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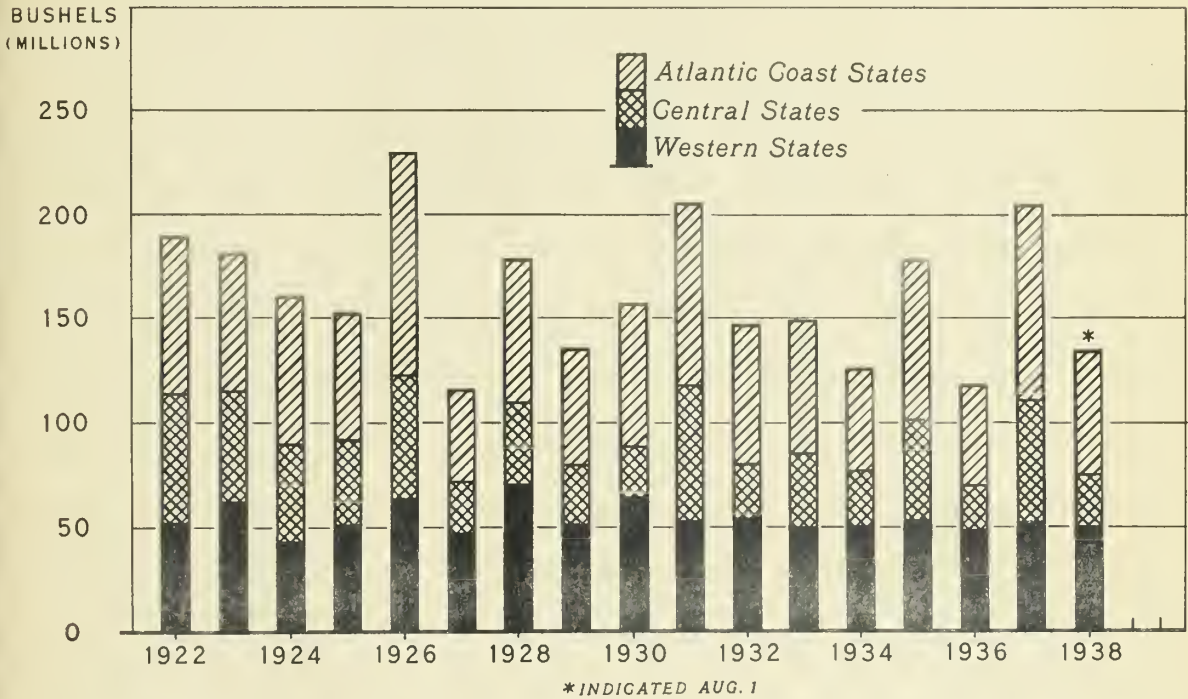
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THE FRUIT SITUATION

APPLES: U. S. PRODUCTION BY REGIONS, 1922-38



U. S. DEPARTMENT OF AGRICULTURE

NEG. 34514

BUREAU OF AGRICULTURAL ECONOMICS

THE 1938 APPLE CROP IS INDICATED TO BE ABOUT ONE-THIRD SMALLER THAN THE LARGE CROP OF 1937. PRODUCTION IS EXPECTED TO BE RELATIVELY LIGHTEST IN THE CENTRAL STATES, ALTHOUGH THE CROP IN THE ATLANTIC COAST STATES IS INDICATED TO BE MUCH SMALLER THAN THE LARGE CROP OF LAST YEAR. PRODUCTION IN THE WESTERN STATES IS EXPECTED TO BE ABOUT THE SAME AS IT HAS BEEN IN EACH OF THE PAST 6 OR 7 YEARS. THE QUANTITY AND LOCATION OF APPLE SUPPLIES THIS YEAR WILL PROBABLY BE SOMEWHAT SIMILAR TO THE SITUATION IN 1934.

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T H E F R U I T S I T U A T I O N  
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Summary

Fruit prices are at lower levels this summer than supply conditions alone would indicate, according to the Bureau of Agricultural Economics. The relatively low prices of the summer fruits are attributed mainly to reduced consumer purchasing power. Increased industrial activity is expected to bring some improvement in consumer incomes during the fall and winter.

In the face of much smaller supplies of apples than in 1937, prices of most summer apples are not greatly above last year's prices. The pear crop is only slightly larger than the 1937 record high, but prices are considerably below those of last season. The California grape crop is slightly smaller than that of last year, but prices of early table grapes are materially lower than prices received last summer. Prices of oranges, lemons, grapefruit and peaches are also comparatively low, but variations in supplies of these fruits make a direct comparison with last year difficult.

This issue of The Fruit Situation contains an article on "Factors Affecting Apple Prices", which may be of interest to growers and distributors of fruits.

## APPLES

Production little changed from July estimate

The August 1 condition of apples indicated a total apple crop of 135 million bushels. This represents a change of only one-half million from the July 1 estimate, but is 36 percent smaller than the crop produced last year and about 11 percent smaller than the 1927-33 average.

The West North Central States, California, Virginia, North Carolina, and New Jersey show increases over the estimate of July 1, but Washington, Idaho, Utah, and Massachusetts show decreases.

Prices in August a little higher than year ago

For the week ended August 13, all varieties of eastern apples at New York averaged 97 cents per bushel compared with 85 cents for the corresponding week a year ago. At Chicago the average for the same weeks were 96 cents and 84 cents per bushel, respectively. During July apple prices at New York averaged somewhat below those of a year earlier, but at Chicago prices during most of the month were above last year's prices. California Gravensteins began the season in early August with prices above the very low level of last season owing to the very small crop. During the second week of August Gravensteins at New York sold at an average of \$2.11 per box compared with \$1.19 per box a year earlier. At Chicago the prices averaged \$1.58 in the second week of August this year compared with \$.99 last year.

## PEARS

Production indicated largest on record

With generally favorable conditions prevailing during July, pear prospects improved and the crop is now indicated at 31.7 million bushels. This exceeds the previous record crop of 29.5 million bushels produced last year by 7 percent, and the 1927-33 average of 24.3 million bushels by 30 percent.

In the Pacific States, prospects improved during July in California, declined slightly in Washington, and remained unchanged in Oregon. Particular improvement was noted in Santa Clara, Sacramento, and Placer Counties in California. Conditions were spotted in Michigan orchards, but the fruit is sizing unusually well. All New York varieties are reported in good condition.

Prices below those of last year

Prices of eastern and western pears thus far this season have been at a considerably lower level than a year earlier. During the second week of August California Bartletts averaged \$1.82 per box at New York and \$1.81 at Chicago, compared with \$2.28 and \$2.22 for the corresponding week in 1937. The general average of all eastern varieties at New York was 95 cents per bushel for the week ended August 13, 1938, compared with \$1.49 a year earlier.

## GRAPES

Total production indicated large

Total grape production for the 1938 season is indicated at 2,490,000 tons, compared with a crop of 2,777,000 in 1937, and the 1927-36 average of 2,197,000 tons.

The California grape crop developed under favorable conditions during July, and production of all grapes in that State is now indicated at 2,305,000 tons. This is only 6 percent below the record crop of 1937 and nearly one-fifth larger than the 1927-36 average. Present prospects point to good crops of all three classes of grapes (raisin, wine, and table) in California.

Indicated production of grapes in other important regions is considerably below the relatively large crop of 1937 and below average. In New York the crop is estimated at one-third less than in 1937 and one-fifth smaller than average. In Michigan this year's crop is indicated at 12,000 tons, only one-sixth as large as last year's crop. The grape crops in Ohio, Pennsylvania, Missouri, and Arkansas also are indicated to be relatively small.

Prices of early California table grapes low

Shipping point and terminal market prices of California grapes for table use have been lower this season than a year earlier. During the second week of August this year, Thompson Seedless averaged \$1.32 per lug at New York and Red Malagas \$1.73, compared with \$1.63 and \$2.58, respectively, for the same week last year. At the shipping point (Fresno) Thompson Seedless averaged 64 cents per lug in the week ended August 13, compared with 83 cents a year earlier, and with 75 cents 2 years ago.

FACTORS AFFECTING APPLE PRICES 1/

An analysis of the market outlook for any commodity must begin with the recognition that prices are not a result of chance, but are determined by specific and well-defined economic forces. In the case of any farm product there are, of course, many factors which play some part in making prices. But the economic forces which are of primary importance in causing price changes are usually relatively few in number, and in many cases it is possible to get a quantitative indication of the relationship between changes in prices and in these causal factors. This opens the way to a more thorough understanding of price-making forces, and permits a more nearly correct evaluation of the relative importance of each.

To illustrate the method of analysis, there is here presented a statistical analysis of the factors which appear to be of primary importance as affecting the United States season average price received by apple producers. It should be recognized that <sup>factors</sup> in addition to the ones here considered might be of considerable importance in the case of apples from a particular region. Also, the relative importance of the various factors might be considerably different. For example, foreign demand is probably a much more significant factor in the case of a region like the Shenandoah Valley, which usually exports a large part of its apples, than for the country as a whole.

It appears that changes in the season average price received by growers for the entire United States apple crop is largely determined by the following factors:

- (1) Supply of apples available for market.
- (2) Supply of competing fruits (particularly oranges).
- (3) Domestic demand (as indicated by the level of consumer purchasing power).
- (4) Foreign demand.

Before it is possible to determine the effects of changes in each of these factors upon apple prices, it is necessary to get a quantitative expression of each. In the case of foreign demand we have been unable to get a satisfactory measure. It appears that foreign demand for United States apples is dependent upon a combination of at least three factors - production of apples and other fruits in foreign countries, the level of consumer purchasing power in importing countries, and import restrictions and other factors which operate to interfere with international trade. No way has yet been devised to work out a satisfactory measure of changes from year to year in these several rather complex factors. Accordingly the following analysis excludes foreign demand and deals only with the other important factors.

Since the season average price received by growers, as published by the Bureau of Agricultural Economics, purports to represent the average price received for apples sold for all purposes, the total apple crop is taken to represent the supply of apples available for market in a given season. This furnishes

1/ This article is an extract from a statement presented by G.E.Ockey of the Bureau of Agricultural Economics before a meeting of apple producers and distributors held in Winchester, Virginia, on August 19, 1938. It is reproduced in The Fruit Situation as of possible interest to other fruit growers and distributors.

a quantitative measure of the first price-making factor. Production of oranges on a July to June basis was selected as an indication of supplies of competing fruits. It is thought that the competition between apples and oranges is probably more direct than between apples and most other fruits, including canned and dried, with the possible exception of pears. However, insofar as the upward trend in orange production coincides with upward trends in production of other fruits, the influence of other fruit supplies on apple prices is reflected in the relationship between orange production and apple prices. One thing further should be pointed out concerning this relationship. The increase in orange production in recent years and the decline in foreign demand for our apples have both functioned as price-depressing factors. Because of the mechanical difficulty involved in an attempt to separate the effect of these two factors, it is possible that part of the price determining effect attributed in this analysis to orange production should properly be attributed to the decline in foreign demand.

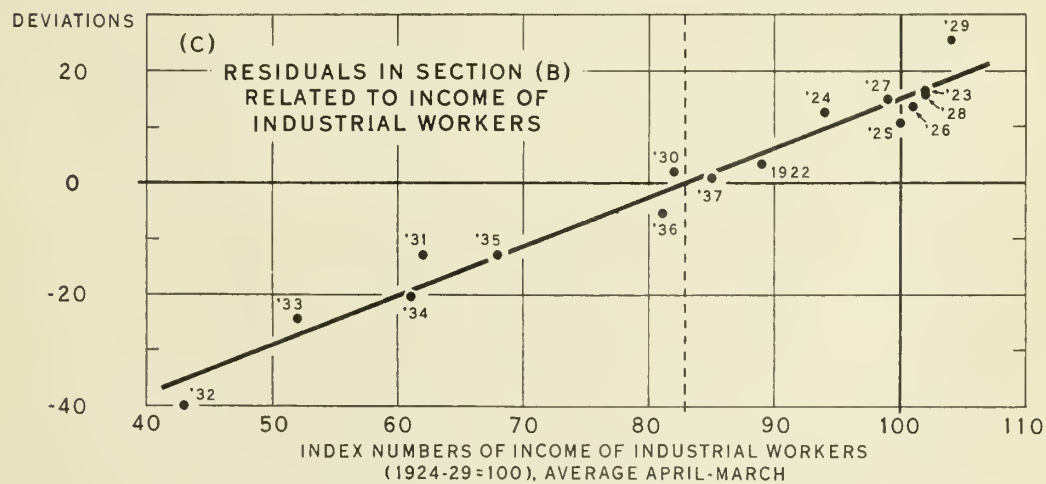
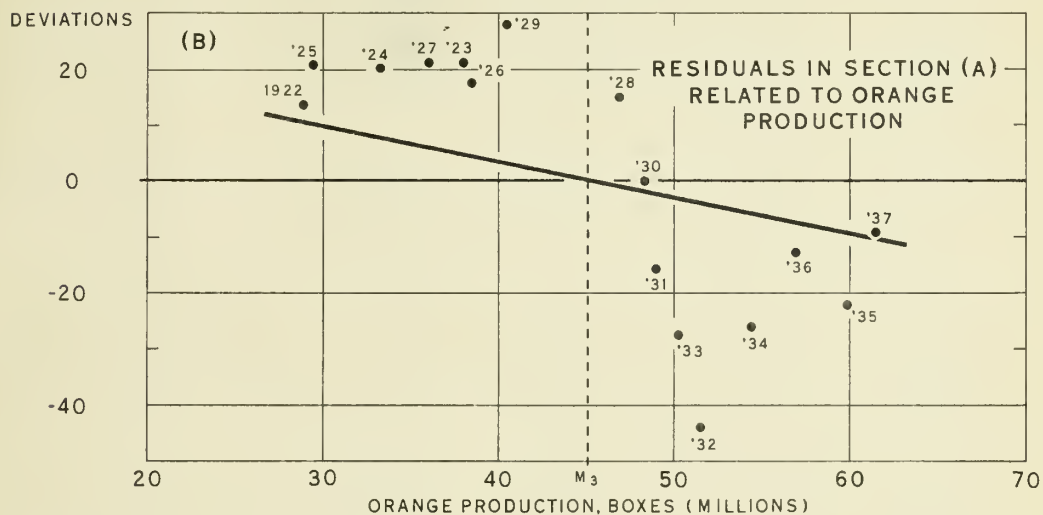
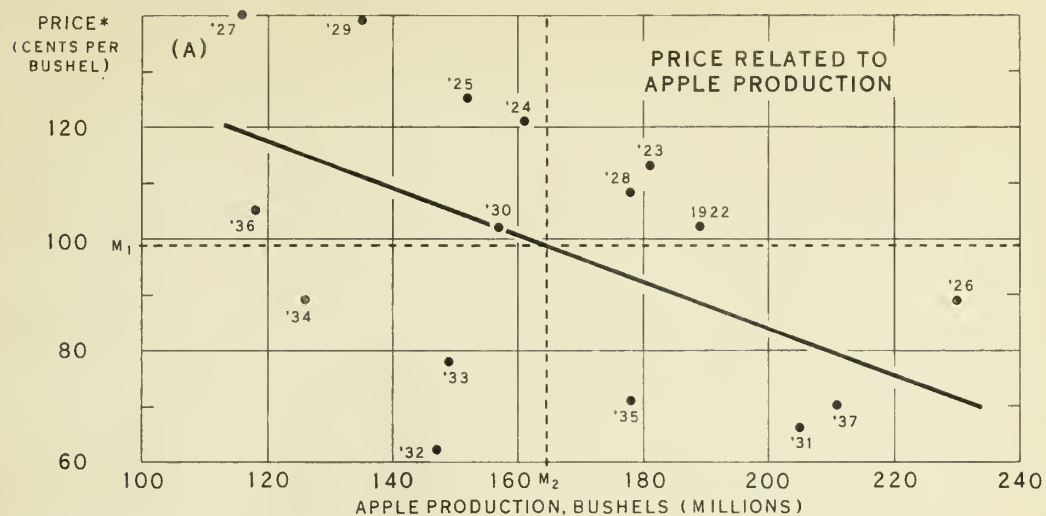
Changes in the domestic demand for apples, as well as for all other consumers' goods, are directly dependent upon changes in the level of consumers' income. An increase in the income of apple consumers enables them to consume more apples at the same price or the same quantity at a higher price. Since the supply of apples in a given crop year is limited to the production of that year, an increase in consumer income usually results in a higher price for apples than would have occurred otherwise. In order to measure changes in the domestic demand for apples, one should have - to be perfectly logical - an index of the income of apple consumers, constructed in such a way as to give weight to the various income groups in proportion to the quantity of apples consumed by each. Such an index, of course, is not available, nor would it be possible to construct one with what data are now available. It has been necessary, therefore, to select from the measures available the one which most nearly reflects changes in the income of apple consumers. It seems reasonable to suppose that a large part of the apple crop is consumed by people in the lower income groups, who, to a large extent, reside in urban communities and work in industrial plants. In view of this, the index selected for this analysis is one constructed by the Bureau of Agricultural Economics, designed to show changes in the income of industrial workers. Furthermore, changes in this index also appear to be rather closely associated with changes in income of workers employed in other branches of business.

To summarize, this analysis attempts to indicate the relation between variations in season average apple prices and variations in the following price-making factors: (1) production of apples; (2) production of oranges; (3) index numbers of the income of industrial workers.

In part A of figure 1 season average prices for the years 1922-37 are plotted on a scatter diagram against total annual production; prices are measured on the vertical scale and production on the horizontal. The line drawn through the observations (dots) indicates the average relationship existing between changes in production and in prices under average demand conditions and with average supplies of oranges. The relationship is such that as production increases prices tend to decline. One will note that there is considerable deviation from this line of average relationship between production and price. Were the relationship between these two factors perfect, that is, if production were the only factor affecting apple prices, all of the dots would fall exactly on the line. It is apparent then that only part of the variation in price is associated with variation in apple supplies.



APPLE PRICES\* RELATED TO APPLE PRODUCTION, ORANGE PRODUCTION, AND INCOME OF INDUSTRIAL WORKERS, UNITED STATES, 1922-37



\* SEASON AVERAGE PRICE RECEIVED BY PRODUCERS

FIGURE 1

The deviations from the line in part A, that is, the difference between the actual prices and the prices one would expect if production of apples were the only price-making factor, are plotted in part B against the annual production of oranges. The price deviations are measured on the vertical scale and orange production on the horizontal scale. The line drawn through these dots expresses the average relationship between changes in the farm price of apples and changes in orange production, under conditions of average demand and average apple production. If production of apples and production of oranges were the only factors affecting apple prices, all of the dots in part B would fall on the line of average relationship.

In part C are plotted the deviations of the dots from the line in part B against index numbers of income of industrial workers. As in part B, price deviations are measured on the vertical scale. Income of industrial workers is measured on the horizontal scale. The line drawn through the dots indicates the average relationship between changes in apple prices and changes in income of industrial workers, if production of apples and oranges were average. If the 3 factors, apple production, orange production, and income of industrial workers, were the only price-making factors, the dots in part C would all lie on the line. Accordingly, the deviations of the dots from this line are due to the operation of other price-affecting factors. The fact that these deviations are relatively small - about two-thirds of them no larger than 3 cents per bushel, and the largest only 6 cents per bushel - indicates that a very large proportion of the changes in season average apple prices is accounted for by variations in these 3 factors.

In regard to the relative importance of each of these factors in effecting changes in apple prices, this analysis indicates that for the period covered, 1922-37, they rank as follows: (1) income of industrial workers or demand; (2) production of apples; (3) production of oranges. Peculiarities of the data themselves tend to invalidate a more precise statement of the relative importance of each of these factors. It appears, however, that for the period studied, consumer purchasing power, as measured by income of industrial workers, is of about the same importance in determining changes in apple prices as the 2 factors, apple production and orange production combined. It should be remembered, however, that part of the causal effect attributed to orange production may actually be due to the decline in foreign demand or increased production of other fruits, as explained earlier.

This type of analysis is useful in price work for 3 reasons. In the first place it indicates very definitely that prices are caused by real economic forces. Second, it offers a means of determining which forces are relatively most important. Third, available information on the factors affecting prices for a particular season can be utilized more effectively, and the probable effect of the several forces upon prices can be evaluated with more accuracy than by a purely qualitative consideration of the market situation.

STATISTICS RELATING TO THE MARKETING OF  
FRESH FRUITS

Table 1.- Apples: Production by regions and selected States, average  
1927-36, annual 1937 and 1938

Region and State	Average 1927-36 1,000 bu.	1937 1/ 1,000 bu.	Indicated 1938 1,000 bu.	1938 as percentage of average Percent	1938 as percentage of 1937 Percent
Total United States...	150,728	210,673	134,867	89.5	64.0
North Atlantic .....	38,019	55,989	35,706	93.9	63.8
South Atlantic .....	24,816	39,952	23,727	95.6	59.4
Total Eastern .....	62,835	95,941	59,433	94.6	61.9
North Central .....	27,507	49,960	22,106	80.4	44.2
South Central .....	6,268	11,450	3,054	48.7	26.7
Total Central .....	33,775	61,410	25,160	74.5	41.0
Pacific Northwest ...	40,821	39,200	39,631	97.1	101.1
California .....	9,288	10,292	7,011	75.5	68.1
Other West .....	4,009	3,830	3,632	90.6	94.8
Total Western .....	54,118	53,322	50,274	92.9	94.3
Massachusetts .....	2,927	3,465	2,426	82.9	70.0
New York .....	17,125	24,340	15,435	90.1	63.4
New Jersey .....	3,484	5,463	4,249	122.0	77.8
Pennsylvania .....	9,465	16,728	8,932	94.4	53.4
Delaware .....	1,368	2,750	1,635	117.8	59.5
Maryland .....	1,920	2,847	2,194	114.3	77.1
Virginia .....	11,533	18,000	10,320	89.5	57.3
West Virginia .....	5,780	10,004	5,520	95.5	55.2
Ohio .....	6,095	12,636	4,030	66.1	31.9
Illinois .....	4,099	8,960	4,032	98.4	45.0
Michigan .....	7,731	14,432	6,930	89.6	48.0
Missouri .....	2,207	4,214	392	17.8	9.3
Arkansas .....	1,394	2,295	338	24.2	14.7

1/ Includes some quantities in some States not harvested on account of market conditions.



Pears:  
Table 4.-/ Production, total and specified States, average 1927-36,  
annual 1937 and 1938.

State	Average	1937	Indicated	1938 as	1938 as
	1927-36		1938	percentage	percentage
	1,000	1,000	1,000	of average	of 1937
	bushels	bushels	bushels	Percent	Percent
Total United States	1/ 24,326	1/ 29,548	31,662	130.2	107.2
Pacific Coast	1/ 16,128	1/ 18,484	21,500	133.3	116.3
California	1/ 9,076	1/ 9,334	11,102	122.3	118.9
Washington	1/ 4,142	5,600	6,278	151.6	112.1
Oregon	1/ 2,910	3,550	4,120	141.6	116.1
New York	1,300	1,305	1,320	140.0	139.5
Michigan	892	1,380	1,401	157.1	101.5
All other	6,006	8,379	6,941	115.6	82.8

1/ Includes some quantities not harvested on account of market conditions.

Table 5.- Pears, California Bartlett: Weighted average auction price per box,  
Chicago and New York, specified weeks, 1937 and 1938.

Week ended	Chicago		New York	
	1937	1938	1937	1938
	Dollars	Dollars	Dollars	Dollars
July 15	3.73	1/ 3.46	3.76	3.00
22	3.09	2.36	3.43	2.52
29	2.43	1.97	2.47	1.94
Aug. 5	2.33	1.82	2.35	1.84
12	2.22	1.81	2.28	1.82

1/ Less than 500 boxes

Table 6.- Pears, eastern: L.c.l. price per bushel, Chicago and New York, by  
specified varieties and weeks, 1937 and 1938

Week ended	Chicago 1/				New York			
	1937		1938		1937		1938	
	Clapp	All	Clapp	All	Clapp	All	Clapp	All
	Favor-	var-	Favor-	var-	Favor-	var-	Favor-	var-
	ite	ieties	ite	ieties	ite	ieties	ite	ieties
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
July 23	--	--	--	--	--	--	1.29	1.29
30	--	--	--	--	1.94	1.94	1.32	1.32
Aug. 6	--	1.41	1.34	1.34	1.60	1.60	.98	.98
13	2/1.55	1.40	.99	1.02	1.49	1.49	.85	.95

1/ 2-2½ inch size

2/ Average for 1 day.

Table 7.-Grapes: Production, total and specified States, average 1927-36, annual 1937 and 1938

State	Average	1937	Indicated	1938 as per-	1938 as per-
	1927-36	1937	1938	centage of	centage of
	1,000	1,000	1,000	average	1937
	tons	tons	tons	Percent	Percent
Total U. S. ....	1/ 2,197	1/ 2,777	2,490	113.3	89.7
Calif. ....	1/ 1,929	2,454	2,305	119.5	93.9
Raisin varieties..	1/ 1,126	1,407	1,339	118.9	95.2
Wine           "	1/ 450	631	582	129.3	92.2
Table          "	1/ 353	416	384	108.8	92.3
N. Y. ....	74	89	59	79.7	66.3
Mich. ....	61	1/ 67	12	19.7	17.9
Ohio ....	27	38	14	51.9	36.8
Pa. ....	22	26	18	81.8	69.2
Mo. ....	9	12	7	77.8	58.3
Ark. ....	10	13	6	60.0	46.2
All other .....	65	78	69	106.2	88.5

1/ Includes some quantities not harvested on account of market conditions.

Table 8.-Grapes, California: Price per lug, carloads f.o.b. cash track and California acceptance, by specified weeks and varieties, 1936-38

Week ended 1/	Thompson Seedless			Red Malaga		
	1936	1937	1938	1936	1937	1938
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
July 30	.82	---	---	1.31	---	---
Aug. 6	.75	.95	.74	1.08	1.31	1.12
13	.75	.83	.64	.97	1.16	.98

1/ Based on 1938 calendar.

Table 9. - Grapes, California: Weighted average auction price per lug at Chicago and New York, by specified varieties and weeks, 1937-38.

Market and Week 1/	Thompson Seedless		Red Malaga	
	1937	1938	1937	1938
<u>Chicago</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>	<u>Dol.</u>
June 25	3.60	3.31		
July 2	3.16	3.14		
9	2.80	2.11		
16	2.01	1.79		
23	2.30	1.67		
30	2.41	1.96	2.82	2.42
Aug. 6	1.66	1.51	2.33	2.04
13	1.60	1.28	1.79	1.86
<u>New York</u>				
June 25	4.48	3.64		
July 2	3.22	3.18		
9	2.93	2.78		
16	2.51	1.97		
23	2.27	1.96		2.62
30	2.26	2.43	2.32	2.64
Aug. 6	2.18	1.86	2.93	2.31
13	1.63	1.32	2.58	1.73

1/ Based on 1938 calendar

Table 10.- Peaches, all varieties: Weekly average l.c.l. price per bushel at New York and Chicago, 1936-38

Week ended in 1938	New York			Chicago		
	1936	1937	1938	1936	1937	1938
	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
May 7			4.00			
14			3.75			3.10
21			2.90			2.90
28			2.53	3.33		2.23
June 4	3.62	4.55	1.92	4.00	3.90	2.16
11	2.72	3.87	1.93	2.67	3.53	1.69
18	2.24	3.15	1.66	2.39	3.08	1.66
25	2.37	2.90	1.90	2.52	2.58	1.96
July 2	2.50	3.17	1.99	2.01	2.30	2.34
9	2.60	3.35	1.70	3.04	3.06	1.62
16	3.40	3.18	1.66	4.00	3.46	1.84
23	2.37	2.73	1.79	2.58	2.95	1.94
30	2.05	2.23	2.04	2.38	2.26	2.30
Aug. 6	2.30	1.94	2.49	2.54	2.06	2.24
13	2.12	1.77	1.90	2.54	1.79	1.78
20	1.98	1.82		2.41	1.90	
27	2.04	2.27		2.22	1.80	
Sept. 3	2.31	1.47		2.11	1.58	
10	2.10	1.74		1.80	1.98	
17	2.38	1.69		1.94	1.62	
24	2.67	1.49		1.70	<u>1/</u> 1.39	
Oct. 1	2.55	1.56		2.08	1.60	
8	2.98	1.65		2.12	1.58	
15	--	1.88			1.44	
22	--	1.75				
29	--	1.62				

1/ Includes some generally fair in color.

Table 11.- Peaches: Shipping-point prices per bushel, 1936-38 1/

Week ended in 1938	F.o.b. usual terms						F.o.b. cash-track	
	Hamlet, North Carolina			Nashville, Arkansas			Anna, Illinois <u>2/</u>	
	1936	1937	1938	1936	1937	1938	1937	1938
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
July 2			1.00			.92		
9			1.01			.90		
16	2.56	3.05	1.06	2.38		1.08		
23	1.61	2.46	1.45	1.56	2.50	--		
30	1.74	1.72	1.60	1.69	1.71	--		
Aug. 6	1.90	1.33	--	1.90	1.47	--	<u>3/</u> 1.42	1.70
13							1.39	1.28
20							1.50	
27							1.47	

1/ Range 2 to 2-1/2 inches. 2/ Not reported in 1936. 3/ Average for 1 day.



Table 12.-Oranges: Weekly shipments from producing areas, by varieties and totals, June to August 1937 and 1938

Week ended	1937			1938			Total
	Calif.-	Ariz.	Fla.	Calif.-	Ariz.	Fla.	
	Cars	Cars	Cars	Cars	Cars	Cars	
June 11	1,056	523	1,579	1,825	637	2,462	11
18	1,179	394	1,573	1,586	532	2,118	33
25	874	211	1,085	1,900	326	2,226	69
July 2	1,000	126	1,126	1,648	263	1,911	81
9	874	61	935	1,806	108	1,919	57
16	1,131	3	1,134	1,890	77	1,967	92
23	1,063	2	1,065	2,071	9	2,080	
30	1,002	4	1,006	1,741	7	1,748	
Aug. 6	874	4	878	1,733	5	1,738	
13	914	3	917	1,499	2	1,501	

1/ Includes shipments from Texas, Louisiana, Alabama and Mississippi, also Florida tangerines. 2/ Excluding relief shipments. 3/ Purchases made by Federal Surplus Commodities Corporation.

Table 13.-Grapefruit: Weekly shipments from producing areas and totals, June to August 1937 and 1938

Week ended	1937 1/			1938			Total
	Fla.	Calif.-	Total	Fla.	Calif.-	Fla.	
	Cars	Cars	Cars	Cars	Cars	Cars	
June 11	96	41	137	247	285	532	23
18	68	44	112	145	250	395	2
25	39	58	97	56	141	197	---
July 2	16	56	72	32	71	103	---
9	3	51	54	13	118	131	---
16	3	52	55	15	85	100	---
23	2	28	30	3	91	94	---
30	3	33	36	1	88	89	---
Aug. 6	3	27	30	5	91	96	---
13	1	30	31	1	108	109	---

1/ Excluding relief shipments which for the entire season amounted to 1,822 cars from Florida, and 2,924 cars from Texas.

Table 14.- Citrus fruits: Weighted average auction prices per box, New York and Chicago, May to August 1937 and 1938

Week ended 1/	Oranges				Grapefruit				Lemons	
	Calif. Valencias:		Fla.		Fla.		Calif.		Calif.	
	1937	1938	1937	1938	1937	1938	1937	1938	1937	1938
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
<b>New York</b>										
May 7	4.44	--	3.70	2/2.57	2.77	2/1.91	--	--	6.15	4.32
14	4.02	3.15	3.49	2.58	2.74	2.31	--	--	6.01	4.43
21	4.22	2.83	3.45	2.68	2.64	2.57	--	--	5.60	4.36
28	4.22	2.51	3.56	2.37	2.78	2.24	--	--	5.50	4.25
Mo.av.	4.19	2.64	3.56	2.54	2.73	2.23	--	--	5.76	4.34
June 4	4.45	2.55	3.34	2.46	2.95	2.33	--	--	6.12	4.10
11	4.59	2.68	3.53	2.73	3.36	2.03	--	--	6.99	3.93
18	4.74	2.67	3.66	2.49	4.11	1.64	--	3.06	6.73	3.79
25	4.93	2.77	3.82	2.32	3.76	1.46	4.04	2.31	6.08	4.19
July 2	4.91	2.98	4.35	2.57	3.73	1.56	4.18	2.38	5.65	4.62
Mo.av.	4.75	2.76	3.88	2.52	3.44	1.91	4.17	2.40	6.27	4.12
July 9	5.08	2.98	4.63	2.64	3.22	1.59	4.73	2.40	6.04	4.16
16	5.44	2.93	5.13	2.56	2.50	1.73	3.84	2.28	7.36	4.39
23	5.31	3.31	4.77	2.27	--	1.31	3.26	2.64	6.15	4.23
30	5.65	3.36	--	2.42	--	1.24	3.33	2.84	5.80	3.69
Mo.av.	5.39	3.15	4.88	2.52	2.79	1.47	3.60	2.54	6.34	4.13
Aug. 6	5.49	3.32	--	2.57	--	1.56	3.38	3.40	5.29	4.39
13	5.38	3.16	--	2.60	--	--	3.79	3.25	5.60	3.97
<b>Chicago</b>										
May 7	4.49	--	3.83	2/2.41	2.99	2/2.29	--	--	5.49	4.67
14	4.38	3.01	3.73	3.21	2.90	2.78	--	--	5.60	4.67
21	3.99	2.57	3.88	2.66	3.04	2.39	--	--	5.17	4.14
28	4.31	2.65	3.68	2.56	3.05	2.48	--	--	5.41	4.05
Mo.av.	4.24	2.65	3.78	2.69	2.99	2.44	--	--	5.40	4.34
June 4	4.71	2.76	3.36	2.58	2.80	2.16	--	--	6.49	3.90
11	4.57	2.93	3.98	3.27	4.21	2.64	2.72	--	6.56	3.91
18	4.82	2.72	3.98	2.71	4.02	1.91	--	2.53	6.44	4.02
25	4.82	2.68	4.02	2.62	5.16	1.46	--	1.91	6.49	4.57
July 2	4.64	2.79	4.71	3.13	4.34	1.45	3.60	1.85	6.18	4.62
Mo.av.	4.70	2.78	3.78	2.90	3.27	2.07	2.86	2.17	6.44	4.29
July 9	4.67	2.86	4.03	2.99	3.49	1.31	3.76	1.81	5.99	4.47
16	5.19	3.22	--	3.48	--	.73	3.48	1.78	6.64	4.71
23	5.47	3.12	--	--	--	--	3.47	2.21	5.89	3.96
30	5.51	3.10	--	--	--	--	3.02	2.44	5.64	3.61
Mo.av.	5.18	3.07	4.03	3.08	3.49	1.05	3.41	1.87	6.12	4.29
Aug. 6	5.18	3.11	--	--	--	--	2.68	2.86	5.18	4.07
13	5.30	3.11	--	--	--	--	2.54	2.58	5.44	4.45

1/ Based on 1938 calendar.

2/ Includes Bruce boxes, beginning May.