United States Department of Agriculture

FTS-309

March 30, 2004

Electronic Outlook Report from the Economic Research Service

www.ers.usda.gov

Fruit and Tree Nuts Outlook

Susan Pollack and Agnes Perez

Large Florida Orange Crop Drives Up Citrus Production In 2003/04

The next release is May 26, 2004

Approved by the World Agricultural Outlook Board.

The index of prices received by fruit and tree nut growers was 17 percent higher in February 2004 than the previous February. At the retail level, consumers were paying more for fresh navel oranges, grapefruit, strawberries, and Red Delicious apples, this January and February than the same time last year.

The 2003/04 citrus crop forecast stands at 16.8 million tons. All citrus crops, except for lemons and the minor crops tangelos and Temples, are expected to produce more fruit this season than last. The orange and tangerine crops are forecast to be the second largest on record.

Fresh orange production out of California and Arizona is down 13 percent from last season. Grower prices for navel oranges are 29 percent higher this season, from November 2003 through February 2004. Prices are likely to remain strong since supplies are limited and domestic and international demand is strong.

Orange production in Florida for 2003/04 is expected to be a record high 11.1 million short tons. Due to the record crop, weak demand for orange juice, and higher production in Brazil, Florida orange growers are receiving the lowest returns in recent history for processing oranges.

Grapefruit production is estimated to total 2.1 million short tons for 2003/04, 1 percent more than last season. Production declined in all producing States this season, except in Florida. Fresh shipments of grapefruit have been sluggish to domestic markets this season, but strong to major export markets.

Tree nut bearing acreage continues to increase in 2004. Bigger hazelnut, pecan, and walnut crops were harvested this season.

Price Outlook

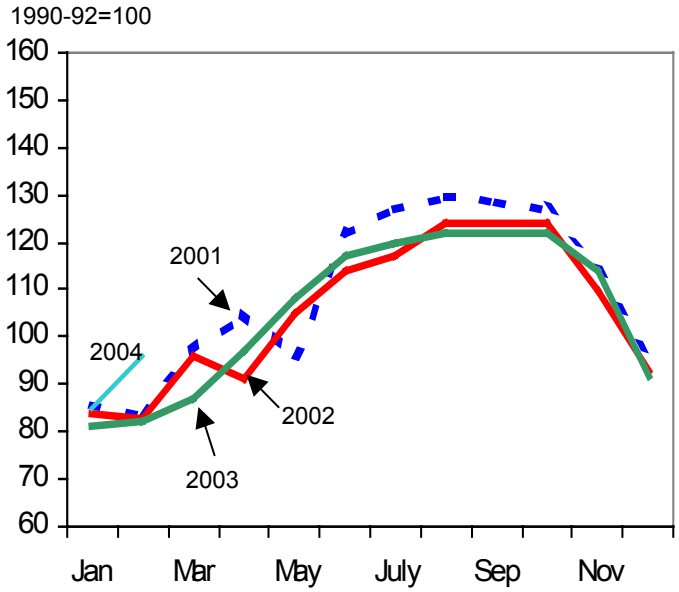
Grower Prices Higher in Early 2004 Than Last Year

The index of prices received by fruit and tree nut growers was 17-percent higher in February 2004 than the previous February (fig. 1). At 96 (1990-92=100), the February index was the highest since 1999. Higher prices for grapefruit, lemons, strawberries, and apples contributed to the higher index over last February. February's index price is also higher than January, as prices increased for oranges and grapefruit.

Fresh citrus prices rose this February from January and February 2003 (table 1). While growers received higher prices this February than the previous month or February 2003, prices for all oranges declined from last February because of low prices received by growers for processing oranges.

Fresh strawberry prices have been higher this January and February than the same time last season. Reduced supplies from Florida and California drove up prices. February 2004 prices fell from January as supplies increased seasonally from both markets.

Figure 1
Index of prices received by growers for fruit and nuts



Source: National Agricultural Statistics Service, USDA.

Table 1--Monthly fruit prices received by growers, United States

Commodity	2003		2004		2003-04 Change	
	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.
	--Dollars per box--				Percent	
Citrus fruit: 1/						
Grapefruit, all	2.19	2.14	2.21	2.25	0.9	5.1
Grapefruit, fresh	5.00	5.05	4.96	5.07	-0.8	0.4
Lemons, all	3.55	1.23	3.30	2.73	-7.0	122.0
Lemons, fresh	9.96	5.66	7.91	9.21	-20.6	62.7
Oranges, all	3.00	3.14	2.36	2.93	-21.3	-6.7
Oranges, fresh	5.04	4.22	7.41	7.95	47.0	88.4
	--Dollars per pound--					
Noncitrus fruit:						
Apples, fresh 2/	0.258	0.246	0.301	0.294	16.7	19.5
Grapes, fresh 2/	--	--	--	--	--	--
Peaches, fresh 2/	--	--	--	--	--	--
Pears, fresh 2/	0.204	0.161	0.188	0.173	-7.8	7.5
Strawberries, fresh	1.090	0.877	1.510	1.320	38.5	50.5

1/ Equivalent on-tree price.

2/ Equivalent packinghouse-door returns for CA, NY (apples only), OR (pears only), and WA (apples, peaches, and pears). Prices as sold for other States.

Source: National Agricultural Statistics Service, USDA.

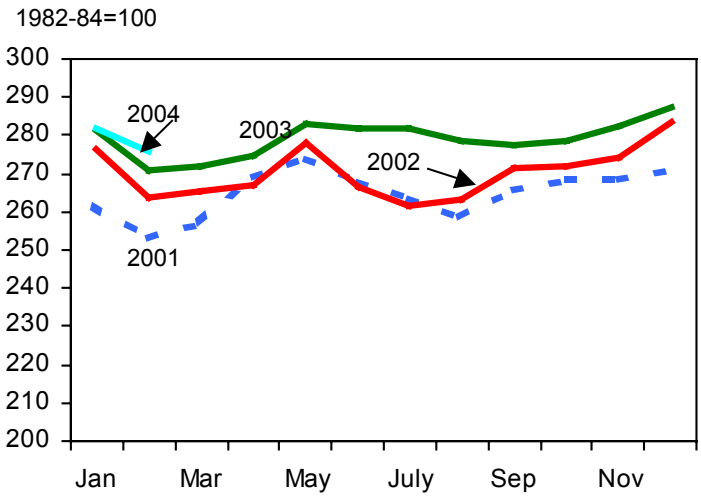
Retail Prices for Fresh Fruit Higher This January and February Than Previous Years

The Consumer Price Index for fresh fruit was higher this January and February than any other January and February in recent times (fig. 2). At 275.7 (1982-84=100), the February index was 2-percent above last February. The index followed the usual trend in prices and dipped in February from January's price of 282.1.

At the retail level, consumers were paying more for fresh navel oranges, grapefruit, strawberries, and Red Delicious apples this January and February than the same time last year. They paid less for fresh lemons, grapes, and bananas. Consumers can expect to continue to pay more for fresh oranges and grapefruit as their seasons wind down. They should also expect to pay more for fresh lemons in the coming months as supplies have tightened domestically.

Figure 2

Consumer Price Index for fresh fruit



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

Table 2--U.S. monthly retail prices, selected fruit, 2002-2003

Commodity	Unit	2003 Jan.	2003 Feb.	2004 Jan.	2004 Feb.	2003-04 Change Jan.	2003-04 Change Feb.
		--- Dollars ---		--- Dollars ---		--- Percent ---	
Fresh:							
Valencia oranges	Lb	--	--	--	--	--	--
Navel oranges	Lb	0.713	0.711	0.793	0.725	11.2	2.0
Grapefruit	Lb	0.609	0.640	0.651	0.670	6.9	4.7
Lemons	Lb	1.418	1.224	1.166	1.167	-17.8	-4.7
Red Delicious apples	Lb	0.977	0.968	1.019	1.050	4.3	8.5
Bananas	Lb	0.526	0.508	0.512	0.504	-2.7	-0.8
Peaches	Lb	--	-- --	--	--	--	--
Anjou pears	Lb	0.990	-- --	--	--	--	--
Strawberries 1/	12-oz pint	--	2.153	2.481	2.332	--	--
Thompson seedless grapes	Lb	2.060	1.806	1.856	1.615	-9.9	-10.6
Processed:							
Orange juice, concentrate 2/	16-fl. oz	1.848	1.875	1.957	1.873	5.9	-0.1
Wine	liter	6.495	6.050	6.737	6.275	3.7	3.7

-- Insufficient marketing to establish price.

1/ Dry pint.

2/ Data converted from 12 fluid ounce containers.

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

Big Citrus Crop in 2003/04 Expected

The 2003/04 citrus crop forecast stands at 16.8 million short tons as of March 1, 2004 (table 3). All citrus crops, except for lemons and the minor crops tangelos and Temples, are forecast to produce more fruit this season than last. The season's harvest, if realized, will be 10.5 percent larger than during 2002/03. The orange and tangerine crops are forecast to be the second largest on record. Grapefruit production increased from last season, but is lower than previous years.

Grower prices for oranges, lemons, and tangerines have been averaging lower this season through February than the same time last season. Grapefruit growers' prices have averaged higher from October through February from last season due to high returns in October and November. Grower prices in 2002/03, however, were the lowest since 1997/98, and any increase this season will likely still be below most previous seasons.

Fresh Orange Supplies Projected To Be Smaller In 2003/04

The projection for fresh orange production out of California and Arizona is 2 million tons, down 13 percent from last year's 2.3-million-ton crop. Both States have smaller crops this season, resulting in the smallest crop since the freeze-damaged production in 1998/99. A decline in the fruit set for navel oranges accounts for most of the expected 5-percent drop in production. A lower fruit set is not unexpected after a very large crop as occurred in 2002/03. With fewer fruit on the trees, fruit are often larger than the heavy set years.

Harvesting of navel oranges began late this season because the fruit did not have enough color to meet maturity standards. Rains in late February again postponed harvesting because harvesters could not get into the groves to pick. Navel harvesting is expected to go through mid-May this season.

Table 3--U.S. citrus: Utilized production, 2001/02-2002/03 and forecast 2003/04 1/

Crop and State	Utilized production				2001/02-2002/03
	2000/01	2001/02	2002/03	2003/04 2/	Change
	--1,000 short tons--				Percent
Oranges	12,221	12,374	11,545	13,178	14.1
Arizona	34	19	18	17	-5.6
California	2,044	1,931	2,326	2,026	-6.4
Florida	10,048	10,350	9,135	11,070	21.2
Texas	95	74	66	65	-1.5
Grapefruit	2,462	2,424	2,063	2,089	1.3
Arizona	8	5	4	3	-25.0
California	211	198	188	174	-7.4
Florida	1,955	1,985	1,645	1,700	3.3
Texas	288	236	226	212	-6.2
Tangerines	373	420	371	397	7.0
Arizona	24	23	16	23	43.8
California	83	83	94	94	0.0
Florida	266	314	261	280	7.3
Lemons	996	801	1,026	996	-2.9
Arizona	137	106	114	122	7.0
California	859	695	912	874	-4.2
Other citrus 3/					
Florida	153	167	165	108	-26.1
Total	16,205	16,186	15,170	16,768	10.5

1/ The crop year begins with the bloom of the first year shown and ends with the completion of harvest the following year. 2/ Forecast as of March 1, 2004. 3/ Includes Temples, tangelos, and K-early citrus (K-early data were discontinued in 2001/02).
Source: National Agricultural Statistics Service, USDA.

The greatest decline is expected to occur in the Valencia crop, which if estimates are correct, will decline 28 percent from last season. Growers have been removing Valencia acreage because of the low returns from the crop and replacing them with navels, clementines, and other agricultural products that may provide growers with higher returns.

The California Agricultural Statistics Service conducted a Valencia orange objective measurements survey in February 2004 and estimate that acreage has declined 19 percent between 2002/03 and 2003/04, to a low of 52,000 acres. The Central Valley accounts for 40,000 acres, with the remaining 12,000 acres in Southern California. Along with the acreage decline, the fruit set on Valencia trees in 2003/04 declined 40 percent from the previous season.

Grower prices for fresh oranges are 33 percent higher from November 2003 through February 2004 over the same period last season (table 4). Due to the delayed start of the season, prices in November averaged $11.17 per 75-lb box. Prices began to decline as harvesting got underway in December and January. The rains in late February slowed harvesting and prices rose to $8.86 per box. With harvest underway again in March, prices should reflect the increase in supply. Overall prices for 2003/04, however, are likely to remain above last season since supplies are limited and domestic and international demand is strong.

Despite the smaller crop this season, large, high-quality fruit has stimulated international demand for oranges. As a result, exports between November 2003 and January 2004 increased 13 percent over last season. Shipments were up this season to Canada and South Korea, the two biggest export markets for U.S. fresh oranges, and growing rapidly to China, both through Hong Kong and the mainland. Shipments to China increased 25 percent over last season, with Hong Kong still the major destination. Shipments to Japan, a very lucrative market because of its strong demand for the highest-value fruit, declined this season by 3 percent. Mexico's demand for U.S. fresh oranges has been 42 percent below the same time last season. An expected 13-percent increase in its orange production is likely the cause of the decline in demand for imports.

Table 4--Fresh oranges: Average equivalent on-tree prices received by growers, California, 19992000-2003/04

Month	1999/2000	2000/01	2001/02	2002/03	2003/04
			---Dollars/90-lb box---		
November	11.83	8.73	17.05	11.05	11.17
December	7.22	7.63	13.85	8.25	10.26
January	6.32	7.23	12.75	5.65	8.66
February	5.12	7.76	11.51	4.27	8.86
March	5.18	10.21	10.39	6.48	
April	4.95	12.09	11	8.38	
May	6.06	11.11	8.86	8.41	
June	6.7	7.76	5.43	6.63	
July	4.09	6.32	5.13	5.27	
August	3.59	6.62	6.23	5.64	
September	3.89	8.42	6.33	4.64	
October	3.71	7.32	6.63	5.24	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Record-High Orange Crop Expected in Florida Pressures Grower Prices

Orange production in Florida for 2003/04 is expected to hit a record-high 11.1 million short tons, 21 percent bigger than last season. The early- to mid-season orange production is the sixth largest on record. The crop is estimated to total 5.7 million tons, 13 percent larger than last season, but 1 percent smaller than two seasons ago. Early- and mid-season orange harvesting was 97 percent completed by the first week of March; as in similar years, 99 percent of the crop was sold for processing. Harvesting of navel oranges was all but completed by the beginning of March. Florida navel orange production, most of which are sold to the fresh market, declined this season to 148,500 short tons, 25 percent lower than a season ago.

Florida's Valencia orange production is projected to set a record at 5.4 million short tons, 31 percent more than last season. Above-average fruit size and record-low fruit drop through early March contribute to the larger crop size. Valencia harvesting got underway in late February, with less than 8 percent of the crop harvested by mid-March.

Orange juice production is projected to total 1.5 billion single-strength equivalent (sse) gallons, larger than last season, but below the quantity produced during three other seasons in the past 10 years (table 5). Juice yield per 90-lb box of oranges is expected to only average 1.53 gallons, the lowest since 1995/96. The low juice yields resulted in lower total

juice estimates than might be expected with this season's record crop. Record-large beginning juice stocks for the 2003/04 season, along with production, boosts supplies to 2.4 billion sse gallons, 7 percent more than last season, and 2 percent more than 2001/02.

Orange juice movement has been slightly stronger from October through March, with shipments 1 percent ahead of last season during the same period, according to the Florida Citrus Processors Association. Retail sales of frozen-concentrated orange juice (FCOJ) continue to decline as they have over the past few years. Institutional and bulk sales, however, have been stronger this season than last.

Demand for not-from-concentrate orange juice (NFC) is running 2 percent ahead of the same time last season, and 5 percent ahead of the 2001/02 season. While demand for packaged NFC is strong, bulk demand is weak, declining from the past two seasons. Much of the increase in the NFC movement is attributed to stronger demand in export markets this season. Domestic demand, on the other hand, is down when compared with the same period last season. With the domestic consumption trend expected to continue throughout the season, the Economic Research Service (ERS) projects that per capita orange juice consumption will increase to 4.9 gallons this season from 4.8 gallons a season ago. While higher than last season, if realized, consumers will have consumed less orange juice than any other time since 1994/95.

Due to the record orange crop, weak demand for orange juice, and higher production in Brazil (in its marketing year 2004/05), Florida orange growers are receiving the lowest returns in recent history for processing oranges. Grower prices for October 2003 through February 2004 have averaged $1.58 per 90-lb box (table 6). Since 1990, prices have averaged $3.54 per box. The 2003/04 season will be the fourth

Table 5--United States: Orange juice supply and utilization, 1986/87-2002/03

	Supply				Utilization			
	Beginning			Total		Ending	Consumption	
Season 1/	stocks	Production	Imports	supply	Exports	stocks	Domestic	Per capita
	--Million gallons, single-strength equivalent--							Gallons
1986/87	204	781	396	1,381	73	1,106	201	4.6
1987/88	201	907	296	1,404	90	1,103	212	4.5
1988/89	212	970	272	1,454	73	1,148	233	4.7
1989/90	233	652	350	1,235	90	920	225	3.7
1990/91	225	876	233	1,334	96	1,080	158	4.3
1991/92	158	930	203	1,291	107	1,014	170	4.0
1992/93	170	1,207	232	1,609	114	1,245	249	4.8
1993/94	249	1,133	287	1,669	107	1,202	360	4.6
1994/95	360	1,257	141	1,758	117	1,207	434	4.6
1995/96	434	1,271	261	1,966	130	1,420	417	5.3
1996/97	417	1,437	257	2,111	148	1,399	564	5.2
1997/98	564	1,555	305	2,423	148	1,596	679	5.8
1998/99	679	1,236	346	2,260	150	1,576	534	5.7
1999/00	534	1,507	339	2,380	146	1,589	645	5.7
2000/01	645	1,439	258	2,342	137	1,507	698	5.3
2001/02	698	1,430	189	2,318	181	1,470	666	5.1
2002/03	666	1,238	292	2,196	103	1,390	703	4.8
2003/04 2/	703	1,463	190	2,356	176	1,435	745	4.9

1/ Season begins in December of the first year shown. As of 1998/99, marketing season begins in October. 2/ Preliminary.
Sources: Economic Research Service and Foreign Agricultural Service, USDA.

consecutive season of below-average prices. Growers this season are receiving 52 percent less than last year, which was the previously lowest price year. The on-tree grower price is the returns to growers after the costs of hauling, picking, sorting, grading, packing, cooling, marketing, and other costs have been deducted. Many growers may be having a difficult time this season making a profit from their processing oranges. Florida growers sell about 5 percent of their production each season for fresh market, although not all growers produce a fresh-market crop. Including the returns from fresh-market sales, the average grower price so far this season rises slightly to $1.73. This price is considerably lower than last season and the average price of $3.72 they have received since 1990.

Orange juice retail prices this season, from October through February, have averaged $4.43 per gallon, according to ACNeilsen Scantrak and Homescan data, fractionally higher than the same time last season. While the price of FCOJ was slightly higher than last season, the price for NFC is about 1 percent lower. NFC makes up the bulk of retail orange juice sales. The lower prices partially reflect the processors' attempt to boost demand while they are faced with the expense of maintaining large inventories.

Grapefruit Production Slightly Higher In 2003/04 Than Last Season

Grapefruit production is estimated, as of March 1, 2004, to total 2.1 million short tons for 2003/04, 1 percent more than last season. Production declined in all States this season, except in Florida. Good weather conditions in Florida this season have resulted in an estimated 3-percent increase in its grapefruit crop to 1.7 million short tons. This season, Florida's crop is expected to account for 81 percent of U.S. grapefruit production. By mid-March, about 63 percent of the white grapefruit and 75 percent of the red grapefruit had been harvested. While white grapefruit harvested for fresh use is higher so far this season than last, demand by processors is down. Fresh and processing shipments of red grapefruit are both lagging behind last year through mid-March. Despite the bigger 2003/04 crop, 101,000 fewer bushels of red grapefruit had been harvested for fresh use and 51,000 fewer bushels had been harvested for processing, according to Florida's Citrus Administrative Committee.

Table 6--Processing oranges: Average equivalent on-tree prices received by growers, Florida, 19992000-2003/04

Month	1999/2000	2000/01	2001/02	2002/03	2003/04
		---Dollars/90-lb box---			
October	--	2.18	2.35	1.43	-0.40
November	2.82	2.44	2.57	2.21	1.20
December	2.97	2.45	2.68	2.52	1.55
January	3.14	2.49	2.80	2.78	1.70
February	3.13	2.58	2.87	3.12	1.88
March	3.15	3.54	4.10	3.95	
April	4.49	4.10	4.17	4.00	
May	4.60	4.11	4.22	3.95	
June	4.46	4.08	4.16	3.60	
July	3.98	--	--	--	
August	--	--	--	--	
September	--	--	--	--	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Fresh shipments of grapefruit to domestic markets have been sluggish relative to last season. Shipments of both white and red grapefruit have been behind the past two seasons through mid-March. On the brighter side for the industry, shipments increased to international markets. Exports between September 2003 and January 2004 are 12 percent ahead of the same time last season. Exports are up to Japan, the biggest market outside the United States for fresh grapefruit. Shipments also are higher going to France, Netherlands, and the United Kingdom, but are lower to Canada, the second largest export market. Since the latter half of the 1990s, shipments have been declining to many of the major markets, especially Canada and the major European Union markets—France, Netherlands, the United Kingdom, and Germany. Markets, however, have been growing in Asia and Oceania, specifically, South Korea, Hong Kong, Australia, and New Zealand. Demand has also been increasing from Switzerland, Sweden, Finland, and Poland.

Grower prices for the 2003/04 season started off stronger than last season (table 7). Growers received about 12 percent more so far this season, with higher prices in October through December. Prices leveled off in January and February to be comparable with last season, but below most of the previous seasons since 1997/98. Florida fresh grapefruit started off the

season with its highest price so far, at $8.12 per 85-lb box. The average price, as of February, was $5.72 per box. While prices are averaging 3 percent above last season, they are about 2 percent lower than the 2001/02 season. Strong export demand has helped growers receive a higher price for their crop this season, despite a bigger crop and weak domestic demand.

Grapefruit Juice Supplies Likely To Be Down This Season

Grapefruit juice production is estimated to be slightly higher than last season at 141 million sse gallons. Total supplies, however, are estimated to be 5-percent lower at 215 million sse gallons due to the smallest beginning stocks in 4 years. Juice movement has been down slightly so far this season, from October 2003 through mid-March. While frozen-concentrated grapefruit juice demand has been stronger than last season, not-from-concentrate juice demand has been sluggish. As a result, ERS is forecasting grapefruit juice per capita consumption for the 2003/04 season to be 0.34 gallon, continuing the downward trend in demand by U.S. consumers.

While domestic demand for grapefruit juice may be declining this season, international demand is up 29 percent between October and January. Shipments are up to the Netherlands, Japan, and Israel, but down to Canada.

With U.S. declining demand for grapefruit juice and strong international demand for fresh grapefruit, fewer fruit had been sent to processing this season through mid-March. Due to weak processor demand for grapefruit, grower prices for processing grapefruit continue to decline and do not cover the costs of production. From October through February, growers received an average price of $-1.03 per box, down from $-0.85 in 2002/03.

Smaller Lemon Crop Expected in 2003/04

California's production, which accounts for 88 percent of the total, is expected to be 4-percent smaller. Arizona, the other major lemon-producing State, is expecting to produce its biggest crop since 2000/01. By March, much of Southern California and Arizona crops had been harvested.

Table 7-Grapefruit: Average equivalent on-tree prices received by growers, Florida, 2001/02-2003/04

Month	2001/02	2002/03	2003/04
	--Dollars per 85-lb box--		
September	--	--	--
October	6.46	4.77	5.88
November	3.64	2.94	3.30
December	2.69	2.05	2.34
January	2.76	1.98	1.93
February	2.10	2.19	2.19
March	1.85	1.58	
April	1.61	1.11	
May	1.37	1.05	
June	--	--	
Average	2.81	2.21	3.13

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Although fruit quality is reported to be good to excellent and the total lemon crop is smaller than last season, grower prices were 44 percent lower than last season from August 2003 through February 2004 and the lowest since 2000/01 (table 8). Prices began this season at $11.10 per 76-lb box, the lowest August price since 1992. Prices began the season lower than usual because of the big crop out of Arizona and the California desert area, where the first harvesting begins. At this time, the United States and its major export markets still had plentiful supplies of lemons from Southern Hemisphere countries such as Chile. As a result of the competition from Chilean lemons, along with a large supply of fruit harvested domestically, growers could not command the prices they would normally receive at the beginning of the season. Prices remained below last season each month until February, when the harvest was completed in Arizona and the California desert. In February, lemon prices declined from January, as they often do, but were slightly above last February's price. The market is now beginning to feel the tightening of supplies as the smaller crop out of California's Central Valley is being harvested and grower prices should improve.

Fresh lemon exports are running 19-percent ahead of last season, from August through January. Export demand has been strong from all the major markets: Japan, Canada, Hong Kong, Australia, and South Korea. While Japan remains the number one market for U.S. fresh lemons and shipments have increased this season, Japan's market has not shown much growth since the mid-1990s. Australia, South Korea,

and Canada have been the big growth markets in recent years among the top five destinations. China has also been a growing market, although shipments are down this season. Much of the growth occurred because access to China only occurred in 1999/2000 and shipments jumped dramatically between the first two seasons. Since then shipments have taken on a cyclical pattern, up one year, down the next. Shipments to mainland ports in China have resulted in a decline in shipments to Hong Kong. While Hong Kong remains the third major export market for U.S. fresh lemons, growth has been stagnant over the last decade.

Tangerine Supplies Plentiful This Season, Prices Strengthening

Tangerine production is forecast to be 7 percent higher in 2003/04, with bigger crops in Florida and Arizona. California's crop size is expected to remain unchanged from last season. Grower prices began the season at the lowest level over at least the past 20 years, but have improved since 2004.

Florida accounts for 70 percent of tangerine production, with California accounting for 24 percent. Arizona only has a small crop, however, this season it is expected to be 44-percent bigger than the previous season.

Harvesting of Florida's crop of early variety tangerines, Fallglo and Sunburst, was completed by February, when the late season Honey tangerine harvest began. Fruit size is reported to be larger than average this season.

The number of tangerine bearing acreage in California is up in 2003/04 to 9,500 acres, 3 percent more than the previous season. According to industry sources, growers have been increasing plantings of clementine and similar variety tangerines in response to strong consumer preference for imports of these varieties. Despite the increase in number of bearing acres this season, yields per acre were lower than last season, resulting in the forecast for the crop size to remain unchanged.

Tangerine prices started off very weak this season (table 9). While prices in October generally average $13.74 per box, this season, growers received $2.93 for all tangerines. Prices began improving in January. The season-average price from October through January, while below the past two seasons, is above grower returns in 1999/2000 and 2000/01.

Table 8--Lemons: Average equivalent on-tree prices received by growers, 2000/01-2003/04

Month	2000/01	2001/02	2002/03	2003/04
	--Dollars per 76-lb box--			
August	13.44	18.46	20.28	11.10
September	9.77	15.43	18.43	8.35
October	4.94	19.15	15.19	5.76
November	2.32	14.95	9.43	6.23
December	1.78	9.34	6.02	3.80
January	0.76	6.91	3.35	3.30
February	0.49	4.60	0.71	2.73
March	1.27	5.88	0.47	
April	3.70	8.47	4.60	
May	5.44	10.58	5.49	
June	9.05	15.50	5.77	
July	15.86	17.72	6.37	

Source: National Agricultural Statistics Service, USDA.

Tangerine exports were down this season, mostly because of a decline in demand from the Canadian market. Canada accounts for over 90 percent of the tangerine export market.

Imports of tangerine varieties similar to those produced in the United States declined in October 2003 to January 2004 from the same period last season. The larger U.S. crop was likely the strongest factor decreasing American demand for these imports.

Imports of the clementine and mandarin varieties of tangerine (most of which are clementines), however, increased this season. Shipments from Spain, which accounts for about 95 percent of the supply, rose 34 percent, increasing total shipments by 13 percent.

The increased shipments from Spain drove down shipments from Morocco. Last season Morocco accounted for 18 percent of clementine shipments to the United States. This season their share of the market fell to 3 percent.

Spain's clementine production was reported to be up this season due to good climate and increased acreage, according to USDA. In the future, production is expected to continue to expand as Spain increases its acreage planted to clementines.

The United States is a major market for Spain's clementines. Over the past few years, it has generally ranked behind Germany, France, and the United Kingdom in the quantity shipped. A ban on shipments to the United States, from December 2001 through October 2002, shifted Spain's exports to other markets. This season, there are no obstacles to trading with the United States, and Spain is likely to resume shipping quantities to the United States comparable with years prior to the ban.

2004 California Strawberry Shipments Running Behind Last Year

Weekly shipments of California fresh strawberries have been consistently lower than last year every week through the second week of March, according to data from USDA's Agricultural Marketing Service. The total cumulative volume thus far is 43 percent lower than the quantity shipped the same period a year ago. Not only was the crop larger in 2003 but warmer-than-normal temperatures from November through January had expedited berry development and brought the California strawberry season off to an early start with larger-than-average volumes at the beginning of the season. For this year, the weather has been mostly good for the crop, and acreage planted is projected to increase 12 percent from a year ago, based on the 2004 survey results from the California Strawberry Commission. Although season-to-date shipments are sharply lower than the same period last season, the industry anticipates a high-quality average-size crop. Prior to their record-large strawberry crop of 1.8 billion pounds in 2003, California strawberry growers harvested an average of 1.5 billion pounds annually during 1998 to 2002.

The lower shipments for the season thus far have helped boost strawberry prices. South District, California f.o.b. prices (shipping-point basis) in early January ranged from $24.90-$28.90 per flat of 12, 1-pint baskets of medium-large berries, compared with $16.90 to $18.90 around the same time last year. Though still higher than the previous season, prices dropped to $14.90 to $16.90 per flat by the end of the month, as more supplies became available. A combination of cool weather, rains, and strong winds in the Southern California growing regions resulted in supply disruptions in early February, resulting in slightly higher prices. However, this problem was short-lived, and total February shipments increased

Table 9--Fresh tangerines: Average equivalent on-tree prices received by growers, 2001/02-2003/04

Month	2001/02	2002/03	2003/04
	--Dollars per 95-lb box--		
October	11.12	11.18	4.70
November	13.48	14.68	10.57
December	11.66	14.22	11.10
January	16.68	15.25	17.02
February	13.72	11.56	11.80
March	14.30	11.96	
April	17.42	12.86	
May	17.77	14.92	

Source: National Agricultural Statistics Service, USDA.

36 percent from the previous month. If favorable weather persists, expectations are that supplies will likely continue to increase seasonally in March and April. Consequently, prices will likely continue to fall. As of March 16, prices have already dropped to $7.90 to $8.90 per flat, unchanged from the same time last year.

Value of 2003 Fruit and Tree Nut Crop Up Fractionally From Previous Year

The 2003 fruit and tree nut crop was valued at $12.9 billion, up less than 1 percent from 2002 (table 10). While the crop value increased across most of U.S. fruit and tree nut producing States, declines in California and Florida held the 2003 crop value almost unchanged from the previous year. California's crop value declined 2 percent and Florida's fell nearly 13 percent. Meanwhile, the crop value in Washington, another major producer, increased 3 percent. Combined, these top three States received 83 percent of the returns.

Most noncitrus fruit crops generated larger returns in 2003. However, a decline in the production value for grapes and most citrus crops, including oranges, grapefruit, lemons, tangerines, and temples, kept the increase in the fruit and tree nut crop value very small.

The U.S. grape crop value in 2003 declined 11 percent from the previous year, to $2.5 billion. Although grower prices for both fresh market and processing grapes averaged higher for the season, the decline in production, particularly in California, was more than enough to offset the gain in prices. Average 2003 grape prices in California increased 5

percent but production declined 16 percent. Other leading grape-producing States, also experiencing lower returns, were New York and Washington, where average prices fell more rapidly than increases in utilized production.

The value of the 2002/03 citrus production (packinghouse-door equivalent) was lower in all citrus-producing States--Arizona, California, Florida, and Texas, when compared with the 2001/02 season. In general, increased fresh-market orange production lowered average fresh-market orange prices. Orange growers also received lower prices for processing oranges even though processing production was reduced. Meanwhile, decreased fresh-market grapefruit production in all four States helped boost fresh-market grapefruit prices and led to a 1-percent increase in fresh-market returns. Despite a decline in processing grapefruit production, continued poor demand for grapefruit juice drove processing prices lower, pushing processing returns down 39 percent.

With the larger lemon crop in 2003, larger quantities were diverted to both the fresh and processing sectors, resulting in lower prices. Although the increase in processing production more than made up for the lower processing prices, lower returns from the higher-valued fresh market pushed the overall lemon crop value down.

The 2003 value of tree nut production increased 9 percent from the previous year, totaling $2.2 billion. Higher returns were received from nearly all tree nut crops, except for California pistachios and Hawaii macadamia nuts. Almond grower prices averaged 28-percent higher in response to a 7-percent smaller crop, boosting the crop value to a record $1.4 billion. A significantly larger pecan crop coupled with higher prices brought higher revenues to pecan growers. Meanwhile, a 62-percent smaller pistachio crop more than made up for the 4-percent rise in prices while macadamia nut prices continued to fall, even with a slightly reduced crop.

Table 10--Value of fruit and tree nut crops, by State, 2001-2003

State	Crop value			Share of U.S.			Percent change	State
	2001	2002	2003	2001	2002	2003	'2002-03	ranking
	--1,000 dollars--			--Percent--				
Alabama	17,282	13,667	11,064	0.1	0.1	0.1	-19.0	30
Arizona	59,066	85,061	79,059	0.5	0.7	0.6	-7.1	13
Arkansas	9,223	9,625	13,012	0.1	0.1	0.1	35.2	27
California	6,890,413	7,695,323	7,511,618	58.6	60.1	58.3	-2.4	1
Colorado	15,384	15,679	18,617	0.1	0.1	0.1	18.7	23
Connecticut	7,989	6,079	9,250	0.1	1/	0.1	52.2	34
Florida	1,637,942	1,781,307	1,556,029	13.9	13.9	12.1	-12.6	2
Georgia	121,354	102,331	112,408	1.0	0.8	0.9	9.8	9
Hawaii	157,114	152,982	157,517	1.3	1.2	1.2	3.0	7
Idaho	21,030	24,432	28,057	0.2	0.2	0.2	14.8	21
Illinois	16,795	20,433	22,744	0.1	0.2	0.2	11.3	22
Indiana	11,832	14,487	14,485	0.1	0.1	0.1	0.0	26
Iowa	2,562	1,783	1,991	1/	1/	0.0	11.7	42
Kansas	1,730	3,056	2,707	1/	1/	0.0	-11.4	41
Kentucky	2,907	1,926	2,863	1/	1/	0.0	48.7	40
Louisiana	6,907	4,831	12,523	0.1	1/	0.1	159.2	28
Maine	34,550	33,760	43,920	0.3	0.3	0.3	30.1	18
Maryland	9,518	7,290	10,036	0.1	0.1	0.1	37.7	33
Massachusetts	46,352	57,608	60,965	0.4	0.5	0.5	5.8	16
Michigan	219,418	150,732	268,807	1.9	1.2	2.1	78.3	6
Minnesota	7,363	9,008	8,623	0.1	0.1	0.1	-4.3	35
Mississippi	2,625	2,490	3,770	1/	1/	0.0	51.4	38
Missouri	11,750	11,539	16,211	0.1	0.1	0.1	40.5	25
Montana	2,082	3,791	2,884	0.0	1/	0.0	-23.9	39
New Hampshire	7,133	6,993	6,938	0.1	0.1	0.1	-0.8	36
New Jersey	84,014	90,094	94,418	0.7	0.7	0.7	4.8	12
New Mexico	40,308	45,587	66,553	0.3	0.4	0.5	46.0	15
New York	180,490	174,052	284,699	1.5	1.4	2.2	63.6	5
North Carolina	57,403	71,963	76,072	0.5	0.6	0.6	5.7	14
Ohio	32,292	30,463	39,972	0.3	0.2	0.3	31.2	19
Oklahoma	13,348	8,497	10,366	0.1	0.1	0.1	22.0	32
Oregon	251,350	259,038	304,490	2.1	2.0	2.4	17.5	4
Pennsylvania	103,827	87,240	98,541	0.9	0.7	0.8	13.0	11
Rhode Island	536	849	831	0.0	1/	0.0	-2.1	43
South Carolina	38,761	43,788	30,663	0.3	0.3	0.2	-30.0	20
Tennessee	3,221	3,141	4,258	1/	1/	0.0	35.6	37
Texas	98,053	75,352	104,812	0.8	0.6	0.8	39.1	10
Utah	9,464	4,990	17,706	0.1	1/	0.1	254.8	24
Vermont	9,150	9,435	10,980	0.1	1/	0.1	16.4	31
Virginia	44,632	34,173	45,393	0.4	0.3	0.4	32.8	17
Washington	1,378,711	1,513,886	1,554,999	11.7	11.8	12.1	2.7	3
West Virginia	11,330	10,921	12,466	0.1	0.1	0.1	14.1	29
Wisconsin	80,510	120,614	143,415	0.7	0.9	1.1	18.9	8
United States	11,757,721	12,800,296	12,876,732	100.0	100.0	100.0	100.0	

1/ Less than 0.05 percent.
Source: National Agricultural Statistics Service, USDA.

Tree Nut Acreage Increased in 2003

The number of bearing acres growing tree nuts increased to 870,800 (excludes pecans) in 2003, 1-percent more than last season. Bearing acreage increased 3 percent for pistachio nuts and 6 percent for walnuts, but remained the same for almonds, hazelnuts, and macadamia nuts. Data on pecan bearing acreage are unavailable.

Harvesting of most tree nuts in California was completed by early January. Pecan harvesting went a little longer. Since January, cold weather has made the trees dormant and growers have begun pruning and spraying for the 2004 crop.

Smaller Almond Crop, But Still Plentiful Supplies in 2003/04

The preliminary forecast, reported by USDA's National Agricultural Statistics Service (NASS), puts almond production for 2003/04 at 1.6 billion pounds (in-shell basis), 7 percent less than last season. Beginning stocks, this season, however, were double last season, and overall supplies were 3-percent above last season.

By the end of February, the Almond Board of California was reporting that on a shelled basis, 180 million pounds have been shipped to domestic markets, with another 100 million pounds being sold but not delivered. On the export side, 473 million pounds have been shipped, and another 117 million pounds have been sold but not delivered. Domestic demand from August 2003 through February 2004 was about 8 percent above last season at the same time, and export demand was 7 percent higher. With increased shipments this season, almond inventories are estimated to be 9-percent below last season.

F.o.b. prices for almonds from August through December were running ahead of the same period last season (table 11). This season, prices ranged from $2.03 to $2.22 per pound for nonpareil almonds, compared with $1.60 to $1.65 per pound last season.

Boosting Prices

In 2003/04, a record 650 million pounds (in-shell equivalent) of walnuts was produced, 7 percent more than the last record crop in 2001/02. More bearing acres and higher yields per acre produced the larger crop. This season is the on-year of the walnut trees' alternate bearing cycle, meaning yields per tree were higher than last season.

According to the Walnut Marketing Board, domestic shipments from August through February were lower than the same time last season. Export shipments, however, were higher, bringing overall demand 6-percent above last season (in-shell basis). Shipments were up to Germany, Spain, Italy, and Canada, the major markets for in-shell walnuts. Shipments were also up to Japan, Israel, South Korea, Australia, and Taiwan, countries that mostly purchase shelled walnuts.

Strong export demand helped boost average f.o.b. prices for walnuts between August and December 2003 compared with the same period in 2002. (NASS prices are not available until July 7, 2004.) F.o.b. prices averaged from $2.05 to $2.15 per pound for light halves/pieces, up from an average of $2.01 to $2.11 per pound last year at the same time.

Hazelnut Demand Weak Domestically But Strong Internationally

Hazelnut production reached 70 million pounds (in-shell basis) in 2003/04, 79 percent higher than last season due to the on-cycle of the trees. Domestic shipments, according to the Hazelnut Marketing Board, totaled 1,508.5 tons (in-shell) from July 2003 through January 2004, down 22 percent from the same time last season. Export shipments, on the other hand, increased 112 percent from last season, to 18,141.7 tons. The quantity shipped is similar to the 2001/02 season, also an on-year in the trees' alternate bearing cycle. Hong Kong is the biggest market for U.S. hazelnuts, followed by Germany, Italy, Spain, and Canada.

Walnut Demand Strong This Season,

Table 11--Free-on-board tree nut prices, 2001-03

Month	Almonds Nonpareil supreme			Pecans Fancy halves			Hazelnuts Large		
	2001	2002	2003	2001	2002	2003	2001	2002	2003
	--Dollars per pound--								
January	1.65	--	2.05	3.85-4.15	2.15-2.25	3.40-3.50	2.49	1.69	2.05
February	1.65	1.55-1.65	2.05-2.10	3.50-3.90	--	3.40-3.50	2.49	1.69	2.05
March	1.65	1.65-1.70	2.05-2.10	3.50-3.90	2.65	3.40-3.50	--	1.75	2.05
April	1.45	1.65-1.72	2.05-2.10	3.20-3.80	2.65	3.40-3.50	2.49	1.82	2.05
May	1.45	1.66-1.70	2.05-2.10	3.50	2.65	3.40-3.50	--	1.82	2.05
June	1.30-1.40	1.70-1.75	--	3.40-3.50	2.65	3.40-3.50	--	1.79	2.05
July	1.30-1.40	1.60-1.70	--	3.40-3.50	--	3.40-3.50	--	1.79	2.05
August	1.35-1.40	1.60-1.65	2.15-2.20	3.40-3.50	2.80	3.40-3.50	--	1.79	2.05
September	--	1.60-1.65	1.85	3.40-3.50	--	3.40-3.75	--	--	2.05
October	1.35-1.40	1.60-1.65	1.85	3.40-3.50	--	3.40-3.75	--	2.20	2.05
November	1.30-1.35	1.60-1.65	2.15-2.20	2.80-2.90	2.85	3.75	1.69	--	2.05
December	1.35-1.40	1.60-1.65	2.15-2.25	2.50-2.60	2.85	3.75	1.69	--	2.05

	Macadamia nuts Style 2			Walnuts Light halves and pieces			Pistachios U.S. No. 1 21/25 Ct.		
	2001	2002	2003	2001	2002	2003	2001	2002	2003
	--Dollars per pound--								
January	--	4.00-4.50	4.00-4.50	2.40-2.50	2.10-2.15	2.05-2.15	--	2.00	1.85-1.90
February	--	4.00-4.50	4.00-4.50	2.40-2.50	2.10-2.15	2.05-2.15	--	2.00	1.85-1.90
March	--	4.00-4.50	4.00-4.50	2.45-2.50	1.95-2.00	2.05-2.15	1.75-1.80	2.00	1.85-1.90
April	--	4.00-4.50	4.00-4.50	2.45-2.50	1.95	2.05-2.15	--	2.00	1.85-1.90
May	--	4.00-4.50	4.00-4.50	2.40-2.45	1.95	2.05-2.15	1.70-1.75	2.00	1.85-1.90
June	--	--	4.00-4.50	2.40-2.50	1.95-2.00	2.05-2.15	1.55-1.65	2.00	1.85-1.90
July	--	4.00-4.50	4.00-4.50	2.40-2.45	2.00-2.10	2.05-2.15	1.55-1.65	2.00	1.85-1.90
August	--	4.00-4.50	4.00-4.50	2.40-2.45	2.05-2.15	2.05-2.15	1.55-1.65	2.00	1.85-1.90
September	--	--	4.00-4.50	2.40-2.45	2.05-2.15	2.05-2.15	1.55-1.65	2.00	1.85-1.90
October	--	4.00-4.50	4.00-4.50	2.15	2.05-2.15	2.05-2.15	1.55-1.65	2.00	1.85-1.90
November	--	4.00-4.50	4.00-4.50	2.10-2.15	1.95-2.05	2.05-2.15	1.85	1.90-1.95	1.85-1.90
December	--	4.00-4.50	4.00-4.50	2.10-2.15	1.95-2.05	2.05-2.15	1.85	1.90-1.95	1.85-1.90

-- = Not available.

Source: Food Institute Report, January 2004.

Despite the larger crop, grower prices rose 5 percent this season, to $1,050 per ton, the highest ever and the second year of higher prices. Lower hazelnut exports from Turkey, the major producer, helped boost prices for the U.S. crop, since so much of the commodity is sold on the world market.

Pistachio Crop Smallest in 4 Years

The 2003/04 pistachio crop was the smallest since 1999/2000. Producing 116 million pounds of nuts, in-shell basis, this season's crop is 61 percent smaller than last season.

As a result of the smaller crop, shipments have been lower this season, from September 2003 through February 2004. This season, a larger proportion of the crop has been shipped for domestic use than the previous two seasons. So far this season, 67 percent of the crop was shipped domestically while 33 percent was shipped to export markets. Shipments were off dramatically to Germany, normally the number one export market for U.S. pistachios. Shipments to Luxembourg, however, increased substantially, most of which is likely transshipped to other European countries. The increase to Luxembourg, however, did not equal the decrease to Germany, driving down overall exports this season.

The smaller crop this season and strong domestic movement of the crop has helped drive up prices for 2003/04. According to NASS preliminary data, pistachio growers received $1.15 per pound this season, up 5 percent from last season, and the highest price since 1999/2000.

Pecan Production and Prices Higher in 2003/04

The 2003/04 pecan crop totaled 262.2 million pounds, 52 percent bigger than last year's crop, but 23 percent smaller than the 2001/02 crop, which was also on the on-year of the alternate bearing cycle. Stocks are down February 2004 from February 2002, making supplies even tighter for an on-year crop.

Most of the pecan crop is used by processors as part of their ingredients in baked goods, candies, and ice cream. Many purchase large supplies of pecans during the trees' on cycle and store them during the off-years to ensure they will have sufficient supplies. As a result, demand for pecans is strong this season, driving up prices. Average grower prices this season were $1.00 per pound, 5-percent higher than last season.

Pecan exports have been down so far this season from September 2003 through January 2004. Demand for in-shell pecans fell 68 percent. Mexico, the top importer of in-shell pecans, produced a large crop of its own this season and therefore, its demand for U.S. pecans declined from last season. Exports of shelled pecans fell 7 percent, with lower demand from the second major market, the United Kingdom, along with the Netherlands, and Mexico. Demand was stronger this season from the top export market for shelled pecans, Canada.

Hawaii's Macadamia Crop Down For Second Straight Year

Macadamia production in Hawaii fell 4 percent in 2003/04 from the previous season to 51 million pounds (in-shell basis). This is the second year of declining production. Dry weather reduced yields and coupled with the same number of bearing acreage as the previous two seasons, resulted in the smaller crop.

Grower prices increased $0.02 a pound from last year's 24-year low to $0.59 per pound. With poor prices the past few seasons, growers are not planting new trees, and as a result, the 1.3 million macadamia nut trees were all 6 years or older.

Fruit Exports Up for Most Commodities

The export of most fruit products is up through January 2004 from the same season last year (table 12). Good quality citrus fruit this season has helped increase exports, even if the domestic crop was smaller than last season. The high quality of the California navel crop helped boost exports 13 percent between November and January, even though the crop is reported to be 5 percent smaller. Attributes of this year's crop, such as large sized fruit, increases demand in export markets, such as Japan.

Orange juice exports have been higher this season from October through January for both frozen concentrated (FCOJ) and not-from-concentrated (NFC) orange juice. Florida's orange juice industry was able to benefit from decreased supplies out of Brazil due to its small crop during its 2003/04 marketing season. Generally, the United States exports less FCOJ than NFC because Brazil has a price advantage in the world market. With limited Brazilian juice available and large domestic stocks and production this season, U.S. processors were able to move more FCOJ overseas. The weaker U.S. dollar has helped boost shipments of the higher-valued NFC to major markets in Canada and Europe.

The processing peach industry experienced a big jump in international demand for canned peaches this year, from July through January. Greece is usually the dominant player in the international market for canned peaches. Dry weather this summer, however, reduced their crop, decreasing the amount of fruit available for canning. As a result, the U.S. industry was able to expand its export market.

The walnut industry was the only tree nut industry to have strong export demand this season. The industry was able to increase the quantity it exported because of the record size of its crop and the smaller almond crop.

Table 12--U.S. exports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through January) 2003	Season-to-date (through January) 2004	Year-to-date change
		--- 1,000 pounds ---		Percent
Fresh-market:				
Oranges	November-October	608,033	686,314	12.9
Grapefruit	September-August	356,759	401,059	12.4
Lemons	August-July	94,083	112,116	19.2
Apples	August-July	590,048	570,484	-3.3
Grapes	May-April	140,570	143,845	2.3
Pears	July-June	249,042	260,822	4.7
Peaches (including nectarines)	January-December	1,683	1,057	-37.2
Strawberries	January-December	7,530	7,703	2.3
Sweet cherries	January-December	117	293	150.5
		--- 1,000 gallons ---		
Processed:				
Orange juice, frozen concentrate	October-September	12,066	27,050	124.2
Orange juice, not-from-concentrate	October-September	19,211	20,907	8.8
Grapefruit juice	October-September	9,159	11,864	29.5
Apple juice and cider	August-July	2,579	2,547	-1.2
Wine	January-December	5,745	5,154	-10.3
		--- 1,000 pounds ---		
Raisins	August-July	140,570	143,845	2.3
Canned pears	August-July	6,137	3,930	-36.0
Canned peaches	July-June	30,519	75,094	146.1
Frozen strawberries	January-December	847	1,115	31.7
		--- 1,000 pounds ---		
Tree nuts:				
Almonds (shelled basis)	August-July	390,827	383,453	-1.9
Walnuts (shelled basis)	August-July	84,600	90,813	7.3
Pecans (shelled basis)	September-August	13,449	9,755	-27.5
Pistachios (shelled basis)	September-August	15,614	13,133	-15.9

Source: Bureau of the Census, U.S. Department of Commerce.

Imports of Tropical Fruit and Nuts Up This Season

Imports are higher this January than a year ago for tropical fruit, such as bananas, mangos, canned pineapple, and tropical nuts, like Brazil nuts, and cashews (table 13). The United States does not have much commercial production of any of these crops and consumers are dependent on imports for their supplies.

Tangerine imports, mostly clementines, were up this fall and winter compared with a year ago. Shipments from Spain were back to more normal levels. This (2003/04) is the first full season since the lifting of the ban on Spanish clementines, which had been implemented due to Mediterranean fruit fly larvae found in shipments in 2001. With a new protocol in place for monitoring fruit fly infestations and a big crop this season, Spain was able to resume shipping to the United States at levels close to before the ban was implemented.

Imports of fresh grapes, peaches, and pears are down this season from the same time last year. Most of these imports come from Chile during the off-season of domestic production. The 2003/04 season is the first import season under the new free trade agreement (FTA) between Chile and the United States. The effects of the FTA are likely minimal for fresh fruit imports because Chilean imports already had access to the U.S. market at very low tariff rates. This season, a smaller grape crop out of Chile and strong demand from the European Union, which also has an FTA with Chile, reduced the quantity of fresh fruit available for the U.S. market.

Table 13--U.S. imports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through January) 2003	Season-to-date (through January) 2004	Year-to-date change
		--- 1,000 pounds ---		Percent
Fresh-market:				
Oranges	November-October	6,330	3,701	-41.5
Tangerines (including clementines)	October-September	148,203	163,841	10.6
Lemons	August-July	36,374	29,360	-19.3
Limes	September-August	234,228	221,147	-5.6
Apples	August-July	86,674	80,590	-7.0
Grapes	May-April	539,327	533,654	-1.1
Pears	July-June	27,468	19,138	-30.3
Peaches (including nectarines)	January-December	50,491	31,944	-36.7
Bananas	January-December	653,145	675,181	3.4
Mangoes	January-December	33,580	36,493	8.7
		--- 1,000 gallons ---		
Processed:				
Orange juice, frozen concentrate	October-September	91,761	62,808	-31.6
Apple juice and cider	August-July	176,850	198,366	12.2
Wine	January-December	12,808	11,819	-7.7
		--- 1,000 pounds ---		
Canned pears	August-July	15,263	19,556	28.1
Canned peaches (including nectarines)	July-June	71,512	42,327	-40.8
Canned pineapple	January-December	5,931	7,391	24.6
Frozen strawberries	January-December	8,157	8,447	3.6
		--- 1,000 pounds ---		
Tree nuts:				
Brazil nuts (shelled basis)	January-December	565	1,730	206.0
Cashews (shelled basis)	January-December	19,510	22,629	16.0
Pine nuts (shelled basis)	January-December	758	1,356	78.8
Pecans (shelled basis)	September-August	25,999	38,946	49.8

Source: Bureau of the Census, U.S. Department of Commerce.

Commodity Highlight: Figs

Top Five Producing Nations Grow More Than Half of World Fig Production

With origins in Western Asia and the Mediterranean, the fig (*Ficus carica*) is a member of the Moraceae (mulberry) family. Unlike most other Ficus species, it is the only one being cultivated for fruit production. Today, it is estimated that over 1.0 million metric tons of figs are produced around the world each year, with Turkey, Egypt, Greece, Iran, and Morocco leading in production. Turkey grows close to a quarter of the world's production and combined, the top five producers make up over 60 percent of the total crop. Rounding out the top 10 producers are Spain, Algeria, the United States, Syrian Arab Republic, and Tunisia.

California Dominates U.S. Fig Production

Fig production in the United States is concentrated in California. Although commercial fig production now exists in at least 14 U.S. States, California houses more than half of all the farms growing figs in the country and produces 98 percent of the total crop, based on the 1997 Census of Agriculture. Most of California's fig production is centered in the San Joaquin Valley, where the soil and climate, especially the hot, dry summers, provide ideal conditions for growing the crop. The top three counties for producing figs are Madera, Merced, and Fresno. Much of the remaining U.S. crop is produced in Texas, Louisiana, South Carolina, and Mississippi. The U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS), however, only reports annual production and price data for figs in California (table 14).

Spanish missionary priests introduced figs into California, planting them at the San Diego Mission in 1759, followed by other plantings at other missions as far north as Sonoma. Although familiarity with the crop increased since then, commercial production did not begin until about 1885. Presently, the California fig industry produces between 40,000 to 60,000 short tons of figs annually, generating $12.0 to $24.0 million in farmgate value.

Table 14--Figs: Production, utilization, and season-average grower price, California, 1980 to date

Year	Production 1/	Utilization		Grower price		
		Fresh 2/	Processed	Fresh	Processed	All
		--Short tons--			--Dollars/ton--	
1980	45,450	2,100	43,350	493.00	297.00	306.00
1981	38,200	1,600	36,600	542.00	320.00	329.00
1982	37,700	1,100	36,600	461.00	273.00	278.00
1983	34,000	850	33,150	3/	3/	206.00
1984	36,500	2,000	34,500	3/	3/	288.00
1985	32,600	1,400	31,200	3/	3/	305.00
1986	50,000	1,400	48,600	3/	3/	283.00
1987	52,300	1,750	50,550	3/	3/	331.00
1988	55,500	1,500	54,000	3/	3/	352.00
1989	48,000	1,500	46,500	3/	3/	379.00
1990	49,600	1,600	48,000	3/	3/	350.00
1991	45,100	1,300	43,800	3/	3/	369.00
1992	46,900	1,300	45,600	3/	3/	405.00
1993	60,700	2,800	57,900	3/	3/	401.00
1994	56,700	2,100	54,600	3/	3/	419.00
1995	52,400	2,000	50,400	3/	3/	314.00
1996	45,500	2,000	43,500	3/	3/	283.00
1997	57,500	2,000	55,500	3/	3/	265.00
1998	51,300	1,800	49,500	3/	3/	226.00
1999	47,300	2,000	45,300	3/	3/	268.00
2000	55,900	4,000	51,900	3/	3/	272.00
2001	41,000	2,000	39,000	3/	3/	365.00
2002	53,200	2,500	50,700	3/	3/	331.00
2003	46,500	3,000	43,500	3/	3/	475.00

1/ Production all utilized. 2/ Small quantities of canned figs are included in fresh to avoid disclosure of individual operations.

3/ Not published to avoid disclosure of individual operations, but included in all.

Source: National Agricultural Statistics Service, USDA.

Most Figs Are Processed

Approximately 95 percent of California's fig production is processed annually. That leaves only a small proportion of its annual crop that is hand picked for the fresh market. Depending on variety-type, one or two crops may be harvested during the crop year. Harvesting occurs from June through October. Because most of the crop is processed, figs are available to consumers all year long.

Nearly all figs that are intended for processing are allowed to fully ripen and partially dry on the tree before falling to the ground to complete the drying process, either by sun or mechanical dehydration. This includes processed products such as diced, sliced, and chopped figs, fig paste, and fig concentrate. Besides the figs for fresh-market consumption, a miniscule share of production is also harvested fresh for canning.

Commercial Production Limited to Only A Few Varieties

There are many varieties of figs available but only a few are grown commercially in California. Figs produced in the State are classified into two types, Smyrna and the common fig. These two botanical types are based on the need for pollination and fertilization to produce the fruit. The Smyrna fig requires pollination, specifically by a fig wasp (*Blastophaga psenes)*, for fruit set to occur while the common fig does not. The Smyrna-type fig commercially grown in California is the Calimyrna while the major common-type figs are Mission, Kadota, and Adriatic.

The Calimyrna is a large yellow-skinned fig noted for its sweet and nut-like flavor and processed primarily as dried fruit or paste. The Mission has a deep purple skin that turns black when dried. It is used primarily for dried fruit, paste, or juice concentrate. The Kadota is seedless and has a thick skin that is creamy amber in color when ripe. It is widely used for canning, preserving, and fig paste. The Adriatic is a favorite in making fig bars and pastes because its high sugar content is retained when drying the fruit, helping it to achieve a golden shade.

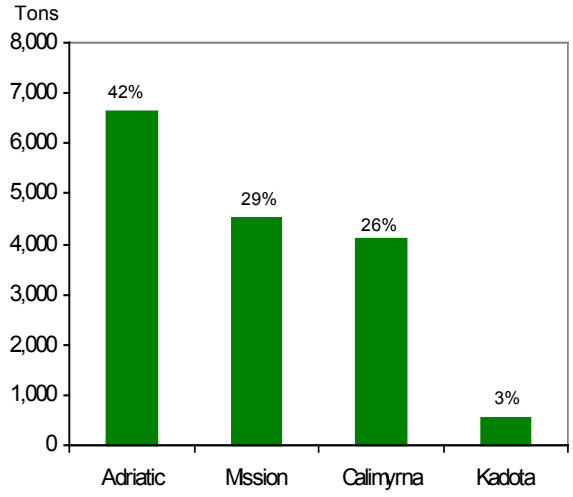
Based on production statistics reported by the California Fig Advisory Board (CFAB), the entity responsible in administering the State marketing order for California dried figs, the Calimyrna variety accounts for the largest area in fig production, averaging 43 percent of bearing acres during 1998 to 2002. However, the Adriatic variety makes up the largest share of total dried fig production in the State, averaging 42 percent during the same period (fig. 3). Relative to the Calimyrna variety, higher dried fig production from Adriatic figs, which account for 25 percent of bearing acreage, are attributed to the following:

- The average yield per tree is generally higher.
- Some new Adriatic acreage during the 1990s had closer planting density.
- Adriatic figs produce two crops during the crop year while only one crop is harvested for the Calimyrna variety.
- There has been an increasing proportion of Calimyrna figs being harvested for the fresh market where there has been a growing interest over the last 5 years.

Food Manufacturing Industry Dominates the Market for Dried Figs

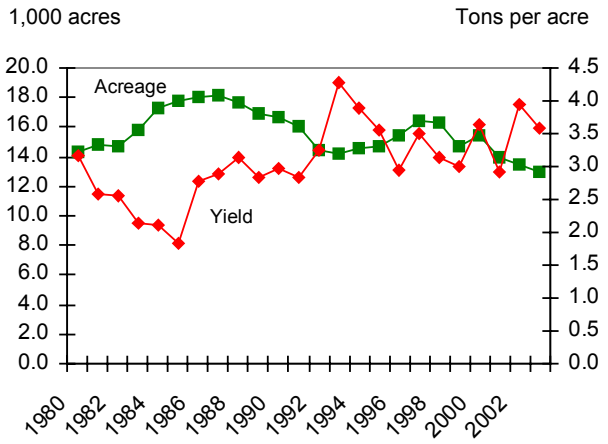
The bulk of California's processed dried figs are sold to food manufacturers, primarily cookie makers and makers of the increasingly popular energy bars. These food manufacturers use processed dried fig products such as paste, concentrate, and sliced, diced, and chopped figs as an ingredient in their product.

Figure 3
California dried fig production, by variety, average 1998-2002



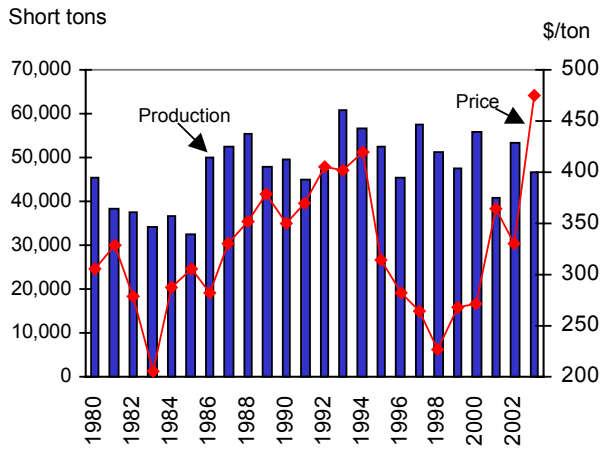
Source: California Fig Advisory Board.

Figure 4
California figs: Bearing acreage and average yields per acre



Source: National Agricultural Statistics Service, USDA.

Figure 5
California figs: Total production and average grower price



Source: National Agricultural Statistics Service, USDA.

During 2002, 74 percent of California's processed dried figs were packaged as manufacturing figs. In the same year, 14 percent were packaged as bulk, typically whole figs in 30-pound containers, and distributed mainly to health food stores and restaurants. Fig processors market the remaining share of processed dried figs in various 8- to 12-ounce size packages which consumers buy off the-shelf at retail grocery stores.

Domestic Production Slipping, Prices Improving

As with many other fruit crops, weather factors have influenced volatility in California's annual fig production. Nevertheless, production in 7 out of the 10 successive years following the record-large crop in 1993 declined from the previous year, with the second 5-year (1999-2003) output averaging 7-percent lower than average production during the first 5 years (1994-1998). Although the average yield per acre during 1999 to 2003 remained unchanged from the previous 5 years, fewer bearing acres resulted in lower production during the most recent 5 years (fig. 4). Fig producers responded to the bleak period during the mid- to late-1990s, when grower prices were falling amidst declining production (fig. 5), by reducing acreage through most of the period from 1999-2003.

During 1995 to 1999, bearing acreage increased almost yearly but rapidly declining average yields resulted in declining production. Poorer yields may perhaps be due to lower input use in an effort by growers to remain profitable.

Trends in the dried fig sector drives the overall market for California figs and hence, production and price movements for dried figs closely parallel the overall market (table 15). Following years of relatively stagnant demand, producers began to realize a growing surplus of dried figs in the market beginning in 1997, according to CFAB. Estimated U.S. consumption of dried figs has averaged 0.40 pound to 0.50 pound per person for over a decade. In an effort to regain market stability, the dried fig industry managed to remove a significant amount of surplus in 2000 by diverting surplus supplies to the cattle feed industry, according to CFAB. As such, carryover inventories of dried figs have dropped to more manageable levels, and grower prices have improved. Some dried fig products in the form of whole figs as well as pieces and paste for trail mixes have also been purchased by USDA for distribution to child nutrition and other domestic food assistance programs even prior to 1997. Since the 1990s, purchases were made in fiscal years 1996-98, 2000-01, and 2004. Another factor aiding in boosting processing fig prices is the growing demand for fresh figs that has surfaced over the last 5 years. According to CFAB, this increase in demand has strengthened fresh-market fig prices as well as diverted some processing production to the fresh market.

Table 15--California dried fig production and average grower price

Year	Production				Price		
	Fresh basis	Dried basis			Fresh basis	Dried basis	
		Standard	Sub-standard	Total		Standard	Sub-standard
	---- Tons ----				---- Dollars per ton ----		
1980	43,350	11,400	3,050	14,450	296.0	1102.0	90.0
1981	36,000	10,000	2,000	12,000	323.0	1150.0	60.0
1982	36,600	9,650	2,550	12,200	273.0	1020.0	65.0
1983	33,150	9,000	2,050	11,050	200.0	722.0	65.0
1984	34,500	9,800	1,700	11,500	279.0	973.0	45.0
1985	31,200	8,570	1,830	10,400	283.0	1020.0	45.0
1986	48,600	12,450	3,750	16,200	267.0	1030.0	40.0
1987	50,550	14,100	2,750	16,850	317.0	1130.0	40.0
1988	54,000	15,850	2,150	18,000	337.0	1140.0	60.0
1989	46,500	13,800	1,700	15,500	373.0	1250.0	60.0
1990	48,000	13,600	2,400	16,000	320.0	1120.0	60.0
1991	43,800	13,200	1,400	14,600	347.0	1140.0	60.0
1992	45,600	13,900	1,300	15,200	393.0	1290.0	60.0
1993	57,900	17,100	2,200	19,300	367.0	1230.0	60.0
1994	54,600	17,000	1,200	18,200	400.0	1280.0	38.0
1995	50,400	15,200	1,600	16,800	298.0	981.0	77.0
1996	43,500	13,100	1,400	14,500	258.0	848.0	80.0
1997	55,500	15,900	2,600	18,500	233.0	801.0	78.0
1998	49,500	13,300	3,200	16,500	198.0	722.0	60.0
1999	43,200	13,800	1,300	15,100	227.0	739.0	60.0
2000	51,000	15,400	1,900	17,300	224.0	747.0	60.0
2001	39,000	11,700	1,300	13,000	308.0	1020.0	60.0
2002	50,700	15,000	1,900	16,900	289.0	972.0	50.0
2003	43,500	12,900	1,600	14,500	441.0	1480.0	60.0

Source: National Agricultural Statistics Service, USDA.

The all-grower price for figs began rebounding in 1999, reaching a record-high average of $475 per ton in 2003. In the last 3 years, grower prices moved inversely with production as typically expected in a relatively stable market.

Imports Diminishing Role in Domestic Consumption

The United States is the world's fifth largest importer of dried figs, next to Germany, France, Italy, and Hong Kong. During the period 1998 to 2002, 6 percent of world import volume, on average, was destined for the U.S. market. Spain and Turkey are its primary suppliers, accounting for about 75 percent of U.S. dried fig imports. Greece, Portugal, and Mexico are also important suppliers.

The United States has generally remained a net importer of dried figs for over two decades now. However, with domestic demand remaining relatively stagnant over the years, imports' role in U.S. dried fig consumption has been declining on average. Over the past three seasons (2000/01-2002/03) the United States imported an average of 39.0 million pounds of dried figs (fresh-weight equivalent), making up 34 percent of all domestically consumed dried figs. This import share of domestic consumption has dropped from an average of 60 percent during the mid- to late-1970s, to 40 percent during the 1980s, and 36 percent during the 1990s. Below-average volumes were imported in the marketing seasons 1995 through 2000, a period in which the industry had to deal with excess supplies and declining grower prices.

The United States is Among the Leading World Exporters

The top three exporters of dried figs in the world are Turkey, Iran, and Greece. Turkey, the largest producer, supplies more than half of world export volume while Iran and Greece account for 12 percent and 6 percent, respectively.

In the United States, over 18 percent of dried fig production is sold in several foreign markets. With production also among the highest in the world in terms of quantity and quality, the United States ranks as the world's seventh largest exporter of dried figs, supplying 3 percent of total volume. Canada is the destination for about half the volume. Japan and Hong Kong are also major markets.

Contacts and Links

Contact Information

Agnes Perez	Noncitrus fruit	(202) 694-5255	mailto:acperez@ers.usda.gov
Susan Pollack	Citrus fruit and tree nuts	(202) 694-5251	mailto:pollack@ers.usda.gov

Subscription Information

Subscribe to ERS' e-mail notification service at http://www.ers.usda.gov/updates/ to receive timely notification of newsletter availability. Printed copies can be purchased from the National Technical Information Service by calling 1-800-999-6779 (specify the issue number or series SUB-FTS-4036).

The *Fruit and Tree Nuts Situation and Outlook Yearbook* has over 130 tables of annual or monthly time-series data on specific fruit commodities. Data include bearing acreage, production, prices, trade, per capita use, and more. To order a copy call 1-800-999-6779.