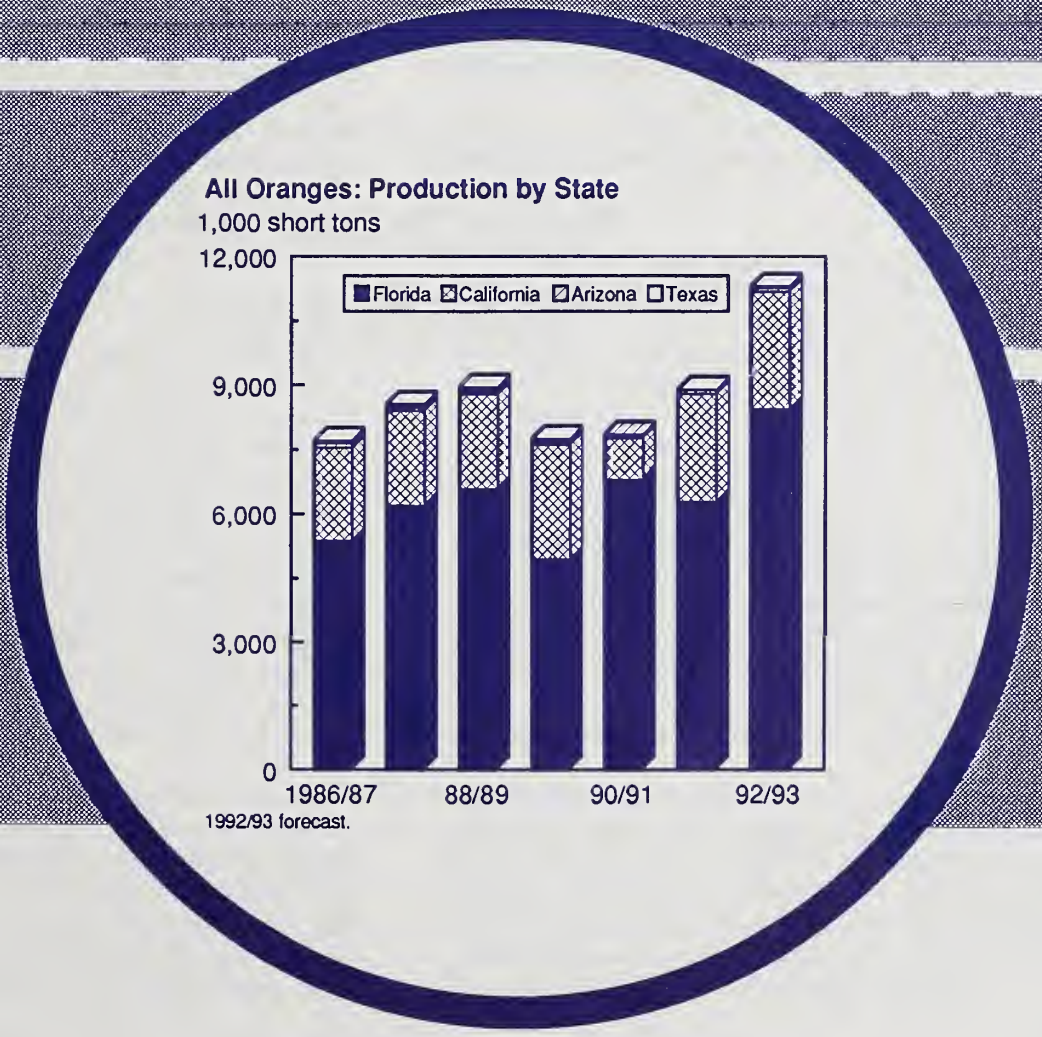
United States
Department of
Agriculture

Economic
Research
Service

TFS-265
March 1993

Fruit and Tree Nuts

Situation and Outlook Report



Fruit and Tree Nuts Situation and Outlook. Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture, March 1993. TFS-265.

Contents

Situation Coordinator
Diane Bertelsen
Voice (202) 219-0884 FAX (202) 219-0042

Principal Contributors
Boyd M. Buxton (202) 219-0884 Dennis Shields (202) 219-0884

Graphics and Table Design & Layout
Wynnice P. Napper (202) 219-0884

Word Processing and Design & Layout
Kyra A. Toland (202) 219-0882

Approved by the World Agricultural Outlook Board. Summary released March 17, 1993. The summary of the next *Fruit and Tree Nuts Situation and Outlook* is scheduled for release in July 1993. Summaries and text of reports may be accessed electronically; for details, call (202) 720-5505.

The *Fruit and Tree Nuts Situation and Outlook* is published three times a year and supplemented by a yearbook.

See back cover for subscription information.

Summary

Prospects of plentiful U.S. orange supplies pushed grower and retail prices down as the 1992/93 winter passed without damaging freezes in U.S. citrus-producing regions. Production is forecast up 10 percent from a year earlier for California oranges and 34 percent for Florida's all-orange crop.

The 1992/93 U.S. orange crop is expected to be 11.3 million short tons. California's all-orange production is forecast at 2.8 million tons, the largest California orange crop since 1982/83. At the end of February 1993, shipments of early-maturing navel oranges were ahead of the prior season and fresh-market orange prices were down. With about half of California-Arizona navel oranges remaining to be harvested, the average season-to-date f.o.b. price was down about 20 percent from 1991/92.

Florida's 1992/93 orange crop is forecast at 8.5 million tons, the largest since 9.3 million tons in 1979/80. Under pressure of sharply expanded orange juice supplies in both the United States and Brazil, frozen concentrated orange juice prices plummetted to a 16-year low. Retail orange juice prices started to come down late in 1992 and, with Florida orange juice production projected up nearly 40 percent in 1992/93, substantial retail price declines are anticipated.

Near-record production of Florida grapefruit is expected to boost U.S. production in 1992/93 and lower grower prices. Florida's large crop matured later than in the previous 2 years, so domestic and export shipments lagged. The combination of a large Florida crop and the likely prospect of an average-sized California crop would bring U.S. grapefruit production up 23 percent.

U.S. production of tangerines, Temples, and tangelos is expected to total 525,000 short tons in 1992/93, up 9 percent. California and Florida tangerine production is expected to increase, but Arizona output will drop from 1991/92. Florida's crops of Temples and tangelos are expected to gain 15 and 19 percent, respectively, from a year earlier.

A 15-percent increase in California and Arizona lemon production to 882,000 short tons put downward pressure on lemon prices. Although Florida's 1992/93 lime crop was damaged by Hurricane Andrew, lime imports from Mexico rose and dampened price hikes.

USDA's preliminary production estimate indicates a record-large 1992 apple crop of 5.3 million short tons, up 9 percent from 1991. Preliminary crop totals for 17 States were higher than the October forecasts, including Washington, New York, California, and Michigan. Apple production increased 13 percent from a year earlier in the Western States, 7 percent in the Central States, and 3 percent in the Eastern States. Abundant supplies, moderate domestic demand, and reduced exports are likely to keep downward pressure on apple grower prices for the remainder of the 1992/93 season.

The California Strawberry Advisory Board expects the industry to harvest about 4 percent more acres in 1993 than the prior year, while fresh-market utilization is expected to remain the same. A 70-percent increase in California avocado production has reduced grower prices in 1992/93.

The winter storm and sub-freezing temperatures on March 13 and 14, 1993, caused possible peach damage in the Southeast, especially Georgia. Damage to Florida's citrus crop from cold temperatures and high winds was not signficant.

USDA projects increased Chilean production of apples, pears, and grapes in 1992/93. Industry estimates pegged larger crops of cherries, peaches, and nectarines. During the first 3 months of Chile's fruit season, U.S. grape imports were off 6 percent and peach imports were down nearly 40 percent from the year earlier. Lower U.S. imports may be due to Chile's tighter quality controls and focus on getting better prices for higher quality produce.

Tighter supplies of most tree nuts have boosted grower prices and slowed shipments in 1992/93. Prospects of relatively low 1992/93 almond ending stocks and lower off-year pistachio production in 1993 are likely to maintain grower prices in 1994.

Two special articles are included in the report. The first special article highlights fruit trade trends and important trading parners. The value of U.S. fruit and nut imports and exports showed strong growth from 1980 to 1991 in total and with respect to total U.S. agricultural trade. Chile and Mexico were the leading sources of U.S. fresh fruit imports, while Canada and Japan were the major markets for U.S. exports in 1991.

The second special article presents supply, utilization, and consumption estimates for citrus fruit. Preliminary 1991/92 estimates indicate a rebound in consumption of fresh-market citrus fruits, but a slip in consumption of citrus juice. Most of the rebound was due to increased fresh orange consumption that followed the recovery of California production after the freeze-reduced 1990/91 crop.

Fresh orange consumption rose 4.5 pounds per capita in 1991/92, while tangerines added 0.5 pounds and limes gained 0.3 pounds. Grapefruit consumption was up slightly and lemon consumption dipped. Consumption of grapefruit juice rose 40 percent in 1991/92, to nearly 0.6 gallons per capita, but orange juice consumption decreased 7 percent in 1991/92, to 4.34 gallons per capita.

Ample Fruit Supplies Lower Price Indexes

Citrus fruit prices, at both grower and retail levels, dropped in 1992 and are expected to stay down in 1993. Large 1992/93 crops continue to put downward pressure on apple and orange prices.

Low Orange Prices Dominate Grower Price Index

Prospects of plentiful U.S. orange supplies pushed prices down as the 1992/93 winter passed without damaging freezes in California or Florida and production forecasts were raised. California's navel orange crop is forecast to increase 34 percent in 1992/93 and Florida's all-orange production forecast is also up 34 percent from a year earlier. The index of grower prices for all fruit dropped, because it is heavily weighted by fresh-market orange prices.

The January 1993 grower price index for all-fruit was down 18 percent from November 1992, the beginning of the orange marketing season, as U.S.-average grower prices for all oranges declined 30 percent. California and Florida prices for all oranges averaged 50-60 percent below year-earlier levels in November-January.

Apple prices also contributed to the reduced index. From November 1992 through January 1993, grower price indexes for fresh apples averaged 20-22 percent below the same period a year earlier. U.S. apple output was record large in 1992 and stocks for marketing in 1993 exceeded year-earlier levels by 24 percent on March 1, according to the International Apple Institute. Abundant apple supplies, moderate domestic demand, and reduced exports are likely to keep downward pressure on grower prices for the remainder of the 1992/93 season.

Fluctuations in fresh-market orange prices during the last 2 years have moved the grower price index up and down sharply. The rebound of 1991/92 California production following 1990/91's freeze-reduced output dropped fresh-market orange prices and brought fruit price indexes down from extremely high levels in mid-1991. The grower price index for fresh-market fruit averaged 35 percent lower in 1992 than 1991. Orange prices were so much lower in 1992 that the all-fruit, grower-price index dropped despite apple prices that remained above year-earlier levels until late in 1992. Since June 1992, monthly fruit price indexes have been at 5-year lows.

Retail Prices Lower for Most Fresh Fruits

Ample supplies and lower prices for all citrus and most noncitrus fruit brought the average 1992 Consumer Price Index (CPI) for fresh fruit down 5 percent from 1991. Monthly retail prices for navel oranges were down an average of 25 percent in 1992 and Valencia orange prices dropped 40 percent from 1991. Lemon prices were down 18 percent and retail prices for grapefruit averaged 2 percent lower in 1992 than 1991.

Red Delicious apple prices declined late in 1992 after the beginning of the 1992/93 crop, bringing the annual average to within 1 percent of the previous year. Strong domestic and export demand for the high-quality, 1991/92 apple crop supported prices in the face of increased supplies. But a record-large 1992/93 crop likely will dampen 1993 retail apple prices through the summer.

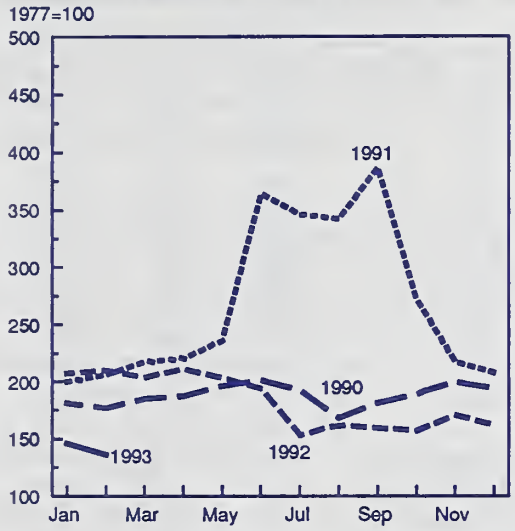
Prices of two other popular noncitrus fruits were generally down in 1992 as banana prices averaged 5 percent lower and table grape prices were 8 percent less than in 1991. Most bananas and about one-third of table grapes consumed in the United States are imported. Retail prices for fresh strawberries and peaches averaged 6-8 percent higher in 1992.

The CPI for processed fruit averaged higher in 1992 than in 1991, reflecting, in part, higher orange juice prices associated with a reduction of Florida orange processing in 1991/92. The 1992-average of monthly retail orange juice concentrate prices was 3 percent higher than in 1991. However, orange juice prices came down in 1992, from a peak of $1.98 per pound (42-degree-Brix concentrate) in April to $1.70 in December. Florida orange juice production is expected to be up nearly 40 percent in 1992/93 and substantial retail price declines are anticipated in 1993.

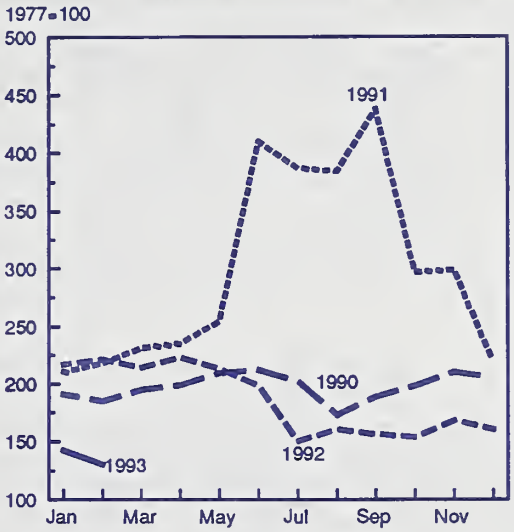
Figure 1

Fluctuations of Monthly Fruit Price Index

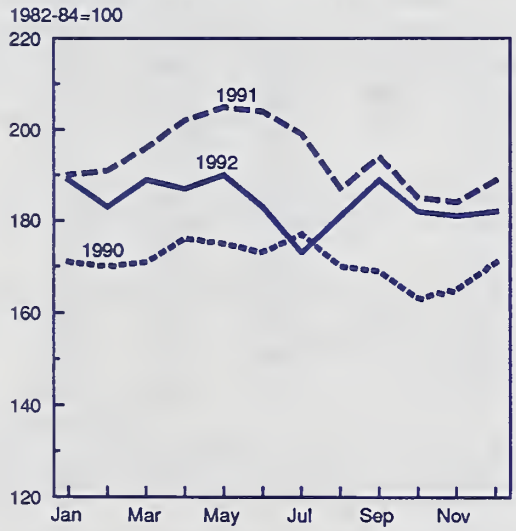
Prices Received by Growers for All Fruit



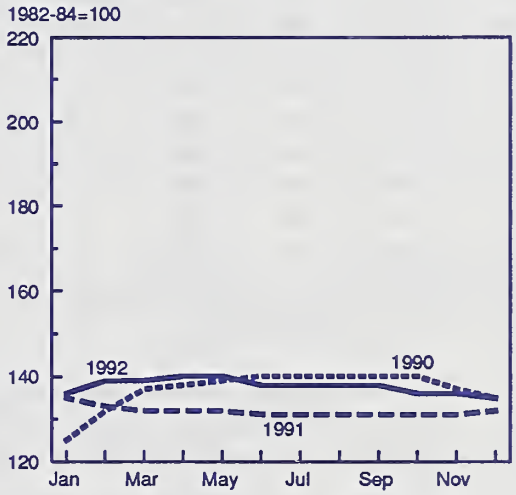
Prices Received by Growers for Fresh Fruit



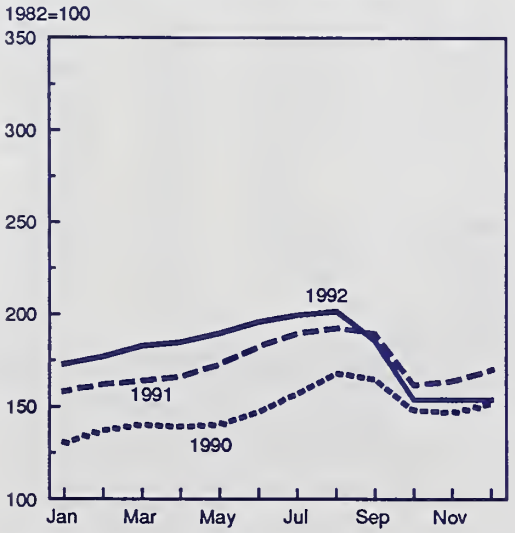
Consumer Price Index for Fresh Fruit



Consumer Price Index for Processed Fruit



Consumer Price Index for Apples



Consumer Price Index for Oranges and Tangerines

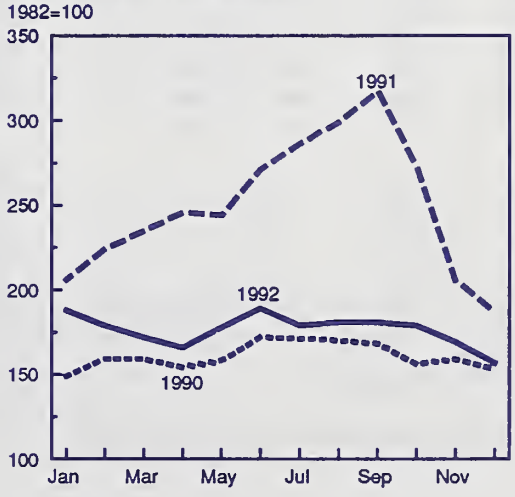


Table 1--U.S. monthly retail prices for selected fruits and juice, 1990-93

Month	Navel oranges				Orange juice, concentrate 1/				Grapefruit			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars per pound--				--Dollars per pound--				--Dollars per pound--			
January	0.501	0.823	0.643	0.514	1.817	2.005	1.879	1.677	0.532	0.611	0.520	0.518
February	.580	.930	.616	.506	1.980	1.971	1.963	1.753	.579	.595	.513	.505
March	.570	--	.563		2.150	1.902	1.922		.626	.603	.524	
April	.560	--	.537		2.214	1.909	1.976		.690	.615	.552	
May	.578	--	.573		2.241	1.877	1.959		.737	.625	.625	
June	.621	--	--		2.276	1.848	1.933		.778	.686	.648	
July	--	--	--		2.289	1.807	1.929		.828	.695	.671	
August	--	--	--		2.227	1.767	1.906		.755	.676	.701	
September	--	--	--		2.262	1.756	1.877		.664	.662	.731	
October	--	--	--		2.210	1.718	1.830		.575	.580	.731	
November	.585	.731	.571		2.102	1.771	1.774		.551	.544	.549	
December	.563	.652	.516		2.021	1.739	1.700		.564	.529	.524	

	Lemons				Red Delicious apples				Bananas			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars per pound--				--Dollars per pound--				--Dollars per pound--			
January	0.925	1.133	1.056	0.920	0.601	0.810	0.876	0.810	0.429	0.438	0.428	0.426
February	.933	1.096	1.003	.868	.632	.838	.886	.817	.492	.485	.493	.475
March	1.015	1.079	.933		.652	.843	.899		.500	.577	.517	
April	1.127	1.183	.921		.650	.860	.913		.481	.547	.484	
May	1.101	1.271	.981		.653	.892	.925		.462	.584	.445	
June	1.103	1.296	.988		.697	.936	.962		.447	.532	.463	
July	1.179	1.338	1.024		.750	.956	.990		.529	.516	.432	
August	1.155	1.294	1.009		.832	.964	1.015		.463	.416	.509	
September	1.158	1.288	1.144		.877	.974	.933		.465	.432	.459	
October	1.145	1.322	1.110		.765	.846	.765		.432	.395	.442	
November	1.076	1.215	1.007		.741	.839	.753		.429	.431	.422	
December	.974	1.210	.904		.772	.864	.764		.430	.419	.404	

	Anjou pears				Thompson seedless grapes				Strawberries 2/			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars per pound--				--Dollars per pound--				--Dollars per 12-oz. pint--			
January	0.675	0.739	0.830	0.777	--	1.942	1.782	1.831	--	--	--	--
February	.736	.795	.793	.805	1.380	1.483	1.323	1.480	1.638	1.467	1.430	1.467
March	.757	.812	.855		1.144	1.432	1.302		1.338	1.268	1.173	
April	.787	.827	.834		1.108	1.502	1.409		1.109	1.112	.960	
May	.783	.849	.839		1.455	--	--		.781	.976	.831	
June	.814	.976	.830		1.369	--	1.370		.987	.924	1.048	
July	--	--	--		1.238	1.376	1.017		.965	.948	.988	
August	--	--	--		.993	1.073	.928		1.081	.961	1.185	
September	--	--	--		1.064	1.019	.992		1.210	1.014	1.473	
October	--	--	--		1.266	1.110	1.162		--	1.035	1.190	
November	--	--	--		1.544	1.406	1.595		--	--	--	
December	.789	.881	.803		--	1.653	--		--	--	--	

-- = Not available.
1/ Price of 12-ounce container.
2/ Dry pint.

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

Fresh-Market Oranges Plentiful in 1992/93

California navel orange production is forecast up 34 percent from 1991/92 and Florida's output of early and midseason oranges (including navels) is expected to gain 39 percent. Abundant orange shipments from California, as well as Florida, kept orange prices down in 1992.

Orange Production Highest in Decade

Total U.S. orange production is expected to be up 27 percent from 1991/92 with larger California and Florida crops. California's production of all oranges is forecast up 10 percent to 2.776 million short tons in 1992/93, the largest California orange crop since 1982/83 when 2.854 million tons were produced. The production increase will provide ample supplies of fresh-market oranges for domestic and export markets, since California normally provides about 80 percent of U.S. fresh-market oranges.

California oranges are grown for the fresh market and normally processing accounts for less than half of its Valencia production and just 25 percent of its navel production. The California navel orange marketing season is November-June and the Valencia season begins in March and frequently overlaps the start of the next navel orange season in November.

USDA's March forecast of the 1992/93 California navel orange crop was up 24 percent from the October forecast. Despite the heavy fruit set, the crop continued to size well as the season progressed. In contrast, the March Valencia-production forecast was down 10 percent from the October forecast. California's 1993 Valencia orange crop is expected to decline 16 percent from 1992's unusually large crop because fruit set is less.

Orange Shipments Increase in 1992/93

California and Arizona orange shipments from November 1992 through February 1993 were ahead of 1991/92, when maturity was delayed and shipments were behind normal until January 1992. Season-to-date shipments (as of February 28, 1993) were 590,100 short tons, compared to only 361,900 tons at the same time in 1991/92. About half of the 1992/93 California-Arizona navel crop remained to be harvested at the end of February, compared to 60 percent in the 1991/92 season. A larger share of navel oranges has been processed this season, 20 percent, compared to 15 percent at the same time last season. Heavy rains that delayed harvest and caused some fruit damage may have contibuted to elevated diversion to

Table 2--Oranges: Utilized production, 1990/91-1991/92 and indicated 1992/93 1/

Crop and State	Utilized		Indicated 1992/93		Utilized		Indicated 1992/93	
	1990/91	1991/92	10-08-92	3-10-93	1990/91	1991/92	10-08-92	3-10-93
	--1,000 boxes 2/--				--1,000 short tons--			
Early, midseason, and navel varieties 3/:								
Arizona	550	780	700	850	20	29	26	32
California	15,800	35,100	38,000	47,000	593	1,317	1,425	1,763
Florida	87,500	83,400	114,000	116,000	3,937	3,753	5,130	5,220
Texas	4/	20	400	400	4/	1	17	17
Total	103,850	119,300	153,100	164,250	4,550	5,100	6,598	7,032
Valencias:								
Arizona	1,200	1,600	1,200	1,300	45	60	45	49
California	9,800	32,200	30,000	27,000	368	1,208	1,125	1,013
Florida	64,100	56,400	72,000	72,000	2,885	2,538	3,240	3,240
Texas	4/	10	50	60	4/	0	2	3
Total	75,100	90,210	103,250	100,360	3,298	3,806	4,412	4,305
All oranges:								
Arizona	1,750	2,380	1,900	2,150	65	89	71	81
California	25,600	67,300	68,000	74,000	961	2,525	2,550	2,776
Florida	151,600	139,800	186,000	188,000	6,822	6,291	8,370	8,460
Texas	4/	30	450	460	4/	1	19	20
Total	178,950	209,510	256,350	264,610	7,848	8,906	11,010	11,337

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest the following year.
2/ Net pounds per box: California and Arizona-75, Florida-90, Texas-85.
3/ Navel and miscellaneous varieties in California and Arizona. Early and midseason varieties in Florida and Texas, including small quantities of tangerines in Texas.
4/ Due to the severe freeze of December 1989, Texas had no commercial production the 1990/91 season.

Source: National Agricultural Statistics Service, USDA.

processing, but had little impact on overall supplies of fresh-market oranges because of the large crop.

Florida Orange Crop To Be Largest Since 1979/80

Florida's 1992/93 orange production forecast is 8.5 million tons, up 34 percent from 1991/92 and the largest since 1979/80 (9.3 million tons). The March forecast for Florida's early and midseason orange (including navels) output was 2 percent higher than the October 1992 forecast, due to lower-than-expected droppage.

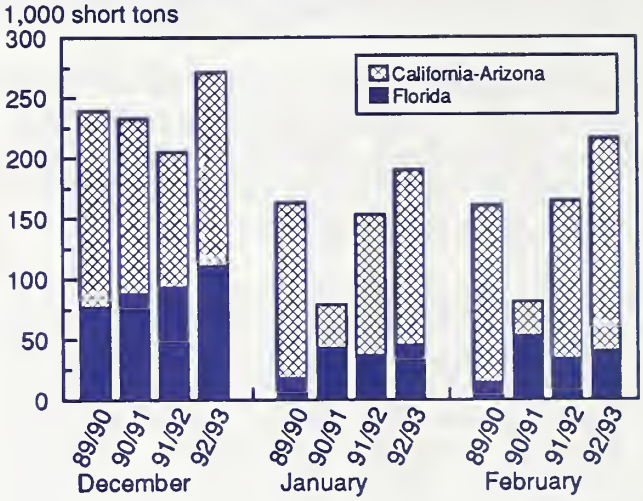
More than 90 percent of Florida oranges are processed for juice, with the balance utilized fresh. Florida oranges mature before California's and fresh shipments from Florida are heaviest early in the season, between October and January. However, early-1992/93-season shipments lagged behind the prior 2 years because crop maturity was later than the 1990/91 and 1991/92 crops, which matured unusually early.

As of February 28, 1993, fresh-use of Florida's early and midseason orange varieties (including navels) amounted to 271,200 short tons, compared to 309,400 at the same time last season. However, nearly 10 percent of the 1992/93 early and midseason orange crop remained to be harvested, while none of the 1991/92 crop remained at the end of February 1992.

In 1992/93, the share of oranges processed will likely increase due to the size of the Florida crop and ample supplies of California navel oranges. A larger share of Florida's early oranges are usually marketed fresh than later-maturing Valencias. As of February 28, 1993, fresh-use of early oranges was down to 5.7 percent of total utilization, compared to 8.3 percent at the same time last season.

Figure 2

U.S. Fresh Orange Shipments



Orange Prices Down for Growers and Consumers

U.S.-average grower prices (on-tree equivalent) for fresh-market oranges were less than $5.00 a box in July-October 1992 when the last of the 1991/92 Valencia oranges were on the market. Early-season prices for California navel oranges were improved, but still well below year-earlier prices. From November 1992 through February 1993, the average season-to-date f.o.b. price for California-Arizona navel oranges was $7.33 per carton (37.5 pounds), down about $2.00 from the same period in 1991/92.

Ample supplies of oranges will continue to keep retail prices down in 1993. The retail price index for oranges and tangerines declined 14 percent from October 1992 to January 1993. The December 1992, average retail price of navel oranges was down 10 percent from November 1992 and, in both months, prices were about 20 percent less than a year earlier.

Table 3--Fresh-market oranges: State-average equivalent on-tree price received by growers, 1990-93

Month	Arizona				California			
	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/75-lb. box--				--Dollars/75-lb. box--			
January	9.47	20.20	10.68	6.81	7.87	23.80	11.58	6.51
February	9.63	19.09	6.68	5.51	7.77	27.23	7.98	5.81
March	8.38	25.18	4.49		7.21	25.95	13.01	
April	7.18	20.58	4.54		6.94	30.28	7.12	
May	7.68	25.28	3.64		9.39	27.68	7.47	
June	6.38	13.98	3.04		9.43	27.08	5.69	
July	1.96	--	2.54		9.08	25.88	4.94	
August	--	--	--		7.88	26.98	4.64	
September	--	--	--		8.28	28.48	4.44	
October	--	--	--		6.89	26.68	4.64	
November	11.30	14.88	10.21		11.60	16.78	8.55	
December	11.00	12.08	8.11		11.20	12.98	7.21	
	Florida				Texas			
	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/90-lb. box--				--Dollars/85-lb. box--			
January	13.93	11.00	6.90	2.60	7.91	--	12.00	5.29
February	13.89	8.71	7.18	2.80	--	--	11.50	5.30
March	13.15	8.40	6.10		--	--	--	
April	13.45	8.40	6.10		--	--	--	
May	15.65	9.10	7.10		--	--	--	
June	--	--	10.60		--	--	--	
July	--	--	--		--	--	--	
August	--	--	--		--	--	--	
September	--	--	--		--	--	--	
October	7.10	11.60	--		--	--	--	
November	6.70	9.40	5.00		--	13.10	9.33	
December	8.80	8.70	5.50		--	14.50	9.71	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Volume Controls on California and Arizona Citrus Halted

The U.S. Department of Agriculture's Agricultural Marketing Service announced on December 14, 1992, that, for the remainder of the 1992/93 season, USDA would not approve weekly volume controls for fresh sales of California-Arizona navel oranges and lemons. In reaching that decision, the Department concluded that volume controls were not necessary at that time to achieve the declared policy of the Agricultural Marketing Agreement Act of 1937. The decision was based on a thorough review of current market conditions, on USDA guidelines that encourage industries to shift their marketing programs toward market enhancement rather than volume restrictions, and on the moratorium on new regulations that President Bush announced in his State of the Union address in January 1992.

Sunkist Growers obtained a temporary restraining order from the U.S. District Court until a hearing was conducted in Washington D.C. on December 29, 1992. Based on evidence at the hearing, the U.S. District Judge upheld the USDA decision, and volume controls were halted, beginning about January 1, 1993, for the balance of the 1992/93 marketing season.

Volume controls under the California-Arizona navel orange and lemon marketing orders regulate the amount of fruit that shippers (also called handlers) may sell each week in the domestic fresh market, which is defined to include Canada. Export sales and sales to processors are not regulated.

In all but two orange marketing seasons since the marketing order was established in 1953/54, at least 75 percent of the California and Arizona navel orange crop had been harvested before volume regulations were discontinued. Restrictions were suspended in 1984/85 after 52 percent of the crop had been harvested, and in 1991/92 when 37 percent had been harvested. By contrast, only 26 percent of the crop was harvested at the time volume controls were halted on January 1, 1993, the earliest point in the season since the marketing order was established.

Volume controls have been used extensively for California and Arizona lemons. In contrast to navel oranges, volume controls for lemons were usually in effect throughout successive seasons. Volume controls were discontinued for a period during the 1985/86 season because of a disease that affected fruit in storage and reduced the marketable supply. Controls were also discontinued following the severe freeze in December 1990 and were not reinstated until the week ending November 28, 1992. Volume controls were in effect from November 28 until USDA's decision to halt them beginning January 1, 1993.

Table 4--Oranges: U.S.-average equivalent on-tree price received by growers, 1990-93

Month	All oranges				Fresh oranges				Process oranges			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars per box--											
January	5.92	5.64	6.19	2.66	8.57	18.08	10.48	5.42	5.59	4.66	5.57	2.26
February	5.82	6.28	6.30	2.39	8.33	14.53	7.79	5.30	5.20	4.70	5.53	1.92
March	6.00	6.94	7.39		7.71	13.22	11.76		5.31	6.15	5.49	
April	6.47	7.09	6.42		7.30	13.58	6.79		6.15	6.37	6.34	
May	6.97	7.95	6.48		9.49	16.80	7.16		5.82	6.29	6.28	
June	6.61	19.43	4.58		9.35	27.02	5.83		2.42	-1.08	3.68	
July	5.74	17.40	1.69		9.05	25.88	4.89		1.98	-1.08	-0.87	
August	4.38	18.45	0.99		7.88	26.98	4.64		0.78	-1.28	-1.30	
September	4.48	21.10	1.37		8.28	28.48	4.44		0.58	-1.28	-0.68	
October	5.04	9.62	1.79		6.97	13.77	4.64		4.19	3.01	-0.68	
November	5.78	5.96	3.80		9.71	12.27	6.94		4.97	3.89	1.25	
December	5.76	5.70	2.90		10.22	11.12	6.40		4.81	4.71	2.14	

Source: National Agricultural Statistics Service, USDA.

Table 5--All oranges: State-average equivalent on-tree price received by growers, 1990-93

Month	Arizona				California			
	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/75-lb. box--				--Dollars/75-lb. box--			
January	8.88	17.55	9.64	5.64	6.70	6.09	9.54	5.12
February	8.57	13.91	5.69	4.92	6.27	7.74	6.34	3.90
March	6.64	20.15	3.82		5.56	14.13	9.74	
April	5.69	14.86	3.10		5.20	19.46	4.55	
May	5.79	19.13	2.27		6.87	20.08	4.36	
June	4.61	6.35	1.70		6.67	19.51	2.85	
July	2.07	--	0.76		5.75	17.40	1.71	
August	--	--	--		4.38	18.45	0.99	
September	--	--	--		4.48	21.10	1.29	
October	--	--	--		3.92	20.39	1.79	
November	10.44	13.65	7.65		9.59	14.25	6.07	
December	9.19	11.23	6.35		9.12	11.04	5.95	

	Florida				Texas			
	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/90-lb. box--				--Dollars/85-lb. box--			
January	5.82	5.51	5.74	2.36	3.96	--	12.00	4.74
February	5.69	5.93	6.28	2.12	2.43	--	11.50	5.30
March	6.26	6.45	6.24		--	--	--	
April	7.31	6.63	7.00		--	--	--	
May	7.10	6.76	7.53		--	--	--	
June	--	--	8.77		--	--	--	
July	--	--	--		--	--	--	
August	--	--	--		--	--	--	
September	--	--	--		--	--	--	
October	5.70	8.23	--		--	--	--	
November	5.23	4.90	2.66		--	13.10	9.33	
December	5.27	5.09	2.53		--	14.50	9.26	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Frozen Concentrated Orange Juice Prices Lowest in 16 Years

Frozen concentrated orange juice prices plummet under pressure of sharply expanded orange juice supplies in both the United States and Brazil, the world's major orange juice producers.

The United States and Brazil both realized larger orange crops this season. The March 1993 forecast for 1992/93 Florida orange production is 188 million boxes, up 34 percent from last season's crop of 139.8 million boxes. The larger crop combined with a record-high projected juice yield of 1.57 gallons (42 degrees Brix) per box, will likely raise Florida's orange juice production nearly 40 percent, from 811 million gallons (single-strength equivalent) in 1991/92 to 1,111 million gallons this season.

Table 6--Oranges used for frozen concentrate, Florida, 1986/87-1992/93

Season	Orange and Temple production	Used for frozen concentrate 1/		Yield per box
	--Million boxes 2/--		Percent	Gallons 3/
1986/87	123.1	96.2	78.1	1.51
1987/88	141.6	109.4	77.3	1.55
1988/89	150.4	113.7	75.6	1.54
1989/90	111.6	73.6	65.9	1.23
1990/91	154.1	104.1	67.6	1.45
1991/92	142.2	90.7	63.8	1.55
1992/93 4/	190.7	133.1	69.8	1.57

1/ Includes tangelos, Temples, tangerines, and K-early citrus.
2/ Picking boxes weigh approximately 90 pounds.
3/ Gallons per box at 42-degrees-Brix equivalent.
4/ Forecast, February 1993.

Sources: National Agricultural Statistics Service, USDA, Florida Citrus Processors Association, and the Florida Department of Citrus.

Table 7--Florida orange juice production, 1986/87-1992/93

Season	Frozen concentrate 1/	Canned single strength 2/	Chilled 2/	Total
	--Million SSE gallons 3/--			
1986/87	585.9	5.3	115.4	706.6
1987/88	686.5	4.8	134.7	826.0
1988/89	705.7	6.4	174.0	886.1
1989/90	364.7	3.4	173.7	541.8
1990/91	611.5	3.2	225.9	840.6
1991/92	587.3	2.7	220.7	810.7
1992/93 4/	856.0	3.7	251.0	1,110.7

1/ Pack from fruit, Florida Citrus Processors Association.
2/ Boxes utilized estimate by Florida Department of Citrus.
3/ SSE = single-strength equivalent.
4/ Forecast, March 1993.

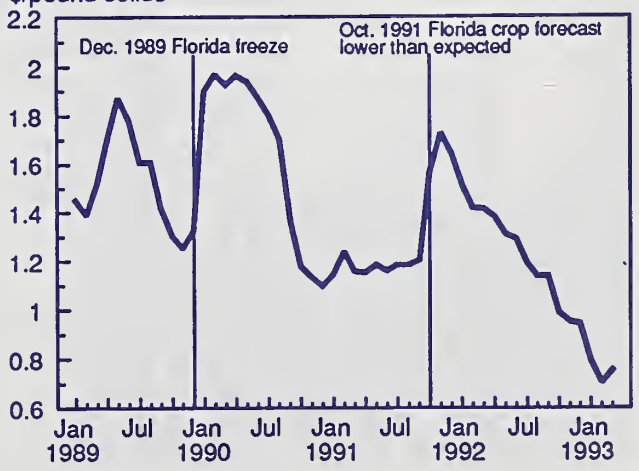
Source: Florida Department of Citrus.

Orange production in Sao Paulo, Brazil, was estimated at 290 million boxes, 16 percent more than in 1991/92. Although estimated juice yields in Brazil were down slightly, frozen concentrated orange juice (FCOJ) production was up 10 percent. Sao Paulo processes almost 90 percent of its orange crop into juice, which is mostly exported. The United States and Europe are Brazil's major orange juice export markets. Orange juice production is also forecast to increase in 1992/93 in several smaller producing countries including Spain, Italy, Mexico, and Morocco. The increases more than offset slight declines in Israel, Greece, and Turkey. These increases, combined with sharp growth in the United States and Brazil, will greatly expand world orange juice supplies.

Expanded World Supplies Push Orange Juice Prices Lower

The October 1991 Florida crop forecast (1991/92 season) was much smaller than expected, and orange juice futures prices for near-term contracts on the New York Cotton Exchange rose sharply in late 1991. FCOJ prices rose to average over $1.70 per pound solids in January 1992. Since then, the prospects for larger orange crops and juice supplies has caused FCOJ prices to fall, reaching as low as $0.67 per pound solids in February 1993, the lowest price in 16 years. Orange juice prices likely will continue low for the balance of this season as the Florida orange crop escaped damaging weather and freezing temperatures this winter. Prospects are good for continued expansion of orange production in Florida, as more nonbearing trees reach bearing age in the next several seasons. This expansion signals continued low prices through the mid-1990's.

Figure 3
Orange Juice Near-Term Futures Contract Prices
$/pound solids



Imports Likely To Decline in 1992/93

U.S. orange juice imports will likely decline in 1992/93 (December 1992 to November 1993) compared to the previous season, as Florida's larger orange crop reduces the need for orange juice imports. However, increased U.S. juice production will not be entirely offset by lower imports and supplies will expand. Lower orange juice prices and increased advertizing efforts by the Florida Department of Citrus are expected to stimulate increased consumption.

Historically, Brazil has accounted for about 85 percent of total U.S. FCOJ imports. As production in the United States and Brazil expands, Brazil increasingly will have to look to Europe, its other major market, and to other developing markets as outlets for its juice.

Table 8--United States: Orange juice supply and utilization, 1986/87-1992/93

Season 1/	Beginning stocks	Production	Import	Exports	Domestic consumption	Ending stocks 2/
	--Million SSE gallons 3/--					
1986/87	204	781	557	73	1,267	201
1987/88	201	907	416	90	1,223	212
1988/89	212	970	383	98	1,234	232
1989/90	232	652	492	90	1,062	225
1990/91	225	876	327	96	1,174	158
1991/92	158	923	286	108	1,107	152
1992/93 4/	152	1,202	197	124	1,223	204

1/ Season begins in December of the first year shown.
2/ Data may not add due to rounding.
3/ SSE = single-strength equivalent.
4/ Forecast, February 1993.

Source: Foreign Agricultural Service, USDA.

Table 9--Brazilian FCOJ production and utilization, 1986/87-199293

Season 1/	Beginning stocks	Production	Domestic consumption	Exports	Ending stocks 2/
	--Million SSE gallons 3/--				
1986/87	284	848	28	983	121
1987/88	121	998	28	1,038	53
1988/89	53	1,002	28	994	34
1989/90	34	1,476	28	1,348	134
1990/91	134	1,213	28	1,142	177
1991/92	177	1,334	25	1,390	96
1992/93 4/	96	1,462	25	1,406	127

1/ Season begins in July of the first year shown.
2/ Data may not add due to rounding.
3/ SSE = single-strength equivalent.
4/ Forecast, January 1993.

Source: Foreign Agricultural Service, USDA.

Table 10--Processing oranges: State-average equivalent on-tree price received by growers, 1990-93

Month	Arizona 1990	Arizona 1991	Arizona 1992	Arizona 1993
	--Dollars/75-lb. box--			
January	1.18	-0.89	0.08	-2.18
February	1.90	-1.28	0.08	-2.18
March	2.18	-1.28	-0.11	
April	2.18	-1.48	-0.65	
May	2.44	-1.08	-0.48	
June	2.44	-1.28	-0.48	
July	2.64	--	--	
August	--	--	--	
September	--	--	--	
October	--	--	--	
November	-0.89	-0.48	-0.21	
December	-0.89	-0.30	-0.21	

Month	California 1990	California 1991	California 1992	California 1993
	--Dollars/75-lb. box--			
January	1.18	-0.89	0.80	-2.18
February	1.90	-0.89	0.80	-2.18
March	2.16	-1.00	-0.10	
April	2.16	-1.44	-0.51	
May	2.40	-1.08	-0.59	
June	2.42	-1.08	-0.63	
July	1.98	-1.08	-0.88	
August	0.78	-1.28	-1.30	
September	0.58	-1.28	-0.68	
October	0.54	-1.08	-0.68	
November	-0.85	-0.48	-0.65	
December	-0.89	-0.30	-0.94	

Month	Florida 1990	Florida 1991	Florida 1992	Florida 1993
	--Dollars/90-lb. box--			
January	5.70	5.30	5.70	2.35
February	5.50	5.52	6.17	2.10
March	6.00	6.27	6.25	
April	7.15	6.48	7.05	
May	6.95	6.50	7.55	
June	--	--	8.60	
July	--	--	--	
August	--	--	--	
September	--	--	--	
October	5.40	3.30	--	
November	5.11	3.99	1.60	
December	4.96	4.80	2.20	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

More Tangerines, Temples, and Tangelos in 1992/93

California and Florida tangerine production is expected to increase, but Arizona output will drop from 1991/92, and U.S. output will be up 2 percent. Florida's crops of Temples and tangelos are expected to gain 15 and 19 percent, respectively.

More Tangerines Expected

The 1992/93 U.S. tangerine crop is expected to be 2 percent larger than in 1991/92. A 25-percent drop in Arizona tangerine production is more than offset by a 13-percent increase in California and a 4-percent gain in Florida. Tangerine production forecasts were raised for California and Florida and lowered for Arizona since the first forecasts in October. Florida production is forecast to provide 49 percent of the 1992/93 U.S. tangerine crop, California 38 percent, and Arizona 13 percent. California reports production of tangelos and other citrus hybrids with tangerines, while Florida reports tangelos separately.

Tangerine production has the potential to increase markedly in the future. According to the 1992 citrus tree inventory, Florida had 1.4 million bearing-age tangerine trees and 1 million trees planted since 1988 that will begin to bear fruit in 1-3 years. Florida production of Sunburst, an early tangerine variety, is expected to expand, while later-maturing Honey tangerine output is likely to decline. California's bearing-age tangerine acreage rose from 7,600 in 1990/91 to 7,900 in 1992/93.

Fresh Tangerine Shipments Increase

The Florida tangerine harvest was 85 percent complete by February 28, 1993. Most early- and mid-season varieties had been harvested and 27 percent of Honey tangerines remained to be harvested. Since the beginning of the 1992/93 season in October, 79,200 short tons of tangerines have been shipped from Florida, about 2 percent more than in the same period a year earlier. Tangerines used for processing were 6 percent ahead of the prior season.

In the past three seasons (1989/90-1991/92), an average of 70 percent of U.S. tangerines have been utilized fresh. A higher proportion of California and Arizona tangerines went to the fresh market (73 percent) than Florida tangerines (67 percent). In 1989/90, Florida's fresh use dropped to less than 60 percent of production because of freeze damage in December 1989. Preliminary data indicated that 74 percent of Florida's 1992/93 tangerines were utilized fresh and the rest were processed.

Tangerine Prices Drop

Increases in tangerine output, as well as large orange crops, have been bringing prices down for two seasons. In 1991/92, season-average grower prices (on-tree equivalent returns) for all tangerines were 10 percent lower than in 1990/91. Since the 1992/93 season began in October, monthly grower prices have been below year-earlier levels, and the retail price index for oranges and tangerines declined 14 percent from October 1992 to January 1993.

Tangerine Exports Increase and Imports Decline

U.S. exports of tangerines (and other mandarins) amounted to 10 percent of the fresh-market supply and totaled 21,600 short tons in 1991/92 (November through October). Tangerine exports increased nearly 60 percent from 1990/91, when freezing temperatures damaged the California crop. Canada received nearly 60 percent of 1991/92 exports. Tangerines are grown in Japan and imports from the United States are usually minimal. Taiwan, Hong Kong, Singapore, and Malaysia have become important markets for U.S. tangerines.

U.S. tangerine imports were were down to 19,200 tons in 1991/92, from about 23,000 short tons in 1990/91, and nearly all were from Mexico. Increased U.S. production of tangerines and lower domestic prices will likely raise exports and lower imports in 1992/93.

Figure 4

Fresh Utilization of Tangerines

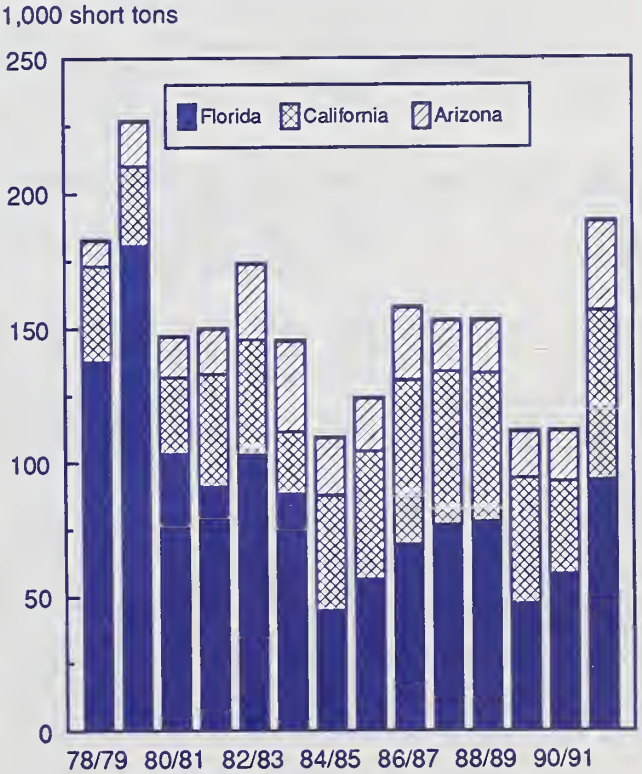


Table 11--Other citrus: Utilized production, 1990/91-1991/92 and indicated 1992/93 1/

Crop and State	Utilized		Indicated 1992/93		Utilized		Indicated 1992/93	
	1990/91	1991/92	10-08-92	3-10-93	1990/91	1991/92	10-08-92	3-10-93
	--1,000 boxes 2/--				--1,000 short tons--			
TANGELOS:								
Florida	2,650	2,600	3,300	3,100	119	117	149	140
TANGERINES:								
Arizona	600	1,200	950	900	23	45	36	34
California	1,350	2,400	2,500	2,700	51	90	94	101
Florida	1,950	2,600	2,600	2,700	92	123	124	128
Total	3,900	6,200	6,050	6,300	166	258	254	263
TEMPLES:								
Florida	2,500	2,350	2,700	2,700	113	106	122	122

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest the following year.
2/ Net pounds per box: tangerines-California and Arizona-75, Florida-95; Florida, tangelos-95 and Temples-90.

Source: National Agricultural Statistics Service, USDA.

Table 12--Tangerines: U.S.-average equivalent on-tree price received by growers, 1990-93

Month	All tangerines				Fresh market				Processing			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars per box 1/--											
January	16.07	19.12	14.52	12.86	25.96	23.82	18.75	18.89	2.56	1.69	2.07	0.73
February	17.29	11.98	11.69	9.02	25.15	21.43	16.05	13.40	2.18	0.79	1.58	-0.68
March	12.33	19.09	10.99		18.01	27.77	17.30		2.02	1.43	0.86	
April	11.15	17.13	6.15		16.08	26.58	12.63		1.30	-1.78	-1.12	
May	13.06	12.35	6.62		16.98	26.48	13.27		1.30	-1.78	-1.12	
June	1.30	--	-1.06		--	--	--		1.30	--	-1.06	
July	--	--	--		--	--	--		--	--	--	
August	--	--	--		--	--	--		--	--	--	
September	20.40	--	--		29.10	--	--		0.50	--	--	
October	18.90	24.25	20.34		25.50	30.28	26.10		1.74	2.00	-0.40	
November	14.95	25.34	17.79		22.41	28.28	22.61		1.24	2.15	0.15	
December	16.11	15.66	12.16		23.74	18.43	15.51		2.16	2.49	0.04	

-- = Not available.
1/ Net pounds per box: California and Arizona-75; Florida-95.

Source: National Agricultural Statistics Service, USDA.

Table 13--All tangerines: State-average equivalent on-tree price received by growers, 1990-93

Month	Arizona				California				Florida			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/75-lb. box--				--Dollars/75-lb. box--				--Dollars/95-lb. box--			
January	16.86	18.55	14.10	13.49	22.31	19.48	11.88	14.38	12.95	19.04	15.97	12.67
February	10.40	13.05	9.69	11.96	19.25	22.29	8.01	8.69	18.89	16.45	15.13	8.99
March	8.85	19.44	6.52		12.97	18.79	5.86		9.55	19.44	19.71	
April	--	--	5.32		11.15	17.13	6.67		--	--	--	
May	--	--	5.99		13.06	12.35	6.94		--	--	--	
June	--	--	--		1.30	--	-1.06		--	--	--	
July	--	--	--		--	--	--		--	--	--	
August	--	--	--		--	--	--		--	--	--	
September	--	--	--		--	--	--		20.40	--	--	
October	--	--	--		--	37.74	--		18.90	23.44	20.34	
November	11.73	13.50	21.14		18.16	30.05	19.24		14.67	23.79	17.52	
December	17.39	15.18	10.98		17.36	17.36	11.86		14.69	14.92	12.22	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

More Temples for Processing

All reported U.S. production of Temples (a citrus hybrid) is from Florida, where production is expected to be up 15 percent from the 1991/92 season (December through May). As of February 28, 1993, nearly 40 percent of Temples remained to be harvested, compared to about 10 percent a year earlier when the 1991/92 crop matured unusually early. Early reports indicated that 44 percent of 1992/93 Temples were used fresh, up from 35 percent the year earlier, but the ratio of fresh-to-processed use usually declines late in the season.

Although Temples are usually cultivated for fresh use, more than half of the last three crops have been processed. The 1989/90 Temple crop was damaged by freezing temperatures, utilized production dropped, and 90 percent of the crop was processed. Less than 70 percent of Florida's Temples were processed in 1990/91, when maturity was ahead of normal and the short California orange crop raised prices for substitute fresh-market citrus fruit. Although fresh-market prices were attractive early in 1991/92, about 65 percent of Temple production was processed.

Florida's Temple production declined in the 1980's, as freezing temperatures cut output and damaged trees, especially in the northern-most, citrus-producing counties where Temples were grown. The 1992 citrus tree census indicated that the number of bearing-age Temple trees was 720,300 compared to 776,400 in 1990. The number of nonbearing-age trees (planted in the last 3 years) also declined, so the ratio of nonbearing-to-total trees was 11 percent in both years, indicating little potential for expansion over the next few years.

Larger Tangelo Crop Forecast

The March forecast of 1992/93 Florida tangelo production indicated a 19-percent increase from the prior season, making it the largest crop since 1988/89. California tangelo output is not reported separately but included with tangerines.

Harvest of Florida tangelos was complete the first week in mid-February, and production was 6 percent less than anticipated at the beginning of the season. Fresh-market shipments accounted for 39 percent of preliminary certified use, compared to 46 percent at the same time in the prior season. In 1989/90-1991/92, an average of 44 percent of tangelos were utilized fresh. Preliminary reports indicated 1992/93 fresh utilization was about the same as the prior year and processed use was up 33 percent. By mid-February, about 50,265 short tons of tangelos had been shipped to the fresh market.

Like tangerines and Temples, tangelos are usually cultivated for the fresh-market. Tangelos mature early and are used extensively in gift boxes and sales promotions featured especially for the Christmas holidays. Utilization depends on the condition of the crop and differences between fresh and processed prices. When processed, juice from tangerines, Temples, and tangelos is usually blended with orange juice. Florida products labeled "orange juice" may contain up to 10 percent other citrus juice.

Table 14--Florida-average equivalent on-tree price received by growers, 1990-93

Month	All tangelos				Fresh-market tangelos				Processing tangelos			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/90-lb. box--											
January	4.24	6.15	6.37	1.83	14.95	11.50	10.10	4.50	2.82	3.30	5.05	0.80
February	4.94	4.87	5.18	0.40	16.95	10.00	6.45	2.00	4.64	3.60	5.10	0.25
March	--	--	--		--	--	--		--	--	--	
September	--	--	--		--	--	--		--	--	--	
October	6.33	7.79	--		10.50	11.70	--		2.80	2.95	--	
November	5.87	7.78	4.18		8.70	9.40	6.70		3.05	4.75	1.15	
December	6.37	6.88	4.55		9.50	8.50	6.10		3.25	5.05	1.15	
	All Temples				Fresh-market Temples				Processing Temples			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/90-lb. box--											
January	4.38	8.75	6.67	5.19	17.15	12.60	8.30	7.60	3.23	3.45	4.65	0.95
February	6.81	5.32	6.31	1.62	18.15	8.10	8.20	3.10	4.94	4.40	5.65	0.45
March	4.65	5.70	7.58		13.45	10.10	11.40		4.46	4.65	5.95	
April	4.94	--	--		--	--	--		4.94	--	--	
May	--	--	--		--	--	--		--	--	--	
November	--	--	--		--	--	--		--	--	--	
December	8.64	--	--		13.30	--	--		3.05	--	--	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Florida Grapefruit Crop Gains 27 Percent

Near-record production of Florida grapefruit boosted 1992/93 U.S. production and lowered grower prices. Florida's large crop matured later than in the previous 2 years, so domestic and export shipments lagged.

U.S. Grapefruit Production To Increase in 1992/93

The combination of a large Florida crop forecast and the likely prospect of an average-sized California crop would bring U.S. grapefruit production up 23 percent in 1992/93. Although about half of Florida's grapefruit output is usually processed, most U.S. fresh-market grapefruit are from Florida. Fresh utilization of Florida grapefruit is expected to increase 10 percent and processed use nearly 50 percent in 1992/93.

USDA's forecast of Florida grapefruit production is up 27 percent from the 1991/92 crop due to an increase in the number of bearing-age trees and favorable weather. If the forecast is realized, Florida's 1992/93 grapefruit crop would be the third largest on record and just 1-2 percent less than the 1979/80 and 1988/89 crops. The fruit count per tree has been much higher and fruit sizes have averaged smaller in 1992/93 than in recent years.

California's Desert valley grapefruit production in 1992/93 is expected to be about the same as in prior years, while Arizona's grapefruit crop is projected down 14 percent. Forecasts for California's "other areas" will be released in April 1993. Texas is still recovering from the December 1989 freeze that damaged trees, lowered 1989/90 production 58 percent, and eliminated commercial grapefruit production in 1990/91. While the March forecast was raised 33 percent from October, the 1992/93 Texas grapefruit crop is expected to be about one-third of prefreeze production.

Florida Grapefruit Harvest Lags 1991/92

Total utilization (fresh and processed) of Florida seedless grapefruit was down nearly 20 percent from the prior two seasons, as of February 28, 1993. Fruit matured later, and at a more normal time, in the fall of 1992 than in 1990 and 1991. About half of the 1992/93 grapefruit crop remained to be harvested, compared to 24 percent at the end of February 1992.

Fresh utilization accounted for 58 percent of seedless grapefruit that had been harvested by February 28, 1993, compared to 55 percent in 1992. However, diversion to processing usually picks up later in the season and brings the fresh-to-processed-use ratio down. In 1991/92 and 1990/91, 54-53 percent of Florida grapefruit were used fresh. Fresh utilization is expected to account for 44 percent of the 1992/93 crop.

Table 15--Grapefruit: Utilized production, 1990/91-1991/92 and indicated 1992/93 1/

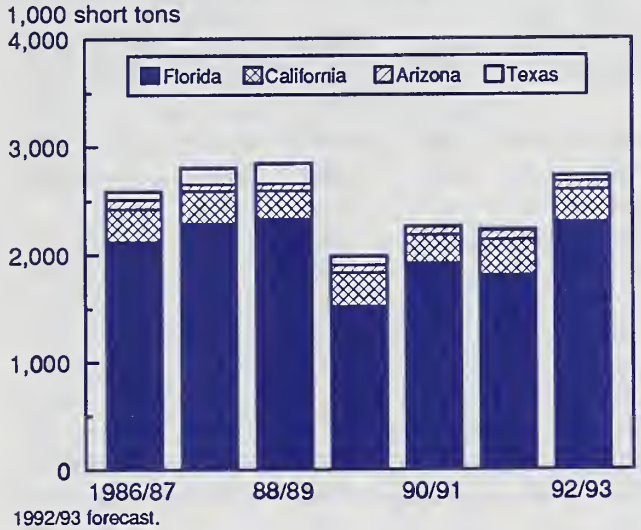
Crop and State	Utilized		Indicated 1992/93		Utilized		Indicated 1992/93	
	1990/91	1991/92	10-08-92	3-10-93	1990/91	1991/92	10-08-92	3-10-93
	--1,000 boxes 2/--				--1,000 short tons--			
GRAPEFRUIT:								
Florida, all	45,100	42,400	54,000	54,000	1,917	1,803	2,296	2,296
Seedless	43,500	41,200	52,000	52,000	1,849	1,752	2,211	2,211
Pink	21,800	22,100	27,000	27,000	927	940	1,148	1,148
White	21,700	19,100	25,000	25,000	922	812	1,063	1,063
Other	1,600	1,200	2,000	2,000	68	51	85	85
Arizona	2,400	2,800	2,200	2,400	77	89	70	77
California	8,000	10,000	9,133	9,133	262	329	300	300
Desert Valleys	3,500	3,500	3,500	3,500	112	112	112	112
Other areas 3/	4,500	6,500	5,633	5,633	150	217	188	188
Texas	4/	65	1,200	1,600	4/	3	48	64
Total	55,500	55,265	66,533	67,133	2,256	2,224	2,714	2,737

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest the following year.
2/ Net pounds per box: California desert and Arizona-64, California other areas-67, Florida-85 and Texas-80.
3/ The first forecast for California grapefruit "other area" will be available as of April 1, 1993; indicated production is average 1989/90-1991/92.
4/ Due to the severe freeze of December 1989, Texas had no commercial production for the 1990/91 season.

Source: National Agricultural Statistics Service, USDA.

Figure 5

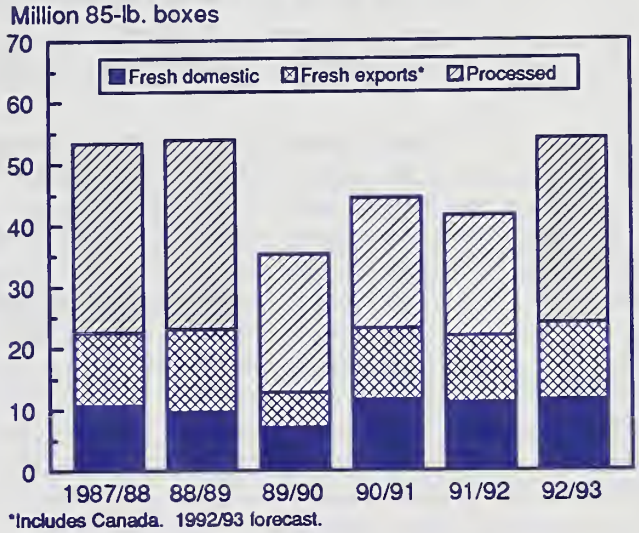
All Grapefruit: Production by State



1992/93 forecast.

Figure 6

Florida Grapefruit Production and Use



*Includes Canada. 1992/93 forecast.

The first fresh-market shipments of Florida's 1992/93 seedless grapefruit were in October 1992, about 6 weeks later than the 2 prior years, when crops matured early. In 1990 and 1991, September shipments totaled 34,000-35,000 short tons. By the end of October 1992, season-to-date shipments totaled only 65,000 tons compared to 110,000 in October 1991. By mid-October, 1992/93 weekly shipment rates caught up to year-earlier levels, but season-to-date shipments, as of February 28, 1993, were still behind the prior 2 years.

Grapefruit Exports Will Pick Up in 1993

Exports of fresh grapefruit from September through December 1992 were down 22 percent from the same period a year earlier because the 1992/93 Florida crop matured later than the very early 1991/92 crop. Later-maturing white grapefruit are preferred by Japanese consumers and exports typically increase late in the season. Nearly 60 percent of white seedless grapefruit varieties remained to be harvested on February 28, 1993.

The United States is the major grapefruit producing and exporting country. Exports accounted for about 40 percent of U.S. fresh grapefruit supplies in 1990/91 and 1991/92. Despite 6-percent-less production in 1991/92, grapefruit exports were down only 1 percent from 1990/91 and destinations were similar: 55 percent to Japan, 24 percent to the EC-12, and 15 percent to Canada. The industry expects Florida grapefruit exports to be up 15-20 percent in 1992/93.

U.S. exports of grapefruit juice during the 1991/92 processing season (December 1991 through November 1992) totaled 23.2 million gallons (single-strength equivalent), up from total 1990/91 exports of 16.8 million gallons. Japan received 53 percent of U.S. FCGJ in 1991/92; Canada, 26 percent; and, the twelve European Community countries (EC-12) accounted for 18 percent. Exports to Japan doubled and FCGJ exports to the EC-12 gained nearly 60 percent from 1990/91.

Grapefruit Prices Mostly Down

The U.S.-average grapefruit price (equivalent on-tree returns) dropped from about $7 a box in October 1992 to less than $3 a box in February 1993, which was about 40 percent of the year earlier price. Grapefruit prices are usually highest at the beginning of the Florida season and come down as harvest progresses, and then rise again between March and September.

November-February grower prices for Florida grapefruit were down sharply from year-earlier levels and the lowest in 5 years. The February 1993 price for Florida fresh-market grapefruit was down about 60 percent from February 1992, and, for processing grapefruit, prices were down more than 80 percent. Improved quality kept California's grower prices for fresh-market grapefruit above year-earlier prices from September 1992 through January 1993.

Table 16--Grapefruit: Monthly equivalent on-tree price received by growers, 1990-93

Month	United States											
	All				Fresh market				Processing			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars per box--											
January	5.03	5.76	6.02	3.00	10.81	9.09	7.79	3.55	2.83	2.14	4.23	2.33
February	5.00	4.75	6.35	2.42	11.91	8.65	8.72	3.94	3.07	2.29	4.80	0.82
March	7.02	5.74	7.15		13.15	9.58	9.33		3.58	2.01	4.83	
April	7.37	5.69	6.68		12.34	9.34	8.79		1.53	1.00	2.93	
May	7.48	4.46	4.23		13.83	8.01	7.62		-0.69	-0.06	-0.96	
June	7.95	5.21	4.45		13.54	9.48	7.41		-0.91	-1.98	-0.47	
July	5.63	4.61	4.00		10.02	8.99	7.15		-0.52	-1.99	-0.56	
August	3.17	3.43	3.32		7.15	7.55	6.35		-1.74	-2.00	-0.56	
September	5.75	6.58	3.73		7.61	8.61	7.05		-0.28	-1.36	-0.86	
October	6.74	5.96	7.09		8.42	7.71	8.15		1.70	0.03	0.84	
November	6.28	6.36	4.11		8.17	8.03	4.11		1.97	2.56	-1.11	
December	5.35	5.96	4.66		7.43	7.71	5.87		2.14	3.03	1.76	

	Florida											
	All				Fresh market				Processing			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/85-lb. box--											
January	4.87	5.71	6.08	2.74	10.98	9.10	7.96	3.09	2.89	2.17	4.28	2.34
February	4.84	4.73	6.45	2.18	12.19	8.75	9.04	3.65	3.12	2.33	4.89	0.83
March	6.57	5.72	7.47		13.42	9.82	9.92		3.85	2.15	5.11	
April	6.04	5.88	8.24		9.77	9.62	10.07		4.50	1.57	5.17	
May	--	4.72	--		--	7.73	--		--	1.36	--	
June	--	--	--		--	--	--		--	--	--	
July	--	--	--		--	--	--		--	--	--	
August	--	--	--		--	--	--		--	--	--	
September	7.69	8.90	--		8.97	10.15	--		1.29	-0.40	--	
October	6.01	6.19	7.14		8.97	7.99	8.17		1.92	0.12	0.93	
November	5.68	6.36	3.97		8.36	8.10	4.79		2.05	2.64	1.63	
December	6.90	5.92	4.38		7.45	7.72	5.55		2.19	3.08	1.77	

	Fresh-Arizona				Fresh-California				Fresh-Texas			
	1990	1991	1992	1993	1990	1991	1992	1993	1990	1991	1992	1993
	--Dollars/64-lb. box--				--Dollars/64- or 67-lb. box--				--Dollars/80-lb. box--			
January	8.45	6.45	3.85	3.83	11.35	9.31	6.45	11.59	7.52	--	14.00	6.68
February	10.25	8.05	4.25	3.03	10.83	7.03	5.76	2.88	--	--	--	5.83
March	13.55	8.55	4.85		12.01	7.84	5.83		--	--	--	
April	13.25	7.75	6.45		12.71	8.85	7.07		--	--	--	
May	12.75	7.95	6.75		14.12	8.58	8.33		--	--	--	
June	4.85	7.35	6.85		13.73	10.05	7.55		--	--	--	
July	--	--	6.45		10.02	8.99	7.21		--	--	--	
August	--	--	--		7.15	7.55	6.35		--	--	--	
September	--	--	--		2.40	3.25	7.05		--	--	--	
October	3.45	--	8.65		1.85	2.05	7.17		--	--	--	
November	4.85	3.45	3.63		6.43	7.77	9.17		--	12.80	10.80	
December	5.05	3.65	3.63		9.66	8.89	11.42		--	14.00	10.80	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Lemon Crop Forecast Up 15 Percent, but Limes Down 22 Percent

Increased California and Arizona production puts downward pressure on lemon prices in 1992/93. Florida's 1992/93 lime crop was damaged by Hurricane Andrew, but imports of Mexican limes dampened price hikes.

Lemons Rebound in California

The 1992/93 U.S. lemon crop is expected to be up 15 percent from last season and 23 percent more than in 1990/91. Most of gain is in California, where 1992/93 lemon production was forecast up 19 percent from the 1991/92 crop. USDA's March forecast of California lemon production was 6 percent higher than the initial October 1992 forecast. If forecast production of 684,000 short tons is realized, it would be California's biggest lemon crop since 1986/87, when production was 817,000 tons.

Arizona's lemon forecast was 9 percent lower in March than earlier in the season, but 1992/93 production was still projected up 2 percent from 1991/92. Arizona lemon production of 198,000 tons in 1992/93 would be the largest crop since 1986/87, when production was 270,000 tons.

The California-Arizona lemon industry reported half of the crop was harvested during the first 6 months (August-January) of the 1992/93 season. The share of lemons for fresh use was 53 percent, compared to 62 percent at the same time in the 1991/92 season. Fresh lemon shipments to domestic and export markets were up 10 percent in the first half of the 1992/93 season, while processing and other uses rose 60 percent from the same period in 1991/92. Fresh-market lemon shipments in 1992/93 have outpaced last season in every month but December. However, demand for fresh-market lemons is fairly stable and not very responsive to price changes, so excess production is processed.

The larger crop expected in 1992/93 will likely bring the share of fresh utilization down to nearly 50 percent, with 458,000 tons of lemons fresh-marketed and 424,000 tons processed. In 1991/92, fresh utilization of lemons totaled 459,000 short tons, 60 percent of production. U.S. lemon production in 1991/92 was up 7 percent from the prior season and processed use increased 14 percent as most of the additional lemons were processed.

Larger Crops Move Lemon Prices Down

In November 1992, f.o.b. prices for California-Arizona lemons averaged $9.89 per 38-pound carton (size 140), down seasonally from $18.50 in August 1992. Prices improved some as the 1992/93 season progressed, averaging about $11 per carton in January and February, about 5 percent less than a year earlier. Lemon prices are usually highest between June and October and lowest from November through March. The industry reported a season-to-date (as of February 20, 1993), average f.o.b. price of $11.30 per carton, compared to $14.22 at the same time in 1991/92.

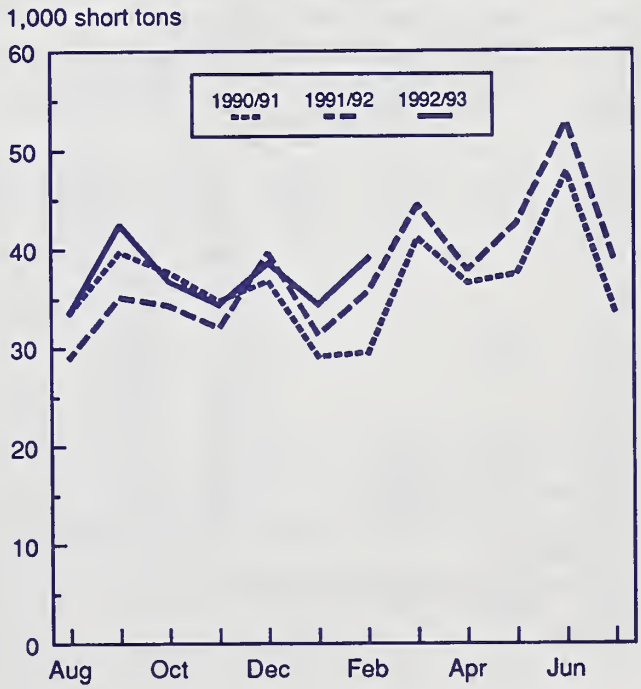
Lower Lemon Production Potential

During the 1980's, lemon production and bearing acreage declined in California and Arizona. California acreage of bearing-age lemon trees dropped 15 percent (from 54,200 in 1981/82 to 46,200 in 1991/92), while Arizona acreage fell nearly 30 percent (from 21,600 to 15,400 acres) in the same period. Freezing temperatures in December 1990 were especially harmful to lemon trees, and California's 1991/92 bearing acreage was the lowest since 1974/75.

California production dropped 6 percent in 1990/91, but regained 2 percent the following year when higher yields offset a reduction in acreage. Increased lemon production in 1991/92 brought lower prices and reduced the farm value of U.S. lemon production 11 percent, to $256 million from $289 million in 1990/91. Although California and Arizona lemon output recovered after the freeze, reduction in bearing acreage and a low rate of replanting indicate less lemon production in the next several years.

Figure 7

California-Arizona Lemon Shipments



Fewer Florida Limes, More From Mexico

USDA's forecast of 1992/93 Florida lime production is unchanged from October 1992, and is expected to be down 22 percent from 1991/92. Florida's lime production was affected by Hurricane Andrew, which struck Dade County in southern Florida on August 24, 1992. About two-thirds of the 1992/93 Florida lime crop had been harvested before the hurricane. The lime production forecast was reduced from 66,000 to 55,000 short tons after the storm. USDA reports only Florida lime production, but shipments are reported from Florida, California, and Mexico. In 1991/92, fresh-market lime shipments of 4,900 short tons were reported from California, compared to 47,000 tons from Florida.

In 1990/91, for the first time, more of the U.S. fresh-market lime supply was imported than was grown in Florida. The United States imported about 59,000 short tons of fresh limes from April 1990 through March 1991, and about 95 percent were from Mexico. In 1990/91, Florida produced 64,000 tons of limes, but just 40,920 tons were utilized fresh, and imports accounted for nearly 60 percent of total U.S. supply. In 1991/92, lime imports increased again (to 89,000 tons), exceeding total Florida production (70,000 tons), as well as fresh utilization (47,000 tons).

Lime imports rose sharply after the hurricane in August and were about 50 percent higher in September-November 1992 than during the same 3 month period of 1991. During the first 8 months of the 1992/93 season (April through November), 68,900 tons of fresh limes were imported, compared to Florida production of 55,000 tons forecast for the entire season.

Table 17--All lemons: State-average equivalent on-tree price received by growers, 1991-93

Month	Arizona			California		
	1991	1992	1993	1991	1992	1993
	--Dollars/76-lb. box--					
January	10.27	4.63	3.56	5.88	2.70	3.95
February	8.33	2.20	2.64	10.56	5.79	2.71
March	12.00	2.07		13.95	7.60	
April	--	4.56		17.62	7.11	
May	--	--		20.60	7.75	
June	--	--		18.38	9.26	
July	--	--		21.95	8.92	
August	--	--		20.54	10.63	
September	29.61	17.41		21.38	12.25	
October	22.81	6.34		15.45	6.59	
November	13.03	0.56		3.75	2.80	
December	5.79	2.37		-1.22	2.23	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Imports Stifle Lime Price Rise

Lime prices have a distinct seasonal pattern. The last 6 months of the marketing season (September-March) usually bring rising lime prices, with falling prices typical early in the season (April-August). Most of the 1992/93 crop harvested prior to Hurricane Andrew was marketed while prices were low, so the value of lime production this season will probably be down from $22.8 million in 1991/92.

Lime prices (on-tree-equivalent returns) averaged $14.08 per 88-pound box in 1991/92, compared to $22.52 the prior season. Prior to Hurricane Andrew, U.S. lime prices, from April through August 1992, were below a year earlier. USDA reported the 1992/93 season-average lime price of $3.10 a box for the April through August 1992 period. Since August, there have been some lime shipments from a few handlers in Florida, but prices and quantities have not been reported to avoid disclosure.

Figure 8

Sources of U.S. Lime Shipments

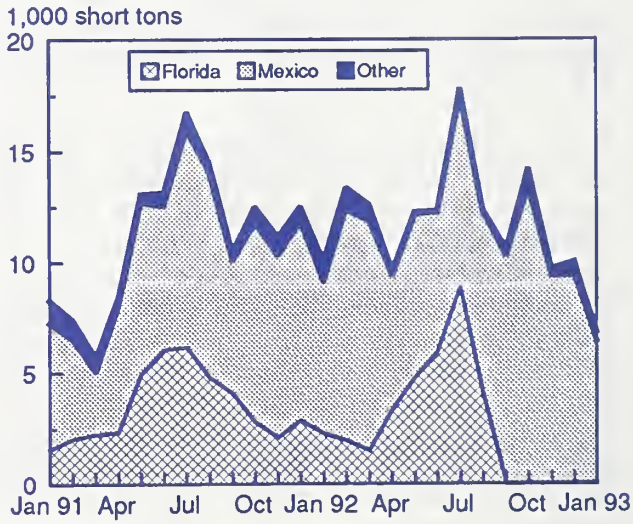


Table 18--Lemons and limes: Utilized production, 1990/91-1991/92 and indicated 1992/93 1/

Crop and State	Utilized		Indicated 1992/93	
	1990/91	1991/92	10-08-92	3-10-93
	--1,000 short tons--			
LEMONS:				
Arizona	156	194	217	198
California	563	574	646	684
Total	719	768	863	882
LIMES:				
Florida	64	70	55	55

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest the following year.

Source: National Agricultural Statistics Service, USDA.

Table 19--Selected citrus, packinghouse-door returns, by month, 1990-93

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
						--Dollars per box--						
ORANGES:												
Arizona												
1990	10.58	10.49	8.74	7.79	7.89	6.70	4.19	--	--	--	12.22	10.97
1991	19.33	16.19	22.45	17.16	21.43	8.65	--	--	--	--	15.41	12.99
1992	11.40	7.45	5.69	5.06	4.24	3.67	2.73	--	--	--	9.44	8.14
1993	7.43	6.71										
Florida												
1990	7.67	7.54	8.11	9.16	8.95	--	--	--	--	7.60	7.13	7.17
1991	7.41	7.83	8.35	8.53	8.66	--	--	--	--	10.13	6.80	6.99
1992	7.64	8.18	8.14	8.90	9.43	10.67	--	--	--	--	4.56	4.43
1993	4.26	4.02										
California												
1990	8.40	7.97	7.27	6.93	8.72	8.65	7.84	6.47	6.43	5.86	11.38	10.90
1991	7.87	9.53	16.10	21.71	22.38	21.81	19.70	20.75	23.40	22.69	16.01	12.80
1992	11.30	8.10	11.50	6.33	6.23	4.79	3.68	2.96	3.34	3.76	7.89	7.74
1993	6.91	5.69										
Texas												
1990	5.07	3.53	--	--	--	--	--	--	--	--	--	--
1991	--	--	--	--	--	--	--	--	--	--	14.70	16.10
1992	13.60	13.10	--	--	--	--	--	--	--	--	11.25	11.18
1993	6.66	7.22										
GRAPEFRUIT:												
Arizona												
1990	9.18	10.58	12.55	10.71	8.28	4.97	--	--	--	5.18	6.29	5.96
1991	7.30	8.10	9.02	6.66	6.00	6.07	--	--	--	--	5.11	5.18
1992	5.42	5.32	5.40	6.00	5.84	5.86	5.04	--	--	10.38	4.94	4.91
1993	5.53	4.30										
Florida												
1990	6.51	6.49	8.22	7.68	--	--	--	--	9.30	8.79	7.97	6.96
1991	7.34	6.37	7.36	7.51	6.35	--	--	--	10.51	7.80	7.98	7.55
1992	7.71	8.09	9.10	9.87	--	--	--	--	--	8.75	5.58	6.01
1993	4.37	3.81										
California												
1990	11.73	9.80	10.58	9.33	9.47	9.77	7.36	4.90	2.31	2.79	7.24	9.04
1991	9.62	6.90	7.26	6.72	5.78	7.15	6.34	5.16	2.86	2.93	8.33	8.63
1992	6.95	5.72	5.86	5.88	6.05	6.25	5.79	5.05	5.46	6.52	10.02	12.58
1993	13.05	3.88										
Texas												
1990	4.59	--	--	--	--	--	--	--	--	--	--	--
1991	--	--	--	--	--	--	--	--	--	--	14.40	15.60
1992	15.60	--	--	--	--	--	--	--	--	--	12.56	12.25
1993	7.93	6.95										
LEMONS:												
Arizona												
1990	9.61	9.23	--	--	--	--	--	--	18.39	15.57	8.43	6.58
1991	13.67	11.73	15.40	--	--	--	--	--	33.19	26.39	16.61	9.37
1992	8.21	5.78	5.65	--	--	--	--	--	20.44	9.37	4.05	5.86
1993	7.05	6.13										
California												
1990	12.40	13.18	13.26	14.21	15.22	16.26	16.42	14.21	15.15	13.78	7.80	6.23
1991	9.28	13.96	17.35	21.02	24.00	21.78	25.35	24.12	24.96	19.03	7.33	2.36
1992	6.28	9.37	11.18	10.69	11.33	12.84	12.50	12.96	15.28	9.62	6.29	5.72
1993	7.44	6.20										
TANGERINES:												
Arizona												
1990	18.98	12.49	10.94	--	--	--	--	--	--	--	14.03	19.69
1991	20.85	15.35	21.74	--	--	--	--	--	--	--	15.47	17.15
1992	16.07	11.66	8.49	7.29	7.96	--	--	--	--	--	23.11	12.95
1993	15.46	13.93										
Florida												
1990	15.82	21.68	12.48	--	--	--	--	--	23.12	21.61	17.42	17.52
1991	21.77	19.18	22.17	--	--	--	--	--	--	26.13	26.46	17.63
1992	18.68	17.83	22.40	--	--	--	--	--	--	23.03	20.21	14.91
1993	15.42	11.72										
California												
1990	24.43	21.35	15.07	13.25	15.16	3.33	--	--	--	--	20.46	20.02
1991	21.78	4.59	21.09	19.43	14.65	--	--	--	--	39.71	32.02	19.33
1992	13.85	9.98	7.83	8.64	8.91	0.91	--	--	--	--	21.21	13.83
1993	16.35	10.66										

-- = Insufficient marketing to establish price.

Source: National Agricultural Statistics Service, USDA.

Record Noncitrus Fruit Production in 1992

Growers harvested record large crops of several noncitrus fruits in 1992. Larger supplies pressured noncitrus fruit prices in 1992/93.

Mild winter weather in the Pacific Northwest and good growing conditions in California boosted utilized production of leading noncitrus fruit crops in 1992 to a record 16.9 million tons, up 7 percent from 1991. Record crops of apples, grapes, olives, California nectarines, California plums, and larger crops of apricots, sweet and tart cherries, and pears were produced. Production of peaches, strawberries, California prunes, and cranberries declined.

Washington and Oregon passed through a mild 1991/92 winter, unlike the previous year when cold temperatures reduced their 1991 fruit output. The two States produced larger 1992 crops of apples, pears, peaches, grapes, sweet cherries, and plums and prunes.

Michigan fruit survived spring freezes and cool summer weather better than expected. The State produced large 1992 crops of apples, pears, and peaches. Tart cherry production was more than double the output in 1991. Plum and prune crops were unchanged from 1991, but grape and sweet cherry crops were smaller.

Spring freeze damage reduced 1992 peach and grape crops in several States, including Georgia, North Carolina, South Carolina, and New Jersey (peaches only). A series of frosts from April through mid-May led to a smaller 1992 cranberry crop in Massachusetts, the leading cranberry-producing State. U.S cranberry production was down 3 percent from 1991.

Table 20--Utilized production and value of noncitrus fruit, United States, 1990-92

Crop	Utilized production			Value of utilized production		
	1990	1991	1992	1990	1991	1992
	--1,000 short tons--			--1,000 dollars--		
Apples	4,829.1	4,879.6	5338.8	1,456,896	1,746,275	1,595,086
Apricots	120.4	91.8	107.9	40,937	37,356	39,693
Avocados	156.1	184.7	3/	205,571	196,386	3/
Bananas	5.7	5.7	5.4	4,294	4,674	4,428
Berries 1/	--	--	121.8	--	--	183,703
Cherries, sweet	132.4	142.4	191.1	118,319	137,225	177,082
Cherries, tart	101.5	94.9	156.5	36,685	88,082	3/
Cranberries	169.6	211.0	204.0	156,365	206,616	4/
Dates	24.0	22.0	21.0	19,680	21,340	22,260
Figs, California	49.6	45.1	42.1	17,370	16,626	3/
Grapes	5,659.8	5,555.3	6,051.7	1,670,468	1,735,675	1,859,470
Guavas	12.1	7.0	3/	3,615	2,044	3/
Kiwifruit, California	34.0	26.8	46.9	14,110	21,976	3/
Nectarines, California	232.0	215.0	235.0	109,999	86,457	73,626
Olives, California	131.5	65.0	165.0	55,663	36,499	89,265
Papayas	34.3	27.7	33.3	14,805	16,228	14,875
Peaches	1,069.8	1,253.0	1,239.7	371,626	394,180	372,787
Pears	963.7	904.4	948.0	269,541	274,306	289,178
Pineapples	575.0	555.0	550.0	106,365	107,775	102,100
Plums, California	223.0	218.0	250.0	134,412	97,894	63,033
Prunes, California	463.1	589.0	537.0	128,331	175,780	3/
Plums & prunes 2/	43.2	23.8	37.9	8,444	6,747	7,485
Strawberries	627.2	684.5	656.0	590,158	634,028	684,754
Total	15,657.1	15,801.7	16,939.1	5,533,654	6,044,169	5/ 5,578,825

-- = Not available.
1/ U.S. estimates not available prior to 1992. 2/ Idaho , Michigan, Oregon, and Washington. 3/ Data available July 8, 1993. 4/ Data available August 17, 1993.
5/ Total in 1992 omits crops for which data were not available.
Source: National Agricultural Statistics Service, USDA.

The 1992 value of utilized production of major noncitrus crops was $5.40 billion, compared with $5.34 billion in 1991. The values for both years exclude avocados, tart cherries, cranberries, figs, guavas, kiwifruit, and California prunes for which data are not yet available. Berries (other than strawberries) are also excluded. Increases in the crop values of grapes (up 7 percent), sweet cherries (up 29 percent), pears (up 5 percent), and olives (up 145 percent) more than offset the decline in other noncitrus fruits.

Record or near-record-sized crops of apples, peaches, nectarines, and California plums weighed on grower prices and reduced the values of production. Most noncitrus fruit prices were lower as bumper supplies of many fruits entered the market in the summer and fall of 1992. Grower prices for California plums were particularly low in 1992, down almost 50 percent from the previous year. The record-sized crop, competition from other stonefruit, and reduced market promotion contributed to a season-average grower price of $252 per ton, down from $449 in 1991 and $603 in 1990.

Strong demand for wine and juice grapes boosted the season-average price for processed grapes, but not enough to offset lower fresh-market grape prices that accompanied a large fresh-market grape crop in California. Excellent export demand helped move 1992's large, good-quality sweet cherry crop.

In 1992, California's production of Bartlett pears, nectarines, plums, peaches, apricots, and grapes was larger than in the previous year. Tree and vine stress resulting from increased output in 1992 could reduce production in 1993. The same may be true for the U.S. apple and grape crops. Record-sized crops of apples, grapes, and plums have not been harvested in consecutive seasons since 1980. Winter damage to noncitrus fruit trees and vines appears to be minimal across the country. However, subfreezing temperatures on March 13-14 caused possible peach damage in the Southeast, especially Georgia. Conditions during other critical blossom periods, as well as spring and summer rainfall, will affect 1993 crop sizes and quality.

Table 21--Fruit for processing: Season-average price per short ton received by growers for selected noncitrus fruit, by type of use, and principal State, 1990-92 1/

Fruit, use, & States	1990	1991	1992
		--Dollars--	
Apricots:			
Canning			
California	274	287	305
Freezing			
California	305	308	320
Drying			
California 2/	287	319	310
Cherries, tart:			
Processing, all			
New York	400	898	3/
Michigan	360	960	3/
Wisconsin	172	978	3/
Cherries, sweet:			
Processing, all			
Oregon	517	748	723
Michigan	358	648	670
Washington	310	550	578
Canning			
Washington	604	912	796
Oregon	660	760	833
Michigan	358	648	770
Brining			
Washington	420	519	538
Michigan	358	648	640
Oregon	470	750	711
Grapes--California			
All processing	247	273	292
Grapes--California (cont'd):			
Dried 2/	205	212	207
Wine	276	310	336
Peaches, clingstone:			
Canning			
California	217	224	219
Peaches, freestone:			
Canning			
California	204	217	213
Freezing			
California	178	183	182
Drying			
California 2/	108	116	93
Pears, Bartlett:			
Canning			
Washington	214	215	223
California	231	245	241
Drying			
California 2/	126	150	171
Prunes and plums:			
Canning			
Michigan	4/	282	224
Prunes:			
Drying 2/			
California	266	298	3/

-- = Not available.
1/ Prices are basis bulk fruit at first delivery point for all California fruits except prunes and pears for drying and processed grapes. Prices for California prunes and pears for drying and grapes and for fruits in other States are equivalent processing-plant-door returns.
2/ Fresh basis. 3/Data available July 8, 1993. 4/ Missing data are not published to avoid disclosure of individual operations.
Source: National Agricultural Statistics Service, USDA.

Apple Prices Decline From Record Highs in 1992

A record apple crop and lower exports have put downward pressure on grower prices in 1992/93. Ample supplies are keeping processors busy.

USDA's preliminary production estimate indicates a record-large 1992 apple crop, up 9 percent from 1991 and slightly above the 1987 crop. Crop totals were increased from the October forecast in 17 States, including Washington, New York, and California. The biggest change was in Michigan, where earlier forecasts heavily discounted the State's crop because of poor weather last March, May and June. The preliminary estimate pegged Michigan production just under the record 1985 crop and up 8 percent from 1991. Apple production was estimated to be up 13 percent in the Western States, up 7 percent in the Central States, and up 3 percent in the Eastern States.

Grower Prices Lower in 1992/93

An earlier-than-normal harvest in the West allowed marketers to get a jump on selling the record U.S. apple crop. But under the weight of the much larger crop, the monthly grower price for fresh-market apples in November 1992 was 22 percent below November 1991. Lower prices led to November apple movement for processing that was almost twice the 5-year average. In December, grower prices stabilized as processing and fresh shipments increased. Monthly fresh-market and processing shipments were well above the 5-year averages in December, January, and February.

Processors in all regions have been very active, outpacing last year's season-to-date use (as of March 6, 1993) by more than 20 percent. In January and February, grower prices for Michigan juice apples were 5.0 cents per pound, down from 8.25 cents last year. Prices in Washington and New York were slightly lower at 4.0 to 4.5 cents per pound in February 1993.

USDA's preliminary estimate of the 1992/93 season-average grower price for apples was 14.9 cents per pound, down 17 percent from the previous year, but considerably higher than other years with large crops. Increased shipments to U.S. processors and strong fresh-market apple export markets in Mexico and Southeast Asia will continue to help clear out supplies. U.S. exports to Taiwan, the largest U.S. export market, more than doubled from August 1992 to December 1993 from the same period a year earlier. Total fresh-market apple exports were down 2 percent during the same period, primarily because of a 76-percent drop in exports to the European Community. Abundant apple supplies in Europe have reduced demand for U.S. fruit in those markets during 1992/93.

Apple Juice Prices Decline in 1992

Larger apple crops harvested in 1992 in Argentina, the United States, and Europe led to lower prices for imported apple juice throughout 1992 and into 1993. U.S. import prices for South American concentrated apple juice from November 1992 through February 1993 were down about 40 percent from the same period a year earlier.

Frosts reduced the 1993 Argentine apple crop by one-third, which will reduce Argentina's exports of frozen concentrated apple juice in 1993. However, any effect on U.S. apple juice prices during at least the first half of 1993 will be moderated by larger Northern Hemisphere supplies of apples and apple juice. In 1991/92 (August-July), Argentina provided about one-third of U.S. imports of apple juice concentrate. In recent years, imports accounted for more than half of the U.S. apple juice supply.

Apple Stocks Up 24 Percent

According to the International Apple Institute, U.S. apple stocks (for fresh-market and processing) on March 1, 1993, were 24 percent above a year earlier. Apples intended for the fresh-market were up 23 percent and processing apple stocks were up 26 percent. Apple holdings were higher than 5-year average levels in all regions of the country. Most varieties are more plentiful than last year, especially Golden Delicious and Granny Smith. On the other hand, stocks of Red Delicious apples are only slightly above last year and nearly even with the 5-year average. Grower and retail apple prices are expected to remain below a year earlier throughout the remainder of the marketing year as the larger stocks are sold.

Figure 9
U.S. Fresh Apple Grower Prices

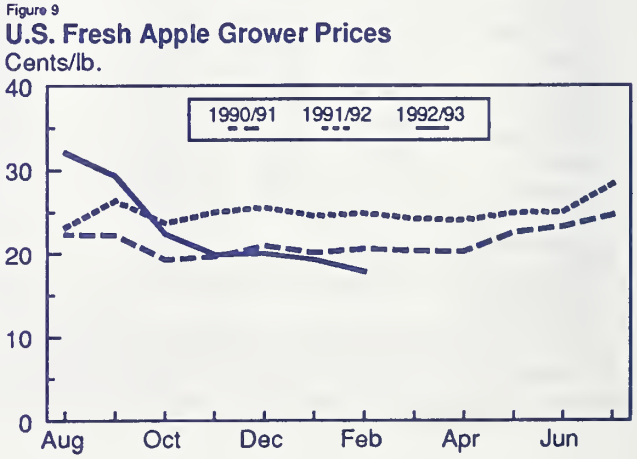


Table 22--Apples, commercial crop: Total production and season-average prices received by growers, 1990, 1991, and indicated 1992 production

State and area	Production			Price per short ton		
	1990	1991	1992	1990	1991	1992
	--1,000 short tons--			--Dollars--		
EASTERN STATES:						
Connecticut	16.5	13.5	20.0	528	546	458
Delaware	8.5	12.5	10.0	232	218	204
Georgia	11.0	16.0	12.5	264	272	426
Maine	44.0	32.5	45.5	448	482	430
Maryland	16.5	21.0	20.0	274	298	254
Massachusetts	42.5	28.0	40.0	478	512	436
New Hampshire	24.0	14.5	19.5	484	506	548
New Jersey	30.0	46.0	27.5	260	332	294
New York	495.0	525.0	585.0	258	254	210
North Carolina	115.0	130.0	105.0	200	178	180
Pennsylvania	225.0	275.0	275.0	284	228	224
Rhode Island	3.0	1.9	2.7	516	594	440
South Carolina	17.0	20.0	30.0	254	198	254
Vermont	21.5	22.5	22.5	426	460	374
Virginia	105.0	210.0	185.0	202	218	194
West Virginia	75.0	100.0	110.0	192	198	192
Total	1,249.5	1,468.4	1,510.2			
CENTRAL STATES:						
Arkansas	6.0	5.0	4.0	382	338	252
Illinois	30.0	34.5	44.0	350	348	398
Indiana	28.5	30.0	35.0	400	428	404
Iowa	4.8	4.0	6.8	442	580	478
Kansas	4.0	3.8	3.0	430	472	546
Kentucky	4.5	10.0	8.0	410	442	444
Michigan	375.0	465.0	500.0	206	214	188
Minnesota	10.0	12.7	15.5	748	858	742
Missouri	20.5	20.0	18.5	338	416	386
Ohio	60.0	60.0	57.5	348	470	396
Tennessee	4.3	6.5	6.5	358	308	380
Wisconsin	24.0	30.0	31.5	500	416	454
Total	571.5	681.5	730.3			
WESTERN STATES:						
Arizona	32.0	28.5	45.0	160	282	174
California	390.0	400.0	420.0	312	420	406
Colorado	17.5	37.5	45.0	294	312	224
Idaho	82.5	60.0	47.5	270	386	352
New Mexico	3.4	1.2	7.5	358	452	378
Oregon	90.0	60.0	90.0	224	372	304
Utah	12.0	27.5	30.0	376	360	360
Washington	2,400.0	2,150.0	2,450.0	328	440	332
Total	3,027.4	2,764.7	3,135.0			
United States	4,848.4	4,914.5	5,375.4	302	358	298

Source: National Agricultural Statistics Service; converted to short tons by the Economic Research Service, USDA.

Table 23--U.S.-average monthly prices received by growers, 1990-93

Month	Fresh apples			Fresh pears		
	1990/91	1991/92	1992/93	1990/91	1991/92	1992/93
	--Cents per pound--					
July	20.3	24.6	28.2	20.5	15.0	19.5
August	22.3	23.2	32.0	13.7	17.1	13.8
September	22.2	26.3	29.3	16.3	17.9	21.3
October	19.3	23.7	22.4	16.6	20.0	19.9
November	19.6	25.0	19.9	17.9	21.4	22.5
December	20.9	25.5	20.0	17.1	20.7	19.0
January	20.1	24.5	19.2	17.3	18.9	18.1
February	20.5	24.8	17.8	18.9	19.2	19.7
March	20.3	24.2		19.5	19.1	
April	20.2	24.0		20.1	19.7	
May	22.5	24.9		24.7	23.0	
June	23.2	25.0		39.7	--	
July	24.6	28.2		15.0	19.5	

	Fresh peaches			Fresh strawberries		
	1991	1992	1993	1991	1992	1993
	--Cents per pound--					
January	--	--	--	93.0	110.0	103.0
February	--	--	--	91.0	79.9	93.3
March	--	--		63.0	69.6	
April	--	--		59.5	49.1	
May	28.9	21.2		50.0	41.3	
June	23.6	20.5		36.5	64.3	
July	16.2	14.0		46.5	49.7	
August	16.2	21.9		35.0	89.2	
September	22.8	21.8		35.0	61.1	
October	--	--		55.0	70.7	
November	--	--		110.0	115.0	
December	--	--		95.0	140.0	

-- = Insufficient marketing to establish price.

Source: National Agricultural Statistics Service, USDA.

Large 1992/93 California Avocado Crop Lowers Prices

A 70-percent-larger California avocado crop is expected in 1992/93, but Hurricane Andrew substantially cut Florida's crop.

According to the California Avocado Commission, the State's 1992/93 avocado production (November through October) is expected to be 265,000 short tons, about 70 percent larger that last year, the State's second consecutive gain following the December 1990 freeze. If realized, the 1992/93 crop would be just 5 percent less than the 1986/87 record. Ample supplies pushed domestic and export shipments well ahead of last year. Between November 1, 1992, and February 20, 1993, California avocado shipments were 50,000 short tons, up almost 60 percent from the same period a year earlier.

Heavy rains slowed harvest in early and mid-January in Southern California. But even with periodic shortages, Hass avocado prices ranged from $13-17 per carton (size 48) in January and February, down 50 percent from the same time last year. The California Avocado Commission's forecast of the season-average grower price for 1992/93 (weighted for all varieties and sizes) was $600 per ton, down almost 50 percent from 1991/92.

From 1985/86 to 1989/90, bearing acreage of avocado trees in California hovered around 75,000 acres, but nonbearing acreage dropped steadily as commercial and urban needs increased competition for land. Estimated bearing acreage declined from 74,200 acres in 1990/91 to 73,300 in 1991/92. Further pressure on California's avocado acreage can be expected. However, the high-yield groves will remain, and future crop volume may not necessarily decline. More than 90 percent of California's avocado production is located in Southern California counties with growing urban populations, including San Diego, Ventura, Riverside, and Santa Barbara.

Effects of Hurricane Andrew Linger in Florida

The forecast of Florida avocados for certified shipment in 1992/93 (beginning April 1) was reduced by almost two-thirds following the destruction of all remaining fruit on trees in Dade County by Hurricane Andrew on August 24, 1992. The crop was the smallest in more than 20 years. The limited amounts of avocados shipped since the storm brought prices more than twice year-earlier levels. Because of the small number of surviving trees, another small crop is expected in 1993/94. Many trees that were damaged by the storm have been reset, but long-term survival rates are unclear. Lack of tree stock has constrained replanting efforts.

Exports and Consumption Up in 1991/92

More ample California avocado supplies and lower prices boosted exports and domestic consumption in 1991/92. The pattern is expected to continue in 1992/93, even with Florida's production shortfalls. Canada, Japan, and the European Community remain the top three markets for U.S. avocados. Per capita consumption of avocados was 1.43 pounds in 1991, up from 1.23 in 1990, but 15 percent below the 10-year average.

Figure 10

U.S. Exports of Fresh Avocados

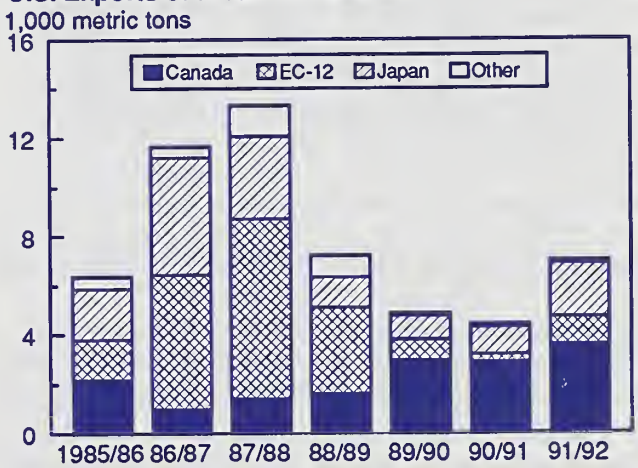


Table 24--U.S. avocado production, by State, 1980/81-1991/92

Crop year 1/	Florida	California	Hawaii	Total
		--1,000 short tons--		
1980/81	30.8	238.0	0.8	269.6
1981/82	25.8	157.0	0.6	183.4
1982/83	34.7	202.0	0.8	237.5
1983/84	27.0	247.0	0.6	274.6
1984/85	29.5	200.0	0.6	230.1
1985/86	28.5	160.0	0.6	189.1
1986/87	24.7	278.0	0.7	303.4
1987/88	29.0	180.0	0.5	209.5
1988/89	27.0	165.0	0.6	192.6
1989/90	33.5	105.0	0.6	139.1
1990/91	19.6	136.0	0.5	156.1
1991/92	28.3	156.0	0.4	184.7

1/ Crop year begin: Florida-California, November 1; Hawaii, June 20.

Source: National Agricultural Statistics Service, USDA and Hawaii Agricultural Statistics Service.

Value of Strawberry Production Up 8 Percent in 1992

A smaller 1992 strawberry crop and higher prices increased the value of U.S. production to a record $685 million in 1992.

A slightly smaller 1992 strawberry crop helped raise the U.S. season-average grower price to a record 52.2 cents per pound, up 13 percent from 1991. The total value of the 1992 U.S. strawberry crop was $685 million, up from the 1991 record of $634 million. Production increases, along with steady-to-slightly-higher prices, have more than doubled the value of strawberry production since 1981.

A larger proportion of the crop sold in the fresh market has also boosted the value of production. In 1992, fresh-market production exceeded the record set in 1991, even though total production was down 4 percent. Smaller crops in California, Michigan, Oregon, and New York more than offset increased production in Florida, North Carolina, and Washington. Monthly grower prices in 1992 for fresh-market strawberries remained above a year earlier from June through December after a spring that was marked by heavy California shipments and lower prices.

Florida's Winter Strawberry Acreage Up in 1993

Winter strawberry acreage in Florida was expected to total 4,900 acres, up 4 percent from 1992. Florida's strawberry shipments from November 1, 1992, to February 17, 1993, were 9,920 short tons, down 14 percent from last year. F.o.b. prices in late January for medium- to large-size strawberries were $14-$16 per twelve 1-pint baskets, up from about $10-$12 last year. Intermittent supplies from California helped lift Florida prices in late January 1993. Low temperatures on March 13-14, 1993, did no significant damage to Florida's strawberry crop.

Fresh-Market California Strawberry Shipments Behind Last Year

The California Strawberry Advisory Board expects the industry to harvest 25,020 acres of strawberries in 1993, up about 4 percent from 1992. Fresh-market output in 1993 is expected be about the same as last year. USDA's acreage forecast will be available in April.

In California, rains slowed strawberry picking and damaged some mature fruit in late January and February 1993. From December 1, 1992, to February 17, 1993, California shipments were 7,055 short tons, down 4 percent from last year. Southern California strawberry prices in early February were about $12.40 per twelve 1-pint baskets of medium- to large-size berries, up 8 percent from the same time a year earlier.

Table 25--Strawberries: Acreage, yield per acre, and production for major States, 1990, 1991, and indicated 1992 production 1/

Crop and State	Acreage			Yield per acre			Production		
	1990	1991	1992	1990	1991	1992	1990	1991	1992
	-- Acres harvested --			-- Short tons --			-- 1,000 short tons --		
Early:									
Florida	5,300	5,500	4,700	11.0	12.0	15.0	58.3	66.0	70.5
Late:									
Arkansas	230	230	230	1.2	1.8	1.2	0.3	0.4	0.3
California	21,000	21,100	23,400	23.5	26.0	22.0	493.5	548.6	514.8
Louisiana	750	850	1,000	3.9	3.3	6.0	3.0	2.8	6.0
Michigan	2,200	2,100	2,100	3.3	3.1	2.9	7.2	6.5	6.1
New Jersey	500	500	500	2.1	1.9	2.5	1.1	1.0	1.3
New York	2,700	3,400	3,600	3.2	2.8	1.5	8.5	9.5	5.4
North Carolina	2,100	2,200	2,300	3.0	2.8	2.8	6.3	6.1	6.4
Ohio	1,100	1,000	1,000	3.3	2.7	3.6	3.6	2.7	3.6
Oregon	5,700	5,600	6,100	5.8	5.5	5.0	32.8	30.8	30.5
Pennsylvania	1,700	1,600	1,500	2.2	1.9	2.0	3.7	3.1	3.0
Washington	1,800	1,400	1,600	3.5	3.0	3.5	6.3	4.2	5.6
Wisconsin	1,100	1,200	1,100	2.5	2.5	2.5	2.8	3.0	2.7
Total	46,180	46,680	49,130	13.6	14.7	13.4	627.2	684.5	656.0

1/ Includes fresh market and processing. Production forecasts for States other than California and Florida will be available in September.
Source: National Agricultural Statistics Service and Economic Research Service, USDA.

1992 Strawberry Imports Down, Fresh Exports Hit Record

Fresh and processed strawberry imports were down in 1992. Mexico, the United States' primary foreign strawberry supplier, had unseasonably cool and wet weather in January and February, which reduced supplies and exports. In early January 1993, the strawberry-growing regions in Mexico suffered again from heavy rain. Fresh strawberry imports from Mexico from August 1, 1992, to February 17, 1993, were nearly the same as a year earlier.

In calendar year 1992, fresh strawberry exports hit a record-high 51,131 short tons. Strawberry shipments to Canada, the largest export market, were slightly below a year earlier, but exports increased substantially to smaller markets, including Japan, the United Kingdom, and Germany.

Frozen Strawberry Stocks Down

U.S. frozen strawberry stocks on January 31, 1993, were down 16 percent from the year earlier. The trade has slowly worked off relatively high strawberry stocks, a result of the record-large 1991 crop. Also, a smaller portion of the crop was processed in 1992 than in the previous year. Wholesale prices for frozen strawberries in February 1993 were about the same as a year earlier.

Berries Data Reinstated

USDA's National Agricultural Statistics Service (NASS) has reinstated acreage, production, and price estimates for six berry crops, including:

blueberries - 12 States
cultivated blackberries - Oregon
boysenberries - California and Oregon
loganberries - Oregon
black raspberries - Oregon
red raspberries - Oregon and Washington.

Preliminary 1992 estimates were released in January 1993, and the final estimates will be released in July 1993.

Figure 11

U.S. Strawberry Imports

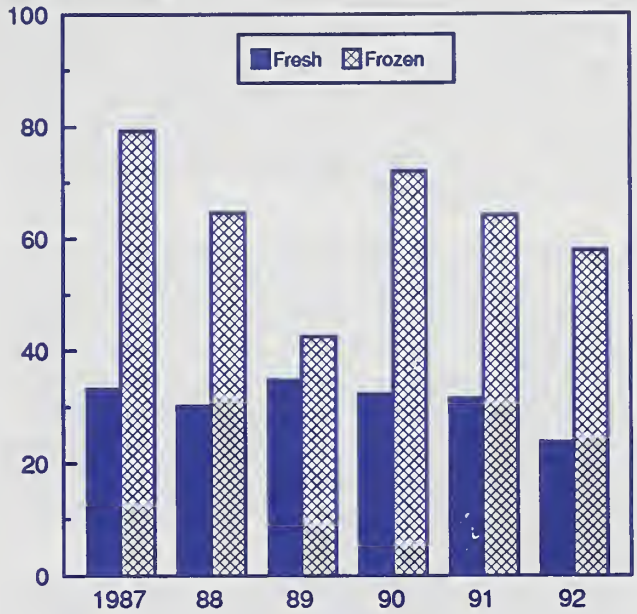


Table 26--Stocks of frozen fruits: End of January, 1990-93

Frozen fruit	1990	1991	1992	1993 1/
		--1,000 pounds--		
Apples	74,009	88,322	93,061	95,387
Apricots	7,417	6,466	5,970	8,893
Blackberries	13,495	13,424	10,059	23,318
Blueberries	64,227	64,705	60,711	69,138
Boysenberries	2,611	3,396	1,954	3,662
Cherries, tart 2/	119,016	62,063	49,082	116,903
Cherries, sweet	19,231	13,087	8,005	10,599
Grapes	5,744	4,393	3,357	3,236
Peaches	78,978	95,377	75,917	67,803
Raspberries, red	33,597	32,088	25,933	31,387
Strawberries	142,684	174,944	189,833	158,729
Other	166,882	202,396	237,974	240,287
Total	727,891	760,661	761,856	829,342

1/ Preliminary.
2/ Includes juice cherries.

Source: National Agricultural Statistics Service, USDA.

Methyl Bromide May Be Eliminated by 2000

The U.S. strawberry industry may lose methyl bromide, an important chemical used in the production of strawberries to kill insects, nematodes, fungi, and weeds. In January 1993, the EPA proposed to list methyl bromide as an ozone depleter to be phased out by the year 2000. Proposed regulations would freeze production of methyl bromide at 1991 levels beginning in 1994.

In the past, Congress has placed an excise tax on ozone-depleting substances to more quickly discourage use and encourage development of alternatives. While not part of EPA's phaseout proposal, Congress may take steps to impose an excise tax on methyl bromide before the end of fiscal year 1993. Based on the ozone-depletion potential of methyl bromide, the tax would be $3.05 a pound beginning in 1994. The excise tax would more than triple the cost of methyl bromide in 1994, increasing to $5.00 a pound by 1999.

Phaseout of production and imports by 2000 may allow sufficient time for the industry to fine tune the use of alternative chemicals. Methyl bromide is popular with strawberry growers because it is more effective in all soil types and more economical than alternative chemicals like Vapam and chloropicrin. A research agenda is being developed to find acceptable alternatives. Participants include USDA's Agricultural Research Service, Animal and Plant Health Inspection Service, the California Strawberry Advisory Board, and other State organizations.

The proposed regulations will have an impact on strawberry growers in the next several years. First, effectively adapting alternative chemicals may not be possible in all growing areas and soil types throughout the United States. Lower yields and reduced quality could result. Per acre input costs will increase, and the United States will become less cost-competitive with other strawberry-producing countries that do not follow the same phaseout policy. USDA's National Agricultural Pesticide Impact Assessment Program[1] estimates that without methyl bromide, strawberry production could decline at least 14 percent in California and as much as 67 percent in Florida.

[1]USDA, National Agricultural Pesticide Impact Assessment Program, "The Biologic and Economic Assessment of Methyl Bromide", January 1993.

Chilean Fruit Crops Larger in 1992/93

Good weather and maturing trees contributed to larger 1992/93 fruit production in Chile. Quality has been better. U.S. import prices have been moderately higher for grapes and nectarines, but mixed for peaches and plums.

During the last half of 1992 and early-1993, excellent weather conditions throughout most fruit growing regions in Chile led to larger 1992/93 crops. Fruit quality has been generally better than last year. Chile is the United States' primary supplier of off-season "summer" fruits. Much smaller amounts are imported from other Southern Hemisphere countries, including New Zealand and South Africa.

USDA projects 1992/93 Chilean production of apples, pears, and grapes at 1.8 million metric tons, up 6 percent from last year. Production of most fruit is expected to be larger, including apples (up 2 percent), pears (up 16 percent), and grapes (up 7 percent). Industry estimates pegged larger crops of cherries, peaches, and nectarines.

Larger Chilean production can also be attributed to a slight increase in fruit acreage. Although acreage expansion is slowing, production gains will continue for at least 5 years as nonbearing trees and vines begin bearing and others reach full-bearing potential. For example, the rapid increase in table grape acreage in the early- and mid-1980s will result in continued production increases as vines reach mature yields 7 to 17 years after planting.

According to industry reports, Chile's voluntary export quality program appears to be working well. During the 1992/93 season about 80 percent of the fruit exports destined for the United States will be subject to the "Minimum Quality Export Program", conceived and administered by private industry.

Even though Chilean fruit production was larger in 1992/93, cumulative shipments from Chile to the United States through mid-February were actually down from a year earlier. This may be due to tighter quality controls and a focus on getting better prices for higher quality produce.

On February 27, 1993, season-to-date U.S. imports of Chilean table grapes were below last year (down 6 percent), as were plums (down 20 percent), peaches (down 38 percent), and nectarines (down 33 percent). Imports of Chilean pears were up 22 percent. The smaller quantities of fresh-fruit imports increased wholesale prices for several imported deciduous fruits in early 1993. Wholesale prices for Chilean grapes and nectarines were higher in January and February 1993. However, peach and plum prices were mixed.

Figure 12

U.S. Fruit Imports From Chile

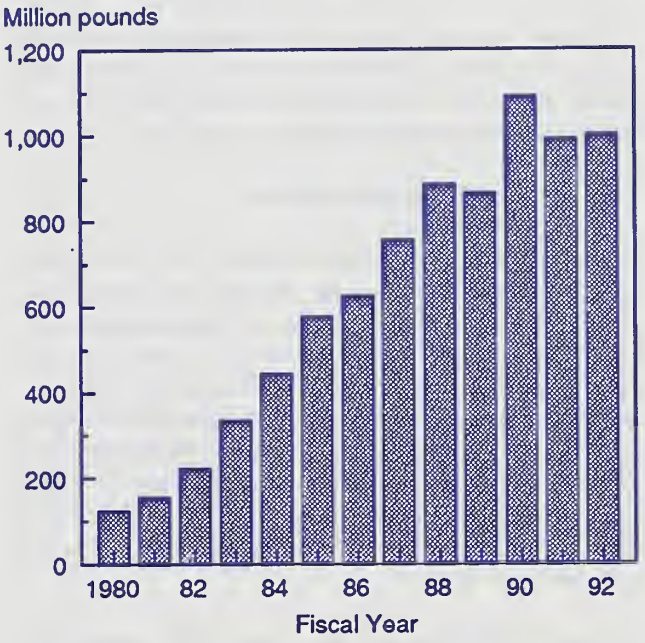


Table 27--Chile: Area planted to fruit, 1980-93

Year 1/	Apples	Apricots and cherries	Peaches and nectarines	Pears	Plums and prunes	Table grapes
			--1,000 hectares 2/--			
1980	14.3	3.2	13.3	3.3	3.7	13.5
1981	15.5	3.5	13.9	3.6	4.7	16.9
1982	16.7	3.8	14.5	3.9	5.5	20.3
1983	17.6	3.9	14.3	4.4	6.4	24.1
1984	18.6	4.1	14.3	4.8	7.2	28.7
1985	19.0	4.2	14.4	5.8	7.9	35.4
1986	21.6	4.8	15.1	7.6	8.4	38.8
1987	22.2	5.2	15.5	9.0	9.1	42.2
1988	22.9	5.2	16.0	9.5	9.0	43.5
1989	24.8	5.7	17.0	12.6	9.4	46.6
1990	23.0	5.8	17.4	13.9	9.6	47.8
1991	23.3	6.1	17.8	15.0	9.8	47.8
1992	23.4	6.2	18.0	15.5	9.9	48.0
1993 3/	23.7	--	--	16.3	--	48.8

-- = Not available.

1/ Marketing years begin: apples-February of the year shown, apricots and cherries-November of previous year, peaches and nectarines, pear plums and prunes-January of year shown, and table grapes-December previous year shown. 2/ Hectare = 2.47 acres. 3/ Preliminary.

Source: Foreign Agricultural Service, USDA.

Smaller Tree Nut Supplies Boost Grower Prices, Slow Shipments

Tighter supplies of most tree nuts have boosted grower prices and slowed shipments in 1992/93. Prospects of relatively low 1992/93 almond ending stocks and lower off-year pistachio production in 1993 are likely to maintain grower prices in 1994.

Tree nut production was down for the second consecutive year in 1992. A moderate-sized almond crop, smaller walnut and macadamia nut production, and a very small pecan crop reduced 1992/93 total tree nut supplies and pushed up grower prices. However, growers harvested record-large hazelnut and pistachio crops in 1992.

Tight Almond Supplies in 1992/93

California almond production in 1992 was 545 million pounds (shelled basis), up 11 percent from 1991. Low 1992/93 beginning stocks cut total supply, resulting in higher prices that slowed domestic and export shipments. From July 1992 through January 1993, domestic shipments were off slightly from the previous year, while exports were down 7 percent. U.S. almond exports in 1992/93 are expected to be down from the previous season's record. With 1992/93 supplies tight and domestic shipments not far behind last year's pace, ending stocks this June are expected to be small.

Smaller 1992/93 supplies have boosted the preliminary season-average grower price to its highest since 1986/87, estimated at $1.30 per pound (shelled basis), up from $1.19 per pound in 1991/92. Wholesale prices moved up about 5 percent following the 1992 harvest. The larger crop and higher season-average price boosted the value of almond production to a record $688 million, up from $564 million in 1991.

Low beginning stocks in the United States helped reduce 1992/93 world almond supplies despite larger crops in the United States and the four other largest almond-producing countries -- Spain (up 15 percent), Italy (up 36 percent), Turkey (up 9 percent), and Greece (up 36 percent). If rates of domestic and export shipments in most countries continue during the remainder of the season, world ending stocks are expected to be down 18 percent from last year's relatively low level.

Low ending stocks and a near-normal California almond production in the fall of 1993 will likely result in a continuation of relatively high grower prices. California's 1993 almond output is not likely to dip as low as in 1989 and 1991 when only 490 million pounds (shelled) were harvested.

The U.S. almond industry struggled in the 1980s with large ending stocks and relied on the market reserve to absorb excess supplies in all but 2 years from 1982/83 to 1991/92. Moderately-sized crops in 1991 and 1992 throttled back supplies and lifted grower prices to their highest since 1986/87. Domestic and export market development has generated substantial demand, also helping to reduce carryover.

U.S. Pistachio Crop Forecast Raised

California's 1992 pistachio production totaled 145 million pounds (in-shell basis), up 88 percent from 1991, and much larger than the first forecast. The alternate-year bearing cycle is quite pronounced in California pistachio production. Based on this pattern, the 1993/94 crop could be one-third to one-half less than the 1992/93 crop.

Since the 1992 harvest, domestic and export shipments have been at record-setting paces. From September 1, 1992, through January 31, 1993, domestic and export shipments of in-shell and loose kernels were well above the same period during the previous 3 years. Exports were greater to most major markets, including Hong Kong, Germany, Taiwan, and Canada.

Strong demand lifted the 1992/93 season-average grower price for pistachios above what would be expected, given the larger U.S. crop and supplies. The 1992/93 season-average grower price was forecast at $1.04 per pound (in-shell), down $0.21 from the previous year. In 1990/91, the average price was only $1.02 when the crop was 17 percent smaller than the 1992/93 crop. As with California almonds, a larger pistachio crop and a higher season-average grower price increased the value of pistachio production to a record $151 million in 1992/93, up from $96 million in 1991/92.

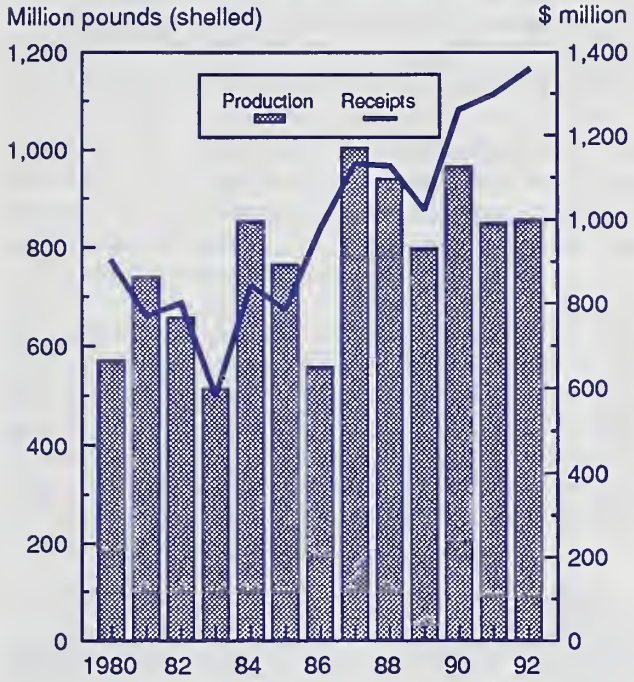
The 1993/94 season may be one of very short supply and considerably higher prices, especially if domestic and export shipments draw ending stocks down near last year's level, which appears very likely. The California Pistachio Commission estimated that the January 31, 1993, in-shell pistachio stocks were down 18 percent from a year earlier. A low stock level, combined with an off production year in the alternate bearing cycle of pistachio trees would severely reduce 1993/94 supplies. Growers could expect these supply factors to boost pistachio prices this fall.

1992/93 U.S. Pecan Crop Smallest Since 1976/77

Wet weather and a large crop in 1991 were generally held responsible for reduced 1992 pecan yields in the southern

Figure 13

U.S. Tree Nut Production and Grower Receipts



United States. The low yields resulted in total U.S. production of 176 million pounds, down 41 percent from 1991 and the lowest since 1976. Many acres in the Southeast were not harvested because of low yields.

The pecan crop in Georgia, usually the largest pecan-producing State, was down 60 percent. Many poor quality nuts were not harvested. Growers also harvested smaller crops in Alabama, Arkansas, Louisiana, Mississippi, North Carolina, and South Carolina. Freezes in the fall of 1991 and the spring of 1992, and rainfall during the bloom period, adversely affected production.

Shorter supplies boosted the 1992/93 forecast season-average grower price to a record $1.40 per pound (in-shell). However, the value of pecan production totaled $251 million in 1992/93, down from $310 million in 1991/92 because the smaller crop more than offset the higher season-average grower price.

A larger pecan crop in Mexico increased supplies available for export to the United States. U. S. pecan imports from Mexico from July 1, 1992, through December 31, 1992, were 3 percent higher than the same period a year earlier.

High pecan prices in Texas during the last three seasons and relatively lower returns for cotton and other crops have led to increased interest in planting pecan trees. However, substantial new plantings in Texas, the largest pecan-producing State in 1992, are not expected because of long-term price uncertainty. Pecan trees take 10 years, or slightly less under intense management practices, to reach full-bearing yields.

1992 Walnut Crop Down, Prices Higher

California production of English walnuts fell 23 percent in 1992 from a record 1991 crop, reducing supplies to a 5-year low. Wholesale walnut prices were 5 to 25 percent higher during the fall of 1992 compared with the fall of 1991. The 1992/93 season-average grower price will be released by USDA in July 1993. Good walnut quality and higher prices for pecans also have had positive effects on grower prices for walnuts.

Domestic shipments of shelled walnuts from August 1992 through January 1993 were down about 14 percent from a year earlier. The export total also dropped as in-shell shipments fell to most major markets, including Germany, Spain, and Italy. Higher walnut prices, a stronger dollar in some markets, and continued economic sluggishness in Europe contributed to the slowdown in walnut exports. The economies of almost all key export markets are expected to expand next year, a positive signal for U.S. walnut exports.

Table 28--Tree nuts: Acreage, yield per acre, production, and price, 1990/91-1992/93

Commodity and year	Bearing acreage	Yield per acre	Production	Grower price
	Acres	Pounds	1,000 lbs.	$/pound
Almonds 1/				
1990/91	411,000	1,610	660,000	0.93
1991/92	380,000	1,290	490,000	1.19
1992/93	380,000	1,430	545,000	1.30
Macadamia nuts				
1990/91	18,400	2,720	50,000	0.82
1991/92	18,200	2,720	49,500	0.70
1992/93	17,500	2,740	48,000	0.72
Pistachios				
1990/91	50,500	2,380	120,000	1.02
1991/92	52,100	1,480	77,000	1.25
1992/93	53,400	2,720	145,000	1.04
Hazelnuts				
1990/91	28,150	1,542	43,400	0.39
1991/92	28,600	1,783	51,000	0.36
1992/93	29,250	1,880	55,000	2/
Walnuts				
1990/91	181,000	2,508	454,000	0.52
1991/92	181,000	2,862	518,000	0.53
1992/93	179,000	2,235	400,000	2/

1/ Shelled basis. 2/ Available July 8, 1993.

Source: National Agricultural Statistics Service; converted by the Economic Research Service, USDA.

Table 29--Free-on-board tree nut prices, 1991-1992

Month	Almonds Nonpareil supreme		Pecans Fancy halves		Hazelnuts Extra large	
	1991	1992	1991	1992	1991	1992
	--Dollars per pound--					
January	--	1.50	4.40-4.75	3.40-3.60	1.77-179	1.63
February	--	1.66-1.70	4.40-4.75	3.40-3.60	1.77	1.63
March	--	1.66-1.70	4.40-4.75	3.40-3.60	1.77	1.63
April	--	1.66-1.70	4.40-4.75	3.40-3.60	1.77	1.63
May	--	1.55	4.40-4.75	3.40-3.60	1.77	--
June	--	1.63	4.40-4.75	3.50-3.70	1.77	1.45
July	--	1.60-1.65	4.40-4.75	3.60-3.75	1.77	1.45
August	--	1.60-1.65	4.40-4.75	3.60-3.75	1.70-1.73	1.45
September	1.65-1.70	1.70-1.73	4.40-4.75	3.75-3.85	1.70	1.40
October	1.64-1.70	1.70-1.73	3.90	3.95-4.25	1.67	1.35
November	1.64-1.70	1.70-1.73	4.40-4.50	4.15-4.85	1.67	1.35
December	1.64-1.70	1.78	4.40-4.50	4.25-4.85	1.67	1.35

	Macadamia nuts Style 2		Walnuts Light halves and pieces		Pistachios Roasted and salted	
	1991	1992	1991	1992	1991	1992
			--Dollars per pound--			
January	5.00	4.50	1.77-1.79	1.63	2.10	2.30
February	5.00	4.25-4.50	1.77	1.63	2.26	2.25
March	4.50-5.00	3.80	1.77	1.63	2.25	2.25
April	4.25-4.50	3.80	1.77	1.63	2.35	2.25
May	4.25-4.50	3.80	1.77	--	2.35	2.25
June	4.50	4.00	1.77	1.45	2.35	2.25
July	4.50	4.25	1.77	1.45	2.35	1.95
August	4.25	4.25	1.70-1.73	1.45	2.35	2.00
September	4.25	4.50	1.70	1.40	2.35	2.10
October	4.25	4.50	1.67	1.35	2.35	2.15
November	4.25	4.50	1.67	1.35	--	2.15
December	4.25	4.50	1.67	1.35	--	2.20

-- = Not available.

Source: Food Institute Report, January 4, 1993.

Record Hazelnut Crop in 1992

The 1992 U.S. hazelnut (filbert) crop hit a record 27,500 short tons (in-shell), up 8 percent from 1991. Higher average yields and more bearing acreage boosted production in Oregon, the State that produces 99 percent of U.S. hazelnuts. In 1992, warm weather during pollination resulted in ideal conditions and a large nut set. Also, bearing acreage in Oregon continued to expand in 1992, up 2 percent from 1991, but slightly slower than the 10-year annual-average growth rate of 3 percent.

The larger 1992 U.S. crop caused grower prices to fall. Field prices for the 1992/93 crop were down about 25 percent from the previous season. USDA's season-average grower price will be released in July 1993. Lower prices have helped boost U.S. hazelnut exports, which may reach a record in 1992/93. Since 1987/88, exports have taken an increasing portion of U.S. production. About one-third of recent U.S. hazelnut crops has been exported.

Macadamia Nut Production Down 3 Percent in 1992

Hawaiian macadamia nut production dropped 3 percent in 1992, the third consecutive year of decline since the record 1989 crop. Dry weather contributed to lower yields by adversely affecting flowering and kernel size, as well as encouraging higher insect populations.

After 3 years of decline, the season-average grower price in 1992/93 rose 3 percent to $0.72 per pound (in-shell). The higher grower price offset lower production, leaving the value of production for the 1992 crop unchanged at $35 million, but down $10 million from the 1989 record.

While deliveries to processors this season have been about the same as in 1989/90, spoilage losses are much higher due to insects and disease. Replacing trees affected by "macadamia quick decline" has reduced the number of bearing-age trees in mature orchards. Hawaiian bearing acreage declined from 18,200 acres in 1991 to 17,500 in 1992. Hurricane Iniki, which did not damage the State's primary plantings on the Big Island, brought much needed rainfall and may have a positive effect on the 1993 crop.

Bearing acreage has fallen the last 2 years after doubling from 1978 to 1990 when favorable grower prices led to increased investment in macadamia nut orchards. During the last several years, growing international competition, especially from Australia, put pressure on the Hawaiian macadamia industry. Hawaii's competitive edge is significantly higher yields than in Central America, South America and Africa, even when comparing trees of similar age. Better yields help offset Hawaii's higher land and production costs.

According to a recent report by the International Trade Commission, the United States is the world's largest macadamia nut producer and accounted for 57 percent of the world's crop in 1991. World production nearly doubled from 1982 to 1991, but about two-thirds of the increase was accounted for by countries outside the United States. The U.S. share of world production is expected to continue to decline with combined plantings in South Africa, Costa Rica, Guatemala, and Brazil outpacing the United States and Australia.

During the next several years, world macadamia nut supplies are expected to continue to expand and pressure grower prices. However, lower prices will further increase macadamia nut demand beyond snack uses, including baked goods and confectionery products.

Table 30--Fruits and tree nuts, bearing acreage, United States, selected years, 1980-92

Year	Citrus fruit 1/	Major deciduous fruits 2/	Miscellaneous noncitrus 3/	Tree nuts 4/	Total fruits and tree nuts 5/
			--1,000 acres--		
1980	1,161.8	1,629.7	248.2	565.7	3,605.4
1982	1,124.3	1,640.3	200.7	579.1	3,544.4
1984	1,007.9	1,703.8	209.7	623.8	3,545.2
1986	818.9	1,727.7	215.8	669.5	3,431.9
1988	832.9	1,748.4	217.4	686.3	3,485.0
1990	851.8	1,754.4	205.9	689.1	3,501.2
1992 6/	883.7	1,745.7	166.5	659.2	3,455.1

1/ Grapefruit, lemons, limes, oranges, tangelos, tangerines (including honey tangerines), and Temples. Acreage was for the year harvest was completed. 2/ Commercial apples, apricots, cherries, grapes, nectarines, peaches, pears, plums, and prunes. 3/ Avocados, bananas, berries (beginning 1992), cranberries, data, figs, guavas (beginning 1988), kiwifruit, olives. papayas, pineapples, and pomegranates (until 1989). 4/ Almonds, hazelnuts, macadamia nuts, pistachios, and walnuts. 5/ Some totals may not add due to rounding. 6/ Preliminary, avocados and guavas not included.

Source: National Agricultural Statistics Service, USDA.

Table 31--Fruit and edible tree nuts: Utilized production, 1991 and 1992

Commodity	1991			1992 1/		
	Fresh	Processed	All	Fresh	Processed	All
			--Short tons--			
NONCITRUS:						
Apples, commercial	2,768,300	2,111,250	4,879,550	7/	7/	5,338,800
Apricots, 3 States	20,140	71,650	91,790	23,200	84,700	107,900
Avocados 2/	171,720	13,000	184,720	7/	7/	7/
Avocados, California 2/	143,000	130,000	156,000	7/	7/	7/
Bananas, Hawaii	5,700	--	5,700	5,400	--	5,400
Berries 3/	--	--	--	--	--	121,840
Cherries, sweet	66,680	75,720	142,400	95,420	95,630	191,050
Cherries, tart	1,850	93,000	94,850	4	152	157
Cranberries	11,825	11/ 199,125	210,950	8/	8/	204,000
Dates, California	22,000	10/	22,000	21,000	10/	21,000
Figs, California	1,300	43,800	45,100	1,300	40,800	42,100
Grapes	800,400	4,754,870	5,555,270	801,970	5,249,730	6,051,700
Grapes, California	773,000	4,207,000	4,980,000	778,000	4,702,000	5,480,000
Guavas, Hawaii	--	7,000	7,000	--	7/	7/
Kiwifruit, California	26,800	10/	26,800	46,900	10/	46,900
Nectarines, California	211,000	4,000	215,000	232,000	3,000	235,000
Olives, California	500	64,500	65,000	165,000	10/	165,000
Papayas, Hawaii	24,075	3,600	27,675	28,000	5,250	33,250
Peaches	616,100	636,850	1,252,950	550,900	688,750	1,239,650
Pears	463,500	9/ 440,850	908,350	462,050	9/ 485,900	947,950
Pineapples, Hawaii	125,000	430,000	555,000	130,000	420,000	550,000
Plums, California	10/	10/	218,000	10/	10/	250,000
Prunes, California (dried basis)	--	187,000	187,000	--	185,000	185,000
Prunes and plums, other States	12,990	10,810	23,800	18,560	19,340	37,900
Strawberries	485,750	198,700	684,450	489,650	166,350	656,000
			--1,000 short tons--			
CITRUS: 4/						
Oranges	1,221	6,627	7,848	2,137	6,770	8,907
Tangerines	112	54	166	189	69	258
Grapefruit	1,241	1,015	2,256	1,249	975	2,224
Lemons	449	270	719	459	309	768
Limes	41	23	64	47	23	70
Tangelos	53	66	119	59	58	117
Temples	36	77	113	39	67	106
			--Million pounds--			
TREE NUTS:						
Almonds, California 5/	--	--	490.0	--	--	545.0
Hazelnuts, 2 States	--	--	51.0	--	--	55.0
Macadamia nuts, Hawaii	--	--	49.5	--	--	48.0
Pistachios	--	--	77.0	--	--	145.0
Pecans, all 6/	--	--	299.0	--	--	176.0
Improved	--	--	163.3	--	--	118.8
Native and seedling	--	--	115.0	--	--	36.6
Walnuts, California	--	--	518.0	--	--	400.0

-- = Not available.

1/ Preliminary. 2/ Column headed 1991 refers to 1991/92 crop. 3/ Estimates not available prior to 1992. 4/ Column headed 1991 refers to 1990/91 crop. 5/ Shelled basis. 6/ All pecans includes AZ, KS, MO, and TN, while "improved" and "native and seedling", do not. 7/ Data available July 7, 1993. 8/ Data available August 17, 1993. 9/ Processed mostly canned, but includes small quantities of dried and other uses. 10/ Missing data are are not published to avoid disclosure of individual operations. 11/ Includes shrinkage.

Source: National Agricultural Statistics Service; converted to short tons by the Economic Research Service, USDA.

Table 32--Fruit and edible tree nuts: Season-average prices per unit received by growers, 1991 and 1992

Commodity	1991			1992 1/		
	Fresh	Processed	All	Fresh	Processed	All
	--Dollars/short tons--					
NONCITRUS: 2/						
Apples, commercial	500	342	358	6/	6/	298
Apricots, 3 States	802	289	407	594	305	368
Avocados 3/	1,060	1,170	1,060	6/	6/	6/
Avocados, California 3/	1,170	1,170	1,170	6/	6/	6/
Bananas, Hawaii	820	--	820	820	--	820
Cherries, sweet	1,300	668	964	1,200	651	927
Cherries, tart	918	928	928	6/	6/	6/
Cranberries	--	--	980	--	--	7/
Dates, California	970	--	970	1,060	--	1,060
Figs, California	--	--	369	--	--	6/
Grapes	549	273	312	426	289	307
Grapes, California	537	273	314	417	292	310
Guavas, Hawaii	--	292	292	--	6/	6/
Kiwifruit, California	820	--	820	6/	--	6/
Nectarines, California	--	--	402	--	--	313
Olives, California	500	562	562	--	541	541
Papayas, Hawaii	666	54	586	520	60	448
Peaches	422	210	314	416	208	300
Pears	385	8/ 219	303	399	8/ 217	305
Pineapples, Hawaii	415	130	194	430	110	186
Plums, California	--	--	449	--	--	252
Prunes, California	--	940	940	--	6/	6/
Prunes and plums, other States	334	222	283	251	146	197
Strawberries	1,082	548	926	1,230	494	1,044
	--Dollars/box--					
CITRUS: 4/						
Oranges	14.84	5.29	6.78	8.62	4.89	5.79
Tangerines	23.94	1.37	16.57	19.88	1.24	14.90
Grapefruit	8.64	1.62	5.48	8.24	3.51	6.16
Lemons	19.56	-0.79	11.91	16.19	-1.44	9.10
Limes	22.52	-1.26	13.99	14.08	-0.90	9.12
Tangelos	9.70	3.21	6.11	9.20	4.90	7.06
Temples	10.60	4.32	6.31	8.50	5.44	6.55
	--Dollars/pound--					
TREE NUTS:						
Almonds, California 5/	--	--	1.19	--	--	1.30
Hazelnuts, 2 States	--	--	0.36	--	--	6/
Macadamia nuts, Hawaii	--	--	0.70	--	--	0.72
Pistachios	--	--	1.25	--	--	1.04
Pecans, all	--	--	1.040	--	--	1.420
Improved	--	--	1.140	--	--	1.520
Native and seedling	--	--	0.835	--	--	1.110
Walnuts, California	--	--	0.53	--	--	6/

-- = Not available.

1/ Preliminary. 2/ Fresh fruit prices are equivalent returns at packinghouse-door for Washington and Oregon, equivalent first delivery-point returns for California, and prices as sold for other States. Processing fruit prices for all States are equivalent returns at processing plant door. 3/ Column headed 1991 refers to 1991/92 crop. 4/ Equivalent on-tree returns; column headed 1991 refers to 1990/91 crop. 5/ Shelled basis. 6/ Data available July 7, 1993. 7/ Data available August 17, 1993. 8/ Processed mostly canned, but includes small quantities of dried and other uses.

Source: National Agricultural Statistics Service, USDA.

Table 33--Fruit and edible tree nuts: Value of utilized production, 1991 and 1992

Commodity	1991			1992 1/		
	Fresh	Processed	All	Fresh	Processed	All
			--1,000 dollars--			
NONCITRUS:						
Apples, commercial	1,385,937	360,338	1,746,275	7/	7/	1,595,086
Apricots, 3 States	16,149	21,207	37,356	13,775	25,918	39,693
Avocados 2/	181,176	15,210	196,386	7/	7/	7/
Avocados, California 2/	167,310	15,210	182,520	7/	7/	7/
Bananas, Hawaii	4,674	--	4,674	4,428	--	4,428
Berries 3/	--	--	--	--	--	183,703
Cherries, sweet	86,608	50,617	137,225	114,813	62,269	177,082
Cherries, tart	1,699	86,383	88,082	7/	7/	7/
Cranberries	--	--	206,616	--	--	8/
Dates, California	21,340	--	21,340	22,260	--	22,260
Figs, California	--	--	16,626	--	--	7/
Grapes	439,397	1,296,278	1,735,675	341,560	1,517,910	1,859,470
Grapes, California	415,316	1,147,311	1,562,627	324,434	1,373,911	1,698,345
Guavas, Hawaii	--	2,044	2,044	--	7/	7/
Kiwifruit, California	21,976	--	21,976	7/	--	7/
Nectarines, California	--	--	86,457	--	--	73,626
Olives, California	250	36,249	36,499	--	89,265	89,265
Papayas, Hawaii	16,034	194	16,228	14,560	315	14,875
Peaches	260,180	134,000	394,180	229,248	143,539	372,787
Pears	178,335	9/ 95,971	274,306	184,134	9/ 105,044	289,178
Pineapples, Hawaii	51,875	55,900	107,775	55,900	46,200	102,100
Plums, California	--	--	97,894	--	--	63,033
Prunes, California	--	175,780	175,780	--	7/	7/
Prunes and plums, other States	4,345	2,402	6,747	4,666	2,819	7,485
Strawberries	525,137	108,891	634,028	602,531	82,223	684,754
CITRUS: 4/						
Oranges	521,325	1,061,096	1,582,421	572,243	1,026,589	1,598,832
Tangerines	69,438	4,750	74,188	98,697	5,555	104,252
Grapefruit	314,820	78,320	393,140	306,288	119,663	425,951
Lemons	270,952	18,501	289,453	238,798	17,411	256,209
Limes	26,226	1,633	27,859	20,972	1,855	22,827
Tangelos	13,758	7,701	21,459	14,508	8,986	23,494
Temples	9,925	10,867	20,792	8,902	11,190	20,092
TREE NUTS:						
Almonds, California 5/	--	--	564,179	--	--	687,570
Hazelnuts, 2 States	--	--	18,519	--	--	7/
Macadamia nuts, Hawaii	--	--	34,650	--	--	34,560
Pistachios	--	--	96,250	--	--	150,800
Pecans, all 6/	--	--	309,524	--	--	250,635
Improved	--	--	186,917	--	--	180,588
Native and seedling	--	--	95,969	--	--	40,565
Walnuts, California	--	--	274,540	--	--	7/

-- = Not available.

1/ Preliminary. 2/ Column headed 1991 refers to 1991/92 crop. 3/ Estimates not available prior to 1992. 4/ Column headed 1991 refers to 1990/91 crop. 5/ Shelled basis. 6/ All pecans includes AZ, KS, MO, and TN, while "improved" and "native and seedling", do not. 7/ Data available July 8, 1993. 8/ Data available August 17, 1993. 9/ Processed mostly canned, but includes small quantities of dried and other uses.

Source: National Agricultural Statistics Service, USDA.

Table 34--Value of fruit and tree nut crops, by State, 1991-92

State	Crop value		Share of U.S.	
	1991	1992	1991	1992
	--1,000 dollars--		--Percent--	
Alabama	18,858	16,488	0.2	0.2
Arizona	156,844	157,698	1.6	1.6
Arkansas	11,366	8,924	0.1	0.1
California	4,797,535	5,226,767	49.4	51.9
Colorado	13,138	16,657	0.1	0.2
Connecticut	8,912	11,138	0.1	0.1
Delaware	3,582	2,730	1/	1/
Florida	1,721,085	1,706,457	17.6	16.9
Georgia	140,084	103,336	1.4	1.0
Hawaii	165,766	158,402	1.7	1.6
Idaho	24,498	20,333	0.3	0.2
Illinois	18,268	22,480	0.2	0.2
Indiana	13,889	17,937	0.1	0.2
Iowa	2,292	2,916	1/	1/
Kansas	4,236	5,494	1/	0.1
Kentucky	4,825	4,403	1/	1/
Louisiana	24,585	13,000	0.3	0.1
Maine	14,242	18,920	0.1	0.2
Maryland	9,888	8,216	0.1	0.1
Massachusetts	111,481	109,583	1.1	1.1
Michigan	197,003	218,929	2.0	2.2
Minnesota	9,440	9,349	0.1	0.1
Mississippi	6,400	1,720	0.1	0.0
Missouri	12,272	10,590	0.1	0.1
Montana	0	336	1/	1/
New Hampshire	6,590	9,864	0.1	0.1
New Jersey	58,604	79,744	0.6	0.8
New Mexico	43,440	48,655	0.4	0.5
New York	216,384	189,067	2.2	1.9
North Carolina	42,537	40,604	0.4	0.4
Ohio	36,752	36,786	0.4	0.4
Oklahoma	21,546	11,274	0.2	0.1
Oregon	197,201	273,370	2.0	2.7
Pennsylvania	114,570	109,074	1.2	1.1
Rhode Island	951	1,056	1/	1/
South Carolina	51,029	27,840	0.5	0.3
Tennessee	3,715	3,905	1/	1/
Texas	74,772	83,610	0.8	0.8
Utah	23,915	23,291	0.2	0.2
Vermont	8,970	7,480	0.1	0.1
Virginia	49,876	39,360	0.5	0.4
Washington	1,194,331	1,126,837	12.2	11.2
West Virginia	21,250	23,195	0.2	0.2
Wisconsin	95,331	83,147	1.0	0.8
United States	9,752,253	10,090,962	100.0	100.0

1/ Less than 0.05 percent.

Source: National Agricultural Statistics Service, USDA.

Table 35--Peaches: Total production and season-average prices received by growers, 1990, 1991, and indicated 1992

State	Production			Price per short ton		
	1990	1991	1992	1990	1991	1992
	--1,000 short tons--			--Dollars--		
Alabama	6.0	8.0	6.5	476	426	626
Arkansas	9.0	6.0	6.0	492	500	442
California:						
Clingstone	506.0	515.0	591.5	214	218	216
Freestone	300.0	313.5	321.0	340	264	230
Colorado	8.5	1.0	9.0	712	760	666
Connecticut	1.8	1.7	2.0	940	1,020	1,000
Delaware	0.1	1.5	1.8	830	570	394
Georgia	65.0	75.0	65.0	598	482	452
Idaho	2.4	1/	2.7	434	1/	560
Illinois	0.2	9.8	9.0	686	660	552
Indiana	0.4	2.3	3.0	682	792	886
Kansas	0.1	1.3	0.3	460	740	846
Kentucky	1/	2.0	2.0	1/	700	580
Louisiana	2.0	2.5	2.0	680	720	900
Maryland	2.0	7.5	5.5	654	484	570
Massachusetts	1.0	0.6	0.6	940	1,020	1,100
Michigan	22.5	20.0	25.0	420	348	338
Missouri	0.4	5.5	4.5	600	460	540
New Jersey	22.5	57.5	42.5	818	506	638
New York	7.0	7.5	7.0	552	548	524
North Carolina	5.0	17.5	6.0	540	352	392
Ohio	2.8	2.9	7.0	760	800	760
Oklahoma	4.0	15.5	2.5	726	610	912
Oregon	7.3	6.5	7.5	598	712	644
Pennsylvania	38.0	50.0	45.0	578	402	446
South Carolina	55.0	155.0	85.0	486	354	416
Tennessee	0.7	3.3	2.1	740	600	708
Texas	12.0	16.0	13.5	700	680	740
Utah	6.0	1.3	5.4	480	680	440
Virginia	1.3	13.0	12.5	630	382	336
Washington	26.5	15.0	26.0	510	424	412
West Virginia	1.5	9.0	10.0	536	286	310
United States	1,116.6	1,343.0	1,329.3	348	314	300

1/ No significant commercial production due to frost.

Source: National Agricultural Statistics Service; converted to short tons by the Economic Research Service, USDA.

Table 36--Production and utilization of specified noncitrus fruits, United States, 1990-92

Commodity and year	Production		Utilization 1/									
	Total	Utilized 2/	Fresh	Processed (fresh equivalent)						Dried	Other 3/	Total 2/
				Canned	Frozen	Brined	Crushed for					
							Wine	Juice	Oil			
	--1,000 short tons--											
Apricots:												
1990 4/	122.5	120.4	23.7	64.0	11.0	--	--	--	--	21.0	--	96.7
1991 4/	95.8	91.8	20.1	43.0	11.0	--	--	--	--	17.0	--	71.7
1992 4/	108.0	107.9		53.0	13.0	--	--	--	--	18.0	--	84.7
Cherries, sweet:												
1990	156.7	132.4	70.5	9.1	--	39.7	--	--	--	--	5/ 13.2	61.9
1991	150.6	142.4	66.7	10.4	--	51.7	--	--	--	--	5/ 13.7	75.7
1992	204.4	191.1	95.4	14.3	--	66.1	--	--	--	--	5/ 15.25	95.6
Cherries, tart:												
1990	104.4	101.5	2.6	35.6	59.9	--	--	--	--	--	3.5	98.9
1991	95.0	94.9	1.9	30.6	60.2	--	--	--	--	--	2.3	93.0
1992	167.6	156.5	4.4	53.7	93.5	--	--	--	--	--	5.0	152.1
Figs:												
1990	49.6	49.6	1.6	--	--	--	--	--	--	48.0	--	48.0
1991	45.1	45.1	1.3	--	--	--	--	--	--	43.8	--	43.8
1992	42.1	42.1	1.3	--	--	--	--	--	--	40.8	--	40.8
Grapes:												
1990	5,659.9	5,659.8	849.0	40.0	--	--	2,698.0	325.7	--	1,747.1	--	4,810.8
1991	5,555.9	5,555.3	800.4	41.0	--	--	2,717.8	413.6	--	1,582.5	--	4,754.9
1992	6,071.2	6,051.7	802.0	46.0	--	--	3,205.0	404.5	--	1,594.3	--	5,249.7
Kiwifruit:												
1990	39.0	34.0	34.0	--	--	--	--	--	--	--	--	--
1991	29.6	26.8	26.8	--	--	--	--	--	--	--	--	--
1992	52.7	46.9	46.9	--	--	--	--	--	--	--	--	--
Nectarines:												
1990	232.0	232.0	229.5	--	--	--	--	--	--	--	--	2.5
1991	215.0	215.0	211.0	--	--	--	--	--	--	--	--	4.0
1992	235.0	235.0	232.0	--	--	--	--	--	--	--	--	3.0
Olives:												
1990	131.5	131.5	0.5	6/ 88.0	--	--	--	--	5.0	--	7/ 38.0	131.0
1991	65.0	65.0	0.5	6/ 53.7	--	--	--	--	1.8	--	7/ 9.0	64.5
1992	165.0	165.0	--	6/ 122.0	--	--	--	--	6.0	--	7/ 37.0	165.0
Papayas:												
1990	--	34.3	29.0	--	--	--	--	--	--	--	--	5.3
1991	--	27.7	24.1	--	--	--	--	--	--	--	--	3.6
1992	--	33.3	28.0	--	--	--	--	--	--	--	--	5.3
Peaches:												
1990	1,116.6	1,069.8	466.9	480.5	84.1	--	--	--	--	13.6	24.9	603.0
1991	1,343.0	1,253.0	616.1	493.6	80.8	--	--	--	--	22.2	40.4	636.9
1992	1,329.3	1,239.7	550.9	547.8	82.2	--	--	--	--	20.2	38.6	688.8
Pears:												
1990	963.8	963.7	467.3	8/ 488.8	--	--	--	--	--	7.6	--	496.4
1991	904.5	904.4	463.5	8/ 431.6	--	--	--	--	--	9.3	--	440.9
1992	949.9	948.0	462.1	8/ 476.0	--	--	--	--	--	9.9	--	485.9
Pineapples:												
1990	--	575.0	141.0	--	--	--	--	--	--	--	--	434.0
1991	--	555.0	125.0	--	--	--	--	--	--	--	--	430.0
1992	--	550.0	130.0	--	--	--	--	--	--	--	--	420.0
Plums, CA:												
1990	223.0	223.0	--	--	--	--	--	--	--	--	--	--
1991	218.0	218.0	--	--	--	--	--	--	--	--	--	--
1992	250.0	250.0	--	--	--	--	--	--	--	--	--	--
Prunes, CA:												
1990	463.1	463.1	--	--	--	--	--	--	--	463.1	--	463.1
1991	589.0	589.0	--	--	--	--	--	--	--	589.0	--	589.0
1992	537.0	537.0	--	--	--	--	--	--	--	537.0	--	537.0
Other prunes & plums 9/:												
1990	47.8	43.2	24.3	9.6	0.9	--	--	--	--	8.4	--	18.9
1991	24.1	23.8	13.0	6.9	1.0	--	--	--	--	3.0	--	10.8
1992	38.1	37.9	18.6	12.6	0.4	--	--	--	--	6.4	--	19.3
Strawberries:												
1990	627.2	627.2	432.1	--	--	--	--	--	--	--	--	195.1
1991	684.5	684.5	485.8	--	--	--	--	--	--	--	--	198.7
1992	656.0	656.0	489.7	--	--	--	--	--	--	--	--	166.4

1/ For all items except bananas and California apricots, dates, plums, and prunes, some quantities canned, frozen, or otherwise processed are included in other utilization categories to avoid disclosure of individual operations. 2/ Some totals do not add due to rounding. 3/ Tart cherries, juice, wine, and brined; sweet cherries, frozen, juice, etc.; and olives, chopped, minced, brined, and other cures. 4/ Missing data are not published to avoid disclosure of individual operations, but are included in total. 5/ Frozen, juices, and etc. 6/ Canning size fruit only, mostly whole and pitted but also includes some chopped and sliced. 7/ Limited (canned sliced, chopped, wedged and undersize. 8/ Mostly canned, includes small quantities dried; other, excluding California dried pears, uses not published by State to avoid disclosure of individual operations. 9/ Michigan, Idaho, Oregon, and Washington.

Source: National Agricultural Statistics Service, USDA.

U.S. Fruit, Melon, and Nut Trade

by

Boyd M. Buxton

Abstract: The value of U.S. fruit, melon, and nut imports and exports showed strong growth from 1980 to 1991, in total and with respect to total U.S. agricultural trade. Exports doubled from $1.3 billion to $2.4 billion while imports quadrupled from $0.56 billion to $2.1 billion. This article reviews major trading partners for U.S. imports and exports for calendar year 1991 for fresh, frozen, and processed fruit, fruit juices, and nuts. Chile and Mexico were the leading sources of U.S. fresh fruit imports, while Canada and Japan were the major markets for U.S. exports in 1991.

Keywords: Trade, imports, exports, citrus, nuts, noncitrus, fruit.

A More Global Fruit Market

Improved refrigeration and transportation, increased market promotion, rising incomes, and falling trade barriers have made markets for fruit and fruit products increasingly global. Production areas more distant from market centers are now possible suppliers. A larger variety of fresh fruit and fruit products, along with greater seasonal availability, are offered to consumers in many areas of the world. This article provides an overview of the changing U.S. trade in fruit, melons, and nuts from 1980 to 1991 and summarizes the major destinations of U.S. exports and origins of U.S. imports in 1991.

Data are from summaries of the *Foreign Agricultural Trade of the United States* prepared by the Economic Research Service, USDA. The summaries include melons with fruit categories, excludes wine, and aggregates peanuts with tree nuts in a single nut category. Bananas are excluded from the import numbers as they are considered to be noncompetitive with domestic fruit.

U.S. Fruit And Nut Trade Grew in the 1980's

The United States has played an important role in the expansion of world trade in fruit, fruit products, and nuts. The value of U.S. fruit and nut exports more than doubled from almost $1.3 billion in 1980 to over $2.4 billion in 1991, while the value imported almost quadrupled from $0.56 billion in 1980 to over $2.1 billion in 1991 (figure A-1).

In terms of total value, the United States has been both a net exporter and net importer of fruit and nuts since 1980. In the early 1980s, exports exceeded imports by a considerable margin, but a relatively strong dollar in the early 1980s contributed to a decline in U.S. exports from 1982 to 1985, while imports rose sharply (figure A-1). From 1984 to 1989, the United States imported more fruit and nuts in terms of total value than it exported.[1] In 1990 and 1991, the United States regained a net export position, in part because of strong export markets for fresh citrus and many noncitrus commodities, especially apples.

Although still relatively small, the expansion of total U.S. fruit and nut trade has resulted in these commodities becoming a larger share of total agriculture trade. U.S. fruit and nut imports increased from just over 3 percent of total U.S. agricultural imports in 1980 to 9.4 percent in 1991 (figure A-2), while exports increased from about 3 percent to 6.1 percent (figure A-3).

Fresh Commodities Lead Growth of U.S. Fruit Imports

Fresh fruit was the most significant area of growth in the total value of U.S. fruit imports from 1980 to 1991. This growth was mostly fresh fruit during the winter season from Southern Hemisphere countries, primarily Chile.

During the 1980s, there was also substantial growth in fruit juice imports, especially apple juice. A surge in U.S. apple juice consumption during the 1980s was mostly supplied by increased imports. Per capita consumption of orange juice did not change much during the 1980s, but imports varied from year to year due to variable weather conditions that affected the U.S. orange crop (figure A-4). Orange juice imports typically increase when the Florida orange crop is adversely affected by freezes and decline when the crop is relatively large.

[1]The increase in the value of exports from 1989 to 1990, in part, reflects adjustments for suspected underreporting of U.S. exports to Canada, amounting to $3-$4 million annually in the late 1980s. Beginning in 1990, U.S. official export numbers to Canada were replaced with official Canadian import numbers from the United States as the Canadian data are more accurate.

Figure A-1

Value of U.S. Fruit and Nut Trade

$ billion

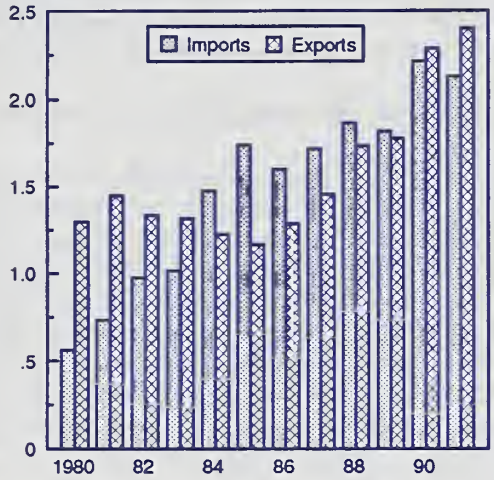


Figure A-2

U.S. Value of Imports

$ billion

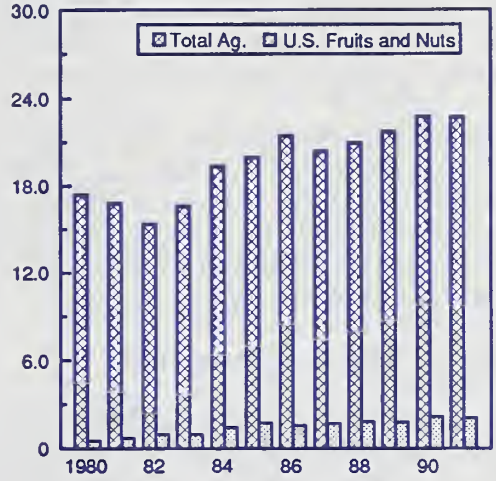


Figure A-3

U.S. Value of Exports

$ billion

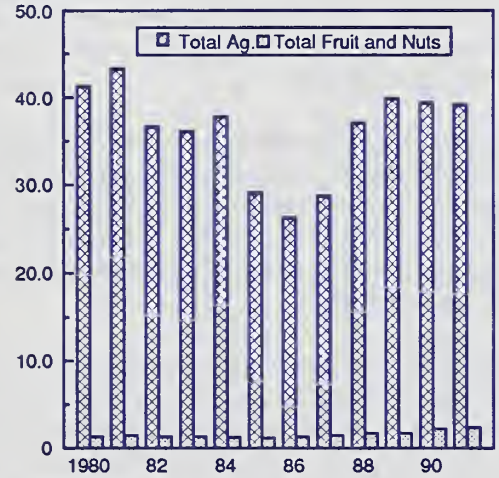


Figure A-4

Value of Fruit Imports

$ billion

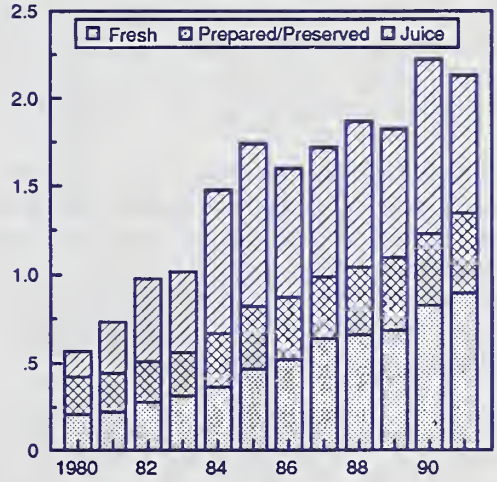


Figure A-5

U.S. Value of Fruit Exports

$ billion

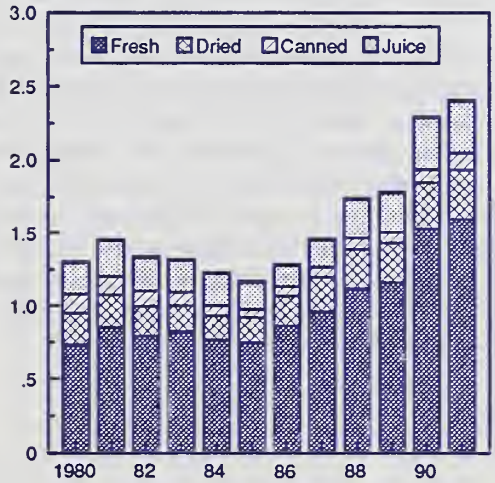
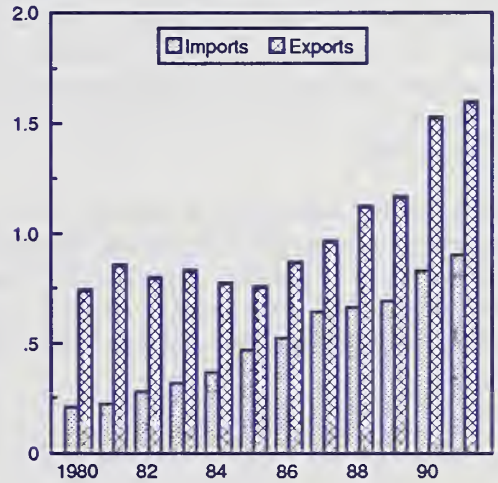


Figure A-6

Value of U.S. Fresh Fruit Trade

$ billion



U.S. imports of prepared and preserved fruit increased during the 1980s, mostly because of increased imports of canned pineapple products. As a share of total U.S. fruit imports, fresh fruit rose from 36 percent in 1980 to 42 percent in 1991, while the share of fruit juices rose from 25 percent in 1980 to 37 percent in 1991 (figure A-4).

After declining in the early 1980s, the total value of U.S. fresh fruit exports increased sharply from 1986 to 1991. The value of U.S. exports of both fruit juice and canned fruit strengthened slightly during the last half of the 1980s. In 1991, fresh fruits represented 65 percent of the total value of U.S. fruit exports (figure A-5).

U.S. Is a Net Exporter of Fresh Fruit

The United States was a net exporter of fresh and frozen fruit during the 1980s (figure A-6). Imports rose consistently from year-to-year through the 1980s, with most of the growth in fresh exports taking place since 1985.

Grapes and melons were the leading U.S. fruit imports and accounted for 28 and 17 percent, respectively, of total U.S. fresh fruit imports in 1991. Mexico and Chile were the leading U.S. fresh fruit suppliers, both exporting about $290 million to the United States in 1991 (table A-1).

Imports from Chile included many fresh noncitrus items like grapes, peaches, plums, and apricots, while Mexico accounted for most of the melons, citrus fruit, mangoes, and strawberries. New Zealand was the third largest supplier, with fresh fruit exports to the United States valued at $58.6 million in 1991 and composed of 63 percent kiwifruit and 25 percent apples.

In 1991, the United States exported $1.56 billion of fresh fruit, with about 37 percent going to Canada and 27 percent going to Japan (table A-1). Canada was the most important market for U.S. apples, grapes, berries, melons, plums, pears, and peaches in 1991. That year, Canada accounted for 47 percent, the European Community 9.5 percent, and Japan 8.2 percent of the total $968 million of U.S. noncitrus fruit exports. Over 81 percent of U.S. exports to Japan was citrus fruit, but Japan was the leading market for cherries and the second leading market for berries and melons.

Grapefruit was the leading U.S. fresh citrus fruit export ($273 million), while oranges were second and lemons and limes were third in importance. However, 1991 was not a typical year for U.S. fresh orange exports due to the hard freeze that devastated the California orange crop in December 1990. Exports of fresh oranges were particularly hard hit, dropping from the more normal amount of $283 million in 1990 to $189 million in 1991. Japan accounted for 59 percent of total U.S. fresh citrus exports in 1991, while Canada accounted for just over 20 percent.

Apples Lead Increase in Fruit Juice Imports

U.S. fruit juice imports rose sharply in the early 1980s before leveling off during the last half of the decade (figure A-7). The United States became a major net importer of fruit juice during the 1980s. However, U.S. imports of fruit juice showed considerable year-to-year variation, largely due to the variations in orange juice imports. Brazil accounted for over 80 percent of the U.S. total orange juice imports in 1991 (table A-2). The major suppliers of foreign apple juice were Argentina and the European Community, mainly Germany.

U.S. per capita consumption of apple juice increased steadily from about 1 gallon (single-strength equivalent) in 1980/81 to 1.7 gallons in 1990/91, while orange juice consumption remained quite stable. Increased apple juice consumption partly reflected high orange juice prices relative to apple juice.

In 1991, apple juice imports were $305 million or 39 percent of total U.S. fruit juice imports, while U.S. orange juice imports were $295 million or 38 percent of the total. Argentina supplied 27 percent of U.S. apple juice imports, the European Community accounted for 25 percent, and Chile for 13 percent.

Canada was the largest foreign market for U.S. fruit juice exports. In 1991, Canada accounted for over 65 percent of the total value of U.S. fruit juice exports, mostly orange juice (table A-3). Canada was the second largest foreign market for apple, grape, and grapefruit juices, with Japan being the number one market.

U.S. Processed Fruit Trade Has Trended Up

U.S. trade in processed fruit has grown over the last decade with both imports and exports reaching about one-half a billion dollars in 1991 (figure A-8). Like other fruit categories, exports of processed fruit declined from 1980 to 1985, before moving up to record highs from 1986 to 1991. More than 80 percent of processed fruit imports is canned pineapple from Thailand and the Philippines. U.S. exports are mostly dried fruit, including raisins and prunes. The European Community, Canada, and Japan are the principle markets (table A-3).

Table A-1--U.S. imports and exports of fresh and frozen fruit, by commodity and three most important trading partners, 1991

Commodity	Total	Leading partner		Second leading partner		Third leading partner		All other partners
				--1,000 dollars--				
IMPORTS: 1/								
Grapes	253,906	198,825	CHILE	53,920	MEXICO	699	CARIBBEAN	462
Melons	154,960	99,279	MEXICO	51,885	CENTRAL AM	1,785	CARIBBEAN	2,011
Citrus	79,153	33,133	MEXICO	16,077	SPAIN	3,370	CARIBBEAN	26,573
Mangoes	64,274	54,499	MEXICO	7,066	CARIBBEAN	1,313	BRAZIL	1,396
Berries	50,007	38,960	CANADA	3,951	CHILE	3,761	YUGOSLAVIA	3,335
Apples	47,734	23,218	CANADA	14,508	NEW ZEALAND	8,055	CHILE	1,953
Strawberries	46,014	37,235	MEXICO	4,499	SOUTH AM	1,175	POLAND	3,105
Pineapples	42,380	24,544	COSTA RICA	7,418	CARIBBEAN	1,988	THAILAND	8,430
Kiwifruit	40,126	37,174	NEW ZEALAND	2,417	CHILE	514	ITALY	21
Peaches	33,387	32,681	CHILE	411	MEXICO	153	NEW ZEALAND	142
Pears	28,274	9,098	CHILE	6,950	ARGENTINA	3,239	JAPAN	8,987
Avocados	17,708	15,974	CHILE	955	DOM. REP.	676	MEXICO	103
Plums	15,100	15,007	CHILE	30	ISRAEL	9	TURKEY	54
Other	24,129	12,722	MEXICO	2,386	CARIBBEAN	3,034	THAILAND	5,987
Total	897,147	292,832	MEXICO	290,861	CHILE	58,576	NEW ZEALAND	254,878
EXPORTS: 2/								
Citrus--								
Grapefruit	273,109	162,223	JAPAN	60,193	EC-12	38,539	CANADA	12,154
Lemons/limes	130,197	101,363	JAPAN	18,201	CANADA	5,230	HONG KONG	5,403
Oranges/tangerines	189,201	85,019	JAPAN	62,113	CANADA	26,805	HONG KONG	15,264
Other citrus	627	386	CANADA	92	JAPAN	77	EC-12	72
Total citrus	593,134	348,697	JAPAN	119,239	CANADA	63,147	EC-12	62,051
Noncitrus--								
Apples	262,846	59,329	CANADA	51,309	WEST EUROPE	37,706	TAIWAN	114,502
Grapes	217,850	122,838	CANADA	20,570	HONG KONG	11,503	TAIWAN	62,939
Berries	99,231	67,855	CANADA	17,869	JAPAN	9,452	EC-12	4,055
Melons	74,080	58,771	CANADA	6,676	JAPAN	4,934	HONG KONG	3,699
Cherries	64,145	33,741	JAPAN	12,943	CANADA	9,934	EC-12	7,527
Plums	63,341	23,705	CANADA	21,662	TAIWAN	4,639	EC-12	13,335
Pears	60,790	26,079	CANADA	14,079	MEXICO	7,960	WEST EUROPE	12,672
Peaches	60,160	47,001	CANADA	7,326	MEXICO	2,136	TAIWAN	3,697
Other noncitrus	65,476	34,523	CANADA	12,778	JAPAN	9,702	EC-12	8,473
Total noncitrus	967,919	453,045	CANADA	92,380	EC-12	79,102	JAPAN	343,392
Total	1,561,053	572,284	CANADA	427,800	JAPAN	155,527	EC-12	405,442

1/ Includes frozen fruit. Berries exclude strawberries.
2/ Excludes frozen fruit. Berries include strawberries.

Source: Foreign Agricultural Trade of the United States (FATUS), Economic Research Service, USDA.

Table A-2--U.S. imports and exports of fruit juice, by commodity and three most important trading partners, 1991

Commodity	Total	Leading partner		Second leading partner		Third leading partner		All other partners
				--1,000 dollars--				
IMPORTS:								
Apple	305,333	81,242	ARGENTINA	76,430	EC-12	39,371	CHILE	108,290
Orange	295,240	240,523	BRAZIL	45,012	MEXICO	4,029	BELIZE	5,676
Pineapple	91,982	36,135	PHILIPPINES	31,067	THAILAND	7,914	JAPAN	16,866
Grape	20,501	11,917	ARGENTINA	2,221	BRAZIL	1,806	CHILE	4,557
Lemon	10,356	5,065	ARGENTINA	2,209	BRAZIL	1,573	MEXICO	1,509
Lime	3,351	2,226	MEXICO	979	BRAZIL	49	ITALY	97
Grapefruit	1,814	898	BELIZE	634	MEXICO	52	COSTA RICA	230
Other	56,541	22,640	WEST EUROPE	19,735	SOUTH AM	6,301	ASIA	7,865
Total	785,118	250,208	BRAZIL	101,778	ARGENTINA	88,572	EC-12	344,560
EXPORTS:								
Orange	175,810	81,727	CANADA	30,394	EC-12	20,658	JAPAN	43,031
Apple	42,884	21,632	JAPAN	12,744	CANADA	2,257	CARIBBEAN	6,251
Grape	40,479	18,078	JAPAN	16,601	CANADA	1,287	HONG KONG	4,513
Grapefruit	39,803	14,876	JAPAN	11,917	CANADA	9,154	EC-12	3,856
Other	55,774	17,566	CANADA	12,802	JAPAN	7,704	CARIBBEAN	17,702
Total	354,750	140,554	CANADA	88,045	JAPAN	44,587	EC-12	81,564

Source: Foreign Agricultural Trade of the United States (FATUS), Economic Research Service, USDA.

Table A-3--U.S. imports and exports of processed fruit, by commodity and three most important trading partners, 1991

Commodity	Total	Leading partner		Second leading partner		Third leading partner		All other partners
				--1,000 dollars--				
IMPORTS:								
Pineapple, canned	191,688	80,669	THAILAND	75,580	PHILIPPINES	12,386	JAPAN	23,053
Other, preparations/ preserves	256,552	108,192	ASIA	71,925	EC-12	34,765	MEXICO	41,670
Total	448,240	108,192	THAILAND	81,477	PHILIPPINES	38,440	MEXICO	220,131
EXPORTS: 1/								
Dried								
Raisins	181,912	81,932	EC-12	30,369	JAPAN	23,349	CANADA	46,262
Prunes	125,841	69,441	EC-12	19,316	JAPAN	13,907	OTHER W EUROPE	23,177
Other dried	29,277	11,054	CANADA	7,142	EC-12	2,829	OTHER W EUROPE	8,252
Total dried	337,030	158,516	EC-12	51,917	JAPAN	44,390	CANADA	82,207
Canned (except juice)	116,353	30,869	CANADA	28,681	JAPAN	13,358	EC-12	43,445
Frozen (except juice)	34,435	12,066	JAPAN	10,085	CANADA	9,216	EC-12	3,068
Other, preparations/ preserves	93,930	31,703	CANADA	16,758	EC-12	9,850	JAPAN	35,619

1/ Includes frozen fruit.

Source: Foreign Agricultural Trade of the United States (FATUS), Economic Research Service, USDA.

The United States Continues To Be a Large Net Exporter of Nuts

U.S. nut exports grew rapidly from about $757 million in 1980 to $1,020 million in 1991 (figure A-9). Almonds, peanuts, walnuts, pistachios, and pecans were the major U.S. nut exports in 1991. That year, almonds accounted for 57 percent, peanuts 15 percent, and walnuts 13 percent of the total value of U.S. nut exports. Europe was the leading foreign market, accounting for 60 percent of total U.S. nut exports in 1991 (table A-4).

Most of the nuts imported by the United States (about 83 percent of the total import value) are noncompetitive because few, if any, are grown in the United States. Cashew nuts, mostly from India and Brazil, accounted for 58 percent of total U.S. nut imports in 1991.

Figure A-7

Value of U.S. Fruit Juice Trade

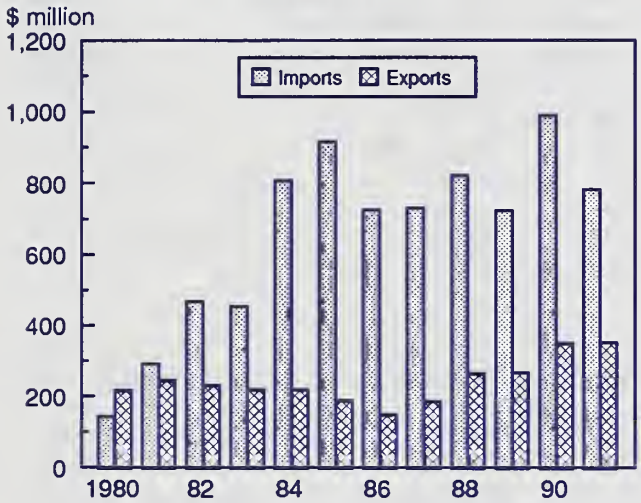


Figure A-8

Value of U.S. Processed Fruit Trade

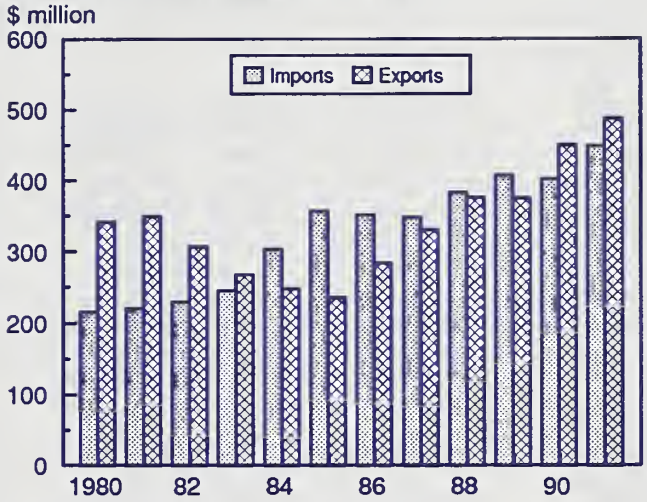


Figure A-9

Value of U.S. Nut Trade

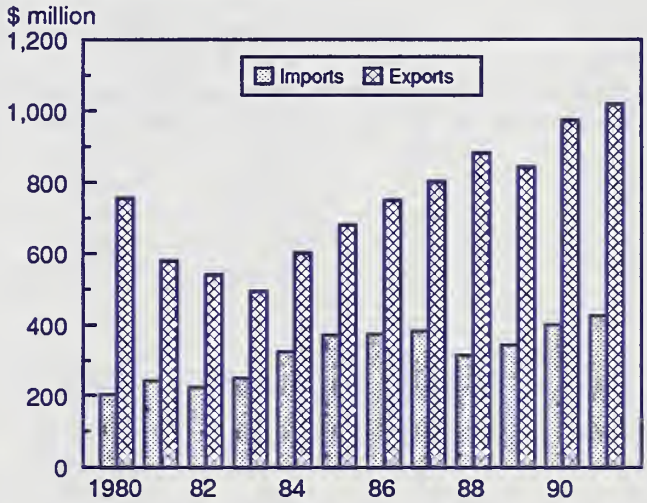


Table A-4--U.S. imports and exports of nuts and preparations, by commodity and three most important trading partners, 1991

Commodity	Total	Leading partner		Second leading partner		Third leading partner		All other partners
				--1,000 dollars--				
IMPORTS:								
Cashew	247,609	113,603	INDIA	91,931	BRAZIL	21,233	AFRICA	20,842
Pecans	53,309	49,362	MEXICO	3,921	AUSTRALIA	26	ISRAEL	0
Coconut 1/	38,668	29,488	PHILIPPINES	4,457	DOM. REP.	1,554	THAILAND	3,169
Brazil nuts	14,489	7,132	BOLIVIA	5,492	BRAZIL	937	PERU	928
Macademia	12,253	7,153	AUSTRALIA	2,319	AFRICA	1,459	COSTA RICA	1,322
Chestnuts	10,700	9,598	EC-12	874	KOREA	141	CHINA	87
Hazelnuts	9,712	9,163	TURKEY	501	EC-12	5	CANADA	7
Pistachio	1,691	1,030	TURKEY	363	HONG KONG	211	AFGHANISTAN	87
Other	37,682	8,239	EC-12	7,839	CANADA	4,440	ARGENTINA	16,183
Total	426,113	97,516	BRAZIL	113,820	INDIA	51,304	MEXICO	163,473
EXPORTS:								
Almonds	581,224	333,605	EC-12	74,207	JAPAN	35,888	OTHER W EUROPE	137,524
Peanuts	154,398	71,033	EC-12	33,537	CANADA	24,807	ASIA	25,021
Walnuts	136,417	88,859	EC-12	18,509	MIDEAST	12,196	CANADA	16,853
Pistachios	46,888	13,876	HONG KONG	9,368	JAPAN	7,926	EC-12	15,718
Pecans	41,567	19,733	CANADA	9,585	MEXICO	8,357	EC-12	3,892
Hazelnuts	11,423	3,844	EC-12	3,820	ASIA	1,700	CANADA	2,059
Other	48,498	14,664	CANADA	10,301	JAPAN	8,536	EC-12	14,997
Total	1,020,415	522,159	EC-12	117,342	CANADA	113,862	JAPAN	267,052

1/ Shelled coconuts and frozen, prepared, and preserved coconut meat.

Source: Foreign Agricultural Trade of the United States (FATUS), Economic Research Service, USDA.

Table A-5--U.S. imports and exports of fruit, fruit products, nuts, and total agricultural products, 1980-91

Item	1980	1981	1982	1983	1984	1985
			--1,000 dollars--			
IMPORTS:						
Total agriculture	17,366,000	16,772,000	15,341,000	16,627,000	19,334,000	19,968,000
Fruits						
Fresh or frozen	205,682	221,419	276,512	313,201	363,525	464,321
Preparations or preserved	214,666	220,388	229,745	245,584	303,316	356,759
Juice	143,604	291,974	468,474	454,502	808,162	917,042
Nuts, including preparations	203,576	242,810	224,905	250,405	324,006	373,492
Total	563,952	733,781	974,731	1,013,287	1,475,003	1,738,122
EXPORTS:						
Total agriculture	41,233,000	43,339,000	36,627,000	36,099,000	37,804,000	29,041,000
Fruits						
Fresh	738,669	855,115	795,662	829,330	757,981	742,813
Dried	213,990	224,282	204,015	177,319	161,203	169,244
Canned (except juice)	128,128	125,774	103,177	90,099	72,838	55,433
Frozen (except juice)	n.a.	n.a.	n.a.	n.a.	14,230	10,993
Juice	217,852	246,282	230,364	219,824	219,807	188,990
Nuts and preps	757,327	580,505	541,333	495,503	604,438	683,344
Total	1,298,639	1,451,453	1,333,218	1,316,572	1,226,059	1,167,473

	1986	1987	1988	1989	1990	1991
			--1,000 dollars--			
IMPORTS:						
Total agriculture	21,452,000	20,402,000	20,954,000	21,749,000	22,770,000	22,719,000
Fruits						
Fresh or frozen	520,175	638,471	658,850	685,733	825,607	897,147
Preparations or preserved	351,951	348,165	382,906	407,815	402,727	448,240
Juice	726,395	731,383	823,884	726,544	990,217	785,117
Nuts, including preparations	374,269	383,932	316,635	343,525	401,101	426,112
Total	1,598,521	1,718,019	1,865,640	1,820,092	2,218,551	2,130,504
EXPORTS:						
Total agriculture	26,222,000	28,709,000	37,080,000	39,909,000	39,363,000	39,191,000
Fruits						
Fresh	850,816	938,558	1,093,196	1,132,846	1,486,489	1,561,053
Dried	202,357	237,570	269,333	267,990	318,329	337,030
Canned (except juice)	66,409	69,232	79,648	76,251	90,151	116,353
Frozen (except juice)	15,582	24,537	27,870	31,550	41,980	34,435
Juice	149,396	186,533	264,586	268,490	351,055	354,751
Nuts and preps	753,160	804,165	883,866	845,957	975,777	1,020,416
Total	1,284,560	1,456,430	1,734,633	1,777,127	2,288,004	2,403,622

Source: Foreign Agricultural Trade of the United States (FATUS), Economic Research Service, USDA.

U.S. Citrus Fruit Consumption Update

by

Diane Bertelsen

Abstract: Preliminary estimates of 1991/92 consumption indicate a rebound for fresh-market citrus fruit but a decline for citrus juice. Fresh orange consumption rose 4.5 pounds per capita in 1991/92, following recovery of California production after the freeze-reduced 1990/91 crop. Consumption of fresh tangerines rose 0.5 pounds and limes gained 0.3 pounds. Grapefruit consumption was up slightly and lemon consumption dipped. Consumption of grapefruit juice rose 40 percent in 1991/92 to nearly 0.6 gallons per capita, but orange juice consumption decreased 7 percent to 4.34 gallons per capita.

Keywords: Consumption, fresh-market citrus fruit, citrus fruit juice, supply and utilization.

Introduction

Preliminary estimates of 1991/92 consumption indicate a rebound for fresh-market citrus fruits but a slip in consumption of citrus juice. Consumption of all citrus fruit increased to 24.5 pounds per capita, up from 19.1 pounds in 1990/91. Most of the gain was due to increased orange consumption that followed the recovery of California production after the freeze-reduced 1990/91 crop. Orange consumption rose 4.5 pounds per capita, after having declined 5.0 pounds on 1990/91. Consumption of tangerines increased 0.5 pounds and limes gained 0.3 pounds. Grapefruit consumption was up slightly and lemon consumption dipped.

Citrus juice consumption declined from the 1990/91 estimate of 5.19 gallons per capita to 5.03 gallons in 1991/92. Consumption includes concentrated, canned, and chilled juice, expressed in single-strength equivalent gallons. The 1991/92 consumption estimate for grapefruit juice rose 0.16 gallons, but the orange juice estimate declined 0.31 gallons from 1990/91.

Consumption estimates were calculated from residual supply. Total U.S. supply is the sum of utilized domestic production, imports, and beginning stocks, so that: utilized production, plus imports, plus beginning stocks, equals total supply. Total supply can be stored, exported, or consumed, so that: total supply, minus ending stocks, minus exports, equals consumption. If stock estimates are not available, beginning stocks are excluded from total supplies. Per capita consumption estimates are obtained by dividing consumption by the July 1 total U.S. population (including Armed Forces overseas). Stocks of citrus juice are from USDA's *Cold Storage* reports.

Grapefruit Consumption Up in 1991/92

Florida usually provides about 70 percent of the U.S. fresh grapefruit supply, so production fluctations are relected in consumption. Florida produced a record-large crop in 1988/89, then freezing temperatures in December 1989 dropped 1989/90 utilized production to a 20-year low. Despite decreased exports, 1989/90 grapefruit consumption was estimated to be the lowest on record, 4.38 pounds per capita. Florida production recovered and consumption rose to about 5.9 pounds per capita in 1990/91 and 1991/92.

The United States is the leading grapefruit producing country, so imports are typically less than 1 percent of the U.S. grapefruit supply. Exports utilized about 40 percent of total fresh-market grapefruit supplies in the past four seasons. Japan received 55 percent U.S. grapefruit exports in 1991/92 and the European Community received 24 percent.

The highest estimate of grapefruit consumption since 1978/79 was for 1982/83, 7.8 pounds per capita. In the 1980s, Florida's grapefruit production fluctuated due to five freezes and the most recent, in December 1989, devastated Texas citrus as well. In 1992/93, Texas is expected to have its first significant grapefruit crop in 3 years and a very large Florida crop is forecast. Abundant supplies and lower prices will likely raise 1992/93 grapefruit consumption.

Consumption of grapefruit juice rose 40 percent in 1991/92 to nearly 0.6 gallons per capita. The gain came from a reduction in ending stocks, because juice production was down 7 percent from the prior year.

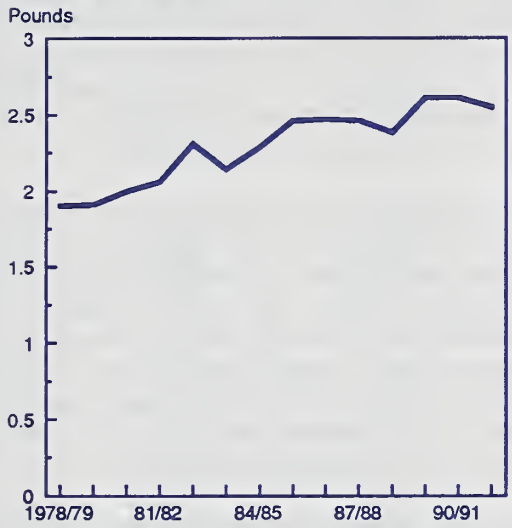
Lemon Consumption Remains Stable

Fresh utilization of lemons was down somewhat in 1990/91, the result of a freeze-reduced California crop. However, imports rose and exports declined from the year earlier, so 1990/91 lemon consumption remained at 2.61 pounds per capita. Higher fresh use was offset by increased exports in 1991/92 and lemon consumption

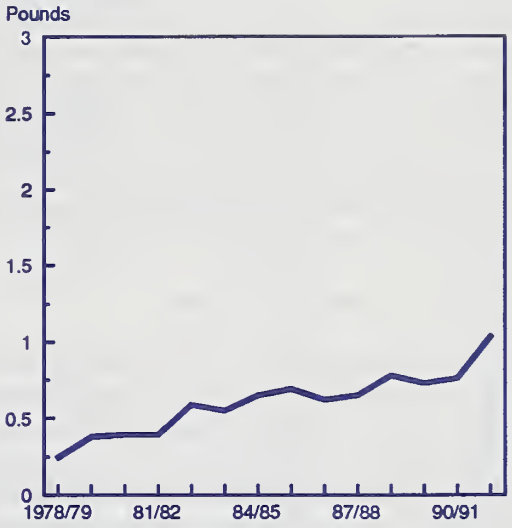
Figure B-1

Per Capita Consumption

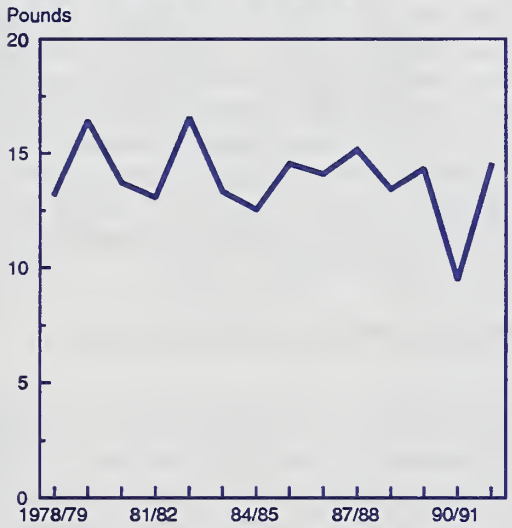
Fresh Lemons



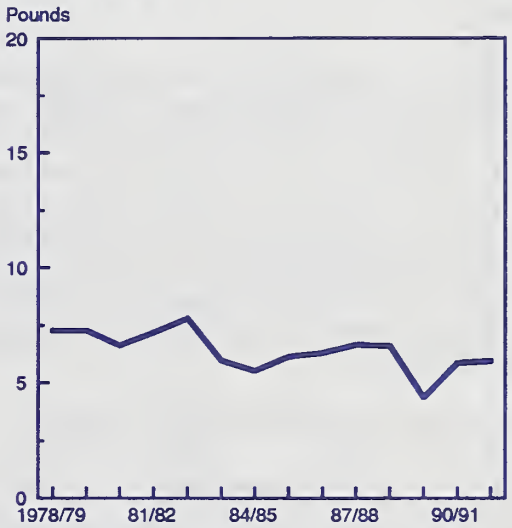
Fresh Limes



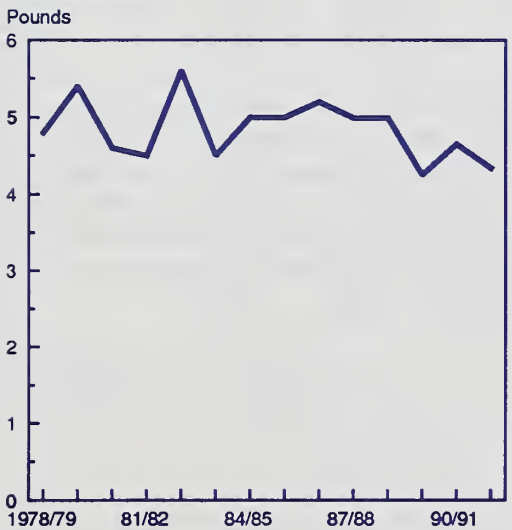
Fresh Oranges and Tangerines



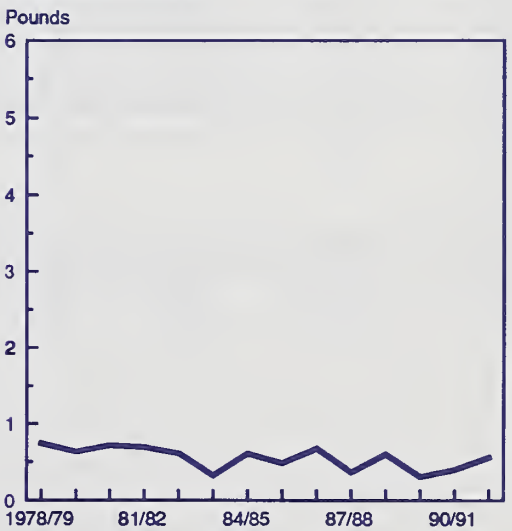
Fresh Grapefruit



Orange Juice



Grapefruit Juice



decreased slightly to 2.55 pounds. During the 1980s lemon consumption increased from 1.9 to 2.6 pounds per capita, as utilized production rose from 814 to 918 million pounds.

The United States is a major producer of lemons (along with Italy, Argentina, Turkey, and Spain), and imports are typically just 1-3 percent of U.S. lemon supplies. Exports utilized 38 percent of lemon supplies in 1988/89, dropping to about 30 percent of supplies in the 1989/90-1991/92 period. Japan has been the most important export market for U.S. lemons for the last decade and accounted for 85 percent of U.S. lemon exports in 1991/92.

Imports Raise Lime Consumption

Fresh lime consumption was the highest on record in 1991/92, 1.03 pounds per capita. Lime consumption tripled during the 1980s as fresh utilization of U.S. (Florida) lime production grew from less than 40 million pounds in 1978/79 to over 100 million pounds in 1988/89. During the same period, imports (mainly from Mexico) rose from less than 30 million to nearly 100 million pounds.

Lime imports exceeded utilized domestic production for the first time in 1990/91 and again in 1991/92. Imports were 59 percent of U.S. lime supplies in 1990/91 and 65 percent in 1991/92. Lime exports utilized just 4 percent of supplies in 1991/92, with Canada the destination for more than 90 percent of U.S. lime exports in 1990/91 and 1991/92. Florida's 1992/93 lime production was curtailed by Hurricane Andrew in August 1992 and, although imports from Mexico increased, lime consumption is likely to decline in 1992/93.

Orange Consumption Rebounds in 1991/92

Following the freezing temperatures in December 1990 that damaged California's orange crop, the shortage of oranges and high prices drove consumption down. After the preliminary estimate of 8.34 pounds per capita was published in September 1992[1], final 1990/91 fresh-market utilization data became available and the estimate was raised to 8.50 pounds, but it remained the lowest ever computed by USDA. California orange production recovered in 1991/92 and consumption rose to 13.0 pounds per capita, typical of consumption throughout the 1980s.

The United States is a major orange-producing country, with imports typically less than 1 percent of U.S. supplies. Devastating freezes in December 1990 destroyed over half of California's orange crop. Because California usually provides about 75 percent of U.S. orange supplies, total fresh utilization and exports dropped sharply, while imports rose to 5 percent of supply in 1990/91.

Exports utilized about 25 percent of U.S. supplies in the 1978/79-1989/90 period. Due to the freeze-reduced California crop in 1990/91, exports dropped to 19 percent of total orange supply. In 1991/92, orange exports recovered and again utilized 25 percent of supply. Canada has always been a major destination for U.S. orange exports, but Japan has become increasingly important in the last decade. Japan and Canada each received about 35 percent of U.S. orange exports in 1991/92.

Orange juice consumption declined 7 percent in 1991/92 from 1990/91 to 4.34 gallons per capita. Although production was up, imports and beginning stocks were lower than the year earlier. Most U.S. orange juice imports are from Brazil, the world's leading producer and exporter of orange juice concentrate. Imports comprised an average of 26 percent of orange juice supply, but when Florida production was curtailed by freeze damage in 1989/90, imports rose to 36 percent of supply. Orange juice imports receded to 21 percent of supply in 1991/92 with the recovery of Florida production.

Tangerine Consumption Highest in 10 Years

The United States is not a major world producer or exporter of tangerines, and domestic production provides most consumption. Imports and exports are often nearly equal; imports were 9 percent of fresh-market tangerine supplies in 1991/92 and exports utilized 10 percent.

Tangerine consumption dropped in 1989/90 and 1990/91 due to a reduction in utilized production. A freeze in December 1989 lowered fresh utilization of the Florida tangerine crop and a December 1990 freeze damaged California's tangerines. California has provided about 55 percent and Florida 40 percent of U.S. fresh-market tangerines during the past 5 years. With larger 1991/92 crops in Florida and California, tangerine consumption increased from less than 1.0 to nearly 1.5 pounds per capita.

[1]U.S. Department of Agriculture, Economic Research Service, *Fruit and Tree Nut Situation and Outlook Yearbook*, TFS-263, September 1992.

Table B-1--Fresh-market citrus fruit: Supply and utilization, 1988/89-1991/92

Commodity and season	Supply			Utilization		
					Consumption	
	Utilized production	Imports	Total supply	Exports	Total	Per capita
	--Million pounds--					Pounds
Grapefruit:						
1988/89	2,790.0	8.5	2,798.5	1,173.8	1,624.7	6.60
1989/90	1,742.0	10.0	1,752.0	674.7	1,077.3	4.38
1990/91	2,482.0	16.5	2,498.5	1,025.9	1,472.6	5.86
1991/92	2,498.0	22.1	2,520.1	1,012.3	1,507.8	5.93
Lemons:						
1988/89	932.0	12.9	944.9	358.4	586.5	2.30
1989/90	928.0	23.2	951.2	308.6	642.6	2.61
1990/91	898.0	25.5	923.5	268.3	655.2	2.61
1991/92	918.0	20.3	938.3	291.4	646.9	2.55
Limes:						
1988/89	107.0	98.7	205.7	12.2	193.5	.78
1989/90	104.0	87.1	191.1	11.8	179.3	.73
1990/91	82.0	118.1	200.1	10.2	189.9	.76
1991/92	94.0	178.0	272.0	11.0	261.0	1.03
Oranges:						
1988/89	4,110.0	17.2	4,127.2	1,117.8	3,009.4	12.22
1989/90	4,418.0	26.3	4,444.3	1,152.2	3,292.1	13.37
1990/91	2,514.0	137.3	2,651.3	514.3	2,137.0	8.50
1991/92	4,352.0	34.5	4,386.5	1,091.8	3,294.7	12.97
Tangerines:						
1988/89	306.0	37.4	343.4	41.6	301.8	1.23
1989/90	230.0	37.2	267.2	31.8	235.4	.96
1990/91	224.0	46.1	270.1	27.1	243.0	.97
1991/92	378.0	38.4	416.4	43.2	373.2	1.47

Source: Economic Research Service, USDA.

Table B-2--Citrus Juice: Supply and utilization, 1988/89-1991/92

Commodity and season	Utilized production	Imports	Beginning stocks	Total supply	Ending stocks	Exports	Consumption	
							Total	Per capita
	--Million single-strength gallons--							Gallons
Grapefruit:								
1988/89	182.5	--	156.1	338.6	170.0	20.3	148.3	0.60
1989/90	114.3	5.1	170.0	289.4	195.8	16.9	76.7	.31
1990/91	116.0	1.9	195.8	313.7	195.6	16.8	101.3	.40
1991/92	107.8	4.2	195.6	307.6	141.7	23.2	142.7	.56
Lemon:								
1988/89	22.6	7.8	--	30.4	--	1.9	28.5	.11
1989/90	18.5	22.7	--	41.2	--	2.8	38.4	.15
1990/91	20.8	11.1	--	31.9	--	2.7	29.2	.12
1991/92	23.7	10.8	--	34.5	--	3.0	31.5	.12
Lime:								
1988/89	1.0	1.9	--	2.9	--	--	2.9	.01
1989/90	2.2	2.0	--	4.2	--	--	4.2	.02
1990/91	1.8	3.9	--	5.7	--	--	5.7	.02
1991/92	1.8	2.0	--	3.8	--	--	3.8	.01
Orange: 1/								
1988/89	970.2	382.6	211.6	1,564.4	232.4	97.6	1,234.4	4.99
1989/90	652.3	492.1	232.4	1,376.8	225.0	90.0	1,061.8	4.25
1990/91	876.2	327.2	225.0	1,428.4	157.7	96.4	1,174.3	4.65
1991/92	923.2	286.0	157.7	1,366.9	151.8	107.7	1,107.4	4.34

-- = Not available.

1/ Foreign Agriculture Service, USDA, estimates.

Source: Economic Research Service, USDA.

List of Tables

Can You Use an Electronic Database?

An electronic database containing the recalculated data for U.S. exports of fresh-market fruit, 1980-91, used to develop the consumption estimates presented in this report is available. This database is in the form of Lotus 1-2-3 worksheet files on one 3.5", 1.44 MB, DOS-compatible diskette.

To order, just dial 1-800-999-6779. Toll free in the United States and Canada. Other areas, please call 1-703-834-0125.

Ask for the ***U.S. Fresh Market Fruit Exports*** database, stock #93006, $25. For non-U.S. addresses, add 25 percent (including Canada). Charge your purchase to your Visa or MasterCard. Or send a check (made payable to ERS-NASS) to:

ERS-NASS
341 Victory Drive
Herndon, VA 22070

For further information on this database, write to Diane Bertelsen, room 1240, 1301 New York Ave., N.W., Washington, DC 20005-4788 or call 1-202-219-0884.

United States
Department of Agriculture
1301 New York Avenue, NW
Washington, DC 20005-4789

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., NW, Washington, DC 20005-4789

FIRST CLASS
POSTAGE & FEES PAID
USDA
PERMIT NO. G-145

✓ Want to Subscribe? ✓ Time to Renew?

Subscribe to ***Fruit and Tree Nuts Situation and Outlook*** today! If you already subscribe to this timely periodical, note that expiration information about your subscription appears on the top line of your mailing label. **The expiration information will appear in one of three formats:** 1-FTS-**2** (this means you have TWO issues remaining in your subscription) or 940430 (expiration date is April 30, 1994) or APR94 (expiration date is April 1994). **Call toll free, 1-800-999-6779**, and tell us whether you want to subscribe or renew, or return this form to: **ERS-NASS, 341 Victory Drive, Herndon, VA 22070.**

Fruit and Tree Nuts Situation and Outlook

❑ Yes! I want to **start** my subscription.

❑ Yes! I want to **renew** my subscription.

	1 Year	*2 Years*	*3 Years*
Domestic:	❑ $20.00	❑ $38.00	❑ $56.00
Foreign:	❑ $25.00	❑ $47.50	❑ $70.00

New subscribers:

Name: _____
Address: _____
City, State, Zip: _____
Daytime phone: (_____)_____

Renewals:

ATTACH MAILING LABEL HERE

Payment method:

❑ Bill me.

❑ Enclosed is $_____.

Use purchase orders, checks drawn on U.S. banks (and in U.S. funds), cashier's checks, or international money orders. **Make payable to ERS-NASS.** Please do not send cash.

Credit card orders: ❑ MasterCard ❑ Visa Total charges $_____.

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

Card expiration date: | | | (Month/Year)

For *fastest* service, call our toll-free order desk 1-800-999-6779, in the U.S. and Canada; other areas please call 703-834-0125, or FAX this page to 703-834-0110.