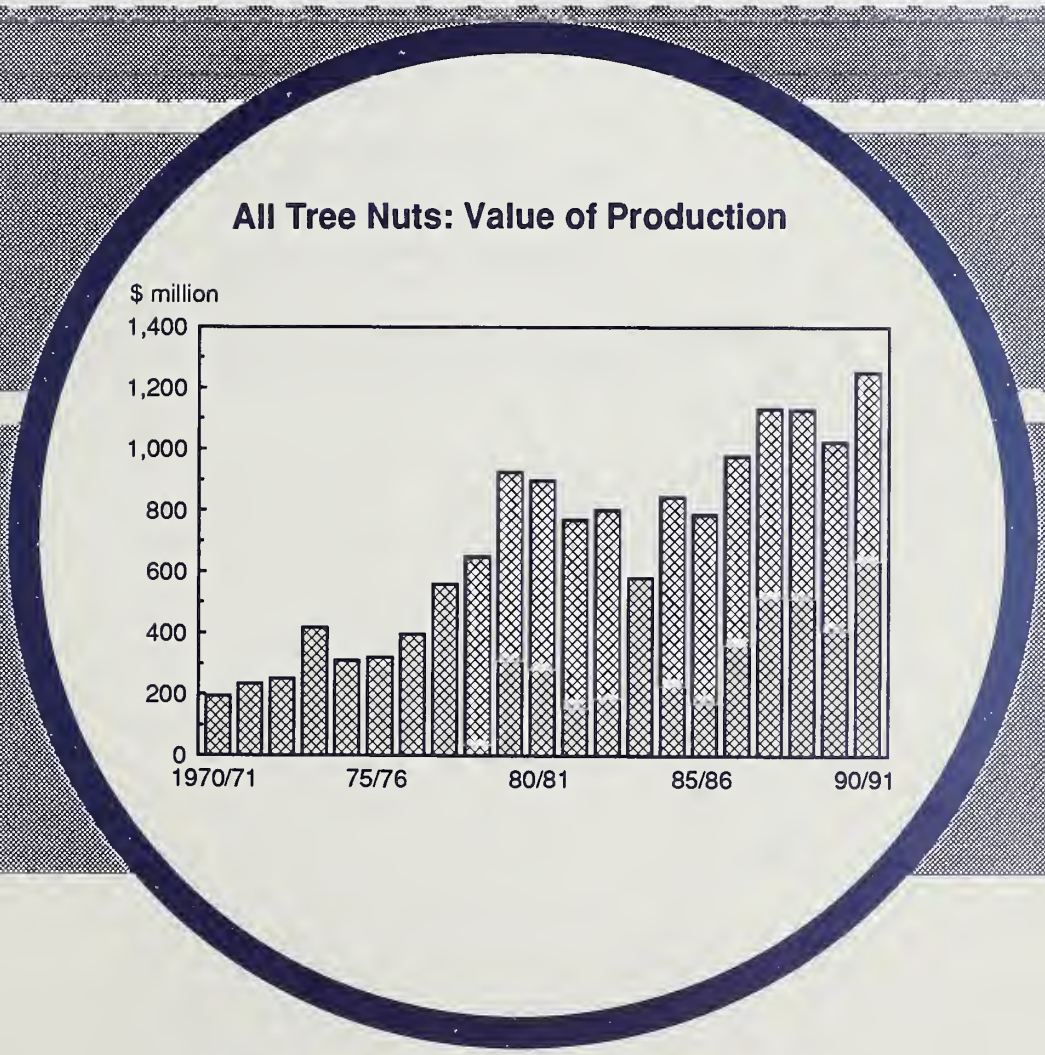
United States
Department of
Agriculture

Economic
Research
Service

TFS-259
September 1991

Fruit and Tree Nuts

Situation and Outlook Report



Contents

Fruit and Tree Nuts Situation and Outlook. Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture, September 1991, TFS-259.

Approved by the World Agricultural Outlook Board. Summary released Thursday, September 19, 1991. The summary of the next Fruit and Tree Nuts Situation and Outlook is scheduled for release in November 1991. Summaries and text of reports may be accessed electronically. For details, call (202) 447-5505.

The *Fruit and Tree Nuts Situation and Outlook* is published three times a year and supplemented by a yearbook. Subscriptions are available from ERS-NASS, P.O. Box 1608, Rockville, MD 20849-1608; or call, toll free, 1-800-999-6779 (weekdays, 8:30-5:00 ET). Rates: 1 year $12, 2 years $23, 3 years $33. Add 25 percent for subscriptions mailed outside the United States. Make checks payable to ERS-NASS. Single copies are available for $8 each.

Time to renew? Your subscription to the *Fruit and Tree Nuts Situation and Outlook* expires in the month and year shown on the top line of your address label. If your subscription is about to expire, renew today. Call 1-800-999-6779.

Situation Coordinator
Dennis A. Shields

Principal Contributors
Dennis A. Shields (202) 219-0884
Boyd M. Buxton (202) 219-0884
Doyle C. Johnson (202) 219-0884
Diane R. Bertelsen (202) 219-0884

Data and Graphics Information Coordinator
Wynnice P. Napper (202) 219-0884

List of Tables

Summary

Fruit Prices Strengthen

Since June, record-high grower prices for oranges, apples, and pears have raised the all-fruit index of grower prices for fresh and processing fruit far above previous years. Although the August index dropped 8 percent from its record high in June, it was still almost 90 percent above its August 1990 level. A smaller pear crop, lower apple production in the West, and the continued short supply of fresh oranges will keep upward pressure on prices throughout the fall. The index is not expected to recede until the harvest of Florida's new citrus crop begins later this fall.

In July, the Consumer Price Index (CPI) for fresh fruit dropped slightly from its record set in June, driven by high citrus, banana, and pear prices. Again, the index will likely remain relatively high throughout the fall. On the other hand, the CPI for processed fruit has softened somewhat after frozen concentrated orange juice (FCOJ) production rebounded following the Florida freeze 2 years ago.

Noncitrus Crop Production Mixed, but Prices Generally Higher

The 1991 apple crop is forecast at 10.1 billion pounds, 4 percent larger than last year and about 500 million pounds short of the of 1987 record crop. Most of the increase is attributable to larger crops expected in the Central and Eastern apple-producing States, which are expected to offset decreased production in the West. Although a larger total crop is expected, the shorter crop in the West will help maintain prices this fall and, especially, in the latter half of the marketing season next spring and summer when Western apples dominate the market.

The September 1 forecast for the U.S. grape crop pegged production at 5.27 million short tons, down 7 percent from last year and 11 percent from 1989. California production will be down about 9 percent this year. Prospects are for smaller crops of table and raisin-type grapes, while wine-type grape production will be about the same as last year.

With the harvest of the 1991 U.S. pear crop underway, production is forecast at 882,100 short tons, down 9 percent from 1990. The severe freeze last winter will cause total Bartlett pear production to drop 12 percent in California, Oregon, and Washington. Production of pears-other-than-Bartlett (fall and winter pears) is expected to be down 5 percent from last year. The production decline should keep prices firm throughout the season.

After last year's freeze-reduced peach crop, the August 1991 forecast for the U.S. peach crop was 2.55 billion pounds, up 15 percent from last season but 3 percent short of the most recent high in 1988. The larger supply is expected to keep prices lower than last year. Unfavorable weather adversely affected much of the other stone fruit production, most notably tart cherries in Michigan.

The 1991 cranberry crop is forecast up 17 percent from a year ago, and the strawberry crop forecast indicates only slightly higher production than last year. Trade sources indicate a smaller blueberry crop this year.

Olive production in 1991 is expected to drop 54 percent from last year because of tree stress from last year's large crop and the December 1990 cold snap in California.

Freeze Drops California Citrus Production While Florida Recovers, Orange and Lemon Prices Significantly Higher

The forecast for the 1990/91 U.S. orange crop is 7.9 million short tons. This is up 2 percent from 1989/90, despite the severe freeze in December 1990 which sharply cut production in California and affected fresh-market prices throughout this past spring and summer. After recovering from the December 1989 freeze, Florida's 1990/91 orange production totaled 6.8 million short tons, up 38 percent from last year.

Last season's relatively mild winter has led to a much larger grapefruit crop in Florida, which produces about 80 percent of all U.S. grapefruit. Florida grapefruit production is expected to be 1.92 million short tons in 1990/91, 26 percent higher than the freeze-damaged level of 1.52 million short tons in 1989/90. Since February 1991, prices have been below last year's levels, reflecting the larger supplies.

California's freeze in December 1990 dropped total U.S. lemon production in 1990/91 to 680,000 short tons, down 4 percent from 1989/90. Grower prices in June 1991 were almost double those of June 1990.

Near-Record Tree Nut Supplies Expected in 1991/92

The U.S. supply of tree nuts is estimated to have reached a record 1.5 billion pounds (shelled basis) during the 1990/91 marketing season, up 11 percent from the record set the previous year. Total production was the second highest on record. The 1991/92 tree nut supply will total about 1.4 billion pounds, 5 percent below the 1990/91 record. Grower prices for almonds and pistachios are expected to increase but will likely decline for pecans, hazelnuts, and walnuts.

Grower and Retail Prices Rise

The grower all-fruit price index rose sharply in June, reflecting higher prices for oranges.

The index of all-fruit prices received by growers rose sharply in June, up 69 percent from May and 92 percent above 1990/91. The dramatic rise was due mostly to higher orange and pear prices. California's fresh orange prices have been extremely high since January because of last December's freeze, but it became the dominant supplier when shipments of relatively lower-priced fresh oranges from Florida dropped seasonally in June. As a result, the U.S. weighted-fresh-orange price moved up sharply, and the fruit index, which is heavily weighted by oranges, rose as well. A rise in pear prices in June also contributed to the record-high index. June pear prices rose 75 percent above those in May, reflecting tight supplies as the 1990/91 season concluded. Apple prices have also remained strong throughout the summer.

The index retreated slightly as the non-citrus harvest came into full swing, down 8 percent in July, compared with June. Lower peach and other stone fruit prices helped pull down the index. However, a shorter apple crop in the West and continued high citrus prices will keep upward pressure on the index this fall.

Consumer Price Index for Fresh Fruit Up at Record Level Again

Retail prices for fresh fruit as measured by the Bureau of Labor Statistics' (BLS) Consumer Price index (CPI) remained well above the previous year, driven primarily by extremely high citrus prices and relatively high banana and pear prices. In May, the index reached a record 205 (1982-84=100), up 17 percent from a year earlier. The index remained near the 200 mark throughout the summer. The index will likely remain high if strong domestic and export demand for fresh apples maintains apple prices because the fresh orange supply in California is not expected to fully recover.

Processed Fruit CPI Drifts Down After Peaking in 1990

The CPI for processed fruit has softened somewhat after tight supplies of frozen concentrated orange juice (FCOJ) kept the index above the 135 mark (1982-84=100) during most of 1990. The CPI for processed fruit was 131 in July 1991 after the Florida orange crop rebounded with ample supplies of FCOJ. The index is expected to remain unchanged this fall.

Figure 1

Prices Received by Producers

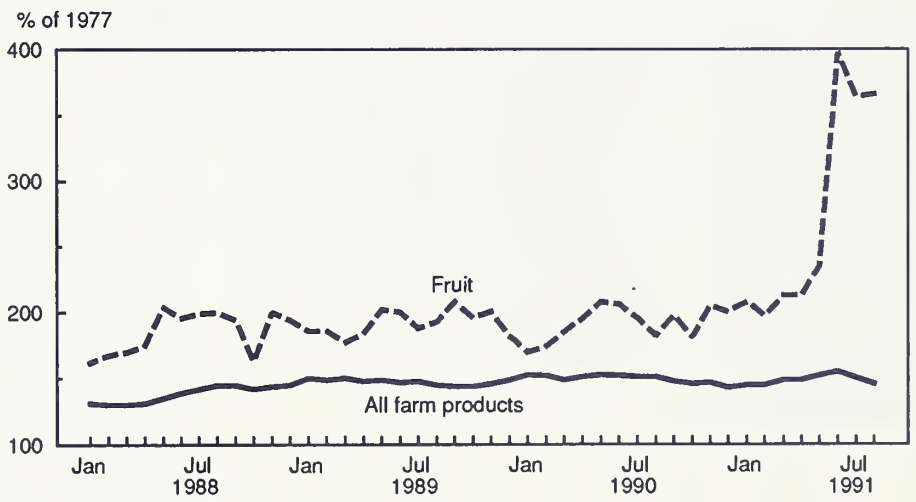


Figure 2

Fresh Fruit: BLS Consumer Price Index

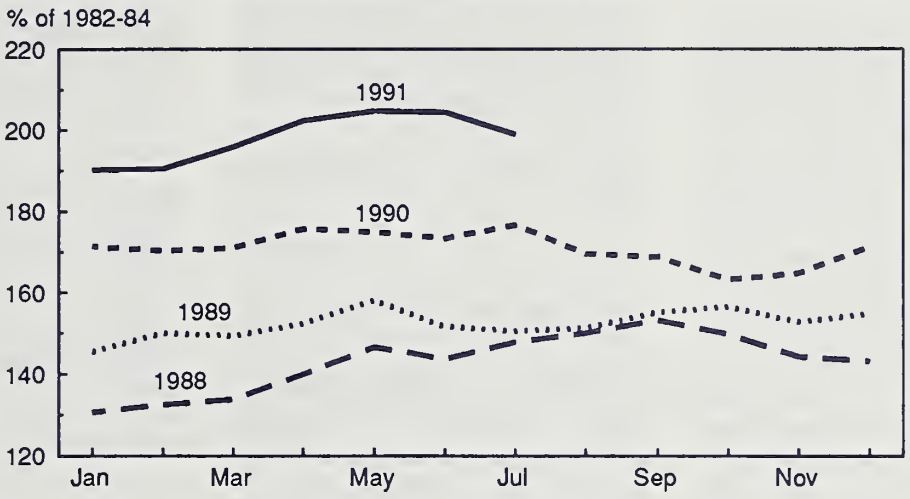
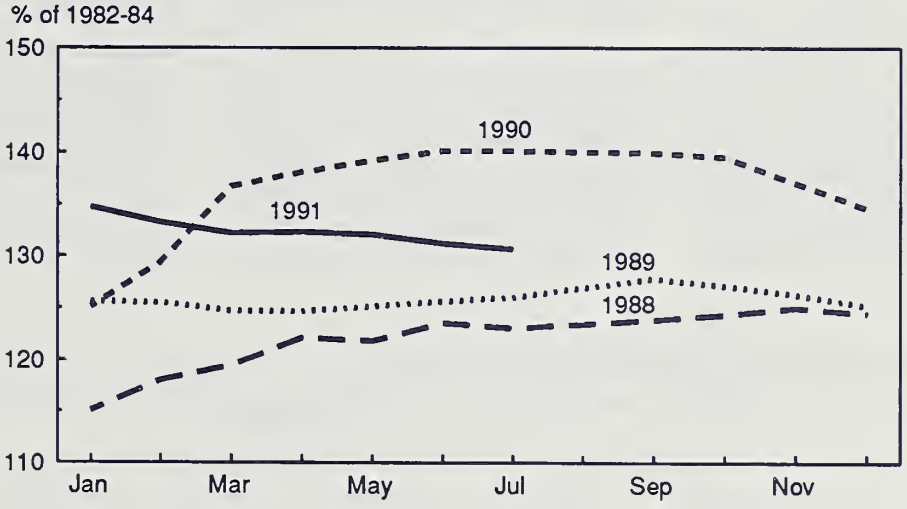


Figure 3

Processed Fruit: BLS Consumer Price Index



Larger U.S. Apple Crop in 1991

A larger U.S. apple crop may not necessarily weaken apple prices as production in the Western region falls.

USDA's August 1 forecast placed total 1991 U.S. apple production at 10.1 billion pounds, 4 percent larger than last year, but about half a billion pounds short of 1987's record crop.

More favorable weather, relative to last year, is expected to push production up 21 percent in the Eastern States and 6 percent in the Central States. However, unusually dry conditions in both areas, combined with a season that is 1 to 3 weeks earlier than normal, have reduced the expected crop size. Nevertheless, the top four States in the East, representing 75 percent of the region's production, are forecast to have higher output than in 1990. New York will lead the region again with slightly more than 1 billion pounds of apple production, followed by New Jersey (510 million), Virginia (420 million), and North Carolina (320 million).

Production in the Western region, which typically totals over one- half of U.S. apple production, is expected to be 7 percent less than last year. Winter damage and frost lowered crop estimates in Arizona, Idaho, New Mexico, Oregon, and Washington. Washington growers are expected to harvest 4.6 billion pounds, down from 4.8 billion pounds last year. New bearing acreage in California is expected to increase production again in that State, up about 20 percent since 1989.

Strong Apple Price Prospects in 1991

Despite larger total apple production, the production shortfall in the Western region (particularly Washington) is expected to keep prices relatively strong throughout the next season. The shorter crop in the West should keep prices up during the last half of the 1991/92 marketing season, when most of the apples marketed are Western apples supplied from storage. Apple shipments have been brisk and exports strong. Apple exports may have been enhanced in part by increased funding from USDA's Market Promotion Program. Fiscal year 1991 funding was $4.34 million, up 14 percent from fiscal year 1990.

Last year's smaller crop, recovery from the Alar scare in 1989, and strong export demand buoyed grower prices throughout the 1990/91 marketing season. The U.S. monthly average price received by growers has dipped below 20 cents per pound only twice in the last 12 months. After reaching 24.2 cents per pound in June, grower prices remained above 24 cents throughout the summer. In August, the average grower price was 24.6 cents per pound, compared with 22.3 cents a year ago and 15.9 cents in 1989.

Table 1--Apples: Regional production, 1989, 1990, and indicated 1991 production

Area	1989	1990	1991
	-- Billion pounds --		
East	2.36	2.50	3.02
Central	1.44	1.14	1.21
West	6.16	6.05	5.83
Total 1/	9.96	9.70	10.06

1/ Some figures may not add to total due to rounding.

Source: National Agricultural Statistics Service, USDA.

During the 1990 crop season, grower prices for processing apples averaged $139 per ton, up 30 percent from 1989. From data collected in its annual survey of cooperating apple processors, the International Apple Institute (IAI) projected 1991/92 apple processing utilization at 4.2 billion pounds, up

Table 2--Apples for processing: Utilization by product, 1986-1991 1/

Products	1986	1987	1988	1989	1990	1991
			--1,000 bushels-- 2/			
Canning:						
Sauce	20,771	23,610	24,982	23,578	24,923	24,750
Slices	3,650	3,750	4,100	3,860	4,080	4,400
Other	3,650	3,730	4,230	4,000	4,230	4,250
Subtotal	28,071	31,090	33,312	31,438	33,233	33,400
Juicing	39,121	69,733	43,419	49,312	49,424	52,000
Drying	4,748	6,757	6,786	6,724	6,198	6,300
Freezing	6,126	5,931	6,326	7,655	7,293	7,100
Other 3/	2,164	1,755	1,588	1,350	1,642	1,700
Total	80,230	115,266	91,431	96,479	97,790	100,500

1/ 1991 estimate derived from annual survey reports provided by 30 processors representing a substantial portion of the total market.

2/ 42-pound bushels.

3/ Includes baby food, apple butter, vinegar, etc.

Source: Data compiled for the 1991 Apple Marketing Clinic, Chicago, IL., August 15-16, 1991, International Apple Institute, McLean, VA.

about 100 million pounds from last season. The estimate represents 42.0 percent of the total crop, compared with 42.4 percent last season.

Based on the inventory positions reported by the IAI survey of apple processors and on expected raw-product availability in all regions, the IAI reports that, in general, inventories are moderate to low. Juice inventories are relatively low, and inventory positions for the canned, dried, and miscellaneous categories are similar to a year ago when processor demand helped lift grower prices. Sauce inventories are estimated to be moderately light. The only large inventory position reported is for frozen slices, which is up 20 to 40 percent from last year. Consequently, the IAI estimates that overall raw-product requirements for juicing and for processing into canned slices will be greater than last year. The increased demand will be greatest in the East and Central regions, where U.S. production is forecast to increase.

Apple Exports Continue To Increase

Continuing the advances made in 1989/90, U.S. fresh apple exports surged to 359,824 metric tons for the 1990/91 season starting in July, up 8 percent from the same period last season. Canada, the number one importer of U.S. fresh apples, imported 74,885 metric tons, up 12 percent from last year. Exports to Taiwan, last year's largest overseas market for U.S. fresh apples, fell 10 percent to 60,839 metric tons. Exports to most other markets increased. Exports to the EC-12 and Hong Kong rose 39 percent and 2 percent, respectively.

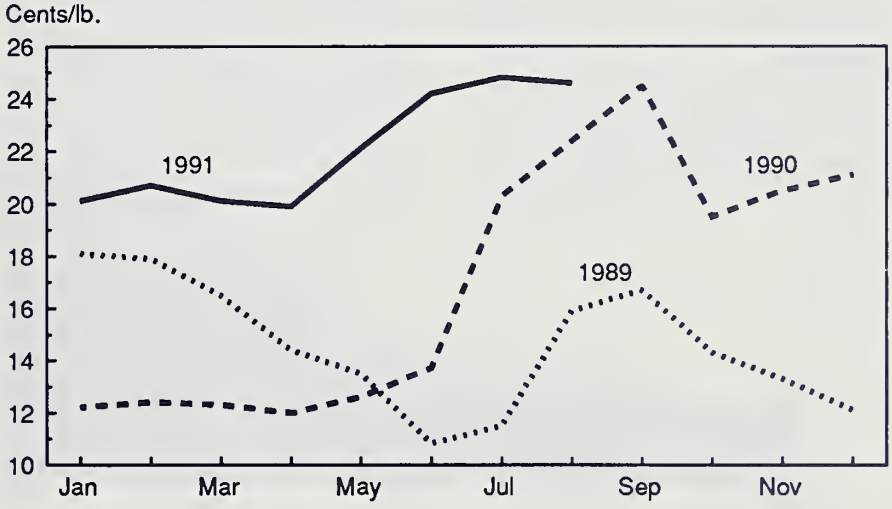
The 1991 European apple crop is estimated to be down 30 percent from last year due to a severe freeze that affected all countries, except the United Kingdom and Italy and those in Eastern Europe. The loss of European apples will likely boost U.S. apple exports. Fresh apple exports typically represent about 5 to 10 percent of domestic production.

Higher domestic prices increased fresh apple imports in 1990/91. Imports totaled 106,476 metric tons for the 1990/91 season, 4 percent above the 1989/90 season. Imports from Canada were up 33 percent, to 57,516 metric tons, and apple imports from Chile rose 8 percent, to 24,199 metric tons.

The 1990 per capita consumption estimate for fresh apples was 19.8 pounds, second in fresh fruit consumption after bananas. Annual per capita consumption has ranged between 17 and 22 pounds during the past decade, averaging slightly more than consumption in the 1970's.

Figure 4

Grower Prices for Fresh Apples



Smaller Grape Crop Forecast for 1991

The 1991 U.S. grape crop is expected to be lower for the third consecutive year. Grower prices are expected to remain strong.

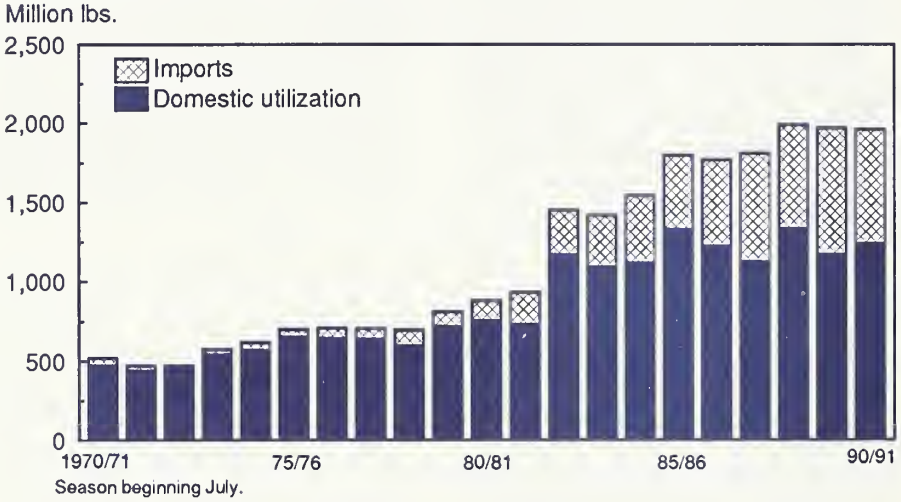
The hot temperatures that dried California vineyards in early July are expected to reduce the 1991 U.S. grape crop to 5.27 million short tons, down 7 percent from last year and 11 percent from 1989. Production in California, where typically more than 90 percent of U.S. grapes are grown, is forecast down about 9 percent this year. Table and raisin-type grapes will be down while wine-type grapes, which generally escaped heat damage, will be at 2.2 million tons, the same as last year. The raisin grape crop is expected to be down 17 percent, and table grape production is expected to be 12 percent less than last year. Crop maturity is behind normal for all grapes.

The September grape production forecast for States other than California was 550,000 short tons, up 15 percent from last year's crop. Production in all of these other states, except Arizona, will be the same as last year or will increase. New York's crop is expected to be up 25 percent, to 180,000 tons as good cluster and berry counts will boost yields, despite the small berry size caused by dry weather conditions. In Washington, the December 1990 cold snap caused minimal damage to the State's (mostly Concord) grapes. Production is expected to be up 4 percent from 1990 at 187,000 short tons.

In 1990, 15 percent of the grape production was sold fresh, compared to 13 percent in 1989, and 85 percent was processed. Fifty-six percent of the processed grapes in 1990 was crushed for wine, 36 percent was dried, 7 percent was processed for juice, and 1 percent was canned.

Figure 5

Fresh Grape Consumption

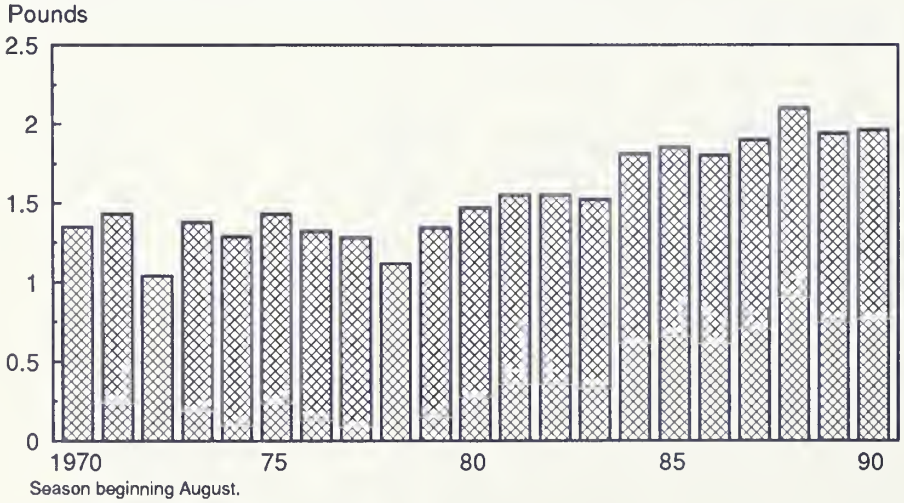


Fresh Grape Imports Drop in 1990/91

Fresh grape imports for the May 1, 1990 to April 30, 1991 season were down 9 percent from the 1989/90 season to 330,447 metric tons. Chile provided 91 percent of U.S. fresh-grape imports in 1990/91. Despite the drop in imports this past marketing year, the U.S. still imported 38 percent of the fresh grapes consumed. These imports mainly enter in the off season when U.S. grapes are not available. After rapid gains in the early and mid-1980's, U.S. per capita consumption of fresh grapes declined in 1990/91 to 7.8 pounds, indicating that the winter grape market is maturing.

Figure 6

U.S. Per Capita Raisin Consumption



Raisin Production Falls in 1991, Consumption Up Slightly in 1990/91

Raisin-type grape production is expected to be 1.95 million tons, down 17 percent from last year. Poor weather throughout the growing season has resulted in maturity 2 weeks later than normal. Also contributing to the reduced production is the Raisin Diversion Program, which eliminated production on 20,000 acres.

In 1989/90, raisin consumption dropped from its 20-year high in 1988/89. In 1990/91, raisin consumption increased slightly from the previous year, to 1.96

pounds per capita. This is consistent with the general upward trend over the past two decades. The percentage of raisin-type grapes crushed for wine has been declining, while fresh use has been relatively unchanged.

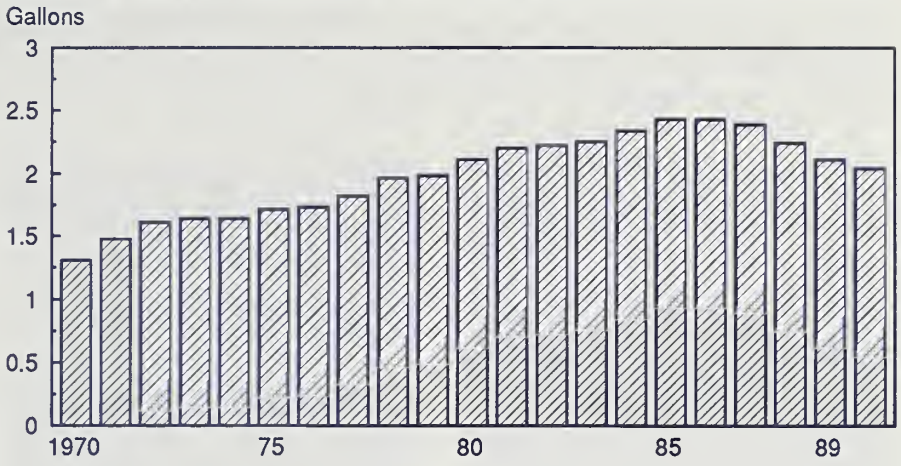
U.S. Wine Exports Up, Consumption Down

The weak dollar relative to European currencies has helped boost U.S. exports and curtailed wine imports again. The USDA's Market Promotion Program has also contributed to the increase of wine exports by providing funds to vintners who want to enter the export market. The wine industry has been allocated $15 million for fiscal year 1991 under the Market Promotion Program, up from $9 million in fiscal year 1990 under the Targeted Export Assistance Program.

Wine exports climbed to 26.1 million gallons in 1990, up 19 percent from 1989. The value of wine exports reached $100 million for the first time. Canada and Japan were the top U.S. foreign markets, each with 22 percent of the U.S. wine export value. Key European wine markets for the U.S. are the UK with 17 percent of U.S. exports, Sweden with 4 percent, and Switzerland with 3 percent. Exports now represent about 5 percent of U.S. wine production, compared with only about 2 percent 10 years ago. In 1990, table wine imports declined 12.4 percent, to 50.6 million gallons.

Figure 7

U.S. Per Capita All-Wine Consumption



U.S. wine consumption declined for the fourth consecutive year, dropping to 2.04 gallons per capita. A Federal excise tax increase of $.90 per gallon that was implemented January 1, 1991, contributed to lower consumption. However, per capita wine consumption has been falling since its peak of 2.43 gallons in 1986.

Banana Prices Soften in August

After sharply higher prices this spring, banana prices softened in August. Prices are expected to drift up as competition from summer fruits declines.

Cool weather in parts of the Central and South American banana growing areas delayed maturity of the crop this spring, creating shorter supplies that exaggerated the seasonal rise in banana prices. The BLS consumer price index for bananas hit a record 175 (1982-84 = 100) in March and May. The U.S. average retail price of bananas was consistently 5 to 10 cents per pound higher than average price in the previous year, reaching nearly 60 cents per pound in March. By early summer, prices began to fall from summer fruit competition and normal banana-shipment levels. In August, retail prices dipped to 42 cents per pound.

U.S. Banana Imports Increase

The somewhat erratic, but essentially higher, banana prices observed in the last several years are mostly the result of supply-side problems, including poor weather and labor strikes in banana-producing countries. Nevertheless, U.S. imports have increased over the last 3 years. U.S. banana imports reached 1.60 million metric tons during the first 6 months of 1991, up about 3 percent from a year ago. Imports from Ecuador, the largest U.S. supplier, were up slightly from a year ago, while Costa Rica's banana exports to the U.S. rose almost 25 percent, to 342,917 metric tons, and Honduran exports were off 24 percent. A strike by Honduran banana workers in June 1990 sharply curtailed that country's available banana supply.

World Demand for Bananas Growing

According to the United Nation's Food and Agricultural Organization, world import demand for bananas is expected to grow at an annual rate of 3.4 percent, reaching 9.6 million metric tons by 1994. European Community banana imports are expected to reach 3.4 million tons by 1994, while U.S. imports should remain around 3.1 million tons. Japan, the EC, and the U.S. account for 90 percent of the world's banana imports.

There are no trade restrictions on banana imports into the U.S. and Canada. However, in Japan, the import duty can be as high as 25 percent. Presently, the EC does not have an EC-wide import policy for bananas. Instead, each country is permitted to implement its own import policies. These generally favor the various countries' former colonies. The EC is working toward a common banana-import policy that would be consistent with its single market objective.

Figure 8

Bananas: BLS Consumer Price Index

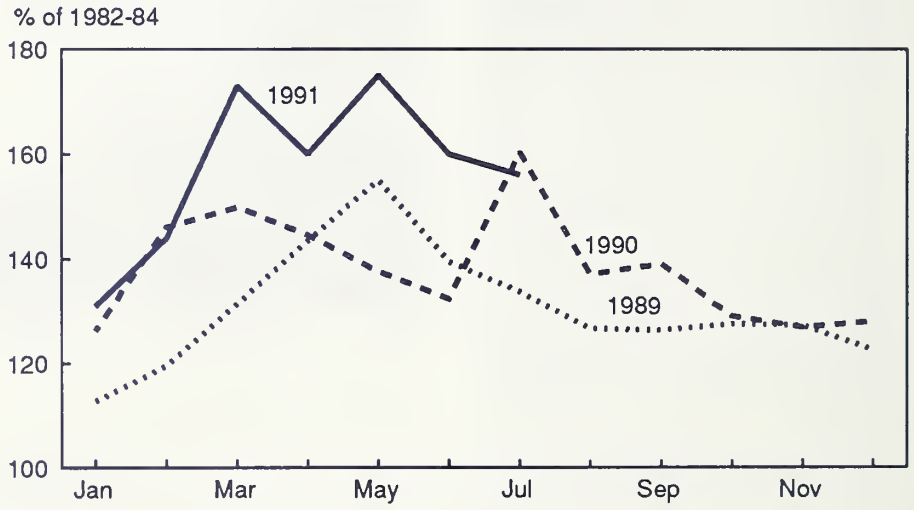


Table 3--Banana imports, United States, 1988-91

Country	1988	1989	1990	1990 1/	1991 1/
			-- Metric tons --		
Ecuador	757,341	849,642	1,142,155	590,587	597,214
Costa Rica	595,130	637,105	571,547	275,998	342,912
Honduras	607,685	551,704	485,594	289,194	218,017
Colombia	446,852	426,222	357,315	2/	201,401
Other	466,904	455,392	537,546	406,684	245,385
Total	2,873,912	2,920,065	3,094,157	1,562,463	1,604,929

1/ January-June.
2/ Included in other.

Source: Foreign Agricultural Service, USDA.

Smaller Pear Crop Forecast for 1991

The U.S. pear crop is expected to be down 9 percent from 1990.

After 3 consecutive years of production increases, the final forecast for the 1991 pear crop placed total production at 882,100 short tons, down 9 percent from 1990.

The biggest decline is in the Pacific Coast region. Bartlett pear production in California, Oregon, and Washington is expected to be 505,000 tons, down 12 percent from last year because of the severe freeze in December 1990. Typically, about three-fourth's of the Bartlett crop is canned.

In September, the 1991 harvest of pears-other-than-Bartlett (fall and winter pears) in Washington, Oregon, and California was estimated at 346,000 short tons, down 5 percent from last year. The pear crop in Washington is expected to be down 15 percent, to 165,000 tons, while Oregon's production is expected to be up 7 percent, to 160,000 tons. About 80 percent of pears-other-than-Bartlett are sold in the fresh market. Fruit quality in all regions is good, except in New York where drought conditions slowed fruit sizing.

Strong demand for canning Bartletts in the past several seasons is expected to continue. In July, an industry source estimated that about 24 percent of the California Bartlett crop will be sold fresh, 7 percent will go to the Northwest for processing, 17 percent will go to grade pack pears, 43 percent will go to fruit cocktail, and the remaining 9 percent will be for other uses such as baby food. There are also indications of a worldwide shortage of pear juice and other kinds of juices used to pack fruit. Although the industry no longer provides pack and movement data for processed pears, industry sources say that the armed services' demand for canned pears depleted inventories by late June.

Pear Prices To Remain Strong

Low inventories and a late-starting California Bartlett pear harvest exaggerated the usual seasonal high as the average grower price for fresh pears reached $754 per ton in June, 28 percent above the June 1990 average price. Total pear shipments for the week ending June 29 were 1.08 million pounds, down significantly from 8.72 million pounds for the same week in 1990. On July 31, 1991, cold storage stocks of fresh pears were 6,413 tons, only 38 percent of the stocks on July 31, 1990. Grower prices for fresh-market pears averaged $399 per ton in August, up 46 percent from a year ago. The smaller expected pear crop and continued processing demand to replenish stocks should maintain grower prices this fall and throughout the remainder of the marketing season.

Fresh Pear Trade Volumes Increase

U.S. fresh pear imports increased for the eighth consecutive year, reaching 45,796 metric tons in 1990/91 with the season ending in June. However, exports have also been increasing for the last 6 years, jumping 18 percent to 101,896 metric tons in 1990/91. Canada and Mexico together account for over half of the U.S. fresh pear exports. The EC and Sweden are also major importers of U.S. fresh pears.

Figure 9

Fresh Pears: U.S. Equivalent On-Tree Return Received by Growers

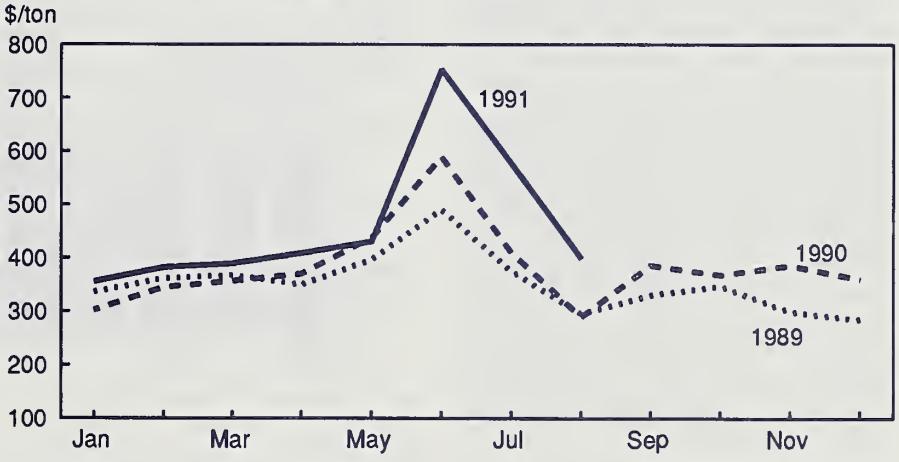
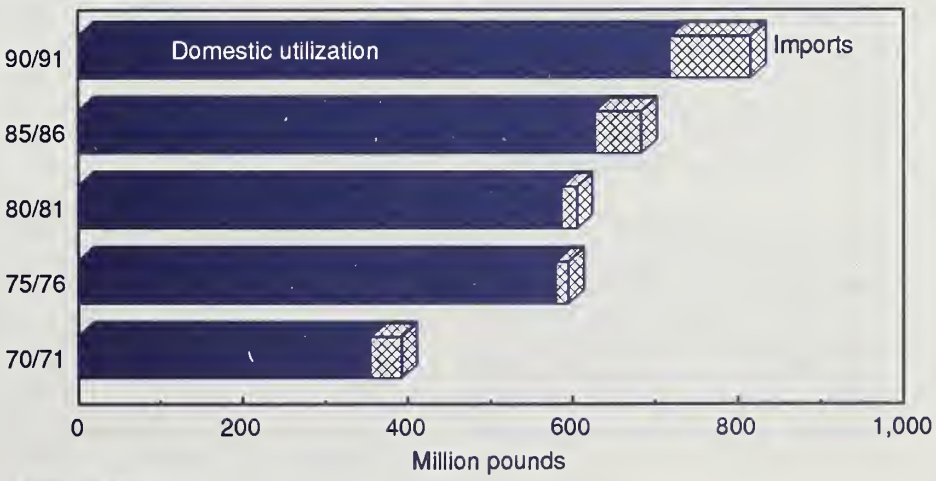


Figure 10

U.S. Fresh Pear Consumption



Season beginning July.

Large Peach Crop Forecast for 1991, All Other Stone Fruits Down

Improved weather conditions increased peach production, especially in the East. However, adverse weather is a major factor in reducing many Western fruit crops, including sweet and tart cherries, plums, and apricots.

Peach Crop Rebounds, Up 15 Percent in 1991

After a freeze-reduced peach crop in 1990, the August forecast of the 1991 U.S. peach crop was 2.55 billion pounds, up 15 percent from last season, but 3 percent short of the most recent high in 1988. Production of the Freestone crop is forecast up 32 percent from last year at 1.58 billion pounds. Most major production areas in the East escaped frost damage in 1991.

California's Freestone production is expected to drop about 4 percent, but most other leading States, including Georgia, New Jersey, and South Carolina, will substantially increase peach production from last year. South Carolina estimated 1991 production of 315 million pounds is almost three times larger than last year's crop. Georgia production is forecast up 15 percent, to 150 million pounds, while New Jersey estimated production is 120 million pounds, 1.5 times larger than in 1990. However, dry weather reduced production in Pennsylvania, Virginia, and West Virginia by limiting fruit size. Total California peach production (including Clingstone) is off 4 percent, down to 1,584 million pounds.

Fruit quality across the country has been relatively good, especially in California. In South Carolina, unutilized production will be higher than normal because of the large percentage of undersized fruit. Peach production in Idaho, Oregon, and Washington is expected to be down sharply because of the severe freeze in December 1990.

Early season peach prices received by growers were well above the previous two season's. But as harvest continued into July, grower prices dropped to 16.4 cents per pound, 40 percent below the July 1990 price and 16 percent below 1989. In August, prices rebounded slightly to 19.1 cents per pound. Despite California's slightly smaller crop, USDA's Federal-State Market News Service reported f.o.b. prices for California fresh peaches at $2.00 to $3.00 per box below last year. Retail prices, as reported by the Bureau of Labor Statistics, averaged 78.6 cents per pound in July, down 12 percent from a year ago. In August, retail peach prices dropped to 69.3 cents. Prices are expected to remain relatively soft throughout the rest of the season.

In August, the California Canning Peach Association reported that an agreement had been negotiated with canners for prices to be based on a sliding scale of $222 to $235 per ton,

Figure 11

U.S. Total Production of Stone Fruit

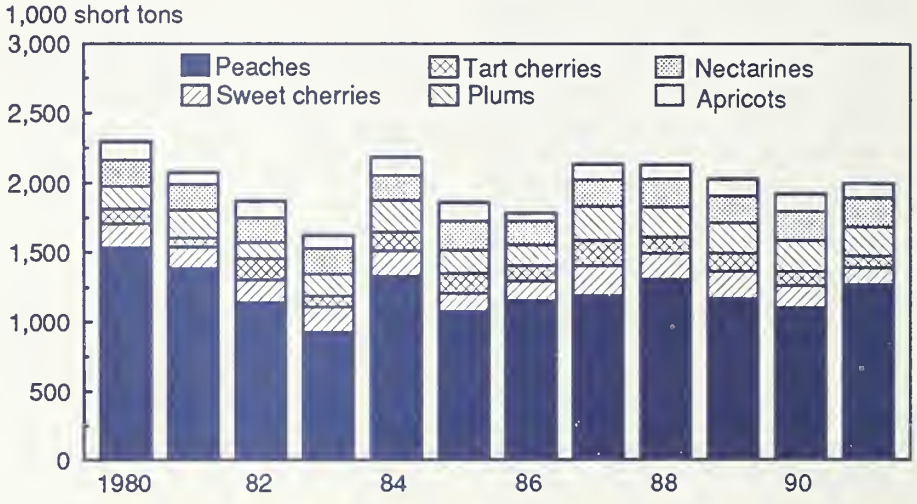
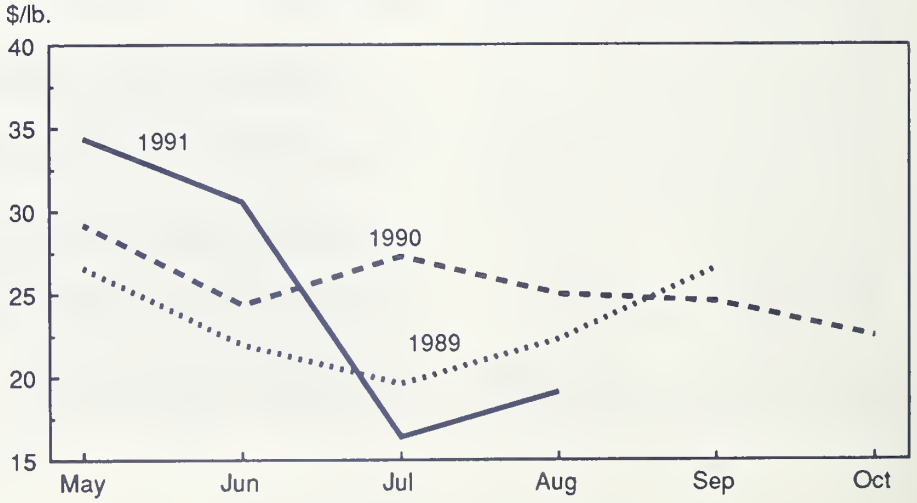


Figure 12

Peaches: U.S. Monthly Grower Prices



depending on the total amount delivered and discounted for off-grade. This year's California Clingstone peach crop is down 4 percent to 970 million pounds. Last season, the agreement between the Association and canners set the base price at $214 to $224 per ton.

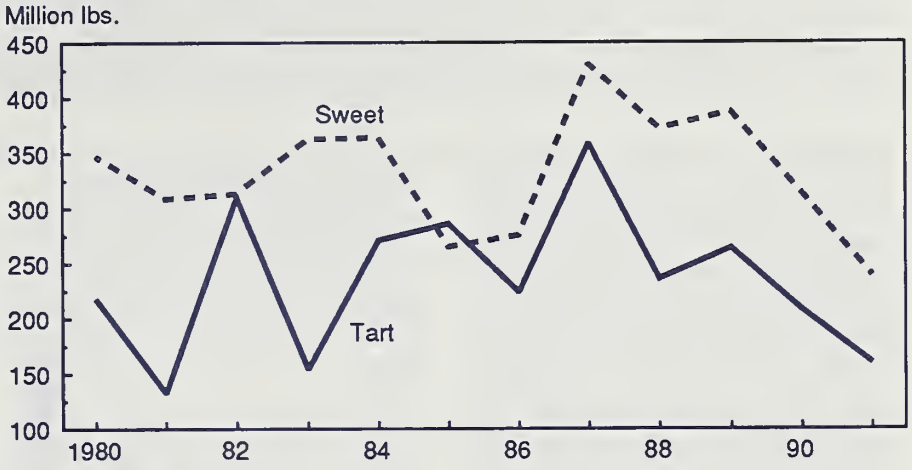
Sweet and Tart Cherry Crops Suffer From Last Winter's Cold Snaps

Both sweet and tart cherry crops declined significantly for the second consecutive year. Sweet cherry production is down sharply in all Western States except California, where the crop is expected to be 64 percent larger than last year. However, total U.S. sweet cherry production is forecast at 119,450 short tons, 24 percent smaller than last year. The December 1990 cold wave and cool temperatures this spring adversely affected the Northwest crop. June rains devastated part of the sweet cherry crop in Washington and Oregon, resulting in a combined production of 65,000 short tons in 1991, 42 percent less than last year's crop.

The Michigan tart cherry crop, which typically represents about 70 percent of U.S. tart cherry production, was hit hard with freezing temperatures in April, which was followed by poor pollination weather. Production is expected to drop to 80,300 short tons, 23 percent lower than last year. Tart cherry production

Figure 13

U.S. Cherry Production



will be up in most other reporting States, including Pennsylvania, Utah, and New York, but their contributions to the U.S. total are relatively small.

F.o.b. prices for Washington Bing cherries in mid-August were 3 to 4 times higher than a year earlier. The average retail price of cherries in July was $2.18 per pound, 24 percent higher than July 1990.

Production of Plums and Apricots Dips

Although the California plum crop is expected to be 210,000 short tons, down 5 percent from last season, a heat wave in early July brought a huge volume of plums to the market and cut f.o.b. prices nearly in half. Earlier in the season, growers voted to discontinue the plum marketing order, and market participants functioned without industrywide minimum grade standards, market promotion, and crop estimates.

The apricot crop forecast is 100,100 short tons, 18 percent less than last season. The decline reflects a drop of 20,000 short tons in California's apricot crop. California nectarine production is expected to be near last year's level of 210,000 short tons.

1991 Olive Crop Forecast Down Sharply, Prices Higher

Olive production in 1991 is expected to drop 54 percent from last year due to tree stress from last year's large crop and the December 1990 cold snap in California.

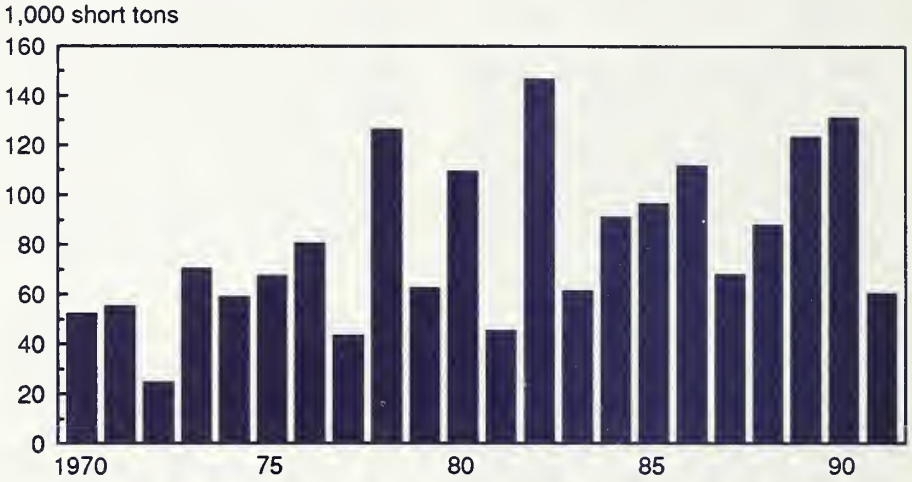
The August 1 forecast for this year's California olive crop is 60,000 tons, sharply below last year's relatively large crop of 131,000 tons. A sharp drop following a relatively large crop is not uncommon in the olive industry as olive trees require time to recover from the stress of a heavy production year. From 1976 to 1983, olive production showed strong alternating-year production patterns of heavy crops followed by light crops. For example, olive production was 51 percent smaller in 1979 than in 1978 and over 60 percent smaller in 1981 than in 1980.

The sharp alternating-year production characteristic that dominated the 1970's seems to have given way to a 4-year cycle of 3 years of gradual increases in production, followed by a sharp drop in the fourth year. The drop expected this year would be consistent with the drop of 1987 which was followed by increases in 1988, 1989, and 1990. Improved management and tree care could explain part of this change in the cyclical production pattern. If the 4-year cycle holds, olive production would likely rise in 1992 through 1994.

The freezing temperatures in California in December 1990 also adversely affected many olive trees and contributed to the projected decline for the 1991 crop. In addition, some growers may have reduced the amount of water used in their olive groves this year. The extent of the long-term damage to the olive trees done by the freeze is unknown. However, early industry reports indicate that young trees, 3 years old or less, may have been the most adversely affected. If so, production would be curtailed in the next several years.

Figure 14

U.S. Olive Production



According to the California Olive Committee, industry sales of 1990/91 ripe olives increased almost 6 percent over the previous season, setting a new record. Demand for olives by the food-service sector was especially strong, but retail sales were also up about 1 percent. Retail sales, as a percent of total sales, declined from 62 percent in 1989/90 to 59 percent in 1990/91.

Smaller Olive Crop Advances Grower Prices

Early indications from the industry are that olive prices, at the point of first delivery, for some varieties and sizes will be up 16 to 20 percent from last year because of relatively tight supplies. Higher prices are expected for the Manzanillo variety and some sizes of the Ascolano and Barouni varieties, with prices for Sevillano olives being about the same. Although average prices for all olives will be higher this year than last, the 1991 farm value of olive production is expected to fall from 1990's near-record value.

One somewhat-moderating factor on olive prices is the larger carryover of canned olives into the 1991/92 season (beginning August 1, 1991). According to California Olive Committee reports, the inventory on August 1, 1991, was 8.35 million cases (24/300-case basis), compared to 7.33 million on that date a year ago.

Larger Cranberry and Strawberry Crops Forecast for 1991

The 1991 cranberry crop is forecast up 17 percent from a year ago, with the strawberry crop forecast 6 percent higher than last year. Trade sources indicate a smaller blueberry crop this year.

Value of Cranberry Production Declines in 1990, but Strawberry Crop Value Sets New Record

The final estimate for the value of the 1990 U.S. cranberry crop (valued at the first delivery point) declined over 7 percent from 1989 and was almost 18 percent lower than the 1988 record of $186 million. A half-dollar increase in the price per 100-pound barrel from $40 in 1989 to $40.50 in 1990 did not offset the 8 percent decline in production. Average yields fell from 136.3 barrels per acre in 1989 to 123.6 in 1990.

The total farm value of strawberry production set a new record in 1990 at about $594 million. Due to strong demand, a record crop was marketed with prices slightly higher in 1990 than the year before.

Real Prices for Cranberries Decline

Prices received by cranberry growers have been quite flat since 1984, following rapid increases in the late 1970's and early 1980's. Cranberry prices, deflated with the consumer price index for all food, have fallen since 1984. Production of cranberries increased in response to rising prices in the late 1970's and early 1980's. However, with declining real prices since 1984, the upward trend in cranberry production has tended to level off, despite the near-record crop now forecast for 1991.

Near-Record Cranberry Crop Is Forecast for 1991

The 1991 cranberry crop forecast is at 4.01 million barrels, up 17 percent from 1990. If realized, this would be the second largest crop on record, following the 1988 record of 4.08 million barrels.

The cranberry crop in Massachusetts, the leading cranberry producing State, is projected to be 1.8 million barrels, 32 percent larger than in 1990. Bogs wintered well and survived spring frosts with little damage. An average-to-heavy bloom and excellent pollinating weather will also contribute a larger crop this year.

Production in Wisconsin, the second leading cranberry-producing State, is forecast at 1.47 million barrels, 6 percent above 1990. Growing conditions have been good, especially in the central part of the State. Like Massachusetts, Wisconsin bogs came through the winter in good shape and the fruit set was good.

Cranberry production in New Jersey is forecast at 375,000 barrels which would exceed the 1988 record crop. Produc-

Figure 15

U.S. Grower Prices for Cranberries

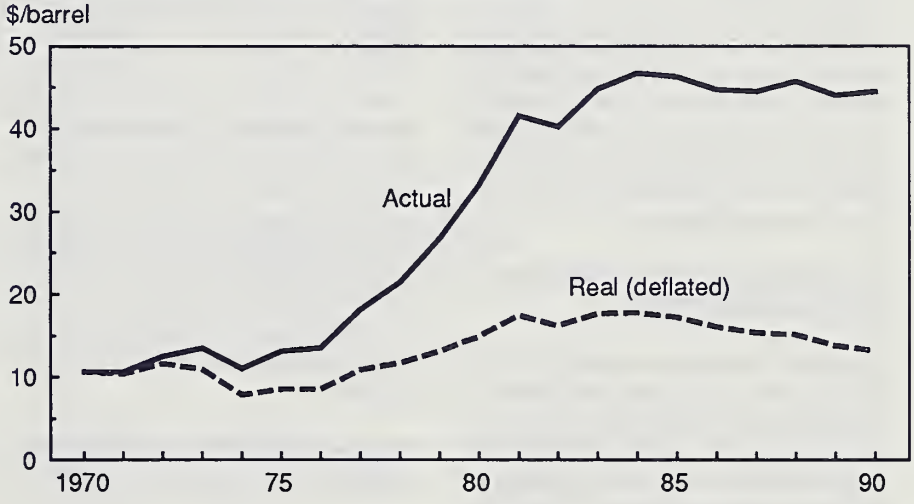
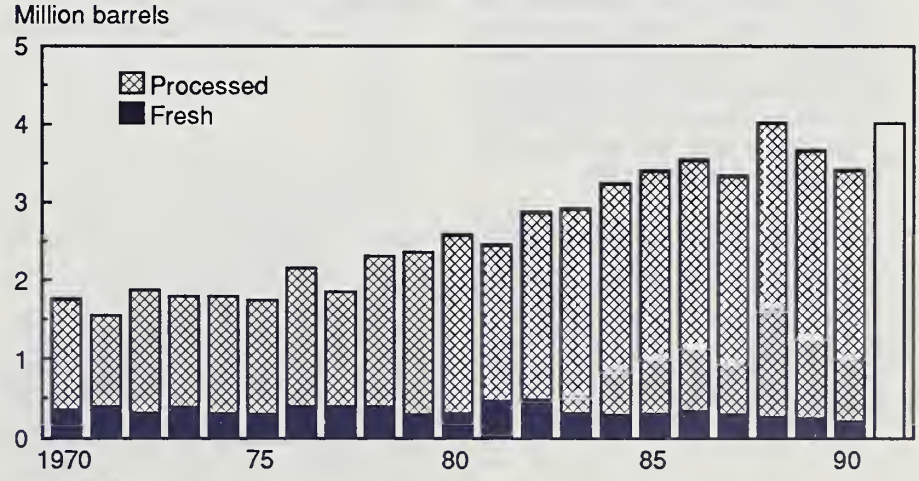


Figure 16

U.S. Production and Utilization of Cranberries



1991 forecast.

tion in Washington is forecast at 162,000 barrels, up 5 percent from 1990.

Of the five major cranberry-producing States reported, Oregon is the only one whose 1991 production is forecast down, compared with 1990. Oregon's cranberry crop is forecast to be 2.4 percent smaller, due mostly to a 10- to 14-day delay in bloom along the State's southern coast and only a fair-to-good fruit set.

Larger Cranberry Crop Likely To Increase Farm Value of Production

Grower prices received for cranberries are remarkably stable from year-to-year despite significant variations in the size of the crop. Factors other than price, such as adjustments in inventories and/or marketing efforts by the industry, help balance these variations in the size of the crop with the demand for fresh and processed cranberry products, without wide fluctuations in price. However, the larger crop this year will put some downward pressure on grower prices, but not enough to reduce the farm value of production.

Strawberry Production Forecast Up 6 percent in 1991

The 1991 commercial strawberry crop in the seven major producing States is expected to be 12.7 million cwt, up 6 percent from 12.0 million cwt in 1990. Winter season production in Florida is forecast up sharply from 1.17 million cwt in 1990 to 1.32 million in 1991. The increase in part is a recovery from a relatively small 1990 crop that was adversely affected by the December 1989 Florida freeze. Spring strawberry production in the five major summer producing States (California, Michigan, New Jersey, Oregon, and Washington) is forecast up from 10.8 million cwt in 1990 to 11.4 million in 1991.

California is by far the leading strawberry producing State, accounting for 83 percent of the U.S. strawberry crop in 1990. Strawberry production in California is forecast up from 9.9 million cwt in 1990 to 10.6 million in 1991, a 7-percent increase.

Oregon, the second leading strawberry producing State during the summer season, was adversely affected by cool and cloudy weather in April and May. Production there is expected to be down 6 percent in 1991 compared with 1990, a decline from 656,000 to 616,000 hundredweight.

Lower yields in Michigan due to frosts in mid-March and early April and rain in mid-April to early May will result in a 9-percent smaller crop in 1991 compared with 1990, a decline from 143,000 to 130,000 cwt.

Winter freeze damage and flooding, followed by cool, wet weather and some weevil damage caused problems for the Washington crop which is forecast down over 33 percent — from 126,000 cwt in 1990 to 84,000 in 1990.

Grower Prices for Fresh Strawberries in 1991 Mirror Previous 2 Years

Fresh strawberry prices declined seasonally over the first half of 1991, but good demand has kept prices at about the same as in the previous 2 years. Through September 5, fresh strawberry shipments from California, the major summer source, were 57.6 million flats (12 1-pint baskets). This is 10 percent above the same period last year when shipments totaled 52.4 million flats.

Through August 1991, prices have been similar to the previous 2 years, including the normal seasonal decline. Heavy movement into both fresh and processed markets in the last half of the season will likely keep strawberry prices at or somewhat below last year. As prices rise seasonally, 1991 prices could be a near duplicate of 1990.

Processed Strawberries Prices Below a Year Ago

In 1991, prices paid to growers for strawberries delivered to processors were 20 to 24 cents per pound, compared to about 30 cents per pound a year ago. Prices for strawberries used for juice were about 6 cents per pound in mid-August, compared with 10 cents for the same time a year ago.

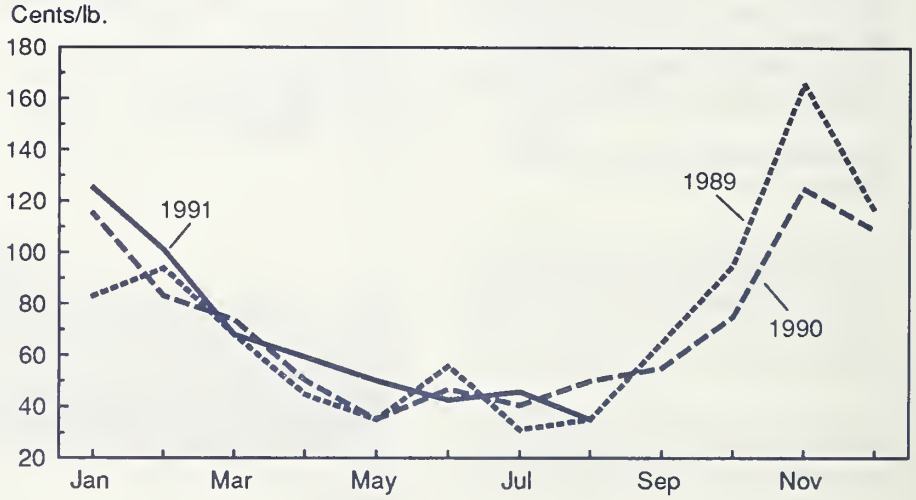
Table 4--Strawberry deliveries for processing, 1990 and 1991

State	1990	1991
	--Million pounds--	
California 1/--		
Freezing	250.6	283.6
Juice	58.9	38.7
Oregon 2/--		
All processing	57.2	48.1
Washington 2/--		
All processing	9.5	6.0
Total	376.2	376.4

1/ Through September 7.
2/ Final report through August 10.
Source: Federal-State Market News.

Figure 17

U.S. Grower Prices for Strawberries



Through September 7, 1991, U.S. growers delivered 376.6 million pounds of strawberries processors, essentially unchanged from last year. Imports of frozen strawberries from December 1990 through June 1991 were slightly lower (41.1 million pounds) than for the same period last year (42.1 million pounds).

Blueberry Prices Running Ahead of Last Year

According to trade sources, rainy weather, capped by hurricane Bob that hit the Northeastern U.S. in August 1991, adversely affected the blueberry crop in Maine, the major blueberry-producing State. In Maine, production is expected to be cut in half from last year's 72.4 million pounds. Smaller crops are also forecast in Michigan (down 5 percent from last year's 56.5 million pounds), Oregon, and Washington. These smaller crops more-than-offset larger crops in North Carolina and New Jersey and are expected to leave total U.S. production about 17 percent below last year.

Blueberry prices received by growers have been above a year ago because of the smaller crop and strong domestic and export demand. Strong demand for fresh blueberries has sharply reduced deliveries to processors. In both Washington and Oregon, deliveries to processors this season (as of September 5, 1991) were substantially less than deliveries for the same period a year ago. However, at the time of this report, harvest is still underway in those States. Stocks of frozen blueberries on July 31, 1991, were 37 percent higher than on the same date in 1990, but it is still too early in the season to draw conclusions regarding their economic effect on this season's price.

Raspberry shipments were 84,000 cwt as of August 16, 1991, compared with 94,000 cwt for the same date last year. Reflecting the lower shipments, wholesale raspberry prices in mid-August in New York were sharply above the previous year ($1.75 per half-pint compared with $1.15) and more than doubled in Chicago. Red raspberry deliveries to processors through September 5 were up in Washington, but down in Oregon, resulting in combined shipments 4 percent above the same period last year. Deliveries of blackberries and boysenberries to processors were down sharply this year from both Washington and Oregon.

Table 5--Frozen berries: Cold storage holdings, July 31, 1989-91

Commodity	1989	1990	1991
	-- 1,000 pounds --		
Blackberries	16,031	17,335	9,660
Blueberries	30,119	30,923	42,425
Boysenberries	5,465	7,652	6,491
Raspberries, red	54,081	50,786	47,780
Strawberries	257,909	311,369	331,041
Total	363,605	418,065	437,397

Source: National Agricultural Statistics Service, USDA.

1990/91 Orange Crop Recovers in Florida, Drops in California

U.S. orange production for the 1990/91 season is up 2 percent.
Florida orange production rebounds, but California production plunges.

USDA's July forecast of U.S. orange production for the 1990/91 season was 7.89 million short tons, up 2 percent from the 7.73 million short tons produced during the 1989/90 season. While the difference in total production between seasons is not remarkable, conditions in the major orange-producing States contrast sharply. Florida's orange crop was up 1.86 million short tons from the 1989/90 freeze-damaged crop, while California production fell 1.65 million short tons because of a frigid December 1990.

Freezing temperatures in December 1989 damaged Florida's orange crop, and production in the 1989/90 season fell 25 percent from the prior year, to 4.96 million short tons. However, with little permanent tree damage and good weather, the 1990/91 orange crop was estimated 37.5 percent higher than the prior season. This season's estimate of Florida oranges at 6.82 million short tons is 3 percent more than 1988/89 production, making it the largest Florida orange crop in 10 years.

In Florida, early and midseason oranges are usually marketed between October and April, and valencias from February until July. Recovery from the 1989 freeze was evident in both periods. Early and midseason marketings of 3.9 million short tons were up nearly 30 percent from the 3.1 million short tons in 1989/90. The Florida valencia crop increased more than 50 percent, from 1.9 million short tons last season to 2.9 million short tons in 1991.

The July forecast of the 1990/91 California orange crop was 1.01 million short tons, down 62 percent from 1989/90 production of 2.66 million short tons. The 1990/91 crop is also expected to be about 55 percent less than the 1987/88 and 1988/89 crops, and the smallest California orange crop in 20 years.

Figure 18

U.S. Orange Production

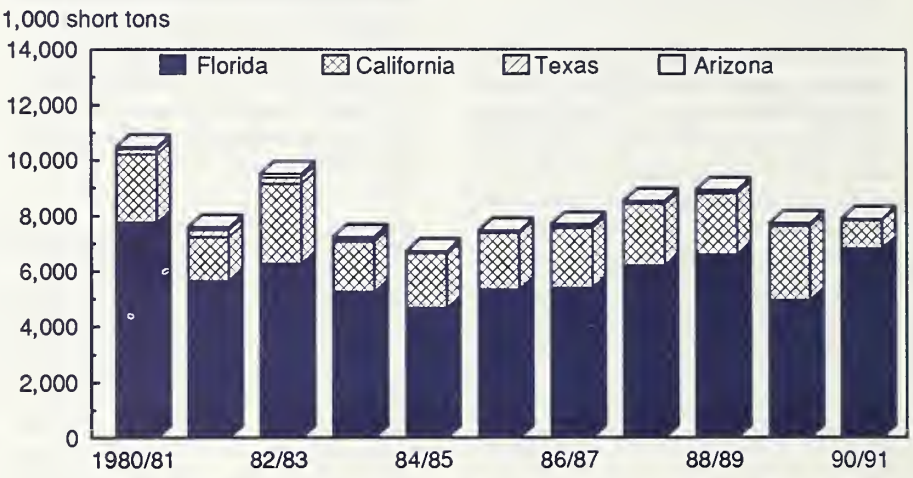
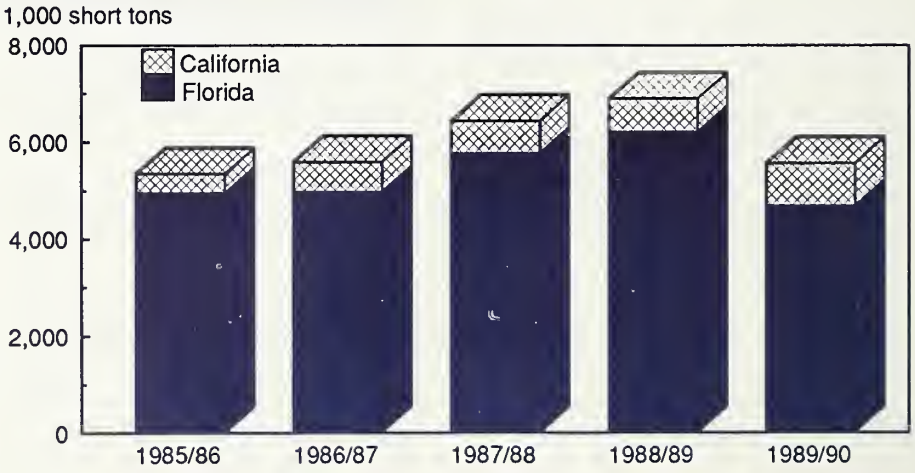


Figure 19

U.S. Oranges Used for Processing



The California navel orange crop (which is usually marketed between November and July) was down nearly 65 percent from 1.65 million short tons in 1989/90 to 0.59 million this season. The freeze occurred in December 1990 when only about 20 percent of the California navel crop had been harvested. California valencia oranges are usually marketed between March and December. The 1990/91 crop is forecast at 413,000 short tons, 65 percent less than the 1 million short tons produced in California during the 1989/90 season.

Juice Imports Down Compared to 1989/90

In the past 5 years, 65 percent of U.S. range production has been processed into juices (chilled, canned, or frozen concentrate) and 35 percent has been utilized fresh. Nearly 90 percent of U.S.

oranges used for processing have been from Florida, and almost 80 percent of fresh oranges have been supplied by California. So, the freeze of 1989 impacted Florida production and the processing market, while the fresh market is feeling the effect of the 1990 California freeze.

The freeze-damaged 1989/90 Florida crop was augmented by increased imports of frozen concentrate orange juice (FCOJ). Much less juice was imported during the 1990/91 season, as processed utilization of Florida oranges was up 32 percent from the 1989/90 season. Foreign production imported by members of the Florida Citrus Processors Association as of August 31, 1991, stood at 35.5 million gallons (42 degrees Brix), compared to 61.5 million gallons at the same time last year. Imports of FCOJ by Florida processors have declined 42 percent this season, compared to the same period (October to September) in the 1989/90 season. Conversely, exports of FCOJ reported by Florida processors for the same period were up 3.1 million gallons (52 percent) from last year.

Total U.S. imports of FCOJ have dropped from the 74.9 million gallons (42 degrees Brix) between December 1989 and June 1990 to 41.2 million gallons between December 1990 and June 1991. U.S. import data for the first 7 months of the marketing year indicate that the relative decline in FCOJ imports (down 45 percent) is about the same as reported by Florida processors.

Figure 20

U.S. Oranges for Fresh Market

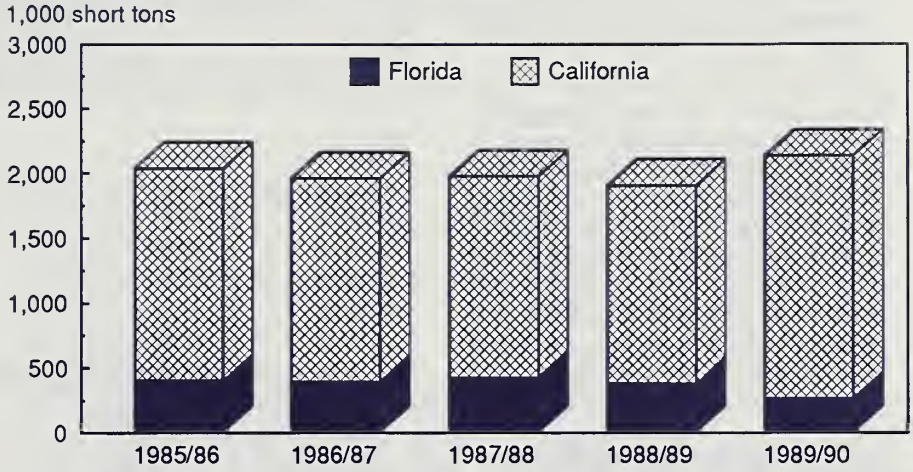
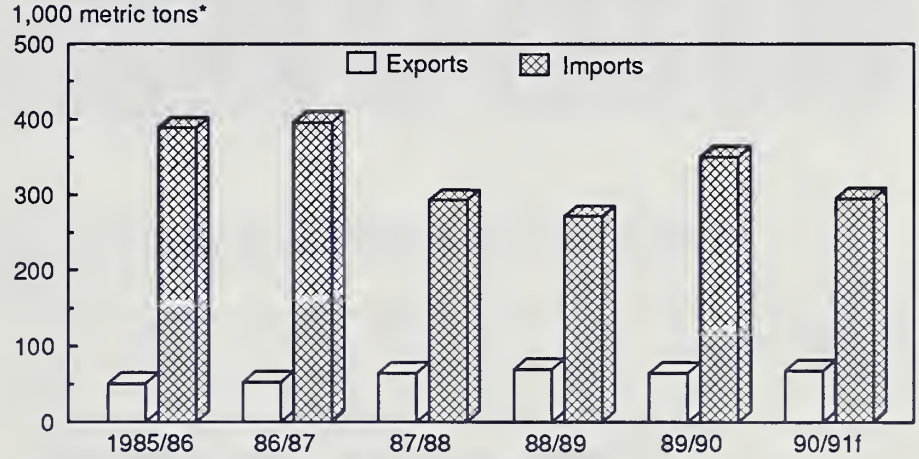


Figure 21

U.S. Orange Juice Exports and Imports



Season beginning December 1. Includes all processed orange juice.
*65 degree Brix. 1990/91 forecast.

More Fresh Oranges From Florida and Mexico

Although still accounting for less than 10 percent of Florida orange production, twice as many boxes had gone to the fresh market by August 1991 from the 1990/91 crop than from the 1989/90 crop. The sharp decline in the supply of fresh oranges in California explains most of the increase in fresh market use.

The shortfall in California orange production has greatly reduced the supply of high-quality fresh fruit required for export and raised fresh orange imports. According to USDA's Foreign Agricultural Service, exports of fresh oranges (including temples) from November 1990 to May 1991 were 168,600 metric tons, compared to 329,600 during the same period last season.

Imports of fresh oranges from November 1990 through June 1991 were 58,000 metric tons, well ahead of last year's 10,300 in the same 8-month period, and 11,900 metric tons for the entire 1989/90 marketing year. Most of the imported oranges have been from Mexico, with significant amounts also from Spain and Morocco. Between November 1990 and June 1991, 3,500 metric tons of fresh oranges were imported from Mexico, compared to 24,600 metric tons during the same 8-month period of 1991. Likewise, imports from Spain and Morocco increased from zero during January-May 1990 to 10,500 and 8,400 metric tons, respectively, in January-May 1991.

Short Supply of Fresh Oranges Elevates Prices

The effect of the freeze-reduced California orange crop on monthly prices became evident in June of 1991, when the Florida orange harvest was almost completed. From the beginning of the marketing year in October 1990, U.S. monthly on-tree grower prices for fresh oranges rose gradually, in a pattern similar to the last two seasons. However, the June 1991 price rose to $21.35 per box from $7.95 in May. In July, the price came down slightly to $19.48 but rose again to $20.45 in August. These equivalent on-tree

grower returns are historically high: in September 1982, $19.49 was estimated, $16.60 in October of 1978, $14.67 in September 1984, and $14.45 in October 1984.

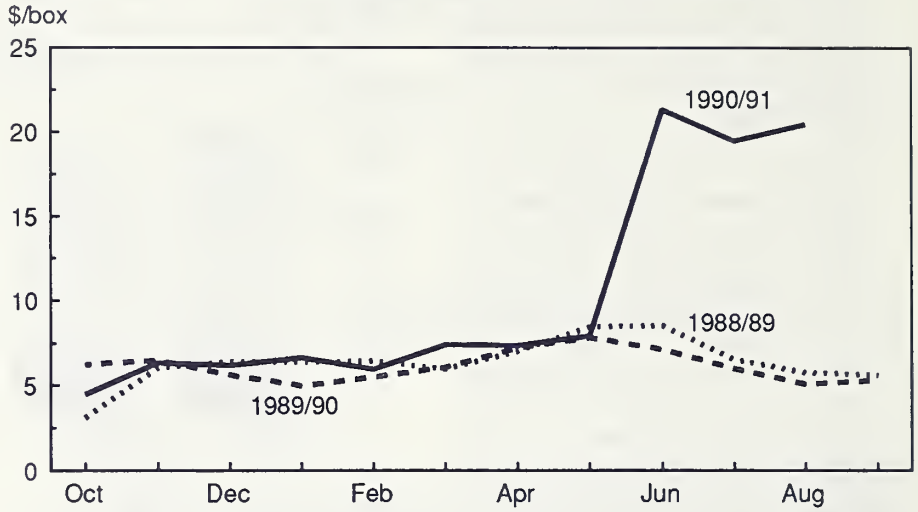
F.o.b. prices for fresh oranges in California and Arizona, reported by USDA's Agricultural Marketing Service, reveal that prices rose sharply immediately after the freeze in December 1990. By December 28, 1990, the f.o.b. price for navel oranges was $20.00 per box (113's), compared to $6.50 the year before. F.o.b prices stayed at or above $15.00 for the following 8 months, and registered $21.50 on August 30, 1991.

1991/92 California Orange Crop Will Still Be Relatively Small

A survey of California navel orange growers indicates that production will increase for the 1991/92 season. According to trade sources, the navel orange crop is expected to reach nearly 28 million boxes, compared to almost 16 million boxes produced in 1990/91. If realized, 1991/92 navel orange production would still be down from the two previous seasons: 63 percent of the 1989/90 crop and 82 percent of the 1988/89 crop. However, the first official USDA forecasts of U.S. orange production will not be available until October 10, 1991.

Figure 22

Equivalent On-Tree Returns for U.S. Oranges



Tighter Supply of U.S. Lemons Raises Prices

California lemon production in 1990/91 was down 11 percent from the previous season. Prices have been significantly higher.

Before frigid weather hit the West Coast in December 1990, the 1990/91 California lemon crop was expected to reach 646,000 short tons, up 8 percent from the prior season. The forecast was revised after the freeze, and California production now appears to have declined 11 percent from the 1989/90 season, to 532,000 short tons. However, Arizona's lemon crop increased 35 percent in the 1990/91 season, to 148,000 short tons, so total U.S. production declined just 4 percent from the 1989/90 season, to 680,000 short tons. Total lemon production has declined in the three previous seasons as well, and 1990/91 production is likely to be just under the previous 10-year low of 692,000 short tons in 1985/86.

In December 1990, the equivalent on-tree return (grower price) for all lemons was $4.59 per box, compared to $6.90 in December 1989. As the effects of the December cold snap became evident, prices hit $23.46 in June 1991, much higher than the normal seasonal high and well above the June 1990 price of $12.97. Prices dipped slightly, but were estimated at more than $20.00 per box in July and August. Lemon prices are expected to remain higher than a year ago but are expected to decline seasonally through December 1991.

Figure 23

U.S. Lemon Production

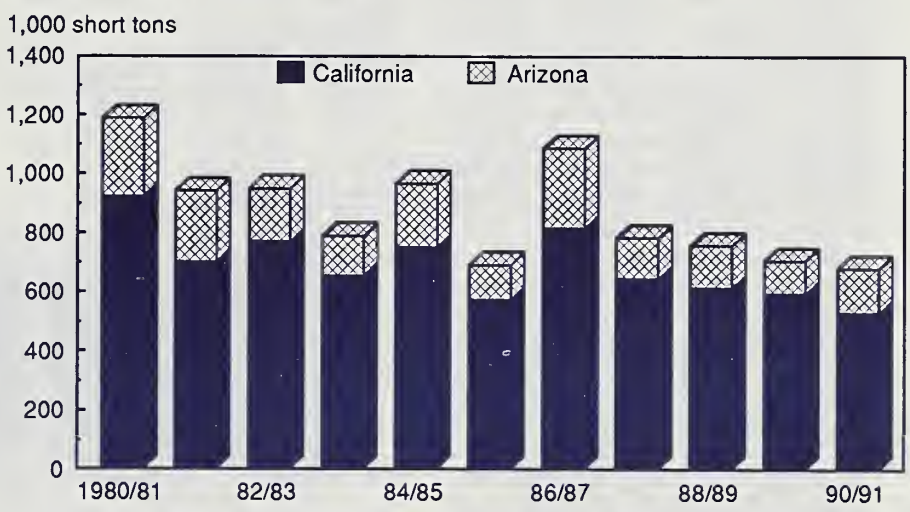
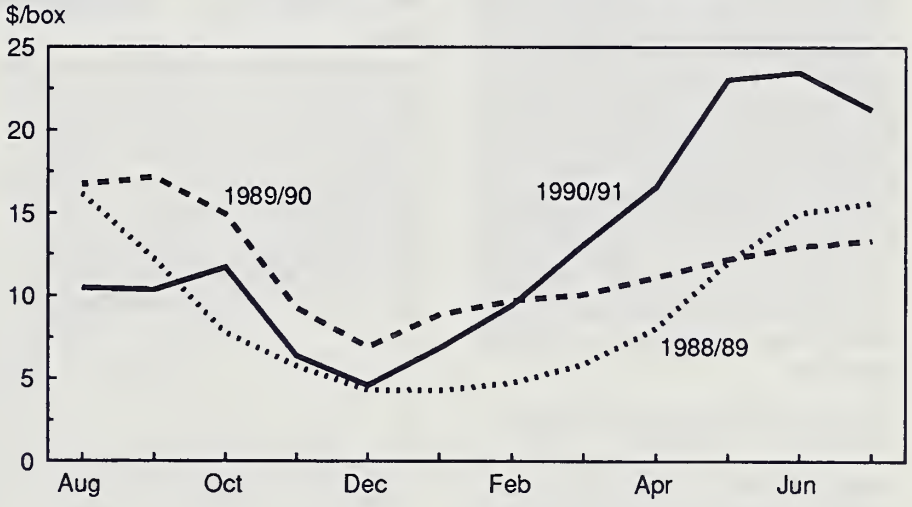


Figure 24

Equivalent On-Tree Returns for U.S. Lemons



Grapefruit Production Recovers in 1990/91

The final grapefruit forecast for 1990/91 season was 2.26 million short tons, up 14 percent from the previous season.

U.S. grapefruit production has shown substantial recovery from the December 1989 freeze that damaged crops in Florida and Texas. Utilized production in the 1989/90 marketing season dropped 30 percent from the 1988/89 season. USDA's July forecast was that U.S. grapefruit production in 1990/91 was up 14 percent, to 2.26 million short tons, compared to 1.98 million short tons in 1989/90. However, U.S. grapefruit production remains at 80 percent of the 1987/88 and 1988/89 crops because recovery from the December 1989 freeze in Florida and Texas is not complete and because California production decreased as a result of the freeze in December 1990.

In Florida, grapefruit production in 1990/91 was expected to be 1.92 million short tons up 26 percent from the freeze-damaged level of 1.52 million short tons in 1989/90. Texas grapefruit production dropped nearly 60 percent in the 1989/90 season, to 80,000 tons. Most of that amount consisted of grapefruit that had been picked before the severe freeze in December 1989. The freeze caused enough tree damage to virtually eliminate the 1990/91 citrus crops in Texas. California grapefruit production rose 20 percent for the 1989/90 season, to 313,000 short tons. But, because of extremely cold weather in December 1990, 1990/91 production was forecast down to the 1988/89 level of 263,000 short tons.

Grapefruit Prices Lower in 1991

Prices received by growers (equivalent on-tree returns) rose sharply in March of 1990 because of reduced supplies following the December freeze. Grower prices averaged over $7.00 per box for the following 6 months. For the 1989/90 season, monthly prices averaged $6.58 per box, compared to $5.21 in 1988/89. Grower prices for the first 11 months of the 1990/91 season averaged $5.25. Since February 1991, prices have been below year-ago levels as the Florida grapefruit supply recovered. The marketing year for

Figure 25

U.S. Grapefruit Production

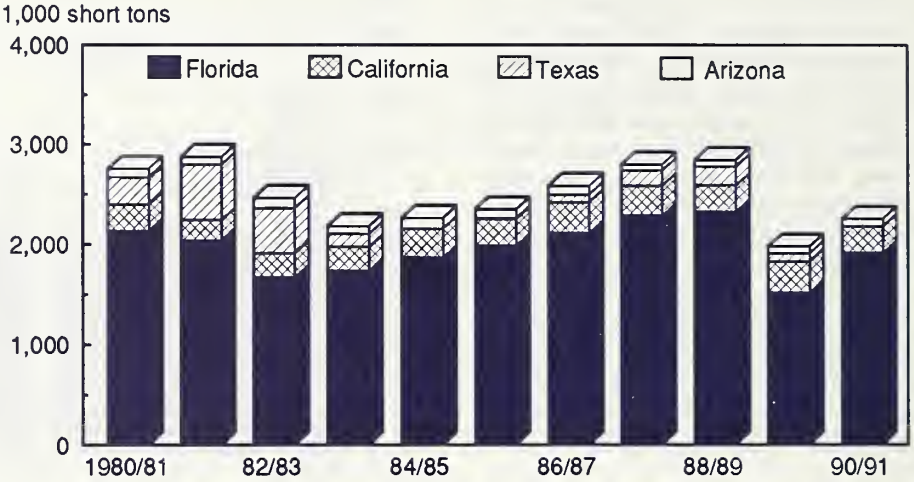
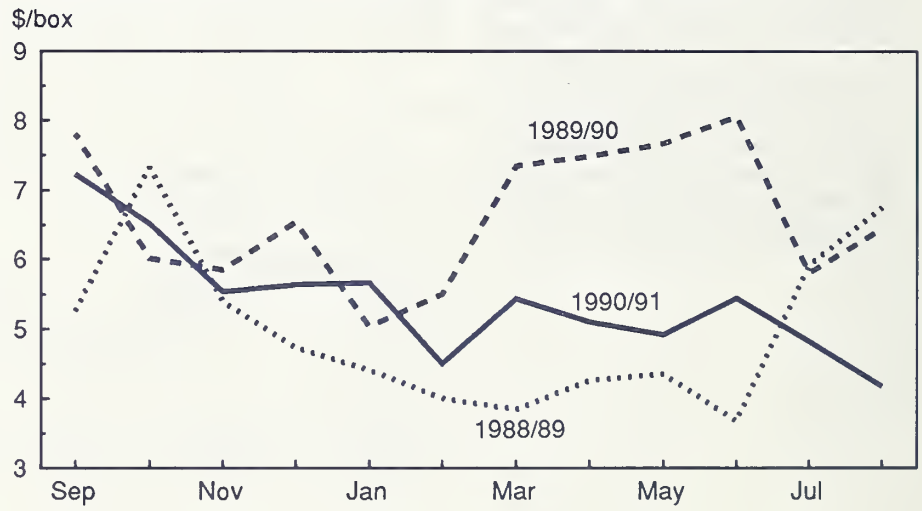


Figure 26

Equivalent On-Tree Returns for U.S. Grapefruit



Florida grapefruit begins in September, and the large crop started bringing prices down in October 1990.

Higher Proportion of Grapefruit Crop Utilized Fresh

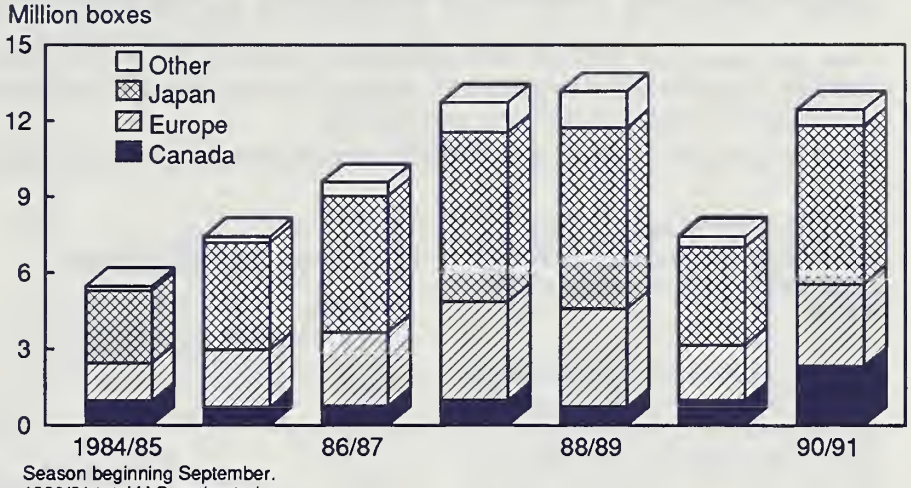
Most of this year's gain in Florida grapefruit production appears to be supplying the fresh market. Reports of grower/members of Florida Citrus Mutual indicated that, as of August 10, 1991, fresh utilization of grapefruit increased 80 percent over last season, and 5 percent fewer boxes of grapefruit were processed in 1990/91 than in the 1989/90 season. So far in the 1990/91 season, processing has accounted for 47 percent of total utilized production, compared to an average of 58 percent in the prior five seasons.

Last year, a higher proportion of the Florida crop may have been diverted to processing because of damage by the December 1989 freeze. Nevertheless, the total pack of frozen concentrated grapefruit juice (FCGJ) reported as of September 1, 1990, by the Florida Citrus Processors Association declined to 22.5 million gallons (42 degrees Brix) from 32.8 million gallons on September 2, 1989. Despite a much larger Florida crop in the 1990/91 season, the FCGJ pack was 22.0 million gallons as of August 31, 1991, lagging 2 percent behind the same time last year.

Usually 65 percent of the grapefruit grown in California are marketed fresh, which accounts for about 15 percent of total U.S. fresh grapefruit utilization. As with oranges, the smaller 1990/91 California grapefruit crop contributed to the higher proportion of Florida's grapefruit that was marketed fresh this year. In addition, more of the 1990/91 Florida crop was suitable for the fresh market than the 1989/90 crop which was damaged by freezing weather in December 1989.

Figure 27

U.S. Exports of Fresh Grapefruit



Season beginning September.
1990/91 total U.S. estimated.

Fresh Grapefruit Exports Rebound

Exports of fresh grapefruit for the 1990/91 marketing year (beginning in September 1990) are well ahead of 1989/90. The December 1989 freeze reduced the quantity and lowered the quality of grapefruit for the 1989/90 season. There was less of the high-quality grapefruit typically required for export, and export volume fell.

As of May 1991, 419,000 metric tons of fresh grapefruit have been exported, compared to 287,000 metric tons for all of 1989/90. However, exports of frozen concentrated grapefruit juice were down about 10 percent from last year.

Preview of 1991/92 Season

The prospects are good for the 1991/92 Florida grapefruit crop, although official estimates are not available until October 10, 1991. Near excellent citrus-tree and grove conditions are reported in Florida, with abundant new foliage on trees. Texas grapefruit production is likely to be negligible because young replacement trees planted after December 1989 will not begin to produce grapefruit until the 1992/93 season.

Near-Record Tree Nut Supplies Expected in 1991/92

Tree nut supply in 1991/92 is expected to total about 1.4 billion pounds, 5 percent below 1990/91's record. Grower prices for almonds and pistachios are expected to increase but will likely fall for pecans, hazelnuts, and walnuts.

Record 1990/91 Supply Dampened Grower Prices, but Total Crop Value Was Record $1.25 Billion

The U.S. supply of tree nuts (almonds, walnuts, pecans, pistachios, hazelnuts, and macadamias), plus imported tree nuts, is estimated to have reached a record 1.50 billion pounds (shelled basis), during the 1990/91 marketing season, up 11 percent from the prior season. Total U.S. production for the six major tree nut crops was 985 million pounds, the second highest on record. When domestic production was combined with record imports of 194 million pounds and large carryover stocks of 325 million pounds, total supply reached the new record level.

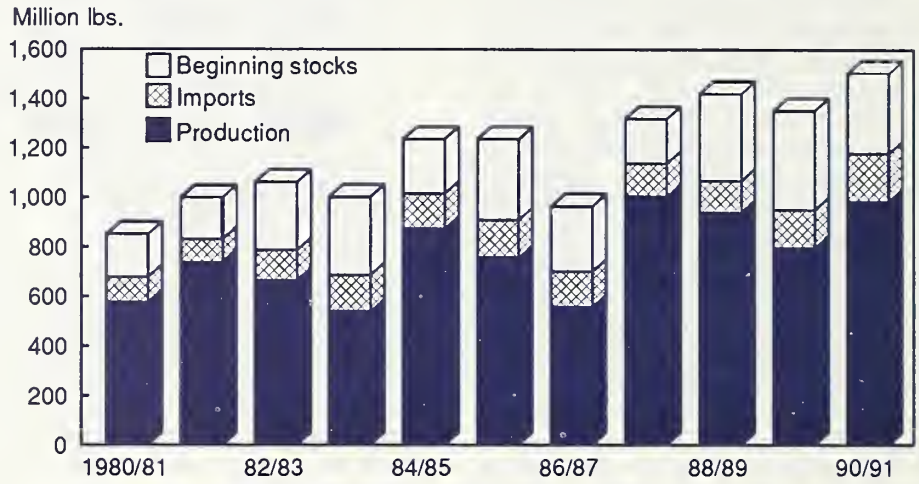
Almond supply in 1990/91, at a record 831 million pounds, accounted for more than one-half of the total tree nut supply. Supplies of hazelnuts and pistachios last season were also substantially higher but supplies of pecans, macadamias, and walnuts were about the same as in 1989/90. Imports of tree nuts increased last year, especially for Brazil nuts, cashews, pecans, and hazelnuts.

Strong demand pushed total use for all tree nuts during the 1990/91 marketing season to 1.1 billion pounds (shelled basis), 8 percent higher than the previous season. Domestic use rose 7 percent to a record 625 million pounds and exports increased 9 percent to a record 484 million pounds (shelled basis). Per capita consumption was 2.47 pounds per person, a new record, and compares with 2.34 pounds per capita in 1989/90.

Although grower prices for most tree nuts (almonds, hazelnuts, macadamias, and pistachios) were lower in 1990/91, higher production more-than-off-set these price declines, resulting in a record total tree nut value of $1.25 billion.

Figure 28

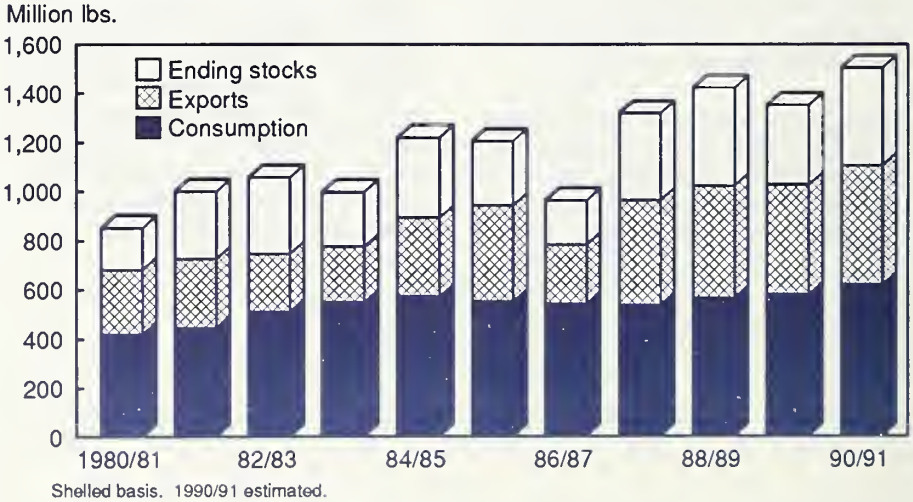
U.S. Tree Nut Supplies



Shelled basis. 1990/91 estimated.

Figure 29

U.S. Tree Nut Utilization



Shelled basis. 1990/91 estimated.

1991/92 Supply Outlook Moderately Lower, Prices To Remain Firm

Total beginning stocks of all tree nuts for the 1991/92 marketing season are nearly the same as the 1989/90 record level. Although carryin stocks for the new marketing year are lower for pecans and walnuts, carryin stocks are higher for almonds, pistachios, and hazelnuts. The high carryin stocks for almonds and pistachios will be moderated by lower production. Production of pecans and walnuts are forecast to increase substantially, but supplies in 1991/92 will be moderated by lower beginning stocks.

Total tree nut supply for 1991/92 is expected to exceed 1.4 billion pounds, 6 percent below last season's record level and about the same as 1988/89. This marketable supply is very manageable for the tree nut industry because total disappearance (domestic use and exports) is expected to approximate 1.1 billion pounds, leaving about 300 million pounds of carryin stocks of all tree nuts for the 1992/93 season. If realized this carryover (July 1, 1992) will be about 100 million pounds lower than the beginning stocks for the 1991/92 or the 1989/90 season. Assuming total tree nut use continues to grow at 3 percent per year, by the summer of 1992 the lower stocks will help to firm up producer prices in 1991/92.

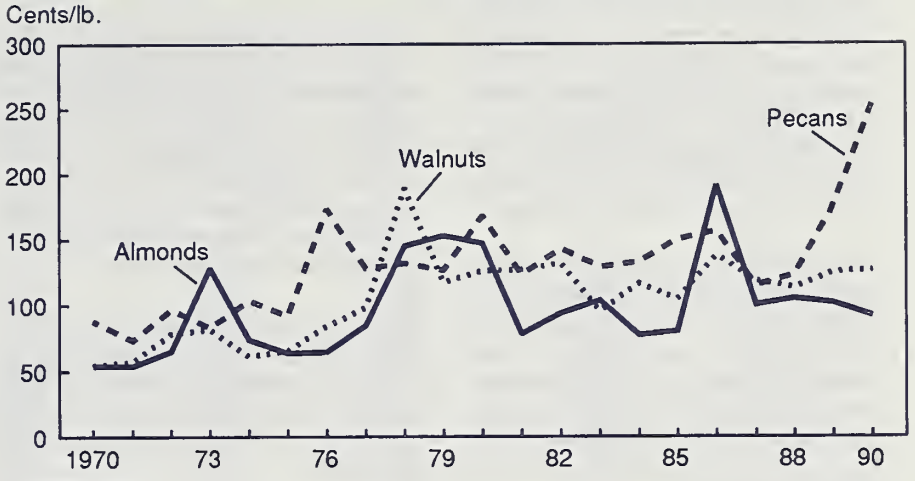
Smaller Almond Crop and Normal Supply Forecast, Prices Expected To Increase

USDA's final forecast for 1991 California almond production was 460 million pounds, down 30 percent from 1990's record of 660 million pounds. The California almond crop is in excellent condition despite the current drought. Nut sizes are larger than last year, but nut sets are lower. Cool weather this summer delayed maturity but eased the water shortage and minimized insect problems.

Beginning stocks for the 1991/92 season, at 278 million pounds, are 39 percent higher than a year earlier due to last season's record supply. Total supply of almonds for the 1991/92 season will approximate 719 million pounds, but the almond industry plans to place 10 percent of the 1991 production into a market reserve which will reduce the current season's saleable supply to about 675 million pounds. This quantity is nearly 50 million pounds less than the 1989/90 salable supply and much lower than in 1990/91. This should help to firm up almond prices during the 1990/91 season. If demand dictates a larger supply is needed, some or all of the market reserve can be allocated to boost the salable quantity.

Figure 30

Grower Prices for Almonds, Pecans, and Walnuts



Shelled basis.

Due to continuing strong demand and a below-normal 1991 almond supply in Spain, U.S. domestic use and exports are expected to continue at high levels but may not reach the record levels established last season. Ending stocks for the 1991/92 season are estimated to be at least 100 million pounds lower than ending stocks for 1990/91 and below stock levels for the past 5 years. Prices will likely remain firm for the 1992/93 season.

Record Hazelnut Crop Estimated

The 1991 hazelnut (Filbert) crop in Oregon and Washington is estimated at a record 26,000 tons (in-shell basis) 20 percent above last year's relatively good crop. Acreage is trending upward but the production increase stems mostly from a much improved yield.

Spring 1991 was cooler and wetter than normal, causing the crop to develop late. By late July, nut maturity was 7 to 10 days later than normal. However, hot weather in August was good for nut sizing and development.

Smaller Pecan Stocks, but Large Crop Expected, Prices Expected to Fall

U.S pecan production this year is forecast at 292 million pounds (in shell basis), 42 percent above last year's production and 17 percent above the 1989 crop. However, beginning stocks for the 1991/92 marketing season are the lowest since 1981/82, resulting in a total supply only 6 percent more than last season. Growers are concerned about the sizing and filling of the nuts this year. A higher incidence of disease is also reported.

Domestic consumption of pecans made some modest gains during the past two seasons and exports have increased significantly. However, imports have also increased substantially and have offset the gains made in total use. Grower prices, as well as wholesale and retail prices, were at record levels last season but are expected to decrease significantly with much larger supplies forecast for the 1991/92 season.

Small Pistachio Crop Forecast, Prices Will Rise Sharply

The 1991 California pistachio crop was forecast on August 29 at 48 million pounds (in-shell basis), down 59 percent from last year's record crop of 118 million pounds. The large decrease in production is mostly due to the alter-

nate-bearing characteristic of pistachio trees. The smaller crop is due to fewer clusters per tree. However, nut sizes are expected to be larger this year and of good quality, with fewer blank nuts. Harvest is 7 to 10 days behind normal but will be active by late September. The drought this summer in California and the December 1990 freeze have had minimal impacts on this year's crop.

Although the pistachio harvest will be smaller, carryover stocks are the highest ever because of last year's record crop. Total supply is expected to be well below last season and 1988, but higher than either the 1987 or 1989 crop year. The grower price last season fell to $1.08 per pound but is expected to rise sharply this season.

Domestic demand will weaken due to the higher prices and consumption may decrease. Exports are trending upward, but only modestly, due to keen international competition, especially from Iran and the Mediterranean countries.

Macadamia Nut Bearing Acres Continue Steady Growth

Although the bearing acreage increased slightly for the 1990 crop of Hawaiian macadamia nuts, the yield per acre slipped lower than the two previous seasons. Production reached 50 million pounds, slightly below 1989. Bearing acreage has trended upwards, and another year of maturity for the younger orchards will improve yields.

Although no official forecast is available for Hawaii macadamias, production is expected to increase in 1992, assuming no severe weather or other adverse conditions affect this year's crop yield.

Record Walnut Crop and Supply Expected

The 1991 walnut production in California is forecast at 250,000 tons (in-shell basis). This level is 10 percent above last year and 1 percent above the previous record high of 247,000 tons harvested in 1987. Bearing acreage this year is estimated at 181,000 acres, the same as in 1990. The 1991 yield is forecast at 1.38 tons per acre, compared with 1.25 tons harvested last year. The record yield of 1.40 tons per acre was harvested in 1987.

The quality of this year's walnut crop was adversely affected by sunburn and blight. However, the quality is expected to be better than last year. Nut sizes will be smaller than usual. Maturity is behind schedule due to the relatively cool spring and summer.

Although beginning stocks are lower, 1991 production is up significantly from a year ago, and total supply for the 1991/92 marketing season will be at a record level. Grower prices this season will depend heavily on export demand. Last season, export shipments were nearly a record, resulting in higher-than-anticipated grower prices even though supply was large and crop quality was below average. Prices last season were also bolstered by a small pecan supply, but a much larger pecan crop this year will increase competition for walnuts.

Table 6--Apples, commercial crop 1/: Total production and season-average price received by growers, 1989, 1990, and indicated 1991 production

State and area	Production 2/			Price per pound	
	1989	1990	1991	1989	1990
	--Million pounds--			--Cents--	
Eastern States:					
Maine	69.0	88.0	80.0	21.1	22.4
New Hampshire	41.0	48.0	48.0	23.1	24.2
Vermont	45.0	43.0	45.0	19.2	21.3
Massachusetts	78.0	85.0	78.0	21.8	23.9
Rhode Island	5.5	6.0	5.5	24.4	25.8
Connecticut	24.0	33.0	30.0	24.3	26.4
New York	960.0	990.0	1010.0	10.4	12.9
New Jersey	48.0	60.0	100.0	15.3	13.0
Pennsylvania	320.0	450.0	510.0	10.7	14.3
Delaware	15.0	17.0	25.0	11.3	11.6
Maryland	37.0	33.0	75.0	11.2	13.7
Virginia	325.0	210.0	420.0	10.2	10.1
West Virginia	115.0	150.0	190.0	9.8	9.6
North Carolina	220.0	230.0	320.0	8.8	10.2
South Carolina	35.0	34.0	45.0	12.0	12.7
Georgia	25.0	22.0	35.0	14.0	13.2
Total	2,362.5	2,499.0	3,016.5		
Central States:					
Ohio	125.0	120.0	130.0	17.9	17.4
Indiana	64.0	57.0	60.0	18.7	20.0
Illinois	91.0	60.0	82.0	13.0	17.5
Michigan	950.0	750.0	750.0	8.2	10.3
Wisconsin	65.0	48.0	61.0	15.6	25.0
Minnesota	31.0	20.0	23.0	27.8	37.4
Iowa	11.5	9.5	9.5	20.8	22.1
Missouri	55.0	41.0	43.0	13.6	16.9
Kansas	13.0	8.0	11.0	20.9	21.5
Kentucky	16.0	9.0	20.0	18.0	20.5
Tennessee	11.5	8.5	13.5	14.8	17.9
Arkansas	9.0	12.0	11.0	18.8	19.1
Total	1,442.0	1,143.0	1,214.0		
Western States:					
Idaho	158.0	165.0	130.0	7.9	13.5
Colorado	70.0	35.0	75.0	9.6	14.7
New Mexico	5.3	6.8	2.5	20.0	17.9
Utah	56.0	24.0	45.0	12.0	18.8
Washington	5,000.0	4,800.0	4,600.0	9.3	16.2
Oregon	160.0	180.0	120.0	5.0	11.2
California	675.0	780.0	800.0	15.0	15.6
Arizona	34.0	64.0	53.0	7.4	8.0
Total	6,158.3	6,054.8	5,825.5		
United States	9,962.8	9,696.8	10,056.0	10.4	15.0

1/ In orchards of 100-or-more bearing age trees.

2/ Includes unharvested production and harvested not sold (million pounds): 1989-45.4, 1990-38.6.

Source: National Agricultural Statistics Service, USDA.

Table 7--Apple production by varieties and areas, United States, 1986-1990, and indicated 1991 production

Variety	Area	1986	1987	1988	1989	1990	Aug. est. 1991
				--1,000 units-- 1/			
Red delicious	East	12,800	15,700	16,100	10,500	11,850	16,100
	Central	4,734	8,720	5,590	7,280	4,400	5,200
	West	54,800	90,720	66,680	86,300	85,100	81,800
	Total	72,334	115,140	88,370	104,080	101,350	103,100
Golden delicious	East	9,650	8,770	9,350	5,700	7,050	8,500
	Central	3,200	4,450	3,420	3,870	2,800	2,800
	West	19,970	28,150	23,590	27,600	26,700	24,800
	Total	32,820	41,370	36,360	37,170	36,550	36,100
McIntosh	East	11,300	12,300	12,000	10,750	11,000	11,500
	Central	2,940	4,000	3,330	4,130	3,650	3,800
	Total	14,240	16,300	15,330	14,880	14,650	15,300
Granny Smith	West	5,860	10,550	12,010	15,200	15,500	16,000
Rome	East	7,900	8,030	8,200	6,870	7,200	8,000
	Central	1,700	2,260	2,120	2,240	2,000	2,200
	West	2,600	4,750	3,470	4,150	4,000	3,600
	Total	12,200	15,040	13,790	13,260	13,200	13,800
Jonathan	East	950	960	980	780	770	1,000
	Central	5,000	6,860	5,640	6,070	5,700	5,900
	West	1,550	1,750	1,700	1,740	1,700	1,400
	Total	7,500	9,570	8,320	8,590	8,170	8,300
York	East	8,500	6,800	7,000	5,650	5,550	7,400
Stayman	East	4,400	4,000	3,940	3,230	3,400	4,000
	Central	790	1,220	770	980	700	800
	Total	5,190	5,220	4,710	4,210	4,100	4,800
Cortland	East	2,400	2,120	1,980	1,770	1,860	2,000
	Central	560	900	570	420	360	400
	Total	2,960	3,020	2,550	2,190	2,220	2,400
R.I. Greening	East	2,300	2,180	1,860	2,530	1,960	2,300
	Central	300	550	390	490	360	400
	Total	2,600	2,730	2,250	3,020	2,320	2,700
Newton	West	3,400	4,250	3,930	4,350	4,300	3,800
Winesap	East	900	920	930	810	810	1,200
	Central	420	750	630	700	500	500
	West	1,850	2,400	1,960	2,120	2,000	2,000
	Total	3,170	4,070	3,520	3,630	3,310	3,700
Idared	East	1,500	1,680	1,710	1,700	1,800	1,900
	Central	1,250	1,760	1,640	2,160	1,760	1,900
	Total	2,750	3,440	3,350	3,860	3,560	3,800
Northern Spy	East	700	800	680	620	600	700
	Central	1,900	2,280	1,720	2,010	1,400	1,700
	Total	2,600	3,080	2,400	2,630	2,000	2,400
Gravenstein	West	1,750	2,550	1,850	2,140	2,200	2,000
Empire	East	N.A.	N.A.	N.A.	1,300	1,950	2,500
	Central	N.A.	N.A.	N.A.	450	400	500
	Total	N.A.	N.A.	N.A.	1,750	2,350	3,000
Other	East	4,902	5,753	5,746	4,325	3,701	4,720
	Central	2,503	3,892	3,609	3,535	3,183	3,005
	West	1,840	2,989	2,310	2,806	2,712	3,303
	Total	9,245	12,634	11,665	10,666	9,596	11,028
Total U.S.		187,119	255,764	217,405	237,276	230,926	239,628

N.A.= Not avaiable.
1/ 42-pound units.

Source: Data compiled for the 1991 Apple Marketing Clinic, Chicago, IL., August 15-16, 1991, International Apple Institute, McLean, Va.

Table 8--Fresh and processed apples: Season-average price received by growers by type of use, principal States, 1988-90

Use and State	1988	1989	1990
		--Cents/pound--	
FRESH:			
California	32.0	26.2	29.1
Michigan	13.2	11.8	14.8
New York	15.3	14.8	17.8
Virginia	14.3	12.6	14.2
Washington	16.1	11.9	21.1
United States	17.4	13.9	20.9
		--Dollars/ton--	
PROCESSED:			
Canning--			
Arizona	2/	2/	106.00
California	156.00	150.00	159.00
Maryland	156.00	152.00	214.00
Michigan	164.00	148.00	172.00
New York	160.00	142.00	160.00
North Carolina	148.00	165.00	170.00
Pennsylvania	148.00	148.00	240.00
Virginia	175.00	180.00	163.00
Washington	110.00	105.00	125.00
West Virginia	164.00	136.00	134.00
Other states	142.00	131.00	148.00
United States	152.00	141.00	166.00
Juice and cider--			
Arizona	2/	2/	78.00
California	117.00	142.00	127.00
Kentucky	140.00	160.00	200.00
Maryland	100.00	92.00	122.00
Massachusetts	170.00	166.00	2/
Michigan	106.00	86.00	122.00
New Hampshire	150.00	160.00	180.00
New Jersey	100.00	2/	108.00
New York	98.00	90.00	114.00
North Carolina	94.00	92.00	124.00
Ohio	112.00	96.00	130.00
Oregon	76.00	45.00	108.00
Pennsylvania	98.00	100.00	122.00
Virginia	116.00	99.00	150.00
Washington	73.00	51.50	111.00
West Virginia	116.00	104.00	110.00
Other states	108.00	88.10	130.00
United States	95.70	78.80	117.00
Frozen--			
California	2/	2/	152.00
Maryland	140.00	182.00	2/
Michigan	184.00	176.00	196.00
New York	164.00	164.00	184.00
Pennsylvania	164.00	172.00	184.00
Virginia	168.00	2/	2/
West Virginia	134.00	182.00	146.00
Other states	123.00	127.00	149.00
United States	164.00	158.00	173.00
Dried--			
California	119.00	125.00	130.00
Other states	104.00	88.50	124.00
United States	106.00	95.20	125.00
Other 1/--			
Maryland	102.00	102.00	2/
Michigan	116.00	114.00	176.00
New York	154.00	156.00	158.00
Pennsylvania	102.00	118.00	142.00
Virginia	88.00	2/	150.00
West Virginia	126.00	140.00	108.00
Other states	113.00	98.70	132.00
United States	131.00	134.00	143.00
		--Cents/pound--	
All apples	12.7	10.4	15.0

1/ Includes vinegar, wine, fresh slices for pie making.

2/ Data not available to avoid disclosure of individual operations.

Source: National Agricultural Statistics Service, USDA.

Table 9--Grapes: Total production and season-average price received by growers in principal States, 1989, 1990, and indicated 1991 production

States	Production 1/			Price per ton	
	1989	1990	1991	1989	1990
	--1,000 short tons--			--Dollars--	
New York	152.0	144.0	180.0	277	286
Pennsylvania	60.0	53.0	75.0	274	285
Ohio	8.0	7.7	7.9	266	304
Michigan	43.0	46.0	46.0	265	291
Missouri	3.6	1.3	2.7	348	354
North Carolina	1.7	1.5	1.8	406	486
Georgia	2.8	2.9	3.2	781	777
South Carolina	0.3	0.4	0.4	810	803
Arkansas	6.5	5.1	8.3	319	327
Arizona	26.5	26.0	25.0	674	870
Washington	229.0	180.0	187.0	302	316
Oregon	7.5	7.0	9.5	740	800
Total 2/	540.9	474.9	546.8		
California:					
Wine	2,190.0	2,195.0	2,200.0	340	340
Table	630.0	645.0	570.0	449	449
Raisin 3/	2,570.0	2,345.0	1,950.0	248	248
All	5,390.0	5,185.0	4,720.0	314	287
United States	5,930.9	5,659.9	5,266.8	309	309

1/ Includes unharvested production and harvested not sold (tons): 1989-800, and 1990-120.
2/ Some figures may not add due to rounding.
3/ Fresh basis.

Source: National Agricultural Statistics Service, USDA.

Table 10--Pears: Total production and season-average price received by growers, by States and Pacific Coast, variety comparison, 1989, 1990, and indicated 1991 production

State and area	Production 1/			Price per ton	
	1989	1990	1991	1989	1990
	--Short tons--			--Dollars/ton--	
Connecticut	1,200	1,100	1,200	520.00	550.00
New York	16,500	14,600	14,500	223.00	253.00
Pennsylvania	5,500	3,300	4,400	394.00	358.00
Michigan	8,000	2,500	5,000	256.00	267.00
Colorado	4,000	2,500	3,600	337.00	336.00
Utah	2,600	2,800	2,400	340.00	380.00
Washington	349,000	372,000	310,000	301.00	298.00
Oregon	215,000	233,000	225,000	245.00	266.00
California	315,000	332,000	316,000	271.00	251.00
United States	916,800	963,800	882,100	277.00	274.00
Pacific Coast:					
Washington:					
Bartlett	157,000	177,000	145,000	258.00	248.00
Other	192,000	195,000	165,000	336.00	344.00
Total	349,000	372,000	310,000	301.00	298.00
Oregon:					
Bartlett	67,000	83,000	65,000	263.00	244.00
Other	148,000	150,000	160,000	237.00	279.00
Total	215,000	233,000	225,000	245.00	266.00
California:					
Bartlett	298,000	314,000	295,000	265.00	242.00
Other	17,000	18,000	21,000	365.00	410.00
Total	315,000	332,000	316,000	271.00	251.00
3 States:					
Bartlett	522,000	574,000	505,000	263.00	244.00
Other	357,000	363,000	346,000	297.00	321.00
Total	879,000	937,000	851,000		

1/ Includes unharvested production and harvested not sold (tons): 1989-350 and 1990-150.

Source: National Agricultural Statistics Service, USDA.

Table 11--Peaches: Total production and season-average prices received by growers, 1989, 1990, and indicated 1991 production

State	Production 1/			Price per pound	
	1989	1990	1991	1989	1990
	-- Million pounds --			-- Cents --	
Alabama	15.0	12.0	16.0	24.6	23.8
Arkansas	2.5	18.0	12.0	24.1	24.6
California:					
Clingstone 2/	992.0	1,012.0	970.0	10.7	10.7
Freestone	528.0	572.0	550.0	15.3	16.8
Colorado	3/	17.0	2.0	3/	35.6
Connecticut	4.0	3.6	3.4	50.0	47.0
Delaware	0.4	0.2	2.7	33.8	41.5
Georgia	125.0	130.0	150.0	20.2	29.9
Idaho	4.0	4.7	3/	38.4	21.7
Illinois	13.0	0.3	20.5	27.0	34.3
Indiana	4.0	0.8	3.8	32.2	34.1
Kansas	2.5	0.1	5.0	27.0	23.0
Kentucky	2.0	3/	12.0	37.6	3/
Louisiana	1.4	4.0	5.0	36.0	34.0
Maryland	7.6	4.0	18.0	28.0	32.7
Massachusetts	2.1	2.0	2.1	50.0	47.0
Michigan	55.0	45.0	40.0	19.1	21.0
Mississippi	1.0	4/	4/	40.0	4/
Missouri	4.5	0.7	10.0	27.0	30.0
New Jersey	70.0	45.0	120.0	34.6	40.9
New York	12.5	14.0	15.0	29.4	27.6
North Carolina	12.0	10.0	35.0	17.5	27.0
Ohio	8.0	5.5	5.5	34.0	38.0
Oklahoma	25.0	8.0	25.0	27.5	36.3
Oregon	14.0	14.5	13.0	24.7	29.9
Pennsylvania	65.0	76.0	80.0	25.8	28.9
South Carolina	270.0	110.0	315.0	20.0	24.3
Tennessee	1.3	1.3	7.0	36.9	37.0
Texas	14.0	24.0	32.0	40.0	35.0
Utah	11.0	12.0	4.0	21.5	24.0
Virginia	15.0	2.5	26.0	21.3	31.5
Washington	44.0	53.0	30.0	25.5	25.5
West Virginia	9.0	3.0	15.0	25.6	26.8
United States	2,334.8	2,205.2	2,545.0	16.3	17.3

1/ Includes unharvested production and harvested not sold (million pounds): United States, excluding California clingstone, 1988-91.5, 1989-57.9

2/ California clingstone is over the scale tonnage and includes culls and cannery diversion (million pounds): 1988-74 and 1989-65.

3/ No significant commercial production due to frost.

4/ Estimates discontinued in 1990.

Source: National Agricultural Statistics Service, USDA.

Table 12--Cherries, sweet: Total production and season-average price received by growers, 1989, 1990, and indicated 1991 production

States	Production 1/			Price per ton	
	1989	1990	1991	1989	1990
	-- Short tons --			-- Dollars --	
California	26,000	22,000	36,000	939	891
Idaho	2,700	2,000	400	761	1,080
Michigan	25,000	16,000	15,000	468	512
Montana	2/	280	2/	2/	1,670
New York	1,350	1,000	1,350	783	743
Oregon	52,000	48,000	30,000	551	651
Pennsylvania	700	50	900	1,500	1,620
Utah	1,700	1,400	800	800	645
Washington	84,000	66,000	35,000	802	1,180
United States	193,450	156,730	119,450	713	896

1/ Includes unharvested production and harvested not sold (tons): 1989-2,520 and 1990-24,380.
2/ No commercial production due to frost.

Source: National Agricultural Statistics Service, USDA.

Table 13--Cherries, tart: Total production and season-average price received by growers, 1989, 1990, and indicated 1991 production

States	Production 1/			Price per pound	
	1989	1990	1991	1989	1990
	-- Million pounds --			--Dollars--	
Colorado	0.5	1.0	1.3	0.125	.207
Michigan	180.0	160.0	95.0	.149	.185
New York	31.0	16.5	21.0	.151	.208
Oregon	15.0	7.5	4.5	.150	.132
Pennsylvania	6.0	3.5	10.0	.180	.292
Utah	24.0	15.5	21.0	.121	.141
Wisconsin	7.6	4.8	7.8	.076	.077
United States	264.1	208.8	160.6	.145	.181

1/ Includes unharvested production and harvested not sold (million pounds): 1989-21.1 and 1990-5.9.

Source: National Agricultural Statistics Service, USDA.

Table 14--Apricots and nectarines: Total production and season-average price received by growers, 1988, 1989, 1990, and indicated 1991 production

Item and State	Production 1/				Price per ton		
	1988	1989	1990	1991	1988	1989	1990
	--1,000 short tons--				-- Dollars --		
Apricots--							
California	95.0	118.0	115.0	90.0	340	323	326
Utah	0.5	0.4	0.3	0.1	380	470	460
Washington	6.1	1.6	7.2	5.0	682	1,400	596
United States	101.6	120.0	122.5	95.1	363	338	342
Nectarines--							
California	200	200	211	210	394	398	474

1/ Apricots-includes unharvested production and harvested not sold (tons): United States, 1988-8,100; 1989-1,050; 1991-2,010.

Source: National Agricultural Statistics Service, USDA.

Table 15--Plums and prunes: Production and season-average price received by growers in principal States, 1989, 1990 and indicated 1991 production

State and area	Production 1/			Price per ton	
	1989	1990	1991	1989	1990
	-- Short tons --			-- Dollars --	
Prunes and plums:					
Idaho	6,500	6,800	3,800	422.00	275.00
Michigan	13,000	6,000	9,000	175.00	296.00
Oregon	14,000	21,000	6,000	176.00	160.00
Washington	13,500	14,000	8,000	162.00	166.00
Total 4 States	47,000	47,800	26,800	209.00	197.00
Dried prunes:					
California	226,000	147,000	2/ 180,000	779.00	851.00
Plums:					
California	216,000	222,000	210,000	445.00	603.00
United States (fresh basis)	1,017,800	732,900	776,800		

1/ Includes unharvested production and harvested not sold (tons): 1989-3,150 and 1990-4,600.

2/ Dry-fresh ratio is 3 to 1.

Source: National Agricultural Statistics Service, USDA.

Table 16--Strawberries: Acreage, yield per acre, and production for major States, 1989, 1990, and indicated 1991 production 1/

Crop and State	Acreage			Yield per acre			Production		
	1989	1990	1991	1989	1990	1991	1989	1990	1991
	-- Acres harvested --			-- Cwt --			-- 1,000 cwt --		
Early:									
Florida	5,300	5,300	5,500	260	220	240	1,378	1,166	1,320
Late:									
California	20,400	21,000	21,100	425	470	500	8,670	9,870	10,550
Michigan	2,200	2,200	2,100	53	65	62	117	143	130
New Jersey	600	500	500	30	42	38	18	21	19
Oregon	6,200	5,700	5,600	105	115	110	651	656	616
Washington 2/	1,900	1,800	1,400	60	70	60	114	126	84
Group total	31,300	31,200	30,700	301	347	371	9,570	10,816	11,399
Major State total	36,600	36,500	36,200	295	328	351	10,948	11,982	12,719

1/ Includes fresh market and processing.
2/ Excludes unharvested or not marketed because of economic conditions: 1989-4,000 cwt and 1990-8,000.
Source: National Agricultural Statistics Service, USDA.

Table 17--Cranberries: Total production and season-average price received by growers, 1989, 1990, and indicated 1991 production

States	Production			Price per barrel 1/	
	1989	1990	1991	1989	1990
	-- 1,000 barrels --			-- Dollars --	
Massachusetts	1,815	1,363	1,800	45.70	46.30
New Jersey	292	323	375	41.00	43.00
Oregon	184	210	205	42.80	42.70
Washington	156	155	162	42.80	42.70
Wisconsin	1,300	1,385	1,470	42.50	43.50
United States	3,747	3,436	4,012	44.00	44.50

1/ Equivalent returns at first delivery point, screened basis of utilized production.
Source: National Agricultural Statistics Service, USDA.

Table 18--Frozen fruit: Packers' carryin, pack, imports, supplies, disappearance, and stocks of selected items, United States, 1987/88-1990/91

Item and season 1/	Carryin	Pack	Imports	Total supply	Disappear-ance to March 31	Stocks March 31	Total season disappearance
				--Million pounds--			
Total:							
1987/88	259.0	728.1	72.7	1,059.8	662.6	397.2	764.7
1988/89	295.1	672.2	77.0	1,044.3	624.7	419.6	743.9
1989/90	300.4	629.4	102.3	1,032.1	642.7	389.5	724.5
1990/91	307.7	723.9	82.7	1,114.3	672.3	442.0	681.3
Apples:							
1987/88	41.0	122.4	--	163.4	76.5	86.9	128.1
1988/89	35.3	117.1	--	152.4	71.4	81.0	119.6
1989/90	32.8	123.3	--	156.1	65.4	90.7	112.7
1990/91	43.4	125.5	--	168.9	63.1	105.8	N.A.
Apricots:							
1987/88	1.2	22.2	--	23.4	18.4	5.0	20.0
1988/89	3.4	14.7	--	18.1	14.1	4.0	14.9
1989/90	3.2	17.6	--	20.8	15.2	5.6	17.3
1990/91	3.5	16.5	--	20.0	15.2	4.8	17.7
Cherries, sweet:							
1987/88	6.4	21.3	--	27.7	18.2	9.5	20.9
1988/89	6.8	18.5	--	25.3	7.6	17.7	9.7
1989/90	15.6	14.0	--	29.6	12.9	16.7	16.7
1990/91	12.9	13.7	--	26.6	15.7	10.9	17.7
Peaches:							
1987/88	12.0	105.8	--	117.8	61.6	56.2	79.1
1988/89	38.7	110.3	--	149.0	75.5	73.5	107.2
1989/90	41.8	99.2	--	141.0	77.6	63.5	100.2
1990/91	40.8	111.2	--	152.0	69.5	82.5	100.9
Strawberries:							
1987/88	141.0	334.5	53.8	529.3	367.4	161.9	364.2
1988/89	165.1	274.6	61.6	501.3	346.8	154.5	350.1
1989/90	151.2	238.1	75.3	464.6	341.1	123.5	317.9
1990/91	146.7	305.9	61.5	514.1	364.7	149.4	362.9
Blackberries:							
1987/88	10.0	21.0	--	31.0	15.0	16.0	20.8
1988/89	10.2	21.4	--	31.6	15.4	16.2	22.2
1989/90	9.4	13.8	--	23.2	11.9	11.3	15.0
1990/91	8.2	13.7	--	21.9	11.7	10.2	16.2
Blueberries:							
1987/88	18.0	69.2	14.7	101.9	70.1	31.8	86.1
1988/89	15.8	82.4	9.8	108.0	62.7	45.3	83.4
1989/90	24.6	89.3	18.2	132.1	82.9	49.2	101.6
1990/91	30.5	102.1	12.0	144.6	94.3	50.3	116.0
Boysenberries:							
1987/88	1.8	5.2	1.1	8.1	4.8	3.3	5.7
1988/89	2.4	6.7	0.8	9.9	7.2	2.7	7.6
1989/90	2.3	4.9	2.4	9.6	6.9	2.7	7.6
1990/91	2.0	7.3	1.0	10.3	7.4	2.9	8.4
Raspberries:							
1987/88	27.6	26.5	3.1	57.2	30.6	26.6	39.8
1988/89	17.4	26.5	4.8	48.7	24.0	24.7	29.2
1989/90	19.5	29.2	6.4	55.1	28.7	26.4	35.4
1990/91	19.7	28.0	8.2	55.9	30.7	25.2	41.5

N.A.= Not available.

1/ Season beginning May 1 for strawberries, June 1 for apricots and boysenberries, October 1 for apples, and July 1 for all other items.

Sources: (pack) American Frozen Food Institute, (stocks) National Agricultrual Statistics Service, USDA, and (imports) Bureau of Census, U.S. Department of Commerce.

Table 19--Frozen concentrated citrus juices: Canners' packs, supplies, and movement, Florida, 1986/87-1990/91

Item and season	Carryin	Pack 1/		Supply		Movement		Stocks 2/
		To date 2/	Total season	To date 2/	Total season	To date 2/	Total season	
		--1,000 gallons 3/--						
Oranges:								
1986/87	36,995	202,908	228,028	239,903	265,023	165,361	225,076	74,542
1987/88	39,790	215,918	240,861	255,708	280,651	179,948	238,567	75,760
1988/89	42,084	217,571	239,105	259,655	281,189	181,313	234,883	78,342
1989/90	46,306	163,577	184,746	209,883	231,052	144,563	191,059	65,320
1990/91	39,993	197,408		237,401		169,359		68,042
Grapefruit:								
1986/87	3,422	30,000	30,244	33,422	33,666	22,241	28,453	11,180
1987/88	5,216	33,111	33,463	38,327	38,679	21,782	28,881	16,545
1988/89	9,798	32,772	33,122	42,570	42,920	21,869	27,768	20,701
1989/90	15,152	22,512	22,679	37,664	37,831	19,252	25,366	18,409
1990/91	12,465	21,994		34,459		20,072		14,387
Tangerines:								
1986/87	279	836	471	1,115	750	962	660	153
1987/88	90	831	1,242	921	1,332	807	1,007	114
1988/89	325	581	592	906	917	605	836	301
1989/90	81	604	604	685	685	423	569	262
1990/91	116	500		616		400		216

1/Includes frozen concentrated tangerine juice reprocessing in FCOJ, domestic receipts, foreign imports, net loss or gain during reprocessing, Florida product received from nonmembers, product used in FCOJ. 2/ For 1990/91 season, week ending August 31; 1989/90, September 1; 1988/89, September 2; 1987/88, August 27; and 1986/87, August 29. These respective dates include data through the 39th week of each season. 3/ Oranges and tangerines-42 degrees Brix, and grapfruit-40 degrees Brix.

Source: Florida Citrus Processors Association.

Table 20--Canned citrus juices: Canners' packs, supplies, and movement, Florida, 1986/87-1990/91

Item and season	Carryin	Pack		Supply		Movement		Stocks 1/
		To date 1/	Total season	To date 1/	Total season	To date 1/	Total season	
		--1,000 cases, 24 No. 2's--						
Oranges: 2/								
1986/87	986	7,535	8,122	8,521	9,108	7,426	8,084	1,096
1987/88	1,024	6,623	7,256	7,647	8,280	6,845	7,425	803
1988/89	855	7,718	8,164	8,573	9,019	7,680	8,227	893
1989/90	792	6,202	6,640	6,994	7,432	6,387	6,817	607
1990/91	615	6,624		7,239		6,719		519
Grapefruit: 3/								
1986/87	1,515	8,636	8,982	10,151	10,497	8,292	9,027	1,858
1987/88	1,471	7,257	7,724	8,728	9,195	7,240	7,871	1,488
1988/89	1,323	7,465	7,956	8,788	9,279	7,348	7,885	1,440
1989/90	1,394	5,428	5,986	6,822	7,380	5,959	6,581	863
1990/91	799	6,280		7,079		6,167		912
Blend:								
1986/87	126	509	533	635	659	485	533	150
1987/88	126	449	449	575	575	425	458	151
1988/89	117	392	424	509	541	403	426	106
1989/90	116	279	334	395	450	325	374	70
1990/91	76	438		514		461		54

1/ For 1990/91 season, week ending August 31, 1991; 1989/90, September 1; 1988/89, September 2; 1987/88, September 3, and 1986/87, August 29. These respective dates include data through the 48th week of each season.

2/ Includes reconstituted orange juice.

3/ Includes reconstituted grapefruit juice.

Source: Florida Citrus Processors Association.

Table 21--Fresh fruit: Retail price, marketing spreads, and grower-packer return per pound, sold in the Northeast and North Central regions, indicated months, 1990 and 1991

Region, commodity, and month	Retail price	Marketing margins		Grower-packer return 1/ (f.o.b. shipping point price)	
		Absolute	Percent of retail price	Absolute	Percent of retail price
	-- Cents --		Percent	Cents	Percent
NORTHEAST:					
Apples, Washington Red Delicious:					
June 1990	80.6	55.0	68	25.6	32
June 1991	101.6	61.2	60	40.4	40
May 1991	97.1	57.6	59	39.5	41
Grapefruit, Florida:					
April 1990	62.0	44.2	71	17.8	29
April 1991	54.0	39.5	73	14.5	27
March 1991	57.9	42.9	74	15.0	26
Lemons, California:					
June 1990	104.7	67.5	65	37.2	35
June 1991	147.3	97.1	66	50.2	34
May 1991	131.2	84.0	64	47.2	36
Oranges, California navel:					
May 1990	63.3	43.9	69	19.4	31
May 1991	N.A.	N.A.	N.A.	N.A.	N.A.
April 1991	108.5	71.3	66	37.2	34
NORTH CENTRAL:					
Apples, Washington red delicious:					
June 1990	77.2	51.6	67	25.6	33
June 1990	98.2	57.8	59	40.4	41
May 1991	91.5	52.0	57	39.5	43
Grapefruit, Florida:					
April 1990	72.8	55.0	76	17.8	24
April 1991	60.4	45.9	76	14.5	24
March 1991	60.0	45.0	75	15.0	25
Lemons, California:					
June 1990	115.0	77.8	68	37.2	32
June 1991	131.5	81.3	62	50.2	38
May 1991	133.1	85.9	65	47.2	35
Oranges, California navel:					
May 1990	58.0	38.6	67	19.4	33
May 1991	N.A.	N.A.	N.A.	N.A.	N.A.
April 1991	N.A.	N.A.	N.A.	N.A.	N.A.

N.A. = Not available.

1/ Adjusted to account for waste and spoilage incured during marketing.

Sources: Bureau of Labor Statistics, Department of Labor and Commodity Economics Division, ERS, USDA.

Table 22--U.S. Producer Price Indexes of selected dried and frozen juice items, by month, 1988-91

Items and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						--1982=100--						
Dried fruit:												
Prunes--												
1988	109.6	109.6	109.6	109.6	109.6	109.6	109.6	109.6	110.3	110.3	110.3	110.3
1989	111.3	111.3	112.6	114.9	114.0	114.0	114.0	114.5	114.5	115.8	119.5	119.5
1990	119.5	119.5	119.5	119.5	119.5	119.5	119.5	119.5	119.5	123.5	126.5	126.5
1991	126.8	128.1	128.1	128.1	128.1	128.1	N.A.					
Raisins--												
1988	85.8	85.8	85.8	N.A.	88.2	88.2	88.2	88.2	88.2	84.2	89.9	89.9
1989	89.9	89.9	89.9	N.A.	N.A.	90.8	90.8	91.7	89.7	90.9	93.5	93.4
1990	91.1	93.5	N.A.	93.5	91.6	N.A.	91.1	91.1	93.5	93.5	97.0	97.0
1991	97.0	97.0	97.0	N.A.	N.A.	N.A.	N.A.					
Frozen juice:												
Orange, conc.--												
1988	132.1	140.5	142.4	141.0	142.0	144.0	118.8	142.0	141.7	140.7	140.8	139.1
1989	137.3	127.7	126.5	125.4	130.6	139.2	140.7	140.3	134.0	131.6	123.1	121.7
1990	137.6	162.4	162.9	159.9	159.7	159.7	160.4	160.8	150.9	147.2	120.9	117.8
1991	114.4	114.4	111.7	111.7	110.1	111.0	111.0					
Grapefruit, conc.--												
1988	159.6	160.0	155.5	153.6	161.4	160.2	162.2	161.1	161.1	148.9	155.5	147.5
1989	146.3	140.4	139.6	144.0	144.0	141.4	137.6	142.5	140.1	141.2	146.0	146.7
1990	151.4	159.6	158.8	159.6	159.6	160.6	160.7	155.5	160.1	157.8	147.4	143.2
1991	139.9	137.7	133.3	128.4	124.0	125.2	125.1					

N.A.= Not available.

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 23--U.S. monthly average price indexes for fruits, selected months, 1990-91

Items	1990						1991						
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July
	--1982=100--												
Producer Price Index:													
Fresh fruits--	132.2	120.7	117.6	119.7	123.5	121.9	127.4	131.8	135.1	129.5	132.4	137.9	145.0
Citrus fruits	163.5	164.0	163.9	156.8	139.6	131.9	185.1	190.4	201.1	197.1	201.9	235.6	237.4
Other fruits	120.9	105.0	101.0	106.4	117.7	118.2	107.9	111.9	112.8	106.7	109.0	105.1	114.0
Canned fruit and juices--	127.3	128.1	128.6	127.7	125.4	125.3	126.2	127.3	126.6	126.9	127.3	126.8	128.5
Canned fruits	121.3	120.3	122.0	120.3	121.6	121.3	122.9	123.4	123.0	123.6	123.8	122.7	126.5
Canned fruit juices	134.5	135.7	135.2	135.0	129.8	129.9	130.2	131.7	130.9	130.9	131.6	131.5	131.5
Frozen fruits and juices--	146.5	146.4	139.9	137.0	119.2	116.2	115.1	115.0	112.9	112.5	112.8	112.7	112.7
Frozen fruits	133.7	133.6	127.6	125.0	108.8	106.0	106.2	106.2	105.0	105.7	104.9	104.9	104.9
Frozen juices	148.0	147.9	141.3	138.4	120.4	117.3	116.0	115.9	113.6	113.0	113.6	113.4	113.4
Dried fruits	105.0	105.0	106.3	108.0	111.0	111.0	111.1	111.4	111.4	111.3	111.3	111.3	111.8
Consumer Price Index:													
Fresh fruits	176.6	169.5	168.7	163.2	164.8	171.2	190.2	190.6	195.9	202.3	204.8	204.4	198.8
Processed fruits	140.1	140.0	139.9	139.5	137.0	134.6	134.7	133.2	132.2	132.3	132.1	131.2	130.6
Fruit juices and frozen fruits	144.5	144.3	144.2	143.6	140.7	137.4	137.1	135.2	134.0	133.9	133.4	132.0	131.2
Canned and dried fruits	122.4	122.5	122.5	122.7	121.9	122.5	123.8	124.0	124.0	124.7	125.3	126.2	126.5
						--1977=100--							
Index of all fruit prices received by growers 1/	196	187	203	186	209	194	208	197	213	216	235	398	364

1/ Index for fresh and processed.

Sources: Bureau of Labor Statistics, U.S. Department of Labor and National Agricultrual Statistics Service, USDA.

Table 24--Tree nuts: Supply and utilization, by commodity and marketing year, 1987/88-1990/91

Shelled basis

Commodity	Marketing year 1/	Production	Imports	Beginning stocks	Market reserve	Total supply	Ending stocks	Exports	Domestic consumption	
									Total	Per capita
					--1,000 pounds--					Pounds
Almonds	1987/88	634,560	650	72,890	114,220	708,100	224,160	343,300	140,640	0.58
	1988/89	564,540	480	224,160	141,130	789,180	263,510	363,970	161,700	0.66
	1989/90	457,170	70	263,510	0	720,750	201,000	342,380	177,370	0.71
	1990/91	629,940	70	201,000	44,100	831,010	278,560	359,950	192,500	0.77
Hazelnuts	1987/88	17,218	3,863	399	0	21,480	1,758	5,898	13,824	0.06
	1988/89	12,693	8,165	1,758	0	22,616	1,686	3,778	17,152	0.07
	1989/90	9,794	6,615	1,686	0	18,095	1,107	3,344	13,644	0.05
	1990/91	14,456	9,557	1,107	0	25,120	5,874	4,726	14,520	0.06
Pecans	1987/88	121,194	12,966	63,423	0	197,583	62,520	3,935	131,128	0.54
	1988/89	135,030	2,718	62,520	0	200,268	70,776	5,884	123,608	0.50
	1989/90	101,954	9,992	70,776	0	182,722	58,253	9,508	114,961	0.46
	1990/91	97,580	27,816	58,253	0	183,649	45,900	17,393	120,356	0.48
Walnuts	1987/88	204,292	470	28,343	0	233,105	59,954	59,243	113,908	0.47
	1988/89	169,916	184	59,954	0	230,054	48,231	60,263	121,560	0.49
	1989/90	195,594	137	48,231	0	243,962	54,196	66,896	122,870	0.49
	1990/91	180,800	42	54,196	0	235,038	50,080	66,260	118,698	0.47
Macadamias	1987/88	12,810	2,351	N.A.	0	15,161	N.A.	632	14,529	0.06
	1988/89	13,650	2,713	N.A.	0	16,363	N.A.	1,259	15,104	0.06
	1989/90	15,150	4,298	N.A.	0	19,448	N.A.	3,000	16,448	0.07
	1990/91	15,000	4,794	N.A.	0	19,794	N.A.	5,000	14,794	0.06
Pistachios	1987/88	14,579	2,166	15,005	0	31,750	5,487	3,469	22,794	0.09
	1988/89	44,752	854	5,487	0	51,093	14,897	6,442	29,754	0.12
	1989/90	18,029	1,018	14,897	0	33,944	10,045	2,904	20,995	0.08
	1990/91	46,918	653	10,045	0	57,616	17,482	6,800	33,334	0.13
Other Nuts 2/	1987/88	0	110,239	N.A.	0	110,239	N.A.	9,800	100,439	0.41
	1988/89	0	111,838	N.A.	0	111,838	N.A.	13,876	97,962	0.40
	1989/90	0	132,141	N.A.	0	132,141	N.A.	17,494	114,647	0.46
	1990/91	0	150,851	N.A.	0	150,851	N.A.	23,457	127,394	0.51
Total Nuts	1987/88	1,004,653	132,705	180,060	114,220	1,317,418	353,879	426,277	537,262	2.20
	1988/89	940,581	126,952	353,879	141,130	1,421,412	399,100	455,472	566,840	2.30
	1989/90	797,691	154,271	399,100	0	1,351,062	324,601	445,526	580,935	2.34
	1990/91	984,694	193,783	324,601	44,100	1,503,078	397,896	483,586	621,596	2.47

N.A. = Not available.

1/ Marketing season begins January 1 for macadamias; July 1 for almonds, hazelnuts, and pecans; August 1 for walnuts; and September 1 for pistachios.

2/ Includes other tree nuts such as Brazil nuts, cashew nuts, pignolias (Chinese pine nuts), and others. Marketing season for these other nuts begins July 1.

Source: Commodity Economics Division, ERS, USDA.

United States
Department of Agriculture
1301 New York Avenue, N.W.
Washington, D.C. 20005-4788

OFFICIAL BUSINESS
Penalty for Private Use, $300

Moving? To change your address, send this sheet with label intact, showing new address, to EMS Information, Rm. 228, 1301 New York Ave., N.W. Washington, DC 20005-4788.

FIRST-CLASS MAIL
POSTAGE & FEES PAID
U.S. Dept. of Agriculture
Permit No. G-145

What's Your Subscription Situation?

Your subscription to *Fruits and Tree Nuts* expires in the month and year shown on the top line of your mailing label. **The expiration date will appear in one of two formats:** FEB91 (for February 1991) or 910430 (for April 30, 1991). Disregard this notice if no renewal date appears. Renew today by calling, toll free, 1-800-999-6779, or return this form with your mailing label attached.

Fruits and Tree Nuts Situation and Outlook **Renewal**

☐ Bill me.
☐ Enclosed is $_____.

	1 Year	*2 Years*	*3 Years*
Domestic	_____ $12.00	_____ $23.00	_____ $33.00
Foreign	_____ $15.00	_____ $28.75	_____ $41.25

Mail to:

ERS-NASS
P.O. Box 1608
Rockville, MD 20849-1608

Use purchase orders, checks drawn on U.S. banks, cashier's checks, or international money orders.
Make payable to ERS-NASS.

ATTACH MAILING LABEL HERE

Credit Card Orders:
☐ MasterCard ☐ VISA Total charges $_____.

Credit card number: | | | | | | | | | | | | | | | | |

Credit card expiration date: | | | Month/Year

For fastest service, call toll free, 1-800-999-6779 (8:30-5:00 ET)