler and chilling equipment. Most animals are killed and skinned on the floor in the killing room. The usual practice is to kill beef animals by the pitting method, an ancient method whereby the animal is stunned by the severance of the nerve at the base of the skull, which retards bleeding. The blood remaining in the flesh of the animal tends to add softness to meat and hastens bacterial reaction, contamination and spoilage.⁷

Conditions in the privately owned slaughtering places were not much different:

The six known privately owned slaughtering places in Puerto Rico primarily slaughter large cattle and heavy hogs, some of which are produced on the farms of the slaughterers. Several of the larger plants do a limited amount of processing and curing, but the facilities used for these purposes are very crude and are not inspected for sanitation. The slaughtering facilities are of about the same design as the public abattoirs. Several of the larger ones have some cooler space, smoking and cutting rooms, and equipment for sausage manufacture.⁸

⁷Ibid., p. 110.

⁸Ibid., pp. 111-112.

The Organization of the Food Distribution Program

The effects of the deficiencies in the food distribution activities both at wholesale and retail levels necessarily were felt by consumers. The research studies conducted by public and private agencies brought good information in regard to the situation.

The consumers of Puerto Rico were paying an excess of \$29,000,000 due to deficiencies in the food distribution activities. To try to overcome that situation the Governor of Puerto Rico appointed a Food Advisory Commission in 1953. This was a group of some twenty business and governmental executives from Puerto Rico and the continental United States. In February 1954, the Commission submitted a report to the governor with the following conclusions:

1. The cost of marketing in Puerto Rico was too high.
2. The diet of the majority of Puerto Ricans was unsatisfactory.
3. Too much food was imported, thus raising the cost of food to consumers and losing potential revenue for the Puerto Rican farmers.
4. Since food takes a big share of the family budget, a reduction in the distribution costs of food would substantially improve the standard of living.

5. Distribution on the mainland was more efficient than in Puerto Rico.⁹

After studying the Food Advisory Commission Report, the Governor of Puerto Rico appointed a commission in order to draft an action. The Economic Development Administration¹⁰ employed Mr. Lee Feller, a Michigan State University graduate, to prepare a Food Distribution Program. The following were the recommendations of Mr. Feller in line with the recommendations of the Food Advisory Committee:

1. A Consumers Cooperative Development Program.
2. The Organization of a Retailers Owned Wholesale.
3. To Promote the Efficiency of Wholesaling.
4. Educational and Follow-up Programs.
5. Encouraging and Development of Voluntary Groups.
6. Super Market Finance and Development Company.
7. Other related programs.

Details of the Program

1. Consumers Cooperatives

The Food Advisory Commission emphasized the necessity of encouraging the consumers cooperatives development.

⁹Commonwealth of Puerto Rico, Economic Development Administration. A Brief History of the Economic Development Administration's Food Distribution Program. (San Juan, 1957), p. 5.

¹⁰Note: The Economic Development Administration is known also as FOMENTO and E. D. A. It works in coordination with the Industrial Development Company (PRIDCO) and the Government Development Bank. The last two offer financial assistance to new industries.

These stores constitute an outpost in the improvement of existing marketing conditions in the rural areas. For their growth and development they needed technical assistance in both retailing and wholesaling operations. To attain the proposed goals, the financing help by Fomento was of a paramount importance.

2. Retailer-Owned Wholesale

The recommendation was that "Fomento" provided a full-time organizer to encourage retail grocers to establish and operate their own wholesale.

3. Wholesale Efficiency Program

The present wholesalers were faced with the problem of moving their establishments to a new waterfront. Before that they had to improve their present operational activities. It was proposed that Fomento provided a full-time consultant to assist in modernizing these establishments.

4. Educational and Follow-up Program

Fomento proposed to hire a full-time training director and a full-time assistant. Fomento stated that "in a long run all plans will rise or fall on a well conceived and executed personnel training program".¹¹ Plans were to coordinate the activities of the training director with the vocational programs of the Department of Education. It was also proposed that in the long run the educational program be

¹¹Economic Development Administration, A Food Distribution Program for Puerto Rico, (San Juan), p. 13.

absorbed by the University of Puerto Rico through the Agricultural Extension Service.

The aims of the educational program are:

1. Seminars with key people from the food field in Puerto Rico.
2. Training programs for store managers and key personnel.
3. A publication program to keep up to date persons working in the food business, both retailing and wholesaling.
4. Personal assistance to aid individual operators with technical help to remodel old stores. A program to send people to the United States for special three-months on the job training.
5. Super Market Finance and Coordinating Co.

One of the recommendations of the Food Advisory Commission to the government was the establishment of big Super Markets. They alleged that this type of operation "offer the greatest potential for immediate improvement of the marketing system, since they can be used as examples of modern distribution and as a training group".¹² This same commission recommended to the government the acquisition of suitable sites to locate super markets. At the same time the government should construct and

¹²Economic Development Co., op. cit., p. 14.

equip stores for rent or sale on equitable terms to bonafide grocers or operators or to provide financial assistance for this purpose. The advisors were thinking of providing the efficiencies of multiple store operation and at the same time retain the advantages of the individual ownership. To implement these recommendations, Fomento is actively fomenting the organization of a Super Market Finance and Coordinating Company to be made up of investors from the food field, preferably local. This type of organization will operate in the following way:

- a. A private concern would lease or buy a number of super markets (ten is considered the minimum for an efficient multiple store operation) from the Puerto Rico Development Co. (PRIDCO).
- b. The Super Market Finance and Coordinating Company is to equip and stock these stores.
- c. The same company sub-leases the stores to independent operators provided they sign an operating agreement with the private company.
- d. The operating agreement between the Super Market Finance and Coordinating Company and the independent operators provides for centralized services such as accounting, meat

supervision, produce supervision, centralized advertising, personnel training and limited freedom on purchases and employee selection.

- e. The operators leasing stores from the private Finance and Coordinating Co. are to go to the United States to take a training course. This on-the-job training must last for at least three months. The operating agreement also provides for the hiring of a "State-side" manager supervisor.
- f. Fifty percent of the profit from each store should be returned to the private development organization to pay interests and the cost of the centralized services rendered. The remaining 50% of the net profit from each store would be transferred to the owner-manager as his equity. The manager-owner would be paying for his store out of his 50% of net profit. When the total payment would be completed, the owner has the privilege of signing a new contract with the private Finance and Coordinating Company, doing all the centralized services available to him at 1% of gross sales.

Accomplishments

- A. In July, 1956 the Economic Development Administration created the "Department of Commercial Development".

The creation was in recognition of the need for assistance to commercial establishments other than food stores. But the Food Distribution Program remains as the major part. This new Department of Commercial Development is at present engaged in a series of activities with the purpose of continuing the growth and improvement of the food distribution in Puerto Rico.

- B. The education program has conducted numerous activities with the purpose of training new employees for the store, and for the betterment of those already in the business. The following training and workshops have been conducted:

1. Management Training.
2. Cashier Training.
3. Sacker-carry-out Training.
4. Meat Cutters and Wrappers.
5. Retail Accounting Training.
6. Produce Clinic and Workshops.
7. Dairy Personnel Training.
8. Publications.
 - a. Fundamentals of Balanced Store Planning.
 - b. A Basic Course in Grocery Merchandising.
 - c. Produce Merchandising.
 - d. Importance of the Meat Department.

- e. Dairy Merchandising.
- f. Planning Your Work at the Checkout.
- g. Selecting Good Personnel.
- h. Developing Executive Ability in Store Managers.
- i. Indoctrination and Orientation of Employees.
- j. Some Practical Guides to Better Shelf-Stocking.

9. Assistance to Individual Retailers.

All of these educational activities have been conducted in a coordinated form with other government agencies especially with the Department of Education and the Agricultural Extension Service. The Extension Service has participated very actively in these activities. Being an educational institution, they have conducted a considerable number of training programs for the personnel in the Food Distribution Program and with retailers. The main emphasis has been on produce and meat merchandising.

- C. Remodeling program converting old service stores to self-service, has been successful. Some private concerns are cooperating with retailers to help them modernize their stores. The Agricultural Extension Service last year started an educational program for food distributors including store remodeling services.
- D. A general lowering of the food prices has been reported since the Food Distribution Program was started.

- E. A general lowering also of the prices charged by the United States manufacturers to Puerto Rican importers has been reported. Many lines of items charged as export merchandise have been revised and changed as domestic operations.
- F. The organization of a cooperative buying group.

In 1955 twelve grocers united together to pool their efforts and organize a retailer owned wholesale unit. The office of Food Distribution assigned a consultant to assist this group in developing a wholesale operation, a cooperative advertising program, other services to member stores and promoting new members.¹³

The Government Development Bank provided \$300,000 in individual loans and \$3,000 to members of the association. The name they adopted was Independent Stores Incorporated or better known as I. S. I. Pomento promised to purchase \$300,000 in I. S. I. preferred stock as soon as they were ready to operate a wholesale warehouse.

I. S. I. has made satisfactory progress and it is anticipated that the year 1958 will see a large increase in the number of retailer members and in its sales volume. The present membership is twenty-seven stores, with an average weekly volume of over \$14,000. These stores are progressing

¹³ Commonwealth of Puerto Rico. Economic Development Administration, loc. cit., p. 4.

very fast and are entering in the competition with big super markets.

- G. The consumer cooperative movement, as stated previously, has been growing since 1946. In 1950-51, they organized a central wholesale unit known as the Puertorrican Federation of Consumers Cooperatives. This Federation, although having the limitations of similar organization on the island, grew steadily and performed an excellent job. The Consumers Cooperative decided that it was time to enter the urban areas of Puerto Rico.

In 1955, Mr. Sam Ashelman, General Manager of Greenbelt Consumers Services, Inc., Maryland, was appointed as advisor for carrying out the previous recommendations of the Food Advisory committee in regard to the cooperative movement. The plan prepared by Mr. Ashelman was accepted. A corporation was organized by the Puertorrican Federation and Puerto Rico Development Co., known as Borinquen Consumers Service, Inc. or B. C. S. The following commitments were made:

1. Puerto Rico Industrial Development Company disbursed to B. C. S. \$150,000 for expenses incurred during the first year in training and development activities. The Legislature offered an additional \$150,000 to be given to B. C. S., \$100,000 the second year and

- \$50,000 the third year.
2. P R I D C O contracted to lease to B C S for a period of five years with an option to purchase, six rolling stores in return for a down payment of \$188.09 each, and an annual rental of \$2,257 each. Total cost of the stores was \$60,000.
 3. P R I D C O contracted to purchase 2,000 shares (all) of B C S preferred stock at par-value of \$100 each to help B C S finance its retail and wholesale operations.
 4. P R I D C O contracted to construct a shopping center to be leased to B C S and to lease a central warehouse building.
 5. In December, 1955, B C S entered in a management contract with Greenbelt Consumers Services, Inc. of Maryland. Consultants from Greenbelt were to receive travel and expenses plus a fee ranging from \$50 to \$100 a day.

At the present time B. C. S. have practically disappeared. In charge of the management of the cooperative Super Market at Mayaguez is the Puerto Rican Federation of Consumers Cooperatives. This store has a volume of sales of \$15,000 a week. In March, 1957 Dos Pinos Super Market was inaugurated. This is a big store of about 16,000 square feet of selling area and weekly sales of \$32,000. Although

the organization has a number of continental officers and very well paid personnel, it is not operating as expected.

The main reason seems to be lack of sound management practices as pointed out by Mr. Lee Feller in a memo to Mr. Heriberto Alonso, of the Economic Development Administration. "The keys to the current problem lie in procuring adequately trained personnel for operations management."¹⁴

H. Development of Super Markets. Although there were some relatively big self-service stores before the program was established, they were no super markets in the true sense of the word. The organization of the food distribution program has provided grocers with technical assistance and financing. the following super markets have received technical and/or financial assistance:

1. Pueblo Super Markets (3 units)
2. Todos " " (3 units)
3. Superama " " (2 units)
4. Millers " " (3 units)
5. Caribe Stores (5 units)
6. Ottro Super Market
7. Balet Super Market

¹⁴ Economic Development Administration, Policy and Operational Recommendations (San Juan), p. 1.

PART II

THE AGRICULTURAL EXTENSION SERVICE

CHAPTER III

Organization in the United States

Extension work is largely the result of the working together of two great forces. First, American agriculture characterized by cheap land, scarce labor, new products, and the use of credit, second, American education--as characterized by Ezra Cornell's ideal of education for any man or woman in any field. Americans early recognized the responsibility of the government to provide practical education as distinguished from the classical type.¹

The very beginnings of extension activities can be traced throughout American history. Since the early days of the republic, their leaders filled the necessity of spreading information to farmers and rural people.

George Washington recommended to the first Congress that a University be created with a class of Agriculture having the responsibility of spreading information to farmers. Benjamin Franklin helped organize the Philadelphia Agricultural Society in 1785. This was one of the first organizations pledged to disseminate agricultural information through lectures, meetings and publications.²

Both Washington and Jefferson participated actively in the affairs of their estates at Mount Vernon and Monticello

¹Lincoln D. Kelsey and Cannon C. Heorne, Cooperative Extension Work, (New York, Comstock Publishing Company, 1949), p. 11.

²"Development, Philosophy and Objectives", Your Appointment, (East Lansing, Cooperative Extension Service, Michigan State University), p. 2.

respectively. George Washington did much to promote a discontinuance of the one-crop tobacco system in Virginia among the tenants of his 70,000 acre estate. He also took interest in mule breeding, having received a gift of some superior asses from the king of Spain. In 1796, he urged Congress, in his State of the Union message, to create a Board of Agriculture.³

The firm conviction that all persons, including those who till the soil, could benefit from education is typical to the American way of being. It is significant in the development of extension work that, there has been from the beginning, a social-political-economic climate in the United States that encourages men to learn and to apply knowledge to the problems of making a living.⁴

This in part, accounts for the rapid spread in the 1880's of agricultural societies, patterned after the Philadelphia Society, to nearly every state in the Union for the purpose of extending information in the field of agriculture. The Michigan Agricultural Society was instrumental in getting the state legislature to pass the act creating Michigan Agricultural College, now Michigan State University, in 1855. These societies, together with

³John T. Stone, "A Digest of Significant Historical Developments Leading to the Passing of the Smith-Lever Act in 1914", (East Lansing: Agricultural Extension Service, Michigan State University, 1957, unpublished mimeograph), p. 4.

⁴"Development, Philosophy and Objectives", loc. cit.

other agricultural organizations, were also influential in the establishment of the United States Department of Agriculture in 1862.⁵

Laws Creating the Extension Service

1. Morrill-Land-Grant College Act. In 1858, Justin Morrill of Vermont introduced the first Land Grant College Bill which was vetoed by President Buchanan under pressure from the South. In 1861, Mr. Morrill introduced it again, and it was signed by Abraham Lincoln during the Civil War in 1862. In the same year were passed the first Homestead Act and an act setting up the Federal Department of Agriculture.⁶

2. Smith-Lever Act of 1914. This Act is the foundation upon which the whole system of cooperative extension work was built. The following is a brief summary of the four major provisions of the act:

- a. Must be a cooperative work: It must be carried on in connection with the land-grant college, in cooperation with the U.S. Department of Agriculture. The act enables the use of plans which maybe mutually agreed upon by the Secretary of Agriculture and the State College of Agriculture.
- b. Finance and Availability: In the first year a certain amount of money (\$10,000) was granted to each state without need of state offset. The sum continued annually. The next year \$600,000 was added, and \$500,000 was added each year

⁵Ibid.

⁶John T. Stone, op. cit., p. 8

thereafter until 1922-23. Additional appropriations had to be offset by a like amount raised within the state.

- c. Duplications or offset: After the original \$10,000 has been paid to the state, no additional funds may be allotted to the state except if equal amounts of funds are appropriated for the year by the legislature of such state or provided by state, county college, local authority or individual contributions from within the state.
- d. Limitations in the Use of Funds: There were some limitations to the use of funds such as rental or purchases of building or rental of land, teaching at colleges, agricultural trains, printing in excess of 5 percent.

The state had the prerogative of determining which college or colleges should administer the funds. The determined college was to make annually a detailed report of receipts, expenditures, and results to the governor of the state and the Secretary of Agriculture. It established a national system of cooperative education between the state agricultural college and the Department of Agriculture, which was soon to lead the world in methods and effect on rural life.⁷

3. Capper-Ketcham Act of 1928. The main objective of this act was to help the further development of the cooperative extension system as inaugurated under the Morrill Act and the Smith-Lever Act. The expansion of the service work was to be with men, women, boys and girls. The words "boys" and "girls" did not appear in the Smith-Lever Act.

⁷Kelsey and Cannon, op. cit., pp. 27-29.

Home economics work also was expanded by this act.⁸

4. Bankhead-Jones Act of 1935. This act was passed to enable the extension service to carry on educational work for various agencies of the United States Department of Agriculture which had come into being since 1933, and which resulted in a temporary change in the nature and amount of extension work in some states. The increase in appropriations resulted in an increase of home demonstration activities.⁹

5. Bankhead-Plannagan Act of 1945. Provides additional funds, not in substitution for sums appropriated through the Smith-Lever and other acts supplemental thereto. The purpose is to develop further the cooperative extension service, especially at the county level.¹⁰

6. The Agricultural Marketing Act. Was passed by the United States Congress in 1946. It provides for the development of new and additional lines of work relating directly to marketing of agricultural commodities. Funds are allotted to the states on the basis of approved projects setting forth the problem to be worked on, objectives to be accomplished and a definite plan of operation. The Division of Agricultural Economics Program of the Federal Extension Service, has the responsibility for assisting states in developing Agricultural Marketing Act projects and appraising results of marketing programs.

⁸Ibid., p. 31.

⁹Ibid.

¹⁰Ibid., p. 32.

The Cooperative Extension Service has the responsibility for coordinating educational work conducted under this Act with other extension marketing work. Generally, projects under this Act should involve work on marketing problems beyond the farm, but close liaison should be maintained with other marketing and production programs.¹¹

Present Situation of the Extension Service

The Extension Service is a cooperative arrangement between the land-grant institutions and the United States Department of Agriculture. It is legally known as Cooperative Extension Work. There is an Extension Service for each state, each territory, and the United States Department of Agriculture. All these levels are bound together by agreements in line with the basic legislation enacted in the Smith-Lever Act. The state director of the Extension Service is appointed by the state government, with the approval of the United States Department of Agriculture. In some states the cooperating land-grant institution is the state university; in others it is a state college.

The activities of the Extension Service are at three levels: Federal Extension Service, State Extension Service, and County Service.

¹¹"Handbook for Extension Marketing Projects", (Washington D. C., Federal Extension Service, United States Department of Agriculture, May 1956), pp. 1-6.

1. Federal Agricultural Extension Service. The Extension Service is the agency through which the various bureaus and agencies of the Department of Agriculture channel information and educational material to the field. It is in charge of a director who represents the Secretary of Agriculture in his relations to all cooperative extension work conducted by the state colleges of agriculture, the counties, and the local units of farmers' organizations. The federal office has the responsibility for developing and understanding of the various national programs and policies affecting agriculture. To accomplish its aims, the Service has six divisions:

1. Division of Business Administration.
 - a. Administration.
 - b. Personnel.
 - c. Budget.
2. Division of Extension Information
 - a. Administration.
 - b. Publications.
 - c. Press-Radio.
 - d. Educational material distribution.
3. Division of Field Studies and Training.
 - a. Education Research.
 - b. Research and Training.
 - c. Personnel Training.
 - d. Foreign Student Program.
4. Division of Subject Matter.
 - a. Program Development.

5. Division of Field Coordination.

- a. Supervision
- b. Coordination
- c. State and County Work.

6. Division of Agricultural Economics.

- a. Program Development.
- b. Research and Marketing.
- c. Coordination.
- d. Appraisal.¹²

2. The State Extension Service. There are variations of Extension Service in different states:

- a. Where the dean of the college of agriculture is also director of the Cooperative Extension Service. Within this arrangement there are also variations.
 - 1. The dean is also director, but an assistant, associate, or vice-director in operational charge of extension work.
 - 2. There is a director of Extension, responsible to the dean of the college of agriculture.
- b. In universities with state colleges of agriculture and home economics, the director of extension is responsible jointly to the deans of both of these colleges for their cooperative extension work.

¹²Edmund de S. Brunner and E. Hsin Pav Yang, Rural America and the Extension Service, (New York: Teachers College, Columbia University, 1949), pp. 20-24.

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- c. The state colleges with the director of extension responsible to the president of the institution. This director may, also, be responsible for all extension done by the institution, general and cooperative.

The organization of the State Extension Service is arranged in such a way to assist the County Extension Service in those things they cannot readily or easily do.¹³

3. The County Extension Service. The county work is centered in an adviser to the farmers, usually called a county agent. In about three-fourths of the counties there is also a home adviser, usually known as a home demonstration agent. Several hundred counties have agents for boys' and girls' clubs, but usually this activity is an added responsibility of the adult workers. This is the usual setup. Many of the larger and more prosperous counties have additional agents for one to all of the three major areas of work.

There is no single pattern of county extension organization in the United States. Among the states the differences are related to variations in the laws which approved state cooperation and to varying administrative procedures, which in turn express somewhat differing philosophies of extension. Among the counties and within the limitations

¹³Kelsey and Cannon, op. cit., p. 42.

set by the state laws, individual ideas of agents or local people, varying social and economic conditions as the case in Puerto Rico, such as population density, and sometimes the ingenuity, originality, or administrative ability of the agent are some of the factors accounting for the differences.¹⁴

¹⁴ Brunner and Yang, op. cit., pp. 30-31.

CHAPTER IV

The Agricultural Extension Service in Puerto Rico

Extension-education to rural people was started in Puerto Rico by the College of Agriculture and Mechanics Arts in 1911. Correspondence courses were offered to rural school teachers and a weekly publication where information in regard to agriculture and home economics, was published.

The scarcity of basic foodstuffs as a result of World War I, showed the necessity to increase agricultural production. To overcome the problem of land scarcity, methods for intensive agriculture were stressed. In 1917, the government of Puerto Rico established the Food Commission (Comision de Alimentos) to deal with agricultural production affairs. To conduct the extension teaching, 35 agents and 10 vocational agriculture instructors were appointed. In the same year, by dispositions in the Organic Act, the Department of Agriculture and Labor was organized. As a division of this department, an Extension Service was organized to teach and advise farmers.¹

In 1923 the extension activities were reorganized. The Agricultural Development Division of the Department of Agriculture and Labor was organized.²

¹Roberto Huyke, Guia Para el Personal, (Rio Piedras: Servicio de Extension Agricola, Universidad de Puerto Rico, 1948), p. 6.

²Ibid.

In 1931 by amendments to the Organic Act, the Insular Department of Agriculture and Commerce was established and a separate Labor Department organized. The educational programs to rural people were continued under the new agency. During that year the benefits of the "Extension Acts" were extended to Puerto Rico by the Federal Congress:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that beginning with the fiscal year ending June 30, 1933, the Territory of Puerto Rico shall be entitled to share in the benefits of the act entitled "Act to establish agricultural experiment stations" in connection with the colleges established in the several States under the provisions of an act approved July 2, 1862 That the experiment station so established shall be connected with the College of Agriculture of the University of Puerto Rico and it shall be conducted jointly and in collaboration with the existing Federal experiment station in Puerto Rico.³

In 1933, by resolution of the House and Senate of Puerto Rico, the cooperative activities for extension education between the United States Department of Agriculture and the University of Puerto Rico were accepted. As a result of this agreement all the educational activities of the Department of Agriculture were transferred to the newly created Agricultural Extension Service of the University of Puerto Rico.⁴

³Kelsey and Hearne, op. cit., p. 402.

⁴Roberto Huyke, op. cit., p. 7.

In 1935 the Congress of the United States made effective the extension of the benefits of the Bankhead-Jones Act to Puerto Rico:

That the provisions of section 21 of the act entitled "An act to provide for research into basic laws and principles relating to agriculture" and to provide for the further development of cooperative agricultural extension work and the more complete endowment and support of land-grant colleges approved June 29, 1935, and known as the Bankhead-Jones Act, be and the same are hereby, extended to Puerto Rico in such amounts as are herein after authorized without diminution of the amounts authorized for payments to the States and the Territory of Hawaii.⁵

In 1946 by virtue of the dispositions of State law, 292, a cooperatives education department was created as part of the Agricultural Economic Division and in 1947 new appropriations from the Federal government helped to increase the activities in consumers education and agricultural marketing.⁶ The Extension Service is constantly increasing activities to reach the population in rural and urban areas. During 1957 the Cooperatives Education Project, a division of the Agricultural Economics Department was transferred by virtue of law to another government agency, but a retailers educational program was started that same year.

⁵Kelsey and Hearne, op. cit., p. 407.

⁶Roberto Huyke, loc. cit.

Present Organization

At the present time the island of Puerto Rico is divided into eight Extension zones with a total of 70 districts. The zone organization of the Extension Service in Puerto Rico is:

1. Rio Piedras Zone. Comprises the north-east area of the country and includes the Extension districts of Rio Piedras, Trujillo Alto, Carolina, Loiza, Rio Grande, Luzuillo, Fajardo, Vieques and Ceiba. The zone is headed by two supervisors, one for the district agents and one for the home demonstration work. There are 17 agricultural agents, 14 home demonstrations agents, two soil conservation workers, 5 consumer education agents and 3 marketing agents. Fourteen employees are in charge of office and clerical work. Two extension agents are working in a Farm and Home development program.

2. Arecibo Zone. Is situated in the northern part of the island. Eight districts are included in this zone; Arecibo, Barceloneta-Florida, Camuy, Ciales, Hatillo, Isabela, Manati and Quebradillas. Thirteen district agents are in charge of giving information to rural and urban residents in agricultural modern practices and related fields. There are 11 home demonstration agents in the whole zone whose work is complimented by a consumer education agent. A marketing agent works with producers and handlers of agricultural produce. Two workers are in charge of soil

conservation activities and one agent in the Farm and Home Development Program. Nine office workers are for the whole zone. All of these personnel are supervised by two line supervisors; one for the agricultural agents and one for the home demonstration personnel.

3. Bayamon Zone. Includes the north-central region of Puerto Rico. As in the other extension zones, there are two supervisors. The districts included are Bayamon, Catano, Corozal, Guaynabo, Morovis, Naranjito, Toa Alta, Vega Alta-Dorado, and Vega Baja. The total agricultural agents in the zone are 17 and 15 home demonstration agents. There are four agents in a rural development program and one in consumer education. Office work in the zone is conducted by nine employees.

4. Caguas Zone. Comprises the east-central part of the island. There are ten districts in the zone: Caguas, Gurabo, Humacao, Juncos, Las Piedras, Manabo, Naguabo, San Lorenzo, and Yabucoa with 15 extension agents releasing information to farmers and non-rural people. Fourteen home demonstration agents work in the zone. The extension activities are complimented by two marketing agents, two soil conservation workers, one consumer education agent and one worker in the farm and home development program. There are 11 office workers for the whole zone.

5. Coamo Zone. Occupies the south-central area of Puerto Rico. Aibonito, Barranquitas, Cayey, Cidra, Coamo, Comerio, Orocovis and Villalba are the districts included in the zone. To conduct educational activities with rural and non-rural people, there are 14 extension agents. The home demonstration work is conducted by 12 agents. In this zone there are three marketing agents; three working in soil conservation and one in the farm and home development program. There are eight county clerks and two zone supervisors.

6. Lares Zone. This zone comprises the central mountainous area of the island. The districts included are: Adjuntas, Jayuya, Lares, Las Marias, Maricao, San Sebastian, and Utuado. To conduct the extension activities in the zone, there are 18 agricultural agents, 11 home demonstration agents, one consumer education worker, four soil conservation agents and one marketing worker. A total of 8 county clerks work in the zone.

7. The Mayaguez Zone. Includes the districts of Aguada, Aguadilla, Anasco, Cabo Rojo, Lajas, Mayaguez-Hormigueros, Moca, Rincon, and San German. The area covered by the zone is the western part of the country. Fifty-three employees work in the zone; 22 agricultural agents; 13 home demonstration agents; two marketing agents; one consumer education worker, three working in soil conservation and one in the farm and home development program; 10 county clerks work for the zone.

8. Ponce Zone. Comprises the southern part of the island. The included districts are: Guayama-Arroyo, Guayanilla, Juana Diaz, Patillas, Penuelas, Ponce, Sabana Grande, Salinas-Santa, Isabel, and Yauco-Guanica. There are 19 agricultural agents and 11 home demonstration agents. The extension activities are complimented in the zone by three marketing agents, one consumer education agent, three soil conservation workers and one agent for farm and home development. The office work is performed by 11 county clerks.⁷

Practically all of the cities, towns and rural communities of Puerto Rico are served by the Extension Service in all phases of work from planting and harvesting to proper handling of the product and different methods to consume it. The activities are not restricted to production and marketing only, but fields such as Home Management, Family Life, Health and Hygiene, Public Relations, and Youth Organizations are covered. With the present organization and personnel available the agency is in an excellent position to conduct an educational program with food retailers.

⁷The information was obtained from the Personnel Office of the Puerto Rico Agricultural Extension Service on request by the author.

CHAPTER V

THE FOOD RETAILERS EDUCATIONAL PROGRAM

The Program in the United States

The Extension Service in the United States received a broad mandate in the Research and Marketing Act passed in 1946, to enter a whole new field of activity--food retailer education.

During the 1920's when the farm problem for the first time became acute the government began attacking it directly. The emphasis was primarily on orderly marketing, encouragement of farmers to join cooperatives, and export-dumping proposals. In the 1930's the activities were directed to shrink the supply of agricultural products through the Agricultural Adjustment Administration, and other related programs. The immediate results of this approach was that production outran the consumption power. As a logical result, the production activities were reduced. "In the late 1930's and through the 1940's, agricultural programs tended to emphasize expanded consumption through such programs as the School Lunch Program, the Mattress Program for surplus cotton disposition and the like."¹ During 1946 when the Research and Marketing Act was approved, the emphasis in agricultural programs was directed to expansion of consumption through educational activities with consumers and food handlers.

¹Earl I. Butz, The Job Ahead in Extension Retailer Education, (Lafayette; Department of Agricultural Economics, Purdue University, 1952), p. 9.

Extension's educational program in the field of food distribution is an activity among personnel of food handling and distributing agencies, with primary emphasis on work with retailers and wholesalers. This includes work in areas such as maintenance of product quality, reduction of spoilage losses, source and availability of supplies, information about products, preparation and uses, business principles, pricing procedures, merchandising practices and customer relations, training of personnel and more efficient use of space, facilities and equipment.²

The purpose of the program is to assist retailers and other food handlers to improve the efficiency of their operations by the adoption of improved methods. The accomplishment of this purpose will mean greater profit to the grocer, better returns to the farmers and more convenience and satisfaction to the consumer.

The Extension Service has been conducting work in this field for many years, but the period of concentration effort has been confined to about 11 years. During this time, programs have been started and successfully conducted in different States. Similar programs are in the organizational or development stage in other parts of the country.

²"Extension's Job in Meeting Problems and Educational Needs of Food Handlers", Report of the Extension Retailer Education Clinic, (Purdue University, June 1-6, 1952), p. 16.

These programs have demonstrated successful Extension education with retailers, wholesalers and other groups.

During the educational activities, primary emphasis has been placed on fruits and vegetables, while recently work with poultry products, meats, store remodeling and management has been developed. In general, Extension personnel have been interested in the overall efficiency of the marketing operation, and several approaches have been used in an effort to accomplish this end.³

In some states, schools for store personnel have been conducted to demonstrate the skills needed for care and handling of produce, display techniques, meat cutting procedures and record-keeping procedures.⁴ Another approach has been to give retailers, wholesalers and other food distributors the information obtained from research on specific subjects. Many different states reported doing work in retailers' education especially Massachusetts, New Hampshire, Indiana, Delaware, Illinois, Florida, Iowa, Kansas, Michigan, New York, Ohio, Maine, North Carolina, Oklahoma, and Pennsylvania.

The Michigan State University Retail Food Marketing Program. Is typical of the programs conducted by other Extension Services. The program is set up to help retailers apply the newest and most profitable methods of store operation.

³Ibid., p. 17.

⁴Ibid.

Facts on improved food retailing methods, successful merchandising ideas and food market information are gathered from many sources and passed on to retailers. The program in Michigan was started in 1948 as a part of the Cooperative Extension Service of Michigan State University. The activities were expanded with the approval of the New Michigan Marketing Program of 1954. The services were expanded because of requests from farm organizations, the Michigan Food Dealers' Association, the Michigan Stores Bureau, and others. There are four Extension specialists assisted by the local Extension personnel and trade organizations. Recently a demonstration grocery department was set up in a Chatham Village Super Market in Detroit. Several complete store analyses have been made by the specialists and assistance was given to management of the stores in getting recommendations implemented. Specific topics covered by the Michigan program have been in buying, receiving, handling, merchandising, pricing and equipment maintenance.⁵

The Program in Puerto Rico

The program is beginning in Puerto Rico now and organized as part of the Agricultural Economics Department of the island's Extension Service. Retailers are beginning

⁵ Information obtained from Earl Brown, Glenn Woods and Mike Wood, specialists in charge of the Michigan Retail Food Marketing Program, (East Lansing, Michigan, State University, Department of Agricultural Economics, Spring, 1958).

to realize the importance of our work, so the good demand for our services. Last year, three retailers asked for remodeling services for their old service-type stores. A traffic study was conducted at the produce department of one big supermarket in Rio Piedras. A three-day produce school was conducted in that same store. Trimming techniques for produce items were demonstrated at two food stores that asked for them. One of the big wholesalers of Puerto Rico asked the services of the Extension Service to conduct a workshop with their salesmen in store modernization techniques. Petitions for similar activities have been increasing from the San Juan area as well as from the rest of the island. No doubt that more personnel will be needed in the coming year to satisfy the petitions of food retailers that want to receive these services.⁶

⁶The writer is the only specialist at the present time assigned to conduct these activities with food retailers.

CHAPTER VI

EDUCATIONAL METHODS USED BY THE EXTENSION SERVICE

The Agricultural Extension Service uses effective methods for educating people. Emphasis is given to methods where results can be demonstrated. Among the methods used by this agency, the author selected those that are best adapted to teach food handling techniques:

1. Result Demonstrations.
2. Method Demonstrations.
3. Visits to the Stores.
4. Office and Telephone calls.
5. Meetings.
6. Group Discussions.
 - a. Study circles.
 - b. Panels.
 - c. Forums.
7. Publications.
 - a. Bulletins.
 - b. Extension Circulars.
 - c. Information circulars.
 - d. Special circulars.
 - e. Circular letters.
 - f. Flying papers.
8. Radio and Television.

9. Visual Aids.
10. Trips.
11. Short Courses.
12. Schools.

1. Result Demonstration. Is one performed by a grocer under the supervision of the food retailer's educator. The purpose is to teach by means of a demonstration, the practical use of a new technique or an improved one already tested. It is not experimentation with the purpose of solving a specific problem. The use of perforated polyethylene bags in pre-packing potatoes and onions is an example of the use of this method.

Advantages of the Method

- a. Shows the practical value of certain techniques.
- b. Is a good method when dealing with groups or using visual aids.
- c. It creates goodwill to the instructor.

Disadvantages

- a. It is not adapted to many situations.
- b. It reaches only one retailer or a small group dealing with the specific problem.
- c. Results can be corroborated a relatively long time after the demonstration has been conducted.

2. Methods Demonstration. Is one of the oldest methods used by the Extension Service. The method is taught objectively, giving the opportunity to the instructed to listen, to see and to participate in the demonstration. It is adapted to such activities as produce trimming, meat cutting, displaying techniques and checkout operations.

Advantages of the Method

- a. Well adapted to teach hand skills.
- b. Provides the opportunity of individual participation.
- c. It helps to spread new techniques or improve old ones.

Limitations

- a. It needs a very skilled demonstrator.
- b. Good demonstration material is needed.
- c. Enough amounts of material are needed to give the opportunity to each grocer to participate.

3. Visits to the Store. They can be very effective in creating good relations between the extension man and the grocer. Using this method, the extension agent can help the store owner to change his opinion in regard to pre-packed produce, self-service meat or the need for a better lighting system for the store. The disadvantage of this method is that it is costly since it may take too much time i.e., sometimes the extension agent goes to the store when the grocer is too busy, and much time is wasted.

4. Office and Telephone Calls. Each personnel agent is stimulated by a specific need for information. The number of callers serves as a good barometer of the agents influence. Teaching under such conditions can be directed and effective. When a retailer decides to go to the extension office in need of advice, it is a sign that he trusts the advices of the extension agent. During these visits, the agent and the retailer can speak plainly about specific problems in the grocery store or perhaps any confidential information that he wants to give the educator. The agent can give the visitor any new publication in regard to his particular problem. It is advisable that the agent devotes one day each week for office work. If the agent is working on a store layout, the presence of the store owner in the office may be valuable to assist him.

The use of telephones is an economical way to contact retailers. The Extension Service pays the employees their traveling expenses, but it is more convenient and economical to call instead of traveling. But this method is limited to specific problems without opportunities for the agent to observe and find more information to solve the problems.

5. Meetings. For Extension purposes, meetings are considered as a grouping of two or more persons that receive a new idea or knowledge. This method has been used in Extension for a long time.

Advantages

- a. It is an economical method to develop a program covering a large group. To explain to a group of grocers the advantages of self-service merchandising is a good subject adapted to this method.
- b. Offers the opportunities to the listeners to participate by asking questions.
- c. Broad topics can be covered faster. This is a good point when discussing the advantages of self-service produce.

Disadvantages

- a. Good physical facilities are not always available.
- b. The groups are usually heterogeneous making discussion difficult to conduct. For example, considering the store-layout arrangements, different grocers have different problems.

6. Group Discussions. This method is used when a number of persons meet in an organized way to present and discuss their own experiences and ideas that are in relation with a specific problem. The purpose is to channel the individual's ideas to find a solution to a problem. The purpose is not to argue or start arguments among the participants.

Advantages of this method

- a. Stimulates each participant to think about the problem.

- b. Individual's ideas are improved and adapted by the rest of the group.
- c. Each participant contributes with ideas for the final solution.

Panel Discussions. It is formed by a small group of persons, usually from four to eight and a leader. They discuss a problem in front of a bigger group. At the end of the discussion the audience contributes to the discussion by asking questions and giving ideas. Problems common to a group of retailers like discussion of legislation, organization of trade associations can be approached in that way.

Forum. Consists of a group of persons that meet with the purpose of broadening their knowledge in regard to a specific problem or to clarify their thinking towards a problem of general interest that encourages discussion among the group. The decision to sell non-foods by the grocers in Puerto Rico can be approached by this method.

7. Publications and Information

- a. Bulletins: A printed publication that covers quite thoroughly a specific technique. Is broad in the subject matter. For example: "Pre-packaging Produce" can be the title of a publication. The field is so broad but it is covered by the publication in a general way.

- b. Extension Circular: The subject matter is not discussed neither intensive nor extensive as in the bulletin. Many circulars can be printed covering a specific field like trimming produce or cutting pork loins.
- c. Information Circular: Is released in mimeographed form. It is shorter and more specific than the Extension Circular. Trimming head lettuce or cutting center chops are examples.
- d. Special Circular: Is a mimeographed sheet printed on both sides. It is still more concise than the other two circulars. The purpose is to point out the specific points. How to trim the central stem of head lettuce is even more specific than trimming head lettuce.
- e. Printed Flyers: They are printed sheets with the purpose of encouraging the adoption of a certain technique or techniques that are related. They can be delivered during meetings or conventions. It is an inexpensive way of communication. A flyer encouraging retailers to keep records is an example of the use of this technique.
- f. Circular Letters: Is a good means to communicate new information to groups like abundance of a specific commodity,

possibilities of a strike that may affect the grocers, or a change in date for the next meeting.

8. Radio and Television. Is an effective method considering factors as time, distance and number of persons that can be approached. It is a good method to give general information, to announce meetings and for follow-up purposes of other methods. There are certain limitations to the use of radio as an educational medium.

Limitations

- a. The message is fugacious. The audience cannot use it further as with printed material.
- b. Very well trained personnel in radio communications are needed to produce a good program.
- c. It must be complemented with other educational methods and techniques.

9. Visual Aids

- a. Films: They can be effectively used to arouse the interest of the group in the presentation or solution of a problem. The topic can be presented in a realistic way. A film showing bottlenecks at the checkout counter, or one pointing a good produce display, each are problems adaptable to this method. The high cost of

the film is the main disadvantage of this educational technique.

- b. **Slides and Film Strips:** This technique is best adapted than the film to emphasize certain aspects of a problem in method demonstration, a result demonstration. As a general rule, it is less expensive than films and more handy. It requires the explanation by a well informed person in the topic under discussion.
- c. **Photographs, Drawings, and Charts:** They should be related to the subject under discussion.

10. Field Trips. The purpose is to observe new techniques or improved ones that are in use by other grocers and are proving to be effective. The grocer can adapt the observed methods to his own conditions. The layout or the backroom operations observance in a visit to a market can be helpful to a grocer that is planning to modernize his store.

11. Short Courses. They are generally conducted in colleges, universities or in any educational institution. It is not widely used, but effective when dealing with relatively technical matters such as "How to Forecast Sales," "Store Budgeting," "Retail Accounting" or "Meat Cutting".

12. Extension Schools. They are organized to provide practical instruction to persons engaged in a particular activity as are food handlers. The duration of these schools is generally from two to six days. In these schools various topics of one problem are discussed as for example: How to take the Inventory or How to Break Beef Sides into Retail Cuts.⁷

⁷The Agricultural Extension Service in Puerto Rico provides training for new employees in extension teaching methods. The writer spent about six weeks in that training and has been using the described methods and others for the past five years.

PART III

BASIC INFORMATION FOR STORE MODERNIZATION

CHAPTER VII

CONVERTING A STORE TO SELF SERVICE

Advantages of Self Service

In the food retailing business self-service merchandising has developed rapidly. Retailing as a whole has passed through stages of change most of which are directly related to self-service merchandising.

Self-service stores were first opened by Clarence Saunders in Memphis, Tennessee thirty years ago. A standard lay-out for self-service stores, however, has not been developed that can be used in all communities or areas. The application of the self-service principle differs considerably, depending upon the special consumer problems of the store in question, the locality and also the average income of the potential customers.¹ It is a very noticeable fact that wherever the self-service techniques have been adopted, selling expenses have been appreciably lowered.

The self-service technique to operate food stores did not just happen. They came into being as a necessity for step savings.

Scientific step-saving meant planning. Planning meant order. Wandering stock and equipment were swept out the back door in favor of an efficient, logical flow from entrance to exit . . . Labor costs were slashed to a frugal minimum. The labor

¹Meat Merchandising Co., Your Self-Service Stores, (Saint Louis: Von Hoffmann Press, 1947), p. 14.

force was reduced. Individual employees were paid more, worked shorter hours, and were no longer expected to perform the manual tasks of the delivery boy.²

It is an accepted belief that no single factor has contributed so much to the tremendous improvement in food marketing efficiency as has self-service operation. This modern type of store has become so popular and so successful that it now sets the pattern of food distribution for both small and large operations.

The first self-service unit was Clarence Saunders' Piggly Wiggly in Memphis, Tenn., opened in 1916. Today, the once revolutionary principle of self-service is accepted by the food chains as a basic operating premise.³

From the very beginning to the present success, self-service evolution has been interesting. The rate of change to this new technique has not always been rapid and even today there are many stores which do not have self-service in all departments, especially in meat and produce. In Puerto Rico there are many grocers who operate their stores by the conventional "over the counter" service. In a study conducted on the island to compare the efficiency of the two systems, it was found that: "Self-service stores used labor much more efficiently than the full-service stores."⁴

²Ibid., p. 13..

³"Revolution to Evolution", Chain Store Age, (November, 1956), p. 72.

⁴John Kenneth Galbraith and Richard H. Holton, Marketing Efficiency in Puerto Rico, (Cambridge: Harvard University Press, 1955), p. 34.

In the same study it was concluded that sales per employee were nearly twice as high in self-service stores compared with sales in service stores. The question is whether many old-fashioned store operators in Puerto Rico can in the long-run continue to remain prosperous unless they adopt the labor and expense-saving features of self-service in the times ahead. Metropolitan San Juan is rapidly becoming "self-service conscious" with a good number of modern stores operating in the city.

It is considered that the final test for the switch to self-service occurred when: "The A & P conversion from 14,600 small service stores to about 6,000 stores of which 1,500 were supermarkets."⁵ In the 1939 Retail Census, 52.5 per cent of all chain dollar sales were from self-service outlets, while only 28 per cent of all food store sales were the result of self-service. In spite of the delays in conversion caused by the war, the chains pushed self-service sales to 77 per cent by the time of the 1948 Census.⁶ This is proof that the self-service food store operation is no longer on trial. Self-service is being extended to most food departments. It has been amply demonstrated that self-service has its application to most any kind of a store, large or small, city or country, service or cash-carry. Small operators in congested metropolitan areas are "again in business" by adopting self-service methods:

⁵"Revolution to Evolution", op. cit., p. 86.

⁶Ibid.

Doubting strongly that the "corner grocery business is going to the dogs", owners of six small, widely separated Philadelphia retail outlets recently tackled the accepted shortcomings of neighborhood markets, and came up with uniformly fine results . . . The dealers re-vamped interiors, expanded selling areas, added new departments, modern display methods, self-service, etc. Each of these steps quickly brought the markets into areas of increased store traffic and greater dollar volume.⁷

This is a good example to be followed by operators in Puerto Rico who usually operate small sized stores and many of them think that self-service is for big outlets. Many grocers on the island would like to know if the public they are now serving would buy more or less at a counter-service store than at a store converted to self-service. The staff of the Meat and Food Merchandising Publications say that:

Women generally buy more merchandise on each visit to a self-service store than they ordinarily buy at a counter-service store. They see more merchandise on display in a self-service market, the store itself is a more cheerful, inviting store, and the natural temptation to open a pocketbook is consequently greater.⁸

Small volume and charge and deliver are not obstacles to convert a store to self-service. The small stores do not have room for too many clerks, so they need all their space facilities for customers. Self-service does not conflict in any way with charge account service. The delivery orders can

⁷"Metropolitan Operators Squeeze Added Volume From Limited Space", Progressive Grocer, (February, 1957), p. 70.

⁸"Meat Merchandising", op. cit., p. 22.

be assembled as efficiently in a self-service store.⁹ Although most of the self-service stores operate on a cash-and-carry basis, those grocers in Puerto Rico still engaged in credit and deliveries practices can start by remodeling the old type service store and gradually eliminate the charge accounts and deliveries.

Self-Service Terms Defined

There are some terms and key-words that will be used repeatedly throughout this study. For the sake of the reader they are briefly defined:

Aisle: Space between gondolas or cases.

Back-bar: Narrow unit of shelving for keeping small, pilferable items such as cigarettes, cigars, candy bars, chewing gum, adhesive tape, non-foods, etc. Usually located near the checkout counter.

Cash and Carry Store: One that does not extend charge account privileges.

Checker: The employee who operates the cash register. Duties vary with the organization but as a general rule they separate the items into meat, produce, groceries, non-foods, and other groups, itemize on the cash register, make change and accept payment. Frequently also sells articles from back-bar.

Check-out counter: Last stop of the self-service customer, where the purchases are itemized and bagged, and account settled.

⁹Ibid.

Dump tables: Individual movable tables, top of which is usually edged by vertical boards of three to eight inches in width. Used for special displays.

Dry Produce Case: Open, unrefrigerated case for dry produce.

End Display: A platform or semi-circular display of either one or several shelves, usually built to match the gondola at the end to afford additional display space.

Gondolas: Called also island or battleship. Is an arrangement of shelves with aisles on all four sides.

Jumble displays: A display of canned or bottled goods, thrown into a mass display as an attention getter.

Prepacking: Process of preparing items for self-service selling which are not delivered to the store in units suitable for that purpose.

Reach-in Case: A refrigerated case holding milk and other items for self-service, but necessitating customer to open door to get item.

Conversion Problems and Procedures

Before a grocer decides to convert a service store to a self-service, he must take into consideration certain local factors. Perhaps he has customers who want and still demand certain services like credit and delivery or even clerk service. If so, he may consider it advisable to continue all those services and when converting his store, he must make proper provision for them in his new plan. In

Puerto Rico, many food retailers have to consider the above when modernizing their stores.

For a store to be truly self-service, customers must be able to see, identify and select with ease, the desired items. If the owner wants to accomplish this he should provide for every packaged item in the store to be made easily available to customers, so they can see and handle them. Proper fixtures and equipment must be used and arranged carefully to this end.

There are different methods to produce a plan to modernize a store. Modernization can be an expensive and complicated as the ambitions and desires of the owner dictates. However for practical uses a plan can be reached by the simple and inexpensive cut-out method. "One of the easiest and most practical methods of planning a store arrangement is by the cut-out method."¹⁰ The method consists of reducing a store size to a convenient scale. The equipment and fixtures are reduced to miniatures by the use of cardboard cut-outs so that they can be easily moved about until the best possible layout is achieved. The following steps can be followed to produce a floor plan suitable to a particular store:

1. Measure Floor Space.

The starting point in planning or remodeling is the present floor space of the store as occupied by the selling room and back room. The store has to be seen as if nothing

¹⁰"Progressive Grocer Staff", Self-Service Food Stores, New York, The Butterick Publishing Co., 1947, p. 17.

is in it disregarding all partitions, all shelving, all counters and other equipment. In this way, the merchant is able to visualize his empty store as a floor, and four walls.

- a. Measure the overall width and depth of the store floor area from wall to wall. Disregard all partitions, shelving, coolers and other equipment.
- b. The plan of the store may be influenced by posts, stairs, plumbing and other structural parts of the building which cannot be removed. Measure the exact portion of all doors, windows, stairwalls, plumbing, posts and wall irregularities. Mark all these in exact position in the floor plan.

2. Equipment that will definitely be used in the store is cut to scale--usually one inch to one foot--from stiff cardboard. Under this heading falls such items as walk-in coolers, meat cases, frozen food cases, dairy cases, refrigerated produce fixtures and so on.

3. After models of the fixed dimension equipment have been cut, the next step is to plan the dry produce racks and checking counters. After determining the number of checking counters that will be necessary and a decision as to the type counter to be used has been reached, cut

cardboard models to the same scale. Decide on the type and length of produce dry rack for the store, then cut a cardboard model in the same manner as for the other fixtures.¹¹

After having all the fixed-dimension equipment and necessary fixtures that must be included, the next consideration is shelving and gondolas that can be made in more flexible sizes. Before that, the grocer should experiment with the fixtures and equipment on hand by placing them on the floor plan and determine just how they can be utilized before going further. In many buildings the location of plumbing, electrical wiring, and other service utilities may make it advisable to retain equipment such as meat and frozen food cases where they are now. On the other hand better layout may be accomplished by moving some or all of them to another part of the store. By placing these cut-out models in different locations on the plan, the grocer can visualize the advantages in each location. For example, the planner may have decided to place the meat case on the right side of the store as a result of trying various locations for the meat department. Using the trial and error method the planner finally decides that the best location for the produce is at the front and a frozen foodcase on the same side between the produce and meat departments. Having this beginning with two departments already settled the planner can follow the next steps.

¹¹Ibid., pp. 49-50.

4. Place the checking counters preferably in the conventional self-service location in the front of the store.

5. After a little experimenting the grocer may find that a good arrangement might be to have wall shelving down the entire side of the store opposite the produce, and meat departments, and one or more gondolas down the middle of the store. Aisles should be at least four and one-half feet wide, and preferably five or six. Narrow, crowded aisles should be avoided if possible. Aisles should be wide enough to permit customers pushing barcarts in opposite directions to pass with ease. Aisles in front of meats, produce, dairy and frozen foods should be about 9 feet. Aisles in front of checkouts should be at least 8 feet and more.¹²

6. After the planner has determined how many feet of shelving and gondolas are needed, and placed the cardboard model on the floor plan, the floor arrangement is completed. When a final arrangement is reached, it is advisable to thumbtack the pieces into position. The use of different color cardboards--red for meats, green for produce--is recommended.¹³

In converting a store to self-service it is wise to eliminate out-of-date gadgets and display racks that were in

¹²"58th NARGUS Convention", Progressive Grocer, (July 1957), p. 159.

¹³"Progressive Grocer Staff", op. cit., pp. 51-52.

use for the service type store. Sometimes the use of worn-out equipment jeopardizes the appearance and efficiency of the new self-service arrangement.

Shelving for Self-Service

In a self-service store there are three ways to display the groceries. These are (1) on wall shelving, (2) on gondolas, and (3) in special displays.

Some store engineers recommend that the wall shelving be less than five and one-half feet high since this is the desirable height limit. The shelving should be built no more than four feet, eight inches high with a sturdy top shelf which can be devoted to top-of-shelf items, such as breakfast foods.¹⁴ In Puerto Rico the shelving can be lower considering that the average height of our women is less than in the mainland. However, the greater capacity of the shelves, the less backroom space needed.

There are several factors to be considered before deciding which type of shelving to select:

1. Size of the store.
2. Available selling area.
3. Length of wall space.
4. Accessibility.

¹⁴"Meat and Food Merchandising", op. cit., p. 93.

In small stores a high percentage of the groceries are usually carried on wall shelving. On the other hand, stores of bigger size use the wall space for refrigerated cases for produce, frozen products, dairy and meats, displaying most of the groceries in gondolas.

When a store has a small selling area the wall shelving must be deep enough to house large quantities of stock. In some instances, it may be necessary to use space from within six inches of the floor to above eye-level to accommodate grocery stocks.¹⁵ There are some stores with inadequate backroom space, that build a top high shelf to be used purely for storage purposes.

Accessibility to items in the wall shelving is a very important consideration. "Products displayed between eye-level and waist-level enjoy far greater sales than those displayed above or below these limits."¹⁶ When designing the wall shelving, the grocer must have in mind that most of the times, shopping is done by Mrs. Shopper. "A woman's buying power is measured by the length of her arm."¹⁷ It is obviously impossible to keep all merchandise displayed at a convenient eye level, however the grocer can use the following techniques:

¹⁵"Progressive Grocer", op. cit., p. 24.

¹⁶Ibid., p. 25.

¹⁷E. A. Brand and others, Food Merchandising, (East Lansing: Michigan State University, 1956), p. 177.

1. Bring the bottom and second shelf out farther from the wall than those above.
2. The bottom shelf should be raised from the floor 12 to 18 inches.
3. Stock lightweight items on the higher shelves and the heavier items on the lower shelves. Women are reluctant to shop heavy items from high shelves. Breakage is less when light items are displayed on the higher shelves.

There is no end to variety of shelving a grocer can use to modernize his store. The use of the different styles depend on the different situations. The store owner can save money by doing part of the work or having them built by a local carpenter. Some manufacturers are offering steel uprights for adjustable wall shelving and gondola at relatively low prices. The grocer can assemble his shelving. He should select the type of shelving that best fits his particular needs: Basic types of shelf design are:

1. Slightly Slanted, Step-back Style. The bottom shelf is raised 12 inches from the floor and 1 inch of slant back and 17 inches deep. The depth for each of the shelves is 16 inches with top shelf being 14 inches deep. The slant is to increase visibility of merchandise. It is adapted for moderate sized stores. The space between floor and first shelf can be used for storage of surplus merchandise.

2. Slightly Slanted-Average Depth. Similar to the above, but the bottom shelf is raised 15 inches from the floor and 24 inches deep. This style is adapted to rather small sized outlets.
3. Slightly Slanted-Very Deep. Bottom shelf is raised about 15 inches from the floor with a 2 inch slant. The depth of the bottom shelf is 30 inches and the other three, 26, 22 and 20 respectively. They are adapted for stores with very heavy traffic on Saturdays.
4. Very Slanted-Regular-Depth. The bottom shelf is only about 10 inches from the floor with a back slant of 3 inches. The depth is only 21 inches at the bottom shelf and 17 inches for the other three.
5. Semi-Slanted Style. The lower shelf is raised 14 inches and 24 inches deep and is level. The second shelf is 13 inches deep with 2 inches slant and the top one is level and 9 inches deep. The height is only 47 inches. It is also referred to as super-market type of shelving. This type is useful for the display of fast-selling, bulky items like cereals, flour and sugar.¹⁸

¹⁸ "Progressive Grocer", op. cit., pp. 25-29.

Slanting shelves cost more than level shelves and are more difficult to stock. When making the final selection, the store owner must look for the following fundamentals in wall shelving design:

1. The bottom shelf should project so as to increase sales at lower levels.
2. The top shelf should be within easy reach.
3. Shelves must provide adequate storage capacity consistent with the needs of the store.
4. The plentiful mass effect should be maintained as far as possible.
5. Details such as prominent pricing should be worked out so that "buying through the eye" is made as easy as possible.¹⁹

Different Types of Gondolas

The use of more refrigerated equipment in the food stores, has moved the shelving from the walls to the main floor. "Effective gondolas have been made simply by placing two sections of wall shelving back to back and moving them out into the store where people can circulate around them."²⁰

¹⁹Ibid., p. 30.

²⁰"Meat Merchandising", op. cit., p. 97.

The grocer planning to remodel his store can either buy them or make his own gondola with the aid of a carpenter. "Many of the large chains have their own carpenters who make the shelving as needed for new, or remodeled stores."²¹

It seems that the modern tendency of big supermarkets is to use metal gondolas bought from manufacturers. In a recent survey conducted by Progressive Grocer, 52% of stores reporting preferred metal gondolas compared with 48% who still use wooden shelving.²²

Gondolas may be either vertical or pitched styled. The first, those with straight ends, are vertical; the pitched style has ends tapering from bottom up, resembling a triangle, that is, each shelf from bottom to top has less depth. Both styles are popular among store operators. There are some essentials that gondolas must have no matter which style the grocer decides on:

1. They should be sturdily built. Gondolas usually must bear heavy weights and withstand a certain amount of abuse by stock clerks and customers.
2. They should permit full view of the store. Proper low construction will guarantee this, but precautions must be taken to prevent the stock clerks from building displays too high on the top shelf.

²¹E. A. Brand, op. cit., p. 123.

²²"How Leading Store Engineers Plan New Super Markets", Progressive Grocer, (May 1958), p. 59.

3. They should provide mouldings for price tags.

The price of the item, shown in small letters on the item itself, is not always enough.²³ Most operators use shelf moulding price markers.

Some operators advocate the elimination of price tags from the gondolas to encourage customers to pick up the item to find the price.

4. They should provide certain flexibility. The differences in shape and size of packaged items makes flexible shelf height desirable for efficient shelf utilization and attractive looking shelves.

5. They must facilitate shopping. Gondolas should be constructed so as to put all merchandise within sight of the customer.²⁴

²³"Meat Merchandising", op. cit., p. 98.

²⁴John W. Ernest, A Basic Course in Grocery Merchandising, (New York, Supermarket Publishing Co., Inc. 1947), p. 15.

CHAPTER VIII

THE STORE DEPARTMENTS

Produce Department

There are many reasons why the produce phase of retail food store operation is of vital importance to the owner:

1. From the volume of sales and profits in the line itself.
2. The aid the department offers in building volume in other lines.¹

In the recent Super Valu Study the Produce Department accounted for 8.8 per cent of total store sales, the third department in the store, but the per cent of total store gross profit was 14.0 second only to the meat department.² With customers preferring shopping at one store and being influenced strongly by the color and luxury of a good produce department, the grocer can easily appreciate the importance of this section of his store.

The merchandising of fresh fruits and vegetables is becoming more important each year. "According to a United Fresh Fruit and Vegetable study, 66 per cent of all vegetables produced in the country and 5 per cent of all fruits, were sold fresh."³ Per capita consumption of fresh produce is

¹Nelson A. Miller and others, Grocery Store, (Washington, D. C. : Government Printing Office, 1946), p. 226.

²"Super Valu Study", Part 5, Progressive Grocer, (May 1958), p. S-77.

³"Produce Packaging-1957", The Packer, (Sept. 7, 1957), Sec. P, p. 2.

increasing, and is gradually replacing some of the food staples. With greater emphasis on proper diet and greater consumer desire for fresh produce there is every indication that consumption will continue to increase. Many grocers agree that a well managed produce department is the heart of a successful food store. "It can be said most emphatically that a well operated inviting fruit and vegetable department increases store traffic. As every merchant knows, store traffic is the life blood of a modern food market. When consumers come into a store to buy their fruits and vegetables, they also patronize other departments of the store."⁴

Location of the Department: The opinion that the Produce Department should be located in the front part of the market is held by many stores' engineers. However, there are others who say that this department should be located at the end of the traffic flow:

Even today, there is a great variety of opinions about the proper location of the produce department in the modern store. Many experts say it should be the first department the customer sees because of its eye appeal. I believe that it should be one of the last departments in the shopping pattern. Produce is highly perishable and should not have to stand the mauling it can get on the bottom of a shopping basket.⁵

⁴The Progressive Grocer, How to Make Money Selling Fresh Fruits and Vegetables (New York: The Butterick Co., 1950), p. 3.

⁵Ralph E. Ernest, "Store Layout", Work presented to the 58th NARGUS Convention, Progressive Grocer (July 1957), p. 157.

Those who believe that produce should be the first department the customer sees point out that: "Surveys indicate that as much as seventy-five percent of the produce sales are on impulse. It is possible to create a quality and freshness impression upon the consumer at the beginning of the shopping tour through attractive eye-appeal, buy appeal displays."⁶

A good appraisal of the situation was given by Mr. Leonard J. Gerweck who said that many profitable produce departments are located either at the front or the back of the store. The important thing, he added, is to have a good produce department no matter where it is located.⁷

Space Needed for the Department: When considering space needs, the grocer must realize that the important point to remember is that the department should be given the necessary floor space to develop produce sales volume to a satisfactory point. So many variables enter into the matter of space that no fixed rule can be set for all stores or all situations. "Anywhere from 10 per cent to 30 per cent of floor space may be regarded as average, depending on the type of store and its location."⁸

⁶F. A. Brand, op. cit., p. 103.

⁷Leonard J. Gerweck, Manager of Store Planning Grand Union Co., conference before the Food Distribution Class, Spring 1958, Michigan State University, East Lansing.

⁸"How Much Space is Needed", NARGUS Produce Guide, (Chicago, National Association of Retail Grocers), p. 4.

Equipment: Everyday, more and more stores are adopting the use of refrigerated cases to display produce. In hot climates, like Puerto Rico, this refrigerated equipment is necessary to maintain good looking produce and reduce losses by shrinkage and spoilage. Unfortunately, the cost of the equipment in the island is high and sometimes the volume of business of the small grocer does not justify such high investments. The food merchant, however, can prepare wooden display racks and use ice to maintain freshness. There are some stores in Puerto Rico, especially remodeled consumer cooperatives, that are using a three-deck dairy case as multi-purpose unit displaying fresh fruits and vegetables on the bottom shelf and dairy items on the other two.

Prepacking Produce: Produce prepacking has been considered as the "last frontier" within the self-service operations. During the last years the acceptance of this system has been increasing. Still there are many differences of opinion. "As a subject for discussion, prepacked produce will generate about as much difference of opinion as religion or politics."⁹ Regional differences are very pronounced. In the New England and North West Central regions most of the stores have adapted the method of selling produce prepackaged. On the other hand, the practice is not as popular in the South West Central and Mountain-Pacific areas.

⁹George G. Kline, "Tests in Sixty Stores Prove Prepacking Lifts Produce Sales, Margins-Profits", Progressive Grocer (July 1954), p. 41.

Consumers in all parts of the country are accepting prepackaged produce. Research conducted by government agencies and by private organizations has demonstrated that consumers favor it. Cleanliness and shopping convenience are strong points considered by shoppers. Retailers are changing to prepackaged produce to take advantage of the increased sales volume. In Puerto Rico the practice is rapidly gaining in popularity and is considered as a "must" for a modern store.

For any retailer, planning to initiate the prepacked method, the logical question to be asked is: What is the cost and who is going to pay for it? The cost of prepacking varies widely between stores and between one item and another. Donald R. Stokes, marketing research analyst of the U. S. Department of Agriculture, an authority in prepacking, estimates cost of packaging materials at around $1\frac{1}{2}\text{¢}$ per retail unit one to two pounds. He estimates cost of labor at around two cents per unit. Thus he arrives at a rough approximation of $3\frac{1}{2}\text{¢}$ per unit for material and labor. However, some items will cost much less and others much more, to prepackage.¹⁰ Cornell University conducted studies in regard to this matter. "On the average it takes about 2.4 minutes to package each consumer unit in retail stores. This figure includes all operations from washing and culling to closing and labeling. The requirements for fruit are slightly less

¹⁰The Progressive Grocer, op. cit., p. 142.

than for vegetables due to the large number of operations required for vegetables. Fruits requirements run slightly under 2 minutes per package, whole vegetables run about 2.5 minutes."¹¹

Labor is the largest expense in a prepacking operation, usually running over 50 per cent of the total cost. The cost of film runs under 20 percent when sheet film used. The cost of bags was higher due to the overhead of making them. Trays or containers are also a cost item running about one fourth of the cost of packaging. The cost of packaging vegetables is about 4.5 cents per unit, 1.5 cents for the bag and 3 cents for labor when using film bags. The average cost of packaging fruit was a little less than for vegetables since the labor cost was lower due to the less handling necessary than with vegetables.¹² Lewis F. Norwood, from the U. S. D. A. offers the following figures in regard to cost of materials: "Polyethylene bags that range in size from 3 to 10 pounds cost from 2 to 3 cents. Cellophane bags of various sizes range from 1 to 2 cents each. Cellophane sheets used for wrapping lettuce and for overwrapping trays costs from $1\frac{1}{2}$ to 2 cents. Food trays cost less than

¹¹W. H. Wallace, and F. R. Taylor, Prepacking Fresh Fruits and Vegetables, (University of Rhode Island, Kingston), p. 5.

¹²Ibid., pp. 16-20.

1 cent, while staples, twistems and labels cost less than 1/10 of a cent for the bag, or a total of 2 and 2/10 cents. The cost of overwrapping a tray of pears would be 1 cent for the tray, 2 cents for the cellophane sheet, and additional 1/10 of a cent for the label or a total of 3 and 1.10 cents for the package."¹³

Equipment and Supplies for Prepacking. There are certain pieces of equipment that are needed in any operation. The equipment needed for prepacking may vary from practically none in a small operation to an expense of many thousands of dollars in a large operation. For efficient work, for maintaining low costs, and to provide packages the customer will accept, the proper equipment is a very important consideration.

Equipment will vary with each situation. "There are all types of machines, moving belts and the like available for these operations, but the amount of machinery needed is dependent upon the volume handled in order to keep the labor expense down and increase the efficiency of the operation."¹⁴ The following list is a typical one in most stores handling prepacked produce:

¹³Lewis F. Norwood, Store Prepacking, (Boston: New England Extension Service, 1957), p. 3.

¹⁴H. W. Wallace, op. cit., p. 21.

1. Packing Table. One long table has been found satisfactory for a straight-line operation.¹⁵ The table should be of a dark color with a top of waterproof material. The dark color helps to avoid eye strain. The contrast makes the wrapping sheet easier to see. The soft surface speeds production because the cellophane does not slide around and can be easily picked up by the operator.

2. Produce Scale. There are many kinds of scales available on the market. A flush mounting type is very common in the back room operations. This type of scale permits an easier operation and great efficiency.

3. Label Imprinter. This type of machine is relatively new, but gaining popularity very fast. This particular type of equipment saves time and labor. It quickly prints on the label the name and quality of the produce, as well as weight and price of the package.

4. Label Activator. This is specialized equipment used principally to assure the adherence of the label to the package. The imprinted label is placed briefly on the face of the activator. This system has the advantage that no heat is applied directly to the package or the product.

5. Sealing Hot Plates. The plates are installed flush into the table. This hot plate provides a quick and easy source of heat to seal a package.

¹⁵Note: The straight-line operation is one in which progressive steps in building the package are handled by different persons.

6. Hand Sealing Irons. Some stores and some operators prefer this type of sealer. For some types of packages, hand sealing irons are desirable. They are similar to those used in a packaged meat department.

8. Tape Closure Machine. With the use of synthetic films for wrapping the closure machine is becoming very popular. It is a fast and easy way to close plastic bags.

9. V-Table. This is a movable trim pack table especially designed to hold a lug, box or crate of produce at a convenient height and angle. When the container is placed at an angle it is very easy for the trimmer to grasp the items. Sometimes it is wheeled to facilitate bringing the produce from the storage to the trimming area.

10. Plastic Film Perforator. Perforation of wraps is sometimes necessary for some items to permit the liberation of gases produced during the complete ripening process. Several kinds are available, such as the ticket punch, needle and dull types.

11. Cart and Platters. A new cart for handling produce has been designed. It is a wheeled metal cart with aluminum or stainless steel platters. The cart is used for transporting the finished packages from the back room to the holding cooler or to the display case.

12. Other equipment is used in the prepackaging room such as knives, scotch tape, twistlers, etc. In smaller stores where the use of expensive equipment is not advisable, price markers, crayon pencils and other hand equipment are used.

Labels and Labeling in Prepacked Produce: "The label on a self-service produce package is the connecting link between the product and the shopper . . . it serves as a silent salesman and since it must "speak" for itself, it should tell the product story at a glance."¹⁶

There are a number of suppliers that can furnish good labels. The following three physical characteristics are recommended for labels:

1. Right size for easy handling, easy reading.
About 1-5/8 " x 2-1/2" is an average size.
2. Colors are Important. They should show up well against product. A second or contrasting color for product name will make it stand out.
3. Layout is Important.
 - a. Product name should stand out and be easily read.
 - b. Price of the specific package must be easily understood, and not confused with price per pound or the weight figure.

There are different kinds of labels that are adapted to different packages.

1. Thermoplastic type is made for application on outside of package by application of heat. Some of the advantages are:

¹⁶ Fresh E. I. Du Pont De Nemours and Company. Self-Service Fruits and Vegetables (Wilmington, 1957), p. 38.

- a. They are easy to read that represents a customer service.
- b. Good keeping qualities.
- c. Speeds the work of scales since it is not necessary to touch produce.

2. Insert Labels are placed inside the package.

The product must be weighed first. When using this method the label sealing operation is unnecessary. Sometimes there is the difficulty that moisture may get between the label and the packaging film.

3. Header or Saddle Labels. Certain items or assortments can be packed in a bag using a saddle label affixed to the top of the bag.

There are different messages on the labels. These are merchandising aids such as: Fresher by Far, Reduced, As Advertised, Special, etc.

Packaging Materials for Self-Service Produce. The most common packaging films used for produce prepacking are:

1. Cellophane. This was the first of the modern packaging materials to come into use about 1923. At that time cellophane was used for packaging candies and perfume. In 1927 a moisture-proof sheet was developed and since then, many other improvements have come about. Cellophane is now produced by Du Pont and other companies manufacturing about 100 million pounds annually.

Cellophane is sold by code numbers and letters. The prefix number refers to the gauge or thickness. For example, 300-MSAT means that the film is .0009 inches thick, M means moisture proof, S means sealed by heat, A stands for anchored (water-resistant) and T for transparent.

Temperatures affect cellophane. When it is too cold, it becomes brittle and will crack. High temperature may cause it to block or heat seal. The adequate temperature for storage is about 70° F.

2. Polyethylene. Was developed in England, after several improvements, it was produced in the United States in 1930. It is a by-product of petroleum derived from ethylene.

Polyethylene is a waxy material, though flexible and transparent. It comes in a different number of gauges. Polyethylene stores well and is quite tear resistant. It has the advantage that is permeable which permits breathing by the produce items.

3. Cellulose Acetate is similar to cellophane in appearance. The film is transparent with a high luster. It has a fair degree of permeability to carbon dioxide and oxygen, and it will neither shrink nor stretch. Cellulose acetate is a waterproof film and resistant to drying out or brittling.

4. Pliofilm is a synthetic plastic containing a hydrochloride of rubber as its base. It is moisture-proof, transparent and has a high permeability to carbon dioxide. Pliofilm is very resistant to punctures and tears. The

primary producer is the Goodyear Company.

For "Hard" items, such as potatoes and onions, mesh bags and paper bags with a mesh window are used. These types of bags provide ventilation and allow breathing. Also apples are sometimes packed in these bags.

Trays, platters or backing boards have been common in prepackaging meats. Now they are becoming very popular for packaging fruits and some vegetables.

It must be remembered that the type of film or material used in packing is not as important as the ventilation and refrigeration of the produce. The preference for a particular film or packaging material should be based on availability, price and adaptability to the different items and prepacking methods. "Wherever obtainable, it is advisable to purchase good quality prepacked produce items direct from growers or wholesalers."¹⁷ However, many profitable items are not available for buying that way. It must be remembered also that the chief value of packaging is to standardize the produce and make it adaptable to self-service.

Methods for prepackaging produce: basically three major methods are used in prepacking produce.

1. Direct Wrap for solid items that need no support, and lead themselves to a direct wrap. Customers are afforded

¹⁷The Dobeckmann Company, A Brief Manual on Produce Prepacking (Cleveland, 1948), p. 2.

maximum visibility since no part of the produce is obscured.

- a. Place the produce on center of film sheet.
Fold the opposite corners of the sheet together and seal with an iron.
- b. The wrap is completed by rolling and folding the ends of the sheet around the product and seal in it with a hand iron or sliding the package over a flush mounted hot plate.
- c. Apply the heat seal label and mark the price.

2. Begging free flowing items that can be put into bags in an easy and fast operation.

- a. Bags are loaded by hand or with the aid of a funnel.
- b. Adjust to proper weight using the catch weight method.
- c. Close the bag with a closing machine or by hand with twistens.

3. Tray Pack or backing board is sometimes used.

- a. The product is placed on a backing board, and a sheet of film is laid diagonally across the top. There is a variation of the method consisting in placing a film sheet catti-cornered on an appropriate sized moulded tray.
- b. Lift the tray from the table. The opposite corners are tucked under the backing board and sealed in place.

- c. The remaining two corners are folded under and sealed.
 - d. The label is put in place and the package is ready.
- h. There is a variation of the method consisting in:
- a. Placing a film sheet, catti-cornered on appropriate sized moulded tray.
 - b. Goods are arranged in mold with stem or butt-up. An appropriate sized paperboard backer is placed in top of the produce.
 - c. Opposite ends of sheet are brought together and sealed with iron.
 - d. The remaining corners are joined and sealed.

Displaying Produce: The following factors should be considered by the grocer when displaying produce:

1. Color contrast. Fruits and vegetables are naturally beautiful in color and when the proper contrasts are made the items become more prominent. The produce merchandiser should take advantage of this natural color to increase produce sales. If all the greens, all the reds or all the white items are put together, the customer will see only three items in the display. But if red tomatoes are put next to green cucumbers, and red apples next to green celery, the red items look redder and the green ones look greener.

2. Variety. To have variety at the display pays. The produce department with a good variety can give to the

housewife that "needed" item she is looking for to build her meal around. Of course, there is a limit to the items a store can carry. But with smaller packages now being made available for many items, the store owners will be able to add variety to their displays and continue to hold down their spoilage losses.

3. Space Pig Sellers. There are some items that are on the shopping list of customers every week. These are considered demand items. Give enough space in the display to stand the continuous picking by customers. Take advantage of this, by displaying non-planned or impulse items in between the demand ones.

4. Butts Up....for lettuce and cabbage. Pricing on the butts encourages eye selection instead of grabbing.

5. Horizontal Displays.... of roots and stalk vegetables. All of these should be displayed parallel with the front of the display case.

6. Jumbled Displays....invites selection and buying without the danger of causing an avalanche from a nice elaborated "pyramid".

7. Use of Dividers....to maintain a place for everything and everything in its place.

8. Even Height....to make display eye-appealing at all times. Even height means that display will never look overloaded or overshopped.

The Meat Department

Meats, either fresh or frozen usually are first on most shopping lists. That gives this department a tremendous pulling power in the self-service arrangement. "It is around the meat course that Mrs. Housewife plans her meals. In most instances, the meat department determines to a great extent, the over-all success of the market."¹⁸ In fact, the per-capita consumption of meat is increasing in the United States.

The per-capita consumption of all meats is running about 162.5 pounds a year. That means each customer in your market should be buying about that much meat annually for each member of the family.¹⁹

The per-capita consumption of meats in Puerto Rico is approximately one-third the consumption in the mainland. Fortunately the consumption on the island is increasing due principally to a raise in family income and improved marketing techniques. In 1956 the total production of meats on the Puerto Rican farms amounted to 547,000 hundred pounds units compared to 478,000 in 1953.²⁰ In the Appendix of this study there are tables showing the imports of edible animals and animal products from the United States and foreign countries.

¹⁸M. M. Zimmerman, The Super Market, (New York: McGraw-Hill Book Co., Inc. 1955), p. 221.

¹⁹"The 1957 Meat Manual", Chain Store Age, (December, 1956), p. 108.

²⁰"Agriculture, Production and Related Subjects", 1957 Statistical Yearbook, (San Juan: Puerto Rico Planning Board 1957), p. 166.

Location of the Department: Physical factors must often be taken into consideration when deciding on where to locate the meat department in a store. "The traditional location for the meat department in the food store is at the rear of the building, most frequently occupying the full length of the backwall."²¹ Those preferring this setting for the department say that: "the meat department is placed in the rear of the store because it is a demand item which draws the customers."²² Some store engineers, on the other hand, advocate the entrance location for the meat department.

Apparently reflecting the view held by many that--meat makes the meal--and therefore should be first shopped by the customer, a considerable number of store engineers said this department is situated first in the traffic flow of their new stores.²³

In most food stores today, a cross-rear location of the meat department is often preferred, and frequently the meat department can join a side produce department at a right angle.

Size of the Department. Space today in most food stores is at a premium; therefore no reasonable food merchant

²¹Meat and Food Merchandising Staff, Self-Service Meat Guide Book (Saint Louis: Meat Merchandising, Inc., 1956), p. 11.

²²E. A. Brand, op. cit., p. 103.

²³How Leading Store Engineers Plan New Super Markets, Progressive Grocer, (May 1958), p. 58.

wants to allot more space than is needed.

Estimating meat sales at 25% to 30% of total stores sales, a store doing \$5000 or under should do \$80 per linear foot display space per week; stores in the \$5000 to \$25,000 volume bracket should do \$100 per linear foot per week, \$25,000 to \$50,000 per week stores should do \$140 per linear foot; and supermarkets doing over \$50,000 should be able to handle \$160 per linear foot per week in meats.²⁴

Self-Service Meats: Time has brought many changes to food retailing since May, 1941. Those changes in retailing have been of both kind and degree. Of these changes, which have affected every department of the traditional food store and have forced the addition of new departments, none has been as significant as the growth of prepackaged meat merchandising.²⁵ The development of the self-service case and packaging materials were attempted; various types were tested and abandoned. In 1939 in Pennsylvania, the A & P Co. devised a self-service case that proved to be efficient. This improvised case was improved by manufacturers, and the modern refrigerated case was born.²⁶

There are many advantages to the customers when buying self-service meats:

1. Every package is clearly marked.
2. Shoppers are served faster.
3. The product is not more expensive.

²⁴Ibid.

²⁵Meat and Food Merchandising, op. cit., p. 5.

²⁶"50 Years of Self-Service", Chain Store Age, (November, 1955), p. 82.

4. The customer sees exactly what he buys.
5. There are opportunities for selecting the cuts.
6. More variety of cuts are offered by the store.
7. Packages are leak-proof.
8. Mrs. Shopper can take all the time she wants to select the desired cut.
9. The customer can adjust the budget when shopping.
10. Packages are well adapted to storage in home refrigerator or freezer.
11. The customer still has service in the self-service operations.²⁷

Equipment: Is used over and over. This does not include the building itself, which would house any meat merchandising system. It does not include supplies that have to be constantly replaced.²⁸ The equipment for the meat operations can be classified in four different categories:

1. Equipment for Receiving and Storage.
2. Cutting and Processing Equipment.
3. Packaging Equipment.
4. Equipment for the Retail Area.

The use of equipment is conditioned by different factors. One of the most important is the volume of business

²⁷ Ibid., pp. 44-45.

²⁸ Food and Meat Merchandising Staff, op. cit., p. 47.

of the store. The following is a partial list of equipment used at the different levels in the meat department operations.

1. Receiving and Storage.

- a. The Cooler: Incoming meats are first stored here chilled and otherwise conditioned for cutting and wrapping.
- b. Carts, Dollies: Used to store the cuts ready for packaging, and packaged cuts awaiting display.
- c. Freezer storage: Valuable for storage of packaged fish, poultry, and other prepared items.
- d. Hooks: Should be of non-corrosive metal. Used for cooler storage.
- e. Lugs, Trays, Pans: To store smaller miscellaneous cuts.
- f. Scales: To check incoming merchandise.
- g. Shelving: To facilitate storage inside the cooler.
- h. Tracking: Overhead rails, or tracking, justify their cost in terms of saving time and strain.
- i. Waste cans or Boxes: To dispose of waste and also for fat and lean trimmings that are to be used.²⁹

²⁹Ibid., pp. 48-50.

2. Cutting and Processing Equipment

- a. Electric Saws: May be used for meat-and bone cutting.
- b. Knives and Cleaners: Honing knife, cutting knives, fish knives, and cleaners should be kept well sharpened and placed on rack when not in use.
- c. Meat Blocks and Meat-Cutting Tables: Should be kept in good condition by daily care. Table tops are generally not more than three inches thick.
- d. Meat Trays and Pans.
- e. Molding Machines: For ground beef.
- f. Patty Machines
- g. Slicing Machines
- h. Tray Carts: For moving meat from prepackaging line to case or cooler.³⁰

- 3. Packaging Equipment: Comprises a number of items necessary to provide customers with good-looking packages, proper labeling and clear information in regard to exact weights and prices. Included are conveyors, tape dispensers, film cutters, label machines, packaging tables, packaging machinery, racks and platters, scales, sealing devices, stands, storage for supplies.³¹

³⁰ Ibid.

³¹ "Meat and Food Merchandising Staff", op. cit., pp. 55-57.

4. Equipment for the Retail Area: In the self-service meat departments, the retail area must be planned with great care, for the general appearance of the department is vastly more important when so much of the personal contact with customers is lacking. Included in this group are display cases of different styles, display case accessories such as dividers, signs and sign holders, tags, thermometer, and related item displays.³²

Supplies Needed: Supplies are those materials used during the course of the self-service packaging operation. They need constantly to be replaced. It is estimated that the cost of supplies is approximately $1\frac{1}{2}$ to 2 percent of total sales. The function of packaging materials is, of course, that of helping to produce an attractive, durable package. Usually the wrapping materials used in the meat department are the same or closely similar to those used in the produce department. In the chapter covering the produce department, the wrapping materials are discussed, so they are only mentioned here as supplies needed for self-service meat operations. Among the wraps the transparent films are included such as: cellophane, pliofilm, saran, lumarith and other synthetic products. The "backing" group includes laminated boards, pulp flatboards, trays, lard

³²Ibid., pp. 55-58.

trays, and more recently plastic wax dip. For merchandising many food specialties, self-service meat containers are used such as window cartons, paper cups, plastic cups, transparent bags, and shrinkable plastic bags.³³ An adequate supply of labels is a necessity. There are many different kinds of labels that the grocer can buy imprinted. Suppliers' catalogs describe them and the store owner can decide which type or types to select. In large operations labeling is done by machines.

Displaying Methods: There are different opinions as to the best way to arrange displays in a self-service meat case. But in general, the different methods used follow certain basic merchandising principles. Fast moving cuts, should never be placed side by side, slow moving cuts which usually carry a higher mark-up, should be given the benefit of being displayed alongside a demand item.³⁴ Many stores arrange the meat displays so that when the customers enter the meat department, they observe the large items such as canned hams, smoked hams, picnics and piece bacon. From here the customers work down to the roasts, the chops, and then the cold cuts. On the other hand, some operators prefer to change the displays every two or three weeks to maintain the interest of the shoppers trying to find their favorite

³³Ibid., pp. 59-65.

³⁴"The Why and How to Self-Service Meat", op. cit., p. 49.

cuts along the display case.³⁵ The season influences the display techniques. During the summertime, many stores display ground beef at the beginning of the refrigerated case and sausage and cold cuts scattered along the case.

The following principles are recommended by U. S. D. A. as guides for minimizing labor requirements in the display operation:

1. A fully loaded pan, or two or more partially loaded pans, should be carried to the display case on each trip.
2. Wherever possible, a cart or dolly should be used to move several pan loads to the display case.
3. The floor or walkway behind cases serviced from the rear should be at the same level as the floor of the packaging area.
4. Doors connecting the packaging area and the display area should be swinging doors or should open out in the direction of the flow of product.
5. All items should have a definite location in the holding cooler, and the various sections of the holding cooler should be marked accordingly.
6. Whenever possible, both hands should be used to place the merchandise in the display case.³⁶

³⁵Personal interview with meat manager at Schmidts Supermarket, Okemos, Michigan.

³⁶Edward M. Harwell and Others, Packaging and Displaying Meats in Self-Service Meat Markets, (Washington D. C. Government Printing Office, 1956), p. 68.

The Dairy Department

A great amount of emphasis has been given to the product knowledge required in the operation of a dairy department of a supermarket.

There is not a supermarket operator in the country who does not realize the importance of his dairy department.

The two main reasons why chain store managers like to handle dairy products are because almost every customer has at least one dairy product on her list each time she shops, and because these products tie in naturally with many other foods and can therefore point the way to additional sales.³⁷

To attain success in the dairy department, store managers must develop and practice the habits of success. The purpose of the writer has been to collect information that can help grocers in Puerto Rico. To accomplish success in their food stores, grocers must have a better understanding of the basic practices of successful dairy department operation.

In many supermarkets the dairy department is still considered as part of the grocery department. The dairy operation today, because of its size and importance, demands the attention of individuals who can devote all of their time to the operation.

Based on the firm belief that dairy management is an important skill--in the same sense that meat-cutting and produce-handling are generally recognized as specialized operations--the Grand

³⁷"Tie in Dairy for Added Sales", Chain Store Age, (December, 1956), p. 78.

Union Co. has spent more than six years operating and perfecting its training course for dairy department managers.³⁸

Merchandising Dairy Products: Milk draws traffic to the dairy department. If the department is fairly large, milk and cream contribute about 13 percent of the departments total sales dollar. About 10 percent of every milk sale is gross profit. Milk contributes about nine percent of the dairy department's total profits.³⁹

Milk is a big attraction, since it is competitively priced. Two-percent butterfat milk may also be stocked as an additional price incentive. Considered in the light of total dollars that go into the cash register, milk vies with eggs for first place. As a turnover item, it is the staple--the heart of the dairy department.⁴⁰

It is possible to give the mass display effect to milk by stocking it high in the cabinets but not above the temperature line. The use of false foundations made from empty cartons will be of advantage in giving the impression of volume sales. Many supermarkets price milk in units of two offering a slight saving over single bottle price. Tie-in milk promotions with newspaper and magazine publicity on nutrition and health. Combination sales go well in other departments, coupling milk with a variety of food products.

³⁸"Grade A Dairy Personnel", Chain Store Age, (March, 1957), p. 137.

³⁹"Dairy Department", Unpublished mimeograph, (University of Puerto Rico, 1956).

⁴⁰"Dairy Complete Merchandising Operation", Chain Store Age (March 1956), p. 144.

Wherever possible display milk with other items such as cereals, soups and chowders, gravies and sauces, milk with bread, crackers and cake.

Cheese. Should be displayed in large quantities. Use contrasting color display. Since cheese has an appetite appeal, it should be displayed attractively. Samples will also increase the effectiveness of cheese displays. In any display of cheese, should be such related items as crackers, bread, spaghetti, beer, and other beverages. Cheese should be suggested along with fresh fruits and vegetables for salad. Brand or label should be in plain sight and clearly marked. Cut pieces of cheese should be covered with cellophane. In displaying cheese, keep packages flat so as to prevent the foil from loosening.

Butter. Turnover on butter is the most important profit factor. Since the butter is generally kept in refrigeration, the chances for creating mass display are limited but they are not impossible. Butter can be effectively displayed in open or closed types of the refrigerated cases to create the mass effect for selling large quantities. When traffic is very heavy in the store and the temperature in the store is controlled by air conditioning, the display can be placed outside of the refrigerator and mounted on empty cartons. The empty cartons provide the base for a massive sales prompter which requires a minimum amount of butter

packages. Butter should not be displayed outside the refrigerated case for more than four hours. No display is complete without proper signs to reinforce the pushing power of the merchandise.

Margarine. There are many brands of margarine on the market. "One of the most serious mistakes made by super market merchandisers of margarine is the stocking of too many brands."⁴¹ An excess of brands results in a confusion to the shopper. The result is that some brands can never sell enough to pay for their space. The best thing to do is to offer customers a variety, but always watching the sales volume of each and eliminating the slow movers. When margarine is displayed in the dairy case some merchandising tips can be followed to increase sales:

1. Vary the package colors for easier shopper selection.
2. Add new stock at the back and bottom of each row to assure first in, first out selling.
3. Keep products with strong pungent odors away from margarine.
4. Price each package before stocking in dairy case.⁴²

Margarine can be displayed outside the refrigerated case provided the store is air-conditioned. When this is

⁴¹Kraft Food Company, Successful Dairy Department (Chicago 1955), p. 9.

⁴²Ibid.

possible, special related item displays are most effective. Many store managers stated the following related goods are effective volume producers:

1. Sweet corn with margarine.
2. Biscuits and margarine.
3. Popcorn and margarine.
4. Bread with margarine.
5. Baking potatoes and margarine.
6. Pancakes mix and margarine.

Margarine requires the same handling care as butter. That means, it should be kept under refrigeration, even though it has excellent keeping qualities.

Eggs. Draw customers to the dairy case. In most supermarkets eggs contribute about 22 percent of dairy's total gross profits, about 20 to 21 percent of the department's total sales dollars. Eggs must be refrigerated immediately upon delivery. Cartons must be arranged in orderly rows; arranged also by grades and sizes. It is important to rotate the merchandise in the display.

To make a mass display, empty cartons or crates are used as a foundation for pyramidal stepped-up or other styles or arrangements. This method of using "false" foundations eliminates the danger of spoilage and breakage which may occur when too many eggs are displayed at once. The egg display needed not to be confined to the dairy department.

Many managers feel that if their stores are air conditioned, they can safely put up displays of eggs and margarine at any point, providing there is rapid movement.⁴³

Eggs tie in nicely with products such as breakfast meats, with cheese or jelly for omelets, with the different kinds of baking supplies.

Management of the Dairy Department: It is important to give to fast moving items the facings they deserve based on volume, reducing the space given to slow-movers. Another way to get more space in the display is to stop carrying the slow-moving products that are similar or substitute to fast-movers but do not sell as fast as the more popular brands. The space allocated to any product should be based on sales.

Impulse items are the products that the shopper decides to buy at the point of sale. More than half of the products customers take to the check-out counter are impulse products. Generally, impulse items yield a fairly high margin.

In the dairy case, the impulse items are mainly cheeses, biscuits and delicatessen items. Many cheese products are semi-demand items. The other products in the dairy case that are demand-items are butter, milk, eggs, margarine and cream.

The following six steps are recommended to increase dairy business:

⁴³"Tie-in Dairy for Added Sales, Chain Store Age, (December 1956), p. 78.

1. Allot space on the basis of sales and profit.
2. Allot some space to more volume-building cheese varieties.
3. Arrange demand items to pull traffic through the entire department.
4. Group cheese in sections according to type, flavor and color.
5. Post a "space allocation diagram".
6. Spotlight the non-refrigerated products.⁴⁴

Frozen Foods

Frozen foods are important to the retailer for different reasons. Sales of the product have been increasing since the end of World War II. With the improvements made to the refrigerated cases, the small grocers are able to carry a complete line of foods in a minimum space. More and more customers are using and demanding frozen foods each year. Industry leaders believe that sales may reach eight to ten per cent by 1960. New equipment, merchandising procedures and new concepts in store sizes have resulted from the fast growth and development of frozen foods.

Location of the Frozen Food Department: Frozen foods have not been accepted as a separate department within the food store. In many super markets frozen foods are considered

⁴⁴Kraft Foods Company, op. cit., pp. 26-28.

a part of the grocery department, in others sales of this product are included with sales from the produce department. In a few large stores, frozen foods are considered as a department with a manager in charge.

Many retailers still feel that the produce department is the best location for frozen food display. The Progressive Grocer Magazine conducted a survey to determine which location for frozen foods the dealers preferred. The following was the result.

1. Location near the Produce Department ... 48.5%
2. Near Checkouts 28.9%
3. Near Meat Department 17.6%
4. Between Produce and Meat 5.0%

Displaying Frozen Foods: A major factor necessary for attaining good sales in self-service stores is meat displaying. Customers are constantly disarranging displays. When an item is covered it will not sell. "Neatness and effective usage are worth about 20% of the frozen food dollar sales at the cash register."⁴⁵ There are many gimmicks that grocers can use to build more frozen food sales for his store. Sales results from highly successful chains show that can be accomplished. National Tea, for example, reported 7% of total store sales in frozen products in 1955.

⁴⁵"Displays for Plus Sales", Chain Store Age, (April 1956), p. 126.

This year this same Company is operating at a rate of 8%. In many cases, individual store results show 10% and 15% of total store sales in frozen foods.⁴⁶

An effective method to build tonnage in frozen foods is by using special displays. They can be used either in case and out-of-case. But the items to be promoted have to be tonnage items. A "dump display" usually takes up extra space and is cooled with dry ice. Mass displays and mass dumps of tonnage leaders such as juice, frozen peas, french fries, pot pies and strawberries are justified by the extra sales. In many stores these tonnage items get out-of-case display. The big problem is watching these items to make sure that there is no deterioration in quality. Out-of-case displays are just as effective for frozen foods as mass ends are for dry groceries. But these items must be good sellers in order to move quickly. No matter how well the display is set up with dry ice, the possibilities of thawing is always present and, unless the turnover is rapid, quality problems may develop.

Effective signs and price markings insure added sales. It is not enough to price-mark every item on the back of the display case. Specials need to be highlighted to draw customers' attention.

⁴⁶Ibid.

Multi-unit pricing is growing as a sales stimulator. Particularly in large suburban stores, multi-pricing offers an opportunity to sell two or more packages at the same time. The larger refrigerator capacities of today and the growth of home freezer sales make multi-purchases more likely in these areas.

There are different opinions of the way in which the items should be displayed. The accepted practice in the past has been to display the items by category. The purpose is to give customers the opportunity to compare similar items of different brands. There are others however, who advocate the displaying or grouping of all the items of the same variety.

The agricultural Marketing Specialists of the United States Department of Agriculture have developed very effective techniques for handling frozen foods. Using these improved methods, many operators are obtaining 31% to 44% increase in production over best conventional methods. Among the recommendations of the government-specialists, the following are very useful in displaying frozen foods:

1. Use dump displays where possible. Dump displays save time for fast-moving items and permit the operator to sell more merchandise from a given space. Dump displays should not be attempted with less space than that required for three regular rows of merchandise.
2. Do not display less than half a row of an item, if consistent with merchandising practices. The

operator can then stock a half or whole carton without returning excess merchandise to the storage freezer. It also helps prevent covering of one item by another through customer handling.

3. Do not backtrack in stocking a display case. Stockmen often must run back and forth to find a certain item. Segregate merchandise on the cart and move the case length only once in filling displays.
4. Combine rotation with stocking. Move old merchandise to the front and stock to the rear of each row. Move most of the old merchandise forward when policing the cases prior to stocking.
5. Get the carton close to the display. Best production was obtained in the U.S.D.A. tests when operators placed the carton directly in the case for stocking.
6. Use both hands effectively. Stock frozen foods rapidly by using both hands. Lift the merchandise from the carton two or three units at a time with one hand and transfer them to the other in the proper position to be placed on display.
7. Keep displays below the full line of the display case. Building displays above the maximum

fill line causes disorder and is one of the major causes of ice forming.

8. Use dividers. Special dividers are a great aid in stocking and displaying frozen foods. Insert a divider between each row of the merchandise and the next.
9. Keep packages facing the front. This results in easier handling and a better view of the package.
10. Do not stock the merchandise too tightly into the case. Displays which are too tight take considerably longer to stock, make it difficult for customers to obtain the merchandise, and often result in torn packages and bent cases.⁴⁷

Non-Foods Department

Non-foods is a term used in the food industry to designate the merchandise that modern supermarkets are carrying that was practically unknown to the food merchants in the early thirties. This classification includes items like health and beauty aids, household supplies, non-prescription drugs, toys and soft goods among others. But non-foods are not newcomers in the supermarkets. When the historic Big Bear of Elizabeth, New Jersey, which opened in 1933, earned eighty-six thousand dollars, better than

⁴⁷Dale L. Anderson & Paul F. Shaffer, Improved Handling of Frozen Foods in Retail Stores, (Washington, D. C., Government Printing Office, 1955), p. 22-23.

half of its total net profit from its non-food concessions the first year of operation.⁴⁸

Today, non-foods departments are continuing to expand in all the country, although on a somewhat more selective basis than in the past. Customers have proved their willingness to buy a great many non-food lines in their favorite grocery store. There is no longer any question about customer's acceptance of non-food service. The only problem is to find lines on which there is sufficient turnover to justify costly grocery store space. There are many good reasons why non-foods are sold in supermarkets. One seems to be the operators' need for available merchandise during the war. A very general but sound reason is the fact that more customers frequent a supermarket more often than any other type of retail outlet. A good reason for non-food sales in supermarkets lies in their high profit margin. In the Super-Valu Study" the gross margin on sales of the household supplies was 28.3 per cent compared to 18.1 per cent of the grocery department.⁴⁹ The relatively high profits derived from these items make it possible for

⁴⁸M. M. Zimmerman, The Super Market, (New York: McGraw Hill Book Company, Inc., 1955), p. 236.

⁴⁹"Super Valu Study", Progressive Grocer, (March 1958), p. S-41.

an organization to either make money for the owners, pass the added profit down to the customer in lower prices, or offset the loss of another department.

Non-Foods in the Small Stores

Small markets in large cities often claim they have no room for many non-food items. A small chain in the East Coast offers thousands of items that many big firms have not yet started to handle. To accomplish that, they are stressing in the following:⁵⁰

1. Careful buying. The non-food buyer of the firm says his three main goals in choosing merchandise are to pick items that have lasting appeal, to remember differences in local tastes, and to concentrate on seasonal promotions. In his effort to pick items that have lasting appeal, the firm leans heavily to staple lines. Patterns of dishes, crystalware, and cookware, for example, are usually offered on an open-stock basis in preference to in-and-out deals, because this gives customers an opportunity to accumulate full sets over a long period of time and to replace any pieces that get broken or damaged in use. Buying habits differ among people of different communities and even among those in the same area. Seasonal appeal is another factor that cannot be overlooked in the selection of items.
2. Utilization of Space. Since it takes so much more floor space to get the same volume from non-foods as from foods, it is necessary that all space available for variety lines be carefully utilized. In the Massapequa Markets a 5 unit chain of New York, walls are lined with shelving and the center sections are filled with island fixtures and tables so that all lines can be an open display and easily accessible to customers for close examination. All items are carefully departmentalized so that related lines are displayed near each other.

⁵⁰"Non-Foods: Problems and Opportunities", Chain Store Age, (October 1957), p. 134.

Main sections in the mentioned stores include household gadgets, phonograph records, have furnishings, lawn and garden equipment, cleaning needs, cookware, tableware, plastic items, lamps and lamp shades, electrical supplies, paints and wall paper, laundry supplies, notions, stationery, toys and gifts.

3. Adequate Staffing. Since the non-foods merchandise as the rest of the groceries is operated on a 100 per cent self-service, large staffs are not needed to operate them. But the personnel must be chosen carefully, because their jobs involve much more than just checking out merchandise. Most of the chains have tried to select men and women for the non-food departments who are particularly interested in crafts and hobbies and who have natural aptitudes along these lines. In the small chains usually one person is responsible for receiving orders, price marking merchandise, stocking shelves, arranging timely displays, keeping merchandise clean and displays orderly, and making rotations of any items customers call for that are not carried in stock.
4. Handling Closeouts. Many operators of small food stores feel that two of the toughest problems are to avoid introduction of lines that lack popular appeal and overstocking of strictly seasonal items. Many of them are pretty conservative in buying seasonal specialties and things that classify as useless novelties. They do not like to carry over a lot of merchandise nor to hold close-out sales or offer shopworn merchandise.

Improving Non-Food Displays

One of the leading chains on the West Coast recommends the following seven gimmicks to improve the displays of non-foods. These techniques, the merchandiser manager says, are carefully engineered to give sales velocity, considering them both an art and a science.

1. Use Well-Known Brands. The big names mean big box-office. What they do to get maximum turnover is to select only the tried-and-true fast sellers. They take these and allocate space for them on the bases of their gate receipts--the more dollars the more prominence.

2. **Maintain a Proper Stock.** The merchandiser manager of the chain points that out-of-stock is their worst enemy. Nine times out of 10 it is incorrect ordering that creates those selling gaps. What they are doing is to set up the order pad to correspond with the line-up of merchandise on the shelves--left to right and by sections. This, they say eliminates tapes or marker identifications. Once the alignment is established, the shelves are filled to capacity. In this way it is easy for the store clerk to locate items in the line-up. They alledged that with this technique it takes only a few minor adjustments to handle new items.
3. **Use the Proper Fixtures.** When shelves are rigid, it is the toughest trick in the world to pack the merchandise in without leaving empty areas above and below, they say. It wastes space, and gives the customer an impression that the store let the displays run down, or that are discontinuing lines. To avoid that "empty feeling" this western firm recommends the use of adjustable shelves so that they do not show big gaps above odd sizes of bottles and packages.
4. **Try the "Peg-Board".** They maintain a 8-foot section of "peg-board" in the center of each non-foods gondolas. It has shown that it can hold three times as much merchandise as peg-boards strung completely across the tops of each gondola.
5. **Provide a permanent place for items that are hard to stack.** Manufacturers' deal packs at special prices or with free merchandise attached often are difficult to stack in the regular shelving. The store provides a permanent place for them right at the end of the health-and-beauty aids gondola.
6. **Display Related Items.** The merchandise manager of the firm says that they like to duplicate certain items in related grocery departments so that they catch the customer who has happened to by-pass the regular drug display. So they show sanitary napkins at the paper goods table and baby needs within the baby foods table.

7. Use "Spectacular" Displays. This chain organization authorize two feature displays per month which they call "spectaculars". Generally these displays either tie-in with the holidays or they are special manufacturers promotions of major importance. These promotions are always merchandised on special end displays designated by the grocery department.⁵¹

Counters and Check-out Systems

In modern self-service stores the main function of the check-out counter is not to maintain a physical separation between the cashier and the client, but to set up a convenient place for checking each patron's purchase. "I will receive merchandise, move merchandise, and aid in the physical handling of merchandise."⁵²

There are three major types of checkout counters used in self-service stores today:

1. Rectangular type of counter.
2. Counters that form a "U".
3. "L" counters.

Grocers can use the type of counter best adapted to their particular needs. The following is a brief description of each type:

Rectangular type: Are commonest in small stores that have a considerable part of their volume in charge-

⁵¹"The Truth About Health and Beauty Aids", Super Market Merchandising, (March 1957), pp. 67-68.

⁵²E. A. Brand, et. al., op. cit., p. 124.

and-delivery services. Other than checking counters, they are used in assembling delivery orders, handling credit deliveries and serving the few customers that still prefer the clerk service. They are adapted to small stores with limited floor space.

"U"-shaped Counters: This type of counter works good in medium sized stores where there is a limited credit service and where the management wants to maintain friendly customer relations. This type consists of two counters forming an "U".

"L" Counters: Are the type adopted by the strictly cash and carry stores. Is the best type for stores with large volume of sales. The commercial types of counters are "L" shaped. They are good for easy traffic-flow and rapid checking.

In bigger stores with a heavy traffic a clear separation of lanes and sometimes doors for incoming and outgoing traffic should be clearly stipulated. This is very important when planning the location and arrangement of checking counters.

The checking counters should be located near the store exits so the flow of traffic will be to these exits. The shopper usually plans the merchandise on the counter where the checker moves it item by item with the left hand and using her right on the register keys. The merchandise is usually sacked by a part-time employee known as "sacker"

or "bagger". During slack periods the checkers perform both operations.

In a recent survey conducted by Progressive Grocer, indicated that on the average three checkout stands are being used in stores averaging \$10,000 in weekly sales; four in \$20,000 a week stores and for \$50,000 outlets, eight checkouts are being used. The number of checkouts used by a particular store will vary according to local needs, however, these averages indicate the number of checkouts used by over half of the operators surveyed.⁵³

The Food Merchandising Staff recommends determining the number of checkouts in regard to floor space. They say that for stores of 100 to 200 square feet, one checkstand is enough, 2 for stores from 2,000 to 3,000 square feet, five in stores 8 to 10,000 and six in markets of 10,000 to 14,000 square feet.⁵⁴ The final decision depends, of course, on many different factors. "Variables, such as the speed of the cashier, number and speed of the baggers, and whether the cashier must cash checks, handle bottle returns, coupons, stamps, weigh produce, etc., affect the dollar sales that pass through a checkout stand per day or week."⁵⁵

⁵³"How Leading Store Engineers Plan New Super Markets", op. cit., p. 58.

⁵⁴"Minimum Requirements on Fixtures", Food Store Planner, (Saint Louis: Food Merchandising Publishing Co., 1956), p. 7.

⁵⁵E. A. Brand, loc. cit.

CHAPTER IX

PRACTICAL ASPECTS OF LAY-OUTS

There are certain basic ideas when designing a practical store layout such as accessibility to the merchandise, opened displays and visibility of all items. What is meant by these three terms is that the merchandise should be allowed to sell itself. The days when the merchandise was purposely placed to be out of the reach of customers are gone.

Self-service merchandising principles have affected store designs and internal arrangements of fixtures and merchandise. As a result of these changes, retail establishments look for certain basic objectives when designing the store layout.

1. To facilitate complete customer circulation of the entire store.
2. To increase sales of high margin merchandise.
3. To establish a buying routine consistent with the consumer's thinking, habits, and methods of planning.
4. To make the task of shopping as pleasant as possible, so pleasant that satisfaction is apparent by repeat visits.
5. To provide the most effective utilization of space from the standpoint of operating efficiency.¹

¹E. A. Brand, op. cit., p. 102.

Merchandising experts agree, that a good arrangement of stock is one in which there has been an integration of impulse, demand and convenience items.²

The first logical step to arranging stock for self-service is to classify the thousands of items into general groups or departments so that customers can easily find them. Generally speaking these natural groupings are based upon the way in which they are used. So the shopping habits of the community served by the store is very important in arranging the stock displays. "Possibly the best way to approach the merchandise layout problem is to consider the thousands of grocery items in your inventory in terms of just 40 to 50 basic product classifications with which the average customer is familiar."³

Demand items in the grocery department are those that are practically always on the housewife's shopping list such as bread, eggs, sugar and coffee among others. On the other hand impulse items are those that the shopper buys, but were not on her list or on her mind when she entered the store. At sometime or another, any item in the grocery department may serve as an impulse item.

Demand items are generally spotted throughout the department, with the majority of them toward the rear so as to draw customers through the entire department and give them a chance to see all the merchandise.⁴

²Progressive Grocer Staff, Modern Supermarkets and Superettes, (New York: The Butterick Co., 1956), p. 18.

³Ibid.

⁴John W. Ernest, op. cit., p. 18.

The impulse items are recommended to be placed where they are more accessible to customers. Grocers in Puerto Rico should have in mind that staples like rice, beans, tomato sauce, lard, dry and evaporated milk and sugar are typical demand items. When arranging the merchandise, these items should be spread throughout the grocery department so that customers will shop the entire department.

The relationship which one item bears to another is important. In arranging the merchandise on shelves, the grocers in Puerto Rico must keep in mind the tastes and habits of his clientele. Usually olive oil is the every-day dressing for salads so it should be placed near the produce department. Dry and evaporated milk near breakfast items; soaps near household goods. Soda crackers are very popular in Puerto Rico for breakfast, while native fruits and jams are used for desserts as is cheese.

The Grid-Iron System of Lay-Out

The traditional layout pattern in most retail stores is the grid-iron. It consists of placing the gondolas parallel to each other. Gondolas are usually long without breaks for cross aisles. This type of gondola arrangement produces an efficient flow of customer traffic. Short gondolas with many cross aisles result in customer confusion and waste of floor space.⁵ Some of the objections of the grid-iron

⁵Russ Maintain, "Layouts--Hopeful and Helpful", Super Market Merchandising, (June, 1957), pp. 62-63.

layout are monotony caused by the long gondola lines and the warehouse-like appearance of the arrangement. Of course, in a small store this objection is of little importance.

The Diagonal Design

The diagonal layout is a variation of the grid-iron pattern and consists in arranging the grocery fixtures in a diagonal way. This type of layout is popular among small and medium-sized operators because it gives the illusion of greater size. The Independent Grocer Alliance is a booster of this system:

The angle alignments of the island's make it easier to shop the overall store--all departments easy to identify--selection of merchandise easily made--traffic flow convenient for maneuvering of the shopping carts.⁶

Some store engineers claim that the diagonal system utilizes floor space less effectively. In research conducted by some grocery chains, it was found that this arrangement reduced considerably the display space in the produce and frozen food departments.⁷

⁶ W. H. Longenbaker, "Ways and Wherefores of Store Layout", Independent Grocers' Alliance Distributing Co., (Report of the Extension Retailer Education Clinic, Purdue University, 1952), p. 39.

⁷ "Avoid the Diagonal Layout", Super Market Merchandising, (June, 1957), p. 63.

Alcove Arrangement

This is an innovation in the standard arrangement and was developed by an eastern chain. The walls of the store are divided into semi-circles or departmental bays. These bays are designed so that eight carts can be maneuvered with relative ease in each one. This arrangement permits higher shelving without interfering with the vision of customers in the market. Departmental isolation is possible in the alcove system so the customers can speed up their shopping as soon as they are familiar with the location of different items. A one-way traffic pattern is usually used.⁸

Free-Flow Layout

This system is characterized by the absence of sharp turns, regularity, and uniformity in the shopping areas.

The free-flow arrangement consists of a series of circular, octagonal, oval or U-shaped fixture patterns, resulting in curving aisles characterized by a deliberate absence of uniformity.⁹

Some of the food chains in the east, especially Grand-Union Company, are using a radial store arrangement that actually is a free-flow design. The main advantages claimed for this unusual store arrangement are:

1. Flexibility is facilitated in that the linear counter frontage of a department can be contracted

⁸"Grocery Bays--A Novel Layout Dimension", Super Market Merchandising, (June, 1957), pp. 76-77.

⁹Paul L. Brown and William R. Davidson, Retailing, (New York: The Ronald Press Company, 1953), p. 132.

or expanded by inserting or removing fixtures without altering the general pattern.

2. It increases customers' exposure to merchandise by eliminating straight aisles and provides incentive for devious courses of customer movement.
3. The departments stand out clearly from one another with distinctive size and shape.¹⁰

¹⁰Ibid.

CHAPTER X

STORE ENGINEERING

Modern Store Fronts

People get their first impression of a business from the store front. To serve as an invitation to enter, the front must be attractive and suggestive of solidity and character. Grocers know by experience that very often the customer's decision to step into a food store is stimulated by the quick first impression that she receives from the store exterior. "The store exterior must appeal not only to regular and transient shoppers, but also to new families entering the area."¹

A store front is a form of advertising. When planning store modernization, the front must be considered a part of the overall merchandising plan. It is the store's personality to the customers. The food chains are using modern materials and designs, increased attention and more planning to make the most of the store fronts. Generally food chains use three different types of store fronts.

1. Open fronts: They are open to view and utilize full windows and glass doors to display the interior of the store to passerby.

¹"The Outside View in the Inside Sale", Chain Store Age, (October 1955), p. 119.

2. Closed Fronts: Are markets without display windows. Some chains adopt the closed front where space necessitates use of the street wall for refrigerated display cases or similiar selling equipment.

3. Flexible Fronts: In this type of front the sales floor can be shown or concealed. Curtains or removable show-window backs allow ready transition from one style to the other or a combination of the two.²

There are a great variety of materials that can be used to make store fronts attractive. The grocer can select those that best fit his conditions such as cost, availability, adaptability to weather conditions, etc. The following is a list of some of these materials:

1. Marble
2. Granite veneers
3. Stone
4. Terra colta
5. Roman brick
6. Brick
7. Pre-cast terrazo
8. Ceramic tile
9. Porcelain enameled metal
10. Cement stucco
11. Metal alloys
12. Structural glass

²Making the Most of the Store Front", Chain Store Age, (October 1953), pp. 176-180.

Ralph Ernest, a store engineer for N.A.R.G.U.S. makes the following recommendations to small operators planning to remodel their store fronts:

1. Get rid of all foreign signs, for they give a very cluttered appearance. Consider the possibility of re-locating the entrance, and revising it in such a way as to create a "new" impression on people going by.

2. Re-face the front of the store. Today the tendency is to create a horizontal line plus the impression of a longer, wider store, and that is not possible with a two-story false front on a one story building. He recommends products like redwood, plywood, imitation stone, tile, brick, some only a half-inch thick to be nailed onto an existing wall.³

The Store Entrance: The entrance should invite customers to enter and shop. Entrances are designed to improve the overall store appearance, wearing qualities, and their ability to be opened easily. Doors are often classified by their position in the store and by the way they are operated. The following is a general classification for doors used in chain stores:

1. Clear-vision doors: Their big appeal is that they are light in weight and easy to operate.

³Ralph Ernest, "Annual Modern Stores Issue", N.A.R.G.U.S. Bulletin, (February 1958), p. 50.

2. Electrically operated: Are preferred by grocery stores where purchases tend to be bulky.

3. Revolving doors: Are more common in big department stores but are not used by food store operators.

4. Central doors: Are sometimes criticized since they limit the space available for window display.

5. Doors at the corners: Are most favored by drug, tobacco and candy chains and others not requiring traffic on either street to go out of its way around the corner.⁴

Store planners recommend using off-center entrances for supermarkets.

When talking about any type of store building, we must consider the front . . . An off-center entrance is usually more efficient and easier to operate than a center entrance. There are some exceptions to this such as in large markets where space is secondary, or where a center entrance gets closer to more parking spaces.⁵

Store Signs: They are considered as part of the sales promotion in modern food stores. "Each market has an outdoor salesman who plays an impressive role in the creation of business. This salesman is your store sign."⁶ If there is a trade mark or name in script, the grocer should use it.

⁴"Making the Most of the Store Front", loc. cit.

⁵Ralph Ernest, op. cit., p. 52.

⁶"Your sign is your Salesman", Super Market Merchandising, (May 1953), p. 183.

The purpose is easy identification of the store. Stores located some distance from the road or roads need signs with larger letters so as to be readable. Plastic signs offer great varieties of color and lighting and being flexible, can be used for script signs or for trade marks. Wood, metal, stainless steel or plastics are all good materials for signs. The grocer must check adjacent buildings or obstructions to determine the possible height for the sign.

When deciding on a sign, the operator should consider the night time appeal of the store, since currently there is a strong tendency toward evening shopping especially in suburban areas and shopping centers.

Pylons: They are now being erected by food store operators in the form of signs rather than actual towers. Pylons must suit the location of the store. Outlying suburban shopping centers design pylons and lighting to attract passing motorists. In urban locations, however, they retain more modest proportions in keeping with a shorter eye-range.⁷ A pylon on the street is probably one of the best places to spend money for a sign.

Store Lighting

By improving the quality in general, and adding display and spotlighting, sales can be greatly increased in

⁷"Pylons Point the Way", Chain Store Age, (May 1955), pp. 86-87.

self-service stores. Good lighting is one of the most valuable tools for an aggressive retailer.

The modern, progressive grocer of today realizes that lighting can be more than interior decoration--it can be a strong merchandising device. A well-engineered lighting installation will draw attention to the store and its merchandise; it will lead sales appeal, induce people to see more items, and it will contribute to a cheerful stimulating interior.⁸

There are three general types of interior lighting used at the food stores:

1. Accent lighting: The purpose of this system is to draw attention to special displays. "Dead" corners become sales centers when the lighting is above the level of surrounding areas.
2. Down lighting: Is especially effective at meat and fresh produce counters to improve color, add sparkle to shiny surfaces, and emphasize form.
3. Perimeter lighting: Identifies departments by using wall-mounted signs and decorative elements, improves store appearance and customer circulations.⁹

The General Electric Company recommends that there should be a minimum of at least 100 foot-candles throughout a food store, up to a maximum of 400 foot-candles. What is really important to the grocer is the amount of light on

⁸Progressive Grocer Staff, op. cit., p. 150.

⁹R. T. Dorsey, "The Silent Salesman", Light Magazine (July-October, 1957), p. 45.

the labels of items, not on the store's floor. In food stores today with many sales being made on impulse, it is important for the labels to be seen. The requirements for food store lighting may look rigid, but fortunately there is a variety of fixtures and systems available that make the task quite simple.

The basic and simplest unit is the individual fixture. It can be surface mounted or recessed into the ceiling. The units can be installed in groups or placed end-to-end to form rows, or geometric patterns.¹⁰

To prevent glare and excessive brightness, the bulbs are shielded by use of glass or plastic bottoms and sides. Many manufacturers prefer the "egg-crate" bottom as they diffuse and direct the light properly.

The ultimate in lighting is the luminous ceiling in which the entire surface is illuminated. Plastic squares or length of corrugated plastic are placed in a grid to diffuse and conceal the actual lights mounted above. Although rows of fluorescent tubes are the actual source of light, the light spread on the plastic is so even, the entire ceiling appears to be illuminated.¹¹

A combination of incandescent and fluorescent lighting will give sparkle especially to cellophane-wrapped items.

¹⁰"Latest in Lighting", N.A.R.G.U.S. Bulletin, (February 1956), pp. 67-87.

¹¹Ibid.

Some food stores have fixtures with incandescents mixed in with the fluorescent tubing.

Auxiliary lighting is used no matter what type of lighting system is selected by the grocer. Spotlights are very necessary to attract attention to special displays. Meats look better when incandescent lamps are used, therefore floodlights or spotlights are preferred over the meat cases. Additional spotlighting can be used to illuminate wall directories, departmental signs, plaques or wall displays.

Colors for Modern Stores: The color scheme for a food store enhances the personality of the store and helps in the proper illumination of the interior. Pastel shades reflect more light. Walls and ceilings should be rough surfaced or have a flat paint to prevent glare. For stores in a climate with predominately hot weather, colder colors like blues avoid the impression of more heat. The use of wall paper, murals, and panels is increasing. Manufacturers of wall paper are making more patterns which have food themes.¹²

Floors

There is a rather wide variation of materials and cost of floor coverings. In selecting a floor covering, the grocer should consider the following factors:

1. How long the new floor covering will last.
2. Which is the best adapted flooring for the store.

¹²Ralph Ernest, op. cit., p. 56.

3. Maintenance cost of floor covering.¹³

The better grades of asphalt and vinyl tile generally are guaranteed for 10 years or more in stores with heavy traffic.

Some grocers prefer the dark-colored patterns of asphalt tile for the resistance of the product to scrapes, scuffs, cigarette burns and rough treatment. On the other hand other grocers prefer linoleum because it can be laid in a pattern that will direct store traffic.

Proper maintenance is essential in getting the most satisfactory usage of the flooring selected. Good vinyl has an advantage over linoleum and asphalt tile in that foot traffic helps to buff the surface, so that wax is not required and the hazards of slippery floors are avoided.¹⁴

Grease-proof tile is convenient in the meat room for long service. Many retailers use a small rubber mat in the meat operations or use a rubber tile that withstands humidity and will not damage. Grocers in Puerto Rico can use terrazo and cement tile as they are locally manufactured and in most cases store owners can afford them.

Parking Area

The commonest location for parking areas in modern food markets is in front of the building, next most desirable

¹³Lucas Coving, "Give Your Floors a New Face", Voluntary and Cooperatives Groups Magazine, (January 1955), p. 19.

¹⁴Ibid., pp. 19-22.

is side parking or a combination of front and side. Store engineers agree that the least desirable is rear parking. Usually the parking area is considered in relation to store size. "In a metropolitan location you should try for a 3-to-1 ratio of parking lot-to-store size, in open areas at least 4-to-1 is to be preferred."¹⁵

On rectangular plots, lengthwise parking lanes are recommended for a better use of the space. If the lot is irregular, variations can be used such as lanes parallel to the length of the building on one side, and perpendicular on another, depending upon the lot. A 90 degree angle for parking utilizes the space to the best, but drivers, especially women like better to park at a 45 degree angle. "Women will continue to park at a 45 degree angle, so why fight it! A 45 degree angle is, you might say, virtually the only angle for self-parking."¹⁶ Unfortunately most of the grocery stores in Puerto Rico lack proper parking facilities, and in the big cities and towns none at all. Of course, the new stores opened provide relatively good parking facilities. Parking lanes eighteen feet deep and eight feet wide are enough to accommodate even the biggest cars.

Miscellaneous Equipment

Air conditioning: Everyday more food store operators are aware of the great merchandising aid of an air conditioning system. "Two principal reasons for air con-

¹⁵Progressive Grocer Staff, op. cit., p. 9.

¹⁶Ibid.

ditioning are: bringing additional customers to the supermarkets while retaining the present customers, and maintaining a competitive position in the trading area."¹⁷

There are two main systems of air conditioning, first, the self-contained unit available in small sizes and adapted to small outlets, second, a large conditioning system with a central installation. Both systems can be either water or air cooled. In a hot climate such as exists in Puerto Rico, air conditioning is more than a needed customer service, but a way to reduce spoilage in perishables especially produce and meats.

Shopping carts: The evaluation of this equipment is very interesting from the first ones used at Humpty-Dumpty Stores in Oklahoma to the modern folding cart. The modernization of this equipment has run parallel with the growth of self-service merchandising.

The modern folding carrier is a resting cart, with a capacity of possibly twice that of the original carriers. It is beautifully made, chrome-plated steel, and Mrs. Housewife's side arm when she enters a super market. Operators found that as they increased the size of the cart, the size of the order also increased, so that now they are making them as large as they possibly can. The supermarket created this new industry.¹⁸

¹⁷E. A. Brand, op. cit., p. 130.

¹⁸M. M. Zimmerman, The Super Market, (New York, McGraw-Hill Book Co. Inc., 1955), p. 153.

Some operators recommend one shopping cart per \$225-\$300 sales per week. Others recommend the use of 15 to 30 carts per checkstand.¹⁹

Marking devices: In studies conducted by the U. S. Department of Agriculture, it was found that retailers who mark prices on grocery items with crayons or grease pencils can save as much as 10½ hours per 1,000 cases of groceries by switching to the use of improved stamping equipment. The researchers concluded that the best methods were using the self-inking stick stamp and the band type adjustable stamp.²⁰

Knives to open cartons are a great help when stocking shelves. Intercom systems are used in big stores to call orders from the backroom to the store area for restocking. Manufacturers are continually working on new product research to develop more efficient equipment.

¹⁹ "How Leading Stores' Engineers Plan New Super Markets", op. cit., p. 60.

²⁰ Paul F. Shaffer and Dale L. Anderson, "Faster Price Marking", Marketing Activities, (U. S. Department of Agriculture, Agricultural Marketing Service, November 1954), p. 1.

CHAPTER XI

USE OF SALESMANSHIP IN SELF-SERVICE STORES

Spoken Salesmanship

Many operators think mistakenly that personal salesmanship is something that has passed out with the advent of self-service. Consumers still like to have information about the merchandise they are buying, so always will have questions to ask. New products arrive practically every day and Mrs. Housewife, needs to be informed about them and the best ways in which they can be used. This familiar atmosphere where owner and employees can talk to shoppers and answer their questions is one of the big advantages that small independent operators usually have over the big corporate chains.

When a customer is in doubt or guessing which item to pick or where to find something, this is a good opportunity for effective salesmanship. The usual question of the owner or employee is - can I help you? In self-service this question should be changed to - did you find what you were looking for? With this second approach the clerk or owner can guide Mrs. Shopper to find what she is looking for--lead her along certain areas where there are special displays or merchandise the grocer likes to be looked upon.

Printed Salesmanship

Printed salesmanship has many applications. In combination with spoken salesmanship it can be very effective. Salesmanship is well adapted to seasonal events like

Christmas, New Years, Easter, MothersDay, Dairy Month and national celebrations such as Washington's Birthday. Show-cards and sign writing is neither difficult nor expensive. In nearly all communities there are persons and organizations who are able to produce for grocers.

Consumers want to know how to get variety in meals, what to include in the meal for the party or what to put in the lunch box. Printed salesmanship is of special value as a consumer education service.

The Value of Displays

No description or picture of the merchandise can be as effective in inducing shoppers to buy as the product itself. To show customers a new item carried in the store in the most effective way is the purpose of display.

"Displays are used primarily to increase sales. And food chains have found that such displays up sales of virtually any item in the store."¹ Displays can be one of the most effective ways of promoting new items and at the same time one of the least expensive methods of increasing sales. Well displayed goods are simple, direct, and honest advertising. For using them as promoter of new products, they should not draw the attention to the elaborateness of the display but rather to the merchandise which is displayed. "A special display may have the effect of spotlighting a

¹"1958 Display Manual", Chain Store Age, (February, 1958), p. 56.

certain high-profit department where it can build sales of many items."² Good display, therefore, is unobtrusive and focuses the entire attention of the prospective buyer on the product.

Displays for increasing sales of a specific item is one feature of grocery store merchandising over which the grocer has a large measure of control. A store manager at Carpentersville, Illinois, moved about 150 cases of canned foods of a new brand in a 10-day period by displaying them in a high traffic location.³

Special displays are built for many good reasons to promote new items. They create a price impression, establish customer confidence in quality of products, influence traffic patterns in the store and accomplish a number of other results.

Where to Locate Special Displays

Every store has a place where special displays can be made which draw the customer's attention and are of great sales value. Of course, no rule of the thumb "catch-all" method can be named. Each store has its own set of variables: the store layout, the flow of traffic, the buying habits of the customers, the store fixtures, etc. All of these affect where a grocer should, and can place a display. Previously, stores generally thought only of the store window as the place for special displays. More and more window

²Ibid., p. 63.

³Ibid., p. 57.

displays have been replaced by special displays placed inside the store. The following locations are recommended by the leading executives of the food chains:

1. End displays now account for a greater percentage of store sales than ever before. There is a trend to more ends, to variety in fixtures and props, caution and discrimination in choosing items for display.
2. Parking lot for excessively bulky items that can be exposed to outdoors conditions like Christmas trees.
3. Free Aisle Space especially at the produce department where aisles are relatively wide as a general rule. This is a good spot to promote a new brand of salad dressing or a new type of spread.
4. Checkstands displays are good for moving small items like candies, cigarettes, and health and beauty aids.
5. Entrance Positions in some stores are used to move a special pre-Christmas layaway display of a high-ticket item.
6. Mid-Gondola displays are, in effect, ends in the middle.
7. Pillars locations can be used to display a wide variety of merchandise and tie-in with a new related item.

8. Wall displays can be used to spotlight bulky items like paper tissue. They are more conveniently located at the end of the main aisle leading to the checkstands.
9. Odd Space is used sometimes by displaying items of other departments. A good example of that is to display dry groceries in a freezer case when there are no frozen specials.
10. Overhead Risers help to do a good volume on seasonal items like Christmas merchandise. The top of the refrigerated cases is used in many supermarkets for this purpose.

CHAPTER XII

SUMMARY

During the last few years there has been a trend in Puerto Rico toward industrialization. Under "Operation Bootstrap" the island is changing from an agricultural economy to an industrial isle. This year the 667th factory-- a cutlery plant in a small town of the interior--went into production. To accelerate the establishment of industries, Fomento, a public corporation, got the island \$275 million in investments. As a result of that 80,000 new jobs have been created.

In 1957, the average family income was \$2,400 compared to \$660 in 1940. The gross product of the country last year was \$1.2 billion compared to \$287 million in 1940.

"Like the moving needles on the instrument board of a climbing plane, all of the economic indicators rose."¹

Food Distribution in Puerto Rico

As a result of the studies conducted by government and private organizations, it was found that deficiencies in food marketing were costing island consumers approximately 29 million dollars. The governor of Puerto Rico appointed a committee to conduct further studies and file recommendations as to possible solutions of the situation.

¹"The Bard of Bootstrap", Time, (June 23, 1958), p. 35.

In line with the suggestions of this Food Advisory Committee a Food Distribution program was organized as a division of the Puerto Rico Development Company, a public corporation. The program was headed by a food distribution graduate from Michigan State.

Efforts have been conducted by this new agency known at present as Office of Commercial Development in cooperation with other public and private organizations to improve food marketing at both wholesale and retail levels.

Some programs to improve the existing conditions in produce, meat and dairy products have been established and others are under way.

The Agricultural Extension Service

The Extension Service is a government agency organized in 1914 by the approval of the Smith-Lever Act. It is a cooperative organization between the Federal and State governments. The main objective of the agency is to educate people, not in classrooms, but in farms, dairys or grocery stores. The educational activities are very broad including agricultural education, home economics, marketing, youth organizations and other related fields. Both rural and urban population are covered by Extension teachings.

The Extension Service uses a varied number of educational methods to accomplish its objectives, but demonstration methods are preferred.

Since 1946, food retailers are receiving practical instructions from the Extension Service in modern methods of food handling.

The Extension Service was started in Puerto Rico in 1934 and has grown so fast that today practically all of the rural and urban families depend on this agency to obtain information on agriculture, home economics, marketing, health and youth organizations. In most of the cases, the extension agent and the home demonstration worker are the advisors in practically everything in their respective communities.

Self-Service Principles

No single factor has contributed so much to the recent improvement in retailing efficiency as self-service operation. This type of operation has become so popular and so successful that it is now setting the pattern of food distribution. Now the modern self-service food market handles a complete line of foods with a great deal of emphasis on perishables. All of the stock is represented in the displays, and nearly all of them can be handled by customers. Operating expenses are low because customers serve themselves to most items and thus save work for store employees.

Self-service may be more readily distinguished by the use of merchandising factors in a particular store rather than considering a store type. As a matter of fact, self-service is no longer an exclusive of the food store, as drug stores, specialty stores, and even department stores are adopting it.

Conclusions

The writer has tried to present the actual conditions in Puerto Rico today. With the rise in the living standards, the population is improving the diet and expending more of his budget in food both in quantity and quality. The food distribution in existence was good to serve conditions in the island before 1940, but customers now want better stores and more facilities to shop.

Some supermarkets have been organized on the island and are doing very well using modern merchandising techniques. The old grocery stores--colmados--are now deprived of a good orientation program to convert them from "Father and Mother" service stores, into modern retailing outlets. The Extension Service has been conducting a very successful program with food retailers on the mainland. The Extension Service in Puerto Rico is now going to enter this field. Before contacting grocers interested in getting the services, it is necessary to give basic information on self-service merchandising to the extension marketing agents and train them to conduct the big task of modernizing food stores in Puerto Rico.

APPENDIX

Table I

VALUE OF EXPORTS TO THE UNITED STATES
AND FOREIGN COUNTRIES: FISCAL YEAR: 1945-1955*

In Dollars

Year	Total	To United States	To Foreign Countries
1945-46	161,459,490	157,633,277	3,826,213
1946-47	178,561,186	170,622,490	7,826,213
1947-48	192,025,825	185,745,350	6,280,475
1948-49	204,125,026	195,843,645	8,281,381
1949-50	235,183,739	210,035,599	25,148,140
1950-51	271,241,874	254,365,527	16,876,347
1951-52	257,029,929	237,821,296	19,208,628
1952-53	318,764,541	302,508,982	16,255,559
1953-54	348,149,077	332,504,041	15,645,036
1954-55	352,940,580	342,577,772	10,362,808
1955-56			

*Source: Information obtained from Table 168 of External Trade Statistics, Fiscal Year 1956, Puerto Rico Planning Board, San Juan, Puerto Rico.

Table II

VALUE OF IMPORTS FROM THE UNITED STATES AND
FOREIGN COUNTRIES FISCAL YEARS 1945-1955*

In Dollars

Year	Total	From United States	From Foreign Countries
1945-46	244,579,656	221,635,475	22,944,181
1946-47	311,040,359	287,952,093	23,088,266
1947-48	361,935,828	338,744,814	23,191,014
1948-49	350,504,151	326,295,198	24,208,953
1949-50	344,640,007	317,954,309	26,685,698
1950-51	437,535,606	400,397,676	37,137,930
1951-52	448,087,592	411,227,129	36,860,463
1952-53	496,012,280	453,227,600	42,784,680
1953-54	525,426,987	475,889,798	49,537,189
1954-55	574,539,870	524,282,343	50,257,527
1955-56			

*Source: Information obtained from Table 168 of External Trade Statistics, Fiscal Year 1956, Puerto Rico Planning Board, San Juan, Puerto Rico.

Table III

SHIPMENTS TO UNITED STATES AND EXPORTS TO FOREIGN COUNTRIES, BY MAIN COMMODITY GROUP: FISCAL YEAR 1954-55*

In Dollars

Commodity Group	To	To
	United States	Foreign Countries
Animals, and animals products, edible	2,174,294	72,308
Animals and animals products, inedible	10,847,929	93,695
Vegetable Food Products and beverages	144,182,132	1,492,713
Vegetable products, inedible except fibers and wood	22,480,196	73,935
Textiles fibers and manufactures	89,008,685	590,015
Wood and Paper	4,663,240	502,554
Nonmetallic Minerals	5,160,492	2,334,917
Metals and Manufactures except machinery and vehicles	4,761,616	1,156,280
Machinery and Vehicles	14,027,836	1,773,368
Chemical and Related Products	6,371,385	618,353
Miscellaneous	27,719,204	1,619,670
United States Merchandise Returned	10,662,086	
Foreign Merchandise	518,627	

*Source: Data obtained from: Statistical Yearbook, San Juan, Puerto Rico Planning Board, 1956, p. 294.

Table IV

SHIPMENTS FROM THE UNITED STATES AND IMPORTS
FROM FOREIGN COUNTRIES, BY MAJOR COMMODITY GROUP:
FISCAL YEAR 1954-55*

In Dollars

Commodity Group	From United States	From Foreign Countries
Animals and Animals Products, edible	56,254,013	9,143,444
Animals and Animals Products, inedible	20,821,849	130,294
Vegetable food products and beverages	83,854,879	6,785,693
Vegetable products, inedible except fibers and wood	17,932,883	4,370,559
Textiles fibers and manu- factures	84,800,679	2,074,792
Wood and paper	21,599,310	6,698,846
Nonmetallic minerals	33,474,370	9,199,970
Metals and manufactures, except machinery and vehicles	38,966,373	6,066,862
Machinery and vehicles	97,388,367	1,206,098
Chemicals and related products	36,170,456	1,928,454
Miscellaneous	33,019,164	2,652,513

*Source: Information obtained from Table 171, "External Trade",
Statistical Yearbook, San Juan, Puerto Rico, 1956.

Table V

PRODUCTION OF THE MAIN AGRICULTURAL CROPS IN
PUERTO RICO: FISCAL YEAR 1954-55*

In Thousands

Product	Unit	Production
Sugar Cane	tons	9,873
Milk	qts.	225,795
Pineapples	crt.s.	862
Coffee	cwt.	193
Tobacco	cwt.	340
Citrus	thousand	165,768
Legumes	cwt.	233
Starchy Vegetables	cwt.	1,840
Plantains and Bananas	thousands	1,019,404
Cereals	cwt.	220
Leafy and Fleshy Vegetables	cwt.	514
Eggs	doz.	8,577
Beef	cwt.	191
Pork	cwt.	174
Poultry	cwt.	113
Other Meats	cwt.	9

*Source: Data obtained from Statistical Yearbook, Puerto Rico Planning Board, San Juan, 1956, pp. 142-143.

Table VI

NUMBER OF INDUSTRY GROUPS AND VALUE ADDED
BY MANUFACTURE: FISCAL YEAR 1954*

Industry Group	Number of Establishments	Value Added by Manufacturer in thousands
Food and Kindred Products	497	71,599
Textile Mill Products	36	8,618
Tobacco Manufactures	259	11,427
Apparel and Related Products	341	31,102
Lumber and Wood Products (except furniture)	38	1,410
Furniture and Fixtures	202	5,739
Paper and Allied Products	9	3,173
Printing and Publishing	93	4,428
Chemical and Allied Products	71	7,555
Products of Petroleum and Coal	3	Not reported
Rubber Products	6	Not reported
Leather Products	28	3,236
Stone, Clay and Glass	132	9,445
Pottery and Related	2	Not reported
Primary Metal Industries	10	426
Fabricated Metal Products	60	6,349
Machinery (except electrical)	19	2,689
Electrical Machinery	31	4,786
Transportation Equipment	5	454
Instruments and Related	12	2,364
Miscellaneous Manufactures	86	12,911

*Source: Statistical Yearbook, Puerto Rico Planning Board, San Juan 1956, pp. 152-172.

Table VII

BIRTHS AND BIRTH RATES, DEATHS AND DEATH RATES
PER 1,000 POPULATION: 1950 TO 1954*

Year	Estimated Population	Births		Deaths	
		Number	Rate	Number	Rate
1950	2,207,000	85,455	38.7	21,917	9.9
1951	2,234,000	84,007	37.6	22,371	10.0
1952	2,227,000	80,200	36.0	20,504	9.2
1953	2,213,000	77,380	35.0	17,966	8.1
1954	2,229,000	78,008	35.0	16,871	7.6

*Source: Statistical Yearbook, Puerto Rico Planning Board,
San Juan, 1956, p. 10.

Table VIII

PUBLIC DAY SCHOOLS-ENROLLMENT, URBAN AND RURAL:

SELECTED SCHOOL YEARS 1900-01 TO 1954-55*

Year	Total	Urban	Rural
1900-01	34,211	14,502	19,709
1903-04	64,590	31,261	33,329
1910-11	113,921	42,287	71,634
1914-15	160,354	68,338	91,966
1921-22	214,418	77,717	136,701
1934-35	246,354	115,288	131,066
1939-40	286,113	137,709	148,404
1945-46	349,961	179,965	169,996
1950-51	439,687	227,734	211,953
1953-54	505,151	261,565	243,586
1954-55	529,226	278,174	251,052

*Source: Information obtained from Statistical Yearbook, Puerto Rico Planning Board 1956, p. 64.

Table IX

NUMBER OF FOOD WHOLESALERS IN SAMPLE,
AND
AVERAGE SALES, BY SALES CLASS*

Monthly sales (dollars)	Number of wholesalers	Average sales per firm
Less than 10,000	20	\$ 6,218
10,000 - 19,999	34	14,247
20,000 - 29,999	38	23,200
30,000 - 49,999	30	37,067
50,000 - 99,999	24	68,875
100,000 - 199,999	14	126,071
200,000 - 299,999	6	233,333
300,000 - 499,999	3	395,999
500,000 - 750,000	2	604,167
Total	171	---
Average sales for all firms		57,427

*Source: Marketing Efficiency in Puerto Rico by Galbraith and Holton (Harvard University Press, 1955), p. 37.

Table X

PERCENTAGE OF SALES OF FULL-LINE AND
LIMITED-LINE WHOLESALERS,
IN WHICH PRODUCTS MOVED
THROUGH WHOLESALER'S WAREHOUSE*

Monthly sales (dollars)	Full-line wholesalers			Limited-line wholesalers		
	Number	Average	Range	Number	Average	Range
Less than 10,000	9	100	100-100	1	100	-
10,000- 19,999	25	98	50-100	7	81	20-100
20,000- 29,999	23	99	80-100	7	83	40-100
30,000- 49,999	26	98	75-100	2	75	50-100
50,000- 99,999	19	95	75-100	5	74	40-100
100,000-199,999	5	97	85-100	7	57	20-100
200,000-299,999	2	72	45-100	3	63	20-100
300,000-499,999	1	28	-	2	30	20- 40
500,000-750,000	1	95	-	1		-
Total		<u>111</u>		<u>35</u>		

*Source: Marketing Efficiency in Puerto Rico by Galbraith and Holton (Harvard University Press, 1955), p. 42.

Table XI

SOURCE OF SUPPLY FOR PRINCIPAL PRODUCTS OF SAN JUAN WHOLESALERS*

Product	Number of firms selling product	Total monthly sales (dollars)	Direct Purchases		Direct Shipment		Exclusive agents		Intermed. wholesaler		Local Manufacturers	
			Amount (\$)	Per cent	Amount (\$)	Per cent	Amount (\$)	Per cent	Amount (\$)	Per cent	Amount (\$)	Per cent
Canned Goods	10	1,111,597	602,718	51.1	1,000,257	34	138,907	11.8	36,715	3.1		
Cereals	10	1,055,068	103,263	52.4	135,834	18.4	22,909	11.7	1,231	2.2	28,831	14.8
Staples	10	1,055,752	1703,261	47.4	7,850	39.8	220,673	7.2	237,966	6.6		
Meats	11	1,016,678	103,628	62.2	22,397	17.6	33,653	20.2				
Dairy and poultry products	62	1,091,122	146,603	70.2	27,222	14.2	27,607	13.9	2,140	1.1	450	0.2

*Source: Marketing Efficiency, in Puerto Rico by Galbraith and Holton, (Harvard University Press, 1955), p. 45.

Table XII

INVENTORY TURNOVER, FULL-LINE AND
LIMITED-LINE WHOLESALERS, BY SALES CLASS*

Monthly sales (dollars)	Full-line wholesalers	Limited-line wholesalers
Less than 10,000	8.7	50.1
10,000- 19,999	12.6	15.6
20,000- 29,999	13.2	13.2
30,000- 49,999	16.3	44.8
50,000- 99,999	20.6	18.3
100,000-199,999	18.9	17.9
200,000-299,999	17.1	32.3
300,000-499,999	11.2	10.0
500,000-750,000	27.1	--
Average	16.4	16.3

*Source: Marketing Efficiency in Puerto Rico by Galbraith and Holton, (Harvard University Press, 1955), p. 50.

Table XIII
MAJOR COMPONENTS OF PRESENT INVESTMENT BY WHOLESALE CLASS*
BY SALES CLASS*

Monthly sales (dollars)	Number of wholesalers	Total present investment	Inventory	Accounts receivable (dollars)	Delivery trucks	Sales trucks	Sales cars	Other equip.
less than 10,000	9	196,282	48,000	79,876	5,873	-	6,700	5,833
10,000-19,000	25	726,791	335,000	291,719	45,200	3,000	25,015	26,857
20,000-29,999	23	953,908	485,751	399,100	27,240	2,300	21,700	17,817
30,000-49,999	26	1,545,836	710,212	680,859	30,250	7,200	35,146	22,219
50,000-99,999	19	1,838,900	744,000	970,000	24,100	16,600	41,700	42,500
100,000-199,999	5	894,700	400,000	440,000	10,500	1,200	13,000	30,000
200,000-299,999	2	983,640	350,000	500,000	10,000	-	18,640	105,000
300,000-499,999	1	1,177,000	475,000	685,000	-	-	10,000	7,000
500,000-750,000	1	883,773	239,672	600,821	2,322	-	8,958	32,000
Total	111	9,200,880	3,837,635	4,647,375	115,485	30,300	180,859	289,226

*Source: Marketing Efficiency in Puerto Rico by Galbraith and Holton, (Harvard University Press, 1955), p. 51.

Table XIV

RETAIL STORES: SALES, SALES PER EMPLOYEE, AND SALES
PER CUSTOMER TRANSACTION, BY SALES CLASS*

Monthly sales (dollars)	Number of Stores			Average sales (dollars)		
	Urban	Rural	Total	Per Store	Per Employee	Per customer transaction
Grocery stores						
Less than 500	73	20	93	296	253.86	0.38
500- 999	87	21	108	686	466.00	0.74
1,000- 1,999	93	17	110	1,334	723.78	0.99
2,000- 3,999	53	1	54	2,692	1,061.09	1.54
4,000- 9,999	46	2	48	5,753	1,484.61	1.77
10,000-40,000	12	0	12	17,583	1,900.90	4.00
Total	364	61	425	-	-	-
Average	-	-	-	2,049	970.33	1.39
Fruit and vegetable stores						
Less than 99	10	1	11	52	48	
100- 299	19	2	21	188	158	
300- 499	13	1	14	387	362	
500- 999	2	1	3	583	350	
1,000-1,999	3	0	3	1,351	676	
Total	47	5	52	-	-	
Average	-	-	-	303	250	

*Source: Marketing Efficiency in Puerto Rico by Galbraith and Holton, (Harvard University Press, 1955), p. 17.

Table X:

GROSS AND NET MARGINS AND OPERATING EXPENSE RATIOS FOR
RETAIL FOOD STORES, BY SALES CLASS
(PERCENTAGE OF TOTAL SALES)*

	Monthly sales (dollars)						Average
	Less than 500	500 to 999	1,000 to 1,999	2,000 to 3,999	4,000 to 9,999	10,000 to 40,000	
No. of stores	35	45	68	39	33	10	
No. total of sales (\$)	12,844	29,435	89,926	104,058	180,226	139,000	
No. average net margin per store(\$)	27.67	82.35	176.15	296.17	781.53	2,834.10	386.10
Gross margin	21.25	25.63	25.00	21.59	22.71	23.35	23.11
Net margin	7.54	12.31	12.32	11.10	14.31	15.26	14.06
Total exp.	13.71	13.32	11.68	10.49	8.4	3.09	9.51
Rent and Utilities	5.55	3.89	2.61	1.91	1.45	1.57	1.78
Taxes	0.50	0.65	0.33	0.21	0.17	0.30	0.27
Equipment expense	.90	1.04	.95	.76	.55	.50	.66
Supplies	.10	1.39	1.22	.71	.50	.45	.68
Insurance		0.02	0.08	.05	.09	.08	.07
Stock loss	0.90	.88	.63	.51	.42	.20	.43
Selling costs	4.30	3.30	2.46	2.09	1.43	1.24	1.79
Buying cost	0.44	0.92	0.66	0.65	0.65	0.34	0.56
Labor	.43	1.50	2.78	3.58	3.14	3.40	3.12

*Source: Marketing Efficiency in Puerto Rico by Galbraith and
Holton, (Harvard University Press, 1955), p. 31.

Table XVI

Monthly sales (a)	No. of stores (b)	Monthly sales (c)	Canned goods, cereals, and staples		Intermediate		Local		Retail	
			% of sales (d)	No. used (e)	% of sales (f)	No. used (g)	% of sales (h)	No. used (i)	% of sales (j)	No. used (k)
Less than 500	39	28,925	--	--	35	168	13	69	3 1/4	130
500-999	93	65,173	--	--	36	304	15	82	3 1/4	178
1,000-1,999	109	138,245	8	9	47	564	14	91	2 1/4	167
2,000-3,999	49	122,914	6	39	49	277	13	67	2 3/4	108
4,000-9,999	41	200,841	7	53	65	332	4	20	20	66
10000-140,999	9	120,600	31	25	63	97	1	2	4	7
Total	395	676,698	--	126	--	1,742	--	331	--	658
Average	--	--	9	--	5 1/4	--	9	--	21	--

*Source: Marketing Efficiency in Puerto Rico by Galbraith and Holton, (Harvard University Press, 1955), p. 25.

Table VIII

SHIPMENTS OF EDIBLE ANIMALS AND ANIMAL PRODUCTS FROM
THE U. S. TO P. R. BY COMMODITY: FISCAL YEAR 1954-55*

Commodity & unit quantity	Quantity (000)	Dollar Value (000)	Shipping weight (thousand pounds)
ALL IMPORTS	---	30562.4	132,882
Cattle for breeding.....No.	551	253.5	398
Other cattle.....No.	26	5.9	24
Hogs.....No.	202	12.0	15
Meat & meat products.....Lb.	63114668	19632.9	77,144
E & V, except canned:			
Fresh or frozen.....Lb.	8973286	4006.7	9,522
Pickled or cured.....Lb.	85877	32.6	102
Pork, except canned:			
Fresh or frozen.....Lb.	6137975	2432.4	6,771
Ham & shoulder, cured/cooked..Lb.	9946957	3593.1	11,104
Bacon.....Lb.	392976	131.2	453
Other cured pork.....Lb.	22585609	2972.1	30,006
Lamb/mutton, except canned.....	98640	53.5	104
Sausage - Sausage meats - bolo- gna - franters - not canned...	4933718	2729.2	5,551
Beef & Veal canned.....Lb.	294421	113.4	363
Hams & shoulders, canned.....	1081980	698.3	1,269
Other pork, canned.....Lb.	1714356	659.8	2,023
Sausage - sausage meats - bolo- gna - franters - canned.....Lb.	3741445	1357.6	5,824
Canned baby food, meat or main value meat, strained or chop. Lb.	363479	131.1	502
Meat/meat products, canned.....ec.	1390154	328.1	1,766
Sausage casings, natural:			
Hog.....Lb.	12696	5.1	14
Other.....Lb.	7689	4.2	9
Edible animal oils & fats.....	60710226	10668.1	66,950
Oleo oil & stearin.....Lb.	28975	4.9	32
Lard (inc. rendered P. fat)	60326854	10588.5	66,522
Shortening, main wt. an. fat....	354397	74.7	396

*Source: Data extracted from Table 1 of External Trade
Statistics: Fiscal Year 1955, P. R. Planning Board.

Table XVIII

IMPORTS INTO P. R. OF MEAT AND MEAT PRODUCTS FROM
FOREIGN COUNTRIES: BY COMMODITY AND COUNTRY
OF ORIGIN: FISCAL YEAR 1954-1955*

Commodity, description, and origin	Quantity	Value (dollars)
All meat products imports	7,245,742	2,508,889
Meats, fresh or frozen:		
Beef	2,837,984	818,764
Dominican Republic	2,726,784	790,679
Mexico	111,200	28,085
Pork	4,335	1,646
Dominican Republic	4,335	1,646
Mutton	19,086	7,129
Dominican Republic	19,086	7,129
Other fresh meats	62,958	19,408
Canada	20,000	1,700
Cuba	9,025	4,603
Dominican Republic	33,933	13,105
Meats, prepared or preserved:		
Canned beef	2,840,384	997,072
Argentina	2,352,656	828,409
Uruguay	487,728	168,663
Beef and veal	65,490	22,163
Uruguay	65,490	22,163
Hams, shoulders, bacon & other pork	787,798	347,604
Canada	346,500	32,192
Denmark	334,947	229,244
France	3,375	2,423
Netherlands	76,162	59,308
Norway	7,583	6,071
Spain	18,828	15,682
West Germany	3,398	2,684
Other prepared or preserved meat...Lb.	627,707	295,103
Cuba	25,880	12,715
Denmark	417,271	195,943
Italy	155,314	63,038
Netherlands	1,457	1,390
Norway	10,600	5,347
Spain	17,185	16,670

*Source: Data extracted from Table 2 of External Trade Statistics: Fiscal Year 1955, P. R. Planning board.

Figure 1

AGRICULTURAL EXTENSION SERVICE OF PUERTO RICO
ORGANIZATIONAL CHART

Director

Vice-Director

Assistant Director
and
General Supervisor

Specialists
Coordinator

Specialists
Agric.

Other
Specialists

Specialists
Home Econ.

Gen. Supervisor
(Home Econ.)

Asst. Gen. Sup.

Supervisors

Home Demos.
Agents

Asst. Gen.
Supervisor

Ext. Agents

Supervisors

Extention
Agents

Assistant Director

Disburse-
ment
Officer

and

Inform.

Personnel

Management

Office

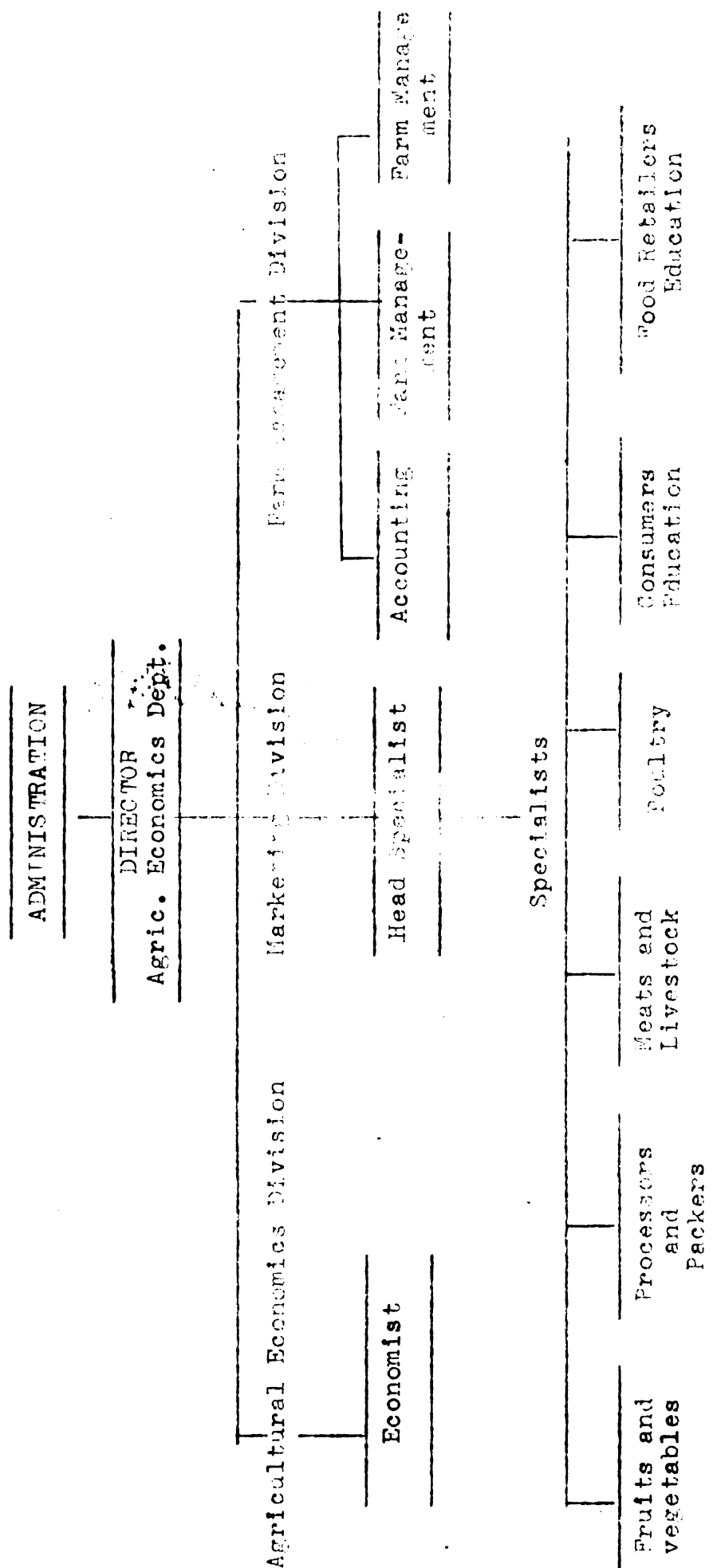
Manager

and

Agent

Figure 2

AGRICULTURAL EXTENSION SERVICE OF PUERTO RICO
AGRICULTURAL ECONOMICS DEPARTMENT



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