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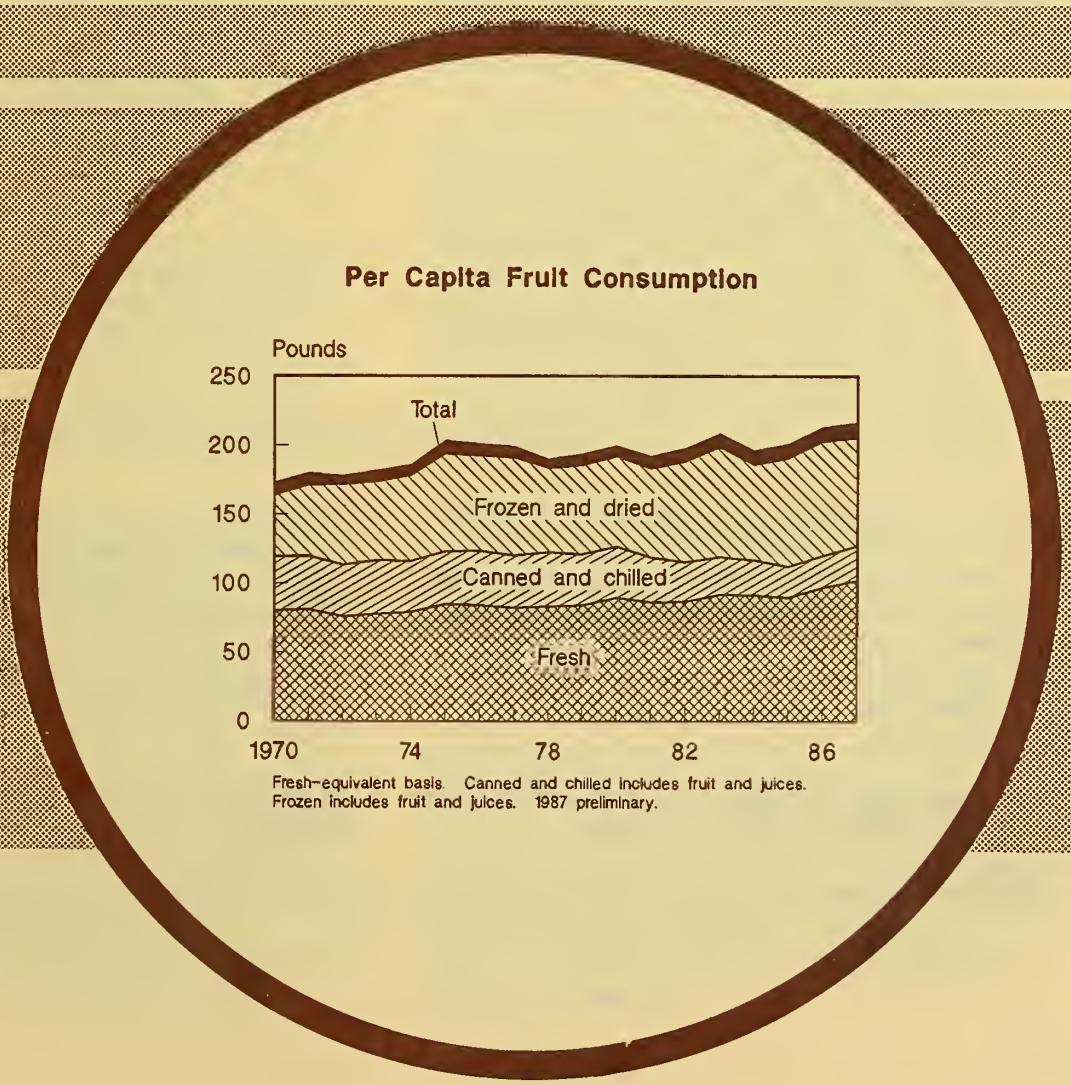

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Marking the first increase after the 1980's freezes in Florida and Texas, the 1987 citrus bearing acreage rose to 822,200, up 0.2 percent from 1986. Bearing acreage of noncitrus fruit also increased, going from 1,956,450 in 1986 to 1,961,940 in 1987. Consequently, the total bearing acreage of U.S. fruit rose 0.3 percent.

Since the freezes, citrus production has gradually recovered, reaching 12 million tons in 1986/87, up almost 9 percent from 1985/86. Nevertheless, total citrus production is still down by historical standards; the annual average was 11.8 million tons in 1970–72, but only 11.2 million in 1985–87.

In contrast, utilized production of noncitrus tree fruits and grapes rose from an annual average of 9.6 million tons to 14.2 million during the same period. The sharp noncitrus increase resulted in part from an abnormally low 1970–72 base period caused by the 1972 spring freeze in California. This freeze damaged crops significantly, particularly grapes and prunes.

Grape Production

Among the major noncitrus fruits, grape production has trended upward, reaching a record 6.6 million tons in 1982. Grapes showed the largest production increase in the last 18 years, up 69 percent, from an annual average of 3.2 million tons during 1970–72 to 5.4 million in 1985–87.

California registered most of the increase. As demand for wine accelerated in the 1970's, heavy plantings of grapevines in California expanded bearing acreage. Consequently, California grape production rose from 2.8 million tons in 1970–72 to 4.9 million in 1985–87.

With California grape output higher and the growth rate in wine consumption slowing in the 1980's, grapes were in surplus supply. Much of the surplus was dried as raisins. To encourage growers to cut back grape production, the Raisin Administrative Committee approved the Raisin Industry Diversion Program in 1985. Under the program, a number of vineyards have been pulled in the last few years or idled one or more years.

Consequently, grape bearing acreage has declined recently and production has decreased. California grape production shrank from 5.2 million tons in 1985 to 4.7 million in 1987. The production cut has strengthened grape prices received by growers from $168 a ton in 1985 to $259 in 1987. The total U.S. grape crop was valued at $1.36 billion in 1987, the highest since 1983.

Apple Production

With a record crop in 1987, U.S. apple production rose 42 percent from 1970–72 to 1985–87. Most of the increase was from California, Michigan, and Washington. Production in Washington more than doubled over the period because of heavy plantings in the 1970's.

Apple production in California and Michigan was up 25 and 33 percent, respectively. Increased demand for granny smith apples and strong prices have stimulated new plantings in California and Michigan. However, the record apple crop resulted in an average grower price of 8.5 cents a pound in 1987, down 37 percent from the 1986 record and the lowest price since 1980. The 1987 crop was valued at $869 million, 18 percent below 1986.

Peach Production

U.S. peach production has moved erratically during the last 18 years, with an overall decrease of 16 percent from 1970–72 to 1985–87. Most of the drop was attributed to sharply reduced clingstone production. California growers pulled out large numbers of clingstone peach trees because of low prices resulting from reduced demand for canned peaches and fruit cocktail. From 1970–72 to 1985–87, California clingstone production fell 27 percent. However, it recovered somewhat in 1987, expanding almost 3 percent from 1986. But the crop for 1988 is currently estimated smaller.

In contrast, California freestone peach production gained 28 percent from 1970–72 to 1985–87. South Carolina is also one of the leading freestone peach States, but because of weather variations, its production fluctuated widely. South Carolina peach production rose 13 percent from 1970–72 to 1985–87. In contrast, Georgia, another major producer, was down 39 percent. Freestone peach production for the whole United States dropped 6 percent during the same period. Despite the reduced production, freestone production's share of the total peach crop increased from 52 to 58 percent. Although grower prices for all peaches have been relatively steady during last few years, they more than doubled from 1970–72 to 1985–87.

Pear Production

U.S. pear production fluctuated widely from 1970 to 1987, with an overall increase of 28 percent from 1970–72 to 1985–87. The sharp gain was mostly attributed to a record crop of 940,250 tons in 1987. All three major pear–producing States (California, Oregon, and Washington) shared the increase. These three States accounted for 96 percent of the 1987 U.S. crop.

Although California is the largest pear producer, its output increased only 4 percent from 1970–72 to 1985–87. Production in Oregon and Washington rose 55 and 70 percent, respectively, probably because of increased plantings of Asian pear trees. Despite greater production, grower prices have been relatively strong in recent years, reaching a record $269 a ton in 1985. However, the 1987 price fell to $197, compared with $267 in 1986. The 1987 crop was valued at $185 million.

Shifts Among Processing

The proportions of deciduous fruit used for processing changed slightly from the early 1970's, with shifts in the relative importance of canning, drying, freezing, crushing, and other types of processing (mainly brined). Because of weak demand for canned fruit, the share of deciduous fruit used for canning has fallen. Currently, canning accounts for 26 percent of processing use of noncitrus, down from almost one–third in the early 1970's.

By contrast, the share of deciduous fruit used for drying has gained, reaching an average of 23 percent in 1985–87, compared with 20 in 1970–72. Increased use of dried fruit for breakfast cereals and snack food has probably boosted the share for drying, particularly for apples and grapes.

Greater use of apples for juice added greatly to juice's share of processing use of noncitrus; juice reached 18 percent in 1987, compared with an average of 12 percent during 1970–72.

Higher wine consumption boosted grape production, which in turn caused crushing for wine to take a larger share of noncitrus for processing. Crushing accounted for almost one–third of noncitrus for processing use during 1985–87, compared with 29 percent in the early 1970's. In contrast, freezing has lost some of its share of processing noncitrus during the same period.

Deciduous Exports

Exports of major fresh deciduous fruits such as apples and pears have risen since the early 1970's, while those of fresh grapes have fallen. Fresh apple exports more than tripled, peaking at 302,229 metric tons in 1981. Exports of fresh pears also peaked in 1981, reaching 53,323 metric tons. Comparing 1970–72 with 1985–87, total fresh pear exports rose 46 percent.

In contrast, during the last 18 years, exports of fresh grapes reached a peak of 127,649 metric tons in 1971, but fell 7 percent from 1970–72 to 1985–87. In 1987, exports of fresh apples and pears remained strong, while those of fresh grapes were weak.

Imports of major fresh fruit such as apples, bananas, and pineapples have also climbed sharply. Imports of fresh apples reached a record 133,421 metric tons in 1987. Fresh pineapple imports peaked in 1986, reaching 74,528 metric tons, and banana imports also peaked that year at 3.0 billion pounds. Overall, comparing 1970–72 with 1985–86, imports of apples, bananas, and pineapples rose 220, 59, and 82 percent, respectively.

Orange Output

U. S. citrus production continues to recover; most of the increase is attributed to oranges and grapefruit. During the last 18 years (1969/70–1986/87), U.S. orange production has fluctuated from a high of 11.8 million tons in 1979/80 to a low of 7.2 million in 1984/85. Increased production in California and Florida was chiefly responsible for the record crop in 1979/80. Florida orange production reached its highest level, 9.3 million tons, that season, in as extensive plantings after the severe 1962 freeze came into full bearing.

The 1980 freeze caused Florida orange production to fall to 4.7 million tons by 1984/85, the smallest crop since 1967/68. Comparing 1969/70–1971/72 with 1984/85–1986/87, Florida orange output was down 18 percent, and its share of the U.S. crop dropped from 77 to 70 percent. Nevertheless, Florida orange production has continued to rise, reaching 6.3 million tons in 1987/88, up 16 percent from 1986/87.

In contrast, California orange production has risen significantly from the early 1970's, as new plantings in central California have started to bear fruit. California orange production peaked at 2.9 million tons in 1982/83 and has fluctuated near 2 million since then. Output rose 38 percent from 1969/70–1971/72 to 1984/85–1986/87, and California's share of the U.S. orange crop expanded from 18 to 28 percent.

Texas orange production has also gradually recovered after the December 1983 freeze, reaching 38,000 tons in 1986/87. The freeze reduced the Texas crop to 107,000 tons in 1983/84, the smallest since 1967/68, and no commercial supplies at all were harvested for 1984/85. The July 1 estimate for the 1987/88 Texas orange crop was 61,000 tons, up 60 percent from the previous year.

Arizona orange production has moved erratically during the last 18 years. It has fluctuated from a high of 190,000 tons in 1972/73 to a low of 68,000 in 1983/84. Overall, the Arizona crop fell almost 60 percent from 1969/70–71/72 to 1984/85–1986/87. The 1987/88 crop slipped 27 percent from 1986/87.

The small orange crop nationwide has resulted in relatively strong grower returns. U.S. orange on–tree returns for all sales averaged $7.41 a box in 1984/85, the highest during the last 18 years. On–tree returns for fresh–use oranges were particularly strong, averaging $10.14 a box in 1984/85. The small orange crop has kept on–tree returns in all four States very strong since 1984/85. Overall, U.S. on–tree returns for all sales averaged $5.57 in 1984/85–1986/87, up 240 percent from 1969/70–1971/72.

Grapefruit Output

U.S. grapefruit production reached its 18–year low, 2.2 million tons, in 1983/84. Since then, production has recovered to 2.6 million in 1986/87. Florida and Texas have shown strong recoveries from the severe freezes. In 1982/83, Florida grapefruit was reduced to the lowest since 1970/71, 1.67 million tons. Production there has been gradually gaining, reaching 2.12 million tons in 1986/87. The 1987/88 crop is currently estimated at 2.30 million tons.

Texas grapefruit output reached a peak of 557,000 tons in 1981/82 because of increased production of the ruby red variety, which has strong export demand. Following the freeze, production has gradually recovered to 77,000 tons in 1986/87, and the 1987/88 crop is estimated at 152,000 tons.

California grapefruit output has been relatively large since 1979/80, peaking at 298,000 tons in 1986/87. Since 1969/70, Arizona grapefruit production has fluctuated from a high of 101,000 tons that year to a low of 66,000 in 1973/74. However, another small crop, 61,000 tons, is currently forecast for 1987/88. Generally, grapefruit production in Arizona is very small, and the State's share of the U.S. crop has remained near 3.5 percent.

Reduced supplies and vigorous demand, particularly for export markets, have kept grapefruit prices strong in recent years. U.S. grapefruit on–tree returns for all sales averaged $5.00 a box in 1986/87, the highest during the last 18 years. On–tree returns for California and Texas grapefruit in 1986/87 were even higher than the U.S. average, but Florida's on–tree return averaged slightly lower. Comparing 1969/70–1971/72 with

1984/85–1986/87, on-tree returns for all sales rose 134 percent. (For further information about grapefruit, see the special article in this issue.)

Lemon Output

U.S. lemon production has moved erratically during the last 18 years. It fluctuated from a low of 0.6 million tons in 1969/70 to a high of 1.2 million in 1980/81. Even though the crop hit another low in 1985/86, U.S. lemon production rose 51 percent from 1969/70–1971/72 to 1984/85–1986/87, with California output accounting for 77 percent of the U.S. crop. For both Arizona and California, harvests were sharply larger in 1986/87 than the year before. A marked rise in yields primarily accounted for the larger crops; bearing acreage in both States fell.

With the erratic production, on-tree returns for all lemons fluctuated widely during the last 18 years. Returns were very low in the early 1980's but have strengthened in recent years. Consequently, from 1969/70–1971/72 to 1984/85–1986/87, on-tree returns for all sales rose 52 percent.

Utilization of Citrus

The proportion of total citrus fruit sales for fresh and processing uses fluctuated within a narrow range during the last several years even with the freeze damage in Florida and Texas. However, comparing 1969/70–1971/72 and 1984/85–1986/87, the portion of citrus sold fresh increased from 29 to 34 percent, while processing use declined from 71 to 66 percent.

The increase in fresh sales was primarily attributed to the sharp rise in California orange production. California has dominated the fresh orange market and, because of the freezes in Florida and Texas, the share of California oranges for fresh use has averaged 77 percent during 1984/85–1986/87, compared with only 68 percent in the early 1970's.

On the other hand, the reduced quantity of citrus fruit going to processing use resulted from sharply reduced Florida orange production; Florida dominates the processing orange market.

Citrus Exports and Imports; Fruit Prices

Exports of fresh oranges peaked at 478,889 metric tons in 1974/75 and weakened in the late 1970's. However, the early 1980's freezes did not have substantial effects on fresh orange exports. The weak dollar and increased Japanese import quotas have held exports relatively strong in recent years. Overall, orange exports rose 53 percent between 1969/70–1971/72 and 1984/85–1986/87.

At the same time, exports of fresh grapefruit more than doubled, with the increase going mostly went to Japan, which replaced Canada as the leading U.S. grapefruit export market after 1971/72. Fresh lemon exports were up only moderately, peaking at 240,997 metric tons in 1976/77. Japan is again the leading U.S. market, accounting for 86 percent of total lemon exports in 1986/87.

To meet domestic demand, imports of frozen concentrated orange juice (FCOJ) have been heavy in recent years, reaching a record 597 million gallons (single strength) in 1984/85. Although most of the imports were from Brazil, the Brazilian share of total U.S. imports is slipping, falling to 91 percent in 1986/87, compared with 97 percent in 1984/85.

Following the Florida and Texas freezes, strong citrus prices moved the index of prices received by growers for fresh and processing fruit to a record 202 in 1984 (1977=100). Although grower prices fell somewhat thereafter, they remained relatively strong. Reduced citrus supplies also strengthened noncitrus prices. From 1970–72 to 1985–87, the all-fruit price index rose 168 percent. Retail fresh fruit prices have steadily increased since 1983, reaching a record 132 in 1987 (1982–84=100), more than triple the early 1970's.

Fruit Consumption

Per capita fruit consumption was estimated at a record 216.8 pounds (fresh weight equivalent) in 1987. Since 1970, consumption has grown at a moderate rate of 1.4 percent a year, with the increase shared by both fresh and processed fruit. Because of consumer diet consciousness, per capita fresh

fruit consumption gained 17 pounds from 1970–72 to 1985–87, to 96 pounds. Apples, bananas, avocados, grapes, and strawberries contributed most to the increase. Although per capita fresh citrus consumption has gradually recovered after freeze damage in Florida and Texas, it still fell almost 2 pounds from 1970–72 to 1985–87.

Per capita processed fruit consumption also rose, going from 98.6 pounds to 114.7 from 1970–72 to 1985–87. Most of the increase since 1970 has been in frozen citrus juice, which rose to 75.7 pounds (fresh weight equivalent) in 1985–87, up 59 percent from 1970–72. The increased consumption resulted from several factors: improved distribution, new product forms, better storage, higher disposable personal income, better marketing techniques, more brands, increased advertising and promotion, and changes in consumer tastes and preferences.

Chilled citrus juice is increasingly popular, particularly chilled orange juice (COJ). Consumption of COJ is estimated from the data on orange juice processed from Florida oranges only. Actual COJ consumption is significantly larger than the estimates because in recent years some imported Brazilian FCOJ and also Florida FCOJ have been shipped to other States for reconstitution into chilled juice at dairy plants. There are no data available on how much imported and Florida FCOJ is reconstituted into COJ in the United States. At the same time, canned citrus juice has continued its downward trend.

Per capita consumption of processed noncitrus fruit dropped significantly from the early 1970's, due primarily to reduced canned fruit consumption. On the other hand, dried fruit consumption has trended upward since 1980.

Tree Nuts

U.S. bearing area of almonds, filberts, macadamias, pistachios, and walnuts continues to trend upward, with the total reaching a record 673,000 acres in 1987, 1 percent higher than in 1986 and 2 percent above 1985. Combined with good to excellent yields for all tree nuts (except pistachios), total domestic production rose to a record 956,900 short tons, 62 percent more than in 1986 and 24 percent above 1985. Production records were set for almonds and walnuts. Production was also normal to above normal for pecans, filberts, and macadamias, but below normal for pistachios, which were in the off-year of the alternating production cycle.

Despite record supplies of most tree nuts, prices received by growers last year were generally very good except for pecans. Both domestic and export shipments of most tree nuts showed strong gains, leaving ending stocks near normal. Value records were set for all tree nut crops except pecans and pistachios. The total value of production for the six domestic tree nut crops also reached a record $1.09 billion in 1987, up 12 percent from 1986 and 39 percent from 1985.

Tree nut consumption in aggregate, although relatively low compared with other commodities, continues to climb. U.S. per capita consumption of all tree nuts rose 22 percent, from an annual average of 1.88 pounds to 2.30 pounds, during 1970–72—1985–87. Per capita almond consumption has shown strong growth, with an increased share of total tree nut consumption.

Walnut per capita consumption has also grown and widened its market share of total tree nut consumption. In contrast, the pecan market share of the total U.S. per capita consumption has fallen, even though pecan per capita consumption has made moderate absolute growth. Consumption of macadamias, pistachios, and filberts is small in relation to the other tree nuts but per capita consumption of all three nut crops is gradually increasing.

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Table 1.--Utilized production of citrus and noncitrus fruit, United States, 1970 to date

Year	Citrus	Noncitrus	Total
	1,000 short tons		
1970	11,348	9,890	21,238
1971	11,919	10,535	22,454
1972	12,163	8,436	20,599
1973	13,894	10,965	24,859
1974	13,412	11,937	25,349
1975	14,586	12,384	26,970
1976	14,788	11,846	26,634
1977	15,242	12,274	27,516
1978	14,255	12,460	26,715
1979	13,329	13,689	27,018
1980	16,484	15,153	31,637
1981	15,105	12,961	28,066
1982	12,057	14,217	26,274
1983	13,608	13,707	27,315
1984	10,792	13,796	24,588
1985	10,525	13,680	24,205
1986	11,052	13,406	24,458
1987 1/	12,001	15,393	27,394

1/ Preliminary.

SOURCES: Citrus Fruits Summary and Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 2.--Fruit and tree nut bearing acreage, United States, 1970 to date

Year	Citrus fruit 1/	Major deciduous fruits 2/	Miscellaneous noncitrus 3/	Tree nuts 4/	Total 5/
			1,000 acres		
1970	1,143.8	1,575.6	186.1	343.5	3,249.0
1971	1,193.8	1,547.0	186.1	365.7	3,292.6
1972	1,186.0	1,530.4	182.6	384.0	3,283.0
1973	1,201.6	1,534.3	183.4	398.9	3,318.2
1974	1,211.7	1,563.0	185.8	421.7	3,382.2
1975	1,215.7	1,596.9	191.3	443.0	3,446.9
1976	1,198.0	1,664.8	194.5	456.4	3,513.7
1977	1,180.2	1,674.2	198.4	482.9	3,535.7
1978	1,161.2	1,657.3	227.2	519.4	3,565.1
1979	1,149.5	1,627.7	236.3	555.9	3,569.4
1980	1,161.8	1,629.7	248.2	565.7	3,605.4
1981	1,148.0	1,612.1	255.0	561.4	3,576.5
1982	1,132.0	1,642.0	227.7	579.4	3,581.1
1983	1,100.4	1,676.5	235.3	596.0	3,608.2
1984	1,002.6	1,710.7	208.9	622.9	3,545.1
1985	899.2	1,735.4	211.1	656.9	3,502.6
1986	820.4	1,742.0	214.5	668.9	3,445.8
1987 6/	822.2	1,747.0	214.9	673.0	3,457.1

1/ Grapefruit, lemons, limes, oranges, tangelos, tangerines, and temples. Acreage is for the year of harvest.
2/ Commercial apples, apricots, cherries, grapes, nectarines, peaches, pears, plums, and prunes. 3/ Avocados, bananas, berries (until 1979), cranberries (beginning 1983), dates, figs, guavas, kiwifruit (beginning 1980), mangos, olives, papayas, persimmons, pineapples, and pomegranates.
4/ Almonds, filberts, Macadamia nuts, walnuts, and pistachios (beginning 1977). 5/ Due to rounding, figures may not equal sum of components. 6/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 3.--Bearing Acreage for selected noncitrus fruit, United States, 1970 to date

Year	Apples	Avocados	Cherries, Sweet	Cherries, Tart	Grapes	Nectarines	Peaches	Pears
			1,000 acres					
1970	402.5	23.7	52.4	59.3	535.5	7.8	248.8	94.8
1971	402.2	24.4	52.2	56.1	535.1	8.5	233.6	94.8
1972	405.2	25.2	52.6	54.2	531.1	9.9	221.7	94.3
1973	399.1	26.8	53.2	52.9	548.8	10.8	220.3	92.6
1974	396.0	30.0	54.4	51.6	584.9	11.0	220.0	90.7
1975	395.6	32.9	54.1	49.7	626.4	12.1	217.6	89.8
1976	403.2	38.2	52.1	45.0	701.4	13.4	215.3	88.6
1977	403.4	44.5	51.4	42.9	724.2	14.7	204.1	87.1
1978	404.3	51.2	49.6	40.8	720.2	14.8	198.0	85.0
1979	407.6	59.4	48.3	40.8	696.5	16.2	193.9	82.7
1980	412.2	67.1	47.0	42.0	698.6	18.4	194.2	81.0
1981	414.9	73.0	45.9	40.8	694.4	21.0	188.3	76.1
1982	419.4	78.0	45.1	40.3	718.8	22.2	189.8	74.5
1983	424.1	83.1	44.7	41.8	747.5	23.1	189.7	70.5
1984	429.4	84.0	43.6	48.3	770.4	24.5	194.7	68.4
1985	436.7	85.2	44.3	46.7	782.6	22.4	193.4	68.4
1986	452.8	86.3	45.3	48.9	770.7	22.8	190.7	68.0
1987 1/	461.0	86.0	46.1	50.0	762.3	23.1	188.2	69.6

1/ Preliminary.

SOURCE: Noncitrus Fruit and Nut Summary, NASS, USDA.

Table 4.--Average price indexes for fruit, United States, 1970 to date

Year	Index of fruit prices received by growers	Producer price index				Consumer Price Index	
		Fresh fruit	Dried fruit	Canned fruit and juices	Frozen fruit and juices	Fresh fruit	Processed fruit
	(1977=100)	(1982-84=100)				(1982-84=100)	
1970	59	42.3	29.3	39.8	37.5	35.6	38.4
197	67	48.0	29.6	41.7	40.7	37.8	40.6
1972	72	48.2	34.9	43.4	43.8	39.8	41.8
1973	84	57.2	45.6	47.2	44.9	44.6	43.5
1974	86	60.8	50.1	56.3	47.1	48.5	50.3
1975	85	66.6	47.1	61.2	51.2	51.8	59.7
1976	80	67.4	53.8	61.5	50.9	51.7	59.3
1977	100	74.9	71.4	67.1	64.4	59.4	62.2
1978	137	90.1	78.2	75.3	75.9	71.0	68.9
1979	144	98.2	117.0	84.6	81.3	79.8	77.0
1980	124	100.3	97.4	90.3	79.9	84.8	82.1
1981	130	96.6	99.1	96.6	100.0	89.4	91.7
1982	175	100.0	100.0	100.0	100.0	99.3	96.7
1983	128	106.4	100.0	101.0	98.7	95.1	98.1
1984	202	106.8	94.4	110.1	114.8	105.6	105.2
1985	180	108.1	88.7	113.8	118.5	116.3	109.5
1986	170	112.9	91.9	111.0	103.0	118.7	106.3
1987	182	112.0	95.0	115.4	113.3	132.0	110.6

SOURCES: Agricultural Prices, NASS, USDA, and Bureau of Labor Statistics, Department of Labor.

Table 5.--Annual retail prices for selected fruits, United States, 1980 to date

Year	Red delicious apples	Bananas	Anjou pears	Thompson seedless grapes	Lemons	Grapefruit	Oranges	
							Navel	Valencias
	Dollars per pound							
1980	0.629	0.342	0.609	1.064	0.702	0.354	0.365	0.373
1981	.565	.362	.590	1.143	.700	.395	0.391	0.406
1982	.639	.354	.606	1.014	.771	.354	0.433	0.556
1983	.590	.386	.619	1.071	.748	.365	0.387	0.384
1984	.657	.359	.541	1.100	.752	.398	0.425	0.650
1985	.685	.367	.703	.945	.929	.471	0.533	0.538
1986	.773	.385	.768	1.140	.821	.509	0.481	0.463
1987	.728	.365	.745	1.173	.897	.518	0.543	0.578

SOURCE: Bureau of Labor Statistics, Department of Labor.

Table 6.--Utilization of production of noncitrus fruits, and value, United States, 1970 to date

Year	Utilized production 1/ 2/	Fresh	Processed						Value of utilized production 1/
			Canned	Dried	Juice	Frozen	Wine	Other	
	1,000 short tons								1,000 dollars
1970	9,890	3,378	2,030	1,634	708	221	1,583	238	1,062,354
1971	10,535	3,421	2,003	1,431	877	240	2,310	192	1,159,402
1972	8,436	3,114	1,805	804	720	244	1,520	169	1,320,084
1973	10,965	3,403	2,071	1,795	598	254	2,567	196	1,948,531
1974	11,937	4,270	2,251	1,655	768	223	2,416	279	1,987,805
1975	12,384	4,734	2,056	1,920	863	251	2,276	205	1,919,399
1976	11,846	4,564	1,942	1,661	818	254	2,322	208	2,081,819
1977	12,274	4,531	2,060	1,870	841	244	2,412	258	2,533,727
1978	12,460	4,167	2,549	1,365	1,140	257	2,672	311	3,034,322
1979	13,689	4,358	2,758	2,044	1,285	226	2,713	305	3,404,222
1980	15,153	5,010	2,747	2,408	1,418	251	2,996	322	3,491,419
1981	12,961	4,709	2,263	1,722	1,235	231	2,522	280	3,586,740
1982	14,217	4,696	2,332	2,163	1,255	227	3,227	317	3,482,072
1983	13,707	4,805	2,123	2,481	1,445	185	2,423	245	3,215,233
1984	13,796	4,979	2,272	2,060	1,322	245	2,693	225	3,316,540
1985	13,680	4,600	2,274	2,192	1,220	263	2,919	212	3,418,919
1986	13,407	4,942	2,209	1,667	1,138	286	2,908	259	3,741,587
1987 3/	15,393	5,597	2,378	2,354	1,795	307	2,648	313	3,795,603

1/ Includes cull and cannery diversion for California clingstone peaches. 2/ Some figures may not add due to rounding. 3/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 7.--Apples: Production, utilization, and season-average grower prices, United States, 1970 to date 1/

Year	Production		Utilization		Grower prices		
	Total 2/	Utilized	Fresh	Processing	Fresh	Processing	All
	Million pounds				Cents/lb.	Dollars/ton	Cents/lb.
1970	6,397.7	6,258.4	3,531.5	2,726.9	6.53	39.20	4.54
1971	6,373.2	6,082.7	3,483.9	2,598.8	6.97	43.40	4.92
1972	5,878.8	5,867.5	3,342.0	2,525.5	8.92	62.80	6.43
1973	6,265.0	6,251.5	3,539.4	2,712.1	10.70	125.00	8.80
1974	6,579.7	6,529.8	3,690.5	2,839.3	11.10	96.10	8.40
1975	7,530.0	7,102.6	4,357.0	2,745.6	8.80	56.80	6.50
1976	6,472.2	6,466.9	3,915.8	2,551.1	11.50	108.00	9.10
1977	6,739.6	6,710.0	3,859.6	2,850.4	13.80	122.00	10.60
1978	7,596.9	7,544.0	4,210.4	3,333.6	13.90	117.00	10.40
1979	8,126.1	8,101.2	4,288.6	3,812.6	15.40	114.00	10.90
1980	8,818.4	8,800.4	4,934.1	3,866.3	12.10	84.00	8.70
1981	7,739.6	7,692.9	4,442.2	3,250.7	15.40	102.00	11.10
1982	8,122.0	8,110.2	4,536.7	3,573.5	13.20	118.00	10.00
1983	8,378.5	8,357.9	4,620.5	3,737.4	14.80	103.00	10.50
1984	8,333.0	8,318.1	4,666.1	3,652.0	15.50	111.00	11.20
1985	7,923.5	7,835.8	4,227.7	3,608.1	17.30	103.00	11.70
1986	7,933.0	7,907.3	4,531.8	3,375.5	19.10	116.00	13.40
1987 3/	10,542.6	10,241.8	5,621.6	4,620.2	12.20	80.30	8.50

1/ Commercial crop in orchards of 100 or more bearing trees. 2/ Includes unharvested production and harvested not sold. 3/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 8.--Apples: Processed utilization and season-average grower prices, United States, 1970 to date 1/

Year	Canned		Juice and cider		Frozen		Dried		Other 2/	
	Quantity	Price	Quantity	Price	Quantity	Price	Quantity	Price	Quantity	Price
	Million pounds	Dollars/ ton	Million pounds	Dollars/ ton	Million pounds	Dollars/ ton	Million pounds	Dollars/ ton	Million pounds	Dollars/ ton
1970	1,158.5	47.90	1,031.7	27.90	203.0	53.40	189.8	33.20	143.9	37.30
1971	1,093.5	49.40	1,087.0	36.10	190.5	52.20	96.2	45.40	131.6	37.50
1972	976.9	67.40	1,028.6	55.70	235.3	76.00	148.6	68.60	136.1	42.40
1973	1,255.4	131.00	822.2	98.20	259.2	171.00	247.7	104.00	127.6	103.00
1974	1,225.6	123.00	1,030.7	64.70	181.7	121.00	197.2	99.70	204.1	64.80
1975	1,026.7	57.50	1,191.6	52.60	206.6	73.10	229.5	65.50	91.2	47.40
1976	919.9	120.00	1,109.1	91.60	220.4	143.00	229.3	105.00	72.4	114.00
1977	1,075.9	133.00	1,267.2	109.00	160.9	138.00	225.5	132.00	120.9	112.00
1978	1,224.2	119.00	1,494.6	110.00	207.4	126.00	221.0	154.00	186.4	115.00
1979	1,336.7	125.00	1,953.8	103.00	136.6	133.00	255.7	135.00	129.8	110.00
1980	1,202.4	97.40	2,136.9	73.70	167.5	112.00	194.7	78.70	164.8	91.00
1981	1,002.4	121.00	1,798.4	87.90	172.7	160.00	190.0	77.10	87.2	109.00
1982	1,248.6	132.00	1,807.8	103.00	190.8	143.00	209.9	132.00	116.4	122.00
1983	1,204.4	117.00	1,984.7	89.00	169.6	161.00	283.3	106.00	95.4	111.00
1984	1,176.7	137.00	1,886.3	88.00	198.1	151.00	288.6	123.00	102.3	133.00
1985	1,255.4	132.00	1,842.1	75.00	194.3	139.00	242.4	132.00	73.9	117.00
1986	1,179.0	132.00	1,648.9	96.60	257.3	150.00	199.4	123.00	90.9	125.00
1987 3/	1,284.6	118.00	2,739.8	57.70	253.8	131.00	268.8	68.10	73.2	100.00

1/ Commercial crop. 2/ Includes vinegar, wine, jam, fresh slices for pie making. 3/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 9.--Grapes: Production, utilization, and season-average grower prices, United States, 1970 to date

Year	Production		Utilization		Grower prices		
	Total 1/	Utilized 2/	Fresh	Processing	Fresh	Processing	Total
	1,000 short tons				Dollars/short ton		
1970	3,103.3	3,103.3	390.0	2,713.3	181.00	81.80	94.20
1971	3,994.4	3,994.4	392.7	3,601.8	181.00	86.80	96.00
1972	2,578.7	2,578.7	358.6	2,220.1	329.00	139.00	165.00
1973	4,198.4	4,198.3	405.8	3,792.5	305.00	148.00	162.00
1974	4,198.8	4,198.8	434.5	3,764.3	267.00	124.00	139.00
1975	4,366.4	4,365.1	498.2	3,866.9	337.00	116.00	142.00
1976	4,398.3	4,093.0	466.3	3,626.7	369.00	129.00	155.00
1977	4,297.8	4,296.3	481.4	3,814.9	438.00	163.00	194.00
1978	4,566.7	4,317.9	437.3	3,880.6	496.00	203.00	233.00
1979	4,989.0	4,988.7	524.1	4,464.6	417.00	215.00	236.00
1980	5,595.2	5,594.9	569.1	5,025.8	560.00	203.00	240.00
1981	4,458.2	4,457.6	526.5	3,931.1	530.00	266.00	297.00
1982	6,555.1	5,864.9	706.4	5,158.5	455.00	202.00	232.00
1983	5,505.7	5,360.2	671.1	4,689.1	436.00	165.00	199.00
1984	5,193.9	5,168.8	676.9	4,491.9	371.00	162.00	190.00
1985	5,606.7	5,606.6	781.1	4,825.5	292.00	151.00	171.00
1986	5,225.9	5,225.3	779.4	4,445.9	463.00	183.00	224.00
1987 3/	5,264.0	5,250.5	716.3	4,534.1	532.00	216.00	259.00

1/ Includes unharvested production and harvested not sold. 2/ Some figures may not add due to rounding. 3/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 10.--Grapes: Processed utilization and season-average grower prices, United States, 1970 to date

Year	Canned		Juice		Wine		Dried		Other 1/	
	Quantity	Price	Quantity	Price	Quantity	Price	Quantity	Price	Quantity	Price
	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton
1970	53.7	89.00	243.6	146.00	1,583.2	79.00	821.8	66.60	11.0	146.00
1971	58.4	94.00	332.8	135.00	2,309.7	85.20	895.9	72.10	4.9	135.00
1972	50.5	116.00	206.1	161.00	1,520.2	138.00	437.4	135.00	5.9	161.00
1973	59.0	135.00	186.7	198.00	2,567.3	133.00	969.3	175.00	10.2	199.00
1974	61.2	152.00	252.6	177.00	2,415.7	110.00	1,023.8	141.00	11.0	178.00
1975	52.7	138.00	266.9	155.00	2,275.5	92.10	1,252.4	151.00	19.4	127.00
1976	48.0	152.00	262.8	149.00	2,321.7	115.00	982.5	157.00	11.6	123.00
1977	54.0	183.00	207.6	210.00	2,411.5	149.00	1,134.0	184.00	7.8	193.00
1978	55.0	241.00	389.8	196.00	2,671.5	192.00	759.0	243.00	5.4	208.00
1979	60.0	256.00	306.4	203.00	2,713.1	196.00	1,380.9	253.00	4.3	215.00
1980	63.0	262.00	344.7	181.00	2,996.3	190.00	1,620.0	230.00	1.8	210.00
1981	42.0	260.00	334.1	188.00	2,521.6	250.00	1,032.0	329.00	1.5	196.00
1982	35.0	255.00	348.1	173.00	3,227.3	195.00	1,547.5	220.00	.7	149.00
1983	35.0	211.00	3/ 446.4	139.00	2,422.7	193.00	1,785.0	132.00	---	---
1984	30.0	213.00	3/ 376.3	113.00	2,693.2	174.00	1,392.5	153.00	---	---
1985	45.0	213.00	3/ 295.5	129.00	2,919.3	162.00	1,565.7	134.00	---	---
1986	40.0	210.00	3/ 309.9	180.00	2,907.5	187.00	1,188.5	172.00	---	---
1987 2/	40.0	220.00	3/ 407.5	205.00	2,647.6	223.00	1,439.0	206.00	---	---

1/ Includes jam, jelly, etc. 2/ Preliminary. 3/ Includes small quantities of other processing (jam, jelly, etc.)

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 11.--Grapes: Production and season-average grower prices, California, 1970 to date 1/

Year	Wine type		Table type		Raisin type 2/		Raisin dried		Raisin not dried 3/		All types	
	Production	Price	Production	Price	Production	Price	Production	Price	Production	Price	Production	Price
	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton	1,000 short tons	Dollars/ short ton
1970	531.0	117.00	345.0	109.00	1,871.0	71.60	193.0	283.00	1,051.0	75.40	2,747.0	85.00
1971	765.0	139.00	454.0	96.10	2,312.0	68.40	194.1	329.00	1,419.0	66.40	3,531.0	87.20
1972	630.0	222.00	301.0	210.00	1,344.0	123.00	105.0	560.00	908.0	117.00	2,275.0	162.00
1973	1,040.0	208.00	475.0	174.00	2,376.0	133.00	224.0	754.00	1,409.0	104.00	3,891.0	158.00
1974	1,238.0	133.00	586.0	131.00	1,970.0	128.00	241.5	602.00	948.8	113.00	3,794.0	130.00
1975	1,313.0	110.00	434.0	218.00	2,201.0	137.00	283.0	665.00	951.4	118.00	3,948.0	137.00
1976	1,323.0	136.00	405.0	217.00	2,250.0	150.00	283.0	706.00	976.0	143.00	3,978.0	152.00
1977	1,563.0	175.00	488.0	269.00	1,935.0	183.00	248.3	840.00	803.0	180.00	3,986.0	190.00
1978	1,706.0	210.00	393.0	342.00	1,918.0	229.00	228.5	1,067.00	912.0	217.00	4,017.0	232.00
1979	1,821.0	214.00	417.0	310.00	2,320.0	239.00	302.3	1,151.00	944.0	219.00	4,558.0	236.00
1980	2,004.0	210.00	428.0	410.00	2,692.0	237.00	309.0	1,205.00	1,080.0	245.00	5,124.0	241.00
1981	1,794.0	266.00	420.0	440.00	1,779.0	306.00	256.0	1,315.00	755.0	275.00	3,993.0	302.00
1982	2,402.0	218.00	612.0	344.00	3,062.0	218.00	292.0	1,153.00	1,112.0	214.00	6,076.0	231.00
1983	1,880.0	209.00	504.0	351.00	2,535.0	158.00	396.0	587.00	617.0	236.00	4,919.0	199.00
1984	1,900.0	201.00	475.0	304.00	2,295.0	158.00	334.5	635.00	892.0	161.00	4,670.0	189.00
1985	2,140.0	184.00	580.0	230.00	2,487.0	141.00	346.0	612.00	930.0	149.00	5,207.0	168.00
1986	2,105.0	207.00	620.0	306.00	2,045.0	209.00	277.0	733.00	---	---	4,770.0	221.00
1987 4/	1,950.0	248.00	510.0	426.00	2,200.0	229.00	356.0	831.00	---	---	4,660.0	259.00

1/ Price derived from unround data for all types and raisin type. 2/ Fresh equivalent of dried and not dried. 3/ Dried basis: 1 ton of raisins equivalent to 4.15 tons for 1984, 4.50 tons for 1985, 4.26 tons for 1986 and 4.02 tons for 1987. 4/Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 12.--Peaches: Production, utilization, and season-average grower prices, United States, 1970 to date

Year	Production		Utilization		Grower prices		
	Total	Utilized	Fresh	Processing	Fresh	Processing	All
	Million pounds				Cents/lb.	Dollars/ton	Cents/lb.
1970	2,995.8	2,786.3	1,181.5	1,604.8	8.03	92.30	6.04
1971	2,882.6	2,742.3	1,201.0	1,541.3	9.65	89.90	6.07
1972	2,371.5	2,249.5	844.9	1,404.6	11.00	88.10	6.90
1973	2,590.9	2,412.7	935.2	1,477.5	12.30	113.00	8.30
1974	2,917.2	2,756.3	952.0	1,804.3	13.00	151.00	9.50
1975	2,835.6	2,645.6	1,099.6	1,546.0	14.70	144.00	10.40
1976	3,018.3	2,641.7	151.2	1,490.5	13.30	134.00	9.60
1977	2,955.4	2,825.7	1,144.0	1,681.7	14.10	137.00	9.80
1978	2,652.7	2,515.7	1,135.8	1,379.9	17.00	155.00	12.00
1979	2,938.7	2,834.2	1,250.5	1,583.7	15.30	173.00	11.60
1980	3,068.6	2,954.1	1,324.1	1,630.0	16.60	181.00	12.40
1981	2,770.6	2,639.8	1,331.0	1,308.8	16.60	200.00	13.30
1982	2,285.6	2,101.9	976.9	1,125.0	20.60	181.00	14.40
1983	1,855.3	1,753.8	967.1	786.7	19.70	177.00	14.80
1984	2,659.3	2,467.9	1,286.9	1,181.0	16.10	192.00	13.00
1985	2,147.3	2,046.4	924.8	1,121.6	20.60	209.00	15.00
1986	2,328.4	2,239.9	1,112.8	1,127.1	19.90	188.00	14.60
1987 1/	2,428.8	2,301.2	1,124.3	1,176.9	18.50	201.00	14.20

1/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 13.--Peaches: Processed utilization and season-average grower prices, United States, 1970 to date

Year	Canned		Frozen		Dried		Other 1/	
	Quantity	Price	Quantity	Price	Quantity	Price	Quantity	Price
	Million pounds	Dollars/ ton	Million pounds	Dollars/ ton	Million pounds	Dollars/ ton	Million pounds	Dollars/ ton
1970	1,476.6	94.30	73.7	66.30	36.4	87.50	18.1	38.10
1971	1,397.1	91.70	86.3	76.60	29.8	87.50	28.1	39.30
1972	1,268.8	89.90	65.3	90.20	24.0	110.00	46.5	34.00
1973	1,325.4	113.00	104.9	130.00	24.0	141.00	23.2	54.30
1974	1,650.6	153.00	78.1	154.00	29.0	115.00	46.6	63.60
1975	1,432.0	148.00	52.7	110.00	38.0	185.00	23.3	46.80
1976	1,326.3	135.00	109.8	113.00	30.0	232.00	24.4	42.20
1977	1,504.7	140.00	109.8	116.00	42.0	199.00	25.2	45.10
1978	1,230.8	161.00	69.8	122.00	35.0	185.00	44.3	40.90
1979	1,427.6	177.00	93.5	155.00	33.0	136.00	29.6	61.70
1980	1,498.3	185.00	77.1	131.00	34.0	115.00	20.6	82.10
1981	1,173.7	205.00	78.3	152.00	34.8	112.00	22.0	121.00
1982	983.9	185.00	70.5	153.00	45.0	120.00	25.6	122.00
1983	675.4	180.00	64.3	179.00	36.0	118.00	11.0	101.00
1984	1,028.5	199.00	89.0	151.00	28.0	100.00	35.5	141.00
1985	982.6	219.00	93.3	153.00	32.5	104.00	13.2	130.00
1986	926.9	196.00	136.3	168.00	32.5	96.00	31.4	113.00
1987 2/	929.8	214.00	144.4	170.00	35.0	101.00	67.7	146.00

1/ Includes pickles, wine, and brandy. 2/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 14.--All pears: Production, utilization, and season-average grower prices, United States, 1970 to date

Year	Production		Utilization		Grower prices		
	Total	Utilized	Fresh	Processed	Fresh	Processed excluding dried	All
	1,000 short tons				Dollars/short ton		
1970	548.8	538.8	197.9	340.9	146.00	125.00	133.00
1971	749.1	707.2	284.8	422.4	102.00	84.00	94.50
1972	612.1	608.7	251.0	357.6	175.00	113.00	139.00
1973	730.4	725.8	307.2	418.6	160.00	121.00	138.00
1974	741.7	740.7	296.0	444.7	182.00	161.00	169.00
1975	748.0	741.8	326.8	415.0	161.00	128.00	143.00
1976	839.1	819.1	339.2	479.9	144.00	111.00	124.00
1977	781.6	779.5	298.2	481.3	193.00	117.00	146.00
1978	723.3	723.3	297.0	426.2	267.00	187.00	219.00
1979	854.7	854.2	300.1	554.1	276.00	166.00	204.00
1980	897.4	896.4	345.1	551.3	244.00	167.00	196.00
1981	897.0	894.0	378.0	516.0	249.00	142.00	187.00
1982	804.0	802.7	368.1	434.6	255.00	123.00	183.00
1983	774.7	774.5	384.5	390.0	216.00	126.00	170.00
1984	709.6	696.8	324.1	372.7	300.00	168.00	229.00
1985	747.2	747.0	349.7	397.3	349.00	200.00	269.00
1986	766.4	760.4	375.4	384.9	369.00	168.00	267.00
1987 1/	940.3	937.6	456.4	481.3	225.00	172.00	197.00

1/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 15.--Bartlett pears: Production, utilization, and season-average grower prices, United States, 1970 to date

Year	Production		Utilization		Grower prices		
	Total	Utilized	Fresh	Processed	Fresh	Processed excluding dried	All
	1,000 short tons				Dollars/short ton		
1970	389.0	383.6	75.6	308.0	154.00	129.00	135.00
1971	534.0	496.0	116.1	379.9	103.00	87.20	91.30
1972	438.0	436.0	113.1	322.9	155.00	118.00	128.00
1973	517.5	513.5	135.0	378.5	136.00	127.00	130.00
1974	495.4	495.4	102.3	393.1	199.00	173.00	178.00
1975	509.5	509.5	134.7	374.8	121.00	136.00	133.00
1976	580.0	560.0	122.6	437.4	126.00	116.00	119.00
1977	544.0	543.0	109.8	433.2	149.00	120.00	127.00
1978	468.5	468.5	95.9	372.6	275.00	194.00	212.00
1979	593.0	593.0	103.4	489.6	249.00	177.00	189.00
1980	610.0	610.0	117.9	492.1	200.00	180.00	183.00
1981	595.5	595.5	136.2	459.3	190.00	152.00	161.00
1982	525.3	525.3	150.1	375.2	180.00	135.00	147.00
1983	463.3	463.3	123.1	340.2	211.00	135.00	154.00
1984	447.0	434.5	103.5	331.0	220.00	181.00	190.00
1985	468.0	468.0	119.3	348.7	299.00	217.00	236.00
1986	466.0	461.0	128.5	332.5	344.00	181.00	226.00
1987 1/	574.0	574.0	153.5	420.5	174.00	185.00	181.00

1/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 16.--Pineapples: Number of farms, acreage, production, disposition, price, and value, Hawaii, 1970 to date

Year	Farms	Acreage used for crop 1/	Production 2/	Disposition		Farm prices		Value of production 2/
				Processed 2/	Fresh market 3/	Processed 4/	Fresh market 5/	
	Number	1,000 acres		1,000 short tons		Dollars/ton		1,000 dollars
1970	47	61.0	954	918	36	39	100	39,500
1971	36	61.0	942	911	31	40	120	40,300
1972	36	58.0	947	906	41	43	120	43,900
1973	33	57.5	810	748	62	43	120	39,600
1974	20	55.0	700	641	59	49	150	40,259
1975	20	50.0	720	657	63	48	160	41,616
1976	17	48.0	680	611	69	63	210	52,983
1977	17	45.0	690	607	83	67	260	62,249
1978	18	43.0	675	580	95	58	310	63,090
1979	18	44.0	681	587	94	67	320	69,409
1980	18	43.0	657	556	101	76	340	76,596
1981	18	41.0	636	519	117	85	390	89,745
1982	18	36.0	670	542	128	82	430	99,484
1983	18	35.0	722	602	120	88	395	100,376
1984	18	35.0	600	481	119	88	400	89,928
1985	18	34.5	565	441	124	90	410	90,530
1986	NA	36.0	646	514	132	90	405	99,720
1987 6/	NA	36.1	692	558	134	91	362	99,286

1/ Acreage is total acres in crop, not harvested acreage. 2/ Fresh weight basis. 3/ Beginning 1983 excludes sales of fresh pineapple without tops included in processing utilization. 4/ Estimate to reflect value of fresh fruit delivered to processing plant door. 5/ Estimate to reflect value at wholesale establishments for local sales and shipper dock for mainland and foreign sales. 6/ Preliminary. N.A.=not available.

SOURCES: Statistics of Hawaiian Agriculture and Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 17.--Strawberries: Acreage, production, season-average grower prices, and value of production, United States, 1970 to date

Year	Acres harvested	Production	Grower prices	Value of production
	Acres	1,000 cwt	Dollars/cwt	1,000 dollars
1970	50,400	4,960	21.50	106,467
1971	47,780	5,207	22.50	116,975
1972	43,410	4,602	24.00	110,262
1973	40,610	4,796	27.60	132,186
1974	39,260	5,388	28.80	155,122
1975	39,590	5,506	30.60	168,352
1976	34,450	5,807	32.90	191,022
1977	35,650	6,619	33.20	219,958
1978	37,600	6,592	31.70	209,257
1979	36,500	6,383	38.70	246,850
1980	36,050	7,017	41.20	288,776
1981	37,000	7,416	42.00	311,147
1982	40,250	8,830	48.10	424,592
1983	43,300	8,935	45.60	407,188
1984	43,300	9,909	41.70	413,251
1985	44,050	10,188	44.30	450,819
1986	44,350	10,193	49.40	503,641
1987 1/	44,620	11,117	49.40	549,082

1/ Preliminary.

SOURCE: Vegetables Summary, NASS, USDA.

Table 18.--Strawberries, fresh market and processing: Production, season-average grower prices, and value of production, United States, 1970 to date

Year	Fresh market			Processing		
	Production	Grower prices	Value of production	Production	Grower prices	Value of production
	1,000 cwt	Dollars/cwt	1,000 dollars	1,000 cwt	Dollars/cwt	1,000 dollars
1970	3,164	24.80	78,533	1,796	15.60	27,934
1971	3,404	25.40	86,394	1,803	14.50	26,081
1972	3,211	27.10	86,948	1,391	16.80	23,314
1973	3,164	31.00	97,934	1,632	21.00	34,252
1974	3,706	32.50	120,288	1,682	20.70	34,834
1975	3,774	35.50	133,917	1,732	19.90	34,435
1976	3,695	37.70	139,268	2,112	24.50	51,754
1977	4,298	39.10	167,949	2,321	22.40	52,009
1978	4,779	36.70	175,155	1,813	18.80	34,102
1979	4,360	43.40	189,105	2,023	28.50	57,745
1980	4,821	47.90	231,115	2,196	26.30	57,661
1981	5,375	47.10	253,289	2,041	28.30	57,858
1982	5,896	55.20	325,338	2,934	33.80	99,254
1983	5,854	53.00	310,072	3,081	31.50	97,116
1984	7,482	49.00	366,501	2,427	19.30	46,750
1985	7,541	52.60	396,894	2,647	20.40	53,925
1986	7,348	57.60	422,898	2,845	28.40	80,743
1987 1/	7,752	58.50	453,169	3,365	28.50	95,913

1/ Preliminary.

SOURCE: Vegetables Summary, NASS, USDA.

Table 19.--Fresh noncitrus fruit: Exports, United States, 1970 to date

Year	Apples	Grapes	Pears
	Metric tons		
1970	49,403	105,581	19,645
1971	50,439	127,649	23,510
1972	57,889	98,819	26,629
1973	81,135	101,750	36,994
1974	85,398	105,810	32,629
1975	109,825	110,463	32,357
1976	115,737	104,513	32,892
1977	143,412	103,002	35,090
1978	144,143	98,567	35,791
1979	210,161	114,180	39,317
1980	250,992	117,881	44,021
1981	302,229	111,835	53,323
1982	257,057	111,682	41,872
1983	256,650	110,822	30,694
1984	206,439	110,856	31,360
1985	176,868	91,446	27,226
1986	180,972	108,659	37,024
1987	209,312	107,678	37,520

SOURCE: Bureau of Census, Department of Commerce.

Table 20.--Fresh noncitrus fruit: Imports, United States, 1970 to date

Year	Apples	Bananas	Pineapples
	Metric tons		
1970	33,977	1,805,114	34,246
1971	43,482	1,878,829	34,110
1972	44,082	1,891,864	39,100
1973	42,365	1,904,710	35,607
1974	36,101	1,986,227	36,877
1975	38,993	1,910,428	48,398
1976	52,709	2,102,943	54,885
1977	49,437	2,116,787	65,317
1978	60,007	2,237,618	66,587
1979	74,889	2,337,807	70,035
1980	71,154	2,352,509	68,538
1981	67,908	2,458,345	62,823
1982	71,870	2,583,590	65,499
1983	98,198	2,444,714	77,292
1984	103,630	2,577,206	60,970
1985	124,106	2,968,752	53,964
1986	131,745	2,978,395	77,231
1987	133,420	2,940,555	80,954

SOURCE: Bureau of Census, Department of Commerce.

Table 21.--Fruit, dried: Production (dry basis), United States, 1970 to date 1/

Year	Apples	Apricots	Dates	Figs	Peaches	Pears 2/	Prunes 3/	Raisins	Total
					Tons				
1970	11,862	5,600	18,200	12,280	2,275	585	158,360	193,450	402,612
1971	6,012	4,000	19,500	10,370	1,860	750	91,850	194,830	329,172
1972	9,288	3,000	15,700	8,950	1,500	960	41,750	105,350	186,498
1973	15,481	3,260	23,100	11,220	1,500	790	161,760	224,550	441,661
1974	12,325	2,640	22,700	11,430	1,750	700	4/ 105,221	242,150	398,916
1975	14,344	4,500	24,800	8,840	2,375	980	102,695	283,650	442,184
1976	14,331	4,650	22,400	7,000	2,500	1,270	4/ 106,322	5/ 218,400	376,873
1977	14,094	5,100	25,400	11,000	2,500	1,130	4/ 116,414	248,900	424,538
1978	13,813	3,600	21,550	6,390	2,000	855	4/ 94,966	172,500	315,674
1979	15,982	5,300	21,300	10,240	1,800	1,530	4/ 95,451	303,400	455,003
1980	12,169	3,600	22,400	11,400	2,200	1,500	4/ 124,499	310,550	488,318
1981	11,875	3,800	22,300	10,150	2,050	1,440	4/ 120,675	258,000	430,290
1982	13,119	4,800	23,900	9,650	2,600	1,200	4/ 88,692	295,300	439,261
1983	17,707	4,100	17,000	9,000	2,000	1,070	4/ 112,501	398,500	561,878
1984	18,038	3,520	22,200	9,800	1,550	780	4/ 110,227	335,350	501,465
1985	15,150	2,000	28,900	8,570	2,050	1,310	4/ 104,140	347,940	510,060
1986	12,450	1,400	17,800	12,050	1,800	1,410	4/ 65,796	278,900	391,606
1987 6/	16,800	2,820	19,400	13,200	1,950	1,130	4/ 248,346	358,000	661,646

1/ Natural condition basis. 2/ Bartlett only. 3/ Excludes quantities not harvested and/or excess cullage of harvested prunes. Excludes prunes used for juice and concentrates. 4/ Excludes Oregon. 5/ Excludes 65,000 tons laid but not harvested. Includes 72,600 tons substandard diverted for distilling purposes. 6/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 22.-- Fruit, frozen: Commercial pack, United States, 1970 to date

Year	Apples	Apricots	Cherries tart	Cherries sweet	Grapes and pulp	Peaches	Plums and prunes	Purees, noncitrus 1/
				1,000 pounds				
1970	100,370	12,107	121,271	4,124	5,185	47,471	8,269	15,170
1971	96,999	10,977	159,408	2,568	5,761	59,924	3,666	16,331
1972	130,377	15,512	145,570	3,266	5,333	46,316	5,075	10,582
1973	135,086	16,534	109,368	5,209	4,145	81,388	6,121	12,228
1974	99,180	11,848	137,976	8,890	2,897	59,058	6,315	5,311
1975	89,704	15,886	126,073	6,712	(5)	40,273	5,236	5,983
1976	118,759	15,008	84,113	12,386	1,723	65,101	4,977	16,171
1977	97,204	15,749	154,600	13,011	4,892	69,323	3,594	16,833
1978	68,337	11,814	126,300	18,362	4,529	40,814	2,774	16,338
1979	60,827	16,941	116,300	13,262	2,264	62,510	5,649	12,251
1980	69,109	10,409	129,009	10,776	2,178	56,274	6,195	8,913
1981	105,893	13,606	85,848	14,209	2,901	59,612	4,348	16,128
1982	100,378	16,766	(4)	17,206	8,442	56,714	5,631	20,268
1983	75,576	14,077	(4)	17,303	10,006	56,454	2,646	16,169
1984	77,996	16,565	(4)	13,282	(5)	75,877	3,436	15,645
1985	85,481	11,770	(4)	10,262	4,715	80,990	4,400	24,655
1986	111,133	14,308	(4)	14,404	(5)	100,730	4,354	29,424
1987 3/	122,399	22,227	(4)	21,332	(5)	105,764	657	39,749

	Black-berries	Blue-berries	Boysen-berries	Logan-berries	Rasp-berries	Straw-berries	Miscellaneous fruit and berries 2/	Total
				1,000 pounds				
1970	29,186	21,836	8,478	1,756	29,504	201,572	14,389	620,688
1971	27,536	30,441	6,245	1,858	28,102	199,399	16,263	665,478
1972	21,164	30,932	6,203	1,517	24,361	146,842	19,012	612,062
1973	8,249	44,376	6,275	852	29,309	168,552	22,472	650,164
1974	21,107	24,393	5,093	1,877	22,107	170,371	25,681	602,104
1975	20,892	24,572	4,815	2,954	26,652	183,895	13,178	566,825
1976	22,774	26,261	4,094	2,371	22,561	216,153	16,061	628,513
1977	23,352	14,750	3,836	3,427	24,988	220,391	21,459	636,560
1978	19,579	27,992	3,048	2,089	21,195	159,834	19,561	542,566
1979	14,823	31,485	2,732	1,276	23,518	190,572	20,454	574,864
1980	20,874	36,426	4,678	1,905	21,426	253,072	22,158	653,402
1981	16,997	50,141	3,627	1,552	26,179	210,558	17,324	625,923
1982	16,283	46,464	5,101	1,665	26,717	272,676	20,004	614,315
1983	14,581	43,528	3,549	2,223	19,855	292,662	5,640	574,269
1984	11,130	54,835	3,524	1,018	19,659	231,414	37,839	562,220
1985	12,681	54,506	2,561	775	14,784	229,152	16,148	552,880
1986	12,955	77,754	5,493	1,133	15,323	237,604	22,960	647,575
1987 3/	21,027	69,153	5,234	1,016	26,471	334,406	80,727	850,162

1/ Includes purees of apples, apricots, bananas, blackberries, black and red raspberries, boysenberries, cherries, elderberries, loganberries, nectarines, peaches, plums, strawberries, cantaloupes, grapes, melons, blueberries, caneberries, guava, kiwi, marionberries, passionfruit, prunes, and pears. 2/ Includes cranberries, gooseberries, marionberries, melon balls, mixed fruit, Montmorency cherries, chelalems, elderberries, gooseberries, Morello cherries, grape and pulp (1975 and 1984 only), pears, ollalieberries, canteloupes, crabapples, pineapples, guava, currants, lemons, oranges, melons, kiwi, mixed fruit, and passionfruit. 3/ Preliminary. 4/ Due to lack of cooperation, cherries, tart have been removed from prior years. 5/ Included with miscellaneous fruits and berries.

SOURCE: American Frozen Food Institute.

Table 23.--Oranges: Bearing acreage and yield per acre, by States, 1969/70 to date

Season	Florida		California		Texas		Arizona		United States	
	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre
	1,000 acres	Tons	1,000 acres	Tons	1,000 acres	Tons	1,000 acres	Tons	1,000 acres	Tons
1969/70	636.1	9.74	160.2	9.13	35.0	5.40	15.5	11.23	846.8	9.48
1970/71	660.5	9.69	167.9	8.37	40.5	6.49	18.1	7.40	887.0	9.25
1971/72	624.2	9.88	180.4	9.02	42.5	6.14	19.5	9.44	866.6	9.51
1972/73	619.6	12.33	188.8	8.36	35.0	9.49	24.5	7.76	867.9	11.22
1973/74	614.6	12.14	196.0	7.74	32.5	8.65	24.4	5.25	867.5	10.82
1974/75	610.4	12.78	196.9	10.48	30.9	6.25	24.1	7.72	862.3	11.88
1975/76	596.4	13.67	197.7	10.02	30.9	8.38	23.0	4.35	848.0	12.37
1976/77	594.3	14.14	192.5	8.83	28.2	10.39	21.0	7.05	836.0	12.62
1977/78	579.0	13.04	188.6	8.48	28.4	9.16	16.8	8.10	812.8	11.74
1978/79	571.5	12.91	187.1	7.48	27.8	9.78	14.8	7.36	801.2	11.43
1979/80	576.6	16.13	185.7	12.00	28.0	6.11	15.7	8.34	806.0	14.68
1980/81	573.4	13.53	182.7	13.39	25.3	7.27	13.2	7.43	794.6	13.20
1981/82	560.2	10.11	179.7	8.75	23.7	10.63	13.5	8.52	777.1	9.78
1982/83	536.8	11.70	177.4	16.09	24.0	10.04	12.6	11.27	750.8	12.68
1983/84	474.3	11.07	177.5	10.25	24.3	4.40	12.6	5.40	688.7	10.52
1984/85	420.1	11.13	175.2	11.22	11.4	(2)	10.9	8.44	617.6	10.90
1985/86	367.6	14.59	174.7	11.58	8.3	1.68	11.0	7.91	561.6	13.33
1986/87 1/	375.4	14.35	172.9	12.69	8.3	4.46	11.0	10.82	567.6	13.63

1/ Preliminary. 2/ Due to the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCES: Citrus Summary, Florida Agricultural Statistics and Citrus Fruits Summary, NASS, USDA.

Table 24.--Oranges: Production by States, 1969/70 to date

Season	Florida	California	Texas	Arizona	United States
	1,000 short tons				
1969/70	6,197	1,463	189	174	8,023
1970/71	6,402	1,406	263	134	8,205
1971/72	6,165	1,627	261	184	8,237
1972/73	7,636	1,579	332	190	9,737
1973/74	7,461	1,516	281	128	9,386
1974/75	7,799	2,063	193	186	10,241
1975/76	8,154	1,980	259	100	10,493
1976/77	8,406	1,699	293	148	10,546
1977/78	7,551	1,599	260	136	9,546
1978/79	7,380	1,399	272	109	9,160
1979/80	9,302	2,228	171	131	11,832
1980/81	7,758	2,447	184	98	10,487
1981/82	5,661	1,572	252	115	7,600
1982/83	6,282	2,854	241	142	9,519
1983/84	5,252	1,819	107	68	7,246
1984/85	4,676	1,966	(2)	93	6,734
1985/86	5,364	2,022	14	87	7,487
1986/87 1/	5,386	2,194	38	119	7,737

1/ Preliminary. 2/ Due to the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCES: Citrus Fruits Summary and Crop Production, NASS, USDA.

Table 25.--Oranges: Utilization of production, by States, 1969/70 to date

Season	Florida		California		Arizona		Texas		United States 1/	
	Fresh	Processed	Fresh	Processed	Fresh	Processed	Fresh	Processed	Fresh	Processed
	1,000 short tons									
1969/70	597	5,600	994	469	90	83	108	81	1,789	6,233
1970/71	628	5,775	949	439	49	84	142	138	1,768	6,436
1971/72	505	5,660	1,028	599	76	108	117	145	1,727	6,511
1972/73	550	7,086	904	675	108	82	136	195	1,698	8,039
1973/74	499	6,962	1,099	416	79	49	102	179	1,778	7,606
1974/75	603	7,196	1,335	728	111	76	102	91	2,151	8,090
1975/76	528	7,626	1,283	698	46	54	131	128	1,987	8,506
1976/77	400	8,006	1,221	477	87	62	145	148	1,852	8,694
1977/78	448	7,103	1,080	518	99	37	135	125	1,762	7,781
1978/79	527	6,853	930	469	62	47	89	183	1,607	7,552
1979/80	495	8,807	1,481	747	83	49	88	83	2,146	9,686
1980/81	372	7,386	1,411	1,036	63	35	121	63	1,968	8,519
1981/82	343	5,318	1,253	319	80	35	141	111	1,817	5,783
1982/83	464	5,818	1,622	1,232	95	47	142	99	2,323	7,196
1983/84	344	4,908	1,409	411	57	11	59	48	1,868	5,378
1984/85	299	4,376	1,515	450	72	20	(3)	(3)	1,886	4,846
1985/86	403	4,961	1,635	386	70	17	12	1	2,120	5,365
1986/87 2/	399	4,987	1,594	600	84	34	33	4	2,110	5,625

1/ Due to rounding, some figures may not equal sum of components. 2/ Preliminary. 3/ Due to the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCES: Citrus Summary, Florida Agricultural Statistics, and Citrus Fruits Summary, NASS, USDA.

Table 26.--All oranges: Equivalent on-tree returns, by States, 1969/70 to date

Season	Florida			California			Texas			Arizona			United States		
	Fresh	Proc.	All	Fresh	Proc.	All	Fresh	Proc.	All	Fresh	Proc.	All	Fresh	Proc.	All
	Dollars per box														
1969/70	1.46	1.11	1.14	2.97	0.20	2.08	.21	0.60	0.95	2.58	0.01	1.34	2.42	1.01	1.34
1970/71	1.81	1.42	1.46	3.33	.09	2.31	.98	.55	.77	3.52	.32	1.50	2.69	1.28	1.61
1971/72	2.50	2.01	2.04	2.82	.10	1.82	1.71	1.40	1.54	2.75	.34	1.34	2.67	1.76	1.96
1972/73	1.85	1.54	1.56	4.00	.02	2.30	1.34	.99	1.13	3.73	.35	2.27	3.16	1.36	1.70
1973/74	2.10	1.43	1.47	3.81	-.35	2.67	1.28	1.04	1.13	2.73	-.07	1.66	3.20	1.29	1.69
1974/75	2.11	1.58	1.62	3.50	-.51	2.07	1.87	1.00	1.46	2.69	-.28	1.49	3.04	1.33	1.72
1975/76	2.25	1.74	1.77	3.00	-.42	1.79	1.61	1.28	1.45	3.04	-.18	1.30	2.74	1.51	1.77
1976/77	2.20	2.17	2.17	3.76	-.66	2.52	2.06	1.72	1.89	2.66	-.42	1.38	3.29	1.96	2.21
1977/78	4.85	4.09	4.14	6.72	.25	4.63	3.33	3.41	3.37	5.38	.57	4.07	5.98	3.76	4.21
1978/79	5.36	4.61	4.66	7.55	.36	5.14	3.88	3.09	3.35	6.68	.95	4.19	6.69	4.23	4.70
1979/80	4.16	3.70	3.72	3.74	-.10	2.45	4.67	3.29	4.00	2.63	.17	1.71	3.82	3.33	3.42
1980/81	5.79	3.96	4.04	5.46	-.28	3.03	4.13	3.07	3.76	4.11	-.71	2.41	5.39	3.30	3.75
1981/82	6.51	4.14	4.28	9.10	-.59	7.13	4.01	3.28	3.69	6.22	-.05	4.31	8.18	3.78	4.94
1982/83	5.94	5.08	5.15	4.37	-.16	2.42	4.16	2.93	3.65	4.52	-.01	3.02	4.65	3.98	4.15
1983/84	7.75	5.61	5.75	8.73	-.90	6.55	4.10	2.70	3.48	7.23	-.16	6.04	8.39	4.98	5.95
1984/85	11.11	6.83	7.10	10.10	1.23	8.00	(2)	(2)	(2)	9.55	1.23	7.79	10.14	6.19	7.41
1985/86	5.33	3.83	3.94	6.60	-1.46	5.06	9.30	4.00	8.95	6.64	-1.49	5.08	6.38	3.43	4.27
1986/87 1/	6.18	4.69	4.80	8.04	-1.04	5.56	7.85	2.47	7.29	6.33	-.53	4.36	7.63	4.05	5.03

1/ Preliminary. 2/ Due to the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCES: Citrus Summary, Florida Agricultural Statistics and Agricultural Prices, NASS, USDA.

Table 27.—Oranges processed, Florida, 1969/70 to date 1/

Season	Frozen concentrates	Chilled products: Juices	Chilled products: Sections and salads	Other processed 2/	Total processed
	1,000 boxes				
1969/70	100,739	18,640	841	8,206	128,426
1970/71	103,521	19,772	703	8,834	132,830
1971/72	104,399	19,509	535	7,726	132,169
1972/73	132,210	20,465	654	8,949	162,278
1973/74	132,469	20,405	605	7,518	160,997
1974/75	135,512	22,777	526	7,580	166,395
1975/76	144,526	23,992	621	7,580	176,719
1976/77	147,772	27,243	378	8,812	184,205
1977/78	130,929	25,379	382	8,077	164,767
1978/79	129,123	22,793	315	6,525	158,756
1979/80	173,229	24,430	309	6,957	204,925
1980/81	144,322	19,640	227	6,353	170,542
1981/82	104,355	16,293	225	4,477	125,350
1982/83	114,343	18,084	170	2,665	135,262
1983/84	94,547	16,981	(4)	2,909	114,437
1984/85	86,112	14,903	(4)	1,907	102,922
1985/86	96,061	N.A.	N.A.	N.A.	114,689
1986/87 3/	96,061	N.A.	N.A.	N.A.	116,791

1/ Includes tangelos, temples, tangerines, and K-early citrus. 2/ Includes cannery juice, blend, sections and salads. 3/ Preliminary. 4/ Included in other processed. N.A.=not available.

SOURCE: Citrus Fruits Summary, NASS, USDA.

Table 28.—Frozen concentrated orange juice: Canners' stocks, pack, supplies, and movement, Florida, 1969/70 to date

Season 1/	Carryin	Pack	Supply	Movement	Ending inventory 2/
	Million gallons 3/				
1969/70	17.4	126.4	143.8	121.2	22.6
1970/71	22.6	133.7	156.3	128.6	27.7
1971/72	27.7	145.9	173.6	126.3	47.3
1972/73	47.3	180.2	227.5	178.7	48.8
1973/74	48.8	176.4	225.2	178.7	46.5
1974/75	46.5	184.9	231.4	180.7	50.7
1975/76	50.7	203.5	254.2	200.6	53.6
1976/77	53.6	181.8	235.4	210.0	25.5
1977/78	25.5	200.4	225.9	195.1	30.9
1978/79	30.9	216.5	247.4	210.0	37.4
1979/80	37.4	256.4	293.8	239.0	54.9
1980/81	57.3	249.6	306.9	240.5	66.4
1981/82	69.0	214.9	283.9	230.5	53.4
1982/83	53.4	228.4	281.8	239.0	42.8
1983/84	42.8	239.9	282.7	228.3	54.4
1984/85	54.4	209.6	264.0	215.6	48.3
1985/86	48.3	215.1	263.4	226.5	37.0
1986/87	37.0	228.1	265.1	225.2	39.8

1/ Season beginning December 1. 2/ Adjusted. 3/ Beginning 1981/82, reported in 42.0 degree Brix, previously reported in 43.4 and 45.0 degree Brix. The conversion factor ratio from 43.4 degree to 42.0 degree is 1.03970 and the ratio from 45.0 to 43.4 degree is 1.0442029.

SOURCE: Florida Citrus Processors Association.

Table 29.—Chilled orange juice: Canners' stocks, pack, supplies, and movement, Florida, 1969/70 to date

Season 1/	Carryin	Pack 2/	Supply	Movement	Ending inventory
	1,000 gallons				
1969/70	12,604	107,940	120,544	106,064	14,480
1970/71	14,480	112,388	126,868	112,090	14,778
1971/72	14,778	116,970	131,748	111,756	19,992
1972/73	19,992	125,683	145,675	127,255	18,420
1973/74	18,420	135,313	153,733	137,347	16,386
1974/75	16,386	154,478	170,864	154,085	16,779
1975/76	16,779	174,804	191,583	173,558	18,025
1976/77	18,025	178,685	196,710	180,903	15,807
1977/78	15,807	184,966	200,773	185,088	15,685
1978/79	15,685	206,184	221,869	206,149	15,720
1979/80	15,720	234,768	250,489	233,774	16,714
1980/81	16,714	212,980	229,694	213,760	15,934
1981/82	15,934	181,000	196,934	182,278	14,656
1982/83	14,656	185,150	199,806	182,287	17,519
1983/84	17,519	273,827	291,346	264,995	26,351
1984/85	26,351	N.A.	N.A.	N.A.	N.A.
1985/86	N.A.	N.A.	N.A.	N.A.	N.A.
1986/87	N.A.	N.A.	N.A.	N.A.	N.A.

1/ Season beginning October. 2/ Pack data are from fresh fruit and frozen concentrated juices, but exclude reprocessed single strength. N.A.= not available.

SOURCE: Florida Citrus Processors Association.

Table 30.—Canned orange juice: Canners' stocks, pack, supplies, and movement, Florida, 1969/70 to date 1/

Season 2/	Carryin	Pack	Supply	Movement	Ending inventory
	1,000 cases (24 No. 2's) 3/				
1969/70	1,991	11,223	13,214	12,101	1,113
1970/71	1,113	11,749	12,862	11,532	1,330
1971/72	1,330	10,942	12,272	10,477	1,795
19/2/73	1,795	13,670	15,465	12,578	2,887
1973/74	2,887	10,885	13,772	11,133	2,639
1974/75	2,639	10,737	13,376	11,349	2,027
1975/76	2,027	10,635	12,662	10,746	1,916
1976/77	1,916	10,767	12,683	10,592	2,091
1977/78	2,091	11,654	13,745	11,671	2,074
1978/79	2,074	13,222	15,296	12,678	2,618
1979/80	2,618	13,869	16,487	13,974	2,513
1980/81	2,513	13,012	15,525	13,031	2,494
1981/82	2,494	11,503	13,997	11,593	2,404
1982/83	2,404	9,802	12,206	10,792	1,414
1983/84	1,414	9,084	10,498	9,311	1,187
1984/85	1,187	7,425	8,612	7,723	889
1985/86	889	7,596	8,485	7,498	987
1986/87	987	8,122	9,109	8,084	1,025

1/ Single strength. 2/ Season beginning October. 3/ Beginning 1976/77 includes reconstituted orange juice.

SOURCE: Florida Citrus Processors Association.

Table 31.--Grapefruit: Bearing acreage and yield per acre, by States, 1969/70 to date

Season	Florida		California		Texas		Arizona		United States	
	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre
	1,000 acres	Tons	1,000 acres	Tons	1,000 acres	Tons	1,000 acres	Tons	1,000 acres	Tons
1969/70	98.7	16.11	12.8	13.36	40.0	8.10	6.1	16.56	157.6	13.87
1970/71	107.2	17.01	12.1	13.55	37.6	10.74	6.3	12.86	163.2	15.15
1971/72	112.6	17.75	12.6	14.21	35.0	10.51	6.4	12.66	166.6	15.77
1972/73	114.6	16.84	13.1	14.43	35.0	13.49	8.0	10.63	170.7	15.68
1973/74	115.8	17.65	14.3	10.77	35.0	12.23	8.2	8.05	173.3	15.53
1974/75	115.4	16.44	15.8	14.30	33.1	8.82	9.3	9.57	173.6	14.42
1975/76	117.9	17.71	16.4	14.27	33.1	12.93	9.6	10.42	177.0	16.10
1976/77	119.3	18.36	16.6	15.06	35.1	14.13	10.2	9.41	181.2	16.73
1977/78	120.3	18.15	17.4	15.75	40.1	11.87	10.8	8.89	188.6	16.07
1978/79	124.6	17.05	19.5	10.26	39.8	9.05	8.9	8.09	192.8	14.30
1979/80	126.4	18.43	21.3	11.50	43.8	7.21	8.4	11.43	199.9	14.94
1980/81	125.6	17.02	21.8	12.06	41.5	6.46	8.1	11.11	197.0	14.01
1981/82	127.8	15.99	22.0	9.14	41.1	13.53	8.1	9.51	199.0	14.46
1982/83	128.6	13.02	21.7	10.97	42.2	10.62	6.8	12.79	199.3	12.28
1983/84	119.6	14.53	21.9	10.82	43.2	2.96	6.8	10.74	191.5	11.36
1984/85	115.5	16.19	21.1	13.70	19.1	(2)	7.1	13.52	162.8	13.85
1985/86	105.1	18.91	20.9	12.73	13.5	.67	5.7	13.51	145.2	16.11
1986/87 1/	106.0	19.96	20.7	14.40	13.5	5.70	5.7	12.28	145.9	17.55

1/ Preliminary. 2/ Due to the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCES: Citrus Summary, Florida Agricultural Statistics and Citrus Fruits Summary, NASS, USDA.

Table 32.--Grapefruit: Production by States, 1969/70 to date

Season	Florida	California	Texas	Arizona	United States 1/
			1,000 short tons		
1969/70	1,590	171	324	101	2,186
1970/71	1,824	164	404	81	2,473
1971/72	1,999	179	368	81	2,627
1972/73	1,930	189	472	85	2,676
1973/74	2,044	154	428	66	2,692
1974/75	1,897	226	292	89	2,504
1975/76	2,088	234	428	100	2,850
1976/77	2,190	250	496	96	3,032
1977/78	2,184	274	476	96	3,030
1978/79	2,125	200	360	72	2,757
1979/80	2,329	245	316	96	2,986
1980/81	2,138	263	268	90	2,759
1981/82	2,044	201	556	77	2,878
1982/83	1,674	238	448	87	2,447
1983/84	1,738	237	128	73	2,176
1984/85	1,870	289	(3)	96	2,255
1985/86	1,987	266	9	77	2,339
1986/87 2/	2,116	298	77	70	2,561

1/ Due to rounding, figures may not equal sum of components. 2/ Preliminary. 3/ Due to the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCES: Citrus Fruits Summary and Crop Production, NASS, USDA.

Table 33.--All grapefruit: Equivalent on-tree returns, by States, 1969/70 to date

Season	Florida			California			Texas			Arizona			United States		
	Fresh	Proc.	All	Fresh	Proc.	All	Fresh	Proc.	All	Fresh	Proc.	All	Fresh	Proc.	All
	Dollars per box														
1969/70	2.29	1.33	1.70	3.23	0.10	1.74	1.54	0.70	1.21	3.05	0.50	1.92	2.30	1.12	1.64
1970/71	2.42	1.63	1.91	4.17	.41	2.52	1.48	.80	1.20	3.05	.00	.84	2.41	1.38	1.80
1971/72	3.14	1.85	2.32	4.27	.34	2.42	2.24	1.22	1.86	2.65	.20	1.44	3.04	1.63	2.23
1972/73	3.10	1.47	2.08	3.78	.14	1.95	2.30	1.21	1.80	2.40	.30	1.22	2.96	1.29	1.98
1973/74	2.54	1.10	1.66	3.37	.22	1.87	1.92	.68	1.31	2.30	.15	1.34	2.48	.97	1.61
1974/75	3.03	.76	1.72	3.19	-.12	1.60	2.55	.90	1.95	2.70	.10	1.40	2.96	.66	1.72
1975/76	2.48	.75	1.47	2.63	-.11	1.27	1.73	.57	1.36	1.90	-.05	.76	2.31	.61	1.40
1976/77	2.60	1.10	1.58	2.90	-.49	1.38	1.88	.74	1.34	2.50	-.40	.99	2.47	.88	1.49
1977/78	2.35	1.26	1.64	4.80	-.66	2.24	1.22	.62	.95	2.20	-.74	.44	2.46	.93	1.55
1978/79	3.23	1.87	2.41	6.59	-.67	3.70	2.00	.66	1.26	4.34	-.62	1.69	3.53	1.48	2.35
1979/80	4.15	2.85	3.31	4.50	-.48	1.82	3.18	1.91	2.59	3.93	-.42	1.49	4.04	2.35	3.01
1980/81	5.25	2.76	3.60	6.34	-.45	3.33	3.70	2.31	3.27	4.91	-.20	2.72	5.15	2.36	3.50
1981/82	4.48	.82	2.09	3.95	-1.31	1.85	2.73	.98	1.89	3.66	-1.28	1.01	3.94	.66	1.99
1982/83	3.61	.52	1.96	4.05	-1.31	1.94	1.75	.14	1.26	2.73	-1.32	1.11	3.18	.22	1.79
1983/84	4.20	1.70	2.72	5.30	-1.53	2.83	2.24	.24	2.03	4.44	-1.52	2.54	4.19	1.30	2.68
1984/85	5.62	2.66	3.67	8.18	-.44	5.63	(2)	(2)	(2)	6.64	-.38	4.18	6.39	2.31	4.01
1985/86	5.19	3.29	4.09	8.74	-.76	5.93	8.93	3.53	8.44	5.66	-.79	3.35	5.86	2.95	4.29
1986/87 1/	5.89	4.28	4.96	8.02	-.64	5.07	7.88	3.40	7.02	5.96	-.64	3.53	6.35	3.81	5.00

1/ Preliminary. 2/ Due to the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCES: Citrus Summary, Florida Agricultural Statistics and Agricultural Prices, NASS, USDA.

Table 34.--Grapefruit: Utilization of production, by States, 1969/70 to date

Season	Florida		California		Arizona		Texas		United States 1/	
	Fresh	Processed	Fresh	Processed	Fresh	Processed	Fresh	Processed	Fresh	Processed
	1,000 short tons									
1969/70	606	983	90	81	56	45	197	127	949	1,236
1970/71	636	1,187	92	72	22	58	238	166	987	1,484
1971/72	724	1,273	95	85	41	40	230	138	1,089	1,536
1972/73	724	1,205	94	95	37	48	254	218	1,109	1,566
1973/74	796	1,248	79	72	36	29	216	212	1,127	1,562
1974/75	799	1,097	116	110	44	44	186	106	1,145	1,357
1975/76	866	1,221	118	116	41	58	291	137	1,315	1,532
1976/77	697	1,492	138	112	46	50	259	237	1,140	1,891
1977/78	767	1,418	144	127	38	58	264	212	1,213	1,815
1978/79	841	1,284	120	79	34	38	160	200	1,155	1,602
1979/80	829	1,500	112	131	43	54	168	148	1,152	1,833
1980/81	730	1,408	144	114	51	38	186	82	1,111	1,642
1981/82	711	1,334	119	78	36	41	289	267	1,155	1,720
1982/83	778	896	141	92	52	35	312	136	1,283	1,159
1983/84	708	1,030	148	84	49	23	114	14	1,019	1,151
1984/85	637	1,233	198	83	62	34	(3)	(3)	897	1,350
1985/86	834	1,153	188	78	49	28	8	1	1,079	1,260
1986/87 2/	890	1,227	197	101	44	26	62	15	1,193	1,369

1/ Due to rounding, figures may not equal sum of components. 2/ Preliminary. 3/ Due to the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCES: Citrus Summary, Florida Agricultural Statistics and Citrus Fruits Summary, NASS, USDA.

Table 35.--Grapefruit processed, Florida, 1969/70 to date

Season	Frozen concentrates	Chilled products			Total processed
		Juices	Sections and salads	Other processed 1/	
	1,000 boxes				
1969/70	4,579	1,824	1,158	15,577	23,138
1970/71	6,819	2,348	1,091	17,682	27,940
1971/72	8,725	3,206	994	17,036	29,961
1972/73	8,212	2,908	1,209	16,025	28,354
1973/74	8,732	2,715	1,118	16,804	29,369
1974/75	7,779	3,332	967	13,725	25,803
1975/76	8,987	3,919	1,054	14,771	28,731
1976/77	13,020	4,331	934	16,822	35,107
1977/78	13,999	4,363	917	14,083	33,362
1978/79	13,274	3,162	771	13,001	30,210
1979/80	18,506	3,592	801	12,400	35,299
1980/81	19,490	2,844	645	10,154	33,133
1981/82	20,052	1,697	628	9,004	31,381
1982/83	13,977	1,314	417	5,379	21,087
1983/84	18,728	1,320	(3)	4,191	24,239
1984/85	22,996	1,065	(3)	4,951	29,012
1985/86	21,572	1,189	(3)	4,369	27,130
1986/87 2/	24,143	1,267	(3)	3,452	28,862

1/ Includes cannery juices, blend, sections and salads.
2/ Preliminary. 3/ Included in other processed.

SOURCE: Citrus Fruits Summary, NASS, USDA.

Table 36.--Frozen concentrated grapefruit juice: Canners' stocks, pack, supplies, and movement, Florida, 1969/70 to date

Season	Carryin	Pack	Supply	Movement	Ending Inventory
	Million gallons 1/				
1969/70	1.4	4.3	5.7	5.2	0.5
1970/71	0.5	6.9	7.4	6.3	1.1
1971/72	1.1	8.8	9.9	7.1	2.8
1972/73	2.8	8.7	11.5	7.9	3.6
1973/74	3.6	9.0	12.6	7.7	4.9
1974/75	4.9	7.8	12.7	8.5	4.2
1975/76	4.2	9.5	13.7	10.4	3.3
1976/77	3.3	12.4	15.7	11.9	3.8
1977/78	3.8	14.0	17.8	13.6	4.2
1978/79	4.2	14.4	18.6	16.3	2.3
1979/80	2.3	19.6	21.9	17.0	4.9
1980/81	4.9	21.1	26.0	17.6	8.4
1981/82	8.4	21.9	30.3	18.9	11.4
1982/83	11.4	15.1	26.5	21.1	5.4
1983/84	5.4	20.2	25.6	21.6	4.0
1984/85	4.0	25.3	29.3	25.9	3.4
1985/86	3.4	26.2	29.6	26.2	3.4
1986/87	3.4	30.2	33.6	28.4	5.2

1/ 40 degree Brix.

SOURCE: Florida Citrus Processors Association.

Table 37.--Chilled grapefruit juice: Canners' stocks, pack, supplies, and movement, Florida, 1969/70 to date

Season 1/	Carryin	Pack 2/	Supply	Movement	Ending inventory
	1,000 gallons				
1969/70	1,067	9,430	10,497	10,128	369
1970/71	369	12,949	13,318	12,394	924
1971/72	924	17,358	18,282	15,261	3,021
1972/73	3,021	16,071	19,092	16,871	2,221
1973/74	2,221	17,376	19,597	17,916	1,681
1974/75	1,681	20,535	22,216	20,768	1,448
1975/76	1,448	24,538	25,986	24,583	1,403
1976/77	1,403	25,074	26,477	25,111	1,366
1977/78	1,366	25,460	26,826	24,920	1,906
1978/79	1,906	27,132	29,038	27,598	1,440
1979/80	1,440	28,674	30,114	27,364	2,750
1980/81	2,750	26,023	28,773	26,291	2,482
1981/82	2,482	22,943	25,425	23,224	2,201
1982/83	2,201	20,336	22,537	21,177	1,360
1983/84	1,360	27,642	29,002	27,336	1,666
1984/85	1,666	32,391	34,057	32,485	1,572
1985/86	1,572	33,989	35,561	33,600	1,961
1986/87	1,961	37,493	39,454	37,546	1,908

1/ Season beginning October. 2/ Pack data are from fresh fruit and frozen concentrated juices, but exclude reprocessed single strength.

SOURCE: Florida Citrus Processors Association.

Table 38.--Canned grapefruit juice: Canners' stocks, pack, supplies, and movement, Florida, 1969/70 to date 1/

Season 2/	Carryin	Pack	Supply	Movement	Ending Inventory
	1,000 cases (24 No. 2's) 3/				
1969/70	1,634	16,423	18,057	17,238	819
1970/71	819	19,110	19,929	18,324	1,605
1971/72	1,605	20,873	22,478	18,168	4,310
1972/73	4,310	19,059	23,369	19,166	4,203
1973/74	4,203	20,576	24,779	18,780	5,999
1974/75	5,999	15,951	21,950	18,129	3,821
1975/76	3,821	18,439	22,260	18,623	3,637
1976/77	3,637	18,029	21,666	16,943	4,723
1977/78	4,723	16,789	21,512	17,951	3,561
1978/79	3,561	16,764	20,325	17,295	3,030
1979/80	3,030	16,604	19,634	16,222	3,412
1980/81	3,412	14,231	17,643	14,335	3,308
1981/82	3,308	15,725	19,033	14,767	4,266
1982/83	4,266	11,651	15,917	13,495	2,422
1983/84	2,422	9,513	11,935	10,231	1,704
1984/85	1,704	10,552	12,256	10,968	1,288
1985/86	1,288	9,948	11,236	9,721	1,515
1986/87	1,515	8,982	10,497	9,027	1,470

1/ Single strength. 2/ Season beginning October.
3/ Beginning 1976/77 includes reconstituted grapefruit juice.

SOURCE: Florida Citrus Processors Association.

Table 39.--Lemons: Bearing acreage and yield per acre, by States, 1969/70 to date

Season	California		Arizona		United States	
	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre
	1,000 acres	Tons	1,000 acres	Tons	1,000 acres	Tons
1969/70	37.4	12.49	9.7	11.01	47.1	12.20
1970/71	38.2	13.22	12.2	9.84	50.4	12.40
1971/72	39.1	13.22	12.9	9.07	52.0	12.19
1972/73	41.1	16.28	14.5	12.07	55.6	15.18
1973/74	44.7	12.66	19.9	5.53	64.6	10.46
1974/75	45.6	18.51	20.5	13.37	66.1	16.90
1975/76	47.3	12.22	20.3	4.53	67.6	9.91
1976/77	47.9	16.66	20.3	9.36	68.2	14.49
1977/78	49.0	15.73	20.9	10.53	69.9	14.19
1978/79	50.3	10.66	18.6	11.24	68.9	10.81
1979/80	49.8	13.51	20.3	5.71	70.1	11.26
1980/81	52.7	17.51	19.2	13.85	71.9	16.54
1981/82	54.2	12.97	21.6	11.06	75.8	12.43
1982/83	52.0	14.83	19.5	9.85	71.5	13.47
1983/84	51.4	12.73	18.3	8.32	69.7	11.59
1984/85	49.6	15.16	17.0	13.41	66.6	14.71
1985/86	50.2	11.43	16.5	7.45	66.7	10.45
1986/87 1/	48.3	16.92	15.5	10.97	63.8	17.04

1/ Preliminary.

SOURCE: Citrus Fruits Summary, NASS, USDA.

Table 40.--Lemons: Production by States, 1969/70 to date

Season	Arizona	California	United States 1/
	1,000 short tons		
1969/70	107	467	575
1970/71	120	505	625
1971/72	117	517	634
1972/73	175	669	844
1973/74	110	566	676
1974/75	274	844	1,117
1975/76	92	578	670
1976/77	190	798	988
1977/78	220	771	992
1978/79	209	536	745
1979/80	116	673	789
1980/81	266	923	1,189
1981/82	239	703	942
1982/83	191	772	963
1983/84	152	655	807
1984/85	228	752	980
1985/86	123	574	697
1986/87 2/	170	817	1,087

1/ Due to rounding, figures may not equal sum of components. 2/ Preliminary.

SOURCES: Citrus Fruits Summary and Crop Production, NASS, USDA.

Table 41.--All lemons: Equivalent on-tree returns, by States, 1969/70 to date

Season	California			Arizona			United States		
	Fresh	Proc.	All	Fresh	Proc.	All	Fresh	Proc.	All
	Dollars per box								
1969/70	5.30	0.64	3.64	6.60	0.65	3.49	5.49	0.64	3.61
1970/71	5.74	.86	3.96	5.70	.50	2.61	5.73	.76	3.70
1971/72	5.50	1.12	3.79	5.30	.60	2.60	5.47	.99	3.57
1972/73	5.25	.71	3.07	5.55	.75	2.70	5.30	.72	2.99
1973/74	7.05	.58	4.66	7.60	.70	4.83	7.14	.60	4.69
1974/75	6.43	-.62	2.43	5.30	.25	1.60	6.24	-.36	2.23
1975/76	6.75	-.80	3.95	9.15	-.95	4.79	7.05	-.82	4.07
1976/77	4.20	-.95	1.75	4.35	-.95	1.27	4.22	-.95	1.66
1977/78	6.57	-1.04	2.67	4.30	-1.36	.88	6.14	-1.12	2.27
1978/79	9.43	-1.00	5.78	4.34	-.98	1.73	8.24	-.99	4.64
1979/80	9.00	1.02	5.13	9.90	-.04	5.13	9.13	.87	5.13
1980/81	6.22	-.33	2.14	4.30	-.24	1.21	5.84	-.31	1.93
1981/82	7.64	-2.90	1.64	5.13	-2.90	.39	7.03	-2.90	1.32
1982/83	6.20	-2.94	1.22	5.93	-2.92	1.25	6.14	-2.94	1.23
1983/84	8.16	-2.06	3.41	5.07	-3.12	1.63	7.54	-2.24	3.08
1984/85	10.58	-1.06	4.44	6.74	-1.91	1.54	9.80	-1.28	3.76
1985/86	14.28	-1.18	8.55	20.95	-1.23	12.28	15.43	-1.19	9.21
1986/87 1/	10.54	-1.18	4.27	6.32	-1.10	1.35	9.74	-1.16	3.55

1/ Preliminary.

SOURCES: Citrus Summary, Florida Agricultural Statistics and Agricultural Prices, NASS, USDA.

Table 42.--Lemons: Utilization of production, by States, 1969/70 to date

Season	California		Arizona		United States	
	Fresh	Processed	Fresh	Processed	Fresh	Processed
	1,000 short tons					
1969/70	300	167	51	56	351	223
1970/71	319	186	49	71	368	257
1971/72	315	201	50	67	365	269
1972/73	346	323	71	104	417	427
1973/74	357	209	66	44	423	253
1974/75	365	479	73	201	438	679
1975/76	363	214	52	40	416	254
1976/77	418	380	79	111	497	491
1977/78	376	395	87	133	464	528
1978/79	348	187	106	103	455	290
1979/80	347	326	60	56	407	382
1980/81	348	576	85	181	433	757
1981/82	303	400	98	141	401	542
1982/83	352	420	90	101	442	521
1983/84	351	304	88	64	439	368
1984/85	355	397	91	137	446	534
1985/86	361	213	75	48	436	261
1986/87 1/	380	437	89	181	469	618

1/ Preliminary.

SOURCE: Citrus Fruits Summary, NASS, USDA.

Table 43.--Fresh citrus fruit: Domestic exports, United States, 1969/70 to date

Season 1/	Oranges	Grapefruit	Lemons
	Metric tons		
1969/70	258,211	104,439	123,621
1970/71	236,806	95,078	131,906
1971/72	291,560	177,505	155,808
1972/73	272,146	192,146	192,540
1973/74	312,100	235,029	188,953
1974/75	478,889	227,689	206,110
1975/76	440,153	284,877	189,792
1976/77	397,771	274,377	240,997
1977/78	334,973	265,162	206,337
1978/79	300,297	278,439	210,951
1979/80	459,404	271,436	167,918
1980/81	417,882	295,130	178,559
1981/82	354,066	260,513	142,489
1982/83	461,073	308,396	146,598
1983/84	367,628	262,023	152,961
1984/85	407,466	198,843	149,053
1985/86	394,162	269,592	130,090
1986/87	396,542	347,316	150,926

1/ Year beginning November for oranges, September for grapefruit, and August for lemons.

SOURCE: Foreign Agricultural Service, USDA.

Table 44.--Frozen concentrated orange juice: Imports, United States, 1969/70 to date

Season 1/	Brazil	Others	United States
	1,000 gallons 2/		
1969/70	1,308	153	1,461
1970/71	15,413	3,930	19,343
1971/72	29,210	8,865	38,075
1972/73	12,924	7,300	20,224
1973/74	12,699	5,549	18,248
1974/75	28,214	4,832	33,046
1975/76	29,755	1,647	31,402
1976/77	33,749	14,177	47,926
1977/78	139,451	11,290	150,741
1978/79	152,310	7,708	160,018
1979/80	97,676	2,338	100,014
1980/81	203,104	11,127	214,231
1981/82	373,988	22,084	396,072
1982/83	337,164	27,605	364,769
1983/84	510,094	23,476	533,570
1984/85	578,177	18,456	596,633
1985/86	500,467	45,657	546,124
1986/87	504,974	51,093	556,067

1/ Season beginning December 1. 2/ Single strength.

SOURCES: Foreign Agricultural Service, USDA and Bureau of Census, U.S. Department of Commerce.

Table 45.--Fresh oranges: Supply and utilization, 1970 to date

Season 1/	Supply				Utilization					
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	3,836.0	58.0		3,894.0		3,894.0	569.2	10.7	3,314.1	16.16
1971	3,734.0	62.6		3,796.6		3,796.6	522.1	9.3	3,265.2	15.72
1972	3,612.0	84.6		3,696.6		3,696.6	642.7	15.2	3,038.7	14.48
1973	3,616.0	61.8		3,677.8		3,677.8	600.0	18.0	3,059.8	14.44
1974	3,732.0	53.9		3,785.9		3,785.9	688.1	13.3	3,084.5	14.42
1975	4,474.0	27.3		4,501.3		4,501.3	1,055.8	15.6	3,429.9	15.88
1976	4,182.0	20.5		4,202.5		4,202.5	970.4	17.2	3,214.9	14.74
1977	3,814.0	35.0		3,849.0		3,849.0	876.9	11.9	2,960.2	13.44
1978	3,714.0	26.6		3,740.6		3,740.6	737.8	8.9	2,993.9	13.45
1979	3,408.0	78.4		3,486.4		3,486.4	636.3	12.3	2,837.8	12.61
1980	4,542.0	22.2		4,564.2		4,564.2	947.9	8.8	3,607.5	15.84
1981	4,034.0	18.2		4,052.2		4,052.2	921.3	6.8	3,124.1	13.57
1982	3,710.0	29.4		3,739.4		3,739.4	780.6	4.0	2,954.8	12.71
1983	4,786.0	13.4		4,799.4		4,799.4	1,016.5	7.1	3,775.8	16.08
1984	3,806.0	38.5		3,844.5		3,844.5	810.5	2.5	3,031.5	12.79
1985	3,832.0	27.5		3,859.5		3,859.5	898.3	1.0	2,960.2	12.37
1986	4,322.0	62.1		4,384.1		4,384.1	869.2	1.9	3,513.0	14.54
1987 2/	4,318.0	44.4		4,362.4		4,362.4	874.2	1.5	3,486.7	14.29

1/ Season beginning November. 2/ Preliminary.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 46.--Fresh grapefruit: Supply and utilization, 1970 to date

Season 1/	Supply				Utilization				
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	1,900.0	8.0		1,908.0		1,908.0	230.2	1.6	1,676.2	8.17
1971	1,978.0	6.8		1,984.8		1,984.8	215.1	1.4	1,768.3	8.52
1972	2,180.0	14.1		2,194.1		2,194.1	401.4	2.1	1,790.6	8.53
1973	2,218.0	17.4		2,235.4		2,235.4	423.6	3.0	1,808.8	8.54
1974	2,262.0	14.2		2,276.2		2,276.2	518.2	2.2	1,755.8	8.21
1975	2,290.0	10.4		2,300.4		2,300.4	502.0	1.5	1,796.9	8.32
1976	2,634.0	9.4		2,643.4		2,643.4	628.0	1.4	2,014.0	9.24
1977	2,282.0	19.3		2,301.3		2,301.3	604.9	0.7	1,695.7	7.70
1978	2,430.0	7.0		2,437.0		2,437.0	584.5	0.9	1,851.6	8.32
1979	2,310.0	6.0		2,316.0		2,316.0	613.8	0.8	1,701.4	7.56
1980	2,304.0	6.7		2,310.7		2,310.7	483.7	1.2	1,825.8	8.02
1981	2,228.0	9.4		2,237.4		2,237.4	650.6	0.8	1,586.0	6.89
1982	2,316.0	3.9		2,319.9		2,319.9	574.3	0.5	1,745.1	7.51
1983	2,572.0	4.8		2,576.8		2,576.8	679.9	0.3	1,896.6	8.08
1984	2,046.0	2.1		2,048.1		2,048.1	547.7	0.4	1,500.0	6.33
1985	1,806.0	5.1		1,811.1		1,811.1	438.4	0.3	1,372.4	5.74
1986	2,158.0	5.5		2,163.5		2,163.5	594.3	0.1	1,569.1	6.49
1987 2/	2,386.0	4.0		2,390.0		2,390.0	765.7	--	1,624.3	6.66

1/ Season beginning September 1. 2/ Preliminary.

SOURCE: Commodity Economic Division ERS, USDA.

Table 47.--Fresh apples: Supply and utilization, 1970 to date

Season 1/	Supply				Utilization					
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	3,531.5	96.7	48.2	3,676.4	86.8	3,589.6	100.8	10.9	3,477.9	16.92
1971	3,483.9	77.3	86.8	3,648.0	84.3	3,563.7	117.7	14.6	3,431.4	16.42
1972	3,342.9	108.1	84.3	3,535.3	46.0	3,489.3	149.3	19.6	3,320.4	15.74
1973	3,539.4	90.1	46.0	3,675.5	71.2	3,604.3	178.3	13.2	3,412.8	16.03
1974	3,690.5	76.3	71.2	3,838.0	51.5	3,786.5	233.9	11.4	3,541.2	16.48
1975	4,357.0	122.6	51.5	4,531.1	174.0	4,357.1	225.4	9.2	4,122.5	18.99
1976	3,915.8	105.3	174.0	4,195.1	167.0	4,028.1	264.7	8.8	3,754.6	17.13
1977	3,859.6	126.0	167.0	4,152.6	72.9	4,079.7	330.6	11.0	3,738.1	16.88
1978	4,210.4	123.8	72.9	4,407.1	167.7	4,239.4	315.9	12.6	3,910.9	17.47
1979	4,288.6	183.6	167.7	4,639.9	140.2	4,499.7	521.5	15.0	3,963.2	17.50
1980	4,934.1	154.6	140.2	5,228.9	184.9	5,044.0	673.3	18.2	4,352.5	19.09
1981	4,442.2	147.3	184.9	4,774.4	276.9	4,497.5	603.5	14.0	3,880.0	16.77
1982	4,536.7	194.3	276.9	5,007.9	216.3	4,791.6	602.5	13.8	4,175.3	17.86
1983	4,619.8	230.2	216.3	5,066.3	237.8	4,828.5	490.2	9.6	4,328.7	18.34
1984	4,666.1	230.3	237.8	5,134.2	291.2	4,843.0	462.6	9.2	4,371.2	18.35
1985	4,226.2	322.7	291.2	4,840.1	118.8	4,721.3	553.0	12.2	4,156.1	17.29
1986 2/	4,533.1	307.2	118.8	4,959.1	203.8	4,753.3	371.0	11.2	4,373.1	18.01
1987 3/										

1/ Season beginning July. 2/ Preliminary. 3/ Not available.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 48.--Fresh bananas: Supply and utilization, 1970 to date

Year	Supply				Utilization				
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	5.6	3,558.3		3,563.9		3,563.9		0.1	3,563.8	17.38
1971	4.7	3,745.1		3,749.8		3,749.8		0.1	3,749.7	18.06
1972	5.1	3,756.7		3,761.8		3,761.8			3,761.8	17.92
1973	6.6	3,842.0		3,848.6		3,848.6			3,848.6	18.16
1974	6.6	3,949.1		3,955.7		3,955.7		1.4	3,954.3	18.49
1975	6.2	3,804.9		3,811.1		3,811.1		1.3	3,809.8	17.64
1976	5.0	4,194.5		4,199.5		4,199.5		1.6	4,197.9	19.26
1977	5.8	4,227.1		4,232.9		4,232.9		2.2	4,230.7	19.21
1978	5.7	4,491.0		4,496.7		4,496.7		1.2	4,495.5	20.20
1979	5.6	4,718.5		4,724.1		4,724.1		1.8	4,722.3	20.98
1980	4.6	4,733.4		4,738.0		4,738.0		2.9	4,735.1	20.79
1981	6.0	4,941.6		4,947.6		4,947.6		0.9	4,946.7	21.49
1982	5.8	5,233.8		5,239.6		5,239.6		0.7	5,238.9	22.53
1983	4.5	4,976.6		4,981.1		4,981.1	0.5	0.5	4,980.1	21.21
1984	8.9	5,235.3		5,244.2		5,244.2		0.5	5,243.7	22.13
1985	8.2	5,593.4		5,601.6		5,601.6		0.1	5,601.5	23.41
1986	9.7	6,207.5		6,217.2		6,217.2		1.9	6,065.3	25.72
1987 1/	11.4	6,069.2		6,069.2		6,069.2		2.0	6,068.3	24.88

1/ Preliminary.
SOURCE: Commodity Economic Division, ERS, USDA.

Table 49.--Fresh grapes: Supply and utilization, 1970 to date

Year	Supply				Utilization					
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	703.9	35.1	114.6	853.6	54.3	799.3	232.8	4.9	561.6	2.74
1971	725.3	27.8	54.3	807.4	24.5	782.9	281.4	4.2	497.3	2.39
1972	659.7	25.9	24.5	710.1	30.4	679.7	217.9	5.4	456.4	2.17
1973	773.3	21.0	30.4	824.7	44.8	779.9	224.3	5.2	550.4	2.60
1974	807.1	33.4	44.8	885.3	48.7	836.6	233.3	4.8	598.5	2.80
1975	906.3	36.5	48.7	991.5	61.9	929.6	243.5	6.1	680.0	3.15
1976	861.9	51.8	61.9	975.6	24.5	951.1	230.4	4.4	716.3	3.29
1977	881.9	65.7	24.5	972.1	51.5	920.6	227.1	2.3	691.2	3.14
1978	808.3	69.3	51.5	929.1	32.3	896.8	217.3	4.8	674.7	3.03
1979	976.7	91.5	32.3	1,100.5	28.1	1,072.4	251.7	6.1	814.6	3.62
1980	1,024.6	98.1	28.1	1,150.8	49.8	1,101.0	259.9	5.7	835.4	3.67
1981	979.5	127.0	49.8	1,156.3	34.7	1,121.6	246.5	5.3	869.8	3.78
1982	1,323.3	209.7	34.7	1,567.7	75.0	1,492.7	246.2	4.4	1,242.1	5.34
1983	1,213.4	281.2	75.0	1,569.6	53.6	1,516.0	244.3	3.5	1,268.2	5.40
1984	1,353.8	322.6	53.6	1,730.0	28.9	1,701.1	244.4	2.3	1,454.4	6.14
1985	1,562.2	431.7	28.9	2,022.8	74.1	1,948.7	201.6	4.0	1,743.1	7.28
1986	1,558.8	456.6	74.1	2,089.5	22.4	2,067.1	223.5	3.5	1,840.1	7.62
1987 1/	1,433.2	549.3	22.4	2,004.9	13.6	1,991.3	237.4	2.8	1,751.1	7.18

1/ Preliminary.
SOURCE: Commodity Economic Division, ERS, USDA.

Table 50.--Fresh peaches: Supply and utilization, 1970 to date

Year	Supply				Utilization					
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	1,181.5	42.2		1,223.7		1,223.7	30.1	0.5	1,193.1	5.82
1971	1,201.0	3.7		1,204.7		1,204.7	29.5	0.4	1,174.8	5.66
1972	844.9	2.0		846.9		846.9	31.2	0.4	815.3	3.88
1973	935.2	0.4		935.6		935.6	31.4	1.0	903.2	4.26
1974	952.0	2.1		954.1		954.1	25.9	0.5	927.7	4.34
1975	1,099.6	3.0		1,102.6		1,102.6	25.9	0.4	1,076.3	4.98
1976	1,151.2	9.1		1,160.3		1,160.3	39.3	0.6	1,120.4	5.14
1977	1,144.0	5.0		1,149.0		1,149.0	26.8	0.2	1,122.0	5.09
1978	1,135.8	9.7		1,145.5		1,145.5	30.3	1.1	1,114.1	5.01
1979	1,250.5	7.0		1,257.5		1,257.5	32.1	1.1	1,224.3	5.44
1980	1,324.1	9.0		1,333.1		1,333.1	40.2	1.1	1,291.8	5.67
1981	1,331.0	7.0		1,338.0		1,338.0	66.4	1.9	1,269.7	5.52
1982	976.9	12.7		989.6		989.6	68.4	1.8	919.4	3.95
1983	967.1	28.6		995.7		995.7	40.2	1.2	954.3	4.06
1984	1,286.9	37.1		1,324.0		1,324.0	39.9	0.8	1,283.3	5.41
1985	924.8	63.9		988.7		988.7	32.0	1.2	955.5	3.99
1986	1,112.8	72.6		1,185.4		1,185.4	43.0	1.0	1,141.4	4.72
1987 1/	1,124.3	81.2		1,205.5		1,205.5	44.7	.7	1,160.1	4.76

1/ Preliminary.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 51.--Fresh pears: Supply and utilization, 1970 to date

Year	Supply				Utilization					
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	395.8	26.3	125.0	547.1	88.5	458.6	43.3	5.1	410.2	2.00
1971	569.6	33.3	88.5	691.4	144.3	547.1	51.8	5.2	490.1	2.36
1972	502.1	21.6	144.3	668.0	94.8	573.2	58.7	3.8	510.7	2.43
1973	614.5	28.2	94.8	737.5	128.6	608.9	81.6	4.0	523.3	2.47
1974	591.9	20.8	128.6	741.3	170.5	570.8	71.9	2.7	496.2	2.32
1975	653.6	16.5	170.5	840.6	162.3	678.3	71.3	1.8	605.2	2.80
1976	678.5	16.3	162.3	857.1	211.6	645.5	72.5	2.1	570.9	2.62
1977	596.4	9.4	211.6	817.4	162.1	655.3	77.4	2.3	575.6	2.61
1978	594.1	12.7	162.1	768.9	195.3	573.6	78.9	2.7	492.0	2.21
1979	600.2	14.9	195.3	810.4	157.6	652.8	86.7	3.4	562.7	2.50
1980	690.1	18.1	157.6	865.8	205.0	660.8	97.0	3.6	560.2	2.46
1981	755.9	20.9	205.0	981.8	207.9	773.9	117.6	2.3	654.0	2.84
1982	736.3	21.2	207.9	965.4	180.9	784.5	92.3	1.8	690.4	2.97
1983	768.9	22.0	180.9	971.8	250.6	721.2	67.7	1.5	652.0	2.78
1984	648.1	29.8	250.6	928.5	180.8	747.7	69.1	1.7	676.9	2.86
1985	698.8	44.7	180.8	924.3	183.2	741.1	60.0	2.0	679.1	2.84
1986	750.8	55.9	183.2	989.9	214.7	775.2	81.6	1.9	691.7	2.86
1987 1/	909.7	70.7	214.7	1,195.1	279.4	915.7	83.0	2.0	830.7	3.41

1/ Preliminary.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 52.--Canned fruit cocktail: Supply and utilization, 1970 to date

Season 1/	Supply				Utilization					
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total Total	Per capita
	---Million pounds---									Pounds
1970	642.9	11.9	626.7	1,281.5	503.2	778.3	108.8	6.6	662.9	3.23
1971	666.6	13.8	503.2	1,183.6	533.7	649.9	76.8	6.1	567.0	2.73
1972	599.9	16.6	533.7	1,150.2	478.0	672.2	92.7	9.0	570.5	2.72
1973	671.4	14.3	478.0	1,163.7	395.1	768.6	109.1	6.6	652.9	3.08
1974	753.4	14.5	395.1	1,163.0	476.5	686.5	94.8	6.5	585.2	2.74
1975	673.6	11.8	476.5	1,161.9	498.5	663.4	82.3	10.7	570.4	2.64
1976	668.4	6.4	498.5	1,173.3	496.7	676.6	80.5	8.0	588.1	2.70
1977	681.2	15.2	496.7	1,193.1	474.8	718.3	94.3	6.1	617.9	2.81
1978	615.0	18.9	474.8	1,108.7	369.4	739.3	95.4	10.2	633.7	2.85
1979	763.2	13.8	369.4	1,146.4	420.7	725.7	102.7	7.3	615.7	2.74
1980	811.8	22.9	420.7	1,255.4	545.2	710.2	118.9	6.6	584.7	2.57
1981	626.8	14.4	545.2	1,186.4	535.8	650.6	110.3	6.9	533.4	2.32
1982	500.5	20.0	535.8	1,056.3	411.7	644.6	87.9	15.5	541.2	2.33
1983	430.1	15.4	411.7	857.2	365.1	492.1	68.3	10.1	413.7	1.76
1984	503.0	39.4	365.1	907.5	338.7	568.8	47.7	24.3	496.8	2.10
1985	565.5	62.0	338.7	966.2	437.5	528.7	36.8	34.5	457.4	1.91
1986	486.9	44.8	437.5	969.2	409.7	559.5	41.4	37.5	480.6	1.99
1987 2/	530.0	58.2	409.7	997.9	365.1	632.8	50.1	35.8	546.9	2.24

1/ Season beginning June 1. 2/ Prelimianry.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 53.--Canned peaches: Supply and utilization, 1970 to date

Season 1/	Supply				Utilization					
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	1,285.0	0.6	1,072.9	2,358.5	1,009.4	1,349.1	166.1	10.3	1,172.7	5.72
1971	1,120.6	.9	1,009.4	2,130.9	875.1	1,255.8	137.8	8.4	1,109.6	5.34
1972	1,044.7	1.2	875.1	1,921.0	603.6	1,317.4	134.2	10.9	1,172.3	5.59
1973	1,066.4	1.7	603.6	1,671.7	548.8	1,122.9	118.1	4.2	1,000.6	4.72
1974	1,410.7	.7	548.8	1,960.2	828.1	1,132.1	98.3	9.6	1,024.2	4.79
1975	1,260.8	.2	828.1	2,089.1	943.7	1,145.4	90.3	10.9	1,044.2	4.83
1976	1,079.2	.2	943.7	2,023.1	841.7	1,181.4	104.0	9.2	1,068.2	4.90
1977	1,270.9	.1	841.7	2,112.7	891.1	1,221.6	119.5	7.2	1,094.9	4.97
1978	931.5	.1	891.1	1,822.7	682.1	1,140.6	188.1	12.5	940.0	4.22
1979	1,124.0	.6	682.1	1,806.7	784.8	1,021.9	118.0	5.3	898.6	3.99
1980	1,164.3	.5	784.8	1,949.6	918.1	1,031.5	126.8	6.2	898.5	3.94
1981	946.7	.5	918.1	1,865.3	920.2	945.1	117.0	4.9	823.2	3.58
1982	809.4	.7	920.2	1,730.3	785.9	944.4	82.0	6.4	856.0	3.68
1983	471.2	8.0	785.9	1,265.1	387.9	877.2	57.8	3.2	816.2	3.48
1984	848.8	72.4	387.9	1,309.1	519.8	789.3	29.4	3.9	756.0	3.19
1985	800.4	69.4	519.9	1,389.7	660.2	729.5	22.2	5.3	702.0	2.93
1986	674.5	41.1	660.2	1,375.8	540.6	835.2	39.4	4.7	791.1	3.27
1987 2/	691.6	43.0	540.6	1,275.2	414.1	861.1	34.2	4.3	822.6	3.37

1/ Season beginning June 1. 2/ Preliminary.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 54.--Canned pears: Supply and utilization, 1970 to date

Season 1/	Supply				Utilization					
	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Shipments	Total	Per capita
	---Million pounds---									Pounds
1970	374.5	6.6	394.7	775.8	348.1	427.7	8.7	4.3	414.7	2.02
1971	448.4	23.9	348.1	820.4	392.3	428.1	10.1	2.3	415.7	2.00
1972	394.2	8.9	392.3	795.4	356.0	439.4	13.0	5.9	420.5	2.00
1973	428.1	1.5	356.0	785.6	296.0	489.6	9.2	4.3	476.1	2.25
1974	465.1		296.0	761.1	367.4	393.7	9.4	3.6	380.7	1.78
1975	425.3	.1	367.4	792.8	378.9	413.9	6.5	5.3	402.1	1.86
1976	501.0		378.9	879.9	416.6	463.3	7.3	4.3	451.7	2.07
1977	418.2	.1	416.6	834.9	345.0	489.9	7.7	4.6	477.6	2.17
1978	392.6	.1	345.0	737.7	331.7	406.0	9.1	5.4	391.5	1.76
1979	459.7	.1	331.7	791.5	381.8	409.7	6.8	4.0	398.9	1.77
1980	475.4	.1	381.8	857.3	427.6	429.7	5.6	1.8	422.3	1.85
1981	422.0		427.6	849.6	466.9	382.7	6.3	2.8	373.6	1.62
1982	338.9	.1	466.9	805.9	362.3	443.6	5.6	2.9	435.1	1.87
1983	313.8	.1	362.3	676.2	257.5	418.7	4.2	2.4	412.1	1.76
1984	333.1	5.6	257.5	596.2	214.4	381.8	2.5	1.8	377.5	1.59
1985	339.9	37.5	214.4	591.8	274.3	317.5	1.8	1.2	314.5	1.31
1986	313.6	12.6	274.3	600.5	231.6	368.9	2.6	2.5	363.8	1.51
1987 2/	396.9	2.3	231.6	630.8	261.6	396.2	2.5	1.7	365.0	1.50

1/ Season beginning June 1. 2/ Preliminary.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 55.--Fruit, per capita consumption: Fresh-weight equivalent, 1970 to date 1/

Year	Citrus					Noncitrus						All fruit 4/
	Fresh 2/	Canned juice 2/	Chilled juice 2/	Frozen juice	Total 4/	Fresh	Canned	Canned juice	Frozen fruit	Dried	Total 4/	
	Pounds											
1970	28.78	10.52	9.36	40.95	89.61	50.85	15.82	3.53	3.69	9.46	83.34	172.95
1971	29.15	10.76	9.54	47.46	96.91	51.35	14.72	3.68	4.06	9.23	83.04	179.95
1972	27.45	10.37	10.39	54.48	102.70	47.84	14.10	2.63	4.00	6.95	75.53	178.22
1973	27.43	11.17	10.47	53.40	102.47	50.07	13.86	3.05	3.86	8.82	79.65	182.13
1974	27.41	10.74	10.37	58.89	107.41	51.48	12.95	2.86	3.04	8.44	78.76	186.18
1975	29.38	10.60	11.31	67.43	118.72	55.11	12.94	3.26	3.53	10.30	85.13	203.85
1976	29.03	10.35	12.24	65.48	117.10	54.82	13.43	3.47	3.38	9.04	84.14	201.24
1977	26.26	9.91	11.41	67.50	115.07	55.62	13.64	2.99	3.51	8.70	84.46	199.53
1978	26.55	11.10	12.18	57.64	107.47	56.48	11.96	3.90	3.59	7.11	83.03	190.50
1979	24.69	11.23	10.96	61.49	108.37	58.97	11.96	3.01	2.96	8.82	85.72	194.09
1980	28.86	10.25	11.75	61.68	112.55	60.62	11.73	3.27	3.36	8.36	87.33	199.88
1981	24.98	9.76	8.32	61.37	104.43	61.09	10.97	3.45	3.17	9.31	87.99	192.42
1982	24.72	7.86	7.04	69.65	109.27	61.96	10.63	2.91	3.23	10.30	89.03	198.29
1983	29.30	5.91	8.30	76.41	119.92	62.29	10.16	2.82	3.21	10.45	88.94	208.85
1984	23.99	5.83	7.39	65.66	102.87	67.10	9.82	2.52	3.41	10.83	93.68	196.55
1985	23.44	4.55	6.46	74.64	109.09	66.12	9.30	2.36	3.60	10.94	92.32	201.41
1986	27.51	4.12	7.55	78.81	117.99	69.10	9.21	2.24	3.89	11.21	95.65	213.64
1987 3/	28.16	4.02	9.03	73.69	114.90	73.54	9.61	2.40	4.46	11.89	101.90	216.80

1/ Excludes quantities consumed as baby food. Unless otherwise noted, data represent a calendar year (adjustments to a calendar year, when necessary, were made by combining proportional parts of each pack year involved). 2/ Crop and pack year beginning October, November or July prior to year indicated. 3/ Preliminary. 4/ Some figures may not add due to rounding.

SOURCE: Commodity Economice Division, ERS, USDA.

Table 56.—Fresh fruit: Per capita consumption, 1970 to date 1/

Year	Citrus fruit							Noncitrus fruit					
	Oranges	Tangerines	Tangelos	Lemons	Limes	Grapefruit	Total citrus 2/	Apples	Apricots	Avocados	Bananas	Cherries	Cranberries
	Pounds												
1970	16.16	1.60	0.61	2.04	0.19	8.17	28.78	16.92	0.12	0.44	17.38	0.50	0.18
1971	15.72	1.78	.70	2.24	.18	8.52	29.15	16.42	.13	.83	18.06	.67	.19
1972	14.48	1.63	.73	1.86	.22	8.53	27.45	15.74	.08	.44	17.92	.38	.15
1973	14.44	1.69	.61	1.93	.22	8.54	27.43	16.03	.09	.83	18.16	.73	.19
1974	14.42	1.88	.67	2.00	.22	8.21	27.41	16.48	.06	.68	18.49	.58	.15
1975	15.88	2.00	.99	1.95	.24	8.32	29.38	18.99	.08	1.16	17.64	.69	.14
1976	14.74	1.98	.93	1.90	.25	9.24	29.03	17.13	.10	.79	19.25	.82	.19
1977	13.44	1.84	.94	2.10	.25	7.70	26.26	16.88	.09	1.27	19.21	.63	.18
1978	13.45	1.62	.81	2.12	.24	8.32	26.55	17.47	.07	1.02	20.20	.54	.18
1979	12.61	1.62	.68	1.97	.25	7.56	24.69	17.50	.08	1.23	20.98	.69	.13
1980	15.84	1.97	.71	1.95	.37	8.02	28.86	19.09	.10	.82	20.79	.70	.14
1981	13.57	1.26	.81	2.05	.40	6.89	24.98	16.77	.10	2.16	21.49	.55	.21
1982	12.71	1.32	.69	2.11	.39	7.51	24.72	17.86	.08	1.50	22.53	.53	.21
1983	16.08	1.43	.72	2.42	.57	8.08	29.30	18.34	.08	1.95	21.21	.76	.14
1984	12.79	1.39	.61	2.31	.56	6.33	23.99	18.35	.13	2.22	22.13	.73	.12
1985	12.37	1.73	.55	2.39	.66	5.74	23.44	17.29	.17	1.88	23.41	.43	.13
1986	14.54	2.63	.50	2.49	.70	6.49	27.51	18.01	.10	1.99	25.72	.49	.14
1987 5/	14.29	3.51	.48	2.57	.65	6.66	28.16	20.50	.08	2.36	24.88	.70	.12

Year	Noncitrus											Total fruit 2/
	Figs	Grapes	Kiwifruit 3/	Nectarines	Peaches	Pears	Pineapples	Papayas	Plums and prunes	Strawberries	Miscellaneous fruit 4/	Total noncitrus 2/	
	Pounds												
1970	0.01	2.74	NA	0.58	5.82	2.00	0.70	0.12	1.47	1.73	0.14	50.85	84.78
1971	.01	2.39	NA	.61	5.66	2.36	.64	.10	1.28	1.83	.16	51.35	86.28
1972	.03	2.17	NA	.82	3.88	2.43	.78	.11	1.08	1.67	.15	47.84	75.30
1973	.04	2.60	NA	.72	4.26	2.47	.92	.14	1.14	1.58	.18	50.07	77.50
1974	.05	2.80	NA	.95	4.34	2.32	.90	.16	1.50	1.83	.20	51.48	78.90
1975	.03	3.15	NA	.89	4.98	2.80	1.03	.16	1.33	1.80	.23	55.11	84.49
1976	.02	3.29	NA	1.00	5.14	2.62	1.15	.20	1.25	1.66	.23	54.82	83.85
1977	.03	3.14	NA	1.25	5.09	2.61	1.36	.25	1.55	1.91	.17	55.62	81.88
1978	.03	3.03	NA	1.15	5.01	2.21	1.45	.25	1.56	2.16	.15	56.48	83.03
1979	.03	3.62	NA	1.36	5.44	2.50	1.47	.17	1.70	1.90	.14	58.97	83.66
1980	.02	3.67	NA	1.62	5.67	2.46	1.50	.21	1.60	2.01	.22	60.62	89.48
1981	.01	3.78	NA	1.52	5.52	2.84	1.57	.22	1.78	2.24	.32	61.09	86.07
1982	.01	5.34	NA	1.41	3.95	2.97	1.66	.16	1.09	2.44	.20	61.96	86.68
1983	.01	5.40	.15	1.50	4.06	2.78	1.70	.18	1.49	2.40	.14	62.29	91.59
1984	.02	6.14	.15	1.49	5.41	2.86	1.52	.26	1.97	3.07	.54	67.10	91.09
1985	.01	7.28	.18	1.68	3.99	2.84	1.48	.18	1.53	3.09	.54	66.12	89.56
1986	.01	7.62	.20	1.35	4.72	2.86	1.75	.18	1.36	3.00	.58	69.10	96.61
1987 5/	.01	7.18	.28	1.50	4.76	3.41	1.71	.18	2.03	3.22	.62	73.54	101.70

1/ All data are on calendar-year basis except for citrus fruits, October or November and apples, July prior to year indicated. 2/ Some figures may not add due to rounding. 3/ Reported separately beginning 1983. 4/ Includes mangoes, olives, persimmons, pomegranates, kiwifruit, and other fruit. 5/ Preliminary. NA= not available.

Note: Population for citrus fruit and other fruit, July 1 and apples, January 1.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 57.--Canned fruit: Per capita consumption, product weight basis, 1970 to date

Year	Canned fruit								
	Apricots	Berries	Cherries 1/	Salad and cocktail	Peaches	Pears	Plums and prunes	Olives	Total 2/
	Pounds								
1970	0.97	0.10	0.94	3.23	5.72	2.02	0.32	1.07	14.38
1971	1.01	.12	1.01	2.73	5.34	2.00	.27	.91	13.38
1972	.73	.13	.72	2.72	5.59	2.00	.21	.73	12.82
1973	.76	.13	.70	3.08	4.72	2.25	.20	.76	12.60
1974	.64	.09	.61	2.74	4.79	1.78	.23	.90	11.77
1975	.50	.14	.74	2.64	4.83	1.86	.19	.87	11.76
1976	.62	.10	.61	2.70	4.90	2.07	.25	.98	12.21
1977	.59	.11	.58	2.81	4.97	2.17	.21	.97	12.40
1978	.45	.05	.60	2.85	4.22	1.76	.22	.73	10.87
1979	.45	.05	.66	2.74	3.99	1.77	.19	1.03	10.87
1980	.51	.05	.78	2.57	3.94	1.85	.14	.82	10.66
1981	.44	.08	.72	2.32	3.58	1.62	.16	1.05	9.97
1982	.35	.08	.46	2.33	3.68	1.87	.16	.73	9.66
1983	.33	.09	.47	1.76	3.48	1.76	.13	1.24	9.24
1984	.32	.07	.57	2.10	3.19	1.59	.12	.95	8.93
1985	.33	.09	.60	1.91	2.93	1.31	.09	1.18	8.45
1986	.29	N.A.	.09	1.99	3.27	1.51	.12	1.12	8.37
1987 3/	.20	N.A.	.08	2.24	3.37	1.50	.11	1.23	8.74

1/ Beginning 1986 excludes cherries in brine. 2/ Some figure may add due to rounding. 3/ Preliminary. N.A.=not available.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 58.--Canned and chilled fruit juices (excluding frozen): Per capita consumption, single strength basis, 1970 to date 1/

Year	Canned									Chilled 2/		
	Citrus					Noncitrus						
	Orange	Grapefruit	Blended orange and grapefruit	Lemon and lime	Total 3/	Fruit nectars	Grapes	Prune	Total 3/	Orange 4/	Grapefruit	Total 3/
	Pounds											
1970	1.75	2.99	0.33	0.10	5.18	0.68	0.58	1.09	2.35	4.28	0.33	4.61
1971	1.66	3.24	.31	.10	5.30	.67	.71	1.07	2.45	4.28	.42	4.70
1972	1.51	3.25	.25	.10	5.11	.56	.53	.66	1.75	4.51	.61	5.12
1973	1.74	3.42	.24	.10	5.50	.50	.56	.97	2.03	4.61	.54	5.16
1974	1.48	3.49	.22	.10	5.29	.52	.67	.72	1.91	4.59	.52	5.11
1975	1.52	3.34	.23	.12	5.22	.77	.59	.81	2.17	4.96	.61	5.57
1976	1.37	3.33	.32	.08	5.10	.76	.56	.99	2.31	5.31	.72	6.03
1977	1.46	3.13	.21	.08	4.88	.67	.45	.88	1.99	4.92	.69	5.62
1978	1.74	3.50	.17	.06	5.47	.75	.93	.93	2.60	5.25	.74	6.00
1979	2.04	3.35	.08	.05	5.53	.56	.65	.80	2.01	4.83	.57	5.40
1980	1.98	2.93	.09	.05	5.05	.67	.65	.86	2.18	5.15	.64	5.79
1981	2.26	2.42	.07	.06	4.81	.69	.68	.92	2.30	3.62	.48	4.10
1982	1.74	2.07	.02	.03	3.87	.51	.64	.78	1.94	3.17	.30	3.47
1983	1.24	1.58	.04	.04	2.91	.36	.91	.61	1.88	3.86	.23	4.09
1984	1.47	1.20	.04	.04	2.75	.27	.75	.66	1.68	3.41	.23	3.64
1985	.85	1.31	.04	.05	2.24	.41	.52	.64	1.57	3.00	.18	3.18
1986	.82	1.13	.04	.05	2.03	.36	.50	.63	1.49	3.51	.21	3.72
1987 5/	.90	1.00	.03	.05	1.98	.26	.80	.54	1.60	4.21	.24	4.45

1/ Calendar-year basis except for citrus juices, which are on a pack-year basis beginning prior to year indicated. 2/ Chilled fruit juice produced commercially from fresh fruit in Florida; does not include reconstituted or frozen juice or fresh juice produced for local sale. 3/ Some figures may add due to rounding. 4/ Includes orange juice processed only from Florida oranges. 5/ Preliminary.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 59.--Frozen citrus juices: Per capita consumption, product weight and single strength basis, 1970 to date 1/

Year	Orange		Grapefruit		Lemon	
	Product weight	Single strength	Product weight	Single strength	Product weight	Single strength
	Pounds					
1970	5.88	20.73	0.21	0.74	0.01	0.06
1971	6.87	24.22	.23	.81	.02	.09
1972	7.86	27.71	.31	1.09	.02	.09
1973	7.62	26.86	.31	1.09	.01	.06
1974	8.36	29.47	.33	1.16	.01	.06
1975	9.30	32.78	.28	.99	.06	.26
1976	9.74	34.33	.08	.28	(4)	.02
1977	9.68	34.12	.52	1.83	.03	.14
1978	7.81	27.53	.51	1.80	.06	.25
1979	8.60	30.32	.51	1.80	.05	.21
1980	9.01	31.76	.43	1.52	.02	.09
1981	8.55	30.14	.66	2.33	.04	.17
1982	9.43	33.24	.72	2.54	.06	.25
1983	10.99	38.74	.66	2.33	.04	.17
1984	9.48	33.42	.45	1.59	.04	.17
1985	10.25	36.13	1.00	3.53	.05	.21
1986	11.25	39.66	.73	2.57	.13	.48
1987 3/	10.15	35.78	1.01	3.56	.07	.28

	Lemonade base		Tangerine		Total 2/	
	Product weight	Single strength	Product weight	Single strength	Product weight	Single strength
	Pounds					
1970	0.33	0.24	0.05	0.18	6.48	21.94
1971	.34	.25	.05	.18	7.51	25.55
1972	.38	.28	.05	.18	8.62	29.35
1973	.46	.34	.05	.18	8.45	28.53
1974	.42	.31	.04	.14	9.16	31.14
1975	.97	.72	.06	.21	10.67	34.96
1976	.51	.38	.03	.11	10.36	35.12
1977	.38	.28	.07	.25	10.68	36.62
1978	.67	.50	.07	.25	9.12	30.32
1979	.51	.38	.06	.21	9.73	32.91
1980	.24	.18	.06	.21	9.76	33.76
1981	.37	.27	.09	.32	9.71	33.23
1982	.72	.53	.09	.32	11.02	36.88
1983	.38	.28	.02	.07	12.09	41.59
1984	.39	.29	.03	.11	10.39	35.57
1985	.48	.36	.03	.11	11.81	40.32
1986	.33	.24	.03	.11	12.47	43.06
1987 3/	.39	.29	.04	.14	11.66	40.05

1/ Product weight includes concentrated and single-strength juices. Concentrated fruit juices converted to single-strength on basis of 3.525 pounds to 1; Lemonade base, 0.74 to 1. 2/ Some figures may add due to rounding. 3/ Preliminary. 4/ Negligible.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 60.--Frozen fruit: Per capita consumption, product weight basis, 1970 to date

Year	Black-berries	Blue-berries	Rasp-berries	Straw-berries	Other berries	Apples	Apricots	Cherries	Grapes and pulp	Peaches	Miscel-laneous 1/	Total 2/
						Pounds						
1970	0.10	0.21	0.16	1.19	0.06	0.47	0.06	0.61	0.03	0.28	0.17	3.35
1971	.16	.18	.16	1.41	.07	.53	.07	.68	.01	.26	.15	3.69
1972	.11	.18	.12	1.35	.06	.66	.05	.64	.01	.31	.15	3.64
1973	.08	.16	.10	1.19	.05	.61	.08	.81	.04	.23	.16	3.51
1974	.06	.14	.09	1.13	.04	.33	.06	.49	.01	.28	.13	2.76
1975	.08	.19	.09	1.40	.04	.45	.07	.44	(4)	.28	.15	3.21
1976	.12	.13	.13	1.28	.05	.39	.06	.67	.01	.13	.10	3.07
1977	.12	.13	.13	1.16	.04	.44	.07	.62	.02	.28	.18	3.19
1978	.10	.11	.10	1.37	.05	.39	.07	.64	.02	.27	.16	3.26
1979	.06	.13	.08	1.13	.03	.33	.06	.52	.01	.21	.12	2.69
1980	.02	.18	.08	1.39	.03	.35	.07	.48	.03	.27	.16	3.05
1981	.04	.17	.08	1.32	.02	.37	.05	.49	.02	.19	.13	2.88
1982	.09	.11	.07	1.14	.02	.43	.06	.61	.01	.23	.16	2.94
1983	.08	.04	.07	1.17	.04	.32	.07	.62	.04	.31	.15	2.92
1984	.04	.25	.06	1.24	.02	.38	.06	.58	.08	.28	.11	3.10
1985	.06	.22	.10	1.21	.02	.35	.07	.58	.03	.40	.23	3.27
1986	.04	.38	.09	1.26	.03	.35	.07	.66	.05	.41	.20	3.54
1987 3/	.05	.38	.07	1.32	.02	.52	.08	1.00	.07	.27	.27	4.05

1/ Includes prunes and plums. 2/ Some figure may not add due to rounding. 3/ Preliminary. 4/ Negligible.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 61.--Dried fruit: Per capita consumption, product weight basis, pack years 1970 to date 1/

Pack year	Dates 2/	Figs	Prunes 3/	Raisins	Total
			Pounds		
1970	0.26	0.22	0.68	1.33	2.49
1971	.31	.19	.58	1.36	2.43
1972	.28	.11	.48	.95	1.83
1973	.28	.13	.54	1.37	2.32
1974	.24	.16	.50	1.32	2.22
1975	.34	.15	.60	1.62	2.71
1976	.41	.17	.52	1.27	2.38
1977	.36	.16	.48	1.29	2.29
1978	.31	.17	.42	.97	1.87
1979	.27	.17	.38	1.49	2.32
1980	.14	.14	.44	1.49	2.20
1981	.18	.11	.43	1.72	2.45
1982	.26	.14	.47	1.83	2.71
1983	.25	.15	.44	1.91	2.75
1984	.28	.13	.36	2.08	2.85
1985	.18	.12	.47	2.11	2.88
1986	.16	.14	.46	2.19	2.95
1987 5/	.17	.15	.47	2.34	3.13

1/ Production begins midyear. 2/ Pits-in basis. 3/ Excludes quantities used for juice. 4/ Some figures may not add due to rounding. 5/ Preliminary.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 62.--Fruit and edible tree nuts: Utilized production, by States, 1985

State	Noncitrus												
	Apples	Apricots	Cherries		Cranberries	Grapes	Peaches	Pears	Prunes and plums	Strawberries	Others 1/	Total	
			Sweet	Tart								Quantity 2/	Percent of U.S.
	1,000 short tons												Percent
Alabama							0.8					0.8	(6)
Arizona						18.5						18.5	0.1
Arkansas	7.5					7.9	2.3			0.9		18.5	.1
California	310.0	103.0	23.5			5,207.0	701.8	292.5	596.6	386.9	565.4	8,186.7	57.7
Colorado	55.0			0.9			7.5	5.9				69.3	.5
Connecticut	20.0						1.5	1.5				23.0	.2
Delaware	9.5						.6					10.1	.1
Florida										53.0	28.5	81.5	.6
Georgia	9.5					2.1	41.5					53.1	.4
Hawaii											599.3	599.3	4.2
Idaho	65.5		2.1				5.0		4.5			77.1	.5
Illinois	51.0											51.0	.4
Indiana	37.5											37.5	.3
Iowa	6.0											6.0	(6)
Kansas	6.4						1.5					7.9	.1
Kentucky	7.5											7.5	.1
Louisiana							3.0			1.5		4.5	(6)
Maine	41.0											41.0	.3
Maryland	38.0						.5					38.5	.3
Massachusetts	42.5				84.4		1.1					127.9	.9
Michigan	535.0		31.0	107.5		51.0	27.5	8.0	11.0	8.2		779.2	5.5
Minnesota	10.5											10.5	.1
Mississippi							1.3					1.3	(6)
Missouri	31.0					.9						31.9	.2
Montana			3.5									3.5	(6)
New Hampshire	27.5											27.5	.2
New Jersey	51.5				16.0		45.0			3.1		115.6	.8
New Mexico	5.0											5.0	(6)
New York	539.5		1.5	11.3		144.0	7.0	16.0		8.4		727.7	5.1
North Carolina	137.5					1.5	1.0			2.3		142.3	1.0
Ohio	72.5					7.0				4.6		84.1	.6
Oklahoma							4.0					4.0	(6)
Oregon	80.0		27.0	3.3	5.0		7.3	193.0	22.4	25.2		363.1	2.6
Pennsylvania	292.5		.5	3.0		50.0	18.7	2.6		2.1		369.4	2.6
Rhode Island	2.0											2.0	(6)
South Carolina	7.5					.6	110.0					118.1	.8
Tennessee	5.0											5.0	(6)
Texas							13.0					13.0	.1
Utah	27.5	.9	2.1	10.5			5.3	2.5				48.8	.3
Vermont	23.5											23.5	.2
Virginia	194.0						.9					194.9	1.4
Washington	1,025.0	2.4	35.3		7.4	116.1	15.5	225.0	10.2	10.7		1,447.6	10.2
West Virginia	115.0											115.0	.8
Wisconsin	29.0			3.8	61.5					2.8		97.0	.7
United States	3,917.9	106.3	126.5	140.1	174.3	5,606.5	1,023.2	747.0	644.7	509.4	1,193.2	14,189.2	100.0

Continued—

Table 62.--Fruit and edible tree nuts: Utilized production, by States, 1985--Continued

State	Citrus fruit 3/						Total all fruits		Tree nuts				Total all fruit and nuts	
	Oranges	Grapefruit	Lemons	Other 4/	Total Quantity 2/	Total Percent of U.S.	Quantity 2/	Percent of U.S.	Pecans	Other 5/	Total Quantity 2/	Total Percent of U.S.	Quantity 2/	Percent of U.S.
	1,000 short tons					Percent	1,000 short tons	Percent	1,000 short tons			Percent	1,000 short tons	Percent
Alabama							0.8	(6)	8.0		8.0	1.0	8.8	(6)
Arizona	92.0	96.0	228.0	26.0	442.0	4.2	460.5	1.9					460.5	1.8
Arkansas							18.5	.1	.9		.9	.1	19.4	.1
California	1,966.0	289.0	752.0	63.0	3,070.0	29.3	11,256.7	45.6		606.4	606.4	78.3	11,863.1	46.6
Colorado							69.3	.3					69.3	.3
Connecticut							23.0	.1					23.0	.1
Delaware							10.1	(6)					10.1	(6)
Florida	4,676.0	1,870.0		430.0	6,976.0	66.5	7,057.5	28.5	1.4		1.4	.2	7,058.9	27.7
Georgia							53.1	.2	41.5		41.5	5.4	94.6	.4
Hawaii							599.3	2.4		21.0	21.0	2.7	620.3	2.4
Idaho							77.1	.3					77.1	.3
Illinois							51.0	.2					51.0	.2
Indiana							37.5	.2					37.5	.1
Iowa							6.0	(6)					6.0	(6)
Kansas							7.9	(6)					7.9	(6)
Kentucky							7.5	(6)					7.5	(6)
Louisiana							4.5	(6)	7.5		7.5	1.0	12.0	(6)
Maine							41.0	.2					41.0	.2
Maryland							38.5	.2					38.5	.2
Massachusetts							127.9	.5					127.6	.5
Michigan							779.2	3.2					779.2	3.1
Minnesota							10.5	(6)					10.5	(6)
Mississippi							1.3	(6)	3.3		3.3	.4	4.5	(6)
Missouri							31.9	.1					31.9	.1
Montana							3.5	(6)					3.5	(6)
New Hampshire							27.5	.1					27.5	.1
New Jersey							115.6	.5					115.6	.5
New Mexico							5.0	(6)	14.5		14.5	1.9	19.5	.1
New York							727.7	2.9					727.7	2.9
North Carolina							142.3	.6	.5		.5	.1	142.8	.6
Ohio							84.1	.3					84.1	.3
Oklahoma							4.0	(6)	5.0		5.0	.6	9.0	(6)
Oregon							363.1	1.5		24.3	24.3	3.1	387.4	1.5
Pennsylvania							369.4	1.5					369.4	1.5
Rhode Island							2.0	(6)					2.0	(6)
South Carolina							118.1	.5	.7		.7	.1	118.8	.5
Tennessee							5.0	(6)					5.0	(6)
Texas							13.0	.1	39.0		39.0	5.0	52.0	.2
Utah							48.8	.2					48.8	.2
Vermont							23.5	.1					23.5	.1
Virginia							194.9	.8					194.9	.8
Washington							1,447.6	5.9		.3	.3	(6)	1,447.9	5.7
West Virginia							115.0	.5					115.0	.5
Wisconsin							96.0	.4					97.0	.4
United States	6,734.0	2,255.0	980.0	519.0	10,488.0	100.0	24,677.2	100.0	122.2	652.0	774.2	100.0	25,451.4	100.0

1/ Avocados, bananas, dates, figs, kiwifruit, nectarines, olives, papayas, pineapples, and pomegranates. 2/ Due to rounding, figures may not equal sum of components. 3 /1984/85 crop. 4/ Tangerines, limes, tangelos, and temples. 5/ Almonds, filberts, Macadamia nuts, walnuts, and pistachios. 6/ Less than 0.05 percent.

SOURCES: Noncitrus Fruits and Nuts Summary, Citrus Fruits Summary, and Vegetables Summary, NASS, USDA.

Table 63.--Fruit and edible tree nuts: Value of production, by States, 1985

State	Noncitrus												
	Apples	Apricots	Cherries		Cranberries	Grapes	Peaches	Pears	Prunes and plums	Strawberries	Others 1/	Total	
			Sweet	Tart								Value 2/	Percent of U.S.
	1,000 dollars												Percent
Alabama							458					458	(6)
Arizona						17,908						17,908	0.5
Arkansas	1,745					1,017	776			782		4,320	.1
California	58,540	26,276	24,641			877,048	156,104	69,735	181,392	333,913	342,418	2,070,067	53.5
Colorado	10,504			390			3,900	1,294				16,088	.4
Connecticut	6,623						1,230	713				8,566	.2
Delaware	1,656						314					1,970	.1
Florida										61,268	16,416	77,684	2.0
Georgia	2,131					1,038	20,439					23,608	.6
Hawaii											101,581	101,581	2.6
Idaho	25,668		2,065				1,960		1,881			31,574	.8
Illinois	12,472											12,472	.3
Indiana	9,832											9,832	.3
Iowa	1,842											1,842	(6)
Kansas	1,488						753					2,241	.1
Kentucky	2,118											2,118	.1
Louisiana							1,980			1,590		3,570	.1
Maine	13,395											13,395	.3
Maryland	7,764						262					8,026	.2
Massachusetts	15,594				92,448		861					108,903	2.8
Michigan	79,800		15,500	47,145		10,952	11,515	1,933	3,285	6,300		176,430	4.6
Minnesota	4,612											4,612	.1
Mississippi							875					875	(6)
Missouri	10,069					326						10,395	.3
Montana			2,255									2,255	.1
New Hampshire	10,230											10,230	.3
New Jersey	12,128				17,696		25,454			3,062		58,340	1.5
New Mexico	1,280											1,280	(6)
New York	75,085		1,005	5,764		21,156	3,252	3,870		7,493		117,625	3.0
North Carolina	20,235					474	500			1,858		23,067	.6
Ohio	20,810					946				5,520		27,276	.7
Oklahoma							1,864					1,864	(6)
Oregon	20,200		16,761	1,560	5,550		4,199	52,870	3,641	15,619		120,400	3.1
Pennsylvania	54,810		655	1,608		7,378	9,376	833		3,473		78,133	2.0
Rhode Island	872											872	(6)
South Carolina	1,645					223	44,460					46,328	1.2
Tennessee	1,358											1,358	(6)
Texas							7,280					7,280	.2
Utah	6,650	353	1,624	4,832			1,785	735				15,979	.4
Vermont	7,742											7,742	.2
Virginia	38,216						376					38,592	1.0
Washington	348,740	1,508	36,527		8,214	20,642	7,365	69,126	2,240	6,971		501,333	13.0
West Virginia	22,532											22,532	.6
Wisconsin	8,147			1,549	66,051					2,970		78,392	2.0
United States	916,533	28,137	101,033	62,848	189,959	959,108	307,338	201,109	192,439	450,819	460,415	3,869,738	100.0

Continued—

Table 63.--Fruit and edible tree nuts: Value of production, by States, 1985--Continued

State	Citrus fruit 3/						Total all fruits		Tree nuts				Total all fruit and nuts	
	Oranges	Grapefruit	Lemons	Other 4/	Total		Value 2/	Percent of U.S.	Pecans	Other 5/	Total		Value 2/	Percent of U.S.
					Value 2/	Percent of U.S.					Value 2/	Percent of U.S.		
	1,000 dollars					Percent	1,000 dollars	Percent		1,000 dollars		Percent	1,000 dollars	Percent
Alabama							458	(6)	8,288		8,288	1.1	8,746	0.1
Arizona	23,225	16,940	27,537	8,691	76,393	3.7	94,301	1.6					94,301	1.4
Arkansas							4,320	.1	1,220		1,220	.2	5,540	.1
California	505,970	62,936	140,514	21,017	730,437	35.4	2,800,504	47.2		571,873	571,873	72.8	3,372,377	50.2
Colorado							16,088	.3					16,088	.2
Connecticut							8,566	.1					8,566	.1
Delaware							1,970	(6)					1,970	(6)
Florida	930,139	228,661		100,204	1,259,004	60.9	1,336,688	22.5	1,792		1,792	0.2	1,338,480	19.9
Georgia							23,608	.4	56,760		56,760	7.2	80,368	1.2
Hawaii							101,581	1.7		30,450	30,450	3.9	132,031	2.0
Idaho							31,574	.5					31,574	.5
Illinois							12,472	.2					12,472	.2
Indiana							9,832	.2					9,832	.1
Iowa							1,842	(6)					1,842	(6)
Kansas							2,241	(6)					2,241	(6)
Kentucky							2,118	(6)					2,118	(6)
Louisiana							3,570	.1	6,790		6,790	.9	10,360	.2
Maine							13,395	.2					13,395	.2
Maryland							8,026	.1					8,026	.1
Massachusetts							108,903	1.8					108,903	1.6
Michigan							176,430	3.0					176,430	2.6
Minnesota							4,612	.1					4,612	.1
Mississippi							875	(6)	4,104		4,104	.5	4,979	.1
Missouri							10,395	.2					10,395	.2
Montana							2,255	(6)					2,255	(6)
New Hampshire							10,230	.2					10,230	.2
New Jersey							58,340	1.0					58,340	.9
New Mexico							1,280	(6)	27,550		27,550	3.5	28,830	.4
New York							117,625	2.0					117,625	1.8
North Carolina							23,067	.4	600		600	.1	23,667	.4
Ohio							27,276	.5					27,276	.4
Oklahoma							1,864	(6)	5,780		5,780	.7	7,644	.1
Oregon							120,400	2.0		16,451	16,451	2.1	136,851	2.0
Pennsylvania							78,133	1.3					78,133	1.2
Rhode Island							872	(6)					872	(6)
South Carolina							46,328	.8	980		980	.1	47,308	.7
Tennessee							1,358	(6)					1,358	(6)
Texas							7,280	.1	52,424		52,424	6.7	59,704	.9
Utah							15,979	.3					15,979	.2
Vermont							7,742	.1					7,742	.1
Virginia							38,592	.7					38,592	.6
Washington							501,333	8.4		287	287	(6)	501,620	7.5
West Virginia							22,532	.4					22,532	.3
Wisconsin							78,717	1.3					78,717	1.2
United States	1,459,334	308,537	168,051	129,912	2,065,834	100.0	5,935,572	100.0	166,288	619,061	785,349	100.0	6,720,921	100.0

1/ Avocados, bananas, dates, figs, kiwifruit, nectarines, olives, papayas, pineapples, and pomegranates. 2/ Due to rounding, figures may not equal sum of components. 3/ 1984/85 crop. 4/ Tangerines, limes, tangelos, and temples. 5/ Almonds, filberts, Macadamia nuts, walnuts, and pistachios. 6/ Less than 0.05 percent.

SOURCES: Noncitrus Fruits and Nuts Summary, Citrus Fruits Summary, and Vegetables Summary, NASS, USDA.

Table 64.--Fruit and edible tree nuts: Utilized production, by States, 1986

State	Noncitrus												
	Apples	Apricots	Cherries		Cranberries	Grapes	Peaches	Pears	Prunes and plums	Strawberries	Others 2/	Total	
			Sweet	Tart								Quantity 3/	Percent of U.S.
	1,000 short tons												Percent
Alabama							3.0					3.0	(6)
Arizona						21.0						21.0	0.2
Arkansas	4.8					5.0	4.8			0.9		15.4	.1
California	257.5	50.0	8.4			4,660.0	684.3	294.0	443.0	393.9	670.9	7,462.0	53.5
Colorado	8.8			0.5			3.4	1.8				14.4	.1
Connecticut	23.0						1.3	1.6				25.9	.2
Delaware	13.5						1.4					14.9	.1
Florida	14.5									45.4	24.7	84.6	.6
Georgia						2.7	50.5					53.2	.4
Hawaii											681.4	681.4	4.9
Idaho	47.0		2.3				5.5		5.0			59.8	.4
Illinois	45.0						10.3					55.3	.4
Indiana	18.5						2.0					20.5	.1
Iowa	2.7											2.7	(6)
Kansas	1.5						2.3					3.7	(6)
Kentucky	2.0						1.0					3.0	(6)
Louisiana							.1			1.7		1.8	(6)
Maine	43.0											43.0	.3
Maryland	42.5						10.0					52.5	.4
Massachusetts	46.0				90.7		.9					137.6	1.0
Michigan	350.0		20.0	82.5		60.0	25.0	11.0	11.0	7.2		566.7	4.1
Minnesota	9.0											9.0	.1
Mississippi							.2					.2	(6)
Missouri	18.5					2.8	6.0					27.3	.2
Montana			1.0									1.0	(6)
New Hampshire	25.0											25.0	.2
New Jersey	50.0				16.3		50.0			1.9		118.2	.8
New Mexico	3.0											3.0	(6)
New York	450.0		1.4	6.2		178.0	7.0	18.0		9.1		669.7	4.8
North Carolina	60.0					1.8	10.5			2.4		74.7	.5
Ohio	45.0					10.0	1.3			2.9		59.1	.4
Oklahoma							2.8					2.8	(6)
Oregon	52.5		38.0	3.0	6.1		6.5	162.0	19.0	31.8		318.9	2.3
Pennsylvania	310.0		1.0	6.0		62.5	50.0	3.8		2.4		435.7	3.1
Rhode Island	2.8											2.8	(6)
South Carolina	15.0					.7	124.0					139.7	1.0
Tennessee	4.3						1.9					6.1	(6)
Texas							4.8					4.8	(6)
Utah	17.0	.8	2.2	9.3			5.3	2.2				36.7	.3
Vermont	24.0											24.0	.2
Virginia	225.0						13.0					238.0	1.7
Washington	1,580.0	4.3	62.5		5.0	246.0	20.0	266.0	9.1	7.0		2,199.9	15.8
West Virginia	115.0						11.5					126.5	.9
Wisconsin	27.5			1.9	64.0					3.2		96.6	.7
United States	3,953.7	55.1	136.8	109.2	182.0	5,250.5	1,120.0	760.4	487.1	509.7	1,377.0	13,941.3	100.0

Continued--

Table 64.--Fruit and edible tree nuts: Utilized production, by States, 1986--Continued

State	Citrus fruit 3/						Total all fruits		Tree nuts				Total all fruit and nuts	
	Oranges	Grapefruit	Lemons	Other 4/	Total		Quantity 2/	Percent of U.S.	Pecans	Other 5/	Total		Quantity 2/	Percent of U.S.
					Quantity 2/	Percent of U.S.					Quantity 2/	Percent of U.S.		
	1,000 short tons					Percent	1,000 short tons	Percent		1,000 short tons		Percent	1,000 short tons	Percent
Alabama							3.0	(6)	8.0		8.0	1.4	11.0	(6)
Arizona	87.0	77.0	123.0	26.0	334.0	2.8	336.0	1.3					334.0	1.3
Arkansas							15.9	.1	.6		.6	.1	16.5	.1
California	2,022.0	266.0	574.0	68.0	2,930.0	26.6	10,392.0	41.6		418.8	418.8	70.7	10,810.8	42.3
Colorado							14.4	.1					14.4	.1
Connecticut							25.9	.1					25.9	.1
Delaware							14.9	.1					14.9	.1
Florida	5,364.0	1,987.0		397.0	7,748.0	70.3	7,832.6	31.4	2.8		2.8	.5	7,835.3	30.7
Georgia							53.5	.2	60.0		60.0	10.1	113.2	.4
Hawaii							681.4	2.7		22.0	22.0	3.7	703.4	2.8
Idaho							59.8	.2					59.8	.2
Illinois							55.3	.2					55.3	.2
Indiana							20.5	.1					20.5	.1
Iowa							2.7	(6)					2.7	(6)
Kansas							3.7	(6)					3.7	(6)
Kentucky							3.0	(6)					3.0	(6)
Louisiana							1.8	(6)	15.0		15.0	2.5	16.8	.1
Maine							43.0	.2					43.0	.2
Maryland							52.5	.2					52.5	.2
Massachusetts							137.6	.6					137.6	.5
Michigan							566.7	2.3					566.7	2.2
Minnesota							9.0	(6)					9.0	(6)
Mississippi							.2	(6)	3.8		3.8	.6	3.9	(6)
Missouri							27.3	.1					27.3	.1
Montana							1.0	(6)					1.0	(6)
New Hampshire							25.0	.1					25.0	.1
New Jersey							118.2	.5					118.2	.5
New Mexico							3.0	(6)	13.5		13.5	2.3	16.5	.1
New York							669.7	2.7					669.7	2.6
North Carolina							74.7	.3	2.0		2.0	.3	76.7	.3
Ohio							59.1	.2					59.1	.2
Oklahoma							2.8	(6)	7.5		7.5	1.3	10.3	(6)
Oregon							318.9	1.3		14.9	14.9	2.5	333.8	1.3
Pennsylvania							435.7	1.7					435.7	1.7
Rhode Island							2.8	(6)					2.8	(6)
South Carolina							139.7	.6	3.3		3.3	.5	143.0	.6
Tennessee							6.1	(6)					6.1	(6)
Texas	14.0	9.0			23.0	.2	27.8	.1	20.0		20.0	3.4	47.8	.2
Utah							36.7	.1					36.7	.1
Vermont							24.0	.1					24.0	.1
Virginia							238.0	1.0					238.0	.9
Washington							2,199.9	8.8		.2	.2	(6)	2,200.1	8.6
West Virginia							126.5	.5					126.5	.5
Wisconsin							96.6	.4					96.6	.4
United States	7,487.0	2,339.0	697.0	491.0	11,014.0	100.0	24,955.3	100.0	136.4	455.9	592.3	100.0	25,547.6	100.0

1/ Avocados, bananas, dates, figs, kiwifruit, nectarines, olives, papayas, pineapples, and pomegranates. 2/ Due to rounding, figures may not equal sum of components. 3/ 1985/86 crop. 4/ Tangerines, limes, tangelos, and temples. 5/ Almonds, filberts, Macadamia nuts, walnuts, and pistachios. 6/ Less than 0.05 percent.

SOURCES: Noncitrus Fruits and Nuts Summary, Citrus Fruits Summary, and Vegetables Summary, NASS, USDA.

Table 65.--Fruit and edible tree nuts: Value of production, by States, 1986

State	Noncitrus												
	Apples	Apricots	Cherries		Cranberries	Grapes	Peaches	Pears	Prunes and plums	Strawberries	Others 1/	Total	
			Sweet	Tart								Value 2/	Percent of U.S.
	1,000 dollars												Percent
Alabama							1,632					1,632	(6)
Arizona						25,070						25,070	0.6
Arkansas	1,263					1,164	1,643			900		4,970	.1
California	83,903	18,564	10,211			1,053,101	154,111	68,140	180,938	385,245	295,850	2,250,063	53.0
Colorado	1,706			359			2,077	490				4,632	.1
Connecticut	8,869						1,248	776				10,893	.3
Delaware	2,456						500					2,956	.1
Florida										50,157	10,176	60,333	1.4
Georgia	4,646					1,583	19,892					26,121	.6
Hawaii											113,753	113,753	2.7
Idaho	20,900		1,971				2,596		2,387			27,854	.7
Illinois	14,360						4,920					19,280	.5
Indiana	6,864						1,320					8,184	.2
Iowa	1,449											1,449	(6)
Kansas	693						1,665					2,358	.1
Kentucky	810						408					1,218	(6)
Louisiana							68			1,938		2,006	(6)
Maine	16,505											16,505	.4
Maryland	9,641						4,088					13,729	.3
Massachusetts	18,048				93,732		864					112,644	2.7
Michigan	65,075		11,520	32,751		7,916	8,864	2,558	2,668	6,366		137,718	3.2
Minnesota	5,484											5,484	.1
Mississippi							99					99	(6)
Missouri	7,597					899	2,520					11,016	.3
Montana			480									480	(6)
New Hampshire	9,982											9,982	.2
New Jersey	12,416				17,193		23,643			2,063		55,315	1.3
New Mexico	1,140											1,140	(6)
New York	91,260		1,188	2,835		32,898	3,308	3,773		7,626		142,888	3.4
North Carolina	10,160					539	3,281			2,424		16,404	.4
Ohio	15,660					1,762	725			3,477		21,624	.5
Oklahoma							1,837					1,837	(6)
Oregon	11,081		25,187	960	6,478		3,554	49,197	3,064	29,107		128,628	3.0
Pennsylvania	51,252		1,270	3,040		10,810	18,179	1,235		4,190		89,976	2.1
Rhode Island	1,224											1,224	(6)
South Carolina	4,037					176	39,700					43,913	1.0
Tennessee	1,572						888					2,460	.1
Texas							3,705					3,705	.1
Utah	4,690	291	1,509	3,533			1,859	759				12,641	.3
Vermont	8,480											8,480	.2
Virginia	43,456						5,518					48,974	1.2
Washington	488,400	3,319	59,437		5,310	37,120	9,105	75,832	3,329	6,500		688,352	16.2
West Virginia	24,410						3,338					27,748	.7
Wisconsin	9,390			788	65,664					3,648		79,490	1.9
United States	1,058,879	22,174	112,773	44,266	188,377	1,173,038	327,155	202,760	192,386	503,641	419,779	4,245,228	100.0

Continued--

Table 65.--Fruit and edible tree nuts: Value of production, by States, 1986--Continued

State	Citrus fruit 3/						Total all fruits		Tree nuts				Total all fruit and nuts	
	Oranges	Grape-fruit	Lemons	Other 4/	Total		Value 2/	Percent of U.S.	Pecans	Other 5/	Total		Value 2/	Percent of U.S.
					Value 2/	Percent of U.S.					Value 2/	Percent of U.S.		
	1,000 dollars					Percent	1,000 dollars	Percent		1,000 dollars		Percent	1,000 dollars	Percent
Alabama							1,632	(6)	12,736		12,736	1.3	14,368	0.2
Arizona	15,746	11,589	48,844	8,247	84,426	4.8	109,496	1.8					109,496	1.6
Arkansas							4,945	.1	975		975	.1	5,920	.1
California	364,952	59,280	170,426	21,813	616,471	35.1	2,866,534	47.8		735,469	735,469	75.2	3,602,003	51.6
Colorado							4,632	.1					4,632	.1
Connecticut							10,893	.2					10,893	.2
Delaware							2,956	(6)					2,956	(6)
Florida	708,359	267,067		75,343	1,050,769	59.8	1,111,102	18.5	3,271		3,271	.3	1,114,373	16.0
Georgia							26,121	.4	81,800		81,800	8.4	107,921	1.5
Hawaii							113,753	1.9		35,200	35,200	3.6	148,953	2.1
Idaho							27,854	.5					27,854	.4
Illinois							19,280	.3					19,280	.3
Indiana							8,184	.1					8,184	.1
Iowa							1,449	(6)					1,449	(6)
Kansas							2,358	(6)					2,358	(6)
Kentucky							1,218	(6)					1,218	(6)
Louisiana							2,006	(6)	17,880		17,880	1.8	19,886	.3
Maine							16,505	.3					16,505	.2
Maryland							13,729	.2					13,729	.2
Massachusetts							112,644	1.9					112,644	1.6
Michigan							137,718	2.3					137,718	2.0
Minnesota							5,484	.1					5,484	.1
Mississippi							99	(6)	5,969		5,969	.6	6,068	.1
Missouri							11,016	.2					11,016	.2
Montana							480	(6)					480	(6)
New Hampshire							9,982	.2					9,982	.1
New Jersey							55,315	.9					55,315	.8
New Mexico							1,140	(6)	24,570		24,570	2.5	25,710	.4
New York							142,888	2.4					142,888	2.0
North Carolina							16,404	.3	2,360		2,360	.2	18,764	.3
Ohio							21,624	.4					21,624	.3
Oklahoma							1,837	(6)	9,413		9,413	1.0	11,250	.2
Oregon							128,628	2.1		10,788	10,788	1.1	139,416	2.0
Pennsylvania							89,976	1.5					89,976	1.3
Rhode Island							1,224	(6)					1,224	(6)
South Carolina							43,913	.7	3,575		3,575	.4	47,488	.7
Tennessee							2,460	(6)					2,460	(6)
Texas	3,168	2,076			5,244	.3	8,949	.1	34,100		34,100	3.5	43,049	.6
Utah							12,641	.2					12,641	.2
Vermont							8,480	.1					8,480	.1
Virginia							48,974	.8					48,974	.7
Washington							688,352	11.5		179	179	(6)	688,531	9.9
West Virginia							27,748	.5					27,748	.4
Wisconsin							79,490	1.3					79,490	1.1
United States	1,092,225	340,012	219,270	105,403	1,756,910	100.0	6,002,138	100.0	196,649	781,636	978,285	100.0	6,980,423	100.0

1/ Avocados, bananas, dates, figs, kiwifruit, nectarines, olives, papayas, pineapples, and pomegranates. 2/ Due to rounding, figures may not equal sum of components. 3/ 1985/86 crop. 4/ Tangerines, limes, tangelos, and temples. 5/ Almonds, filberts, Macadamia nuts, walnuts, and pistachios. 6/ Less than 0.05 percent.

SOURCES: Noncitrus Fruits and Nuts Summary, Citrus Fruits Summary, and Vegetables Summary, NASS, USDA.

Table 66.--Fruit and edible tree nuts: Utilized production, by States, 1987 1/

State	Noncitrus												
	Apples	Apricots	Cherries		Cranberries	Grapes	Peaches	Pears	Prunes and plums	Strawberries	Others 2/	Total	
			Sweet	Tart								Quantity 3/	Percent of U.S.
	1,000 short tons												Percent
Alabama							5.0					5.0	(7)
Arizona						21.0						21.0	0.1
Arkansas	2.0					5.0	.7			0.6		8.3	.1
California	325.0	100.0	45.0			4,660.0	706.5	337.0	924.4	411.6	580.4	8,089.9	50.7
Colorado	59.0			0.4			8.5	6.4				74.3	.5
Connecticut	22.0						1.3	1.4				24.7	.2
Delaware	13.0						.5					13.5	.1
Florida										55.2	29.0	84.2	.5
Georgia	20.0					2.7	49.0					71.7	.4
Hawaii											731.2	731.2	4.6
Idaho	70.0		1.7				5.0		5.9			82.6	.5
Illinios	48.0						9.5					57.5	.4
Indiana	35.0						3.8					38.8	.2
Iowa	4.7											4.7	(7)
Kansas	5.2						1.2					6.4	(7)
Kentucky	8.3						4.5					12.7	.1
Louisiana							.3			2.2		2.4	(7)
Maine	37.0											37.0	.2
Maryland	19.0						4.5					23.5	.1
Massachusetts	47.0				72.0		1.0					120.0	.8
Michigan	525.0		32.0	112.5		60.0	29.5	8.0	14.0	6.6		787.6	4.9
Minnesota	11.5											11.5	.1
Mississippi							0.3					0.3	(7)
Missouri	25.0					2.8	6.5					34.3	.2
Montana			2.6									2.6	(7)
New Hampshire	24.5											24.5	.2
New Jersey	38.5				14.0		38.0			2.1		92.6	.6
New Mexico	6.3											6.3	(7)
New York	440.0		1.2	12.2		178.0	6.9	14.5		8.0		660.8	4.1
North Carolina	195.0					1.8	11.5			2.3		210.6	1.3
Ohio	75.0					10.0	4.5			3.7		93.2	.6
Oklahoma							2.5					2.5	.0
Oregon	102.5		50.0	3.1	7.2		7.0	228.0	17.0	46.8		451.6	2.9
Pennsylvania	230.0		.5	2.2		62.5	42.5	3.1		2.8		343.1	2.2
Rhode Island	2.5											2.5	(7)
South Carolina	19.5					0.7	150.0					170.2	1.1
Tennessee	7.0						1.3					8.3	.1
Texas							2.4					2.4	(7)
Utah	31.5	.9	1.8	10.0			4.8	3.2				52.2	.3
Vermont	21.0											21.0	.1
Virginia	230.5						12.0					242.5	1.5
Washington	2,300.0	3.9	74.0		6.5	246.0	21.5	336.0	12.3	12.0		3,012.2	18.9
West Virginia	90.0						8.5					98.5	.6
Wisconsin	30.5			2.5	63.2					2.2		98.4	.6
United States	5,120.9	104.8	208.8	142.8	162.9	5,250.5	1,150.6	937.6	973.6	555.9	1,340.6	15,939.9	100.0

Continued -

Table 66.--Fruit and edible tree nuts: Utilized production, by States, 1987 1/--Continued

State	Citrus fruit 4/						Total all fruits		Tree nuts				Total all fruit and nuts	
	Oranges	Grapefruit	Lemons	Other 5/	Total		Quantity 3/	Percent of U.S.	Pecans	Other 6/	Total		Quantity 3/	Percent of U.S.
					Quantity 3/	Percent of U.S.					Quantity 3/	Percent of U.S.		
	1,000 short tons					Percent	1,000 short tons	Percent		1,000 short tons		Percent	1,000 short tons	Percent
Alamba							5.0	(7)	12.5		12.5	1.3	17.5	0.1
Arizona	119.0	70.0	270.0	26.0	485.0	4.0	506.0	1.8					506.0	1.8
Arkansas							8.3	(7)	0.7		.7	.1	8.9	(7)
California	2,194.0	298.0	817.0	83.0	3,392.0	28.3	11,481.9	41.0		782.6	782.6	81.8	12,264.5	42.4
Colorado							74.3	.3					74.3	.3
Connecticut							24.8	.1					28.7	.1
Delaware							13.5	(7)					13.5	(7)
Florida	5,386.0	2,116.0		507.0	8,009.0	66.7	8,093.2	29.0	2.8		2.8	.3	8,095.9	28.0
Georgia							71.7	.3	57.5		57.5	6.0	129.2	.4
Hawaii							731.2	2.6		21.4	21.4	2.2	752.6	2.6
Idaho							82.6	.3					82.6	.3
Illinios							57.5	.2					57.5	.2
Indiana							38.8	.1					38.8	.1
Iowa							4.7	(7)					4.7	(7)
Kanasa							6.4	(7)					6.4	(7)
Kentucky							12.7	(7)					12.7	(7)
Louisiana							2.4	(7)	9.5		9.5	1.0	11.9	(7)
Maine							37.0	.1					37.0	.1
Maryland							23.5	.1					23.5	.1
Massachusetts							120.0	.4					120.0	.4
Michigan							787.6	2.8					787.6	2.7
Minnesota							11.5	(7)					11.5	(7)
Mississippi							.3	(7)	6.0		6.0	.6	6.3	(7)
Missouri							34.3	.1					34.3	.1
Montana							2.6	(7)					2.6	(7)
New Hampshire							24.5	.1					24.5	.1
New Jersey							92.6	.3					92.6	.3
New Mexico							6.3	(7)	12.5		12.5	1.3	18.8	.1
New York							660.8	2.4					660.8	2.3
North Carolina							210.6	.8	1.0		1.0	.1	211.6	.7
Ohio							93.2	.3					93.2	.3
Oklahoma							2.5	(7)	6.0		6.0	.6	8.5	(7)
Oregon							461.6	1.7		21.5	21.5	2.2	483.1	1.7
Pennsylvania							343.4	1.2					343.4	1.2
Rhode Island							2.5	(7)					2.5	(7)
South Carolina							170.2	.6	1.7		1.7	.2	171.9	.6
Tennessee							8.3	(7)					8.3	(7)
Texas	38.0	77.0			115.0	1.0	117.4	.4	21.0		21.0	2.1	138.4	.5
Utah							52.2	.2					52.2	.2
Vermont							21.0	.1					21.0	.1
Virginia							242.5	.9					242.5	.8
Washington							3,012.2	10.8		.3	.3	(7)	3,012.5	10.4
West Virginia							98.5	.4					98.5	.3
Wisconsin							98.4	.4					98.4	.3
United States	7,737.0	2,561.0	1,087.0	616.0	12,001.0	100.0	27,949.9	100.0	131.1	855.8	986.9	100.0	30,014.8	100.0

1/ Preliminary. 2/ Avocados, bananas, dates, figs, kiwifruit, nectarines, olives, papayas, pineapples, and pomegranates. 3/ Due to rounding, figures may not equal sum of components. 4/ 1986/87 crop. 5/ Tangerines, limes, tangelos, and temples. 6/ Almonds, filberts, Macadamia nuts, walnuts, and pistachios. 7/ Less than 0.05 percent.

SOURCES: Noncitrus Fruits and Nuts Summary, Citrus Fruits Summary, and Vegetables Summary, NASS, USDA.

Table 67.--Fruit and edible tree nuts: Value of production, by States, 1987 1/

State	Noncitrus												
	Apples	Apricots	Cherries		Cranberries	Grapes	Peaches	Pears	Prunes and plums	Strawberries	Others 2/	Total	
			Sweet	Tart								Value 3/	Percent of U.S.
	1,000 dollars												Percent
Alabama							2,360					2,360	0.1
Arizona						21,279						21,279	.5
Arkansas	474					1,345	393			528		2,740	.1
California	72,070	33,451	28,445			1,205,850	163,864	64,794	241,801	407,657	305,005	2,522,937	58.1
Colorado	7,948			81			3,814	1,274				13,117	.3
Connecticut	9,195						1,300	725				11,220	.3
Delaware	2,768						170					2,938	.1
Florida										67,062	9,048	76,110	1.8
Georgia	4,520					2,350	17,758					20,108	.5
Hawaii											113,722	118,242	2.7
Idaho	14,264		1,259				1,672		788			17,983	.4
Illinios	11,460						5,220					16,680	.4
Indiana	11,920						2,168					14,088	.3
Iowa	1,886											1,886	(7)
Kansas	1,532						720					2,252	.1
Kentucky	2,523						2,181					4,704	.1
Louisiana							230			2,150		2,380	.1
Maine	14,155											14,155	.3
Maryland	3,930						1,385					5,315	.1
Massachusetts	19,319				74,448		1,040					94,807	2.2
Michigan	79,860		18,436	12,270		15,609	9,526	1,884	2,018	6,226		145,829	3.4
Minnesota	5,299											5,299	.1
Mississippi							155					155	(7)
Missouri	4,935					966	2,431					8,332	.2
Montana			2,280									2,280	.1
New Hampshire	10,955											10,955	.3
New Jersey	9,520				14,812		17,284			2,856		44,472	1.0
New Mexico	1,966											1,966	(7)
New York	80,560		1,049	2,318		40,542	2,971	3,758		9,104		140,302	3.2
North Carolina	25,110					648	3,864			2,295		31,917	.7
Ohio	23,728					2,158	2,520			4,453		32,859	.8
Oklahoma							1,845					1,845	(7)
Oregon	11,145		33,493	340	7,646		3,847	43,868	2,571	31,520		134,430	3.1
Pennsylvania	41,201		740	704		14,718	14,916	822		4,543		77,644	1.8
Rhode Island	1,165											1,165	(7)
South carolina	3,291					241	44,790					48,322	1.1
Tennessee	1,880						865					2,745	(7)
Texas							1,824					1,824	(7)
Utah	4,635		320	1,216	1,444		1,520	870				10,005	.2
Vermont	7,576											7,576	.2
Virginia	42,830						4,097					46,927	1.1
Washington	312,400	2,765	68,332		6,903	55,356	7,076	66,895	1,668	8,180		529,575	12.2
West virginia	13,567						2,281					15,848	.4
Wisconsin	9,466			295	64,843					2,508		77,112	1.8
United States	869,053	36,536	155,250	17,452	168,652	1,361,062	326,087	184,890	248,846	549,082	427,775	4,344,685	100.0

Continued--

Table 67.--Fruit and edible tree nuts: Value of production, by States, 1987 -Continued

State	Citrus fruit 4/						Total all fruits		Tree nuts				Total all fruit and nuts	
	Oranges	Grapefruit	Lemons	Other 5/	Total		Value 3/	Percent of U.S.	Pecans	Other 6/	Total		Value 3/	Percent of U.S.
					Value 3/	Percent of U.S.					Value 3/	Percent of U.S.		
	1,000 dollars					Percent	1,000 dollars	Percent		1,000 dollars		Percent	1,000 dollars	Percent
Alabama							2,360	(7)	9,488		9,488	0.9	11,848	0.2
Arizona	19,021	11,126	29,186	8,535	67,868	3.4	189,147	1.4					89,147	1.2
Arkansas							2,740	(7)	798		798	.1	3,538	(7)
California	422,520	59,127	152,890	25,327	659,864	33.4	3,182,801	50.3		895,727	895,727	82.1	4,078,528	55.0
Colorado							13,117	.2					13,117	.2
Connecticut							11,220	.2					11,220	.2
Delaware							2,938	(7)					2,938	(7)
Florida	814,493	327,770		83,550	1,225,813	62.0	1,301,923	20.6	3,744		3,744	.3	1,305,667	17.6
Georgia							20,108	.3	62,150		62,150	5.7	82,258	1.1
Hawaii							118,242	1.9		35,868	35,868	3.3	154,110	2.1
Idaho							17,983	.3					17,983	.2
Illinios							16,680	.3					16,680	.2
Indiana							14,088	.2					14,088	.2
Iowa							1,886	(7)					1,886	(7)
Kansas							2,252	(7)					2,252	(7)
Kentucky							4,704	.1					4,704	.1
Louisiana							2,380	(7)	7,590		7,590	.7	9,970	.1
Maine							14,155	.2					14,155	.2
Maryland							5,315	.1					5,315	.1
Massachusetts							94,807	1.5					94,807	1.3
Michigan							145,829	2.3					145,829	2.0
Minnesota							5,299	.1					5,299	.1
Mississippi							155	(7)	6,328		6,328	.6	6,483	.1
Missouri							8,332	.1					8,332	.1
Montana							2,280	(7)					2,280	(7)
New Hampshire							10,955	.2					10,955	.1
New Jersey							44,472	.7					44,472	.6
New Mexico							1,966	(7)	16,250		16,250	1.5	18,216	.2
New York							140,302	2.2					140,302	1.9
North Carolina							31,917	.5	1,140		1,140	.1	33,057	.4
Ohio							32,859	.5					32,859	.4
Oklahoma							1,845	(7)	4,973		4,973	.5	6,818	.1
Oregon							134,430	2.1		20,554	20,554	1.9	154,984	2.1
Pennsylvania							77,644	1.2					77,644	1.0
Rhode Island							1,165	(7)					1,165	(7)
South Carolina							48,322	.8	2,048		2,048	.2	50,370	.7
Tennessee							2,745	(7)					2,745	(7)
Texas	7,593	15,759			23,352	1.2	25,176	.4	24,600		24,600	2.3	49,776	.7
Utah							10,005	.2					10,005	.1
Vermont							7,756	.1					7,756	.1
Virginia							46,927	.7					46,927	.6
Washington							529,575	8.4		348	348	(7)	529,923	7.1
West Virginia							15,848	.3					15,848	.2
Wisconsin							77,112	1.2					77,112	1.0
United States	1,263,627	413,782	182,076	117,412	1,976,897	100.0	6,321,582	100.0	139,109	952,497	1,091,606	100.0	7,413,188	100.0

1/ Preliminary. 2/ Avocados, bananas, dates, figs, kiwifruit, nectarines, olives, papayas, pineapples, and pomegranates. 3/ Due to rounding, figures may not equal sum of components. 4/ 1986/87 crop. 5/ Tangerines, limes, tangelos, and temples. 6/ Almonds, filberts, Macadamia nuts, walnuts, and pistachios. 7/ Less than 0.05 percent.

SOURCES: Noncitrus Fruits and Nuts Summary, Citrus Fruits Summary, and Vegetables Summary, NASS, USDA.

Table 68.--Almonds (shelled basis): Production, season-average grower prices, and value, California, 1970 to date

Year	Bearing acreage	Yield/ acre	Production	Prices	Value
	1,000 acre	Pounds	Million pounds	Cents/pound	1,000 dollars
1970	169.9	877	149.0	53.8	80,104
1971	187.8	863	162.0	53.8	87,100
1972	198.9	759	151.0	65.0	98,125
1973	213.6	726	155.0	128.8	199,660
1974	231.2	995	230.0	74.0	170,100
1975	248.8	748	186.0	63.7	118,400
1976	257.9	1100	284.0	64.8	184,032
1977	276.5	1130	313.0	84.5	264,485
1978	307.7	588	181.0	145.0	262,450
1979	324.1	1160	376.0	153.0	575,280
1980	326.8	985	322.0	147.0	473,340
1981	326.2	1250	408.0	78.0	299,520
1982	339.3	1020	347.0	94.0	311,140
1983	356.2	679	242.0	104.0	231,920
1984	379.6	1550	590.0	77.4	446,134
1985	409.2	1140	465.0	80.0	360,640
1986	412.7	606	250.0	192.0	461,568
1987	410.0	1610	660.0	95.0	615,600

1/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 69.--Filberts: Bearing acreage and yield per acre, by States, 1970 to date

Year	Oregon		Washington		United States	
	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre	Bearing acreage	Yield per acre
	Acres	Tons	Acres	Tons	Acres	Tons
1970	15,800	.55	500	1.02	16,300	.57
1971	16,100	.68	500	.74	16,600	.68
1972	16,500	.58	500	1.10	17,000	.60
1973	16,500	.71	500	1.10	17,000	.72
1974	16,400	.39	500	.60	16,900	.40
1975	17,400	.68	400	.80	17,800	.68
1976	17,500	.40	400	.55	17,900	.40
1977	17,200	.66	400	.88	17,600	.67
1978	17,200	.80	400	.88	17,600	.80
1979	17,200	.74	400	.75	17,600	.74
1980	21,600	.70	400	.75	22,000	.70
1981	21,600	.67	400	.75	22,000	.67
1982	21,600	.85	400	1.00	22,000	.85
1983	20,900	.38	400	.50	21,300	.39
1984	21,600	.61	400	.50	22,000	.61
1985	22,900	1.06	400	.75	23,300	1.06
1986	24,500	.61	400	.50	24,900	.61
1987	24,500	.85	400	.75	25,800	.84

1/ Preliminary.

SOURCE: Fruits and Nuts Summary, NASS, USDA.

Table 70.--Filberts (in-shell): Production, season-average grower prices, and value, United States, 1970 to date

Year	Oregon			Washington			Oregon and Washington		
	Production 1/	Prices	Value	Production 1/	Prices	Value	Production 1/	Prices	Value
	Tons	Dollars per ton	1,000 dollars	Tons	Dollars per ton	1,000 dollars	Tons	Dollars per ton	1,000 dollars
1970	8,750	570	4,988	510	571	291	9,260	570	5,279
1971	11,000	414	4,554	370	416	154	11,370	414	4,708
1972	9,600	508	4,877	550	509	280	10,150	508	5,157
1973	11,700	570	6,669	550	635	349	12,250	573	7,018
1974	6,400	560	3,584	300	565	170	6,700	560	3,754
1975	11,800	610	7,198	320	595	190	12,120	610	7,388
1976	6,950	640	4,448	220	635	140	7,170	640	4,588
1977	11,400	687	7,832	350	674	236	11,750	687	8,068
1978	13,700	805	11,029	350	835	292	14,050	806	11,321
1979	12,700	951	12,078	300	970	291	13,000	951	12,369
1980	15,100	1,151	17,386	300	1,181	354	15,400	1,152	17,740
1981	14,400	786	11,319	300	770	231	14,700	786	11,550
1982	18,400	680	12,512	400	677	271	18,800	680	12,783
1983	8,000	554	4,432	200	720	144	8,200	558	4,576
1984	13,200	617	8,144	200	875	175	13,400	621	8,319
1985	24,300	677	16,451	300	957	287	24,600	680	16,738
1986	14,900	724	10,788	200	895	179	15,100	726	10,967
1987 2/	21,500	956	20,554	300	1,160	348	21,800	959	20,902

1/ Production is the quantity sold or utilized. Excludes unharvested production for Oregon, 500 tons in 1974. 2/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 71.--Walnuts (English), (in-shell): Production, season-average grower prices, and value, California, 1970 to date

Year	Bearing acreage	Yield/ acre	Production	Prices	Value
	Acres	Tons	Tons	Dollars/tons	1,000 dollars
1970	146,500	.74	108,000	407	43,956
1971	150,400	.90	135,000	420	56,700
1972	157,600	.74	116,000	564	65,424
1973	158,200	1.10	174,000	605	105,270
1974	163,200	.95	155,000	419	64,945
1975	165,800	1.19	198,000	456	90,288
1976	169,800	1.08	183,000	627	114,741
1977	176,300	1.09	192,000	725	139,200
1978	181,400	.88	160,000	1,302	208,320
1979	179,200	1.16	208,000	847	176,176
1980	179,900	1.10	197,000	936	184,392
1981	175,100	1.29	225,000	1,014	228,150
1982	178,000	1.31	234,000	1,020	238,680
1983	176,800	1.13	199,000	631	125,569
1984	178,200	1.20	213,000	730	155,490
1985	178,600	1.23	219,000	798	174,762
1986	179,300	1.00	180,000	1,080	194,400
1987 1/	182,100	1.36	247,000	950	234,650

1/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 72.--Macadamia nuts (in-shell): Production, season-average grower prices, and value, Hawaii, 1970 to date

Year	Bearing acreage	Yield/ acre	Production	Prices	Value
	Acre	Pounds	1,000 pounds	Cents/pound	1,000 dollars
1970	4,100	3,223	13,216	21.7	2,868
1971	4,900	2,949	14,448	24.7	3,569
1972	5,000	2,622	13,110	23.3	3,055
1973	5,100	2,377	12,124	25.5	3,092
1974	5,800	2,822	16,370	32.0	5,238
1975	6,100	2,999	18,210	31.6	5,754
1976	6,300	3,014	18,990	36.9	7,007
1977	6,300	3,124	19,680	40.8	8,029
1978	9,200	2,280	20,980	53.8	11,287
1979	9,600	2,777	26,660	62.9	16,769
1980	10,000	3,339	33,390	72.4	24,174
1981	10,000	3,346	33,360	79.3	26,454
1982	10,200	3,600	36,720	73.9	27,136
1983	10,600	3,436	36,420	65.7	23,928
1984	12,000	3,142	37,700	69.2	26,088
1985	13,500	3,111	42,000	72.5	30,450
1986	14,400	3,056	44,000	80.0	35,200
1987 1/	15,600	2,737	42,700	84.0	35,868

1/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 73.--Pistachios 1/ (in-shell): Production, season-average grower prices, and value, California, 1977 to date

Year	Bearing acreage	Yield/ acre	Production	Prices	Value
	Acres	Pounds	1,000 pounds	Cents/pound	1,000 dollars
1977	1,700	2,647	4,500	104.0	4,680
1978	3,500	714	2,500	124.0	3,100
1979	25,400	677	17,200	160.0	27,520
1980	27,000	996	26,900	205.0	55,145
1981	28,100	516	14,500	136.0	19,759
1982	29,900	1,452	43,400	145.0	63,068
1983	31,100	849	26,400	142.0	37,488
1984	31,100	2,029	63,100	98.0	61,838
1985	32,300	839	27,100	135.0	36,471
1986	32,900	2,277	74,900	106.0	79,501
1987 2/	40,000	828	33,100	137.0	45,477

1/ Estimated begin in 1977. 2/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 74.--Pecans (in-shell): Production, season-average grower prices, and value, United States, 1970 to date

Year	Improved varieties			Native and seedling			All pecans		
	Production	Prices	Value	Production	Prices	Value	Production	Prices	Value
	1,000 pounds	Cents/ pound	1,000 dollars	1,000 pounds	Cents/ pound	1,000 dollars	1,000 pounds	Cents/ pound	1,000 dollars
1970	81,720	42.1	34,403	73,380	35.6	26,125	155,100	39.0	60,528
1971	142,300	35.4	50,369	103,900	29.8	30,917	246,200	33.0	81,286
1972	88,990	46.1	41,028	94,110	38.9	36,608	183,100	42.4	77,636
1973	145,200	42.6	61,793	130,500	30.3	39,494	275,700	36.7	101,287
1974	86,800	52.5	45,542	50,300	38.2	19,199	137,100	47.2	64,741
1975	110,100	46.5	51,164	136,700	34.4	47,036	246,800	39.8	98,200
1976	77,300	87.5	67,603	25,800	63.5	16,380	103,100	81.5	83,983
1977	137,900	66.0	91,015	98,700	46.0	45,444	236,600	57.7	136,459
1978	164,500	64.5	106,170	85,400	52.8	45,080	249,900	60.5	151,250
1979	101,100	70.0	70,742	109,500	41.9	45,921	210,600	55.4	116,663
1980	128,500	84.8	109,015	55,000	62.3	34,254	183,500	78.1	143,269
1981	174,550	64.7	112,987	164,550	43.7	71,855	339,100	54.5	184,842
1982	169,000	72.6	122,776	49,600	49.8	24,715	218,600	67.5	147,491
1983	167,250	67.7	113,199	102,750	44.0	45,190	270,000	58.7	158,389
1984	169,230	68.2	115,406	63,170	46.6	29,424	232,400	62.3	144,830
1985	152,500	79.1	120,582	91,900	49.7	45,706	244,400	68.0	166,288
1986	182,650	79.3	144,765	90,050	57.6	51,884	272,700	72.1	196,649
1987 1/	179,650	60.1	107,953	82,550	37.7	31,156	262,200	53.1	139,109

1/ Preliminary.

SOURCE: Noncitrus Fruits and Nuts Summary, NASS, USDA.

Table 75.--Almond: Supply and utilization, 1970 to date

Season 1/	Shelled Basis								
	Production	Imports	Begin-ing stocks	Total supply	Ending stocks	Total use	Exports	Total Total	Per capita
	1,000 pounds								Pounds
1970	141,880	280	25,500	167,660	30,200	137,460	68,260	69,200	0.34
1971	153,970	300	30,200	184,470	18,700	165,770	90,030	75,740	0.36
1972	142,040	280	18,700	161,020	16,000	145,020	69,240	75,780	0.36
1973	146,430	120	16,000	162,550	30,100	132,450	77,450	55,000	0.26
1974	217,650	10	30,100	247,760	87,600	160,160	103,940	56,220	0.26
1975	170,180	50	87,600	257,830	59,000	198,830	123,450	75,380	0.35
1976	258,070	150	59,000	317,220	74,200	243,020	150,590	92,430	0.42
1977	284,800	130	74,200	359,130	94,200	264,930	165,900	99,030	0.45
1978	162,430	530	94,200	257,160	37,760	219,400	131,100	88,300	0.39
1979	348,510	230	37,760	386,500	78,950	307,550	224,220	83,330	0.37
1980	305,140	70	78,950	384,160	101,660	282,500	186,930	95,570	0.42
1981	383,130	40	101,660	484,830	161,010	323,820	207,890	115,930	0.50
1982	330,760	570	161,010	485,725	179,750	305,975	177,980	127,995	0.55
1983	221,790	180	176,950	392,266	90,620	301,646	171,700	129,946	0.55
1984	563,640	240	90,620	626,318	227,010	399,308	266,760	132,548	0.56
1985	444,000	460	227,010	627,070	144,280	482,790	332,190	150,600	0.63
1986 2/	235,690	692	144,280	380,662	76,191	304,471	174,010	130,461	0.54

1/ Season beginning July 1. 2/ Preliminary.

Note: Total supply excludes quantities for market reserves in million pounds 1982-6.6, 1983-6.7, 1984-28.2 and 1985-44.4.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 76.--Pecans: Supply and utilization, 1970 to date

Season 1/	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Total Total	Per capita
	Shelled Basis								
	1,000 pounds								Pounds
1970	68,744	1,190	33,200	103,134	17,431	85,703	2,432	83,271	0.40
1971	110,632	682	17,431	128,745	34,031	94,714	2,064	92,650	.44
1972	80,257	42	34,031	114,330	20,911	93,419	2,301	91,118	.43
1973	122,190	199	20,911	143,300	49,360	93,940	2,652	91,288	.43
1974	62,514	6	49,360	111,880	24,149	87,731	3,252	84,479	.39
1975	106,996	1	24,149	131,146	42,646	88,500	3,659	84,841	.39
1976	48,454	2,121	42,646	93,221	17,387	75,834	2,628	73,206	.33
1977	106,456	553	17,387	124,396	38,199	86,197	4,065	82,132	.37
1978	114,702	796	38,199	153,697	63,192	90,505	3,411	87,094	.39
1979	92,160	331	63,192	155,683	47,245	108,438	3,260	105,178	.46
1980	85,150	952	47,245	133,347	30,852	102,495	4,665	97,830	.43
1981	149,804	849	30,852	181,505	73,406	108,099	4,194	103,905	.45
1982	102,848	1,625	73,406	177,879	57,289	120,590	7,298	113,292	.48
1983	122,670	5,789	57,289	185,748	69,715	116,033	3,376	112,657	.48
1984	108,620	1,934	69,715	180,269	50,370	129,899	2,720	127,179	.53
1985	110,868	14,298	50,370	175,536	59,952	115,584	2,264	113,320	.47
1986 2/	125,544	10,918	59,952	196,414	63,423	132,991	2,755	130,236	.54

1/ Season=July-June. 2/ Preliminary.

Note: Rivised due to production, stocks, and trade data changes from adjusted shelling ratios.

SOURCE: Commodity Economic Division, ERS, USDA.

Table 77.--Walnuts: Supply and utilization, 1970 to date

Season 1/	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Total Total	Per capita
	Shelled Basis								
	1,000 pounds								Pounds
1970	81,369	529	25,815	107,713	26,429	81,284	6,866	74,418	0.36
1971	99,374	457	26,429	126,260	25,815	100,445	12,710	87,735	.42
1972	84,074	1,402	27,995	113,471	18,261	95,210	13,197	82,013	.39
1973	130,895	268	18,261	149,424	46,726	102,698	17,315	85,383	.40
1974	105,851	40	46,726	152,617	41,027	111,590	20,885	90,705	.42
1975	139,455	152	41,027	180,634	34,353	146,281	35,086	111,195	.51
1976	137,379	68	34,353	171,800	22,329	149,471	36,274	113,197	.52
1977	154,036	147	22,329	176,512	21,454	155,454	38,206	117,248	.53
1978	114,941	1,065	21,454	137,064	24,046	113,018	25,918	87,100	.39
1979	162,260	320	24,046	186,626	40,521	146,105	40,233	105,872	.47
1980	148,550	9	40,521	189,080	30,327	158,753	42,912	115,841	.51
1981	175,520	9	30,327	205,856	37,925	167,931	50,885	117,046	.51
1982	182,996	299	37,925	221,220	71,304	149,916	39,021	110,895	.47
1983	169,332	77	71,304	240,713	57,045	183,668	41,034	142,634	.60
1984	144,840	315	57,045	202,200	42,556	159,644	36,558	123,086	.52
1985	149,880	128	42,556	192,564	51,999	140,565	38,421	102,144	.42
1986 2/	128,960	2,655	51,999	183,614	28,316	155,298	45,959	109,339	.45

1/ Season beginning August 1. 2/ Preliminary

Note: Revised due to production, stocks, and trade data changes from adjusted shelling ratios.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 78.--Filberts: Supply and utilization, 1970 to date

Season 1/	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Total	Per capita
	Shelled Basis								
	1,000 pounds								Pounds
1970	6,758	6,111	351	13,220	1,591	11,629	615	11,014	0.05
1971	8,300	4,491	1,591	14,382	410	13,972	566	13,406	.06
1972	8,303	7,211	410	15,924	684	15,240	655	14,585	.07
1973	9,678	13,813	684	24,175	1,529	22,646	547	22,099	.10
1974	4,556	4,013	1,529	10,098	107	9,991	549	9,442	.04
1975	9,284	9,590	107	18,981	775	18,206	720	17,486	.08
1976	5,621	10,941	775	17,337	566	16,771	1,144	15,627	.07
1977	9,142	7,743	566	17,451	866	16,585	1,717	14,868	.07
1978	10,790	10,329	866	21,985	1,344	20,641	2,874	17,767	.08
1979	10,348	4,513	1,344	16,205	1,046	15,159	6,651	8,508	.04
1980	12,320	4,001	1,046	17,367	1,124	16,243	4,729	11,514	.05
1981	11,848	3,953	1,124	16,925	965	15,960	3,949	12,011	.05
1982	15,190	6,778	965	22,933	3,046	19,887	3,441	16,446	.07
1983	5,756	7,156	3,046	15,958	678	15,280	3,048	12,232	.05
1984	9,568	9,011	678	19,257	552	18,705	2,657	16,048	.07
1985	19,434	4,195	552	24,181	1,273	22,908	6,666	16,242	.07
1986 2/	11,627	3,721	1,273	16,621	404	16,217	6,965	9,252	.04

1/ Seasons beginning August 1. 2/ Preliminary

Note: Revised due to production, stocks, and trade data changes from adjusted shelling ratios.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 79.--Pistachios: Supply and utilization, 1970 to date

Season 1/	Production	Imports	Beginning stocks	Total supply	Ending stocks	Total use	Exports	Total Total	Per capita
	Shelled Basis								
	1,000 pounds								Pounds
1977	1,520	9,528		11,048	2,080	8,968	320	8,648	0.04
1978	840	6,863	2,080	9,783	1,080	8,703	160	8,543	.04
1979	5,240	9,219	1,080	15,539	5,000	10,539	1,400	9,139	.04
1980	16,372	1,175	5,000	22,547	5,135	17,412	1,840	15,572	.07
1981	7,788	1,817	5,135	14,740	2,061	12,679	1,480	11,199	.05
1982	21,163	2,819	2,061	26,043	6,829	19,214	3,406	15,808	.07
1983	14,346	6,683	6,829	27,858	5,013	22,845	1,831	21,014	.09
1984	37,641	7,284	5,013	49,938	11,282	38,656	2,767	35,889	.15
1985	22,477	14,875	11,282	48,634	7,329	41,305	1,654	39,651	.16
1986	43,389	5,357	7,329	56,075	14,928	41,147	2,172	38,975	.16

1/ Season beginning September 1. 2/ Preliminary.

Note: Revised due to production, stocks, and trade data changes from adjusted shelling ratios.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 80.--Tree nuts (shelled basis): Per capita consumption, 1970 to date

Crop year 1/	Almonds	Filberts	Pecans	Walnuts	Pistachios 2/	Macadamia	Other 3/	Total
				Pounds				
1970	0.34	0.05	0.40	0.36	N.A.	0.02	0.59	1.76
1971	.36	.06	.44	.42	N.A.	.02	.61	1.91
1972	.36	.07	.43	.39	N.A.	.02	.71	1.98
1973	.26	.10	.43	.40	N.A.	.02	.57	1.78
1974	.26	.04	.39	.42	N.A.	.02	.45	1.58
1975	.35	.08	.39	.51	N.A.	.03	.60	1.96
1976	.42	.07	.33	.52	N.A.	.03	.55	1.92
1977	.45	.07	.37	.53	.04	.03	.28	1.77
1978	.39	.08	.39	.39	.04	.03	.42	1.74
1979	.37	.04	.46	.47	.04	.04	.38	1.80
1980	.42	.05	.43	.51	.07	.04	.32	1.84
1981	.50	.05	.45	.51	.05	.04	.33	1.93
1982	.55	.07	.48	.47	.07	.05	.46	2.18
1983	.55	.05	.48	.60	.09	.05	.52	2.34
1984	.56	.07	.53	.52	.15	.05	.47	2.35
1985	.63	.07	.47	.42	.16	.05	.45	2.25
1986	.54	.04	.54	.45	.16	.06	.46	2.25
1987 4/	.57	.04	.56	.51	.18	.06	.49	2.41

1/ Beginning August of year indicated for filberts and walnuts, September for pistachios, January for macadamias, and July for all others. 2/ Estimates begin in 1977. 3/ Includes the following nuts: Brazil, pignolia, pistachios (until 1977), chestnuts, cashews, and miscellaneous. 4/ Preliminary.

SOURCE: Commodity Economics Division, ERS, USDA.

Table 81.--Tree nuts: Exports, United States, 1970 to date

Year	Almonds		Walnuts		Pecans		Filberts	
	Shelled	In-shell	Shelled	In-shell	Shelled	In-shell	Shelled	In-shell
				Metric tons				
1970	27,199	1,604	1,679	5,042	658	581	124	405
1971	32,236	963	1,510	9,595	659	249	117	192
1972	30,860	2,188	2,388	14,103	876	481	123	315
1973	24,044	1,458	1,569	16,708	772	335	167	423
1974	36,077	3,065	2,494	19,951	1,105	763	97	763
1975	42,628	2,352	2,788	35,545	1,368	482	114	595
1976	55,030	720	4,775	39,446	1,193	546	245	821
1977	60,530	1,110	5,041	31,744	1,011	462	226	1,353
1978	59,883	1,398	3,760	27,259	1,166	1,454	663	1,365
1979	53,892	1,441	2,980	29,554	1,063	728	1,255	2,675
1980	80,976	1,602	4,916	44,936	1,413	872	1,195	3,808
1981	70,334	2,756	4,331	48,105	1,560	1,200	869	2,042
1982	67,259	4,974	4,002	37,595	1,237	4,161	750	1,412
1983	57,457	2,959	4,342	27,073	1,026	1,689	1,104	1,663
1984	79,126	2,669	6,190	39,531	730	1,198	663	1,322
1985	129,437	6,063	7,423	44,048	593	809	1,036	1,420
1986	102,185	3,640	8,538	45,155	761	708	3,124	3,778
1987	92,844	4,770	7,375	55,854	1,058	777	1,461	3,935

SOURCE: Bureau of Census, Department of Commerce.

U.S. GRAPEFRUIT: TRENDS AND OUTLOOK

by

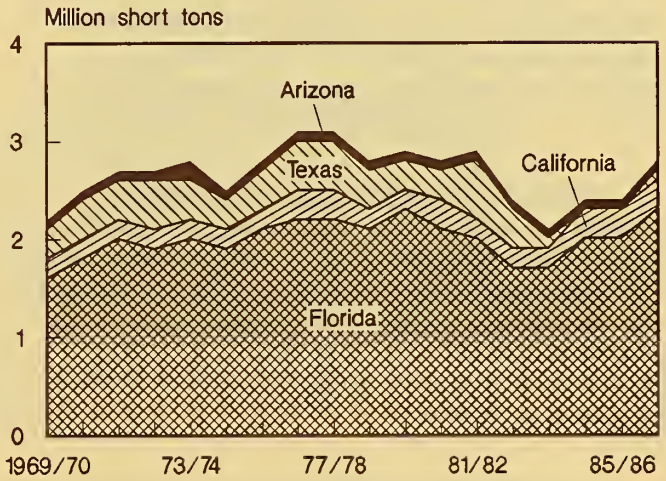
Ben W. Huang*

ABSTRACT: In view of replantings and higher yields, grapefruit production is expected to continue to recover from the early 1980's freezes. Utilization of grapefruit has changed greatly, reflecting changes in both domestic and foreign markets. Larger per capita grapefruit consumption, mainly frozen concentrated and chilled juice, is expected, while fresh consumption likely will fluctuate within a narrow range. Average on-tree returns for grapefruit have been strong in recent years, and are expected to remain relatively high in anticipation of only moderately increased production and rising export demand.

KEY WORDS: Grapefruit, production, acreage, yield, utilization, exports, consumption, prices.

Grapefruit is the second leading citrus crop in the United States, with a farm value of production at $414 million in 1986/87, approximately one-third of the farm value for oranges. Although grapefruit's value is relatively small compared with such leading fruits as apples, oranges, and grapes, the grapefruit industry has undergone many of the same changes as the leading fruits. The changing conditions include natural disasters such as extreme weather, changes in production around the world, shifting utilization and consumption patterns, and changes in the world trade situation and prices. This article reviews these changing conditions since 1970 and to some extent uses them to assess industry prospects.

Figure 1
Grapefruit Production by States



Grapefruit Production Recovering

Because of climatic requirements, grapefruit production is concentrated in Florida, California, Texas, and Arizona (figure 1). Florida is the leading State; its crop was nearly two-thirds of the total U.S. production prior to the freezes in the early 1980's. During the last 18 years, Florida grapefruit output has fluctuated from a low of 1.59 million short tons in 1969/70 to a record 2.33 million in 1979/80.

The record crop resulted from extensive plantings after the severe freeze in December 1962; these trees started to bear heavily in the late 1970's. It also reflected good weather as well as continued improvement in technology, management, and cultural practices.

However, the severe freezes in the early 1980's cut grapefruit production to the lowest since 1970/71, 1.67 million short tons in 1982/83. Production has been gradually recovering, reaching 2.12 million short tons in 1986/87. Florida grapefruit output is estimated at 2.30 million short tons for the 1987/88 season.

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Texas grapefruit output reached a peak of 557,000 short tons in 1981/82 because of increased production of the ruby red variety, which enjoys strong export demand. The 1983 freeze reduced the Texas crop to only 128,000 short tons in 1983/84, the lowest since 1967/68, and no commercial supplies at all were harvested in 1984/85. However, production has gradually recovered to 77,000 short tons in 1986/87, and the 1987/88 crop is estimated at 152,000.

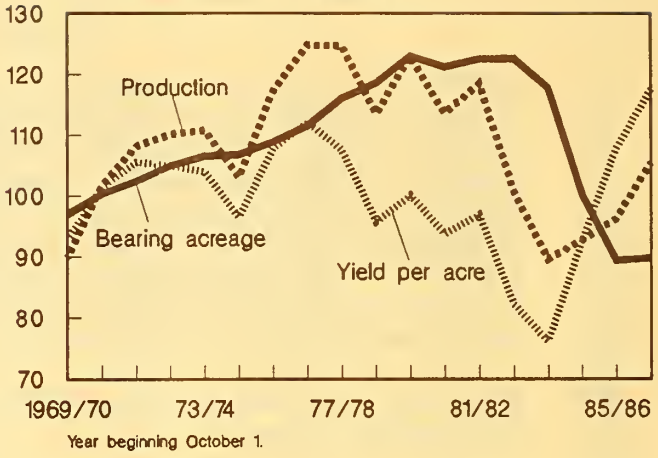
Because of the 1983 Texas freeze, California has surpassed Texas grapefruit output since 1983/84. California grapefruit peaked at 298,000 short tons in 1986/87, accounting for almost 12 percent of the U.S. crop. Since 1969/70, Arizona grapefruit production has fluctuated from a high of 101,000 short tons that year to a low of 66,000 short tons in 1973/74. However, another small crop, 61,000 short tons, is forecast for 1987/88 because the bearing acreage has remained low. Generally, grapefruit production in Arizona is very small, and the State's share of the U.S. crop has remained near 3.5 percent.

Overall, during the last 18 years, U.S. grapefruit output has fluctuated from 3.03 short tons million in 1976/77 to 2.18 million in 1983/84, mainly because of weather variation. Because of the early 1980's freezes, average grapefruit production fell from 2.43 million short tons in 1969/70–1971/72 to 2.38 million in 1984/85–1986/87.

Bearing Acreage Turning Up

U.S. grapefruit bearing area peaked at 199,900 acres in 1979/80 because of increased demand and large plantings in Florida and Texas after the December 1962 freeze in Florida (figure 2). High grower prices and the greater consumer acceptance of processed grapefruit items stimulated plantings. Financial factors were also important; there were indications that, prior to the 1969 tax reform law, some investments in citrus groves were used as tax shelters for nonfarm investors. However, because of recent freezes in Florida and Texas, U.S. grapefruit bearing acreage has declined moderately during the last 18 years, reaching a low of 145,200 in 1985/86. Acreage has increased slightly to 145,900 in 1986/87.

Figure 2
U.S. Grapefruit: Acreage, Yield, and Production



Florida's bearing acreage has trended upward, going from a low of 98,700 in 1969/70 to a peak of 128,600 in 1982/83. However, bearing acreage was cut back by the four freezes to 105,100 in 1985/86, the lowest since 1970/71. The bearing acreage turned up slightly in 1986/87 to 106,000.

There has been a major shift in Florida's grapefruit acreage, with a heavy increase on the east coast (table 1). Grapefruit acreage there was estimated at 82,382 in 1986, up 36 percent from December 1969 and 8 percent from 1984. The east coast region in 1986 accounted for 70 percent of total Florida grapefruit acreage. Combined acreage of the two leading counties, Indian River and St. Lucia, totaled 71,252 in 1986 and accounted for 86 percent of the acreage in the east coast.

The heavy increase in acreage on the east coast is primarily attributed to lower freeze hazards there and adequate water supplies. However, even with sharply reduced acreage in the other three regions (upper interior, lower interior, and west coast) after the freezes, the heavy increase in the east coast more than offset the deductions, leaving total Florida grapefruit acreage in 1986 up 1 percent from 1985.

During the last 18 years, Texas grapefruit bearing acreage hit its lowest level, 13,500, in 1985/86, because of the 1983 freeze. Texas area peaked at 43,800 acres in 1979/80.

Table 1.--Florida grapefruit: Acreage by regions

Selected years	East coast	Upper interior	Lower interior	West coast	Total
			Acres		
1969 1/	60,597	17,855	36,390	9,208	124,050
1971 1/	62,581	17,459	36,120	7,982	124,142
1973 1/	66,803	17,291	38,621	7,611	130,326
1976 2/	73,445	17,439	39,079	7,946	137,909
1978 2/	73,351	17,046	38,540	7,405	136,342
1980	78,162	16,965	37,669	7,148	139,944
1982	79,066	16,410	37,681	6,782	139,939
1984	76,621	10,560	34,000	4,965	126,146
1985	76,621	2,432	34,000	3,810	116,863
1986	82,382	2,231	29,925	3,307	117,845

1/ As of December. 2/ As of January.

SOURCE: Citrus Summary, Florida Agricultural Statistics, NASS, USDA.

California's grapefruit bearing acreage has been slightly above 20,000 since the late 1970's. However, compared with approximately 13,000 acres in the early 1970's, it has expanded sharply. In Arizona during the last 18 years, bearing acreage has fluctuated from a high of 10,800 in 1977/78 to a low of 5,700 in both 1985/86 and 1986/87.

Yields Fluctuated Widely

During 1969/70–1986/87, U.S. grapefruit yield fluctuated widely. The greatest variations occurred because of weather conditions, particularly freezing temperatures in the 1980's. Nevertheless, with continued improvement in technology and cultural practices, and more trees planted per acre, U.S. yield per acre has sharply increased to a record 17.55 short tons in 1986/87, compared with the lowest yield, 11.36 short tons, recorded in 1983/84 after the freeze. Yield in Florida was generally higher than in California, followed by Arizona and Texas.

Florida yield per acre during the last 18 years fluctuated from a low of 13.02 short tons in 1982/83 to a high of 19.96 in 1986/87. Yields from the 1962 plantings rapidly increased as the trees fully matured in the late 1970's and early 1980's. These mature trees, combined with new technology, improved cultural practices, and ideal weather, kept yields relatively high from 1975/76 through 1979/80. Major freezes occurred in January 1980 and 1981, December 1983, and January 1985, with the severest damage in 1982/83. However, yield per acre has recovered strongly. Florida's average yield was 17 short tons during 1983/84–1986/87, the highest among the four citrus States.

Yield per acre in California during the last 18 years varied from a high of 15.75 in 1977/78 to a low of 9.14 short tons in 1981/82. Yield fluctuated more widely in Arizona than in California, ranging from a high of 16.56 in 1969/70 to a low of 8.05 short tons in 1973/74.

Texas yields hit a record 14.13 short tons per acre in 1976/77, but declined sharply to 2.96 short tons in 1983/84 because of the severe freeze in December 1983. However, yields are recovering, going to 5.7 short tons in 1986/87.

Shifts Occurred in Utilization

Because of the freezes in Florida and Texas in the early 1980's, utilization of

grapefruit for fresh market and processing has been erratic during the last 18 years. Fresh sales fluctuated from a high of 1.3 million short tons in 1975/76 to a low of 897,000 in 1984/85. Even with the large fresh sale in 1975/76, the share of total grapefruit sold fresh was below the highest, which was 52.5 percent in 1982/83.

However, the proportion of grapefruit sold fresh have risen recently because of increased production of pink seedless grapefruit and rising export demand. Consumers prefer pink seedless grapefruit because they perceive it as sweeter. Exports accounted for 37.6 percent of total Florida fresh grapefruit shipments during the 1986/87 season. Comparing the 1969/70–1971/72 average with 1984/85–1986/87, the proportion of grapefruit sales for fresh uses increased from 41.6 to 44.2 percent.

Even with rising export demand for fresh grapefruit, processing use of grapefruit has accounted for more than 50 percent of total sales from 1969/70 to 1986/87, except in 1982/83. Processing use includes frozen, chilled, and canned, but there have been shifts in the relative importance of these items.

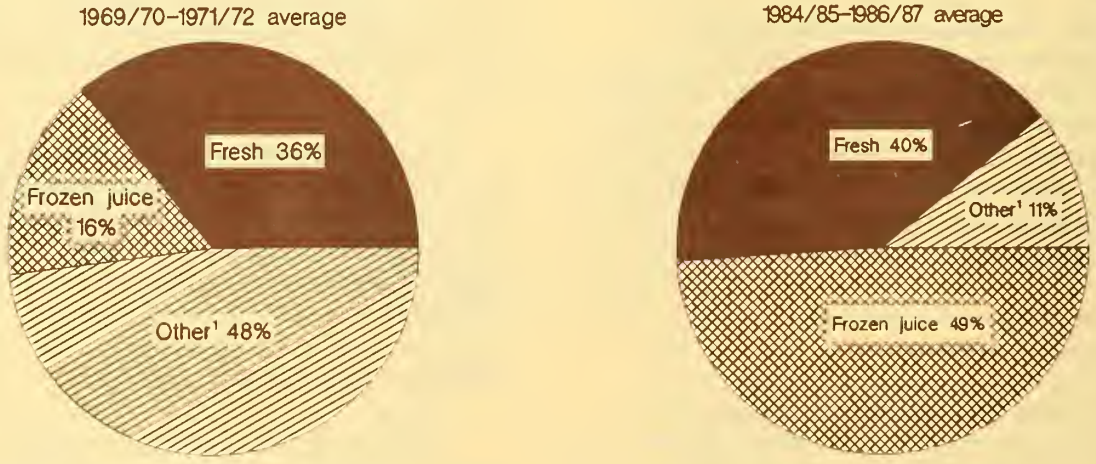
Data on the utilization of these three products are available only for Florida, which produces 70 to 85 percent of the U.S. grapefruit crop and accounts for 80 to 90 percent of processing grapefruit (figure 3). The portion of Florida grapefruit used for frozen concentrated grapefruit juice (FCGJ) continued to increase, from an average of 16 percent in 1969/70–1971/72 to 49 percent in 1984/85–1986/87. The sharp increase for FCGJ is partially due to the greater quantity of FCGJ being turned into reprocessed chilled grapefruit juice. Consequently, the portion of grapefruit for fresh chilled juice was reduced. Because of consumers' increasing preference for FCGJ and chilled juice (both fresh and reprocessed), the use of grapefruit for the other processed products dropped sharply. Comparing 1970–72 with 1985–87, the proportion of grapefruit processed for chilled juice, sections and salads, and canned juice fell from 48 to 11 percent.

Per Capita Consumption Erratic

On a fresh weight equivalent basis, annual per capita grapefruit consumption, fresh and processed, showed erratic movement over the last 18 years (figure 4). Per capita consumption reached a record 21.1 pounds in 1978 and then steadily declined to 12.8 pounds in 1984, after the December 1983 freeze damage. Thereafter, consumption gradually recovered to 16.9 pounds in 1987.

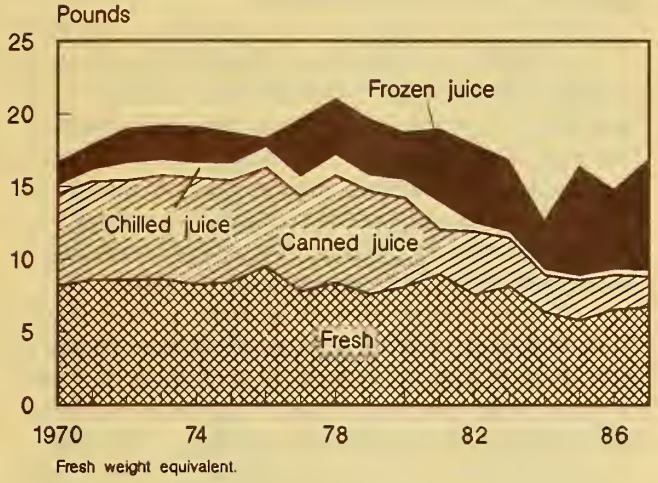
Per capita fresh consumption was relatively level prior to the 1981 freeze. Because of the freeze damage, it fell to its lowest in the last 18 years, 5.7 pounds, in 1985, and then recovered to 6.7 pounds in 1987. Comparing 1970–72 with 1985–87, per capita fresh consumption has declined from 8.4 pounds to 6.3. Consequently, fresh accounted for 39 percent of total per capita

Figure 3
Shares of Utilized Florida Grapefruit



1/ Includes chilled juice, canned juice, and sections and salad.

Figure 4
Per Capita Grapefruit Consumption



Fresh weight equivalent.

grapefruit consumption on a fresh weight equivalent basis in 1985–87. With per capita processed consumption rising from an average of 9.5 pounds in 1970–72 to 9.8 in 1985–87, its share of total grapefruit consumption in fresh weight equivalent increased from 53 to 61 percent.

Of processed items, neither canned nor chilled grapefruit juice (CGJ) experienced any perceptible trend through 1980; since then, a downward trend has become evident for canned single-strength juice. Actual CGJ consumption is larger than the estimates because some FCGJ has been reconstituted into chilled juice. The sharp increases in FCGJ and CGJ consumption have caused canned single-strength grapefruit juice consumption to decrease sharply.

The shift to CGJ and FCGJ consumption (including CGJ reprocessed from FCGJ) is closely associated with changes in consumer taste and preferences and living habits. Consumers are constantly seeking foods that are convenient and time saving, available year-round, and easily substituted for fresh products. The development of convenient packages such as plastic containers and tetra brik aseptic packages has also encouraged consumption. In addition, the availability of more mixed fruit juice containing grapefruit has raised grapefruit juice consumption. Finally, the renewed consumer interest in nutrition and diet foods contributes to the resurgence in grapefruit juice consumption.

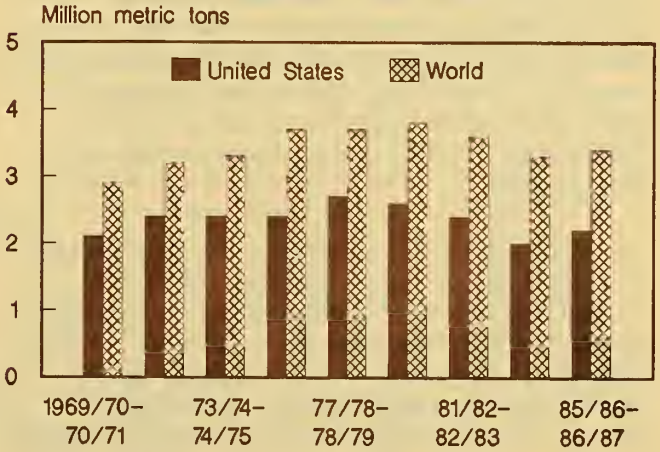
Export Market Strong

World commercial grapefruit production is concentrated in six countries (the United States, Israel, Argentina, South Africa, Cuba, and Mexico), which have accounted for approximately 93 percent of the world total in recent years. Production expanded to 3.94 million metric short tons in 1979/80 from 2.70 million in 1969/70 because of the sharply increased production in Florida and Texas (figure 5). After the freezes, world grapefruit production fell to 2.99 million metric short tons in 1984/85. Production has recovered to 3.55 million in 1986/87, primarily because of increased U.S. output. The United States is the leading producer, but its share of world grapefruit output has dropped from approximately 74 percent in early 1970's to 65 percent in the mid-1980's.

Israel, the second largest producer, has increased its production by 20 percent from 1970–72 to 1985–87. During the same period, Argentina expanded its output by 17 percent, while production in South Africa was practically unchanged. Grapefruit output in Cuba has rapidly increased to 220,000 metric short tons in 1986/87, from 31,000 in 1974/75. Production in Mexico, although relatively small, trended upward through 1979/80, but has fallen significantly in recent years.

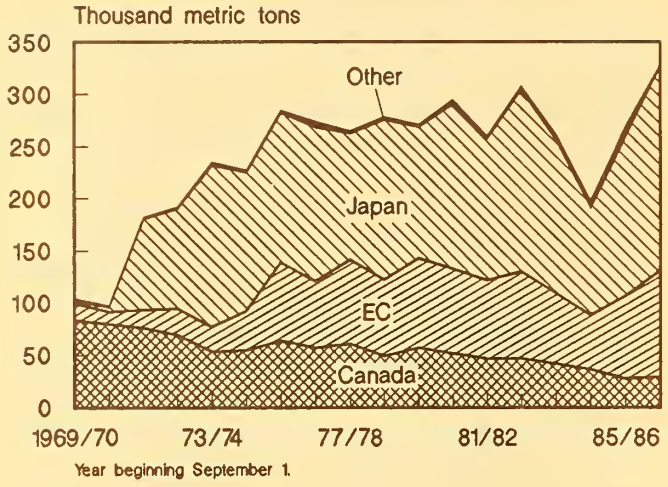
Even though rising production around the world has intensified competition for U.S. grapefruit in world markets, U.S. exports of fresh grapefruit have increased dramatically

Figure 5
World and U.S. Grapefruit Production



Crop year averages.

Figure 6
U.S. Exports of Fresh Grapefruit



during the last 18 years, from 104,436 metric short tons in 1969/70 to 347,316 in 1986/87 (figure 6). Exports accounted for 33 percent of total U.S. fresh grapefruit shipments during the 1986/87 season and are of vital importance to U.S. growers.

The increased exports were mostly attributed to a substantial increase in shipments to Japan, which replaced Canada as the leading U.S. export market after 1971/72. After Japan adopted a liberalized trade policy toward fresh grapefruit imports in 1971, total U.S. exports almost doubled, going from 97,576 to 182,165 metric short tons between 1970/71 and 1971/72.

Since then, exports to all countries have trended upward and reached a record 347,316 metric short tons in 1986/87, accounting for 15 percent of the U.S. grapefruit crop. Exports to Japan also reached a record 195,257 metric short tons in 1986/87, accounting for 56 percent of total grapefruit exports. The weaker dollar and increased promotion under USDA's Targeted Export Assistance (TEA) program have contributed to the record.

Exports to the EC rose from an average of 15,079 metric short tons in 1970–72 to 77,463 in 1985–87. European consumers have developed a preference for U.S. pink grapefruit such as ruby red because of high quality and appearance characteristics. Recent strong promotional activities have also contributed to the increase. France and the Netherlands have been the leading customers, accounting for 80 percent of U.S. grapefruit exports to the EC in 1986/87.

In contrast, exports of fresh grapefruit to Canada have trended downward. After reaching a record 90,647 metric short tons in 1968/69, U.S. exports of fresh grapefruit to Canada fell to 28,368 metric short tons in 1986/87. Canada now accounts for only 8 percent of the total U.S. grapefruit exports, compared with 77 percent in 1969/70.

Fresh grapefruit exports are important to the industry not only because of their direct revenue, but also because of the price effect they have on the domestic market. Without export markets, the equilibrium market price for fresh grapefruit would be lower. The level of the price effect depends on supply and demand conditions in a particular season.

A 1981 study by the Florida Department of Citrus estimated an export market price effect for Florida grapefruit ranging from 9 cents per carton in 1977/78 to 19.3 cents in 1980/81. For Texas producers, this would mean that revenue generated because of export markets ranged from $0.8 million in 1977/78 to $1.3 million in 1980/81. This is in addition to the export revenue generated in the same periods--$8.3 and $7.4 million, respectively (6). These values measure the importance of exports to the Texas grapefruit industry. In recent years, domestic demand for fresh grapefruit has been sluggish, but strong export markets have boosted grapefruit prices.

Exports of processed grapefruit products have shown a mixed performance. Exports of frozen and canned concentrated grapefruit juice have trended upward, while those of canned single-strength juice have trended downward (table 2), as consumers have shown increasing preference for frozen and canned concentrated juice. Additionally, improved distribution, availability of better storage and marketing facilities, and increased advertising and promotion have contributed to rising exports. Comparing 1970-72 with 1985–87, total exports of FCGJ increased from 1.01 million gallons to 10.78 million (single-strength) and canned concentrated grapefruit juice rose from 317,000 gallons to 1.91 million.

Table 2.--U.S. exports of grapefruit juice

Years	Frozen concentrate	Single strength	Canned concentrated
		1,000 gallons	
1970	937	5,990	368
1971	998	4,940	309
1972	1,101	4,982	275
1973	1,428	4,917	377
1974	1,081	5,241	278
1975	1,334	4,645	211
1976	1,328	5,172	319
1977	2,030	5,695	295
1978	4,537	3,700	1,305
1979	5,729	3,803	1,290
1980	12,496	4,061	1,791
1981	14,238	3,650	2,014
1982	12,961	3,196	1,565
1983	10,286	2,710	1,364
1984	12,325	1,713	1,491
1985	10,386	1,568	1,534
1986	8,889	1,635	2,266
1987	12,940	1,987	1,920

SOURCE: Bureau of Census, Department of Commerce.

Canada was the leading U.S market for canned single-strength and concentrated grapefruit juice until 1983 and for FCGJ until 1984. The appreciation of the dollar against Canadian currency probably reduced juice exports in recent years. However, Canada is still a relatively important juice outlet.

On the other hand, in 1984 Japan and the United States formally signed the agreement on liberalizing U.S. grapefruit juice exports to Japan. The Government of Japan eliminated import quotas and licensing requirements on grapefruit juice in April 1986. As a result, Japan has replaced Canada as a leading importer of U.S. frozen and canned concentrated grapefruit juice since 1984. It was also the largest importer of U.S. single-strength grapefruit juice in 1986/87. The share of U.S. canned single-strength exports to Europe has declined.

Grower Prices Strong

On-tree equivalent grower returns for grapefruit have generally increased since 1969/70 (table 3). Annual grower prices are influenced by yearly changes in the size of the grapefruit crop, supplies of competing fruit, cost of production, exports, and population growth, and general economic factors here and abroad such as disposable personal income, unemployment, and the rate of inflation. Regional differences in grower returns (on-tree) are due to crop size, variety, quality, utilization, and cost.

Table 3.--All grapefruit: Equivalent on-tree returns, by States

Season	Florida	California	Texas	Arizona	United States
			$/box		
1969/70	1.70	1.74	1.21	1.92	1.64
1970/71	1.91	2.52	1.20	.84	1.80
1971/72	2.32	2.42	1.86	1.44	2.23
1972/73	2.08	1.95	1.80	1.22	1.98
1973/74	1.66	1.87	1.31	1.34	1.61
1974/75	1.72	1.60	1.95	1.40	1.72
1975/76	1.47	1.27	1.36	.76	1.40
1976/77	1.58	1.38	1.34	.99	1.49
1977/78	1.64	2.24	.95	.44	1.55
1978/79	2.41	3.70	1.26	1.69	2.35
1979/80	3.31	1.82	2.59	1.49	3.01
1980/81	3.60	3.33	3.27	2.72	3.50
1981/82	2.09	1.85	1.89	1.01	1.99
1982/83	1.96	1.94	1.26	1.11	1.79
1983/84	2.72	2.83	2.03	2.54	2.68
1984/85	3.67	5.63	(2)	4.18	4.01
1985/86	4.09	5.93	8.44	3.35	4.29
1986/87 1/	4.96	5.07	7.02	3.53	5.00

1/ Preliminary. 2/ Because of the severe freeze of December 1983, no commercial supplies were harvested for the 1984/85 crop.

SOURCE: Agricultural Prices, NASS, USDA.

During the last several years, on-tree returns for grapefruit have been strong, reflecting the sharply reduced output in Texas and strong export demand. From 1970-72 to 1985-87, the on-tree return equivalent for grapefruit for all sales (fresh and processing) rose 134 percent. On-tree returns for U.S. grapefruit for all uses averaged a record $5.00 a box in 1986/87. Grapefruit used for fresh sales returned an average on-tree value of $6.35 a box, while processing grapefruit yielded $3.81 a box. Grapefruit consumed fresh consistently sold at a substantial premium over those for processing, in part influenced by strong export markets and the depreciation of the dollar.

There are large differences among producing States with respect to the level of on-tree grapefruit returns. Florida fresh market on-tree returns for grapefruit are generally higher than those for Texas fresh grapefruit. Lower Texas on-tree value is probably due to the higher costs attributed to the packinghouse. Additionally, Texas clearly has some marketing inefficiency at the shipping point.

On the other hand, Florida has a longer marketing season, apparently benefiting from strengthening prices at the end of the season. However, on-tree returns for California fresh grapefruit are generally above Florida's. The principal reason is that a larger share of California's fresh grapefruit is marketed during the summer, which is off-season for Florida grapefruit shippers. Thus, less competition and a small quantity of grapefruit available for the fresh market contribute to higher on-tree returns for California fresh grapefruit. The marketing season for Arizona fresh grapefruit is generally similar to California's Desert Valley crop and its prices move with those of California.

In general, grapefruit on-tree returns for processing use are higher in Florida than in other producing States, mainly because of better quality and stronger processor demand. On-tree returns for processing grapefruit in Arizona and California are low because grapefruit used for processing are generally considered as little more than a salvage operation. However, in Texas, some grapefruit goes to processing outlets, but packer demand is still not very significant. Consequently, Texas's grapefruit on-tree returns for processing use have generally been below Florida's levels. But there was a marked similarity in the movement of on-tree returns between fresh market and processing use for all producing States.

Prospects Good

The grapefruit industry will face many changes during the next several years. Total U.S. production is expected to recover gradually. Based on a grapefruit tree survey since the freezes in Florida and Texas, the bearing acreage is expected to continue to increase. The survey also indicated that more trees are being planted per acre. Consequently, with continued improvement in technology and cultural practices, yield per acre is expected to increase. Thus, more grapefruit output undoubtedly will occur in the absence of severe weather.

In Florida, the rate of increase in grapefruit production in the Indian River region will be faster than in the interior region because the Indian River trees are younger. As of 1986, about 29 percent of the grapefruit trees in the Indian River region were 9 years old or younger, representing a large part of potential future production, compared with 19 percent in the interior region. In addition, there were more than twice as many trees in the Indian River region as in the interior region in 1986.

According to the Florida Department of Citrus, the trends present in Florida grapefruit production are expected to persist at least through the mid-1990's (4). Based on their long-term forecast, pink seedless production is expected to expand by 8.6 million boxes from 1987/88 to 1996/97. White seedless production is forecast to rise 2.7 million boxes over the same period, while seedy production could fall by another 0.6 million boxes. By 1996/97, Florida grapefruit production could easily exceed 60 million boxes, based upon current production trends. This compares with the record production of 54.8 million in 1979/80 and 52.8 million in 1987/88.

Texas, which disappeared completely from the commercial grapefruit market in 1984/85, has harvested more grapefruit every season since and should see dramatic increases in production both from recovering trees and from new plantings.

In its new plantings, Texas has been looking for improved red varieties which have a deep red interior color that can be maintained throughout the season. First of these was the star ruby, which satisfied the color requirements but had serious drawbacks from the standpoint of maintaining tree health and good production. Now such strains as the henderson/ray and more recently the rio red, selected from the older, more prolific red grapefruit lines of Texas, promise answers to the problems of their predecessors.

According to the recent Texas citrus tree survey, the new plantings after the December 1983 freeze totaled 5,000 acres (trees 1 to 3 years old) as of March 1, 1987. Of this, 4,000 acres are redder varieties including star ruby, henderson/ray, and rio red. The survey also showed that the net acres of all grapefruit totaled 18,500, but the trees below 11 years old accounted for 62 percent of the total. These young trees represent a large part of potential future production. Industry observers suggest that annual Texas grapefruit production could return to 7 to 10 million boxes by the mid-1990's. This compares with

the prefreeze level of 13.9 million boxes in 1982/83 and only 3.8 million estimated for the 1987/88 crop.

In view of the current bearing acreage, grapefruit production in Arizona and California is likely to rise relatively little in the years ahead.

The total demand for grapefruit will expand in the years ahead mainly because of population growth and continued gains in disposable personal income. Consumer demand for fresh grapefruit is likely to fluctuate within a narrow range because of the continued shift to processed grapefruit items and relatively strong prices even with increased supplies in prospect.

Any gains in per capita consumption will be in processed products. The greater employment of women and the desire for more leisure time will contribute to the growing demand for FCGJ and CGJ. In addition, the increased introduction of mixed fruit juice will boost grapefruit juice consumption. Some of the mixed fruit juices are from FCGJ, which is often packed in bulk containers that are generally used for mixing. FCGJ will continue as a leading item, but CGJ is expected to continue to gain in importance because some portions of CGJ consumed are from reconstituted FCGJ. The recent innovations in tetra brik aseptic packaging will add further convenience, which will also enhance CGJ sales. Consumption of canned grapefruit juice and other grapefruit products will probably remain insignificant.

Changes in consumption patterns will influence the use of grapefruit. Florida grapefruit will continue to dominate processing use, while Texas grapefruit will be marketed mostly fresh because these new varieties of pink and red grapefruit will appeal to consumers. With the small available supplies of fresh grapefruit in the summer, more California–Arizona grapefruit will be sold fresh. Among processing uses, since FCGJ will remain as a leading product, a larger portion of Florida grapefruit will be processed for FCGJ. With more FCGJ reconstituted to CGJ, the proportion of Florida grapefruit directly processed for CGJ is likely to fall.

The outlook for fresh grapefruit exports is promising, and future growth is expected to come from new and larger export markets. The increases in exports to Japan are likely to continue as the United States and Japan have recently signed a trade agreement--effective April 1, 1989, tariffs on fresh grapefruit will be reduced from 25 percent in season and 12 percent off season to 15 percent in season and 10 percent off season. Effective April 1, 1990, Japan will further reduce the tariff on grapefruit in season to 10 percent. The weak U.S. dollar will also continue to enhance demand. With cooperative promotional efforts and trade bargaining, the Far East markets, particularly Hong Kong, Taiwan, Korea, and Singapore, are encouraging. Prospects for higher personal income, increased population, and improved living standards in that part of the world are likely to enhance U.S. exports.

Even though U.S. grapefruit faces increasing competition in Western Europe from the Mediterranean producing countries, the weak dollar and the EC's preferences for U.S. pink grapefruit are likely to keep the U.S. grapefruit market there relatively strong.

There is a possibility of expanding the U.S. fresh grapefruit market into Eastern Europe, despite the Cuban dominance of that market. Approximately 90 to 95 percent of Cuba's citrus exports are shipped to trade partners in the Council for Mutual Economic Assistance, which includes Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, the People's Republic of Mongolia, the Soviet Union, and Vietnam. The USSR, the German Democratic Republic, and Czechoslovakia take the largest deliveries.

On the other hand, in the Canadian market, U.S. grapefruit prospects are relatively weak because of increasing competition from South Africa and the developing countries, such as Argentina, Cuba, and Mexico, and the appreciation of the U.S. dollar against the Canadian.

Exports of U.S. processed grapefruit juice are also expected to expand in the years ahead. The United States is producing not only more grapefruit than any other country, but more processed products. Higher consumer incomes, increasing awareness and

acceptance of grapefruit products, and improved storage and distribution systems abroad are expected to contribute to larger exports. The weak dollar and promotion under USDA's Targeted Export Assistance program with the industry will further expand U.S. markets for processed grapefruit juice in the Pacific Rim region. Japan is likely to continue to be the major U.S. market. In the Canadian market, since the competition for U.S. processed grapefruit products is much less than that for frozen concentrated orange juice, the potential for expanding U.S. grapefruit juice is good. Israel, the United States' principal competitor for grapefruit juice in EC markets, relies most heavily on the fresh market. Consequently, further expansion for U.S. grapefruit juice in EC markets, particularly West Germany, is also anticipated.

Ultimately, export demand will depend on a favorable exchange rate, industry marketing efforts, and trade bargaining and liberalization efforts.

With the anticipation of only moderately increased grapefruit production and strong export demand, processors will aggressively compete with fresh fruit packers to secure enough fruit to satisfy processing needs. Prices are expected to remain relatively high for the next several years.

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U.S. PRICES, COSTS, AND SPREADS FOR CALIFORNIA FRESH ORANGES AND FLORIDA FROZEN CONCENTRATED ORANGE JUICE, 1980–87

by

Joan Pearrow *

ABSTRACT: Since 1980 the U.S. orange industry has seen four Florida freezes, increased imports of frozen concentrated orange juice, and greater marketing costs. Prices along the marketing chain have risen at each pricing level, and the price spread between retailers and growers has widened by more than $4.00 for both a 37.5–pound carton of California fresh oranges and a 24/12 ounce case of Florida FCOJ.

KEYWORDS: Oranges, fresh fruit, frozen concentrate, retail, wholesale, shipping point, processor, grower, and price spread.

U.S. oranges are grown mainly in Florida, California, Arizona, and Texas. Florida, the largest producing State, accounts for almost 70 percent of the U.S. orange crop. Most of the Florida crop is for processing. FCOJ accounts for over 80 percent of the oranges processed in Florida. California, the second largest orange–producing State, leads in orange output for fresh use and annually accounted for 14 to 25 percent of the total U.S. crop during 1980–87.

Since 1980, U.S. per capita consumption of fresh oranges has been affected by four Florida freezes (1980/81, 1981/82, 1983/84, and 1984/85 crop years). Per capita consumption in each of those years averaged 13 pounds, compared with 15 pounds in the nonfreeze years. Consumption of FCOJ declined during the 1980/81 and 1983/84 freeze years. During the other two, higher imports helped to keep consumption high.

Even with some downward fluctuations, due in part to freeze damage, retail prices have trended upward for both California fresh oranges and Florida FCOJ. In 1980, consumers paid an average of 36 cents for a pound of fresh California oranges, compared with 55 cents in 1987. Retail prices for a 12–ounce can of FCOJ were highest in 1985, reaching $1.32 (table 1).

Table 1.--U.S. retail price for fresh oranges and frozen concentrated orange juice

Year	Fresh oranges	FCOJ
	Cents per pound	Cents per 12–ounce can
1980	36.0	87.5
1981	39.5	102.0
1982	47.6	106.1
1983	38.7	104.4
1984	49.9	121.9
1985	53.4	131.6
1986	47.6	107.1
1987	55.0	111.3

Source: Commodity Economics Division, ERS, USDA.

This article discusses the procedure for calculating price spreads and compares prices and spreads for fresh California oranges and Florida FCOJ during 1980–87.

California Fresh Oranges

Fresh Oranges Priced at Five Levels

For this study California fresh oranges were priced at five levels--retail, wholesale, f.o.b shipping point, packing–house door (PHD), and on–tree. Prices and spreads are for valencia and navel oranges sold in 37.5–pound cartons in four marketing areas (Northeast, North Central, South, and West).

Retail prices used were reported monthly by the Bureau of Labor Statistics for the four

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marketing areas. Retail value of a 37.5-pound carton of oranges is the return to the retailer for salable oranges (retail price adjusted to allow for 3-percent loss incurred during marketing). Wholesale prices used are the average price of a carton of oranges sold in wholesale markets in New York City, Chicago, Atlanta, and Los Angeles on Monday, Tuesday, or Wednesday of the first full week of the month.

F.o.b. shipping point prices used are weekly per-carton averages that shippers received during the first full week of the month. Wholesale prices are reported by the Agricultural Marketing Service; USDA and f.o.b. shipping point prices are reported weekly by the Valencia and Navel Administrative Committees. PHD and on-tree prices are per field box converted to a 37.5-pound carton. Field box prices are reported by the National Agricultural Statistics Service (NASS), USDA.

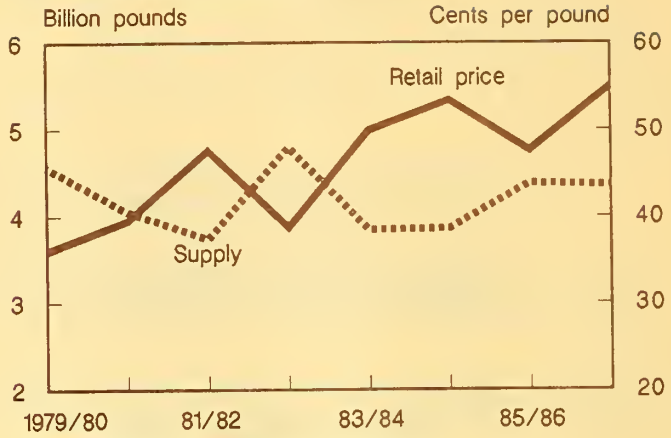
Annual average retail, wholesale, and f.o.b. shipping point prices for each marketing area are derived from the monthly average prices weighted by the monthly carlot arrivals of California oranges in New York City, Chicago, Atlanta, and Los Angeles. When a monthly price is not available, that month is excluded from the annual average. The U.S annual average is then calculated as a simple average of the four marketing areas. Annual PHD and on-tree prices are a simple average of the monthly price per carton.

The spread for packing is derived by subtracting the PHD price from the f.o.b. shipping point price. The picking and hauling spread equals the PHD price minus the on-tree price. Transportation cost from shipping point to the wholesale market and wholesaling cost by primary wholesalers in the market comprise the shipping point-wholesale spread (wholesale price minus the f.o.b. shipping point price). The wholesale-retail spread is retail value less wholesale price. This spread represents payment received by retailers, intracity transporters, and secondary wholesalers.

Prices on the Rise

Retail prices for California fresh oranges have responded to changes in U.S. total supply since 1980, rising when supply is down and

Figure 1
Supply and Retail Price of U.S. Fresh Oranges



Retail prices are for calendar years 1980-87; supply is for crop years 1979/80-1986/87.

falling when supply is up. In 1985, supply remained almost the same as in 1984, but retail price increased 7 percent (figure 1). Increased exports of fresh oranges and reduction in California production in 1987 brought the 1987 retail price to 55 cents per pound, its highest in the 1980's.

Increases since 1980 at the five pricing levels have been substantial. By 1987, retailers received $6.91 more per carton and growers received $2.62 more. The largest percentage increase was at the PHD and on-tree levels, both more than doubling by 1987. Retail value increased 53 percent and wholesale prices 58 percent. Prices at shipping point increased the least, 42 percent (table 2).

On-Tree to Retail Spread Widens

The on-tree-retail spread for fresh oranges has widened over 1985-87, averaging $14.76, compared with $11.72 for 1980-84. Most of the increase has appeared in the wholesale-retail spread. The f.o.b. shipping point-wholesale spread has steadily trended upward, from $2.98 to $5.51. Packing spreads per carton of oranges are down, dropping from $2.55 in 1980 to $1.93 in 1987. Picking and hauling spreads have ranged between 70 and 87 cents a carton (table 2).

Over the past 8 years, the shares of retail value accounted for by the picking and hauling spread, the wholesale-retail spread, and the

Table 2.--U.S. average prices and marketing spreads for California fresh oranges, 1980-87 1/

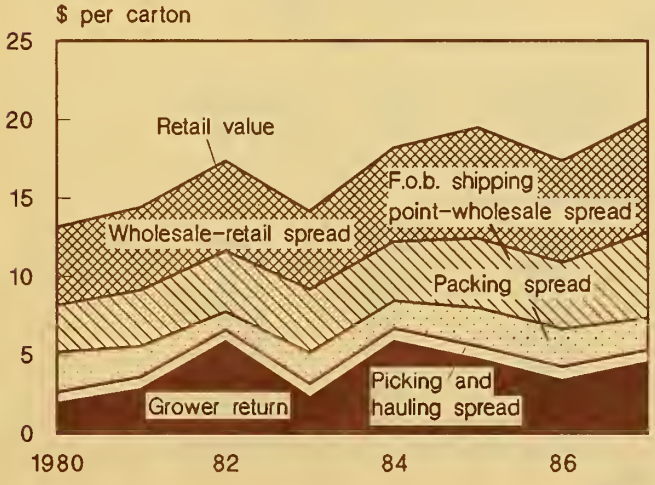
Calendar year	Retail value 2/	Price				On-tree-retail spread			
		Wholesale	F.o.b. shipping point	PHD (farm value) 3/4/	On-tree (grower return) 4/	Wholesale-retail	F.o.b. shipping point-wholesale	Packing	Picking and hauling
	$/37.5-pound carton								
1980	13.10	8.11	5.12	2.57	1.87	4.99	2.99	2.55	0.70
1981	14.37	9.07	5.49	3.52	2.79	5.30	3.58	1.97	.73
1982	17.31	11.56	7.69	6.54	5.76	5.75	3.87	1.15	.78
1983	14.08	9.11	5.07	3.08	2.21	4.97	4.04	1.99	.87
1984	18.15	12.14	8.38	6.62	5.79	6.01	3.76	1.76	.83
1985	19.42	12.37	7.94	5.50	4.66	7.05	4.43	2.44	.84
1986	17.31	10.82	6.57	4.17	3.32	6.49	4.25	2.40	.85
1987	20.01	12.77	7.26	5.33	4.49	7.24	5.51	1.93	.84

1/ Navel and valencia oranges, all sizes. 2/ Adjusted to allow for 3-percent loss incurred during marketing. 3/ PHD=packing-house door. 4/PHD and on-tree prices are calculated from monthly prices for California, all oranges, reported in Agricultural Prices, NASS, USDA.

Source: Commodity Economics Division, ERS, USDA.

f.o.b. shipping point-wholesale spread have varied little. Retailers, intracity transporters, and secondary wholesalers of California fresh oranges received the biggest share, averaging 36 percent. Transportation to the wholesale market and primary wholesaling received the second largest share, averaging 24 percent. Picking and hauling received the smallest, averaging 5 percent. During the same period, shares for packing and grower return fluctuated. The grower return share was highest during the freeze years, reaching 33 percent in 1982, and averaged 23 percent for the 8-year period. The packing spread share averaged 13 percent (figure 2).

Figure 2
Marketing Spreads for California Fresh Oranges



Frozen Concentrated Orange Juice

Florida FCOJ Priced at Three Levels

For this study Florida FCOJ was priced at three levels--retail, f.o.b. processor, and farm. Farm value includes picking and hauling and is equivalent to the PHD return. Retail prices used are for a 12-ounce can equivalent and are reported every 2 months by the Florida Department of Citrus. Prices sampled are for all stores, including supermarkets. F.o.b. processor prices are for the first full week of the month and are reported in *The Food Institute Report*, American Institute of Food Distribution, Inc. F.o.b. processor prices are for a case of 24/12-ounce cans listed by private labels, Florida packers.

Farm value is derived from the gallons of juice yielded per field box, as reported by USDA, NASS, and from the season average price per field box reported by the Florida Citrus Processors Association. Gallons per field box are converted to ounces per field box (1 gallon equals 128 ounces). The proportion of a field box to pack a 24/12-ounce can case of FCOJ is then calculated (288 ounces divided by ounces per field box). This proportion times the season average price equals farm value. Transportation cost is a simple average of truck rates from Lake Wales, Florida, to New York City, Atlanta, Chicago, and Los Angeles

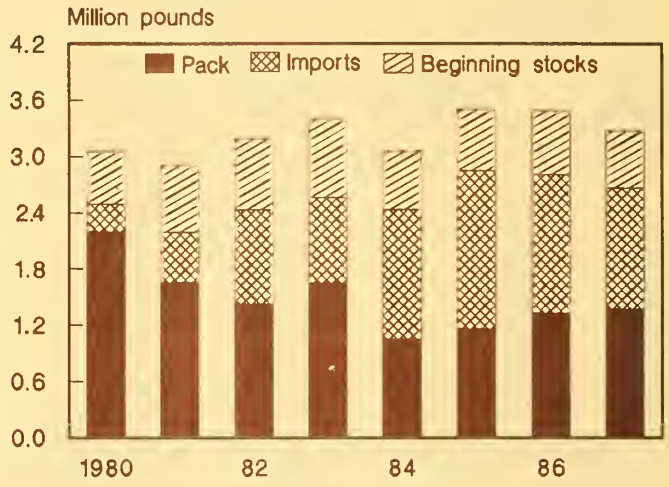
Annual average for retail, f.o.b. processor, and farm prices is a simple average calculated from prices posted every 2 months. The processing spread is derived by subtracting farm value from the f.o.b. processor price. A delivered city price is calculated by adding transportation costs to the f.o.b. processor price. Wholesaling or brokerage, intracity transportation, and retailing make up the delivered city–retail spread. This spread is derived by subtracting the delivered city price from the retail price.

Florida Pack Down, Prices Up

Because of the freezes, Florida FCOJ pack has decreased from a record 256 million gallons in 1979/80 to 145 million in 1986/87. To support the domestic demand, imports have increased significantly (figure 3). During 1980–87, imports increased over 300 percent, while the total supply increased only 7 percent. In response to the reduced pack, retail prices of FCOJ increased to a record $1.32 for a 12–ounce can in 1985, from 87.5 cents in 1980 (table 1).

Since 1980, prices at the other two marketing levels have also increased. Both retail value and the f.o.b. processor price for a case of 24/12–ounce cans of FCOJ increased $5.71. However, the percent of increase was greater for the f.o.b. processor price (49 percent) than for the retail (27). Farm value increased the least, only $1.29, and represented 41 percent of retail value in 1980, but 37 percent in 1987 (table 3).

Figure 3
U.S. FCOJ Supply



Processing Share of Farm to Retail Spread Increases

Per case, the farm–retail spread rose from $12.31 in 1980 to $16.73 in 1987. Processing contributed the most to the increase, climbing $4.42 per case. The cost for transporting FCOJ steadily trended upward, increasing 30 percent. After reaching an alltime high of $11.44 in 1985, the delivered city–retail spread dropped to $8.45 per case in 1987, 21 cents less than in 1980 (table 3).

Farmers received the largest share of retail value. During the 8–year period, farm value averaged 41 percent of retail value, the

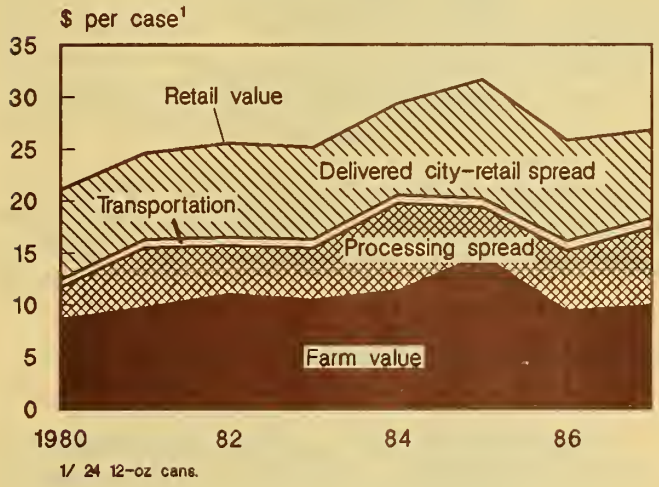
Table 3.--U.S. average prices and marketing spreads for Florida FCOJ, 1980–87

Calendar year	Retail value	Price		Farm value 1/	Farm-retail spread		
		Delivered city	F.o.b. processor		Delivered city-retail spread	Transportation costs	Processing spread
	$ per 24/12–ounce can case						
1980	21.00	12.34	11.62	8.69	8.66	0.72	2.93
1981	24.48	16.22	15.43	9.84	8.26	.79	5.59
1982	25.46	16.39	15.58	11.11	9.07	.81	4.47
1983	25.06	16.22	15.38	10.56	8.84	.84	4.82
1984	29.26	20.47	19.63	11.42	8.79	.84	8.21
1985	31.58	20.14	19.30	14.86	11.44	.84	4.44
1986	25.70	16.01	15.07	9.50	9.69	.94	5.57
1987	26.71	18.26	17.33	9.98	8.45	.93	7.35

1/Includes picking and hauling.
Source: Commodity Economics Division, ERS, USDA.

delivered city–retail spread 35 percent, the processing spread 21 percent, and transportation costs 3 percent. Because of the higher processing spread, the processing share of retail value increased from 14 percent in 1980 to 28 in 1987 (figure 4).

Figure 4
Marketing Spreads for Florida FCOJ



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SEASONAL FARM PRICE PATTERNS FOR SELECTED U.S. FRUIT CROPS

by

Boyd M. Buxton*

ABSTRACT: Trend, cyclical, and irregular price movements are removed from the monthly prices received by farmers for selected fruit in order to estimate the seasonal price pattern that occurs regularly within a year. Results show generally strong seasonal price patterns for grapefruit, lemons, limes, strawberries, and pears. A weaker seasonal price pattern was estimated for oranges and apples. Changes in individual fruit prices are generally independent of changes in other fruit prices, suggesting quite separate supply and demand conditions and markets among fruit commodities. During 1981–87, the all–use fruit and fresh fruit indices of prices received by farmers were more influenced by the wide fluctuations in orange prices than by the prices of the six other fruit commodities represented in the indices.

KEYWORDS: Fruit prices, seasonal price patterns, price analysis.

The prices growers receive over time reflect trend, cyclical, seasonal, and irregular components. This paper removes trend and cyclical price changes from monthly grower prices of selected fruits so that seasonal price patterns can be approximated. The all–use fruit price index is described and its seasonal price pattern estimated.

Isolating the normal seasonal price pattern for commodities is helpful for both producers and commodity analysts. If producers are aware of seasonal price movements, they may be able to improve their marketing strategies and evaluate the current market situation more accurately. Storability and other individual characteristics such as harvesting dates tend to limit the marketing strategy for farmers. However, with information on usual seasonal price patterns, farmers may improve their profits by marketing commodities when prices are highest. Information on seasonal price patterns helps commodity analysts understand current prices and make short–run price projections.

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Estimating past seasonal price behavior does not explain why specific price changes occur. This is beyond the scope of this paper. However, seasonal price patterns implicitly reflect the recurring underlying factors that help predict regular and likely price changes.

Factors that determine trend—the longer term upward, downward, or constant direction of prices—may include general inflation, changes in production efficiency due to advances in technology or management practices, relative expansion or contraction of demand due to changes in population and per capita income, Government price support programs, Federal marketing orders, and competitive pressure from imports.

Cyclical price movements are those that repeat themselves for periods of more than a year. Cyclical price patterns usually occur because of lags from the time the decision to produce a commodity is made until the crop is harvested. Because growers make production decisions for future years based on current or expected prices, and because there is a biological lag between planting decisions and actual production, cyclical price patterns can emerge for many fruit crops. Crops that are planted annually, such as cauliflower or carrots, might be expected to show shorter cyclical price patterns than perennial crops, such as apples or oranges, where several years are required between planting and harvest.

The seasonal price movements are those that occur regularly within a year. Some commodities have strong seasonal price movements while others do not. Seasonal patterns tend to emerge when supply or consumption is concentrated during part of the year. Seasonal price patterns would be different for crops that can be harvested year-round than for crops whose harvest is limited to one period during the year. Seasonal prices may reflect storage costs from the date of harvest until the product is shipped to market and, in some cases, Federal marketing order policies.

Irregular price movements are random and caused by short-term shifts in supply or demand. Weather and other shocks introduce irregular movements of price over time.

Procedures

Monthly prices for selected fruits were analyzed for 1981-87.1/ This provided seven seasons of data from which a seasonal price index was estimated for each commodity. Trend and cyclical price movements during 1981-87 were removed from the actual price series by dividing each monthly price by its centered 12-month moving average.2/ The seven ratios of a given month's price to its corresponding moving average (multiplied by 100) over 1981-87 were averaged to determine the seasonal index for that month. The index indicates if the actual price was generally above (more than 100), below (less than 100), or the same (equal to 100) as the centered moving average for that month. The variability of the ratios calculated for each month indicates the irregular price changes and whether the seasonal index was weak or strong.

1/ Monthly prices are those reported by the National Agricultural Statistics Service, U.S. Department of Agriculture.

2/ Houck, James P., "Seasonal Behavior of Minnesota Farm Prices," *Minnesota Agricultural Economist*, No. 561, Nov. 1974. For commodities where farm prices are reported for only part of the year, a centered moving average based on the number of months corresponding to the length of the season is used, leaving out months where price is usually not reported.

The seasonal index was graphed for the entire season with a "band of irregularity" about the index based on plus and minus one standard deviation about the index. The intrepretation of the band of irregularity is that two-thirds of the ratios for each month's price to its corresponding centered moving average would be expected to fall in that band. The 1981-87 period probably is too short to capture true cyclical price movements for most fruits that require years between planting decisions and harvesting a crop. The cyclical measure estimates can be viewed as accounting for price movements recurring for periods of more than a year.

Citrus Fruit

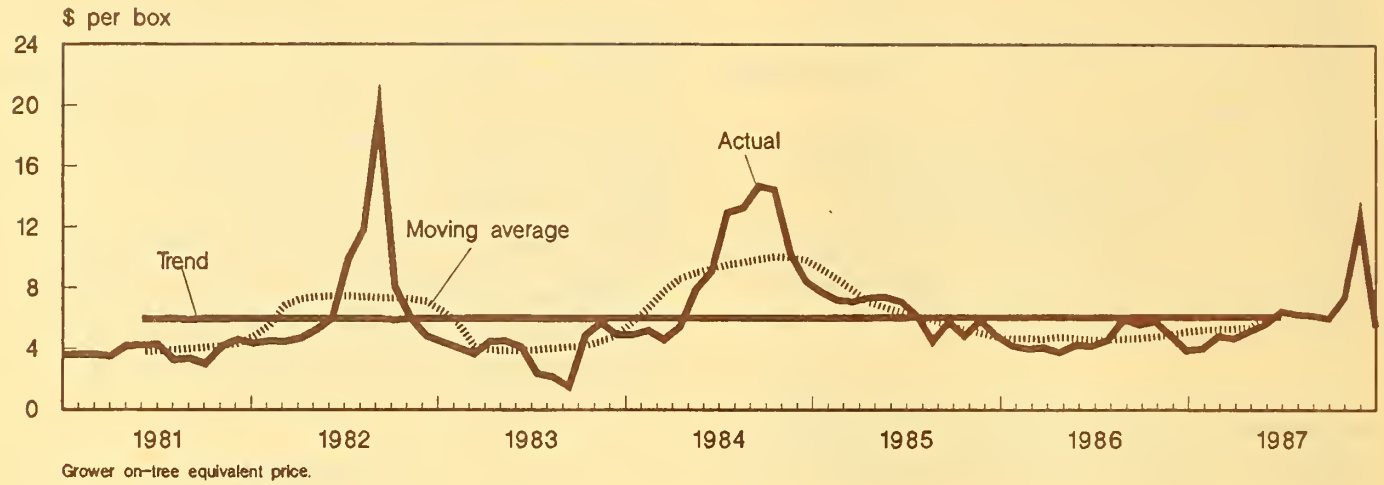
In 1987, citrus production was valued at about $2 billion. Of the $2 billion, 63 percent was from oranges, 21 percent from grapefruit, 9 percent from lemons, and the remaining 7 percent from limes, tangerines, tangelos, and temples.

Oranges

For the 1986/87 crop season, about 98 percent of the total value of U.S. orange production came from two States: Florida (65 percent) and California (33 percent). The remaining 2 percent came from Arizona and Texas. The National Agricultural Statistics Service (NASS) reports a monthly all-orange price received by U.S. growers that is a weighted average of California navel and valencia oranges and Florida early, mid-season, and valencia oranges. Seasonal price patterns are estimated for the all-use U.S. on-tree equivalent orange price and for each of the major orange types in Florida and California.

The U.S. all-orange price was about flat during 1981-87 despite strong domestic and export demand, four major freezes in Florida, and a major freeze in Texas (figure 1). Large run-ups in price occurred in 1982, 1984, and again in 1987, causing a marked 2- to 3-year cyclical pattern in the 12-month moving average. This cyclical pattern is probably related more to irregular freezing weather and imports of frozen concentrated orange juice than to the biological lag between planting trees and harvesting the first production.

Figure 1
U.S. All Orange Prices

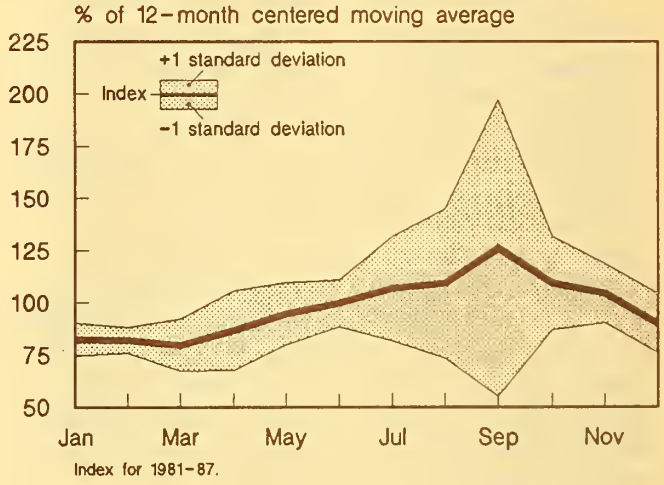


Grower on-tree equivalent price.

The estimated seasonal price pattern for oranges shows a minimum index of 80 in March and a month-to-month increase in the seasonal index until it reaches 126 in September (figure 2). The band of irregularity rapidly widens beginning in June, and by September the seasonal index pattern is extremely weak. Thus, the orange price in September is quite uncertain as it may be seasonally very high or very low even though the general tendency is for it to be at a seasonal peak.

Total orange shipments are usually lowest in August and September just before the beginning of the navel and early orange crop harvest in October in California, Florida, Arizona, and Texas (table 1). By the end of

Figure 2
Seasonal Price Index: U.S. All Oranges



Index for 1981-87.

Table 1.--Supply distribution for selected fruits by month 1/

Commodity	Distribution of shipments												Annual total
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
	Percent												Million pounds
Apples	9	10	11	10	9	7	5	4	7	9	9	10	4,250
Grapefruit	11	12	13	12	10	6	4	3	4	7	9	9	1,750
Lemons	8	7	9	9	10	10	10	9	7	7	7	7	500
Limes	6	5	6	7	8	10	12	11	10	9	7	7	105
Oranges	10	11	13	13	11	7	5	3	4	5	7	11	3,500
Pears	9	8	7	7	6	4	3	8	14	15	10	9	650
Strawberries	1	4	10	21	24	16	9	6	5	2	1	1	575

1/ The figures represent the monthly availability of the commodities listed as a percentage of the total annual supply. The figure at the end of each row reflects the annual total supply in millions of pounds. The figures were derived from 5 years of statistics (1980 through 1984) originating mostly from the U.S. Department of Agriculture. The chart was developed by the United Fresh Fruit and Vegetable Association.

the navel season in March or April, the valencia season becomes active. The price of oranges in August and September then reflects the remaining supply of the California valencia crop, as the Florida valencia harvest usually ends in June.

California navel oranges.-- The heaviest harvest season for California navel oranges is from November through May. Grower prices for navels start the season high and decline steadily until April, then rise slightly in May (figure 3). However, the seasonal pattern is very weak because the band of irregularity widens rapidly as the season comes to an end in April and May. This seasonal pattern suggests a strong incentive for growers to market oranges early in the season. The quantity of oranges available for market early in the season in restricted by the rate at which the crop matures. This limited supply relative to demand contributes to relatively high prices early in the season. Later in the season, after most of the crop is mature, the California/Arizona navel marketing order may help stabilize grower prices by providing for an even flow of oranges to the market.

California valencia oranges.--The heaviest harvest season for California valencias is from February to October. This season overlaps with the navel harvest season from February through May. The beginning of the valencia season may depress prices for late-season navel oranges. However, the seasonal price index generally rises throughout the valencia season, although it weakens considerably at the end. This weakening is suggested by the dramatic widening of the band of irregularity beginning in September and is really evident in the extremely wide variability in October (figure 4).

Grapefruit

For the 1986/87 crop year, Florida accounted for about 79 percent of the total value of U.S. grapefruit production. California accounted for just over 14 percent, with Texas and Arizona making up the remaining 7 percent. A monthly all-U.S. grapefruit price received by growers is reported by NASS.

The U.S. all-grapefruit price trended up sharply from 1981 to 1987 with wider fluctuations during the last 3 years than during

Figure 3
Seasonal Price Index: California Navel Oranges

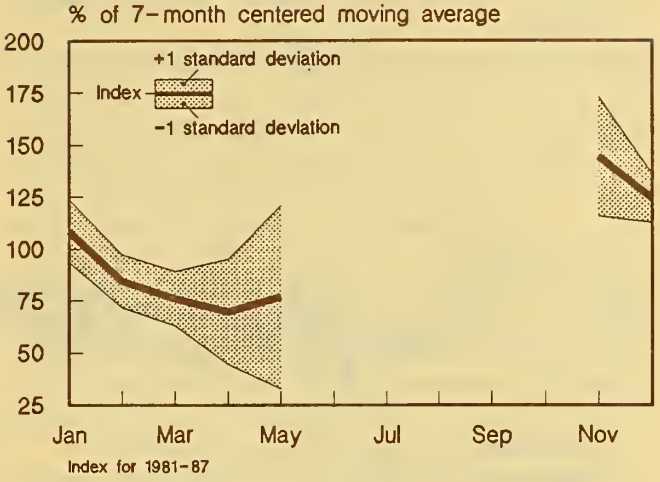
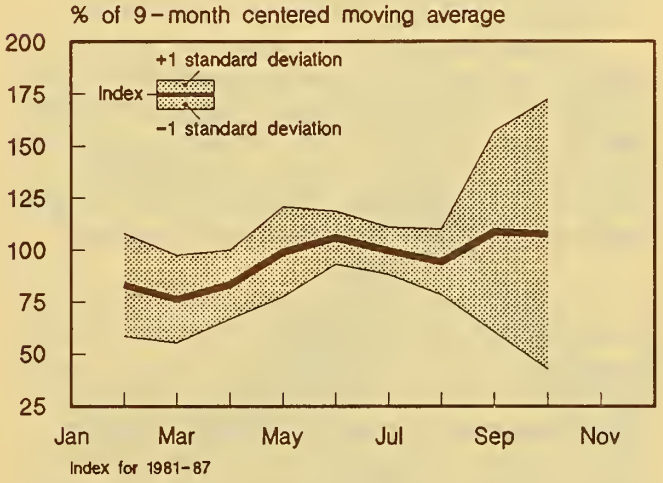


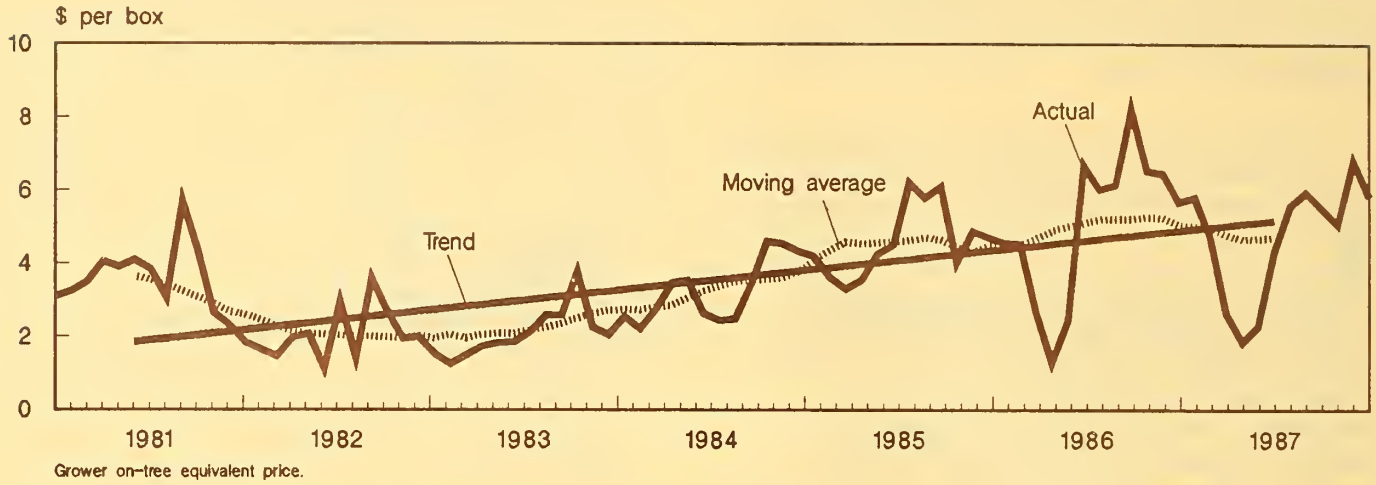
Figure 4
Seasonal Price Index: California Valencia Oranges



the first 4 (figure 5). The cyclical pattern of the 12-month moving average price is not synchronized with those observed for oranges.

The estimated seasonal price index for grapefruit shows a minimum index of 70 in March and a season high index of 142 in September (figure 6). Although the index closely coincides with that for oranges, it is a stronger seasonal pattern as indicated by the wider fluctuation from high to low and the somewhat constant band of irregularity about the index. Seasonally high prices are much more likely in September and October for grapefruit than for oranges. Starting in September, prices usually drop every month until March. This period corresponds to the heaviest marketing season. As supplies decline seasonally, beginning about March, prices rise seasonally until they are highest

Figure 5
U.S. All Grapefruit Prices



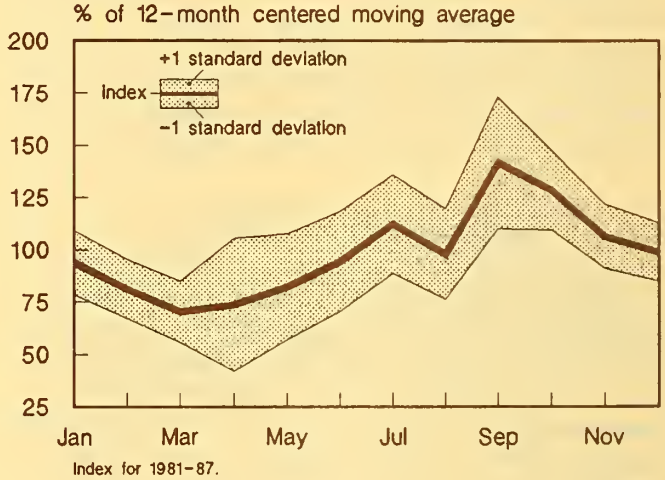
Grower on-tree equivalent price.

from July to September, the period of lowest production and shipments.

Florida grapefruit.-- About 49 percent of Florida's grapefruit crop (measured in value terms) was white seedless and 45 percent was pink seedless in 1987. The harvest seasons are essentially the same for both and run from October through April. Grower prices for pink seedless run higher than for white seedless.

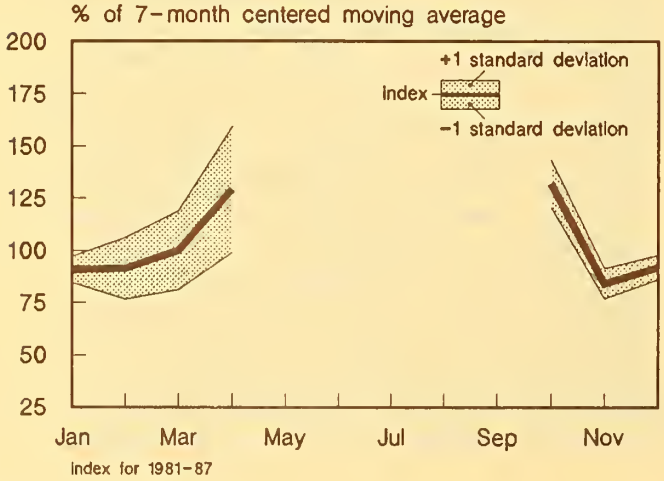
A strong and similiar seasonal price pattern exists for both pink and white seedless grapefruit. The seasonal index begins at over 130 in October and falls sharply to about 90 from November through February. Then it rises sharply, ending the season at about 130 in April. This seasonal pattern is strong, as indicated by the narrow band of irregularity about both indexes (figures 7 & 8).

Figure 6
Seasonal Price Index: U.S. All Grapefruit



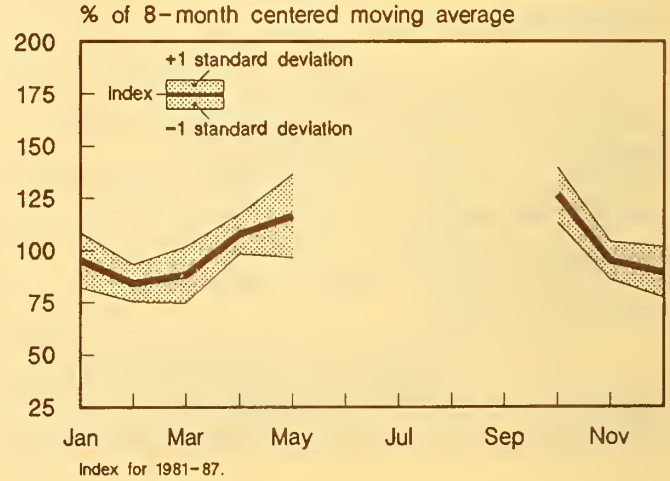
Index for 1981-87.

Figure 7
Seasonal Price Index: Florida White Seedless Grapefruit



Index for 1981-87

Figure 8
Seasonal Price Index: Florida Pink Seedless Grapefruit



Index for 1981-87.

California desert grapefruit.— About 40 percent of the total value of California grapefruit is from the desert area. The harvest season is from November to June. A strong seasonal pattern existed from 1981 to 1987, with the index falling from about 140 at the beginning of the season in November to 65 in April and then moving upward somewhat from April to June (figure 9).

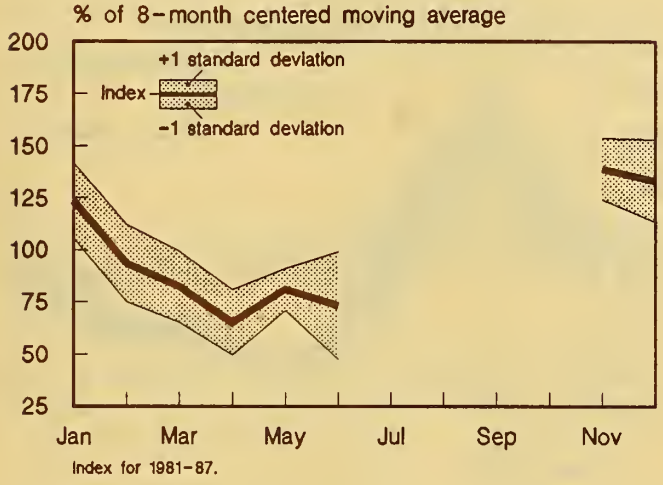
Lemons

Like grapefruit, lemon prices trended up sharply during 1981 to 1987 and tended to be more volatile the last 3 years than the preceding 4 (figure 10). The movement in the 12-month moving average appears mostly irregular with no clear cyclical pattern. The 1981–87 period is probably too short to reveal any true cyclical pattern that would be expected to be much longer than 2 to 3 years.

The estimated seasonal price index for lemons fluctuates widely and is extremely strong, as indicated by the relatively narrow band of irregularity about the index (figure 11). The fluctuation in the index is much wider than it appeared for oranges and grapefruit. (Note that on the figure the scale used for lemons was changed in order to graph the wider fluctuation in the seasonal pattern.) The index rises sharply from 24 in March to 236 in July before declining again until March.

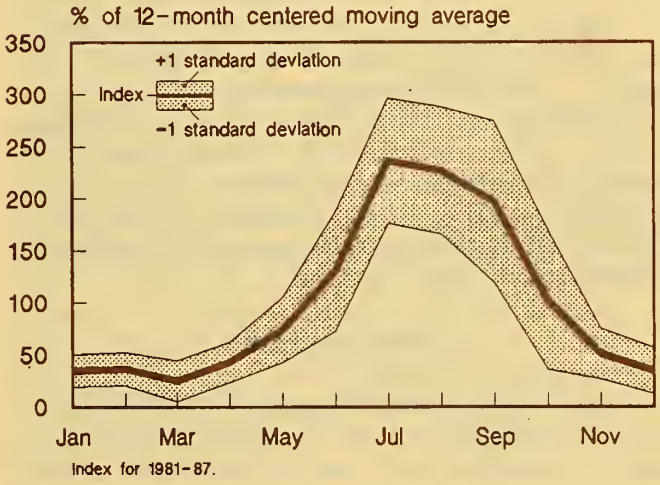
Much of the variability in actual lemon prices, as illustrated in figure 5, is seasonal.

Figure 9
Seasonal Price Index: California Desert Grapefruit



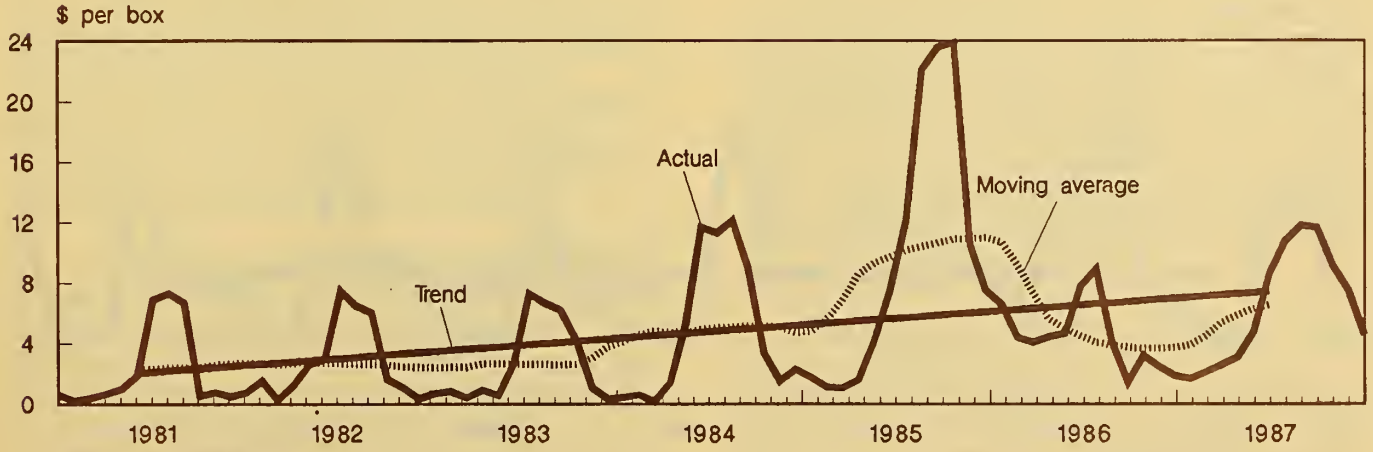
Index for 1981–87.

Figure 11
Seasonal Price Index: U.S. All Lemons



Index for 1981–87.

Figure 10
U.S. All Lemon Prices



Grower on-tree equivalent price.

The period of rapid rise in the seasonal index corresponds to the rise in shipments. Prices increase as supplies increase seasonally. The rise in the seasonal index beginning in March reflects, in part, the California lemons moving into the fresh market during the high-demand summer months. Prices, reaching their peak in the summer months when shipments are heaviest, may reflect the heavy demand during the late summer season.

Limes

Monthly prices for limes have not shown an upward trend as have oranges, grapefruit, and lemons (figure 12). Imports of limes rose dramatically over the period and, in 1987, accounted for over half the U.S. market. The equivalent on-tree grower price regularly falls to near zero and even becomes negative in July and August, the period of heaviest shipments.

As with lemons, the wide fluctuations in the actual price of limes is largely seasonal in nature. The estimated seasonal index shows a minimum index of 0 in July and a seasonal high of 252 in March (figure 13). This seasonal index is almost the exact reverse of lemons, grapefruit, and oranges. However, the price falls as shipments increase seasonally and rises as seasonal supplies decline.

Noncitrus Fruit

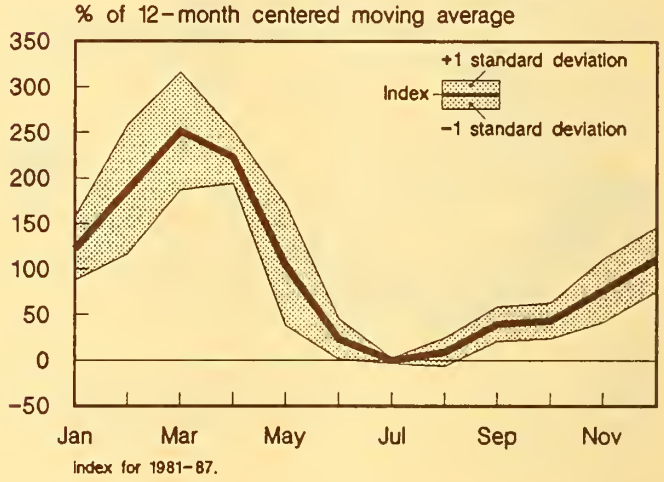
Monthly grower prices are available for only a few noncitrus fruits. Those reported here are apples, pears, and strawberries, which represented 18 percent of the total value of fruit, nuts, and vegetables in 1987. The major noncitrus fruit excluded is grapes, for which only annual grower prices are reported.

Apples

The U.S. apple price for fresh use trended up during 1981–87 (figure 14). The 12-month moving average shows a regular 2-year cyclical movement. However, as with citrus fruits, the lag between planting and trees reaching bearing age would lead one to expect longer cyclical price patterns than could be reflected over 1981–87.

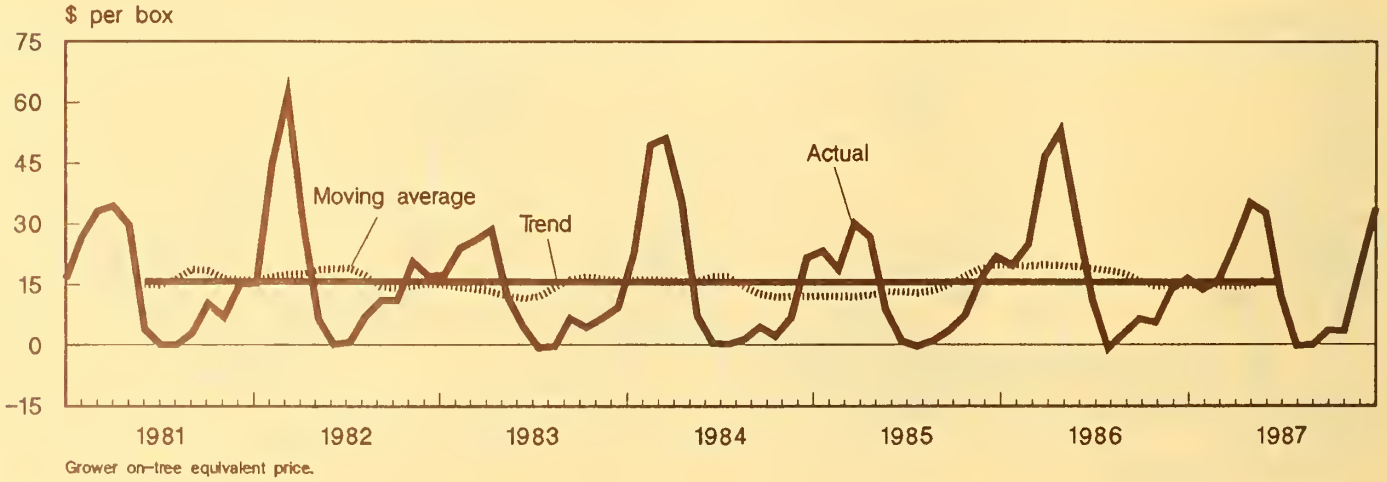
The estimated seasonal price pattern for apples is at a minimum of 90 in January and a maximum of 112 in September (figure 15).

Figure 13
Seasonal Price Index: U.S. All Limes



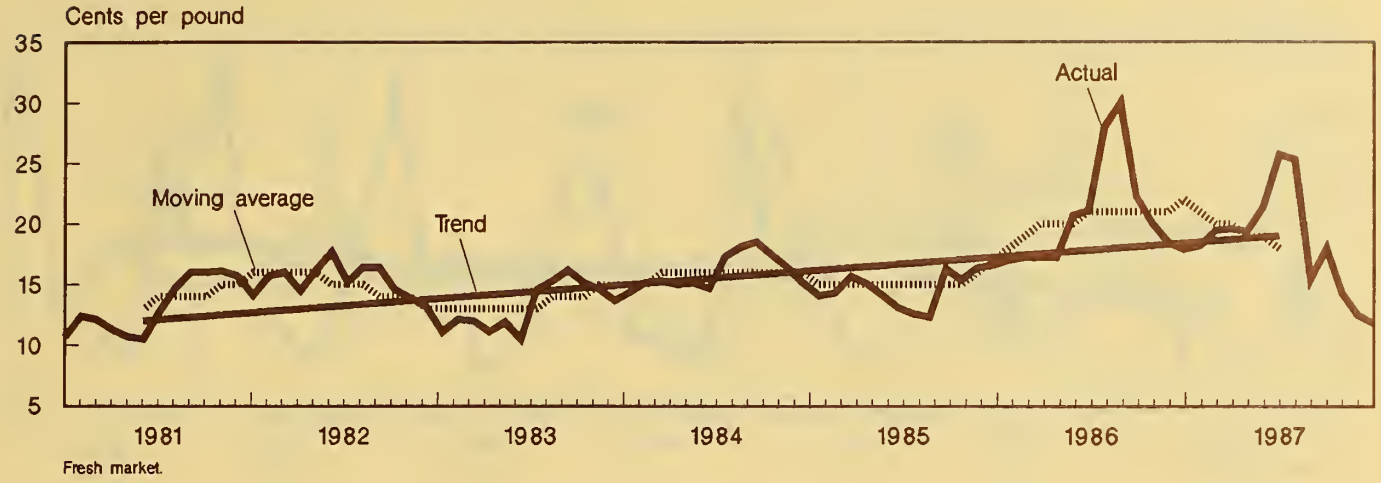
Index for 1981-87.

Figure 12
U.S. All Lime Prices



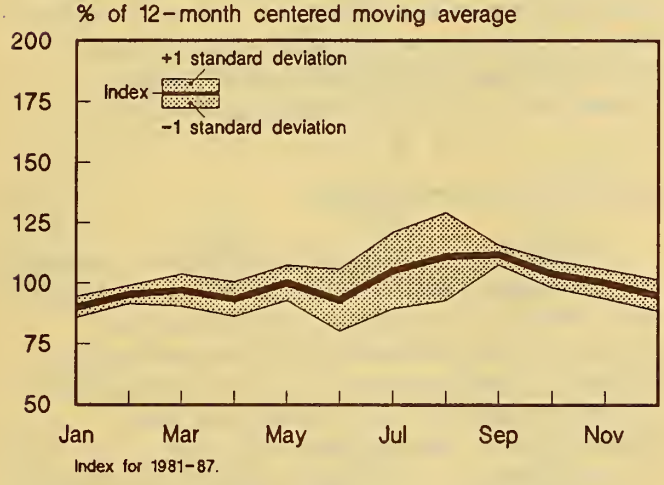
Grower on-tree equivalent price.

Figure 14
U.S. Apple Prices



Fresh market.

Figure 15
Seasonal Price Index: U.S. Fresh Apples



Index for 1981-87.

The zone of irregularity increases during June–August when shipments are seasonally low and just before the harvest of the new crop. The index is drawn using the same scale as for oranges (figure 2) and grapefruit (figure 6) so that the relative fluctuation in the seasonal index can be compared. The smaller fluctuations combined with the relatively wider band of irregularity result in a relatively weak seasonal price pattern for apples.

The estimated pattern diverges from what might be expected--prices at seasonal lows at harvest and then rising month to month, reflecting storage costs and reduced supplies. What is observed is that prices fall seasonally from the October harvest to January. A possible explanation is that these are grower prices rather than wholesale or retail prices; they therefore reflect market strategy of growers to sell apples at harvest to intermediaries who, in turn, store them for later sale.

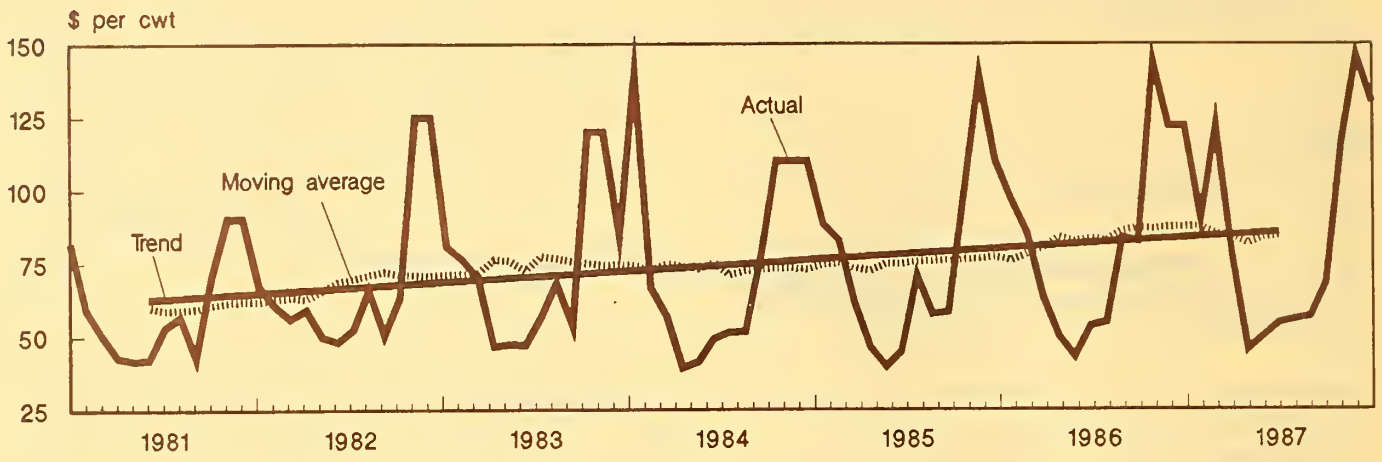
The intermediaries may prefer to purchase apples at harvest and pay growers less than if they are buying later in the season. This competition for apples to go into storage at harvest may make grower prices higher at harvest than later in the season. A different seasonal pattern might be expected if growers stored the apples. The seasonal index suggests a market strategy for growers to sell at harvest; use controlled atmosphere storage, if available, for later sale; or become vertically integrated.

Strawberries

The U.S. strawberry price trended up with little fluctuation in the 12–month moving average during 1981–87 (figure 16). The wide fluctuations in strawberry prices are mostly seasonal price variations. The estimated seasonal index is at a minimum of 60 in May and a maximum of 159 in November. This wide fluctuation in the index, combined with a narrow band of irregularity, makes a strong seasonal price pattern.

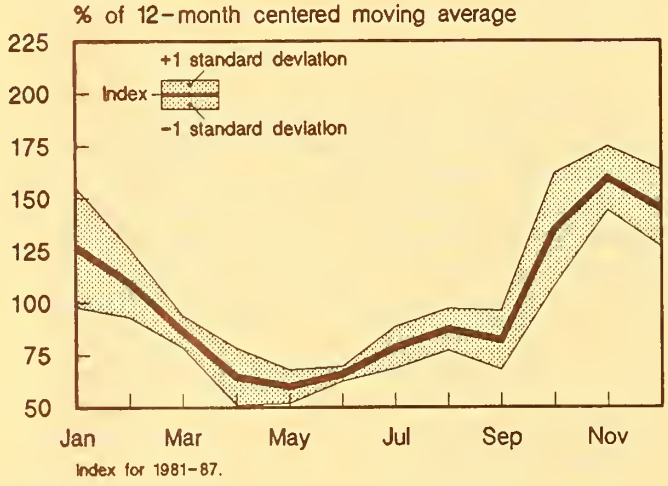
The seasonal price index rises beginning in May as shipments decline. The index is highest from November to January when supplies are relatively tight (figure 17). The usual fall in prices from January through April

Figure 16
U.S. Strawberry Prices



Fresh market.

Figure 17
Seasonal Price Index: U.S. Fresh Strawberries



Index for 1981-87.

is associated with increased supplies in both California and Florida. By May, there are few if any shipments from Florida.

Pears

The U.S. fresh pear price trended up like most other fruits during 1981–87 (figure 18). Wide fluctuations in the price are characteristic over the entire period.

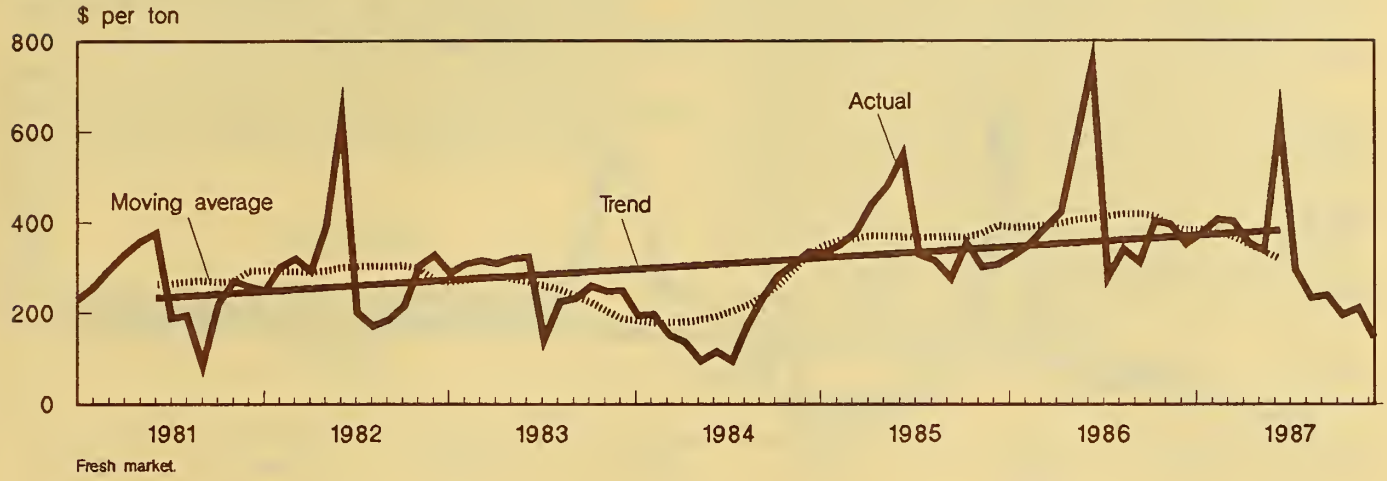
The estimated seasonal price index is lowest in July at 66, then generally shows month-to-month increases until the next June, when it reaches 145. It then falls sharply from June to July (figure 19). The seasonal pattern is strong, as the band of irregularity is relatively narrow. However, the seasonal price becomes more irregular in May and June, the final months of the crop year, and just before the new crop is harvested beginning in July. The seasonal rise in the index is opposite that for apples, and probably reflects the shorter storage period and higher costs of storing pears for later shipment to market.

All-Use Fruit Price Index

Indices of prices received by fruit growers are calculated from the prices of seven fruits. The index is often used to determine the general price movements for the entire fruit industry. The impact of a 1-cent change in the price per unit on the index and the absolute price change that will result in a 1-point change in the index are shown in table 2. For example, a 1-cent increase per pound in the fresh apple price will raise the all-fruit index 3.278 points and the fresh fruit index 2.276 points. Similiarly, it would take a 0.305-cent increase in all apple prices to increase the all-use fruit index 1 point and a 0.44-cent increase in the fresh apple price to increase the fresh fruit index 1 point.

The all-fruit index trended up during 1981–87 (figure 20). Major jumps occurred in September 1982, October 1984, and December 1987. These changes correspond closely to the orange prices. The simple correlation between orange prices and the all-fruit index of prices received is 0.85. The all-fruit index mostly reflects U.S. orange prices during 1981–87, as the fluctuation in orange prices was more dominant than the fluctuations in prices of other fruits represented in the index.

Figure 18
U.S. Pear Prices

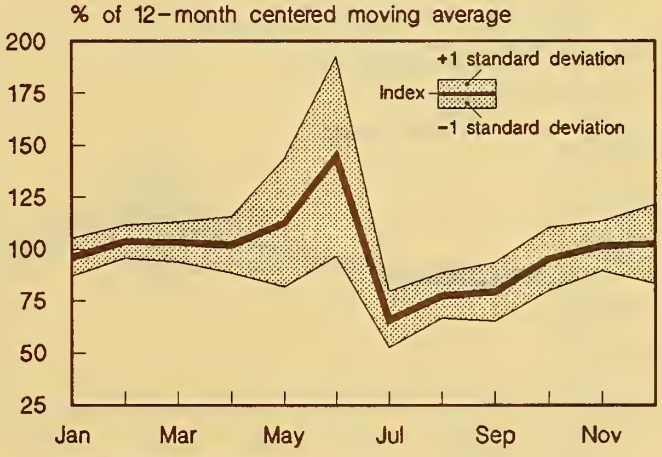


Fresh market.

Table 2.—Commodities used to construct the all-fruit price index and impact of a change in price per unit on the index

Commodity	Pricing unit	Absolute change in index resulting from a 1-cent increase in unit price	Absolute change in unit price needed to change index 1 point
All-fruit price index		Index points	Cents
Apples	lb.	3.278	.305
Grapefruit	box	0.035	28.571
Lemons	box	0.010	100.00
Oranges	box	0.114	87.72
Peaches	lb.	1.348	74.18
Pears	ton	0.0004	2,717.39
Strawberries	lb.	0.2629	3.80
Fresh fruit price index			
Apples	lb.	2.276	.44
Grapefruit	box	.043	23.26
Lemons	box	.013	76.92
Oranges	box	.146	6.85
Peaches	lb.	.675	1.48
Pears	ton	.000185	5,405.41
Strawberries	lb.	.214	4.67

Figure 19
Seasonal Price Index: U.S. Fresh Pears



Index for 1981-87.

The estimated seasonal changes in the all-fruit index show strong seasonally low prices from January through April, then month-to-month increases until September (figure 21). Starting in June the index weakens substantially until September, when prices are very uncertain, as indicated by the widening of the band of irregularity.

Fruit Price Relationships

In a market for a particular fruit, supply and demand conditions come together and a price is determined that equates supply with demand and the market clears. Homogeneous markets for fruits could be identified by observing how closely prices of the individual commodities move together. If prices of two distinct commodities move together over

Figure 20
U.S. All Fruit Price Index

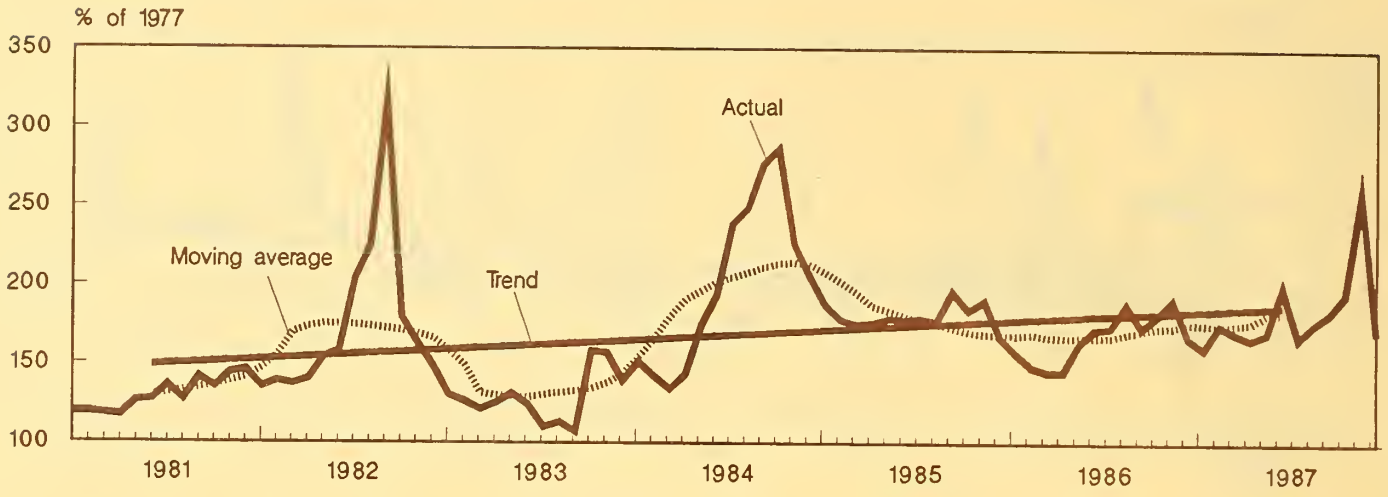
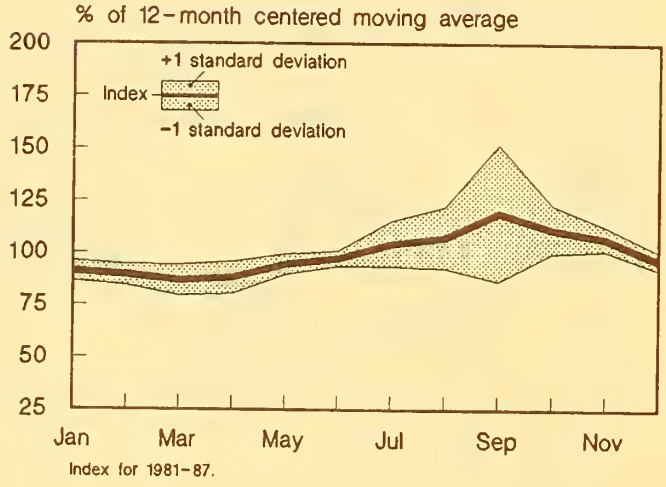


Figure 21
Seasonal Price Index: U.S. All Fruit



Index for 1981-87.

time, both could be thought to be in the same market and subject to similar supply and demand conditions.

To determine whether or not prices of fruits move together and, therefore, whether there are similar supply and demand conditions, a simple correlation coefficient was calculated between the monthly prices during 1981–87 (table 3). Among the fruits, all correlation coefficients were .21 or less, with most of them being nearly zero.

The main conclusion is that outlook and price analysis must be done for individual fruits. Each commodity is unique.

The results show that the index for 1981 to 1987 almost entirely reflects orange prices (correlation coefficient of 0.85). This reflects

Table 3.--Correlation coeficient matrix between monthly prices of selected fruits and vegetables, 1981 to 1987

	Pears	Apples	Straw-berries	Grape-fruit	Lemons	Limes	Oranges
Pears	1.00						
Apples	.08	1.00					
Strawberries	.10	.00	1.00				
Grapefruit	.02	.12	.09	1.00			
Lemons	.10	.03	.01	.01	1.00		
Limes	.10	.02	.00	.01	.21	1.00	
Oranges	.05	.01	.00	.05	.05	.06	1.00
All-fruit index	.00	.10	.05	.00	.11	.09	.85

wider fluctuations in orange prices than in other fruit prices over the period. The correlation coefficient of the all-fruit index with apple prices is 0.1, and with strawberry prices 0.05. Both of these commodities are used to construct the index, but clearly the all-fruit index could not be used to imply any price change for these commodities during 1981-87.

Conclusion

Seasonal price patterns are generally strong for fruits. Strong seasonal price swings are very likely for grapefruit, lemons, limes, strawberries, and pears, but quite weak ones likely for oranges and apples. Also, markets for fruits tend to be unique; prices move quite independently of each other and appear to be determined by different supply and demand conditions. The all and fresh fruit indices of prices received by farmers are based on prices of seven fruits with each price having its own fixed weight. The seasonal pattern of the all-fruit index was similar to that for oranges because of the relatively greater variation in orange prices compared with other prices in the index during 1981-87.

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