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**A study of McIntosh apple prices on the New York market during the 1950-51 season, with specific emphasis on quality, size and pace.**

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A STUDY OF McINTOSH APPLE PRICES  
ON THE NEW YORK MARKET  
DURING THE 1950-51 SEASON  
WITH SPECIFIC EMPHASIS ON QUALITY,  
SIZE AND PACK

GREENBLATT



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ON THE NEW YORK MARKET  
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With Specific Emphasis on Quality,  
Size and Pack

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Thesis submitted in partial fulfillment  
of the requirements for the degree of  
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INTRODUCTION

In spite of the economic importance of the apple industry in annual dollar value, relatively little work has been done on the problem of marketing the tremendous crop each year.

Within recent years, the McIntosh apple has become the leading commercial variety grown in the Northeast. This expanded production has followed hand-in-hand with an increased demand for this variety.

The McIntosh apple is characterized as a poor keeper although high in dessert quality (29). Before the advent of the cold storage, most of the crop was marketed before the end of the Christmas holiday (20). In more recent years, with the increased use of cold storage as well as controlled atmosphere storage facilities, the season has been extended to approximately eight months or has been better than doubled. These factors have made possible a more uniform system of marketing the crop.

Within the last twenty years, a drastic change has taken place in the methods of packing as well as in the containers in which apples are shipped (31). Where the

barrel was once the leading unit, it has now virtually disappeared, its place being taken by smaller units ranging in size from bushel containers down to small consumer packages. These containers have many variations in shape and materials used in construction, as well as in methods of packing.

At the time of this writing some of the official grade standards were in the process of being revised, but the standards and regulations used in this study have been in effect since 1937 (10).

In the Northeast, there are eight states or areas which market McIntosh apples in the New York City wholesale produce market. These comprise the states of Maine, New Hampshire, Vermont, Massachusetts, and Connecticut; and the distinctively different areas within New York State of the Hudson Valley Region, Lake Champlain Section, and Western New York. Along with being the largest city in the United States, New York also possesses the largest produce market in the country, and by its nature is the only such market where a study such as is reported here can be made in detail (18).

With such factors as grade, size, pack and area of production coming together to determine a price and to create a demand for this commodity, it was the aim of this paper to observe such variations as existed within and among these factors without delving into the underlying reasons for such variations. In conjunction with price and volume, a study was also made of the number of times the various factors were reported within the season.

## REVIEW OF LITERATURE

In the literature, the studies of fresh fruit and vegetable markets and marketing which have been carried out have been few and in most cases the work is outdated and not applicable to this problem. Studies on apples principally by experiment stations in New York, Massachusetts, Maine, New Hampshire, Rhode Island and Pennsylvania, however, have shown some similarities in part of their work although little of it has been brought up to date.

Since the data used in this paper represent the 1950-51 season, a look at certain situations and facts regarding this particular period are necessary.

A look at the apple production as indicated below (2) for some of the areas under discussion will help give a clearer idea of the volume involved although many other markets as well as market outlets other than New York City are employed in moving the crop; and other varieties than McIntosh are also produced:

	Thous. bu. Av. 1939-48	1948	1949	1950
Maine	768	949	1,006	1,391
New Hampshire	732	612	1,056	1,100
Vermont	670	774	1,089	972
Massachusetts	2,473	2,194	3,842	3,825
Rhode Island	207	143	279	261
Connecticut	1,188	824	1,640	1,406
New York	14,399	11,750	20,090	17,625

A comparison of McIntosh apple production between New York and New England (1) shows the following figures:

	Thous. bu. Av. 1942-48	1949	1950
New England	3,113	5,066	4,881
New York	3,860	6,227	6,169

The 1950 apple crop (3) in commercial areas was estimated at 120.1 million bushel for the country as a whole which is 10 per cent below the previous year but about 10 per cent above average. The crop was 14 per cent less for the North Atlantic States. In New England, September weather was favorable for coloring the fruit. Quality of the crop was very good but not quite so good as the excellent quality of the 1949 crop. Size of apples averaged a little smaller than the previous year. In New York harvest was hampered by rainy weather in mid-September.

After harvest reports from New England (8) indicated a production of about 2 per cent larger than estimated on October 1 or slightly above the large crop of 1949 and 48 per cent above the ten year average production. The keeping quality of the crop was considered to be better than 1949 when a rather large quantity of fruit was overripe when harvested. Broken down by the various areas the report shows that Maine's crop was 38 per cent larger than 1949, New Hampshire was 4 per cent larger, while Massachusetts' crop was practically the same as the large 1949 crop. Production in Vermont, Rhode Island and Connecticut was smaller



than a year ago by 11, 6 and 14 per cent respectively.

By varieties (9), the New England commercial crop totaled 55 per cent McIntosh as compared with 57 per cent in 1949, while 19 per cent were Baldwins. The price (6) for apples was much higher in September 1950 than during the same period in 1949.

During the season one-half of the apples in storage during the middle of December in New York comprised McIntosh apples (4). In the United States stocks of apples in cold storage as of December 31, 1950 totaled 33.6 million bushel (7). These holdings were about 7 million bushel or 26 per cent larger than the above average holdings a year earlier, and were the largest year end holdings in more than a decade. Together with this situation, shipments of apples to fresh fruit markets continued at a lower rate than seemed necessary for orderly distribution and price returns of the record stocks over the winter and spring months. However, in New York 29 per cent of the January 1 stock of McIntosh apples went to market during January, but on February 1 there were still 50 per cent more in the warehouses than on February 1 of 1950 (5).

In relation to the packs, four principal containers or methods of packing should be mentioned. They consist of a jumble pack which uses either an eastern crate or a bushel basket, a layer pack, a tray pack and a cell carton.

The eastern box which is used for both layer and jumble packing at the present time has dimensions of 17" or 17½" x

14" x 11". It was introduced about 1930 in the Hudson Valley of New York and is widely used in New York and the New England states where it is known as the Eastern apple crate. In 1953 about 73 per cent of the total commercial crop was marketed in this type of crate. Another container in use is the bushel basket which may also be jumble packed and then is usually finished off as a ring pack. The container now coming into wider use is the cell type of container which consists of a corrugated box provided with dividers so that each apple is surrounded entirely by paperboard. These boxes are designed to hold 40 pounds net and are made for all sizes of apples from  $2\frac{1}{4}$  to  $3\frac{1}{2}$  inches in diameter. These containers cost about 75 per cent more than the bushel basket with cover (31).

A layer pack refers\* to apples that are placed in layers with a flat piece of cardboard between each layer. Apples need to be of uniform size to pack well in layers so that usually layer pack apples do not vary more than  $\frac{1}{8}$  inch in diameter; many only  $\frac{1}{4}$  inch. Tray packs refers to that package which is also packed in layers but the cardboard separator between the layers is made so that it forms a cup-like depression for each apple which prevents one apple from coming in contact with another apple. It is also very essential that the apples in tray packs be uniform in size.

\*Butts, T.R. Personal correspondence. U.S.D.A. Prod. and Marketing Administration, New York. July 3, 1951.

There are various sizes of the cardboard separators made to fit the various apple sizes and these are usually quoted in count sizes such as 128, 150 or 180.

According to Hopper and Pierce (19), in 1932 the type of container used for McIntosh showed that 59 per cent were packed in bushel crates, 25 per cent in bushel baskets, 12 per cent in 40 pound cartons, 2 per cent in egg crates, 1 per cent in barrels and 1 per cent in half barrel crates.

The complexity of the numerous type of containers used for apples was brought out in a study in Pennsylvania by Whitacre (30) where one dealer of apples had eighteen apple variations in eighteen different types of containers in his store on a single market day. Variations were also noted in weight of apples in containers from different orchards. Most dealers reported in this study that they obtained a premium for the better grades of box-packed fruit over the price paid for the same grades and varieties when packed in bushel baskets. Buyers expressed a preference for box-packed fruit but were more interested in the quality of apples in the package than in the containers. Late in the season they preferred box-packed fruit and particularly wrapped stock, since bruising and scald were less prevalent.

In grade requirements for the McIntosh apple under discussion, the principal difference between a U.S. Fancy grade and a U.S. No. 1 grade is in the color requirement (10). A U.S. Fancy McIntosh apple must have at least 50 per cent of its surface in a characteristic red color for that variety.

A U.S. No. 1 McIntosh apple differs in color requirements from a U.S. Fancy in that only 25 per cent of its surface must be in a characteristic red color for that variety. Some feeling is expressed at Cornell by Raeburn (26) that the relationship existing between color and price indicates that apples with less than 67 per cent of their skin a characteristic of the variety should not be permitted in the U.S. Fancy grade and those with less than 33 per cent should not be permitted in the U.S. No. 1 grade. The color requirements for McIntosh are also expressed as being too low for this variety.

In another study at Cornell by Blanch (11) it was found that as the number of defects increased, prices decreased. Here color was also found to be one of the most important single reasons why some lots of apples sold for higher prices than others. An examination of the relationship between various factors of quality revealed that as the color improved from poor to good, the amount of bruising increased and the fruit tended to be less firm. A substantial premium was paid for fruit of the red varieties that were highly colored.

In regard to size, the preference in general is for apples about  $2\frac{1}{2}$  to  $2\frac{3}{4}$  inches in diameter (20). In a survey conducted in Providence, Rhode Island, one opinion expressed was that careful sizing would help to sell the fruit but doubted if the price would be sufficiently increased to pay for the extra work (14).

Studies at Cornell showed that differences in size of fruit sold were an important cause in variation in price. Higher prices were paid for the larger sizes of apples up to 2½ inches in diameter for McIntosh and for the larger sizes of other varieties. For all varieties combined, the 2 ¾ inch size sold for the highest average price. McIntosh for out-of-hand eating was preferred in a medium sized fruit (11). According to Scoville, figures from 1924-29 showed that McIntosh Fancy 2½ inch minimum size returned 90 cents more per bushel than did Fancy 2½ inch minimum size (27).

A look at some of the volume of fruit shipped and received showed that during 1936 and 1937 New York City received almost three times the number of unloads of fruits and vegetables as compared to either Chicago or Philadelphia (15, 16, 18).

In New Hampshire, Dougherty and Yeager (17) showed that the McIntosh apple was the most popular variety handled in the November-March period. It made up 60 per cent of the apple sales in December and 47 per cent of the sales in February. In the New York market no New England variety is as highly favored as the McIntosh, according to Jefferson (21). Woodward states that in Maine the McIntosh apple has comprised on the average about 50 per cent of recent crops (33).

Shipments to commission men showed that in 1932 37 per cent of the McIntosh crop was marketed through their facilities (19) while in Maine a survey in 1939 showed that 27.0 per cent of that year's crop went to wholesalers and

commission merchants (22).

Shipments to various markets from Maine (22) by 160 fruit growers showed that only 0.5 per cent of the total McIntosh crop was shipped to the New York market and accounted for about 3,500 bushel. Shipments to Portland, Maine totaled 78,198 bushel while Boston received 31,465 bushel.

The actual areas of apple production within the various states are localized. In New York the largest apple growing regions are in the western section of the state along the shores of Lake Ontario while in the Hudson Valley section apples are grown on both sides of the river primarily in the central or middle portions of the valley. In the Champlain section, apples are grown on both the New York and Vermont sides of the lake. New England apples are grown in Maine in the southern and eastern parts of the state while in New Hampshire only the southern portion raises apples. In the states of Connecticut, Massachusetts and Rhode Island apples are planted in scattered sections of the states (28).

A look at the literature in regard to price is best expressed by Park (24) in which he says: "it is difficult to determine definitely why the prices of fruit from certain producing sections average higher than from other sections. New York City jobbing sales of barreled McIntosh showed Vermont averaged considerably higher than similar stock from New York State although in several months in the winter of 1928 the fruit from New York State sold higher than did that

from Vermont. "

In 1932 the 40 pound carton received the greatest return as compared to the bushel crate which ranked second in prices received while the bushel basket ranked last in prices received (19).

A comparison within the state of New York by Scoville (27) showed that McIntosh prices averaged higher in the Hudson Valley than in the Champlain Section or Western New York. On the average, in this survey, higher prices were received in October and February than in any other months.

Woodin showed that in New York in 1941 apples were selling at about the same price as they were 50 years ago, in relation to the prices of other commodities (32). Year-to-year changes are caused mainly by changes in the price level of all commodities and by changes in the size of the apple crop. The seasonal rise in apple prices is greatest when the level of prices of all commodities is high and rising during the marketing season. When the price level is low, apple prices rise about the same amount, irrespective of whether the price level is rising or falling. The size of the apple crop appears to have little effect on the season price changes. High priced varieties rise more than do low priced varieties. Also the daily range in apple prices for any day is usually wide. Changes from day to day apparently are related neither to the day of the week nor to holidays. The change and fluctuation in price of one variety do not tend to show any correlation either.

With the exception of a few seasons since 1878, the price of apples has been higher at the end of the season than it was at the beginning. In general the price fluctuates more or less early in the season and then rises rather steadily as the season progresses (20).

A study of the Boston apple market by Cole showed that the 25 year average price for McIntosh apples gradually increased from October through March. The turning point in price behavior seemed to come at the turn of the year (13).

## MATERIALS AND METHODS

### Materials

The basic materials used in this study consisted of a series of 164 fruit and vegetable reports issued by the United States Department of Agriculture, Production and Marketing Administration, Fruit and Vegetable Board for the wholesale fresh fruit and vegetable market located in the Washington Street Market, New York City. This study was based on reports issued from September 1, 1950 - April 30, 1951. The reports were issued daily except for Saturday, Sunday and holidays.

The background on market reporting had its beginnings in New York City (12). The actual collection of the data for these reports was carried out by government market reporters assigned to the New York City Markets (25).

Each daily market report quoted prices for all fresh



fruit and vegetables sales during the day in the market. A sample of a typical market report from which this study originated appears on page 14.

In conjunction with sales, volume of apple receipts was obtained from monthly summary sheets also issued through the U.S.D.A. Production and Marketing Administration, Fruit and Vegetable Branch, New York.

#### Methods

The problem was divided into three main parts. The first part consisted of a study of actual volume receipts. No data were available on McIntosh apple receipts along the direct lines of this study. However, truck lot receipts of apples in the markets were available for the months during which this study was carried out. The truck lot receipts for the wholesale market were combined with chain store warehouse receipts and no breakdown was available. However, based on these available figures some conclusions could be made which would help tie in with the other parts of this problem.

Next, a tabulation of the number of grades, packs, sizes and frequency reported gave an indication of possible volume.

The last phase of the work consisted of actual price tabulations and comparisons based on grade, pack, size and area of origin.

The procedure involved consisted of transposing the data

Section of a Fruit and Vegetable Report\*

Rm. 822, 641 Washington St. U.S. Dept. of Agri. N.Y.C. 14, N.Y.  
Tele. Watkins 4-1000 Prod. and Market Ad. Thursday  
Fruit and Veg. Branch Jan. 18, 1951

MISCELLANEOUS FRUIT AND VEGETABLE REPORT VOL. XXXVII NO. 13  
Unless otherwise stated, prices quoted below cover sales to  
9:30 a.m. on this morning's wholesale market in l.c.l.  
quantities on stocks of good merchandable quality and  
condition.

WEATHER: 9 a.m. 42 clo. Max Wed. 50.

APPLES: MARKET DULL. Bushel bskts, eastern box and cartons.

U.S.#1-unless otherwise stated.

NEW HAMPSHIRE- McIntosh U.S.Fcy. 2½" min. 2.75, cartons cell  
packs 96s 3.50, 112s 3.25, 160s 2.90-3.00. MAINE - McIntosh  
U.S.#1, 2½ in. min. 1.50. MASS.- McIntosh U.S.Fcy. showing ripe  
2½" min. 1.75-2.00, 2-3/4" min. 2.00, U.S.#1 2½" min. 1.25.  
VERMONT-McIntosh U.S.Fcy. showing ripe 2½" min. 1.25-1.75,  
2¼" min. 1.00-1.35, U.S.Utility showing ripe 2½" min.  
1.00-1.35, 2¼" min. .65-75¢, layer packs U.S.Fcy. 2-3/4" &  
3" up 2.25-2.50, 2½" up 2.00-2.25; Delicious comb. U.S.  
Fcy. & U.S.#1, 2½ in. min. 2.25-2.50. VA.- Boxes Romes  
U.S.Fcy wrpd. 56-80s 3.75. PA.- Yorks 3" up 3.00; McIntosh  
no grade mark 2½" min. .90-1.00. N.J.- Rhode Island  
Greenings no grade mark 2½" min. 1.50-1.75. N.Y. Hudson  
Valley- Baldwins 2½" up 1.75; Cortlands 3" up 1.75-2.00,  
2-3/4" up U.S.Fcy. 2.00-2.10, 2½" min. 1.50-1.75, ripe  
1.25; Delicious 3" & 2-3/4" up 2.75, 2½" min. 2.25, 2½" up  
2.75-3.00, U.S.Util. 1.50; Golden Delicious 3" up  
2.50-2.75, 2½" min. 2.50; McIntosh 2-3/4" up 2.00, 2½"  
min. 1.50-2.00 ripe 1.25-1.50; Macouns 2-3/4" min. U.S.  
Util. 1.00-1.25; Northern Spy cartons cell pack 80s 2.50;  
Winter Banana 2½" min. 1.50. Lake Champlain Sec.- McIntosh  
cartons cell pack 112s 2.00-2.25. Western Section- Cortlands  
2½" min. 1.50; McIntosh 2½" up fine color 2.00-2.25;  
Rhode Island Greenings 3" up 3.00-3.25, 2-3/4" up 3.10-3.15.  
ARTICHOKES: CALIF. . . . .

\*Miscellaneous Fruit and Vegetable Report, U.S.D.A. Prod.  
& Marketing Admin., New York. 1951.

reported on McIntosh apples in the daily market reports on 8 x 10 paper divided into six columns giving the data of the reports, area of shipment, grade, size, price received, and pack. The next step consisted of posting this information on analytical paper measuring 17 x 10 separated into areas. From these master sheets all the information on prices and number of times reported was obtained.

The number of times reported was then broken down and studied in four main divisions:

- 1) Grade, size and pack
- 2) Grade and pack
- 3) Pack
- 4) Grade

The price study in relation to grade, pack, size and area of shipment followed a similar pattern. Prices during a month for a "factor"\* were averaged to obtain an average monthly price. A "factor" appearing less than five times during the year was eliminated in order to simplify the work and since little significance could be attributed to such data. The season average price was then obtained for a "factor" by using a weighed average which consisted of multiplying the average monthly price by the number of times reported. The sum of all eight months divided by the total times the "factor" was quoted gave the average season price for the "factor".

\*When prices based on grade, size and pack as a unit will be discussed, the term "factor" will be used to refer to all three conditions in that price.

Studies on prices were then carried out where size was eliminated; size and grade eliminated; and pack and size eliminated. In these studies, ripe fruit reports and "Fancy fine" reports were also eliminated in order to give a more equal weight to the reported data.

Comparisons on four sampling months were also made under the above conditions. The four sampling months chosen were October, December, January and March.

October was chosen since it best represents a beginning season price, while December and January usually show a turning point in price behavior. March best represents a closing season price for McIntosh apples.

With the above data, comparisons were also made on packs as related to price and prices received as compared to areas with all conditions tending to be equal.

Volume receipts were then tabulated by months for the areas and season under study. These were totaled by area for the season and totaled by month based on total monthly receipts.

## PRESENTATION OF DATA

The results are presented in five main divisions:

- 1) volume, 2) number of times reported, 3) prices based on size, grade and pack, 4) comparisons on packs based on price, and 5) comparisons between areas.

### Volume

A tabulation of the truck lot receipts for all apple varieties shipped into the wholesale produce markets and the chain store warehouses appears in Table 1. The values which are shown in carlot equivalents can be converted into bushel receipts by using 650 bushel baskets or eastern boxes as representing a carlot.

New York (all sections) had the greatest volume, 69.3 per cent. Vermont led the New England states with 16.8 per cent of the shipments. The smallest receipts came from New Hampshire, 1.3 per cent and Maine, 2.5 per cent.

October accounted for the greatest total volume, 22.5 per cent, while April accounted for the smallest receipts, 7.4 per cent. December, January, February and March showed a relatively equal volume.

### Discussion-

With the available data it is not known what percentage of the volume represents chain warehouse receipts.

As far as variety is concerned, 55 per cent of the 1950 New England commercial crop consisted of McIntosh apples (9). However, it is not known if there is a correlation between

Table 1

APPLES

Truck Receipts (Carlot Equivalents)

Washington St. Wholesale Market and Chain Store Receipts

Area	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Total	Per cent
Maine	1	44	12	6	13	13	13	3	105	2.5
New Hampshire	1	6	17	10	7	5	7	4	57	1.3
Vermont	119	220	81	70	72	46	72	29	709	16.8
Massachusetts	6	33	55	55	36	35	36	27	283	6.7
Connecticut	5	36	31	13	21	13	21	4	144	3.4
New York (all sect.)	321	614	412	352	332	323	335	248	2937	69.3
Monthly Total	453	953	608	506	481	435	484	315	4235	
Per cent	10.7	22.5	14.4	11.9	11.4	10.3	11.4	7.4		100.

Source: Carlot Receipts for 1950-51, U.S.D.A. Production and Marketing Administration

these figures and shipment of McIntosh apples into the New York market. From the daily market reports, it was observed that few varieties outside of McIntosh were quoted in the reports during the season. As a result, it can be assumed that most of the New England reports on volume were for McIntosh apples.

In the daily market reports Connecticut was seldom quoted after November. It can be assumed from this that the reported truck receipts went mostly to chain store warehouses with little fruit destined for the wholesale market.

#### Number of Times Reported

The number of times reported is in no way correlated directly to volume receipts. One report may be based on a 500 unit sale or on a 100 unit sale. However, the greater number of times a factor is reported during the season, the more significance can be attributed to the data.

Of the major commodities, of which apples is one, a receiver is not considered in the reports for quotation unless he has at least 100 packages of a given size and grade. The reporters contact all direct receivers of fruits and vegetables; the number range from 125 to 150 receivers; of these approximately 30 to 35 handle apples during the apple season.\*

\*Thomas, M.M. Personal correspondence. U.S.D.A. Prod. and Marketing Administration, New York. July 18, 1951.

Under the various sizes observed in the appendix, it is noted that a "minimum" and an "up" size is listed. In a minimum size the variation does not exceed more than  $\frac{1}{4}$  of an inch. For example, a  $2\frac{1}{2}$  inch minimum size will mean that the apples range in size from  $2\frac{1}{2}$  inches to  $2\frac{3}{4}$  inches. In an up size, in the case of a jumble pack, it indicates more than a  $\frac{1}{4}$  of an inch variation toward the larger sizes (14). This variation may be found either in a single package or among the various packages that made up that single sale. In layer, tray and cell packs it would be an indication of a mixed lot sale in regard to size since the manner of packing in these containers or packs does not allow for any variation within a package.

In tray packs and cell cartons, a size count is usually indicated. The count stamped on the box is not determined by counting the apples but by the method of placing the fruit in the box. The number of apples contained in many wrap-and-count packs differ from the number stamped on the box (30). In the case of cell or tray packs the count would be identical to the number in the unit based principally on the method of packing.

Transposing count\* into size would mean that a 96 count pack would contain apples approximately 3 inches in diameter. A 112-138 count would fall into the  $2\frac{3}{4}$  inch

\*Count relationships to size obtained from F. E. Cole, Extension Fruit and Vegetable Marketing Specialist, University of Massachusetts.



size, 150-160 count would range about  $2\frac{1}{2}$  inches and the 180 count would be approximately  $2\frac{1}{4}$  inches in diameter.

Data on Size, Grade and Pack-

In Tables A-D (Appendix) are tabulated the number of times reported by area based on pack, grade and size. "Factors" reported fewer than five times were eliminated. (However, fewer than five reports were shown where at least one area had five or more reports for a "factor".)

In Table A, representing jumble packs, Vermont had the most reports for U.S. Fancy jumble 3 inches and up and  $2\text{-}3/4$  inch minimum size. The U.S. Fancy  $2\frac{1}{2}$  inch and up size was reported more times by Maine than any other area, followed by Massachusetts and Vermont. U.S. Fancy  $2\frac{1}{4}$  inch minimum was reported more times under the U.S. Fancy jumble grade and pack than any other size; however U.S. No. 1  $2\frac{1}{2}$  inch minimum exceeded the U.S. Fancy grade in total times reported for the jumble pack. The U.S. Fancy  $2\frac{1}{2}$  inch minimum was reported mostly by Maine and New Hampshire, while New York Hudson Valley reported mostly No. 1  $2\frac{1}{4}$  inch minimum size. Maine had the most reports for a U.S. Fancy fine  $2\frac{1}{2}$  inch minimum size, with a few also coming in from New Hampshire. U.S. Fancy  $2\frac{1}{4}$  inch minimum were reported mostly from Vermont and Massachusetts. Vermont led in Fancy ripe fruit, while New York Hudson Valley led in No. 1 ripe fruit. Vermont also led in U.S. Utility McIntosh apples shipped. New York Hudson Valley was the principal shipper of No. 1 fruit. Few reports for U.S. No. 1 fruit

came from Maine or New Hampshire. Vermont and Massachusetts reported some as U.S. No. 1.

In regard to layer packs, Table B shows that Vermont led in all sizes reported under the U.S. Fancy grade. However, of all the areas combined, Vermont reported more times for layer packs than any other area. Connecticut and New York Western Section did not report any layer pack shipments while Maine, New Hampshire and Massachusetts had few layer pack reports.

Table C, showing tray packs, reported only for Massachusetts and New York Western Section. These were the only sections to use the tray pack for McIntosh apples and even here the reports are not numerous. Many size variations were used with 150, 160, and 128 count being most popular in order of number of times reported.

The cell carton was used mostly by New Hampshire based on the number of times reported. Table D shows 112, 160 and 96 count most widely used in that state in order of number of times reported. Connecticut was the only area not reporting cell cartons. All the New England states shipped cell cartons only under the U.S. Fancy grade, while New York (all sections) shipped predominantly the U.S. No. 1 grade based on number of times reported.

Data on Grade and Pack-

In Table 2, size has been eliminated and the number of times reported is based only on grade and pack. The figures in this table include all reports, even those reported fewer

Table 2

THE TOTAL NUMBER OF TIMES THE PRICE FOR MCINTOSH APPLES WAS REPORTED IN THE N.Y.C. MARKET BETWEEN SEPT. 1 - APRIL 30 SHOWING THE TOTALS FOR AREA, PACK AND GRADE

		JUMBLE		LAYER		TRAY		CELL		Total Per cent by of 8 Area Areas						
#	%	#1 Oth.Tot.	Fcy.	#1 Oth.Tot.	Fcy.	#1 Oth.Tot.	Fcy.	#1 Oth.Tot.	Fcy.							
<b>MAINE</b>																
#	191	26	0	217	17	0	1	18	0	0	0	0	6	66	301	11
%	88	12	0	100	94	0	6	100	0	0	0	0	9	100		
<b>N.H.</b>																
#	79	6	3	83	14	4	0	18	1	0	0	0	0	275	382	14
%	50	7	3	100	78	22	0	100	100	0	0	100	0	100		
<b>VT.</b>																
#	166	53	77	296	253	1	0	254	0	0	0	0	0	53	603	22
%	56	18	26	100	99.6	.4	0	100	0	0	0	0	0	100		
<b>MASS.</b>																
#	79	46	11	136	35	1	0	36	63	0	0	63	133	141	376	13
%	58	34	8	100	97	3	0	100	100	0	0	100	94	100		
<b>CONN.</b>																
#	1	22	6	29	0	0	0	0	0	0	0	0	0	0	29	1
%	3	76	21	100	0	0	0	0	0	0	0	0	0	0		

Table 2 (continued)

JUMBLE		LAYER		TRAY		CELL		Total Per cent by Area
Fcy. #1	Oth. Tot.	Fcy. #1	Oth. Tot.	Fcy. #1	Oth. Tot.	Fcy. #1	Oth. Tot.	
<b>N.Y. (HUDSON VALLEY)</b>								
#	51	13	47	0	60	0	0	0
%	87	8	100	22	78	0	100	32
<b>N.Y. (CHAAMPLAIN SECTION)</b>								
#	18	25	3	46	40	0	0	0
%	54	7	100	100	0	0	0	4
<b>N.Y. (WEST)</b>								
#	1	11	1	13	0	0	0	0
%	7.5	85	7.5	100	0	0	0	3
<b>TOTALS FOR ALL AREAS</b>								
#	568	734	152	1454	372	53	1	426
%	of Tot.							15
								4
								64
								44
								0
								108
								4
								565
								231
								6
								802
								29
								2790
								100

Source: Tables A-D Appendix.

than five times.

Of the total number of times reported, 32 per cent originated in New York Hudson Valley. Next in order came Vermont, 22 per cent; New Hampshire, 14 per cent and Massachusetts, 13 per cent. The fewest reports came from Connecticut, 1 per cent, followed by New York Western Section, 3 per cent and New York Lake Champlain Section, 4 per cent.

Based on packs, 52 per cent of the total reports were jumble packs, 28 per cent cell cartons, 15 per cent layer packs and 4 per cent tray packs.

In the jumble pack, 90 per cent of the shipments from New Hampshire were U.S. Fancy followed by 88 per cent of those from Maine. The least U.S. Fancy jumble packs were reported from New York Western Section, 1 per cent; Connecticut, 3 per cent; and New York Hudson Valley, 5 per cent, based on the total shipments from each individual area.

Shipments of U.S. No. 1 grade McIntosh apples showed that 87 per cent of shipments from New York Hudson Valley were in this grade for the jumble pack, followed by 85 per cent for New York Western Section and 76 per cent for the shipments of Connecticut.

The Massachusetts jumble pack shipments showed 58 per cent as U.S. Fancy and 34 per cent as U.S. No. 1.

In regard to layer pack reports, 99.6 per cent of Vermont's shipments were U.S. Fancy, followed by 97 percent from Massachusetts and 94 per cent of those from Maine.

The least were in the southern areas with Connecticut and New York Western Section reporting no layer pack shipments. In the New York Hudson Valley 78 per cent of the layer packs were U.S. No. 1.

The tray packs were used only in Massachusetts and New York Western Section. Massachusetts reports were only in the U.S. Fancy grade while New York Western Section showed only U.S. No. 1 reports.

All of the cell packs shipped from New Hampshire and Vermont were U.S. Fancy. On the other hand, 89 per cent of the cell packs shipped from the New York Hudson Valley were U.S. No. 1. No cell packs were reported from Connecticut and only U.S. No. 1 cell packs were reported from New York Western Section.

In general, based on these reports, 60 per cent of the fruit originated in the four northern New England states of Maine, New Hampshire, Vermont and Massachusetts. The other 40 per cent came from the four southern areas in this report, with New York Hudson Valley having 32 per cent and the other 8 per cent representing the reports from New York Lake Champlain, New York Western Section, and Connecticut.

The total number of reports for the eight month period totaled 2790.

Data on Packs-

As is observed in Table 3, New York Hudson Valley led in reports on jumble packs with 43.2 per cent. Vermont had 20.3 per cent of the jumble pack reports. In layer packs

Vermont led in number of times reported with 59.9 per cent of the total layer packs reported. New York Hudson Valley had 14.0 per cent of the layer pack reports. The tray packs were divided between Massachusetts and New York Western Section. The former had 58 per cent of the reports and the latter 41 per cent. New Hampshire had 34.3 per cent of all the cell packs reported followed by 25.6 per cent from New York Hudson Valley.

Table 3  
Percentage by Pack for Area Based on the  
Number of Times Reported for 8 Areas

Area	Jumble	Layer	Tray	Cell
Maine	14.9	4.2	0	8.2
New Hampshire	6.1	4.2	1.0	34.3
Vermont	20.3	59.9	0	6.6
Massachusetts	9.4	8.4	58.0	17.5
Connecticut	2.0	0	0	0
New York (Hudson Valley)	43.2	14.0	0	25.6
New York (Champlain)	3.2	9.3	0	3.8
New York (West)	0.9	0	41.0	4.0

Source: Tables A-D Appendix.

Data on Grade-

Of all the reports issued during this survey for McIntosh apples shipped from the eight areas under discussion, 56 per cent of the reports were U.S. Fancy, 38 per cent U.S. No. 1 and 6 per cent represented reports on Utility, Unclassified, Orchard Run, No Grades and U.S. Combination Fancy and No. 1 grades. Out of the 38 per cent for U.S. No. 1, approximately three-fourths of the U.S. No. 1 reports came from New York Hudson Valley.

Table 4

Number of Times Reported for Each Area by Grade  
(Based on total reports for each area)

Area	U.S. Fcy. %	U.S. #1 %	Others %
Maine	89.1	8.6	2.3
New Hampshire	96.5	2.7	0.8
Vermont	78.3	8.9	12.8
Massachusetts	82.4	14.7	2.9
Connecticut	3.5	75.9	20.6
New York (Hudson Valley)	7.6	86.7	5.7
New York (Champlain)	69.0	28.4	2.6
New York (West)	1.1	97.8	1.1

Source: Tables A-D Appendix.



In Table 4 a breakdown within the areas shows that of the total reports from New Hampshire 96.5 per cent were for U.S. Fancy, followed by Maine with 89.1 per cent and Massachusetts with 82.4 per cent. 97.8 per cent of the reports from New York Western Section were U.S. No. 1, followed by 86.7 per cent from New York Hudson Valley and 75.9 per cent from Connecticut. 20.6 per cent of Connecticut's total shipments were "other grades", whereas 12.8 per cent of Vermont's total shipments were of this designation. The higher per cent in the case of Connecticut is not too significant since the total number of reports from this state were few. Vermont accounted for more actual number of times reported under "others" than any other area.

In actual number of times reported, Vermont had 472 U.S. Fancy reports as is noted in Table 5. New Hampshire followed with 369 U.S. Fancy reports and Massachusetts was third with 310. Under U.S. No. 1, New York Hudson Valley had 775 reports which accounted for 72.9 per cent of all the U.S. No. 1 reports. In "others", Vermont led with 77 reports followed by 51 reports from New York Hudson Valley.

From Maine, New Hampshire, Vermont and Massachusetts came 90.3 per cent of the U.S. Fancy reports, while the other four areas reported 86.3 per cent of the U.S. No. 1 reports.

#### Discussion-

The four northern states predominated in shipping U.S. Fancy fruit into the New York market based on the

Table 5

Number of Times Reported for Each Area by Grade

(Based on total reports for all 8 areas)

Area	U.S. Fcy.		U.S. #1		Others	
	No.	%	No.	%	No.	%
Maine	268	17.0	26	2.4	7	4.5
New Hampshire	369	23.5	10	1.0	3	2.0
Vermont	472	30.1	54	5.1	77	48.5
Massachusetts	310	19.8	55	5.2	11	7.0
Connecticut	1	.1	22	2.1	6	3.8
New York (Hudson Valley)	68	4.3	775	72.9	51	32.1
New York (Champlain)	80	5.1	33	3.1	3	2.0
New York (West)	1	.1	87	8.2	1	.1
Total	1569	100.	1062	100.	159	100.

Source: Tables A-D Appendix.

number of times reported. This may be attributed to either or both of two reasons. It is known that cool night temperatures in the fall are necessary for best coloring of McIntosh fruit (23). In the fall of 1950, proper coloring temperature may have been lacking in Connecticut, New York Hudson Valley and New York Western Section. The other reason may be because it is not economical to ship U.S. No. 1 fruit to distant markets due to transportation charges.

As a result, the northern areas may be marketing their U.S. No. 1 McIntosh in nearby markets while the areas close to the New York market are shipping U.S. No. 1 fruit into the market and saving their U.S. Fancy stock for shipment to distant markets.

In regard to packs, the jumble pack is used for poorer grades along with U.S. Fancy and U.S. No. 1. The other packs are used almost exclusively for U.S. Fancy fruit with the exception of New York (all sections).

In regard to size, New York Hudson Valley was the principal area of report of a 2-3/4 inch minimum jumble pack. In the other areas, tray, cell and layer packs were used for this size. A 2 1/4 inch minimum layer pack was only used in Vermont. Most areas did not go under a 2 1/2 inch minimum size in layer or cell packs.

The New York Hudson Valley had the most reports on ripe fruit followed by Vermont.

More "factors" were reported from Massachusetts than from any other area; however, Vermont reported the most number of factors based on five or more times reported.

Maine, in its number of times reported, graded and sized more closely and carefully than any other area. In its grades it included a U.S. Fancy fine quality apple quite regularly. In its 2 1/2 inch minimum size it also included a heavy minimum size for the 2 1/4 inch apple.

Massachusetts and Maine had a few reports designated as A or B grade. These grades are not recognized U.S. apple

grades and may lead to confusion.

Numerous reports of no grade were also found. These were usually reported on a quality and condition basis such as fine quality or good quality.

#### Prices Based on Size, Grade and Pack

Tables E-K (Appendix) show monthly and seasonal average prices for areas based on pack, grade and size.

#### Data on pack, grade and size-

Table E shows the prices reported for Maine during the study. In regard to the jumble pack, the U.S. Fancy  $2\frac{1}{2}$  inch minimum and  $2\frac{1}{2}$  inch and up size both showed a similar season average price. The U.S. Fancy  $2\frac{1}{2}$  inch minimum, however, averaged about 30 cents higher than the heavy minimum sized  $2\frac{1}{2}$  inch fruit. The U.S. Fancy fine quality averaged about 10 cents higher than the U.S. Fancy of the same size. It must be pointed out that the U.S. Fancy fine quality appeared only in the latter half of the season while the heavy minimum sized  $2\frac{1}{2}$  inch fruit was reported only during March. In regard to ripe fruit, the price difference between it and firm fruit became smaller as the grade became poorer and the size progressively smaller. This can be best illustrated by comparing the U.S. Fancy  $2\frac{1}{2}$  inch and up with the ripe lot seasonal average. The difference was approximately 90 cents. The difference in the price between a firm and ripe of the U.S. Fancy  $2\frac{1}{2}$  inch minimum was approximately 70 cents while the same difference in a U.S. No. 1  $2\frac{1}{2}$  inch

minimum was only about 20 cents. In the U.S. Fancy grade a drop from a  $2\frac{1}{2}$  inch minimum to a  $2\frac{1}{4}$  inch minimum resulted in a seasonal average price difference of about \$1.00. In the U.S. No. 1 grade a similar drop from a  $2\frac{1}{2}$  inch minimum to a  $2\frac{1}{4}$  inch minimum resulted in about a 50 cent difference in the seasonal average price. Only one report on layer packs came from Maine and only three out of the eight months were reported for this pack. The price received for this Fancy  $2\frac{1}{2}$  inch and up size averaged \$2.59. In the cell cartons, approximately a \$1.00 difference was noted between U.S. Fancy 96 count and 112 count. The 112s were reported only in the months of October, November and December. A comparison between U.S. Fancy ripe 96 and U.S. Fancy 96 showed that the ripe fruit averaged for the season about \$1.50 less than the firm fruit. The prices received in that state for cell cartons were the only prices that increased as the season progressed. No correlation could be found between high or low priced months in relation to the other packs. Less price variation was observed during the season in a cell carton than in a jumble pack.

Few "factors" were reported from New Hampshire. Table F shows the prices received in the New York market for McIntosh apples from that state. The seasonal average price for U.S. Fancy  $2\frac{1}{2}$  inch and up jumble packs was about 35 cents less than that for the U.S. Fancy  $2\frac{1}{4}$  inch minimum jumble. The  $2\frac{1}{2}$  inch and up was reported fewer times and in less months than was the  $2\frac{1}{4}$  inch minimum size. U.S. Fancy fine

quality  $2\frac{1}{2}$  inch minimum jumble, which was reported only in April, averaged about 15 cents higher than did the seasonal average price for U.S. Fancy  $2\frac{1}{2}$  inch minimum jumble pack. A difference of about \$1.00 was noted between U.S. Fancy  $2\frac{1}{2}$  inch minimum and U.S. Fancy  $2\frac{3}{4}$  inch minimum. Of all the "factors" U.S. Fancy 96, 112, and 160 in cell cartons were reported most consistently during the season. About 35 cents less was received as the size dropped from 96 to 112 and the same difference was noted as the size dropped from 112 to 160. In a single size in the jumble packs as much as \$1.25 variation was noted during the season while in the cell cartons within a size the variation did not exceed 50 cents. As in Maine, no correlation was observed in regard to high or low priced months. In other words, if one size went up in price it did not mean that others followed the same trend.

Table G showing prices for Vermont is significant in that more "factors" were reported (five or more times) than in any other area. In the jumble packs, U.S. Fancy  $2\text{-}3/4$  inch minimum averaged about 10 cents less in price than did U.S. Fancy 3 inch and up. U.S. Fancy  $2\frac{1}{2}$  inch and up jumble pack averaged about 15 cents less than did U.S. Fancy  $2\text{-}3/4$  inch minimum while a similar difference of about 15 cents was noted between a U.S. Fancy  $2\frac{1}{2}$  inch and up and a U.S. Fancy  $2\frac{1}{2}$  inch minimum with the latter receiving the lower price. The biggest price difference in the jumble pack was noted between U.S. Fancy  $2\frac{1}{2}$  inch minimum and U.S. Fancy  $2\frac{3}{4}$  inch minimum. This  $\frac{1}{2}$  inch drop resulted in about 85 cents

difference in price. A comparison on ripe and firm fruit showed a 50 cents difference in the 2½ inch and up size for U.S. Fancy, a 35 cents difference in price in U.S. Fancy 2½ inch minimum and a 5 cents difference in price in U.S. Fancy 2¼ inch minimum. Comparing U.S. Fancy jumble with U.S. No. 1 jumble, U.S. No. 1 2½ inch and up averaged 35 cents less than did U.S. Fancy 2½ inch and up, while a U.S. No. 1 2¼ inch minimum averaged 55 cents less than did a U.S. Fancy 2¼ inch minimum. However, a U.S. Fancy 2¼ inch minimum averaged only 10 cents higher than did a U.S. No. 1 2¼ inch minimum. Within the U.S. No. 1 grade itself a 2½ inch minimum size averaged 35 cents less than a 2¼ inch and up size, while a 2¼ inch minimum averaged about 40 cents less than a 2¼ inch minimum. In the layer packs U.S. Fancy 3 inch minimum averaged about 35 cents less than did the 3 inch and up packs. The U.S. Fancy 2-¾ inch minimum averaged about 15 cents higher than did the 3 inch minimum. The 2-¾ inch minimum, however, was only reported up until January. The 2-¾ inch and up averaged 5 cents higher than did the 2-¾ inch minimum size. The 2½ inch and up averaged 30 cents lower than did the 2-¾ inch minimum, while little difference was noted in seasonal average price between the 2½ inch and up and the 2¼ inch minimum lots. Between the 2¼ inch minimum and 2½ inch minimum a 70 cents average difference resulted with the lower price being paid for the 2¼ inch minimum size. In ripe layer pack fruit compared to firm layer pack fruit a 15 cents difference was noted in U.S. Fancy 3 inch and up

lots while 10 cents difference was noted in U.S. Fancy 2½ inch minimum lots. In the cell cartons U.S. Fancy 96 count averaged 25 cents higher than U.S. Fancy 112 count while in no grade lots the 96 counts averaged only 10 cents higher than the 112 counts. The no grade lots were reported fewer times than the Fancy cell lots and were also priced lower. As in Maine and New Hampshire, no correlation could be found here between high priced months or low priced months for the various sizes. Similarly to Maine, the prices for Vermont cell cartons got progressively higher as the season progressed. In general, prices were lower than those received either in Maine or New Hampshire. Fluctuations within a size were as high as 75 cents for jumble packs, \$1.50 for layer packs and 45 cents for cell cartons.

Prices for Massachusetts appear in Table H. U.S. Fancy 2½ inch and up and U.S. Fancy 2½ inch minimum jumble packs showed similar seasonal averages. The U.S. Fancy 2½ inch minimum averaged 90 cents lower than did U.S. Fancy 2½ inch minimum. In U.S. Fancy fruit 2½ inch minimum ripes averaged 50 cents lower than firm fruit while 2½ inch minimum ripes averaged 35 cents lower than firm fruit. U.S. No. 1 2½ inch minimum fruit averaged 55 cents less than did U.S. Fancy 2½ inch minimum. U.S. No. 1 2½ inch minimum fruit averaged about 30 cents less than did U.S. Fancy 2½ inch minimum. Within the U.S. No. 1 grade the 2½ inch minimum size averaged about 70 cents less than did the 2½ inch minimum size. Three sizes were reported under layer packs but



reports were few and scattered. U.S. Fancy 2-3/4 inch minimum averaged about 10 cents higher than did U.S. Fancy 2 1/2 inch and up lots while the U.S. Fancy 2 1/2 inch minimum lots averaged about 20 cents lower than the U.S. Fancy 2 1/2 inch and up lots. In tray packs, 100 count fruit averaged 15 cents higher than 125 counts while 125 counts were 15 cents higher than the 150 counts. Mixed lots of from 100 to 125 averaged similarly in price as did the 100 counts while lots of from 80-88 averaged about 5 cents higher than lots of 100 count. Reports on trays were also too infrequent for proper comparisons. In cell cartons, U.S. Fancy 96 count averaged 70 cents higher than U.S. Fancy 112 count while U.S. Fancy 112 count averaged about 50 cents higher than U.S. Fancy 128 count. U.S. Fancy 150 count, however, averaged about 10 cents higher than the U.S. Fancy 128 count. U.S. Fancy 150 count averaged about 15 cents higher than did U.S. Fancy 160 count. No correlations were observed in Massachusetts on high or low priced months in relation to size. Within a size during the season jumble packs showed about \$1.50 range, while cell cartons ranged to about \$1.00, trays ranged 80 cents and layer packs ranged about 50 cents.

The New York Hudson Valley, as illustrated in Table I, shows that most of the shipments were in the U.S. No. 1 grade. A U.S. Fancy 2 1/2 inch minimum size jumble pack, however, averaged 20 cents higher than a U.S. Fancy 2 1/2 inch and up jumble pack. In the U.S. No. 1 grade the 2-3/4 inch and up size averaged about 5 cents lower than the 3 inch and up

size and similarly the 2-3/4 inch minimum averaged 5 cents less than the 2-3/4 inch and up size. The 2 1/2 inch and up also averaged 5 cents less than the 2-3/4 inch minimum size. The 2 1/2 inch minimum averaged 10 cents less than the 2 1/2 inch and up while the 2 1/4 inch and up size averaged 20 cents less than the 2 1/2 inch minimum size. The 2 1/4 inch minimum averaged about 45 cents under the average price for the 2 1/2 inch and up size. The 2 1/4 inch ripe and poor color fruit both minimum and up size averaged from 50-60 cents less than 2 1/2 inch minimum and up firm and No. 1 colored fruit. U.S. Fancy 2 1/2 inches and up averaged 30 cents more than did U.S. No. 1 2 1/2 inch and up fruit while U.S. Fancy 2 1/2 inch minimum fruit averaged 65 cents higher than did U.S. No. 1 2 1/2 inch minimum size. In U.S. No. 1 layer packs 3 inch and up lots averaged about 5 cents more while 2-3/4 inch and up lots and 2 1/2 inch and up lots averaged the same price. The 2 1/2 inch and up lots averaged about 45 cents higher than did the 2 1/2 inch minimum sized fruit. In U.S. Fancy cell cartons 96 count cartons averaged about 20 cents higher than did 112 counts while 112 counts averaged 35 cents higher than 150 counts. In U.S. No. 1 cell cartons 96 count fruit averaged 20 cents higher than 112 count while 112 count averaged 45 cents higher than did 150 count. 96-112 count lots were reported few times but averaged in price equivalent to 96 count fruit. Comparisons between U.S. Fancy and U.S. No. 1 cell cartons showed that U.S. No. 1 fruit in this pack averaged from 15-25 cents higher in each size over that received for U.S.

Fancy fruit. Fancy fruit, however, was reported fewer times and only during the months of November, December, January and February. Within a size, variations were observed as high as 75 cents in the jumble pack, \$1.00 in the layer pack and \$1.00 in the cell cartons during the course of the season.

Table J presents the data on both Connecticut and New York Lake Champlain Section. Connecticut reported only two sizes. The reports were few and scattered. However, the seasonal averages showed that the U.S. No. 1 2½ inch minimum size jumble pack averaged 30 cents higher than did the U.S. No. 1 2½ inch and up size. In the New York Lake Champlain Section the reports were also few and scattered. U.S. Fancy 2½ inch minimum averaged 35 cents higher than U.S. No. 1 2½ inch minimum. In U.S. Fancy layer packs, 3 inch and up lots averaged about 5 cents higher than 2-¾ inch minimum lots. The 2-¾ inch minimum lots averaged 20 cents higher than 2½ inch minimum lots. The 2½ inch minimum layer packs averaged 65 cents less than did 2½ inch minimum size layer packs. In U.S. Fancy cell cartons, 96 count fruit averaged 15 cents higher than did 112 count fruit.

New York Western Section, as represented in Table K, only reported U.S. No. 1 fruit. Reports from there also were few and scattered. In the jumble pack, 2½ inch and up size averaged about 15 cents less than did 2½ inch minimum sized fruit. In the tray packs, 112 and 128 counts averaged similarly. The 128 count averaged 10 cents higher than

160 count while 160 count averaged 80 cents higher than 180 count. Tray reports only appeared in the months of January, February and March.

Data on grade and pack (seasonal average price)-

In Table 6 a comparison on the seasonal average price between grade, pack and area has been made in which the size has been eliminated. Also, in order to equalize the value of the data, ripe and fine quality fruit have been eliminated.

In the U.S. Fancy grade, Maine averaged the highest seasonal price for the jumble pack with a \$2.64 price while New Hampshire followed with a \$2.51 average price and New York Hudson Valley was third with a \$2.31 average. In the U.S. No. 1 jumble packs, New York Hudson Valley averaged highest with \$1.79 followed by New York Western Section with \$1.68 average price while Massachusetts averaged \$1.67. In other grades in the jumble pack Massachusetts averaged \$1.19 followed by \$1.04 from Vermont and \$1.00 from New York Hudson Valley.

In U.S. Fancy layer packs, few areas outside of Vermont had consistent reports. However, some were reported from Maine, Massachusetts, and New York Hudson Valley. Maine had the highest average price for a layer pack with a \$2.59 seasonal average. In comparison to the jumble price average for Maine, this, however, was about 5 cents lower. Massachusetts ranked second with \$2.28 followed by \$2.25 for Vermont. New York Lake Champlain area was last with \$2.07 which was also below the U.S. No. 1 layer price of \$2.24 for New York

Table 6

Average Seasonal Price by Area for McIntosh Apples

(Season Based on Period Between Sept. - April)  
(Fine and ripe excluded)

Pack Grade	JUMBLE		LAYER		TRAY		CELL	
	Fcy.	#1 Oth.	Fcy.	#1 Oth.	Fcy.	#1 Oth.	Fcy.	#1 Oth.
Area:								
Maine	\$2.64	\$1.57	\$2.59	-	-	-	\$3.73	-
New Hampshire	2.51	-	-	-	-	-	3.23	-
Vermont	1.89	1.57	1.04	2.25	-	-	2.92	-
Massachusetts	2.05	1.67	1.19	2.28	-	2.82	2.78	-
Connecticut	-	1.56	-	-	-	-	-	-
New York (Hudson Valley)	2.31	1.79	1.00	-	2.24	-	2.30	2.51
New York (L. Champlain)	2.08	1.71	-	2.07	-	-	2.87	-
New York (West)	-	1.68	-	-	-	1.99	-	2.34

Source: Tables E-K Appendix.

Hudson Valley.

In tray packs U.S. Fancy from Massachusetts averaged \$2.82 as compared to the U.S. No. 1 price of \$1.99 from New York Western Section.

U.S. Fancy cell packs in general averaged higher in all areas than their corresponding jumble, layer and tray packs. Maine averaged highest in cell packs with \$3.73 followed by \$3.23 from New Hampshire and \$2.92 from Vermont. U.S. No. 1 cell packs were quoted mainly from New York Hudson Valley and New York Western Section. The former averaged \$2.51 as compared to \$2.34 for New York Western Section. The U.S. No. 1 average price for New York Hudson Valley was about 20 cents higher than its U.S. Fancy price. It should be noted, however, that fewer U.S. Fancy than U.S. No. 1 prices were reported from New York Hudson Valley.

Data on pack (seasonal average)-

Table 7 shows the seasonal average price based on pack and area. In this table size and grade have been eliminated.

In regard to the jumble pack, Maine and New Hampshire led in price each averaging \$2.51. Vermont with a seasonal average of \$1.55 and Connecticut with \$1.56 were lowest.

In layer packs, Maine averaged \$2.59 followed by \$2.28 for Massachusetts and \$2.25 for Vermont.

As was stated previously, Massachusetts averaged \$2.82 in tray packs as compared to \$2.34 for New York Western Section.

Maine also averaged the highest price on cell cartons with a seasonal average of \$3.73 followed by \$3.23 for New Hampshire. New York Western Section with \$2.34 averaged lowest in cell carton prices.

Table 7

Average Seasonal Prices for Pack by Area for McIntosh Apples  
(Season Based on Period Between Sept. - April)  
(Fine and ripe excluded)

Pack	Jumble	Layer	Tray	Cell
Area:				
Maine	\$2.51	\$2.59	-	\$3.73
New Hampshire	2.51	-	-	3.23
Vermont	1.55	2.25	-	2.87
Massachusetts	1.81	2.28	2.82	2.78
Connecticut	1.56	-	-	-
New York (Hudson Valley)	1.79	2.24	-	2.49
New York (L. Champlain)	1.83	2.07	-	2.87
New York (West)	1.68	-	2.34	2.34

Source: Tables E-K Appendix.

Data on grade (seasonal average)-

In Table 8 average seasonal prices by grade were compared. Size and pack were eliminated in the analysis.

In U.S. Fancy grades, New Hampshire averaged the highest price with \$3.08 followed by Maine with \$2.93 and Massachusetts with \$2.61. Vermont was lowest in U.S. Fancy

with \$2.21 as its average price.

New York Western Section with \$2.03 and New York Hudson Valley with \$2.01 averaged the highest prices for U.S. No. 1 fruit. Connecticut, Vermont and Maine averaged the lowest prices for U.S. No. 1 fruit.

In the U.S. Utility grade Massachusetts averaged \$1.19 followed by Vermont with \$1.04 and New York Hudson Valley with \$1.00. A No Grade classification for Vermont, which was packed in cell cartons, averaged \$2.77.

Table 8

Average Seasonal Prices for Grades by Area for McIntosh Apples  
(Season Based on Period Between Sept. - April)  
(Fine and ripe excluded)

Grade	U.S. Fcy.	U.S. No. 1	U.S. Utility	N.G.*
<b>Area:</b>				
Maine	\$2.93	\$1.57	-	-
New Hampshire	3.08	-	-	-
Vermont	2.22	1.57	1.04	2.77
Massachusetts	2.61	1.67	1.19	-
Connecticut	-	1.56	-	-
New York (Hudson Valley)	2.31	2.01	1.00	-
New York (L. Champlain)	2.35	1.71	-	-
New York (West)	-	2.03	-	-

\*N.G. - No Grade (packed in a cell carton)

Source: Tables E-X Appendix.



Data on Grade and Pack (4 sampling months)-

Table 9 gives a comparison of grade and pack based on the four sampling months of October, December, January and March.

In Maine both U.S. Fancy and U.S. No. 1 jumble packs showed advances in price during December and January over the October price. The March price as compared to the October price was the same for U.S. No. 1 but lower for U.S. Fancy. U.S. Fancy layer pack was only reported in October and March of the sampling months. The March price was about 20 cents lower than the October price. U.S. Fancy cell cartons declined in price during December and January as compared to the October price but the March average showed a 50 cent rise compared to the October price.

In New Hampshire U.S. Fancy jumble packs dipped slightly in price in December as compared to the October price, but climbed in both January and March, gaining about 10 cents in each of the two months. U.S. Fancy cell packs advanced slightly in price in all of the four months although the difference between October and March was only 15 cents.

U.S. Fancy jumble prices in Vermont dipped in December but rose in both January and March. The March price, however, was only 5 cents above the October average. A similar trend was observed in U.S. No. 1 jumble prices with a drop in December. A reverse situation took place in U.S. Utility jumble packs. The December price was highest while the

Table 9

Average Price by Areas for McIntosh Apples

(Based on Monthly Averages for Oct., Dec., Jan., and Mar.)  
(Fine and ripe excluded)

Area	Grade	Pack	Oct.	Dec.	Jan.	Mar.
Maine	U.S. Fancy	Jumble	\$2.48	\$2.82	\$2.96	\$2.32
	" No. 1	Jumble	1.50	2.00	1.79	1.50
	" Fancy	Layer	2.75	-	-	2.55
	" Fancy	Cell	3.48	3.44	3.00	4.00
N. H.	U.S. Fancy	Jumble	2.45	2.38	2.51	2.62
	" Fancy	Cell	3.13	3.16	3.22	3.27
Vt.	U.S. Fancy	Jumble	1.79	1.50	1.60	1.83
	" No. 1	Jumble	1.38	1.26	1.58	1.57
	" Utility	Jumble	1.00	1.18	0.97	0.78
	" Fancy	Layer	2.19	2.20	2.17	2.44
	" Fancy	Cell	2.50	2.69	2.67	3.13
	No Grade	Cell	-	2.75	2.72	3.01
Mass.	U.S. Fancy	Jumble	1.93	-	1.84	-
	" No. 1	Jumble	1.46	1.98	1.51	0.88
	" Utility	Jumble	-	1.25	1.13	1.13
	" Fancy	Layer	-	2.21	2.10	2.38
	" Fancy	Tray	3.07	2.80	2.62	-
	" Fancy	Cell	3.18	2.64	2.37	2.48

Table 9 (continued)

Area	Grade	Pack	Oct.	Dec.	Jan.	Mar.
N. Y. (H.V.)	U.S. Fancy	Jumble	\$2.19	\$2.44	\$2.45	-
	" No. 1	Jumble	1.64	1.88	1.77	1.79
	" Utility	Jumble	0.98	1.13	0.88	-
	" Unclass.	Jumble	1.00	1.25	-	-
	Orchard Run	Jumble	-	1.88	-	0.92
	U.S. No. 1	Layer	2.17	2.16	1.87	2.32
	" Fancy	Cell	-	2.33	2.25	-
	" No. 1	Cell	2.15	2.37	2.30	2.44
Conn.	U.S. No. 1	Jumble	1.56	-	-	-
N. Y. (L.C.)	U.S. Fancy	Jumble	1.94	-	-	1.38
	" No. 1	Jumble	-	1.82	1.77	1.38
	" Fancy	Layer	-	2.33	2.00	-
	" Fancy	Cell	-	3.00	2.63	3.25
N. Y. (West)	U.S. No. 1	Jumble	1.41	2.00	2.00	-
	" No. 1	Tray	-	-	2.34	1.71
	" No. 1	Cell	-	2.27	2.30	-

Source: Tables E-K Appendix.

months of January and March dropped below the October price. U.S. Fancy layer packs remained within a few cents of each other in October, December and January with the March price climbing 25 cents higher. U.S. Fancy cell carton prices showed advances between October and December while the December to January price remained similar. The March price climbed to about 65 cents higher than the October average price. The No Grade cell carton prices had no October reports. The January price remained similar to the December price but averaged 25 cents higher than the December and January average price.

In Massachusetts only an October and January price was reported for U.S. Fancy jumble packs. The January average was about 10 cents lower than the October average price. U.S. No. 1 jumble packs were highest in December but fell in price both in January and March. The March price was 60 cents lower than the October price. No prices were quoted in October for U.S. Utility jumble packs. The January and March prices remained similar and showed about a 10 cent drop from the December price. No prices were reported in October for U.S. Fancy layer packs but the January price was 10 cents lower than the December price, but the March price was about 15 cents higher than the average price in October. No tray pack prices were quoted in March. The October price was the highest with a drop in price coming both in December and March. A similar price trend was observed in regard to cell packs. However, where a March price was reported it

showed an increase over the January average price.

The reports from New York Hudson Valley showed U.S. Fancy jumble packs priced highest in December and January over the October average price. No reports were quoted for March. U.S. No. 1 jumble pack showed a rise in December over the October reports but dropped again in January and remained about the same in March. December prices were the highest for U.S. Utility, Unclassified and Orchard Run fruit. Prices for U.S. No. 1 layer packs were similar in October and December but dipped in January. The March price was about 15 cents higher than the October reports. U.S. Fancy cell packs were reported only in December and January. The January prices averaged slightly lower than those of December. U.S. No. 1 cell carton prices rose in December over October prices but dipped slightly in January. March prices averaged, however, about 30 cents higher than October reports.

Connecticut had only a U.S. No. 1 jumble report of \$1.56 for the month of October.

In the New York Lake Champlain Section U.S. Fancy jumble packs were reported only in October and March. The March average price was 55 cents lower than that received in October. U.S. No. 1 jumble packs were not reported in October. The price was highest in December, then dropped in both January and March. The March average was 45 cents lower than the December average. U.S. Fancy layer packs had no October and March reports. The January average was about

35 cents lower than the December reports. U.S. Fancy cell cartons had no October reports. The January price was about 35 cents lower than the December average but the March prices averaged 25 cents higher than the December reports.

In the New York Western Section U.S. No. 1 jumble packs averaged similarly in December and January which was about 50 cents higher than the October prices. No March prices were quoted. U.S. No. 1 tray packs had no October and December reports but showed a drop of about 65 cents in price in March over the January quotations. U.S. No. 1 cell cartons were about the same in December and January in regard to average price.

Data on pack (4 sampling months)-

Table 10 gives the comparison between packs for the four sampling months with both size and grade eliminated. Many of the comparisons are similar to the previous data discussed since some of the areas used only a single grade for specific packs. Only the differences as related to pack will be pointed out.

In Maine and New Hampshire the comparisons are similar to those discussed under grade and pack.

Vermont used three grades in its jumble pack shipments. Prices dipped in December and January but averaged similarly in October and March.

Massachusetts also used three grades in its jumble pack. In that state the December prices were 10 cents higher than the October reports but dipped sharply in both January and March.

Table 10

Average Price for Pack by Areas for McIntosh Apples

(Based on Monthly Averages for Oct., Dec., Jan., and Mar.)  
(Fine and ripe excluded)

Area	Pack	Oct.	Dec.	Jan.	Mar.
Maine	Jumble	\$2.38	\$2.77	\$2.61	\$2.07
	Layer	2.75	-	-	2.55
	Cell	3.48	3.44	3.00	4.00
New Hampshire	Jumble	2.45	2.38	2.51	2.62
	Cell	3.13	3.16	3.22	3.27
Vermont	Jumble	1.59	1.29	1.30	1.57
	Layer	2.19	2.20	2.17	2.44
	Cell	2.50	2.71	2.70	3.11
Massachusetts	Jumble	1.81	1.93	1.53	0.96
	Layer	-	2.21	2.10	2.38
	Tray	3.07	2.80	2.62	-
	Cell	3.18	2.64	2.37	2.48
Connecticut	Jumble	1.56	-	-	-
N.Y. (H.V.)	Jumble	1.60	1.86	1.81	1.76
	Layer	2.17	2.16	1.87	2.32
	Cell	2.15	2.36	2.29	2.44
N.Y. (L.C.)	Jumble	1.94	1.82	1.77	1.38
	Layer	-	2.33	2.00	-
	Cell	-	3.00	2.63	3.25
N.Y. (West)	Jumble	1.41	2.00	2.00	-
	Tray	-	-	2.34	1.71
	Cell	-	2.27	2.30	-

Source: Tables E-K Appendix.

The jumble pack in the New York Hudson Valley was based on five grades. The jumble pack averaged about 25 cents higher in December over October prices and then dipped in price during January and March.

No significant differences in pack prices as compared to grade and pack prices were observed in the other areas.

In an area in general, cell cartons averaged the highest prices in all months over other packs followed by layer packs and then jumble packs. Where tray packs were used, prices were higher within an area for tray packs than for cell cartons during certain months. In New York Hudson Valley layer and cell prices were the same in October.

Data on grade (4 sampling months)-

Table 11 presents the data on prices based on grade with size and pack eliminated.

In Maine, U.S. Fancy prices advanced in all of the four sampling months. U.S. No. 1 prices rose in December over October quotations but dropped in both January and March. The March prices were the same as the October quotations. The U.S. Fancy prices ranged from \$1.00-1.50 over the U.S. No. 1 prices.

In New Hampshire the prices for U.S. Fancy advanced similarly as in Maine.

Vermont also showed a similar trend in advancing prices for U.S. Fancy. The U.S. No. 1 average for December was lower than the October price but rose in January and showed little change in March. U.S. Utility prices were highest in



Table 11

Average Price for Grade by Areas for McIntosh Apples

(Based on Monthly Averages for Oct., Dec., Jan., and Mar.)  
(Fine and ripe excluded)

Area	Grade	Oct.	Dec.	Jan.	Mar.
Maine	Fancy	\$2.78	\$2.94	\$2.97	\$3.12
	No. 1	1.50	2.00	1.79	1.50
New Hampshire	Fancy	2.54	2.96	3.10	3.22
Vermont	Fancy	1.93	2.07	2.12	2.44
	No. 1	1.38	1.26	1.58	1.57
	Utility	1.00	1.18	0.97	0.78
	No Grade*	-	2.75	2.72	3.01
Massachusetts	Fancy	2.70	2.68	2.42	2.44
	No. 1	1.46	1.98	1.51	0.88
	Utility	-	1.25	1.13	1.13
Connecticut	No. 1	1.56	-	-	-
N.Y. (H.V.)	Fancy	2.19	2.39	2.34	-
	No. 1	1.73	2.05	1.95	1.93
	Utility	0.98	1.13	0.88	-
	Unclass.	1.00	1.25	-	-
	Orch. Run	-	1.88	-	0.92
N.Y. (L.C.)	Fancy	1.94	2.43	2.17	2.45
	No. 1	-	1.82	1.77	1.38
N.Y. (West)	No. 1	1.41	2.24	2.31	1.71

\*Cell carton

Source: Tables E-K Appendix.

December but dropped sharply in the months of January and March.

In Massachusetts U.S. Fancy prices exhibited a reverse tendency as compared to the previous states under discussion. October and December showed similar prices but dropped in January and remained the same in March. U.S. No. 1 and U.S. Utility were highest in December showing declines again in January.

New York Hudson Valley prices for U.S. Fancy and U.S. No. 1 were highest in December. Similarly prices for the other grades were also highest during this month. However, U.S. No. 1 prices averaged higher in March than in October, while U.S. Fancy prices averaged higher in January than in October.

U.S. Fancy prices for New York Lake Champlain Section averaged highest in December and March and reached their lowest level in January. U.S. No. 1 prices had no October reports but showed declines in all months with March averaging about 45 cents under December prices.

New York Western Section averaged highest in January with October prices being the lowest.

#### Discussion-

A general statement can be made in regard to price fluctuations. A drop in price has been observed for each  $\frac{1}{4}$  inch drop in size. The largest of these spreads always comes between the  $2\frac{1}{4}$  inch minimum size and  $2\frac{1}{2}$  inch minimum size, regardless of pack or grade. It would seem that

sizing fruit to an intermediate size between the 2 $\frac{1}{2}$  inch minimum and 2 $\frac{3}{4}$  inch minimum might off-set such severe price differences.

In relation to ripe and firm fruit of the same size and pack, the greatest difference in price occurred in sizes over 2 $\frac{1}{2}$  inch minimum. The smallest price difference was noted in 2 $\frac{3}{4}$  inch minimum sizes. Between the U.S. Fancy and U.S. No. 1 grades the greatest price spreads occurred also in fruit from 2 $\frac{1}{2}$  inches and larger.

When prices of a certain size, grade and pack rose or dropped, no correlations could be found to indicate that others following the same trends. It was observed, however, that prices in December and January usually marked an upward or downward trend for the remainder of the season.

In regard to packs, cell cartons were observed to go up in price as the season progressed more than was noticed in any other packs.

The number of times prices were quoted during a month or season seemed to influence the price behavior. In general, it seemed that the more times prices were quoted for a "factor", the higher was the season average. However, this did not always hold true as was observed in Tables E-K.

In general, prices were higher for sizes marked "up" as compared to sizes marked "minimum". In the case of layer packs the "up" size represents mixed lots in regard to size while in the jumble pack it may also represent mixed sizes within a pack.

Less price variation was noted in cell carton shipments from New Hampshire and in U.S. No. 1 jumble packs sized  $2\frac{1}{2}$  inch minimum and  $2\frac{1}{2}$  inch and up from New York Hudson Valley than any other reports. The constant appearance of these items from these specific areas during the season may be the reason for the small variation and relatively good prices received in comparison with prices received for other "factors". These "factors" evidently established themselves well on the market and were constantly sought by buyers due to their regularity and dependability in being in the market constantly. "Factors" appearing only a few times or at irregular intervals evidently had trouble in finding willing buyers as was observed by the prices reported.

In regard to packs, the jumble pack due to its use for packing poorer graded fruit or other possible reasons, is evidently not being recognized on an equal basis with the other three packs used in the market. As a result, U.S. Fancy fruit packed in jumble packs is invariably receiving lower returns than the other packs. To command a higher price for better graded fruit layer packs, tray packs and cell cartons could be used to good advantage.

### Comparisons on Packs Based on Price

In the previous section, packs were discussed individually without comparing one pack against another. Another glance at Tables E-K (Appendix) shows the variation in price between packs within an area where grade and size are similar.

In Maine the U.S. Fancy 2½ inch minimum jumble pack averaged 20 cents higher than the same grade and size in layer packs. Reports, however, were few and scattered. No other comparisons could be made in Maine where size and grade were similar but packs differed.

In New Hampshire, no comparisons could be made because size was not similar in the two packs used.

The U.S. Fancy 3 inch and up layer pack averaged 10 cents higher in Vermont than did the corresponding jumble pack. A difference of 70 cents was noted in the seasonal average price between a U.S. Fancy 3 inch minimum layer pack and a U.S. Fancy 96 count (3 inch) cell carton. Layer and jumble packs both averaged similarly for U.S. Fancy 2-3/4 inch minimum. However, the cell carton of the same size and grade averaged 35 cents higher. Other comparisons showed the U.S. Fancy 2½ inch and up jumble averaging 15 cents higher than the corresponding layer pack, while U.S. Fancy 2½ inch minimum averaged the same in both layer and jumble packs. The U.S. Fancy 2½ inch minimum averaged 10 cents higher in layer packs than it did in jumble packs.

In Massachusetts, jumble packs averaged higher than layer packs both in the 2½ inch and up and 2½ inch minimum sizes. Reports here were few and scattered. A comparison in the 2-¾ inch minimum size showed the following prices: tray \$2.94, cell \$2.73 and layer \$2.40. A similar comparison in the 2½ inch minimum size showed the following ranges: tray \$2.64, cell \$2.60, jumble \$2.45 and layer \$2.14.

In the New York Lake Champlain Section U.S. Fancy 2-¾ inch minimum averaged \$2.80 in cell cartons as compared to \$2.28 in layer packs. Similar comparisons showed U.S. Fancy 3 inch and up averaging \$2.93 in cell cartons as compared to \$2.32 in layer packs.

Comparisons between packs in New York Hudson Valley for U.S. No. 1 grade showed the following prices: 3 inch and up: cell \$2.80, layer \$2.38, jumble \$2.12; 2-¾ inch and up: cell \$2.56, layer \$2.33, jumble \$2.05; 2½ inch and up: layer \$2.33, jumble \$1.91; and 2½ inch minimum: cell \$2.13, layer \$1.90, jumble \$1.79.

In the New York Western Section comparisons for U.S. No. 1 2½ inch minimum size showed cell cartons averaging \$2.32, trays \$2.16 and jumble packs \$1.74.

#### Discussion-

Cell cartons always averaged higher in price than either layer packs or jumble packs. In Massachusetts tray packs averaged higher in price than any other pack reported but in New York Western Section cell cartons averaged higher than tray packs.

Layer packs at times averaged higher than jumble pack prices and at other times the reverse was true. The number of times reported could have been the reason for these variations.

Cell cartons and layer packs in addition to being used for the better grades were also used exclusively for packing fruit larger than  $2\frac{1}{2}$  inches in diameter. Tray packs were used for all sizes.

#### Comparisons Between Areas

Figures I through IX illustrate graphically price comparisons between areas where grade, size and pack are similar. No comparisons were shown in either layer packs or tray packs due to limited data.

In Figure I, a comparison is made of prices received for U.S. Fancy  $2\frac{1}{2}$  inch and up jumble pack. Maine averaged highest prices while Vermont averaged the lowest prices. New York Hudson Valley and Massachusetts averaged about midway between Vermont and Maine in their prices. All prices tended to decline after December.

Figure II showing prices during the season for U.S. Fancy  $2\frac{1}{2}$  inch minimum jumble indicates both declines and rises during the months of January and February. Prices received in November seemed to be more similar than during any other month. No correlation was observed here in regard to any area averaging highest or lowest in price throughout the season.

U.S. Fancy 2½ inch minimum, as observed in Figure III, shows that price levels between states were similar in both January and February. No other correlations were observed here.

In the U.S. No. 1 jumble pack, Figure IV shows New York Hudson Valley as having a more stable price than the other areas. However, reports were few and scattered outside of New York Hudson Valley.

Figure V showing prices for U.S. No. 2½ inch minimum jumble pack again shows New York Hudson Valley as having a more stable price compared to the other areas. Prices during December, January and February were generally similar for all areas outside of Vermont. The price level in Vermont was generally lower in most of the months.

Prices for U.S. No. 1 2½ inch minimum jumble packs as shown in Figure VI had similar trends in both November and December. No other correlations were observed.

In Figure VII price ranges for U.S. Fancy 96 count cell packs are shown. New Hampshire had the most stable prices during the season. The general variation between areas was much greater in this pack than on any of the previous graphs.

In Figure VIII price variations for U.S. Fancy 112 count cell packs again show New Hampshire with the least variation in prices from month to month.

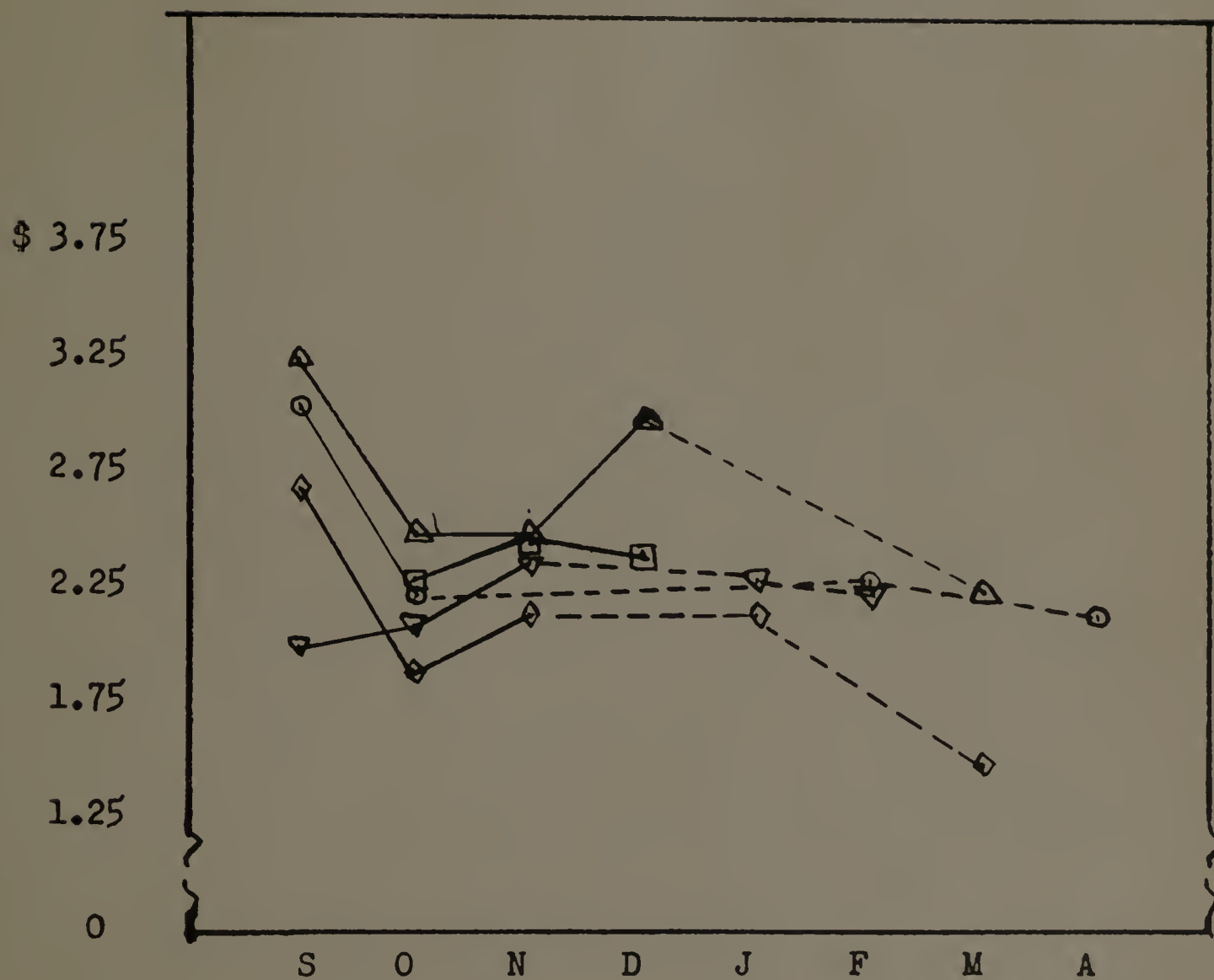
Figure IX showing price differences between New Hampshire and Massachusetts again indicates little variation in



FIGURE I

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. Fancy  
2-1/2 in. & up  
Jumble Pack



KEY TO FIGURES I-IX

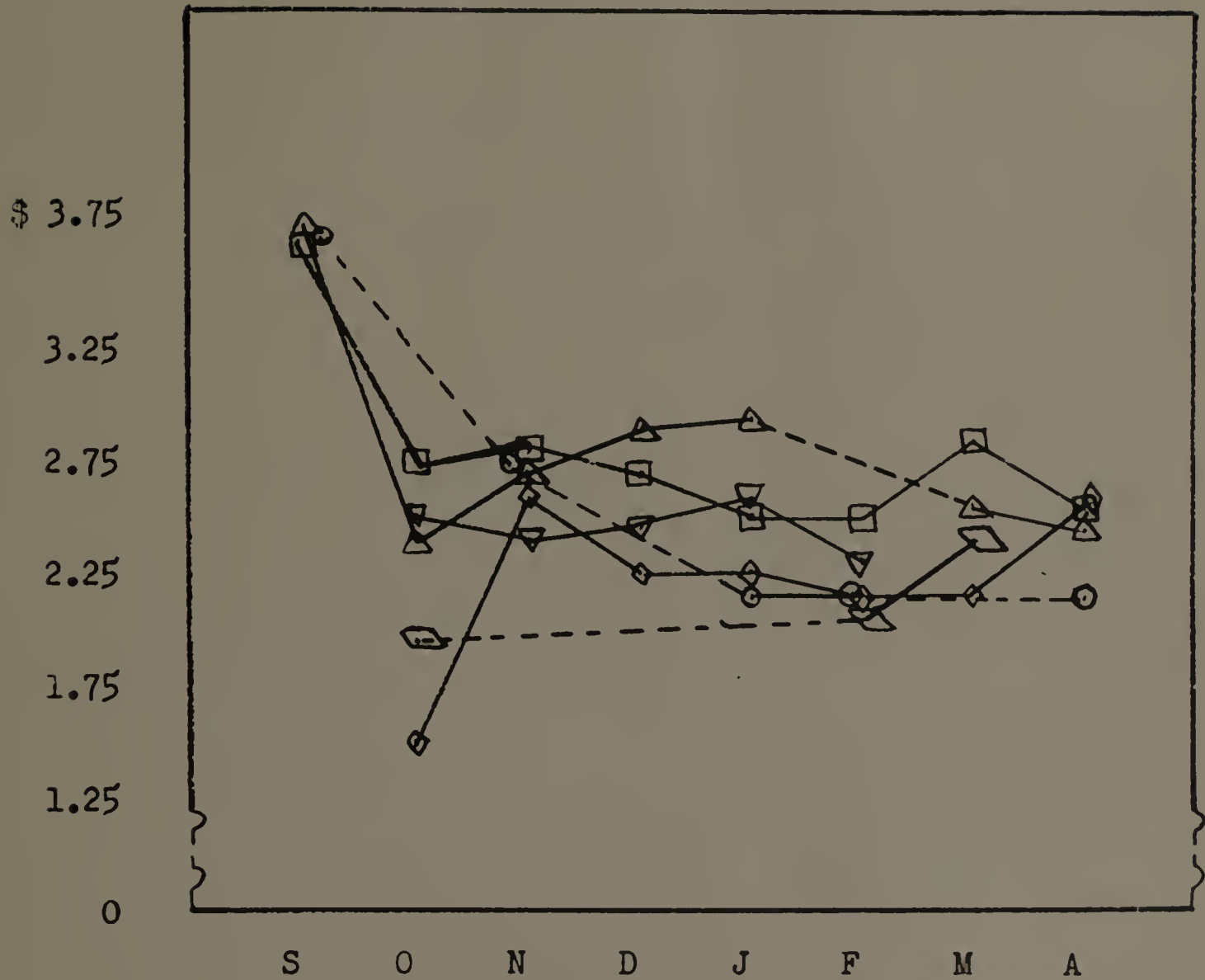
Maine-	△	Conn.-	⬡
N.H.-	□	N.Y. (H.V.)-	▽
Vt.-	◇	N.Y. (L.C.)-	⬠
Mass.-	○	N.Y. (West.)-	
Reports	——	No Reports	----

Source: Tables E-K. Appendix.

FIGURE II

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. Fancy  
2-1/2 in. min.  
Jumble Pack



KEY TO FIGURES I-IX

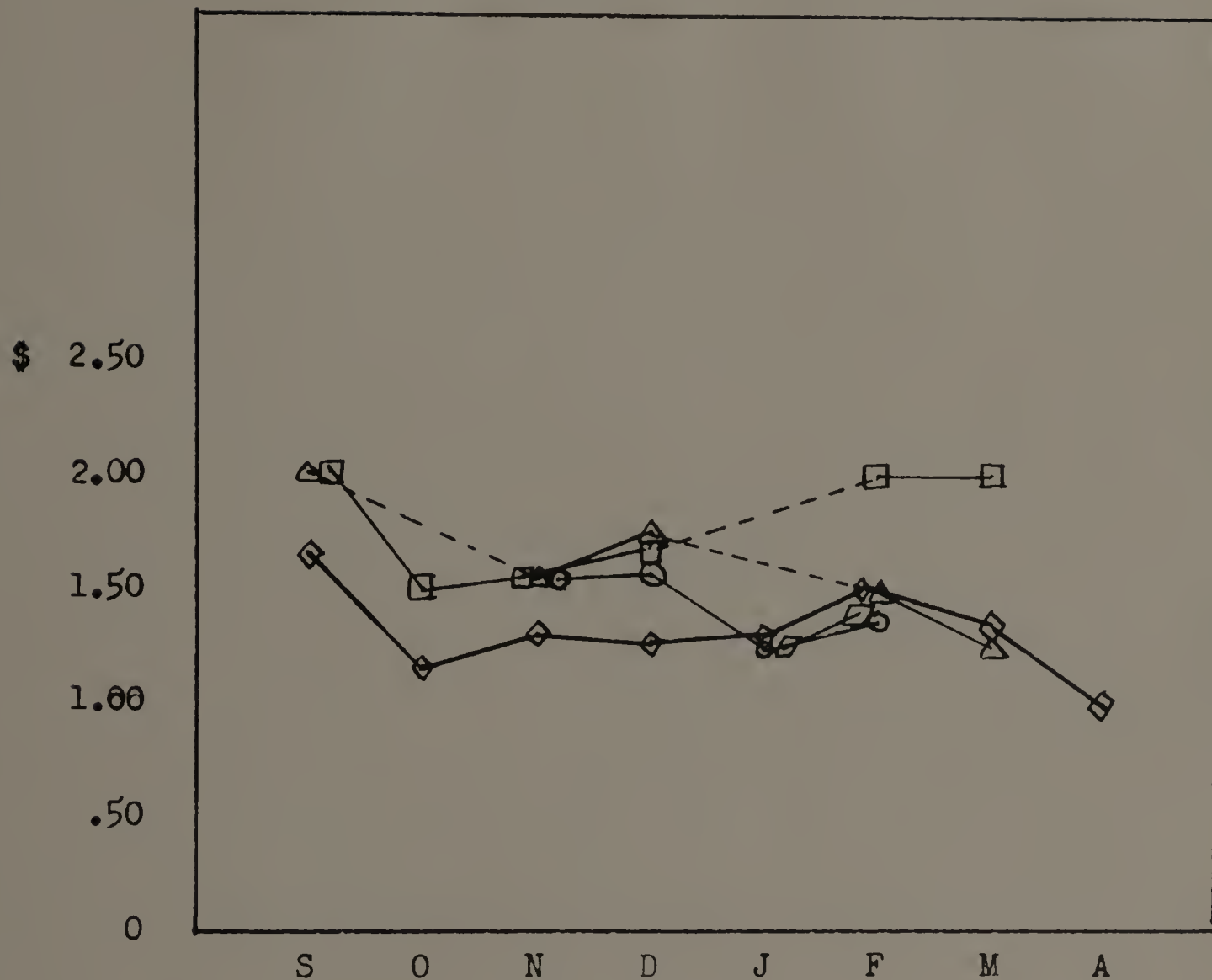
- |         |    |               |      |
|---------|----|---------------|------|
| Maine-  | △  | Conn.-        | ⬡    |
| N.H.-   | □  | N.Y. (H.V.)-  | ▽    |
| Vt.-    | ◇  | N.Y. (L.C.)-  | ▱    |
| Mass.-  | ○  | N.Y. (West.)- |      |
| Reports | —— | No Reports    | ---- |

Source: Tables E-K. Appendix.

FIGURE III

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. Fancy  
2-1/4 in. min.  
Jumble Pack



KEY TO FIGURES I-IX

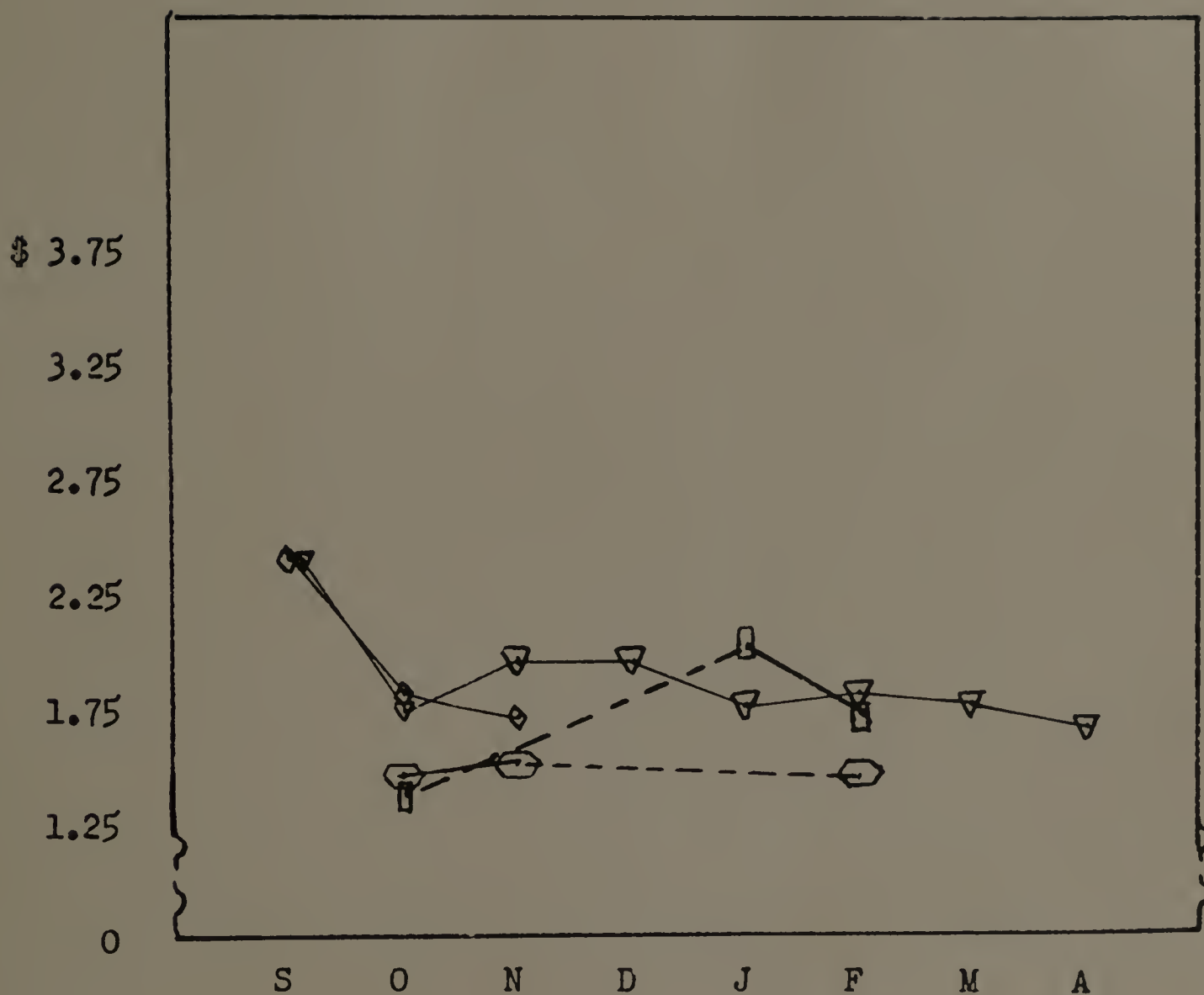
- |         |    |               |      |
|---------|----|---------------|------|
| Maine-  | △  | Conn.-        | ⬠    |
| N.H.-   | □  | N.Y. (H.V.)-  | ▽    |
| Vt.-    | ◇  | N.Y. (L.C.)-  | ▱    |
| Mass.-  | ○  | N.Y. (West.)- | ▮    |
| Reports | —— | No Reports    | ---- |

Source: Tables E-K. Appendix.

FIGURE IV

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. No.1  
2-1/2 in. & up  
Jumble Pack



KEY TO FIGURES I-IX

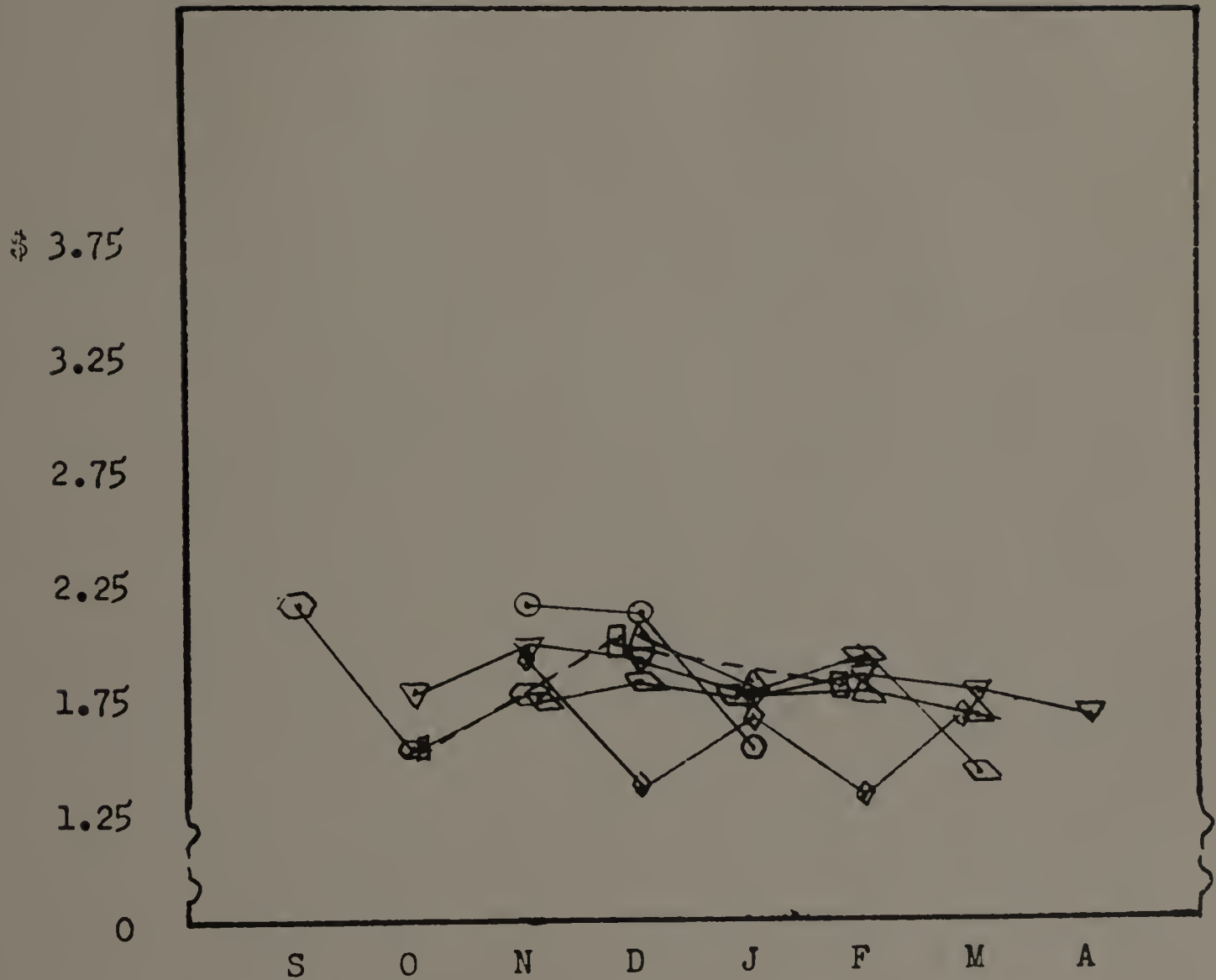
- |         |    |               |      |
|---------|----|---------------|------|
| Maine-  | △  | Conn.-        | ⬡    |
| N.H.-   | □  | N.Y. (H.V.)-  | ▽    |
| Vt.-    | ◇  | N.Y. (L.C.)-  | ▱    |
| Mass.-  | ○  | N.Y. (West.)- | ⊥    |
| Reports | —— | No Reports    | ---- |

Source: Tables E-K. Appendix.

FIGURE V

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. No. 1  
2-1/2 in. min.  
Jumble Pack



KEY TO FIGURES I-IX

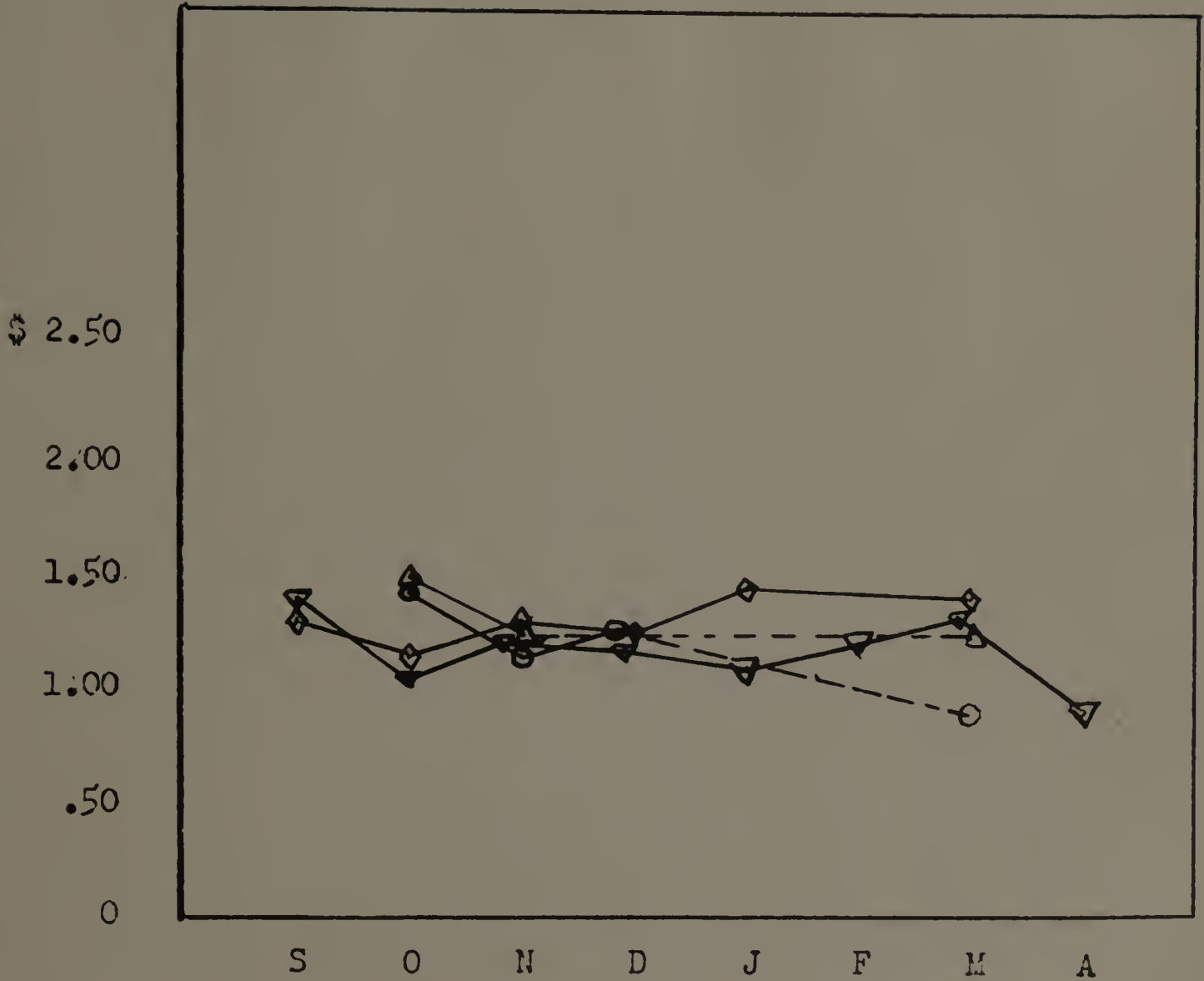
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N.H.-	□	N.Y. (H.V.)-	▽
Vt.-	◇	N.Y. (L.C.)-	▭
Mass.-	○	N.Y. (West.)-	
Reports	——	No Reports	----

Source: Tables E-K. Appendix.

FIGURE VI

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. No. 1  
2-1/4 in. min.  
Jumble Pack



KEY TO FIGURES I-IX

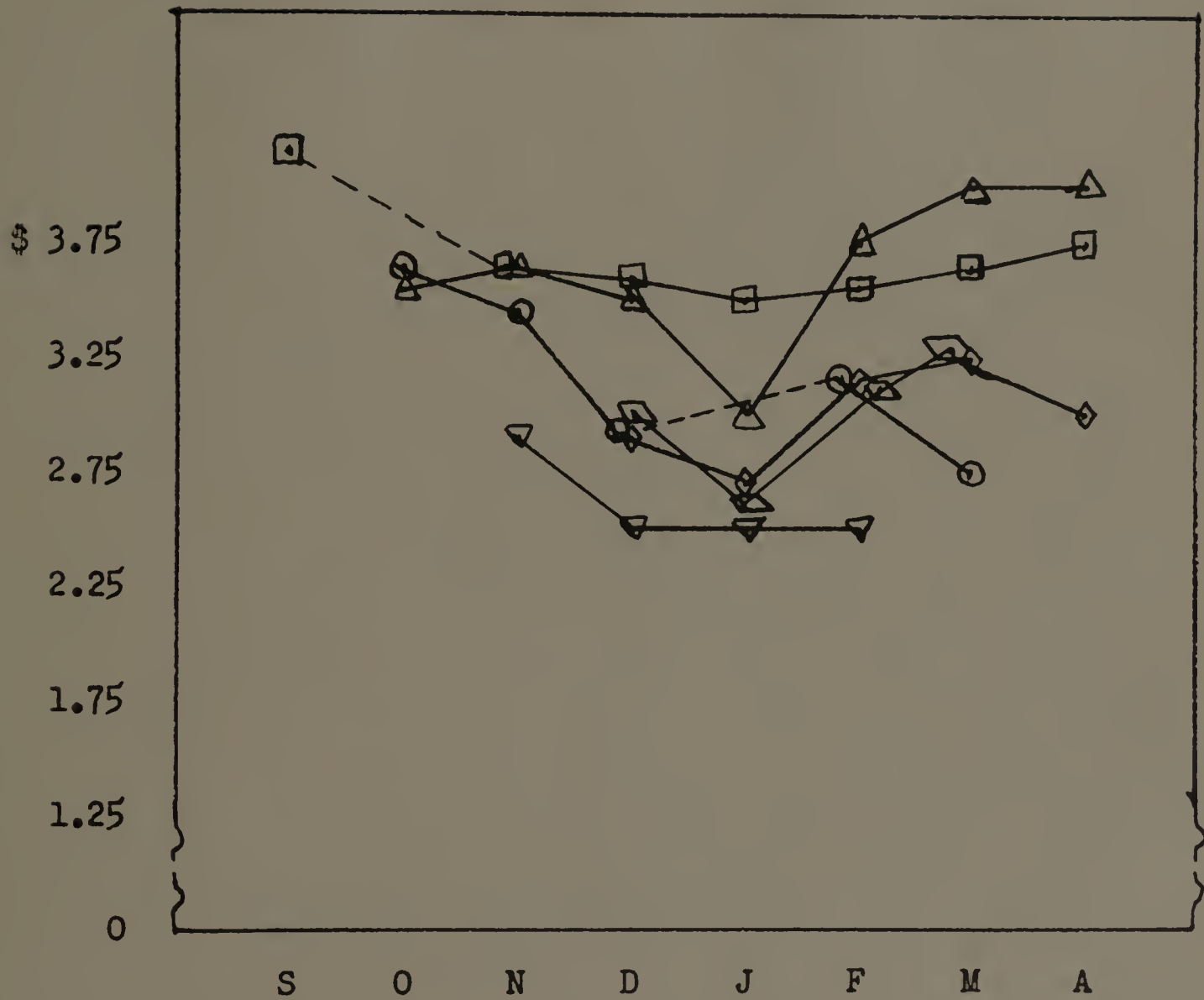
Maine-	△	Conn.-	⬠
N.H.-	□	N.Y. (H.V.)-	▽
Vt.-	◇	N.Y. (L.C.)-	⬡
Mass.-	○	N.Y. (West.)-	▭
Reports	———	No Reports	-----

Source: Tables E-K. Appendix.

FIGURE VII

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. Fancy  
96  
Cell Carton



KEY TO FIGURES I-IX

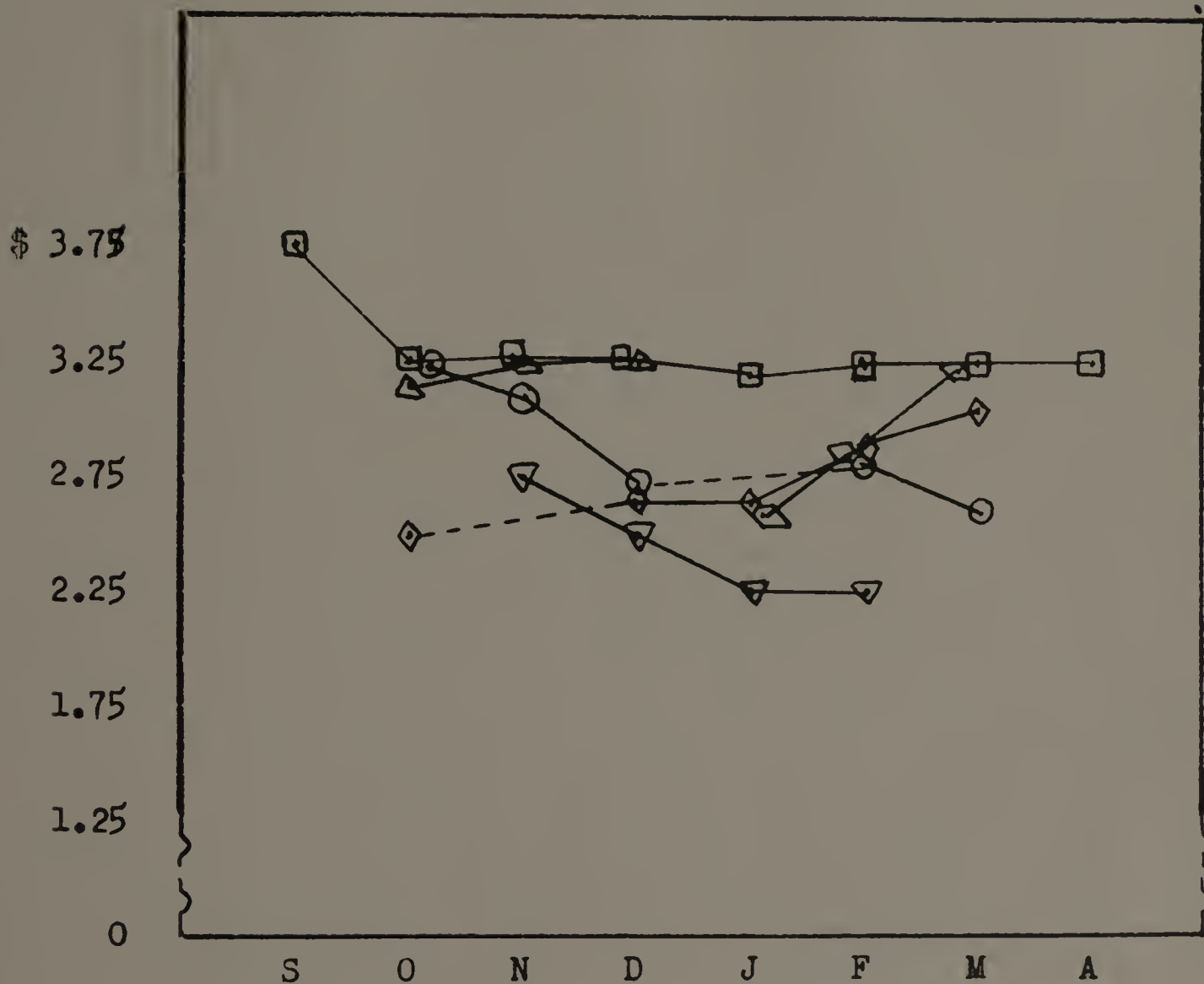
- |         |    |               |      |
|---------|----|---------------|------|
| Maine-  | △  | Conn.-        | ⬡    |
| N.H.-   | □  | N.Y. (H.V.)-  | ▽    |
| Vt.-    | ◇  | N.Y. (L.C.)-  | ⬠    |
| Mass.-  | ○  | N.Y. (West.)- |      |
| Reports | —— | No Reports    | ---- |

Source: Tables E-K. Appendix.

FIGURE VIII

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. Fancy  
112  
Cell Carton



KEY TO FIGURES I-IX

- |         |    |               |      |
|---------|----|---------------|------|
| Maine-  | △  | Conn.-        | ⬠    |
| N.H.-   | □  | N.Y. (H.V.)-  | ▽    |
| Vt.-    | ◇  | N.Y. (L.C.)-  | ▭    |
| Mass.-  | ○  | N.Y. (West.)- |      |
| Reports | —— | No Reports    | ---- |

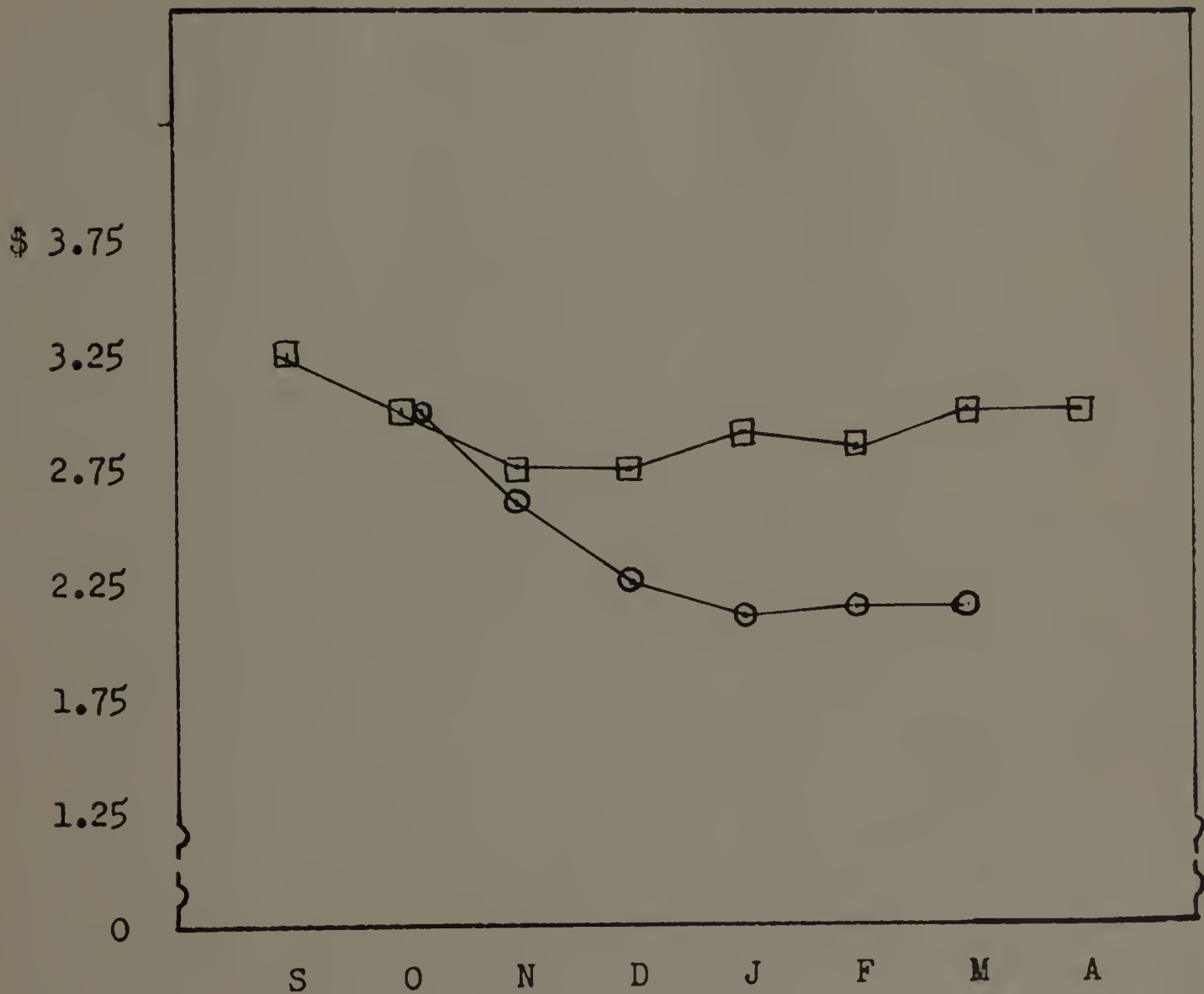
Source: Tables E-K. Appendix.



FIGURE IX

Average Monthly Prices of  
McIntosh Apples 1950-51

U.S. Fancy  
160  
Cell Carton



KEY TO FIGURES I-IX

Maine-  $\Delta$   
N.H.-  $\square$   
Vt.-  $\diamond$   
Mass.-  $\circ$

Conn.-  $\text{hexagon}$   
N.Y. (H.V.)-  $\nabla$   
N.Y. (L.C.)-  $\text{trapezoid}$   
N.Y. (West.)-  $\text{rectangle}$

Reports ———

No Reports - - - -

Source: Tables E-K. Appendix.

the monthly prices from New Hampshire. The spread between the two areas widened as the season progressed, only meeting in October.

Discussion-

In general prices seemed to be similar for all areas during the months of December and January. No correlation was observed in upward or downward trends among the areas when all factors were the same. Certain "factors" from certain areas were observed to be more stable than others throughout the season. Wider differences between areas were noted in prices for cell cartons.

DISCUSSION AND SUMMARY

A study of the daily market reports from the New York City market during 1950-51 pertaining to McIntosh apples has shown many enlightening points.

Most of the shipments reported in New York City from New England areas were McIntosh apples, since other New England varieties were seldom quoted in the market reports.

Based on the number of times reported, the four northern New England states predominated in shipping U.S. Fancy fruit into the New York market. New York State shipped predominantly U.S. No. 1 fruit.

Jumble packs were observed to be used for all grades. The other packs were used predominantly to ship U.S. Fancy fruit in all areas except New York Hudson Valley.

Tray packs were only reported from Massachusetts and New York Western Section.

In regard to size as related to price, as the size of fruit became smaller price went down. The biggest price difference was always between fruit measuring  $2\frac{1}{2}$  inches in diameter and  $2\frac{1}{4}$  inches in diameter. The reverse held true on comparisons between ripe and firm fruit of the same grade, pack and size. The smallest price difference was observed in the smaller fruit. Larger price spreads were also observed between large fruit of U.S. Fancy and similar fruit of U.S. No. 1. As the size got smaller, the price margin narrowed between the two grades.

No correlations were observed between sizes in upward or downward trends in price behavior. However, December and January prices usually marked the upward or downward trend for the remainder of the season.

The least price variations were observed within cell cartons shipped from New Hampshire and for U.S. No. 1  $2\frac{1}{2}$  inch minimum and  $2\frac{1}{4}$  inch and up jumble packs from New York Hudson Valley.

Reports quoted consistently are instrumental in maintaining stable prices as well as bringing higher returns.

Cell cartons received the highest returns with layer and tray packs also usually returning higher prices than jumble packs.

Cell cartons and layer packs were used more for larger sized fruit as compared to jumble packs.

December and January prices tended to be equal among areas where "factors" were similar.

### CONCLUSIONS

Additional studies are needed along the same lines in order to make valid the points discussed. Although this one year's data are inconclusive, many points were brought to light which were assumed to be true or unknown before. Large unexplainable variations exist which cannot be answered at the present by the data presented in this problem.

A more detailed study on volume receipts based on grade, size and pack is needed to make this study more effective.

From the information presented in this paper, the following points should be considered carefully:

1) It would appear that too many combinations are shipped from a single area as is best illustrated by Vermont and Massachusetts. Elimination of some of the unpopular combinations of grade, size and pack should help raise the general price level for that area.

2) The general supply and demand situation does not seem to be the main factor; instead, it shows a situation of individual and specific supply and demand. This can be best illustrated by prices received for cell packs in New Hampshire. A regular supply of a particular grade, size and pack creates its own market. Irregular supplies of odd sizes or packs can never command a good return.

3) Better grades, in order to command better prices, should not be packed in jumble packs any longer. The jumble pack as shown by this report has become obsolete in terms of high quality fruit.

4) A change in size classifications is suggested as a possible way to obtain higher prices for smaller fruit. An intermediate size classification between  $2\frac{1}{2}$  and  $2\frac{1}{4}$  inches might reduce the severe price spread now existing between  $2\frac{1}{2}$  inch fruit and  $2\frac{1}{4}$  inch fruit.

5) The tray pack should be expanded in its use. The possibilities have been shown in their returns.

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Table A

THE NUMBER OF TIMES THE PRICE FOR MCINTOSH APPLES IN THE N.Y.C. MARKET WAS REPORTED BETWEEN SEPT. 1 - APRIL 30.

(Those reported fewer than 5 times are not listed)  
Eastern boxes, crates or bushel baskets.

Quality	Size	Maine	N.H.	Vt.	Mass.	Conn.	N.Y. (N.V.)	N.Y. (L.C.)	N.Y. (West)	Total
U.S. Fcy.	3 in. & up	2	1	14	1	0	2	3	0	23
U.S. Fcy.	2-3/4 in. min.	0	1	5	0	0	0	0	0	6
U.S. Fcy.	2 1/2 in. & up	25	9	14	15	1	13	2	1	80
U.S. Fcy. ripe	2 1/2 in. & up	10	1	8	1	0	0	1	0	21
U.S. Fcy.	2 1/2 in. min.	52	50	13	7	0	11	5	0	138
U.S. Fcy. fine	2 1/2 in. min.	48	5	0	0	0	0	0	0	53
U.S. Fcy. H.M.S.*	2 1/2 in. min.	6	0	0	0	0	0	0	0	6
U.S. Fcy. ripe	2 1/2 in. min.	19	1	36	23	0	0	1	0	80
U.S. Fcy.	2 1/4 in. min.	11	9	39	15	0	3	1	0	78
U.S. Fcy. ripe	2 1/4 in. min.	1	0	11	5	0	0	1	0	18
U.S. #1	3 in. & up	0	0	1	3	0	37	0	0	41
U.S. #1	2-3/4 in. & up	0	0	1	0	0	57	1	0	59
U.S. #1	2-3/4 in. min.	0	1	0	0	0	6	0	0	8
U.S. #1	2 1/2 in. & up	4	0	14	4	13	99	2	0	141
U.S. #1 ripe	2 1/2 in. min.	7	1	9	22	5	120	10	5	180
U.S. #1	2 1/2 in. min.	7	0	4	3	0	134!	4	0	152
U.S. #1	2 1/2 in. & up	1	0	0	0	0	8	1	1	11
U.S. #1	2 1/2 in. min.	5	3	19	8	3	64	3	2	107
U.S. Utility	2 1/2 in. min.	0	0	43	7	0	8	1	1	60
U.S. Utility	2 1/2 in. min.	0	0	14	0	0	1	0	0	15
U.S. Utility	(no size)	0	0	3	0	0	9	0	0	12
Unclassif.	-	0	0	0	0	0	21	0	0	21
Orch. run	-	0	2	1	0	0	5	0	0	8

\*H.M.S. - Heavy Minimum Size  
! - also includes poor color  
Source: Daily fruit and vegetable market reports.  
New York City

Table B

THE NUMBER OF TIMES THE PRICE FOR MCINTOSH APPLES IN THE N.Y.C. MARKET WAS REPORTED BETWEEN SEPT. 1 - APRIL 30.

(Those reported fewer than 5 times are not listed)

Layer Packs

Quality	Size	Maine	N.H.	Vt.	Mass.	Conn.	N.Y. (H.V.)	N.Y. (L.C.)	N.Y. (West)	Total
U.S. Fcy. ripe	3 in. & up	0	0	35	3	0	3	7	0	48
U.S. Fcy. ripe	3 in. & up	0	0	5	0	0	0	0	0	5
U.S. Fcy. ripe	3 in. min.	2	0	24	0	0	1	1	0	28
U.S. Fcy. ripe	3 in. min.	0	0	9	0	0	0	0	0	9
U.S. Fcy.	2-3/4 in. & up	1	1	33	3	0	3	1	0	42
U.S. Fcy.	2-3/4 in. min.	1	0	31	8	0	0	9	0	49
U.S. Fcy. ripe	2-3/4 in. min.	0	0	5	0	0	0	2	0	7
U.S. Fcy.	2 1/4 in. & up	8	1	30	5	0	2	0	0	46
U.S. Fcy.	2 1/4 in. min.	1	2	33	9	0	3	9	0	57
U.S. Fcy. ripe	2 1/4 in. min.	1	0	9	3	0	0	3	0	16
U.S. Fcy.	2 1/4 in. min.	1	0	31	3	0	1	5	0	41
U.S. #1	3 in. & up	0	0	0	0	0	7	0	0	7
U.S. #1	2-3/4 in. & up	0	0	0	0	0	12	0	0	12
U.S. #1	2 1/4 in. & up	0	0	0	0	0	10	0	0	10
U.S. #1	2 1/4 in. min.	0	1	1	0	0	9	0	0	11

Source: Daily fruit and vegetable market reports, New York City.

Table C

THE NUMBER OF TIMES THE PRICE FOR MCINTOSH APPLES IN THE  
 N.Y.C. MARKET WAS REPORTED BETWEEN SEPT. 1 - APRIL 30.  
 (Those reported fewer than 5 times are not listed)

Tray Packs

Size	Mass.	N.Y. (West)	Total
	U.S. Fcy.	Quality U.S. #1	
80-88	5	0	5
100	6	0	6
112	2	5	7
125	7	0	7
100-125	12	0	12
128	2	10	12
128-160	0	7	7
150	16	0	16
160	4	10	14
180	0	10	10

Source: Daily fruit and vegetable market reports,  
 New York City.

Table D

THE NUMBER OF TIMES THE PRICE FOR MCINTOSH APPLES IN THE N.Y.C. MARKET WAS REPORTED BETWEEN SEPT. 1 - APRIL 30.

(Those reported fewer than 5 times are not listed)

Cell Cartons

Quality	Size	Maine	N.H.	Vt.	Mass.	Conn.	N.Y. (H.V.)	N.Y. (L.C.)	N.Y. (West)	Total
U.S. Fcy.	96	32	76	13	21	0	6	10	0	158
U.S. Fcy. ripe	96	13	1	2	0	0	0	1	0	17
U.S. Fcy.	112	6	101	17	26	0	6	9	0	165
U.S. Fcy.	128	0	1	0	9	0	0	0	0	10
U.S. Fcy.	150	0	0	0	5	0	7	1	0	13
U.S. Fcy.	160	4	95	0	30	0	0	0	0	129
U.S. #1	96	0	0	0	0	0	49	1	3	53
U.S. #1	96-112	0	0	0	0	0	6	0	0	6
U.S. #1	112	0	0	0	0	0	49	4	0	53
U.S. #1	128	0	0	0	0	0	0	0	11	11
U.S. #1	150	0	0	0	0	0	49	0	1	50
U.S. #1	160	0	0	0	0	0	0	1	8	9
No Grade	96	0	0	8	4	0	1	0	0	13
No Grade	112	0	0	9	4	0	1	0	0	14
U.S. Fcy.	96-112	0	0	0	11	0	0	0	0	11

Source: Daily fruit and vegetable market reports, New York City.

Table E

## Average Monthly Prices for Maine McIntosh Apples

in the N.Y.C. Market Sept. - April

Pack, Quality and Size	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
<u>Jumble Pack</u>									
Fcy. 2½ in. & up	9! \$3.25	12 \$2.50	2 \$2.50	1 \$3.00	0 -	0 -	1 \$2.25	0 -	25 \$2.77
Fcy. ripe 2½ in. & up	0 -	1 1.88	1 2.00	4 2.00	3 1.75	0 -	1 1.75	0 -	10 1.89
Fcy. fine 2½ in. min.	0 -	0 -	0 -	0 -	5 3.00	19 3.00	11 2.93	13 2.74	48 2.91
Fcy. 2½ in. min.	2 3.81	2 2.39	19 2.68	15 2.88	7 2.96	0 -	5 2.55	2 2.44	52 2.79
Fcy. H.M.S.* 2½ in. min.	0 -	0 -	0 -	0 -	0 -	0 -	6 2.50	0 -	6 2.50
Fcy. ripe 2½ in. min.	0 -	3 2.25	4 2.28	6 1.79	3 1.92	3 1.92	0 -	0 -	19 2.07
Fcy. 2½ in. min.	3 2.00	0 -	5 1.56	1 1.75	0 -	1 1.50	1 1.25	0 -	11 1.66
No. 1 2½ in. min.	0 -	0 -	0 -	1 2.00	3 1.79	1 1.75	2 1.63	0 -	7 1.77
No. 1 ripe 2½ in. min.	0 -	0 -	0 -	1 1.75	4 1.40	2 1.43	0 -	0 -	7 1.46
No. 1 2½ in. min.	0 -	1 1.50	3 1.23	0 -	0 -	0 -	1 1.25	0 -	5 1.29

Table E (continued)

Pack, Quality and Size Layer Pack	Sent.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
Fcy. 2½ in. & up	0	2 \$2.75	0	0	0	2 \$2.50	4 \$2.55	0	8 \$2.59
<u>Cell Carton</u>									
Fcy. 96	0	5 3.55	8 3.65	3 3.50	1 3.00	4 3.75	9 4.00	2 4.00	32 3.73
Fcy. ripe 96	0	0	0	8 2.25	4 2.10	1 2.25	0	0	13 2.20
Fcy. 112	0	1 3.13	4 3.25	1 3.25	0	0	0	0	6 3.23

\*H.M.S. - Heavy Minimum Size  
! - Number of times reported.

Source: Daily fruit and vegetable market reports, New York City

Table F

Average Monthly Prices for New Hampshire McIntosh Apples  
in the N.Y.C. Market Sept. - April

Pack, Quality and Size	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
<u>Jumble Pack</u>									
Fcy. 2½ in. & up	0!	6	1	2	0	0	0	0	9
	-	\$2.31	\$2.50	\$2.39	-	-	-	-	\$2.35
Fcy. 2½ in. min.	1	6	13	10	12	3	3	2	50
	3.75	2.75	2.77	2.68	2.51	2.50	2.83	2.50	2.68
Fcy. fine 2½ in. min.	0	0	0	0	0	0	0	5	5
	-	-	-	-	-	-	-	2.85	2.85
Fcy. 2½ in. min.	1	1	3	2	0	1	1	0	9
	2.00	1.50	1.57	1.70	-	2.00	2.00	-	1.73
<u>Cell Carton</u>									
Fcy. 96	1	0	8	12	20	13	14	8	76
	4.13	-	3.63	3.59	3.52	3.53	3.62	3.77	3.60
Fcy. 112	1	1	8	14	22	17	19	19	101
	3.75	3.25	3.25	3.25	3.20	3.24	3.24	3.24	3.24
Fcy. 160	1	1	8	15	19	16	16	19	95
	3.25	3.00	2.75	2.73	2.92	2.86	2.99	3.00	2.90

! - Number of times reported.

Source: Daily fruit and vegetable market reports, New York City



Table G

## Average Monthly Prices for Vermont McIntosh Apples

in the N.Y.C. Market Sept. - April

Pack, Quality and Size	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
<u>Jumble Pack</u>									
Fcy. 3 in. & up	1 \$2.75	5 \$2.58	0	0	2 \$2.25	4 \$2.56	2 \$2.69	0	14 \$2.56
Fcy. 2-3/4 in. min.	0	0	1 2.75	0	0	3 2.33	1 2.50	0	5 2.45
Fcy. ripe 2 1/2 in. & up	0	3 1.48	2 2.13	1 2.13	1 2.00	0	1 1.75	0	8 1.82
Fcy. 2 1/2 in. & up	6 2.70	5 1.90	1 2.13	0	1 2.13	0	1 2.50	0	14 2.32
Fcy. 2 1/2 in. min.	0	2 1.50	2 2.38	1	1	2 2.13	3 2.13	2 2.50	13 2.15
Fcy. ripe 2 1/2 in. min.	0	0	4 2.00	8 1.86	12 1.71	7 1.83	4 1.72	1 1.75	36 1.80
Fcy. 2 1/2 in. min.	3 1.67	6 1.13	2 1.32	4 1.31	9 1.33	5 1.51	8 1.34	2 1.02	39 1.33
Fcy. ripe 2 1/2 in. min.	0	0	2 1.25	3 1.13	5 1.44	0	0	1 1.13	11 1.29
No. 1 2 1/2 in. & up	5 2.40	4 1.80	5 1.71	0	0	0	0	0	14 1.98
No. 1 2 1/2 in. min.	0	0	2 1.88	1 1.33	3 1.63	1 1.30	2 1.66	0	9 1.62

Table G (continued)

Pack, Quality and Size Jumble Pack (cont.)	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
No. 1	4 1.28	7 1.14	4 1.29	2 1.23	1 1.44	0	1 1.38	0	19 1.24
Utility	1 1.13	2 1.00	8 1.21	9 1.18	9 1.16	1.23	2 1.00	3 0.82	43 1.15
Utility	0	0	0	0	6 0.68	4 0.79	3 0.63	1 0.63	14 0.70
<u>Layer Pack</u>									
Fcy. 3 in. & up	0	5 2.48	14 2.85	3 2.88	10 2.48	1 2.50	2 2.75	0	35 2.68
Fcy. ripe 3 in. & up	0	0	2 2.56	2 2.55	1 2.38	0	0	0	5 2.52
Fcy. 3 in. min.	0	0	1 2.50	2 2.56	7 2.16	9 2.26	4 2.69	1 2.25	24 2.34
Fcy. ripe 3 in. min.	0	2 2.00	0	1 2.75	0	0	1 2.20	5 2.18	9 2.20
Fcy. 2-3/4 in. & up	0	1 2.25	15 2.50	9 2.47	8 2.53	0	0	0	33 2.49
Fcy. 2-3/4 in. min.	1 3.75	0	0	0	7 2.24	11 2.34	10 2.59	2 2.50	31 2.45
Fcy. ripe 2-3/4 in. min.	0	0	0	0	0	0	0	5 2.31	5
Fcy. 2 1/2 in. & up	0	3 1.83	10 2.29	9 2.19	8 2.19	0	0	0	30 2.19

Table G (continued)

Pack, Quality and Size Layer Pack (cont.)	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
Fcy. 2½ in. min.	1 3.35	1 1.75	0 -	2 2.25	8 2.02	11 2.11	8 2.26	2 2.20	33 2.17
Fcy. ripe 2½ in. min.	0 -	1 1.75	2 2.00	1 2.25	0 -	0 -	0 -	5 2.17	9 2.09
Fcy. 2¼ in. min.	0 -	0 -	10 1.46	6 1.33	7 1.39	6 1.38	2 1.54	0 -	31 1.41
<u>Cell Carton</u>									
Fcy. 96	0 -	0 -	0 -	1 2.88	3 2.71	2 3.13	6 3.23	1 3.00	13 3.05
Fcy. 112	0 -	1 2.50	0 -	3 2.63	4 2.63	2 2.88	7 3.05	0 -	17 2.82
No Grade 96	0 -	0 -	0 -	1 2.88	4 2.81	2 2.69	1 3.13	0 -	8 2.83
No Grade 112	0 -	0 -	0 -	1 2.62	4 2.63	2 2.75	1 2.88	1 3.00	9 2.72

! - Number of times reported.

Source: Daily fruit and vegetable market reports, New York City

Table H

## Average Monthly Prices for Massachusetts McIntosh Apples

in the N.Y.C. Market Sept. - April

Pack, Quality and Size	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
<u>Jumble Pack</u>									
Fcy. 2½ in. & up	3! \$3.08	5 \$2.25	0 -	0 -	0 -	6 \$2.29	0 -	1 \$2.13	15 \$2.42
Fcy. 2½ in. min.	1 3.75	0 -	1 2.75	0 -	2 2.13	2 2.13	0 -	1 2.13	7 2.45
Fcy. ripe 2½ in. min.	0 -	0 -	6 2.10	2 2.07	7 1.95	5 1.77	3 1.68	0 -	23 1.95
Fcy. 2¼ in. min.	0 -	4 1.53	8 1.56	0 -	1 1.25	2 1.34	0 -	0 -	15 1.50
Fcy. ripe 2½ in. min.	0 -	0 -	0 -	1 1.25	2 1.29	0 -	0 -	2 1.00	5 1.17
No. 1 2½ in. min.	0 -	0 -	3 2.17	11 2.11	8 1.51	0 -	0 -	0 -	22 1.90
No. 1 2¼ in. min.	0 -	3 1.46	1 1.15	2 1.25	0 -	0 -	2 0.88	0 -	8 1.22
Utility 2½ in. min.	0 -	0 -	1 1.38	1 1.25	2 1.13	2 1.17	1 1.13	0 -	7 1.19

Table H (continued)

Pack, Quality and Size		Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
<u>Layer Pack</u>										
Fcy.	2-3/4 in. min.	0	0	0	1	2	4	1	0	8
		-	-	-	2.38	2.32	2.45	2.38	-	2.40
Fcy.	2 1/2 in. & up	0	0	2	0	1	0	2	0	5
		-	-	2.31	-	2.00	-	2.50	-	2.32
Fcy.	2 1/2 in. min.	0	0	1	2	2	3	1	0	9
		-	-	2.50	2.13	1.94	2.17	2.13	-	2.14
<u>Tray Pack</u>										
Fcy.	80-88	0	1	0	4	0	0	0	0	5
		-	3.00	-	3.03	-	-	-	-	3.02
Fcy.	100	0	0	2	1	2	1	0	0	6
		-	-	3.31	3.00	2.57	3.25	-	-	2.96
Fcy.	100-125	0	1	3	6	2	0	0	0	12
		-	3.13	3.04	2.88	2.88	-	-	-	2.94
Fcy.	125	0	0	2	1	3	1	0	0	7
		-	-	3.07	2.75	2.55	3.00	-	-	2.79
Fcy.	150	0	0	5	7	3	1	0	0	16
		-	-	2.77	2.59	2.54	2.63	-	-	2.64

Table H (continued)

Pack, Quality and Size Cell Carton	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
Fcy. 96	0	3 \$3.63	8 \$3.47	7 \$2.84	0	1 \$3.13	2 \$2.75	0	21 \$3.20
Fcy. 96-112	0	0	0	2	4	5	0	0	11 2.73
Fcy. 112	0	5 3.25	11 3.12	5 2.70	0	4 2.78	1 2.63	0	26 2.99
Fcy. 128	0	0	3 2.50	4 2.50	1 2.50	1 2.50	0	0	9 2.50
Fcy. 150	0	1 2.25	2 2.81	1 2.50	0	1 2.63	0	0	5 2.60
Fcy. 160	0	4 3.00	10 2.63	4 2.25	3 2.08	7 2.16	2 2.13	0	30 2.43

! - Number of times reported.

Source: Daily fruit and vegetable market reports, New York City.

Table I

Average Monthly Prices for New York-Hudson Valley McIntosh Apples

in the N.Y.C. Market Sept. - April

Pack, Quality and Size	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Sess. Aver.
<u>Jumble Pack</u>									
Fcy. 2½ in. & up	2! \$2.00	4 \$2.11	2 \$2.38	0 -	2 \$2.31	3 \$2.29	0 -	0 -	13 \$2.21
Fcy. 2½ in. min.	0 -	1 2.50	2 2.38	2 2.44	3 2.54	3 2.29	0 -	0 -	11 2.42
No. 1 3 in. & up	10 2.39	8 1.91	3 2.25	1 2.00	8 2.00	2 2.00	4 2.15	1 1.88	37 2.12
No. 1 2-3/4 in. & up	10 2.30	12 1.83	2 2.07	5 2.10	13 1.98	6 2.06	2 2.12	0 -	57 2.05
No. 1 2-3/4 in. min.	0 -	0 -	0 -	3 1.96	1 2.00	2 2.00	0 -	0 -	6 1.99
No. 1 2½ in. & up	20 2.41	21 1.75	12 1.94	3 1.96	7 1.77	11 1.82	19 1.73	6 1.63	99 1.91
No. 1 2½ in. min.	0 -	9 1.76	17 1.94	17 1.89	20 1.76	16 1.82	22 1.74	19 1.63	120 1.79
No. 1 ripe 2½ in. min. & poor col. & up	19 1.57	20 1.21	17 1.57	14 1.46	12 1.51	14 1.31	20 1.23	18 0.95	134 1.30
No. 1 2½ in. & up	7 1.60	0 -	0 -	0 -	0 -	1 1.50	0 -	0 -	8 1.59

Table I (continued)

Pack, Quality and Size Jumble Pack (cont.)	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
No. 1 2 1/4 in. min.	17 \$1.33	14 \$1.06	4 \$1.19	3 1.21	7 \$1.11	6 \$1.19	4 1.30	9 0.91	64 \$1.16
Utility 2 1/4 in. min.	1 1.25	7 0.98	0	0	0	0	0	0	8 1.01
Utility No Size	7 0.98	0	0	1 1.13	1 0.88	0	0	0	9 0.99
Unclassif. No Size	9 0.99	2 1.00	8 0.89	2 1.25	0	0	0	0	21 0.98
Orch. Run No Size	0	0	0	1 1.88	0	1 1.63	2 0.92	1	5 1.24
<u>Layer Pack</u>									
No. 1 3 in. & up	0	2 2.32	1 2.25	2 2.38	0	2 2.50	0	0	7 2.38
No. 1 2-3/4 in. & up	1 3.25	2 2.13	2 2.32	0	1 2.00	5 2.25	1 2.50	0	12 2.33
No. 1 2 1/4 in. & up	6 2.52	2 2.07	0	0	0	2 2.60	0	0	10 2.33
No. 1 2 1/4 in. min.	0	0	1 1.88	2 1.94	3 1.83	2 1.88	1 2.13	0	9 1.90



Table I (continued)

Pack, Quality and Size Cell Carton	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
Fcy. 96	0	0	1	1	2	2	0	0	6 \$2.56
	-	-	\$2.88	\$2.50	\$2.50	\$2.50	-	-	
Fcy. 112	0	0	1	1	2	2	0	0	6 2.38
	-	-	2.75	2.50	2.25	2.25	-	-	
Fcy. 150	0	0	2	1	2	2	0	0	7 2.02
	-	-	2.06	2.00	2.00	2.00	-	-	
No. 1 96	7	2	1	4	10	7	4	14	49
	3.21	2.28	2.75	2.60	2.51	2.64	2.64	3.05	2.80
No. 1 112	7	2	1	4	10	7	5	13	49
	2.89	2.50	2.50	2.47	2.25	2.33	2.53	2.78	2.56
No. 1 96-112	0	0	1	2	0	0	2	1	6
	-	-	2.63	2.58	-	-	3.00	3.25	2.84
No. 1 150	10	3	1	6	9	5	4	11	49
	2.36	1.83	2.25	2.09	1.96	2.05	2.22	2.16	2.13

! - Number of times reported.

Source: Daily fruit and vegetable market reports, New York City

Table J

Average Monthly Prices for McIntosh Apples

in the N.Y.C. Market Sept. - April

Pack, Quality and Size	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
CONNECTICUT									
NEW YORK-LAKE CHAMPLAIN SECTION									
<u>Jumble Pack</u>									
No. 1 2 $\frac{1}{2}$ in. & up	0 <sup>!</sup>	10	2	0	0	1	0	0	13
	-	\$1.47	\$1.50	-	-	\$1.45	-	-	\$1.47
No. 1 2 $\frac{1}{4}$ in. min.	1	1	3	0	0	0	0	0	5
	2.13	1.50	1.77	-	-	-	-	-	1.79
<u>Jumble Pack</u>									
Fcy. 2 $\frac{1}{2}$ in. min.	0	2	0	0	0	2	1	0	5
	-	1.94	-	-	-	2.07	2.38	-	2.08
No. 1 2 $\frac{1}{4}$ in. min.	0	0	1	2	4	1	2	0	10
	-	-	1.75	1.82	1.77	1.65	1.38	-	1.71

Table J (continued)

Pack, Quality and Size	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
<b>NEW YORK-LAKE CHAMPLAIN SECTION (Cont.)</b>									
<u>Layer Pack</u>									
Fcy. 3 in. & up	0	0	0	1	4	2	0	0	7
	-	-	-	\$2.63	\$2.19	\$2.44	-	-	\$2.32
Fcy. 2-3/4 in. min.	0	0	0	2	4	3	0	0	9
	-	-	-	2.38	2.19	2.33	-	-	2.28
Fcy. 2 1/4 in. min.	0	0	0	2	3	4	0	0	9
	-	-	-	2.13	2.00	2.06	-	-	2.06
Fcy. 2 1/4 in. min.	0	0	0	0	2	3	0	0	5
	-	-	-	-	1.25	1.38	-	-	1.33
<u>Cell Carton</u>									
Fcy. 96	0	0	0	3	4	1	2	0	10
	-	-	-	3.00	2.66	3.13	3.25	-	2.93
Fcy. 112	0	0	0	0	4	3	2	0	9
	-	-	-	-	2.59	2.79	3.25	-	2.80

! - Number of times reported.

Source: Daily fruit and vegetable market reports, New York City

Table K

Average Monthly Prices for New York-Western Section McIntosh Apples

in the N.Y.C. Market Sept. - April

Pack, Quality and Size	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Seas. Aver.
<u>Jumble Pack</u>									
No. 1 2 1/2 in. & up	0	3	0	0	1	1	0	0	5
	-	\$1.38	-	-	\$2.00	\$1.75	-	-	\$1.58
No. 1 2 1/2 in. min.	0	1	0	1	0	4	0	0	6
	-	1.50	-	2.00	-	1.73	-	-	1.74
<u>Tray Pack</u>									
No. 1 112	0	0	0	0	0	0	5	0	5
	-	-	-	-	-	-	2.25	-	2.25
No. 1 128	0	0	0	0	5	2	3	0	10
	-	-	-	-	2.43	2.57	1.73	-	2.25
No. 1 128-160	0	0	0	0	1	2	4	0	7
	-	-	-	-	2.56	2.56	1.75	-	2.10
No. 1 160	0	0	0	0	5	1	4	0	10
	-	-	-	-	2.43	2.40	1.75	-	2.16
No. 1 180	0	0	0	0	2	1	7	0	10
	-	-	-	-	1.75	1.25	1.25	-	1.35
<u>Cell Carton</u>									
No. 1 128	0	0	0	4	4	3	0	0	11
	-	-	-	2.41	2.35	2.54	-	-	2.42
No. 1 160	0	0	0	3	4	1	0	0	8
	-	-	-	2.09	2.25	2.57	-	-	2.23

! - Number of times reported.

Source: Daily fruit and vegetable market reports, New York City

Approved by:

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Date August 2 1951

