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# FARMERS' PRODUCE MARKETS

## In the United States

### Part III

#### SHIPPING POINT FRUIT and VEGETABLE MARKETS



UNITED STATES DEPARTMENT OF AGRICULTURE  
PRODUCTION AND MARKETING ADMINISTRATION

and  
FARM CREDIT ADMINISTRATION

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## PREFACE

As interest in improving local market outlets for fruits and vegetables has grown over the years, a number of shipping point market facilities have been constructed in an attempt to establish new markets. Some of these ventures were failures. Others were successful. The research which is the basis for this report was undertaken to determine under what conditions shipping point markets are most likely to succeed and under what conditions they are most likely to fail. Such information should encourage the establishment of new markets where needed and discourage attempts to establish unneeded facilities. Data and criteria presented in this report do not lessen the need for a study of and the development of plans for market facilities in each specific locality contemplating market improvements. However, they should provide those who make the studies and develop the plans with useful guides which have not heretofore been available to them. The report should also be useful to civic and other groups who are interested in promoting new markets.

This report concludes the series of reports covering "Farmers' Produce Markets in the United States."

The study which is the basis for this report was made under the general supervision of William H. Elliott, staff assistant for marketing facility and materials-handling research, Marketing and Facilities Research Branch, Production and Marketing Administration; and J. K. Samuels, in charge, Fruit and Vegetable Section, and A. W. McKay, assistant to the chief, Cooperative Research and Service Division, Farm Credit Administration.

The assistance and cooperation of a number of State, municipal, and Federal officials, and other groups and organizations are acknowledged. Appreciation is expressed to farmers, dealers, shippers, truckers, and buyers who provided data and offered suggestions for improving shipping point markets.

The authors also thank the managers of the markets studied, who made available their market records and offered many valuable suggestions. Special credit is due officials of the Florida State Agricultural Marketing Board and the State Departments of Agriculture of New Jersey, North Carolina, and Georgia, for providing numerous marketing reports and unpublished data. Credit is also due John L. Wann, agricultural economist, formerly with the Farm Credit Administration, who assisted in planning the project and conducting field studies.

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The study on which this report is based was made, in part, under authority of the Agricultural Marketing Act of 1946 (RMA Title II).

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## SUMMARY

A concentration or shipping point fruit and vegetable market is a facility, usually located in an area of commercial production, where buyers and sellers meet and where fruits and vegetables are bought and sold for shipment to consuming centers. For the purposes of this report, the definition of shipping point markets is restricted to:

(1) Market facilities in a single area, (2) markets having a sufficient number of buyers to provide sellers with a choice of selling to one or to several buyers, and (3) markets where the entire facility is under one management which has no ownership interests in the products bought and sold. These markets have developed most rapidly during the last 25 years because of changes that have occurred in the production of fruits and vegetables and dissatisfaction with consignment selling. Of the 166 markets of this type known to have been started since 1910, a total of 99 markets, concentrated principally along the Atlantic seaboard, were known to be operating in 1950. Although only a relatively small percentage of the fruits and vegetables produced for the fresh market is sold on shipping point markets, these markets do provide an important outlet in their respective areas, and for certain fruit and vegetable items during certain seasons of the year are of national importance. In 1948, the 85 markets for which data were available handled the equivalent of 61,261 carloads of produce.

Organized shipping point markets serve the farmer and the public in the following ways: (1) By providing a place where growers can assemble at one time sufficient volumes of products to attract buyers or otherwise enable the marketing of the products delivered; (2) by providing the farmer an outlet, at a relatively short distance from his farm, where he can receive cash for his produce; (3) by providing buyers a source of supply for one or more items in the amounts and of the qualities desired; and (4) by establishing local prices.

Based upon the method of selling, shipping point fruit and vegetable markets are of two types: (1) Auction markets, and (2) private sales markets. Data obtained on 126 markets, some of which have discontinued operations, show that 84 used the auction method exclusively, 24 used only the private sale method, and 18 used both methods. The method of selling used determines in part the types of facilities needed and their arrangement in the market area.

Although there are difficulties in isolating one factor as being responsible for the success or failure of a shipping point market, several factors appear to be of relatively greater importance to the continued operation of markets than do other factors. Among the more important factors is the volume of produce handled on the market. Adequate volumes are necessary to attract a sufficient number of buyers to provide demand and insure competition and also to minimize the costs of operation. Volume per day is more important than volume per season or year. The smallest average daily volume handled on any of the 85

markets, for which 1948 records were available, was 1.8 equivalent carloads which figure indicates that markets might not be expected to operate on a smaller average daily volume. About 46 percent of the markets surveyed drew a sufficient number of buyers during the first season of operation to provide buyer competition. Some markets required 1 to 8 years to obtain adequate buyer competition, and others never became competitive. In selecting markets which they will patronize, buyers give considerable weight to variations in daily volumes, and such variations are relatively less on the larger markets.

The volume of the production for market in the area served and the number of growers who patronize shipping point markets are also among the more important factors affecting the success of a market. Analysis of market records and production data made in 26 areas, each having one shipping point market, shows that an average of 22.3 percent of the production for market is sold on these markets. Of the 26 markets, 5 were in areas producing such items as green beans, tomatoes, cucumbers, peppers, and egg plants, and each of the 5 handled more than 75 percent of the total production. Roughly 42 percent of the growers making trips to shipping point markets sell less than 50 packages (baskets, hampers, bags, etc.) and the average size of grower loads is 30 packages. Not all growers in the market areas served sell through shipping point markets. Analysis of the records of 77 markets in 17 States and of census data showed that roughly 20 percent of the vegetable growers and 45 percent of the fruit growers in the immediate areas served by the markets sold on them. The proportion varies from one section of the country to another, depending on such factors as competition from outside buying agents, grower characteristics, product characteristics, and proximity to consuming areas. Nearly all of the markets now operating are patronized by at least 10 percent of the growers within the immediate production area, but only a few markets are patronized by more than 50 percent of the growers. Over 80 percent of the grower loads sold on shipping point markets originate within 15 miles of the market. Growers are reluctant to patronize markets more than 25 miles from their farms. Although the daily requirements of different buyers vary, thus resulting in differences in the effective demand represented by each buyer, an analysis shows that the number of buyers patronizing markets increases in direct ratio to the volumes of fruits and vegetables offered for sale.

Other factors related to the continued operation of shipping point markets are: (1) Management, (2) adequacy of land and facilities, (3) costs of operations as reflected in fees charged, (4) location of the market, (5) method of selling used, and (6) ownership of the market.

Fifty-two reasons given for the discontinuance or failure of 30 shipping point markets show that most ceased to operate because of: (1) Competition from other markets or market outlets, (2) too small a volume of produce offered for sale, and (3) lack of production in the

market area. All of these reasons are synonymous, indicating a lack of volume. Of the 52 reasons given, 8 were "poor management."

Among the criteria suggested by these data for establishing new shipping point fruit and vegetable markets are:

1. The minimum daily volume of business required (a) for average-value produce is roughly 3.6 equivalent carloads or about 1,800 packages, and (b) for high unit value products about 1.8 equivalent carloads or 900 packages.
2. Management should concentrate in the beginning on obtaining a relatively large percentage of the production for market, in the immediate area, of one or two major fruit and vegetable items, and add an additional item each year until the market reaches its effective peak.
3. The market must obtain from 75 to 90 percent of its receipts from an area within a 25-mile radius of the market's location.
4. Unless it can definitely be determined in advance that a new market will attract a larger percentage of the total production for market than the average percentage attracted to existing markets, the total production of fruits and vegetables available for daily sale in the local area should be about 5 times larger than the minimum daily volumes required on the market.
5. On the basis of the average size of grower loads received on shipping point markets, about 60 grower loads would be needed daily to supply the minimum volume required.
6. The management of a new market should attempt to obtain a minimum of 3 season buyers and as many day buyers as possible. After the market becomes established, an average daily volume of 1,800 packages should attract 7 or 8 buyers.



# FARMERS' PRODUCE MARKETS IN THE UNITED STATES

## PART III - SHIPPING POINT FRUIT AND VEGETABLE MARKETS

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### INTRODUCTION

In the last 25 years many changes have taken place in the marketing of fresh fruits and vegetables. At one time, these products, especially the more perishable items, were rarely available except during the local harvesting season. Today a relatively complete line is available throughout the year. During the local harvesting season, most of the fresh fruits and vegetables in the local retail food stores are grown in the surrounding area. At other seasons of the year these products are received from other areas.

To supply markets on a year-round basis, intensive production areas have developed at numerous points throughout the United States, some of which are great distances from the principal consuming centers. The job of moving relatively large volumes of fresh fruits and vegetables from the production areas to the consuming markets has necessitated the development of a number of new marketing services and facilities. One type of market that has emerged as a result of the new and additional services demanded of the marketing system is the concentration or shipping point market.

Prior to the development of shipping point markets, most growers at relatively long distances from the consuming centers loaded their fresh fruits and vegetables into refrigerator cars and consigned them to commission merchants at the terminal markets. This concentration of receipts on the terminal markets, where a large number of retailers and jobbers purchased their supplies, resulted in these markets becoming important in the establishment of prices which were reflected in the returns to growers. Although this method of establishing prices has proved to be satisfactory for a number of marketing agencies, it has been unsatisfactory to many producers of fruits and vegetables for the fresh market. On consigned shipments, producers must wait several days after loading and shipping their products to learn the prices they will

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1/ Roger F. Burdette and Imogene Bright have resigned from the Production and Marketing Administration.

receive. During periods of heavy supplies and falling prices it has not been uncommon for fruits and vegetables to sell on terminal markets at prices that would not reflect adequate returns to pay the cost of harvesting, packaging, and transportation. This situation was one of the principal reasons for the development of markets where growers can sell their fruits and vegetables f.o.b. the shipping point.

Another important factor that led to the development of shipping point markets was the advent of the motortruck as an important carrier of fresh fruits and vegetables, which made possible the distribution of these products to the smaller consuming areas in less-than-carload lots. Moreover, prior to the use of the motortruck for hauling relatively large volumes of produce, shipping point facilities were usually located on railroad property which was restricted or inaccessible to motortrucks.

It is estimated that producers at distant production areas sell between 80 and 95 percent of their fruits and vegetables for the fresh market f.o.b. the shipping point. In some instances, growers sell to country shippers or brokers who pay the grower at the time the commodities are delivered and consign all or a part of these purchases to commission merchants in the terminal markets. Price risks are thereby transferred from the grower to the shipper or broker. However, interviews with shipping point brokers and shippers revealed that they are reluctant to purchase from growers unless they have firm or tentative f.o.b. orders for most of the produce they buy each day.

Although only a relatively small percentage of the fruits and vegetables produced for the fresh market is sold on shipping point markets, most of the volume in distant production areas is handled at some type of shipping point facility before it is loaded into railroad cars or motortrucks for shipment to the city markets. That is, only a relatively small volume is moved directly from the farms in these areas to the terminal markets. In many localities any type of facility at which fruits and vegetables are loaded for shipment to distant consuming centers is referred to as a shipping point market. Privately owned packing sheds and loading platforms at railroad sidings are frequently called markets.

A concentration or shipping point fruit and vegetable market is a facility, usually in an area of commercial production, where buyers and sellers meet and where fruits and vegetables are bought and sold for shipment to consuming centers. When located in larger towns or cities, markets of this type may also serve as a source of supply for local consumers, thus assuming some of the characteristics of terminal or secondary markets.

However, for the purposes of this report, shipping point markets are limited to facilities in the production areas that have the following characteristics and methods of operations: (1) The market

facilities are in a single area; (2) a sufficient number of buyers operate on or visit the market to provide sellers a choice of selling to one or to several buyers; (3) the entire facility is under one management, usually a manager or market master who has no ownership interests in the products bought and sold. This definition of a shipping point fruit and vegetable market excludes: (1) Groups of individually owned and operated packing sheds in a contiguous area not under one management; (2) a city street or open lot, where buyers and sellers meet to buy and sell, which has no facilities and no management other than the regulation of traffic; (3) a cooperative shipping association which acts as the sales agent for all members, even though a number of buyers visit the facilities and purchase supplies on an f.o.b. basis; and (4) individually owned packing sheds, auctions, or loading platforms where buyers and sellers meet to buy and sell and where the owner or operator of the facility takes title to the products in the trading process rather than permitting the final buyer to deal directly with the initial seller.

Some of the facilities excluded perform all the functions of a shipping point fruit and vegetable market. Those facilities excluded by this definition usually do not permit the free operation of the price-making forces of supply and demand. Moreover, this definition does not exclude any facility because of ownership. A shipping point market may be owned by an individual, a farmers' cooperative, a corporation, a group of buyers, or the public. That is, a market may be owned and operated by either a farmers' cooperative association or by a group of buyers if the manager and auctioneers have no ownership interest in the products bought and sold thereon, and no measures are taken to limit the number or restrict the operation of buyers who have no ownership interests in the facilities.

Many local areas are interested in the establishment of markets. A number of these localities are interested in establishing fruit and vegetable markets even though they currently have little or no commercial production of these commodities, but are hopeful that the construction of a market facility will in itself stimulate the volume of production required to attract buyers and thus create a market. A relatively large number of the facilities constructed under such conditions have never become markets. Although some of them continue to operate as "markets," usually because they are subsidized, the majority of these facilities were failures from the start and closed after one or two seasons of operation. In most instances, facilities constructed and operated under such conditions have resulted in losses to the growers and to the groups providing funds for the operation of and the capital investment in facilities. Moreover, the subsidized facilities that have not become established as markets but that continue to operate have given the public generally the idea that, because they do continue to operate, they are "successful" markets. This situation has also made difficult the research which provides the basis of this report.

This research was undertaken for the purpose of developing criteria which may be used as a guide by local interests in the establishment of shipping point fruit and vegetable markets and for improving the operations of existing markets. It is not the purpose of this report to provide facility plans for or guides covering the internal operations of shipping point markets. Each locality has its peculiar problems which make desirable the development of market plans for that locality after its needs have been determined.



ORIGIN, EARLY GROWTH, AND IMPORTANCE  
OF SHIPPING POINT MARKETS

Shipping point fruit and vegetable markets probably began functioning before the turn of the century in the midwestern section of the United States. An "unorganized" market of this kind operated in the 1890's at the wharves in Benton Harbor, Mich. Fruit and vegetable growers gathered there and sold their produce to dealers from the large cities, Chicago and Milwaukee, across Lake Michigan.

Unorganized shipping point auctions are reported to have operated in Ohio in 1902 or 1903 and in North Carolina in 1909. <sup>2/</sup> One of the first organized shipping point markets was the strawberry auction which was established at Marion Station on the Eastern Shore of Maryland in 1911 as a result of dissatisfaction with the prevailing conditions surrounding the marketing of locally grown strawberries. Before the establishment of this market, growers assembled along the roadway and buyers went from wagon to wagon to bid for berries. Usually the seller waited until he had received several bids before accepting the highest offer. This sales method was unsatisfactory to both sellers and buyers because the sellers had no assurance of receiving the best market price and the buyers encountered difficulty in acquiring the quantity of berries needed.

Auctions established in 1912 at Riverhead, Long Island, N. Y., and at Onley, Va., are the oldest shipping point markets now in existence. For 40 years they have served important truck crop areas.

The growth in the number of organized shipping point markets was steady and fairly uniform during the period 1911 to 1950, inclusive. Table 1 shows that in only 2 years during this period no new markets were established and in only 3 years 10 or more new markets were opened. A total of 166 shipping point fruit and vegetable markets are known to have been established since 1911, but 67 markets have discontinued operations since that year. During the period between 1911 and 1930, 46 markets were opened, and 6 discontinued operations. During the next 20-year period, 120 new markets were opened, and 61 markets failed. The most unstable period was the 5 years, 1936-40, when 44 new markets were opened and 33 were discontinued.

The expansion in volume of fruit and vegetable sales on shipping point markets, as shown in table 2, is indicative of the increasing importance of this type of market outlet. In 1911, an estimated 20 carload equivalents were sold on the 1 existing market; in 1931, an

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<sup>2/</sup> Cake, E. W. Operation of Small-lot Country Fruit and Vegetable Auctions, U. S. Dept. of Agr., Farm Credit Administration, Cir. C-118, 1940.

Table 1.--Number of known shipping point fruit and vegetable markets in operation, number of new markets opened, and number of markets discontinuing operations in the United States, by years, 1911-50

Year	Total markets in operation Number	New markets opened Number	Markets discontinuing operations Number
1911	1	1	-
1912	3	2	-
1913	4	1	-
1914	5	1	-
1915	7	2	-
1916	8	1	-
1917	8	1	1
1918	9	2	1
1919	9	-	-
1920	12	3	-
1921	12	-	-
1922	14	2	-
1923	15	1	-
1924	18	3	-
1925	23	5	-
1926	26	4	1
1927	27	2	1
1928	31	5	1
1929	34	4	1
1930	40	6	-
1931	51	11	-
1932	55	4	-
1933	59	7	3
1934	62	3	-
1935	67	5	-
1936	74	10	3
1937	74	7	7
1938	73	3	4
1939	81	18	10
1940	78	6	9
1941	77	3	4
1942	79	3	1
1943	82	7	4
1944	80	1	3
1945	84	6	2
1946	87	4	1
1947	85	2	4
1948	85	6	6
1949	91	6	-
1950	99	8	-

Source: Secondary information, State marketing officials, market managers, and railroad officials.

Table 2.--Volume of fruits and vegetables sold on specified shipping point markets, by years, 1911-48

Year	Markets for	Total sales	Average	Range in sales	
	which data are	on all	sales per	per market	
	available	markets	market	Minimum	Maximum
	Number	Carload	Carload	Carload	Carload
		equivalents	equivalents	equivalents	equivalents
1911	1	20	20	-	-
1912	3	152	51	-	-
1913	4	352	88	-	-
1914	5	600	120	-	-
1915	7	700	100	-	-
1916	8	896	112	-	-
1917	8	992	124	-	-
1918	9	783	87	-	-
1919	9	909	101	-	-
1920	12	1,171	98	-	-
1921	12	1,347	112	-	-
1922	14	1,758	126	-	-
1923	15	2,199	147	-	-
1924	18	2,556	142	-	-
1925	23	3,435	149	-	-
1926	26	4,396	169	-	-
1927	27	4,509	167	-	-
1928	31	5,332	172	-	-
1929	34	6,324	186	-	-
1930	40	8,280	207	-	-
1931	51	14,207	279	10	9,161
1932	55	17,555	319	10	9,412
1933	59	16,776	284	10	6,798
1934	62	19,922	321	10	8,184
1935	67	22,486	336	20	8,049
1936	74	25,003	338	20	8,288
1937	74	26,490	358	8	9,006
1938	73	24,881	341	9	5,720
1939	81	33,602	415	5	9,323
1940	78	38,823	498	16	7,258
1941	77	43,000	558	15	7,690
1942	79	48,418	613	15	7,078
1943	82	44,214	539	1	5,979
1944	80	42,902	536	3	7,047
1945	84	46,931	559	5	7,356
1946	87	55,310	636	1	7,546
1947	85	56,216	661	3	7,418
1948	85	61,261	721	3	7,157

Source: Market records, reports of State departments of agriculture and State bureaus of markets, banks for cooperatives, and secondary data.

average of 279 cars per market was sold on 51 markets; and in 1948, an average of 720 cars per market was sold on 85 markets.

The shipping point market movement has undergone several phases that have influenced the growth and current importance of such markets. The early markets were predominantly berry auctions, similar to the market at Marion Station. They operated for only a few weeks each year, but the concentrated volume and demand at the local shipping point provided farmers a cash market outlet. The large number of small berry auction markets established in the production areas of North Carolina and the Del-Mar-Va peninsula is evidence of their popularity.

Energetic promotion of cooperatively owned auction markets in the New Jersey vegetable and fruit producing areas, beginning in 1928 with the establishment of markets at Cedarville and Rosenhayn, was the next boost the shipping point market movement received. These markets were patterned after the strawberry auctions at Marion Station. A total of 14 markets have been opened in New Jersey, 9 of which operated in 1948. These markets have been models for numerous markets opened in other States.

The third phase of shipping point market development began in 1935, when the Florida State Department of Agriculture opened its first State Farmers' Market at Sanford. Of the 29 Florida State Farmers' Markets opened since this program began, 19 are fruit and vegetable markets.

The Florida market program was closely followed by the Georgia State farmers' markets opened by the Georgia State Department of Agriculture. The first of these was the Thomasville State Farmers' Market, which opened in 1937. This group had grown to 17 in 1950. 3/

The fourth phase of shipping point market movement has taken place as a result of the decline in strawberry production in the Del-Mar-Va area and in North Carolina, which in turn has resulted in a decrease in the number of strawberry auction markets and a shift to sale of other types of fruits and vegetables on other established markets. This decline in strawberry production began in 1943, during World War II, and gained momentum after a partial recovery in 1946, immediately following the end of the war.

Other factors that have influenced the growth and development of shipping point markets are the trend toward motortruck transportation of perishables, shifts in demand, changes in cultural practices, changes in wholesale and retail marketing services and techniques, and

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3/ The 20th State Farmers' Market was opened at Thompson, Ga., at the beginning of the 1950 season. The 20 include markets at Atlanta, Macon, and Augusta which are not considered as primarily shipping point markets.

competition from other producing areas. Some of these factors are analyzed in other sections of this report.

The locations of the 99 shipping point fruit and vegetable markets that are known to have operated in 1950 are shown in figure 1. Eighty-five of these markets are in the Atlantic Seaboard States from Florida to Massachusetts. The remaining 14 markets are in Pennsylvania, Ohio, Michigan, Illinois, Arkansas, Tennessee, Alabama, and Texas. The heavy concentrations of these markets are in areas that have a shorter average marketing season and relatively large numbers of small growers, and from which a relatively large percentage of the production is shipped by motortruck. The more distant production areas such as the Rio Grande Valley and the west coast areas do not have any organized shipping point markets.

### Importance of Shipping Point Markets for Specific Products

Although 52 different vegetables and 18 different fruits have been recorded in shipping point market sales, only 38 of these products were sold in sufficient volume to be considered as important in 1948. Eleven of these products were sold on 20 or more markets and 22 on 10 or more. Three vegetables--snap beans, tomatoes, and cucumbers--were sold on more than 40 markets. The product sold in greatest quantity in 1948 through these markets was snap beans. The total of 8,828 carload equivalents was sold on 44 markets, the greatest number of markets for any one item. Tomatoes were second in volume with 6,755 carload equivalents sold on 43 markets. Although sold on a much smaller number of markets, the 2 products with the highest average volume per market were peaches, with a 311-car average, and cauliflower, with a 307-car average.

The relative importance of specific items sold on shipping point markets is shown by comparing the 1948 volumes with the volumes sold in 1936 as shown in table 3. Strawberries, apples, and cantaloups show the most marked decline in importance of specific items whereas cabbage, watermelons, peppers, and squash, the greatest percentage increases. Although the volume of all items sold in 1948 increased 139 percent over 1936 sales, strawberry sales decreased 12 percent, apples 31 percent, and cantaloups 35 percent. The number of markets selling strawberries decreased from 47 to 28.

The decline in the volume of strawberries sold and in the number of markets on which they were sold has not been accompanied by a corresponding decline in the percentage of the total sales of all products for the fresh market that go through shipping point markets. The decreases occurring in Virginia, Delaware, New Jersey, and South Carolina were offset by increases in Florida, North Carolina, and Maryland.

Large increases in volume of sales have been recorded for a number of items. Snap bean sales increased in volume by 310 percent, to become

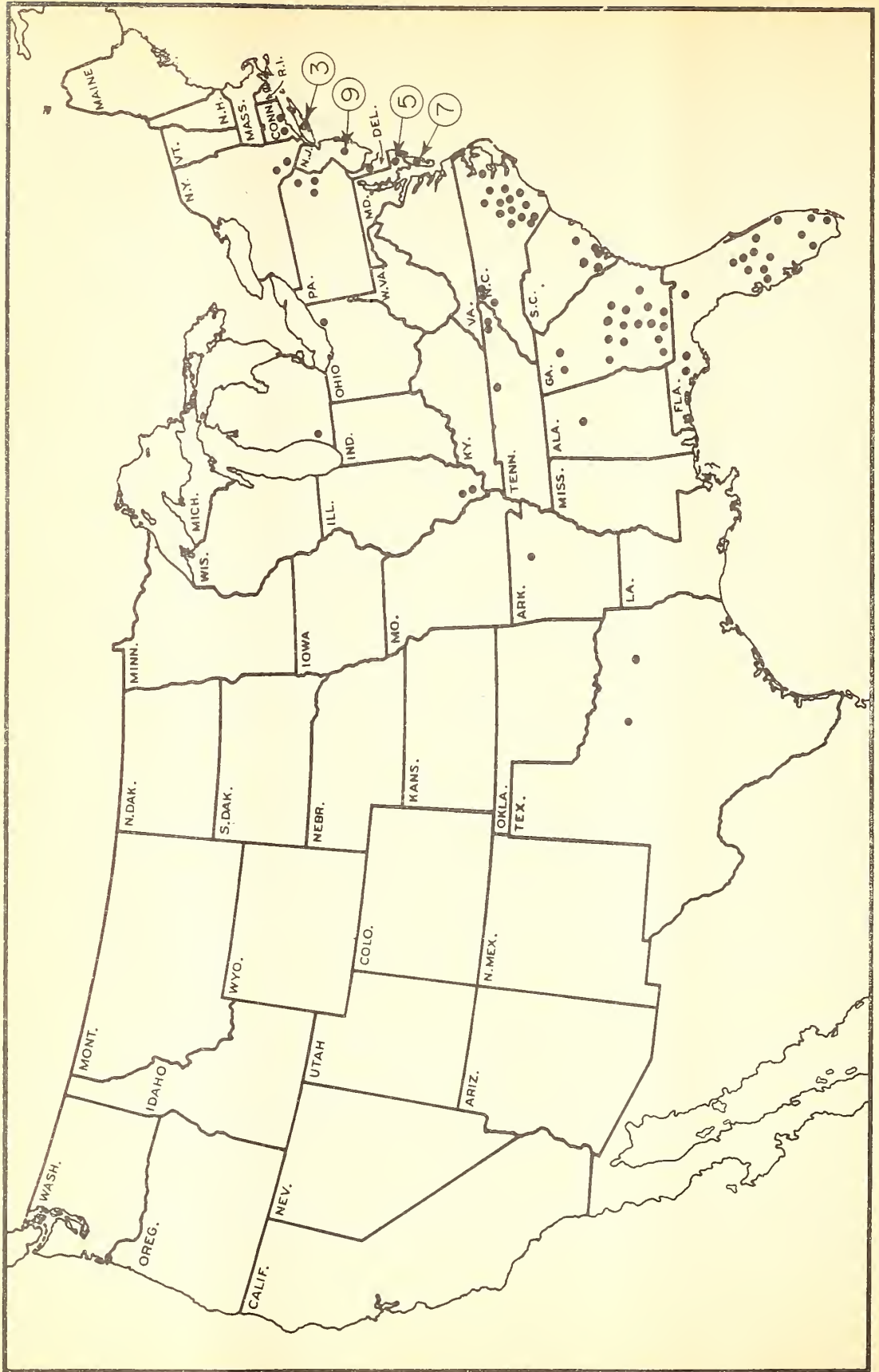


Figure 1.--Locations of 99 shipping point fruit and vegetable markets, 1950.

Table 3.—Comparison of number of known shipping point fruit and vegetable markets and volume of produce sold on them, by products, 1936 and 1948

Product	:Markets on which: :product was sold:		:Increase or: :decrease in: :number of :markets on :which sold	:Volume sold		:Increase :or :decrease :in vol- :ume sold
	: 1936	: 1948		: 1936	: 1948	
	: <u>Number</u>	: <u>Number</u>	: <u>Percent</u>	: <u>Carload</u>	: <u>equivalents</u>	: <u>Percent</u>
Beans, snap	: 40	: 44	: 10	: 2,155	: 8,828	: 310
Tomatoes	: 21	: 43	: 105	: 2,725	: 6,755	: 148
Peppers	: 21	: 36	: 71	: 1,369	: 6,076	: 344
Peaches	: 14	: 16	: 14	: 2,183	: 4,977	: 128
Cucumbers	: 34	: 42	: 24	: 2,022	: 3,783	: 87
Cauliflower	: 5	: 10	: 100	: 1,401	: 3,066	: 119
Cabbage	: 14	: 20	: 43	: 98	: 2,465	: 2,415
Watermelon	: 13	: 19	: 46	: 344	: 2,387	: 594
Strawberries	: 47	: 28	: -40	: 2,549	: 2,252	: -12
Apples	: 14	: 15	: 7	: 2,285	: 1,572	: -31
Sweetpotatoes	: 12	: 17	: 42	: 446	: 1,542	: 246
Beans, lima	: 25	: 23	: -8	: 640	: 1,316	: 106
Sweet corn	: 12	: 26	: 117	: 408	: 1,296	: 218
Cantaloups	: 20	: 17	: -15	: 1,965	: 1,268	: -35
Squash	: 21	: 34	: 62	: 72	: 1,190	: 1,553
Potatoes	: 15	: 24	: 60	: 317	: 969	: 206
Celery	: 8	: 4	: -50	: 160	: 870	: 444
Eggplant	: 13	: 19	: 46	: 163	: 789	: 384
Asparagus	: -	: 3	: -	: -	: 709	: -
Peas, field	: 2	: 16	: 700	: 26	: 646	: 2,385
Onions	: 12	: 13	: 8	: 424	: 436	: 3
Lettuce	: -	: 6	: -	: -	: 490	: -
Grapes	: 8	: 8	: 0	: 820	: 372	: -55
Turnips	: -	: 9	: -	: -	: 274	: -
Raspberries	: 9	: 3	: -67	: 492	: 225	: -54
Okra	: -	: 21	: -	: -	: 215	: -
Beans, pole	: -	: 12	: -	: -	: 154	: -
Pears	: 8	: 9	: 12	: 588	: 86	: -85
Broccoli	: -	: 3	: -	: -	: 78	: -
Cherries	: 8	: 2	: -75	: 119	: 67	: -44
Escarole	: -	: 2	: -	: -	: 42	: -
Peas, green	: 20	: 14	: -30	: 267	: 23	: -91
Beets	: -	: 3	: -	: -	: 11	: -
Carrots	: -	: 3	: -	: -	: 10	: -
Blackberries	: 9	: 3	: -67	: 162	: 7	: -96
Radishes	: -	: 4	: -	: -	: 3	: -
Spinach	: -	: 2	: -	: -	: 3	: -
Kale	: -	: 1	: -	: -	: 1	: -
Miscellaneous	: 74	: 32	: -57	: 1,155	: 6,009	: 420
Dewberries	: 9	: -	: -	: 162	: -	: -
Plums	: 5	: -	: -	: 133	: -	: -
Turnip greens	: 2	: -	: -	: 20	: -	: -
<b>Total</b>	: <b>xx</b>	: <b>xx</b>	: <b>xx</b>	: <b>25,670</b>	: <b>61,262</b>	: <b>139</b>

Source: Market records.

the leading item in 1948. Peppers increased 344 percent, watermelons 594 percent, squash 1,553 percent, and cabbage 2,415 percent.

As shown in table 4, it is estimated that in 1948 roughly 7 percent of the total State production of 28 leading fruits and vegetables in 18 States was sold on shipping point markets. The percentages for some States were, of course, much higher than the 7 percent average. Florida and Georgia, with 20 and 19 percent, respectively, had the highest percentages of sales of these products through shipping point markets and New Jersey and Delaware were next with 11 percent each. The high percentages for specific products in the 18 States were: Lima beans 52 percent, cauliflower 50 percent, peppers 49 percent, cucumbers 38 percent, and snap beans 29 percent.

A comparison of the percentages of total State production for eight States of seven products sold through shipping point markets in 1936 and in 1948 is shown in table 5. The increased sales of tomatoes and decreased sales of cantaloups were the most pronounced changes during this period. The sale of peppers also showed considerable increase in the three States reporting.



Table 4.--Estimated percentages of production of 18 States sold on 85 shipping point markets, by States and products, 1948

Product	Ala.		Ark.		Conn.		Del.		Fla.		Ga.		Ill.		Md.		Mich.		N.J.		N.Y.		N.C.		Ohio		Pa.		S.C.		Tenn.		Tex.		Va.		Average, 18 States		
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
Asparagus	-	-	-	0.0	-	1/	0.0	0.0	0.0	0.0	28.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2/	19.0		
Beans, lima	-	-	-	-	-	46.0	137.0	-	47.0	1/	40.0	34.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175.0	52.0	
Beans, snap	0.0	0.0	1/	0	0	30.0	38.0	10.0	49.0	5	30.0	2/	50.0	1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91.0	29.0
Beets	-	-	-	-	-	1/	1/	-	-	-	0	1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3/
Cabbage	0	0	0	0	0	13.0	15.0	0	0	0	5.0	3/	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Cantaloups	-	-	-	18.0	-	162.0	37.0	22.0	29.0	17.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27.0	
Carrots	-	-	-	-	-	2.0	1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3/	
Cauliflower	-	-	-	1/	-	9.0	1/	-	-	-	0	63.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0		
Celery	-	-	-	-	-	16.0	1/	-	-	-	0	2/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.0		
Cucumbers	0	0	0	38.0	0	40.0	40.0	47.0	60.0	35.0	30.0	0	71.0	1/	3.0	32.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	38.0		
Eggplant	-	-	-	-	-	23.0	1/	-	-	-	29.0	-	1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.0		
Lettuce	-	-	-	-	-	6.0	77.0	-	-	-	29.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.0		
Onions	-	-	-	-	-	1/	49.0	0	-	-	21.0	1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.0		
Peas, green	-	-	-	-	-	7.0	1/	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23.0		
Peppers, green	-	-	-	-	-	54.0	1/	1/	1/	0	43.0	1/	98.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	49.0		
Spinach	0	0	0	-	-	1/	-	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3/		
Strawberries	0	32.0	1/	51.0	0	58.0	-	20.0	73.0	30.0	11.0	0.6	90.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42.0	
Tomatoes	16.0	0	1/	285.0	0	31.0	68.0	39.0	5.0	29.0	28.0	2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.0	
Watermelons	0	0	0	7.0	0	3/	28.0	0	13.0	1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.0	
Sweet corn	-	-	-	-	-	1/	1/	-	-	-	12.0	0.6	1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	9.0	
Kale	-	-	-	-	-	1/	1/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.0		
Apples	-	0	0.0	0.0	0	0	4.0	0	0	9.0	11.0	3/	6.0	3/	3/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0
Peaches	0	0	4.0	0	0	0	31.0	0	34.0	14.0	2.0	0	0	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.0
Pears	0	0	0	0	0	0	9.0	0	5.0	0	3.0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.0	
Grapes	0	0	0	0	0	0	9.0	0	16.0	0	0	0	0	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.0	
Cherries	-	-	-	-	-	-	-	-	1.0	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8		
Potatoes	0	0	0	0	0	2.0	5.0	0	0	0	0.7	0.7	0.8	3/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3/
Sweetpotatoes	0	0	0	0	0	1.0	3.0	3.0	3/	-	9.0	-	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	2.0	
All fruits and vegetables reported	0.6	2.0	1.0	11.0	20.0	19.0	9.0	9.0	6.0	11.0	2.0	9.0	3/	3/	5.0	3/	5.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	7.0		

1/ Sales reported on markets but no State production reported by Bureau of Agricultural Economics.

2/ Sales greater than total State production include some production from other States.

3/ Less than 1/2 of 1 percent.

Table 5.--Estimated percentages of production in 8 States of 7 specified fruits and vegetables sold on shipping point markets, by States, 1936 and 1948

State	Snap beans:		Tomatoes :		Peppers :		Cucumbers :		Strawberries:		Lima beans :		Cantaloups	
	1936:	1948 :	1936:	1948 :	1936:	1948 :	1936:	1948 :	1936:	1948 :	1936:	1948 :	1936:	1948 :
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
North Carolina:	89	50	1	-	76	98	40	71	69	90	105	-	14	-
Virginia	30	91	-	26	-	-	-	-	48	42	35	175	-	-
Maryland	40	49	-	5	-	-	46	60	60	73	46	47	27	22
Delaware	-	-	-	285	-	-	78	38	88	51	-	-	118	18
New Jersey	21	30	12	28	29	43	47	30	18	11	30	40	21	17
Florida	-	30	-	31	3	54	43	40	22	58	-	46	-	-
South Carolina:	48	37	-	-	-	-	10	32	23	-	47	56	-	-
New York	2	-	1	2	-	-	-	-	-	.6	-	34	-	-

Source: Market records.

## FUNCTIONS OF SHIPPING POINT MARKETS

Shipping point fruit and vegetable markets have at least four functions in the marketing of these products: (1) The concentration at one time and in one place of sufficient volumes of products to attract buyers or otherwise to enable the marketing of the products delivered, (2) to provide growers and other sellers a local cash market outlet for their products, (3) to provide buyers a source of supply for one or more items in the amounts and of the qualities required, and (4) to establish local prices for the products bought and sold. A number of these markets provide packing sheds or other facilities for cleaning, grading, sizing, and packing. A few markets either provide facilities and equipment or offer growers and buyers a grading and packing service. However, in most instances grading and packing operations are performed either by the growers on their farms or by the buyers at the concentration point. Therefore, grading and packaging are not considered to be market functions even though they are marketing operations.

### Concentrate Products

One of the principal functions of shipping point markets is the concentration of products in marketable volumes at one time and one place. The assembling of a sufficiently large volume may involve a relatively large number of producers in the area served by the market. If products are to be efficiently moved through the marketing system, it is essential that relatively large quantities be concentrated at one point to permit quantity purchases on the part of buyers and the full loading of large trucks and railroad cars. Since the larger grower may harvest a large enough quantity each day during the harvesting season to load one or more trucks or cars, thus performing the assembly function on the farm, the shipping point market is not as important to him as it is to the smaller grower who may harvest only 10 to 20 packages daily.

However, large-scale growers in certain areas and under certain conditions use shipping point markets rather extensively. Large-scale growers who own and operate packing sheds frequently haul their products to a shipping point market at the beginning or ending of a harvesting period when the quantities being harvested are too small to justify the operation of their own packing and shipping sheds. Other large-scale growers use shipping point markets exclusively even though they produce sufficient volume to load large trucks directly at the farm. Others load trucks directly at the farm using the market as an outlet for the volume in excess of a full truckload and for products that cannot be adequately described when most of the selling is done by wire on the basis of a specified grade. This practice does not necessarily mean that the shipping point market is used by large-scale growers as an outlet for low-quality products. For example, some larger growers establish a reputation for a particular brand and market all their produce of the specified quality under this brand, making most

Table 6.—Range in size of 500 randomly selected grower loads brought to each of 3 selected shipping point fruit and vegetable markets, 1949 and 1950

Range in size of loads (No. of packages)	Market patronized primarily by large-scale growers				Market patronized primarily by small-scale growers				Market patronized by both large- and small-scale growers			
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
1 - 5	12	2.4	46	0.1	217	43.4	581	5.5	26	5.2	95	0.2
6 - 10	8	1.6	51	.1	83	16.6	977	9.3	42	8.4	335	.9
11 - 25	28	5.6	500	.7	94	18.8	1,506	14.4	78	15.6	1,428	3.8
26 - 50	33	6.6	1,289	1.9	52	10.4	1,852	17.6	87	17.4	3,116	8.2
51 - 100	74	14.8	5,682	8.4	38	7.6	2,772	26.4	104	20.8	7,791	20.6
101 - 150	69	13.8	8,930	13.2	7	1.4	867	8.3	81	16.2	10,206	27.0
151 - 200	113	23.6	20,824	30.9	4	.8	663	6.3	62	12.4	10,613	28.0
Over 200	158	31.6	30,168	44.7	5	1.0	1,282	12.2	20	4.0	4,268	11.3
Total	500	100.0	67,490	100.0	500	100.0	10,500	100.0	500	100.0	37,852	100.0

of these sales by wire. Produce of higher or lower quality is sold on the shipping point market. For this type of grower, the market provides an outlet for products that might otherwise be a total loss, and it frequently enables him to obtain a premium on his exceptionally high-quality products.

The importance of shipping point fruit and vegetable markets in concentrating these products is shown by the size of the loads brought to the markets by growers. Three markets were selected for special study, one representative of each of the following groups: (1) Those patronized primarily by large growers, (2) those patronized primarily by small growers, and (3) those patronized by both large and small growers. A sample of 500 loads was selected at random on the market in each group to show the range in size of loads hauled to these markets by growers. As shown in table 6, only at the market patronized primarily by large growers did a large percentage of the loads studied contain more than 200 packages. Since 500 packages of fruits and vegetables are usually considered the average refrigerator carload or truckload, it is evident that products from even the larger farms must be concentrated at points off the farm for marketing and that shipping point markets can play an important part as the first stage of the marketing system. This point is further emphasized by the fact that only 2 markets in the group covered were patronized primarily by large-scale growers.

The number of growers using shipping point markets daily also emphasizes the importance of these markets as concentration points. As shown in table 7, more than 75 percent of the markets studied had an average of over 50 growers selling daily.

Table 7.--Average number of growers selling daily on 85 shipping point fruit and vegetable markets, 1948 and 1949

Range in average number of growers selling daily on markets	Markets Number	Percentage of all markets in sample Percent
50 or less	20	23.5
51 - 75	8	9.4
76 - 100	20	23.5
101 - 150	13	15.3
151 - 200	11	13.0
Over 200	13	15.3
Total	85	100.0

### Provide Sellers a Local Cash Market Outlet

As has previously been pointed out, growers' dissatisfaction with consignment selling and the lack of competition between shippers in many producing areas were the principal factors leading to the establishment of shipping point fruit and vegetable markets. On all shipping point markets from which data were obtained, growers and other sellers receive payment either from the market (which in turn collects from the buyers) or directly from the buyers immediately following the consummation of the sale and the delivery of the products to the buyers' stalls or some other point on the market where the buyers take title.

On most shipping point markets, all prospective buyers are investigated and if found to have satisfactory credentials are accredited for operation on the market. Moreover, a number of markets require that growers be paid cash rather than by check or draft as additional steps in grower protection.

### Provide Buyers a Source of Supply

Contrary to the belief in some quarters that shipping point fruit and vegetable markets should be operated solely for the benefit of farmers, such a market must be operated with the interests of both buyers and sellers in mind if either group is to benefit from its operations. Buyers must be able to obtain supplies in the amounts and of the qualities required to serve their clientele. They visit markets for no other reason than that of obtaining such supplies.

Although most buyers prefer to obtain more than one fruit or vegetable item per market, it is not imperative that more than one item be available if the buyer can obtain the volume and quality required of that item. This criterion does not apply to city concentration markets on which distant buyers expect to obtain a fairly complete line of fruits and vegetables.

### Establish Local Prices

The extent to which prices paid for fruits and vegetables on shipping point markets are based on terminal market prices and the extent to which the local supply and demand situation establishes local prices and influences prices on the terminal markets cannot be measured in exact terms. However, information obtained through interviews with buyers and sellers on shipping point markets shows that these markets do provide them with their primary source of information on locally grown products and that they do give considerable weight, particularly during certain seasons and on certain markets, to the interaction of local supply and demand forces in the establishment of terminal market prices.

Buyers purchasing for resale to wholesalers or acting as agents of terminal market dealers place a great deal of importance on prices in

the terminal markets. If the shipping point market prices are out of line with prices in the terminals, buyers change their purchasing activities accordingly. This practice tends to bring shipping point market prices in line with those on the larger terminal markets. However, buyers on the larger shipping point markets reported that in recent years shipping point market prices frequently remain at levels above those on the terminals (when transportation and other cost differentials are considered) for periods of from 2 to 3 weeks. This fact indicates that, under certain circumstances, these markets or local supply-and-demand factors exert considerable influence upon or may even establish the national prices.

In some areas, shipping point markets are the primary source of price information for the local growers, particularly those without other market outlets. With declining prices, growers normally continue to sell their products on the local market until prices decline to the point that returns will no longer pay harvesting and local hauling costs. When local prices decline to this point, most growers stop harvesting even though prices on the terminal markets may still be high enough to reflect the grower a net return. Under such conditions growers usually feel that prices on the terminal markets will also decline before produce consigned to them can reach the market and be sold.

The importance in some areas of shipping point markets in establishing prices is illustrated by the fact that some large growers and grower shipping associations in the area contract, at the beginning of the marketing season, with one or more dealers on the terminal or secondary markets to sell them their entire crop, the price to be paid on any given day to be based on the prices reported at the shipping point market for that day. For example, a particular brand of tomatoes which both the buyer and seller agree to be of somewhat better quality than the tomatoes normally sold as U. S. Number 1 grade will be shipped with the understanding that the f.o.b. shipping point price will be a definite premium above the mid-point of the range in prices paid for the U. S. Number 1 grade at the shipping point market that day. The fact that buyers and sellers will contract on this price basis shows that there is a great deal of confidence in the prices established on the shipping point market. Only the larger shipping point markets are sufficiently important that their prices are used in contracts of this type.

During certain seasons of the year when a relatively large percentage of the available supplies of a specific item are handled on one shipping point market and move out to a relatively large number of terminal markets, prices established on the shipping point market for that item are believed by most of the buyers interviewed to be more important in the national price picture than terminal market prices. Moreover, such prices usually set the pace for terminal market prices. As an illustration, during the 1949-50 snap bean harvesting season in

the Pompano, Fla., area, shipping began about November 28, and ended about March 30, and nearly three times as many snap beans were shipped from the Pompano State Farmers' Market as were unloaded at New York City. During the peak of the season nearly five times as many snap beans were shipped from this market as were unloaded at New York City. In view of the fact that the volume shipped from the Pompano State Farmers' Market during this period was much greater than the volume unloaded at New York City (the terminal market recognized by the trade as being the most important terminal market in the United States), there appears to be some basis for the belief of buyers concerning the importance of locally established prices under these conditions. As the snap bean harvesting season at Pompano lasts only 3 to 4 months, some other market would normally be expected to take over the price making role during other seasons. This situation probably explains some of the price phenomena observed by buyers at the State Farmers' Market at Pompano who reported that it was not unusual for prices at the New York City market to remain out of line with those at Pompano for periods as long as 2 to 3 weeks. Inasmuch as the terminal markets at New York City and Chicago have long been recognized as price barometers by buyers, shippers, and growers at points all over the United States, it is quite possible that many of these people would continue to base their buying and selling operations on the prices reported at these terminal markets when in reality the prices being established at shipping point markets such as the State Farmers' Market in Pompano might be a better reflector of the national supply and demand situation.

It should be pointed out, however, that shipping point markets exert an influence on the national marketing system only during certain seasons and for a relatively small number of products. For those seasons and products the major shipping point markets probably have as great or greater influence as price barometers than do the terminal markets. As price barometers in local production areas, they have considerable influence on the prices paid for all products regardless of the quantities or the proportion of the total production sold at the market. Exceptions are items which are not normally sold at shipping point markets.



## TYPES OF SHIPPING POINT MARKETS

On the basis of the method of sale, shipping point fruit and vegetable markets are of two types: (1) Auction markets and (2) private sale markets. Of the 126 markets on which data were obtained, 84 used the auction method exclusively, 24 used only the private sale method, and 18 used both methods. When both methods are used at a market, one or two of the more important items are usually sold at auction and less important items are sold through private sales. For example, a market specializing in tomatoes sells this product through daily auction sales and other fruit and vegetable items on a private sale basis.

At auction markets an auctioneer sells each seller's load, or lot, to the highest bidder at a public sale. Each item or product in the lot is sold separately. Bidding is usually on the basis of a sample of each product of the same size, grade, and variety. However, buyers are usually permitted to examine the entire load if they wish to do so. Bidding is open to the public so that both buyers and sellers know the prices for which each lot sold. The seller has the privilege of refusing to make the sale if the highest bid is not satisfactory. Such a refusal is commonly known as "no sale." When a seller rejects the highest bid, he may remove the lot from the market or offer it again during the same sale.

At most private sale markets the sellers negotiate privately and directly with the buyers in selling fruits and vegetables. However, at a few markets growers place their products with selling brokers who act as their sales agents. At the Pompano, Fla., State Farmers' Market, the latter method is used almost exclusively, but a space is provided on the sales platform for growers who wish to sell their own products. The popularity of the selling broker on the Pompano market can be attributed to the fact that relatively large quantities are sold by most growers who use this market. These growers operate large farms and find that it is more profitable for them to spend their time at the farm supervising harvesting operations, with the responsibility of selling the products assigned to another agency, than it is for them to carry on both functions.

### Auction Markets

In their basic methods of operation, auction markets may:

- (1) Require the sellers to bring their produce to the buyers, or
- (2) require the buyers to go to the produce.

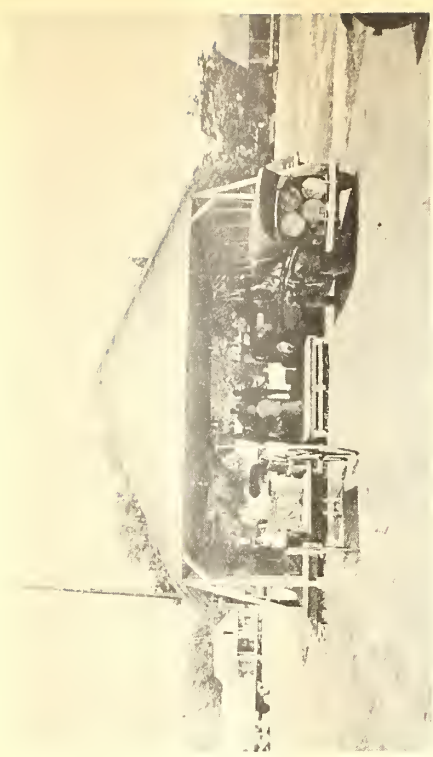
Auctions on which the seller brings his produce to the buyers may involve the use of a wide variety of facility designs, but the method of operation in facilities of different designs is essentially the same. The type of facility in most general use is a specially designed shed, underneath and in the center of which is a raised platform about 10 feet

wide and 30 feet long. On each side of the platform are 10-foot driveways (fig. 2). The auctioneer and clerk usually have a raised booth at one end of the platform facing the buyers. On some markets the buyers are provided only with standing room. Others have rows of seats or an amphitheater arrangement of seats for the buyers. Some type of facility is usually provided, such as tables or bins, between the auctioneer and buyers for the display of samples of the products being sold. At this type of facility, growers line up their loaded vehicles on each side of the platform. As a vehicle moves up alongside the platform, a sample is removed from the load and displayed in the bin or on the table. After buyers have inspected the sample, the auctioneer announces the number of packages in the lot, opens the bidding, and sells to the highest bidder. When a sale has been completed, the same procedure is followed for the vehicle on the opposite side of the platform while the load just sold moves out and a new load moves into place. This procedure continues, a new load moving into place alternately on each side of the platform until all loads have been sold.

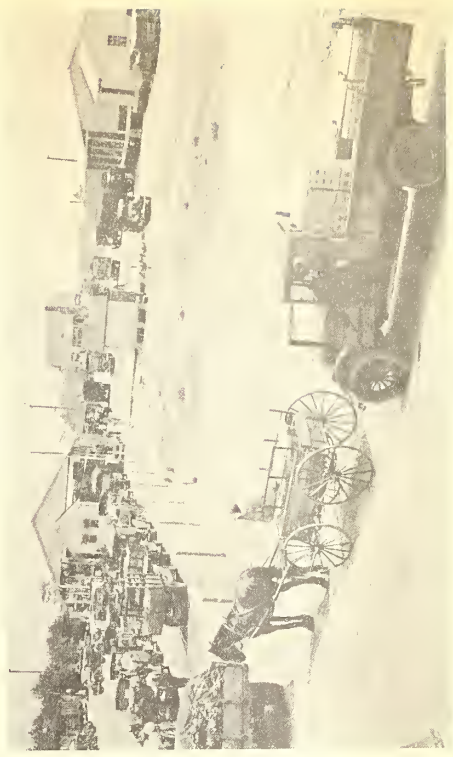
A facility of similar design found on a few markets consists of a shed with a driveway through the center, on each side of which are seats for the auctioneer and buyers. On other markets the only sales facility provided is an open, raised platform from which the loads are sold as they pass. On a few markets no sales facilities are provided. On these markets the buyers and auctioneer merely remain at one point and each grower's load being sold by auction is driven past this point.

Auctions at which the buyers go to the produce also have several different methods of operation and have different types of facilities. At some of these markets each seller places a sample of each lot to be sold in a large circle on the floor of a shed (fig. 3). Tags are attached showing the name of the seller, the quantity in the lot, and such other information as may be pertinent to the sale. Buyers congregate around the auctioneer within this ring of samples to offer their bids. As each lot is sold the group moves from sample to sample in the same way as at tobacco auctions. After each lot is sold, the seller removes the sample from the shed floor and delivers the entire lot to the buyer's packing shed or loading platform. When the sample is removed, the sample from another lot is placed in this spot. This placement of samples from new lots permits the sale to continue uninterrupted until all lots are sold. The auctioneer and buyers may make several trips around the auction ring to complete the sale of all lots.

On other markets using this method, sellers back their trucks to a loading platform at right angles, unload a sample from each lot, and the auctioneer and buyers move along the edge of the platform from truck to truck as the sale proceeds. This system differs somewhat from the auction ring in that buyers have an opportunity to examine the entire lot. At a few places the sellers line up the loaded vehicles and display samples of each lot on the ground at the rear of the vehicles. The



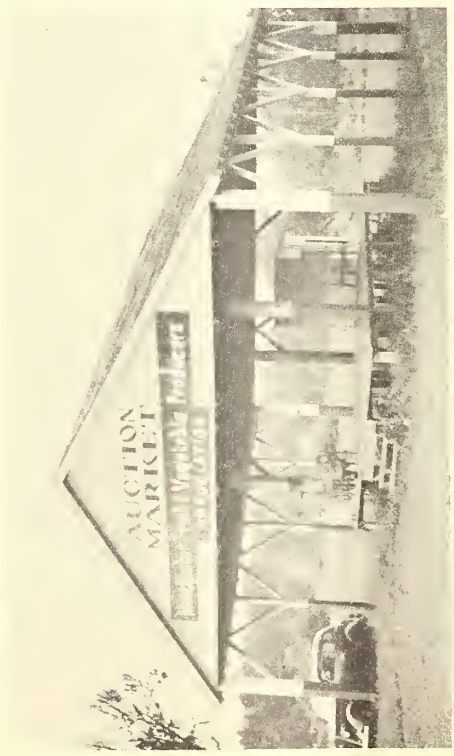
Wallace, N. C.



Vineland, N. J.



Faison, N. C.



Manchester, Conn.

Figure 2.--Views of auction sheds or "blocks" of the center-platform, two-lane design, where the sellers bring their produce to the buyers.

auctioneer and buyers move from load to load as the sale proceeds from the first to the last in the line of trucks.



Figure 3.—Auction sale shed at Hendersonville, N. C., where samples of lots of produce offered for sale are displayed. Buyers move from sample to sample as auction sale progresses.

#### Private Sale Markets

Two methods of operation are found at private sale markets. According to one of these methods, a number of lanes 8 to 10 feet wide are marked off in an open selling area. Sellers line up their trucks in double lanes, leaving one lane open between each two lanes. Buyers bargain privately with any seller in the selling area. When a sale is made, the seller pulls out of line into the open lane and delivers his load to the shed or platform of the buyer. At the beginning of the sale, sellers' trucks are parked in each selling lane in a compact group. As the sale proceeds, a number of sellers move out of the area, thus leaving empty spaces. To make room for new arrivals, a market policeman directs trucks at the rear of the lanes to move forward at frequent intervals. On some markets which use this method, buyers are required to stay at one end of the selling area. Sellers are permitted in this area for only short periods of time, usually 5 to 10 minutes. At the end of this period all loads in the selling area move out and trucks waiting at the rear of the line move forward into the space. Any seller who did not sell his load in the allotted time goes to the end of the line and again awaits his turn to move into the selling area. This type of layout and method of routing traffic through the sales area are frequently referred to as the "Benton Harbor Method of Sale." The method was first used at the Benton Harbor, Mich., Fruit Market in 1931 (fig. 4). It has been adopted by the markets at Anna, Ill., Bald Knob, Ark., and Plant City, Fla.

According to another method used at private sale markets, the sellers park their trucks at right angles to a shed or platform and unload their products on the platform or sell them directly from the truck. At most of the markets using this method of sale the entire load is unloaded onto the platform of the sales shed, but there is usually no regulation requiring that this procedure be followed. If the entire load is sold upon or soon after arrival at the market, it is a rather common practice for the seller to move his truck to the buyer's parked truck and unload across the tailgates. Figure 5 shows a view of the Pompano, Fla., State Farmers' Market, at which this method of selling is followed.



Figure 4.--View of open sales area on Benton Harbor, Mich., Fruit Market. Note that sellers' trucks park in double lanes and that a third lane is kept open. As loads are sold, seller pulls out of line into open lane and delivers load to buyers' shed.



Figure 5.--Pompano, Fla., State Farmers' Market where private sales method is used. Sellers' trucks park at right angles to platform under shed. Sellers either unload products to platform for sale or they may sell from their trucks.

## AGENCIES OPERATING ON SHIPPING POINT MARKETS

The agencies operating on shipping point fruit and vegetable markets may be grouped as follows: (1) Selling agencies, (2) buying agencies, and (3) service agencies. The functions and operations of the individuals who make up these groups are briefly described below.

### Selling Agencies

#### Growers

Growers own most of the fruits and vegetables sold on shipping point markets. As stated previously, on some markets they bargain directly with the buyers; on others they "designate" an auctioneer, selling broker, cooperative, or other selling agent to act for them in negotiating with buyers. On markets where farmers sell directly to the buyers they usually collect directly from the buyers. On a number of auction markets the market collects from the buyer and pays the grower. Most selling brokers and cooperatives who sell for growers pay the growers at the time the sales are consummated, and collections are made from the buyers.

#### Grower-Shippers

Most grower-shippers are large-scale growers who operate facilities for grading, packaging, and shipping their products and who may also handle the products of smaller growers. Grower-shippers sell f.o.b. to local buyers when the local demand is strong but frequently consign or sell carlot shipments by wire to dealers in the terminal market. In their dealings with other growers, grower-shippers either purchase outright or handle their products at a stated fee per package. These fees vary depending upon the services rendered or the functions performed. If the grower-shipper merely sells another grower's product, the usual fees charged range from about 5 cents to 10 cents per package. If the grower-shipper grades and packages another grower's products, the total charge may range as high as \$1 per package.

#### Auctioneers

Auctioneers are usually employed by the market. In conducting sales the auctioneer is a sales agent even though sellers reserve the right to reject any and all bids. Auctioneers are usually paid a salary and have no direct financial incentive in obtaining for sellers the highest prices possible. However, observations of auctions sales indicate that, on a large percentage of the markets covered in this study, the auctioneers make every effort to sell for the best price possible.

## Selling Brokers

Selling brokers usually rent a stall or other space on the market, where they can receive, on consignment, products brought to the market by local farmers. Acting for local growers, selling brokers either sell for the best price obtainable from local buyers or sell by wire to buyers on terminal markets. In occasional instances, if he cannot sell f.o.b. the shipping point, the selling broker may consign produce to a dealer on a terminal market. The selling broker pays the farmer and collects from the buyer. Charges paid by the farmer for such services vary, some brokers charging a percentage of the sales price and others charging on a per package basis. Selling brokers do not operate extensively at shipping point markets. The Pompano, Fla., State Farmers' Market was the only market on which data were obtained where a relatively large percentage of the total sales were handled by selling brokers.

## Local Shippers

Although local shippers are usually thought of as buyers, on shipping point markets they are both sellers and buyers. As sellers their operations are similar to those of the selling broker except that local shippers purchase outright from growers rather than handle the growers' products on a consignment basis. Whenever possible, local shippers sell these purchases f.o.b. to local buyers or by wire on an f.o.b. shipping point basis to terminal market buyers. The operators of individual packing sheds in production areas without organized shipping point markets are primarily local shippers, because they usually purchase outright from the local producers and sell either to other local buyers or to terminal market buyers by wire.

## Farmers' Cooperatives

On some markets farmers' cooperatives sell a relatively large percentage of the products handled. This arrangement is especially prevalent in those areas where growers depend upon others to grade and package their products for sale to shipping point buyers. Cooperatives organized for such purposes usually are organized similarly to other farmers' cooperatives.

## Miscellaneous Sellers

Other groups of sellers operating on shipping point fruit and vegetable markets include merchant truckers and retailers. Although merchant truckers are primarily buyers on shipping point markets, they occasionally bring in loads of out-of-season products to sell at either wholesale or retail. A few shipping point markets have a section or a few stalls set aside for retail sales and on these markets there are usually one or more dealers who carry on a retail business. On several of these markets, a small percentage of the local farmers also make retail sales.



## Buying Agencies

On a number of shipping point markets, buyers are classified on the basis of the length of the period they operate on the market. That is, buyers who operate on a market during the entire season are referred to as permanent or "season buyers." Buyers who visit the market on a day-to-day basis are "day buyers." On the basis of the functions performed, the following groupings are more realistic.

### Local Brokers

Local brokers are the principal buyers on shipping point fruit and vegetable markets. Although such brokers organize and operate their own firms, they act as agents of independent city wholesalers, chain store organizations, and other wholesale distributors in distant areas and cities. Local brokers receive either firm or tentative orders by wire for a definite number, kind, and quality of products prior to the beginning of the sales period. On the market they attempt to purchase these products at prices previously agreed upon with their principals. When the produce has been purchased, the local broker arranges transportation, pays the growers, and bills the buyer the purchase price plus a brokerage fee of 5 cents to 10 cents per package. He may also pay the trucker and include these charges in his bill to the buyer. At markets where the products must be graded and packaged before shipment, the local broker may perform these operations for the seller, and add the cost of such services to the price he pays the grower when quoting prices to the distant buyers.

### Buyers for Independent City Wholesalers

A number of independent city wholesalers and distributors of fruits and vegetables employ buyers to visit shipping point markets and obtain locally produced items rather than place orders with local brokers. Such buyers are usually paid a salary rather than a commission. In their purchasing operations these buyers also keep in close daily contact with their home offices to obtain instructions on volumes and qualities required and prices that may be paid.

### Buyers for Chain Store Firms

Several of the national chain store firms have buyers on all the larger shipping point markets. On some markets where the volumes purchased do not justify a full-time buyer, the chain stores make arrangements with local brokers to purchase for them. In other areas the chain store firms have buyers who spend part of their time buying on the market and the remainder of their time making purchases from individual packing sheds and cooperative associations. In recent years the chain stores have tended to patronize more individually operated packing

sheds owned by growers' cooperative associations in several of the production areas for a large percentage of their supplies.

### Merchant and Itinerant Truckers

The terms "trucker," "itinerant trucker," and "merchant trucker" frequently are used synonymously. However, for the purposes of this report a distinction is made between them. Although the term "trucker" is frequently used by members of the trade in referring to either an itinerant trucker or merchant trucker, when used in this report the term refers only to those who operate trucks for hire or for lease.

The itinerant trucker is the owner and operator of a motortruck who purchases produce at various places and sells on different markets or to different dealers depending upon prices. That is, he has no fixed itinerary or points between which he operates. At the time he purchases, the itinerant trucker may not have firm orders and may not know where he will sell. He may visit several markets before finding a buyer. The itinerant trucker seldom owns and operates more than one truck.

The merchant trucker is the owner and operator of one or more motortrucks and has an established business at a fixed location, usually on a city market. His facilities may consist of an open stall only at the curb on the city market streets, a covered stall at a farmers or truckers' shed, or a dealers' store building. The merchant trucker purchases produce at country points and shipping point markets and hauls it to his place of business where it is sold.

Although at present itinerant truckers purchase a very small percentage of the total volume handled, at one time they were the principal buyers on shipping point markets. It was their practice to purchase a load of produce with no particular outlet in mind but merely to start moving toward the nearest large consuming market. If prices were high enough at the first market visited, they sold; if not, they moved to other markets sometimes visiting several before they found one on which they could sell at a profitable price. In some instances they sustained large losses. It is rather unusual to find itinerant truckers who follow this method of operation today. Most of them now have connections with one or more dealers on the city markets whom they supply with certain items during certain seasons on one or more of the following bases: (1) Outright sale, (2) joint account, or (3) consignment. Although the itinerant trucker takes title to the products purchased, in reality he buys and transports the produce purchased for the city market dealer.

A typical small merchant trucker operating from an open market stall owns and operates only one truck used for making trips to shipping point markets or production areas to purchase produce and return to his established business location. He remains there until his load is sold, and then returns to the production area for another. Where a covered

stall is available, he may follow the same procedure, or he may unload and leave someone to sell for him while he returns for another load. Merchant truckers who own and operate more than one truck usually are members of a partnership or have hired help who assist either with the selling or buying of the products.

### Miscellaneous Buyers

On shipping point markets within relatively short distances of consuming centers, such as the auction markets in New Jersey, retailers and small jobbers are important buyers. Operators of roadside markets also patronize shipping point markets in some areas to obtain supplies. Peddlers also buy at shipping point markets primarily to obtain overripe, off-grade, and other products that cannot be readily moved through wholesale marketing channels. For example, most of the shipping point markets specializing in green tomatoes have a small quantity of ripe tomatoes offered for sale and one or two buyers usually patronize these markets to purchase this kind of tomato. Such buyers are usually retailers who pack the tomatoes in consumer-size packages and peddle them from door to door. During periods of heavy local production, canners also purchase a large percentage of the total daily volume offered for sale at some of the shipping point markets. A few markets, especially those on the eastern shore of Maryland and Virginia, sell some products exclusively to processors.

### Service Agencies

#### For-Hire Truckers

For-hire truckers are available at nearly all shipping point markets. Those who haul on a per-package basis may haul for one or more firms on one trip and for other firms on another trip at rates that are fairly uniform for packages of different sizes and weights, for specified distances. Truckers hauling on lease or contract basis may haul for one or more firms regularly, usually between a much smaller number of points with the lessor paying for this service on one of several bases, as follows: (1) At a definite rate per mile regardless of the size of load hauled, (2) at a definite rate per mile with a differential in the rates when loaded and when empty, and (3) at a guaranteed weekly salary and expense account for the owner and driver and the payment of all operating expenses at a stipulated amount for repairs and depreciation.

#### Trucker-Brokers

The trucker-broker has become an important service agency on shipping point markets in recent years to meet the needs of several groups. As yet the services performed, and the rates charged for these services, have not become standardized. In general, the trucker-broker's

principal function is that of acting as a broker for either shippers or receivers in arranging with for-hire truckers for transportation services. For their services trucker-brokers receive a percentage of the transportation charge, usually 5 to 10 percent.

The typical method of operation is for the shipper to call the trucker-broker requesting him to arrange transportation for a certain number of packages of specified products to one or more destinations. Upon arrival at a market for-hire trucker's contact the trucker-broker and register the size and type of their motortrucks and the destinations, or general areas, to which they would like to haul loads. Some truckers call the trucker-broker by telephone before arriving at the market, giving their approximate arrival time in order to permit the broker to obtain a load by the time they arrive. With the information from shippers as to their transportation needs and from truckers as to the amounts and types of transportation equipment available, the broker matches the needs of the shippers with the transportation available and directs the trucker to a load. The broker makes certain that the trucker is carrying or obtains cargo insurance and will arrange to have the truck insured before it leaves the market. Some trucker-brokers take no responsibility for the trucker's delivery of the produce in good condition. Others guarantee the shipper delivery in good condition at destinations within a specified period. These trucker-brokers keep a complete record of shipments from the time they leave the market until they arrive at their destination.

#### Railroads

On those shipping point markets where a large number of shipments are made by rail, the railroad companies servicing the market usually station an agent or other representative at the market to assist shippers.

#### Operators of Grading and Packing Services

Most packaging and grading operations at shipping point markets are performed by dealers whose primary functions are those of a buyer or seller. However, at a few markets there are firms that limit their operations entirely to grading and packaging for others on a custom basis. Local brokers and other buyers who have their own packaging and grading equipment also do considerable custom grading and packaging. Charges for these services are always on a per-package basis rather than a percentage of the sales price of the commodity.

#### Container Dealers

On most shipping point markets, container dealers supply containers or packaging materials. Such dealers frequently have other concessions covering the sale of seed, fertilizer, and other production materials.

### Other Service Agencies

Other service agencies operating on shipping point fruit and vegetable markets include Federal-State inspectors and market news reporters. On some markets the inspection of certain products is mandatory under State laws. On other markets, all products sold in closed packages must be labeled to show the grade of the products. If the buyer feels the product does not meet the specifications of the grade, he can request an inspection, and the inspector's determination is final as to the quality of the products. Both the buyer and the seller must abide by this decision.

On a number of the larger shipping point markets, market news reports are issued during the local marketing season. Most of these reports are issued under Federal-State cooperation.

## FACTORS RESPONSIBLE FOR THE CONTINUED OPERATION OF SHIPPING POINT MARKETS

As previously pointed out, the primary purpose of the research which is the basis of this report is to determine why some shipping point markets have continued to operate whereas others have closed. It can be concluded that a market which operated for only a short time and was then permanently closed was a failure. However, it cannot be concluded that all markets which have continued to operate season after season are successes. A number of markets that have been in operation for several seasons are subsidized and because of these subsidies can continue to operate even though the volumes handled are insufficient to warrant their continuation. This statement should not, of course, be interpreted as meaning that all subsidized markets are failures.

Although the fees charged on most markets are at a rate high enough to bring in sufficient revenue to meet operating expenses, the original investment in land and facilities on a relatively large percentage of these markets was provided by contributions from private business enterprises or from public funds in the form of grants or donations. If a subsidized market is attracting a relatively large number of buyers and sellers and a relatively large volume of business is conducted on it at prices in line with other market outlets, the market can generally be considered as successful. However, a market that obtains adequate revenue from its facilities and from fees collected to meet operating expenses but on which the volume of business conducted is small, or the buyers and the sellers are dissatisfied with its methods of operations, or prices are out of line with other market outlets can generally be considered as a failure. It is not the purpose of this study to classify markets as "successes" or as "failures." However, in analyzing the factors responsible for the continued operation or for the closing of shipping point markets, it should be pointed out which factors are usually associated with success and which with failure.

In the sections that follow the relationships of several factors, such as the number and size of buyers and sellers to the volume handled, have been tabulated to develop minimum standards upon which a market might be built and have reasonable hope of continued operation. In addition, other factors, such as location, layout and design of facilities, and management, have been considered from the viewpoint of efficient operations.

For the markets that have closed an attempt has been made from a different approach to determine the reasons for their closing.

### Volume of Business

There was universal concurrence among buyers, sellers, and market managers interviewed that volume of business is the most important

factor contributing to the success or failure of shipping point fruit and vegetable markets. These groups also pointed out that the larger the volume of business the greater the opportunities for the market to be successful. Buyers said that before they will patronize a market, a relatively large volume of business is essential for two reasons: (1) A buyer must be able to purchase a relatively large quantity of produce each day he patronizes a market in order to pay overhead and other fixed costs; and (2) as the volume of produce handled per day on a market increases, there is less variation in the volumes handled from one day to the next, thus giving the buyers greater assurance of obtaining their daily requirements, which usually remain rather uniform. Growers pointed out that a market must handle relatively large volumes before buyers would patronize it and that without a relatively large number of buyers the grower has no assurance that he will receive an equitable price for his products or that he can dispose of them at any price. In addition to confirming the opinions of buyers and growers, market managers stated that unless the volume of business transacted on the market is relatively large, management has a difficult problem in keeping the operating costs per package handled at a rate that will attract buyers and sellers.

The volumes handled on 85 shipping point fruit and vegetable markets in 1948 are shown in table 8 together with the ranges in volume related to the length of season and other factors. It will be noted that on 22 of the 85 markets in the sample 100 or fewer equivalent carloads were handled in 1948. This fact indicates that shipping point markets can be operated with a relatively small annual volume of business. However, the smaller markets operated for a much shorter season than the larger markets, and, as a consequence, the average volume handled per day at the smaller markets compared more favorably with the daily volume handled on the larger markets. Moreover, growers and the market managers on 12 of the 22 markets on which less than 100 equivalent carloads per market were handled in 1948 felt the markets were not attracting sufficient buyers to provide desirable competition. The 5 markets on which over 2,500 equivalent carloads per market were handled in 1948 accounted for slightly more than one-third of all the fruits and vegetables sold at shipping point markets during that year. These 5 markets were considered by growers and buyers to be the most successful of all markets of this type. However, the markets having an annual volume of business ranging from 501 to 2,500 equivalent carloads were considered to be highly successful. The average daily sales on markets in this group ranged from 7.5 to 9.9 equivalent carloads. Although it is impossible to determine in exact terms for all variable situations the annual or daily volume of sales needed to assure the successful operation of a market, these data indicate that the daily volume of sales is more important than the annual volume of sales and that the daily volume should exceed an average of 1.8 equivalent cars--the average daily volume shown for the group of markets having an annual volume of 100 or fewer equivalent carloads.

Table 8.--Ranges in volumes of fresh fruits and vegetables handled on 85 shipping point markets, 1948

Ranges in volumes handled per market (Carload equivalents)	: Markets in volume range :	: Average length of season :	: Volumes handled :			
			: Total for markets in volume range :	: Percent- age of total for all mar- kets in sample :	: Average per market For season :	: Per day :
	: <u>Number</u> :	: <u>Days</u> :	: <u>Carload equivalents</u> :	: <u>Percent</u> :	: <u>Carload equivalents</u> :	: <u>Carload equivalents</u> :
100 or less:	22	: 27.7	: 1,108	1.8	50.4	1.8
101 - 500:	27	: 69.0	: 7,097	11.6	262.9	3.8
501 - 1,000:	20	: 101.0	: 15,136	24.7	756.8	7.5
1,001 - 1,500:	5	: 123.2	: 5,933	9.7	1,186.6	9.6
1,501 - 2,000:	4	: 160.7	: 6,374	10.4	1,593.5	9.9
2,001 - 2,500:	2	: 235.5	: 4,531	7.4	2,265.5	9.6
Over 2,500 :	5	: 180.2	: 21,082	34.4	4,216.4	23.4
Total or average:	85	83.8	61,261	100.0	720.7	8.6

Source: Market records.

Markets frequently continue to operate even though they are not attracting enough buyers to assure adequate competition. Such markets either may be the only outlets growers in small production areas have available or they may be more satisfactory than other outlets, such as individually owned and operated packing sheds or trucker-buyers who visit the farm. Buyers and growers may also patronize a market during the period when it is becoming established, even though the volume handled is small, because they feel the production area in which they are located has potentialities that must be developed over a period of years.

The time required for a new market to attract buyers and its relationship to the volume of produce offered for sale are shown in table 9. Of the 126 markets included in the analysis, only 58 markets, or 46 percent of the total, had enough buyers to provide adequate competition during the first year the market was operated. Forty-three markets, or 34.1 percent, have never attracted sufficient buyers to provide competition. Of these 43 markets, 31 ceased to operate before 1948, but 12 of them operated during the 1950 season. The markets that attracted sufficient buyers to provide competition during the first year they operated handled an average of 494 equivalent carloads of fruits and vegetables each during that year, whereas the markets that never reached a point where they were considered to be competitive handled only 47 equivalent carloads each during the first year. Of the group that were not



"competitive" during the first season's operations, 25 markets eventually attracted enough business to provide adequate competition. The time required to reach this goal ranged from 1 to 8 years. There was also a definite correlation between the volume handled by these markets during the first year operated and the number of years required for each to become competitive. Those markets having a smaller volume of business the first year required a longer period to become competitive.

Table 9.—Time required for 126 shipping point fruit and vegetable markets to attract enough buyers to provide adequate buyer competition and its relationship to the annual volume of produce sold on the markets

Market group	: Markets in sample:		: Average volume sold
	: <u>Number</u>	: <u>Percent</u>	: first year markets
			: were operated
			: <u>Carload equivalents</u>
Markets having adequate buyer competition when first established	: 58	: 46.1	: 494
Markets without adequate buyer competition when first established:			
Never attracted an adequate number of buyers <u>1/</u>	: 43	: 34.1	: 47
Attracted an adequate number of buyers in:			
1 year	: 8	: 6.3	: 119
2 years	: 8	: 6.3	: 124
3 years	: 4	: 3.2	: 139
4 years	: 2	: 1.6	: 75
6 years	: 1	: .8	: 21
7 years	: 1	: .8	: 60
8 years	: 1	: .8	: 50
Total	: 126	: 100.0	: -

1/ Includes 12 markets that were still operating in 1950.

Source: Market records.

A number of buyers interviewed contend that they are hesitant to patronize a market where the daily volume is small because of the high degree of variation in the volumes handled from one day to the next. This means that on some days buyers have less chance of finding a

dependable supply of the particular variety, quality, or style of pack desired as well as the volume desired. To determine the extent of such variations, either up or down, several tabulations and analyses were made of the variations in the day-to-day volume of business on 13 selected shipping point markets and the relation of such variations to the size of the market and other factors. Since nearly all shipping point markets have definite peak marketing periods, it was also possible to compare the variations in sales at each market for a period when the average daily volume handled was small as well as large.

The percentage variations in volumes handled from one day to the next during the respective seasons of each of the 13 markets are shown in table 10. At each of the 13 markets, the variations from one day to

Table 10.--Percentage variations (either up or down) in the volumes of fruits and vegetables sold from day to day during the season on 13 shipping point markets by daily average ranges in volumes sold, 1949

Range in average volume sold daily (Packages)	Average percentage variations in volumes sold from day to day on--1/		
	2 markets patronized primarily by large-scale growers:	11 markets patronized : primarily by medium- and small-scale growers	All markets in sample
	Percent	Percent	Percent
1,000 or fewer:	78.0	68.7	69.4
1,001 - 2,000:	64.6	56.8	57.9
2,001 - 3,000:	76.6	49.6	51.6
3,001 - 4,000:	84.0	39.5	41.6
4,001 - 5,000:	76.0	36.7	38.9
5,001 - 10,000:	62.6	45.2	47.1
10,001 - 15,000:	71.9	32.9	45.0
15,001 - 20,000:	72.3	34.9	56.0
20,001 - 25,000:	29.2	24.4	28.9
Over 25,000	25.0	-	25.0

1/ Percentages are computed on the basis of volume sold on the preceding day for each 2-day period of the respective seasons the markets operated in 1949.

Source: Market records.

the next decreased with an increase in the average daily volume handled, but the decrease was less pronounced at the markets patronized by large-scale growers than at those patronized by small- and medium-scale growers. For this reason, tabulations for both types of markets are shown. Since the variation from one day to the next is nearly twice as large when the daily sales are less than 3,000 packages per day than when the daily sales are more than 20,000 packages per day, buyers appear to be justified in their contention that more difficulties are experienced in obtaining their daily requirements on small markets than on larger ones.

The difficulties faced by buyers in obtaining their daily requirements at a small market become more evident when variations in the volumes sold from one day to the next are presented graphically (fig. 6). On markets where the daily volume sold is 1,000 or fewer packages, the variations in volumes from one day to the next exceeded 100 percent on 25 percent of the days the markets operated; and on those markets handling from 1,001 to 2,000 packages, the daily variations exceeded 100 percent more than 50 percent of the time operated. On those markets where the daily sales exceeded 2,000 packages, the number of days on which there were extreme variations from the previous day's sales was much smaller.

#### Quantity and Types of Fruits and Vegetables Produced in Area Served by the Market

In the previous section it was shown that the volume handled is one of the principal factors related to the continued operation of shipping point markets. Receipts on shipping point fruit and vegetable markets are drawn almost entirely from the local production area. The successful market therefore must be located in an area having sufficient production to supply the volume of fruits and vegetables needed and must, of course, be in a position to compete with alternative outlets in the area.

Twenty-six areas, each having a shipping point market, were selected for study to determine the proportion of the total production sold on the markets. <sup>3/</sup> The total estimated value of the fruits and vegetables produced in the areas served by these 26 markets in 1948 was \$158,266,000. Of this amount, a volume having a value of \$35,255,000, or 22.3 percent of the total, was sold on shipping point markets. Certain of these markets handled a much larger percentage of the total production. As shown in table 11, 5 of these markets handled over 75 percent of the production of fruits and vegetables from the areas which they served. There was no significant relationship between the geographical size of the production area or the size of the market and the percentage of the

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<sup>3/</sup> The local area served by each market was arbitrarily defined as the area within a 25-mile radius of the market.

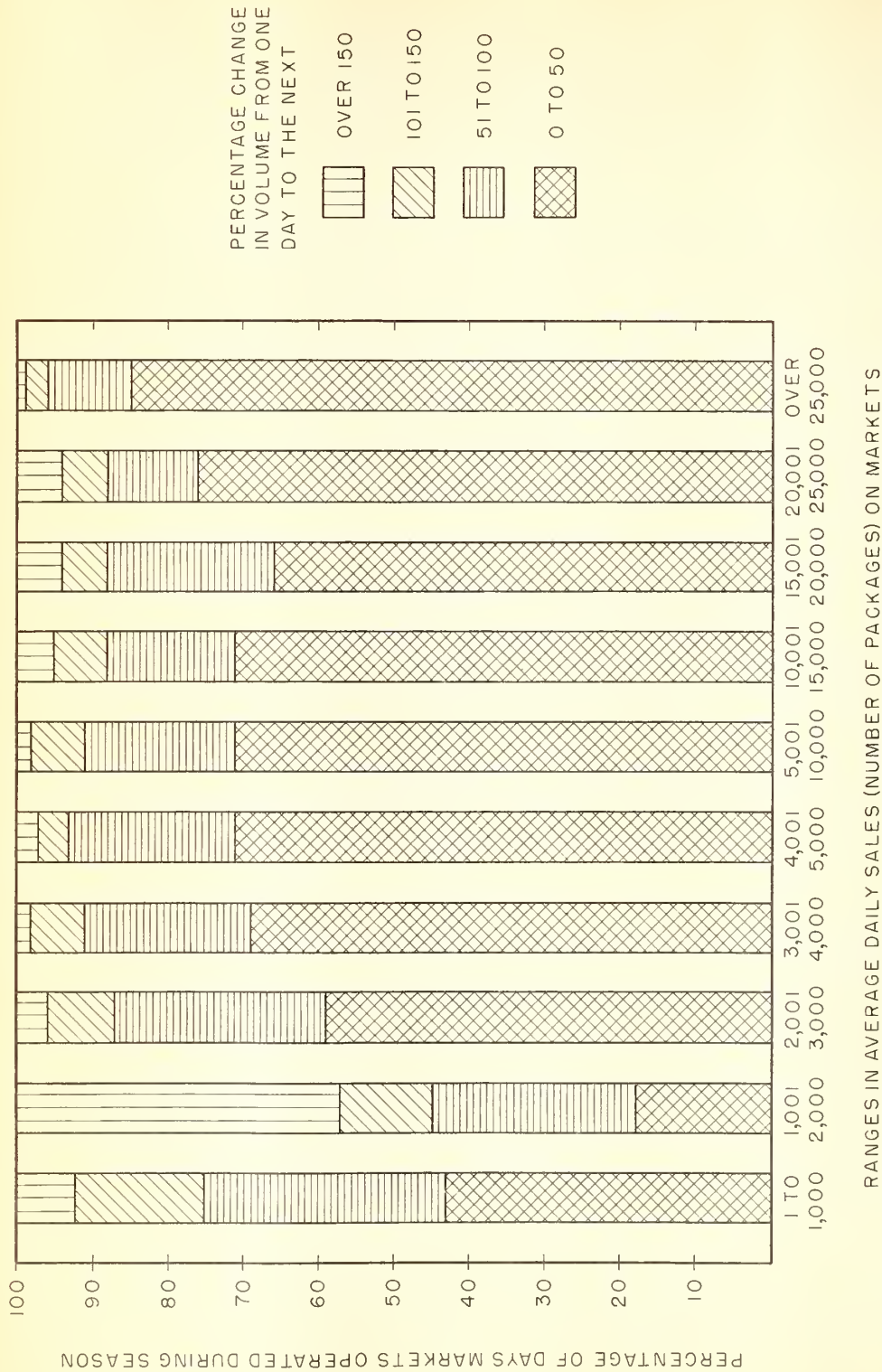


Figure 6.---Percentage ranges in variations (either up or down) in the volumes of fruits and vegetables sold from day to day during the season on 13 shipping point markets by daily average ranges in volume sold for specified percentages of days the markets operated, 1949. (Percentage variations in volumes sold from day to day are computed on the basis of the volume sold on the preceding day for each 2-day period of operation.)

area's production handled on the market in that area. A larger percentage of the total production of snap beans, cucumbers, eggplant, peppers, tomatoes, and squash than of other items were handled on the markets. However, the percentage variations between some of the other more perishable items were not great enough to attach an important significance to them. For the markets surveyed, only a relatively small percentage of the local production, or none, of certain products, such as citrus fruits, potatoes, sweetpotatoes, and watermelons, are sold on the markets. Moreover, there are a number of important potato, sweetpotato, and watermelon production areas in those States in which shipping point markets have had their greatest growth, where no effort has been made to establish shipping point markets for the apparent reason that alternative outlets for products of this type are more desirable. This hypothesis is substantiated by the fact that in a few potato, sweetpotato, or watermelon areas where markets have been established, the markets have failed to become important outlets for these products. However, there were a few areas in which more than 75 percent of the watermelons, sweetpotatoes, and potatoes produced are sold on the shipping point markets. Some growers and dealers were of the opinion that these products, in particular, would not be sold on shipping point markets except in those areas where the average production per farm is small. All of the markets on which these products are sold in relatively large quantities are located in areas consisting primarily of small- and medium-scale growers.

Table 11.—Ranges in percentages of total fruit and vegetable production sold on 26 shipping point markets by averages of volumes sold and quantities produced for each range, 1948

Proportion of total fruit and vegetable production sold at markets (Percent)	Number of markets	Average value of volume sold per market	Average value of quantity produced per production area served by market
	<u>Number</u>	<u>Dollars</u>	<u>Dollars</u>
76 - 100	5	1,334,745	1,566,123
51 - 75	3	2,840,521	4,035,010
26 - 50	6	1,874,705	4,670,773
0 - 25	12	734,311	9,192,135
Total or average:	26	1,355,971	6,087,150

Source: Market records.

The most logical explanations for such a relatively small percentage of the total production of these three products being sold at shipping point markets are: (1) In some areas no attempt has been made

to establish such markets; (2) other marketing channels and facilities are sufficiently competitive and efficient to make difficult or unnecessary the introduction of a new agency; and (3) these three products are somewhat less perishable than other fruits and vegetables usually sold on shipping point markets and there is less likelihood that such markets would operate to establish local prices.

Citrus fruits are not sold in appreciable quantities on shipping point markets. Florida, the only citrus fruit producing State where shipping point markets are important, has a well-established marketing system for such fruits and it is doubtful whether citrus fruits will become important items on shipping point markets in that State.

Number and Type of Growers Patronizing  
Shipping Point Markets

To determine the number and type of growers who patronize shipping point fruit and vegetable markets, estimates were obtained from market managers. Three of the markets surveyed maintained daily records showing the names of all growers selling on the market, thus making possible a determination of the total number of growers selling during the season, the number of days each sold, and the number of packages sold per load. Sample counts were also made on 15 representative markets of the number of packages in each load. These counts revealed that only 2 of 85 markets were being patronized primarily by large-scale growers.

The average number of growers selling daily on each of 85 markets follows:

<u>Ranges in average growers selling daily on markets</u>	<u>Markets in each range</u>
<u>Number</u>	<u>Number</u>
50 or less	19
51 - 75	8
76 - 100	21
101 - 150	13
151 - 200	11
201 - 300	6
Over 300	<u>7</u>
Total	85

Of the 19 markets reporting an average of 50 or less growers selling daily, only 5 markets reported an average of fewer than 25 sellers daily. There was some doubt as to whether these 5 markets could continue operating unless additional sellers and a larger volume of business could be attracted. Of the markets considered to be highly successful, only one market reported an average of fewer than 50 growers selling

daily. This market was patronized primarily by large-scale growers, many of whom plant over 200 acres to vegetable crops each season. Generally, the total number of growers selling daily does not appear to be too important to the success of a market, if a relatively large daily volume of sales is maintained. However, in those areas where the majority of growers plant small acreages of fruits and vegetables for sale on their local markets, the successful markets reported an average of not less than 90 growers selling daily.

To determine the range in size of grower loads brought to market an analysis was made of 998 loads selected at random from a representative group of markets. As shown in table 12, 25 percent of the loads sold contained 5 packages or less and 86 percent contained 50 packages or less. The average size of a load was 30 packages. These data indicate that shipping point markets are serving a much larger number of small- and medium-scale growers than large-scale growers. However, growers who hauled 50 packages or less per load accounted for only 41.5 percent of the total, whereas those who hauled over 200 packages per load accounted for 18.3 percent of the total.

Table 12.--Range in size of 998 grower loads of fruits and vegetables brought to selected shipping point markets, 1949 and 1950

Range in size of loads (Number of packages)	: Grower loads		: Packages in		: Percentage
	: in sample		: this range		: of total
	: <u>Number</u>	: <u>Percent</u>	: <u>Number</u>	: <u>Percent</u>	: <u>packages</u>
1 - 5	: 249	25.0	699		2.3
6 - 10	: 179	17.9	1,417		4.7
11 - 25	: 286	28.7	4,992		16.7
26 - 50	: 148	14.8	5,323		17.8
51 - 100	: 73	7.3	5,347		17.8
101 - 150	: 26	2.6	3,277		10.9
151 - 200	: 19	1.9	3,457		11.5
Over 200	: 18	1.8	5,483		18.3
Total	: 998	100.0	29,995		100.0

Source: Market records.

Information obtained from three markets with respect to the total number of growers using the market during the season indicates that a shipping point market may serve as an outlet for a relatively large number of individual growers, but most of them may not sell a large quantity during the entire season nor patronize the market very many days during the season. As shown in table 13, at market A, which was patronized

primarily by small-scale growers, 87.2 percent of the growers using this market sold less than 6 farm loads each during the entire season of 1950 and none of the growers using this market sold more than 20 loads during the season. Market B, on which a relatively large percentage of the total receipts came from medium- and large-scale growers, and market C, on which most receipts came from large-scale growers, were both patronized by a relatively large number of growers who sold less than 6 loads each during the entire season.

Table 13.--Number of growers selling specified numbers of loads on 3 selected shipping point fruit and vegetable markets, 1950

Number of loads of fruits and vegetables sold on market	Market A		Market B		Market C	
	Total	Percentage	Total	Percentage	Total	Percentage
	growers selling on market	of growers in each range	growers selling on market	of growers in each range	growers selling on market	of growers in each range
	Number	Percent	Number	Percent	Number	Percent
1 - 5	: 615	87.2	: 439	62.5	: 80	63.0
6 - 10	: 78	11.1	: 86	12.3	: 21	16.5
11 - 15	: 11	1.6	: 57	8.1	: 4	3.2
16 - 20	: 1	0.1	: 36	5.1	: 7	5.5
21 - 25	: -	-	: 26	3.7	: 6	4.7
26 - 50	: -	-	: 51	7.3	: 4	3.2
Over 50	: -	-	: 7	1.0	: 5	3.9
Total	: 705	100.0	: 702	100.0	: 127	100.0

Source: Market records.

An analysis of data collected at markets of different sizes indicates that the majority of shipping point markets depend upon medium- and large-scale growers to maintain a sufficiently large daily volume of business to attract a reasonable number of buyers and that, regardless of the size of the market, small-scale growers account for the majority of sellers using the market.

Since small growers normally face greater difficulties in finding outlets for their products than do the larger growers, it is apparent that the shipping point market performs a greater service for the small grower than for other growers even though other growers account for a greater percentage of the total quantity sold.



### Percentage of Growers in the Market Area Using Market

In a previous section, it was shown that markets have continued to operate where the number of growers selling on the market daily averaged less than 100. However, to attempt the establishment of a shipping point market in an area where census data show a total of only 100 growers who produce fruits and vegetables for sale would be unwise. This conclusion is based on a comparison of the number of farmers who produce fruits and vegetables for sale as reported in the United States Census of Agriculture for 1945 with the number of farmers who actually sold on shipping point markets in their respective areas in 1944. <sup>4/</sup> In table 14, this relationship is shown for 74 markets in 17 States. For the 74 areas, the United States Census of Agriculture reported a total of 64,400 farmers producing vegetables for sale and 40,233 farmers producing fruits and nuts for sale in 1944. Information obtained from the 74 shipping point markets serving these areas showed that 17,653 growers sold all or a part of their production on the markets in 1944. This number represents about 20 percent of the vegetable growers and about 45 percent of the fruit growers in the areas.

Shipping point markets serve a larger percentage of the growers in some areas than in others. For example, in 1944, 10 Georgia shipping point markets were patronized by a total of 3,573 growers. Nearly all of these growers sold vegetables. Only a few of them sold any fruits. The 1945 Census of Agriculture reported 5,143 growers in these areas who produced vegetables for sale. These figures indicate that somewhat more than one-half of the vegetable farmers in these areas were using the shipping point markets. However, it is estimated that in Maryland only about 25 percent of the farmers in the areas served by shipping point markets were selling on these markets. Observations and interviews with growers, State marketing officials, and others confirm the analyses which indicate that under optimum conditions not more than 50 percent of the fruit and vegetable growers within a shipping point market area will use the market.

### Number and Type of Buyers Patronizing the Market

The consensus of buyers, growers, and marketing officials interviewed was that a relatively large number of buyers is essential for the successful operation of a shipping point fruit and vegetable market. Moreover, they were of the opinion that the volume of products offered for sale determined the number of buyers who patronized a market. The consensus of buyers was that the number of buyers who would patronize a shipping point market over a relatively long period or from season to season was dependent upon the volume of products offered for sale, and

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<sup>4/</sup> See footnote 3 for definition of "local area."

that if the volume declined there would be a decline, in almost direct ratio, in the number of buyers. Conversely, if the volume increased, there would be a tendency for new and additional buyers to patronize the market.

Table 14.—Number of farmers producing fruits, vegetables, and nuts for sale in areas served by 74 shipping point markets in 17 States and the number who sold all or part of their production on these markets, 1944

States in which shipping point markets were located	Farms in areas served by markets reporting--1/			Farmers selling produce at shipping point markets 2/
	Markets in sample	Vegetables sold	Fruits and nuts sold	
	Number	Number	Number	Number
Alabama	1	1,418	442	50
Arkansas	1	83	716	100
Delaware	1	2,641	244	275
Florida	15	7,993	10,811	3,295
Connecticut	2	1,241	1,106	100
Georgia	10	5,143	3,488	3,573
Illinois	2	735	288	310
Maryland	4	3,022	586	760
Michigan	1	3,330	5,111	1,200
New Jersey	9	6,179	2,003	1,630
New York	5	5,443	4,739	745
North Carolina	6	8,867	4,440	3,050
Ohio	1	1,383	1,667	100
South Carolina	5	8,164	2,019	790
Tennessee	3	1,803	449	675
Texas	2	5,293	1,654	150
Virginia	6	1,662	470	850
<b>Total</b>	<b>74</b>	<b>64,400</b>	<b>40,233</b>	<b>17,653</b>

1/ Data shown for these two columns were taken from the U. S. Census of Agriculture for 1945 by combining totals for all civil districts that were within about a 25-mile radius of the shipping point markets in each State.

2/ From market records.

Twenty-eight of the markets studied maintained records as to the number of packages sold daily and the number of buyers who purchased each day the market operated. The relationship between the average daily volume sold and the average number of buyers who purchased on

these markets during the 1950 season is shown in figure 7. Although there appears to be a direct correlation between the volumes sold daily and the number of buyers making purchases, some markets are attracting a larger number of buyers for a given daily volume than are others. The variations on 4 markets are shown in table 15. For example, on markets A and B, average daily volumes of 5,000 to 10,000 packages attracted 13 and 15 buyers, respectively, but on markets C and D the same daily volumes attracted 38 and 28 buyers, respectively. There are a number of reasons for the variations in the number of buyers patronizing individual markets in relation to the volume of products sold. Generally, buyers on markets in production areas several hundred miles from major consuming areas purchase for long distance shipment in lots of not less than one large truckload daily. However, markets within a short distance of a large city attract a relatively large number of the retailers and jobbers who usually buy to meet the daily needs of their individual stores or jobbing firms or normally not more than a small truckload. Another factor affecting the volume purchased daily is the type and variety of commodities sold. Buyers on markets specializing in products with comparatively low prices, such as potatoes, sweetpotatoes, and watermelons, normally purchase larger volumes (tonnages) than buyers purchase on markets specializing in higher priced products such as strawberries or peaches. Variations in daily buyer-volume relationships can also be attributed to the seasonal availability of fruit and vegetable items and to the amount of effective demand each individual buyer on a market represents.

Table 15.--Number of buyers purchasing daily in relation to the volumes sold daily on 4 selected shipping point fruit and vegetable markets, 1950

Number of packages of fruits and vegetables sold daily	Buyers purchasing daily on--			
	Market A:	Market B:	Market C:	Market D
	Number	Number	Number	Number
1 - 500	-	2	-	4
501 - 1,000	-	-	16	6
1,001 - 2,000	-	-	-	7
2,001 - 3,000	-	11	21	9
3,001 - 4,000	-	9	-	15
4,001 - 5,000	7	11	-	16
5,001 - 10,000	13	15	38	28
10,001 - 15,000	21	23	43	-
15,001 - 20,000	22	21	49	33
20,001 - 25,000	29	-	-	40
25,001 - 30,000	30	-	-	-
30,001 - 35,000	33	-	-	-
Over 35,000	103	-	-	-

Source: Market records.

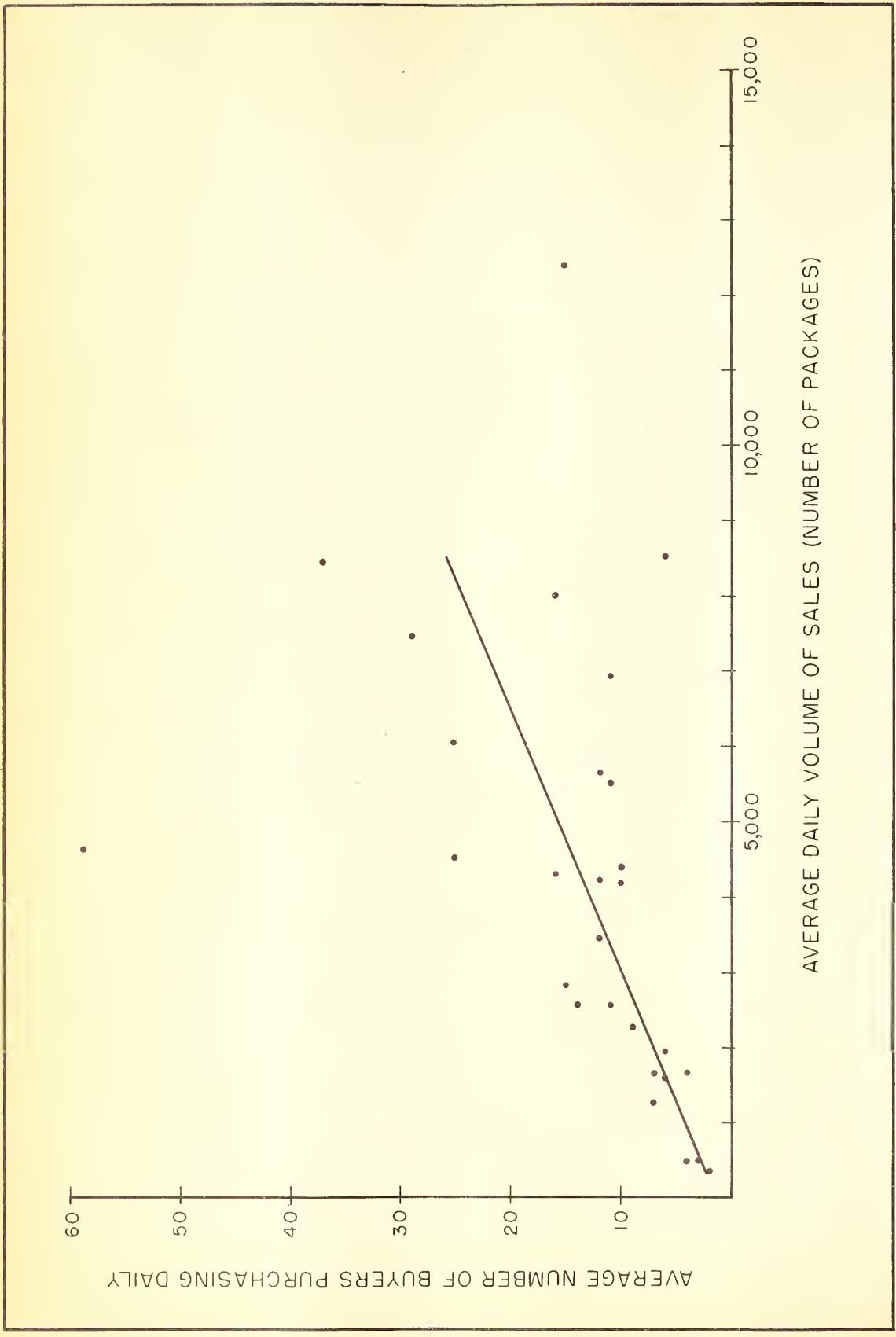


Figure 7.--Relation of average number of buyers purchasing daily to average daily volume of fruits and vegetables sold on 28 shipping point markets, 1950.

On most markets buyers are thought of either as season buyers or day buyers. The season buyer is usually a buying broker, shipper, or a representative of a chain store firm or of a city wholesale distributor. The day buyer may be a roadside market operator, a retailer from a near-by town, or merchant trucker. In some cases season buyers on one market are day buyers on other markets. All active shipping point fruit and vegetable markets on which data were obtained were patronized by at least one season buyer. Without the patronage of at least one season buyer, a market has little chance of becoming a successful venture since day buyers, as a rule, will not be attracted to markets that cannot attract at least one season buyer. Moreover, the percentage of a market's total sales purchased by day buyers varies widely from one market to another. In general their purchases tend to increase as the peak of the marketing season approaches.

Number and Kind of Fruit and Vegetable Items  
Sold on Shipping Point Markets

Although more than one fruit and vegetable item was sold on a majority of the markets considered to be most successful, on a number of successful markets only one item or product was sold. Less than five fruit and vegetable items made up over 90 percent of the total volume handled on each of the markets considered to be the most successful.

There were 33 markets that ceased operating prior to 1948 for which information on the number and types of commodities handled was obtained. On these markets a smaller number of different items was sold than on the markets still operating in 1948. However, the reason for these markets discontinuing operations was the small total volume of business done on them rather than the small number of different items sold. In an area where the total production for market of one or two fruit and vegetable items is too small to warrant a market, the addition of other items to those already being handled might, of course, increase the total volume handled to the point that the market might become successful.

Of the 126 markets surveyed, 113 maintained records and supplied data on the number of items sold on each of them in 1948 or the last year the market was operated. The number of items handled on each market is shown in table 16.

On slightly more than one-half of these markets 5 or fewer items were sold. Of the 54 markets where more than 5 items each were sold, 5 items made up over 75 percent of the total volume sold on 40 markets. In other words, nearly all the shipping point markets depend upon 5 or fewer items for the bulk of their business. This fact does not necessarily indicate that a wide variety of products or the handling of a large number of commodities will adversely affect a market's operations. Most of the areas served by shipping point markets specialize in the

production of a rather small number of different types of fruits and vegetables, and, as previously pointed out, a shipping point market handles for the most part only those commodities grown in its local area.

Table 16.--Number of different fruit and vegetable items sold on 113 shipping point markets in 1948 or the last year the market operated

Fruit and vegetable items sold on market (Number)	Markets on which sold	Percentage of all markets in sample
	<u>Number</u>	<u>Percent</u>
1	24	21.3
2	5	4.4
3	13	11.5
4	6	5.3
5	11	9.7
6 - 10	27	23.9
11 - 20	21	18.6
Over 20	6	5.3
Total	113	100.0

Source: Market records.

Buyers interviewed pointed out that they preferred to obtain a relatively large number of different items at one market but that they found it impossible to do so, an opinion substantiated by the data presented in table 16. For this reason, individual buyers on shipping point markets usually purchase only a relatively few items even though the firms they represent may handle a wide variety of fruits and vegetables.

#### Methods of Selling

The auction method of selling is most widely used on shipping point fruit and vegetable markets and has several advantages over the private sale method. First, only a comparatively small capital investment is needed for land and facilities for auction markets. A 1940 study revealed that the investments in facilities on each of 64 shipping point auctions then operating ranged from \$5 to \$24,900 per market and was less than \$500 per market for 75 percent of those in the sample. <sup>5/</sup> Second, auction sales, which are public in character, permit growers and

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<sup>5/</sup> See footnote 2, p. 5.

buyers to obtain full knowledge of market prices, a feature which tends to stabilize prices. Third, open competitive bidding allows the price-making forces of supply and demand to come into full play. Each buyer has an opportunity to bid on the grades and qualities which he demands. Both top and inferior grades are given the same consideration with respect to selling time. The differentials in prices have been a strong force in improving packs, both as to quality and honest representation. Fourth, auction selling requires only one salesman. The auctioneer, serving as salesman for the grower, reaches more buyers than the grower could reach in serving as his own salesman. Fifth, the cost of selling by auction is low. Selling costs usually charged to sellers vary from 2 cents to 10 cents per package. When related to value of produce sold, this charge ranges from 1 to 10 percent and averages about 3 percent.

Auction selling, despite its attractive features, has certain disadvantages. One of the most important of these is the limit on the number of lots that can be sold through an auction during a given period. Auction market records show that these markets average 103 sales per hour of actual selling time with a range of from 27 to 196 sales per hour. Analyses of market records show that the average number of sales per grower load is 1.7. Therefore, on the basis of these data, an average of 61 and a maximum of 115 grower loads can be sold per hour by the auction method. On a number of shipping point markets the number of grower loads to be sold greatly exceeds this limit. To illustrate how this limitation would affect larger markets, during the 1948 season 1,000 or more grower loads were sold daily on the Benton Harbor, Mich., fruit market on 34 percent of the days the market operated. With the maximum rate of 196 sales per hour, more than 8½ hours of selling time would have been required each day during the days of peak receipts to sell the produce offered by the auction method. Fifteen hours of selling time per day would have been required to sell 1,700 grower loads. It is unlikely that the auction sale method could be used successfully on markets with comparable daily receipts. Eight hundred grower loads per day appear to be the ceiling for markets using the auction sales method. This volume of receipts would result in a daily sale period of 5 to 6 hours.

On shipping point markets having a relatively large volume of business between merchant and itinerant truckers, who are both buyers and sellers, such as the Sanford, Fla., State Farmers' Market, the auction sale method would not advantageously serve the patrons of the market since both buyers and sellers prefer to negotiate private sales. 6/ On markets serving exceptionally large produce growers who

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6/ Although a number of markets, such as the Sanford market, are usually referred to as "exchange" markets, purchases and sales by truckers are actually made through intermediaries--dealers on the market.

offer for sale large volumes of uniform quality vegetables, such as the Pompano, Fla., State Farmers' Market, private sales, consummated through selling brokers, are the result of careful negotiations involving personal contacts not characteristic of auction selling.

### Adequacy of Land and Facilities

Some of the markets covered in the survey have sites consisting of a very small tract of land upon which had been built an auction block or other type of sales shed. Streets and highways are used by growers waiting in line to sell and by buyers for parking their empty trucks. At some other markets buyers own and operate packing sheds in the vicinity of the market, buying part of their supplies on the market and the remainder from other sources. Markets of these types have been excluded in analyses of the relation of facilities used to volumes handled since data could not be obtained in all instances on "off-the-market" facilities and since the inclusion of these markets without adequate data on all facilities used would have led to erroneous conclusions. Therefore, only those markets having space for sellers and buyers to park their trucks on market property while waiting to buy and sell and transfer loads are included in the following analysis of the relation of volumes handled to size of market sites. The 39 markets included in this analysis have sites ranging in size from 1 to 22 acres with an average size of about 7 acres. Table 17 shows the relationship, on these 39 markets, between the volume handled and the size of the market site. However, the volumes handled on individual markets range from 12 to 816 equivalent carloads per acre in the market site. This range indicates that some markets utilize space more efficiently than others and that some markets had more space than was needed to handle efficiently the 1948 volume of business. However, it should be pointed out that most markets handling a large volume per acre were operating under crowded conditions, and the cost of operating under these conditions was probably greater than would have been necessary through maintaining a larger market site.

The consensus of market managers was that sufficient land should be purchased at the time the market is built to permit expansion if the market should increase its volume of business. On most of the markets where the annual volume handled exceeded 300 equivalent carloads per acre of land in market sites, the market managers were of the opinion that additional land was needed for efficient operations.

In Florida and Georgia, where systems of State-owned and -operated markets have been developed, and in New Jersey, where State marketing officials have been instrumental in the development of a group of cooperatively owned and operated markets, State marketing officials feel that it is inadvisable to establish a new shipping point fruit and vegetable market on a site of less than 20 acres.



Table 17.—Size of market site in relation to the annual volume of fruits and vegetables sold on 39 shipping point markets, 1948

Size of market site (Acres)	Markets Number	Volume of fruits and vegetables sold in 1948	
		Total Carload equivalents	Average per market Carload equivalents
5 or less	19	15,366	809
5.1 - 10.0	11	10,759	978
10.1 - 15.0	5	10,516	2,103
15.1 - 20.0	2	2,261	1,130
Over 20.0	2	7,420	3,710
Total	39	46,322	xx

Source: Market records.

Marketing facilities on shipping point fruit and vegetable markets are, on the basis of the use made of them, of three general types: (1) Blocks for selling produce at auction; (2) sheds for grading, sizing, packing, and shipping produce; and (3) sheds and/or platforms for selling with the private sale method and for temporarily holding or transferring loads from the vehicles of the sellers to those of the buyers. Offices for buyers and market management are a fourth type of facility. Moreover, nearly all markets had a number of miscellaneous facilities such as lunch counters, restaurants, toilet facilities, and communications centers. Although the location and arrangement of these facilities varied between markets, on most markets the restaurant, communications center, and toilet facilities were located in the building in which offices were provided. At a number of the auction markets, a lunch counter and telephone booth were provided in the auction block shed even though there also was a restaurant and communications center in the office building.

On some markets, auction blocks consisted of nothing more than a small covered platform about 10 feet wide and 20 feet long. Other markets had elaborate types of structures with seats for buyers arranged in amphitheater fashion, platforms for the auctioneer and clerks, and conveyors and bins for handling and displaying samples of the products offered for sale.

Sheds for grading and packing fruits and vegetables on shipping point markets also varied greatly in size and design. Platform heights varied from 24 to 48 inches. Their widths varied from 28 to 90 feet. The length of these facilities showed even greater variation, the shortest observed being only 63 feet and the longest slightly over 500

feet. On all markets having grading and packing sheds over 250 feet in length, such sheds were used by more than one buyer. The arrangement of the grading, sorting, and packing equipment upon the platforms under the sheds varied with the width of the platforms. If the platform was 50 feet or less in width, the equipment was usually installed lengthwise of the shed. If the platform width was greater than 50 feet, the equipment was usually installed crosswise. Dealers using these sheds did not see any advantage of one arrangement of equipment over another but all dealers interviewed felt that a platform of less than 50 feet in width was too narrow. On a number of markets where the platforms under the original sheds were less than 50 feet in width, extensions had been added to provide greater width.

Facilities for transferring loads from sellers' trucks to buyers' trucks varied from nothing more than an open space, where loads could be transferred across the tailgates of the trucks, to covered sheds with platforms underneath. These sheds varied in width from 14 to 96 feet. On some markets these sheds were used for private sales and the platform for loading. On other markets such sheds were used only for transferring loads from one truck to another or as a storage platform where buyers could temporarily hold produce purchased if their trucks were not ready to be loaded at the time of the sale. On most markets, the platforms were divided into stalls of from 10 to 12 feet in width, and each buyer was assigned one or more stalls depending on the number of trucks to be loaded simultaneously and other factors.

Interviews with dealers and buyers who were using loading sheds for the transfer of loads from one truck to another revealed that their operations varied so widely that it would be impossible to design an ideal shed for all their operations. Some buyers handle only one or two items and truckloads of one item to be shipped to only one destination. Other buyers handle several items and ship them in the same truck to several destinations. The buyer who loads his truck with only one item for a single destination finds that it is more economical for him to transfer the loads purchased directly across the tailgates of sellers' trucks to his own truck than to have sellers unload on a platform. The buyer who assembles several items for shipment to several destinations needs a platform large enough to sort and store the produce so that the various items in proper quantities can be loaded into his truck in reverse order to that in which they will be unloaded.

Buyers who assemble several items on one load usually find that a 10- or 12-foot stall which has less than a 20-foot depth is too small to provide the amount of space needed for the assembling, sorting, and loading. Buyers who load a truck with only one item find that stalls with a depth in excess of 30 feet adds to handling costs because of the distance the produce must be moved from one truck to another. Gravity conveyors were the most popular type of handling equipment used at shipping point markets for unloading, loading, and transferring loads.

Since the incline of the conveyor and the consequent gravity move the product, there is, of course, a limit to the distance over which such equipment will operate effectively. For this reason, most dealers and buyers felt that a loading platform should not exceed 30 feet in width.

The proper depth for the platform of a loading shed is further complicated by the fact that on some markets these sheds are used for grading and packing operations during part of the season and for loading operations during the remainder of the season.

The amount of platform space under all types of sheds used in relation to the volumes handled on 39 markets is shown in table 18.

Table 18.--Volumes of fruits and vegetables sold on 39 shipping point markets in relation to amount of floor space used for grading, packing, loading, and unloading operations, 1948

Volume of fruits and vegetables sold (Carload equivalents)	Markets with grading and packaging facilities			Markets without grading and packaging facilities		
	Markets in group	Average amount of platform space	Per carload equivalent	Markets in group	Average amount of platform space	Per carload equivalent
	No.	Sq. ft.	Sq. ft.	No.	Sq. ft.	Sq. ft.
100 or less	-	-	-	-	-	-
101 - 500	6	31,475	104	4	6,650	35
501 - 1,000	7	22,321	30	7	4,266	6
1,001 - 1,500	3	23,592	20	3	5,853	4
1,501 - 2,000	4	41,475	25	1	3,000	2
Over 2,000	1	49,200	17	3	46,468	9
Total or average	21	30,046	32	18	12,024	8

Source: Market records.

Markets at which buyers had installed grading and packing equipment require about four times as much floor space for each equivalent carload handled as those at which the sheds were used only as a sales shed and loading platform. In general, those markets handling a large volume economically were using a much smaller amount of floor space for each equivalent carload sold than were the markets handling a smaller annual volume. However, many of the small markets were overbuilt, whereas many of the larger markets did not have enough shed space to meet the needs

of buyers, and crates and produce often had to be stored on the ground because no space was available on the shed floors.

Height of platforms, design of the shed roof, and height of the eaves of the shed roof are three features of design for both packing sheds and loading sheds in which growers, dealers, and buyers have the greatest interest. Buyers and dealers favor platform heights of 44 to 48 inches for the loading of trucks and 55 inches for loading refrigerator cars because platforms of these heights are about level with the floors of most cars and trucks. None of the markets surveyed had sheds with platforms in excess of 48 inches in height, but a number of markets had sheds with platforms of less than 40 inches in height and on these markets dealers and buyers were dissatisfied with loading costs. Growers were less critical than buyers and dealers with respect to platform heights, but most growers favored platforms 30 to 40 inches high, the height of most farm truck beds. On a few markets where the growers' trucks are unloaded on one side of the platform and buyers' trucks are loaded on the other side, platforms are of different heights to meet the preferences of each group.

On several of the markets surveyed considerable difficulty has been experienced because the roofs of the loading platforms were too low with the result that the roofs were frequently damaged by trucks backing up to the platforms to load. It was found that the distance from the eaves of the shed roof to the ground level should be not less than 14 feet to clear completely the tallest truck body in use today.

Overhanging shed roofs used on a few markets met the universal approval of all users. An overhang on each side of the platform of approximately 8 feet, to protect the growers and buyers while loading or unloading their trucks, was felt to be desirable.

The number and size of offices and other facilities, such as lunch counters, restaurants, toilets, and communication facilities, varied greatly from one market to another. All except a few of the smaller markets had an office or offices for the market officials, and most of them provided office space for some of the buyers. Season buyers usually need a small office with a desk and telephone, but day buyers do not need this type of facility. Most markets were equipped with one or more public pay-station telephones, and the larger markets had public address systems.

#### Market Location

Locations of the shipping point markets surveyed were analyzed with reference to: (1) Convenience for the growers using the market, (2) convenience for buyers, (3) accessibility to rail and truck transportation, and (4) competition from other shipping point markets and other market outlets in the production area.

Although growers who patronize shipping point markets favor this type of market outlet, there is a limit to the distance growers will travel in visiting such facilities. The distance they will travel in hauling fruits and vegetables to a shipping point market is indicated by an analysis of a sample of 904 grower loads randomly selected on a group of representative markets, as shown in table 19. Over 80 percent of these loads and 70 percent of the volume sold originated within a 15-mile radius of the market. Although growers are reluctant to patronize a market more than 25 miles from their farms, it was found that a few growers traveled greater distances to these markets. However, loads hauled 25 or more miles from farm to market were found, on an average, to be nearly three times as large as those hauled 5 miles or less. In some areas, the growers located considerable distances from a market pool their loads and send them to market on one truck. In such instances the trucker usually performs both trucking and selling functions.

Table 19.--Distances 904 randomly selected farm loads of fruits and vegetables were hauled to shipping point markets, 1949 and 1950 <sup>1/</sup>

Distance from farms to markets (Miles)	: Percentage of Farm loads:		: Percentage of Total packages:		: Average size of farm load packages
	: Number	: Percent	: Number	: Percent	
0 - 5.0	: 328	36.2	7,486	26.3	22.8
5.1 - 10.0	: 285	31.5	7,801	27.4	27.4
10.1 - 15.0	: 128	14.2	4,592	16.2	35.9
15.1 - 20.0	: 55	6.1	2,535	8.9	46.1
20.1 - 25.0	: 44	4.9	1,808	6.4	41.1
Over 25.0	: 64	7.1	4,221	14.8	66.0
Total	: 904	100.0	28,443	100.0	xx

<sup>1/</sup> A "farm load" as used herein may consist of the production of several growers.

Source: Market records.

Buyers had no particular preference regarding the location of a market provided it was convenient for obtaining board and lodging and was accessible to railroad lines and important State or Federal highways. Buyers interviewed prefer that a market be located on a site 2 to 3 miles outside the city limits on one of the main highways and adjacent to rail facilities than to be located in a downtown area. Buyers

normally own an automobile, and a drive of 4 to 5 miles from their hotel or place of lodging is not considered by them as an inconvenience. After a buyer arrives at the market, he is reluctant to leave before the end of the business day. He therefore wants a restaurant on the market site where he may obtain lunch and a place where he may receive incoming telephone calls.

Accessibility of shipping point markets to highways and railroad lines is an important locational factor. Of the 85 shipping point markets whose 1948 operations were studied, 55 or nearly 65 percent made no shipments by rail (table 20). For this reason a number of buyers and market managers felt that the accessibility of a market of this type to railroad lines was not important. However, in 1948, 8,012 carloads of fruits and vegetables, or about 13 percent of the total shipments made from the 85 shipping point markets, were moved by rail. On those markets where a part of the products are shipped by rail, both buyers and market managers felt very strongly that direct rail facilities to the market site are needed. In those places where rail shipments were made from sidings at a considerable distance from the market site, buyers' operating costs were increased considerably above those at which rail facilities were readily accessible.

Table 20.—Volume of fruits and vegetables shipped by rail and by motortruck from 85 shipping point markets, 1948

Percentage of total volume of fruit and vegetable receipts shipped by rail (Percent)	: Markets : in : sample	: Percentage of : all markets : in sample	Volume shipped--	
			: By rail	: By
			: <u>Carload</u>	: <u>Carload</u>
			: <u>equivalents</u>	: <u>equivalents</u>
None	: 55	: 64.7	: 0	26,123
1 - 10	: 16	: 18.8	: 1,012	13,728
11 - 25	: 9	: 10.6	: 1,722	7,633
26 - 50	: 4	: 4.7	: 4,681	5,566
51 - 75	: 1	: 1.2	: 597	199
Total	: 85	: 100.0	: 8,012	53,249

Long distance truckers normally follow State and Federal highway markers in going from one city to another. Markets located on the outskirts of the city or town, therefore, are much easier to locate than markets in the downtown or congested area. Moreover, on the outskirts of a town or city land values are usually lower than in downtown areas, and space is normally available for expansion. As shown in a previous

section, shipping point markets normally require a relatively large amount of space for efficient operations. Markets near the center of town or city, where land values are higher than those outside of the city limits, usually result in the management attempting to economize on space at the expense of those who use the facility. Such locations are particularly undesirable to operators of large trailer trucks who must drive through narrow streets and congested traffic.

A locational factor associated with the distance growers normally haul produce to market is the distance between shipping point markets. Competition among buyers is desirable, but competition between two or more markets scatters supplies and tends to separate the buyers into two or more groups, thereby scattering demand and lessening the competition among buyers. For this reason, the fewer the markets serving a production area the greater the competition among buyers that may be expected on the markets that are in operation. Market managers, buyers, and growers at each of 126 shipping point markets were asked to what extent nearby markets were competitive with the market they were patronizing. An analysis of their replies indicates that to be relatively certain one market will not be competitive with another, markets should be at least 75 miles apart, but that competition between markets does not become significant unless the distance between two markets is about 25 miles or less.

#### Market Ownership and Management

Shipping point fruit and vegetable markets are operated under the following types of ownership: (1) Private, (2) nonprofit private corporations, (3) public (including State and municipal), and (4) farmers' cooperatives. There appeared to be little, if any, attempt on any of the 126 markets surveyed to operate the market facilities for profit. This was true even for those facilities owned and operated by private individuals and corporations. Most individuals, groups, and agencies who operate shipping point markets appear to do so for the purpose of providing buyers and sellers with facilities for trading at a nominal cost rather than for direct profits. For individuals or corporations who operate markets the potential profits from trading operations on the facility are so much greater than those from the operation of the facility that they usually feel the good will obtained from operating the facility at cost is worth more than the profits that may be reaped from the facilities. Inasmuch as the operation of a shipping point market facility offers little potential as a financial investment, the question of ownership usually resolves itself into what group or agency would be willing to accept the responsibility rather than which group or agency should operate it.

Observation and information obtained from the various groups such as buyers, sellers, and operators of shipping point markets indicate that market ownership is relatively unimportant provided management

gives consideration to the interests of all groups concerned, does not put into effect rules and regulations that may jeopardize free trading between buyers and sellers, and does not discriminate against produce because of its State of origin or method of transportation.

Management can have a very pronounced effect on the success or failure of a market. The consensus of growers and buyers interviewed at each of the markets studied was that good management should encompass the following characteristics:

1. A market manager with the ability to arbitrate disputes between buyers and sellers fairly and impartially, and an understanding of the basic principles of marketing and the ability to encourage buyers and sellers to use the facility.
2. The development and enforcement of a traffic control plan to keep market traffic moving smoothly with a minimum of congestion and delays.
3. The development of a good reputation on the part of the market as a whole for high standards of trading and for quality produce.

Some of the managerial decisions that may cause a market to lose business or fail are:

1. Failure of the manager to arbitrate buyer and seller disputes when necessary or showing partiality in settling them.
2. The promulgation and enforcement of rules and regulations that retard or prohibit free trading between buyers and sellers or restrictions that may give one type of buyer advantages over other types.
3. Failure on the part of the manager to encourage buyers to visit the market, particularly during periods of surplus production.

#### Market Fees and Other Charges

The fees charged growers and the rentals charged buyers for the use of the market facilities varied widely from one market to another but there appeared to be little, if any, relationship between the size of the fees or the amount of the rental rates and the success of the market. In general, the fees charged growers varied with the size of the market and the amount of services provided. Grower fees were somewhat lower at the larger markets than at the smaller markets with comparable facilities and services. However, the number of markets which provided comparable services and charged grower fees based on actual costs of operation rather than on subsidies were too few to reach significant



conclusions regarding this factor. On some markets the only service performed was that of providing the grower a place to sell. On other markets the services of an auctioneer were provided, and the market collected the sales price from the buyer and paid the grower. On a few markets the cost of operating the facilities was paid from public funds, and no charges were made to the growers. On those markets where services to the growers consisted primarily of providing an auctioneer and/or a place to sell on a private sale basis, fees charged growers ranged from 1 to 5 cents per package. On those markets where the manager paid the growers and collected from the buyer, fees were somewhat higher but, as a rule, did not exceed an average of 10 cents per package.

On most markets the buyers pay no charges except rentals for the amount of space they use under packing sheds or on loading platforms.

Relative Importance and Interrelationship of the  
Factors Related to the Continued Operation  
of Shipping Point Markets

The volume of fruits and vegetables sold daily, as previously pointed out, is the most important factor in the success of a shipping point market. Although there are a number of other factors that affect the success or failure of a market, such as quantity of fruits and vegetables produced in the area served by the market, number and type of growers selling on the market, and number of buyers patronizing the market, all are closely related to the volume sold.

For this reason it was frequently impossible to determine whether the volume sold on the market or some other factor was responsible for its success. For those markets on which a relatively large daily volume was handled and which had been operating for a number of years, there were numerous instances in which a crop failure or a year or so of poor management had been reported with no apparent lasting effects upon the success of the market. In other words, there appears to be little likelihood of a shipping point market failing after it has established a reputation for handling a relatively large quantity of produce. Factors such as poor management, improper facilities, or poor location can have a detrimental effect upon a market's success, but these factors are more likely to result in the failure of a small market than a large one.

FACTORS RELATING TO THE CLOSING OF  
SHIPPING POINT MARKETS

At a number of places where markets have been built but which have discontinued operations, no information could be obtained as to why these markets had failed. At others the buyers and growers who used these facilities had very definite ideas as to why these markets had failed. In a few places it was possible to contact the former manager or someone else who had been connected with the construction and management of the defunct facility. A total of 52 reasons was given for the failure of 30 defunct markets covered in this analysis; therefore, the failure of some markets was attributable to more than one factor. The reasons reported are:

<u>Reasons for failure of the market</u>	<u>Markets reporting Number</u>
Competition from other markets or market outlets	16
Too small a volume of produce offered for sale	13
Lack of production in market area	10
Poor management	8
Day buyers requested to pay brokerage fee to season buyers	3
Poor facilities	1
Poor location	1

"Competition from other markets or market outlets" and "too small a volume of produce offered for sale" appear to be synonymous and, in part, account for the failure of 29 of the 30 markets. Where competition with other markets was reported as a reason for the failure of a new market, the new market usually had been established because a nearby town had proved that a shipping point market could be successfully operated in the area. Farmers normally spend a portion of their returns from the sale of their fruits and vegetables in the town where the market is located. For this reason, merchants in nearby towns obviously want markets developed in their town. In a number of instances merchants provided funds for the construction of many of these defunct facilities.

It is difficult to determine whether a facility that closed was the result of insufficient production in the area or its failure to attract a sufficient proportion of the existing production. However, in interviewing buyers and sellers an attempt was made to distinguish between these two reasons for failure where they were involved. Since there were 13 markets for which the quantity sold was reported as a reason for failure and 10 at which production in the area was too small to justify a market, a total of 23 out of the 30 defunct markets can attribute their failure in part to the small quantity offered for sale.

Poor management was one reason for the failure of 8 of the 30 defunct markets. In addition, the requirement that day buyers pay a brokerage fee to season buyers was reported as a reason for the failure of 3 markets. Since this reason may be classified as a defect in management, the failure of 11 markets may be attributed to poor management.

Poor facilities was reported as a reason for failure at one market and poor location at another.

## CRITERIA FOR ESTABLISHING NEW SHIPPING POINT FRUIT AND VEGETABLE MARKETS

Although the purpose of this chapter is to develop criteria for establishing new shipping point fruit and vegetable markets, these criteria should also be of value in improving the operations of a number of existing markets. As previously pointed out, numerous factors affect the success of or contribute to the continued operation of shipping point markets, and all these factors should be considered by groups who finance the construction of or otherwise promote the establishment of new markets. That is, the prospective volume of produce may be sufficient to attract buyers, but if the new facility is improperly located or the fees that will have to be charged are too high, the new market venture may be a failure. Obviously, there are exceptions to general criteria, and some of these exceptions are pointed out in connection with the discussion of criteria for specific factors in the sections that follow.

### Minimum Daily Volume of Business Required

In an area that has never had a shipping point market, it cannot be assumed that the entire volume of production in the area would be sold on a new market if established. Estimates of the volume that might be handled on a new market can be made on the following basis: (1) Data from a survey of farmers within the area normally served by a market of this type to determine the quantity they would offer for sale in a new market, (2) data on rail and truck shipments, and (3) production data such as that in the U. S. Census of Agriculture. Analyses should be made of the prospective average daily volume of sales and, from these estimates, of the total volume that might be sold during the entire marketing season.

Analyses of data on markets that have continued to operate season after season show a range in average daily sales of from 1.8 to 23.4 equivalent carloads of fruits and/or vegetables. Based upon the experiences of markets now in operation, an average of 1.8 equivalent carloads per day for the season should be considered the minimum volume of fruits and/or vegetables required for establishing a new market, and this volume should be considered as applying only to markets on which one or more items with a relatively high value, such as strawberries, will be sold. However, 55 percent of the markets in the group averaging 1.8 equivalent carloads per day handled lower value products and had relatively weak competition between buyers. Therefore, on markets where several items of fruits and vegetables will be sold, the average value of which approximates the average value of all fruit and vegetable items, the minimum average daily volume should be roughly double the daily volume on markets with high value products, or about 3.6 equivalent carloads.

Number and Types of Fruits and Vegetables  
to be Sold on the Market

Although the aim of the management of a shipping point market should be ultimately to obtain a large percentage of each of the fruits and vegetables grown in the area as receipts on the market, during the period when a new market is becoming established the more desirable approach appears to be for management to concentrate on obtaining a large percentage of the production of one or two of the major items rather than to attempt to obtain a part of all fruits and vegetables grown in the area. The reasons for using this approach are: (1) Growers, as a group, are reluctant to try new marketing methods, but are more willing to risk a new method for one item or product than for all items produced, (2) generally each type of fruit and vegetable grown in a given production area is harvested during a different period, and since the success of the new market will be more dependent upon the daily volume than upon the seasonal volume, one or two items or types of products will be more likely to provide the market with a relatively large daily volume of produce over a short period than would a small percentage of a large number of items. Moreover, if a market can establish a reputation for handling a certain product, this product should continue to move through this channel in succeeding years with little promotional effort.

After a market has become established for certain fruit and vegetable items, the management might well concentrate on the addition of one new item produced in the area each year until the market reaches its peak of effective service. This procedure should permit the market to make a steady and continuous growth.

Size and Amount of Production in the Area  
to be Served by a New Market

As a rule a shipping point fruit and vegetable market draws from 75 to 90 percent of its receipts from an area within a 25-mile radius of its location. In a production area where no other important market or market outlet exists, a new market may draw receipts for distances up to 100 miles, but the percentage of the total production outside of the 25-mile radius of the market will in most instances be relatively small. Since shipping point markets are primarily farmers' markets, these data may be interpreted as meaning that growers generally do not patronize markets more than 25 miles from their farms. Moreover, there is little possibility of a new market diverting produce from any part of an area within 25 miles of another well established market.

However, if an existing market specializes in only one or two fruit and vegetable items, a new market might draw other types of fruits and vegetables from within the existing market's trade area since in this situation there would not be any competition between the two markets. Moreover, if there is dissatisfaction on the part of buyers and sellers

with an existing market because of poor management, inadequate facilities or improper location, a new market with better management and better facilities at a more acceptable location might be established. In such instances the existing market usually fails or ceases operations.

Existing shipping point fruit and vegetable markets attract an average of roughly 20 percent of the total production for market in the areas which they serve. Unless it can definitely be determined in advance that a new market will attract a larger percentage of the total production for market than the average percentage attracted to existing markets, the average daily volume of production for market in an area where a new market is to be established should be at least five times the minimum daily volumes suggested in a previous section. For relatively high value fruit and vegetable items about 9 equivalent carloads per day would be required, and for average value items about 18 equivalent carloads per day. As previously indicated, these volumes, for the most part, should be produced within a 25-mile radius of the new market.

#### Number and Types of Growers Who Will Patronize the Market

Obviously, the number of grower-patrons needed to supply the minimum daily volumes of fruits and vegetables depends upon the volume each grower brings or sends to the market. The minimum daily volumes might be supplied by one grower or many growers. However, the grower who has available the daily volume of produce needed on a market usually operates his own facilities. As previously shown, a new shipping point market should handle about 3.6 equivalent carloads, or 1,800 packages, of average value items daily, or about one-half this volume of high value items. Since it was found that the average size of the farm load of fruits and vegetables delivered to market was 30 packages, an average of 60 grower-patrons each day should supply the minimum volumes required.

There are but few medium- and small-scale growers who make deliveries to a market each day during the marketing season. It is, therefore, essential that the total number of growers in the area be much larger than the number needed to supply the minimum daily volumes. Moreover, not all growers in an area can be considered as potential market patrons. In fact, data on existing markets show an average of only 20 percent of the vegetable growers and 45 percent of the fruit growers in the areas served are patrons of the markets. A safe minimum number of average-size growers for the fresh market in a market area, therefore, appears to be around 300.

### Number and Types of Buyers Who Will Patronize the Market

As shown by the curve in figure 7, an established shipping point fruit and vegetable market with a daily volume of 1,800 packages (about 3.6 equivalent carloads) should attract 7 or 8 buyers. However, the number of buyers who will be attracted to a new market, particularly during its first season, will be dependent upon the promotional efforts of the market management and groups interested in seeing the market become a going concern.

In soliciting buyers for a new market, the management should attempt to have both season and day buyers represented. If all the buyers are of the type that require a large daily volume, the market may not be in a position to supply their requirements. With a small number of buyers inadequate competition usually results. If all buyers on a market are day buyers, there is a strong possibility that on certain days there will be too many buyers for the volume of produce offered for sale and that on other days there will be too few buyers for the volume offered. For these reasons, a minimum of 3 season buyers on a new market is a goal that might be both desirable and feasible. In addition to season buyers, the market should have sufficient day buyers who, with the season buyers, could move the daily volume offered.

### Method of Selling

The method of selling to be used on a new market should be determined after a survey is made to find out the probable number of farmer loads that will be sold daily and the types of fruits and vegetables to be sold. The auction method of selling offers a number of advantages over the private sale method for markets that do not have too large a volume of produce and for certain types of products since it brings supply and demand into force rapidly and publicly. The auction method also permits market news reporting agencies to disseminate information on supply and demand with a high degree of accuracy. However, there are limitations with respect to the number of sales that can be made daily through the auction market. If a new market is expected to have more than 800 lots offered for sale on any one day, the auction method will probably be unsatisfactory because growers will be required to wait in line for long periods to sell. Moreover, buyers cannot spend their entire time during the day at the auction block. On a market with a prospective volume of more than 800 lots per day the private sale method should be considered. Where the grower sells his own products, the Benton Harbor system of operating the private sale appears to offer advantages over other private sales systems. Since the grower delivers his load to the buyers' stalls or trucks immediately following consummation of the sale, some of the handling required where the grower unloads his products onto a sales platform from which the buyer must reload is eliminated.

### Amount and Types of Facilities

The amount and types of facilities that will be needed on a new shipping point market depends upon: (1) The daily volume of produce to be handled; (2) the method of selling adopted; (3) the number of and requirements of individual buyers for space under sheds for grading, packing, and temporary storage; (4) transportation methods to be used and protective services required; and (5) grower requirements for grading and packing facilities. As a rule exact information on those factors cannot be obtained in advance of actual construction. For this reason the safest course for a new market is to acquire adequate acreage in a market site to provide for immediate needs and permit future expansion and to construct only the minimum of facilities until the needs have become more clearly defined.

An auction market for handling between three and four equivalent carloads daily should have as a minimum: (1) An auction block; (2) space for transferring loads from sellers' to buyers' trucks; (3) office space for the market manager and for buyers; (4) paved market streets; and (5) public toilets, communication facilities, and lunch room. Whether loading platforms and packing sheds should be provided is a question that should be answered after consultation with prospective buyers. If the prospective buyers plan to install grading and packing equipment at the market, of course, a packing shed will be needed. However, the number of sheds or the amount of space constructed should be limited to the number that can be rented. To provide the necessary space for cleaning, grading, and sizing equipment and container storage, three 50- by 100-foot packing sheds, or an equivalent amount of floor space in one or two sheds, as a rule, should be adequate for grading, packing, and handling the entire volume previously specified. On a market of the prospective size indicated either an open or covered loading platform about 100 feet long and 20 to 30 feet wide, which would provide space for ten 10-foot stalls, is usually desirable. At least five stalls in such a shed will usually be required for the use of itinerant or day buyers. Adequate space should be provided on market streets so that sellers waiting in line will not be forced to park on public or access roads. A possible layout for a market of this type is shown in figure 8.

A private sale market on which the Benton Harbor system is to be used will need an open sales area such as that shown in figure 9 in lieu of an auction block. Otherwise, the same types and amount of facilities will be needed as for an auction market. The Benton Harbor method of handling market traffic which has been previously described is not adaptable to private sale markets where selling brokers are used rather than where each farmer sells his own produce.

Facilities should be arranged to: (1) Permit free movement of market traffic, (2) provide for the concentration of the buyers and sellers, and (3) provide for expansion as the needs for new facilities



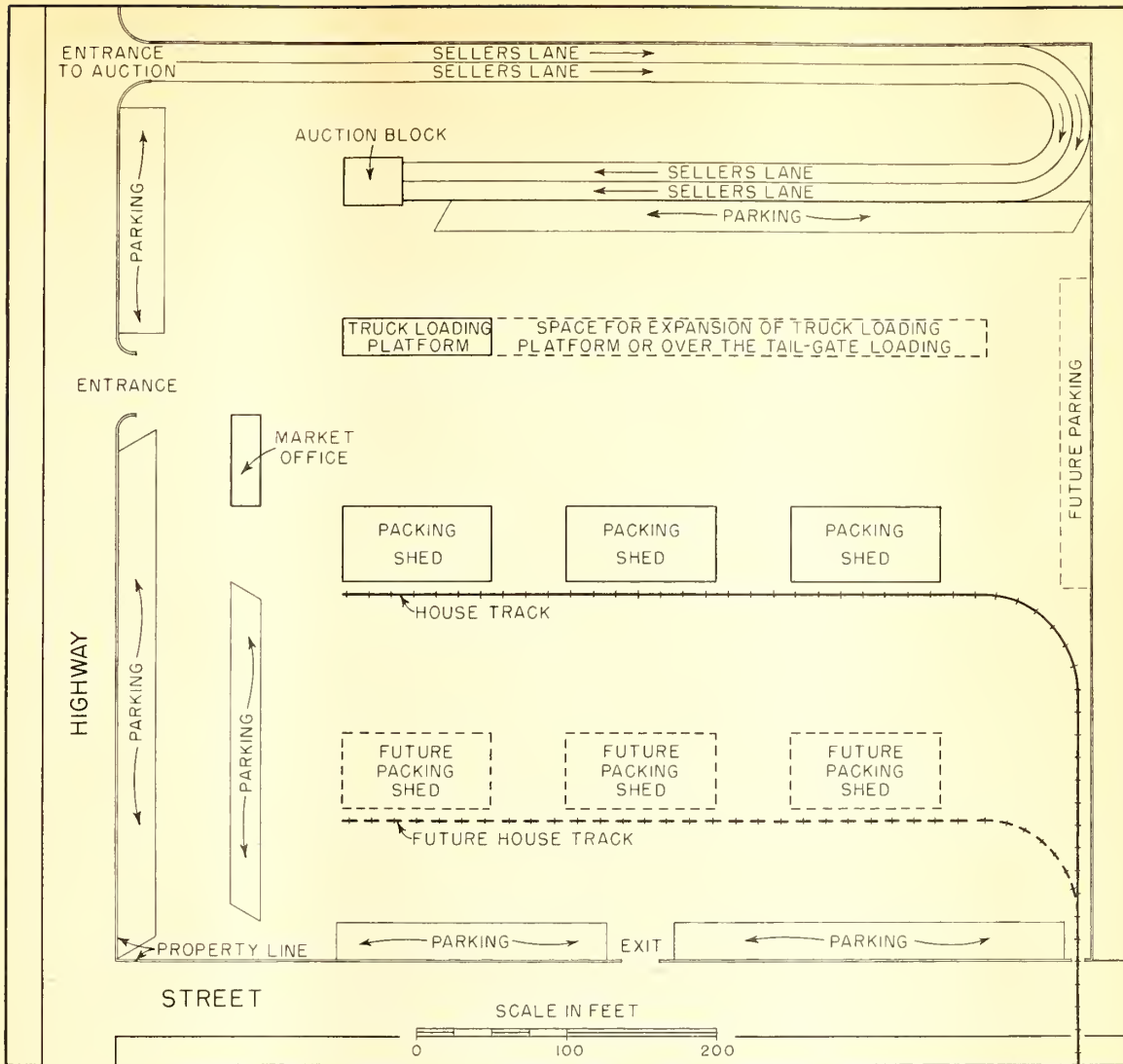


Figure 8.--Possible layout for a shipping point fruit and vegetable market using the auction method of sale.

arise. Market streets used by growers' trucks for parking and unloading should be not less than 75 feet in width. If buyers' trucks will also use this street for loading, a minimum width of 100 feet should be provided. The street between buildings on which no parking will be permitted might be reduced in width to 50 feet. Although streets of these widths may at first glance appear to be an extravagant use of land, the experience of existing markets is that streets of narrower widths are unsatisfactory.

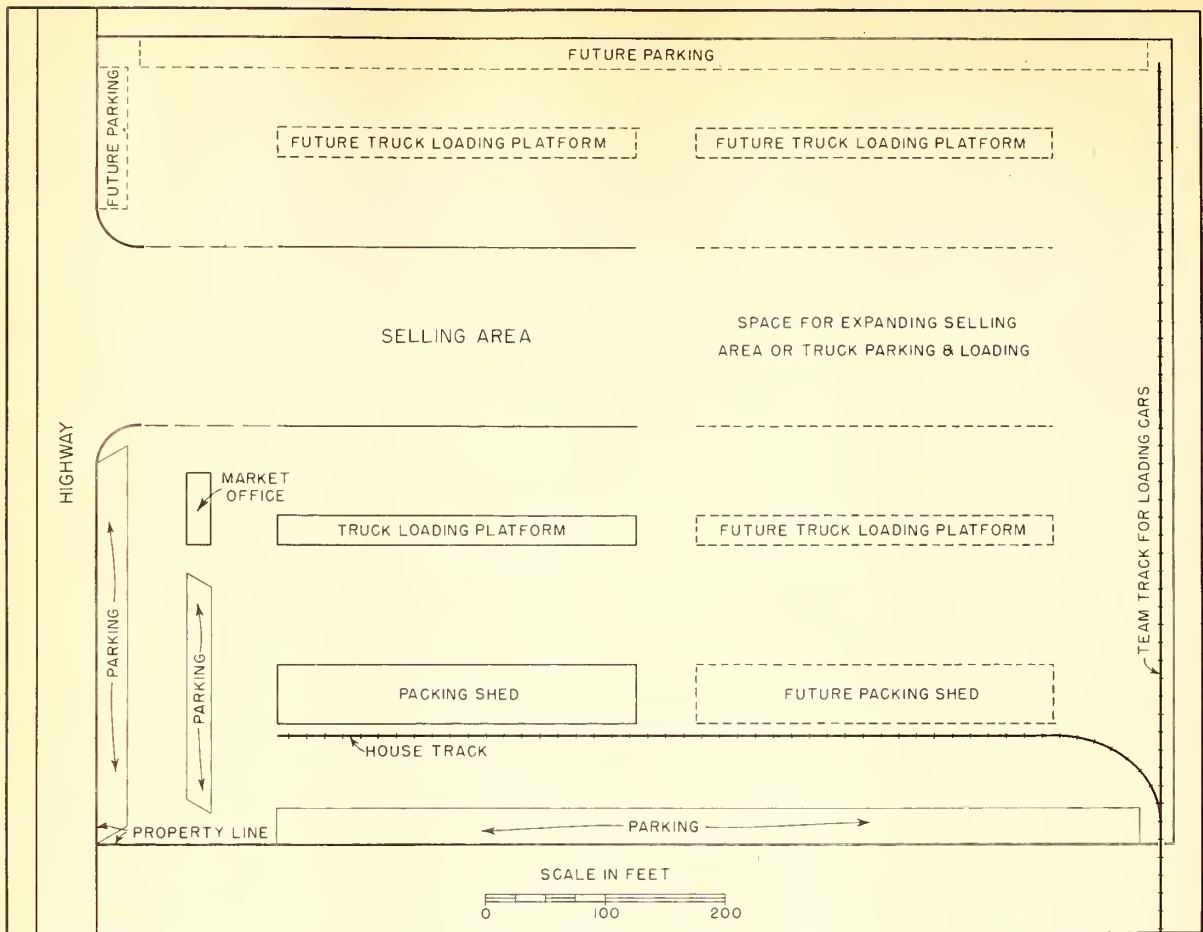


Figure 9.—Possible layout for a shipping point fruit and vegetable market using private sale method.

### Market Location

Among the factors that should be considered in properly locating a shipping point market are: (1) Convenience for buyers and sellers, (2) accessibility to railroad lines and highways, (3) the location of existing markets and other market outlets, and (4) the cost of land. A shipping point market should be located as nearly as possible in the geographical center of the production area to be served for the convenience of most growers who are potential patrons. Convenience for buyers includes the availability of banking facilities, board and lodging, and accessibility to communication lines as well as to highways. A market should, therefore, be located at or near a town which means that it may not always be possible to find a location that is most convenient to all groups.

A relatively large percentage of the shipping point markets studied are not accessible to railroad lines and make no rail shipments. Even though a market may not need access to railroad lines when first established, the possibilities of rail shipments being made from the market in future years should be considered in determining its location since a market with a group of satisfied patrons will usually stimulate an increase in the production of fruits and vegetables in the area it serves with a resultant widening of the area into which distribution is made. The widening of this area may lead to rail-transported shipments.

Since nearly all receipts on a shipping point market are brought in by motor vehicles and a relatively large percentage of this produce is moved out by the same mode of transportation, the importance of locating shipping point markets near or adjacent to important State or national highways cannot be overemphasized. However, the location of a site on an important highway which also meets other factors essential to proper market location, such as accessibility to railroad lines and adequate acreage at reasonable cost, may not always be possible. Some markets that were unable to find a suitable site adjacent to a national or State highway have at least partially solved this problem by erecting signs along the main highways directing buyers and growers to the market. However, under no circumstances should a market be located on a site that is not accessible to an important highway over wide and hard-surfaced roads.

Groups interested in establishing new markets must frequently decide whether a market should be located near the town's business center, where the amount of land is usually limited and its cost relatively high, or near the city limits, where land costs are usually much lower and larger acreages are available. Since shipping point facilities are wholesale markets which are not operated primarily to supply local consumer needs, there is generally no advantage to those who use the market in locating such a facility in a "downtown" area. In fact, there are disadvantages other than high land costs and limited space, such as traffic congestion and the resultant loss of time by motortrucks and drivers.

Shipping point markets should not be located within 25 miles of another market, with the possible exception of cases where there will be no competition between the facilities because of the somewhat specialized types of products handled on each. To locate them at a lesser distance of one another may result in the failure of one or both. In a few areas two markets in close proximity have operated with apparent success when one market conducted its sale during the morning and the other market during the afternoon.

### Ownership and Management of the Market

The most desirable type of ownership for a shipping point fruit and vegetable market is one that can or will:

1. Operate the facility on a nonprofit basis.
2. Give all major groups who use or operate on the market and the public a voice in its management.
3. Have sufficient legal stature or authority, prestige, and actual or prospective collateral to obtain adequate funds, at relatively low interest rates, to acquire land, and to construct the proper types and amounts of facilities.
4. Protect the public's interest from the viewpoint of duplication of facilities, health and sanitary requirements, and traffic problems.

Among the types of ownership that might be considered are:

(1) Public benefit corporations (market authorities, (2) private nonprofit corporations, (3) State, (4) municipal or county, and (5) farmers' cooperatives. All of these types have desirable features and most of them have limitations, depending upon State statutes and local ordinances.

Market management involves more than the collection of fees and rents, the direction of market traffic, and the arbitration of disputes between buyers and sellers. The alert market manager keeps himself informed in regard to the supply and demand situation on terminal markets and makes this information available to buyers and sellers on his market. The market manager can also do much toward increasing the volume of business on the market by encouraging buyers and growers to use the facility. The alert manager also obtains the cooperation and assistance of other local agencies such as grower organizations and local agricultural agencies in promoting his market.

A number of shipping point markets have been sponsored by local chambers of commerce or other civic groups for the purpose of improving the general welfare of a town or its community. In some instances the primary interest of such groups was in attracting business to the local merchants. Obviously, such motives are commendable if a thorough investigation shows the need for a shipping point market facility before funds are expended for its construction, since a shipping point market established at a town where there is an economic need on the part of growers and buyers for such a facility does attract business to the town. However, the construction of a market facility does not in itself create a market.







