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# Fruit and Tree Nuts Outlook

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## Larger Apple and Pear Crops This Fall

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The next release is  
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Approved by the  
World Agricultural  
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The grower price index for fruit and nuts fell nearly 3 percent below a year ago in August, depicting lower grower prices for nearly all fruit, except for grapefruit, apples, and grapes. Competition from plentiful supplies of a variety of summer fruit drove prices lower for most fruit. August retail prices averaged higher than a year ago for Red Delicious apples, bananas, Thompson seedless grapes, and strawberries, and lower for oranges, lemons, and peaches.

USDA forecast the 2003 U.S. apple crop at 9.3 billion pounds, up 8 percent from last year. Production is expected to rebound in the Eastern and Central States, while output is anticipated to decline in the Western States. Early-season grower prices for fresh-market apples are averaging higher than a year ago, due to below-average carryover inventories, strong market demand, and the high-quality fruit harvested so far.

U.S. pear production in 2003 is forecast at 1.9 billion pounds, up 7 percent from last year. Lighter shipments beginning the 2003/04 season have combined with strong market demand to boost grower prices for fresh pears. As this season gets fully underway, prices should decline with the much heavier volume expected from the entire crop.

The 2003 U.S. grape crop is forecast at 14.1 billion pounds, down 4 percent from a year ago. California expects a 6-percent smaller harvest, while combined production in other grape-producing States is forecast up 19 percent. Reduced fresh grape shipments from California are driving fresh grape grower prices to record levels.

The 2003 U.S. cranberry crop is forecast at 583.0 million pounds, larger than the 3 most recent crops. Production increases are expected in almost all the cranberry-producing States, due mostly to the absence of a restrictive marketing order that encouraged many growers to expand acreage. Slightly larger carryover inventories and this year's increased production could put downward pressure on 2003 grower prices.

USDA recently released its first forecasts for specific crops in California. The 2003/04 California navel orange crop is expected to be 5 percent smaller than last season. Walnut production is projected to be a record high in 2003, up 12 percent from a year ago, while pistachio production will be on its "off year," down 41 percent.

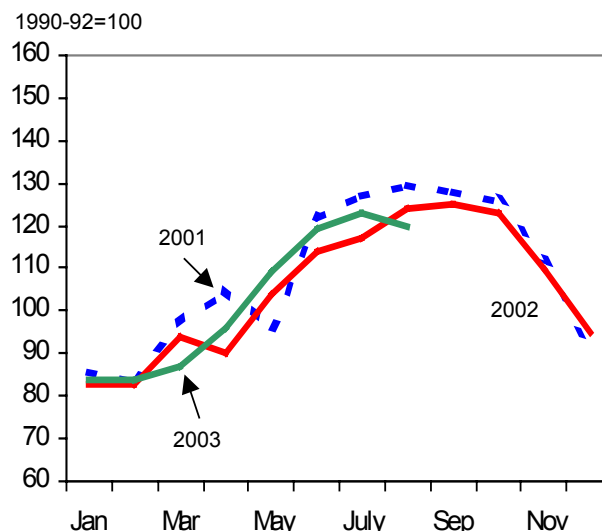
## Price Outlook

### Fruit Prices Lower in August

The index of prices growers receive for fruit and tree nuts fell nearly 3 percent below a year ago in August, depicting the lower average grower prices for nearly all fruit, except for grapefruit, apples, and grapes (fig. 1 and table 1). The August index has also fallen below the 2001 August index. Competition from plentiful supplies of a variety of summer fruit drove prices lower for most fruit. Grape prices, however, have averaged higher than a year ago since May, and continue to receive a boost from this year's smaller U.S. grape crop, particularly in California where 90 percent of the crop is produced. Reduced apple production in 2002 has also led to higher apple prices so far this year. Strong market demand, a high-quality new crop, and below-average supplies of 2002 storage apples welcomed the 2003/04 season, resulting in continued higher prices in August. While total apple production is forecast up in 2003, apple grower prices will likely remain strong as the season progresses given the expected reduced production in Washington, the Nation's largest apple-producing State.

With the marketing of summer fruit in full swing by August, heavier supplies also weakened prices seasonally for many fruit, causing the August grower price index for fruit and tree nuts to decline for the first time this year, dropping 2 percent from the July index. Grower price declines for fresh-market grapes,

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



Source: National Agricultural Statistics Service, USDA.

peaches, strawberries, pears, and grapefruit more than offset price increases for fresh-use apples, oranges, and lemons. Grower prices for fresh peaches have been declining since May as supplies increased seasonally through the summer. Larger supplies of new-crop pears, in competition with increased apple shipments in August, lowered the prices growers received for fresh pears. Meanwhile, seasonally declining supplies are driving up the prices growers receive for fresh oranges and lemons.

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

Commodity	2002		2003		2002-03 Change	
	July	August	July	August	July	August
	---- Dollars per box ----				Percent	
Citrus fruit: 1/						
Grapefruit, all	6.47	5.60	9.51	6.90	47.0	23.2
Grapefruit, fresh	8.13	8.02	12.06	10.26	48.3	27.9
Lemons, all	19.57	16.52	10.04	11.10	-48.7	-32.8
Lemons, fresh	24.03	25.03	18.75	19.75	-22.0	-21.1
Oranges, all	4.06	6.61	4.35	4.22	7.1	-36.2
Oranges, fresh	5.09	8.33	4.93	5.73	-3.1	-31.2
Noncitrus fruit:	---- Dollars per pound ----					
Apples, fresh 2/	0.21	0.25	0.20	0.26	-2.9	5.3
Grapes, fresh 2/	0.42	0.33	0.45	0.37	7.2	13.8
Peaches, fresh 2/	0.21	0.28	0.25	0.19	20.0	-31.7
Pears, fresh 2/	0.16	0.23	0.31	0.23	95.5	-0.9
Strawberries, fresh	0.53	0.83	0.67	0.66	25.2	-20.1

1/ Equivalent on-tree price.

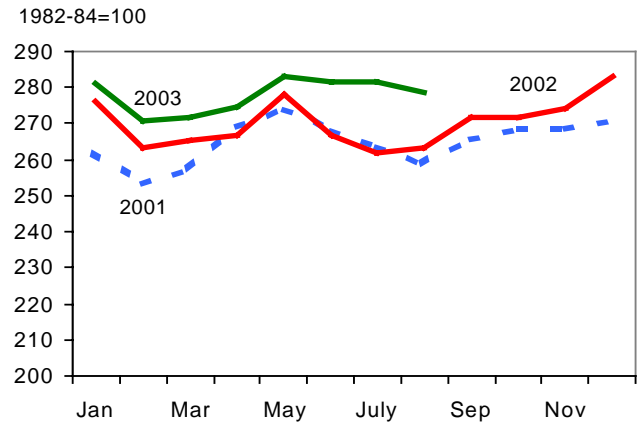
2/ Equivalent packinghouse-door returns for CA, NY (apples only), OR (pears only), and WA (apples, peaches, and pears). Prices as sold for other States.

Source: National Agricultural Statistics Service, USDA.

**Fresh Fruit Retail Prices Continue Strong in August**

The U.S. Consumer Price Index (CPI) for fresh fruit remained higher than a year ago in August as it did throughout the first 7 months of 2003 (fig. 2). The 2003 CPI has also been consistently higher than the 2001 CPI since January. From among the list of fruit retail prices reported by the Bureau of Labor and Statistics, higher prices for grapefruit, Red Delicious apples, bananas, Thompson seedless grapes, and strawberries drove the August CPI higher (table 2). With the exception of strawberries, the retail prices followed the direction of grower prices in August. Banana retail prices continue to fluctuate this year. With the domestic banana market almost entirely dependent on imports, most of the price volatility over the last 8 months could be attributed to import supply swings. In July, however, supplies were less of a factor in determining the path of retail banana prices. The wide variety of summer fruit available at

Figure 2  
**Consumer Price Index for fresh fruit**



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

retail grocery stores in July may have diminished some of the demand for bananas, lowering then the average banana retail price despite reduced supplies.

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

Commodity	Unit	2002		2003		2002/2003 Change	
		July	August	July	August	July	August
<b>Fresh:</b>							
Valencia oranges	Lb	0.539	0.569	0.566	0.543	5.0	-4.6
Navel oranges	Lb	--	--	--	--	--	--
Grapefruit	Lb	0.673	0.709	0.812	0.875	20.7	23.4
Lemons	Lb	1.389	1.471	1.416	1.460	1.9	-0.7
Red Delicious apples	Lb	0.968	0.977	1.006	1.016	3.9	4.0
Bananas	Lb	0.517	0.499	0.514	0.514	-0.6	3.0
Peaches	Lb	1.360	1.431	1.362	1.346	0.1	-5.9
Anjou pears	Lb	--	--	--	--	--	--
Strawberries 1/	12-oz pint	1.545	1.695	1.776	1.840	15.0	8.6
Thompson seedless grapes	Lb	1.702	1.504	1.893	1.626	11.2	8.1
<b>Processed:</b>							
Orange juice, concentrate 2/	16-fl. oz	1.842	1.800	1.831	1.882	-0.6	4.6
Wine	liter	6.591	6.007	6.899	6.089	4.7	1.4

-- 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.

## Fruit and Tree Nut Outlook

### *U.S. Apple Crop Rebounds in 2003*

After three consecutive years of decrease, the 2003 U.S. apple crop is forecast at 9.3 billion pounds, up 8 percent from last year, but remaining smaller than any crop since 1988 (table 3), according to the U.S. Department of Agriculture's (USDA) National Agricultural Statistics Service. The increase in overall production stems mostly from the expected rebound in production in the Eastern and Central States while output in the Western States is anticipated to decline.

Production in the Eastern States is forecast at 2.3 billion pounds, 27 percent more than the region's weather-reduced crop a year ago. With generally favorable to excellent weather conditions throughout the growing period, most apple-producing States, including the region's largest producers--New York, Pennsylvania, and Virginia--expect larger outputs. The crop in the Central States is forecast at 1.3 billion pounds, 64 percent larger than last year. Michigan, the number one apple producer in the Central region, expects a crop of 970 million pounds, nearly double the size of its freeze and hail-damaged crop last year.

At 5.7 billion pounds, the Western States expects to harvest a 5-percent smaller crop, due mostly to lower production in Washington, the Nation's leading apple producer. Scattered frost and hail damage, spotty bloom on Red Delicious varieties, and lower production of some of the new varieties due to their alternate-bearing cycle, drove production down in the State. Presently, the Washington apple crop for 2003 is forecast at 4.9 billion pounds, down 5 percent from last year. Oregon's apple crop is also forecast smaller this year due to unfavorable weather during pollination, while production in California is expected to recover from last year's low, with fruit sizing up well and plentiful supplies of unblemished fruit.

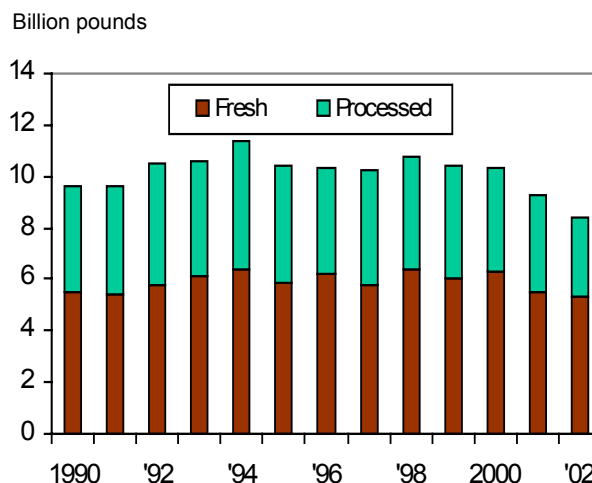
Last year, smaller crops in most States across the Nation resulted in fewer apples used in both fresh (down 2 percent) and processing (down 19 percent) than in 2001 (fig. 3). As a result, 2002/03 grower prices averaged stronger in both markets, driving the all-apple season-average price to its highest ever, at 18.7 cents a pound. Grower prices for fresh-market apples also set a record, averaging 25.7 cents per

pound while prices for processing apples averaged higher than the previous two seasons, at 6.3 cents per pound.

Now that the new season has begun, grower prices for the fresh market are averaging higher than a year ago, despite the expected increase in this year's production. Prices in August averaged 5 percent higher, likely due to a combination of below-average inventories from last year's crop, strong market demand, and the high-quality fruit harvested so far. Much of the strength in the August average price, however, reflects the higher prices in California and perhaps in other apple-producing States rather than in Washington, which supplies approximately 70 percent of fresh-market production each year. While the apple crop in Washington is forecast smaller this year, harvesting started earlier than last year, leading to larger shipments in August, based on data from USDA's Agricultural Marketing Service (AMS). NASS reported equivalent packing-house door returns to growers in Washington for fresh-use apples at 20.3 cents per pound in August, down from 21.9 cents per pound in August 2002. In California, where the crop is reported to be of excellent quality, grower returns were reported at 40.2 cents per pound, up from 33.3 cents per pound.

Grower prices in Washington are likely to gain strength as the season progresses and supplies become more limited due to the smaller crop. This should open more fresh-market opportunities to other

Figure 3  
**Utilization of U.S. apple production**



Source: National Agricultural Statistics Service, USDA.

Table 3--Apples: Total production and season-average price received by growers, 2000-2002, and indicated 2003 production 1/

States	Production				Price		
	2000	2001	2002	2003	2000	2001	2002
	--- Million pounds ---				--- Cents per pound ---		
Eastern States:							
Connecticut	21	21	12	22	30.2	32.2	41.2
Georgia	14	9	10	11	18.8	23.0	18.0
Maine	39	47	49	46	21.8	29.0	36.1
Maryland	34	41	32	37	13.7	15.5	14.3
Massachusetts	50	39	33	46	32.0	32.4	38.6
New Hampshire	34	30	27	34	23.6	25.0	28.5
New Jersey	50	55	35	45	13.4	16.2	17.6
New York	995	1,000	680	1,020	11.7	11.9	16.2
North Carolina	190	112	160	140	12.6	14.9	14.3
Pennsylvania	475	480	370	440	11.4	9.6	10.1
Rhode Island	2	2	3	3	35.9	38.3	40.4
South Carolina	20	6	9	6	12.9	18.7	13.2
Vermont	42	41	31	39	22.5	24.1	33.7
Virginia	320	310	250	300	10.3	10.6	10.4
West Virginia	85	105	95	95	9.5	8.5	8.5
Total	2,370	2,297	1,795	2,283			
Central States:							
Arkansas	7	6	5	6	25.2	25.0	27.8
Illinois	42	44	43	42	28.7	23.7	35.9
Indiana	45	53	40	51	24.5	18.5	26.5
Iowa	8	9	9	10	32.1	33.3	34.3
Kansas	3	4	4	4	26.8	28.3	31.5
Kentucky	7	8	6	8	24.9	29.0	31.8
Michigan	800	930	500	970	9.3	9.4	12.4
Minnesota	22	24	25	26	43.2	47.5	50.9
Missouri	38	41	38	34	16.9	17.1	17.8
Ohio	103	86	70	86	22.7	23.6	26.8
Tennessee	10	9	7	9	24.4	23.5	26.0
Wisconsin	71	62	58	69	28.0	29.3	34.9
Total	1,155	1,275	803	1,315			
Western States:							
Arizona	95	5	26	3	7.4	6.6	17.3
California	570	520	470	510	16.4	15.7	20.4
Colorado	30	23	21	21	13.9	20.8	18.4
Idaho	140	80	80	85	10.7	14.1	19.4
New Mexico	8	6	2	2/	25.4	31.8	32.6
Oregon	167	142	202	120	11.9	12.1	15.2
Utah	49	30	7	30	11.8	17.2	21.3
Washington	6,000	5,050	5,150	4,900	12.5	17.8	19.9
Total	7,059	5,856	5,958	5,669			
United States	10,584	9,429	8,556	9,267	12.8	15.8	18.7

1/ Commercial production from orchards of at least 100 bearing-age trees. 2/ End of season estimate only.

Source: National Agricultural Statistics Service, USDA.

apple-producing States with increased production. Figures for the total quantity of fresh-market apples produced from the 2003 apple crop will not be released until July 2004. Whether or not the total apple output for the fresh market in 2003 will exceed last year's quantity, the boost in apple prices will be somewhat offset by increased competition resulting from a larger pear harvest this fall.

Processing supplies during the 2003/04 marketing season will likely be up from last season as most Eastern and Central apple-producing States expect increased production. The increase in supplies will likely drive down the prices growers receive for processing apples. The Michigan Processing Apple Growers Marketing Committee, part of a larger agricultural organization under the Michigan Farm Bureau, has reached an agreement with several of the State's juice apple processors to set a minimum juice apple price of \$4.25 per hundredweight (1 hundredweight=100 pounds) for the 2003/04 season, down from \$4.50 per hundredweight in 2002/03. Apples processed for all categories were down during 2002, except for dried apples. Total processed use for juice and cider declined 21 percent to a record low of 1.5 billion pounds, pushing grower prices for juice and cider apples to an average of \$98.20 per ton, higher than the previous two seasons. Canning apple prices, at \$161.00 per ton, yielded growers a higher value for all apples used by canners as the quantity of the domestic crop used in this sector declined 15 percent, to 1.1 billion pounds, the lowest quantity produced since 1981.

Export opportunities for fresh-market apples during the 2003/04 marketing season appear favorable as a result of an expected smaller European apple crop, but U.S. exports will likely be limited by the decline in Washington's 2003 output. Despite lower world supplies and the weaker U.S. dollar in recent months that has translated to lower prices for U.S. products in foreign markets, the smaller U.S. apple crop in 2002 and the high tariff imposed on U.S. Red and Golden Delicious apples in Mexico (related to an antidumping investigation initiated in 1997) were key factors behind the weak export picture this past season. Exports from August 2002 through July 2003 posted a 15-percent decline, with smaller shipments to the European Union, Mexico, Taiwan, and many other countries in East and South East Asia. Meanwhile, shipments to the largest market, Canada, rose 20 percent.

Reduced production in the fall of 2002 increased imports of fresh apples during the 2002/03 (August-July) marketing season, increasing 14 percent from a year ago. Of the leading suppliers, increases came mainly from Chile (up 42 percent) and Canada (up 17 percent), both supported by bigger crops in these countries. Shipments from New Zealand, meanwhile, fell 19 percent. U.S. fresh apple imports during 2003/04 will likely remain strong in light of the expected smaller Washington crop.

U.S. imports of apple juice and cider from August 2002 through July 2003 were 13 percent higher than the volume imported the previous season. Imports rose sharply from China, Chile, Poland, and the Republic of South Africa, but were down from Argentina, Germany, and Hungary. For the same period, exports of apple juice and cider declined 20 percent, with lower shipments to most leading markets, except Mexico.

### ***U.S. Pear Crop Larger in 2003***

USDA's forecast for the 2003 U.S. pear crop, at 1.9 billion pounds, is up 7 percent from last year, but 7 percent below 2001 (table 4). Bartlett production in the three Pacific Coast States is forecast at 940 million pounds, 17 percent more than last year. Production of other pear varieties also increased in the region and is forecast at 870 million pounds, 8 percent above last year.

Larger crops (both Bartlett and other varieties) from Oregon and Washington more than offset the smaller Bartlett crop in California. Output of other-than-Bartlett pears in California remained unchanged. The smaller Bartlett crop in California may be attributed to a lighter fruit set, smaller fruit size, and some hail damage, particularly in the Marysville-Yuba and Lake County growing districts. The Oregon crop faced weather-related problems during pollination and fruit development, resulting to a Bartlett crop that is now 7-percent smaller than earlier anticipated. Generally favorable weather in Washington and adequate irrigation supplies have yielded a larger harvest for the State, with most fruit reportedly of above-average quality. Output from other Western States (Colorado and Utah) increased more than 10 percent. Most of the remaining U.S. crop is produced in New York, Michigan, Pennsylvania, and Connecticut where favorable growing conditions

brought production up substantially in each of these States, except in Pennsylvania where output is expected to increase a moderate 8 percent.

Last year's smaller U.S. pear crop yielded a lower output for both the fresh and processing markets and consequently strengthened grower prices in both sectors. Grower prices for fresh-market pears averaged \$359 per ton, higher than the previous two seasons, while prices for processing pears rose to its highest level over the last 5 years, averaging \$206 per ton. This year's expected increase in overall production should provide for a larger use of the crop in both the fresh and processing markets. Early 2003/04 grower prices for fresh pears were up sharply, averaging \$610 per ton (28.1 cents per pound) in July, from \$312 per ton the same period a year ago. While fresh pear inventories from the 2002 crop were 6 percent higher on July 1 than a year ago, lighter new crop shipments beginning the 2003/04 season, primarily from California, have combined with strong market demand to boost prices.

Besides the expected smaller Bartlett pear crop in California, the lighter shipments may be partly explained by the delayed harvesting of Bartlett pears in the State's major pear-growing areas due to a hot spell in July which inhibited fruit maturity. As this season gets fully underway, prices should decline with the much heavier volume expected from the entire U.S. pear crop. As of August, fresh pear shipments were up 7 percent from the same time a year ago and average grower prices weakened to \$455 per ton, already 1 percent lower than in August 2002. In addition, the larger shipments of new-crop apples that month also placed some downward pressure on pear grower prices.

Fresh-market pears will likely maintain a larger share of total production as it has over the last 10 years. Financial problems in U.S. canneries in recent years have encouraged more diversion of the Bartlett crop in the fresh market. Bartlett pears, which are used mostly for canning, account for more than half of the pears produced in the United States.

Table 4--Pears: Total production and season-average price received by growers, 2000-2002, and indicated 2003 production

State	Production 1/				Price		
	2000	2001	2002	2003	2000	2001	2002
	--- Million pounds ---				--- Cents per pound ---		
Pacific Coast:							
California:							
Bartlett	564	550	464	440	10.3	12.8	12.1
Other	60	60	60	60	21.9	18.5	20.3
Total	624	610	524	500	11.4	13.4	13.1
Oregon:							
Bartlett	120	140	116	130	14.9	15.1	17.2
Other	320	320	282	310	15.3	13.4	15.4
Total	440	460	398	440	15.2	13.9	15.9
Washington:							
Bartlett	352	402	316	370	12.7	11.4	15.7
Other	460	484	462	500	13.4	13.0	14.5
Total	812	886	778	870	13.1	12.3	15.0
Three States:							
Bartlett	1,036	1,092	896	940	11.7	12.6	14.0
Other	840	864	804	870	14.7	13.5	15.3
Total	1,876	1,956	1,700	1,810			
Colorado	6	4	5	6	18.8	25.0	28.8
Connecticut	3	1	1	2	28.1	32.2	42.9
Michigan	10	9	3	10	13.5	14.9	15.9
New York	29	22	20	30	17.7	20.1	18.7
Pennsylvania	9	11	8	8	25.5	28.5	24.0
Utah	1	1	1	1	26.7	29.2	32.2
Total	58	48	37	57			
United States							
Bartlett	1,036	1,092	896	940	11.7	12.6	14.0
Other	898	912	841	927	14.7	13.5	15.3
Total	1,934	2,004	1,737	1,867	13.2	14.1	14.1

1/ Includes unharvested production and production not sold.

Source: National Agricultural Statistics Service, USDA.

Processors in the Pacific Northwest, faced with a high inventory level, increased foreign competition, and a larger Bartlett crop, are trying to negotiate lower prices for processing pears this year.

U.S. imports of canned pears rose for the third consecutive year during 2002/03, up 24 percent from the prior season. Imports during the past two seasons were up dramatically from any of the previous seasons (except in 1996/97 when a record was set), following the closure of Tri Valley Growers, one of California's major canning cooperatives. Imports from China have grown rapidly over the last two years, with last season's volume nearly tripling the 2001/02 volume and exceeding all other shipments from foreign suppliers. Imports from South Africa, previously the leading supplier, fell 17 percent last season while shipments from Australia, also an important supplier, increased 23 percent. U.S. canned pear exports fell 9 percent last season, declining to Thailand, the Philippines, and Japan among the major customers.

U.S. imports of fresh pears have grown markedly as well over the past decade. Currently, approximately 80 percent of all the fresh pear imports come from Argentina and Chile. Accounting for most of the remaining shipments are China, South Korea, and New Zealand. During 2002/03, these key suppliers, except China and New Zealand, shipped larger quantities of fresh pears to the United States, with total imports up 8 percent from the previous season.

With the fresh market receiving an increasing proportion of the U.S. Bartlett pears, along with the growth in imports, exports have come to play a larger role in the marketing of U.S. fresh pears over the last several years. The proportion of the U.S. fresh-market output sold to foreign markets rose from 26 percent earlier in the 1990s to around 33 percent over the previous five seasons. North American partners—Mexico and Canada—continue to be the major export markets for U.S. fresh pears, averaging more than three-quarters of total export volume. U.S. exports during the 2002/03 marketing season were restricted by last year's smaller domestic crop and related higher prices, placing total shipments down 7 percent from the previous season. Shipments declined to Canada and other important markets, including the Netherlands, Taiwan, Brazil, Venezuela, and Hong Kong.

The export picture for U.S. fresh pears during 2003/04 holds more promise given the expected increase in production this year while imports will likely be trimmed. Moreover, USDA's fiscal year 2003 Market Access Program funds allocated to the Pear Northwest Bureau, a non-profit organization promoting the marketing of Oregon- and Washington-grown pears, is up significantly from last year, likely strengthening the U.S. fresh pear industry's promotional efforts to maintain existing markets and establish opportunities in new markets around the world.

### ***Smaller Crop in California Curtails 2003 U.S. Grape Output***

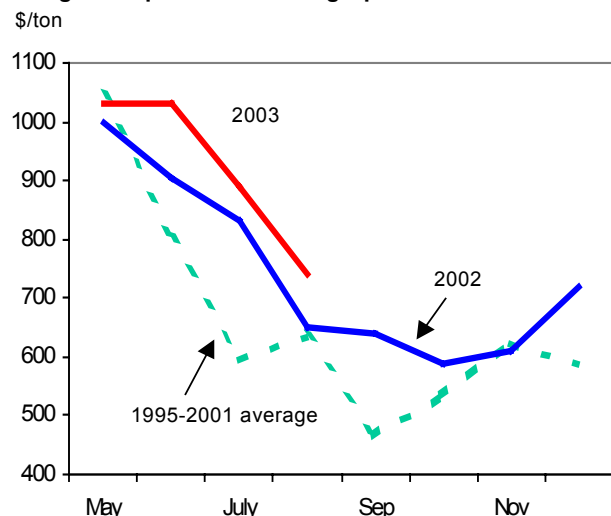
The 2003 U.S. grape production forecast is pegged at 14.1 billion pounds, down 4 percent from a year ago but 7 percent above the 2001 output (table 5). California expects to harvest 12.6 billion pounds, representing 89 percent of the entire U.S. crop. If realized, California's production will be 6-percent less than its output in 2002, with smaller crops of wine-type (down 3 percent) and raisin-type (down 12 percent) varieties and only a fractional increase in table-type varieties. Prospects for other grape-producing States are at 1.5 billion pounds, 19 percent more than last year, with all the principal States producing more.

Washington, the Nation's second largest producer, expects a 4-percent increase, to a near record of 690 million pounds. The State's growing wine industry has led to the rapid expansion of its grape-bearing acreage in recent years. As this continued to increase in 2003, production of wine varieties, accounting for more than a third of the State's grape crop, is forecast to increase 9 percent, to a record 250 million pounds. Production of juice varieties is also expected up this year, to 440 million pounds, up 1 percent from a year ago.

Escaping major freeze-related problems this winter, total production in New York and Michigan are forecast up 31 percent and 87 percent, respectively. Although up significantly from freeze-damaged crops of the previous 2 years, Michigan's production should have been even larger than the current forecast, had it not been for a hard frost in early March that affected output in the northwestern part of the State. Prospects in Pennsylvania also appear more favorable than last



Figure 4  
**U.S. grower prices for fresh grapes**



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

year, with output likely up 32 percent, reflecting the large clusters and heavy fruit set that resulted from having ideal weather during bloom and berry set.

Reduced shipments from California, coupled with strong market demand, are driving grower prices for fresh-market grapes to record levels (fig. 4). Except during the month of May, shipments of fresh grapes from California over the period April 27 through August 23 were lower almost every week compared with the same period a year ago, according to AMS. Even with increased supplies coming in from Mexico, grower prices (May-August) averaged strong, at \$923 per ton, the highest so far since 1995 when USDA began reporting monthly prices for fresh-market grapes.

Looking beyond the domestic market, this year's smaller California crop, strong domestic demand, and accompanying high prices will likely dampen export prospects for U.S. fresh grapes during the 2003/04 marketing season. Exports were at a record high last season, with increased shipments to Canada, Hong Kong, and Mexico—the top three export markets. Export declines to the Philippines and Taiwan, these key markets in Southeast and East Asia, were offset

Table 5--Grapes: Total production and season-average price received by growers in principal States, 2000-2002, and indicated 2003 production

State	Production				Price		
	2000	2001	2002	2003	2000	2001	2002
	-- Million pounds --				-- Cents per pound --		
Arizona	40	31	17	17	35.9	28.8	47.4
Arkansas	8	5	11	8	28.0	27.1	23.1
Georgia	7	6	6	6	61.5	52.5	53.0
Michigan	174	58	85	160	13.9	17.8	17.4
Missouri	6	5	6	6	27.8	31.5	30.8
New York	308	298	312	410	14.9	16.0	15.4
North Carolina	5	4	5	6	58.0	63.5	64.0
Ohio	15	12	12	15	16.4	18.7	20.4
Oregon	37	46	44	50	70.0	74.0	73.5
Pennsylvania	126	123	106	140	13.3	14.8	14.1
South Carolina	1	1/	1/	1/	33.5	1/	1/
Texas	2/	19	9	17	2/	45.0	45.5
Virginia	2/	8	9	10	2/	63.0	67.5
Washington							
Wine	180	200	230	250	45.0	44.9	43.9
Juice	350	366	434	440	13.1	11.9	7.8
All	530	566	664	690	23.9	23.5	20.3
Total 3/	1,258	1,181	1,286	1,535			
California:							
Wine	6,728	6,102	6,298	6,100	28.4	29.9	26.8
Table	1,548	1,426	1,478	1,480	28.3	30.5	30.9
Raisin 4/	5,842	4,430	5,666	5,000	8.3	9.1	7.8
All	14,118	11,958	13,442	12,580	20.1	22.3	19.2
United States	15,376	13,139	14,728	14,115	20.2	22.4	19.4

1/ Estimates discontinued in 2001. 2/ Estimates began in 2001. 3/ Some figures may not add due to rounding. 4/ Fresh weight of raisin-type grapes.

Source: National Agricultural Statistics Service, USDA.

by export increases to other countries in these two regions. Exports were strong to Australia, an emerging market for U.S. fresh grapes. Of the total U.S. fresh grapes exported last season, shipments to Australia ranked as the 24<sup>th</sup> largest in volume, a promising start for the U.S. grape industry in this emerging market, following years of negotiation and the arrival of its first shipments in July 2002. Meanwhile, exports to India, another emerging market for the industry, declined 8 percent.

Because of its dominance in U.S. grape production, the smaller California crop will more than likely result in a decline in overall grape crush in 2003/04. Grapes are crushed for making juice and wine, but the decline in grape crushing this coming season will likely occur only in the wine industry. Larger crops in Washington and New York will allow more grapes to be crushed by juice processors, likely driving down the prices that growers will be receiving for grapes used in making juice this season. In contrast, the decline in grape crush volume in the wine industry should boost grower prices for grapes used for making wine.

Raisin production is also expected to be down in 2003, due to reduced production of raisin varieties in California. This should result in higher grower prices for grapes used in making raisins compared with a year ago. However, with raisin inventories still large, grower prices are not expected to near the strong prices of the 1990s.

### ***2003 U.S. Cranberry Production Larger Than Previous 3 Years***

The 2003 U.S. cranberry crop is forecast at 583.0 million pounds, 3 percent larger than a year ago and bigger than the 2000 and 2001 crops (table 6). Production increases are expected in almost all the cranberry-producing States, due to generally favorable weather conditions but also, for the most part, to the absence of a restrictive marketing order that encouraged many growers to expand acreage. Under the restrictive marketing order, cranberry growers were allowed to sell only 65 percent of their historic average sales to processors—a government-sanctioned mechanism designed to mitigate the oversupplies existing since 1998. This oversupply situation has resulted to dramatically lower grower prices in recent years.

The last time that such a restrictive marketing order was implemented was in 2001 and it applied to all five major producers (Wisconsin, Massachusetts, New Jersey, Oregon, and Washington). Utilized production that year declined 14 percent and grower prices improved markedly although still well below levels throughout most of the past decade before the market glut (fig. 5). The same marketing order was not implemented during the 2002 and 2003 growing seasons. While still large relative to the early 1990s, cranberry inventories have already declined substantially and cranberry grower prices have been improving since 2000.

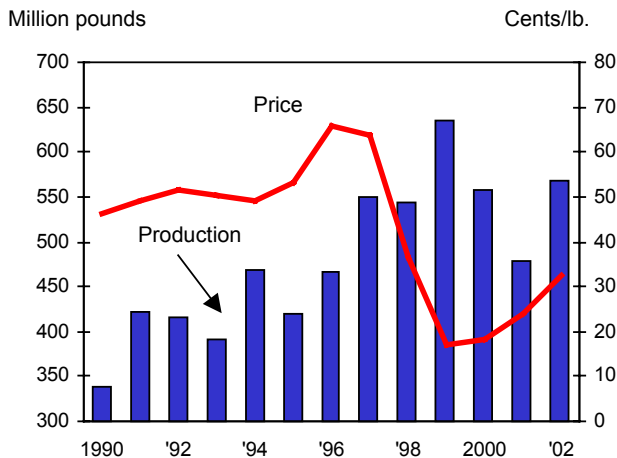
Table 6--Cranberries: Total production and season-average prices received by growers, 2000-2002, and indicated 2003 production

State	Production				Price		
	2000	2001	2002	2003	2000	2001	2002
	-- Million pounds --				-- Cents per pound --		
Massachusetts	195	142	145	170	19.0	24.0	33.2
New Jersey	49	57	43	47	17.9	23.1	32.0
Oregon	40	37	43	44	16.7	22.5	32.9
Washington	18	14	16	17	22.3	28.2	36.2
Wisconsin	269	284	321	305	17.4	23.7	32.2
United States	571	533	568	583	18.1	23.8	32.6

Source: National Agricultural Statistics Service, USDA.

Figure 5

**U.S. cranberries: Utilized production and season-average price received by growers**



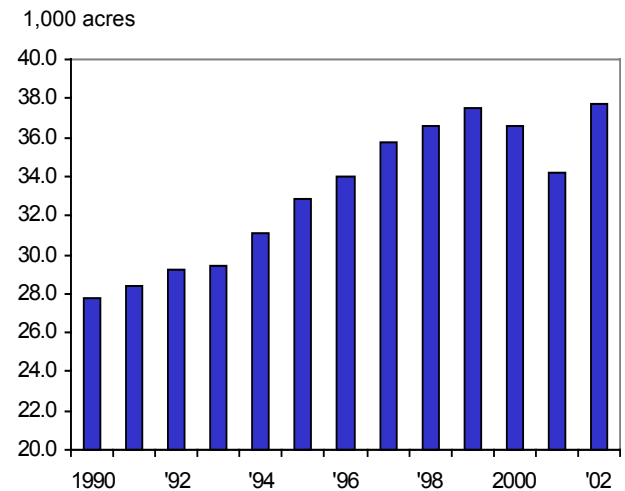
Source: National Agricultural Statistics Service, USDA.

In the absence of restrictive marketing order during 2002, the industry harvested an additional 3,500 acres of cranberries relative to the previous year (fig. 6). In particular, bearing acreage increased in Massachusetts, Oregon, and Wisconsin. Utilized production in 2002 was up 19 percent from the previous year, taking into account 2001 output adjustments resulting from the supply restrictions in effect that year. At an average of 32.6 cents per pound, grower prices continued to move up in 2002, but remained slightly lower than 1998 prices when the industry first felt the impact of excess supplies.

The quantity of 2002 cranberries used for processing increased 22 percent from the previous year, but processing cranberry prices strengthened, increasing to an average of 31.1 cents per pound, from 22.1 cents in 2001 and 16.4 cents in 2000. At the same time, fresh-market cranberry prices received a boost from reduced fresh-market production, averaging 32 percent higher than in 2001, at 54.0 cents per pound. Early forecasts from the Cranberry Marketing Committee, the entity responsible for overseeing the Cranberry Marketing Order, indicated inventories entering the 2003 marketing year will be about 2 percent larger than in 2002, still higher than levels achieved through most of the 1990s. The slightly larger inventories and this year's increased production could put downward pressure on 2003 grower prices.

Figure 6

**U.S. cranberries: Area harvested**



Source: National Agricultural Statistics Service, USDA.

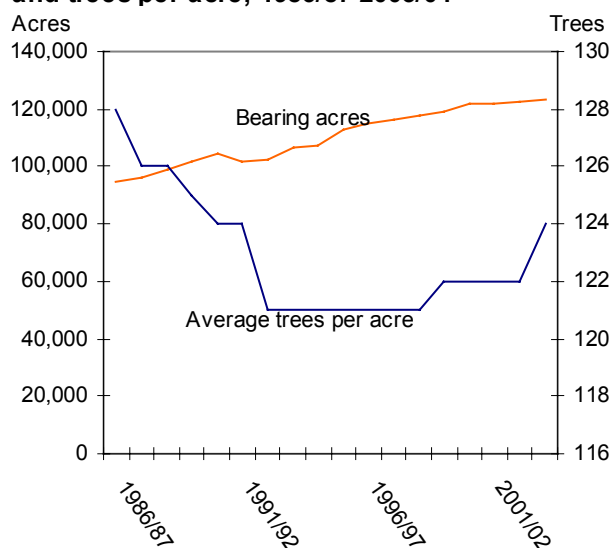
Wisconsin is the only exception to the expected output growth in 2003. Production there is forecast to be down 5 percent, perhaps due to some winter damage reported in the northern and central growing areas of the State and some areas that would benefit from additional moisture prior to harvest. Wisconsin is by far the Nation's largest producing State, accounting for over 50 percent of the U.S. crop.

The largest production growth will be in Massachusetts, where output is forecast to be up 17 percent. Although crop development fell a little behind schedule, this year's wet, cold spring helped the bogs recover from the drought conditions of a year ago. The New Jersey crop appears to be about average, but larger than in 2002 when low prices prompted some growers to reduce acreage, pushing production down 24 percent from the previous year. Production in Oregon is forecast up 2 percent as warm summer temperatures benefited fruit set and sizing. In Washington, higher yielding vines have replaced many old ones, and this has also contributed to the State's increased production.

***First Forecast for 2003/04 Orange Crop***

NASS released its first forecast for the 2003/04 orange crop on September 11. At this time, the forecast is only for the California navel orange crop. This crop represents the bulk of the early season fresh-market production.

Figure 7  
**Central Valley navel orange bearing acreage  
 and trees per acre, 1986/87-2003/04**



Source: California Agricultural Statistics Service.

According to NASS, California is projected to produce 1.5 million tons of navel oranges this season. If realized, the quantity produced would be 5 percent lower than last season. Fruit size is reported to be very variable, but generally larger than last season. The average fruit set is estimated at 358 oranges per tree in the Central Valley, down from the previous season, due to weather-related crop damage.

About 97 percent of the navel crop is expected to come from California's Central Valley. The California Agricultural Statistics Service (CASS) estimates that there are 128,000 bearing acres in production during the 2003/04 season, 123,000 of which are in the Central Valley. The number of trees per acre is projected to increase to 124 trees, up from 122 trees since 1999/2000 (fig. 7).

The forecast for Florida's orange crop will not be available from NASS until the October 10 *Crop Production* report. The survey results released in this report are the industry's official estimate. Early industry estimates, however, project a bigger crop in 2003/04 than the previous season, with private estimates ranging from 10.1 to 10.3 million tons. A bigger crop, along with large juice ending stocks, is likely to put downward pressure on grower prices this season.

The Florida Agricultural Statistics Service published its first crop maturity test results for the new crop on

September 11. As of the early September crop, the acid levels are reported to be higher for midseason oranges than last season, but lower for early season oranges and both white and colored grapefruit. The pounds solids per box are also forecast lower than last season for all oranges and grapefruit. Pounds solids are used as the standard measurement of the quantity of juice extracted from the fruit and is the basis upon which growers are paid by the juice processor.

### ***Bigger Hazelnut Crop in 2003***

The hazelnut crop is expected to be bigger this year than a year ago. Estimated at 35,000 tons, this year's crop is 79 percent bigger than in 2002, but 29 percent smaller than in 2001. If realized, it will be one of the smallest crops during the "on year" of the trees' alternate bearing cycle in many years. Eastern Filbert Blight continues to be a problem, infecting orchards in Oregon, the major production State, and limiting production potential.

The new marketing season got under way on July 1. For the first month of the 2003/04 season, shipments are based on carryover from last year. With small stocks coming into this season, shipments for July are considerably below last July. Shipments should pick up as harvesting gets under way, however, they are unlikely to be as big as recent years before 2002. As a result of the crop's being smaller than other "on-cycle" year crops and low beginning stocks, grower prices should be strong this season.

### ***Record Walnut Crop Projected for 2003***

California's walnut crop is projected to be a record high at 315,000 tons, up 12 percent from last year and up 3 percent from the previous record high in 2001. The number of bearing acres increased for the fourth consecutive year to 205,000 acres, 3 percent more than last year. Yields are expected to increase to 1.54 tons per acre, higher than last year, but lower than the last "on-cycle" year in 2001.

Walnut shipments for 2002/03 ended ahead of the previous marketing year, as of the July report from the Walnut Marketing Board. Both domestic and international demand were strong for the 2002 crop marketed in 2002/03. The United States is the largest market for shelled walnuts, while Spain, Germany, the United States, and Italy are the major markets for the in-shell nuts.

### ***Pistachio Production Expected Down from a Year Ago***

The pistachio crop, which is on the opposite cycle from most of the major tree nut crops produced in the United States, is on its “off cycle” this year and production is expected to be down 41 percent from last year’s record crop. It is, however, expected to be 12 percent larger than the crop 2 years ago, with the same off year of the alternate-bearing cycle. There are 88,000 bearing acres of pistachio trees in California in 2003, 6 percent more than a year ago. Another 23,000 acres is planted to pistachio nuts but have not come into commercial production.

The pistachio nut industry is one of the younger horticultural industries and has been rapidly expanding. The number of bearing acres has increased continuously since 1985 when there were 32,300 acres in production.

Pistachio nut shipments were higher in 2002/2003 than last year as a result of the record 2002 crop. According to the California Pistachio Commission, shipments, which ran from September 1, 2002, to August 31, 2003, totaled 189 million pounds. The U.S. market consumes the majority of the pistachio crop, mostly purchasing open-shelled nuts. The strong demand for pistachios should continue this season and, coupled with the smaller crop, should bring good returns to growers for the 2003/04 season.

## Fruit and Tree Nut Trade Outlook

### *Export Prospects for U.S. Fresh Fruit and Tree Nuts Mixed in 2003/04*

Season-to-date fresh-market exports of grapefruit, apples, and pears remain lower than a year ago through July, mostly due to the smaller harvested crops in 2002 (table 7). Most fresh apple exports come from the State of Washington, and although the harvest there in the fall of 2002 was 2 percent larger, more supplies were used to fill the needs in the domestic market, particularly as mixed weather problems caused significant output declines last year in many Eastern and Central apple-producing States. Orange exports continue strong to all its major markets, aided by the larger production in California, the principal producer of oranges for the fresh market, and the weaker dollar in recent months. Sweet cherry exports rose sharply in July as the season got fully underway with larger production, boosting overall shipments for the season. Season-to-date shipments to Canada increased markedly, surpassing shipments to Japan, the top foreign market for U.S. sweet cherries.

Early estimates for the 2003/04 marketing season project larger crops of apples and pears this fall, but a smaller California orange crop. While total apple production is forecast up for this new season, the expected smaller crop in Washington will likely limit the quantity available for fresh-market exports. Similarly, reduced production will likely dampen export prospects for U.S. fresh oranges. Early-season pear exports, mostly of the Bartlett variety, are down 11 percent in July compared with a year earlier. However, heavier supplies, including other variety pears, expected this fall will likely help boost overall exports during the 2003/04 season.

Exports of major U.S. tree nuts remain strong during the 2002/03 season. U.S. shipments of almonds and pistachios to international markets were aided by the record-large crops harvested last year. Accounting for the bulk of U.S. tree nut exports, 2002/03 almond exports rose to leading markets, including Spain, India, Japan, and the Netherlands, but declined to Germany. The near-record crop expected for this year, along with above average carryover inventories

Table 7--U.S. exports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through July)		Year-to-date change
		2002	2003	
		--- 1,000 pounds ---		Percent
Fresh-market:				
Oranges	November-October	1,026,872	1,310,425	27.6
Grapefruit	September-August	865,518	775,119	-10.4
Lemons	August-July	224,376	216,442	-3.5
Apples	August-July	1,353,143	1,144,934	-15.4
Grapes	May-April	79,155	86,186	8.9
Pears	July-June	16,564	14,682	-11.4
Peaches (including nectarines)	January-December	151,575	136,824	-9.7
Strawberries	January-December	109,739	138,191	25.9
Sweet cherries	January-December	69,679	93,965	34.9
		--- 1,000 gallons ---		
Processed:				
Orange juice, frozen concentrate	October-September	118,289	36,572	-69.1
Orange juice, not from concentrate	October-September	42,689	47,367	11.0
Grapefruit juice	December-November	25,707	28,671	11.5
Apple juice and cider	August-July	6,970	5,595	-19.7
Wine	January-December	40,528	53,015	30.8
		--- 1,000 pounds ---		
Raisins	August-July	250,021	255,434	2.2
Canned pears	August-July	14,201	11,370	-19.9
Canned peaches	July-June	1,630	4,721	189.6
Frozen strawberries	January-December	25,436	12,423	-51.2
		--- 1,000 pounds ---		
Tree nuts:				
Almonds (shelled basis)	August-June	28,113	52,469	86.6
Walnuts (shelled basis)	September-August	99,965	109,329	9.4
Pecans (shelled basis)	September-August	20,661	28,222	36.6
Pistachios (shelled basis)	September-August	22,366	28,149	25.9

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

from the 2002/03 season, should continue to help boost exports of U.S. almonds during 2003/04. Early into the new season (as of July), almond exports continue strong, increasing 87 percent from a year ago. U.S. pistachio exports will likely be limited by the expected 41-percent decline in California's pistachio production in 2003 from a year ago.

Strong international demand has kept 2002/03 season-to-date exports of walnuts and pecans up from the same time the previous season, despite significantly reduced production last year due to the alternate-bearing nature of their production cycle. The successful export season for the U.S. pecan industry thus far could be attributed mostly to very sharp increases in shipments to Mexico, Hong Kong, and China. Meanwhile, walnut shipments were up 28 percent to Spain and up 7 percent to Canada, but were down to other major markets. Should demand remain strong, the expected larger California walnut crop in 2003 will likely lead to another season of increased walnut exports.

### ***Bigger 2002/03 Citrus Crops in California Lowers Orange and Lemon Imports***

Harvest was larger for California oranges and lemons in 2003 compared with the previous year. This larger harvest resulted in fewer imports of fresh-market oranges and lemons during the marketing year 2002/03 (table 8). U.S. fresh orange imports for the season through July declined 63 percent from Mexico, the third largest fresh orange exporter to the United States. Imports were also reduced from the Caribbean countries, particularly the Bahamas and Jamaica. The anticipated reduced orange production in California this fall will likely lead to more imports during the 2003/04 marketing season. The 2002/03 U.S. lemon season ended with a 22-percent decline in overall imports compared with the previous season. For most years over the past decade, Spain has been the largest supplier of fresh lemons to the United States. During the season that just ended, imports from Spain declined 40 percent from 2001/02, due partially to the smaller crop there. The largest shipment for the season came from Chile, increasing 93 percent from the previous year.

Table 8--U.S. imports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through July)		Year-to-date change
		2002	2003	
		--- 1,000 pounds ---		Percent
Fresh-market:				
Oranges	November-October	75,748	62,969	-16.9
Tangerines (including clementines)	October-September	134,173	179,671	33.9
Lemons	August-July	84,876	66,547	-21.6
Limes	September-August	303,193	506,349	67.0
Apples	August-July	361,407	412,447	14.1
Grapes	May-April	241,512	315,270	30.5
Pears	July-June	485	1,476	204.1
Peaches (including nectarines)	January-December	101,837	122,905	20.7
Bananas	January-December	5,092,721	5,088,845	-0.1
Mangoes	January-December	435,773	433,007	-0.6
		--- 1,000 gallons ---		
Processed:				
Orange juice, frozen concentrate	October-September	142,046	228,024	60.5
Apple juice and cider	August-July	353,636	399,914	13.1
Wine	January-December	82,925	93,275	12.48
		--- 1,000 pounds ---		
Canned pears	August-July	27,933	34,219	22.5
Canned peaches	July-June	8,791	8,348	-5.0
Canned pineapple	January-December	386,092	425,039	10.1
Frozen strawberries	January-December	91,379	103,563	13.3
		--- 1,000 pounds ---		
Tree nuts:				
Brazil nuts (shelled basis)	January-December	15,561	9,675	-37.8
Cashews (shelled basis)	January-December	122,324	126,410	3.3
Pine nuts (shelled basis)	January-December	4,591	3,741	-18.5
Pecans (shelled basis)	September-August	33,152	34,135	3.0

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

## Commodity Highlight

### ***Tangerines: The Easy-Peel Citrus***

Tangerines, also known as mandarins, are said to have originated in Asia, around southern China, Indochina, and Japan. There are numerous varieties, with varying shapes and color. The tangerines are distinguished from other citrus fruit by their loose peel and easy-to-separate sections. These features have increased the popularity of the fruit in recent years and given them the nickname easy peelers.

Tangerine varieties differ around the world. There are several different groupings of tangerines, including: satsumas, clementines, and other tangerine hybrids. An example of a satsuma is the Unshui, the most popular variety in Japan. Clementines are the most popular variety grown in the Mediterranean region. Other tangerine hybrids are popular in China and the United States and include the Ponkan, grown in China, and the Fallglo and Sunburst, grown in Florida. Tangerine hybrids also include the tangelo, a cross between a tangerine and a grapefruit, and the tangor, a cross between a tangerine and an orange.

### ***China Leads the World in Tangerine Production***

China produces more tangerines than any other country, accounting for 36 percent of the world total in 1999-2001. The tangerine variety Ponkan is the most popular citrus consumed in China. Ponkan production has grown rapidly in China in recent years, increasing 71 percent over the 10-year period 1989-91 and 1999-2001. Production improvements and government policies, encouraging farmers to move away from grain production and produce higher-valued crops, have helped the expansion of China's tangerine industry.

Spain replaced Japan as the second largest tangerine producer in the late 1990s, accounting for 10 percent of world production. Spain mostly produces the clementine variety. Its production has expanded 26 percent over the 10-year period. Japan ranks third in world production, accounting for 7 percent of the total. Production in Japan fell 26 percent from 1989/91 to 1999/2001 as domestic demand has declined in favor of imported oranges and grapefruit.

Rounding out the list of top producers are Brazil, Iran, Thailand, the Republic of Korea, Italy, Turkey, and Egypt.

### ***U.S. Tangerine Production Concentrated in Florida and California***

The tangerine tree thrives in subtropical environments where cool night temperatures improve peel and flesh color and enhance flavor. As a result, production in the United States is centered in Florida and California, and to a lesser degree in Arizona. Small quantities also are grown for commercial production along the Gulf of Mexico in Louisiana, Alabama and Texas.

U.S. production has been growing at an average rate of 6 percent annually since the mid-1980s. Growth has been the fastest in Florida, where production has grown over an average of 10 percent annually, increasing from 222.3 million pounds in 1986/87 to 522.5 million pounds in 2002/03. As a result of its rapid growth, Florida's share of U.S. tangerine production has grown from 43 percent in 1986/87 to 70 percent in 2002/03.

The most common varieties grown in Florida are the Fallglo and Sunburst, which are early season tangerines, and the Honey (Murcott), which is the major late season tangerine. Plantings of previously popular varieties, the Dancy and Robinson, have declined in recent years. California tangerine varieties are mostly satsumas and clementines. Tangelo varieties, such as minneolas, also called honeybells and Orlandos, are grown in Florida and California, although Florida produces the greatest share of these fruit. Temples are in the tangor group and Florida dominates commercial production of this variety.

### ***Most Tangerines Are Sold in the Fresh Market***

An average of 70 percent of the tangerines produced in the United States are sold in the fresh market, with the remainder going to processing into juice, sections, or other uses. Tangerine juice is used by the Florida juice processing industry to blend with orange or grapefruit juice for coloring and sweetening.



There is a big grower price differential between the tangerines sold to the fresh and processing markets (fig.8). Unlike oranges, the processing market for tangerines is a residual market for the fruit that are damaged or too small to be sold in the fresh market.

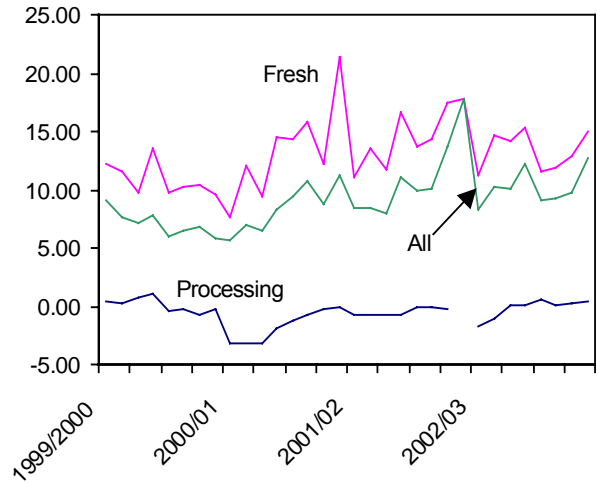
In the tangerine industry, the entire crop is utilized. Florida, the predominant producer, must market its fruit under standards set by a marketing order for grade, size, maturity, and quality. Similar standards are not in place for California and Arizona producers, although packinghouses set their own requirements for the fruit entering the fresh market. Any fruit that does not meet fresh-market requirements are sent for processing where appearance is not an issue. With much lower requirements and usually less demand than from the fresh market, growers are offered less per box for the fruit that is processed. In many cases, the price received by the growers does not cover all of their costs of production, which include the cost of hauling, picking, sorting, grading, packing, cooling, and marketing the fruit. As a result, the grower price for processed tangerines is represented as a negative value. By selling the already-picked fruit for processing, however, growers are able to recoup some of their costs for those tangerines that could not be sold fresh. Since most of the fruit, however, goes to fresh market, the price growers receive for all their tangerines more closely reflects fresh prices.

***Strong Demand Keeps Grower Revenues Stable***

The larger crops in recent years have kept growers' returns relatively stable, although Florida's grower prices have tended to trend downward (fig. 9). Tangerines fit modern consumers' preferences for convenient, easy-to-eat foods and have gained in popularity while other fresh citrus fruit have suffered. The demand for tangerines is so strong, that the surge in imported varieties in recent years has not produced a major impact on the utilization of the domestic crop. Returns continue to show a strong correlation with production, reflecting the cyclical nature of price, increasing with smaller crops, declining with larger crops.

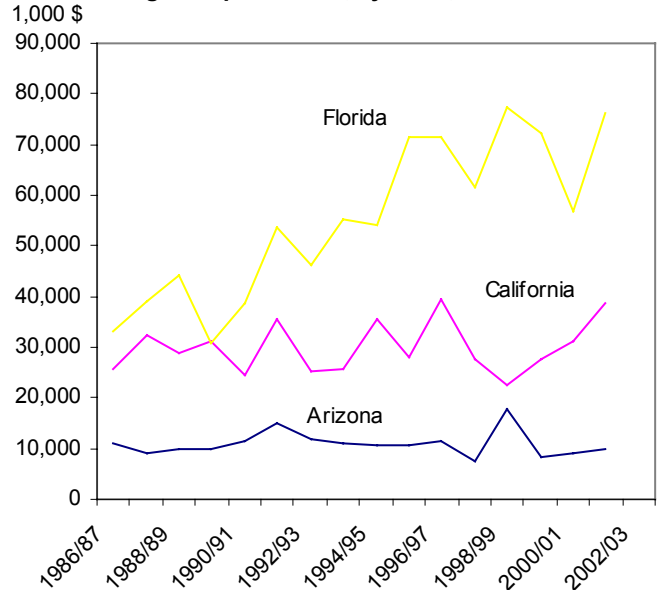
Another factor that drive tangerine prices, in addition to shifts in the production cycle, include substitution of tangerines for fresh oranges during seasons of poor crop performance for California oranges and the short season for each tangerine variety. Tangerines do not

Figure 8  
**Tangerine fresh and processing grower prices, 1999/2000 to 2002/03**  
\$/box



Source: National Agricultural Statistics Service, USDA.

Figure 9  
**Value of tangerine production, by State, 1986/87 to 2002/03**  
1,000 \$



Source: National Agricultural Statistics Service, USDA.

store well on the tree, like other citrus fruit, and must be marketed shortly after maturing. As a result, throughout the short tangerine season, from October through May, varieties in the fresh market continually change. Among the Florida crops, the season starts with the early varieties, Sunburst, Fallglo, and Robinson varieties and the season ends with the

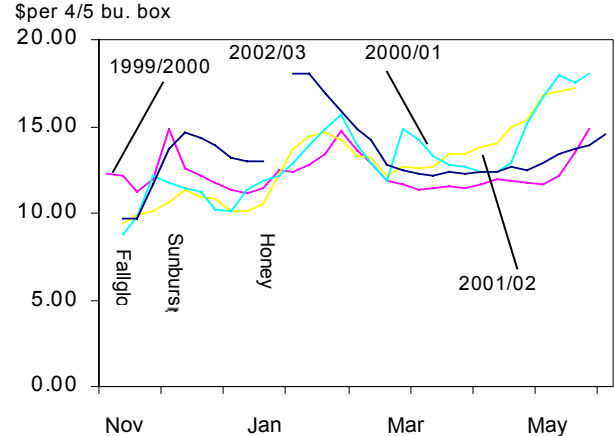
Honey tangerine. The tangelo season is very short, lasting only 2 to 3 months, mostly in November and December and have a separate pricing series. At the start of each variety's season, prices begin high, decline with the weeks in the market and then rise as supply dwindles and the next variety enters the market (fig. 10). The price spikes can be even stronger if a variety is late maturing, as happened in 2002/03 for the Honey tangerines. Because there was a month's lag between the availability of Honey and the end of the Sunburst tangerine supplies, prices rose sharply for the first 2 weeks of the Honey tangerine season before returning to more normal prices as supplies filled the markets.

### ***Imports Making a Big Impact on the U.S. Market***

The United States has always imported tangerines to supplement domestic production, much of which came from Mexico. Since the 1996/97 season, however, imports have been growing at a rate of 27 percent annually. While imports of Mexican tangerines have remained relatively stable over the 6 years, the imports of clementines, mostly from Spain has grown substantially, increasing from 33 million pounds in 1994/95 to 119 million pounds in 2000/03. Imports in 2002/03 would likely have been higher except the season began late due to a pest found in some clementine shipments the previous season. In 2001/02, Mediterranean fruit fly was discovered in a few clementines shipped to the United States. As a result, USDA's Animal and Plant Health Inspection Service banned imports for the remainder of the season and early in the new season. Once the two countries agreed upon a new inspection protocol, shipments began again. The Spanish were a little hesitant to resume the level of shipments of previous years, and total imports in 2002/03 were lower than the peak years 1999 through early 2001.

American consumers have shown a particular fondness for clementines because they are very easy to peel and they contain few to no seeds. Clementines are produced in the United States but at present, production is small. Domestic production is centered in California, where more tangerine acreage is planted to clementines than any other variety, except tangelos and satsumas. Recent planting of clementines exceeds that of any other variety. At present, the bulk of the production is marketed in the Pacific Northwest. California's clementines are

Figure 10  
**F.O.B. prices for Florida tangerines, 1999/2000-2002/03**



Source: Florida Citrus Administrative Committee

seedier than the imported ones. Seedless clementines are a result of the growing conditions under which the fruit is produced. The close proximity of California's clementine production with other citrus has resulted in cross-pollination of the flower that has caused its fruit to be seedy. The industry is working on ways to reduce the number of seeds produced and make their fruit more competitive with Spain's. Florida cannot produce clementines in any commercial capacity because clementines require a warm, arid environment and Florida's climate is too humid to produce a good-quality fruit.

### ***Tangerine Per Capita Consumption Continues To Grow***

Per capita consumption of tangerines has grown from an average of 2 pounds per person in the late 1990s to 2.6 pounds per person in the early 2000s (table 9). The combination of increased production and imports has provided a steadily growing supply to meet consumer demand. During the 1999/2000 season, when both domestic production and imports were at their height, fresh tangerine consumption rose to 2.8 pounds per person.

Despite the sharp growth in tangerine consumption in recent years, Americans still consume fewer tangerines than many other fresh fruit, including all other citrus except limes. There is much potential, however, for increasing per capita consumption to continue in the coming years as consumers continue to look for healthy and convenient foods, and the domestic industries strive to produce new varieties to meet consumers' expectations.

Table 9--Fresh tangerine supply and utilization, 1995/96 to present 1/

Year	Production	Imports	Total supply	Exports	Domestic consumption	Per capita consumption
			--Million Pounds--			Pounds
1995/96	645	43	688	49	640	2.4
1996/97	710	75	784	51	733	2.7
1997/98	619	90	709	55	654	2.4
1998/99	602	124	726	32	694	2.6
1999/2000	697	207	904	62	843	3.1
2000/01	618	206	823	33	791	3.0
2001/02	691	140	831	34	797	3.0
2002/03	646	170	816	37	779	2.9

1/ Includes tangelos and tangors.

Source: Economic Research Service, USDA.

## Contacts and Links

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