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Fruit and Tree Nuts Outlook

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January Freeze in California Reduces Forecasts for Citrus, Strawberry, and Avocado Crops

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The next release is
May 24, 2007

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The index of prices received by fruit and tree nut growers reached record highs this January and February. Considerably higher prices for California oranges and lemons helped drive up the January index. The freeze in mid-January throughout California's citrus-producing regions drove prices even higher, pushing the February index above January's and above February 2006.

The 2006/07 citrus crop is forecast by USDA's National Agricultural Statistics Service (NASS) to be 10.2 million tons, 13 percent smaller than last season and 12 percent smaller than in 2004/05. In January 2007, California experienced several days of freezing temperatures, damaging or destroying citrus fruit still on the trees. Florida's citrus crop is small relative to before 2004 as the trees are still recuperating from hurricane damage during the 2004/05 and 2005/06 seasons and from tree and crop losses from diseases.

While Florida's winter strawberry season was off to a good start this past November and December, the California freeze hit some of that State's southern production. This has created stronger demand for Florida strawberries in January and February as California's southern counties are the first to come on line as production shifts west. As a result, Florida strawberry prices have remained above last year's prices through mid-March.

The 2006/07 California avocado crop was initially projected to be down over 30 percent from the large 2005/06 crop, according to the California Avocado Commission, mainly due to the alternate bearing nature of the trees. This projection has been pushed down further to about a 51-percent decline in the aftermath of the January freeze.

The value for 2006 fruit and tree nut production reached \$16.6 billion, according to NASS, up nearly 2 percent from 2005 and 14 percent from 2004. The U.S. citrus fruit crop value in 2006 increased 16 percent from the previous year. Most citrus crops generated larger returns, except for grapefruit. Most noncitrus fruit crops also generated larger returns in 2006. The largest increases in crop value were for California dried prunes, wild and cultivated blueberries, apples, and California raspberries.

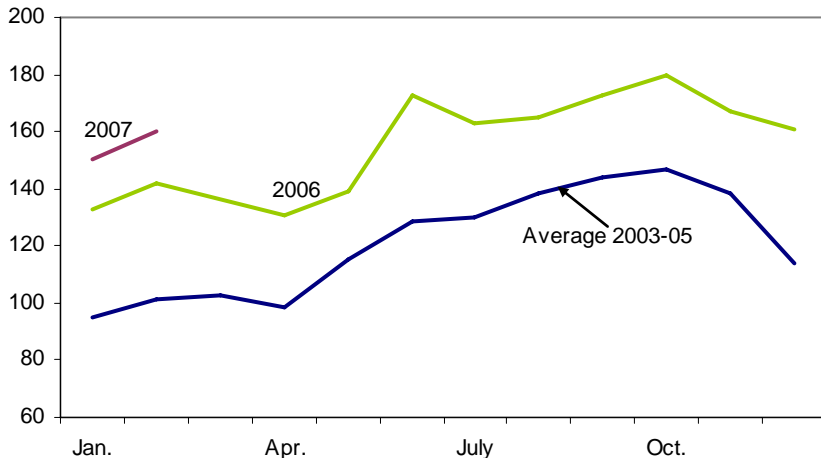
Price Outlook

Grower Prices Reach January and February Record Highs in 2007

The index of prices received by fruit and tree nut growers reached 150 in January and grew another 7 percent to 160 (1990-92=100) in February (fig. 1). These were the highest index numbers for January and February on record. The January index was 13 percent higher than last January but down 7 percent from December.

Considerably higher prices this January over January 2006 for California citrus—fresh oranges and all lemons offset price declines for grapefruit and strawberries to drive up the January index (table 1). The higher prices in January for California citrus mostly reflected the initial forecast for smaller orange and lemon crops along with the reported high quality of the crops. The freeze in mid-January throughout California's citrus-producing regions drove prices even higher, pushing the February index above January's and above February 2006. The strong February index, 12 percent above February 2006, was moderated by the strong presence of grapefruit in the market in February, which had lower prices than a year ago. All orange prices also fell between January and February. Increased shipments of California oranges to processing in February due to quality problems helped drive down the all-orange price.

Figure 1
Index of prices received by growers for fruit and tree nuts
1990-92=100



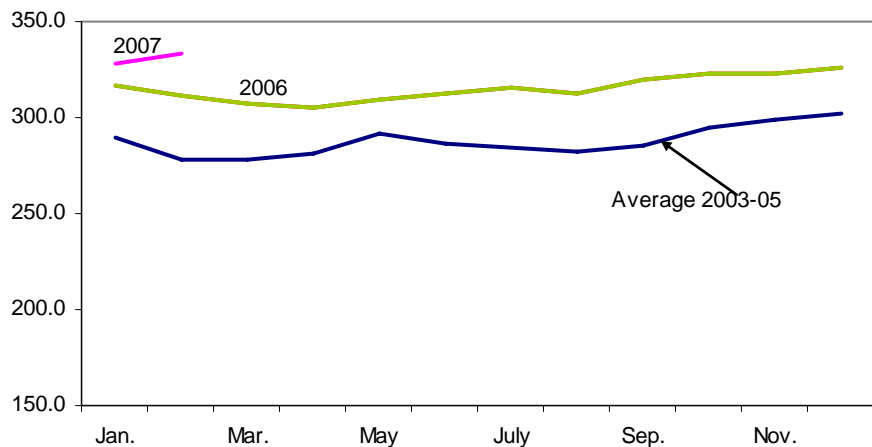
Source: *Agricultural Prices*, National Agricultural Statistics Service, USDA.

Early 2007 Retail Fresh Fruit Prices Rise At Slower Rate than Grower Prices

Reflecting the increase in grower prices for fresh fruit, the Consumer Price Index (CPI) for January and February 2007 rose above the same months last year and continued a three-month climb. The index rose 4 percent between January 2006 and January 2007 to 328.4 (1982-84=100) (fig. 2) The February index rose 7 percent from February 2006 to 333.8 but just 2 percent from January. Similar to grower prices, the increase in the index was largely driven by higher retail prices for fresh navel oranges. While fresh fruit prices were generally higher at the retail level this January over last, moderate increases in banana, Red Delicious apple, and strawberry prices, along with lower fresh grapefruit prices and the same price for Thompson seedless grapes, helped moderate the increase in the CPI. In February, the strong influence of imported fresh fruit, especially bananas, peaches, and grapes, helped keep the index from rising more than it did in response to a 50-percent increase in the retail price for fresh navel oranges and an over 30-percent increase in the prices of fresh lemons and strawberries.

Figure 2

Consumer Price Index for fresh fruit 1982-84=100



Source: Bureau of Labor Statistics, U.S. Dept. of Labor (<http://www.bls.gov/data/home.htm>).

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

Commodity	2006		2007		2006-07 Change	
	January	February	January	February	January	February
	-----Dollars per box-----				Percent	
Citrus fruit: 1/						
Grapefruit, all	11.06	9.92	6.18	4.10	-44.1	-58.7
Grapefruit, fresh	15.01	14.01	10.04	7.83	-33.1	-44.1
Lemons, all	3.78	9.42	11.42	32.27	202.1	242.6
Lemons, fresh	10.97	13.45	16.21	37.29	47.8	177.2
Oranges, all	5.16	5.27	8.14	7.42	57.8	40.8
Oranges, fresh	8.17	8.23	12.47	22.55	52.6	174.0
	-----Dollars per box-----					
Noncitrus fruit:						
Apples, fresh 2/	0.217	0.206	0.287	0.285	32.3	38.3
Grapes, fresh 2/	--	--	--	--	--	--
Peaches, fresh 2/	--	--	--	--	--	--
Pears, fresh 2/	0.202	0.196	0.281	0.267	38.9	36.2
Strawberries, fresh	1.420	0.999	1.320	1.720	-7.0	72.2

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: *Agricultural Prices*, National Agricultural Statistics Service, USDA.

Table 2--U.S. monthly retail prices, selected fruit, 2006-2007

Commodity	Unit	2006		2007		2006-07 Change	
		January	February	January	February	January	February
		--- Dollars ---		--- Dollars ---		--- Percent ---	
Fresh:							
Valencia oranges	Lb.	--	--	--	--	--	--
Navel oranges	Lb.	0.837	0.915	1.092	1.375	30.5	50.3
Grapefruit	Lb.	1.081	1.086	0.940	0.901	-13.0	-17.0
Lemons	Lb.	1.435	1.399	1.710	1.948	19.2	39.2
Red Delicious apples	Lb.	0.963	0.977	1.034	1.072	7.4	9.7
Bananas	Lb.	0.490	0.508	0.505	0.507	3.1	-0.2
Peaches	Lb.	--	1.963	--	1.685	--	-14.2
Anjou pears	Lb.	1.009	1.007	1.240	1.232	22.9	22.3
Strawberries 1/	12-oz. pint	2.411	1.981	2.539	2.609	5.3	31.7
Thompson seedless grapes	Lb.	2.590	2.015	2.591	1.989	0.0	-1.3
Processed:							
Orange juice, concentrate 2/	16-fl. Oz.	1.853	1.870	2.314	2.414	24.9	29.1
Wine	liter	7.613	8.514	7.560	9.394	-0.7	10.3

-- Insufficient marketing to establish price.

1/ Dry pint.

2/ Data converted from 12 fluid ounce containers.

Source: Bureau of Labor Statistics, U.S. Dept. of Labor (<http://www.bls.gov/data/home.htm>).

2006/07 Citrus Crop Smallest in 3 Seasons

The 2006/07 citrus crop is forecast to be 10.2 million tons, 13 percent smaller than last season and 12 percent smaller than in 2004/05, according to USDA's National Agricultural Statistic Service (NASS) (table 3). If realized, it would be the smallest citrus crop since 1990, when Florida experienced two back-to-back freezes. A combination of weather-related factors contributed to the expected smaller crop. In January 2007, California experienced several days of freezing temperatures, damaging or destroying citrus fruit still on the trees about 2 months into the new season. Florida's citrus crop is small relative to the years before 2004 as the trees are still recuperating from hurricane damage during the 2004/05 and 2005/06 seasons and from loss of trees from citrus diseases. As a result, all Florida citrus crops, except grapefruit, are forecast down for the 2006/07 season. Only Texas' citrus production is forecast higher this season, with bigger crops expected for oranges and grapefruit.

Fewer Fresh Oranges from California Available this Season

California is the major source of fresh oranges in the United States and several international markets. While the initial NASS forecast for this season's crop was 1.7 million tons, a 24-percent smaller crop than last season, NASS conducted a new survey completed March 3 to more clearly capture the effects of the freeze in mid-January. The forecast from the March survey is for 1.4 million tons, a 39-percent smaller crop than in 2005/06. The navel crop, which accounts for about three-quarters of California's oranges, is expected to be down 43 percent. The Valencia crop, which accounts for the remainder of the oranges, is expected to be down 26 percent. The forecast is for all orange utilization in California, not broken down into fresh and processing uses. After a severe freeze, such as occurred this past January, it is common for a large share of the fruit remaining on the trees to be too damaged to be marketed fresh and the fruit wind up going to processing. During a similar freeze in 1998/99, almost half the navels and Valencias were processed compared with about 20 percent during a normal season. It is very likely a similar situation will take place this season. As a result, not only are there fewer oranges for fresh use, but since the processing market is a residual market in California, growers do not receive sufficient returns from processing oranges to cover their costs of production.

Prices for California's fresh oranges have averaged \$14.74 per 75-lb box, ranging from \$9.49 per box in November to \$24.69 per box in February, after the freeze (table 4). The last time prices reached the mid-\$20s was in 1991, another freeze year. After the 1990/91 freeze, prices rose in February, similar to this season, and remained above \$25 per box throughout the remainder of the season. After the 1998/99 freeze, prices peaked in March, and although they remained above average throughout the navel orange season, they started declining monthly after the initial high. This scenario is more likely to be what will happen throughout the remainder to this season, particularly for the navels. While the freeze was extensive throughout most of the State's citrus-production regions, damage varied by groves, with some experiencing total losses and some having only minor losses. California's Central Valley, a major orange-producing region, has many areas with groves

Table 3--Citrus: Utilized production, 2004/05, 2005/06 and forecast for 2006/07 1/

Crop and State	Forecast for			Forecast for		
	Utilized	2006/07	Utilized	2006/07	Utilized	2006/07
	2004/05	2005/06	as of 3-2007	2004/05	2005/06	as of 3-2007
	---- 1,000 Boxes 2/ ----			----1,000 Tons ----		
Oranges:						
Early/mid-season and navel:						
Arizona	240	250	200	9	9	8
California	44,000	47,000	27,000	1,650	1,763	1,013
Florida 3/	79,750	75,700	67,000	3,589	3,407	3,015
Texas	1,500	1,400	1,710	64	60	73
Total	125,490	124,350	95,910	5,312	5,239	4,109
Valencia:						
Arizona	190	200	150	7	8	6
California	20,500	13,500	10,000	769	506	375
Florida	70,700	72,700	65,000	3,182	3,272	2,925
Texas	270	200	270	11	9	11
Total	91,660	86,600	75,420	3,969	3,795	3,317
All oranges	217,150	210,950	171,330	9,281	9,034	7,426
Grapefruit:						
Arizona	140	100	100	5	3	3
California	6,100	6,000	4,800	204	201	161
Florida	12,800	19,300	28,000	545	820	1,190
Texas	6,600	5,200	6,500	264	208	260
All grapefruit	25,640	30,600	39,400	1,018	1,232	1,614
Tangerines:						
Arizona	400	550	300	15	21	11
California	2,900	3,600	2,600	109	135	98
Florida	4,450	5,500	4,800	211	261	228
All tangerines	7,750	9,650	7,700	335	417	337
Lemons:						
Arizona	2,400	3,800	2,500	91	144	95
California	20,500	21,000	16,500	779	798	627
All lemons	22,900	24,800	19,000	870	942	722
Tangelos						
Florida	1,550	1,400	1,250	70	63	56
All citrus	274,990	277,400	238,680	11,574	11,688	10,155

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

2/ Net pounds per box: oranges-Arizona (AZ) and California (CA)-75, Florida (FL)-90, Texas (TX)-85; grapefruit-AZ and CA-67, FL-85, TX-80; lemons-76; tangelos and Temples-90; tangerines-AZ and CA-75, FL-95. 3/ Includes Temples

Source: *Crop Production*, various issues, National Agricultural Statistics Service, USDA.

located in microclimates where they are more protected from extreme weather conditions. Groves in these areas tended to receive less damage to their fruit. When the freeze occurred there were oranges at the packinghouses waiting to be shipped and as a result there was somewhat of a lag from the time of the freeze in January until growers started to receive higher prices for their fruit sent to packinghouses in early February. Oranges picked after the freeze remained longer in the packinghouses than usual so each batch could be tested in order to prevent freeze-damaged fruit from reaching consumers. Damage is not always apparent on the outside of the fruit; they must be sliced or otherwise examined to see if there is damage on the inside.

Table 4--Fresh oranges: Average equivalent on-tree prices received by growers, California, 2001/02-2006/07

Month	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
	---Dollars/75-lb box---					
November	17.05	11.05	12.20	13.00	13.00	9.49
December	13.85	8.25	10.00	10.40	10.60	12.39
January	12.75	5.65	8.50	9.50	9.10	12.39
February	11.51	4.26	8.55	8.95	9.11	24.69
March	10.39	6.45	10.10	9.34	9.21	
April	11.00	8.41	9.74	10.47	11.34	
May	8.86	8.65	10.04	10.63	12.70	
June	5.43	7.09	11.22	9.02	13.33	
July	5.13	5.36	9.64	7.24	12.94	
August	6.23	5.64	11.04	6.84	14.84	
September	6.33	4.94	15.44	8.14	22.04	
October	6.63	4.84	21.23	7.84	19.04	
Nov.-Feb. Average	13.79	7.30	9.81	10.46	10.45	14.74

Source: *Agricultural Prices*, various issues, National Agricultural Statistics Service, USDA.

Retail prices for fresh oranges started off strong in 2006/07, averaging \$1.20 per pound in response to the expected smaller crop and reported high quality fruit (table 5). Although orange prices fell in December, consumers were still paying more than the average for their oranges. The effects of the freeze drove retail prices back up, reaching \$1.38 per pound in February, especially as the retail market tends to respond very rapidly to reports of supply shortages. Retailers, however, must take into account consumer demand for the higher-priced oranges before the consumers forgo the oranges for other fresh options. There are many more fresh fruit available in the supermarkets now than even 15 years ago, including many imports, such as other citrus fruit like clementines, as well as Chilean summer fruit, and more varieties of tropical fruit. The retailers' actions on how high they will increase prices reverts back to growers and put pressure on prices packinghouses will pay growers for their fruit. Therefore, while grower prices rose sharply in February, they are likely to moderate somewhat throughout the remainder of the navel season. The moderated price, along with the increase in fruit sold for processing, should result in an overall decline in the value of California's orange crop this season. Growers who have good orange supplies available for the fresh market, however, should do well financially.

Florida's Orange Crop Declines for Third Straight Season

The 2006/07 orange crop (including Temples) is forecast to total 5.9 million tons, 11 percent below last season and 12 percent below 2004/05, both hurricane years. The 2006/07 crop forecast is also 46 percent lower than the realized 10.9 million ton crop in 2003/04, the last normal season before hurricane damage coupled with continued heavy losses from the spread of diseases.

Annually about 95 percent of Florida's orange crop goes to processing for juice. Due to the smaller crop this season, orange juice production is forecast by USDA's Economic Research Service (ERS) to be 929 million gallons, 6 percent below last season's already reduced production and the lowest since 1990/91, when the Florida industry was plagued by 2 consecutive years of freezing temperatures resulting in reduced crop sizes (table 6). Despite expected higher imports, orange juice

supplies are forecast to be 7 percent lower than last season and the lowest since 1992/93. The decline in production along with smaller beginning stocks relative to recent years offset the increase in imports, resulting in reduced supplies.

Table 5--Fresh oranges: Retail prices, 2001/02-2006/07

Month	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
	---\$/pound---					
November	0.87	1.00	0.97	1.08	1.17	1.20
December	0.71	0.74	0.86	0.87	0.89	0.96
January	0.72	0.71	0.79	0.84	0.84	1.09
February	0.76	0.71	0.73	0.80	0.92	1.38
March	0.71	0.73	0.73	0.78	0.89	
April	0.75	0.74	0.74	0.82	0.88	
May	0.85	0.80	0.77	0.90	0.99	
June	--	0.88	0.88	1.01	1.12	
July	0.54	0.57	--	0.91	0.93	
August	0.56	0.54	0.67	0.89	1.00	
September	0.57	0.59	0.71	0.88	1.08	
October	0.61	0.60	--	0.90	1.42	
Nov.-Feb. Average	0.76	0.79	0.84	0.90	0.95	1.16

Source: Bureau of Labor Statistics, U.S. Dept. of Labor (<http://www.bls.gov/data/home.htm>)

Table 6 --United States: Orange juice supply and utilization, 1986/87 to present

Season 1/	Beginning		Imports	Supply	Exports	Domestic consumption	Ending stocks	Per capita consumption
	stocks	Production						
-----Million sse gallons 2/-----								Gallons
1986/87	204	781	396	1,381	73	1,106	201	4.57
1987/88	201	907	296	1,404	90	1,103	212	4.52
1988/89	212	970	272	1,454	73	1,148	233	4.66
1989/90	233	652	350	1,235	90	920	225	3.70
1990/91	225	876	320	1,422	94	1,170	158	4.65
1991/92	158	930	286	1,374	107	1,096	170	4.30
1992/93	170	1,207	324	1,701	114	1,337	249	5.18
1993/94	249	1,133	405	1,787	107	1,320	360	5.04
1994/95	360	1,257	198	1,815	117	1,264	434	4.77
1995/96	434	1,271	261	1,967	119	1,431	417	5.34
1996/97	417	1,437	256	2,110	148	1,398	564	5.16
1997/98	564	1,555	281	2,400	150	1,571	679	5.73
1998/99	679	1,236	350	2,265	147	1,585	534	5.71
1999/2000	534	1,493	339	2,366	146	1,575	645	5.60
2000/01	645	1,389	258	2,292	123	1,471	698	5.18
2001/02	698	1,435	189	2,322	181	1,448	692	5.05
2002/03	692	1,251	291	2,235	103	1,427	705	4.93
2003/04	705	1,467	223	2,395	123	1,450	822	4.96
2004/05	822	976	358	2,155	119	1,426	609	4.83
2005/06	609	985	299	1,894	138	1,286	470	4.31
2006/07 f/	470	929	366	1,764	120	1,284	360	4.27

f = forecast.

1/ Season begins in October of the first year shown as of 1998/99, prior year season begins in December.

2/ SSE = single-strength equivalent. To convert to metric tons at 65 degree brix, divide by 1.40588.

Source: Prepared and calculated by the Economic Research Service, USDA.

Florida grower prices for processing oranges have been averaging considerably above normal so far this season through February (table 7). Prices averaged \$6.18 between November and February (NASS did not report an October price since harvesting began late), 30 percent above the same time last season and more than 2 and a half times greater than the 4-year average between 2001/02 and 2004/05.

Retail prices for not-from-concentrate and frozen-concentrated orange juice have climbed monthly during the first quarter of the 2006/07 season, reflecting the higher prices processors are paying growers. The higher retail prices also indicate that the orange juice processors are not doing many market promotions so far this season. This may partially be due to processors wanting to build up their inventories.

As a result of tighter supplies and higher retail prices for orange juice, ERS forecasts a decline in orange juice consumption for 2006/07. Since most orange juice is consumed at home, sales of not-from-concentrate orange juice (NFC), the most popular orange juice sold at retail are a good indicator of demand. According to Nielsen Scantrak data, NFC sales have been declining for much of the 2006/07 season at the same time that prices were rising (fig. 3). If this trend continues throughout the season, demand will continue the downward trend that has been occurring throughout the 2000s. Since 2000, orange juice per capita consumption has been declining at an annual average rate of 3 percent, dropping sharply last season by 11 percent from 2004/05. The decline in 2006/07 is expected to be more moderate, about 1 percent below last season.

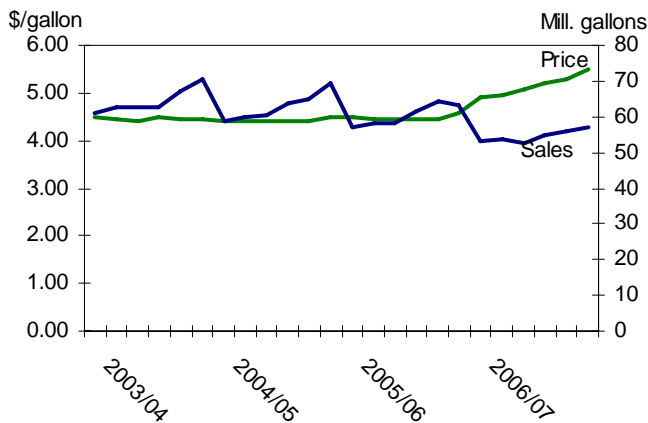
Table 7--Processing oranges: Average equivalent on-tree prices received by growers, Florida, 2001/02-2006/07

Month	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
---Dollars/90-lb box---						
October	2.35	1.68	1.13	--	0.40	--
November	2.57	2.29	1.89	2.04	2.39	3.10
December	2.68	2.37	2.03	2.32	3.30	6.35
January	2.80	2.50	2.11	2.52	4.78	7.10
February	2.87	2.58	2.18	2.71	5.06	8.15
March	4.10	3.84	3.62	3.59	5.76	
April	4.17	3.87	3.72	4.27	6.25	
May	4.22	3.85	3.71	4.37	6.90	
June	4.16	3.74	3.85	4.26	6.80	
July	--	--	--	--	5.80	
Oct.-Feb. Average	2.65	2.28	1.87	2.40	4.74	6.18

-- = Not available.

Source: *Agricultural Prices*, various issues, National Agricultural Statistics Service, USDA.

Figure 3
Orange juice retail sales, August-January 2003/04-2006/07



Source: Florida Department of Citrus, <http://www.floridajuce.com/>

Grapefruit Production Up and Grower Prices Strong

The grapefruit crop is the only citrus crop that is forecast to be larger this season than last. Bigger crops in both Florida and Texas contribute to the forecast 31-percent increase between the 2 seasons. While the 2006/07 Florida crop is 45 percent bigger than last season and 118 percent bigger than 2 seasons ago, it is still small relative to previous years. While the industry is showing some evidence of bouncing back after losing so much production during 2004/05 and 2005/06 due to hurricane and disease damage, there has been a 29-percent decline in acreage between 2004 and 2006 and future production is unlikely to reach the highs of the 1980s and 1990s. Many factors in addition to weather have contributed to the decline in Florida's grapefruit production. Diseases such as citrus canker, citrus greening, and tristeza, have increased the costs of production while at the same time reducing the amount of production. Also, domestic demand for grapefruit, both fresh and juice, has been declining, putting downward pressure on grower prices. In response to all of this, many growers have found grapefruit production to be less profitable than in the past and have been selling their land for development. Grapefruit production is heavily concentrated in the central, east coast of Florida, prime land for developers.

Texas' grapefruit crop size is forecast to be 25 percent above last season but 2 percent below 2004/05. If realized, this season's grapefruit crop will be the second largest since 2000/01. Texas grapefruit growers also have production issues other than weather, including water availability.

About 40 percent of Florida's grapefruit crop remained to be harvested by the second week of March, more than either of the past 2 seasons due to the bigger crop. While most of the white grapefruit are going to processing, about 55 percent of the red grapefruit have been sold to the fresh market. Although USDA's Animal and Plant Health Inspection Service banned Florida's fresh citrus shipments to 10 other States and U.S. territories that produce citrus, to try and prevent the spread of citrus canker to areas where it presently does not exist, the impact on Florida's fresh-market grapefruit sales is likely limited because the greatest demand comes from the major metropolitan areas along the East Coast and the Midwest.

Texas fresh-market shipments have been below average, according to industry sources, with more grapefruit going to processing this season compared to the past seven-year average. The increase in crop share going to processing can have a negative effect on grower returns.

Fresh market grapefruit prices, while averaging below the past 2 seasons, are stronger than any other time since the early 1990s, when freezes reduced crop sizes. Prices started out very high at the beginning of the season (table 8). The high price in October reflected the ending of the California season. Florida grapefruit were late to mature, contributing to strong prices in November. By December, the Florida harvest was fully underway and with the forecast for a bigger crop this season, prices declined. The reported excellent quality of this year’s crop has helped keep prices above pre-hurricane seasons.

Fresh grapefruit exports have been strong so far this season, September through January, equaling pre-hurricanes quantities. Although shipments to the top markets, Japan, Canada, France, and the Netherlands, have increased this season compared with the past two seasons, they are below normal crop seasons. Strong demand, however, has emerged from South Korea and New Zealand. The formerly small market, are ranked No. 2 and No. 6., so far this season. In general, exports to Europe, although better than the past two seasons are not as strong as they were throughout the 1990s and early 2000s.

Grapefruit juice production is forecast by ERS to increase over the past 2 hurricane-damaged seasons, but to decline about 35 percent from 2003/04 (table 9). The smaller crop this season compared to 2003/04 explains most of the decline. Because of the high quality of this season’s fruit, a larger share of the crop is forecast to go to the fresh market than in recent years, both domestically and internationally, reducing the quantity of fruit available for processing. After two consecutive small crops, processors’ inventories are lower than average and they will be purchasing fruit to create a more comfortable stock level which will help maintain processing grapefruit prices throughout the season. Although consumption for frozen concentrated grapefruit juice is running ahead of last season from October through January, slower movement in not-from-concentrate so far puts the estimate for consumption at the same quantity as of 2005/06.

Table 8--Fresh grapefruit: Average equivalent on-tree prices received by growers, 2002/03-2006/07

Month	2002/03	2003/04	2004/05	2005/06	2006/07
	-----Dollars per 80-lb box-----				
October	7.50	9.72	16.05	16.20	18.07
November	5.70	6.86	19.93	13.99	14.00
December	5.01	6.26	18.87	13.84	11.37
January	5.05	6.14	19.41	15.01	10.04
February	5.10	6.52	18.93	14.01	7.83
March	5.18	7.46	18.32	12.76	
April	6.04	6.75	18.91	12.15	
May	10.13	7.54	17.78	15.13	
Oct.-Feb. Average	5.67	7.10	18.64	14.61	12.26

Source: *Agricultural Prices*, various issues, National Agricultural Statistics Service, USDA.

Table 9--Grapefruit juice: Supply and utilization 1991/92-2006/07

Year 1/	Supply				Utilization			
	Production	Imports 2/	Beginning stocks	Total	Ending stocks	Exports 3/	Consumption	
	Million SSE gallons 1/-----				-----			
							Total	Per capita
								Gallons
1991/92	120	4	42	165	39	23	104	0.40
1992/93	186	2	39	227	70	22	134	0.52
1993/94	169	1	70	240	59	17	163	0.62
1994/95	191	1	59	251	72	22	157	0.59
1995/96	171	1	72	244	66	27	151	0.56
1996/97	192	0	66	258	86	21	151	0.55
1997/98	166	0	86	252	68	18	167	0.60
1998/99	171	1	68	240	54	24	161	0.58
1999/2000	203	5	54	263	82	33	148	0.52
2000/01	183	1	82	266	75	39	152	0.53
2001/02	179	0	75	255	84	36	135	0.47
2002/03	140	0	84	224	72	38	114	0.39
2003/04	147	0	72	219	65	42	111	0.38
2004/05	49	11	65	126	35	24	67	0.22
2005/06	80	6	35	121	42	17	62	0.21
2006/07 f/	96	1	42	139	58	18	63	0.21

f = forecast. 1/single-strength equivalent.

Source: Prepared by the Economic Research Service, USDA.

Lemon Crop Smallest in 17 Years

The 2006/07 lemon crop is forecast to total 722,000 tons, 23 percent lower than last season and 18 percent lower than the January forecast of 885,000 tons. If realized, the new crop will be the smallest since 1990/01.

The 2006/07 crop was already forecast to be smaller than last season before the January freeze damaged groves throughout California. The severest damage occurred to those trees in the Central Valley. While initially, freeze damage was thought to be extensive in Ventura County, the major production region, damage was more limited there. Most of Arizona's lemons had been harvested by the time the freeze occurred.

Lemon prices have been averaging above normal throughout most of the 2006/07 season. Prices started out high in August with the expectation of a smaller crop (table 10). While still higher than usual, prices began to decline November through January as harvesting got underway in the Central Valley. Following the freeze, lemon supplies became tight as the industry was careful to check the fruit being picked to ensure quality. According to shipment data from USDA's Agricultural Marketing Service, California lemon shipments slowed down from mid-January through mid-February, before picking up again beginning the last week of February. The supply shortage during February is reflected by the price spiking to \$37.29 per box. As lemon supplies begin to move again, prices are likely to drop. Summer prices will likely be above average when demand for lemons reaches its seasonal peak.

Fresh lemon imports rose 7 percent during August 2006 through January 2007 over the same time last season. Most of the imports entered the United States at the beginning of the season when demand is around its peak during the warmer weather

Table 10--Fresh lemons: Average equivalent on-tree prices received by growers, 2002/03-2006/07

Month	2002/03	2003/04	2004/05	2005/06	2006/07
	--Dollars per 76-lb box--				
August	25.36	17.70	20.31	15.72	27.01
September	24.92	13.87	19.73	13.42	31.34
October	22.21	10.96	17.87	12.07	34.04
November	17.78	10.23	16.39	12.35	26.52
December	12.74	8.98	16.53	12.32	18.20
January	9.86	8.17	16.33	10.97	16.21
February	5.56	9.72	15.40	13.45	37.29
March	5.51	13.80	15.00	16.00	
April	12.04	16.40	17.71	23.82	
May	16.36	17.10	26.71	28.02	
June	18.26	19.50	21.31	27.62	
July	18.66	21.00	20.51	26.22	
Aug.-Feb. Average	16.92	11.38	17.51	17.67	27.23

Source: *Agricultural Prices*, various issues, National Agricultural Statistics Service, USDA.

months. Imports have remained well above most recent years from November through January in response to the smaller crops forecast for both Arizona and California (the effects of the freeze on import demand would not be shown in the data during this period). Almost all the imports during this period came from Mexico, a relatively new source of fresh lemons for the U.S. market.

Despite this season's smaller lemon crop, exports were at their highest since 2003/04 from August through January. Reports of very good quality lemons at the beginning of the season provided both strong demand and good supplies of export-quality fruit. Japan and Canada remained the No. 1 and No. 2 markets through this period. Although shipments were down slightly to these markets, they doubled to the new No. 3 market Australia, helping drive up exports above last season. Strong Australian demand for U.S. lemons this season was in response to a severe frost during its citrus-harvesting season and drought, reducing Australia's domestic supply.

Specialty Citrus Supply Down From 2005/06

The 2006/07 specialty citrus crop—all varieties of tangerines and tangelos, is forecast to total 393,000 tons—337,000 tons of tangerines and 56,000 tons of tangelos. If realized, there will be 80,000 tons fewer tangerines and 7,000 tons fewer Florida tangelos available for fresh and processing uses this season (California tangelo production is included in its tangerine data). While the forecast would put tangelo production at its lowest in 3 years, tangerine production would be slightly higher than in 2004/05. Florida's crop, which accounts for two-thirds of the total U.S. tangerine crop is forecast down 13 percent from last season. California's crop is forecast down 27 percent. Arizona's production is very small relative to the other two States; its production is forecast to be down 48 percent.

Florida's tangerine acreage has been declining in recent years, not only due to weather and pest problems, but also in response to changes in consumer preferences. In the early 1990s, most tangerines were of the Dancy, Fallglo, and Sunburst varieties. These varieties are the first to be harvested in Florida. The fruit,

however, have tighter skins which are not as easy to peel and have more seeds than other tangerine varieties. Since the influx of clementines from Spain into the U.S. market, consumers have shown a preference for the easy peel, seedless fruit and reduced their demand for Florida's early varieties. As a result, new plantings of the early varieties have been declining in recent years. Florida's later tangerine variety, the Honey tangerine, is still popular and the industry continues to replant acreage although not at the same rate as the early to mid-1990s.

California's citrus growers have been increasing their plantings of several different varieties of tangerines. The dry climate in California provides ideal conditions for growing clementines as well as other mandarin varieties which meet consumer preferences for easy peel, seedless fruit. By mid-2006, there were more nonbearing acres of all tangerines than those bearing fruit for commercial use. In the near future, the number of bearing acres will increase and California will likely become the major tangerine producer in the United States. At the same time, demand for imports from Spain and other clementine-producing countries will likely decline.

While most of California's tangerines were harvested by the time of the January freeze, there were still fruit remaining on the trees. More than half of the bearing acreage is in Kern and Tulare Counties, both of which experienced severe damage from the freeze. While there was likely freeze damage to the fruit remaining to be harvested, the trees may also sustain damage and next season's crop may also be reduced.

Fresh tangerine prices have averaged \$16.39 per box, with a low of \$5.50 per box in October when mostly Fallglo and Sunburst tangerines were in the market (table 11). This season the Fallglo were reported to be smaller than usual, which tends to put downward pressure on prices. Once there were more Sunburst from Florida and clementines from California, prices rose, peaking at \$20.43 in January.

Clementine imports began to be reported as a separate tariff code for the first time in 2007. Prior to that, the data were included with other mandarins. Since there are no previous years with which to compare the clementine data, it is difficult to accurately state that imports have risen. However, when grouped with mandarins, imports are up this season October 2006 through January 2007 over the same period last season. Spain, the major supplier to the United States had a good crop this season. Increased Spanish supplies, along with reduced U.S. production increased domestic demand for the imports.

U.S. Winter Strawberry Supplies Fall Behind A Year Ago, Prices Strong

The early 2007 winter strawberry season supplies in the United States were off to a good start in November and December, with early crop shipments from Florida running well ahead of last season. NASS forecast strawberry harvested acreage in Florida for 2007 to increase 3 percent from the previous season, at 7,500 acres. Florida growers started transplanting in late September 2006 and were finished planting by the end of October. Cooler temperatures around then and through November 2006 boosted the quality of the State's 2007 winter strawberry crop.

Table 11--Fresh tangerines: Average equivalent on-tree prices received by growers, United States, 2002/03-2006/07

Month	2002/03	2003/04	2004/05	2005/06	2006/07
--Dollars per box 1/--					
October	11.37	9.93	15.90	20.12	5.50
November	14.89	11.94	16.46	19.78	19.33
December	14.36	12.64	16.40	17.18	17.63
January	15.31	14.87	17.12	15.85	20.43
February	11.67	10.39	15.82	13.79	19.07
March	12.08	11.17	16.15	11.78	
April	13.05	14.82	19.79	11.25	
May	14.97	7.60	16.00	8.57	
Oct.-Feb. Average	13.52	11.95	16.34	14.79	16.39

1/ The net weight of a tangerine box for Florida: 95 pounds, for California: 75 pounds.

Source: *Agricultural Prices*, various issues, National Agricultural Statistics Service, USDA.

Florida usually dominates the market for much of the winter when California's marketing season is winding down at the end of the year and just getting started in the months of January and February. Florida shipments typically run from November through April, with peak shipments around February and March. This season's shipments from Florida through the first full week in December were up 63 percent from the same time last season, but due to strong demand strawberry prices have remained relatively unchanged from last season. Central Florida free-on-board (f.o.b.) shipping point prices as of mid-December ranged from \$24.90 to \$26.90 per flat of 12 (1-pint) baskets, medium to large berries, the same as the previous year. These prices were higher than at the start of the season, likely due to overall low volume in the U.S. market as supplies in California were winding down and were relatively lower than the previous season since November.

Though Florida f.o.b. prices have already declined seasonally by the end of December and into January, the market remained strong for Florida strawberries due to continued robust demand, especially after a mid-January freeze in California temporarily curtailed supplies from that region during a typical low period in California's production. Around that time there were plenty of supplies from Florida due to the warmer-than-normal weather in late December that has hastened berry maturity. Florida's 2007 winter strawberry crop also experienced freezing temperatures the week of January 28 through February 4 and during the second week of February, slowing shipments well into February. Although there were no reports of major damage to the strawberry crop, thanks in part to the use of overhead sprinklers for freeze protection, wet weather around the time of the freeze reduced both the quality and quantity of mature berries available for the fresh market. Shipment volumes, however, were expected to improve as the immature berries ripened.

Based on shipment data from USDA's Agricultural Marketing Service (AMS), fresh strawberry supplies in Florida were down by as much as 12 percent to 41 percent from the same time last year on a weekly basis in late January and through most of February. For the same period, Central Florida f.o.b. prices for strawberries mostly ranged from \$14.90 to \$16.90 per flat (12 (1-pint) baskets), compared with

\$8.90 to \$12.90 per flat the same period last year. Although prices through mid-March have already weakened to \$7.90 to \$8.90 per flat, the prices remain above last year's. The market will remain strong for Florida strawberries as long as supplies out of California remain sluggish.

California accounts for about 88 percent of U.S. strawberry production each year, supplying the market on a year-round basis. The shipping season for California starts off with the growing districts in the southern portion of the State (Oxnard, Orange County/San Diego) shipping during the winter months and through the spring. Production then moves northward, with the heaviest shipments usually from April through June.

Prior to the mid-January freeze in California this year, NASS had forecast the State's strawberry harvested area to reach 37,000 acres, up 3 percent from a year ago. The freeze hit a broad area of California, resulting in major damage to the State's citrus crop as well as damage to other crops like avocados and strawberries. Reports of frost damage to the strawberry crop were mostly from the production areas in the southern portion of the State that are always the first to enter the market, although some northern growing areas were also affected. Some growers lost a big portion of the berries that were already on the plant and some also lost blossoms that would have made the next set of fruit. Some growers, however, were able to minimize their losses by applying irrigation or using wind machines to shield the plants from the frigid temperatures.

Based on estimates from the County Agricultural Commissioners, the losses to California's strawberry production due to the freeze were valued at \$41.6 million, about 3 percent of the State's strawberry crop value each year. More than 60 percent of these losses were incurred by growers in Ventura County. Nine other counties reported strawberry losses, including San Diego, San Luis Obispo, Santa Barbara, Orange, Los Angeles, San Bernardino, Sutter, Riverside, and Yuba.

AMS data show California strawberry shipments during the first 2 weeks in January up 43 percent from the same time last year. In the Oxnard growing district, f.o.b. shipping point prices ranged from \$10.90 to \$12.90 per flat of 12 (1-pint) baskets of medium-to-large berries during that period. On the week of January 14-20, following the freeze, shipments fell 72 percent from the previous week and were also down sharply from the same period the year before. F.o.b. prices quoted in the Orange-San Diego Counties and Coachella and Oxnard growing districts that week rose to \$18.90 to \$20.90 per flat and continued to strengthen through much of February. Prices also were higher relative to the same time last year. Weekly shipments from California have continued to lag the previous year through early March while imports from Mexico continued to surpass volumes shipped the same time last year. Although f.o.b. prices have declined slightly from the highs recorded around mid-February, prices have held strong relative to last year. The California strawberry industry feels optimistic that the temporary cutback in their production will, under good weather conditions, soon turn around. Strawberry plants continue to bear fruit throughout the year and therefore, after removing the damaged berries, the plants are expected to continue to yield more fruit. Severely damaged plants may be stripped and replaced.

National-level grower prices for fresh-market strawberries rose from an average of \$1.32 per pound in January and to \$1.72 per pound in February, 72 percent higher

than the same time last year and the highest ever recorded February average. At the retail level, prices also strengthened to a record high for the month of February. U.S. consumers paid an average of \$2.61 per 12-ounce pint of fresh strawberries, 32 percent higher than the same time last year. When production in California returns to more normal levels, the market will likely soften especially as supplies enter the heavy shipping period going into the spring and early summer months.

California Avocado Production Much Smaller in 2006/07

The mid-January freeze in California also caused damage to the State's 2006/07 avocado crop, with a crop value loss totaling \$132.1 million, according to the County Agricultural Commissioners' estimates. This crop loss value comes to about 40 percent of the average value of the crop, which during 2003/04-2005/06 was estimated at \$331.8 million. The total freeze damage loss to the avocado crop broken down according to the counties that were affected were as follows: Ventura (\$66.5 million), San Diego (\$37.7 million), Riverside (\$14.6 million), San Luis Obispo (\$11.5 million), San Bernardino (\$878,900), Monterey (\$384,776), Orange (\$363,000), and Los Angeles (\$90,200).

Prior to the freeze, the California Avocado Commission—the marketing and promotional arm of the State's avocado industry—had already projected California's 2006/07 avocado crop to be down over 30 percent from the large production in 2005/06, mainly due to the alternate bearing nature of the avocado trees. This projection has been pushed down further to about a 51-percent decline in the aftermath of the freeze, and when applied to NASS production data for 2005/06 (at 300,000 short tons), the Economic Research Service estimates that California's avocado production could reach 147,000 short tons in 2006/07, slightly below average.

NASS data show that 1992/93, 2000/01, 2001/02, 2003/04, and 2005/06 were large crop years for California avocados, with production reaching over 200,000 short tons. Excluding these large crop years, California's production since the 1990s averaged about 154,000 short tons. Most of the damage inflicted on the avocado crop by the January freeze was on the fruit that were already on the trees but there were also reports of some damage to blooms that would have provided the fruit set for the following crop season (2007/08). At present, it is still too early to determine how much negative impact the freeze will have on next season's production.

California avocado shipments were running well ahead of 2005/06 shipments at the beginning of the 2006/07 season this past November, but shipments had since diminished to below the previous season even prior to the freeze, according to shipment data from AMS. California shipments in January through early March remained well below the previous year as a result of the freeze, but increased imports, mainly from Chile and Mexico, have moderated avocado price increases in the United States.

Larger avocado crops in both Mexico and Chile during 2006/07 have made it all the more possible for these two countries to ship much larger volumes to the United States thus far this year. U.S. Census Bureau trade data show that imported avocados from Chile and Mexico in January were up 477 percent and up 30 percent, respectively, from the same time last year. Combined imports from these two

countries accounted for over 90 percent of total avocado imports in January which was more than double the volume imported in January 2006. AMS data also show that fresh Chilean and Mexican avocado shipments to the United States were higher than a year ago every week in February through early March. Increased imports will likely continue to offset some of the anticipated losses in domestic production through the remainder of the season. Imports will also likely help alleviate supply shortfalls in high consumption regions, especially as Mexican avocados have gained complete access to all 50 U.S. States with the opening of the remaining three markets—California, Florida, and Hawaii—in February.

Meanwhile, U.S. export prospects for fresh avocados during 2006/07 will likely be limited by the much smaller production this season. January exports totaled 237,000 pounds, down 8 percent from the same time last year. Most of the shipments went to Canada, boosting exports to that country. However, there were yet no reported shipments to Japan, South Korea, and the United Kingdom in January. These three markets accounted for almost three-quarters of the total U.S. fresh avocado export volume in January 2006.

Value of 2006 U.S. Fruit and Tree Nut Crop Up From Previous 2 Years

NASS reported the 2006 value of fruit and tree nut production at \$16.6 billion, up nearly 2 percent from 2005 and 14 percent from 2004 (table 12). Thirty-one out of 43 fruit and tree nut-producing States had reported an increase in crop value, including most of the top 10 producing States in 2006. However, among the major producers, the crop value declined in the No. 1-producing State, California (down 6 percent from the previous year), as well as the eighth and tenth largest producers, Georgia (down 4 percent) and Texas (down 33 percent). California's 2006 fruit and tree nut production was valued at \$10.1 billion, accounting for 61 percent of the U.S. total. Georgia and Texas together accounted for almost 2 percent of the total.

Ranking second-largest producer, Washington's fruit and tree nut crop value totaled \$1.98 billion in 2006, or about 12 percent of the total. The higher apple prices received by Washington apple growers largely contributed to the 12-percent increase in the State's total fruit and tree nut crop value in 2006. Apples are the No. 1 fruit crop in Washington, accounting for about 60 percent of the State's total fruit and tree nut crop value. Significantly higher grower prices for grapes and pears as a result of reduced production also contributed to the boost in Washington's total crop value in 2006.

Florida growers received the third-largest returns for their fruit and tree nut production, valued at \$1.8 billion in 2006. Relative to the previous year, this value was up 28 percent. Citrus fruit production contributes for the most part to the total crop value in the State, generating approximately over 80 percent of the total. Sharply higher grower prices for Florida oranges in 2006 (the 2005/06 season) and a 50-percent increase in grapefruit production drove the State's overall citrus crop value higher than the previous year. The higher orange prices more than offset the small decline in orange production, increasing the State's orange crop value by 37 percent. Meanwhile, although grapefruit production remained below average in 2006, the big increase more than made up for the lower prices received by Florida's grapefruit growers, increasing the value of grapefruit production in the State.

Table 12--Value of fruit and tree nut crops, by State, 2004-06

State	Crop value			Share of U.S. value			Percent change 2005-06	State ranking
	2004	2005	2006	2004	2005	2006		
	-----1,000 dollars-----			-----Percent-----				
Alabama	8,603	12,935	14,401	0.1	0.1	0.1	11.3	29
Arizona	74,206	79,147	76,454	0.5	0.5	0.5	-3.4	16
Arkansas	9,318	11,363	10,064	0.1	0.1	0.1	-11.4	34
California	9,172,662	10,668,678	10,073,036	63.0	65.4	60.7	-5.6	1
Colorado	16,944	17,706	23,135	0.1	0.1	0.1	30.7	24
Connecticut	9,390	9,002	10,353	0.1	0.1	0.1	15.0	31
Florida	1,738,843	1,384,703	1,775,274	11.9	8.5	10.7	28.2	3
Georgia	141,311	168,896	161,622	1.0	1.0	1.0	-4.3	8
Hawaii	146,427	145,098	135,093	1.0	0.9	0.8	-6.9	11
Idaho	22,576	25,499	24,907	0.2	0.2	0.2	-2.3	22
Illinois	19,497	28,100	28,104	0.1	0.2	0.2	0.0	21
Indiana	17,612	16,045	18,157	0.1	0.1	0.1	13.2	27
Iowa	2,235	861	3,086	1/	1/	1/	258.4	40
Kansas	3,757	4,160	2,740	1/	1/	1/	-34.1	41
Kentucky	3,541	2,278	3,636	1/	1/	1/	59.6	39
Louisiana	10,811	6,875	18,902	0.1	1/	0.1	174.9	26
Maine	34,710	49,330	69,290	0.2	0.3	0.4	40.5	17
Maryland	6,775	9,744	10,559	1/	0.1	0.1	8.4	30
Massachusetts	74,537	62,813	87,514	0.5	0.4	0.5	39.3	14
Michigan	282,894	278,759	359,106	1.9	1.7	2.2	28.8	5
Minnesota	9,307	8,563	9,228	0.1	0.1	0.1	7.8	36
Mississippi	1,150	1,760	9,190	1/	1/	0.1	422.2	37
Missouri	13,835	19,797	21,221	0.1	0.1	0.1	7.2	25
Montana	4,473	4,165	1,071	1/	1/	1/	-74.3	42
New Hampshire	8,420	6,045	9,300	0.1	1/	0.1	53.8	35
New Jersey	86,843	118,240	150,409	0.6	0.7	0.9	27.2	9
New Mexico	89,965	110,500	85,100	0.6	0.7	0.5	-23.0	15
New York	253,627	223,139	328,531	1.7	1.4	2.0	47.2	6
North Carolina	71,986	79,769	98,473	0.5	0.5	0.6	23.4	13
Ohio	36,897	39,028	44,054	0.3	0.2	0.3	12.9	18
Oklahoma	41,360	31,279	23,170	0.3	0.2	0.1	-25.9	23
Oregon	349,369	348,364	393,609	2.4	2.1	2.4	13.0	4
Pennsylvania	92,468	102,540	110,359	0.6	0.6	0.7	7.6	12
Rhode Island	1,008	734	824	1/	1/	1/	12.3	43
South Carolina	32,806	34,280	40,445	0.2	0.2	0.2	18.0	20
Tennessee	4,691	4,316	4,994	1/	1/	1/	15.7	38
Texas	119,464	209,206	140,365	0.8	1.3	0.8	-32.9	10
Utah	18,392	17,939	15,833	0.1	0.1	0.1	-11.7	28
Vermont	8,550	8,970	10,295	0.1	0.1	0.1	14.8	32
Virginia	51,550	41,197	42,036	0.4	0.3	0.3	2.0	19
Washington	1,324,919	1,750,324	1,980,216	9.1	10.7	11.9	13.1	2
West Virginia	10,022	10,847	10,250	0.1	0.1	0.1	-5.5	33
Wisconsin	135,092	152,761	168,603	0.9	0.9	1.0	10.4	7
United States	14,562,843	16,305,755	16,603,009	100.0	100.0	100.0	1.8	

1/ Less than 0.05 percent.

Source: "Crop Values 2006 Summary", National Agricultural Statistics Service, USDA.

The U.S. citrus fruit crop value in 2006 increased 16 percent from the previous year. Most citrus crops generated larger returns in 2006, except for grapefruit (table 13). Lower grapefruit crop values in California and Texas reduced the overall value of U.S. grapefruit production in 2006. Lemons, on the other hand, had the highest increase in crop value, up 28 percent from 2005. Orange production accounted for over 65 percent of the total citrus crop value in 2006. Estimated at \$1.8 billion, the value of U.S. orange production rose 11 percent from the previous year.

Most noncitrus fruit crops generated larger returns in 2006. The largest increases in crop value were for California dried prunes, wild and cultivated blueberries, apples, and California raspberries. Although all these fruit crops had larger production in 2006, their prices held strong (except for prunes and plums, specifically in Idaho, Oregon, and Washington; prices in Michigan also held strong), driving up grower returns. These crops, excluding apples and cultivated blueberries which are considered among the major fruit crops in the United States, accounted for only 3 percent of the total value of U.S. fruit and tree nut production. Apple production accounted for 13 percent and cultivated blueberries accounted for 3 percent.

Valued at \$3.2 billion, grapes continued to be the highest valued fruit and tree nut crop in the United States in 2006, accounting for 19 percent of the total. The 2006 U.S. grape crop value, however, declined 9 percent from the previous year as production declines in most grape-producing States, including California, more than offset increases in grower prices, particularly for processing grapes, lowering the overall grape crop value. Processing grapes account for over 85 percent of all of the grapes produced in the United States. Although the production decline in the fresh market was greater than for processing, the fresh-market average grower price gain in 2006 was large enough to drive the value of fresh-market grape production up that year.

The California almond crop generated the second-highest production value in 2006, at \$2.2 billion. After two consecutive years of declining production, a bigger almond crop in 2006 drove almond grower prices down by a significant magnitude that was enough to offset the increase in crop size, reducing the almond crop value that year.

Apples, oranges, and strawberries complete the top five highest-value fruit and tree nut crops in the United States in 2006. Together these three crops accounted for about one-third of the total crop value. The 2006 apple crop value rose 25 percent from the previous year, and those for the orange and strawberry crops rose 20 percent and 9 percent, respectively. Although total production of apples and strawberries increased, their grower prices rose as well, boosting their respective total crop values in 2006. Meanwhile, sharply higher grower prices, particularly for processing oranges, more than offset the decline in production, increasing the orange crop value in 2006.

Along with almonds, which are the most dominant tree nut crop in the United States, most other tree nut crops also reported decreases in crop value in 2006, including hazelnuts, macadamia nuts, pecans, and pistachios. Declines for hazelnuts and macadamia nuts were primarily driven by lower grower prices, whereas for pecans the decline in value was more a function of a 32-percent decline in production. As for pistachios, both production and grower prices were reduced in 2006.

Table 13--Value of fruit and tree nut crops, by commodity, 2004-06

Commodity	Crop value			Share of total value			Percent
	2004	2005	2006	2004	2005	2006	change
	-----1,000 dollars-----			----- Percent -----			Percent
Grapefruit	307,811	383,041	368,175	2.1	2.3	2.2	-3.9
Lemons	275,620	306,434	391,959	1.9	1.9	2.4	27.9
Oranges	1,774,453	1,475,381	1,766,308	12.2	9.0	10.6	19.7
Tangelos (FL)	10,021	8,004	11,431	0.1	1/	0.1	42.8
Tangerines	112,232	127,251	137,666	0.8	0.8	0.8	8.2
Temples (FL)	4,915	3,314	4,034	1/	1/	1/	21.7
Apples	1,403,001	1,680,747	2,099,129	9.6	10.3	12.6	24.9
Apricots	35,012	39,880	29,580	0.2	0.2	0.2	-25.8
Avocados	291,244	350,808	--	2.0	2.2	--	--
Bananas (HI)	8,085	9,175	8,330	0.1	0.1	0.1	-9.2
Blackberries (OR)	34,057	36,867	35,380	0.2	0.2	0.2	-4.0
Cultivated blueberries	275,963	342,311	497,702	1.9	2.1	3.0	45.4
Wild blueberries (ME)	20,970	39,430	60,020	0.1	0.2	0.4	52.2
Boysenberries	7,168	7,158	7,128	1/	1/	1/	-0.4
Sweet cherries	437,133	484,348	487,482	3.0	3.0	2.9	0.6
Tart cherries	69,941	63,936	53,453	0.5	0.4	0.3	-16.4
Cranberries	202,670	215,266	251,457	1.4	1.3	1.5	16.8
Dates (CA)	22,532	27,768	27,880	0.2	0.2	0.2	0.4
Figs (CA)	20,214	25,256	--	0.1	0.2	--	--
Grapes	3,009,945	3,489,115	3,162,007	20.7	21.4	19.0	-9.4
Guavas (HI)	1,166	1,126	--	1/	1/	--	--
Kiwifruit (CA)	19,977	22,461	--	0.1	0.1	--	--
Loganberries (OR)	131	188	100	1/	1/	1/	-46.8
Nectarines	86,184	126,942	124,200	0.6	0.8	0.7	-2.2
Olives (CA)	60,643	80,097	18,174	0.4	0.5	0.1	-77.3
Papayas (HI)	12,361	11,241	11,067	0.1	0.1	0.1	-1.5
Peaches	461,624	511,520	513,438	3.2	3.1	3.1	0.4
Pears	292,969	293,863	324,885	2.0	1.8	2.0	10.6
Pineapples (HI)	83,104	79,288	75,542	0.6	0.5	0.5	-4.7
Plums (CA)	74,347	92,463	110,217	0.5	0.6	0.7	19.2
Dried prunes (CA)	72,000	138,180	240,784	0.5	0.8	1.5	74.3
Prunes and plums (4 Sta ¹)	6,802	5,085	8,763	1/	1/	0.1	72.3
Black raspberries (OR)	5,357	10,418	9,780	1/	0.1	0.1	-6.1
Red raspberries	51,723	45,184	25,346	0.4	0.3	0.2	-43.9
Raspberries (CA)	188,100	200,592	249,615	1.3	1.2	1.5	24.4
Strawberries	1,295,464	1,395,724	1,514,998	8.9	8.6	9.1	8.5
Tree nuts							
Almonds	2,189,005	2,525,909	2,198,215	15.0	15.5	13.2	-13.0
Hazelnuts	54,000	61,824	45,100	0.4	0.4	0.3	-27.1
Macadamia nuts	41,245	43,740	38,500	0.3	0.3	0.2	-12.0
Pecans	326,924	406,920	301,242	2.2	2.5	1.8	-26.0
Pistachios	464,980	580,150	456,960	3.2	3.6	2.8	-21.2
Walnuts	451,750	557,350	--	3.1	3.4	--	--
Totals 2/	14,562,843	16,305,755	16,603,009	100.0	100.0	100.0	1.8

-- Data not available until July 2007.

1/ Less than 0.05 percent.

3/ Includes estimated value of production for avocados, figs, guavas, kiwifruit, and walnuts.

Source: "Crop Values 2006 Summary", National Agricultural Statistics Service, USDA.

Almond Production Hits Record Size in 2006

The 2006 almond crop reached 1.095 million pounds (shelled basis), 20 percent bigger than in 2005 and slightly larger than the last record crop in 2002. Almond acreage remained unchanged from last year, but yields were higher, accounting for the increase in crop size. Even though it was a record crop, grower prices stayed strong, ranking as the fourth-highest in history, only exceeded by prices the past 2 seasons and in 1995 and 1996. As a result of the big crop and strong prices, the value of the 2006 crop totaled \$2.2 billion, down 13 percent from the previous year but the second-highest on record.

The high grower price was reflected in the high wholesale prices for almonds. F.o.b. prices for nonpareil supreme almonds ranged from between \$2.80 to \$2.90 per pound in November and December 2006, below last year's very high prices, but 10-to-20 cents more a pound than in 2004 (table 14).

Almond production for 2007 has just gotten underway. Trees bloomed late February through mid-March. The industry reported there were sufficient bees and good weather conditions for pollination, which point to the likelihood of another good crop next season barring any adverse weather conditions during the next few months. Almond production is the crop most reliant on bees for pollination. Unlike most other nut trees, the almond trees do not self-pollinate and they require bees to carry pollen between varieties. Also, there are more acres of almond trees than any other single fruit or tree nut crop, except grapes, and so the industry has a very strong demand for large quantities of bees during tree bloom. In recent months, the bee industry has been witnessing the loss of hives from a disorder called Colony Collapse Disorder (CCD). CCD has become a growing concern to beekeepers on the East Coast and is being observed on the West Coast as well. The concern for the almond industry in the future is whether they will have sufficient numbers of bees during the trees' bloom to provide optimal pollination and therefore maintain high levels of production.

Walnut Crop Down 1 Percent During Its "Off Cycle"

Walnut production totaled 350,000 tons (inshell basis) in 2006, 1 percent down from 2005. In the past when the walnut trees were on the "off cycle" of their alternate bearing pattern, the differences in crop size would be much larger. In 2006, however, yields were 1.63 tons per acre compared with 1.65 tons in 2005, explaining the slight decline. Walnut acreage remained stable in 2006 at 215,000, the second-largest number of tree-nut-bearing acres after almonds. The grower price and crop value for the 2006 walnut crop will not be available until July 6, 2007.

Walnut shipments have been down 3 percent from August 2006-February 2007, according to data from the California Walnut Commission, compared with the same time last season. Increased shipments of shelled walnuts to both the domestic and international markets were not sufficient to offset the decline of inshell shipments. Inshell shipments have been running below last season so far to the three major markets for U.S. walnuts—Spain, Italy, and Germany.

Table 14--Free-on-board tree nut prices, 2004-2006

Month	Almonds			Pecans		
	Nonpareil supreme			Fancy halves		
	2004	2005	2006	2004	2005	2006
-----Dollars per pound-----						
January	2.30	--	3.45-3.60	3.75	--	5.65
February	2.30	2.75-3.50	2.55-2.65	3.95	--	5.65
March	--	3.80-3.90	2.70-2.75	3.95	--	5.65
April	--	--	2.70-2.75	3.95	--	5.65
May	--	3.95-4.50	2.70-2.75	3.95	5.80	5.65
June	2.45	4.25	--	3.95	5.80	--
July	2.45	4.25	--	--	5.80	--
August	2.30-2.35	4.15	--	4.35-4.50	5.75	--
September	--	4.15	--	5.00	5.75	--
October	2.70	4.05-4.10	--	5.00	5.70	--
November	2.70	4.05-4.10	2.80-2.90	--	5.65	--
December	2.70	4.05-4.10	2.80-2.90	--	5.65	--
-----Dollars per pound-----						
	Walnuts			Pistachios		
	Light halves and pieces			U.S. No. 1 21/25 Ct.		
	2004	2005	2006	2004	2005	2006
-----Dollars per pound-----						
January	2.05-2.15	--	2.65	1.85-1.90	--	2.75-3.00
February	1.95-2.05	2.75	2.65	2.40	--	2.75-3.00
March	1.95-2.05	--	2.65	2.40	--	2.65
April	1.95-2.05	2.75	2.65	2.40	3.00-3.15	2.40-2.60
May	1.95-2.05	--	2.65	2.40	3.00-3.15	2.60-2.65
June	1.95-2.05	2.85	--	2.40	3.00-3.15	2.60-2.65
July	1.95-2.05	2.90	--	2.40	3.00-3.15	2.60-2.70
August	1.95-2.05	--	--	2.10	3.00-3.15	2.70-2.75
September	2.20-2.25	--	--	2.60	3.00-3.15	--
October	2.20-2.25	2.65	--	--	3.00-3.05	2.50-2.60
November	2.15-2.20	2.65	--	--	2.95-3.00	2.50-2.60
December	--	2.65	--	--	2.85-2.95	2.50-2.60

-- = Not available.

Source: Price data provided by Food Institute Report, January 15, 2007.

Pistachio Production Down After 2 Big Crop Years

The 2006 pistachio crop totaled 238,000 tons (inshell basis), down 16 percent from last year and 31 percent from 2004. Pistachio trees usually produce alternate-bearing crops and last season should have been an off-cycle, with a much smaller crop than was produced. Trees in the southern part of the Central Valley, however, produced a second big crop, while those in Madera went into the predicted off-

cycle. The bigger than expected crop in the southern part of the Valley resulted in a second consecutive big crop. In 2006, Madera, which accounts for about 20 percent of the bearing acres, produced a big crop as expected since it was on the on-year of the cycle while the southern valley produced a smaller crop. As a result, production declined. In 2007, the industry expects a big crop since the pistachio trees in the southern part of the valley are expected to be in the on-cycle and although the Madera trees are on their off-cycle, their production is relatively high for this cycle.

Although pistachio-bearing acreage increased in 2006, as they have annually since 1985, the yield per acre decreased 20 percent from 2005, reducing the overall crop size. Even though the crop was smaller in 2006 than the previous 2 years, large ending stocks kept prices down and growers averaged \$1.92 per pound, 13 cents per pound less than in 2005, but the second highest price since 1980. The smaller crop and lower prices in 2006, reduced the crop's value to \$457 million, 21 percent less than in 2005 but the third highest on record.

Domestic pistachio shipments for 2006/07 were running 4 percent ahead of last year September through February, but were behind 2 seasons ago. Exports were 2 percent above last season so far, with shipments up to major markets including the Netherlands, Belgium, Brazil, Germany, Greece, Spain, and Japan, but down to Luxembourg, France, and Italy. About 84 percent of the shipments were open inshell pistachio nuts.

F.o.b. prices for pistachio nuts—U.S. No. 1-21/25 count began this season averaging about 45-to-50 cents per pound less in October 2006 than in October 2005. As the season progressed, prices remained at the \$2.50-\$2.60 range through November and December 2006 and closed the gap from the previous year to about 30 cents a pound.

2006 Hazelnut Crop Biggest in 6 Years

In 2006, hazelnut production totaled 41,000 tons (inshell basis), 49 percent bigger than 2005, and the biggest crop since the record crop of 49,500 tons in 2001. The number of bearing acres remained unchanged but yields per acre in 2006 rose to 1.45 tons, 48 percent above 2005, resulting in the large crop. As a result of the bigger crop, along with an expected record big crop from Turkey, the world's biggest hazelnut producer, prices in 2006 fell to \$1,100 per ton, below the prices growers received the previous 2 years, but higher than any other years since 1980. The combination of lower prices and big crop brought the value of the 2006 hazelnut crop to \$45.1 million, 27 percent below 2005 but the third highest on record.

Domestic demand for hazelnuts has been strong this season. From July 2006 through January 2007, domestic hazelnut shipments were up 48 percent from the same period last season and up 5 percent from 2004/05. The industry also reports that during this period over 20,000 tons of hazelnuts, most large sized, have been exported, about double the quantity last season. Hong Kong accounted for 58 percent of the shipments.

Macadamia Nut Production Up 2 Percent in 2006

Hawaii's macadamia nut production rose 2 percent in 2006 to 55 million pounds (inshell basis). Bearing acreage declined 1 percent to 17,800, the same amount as in 2001 to 2004. The decline in acreage was offset by a 3-percent increase in the average yield per acre, pushing production above 2005. The 2006 crop value, at \$38.5 million was 12 percent less than the previous year.

Fruit and Tree Nut Trade Outlook

Fresh Citrus, Almond, and Pecan Exports Up the First Half of 2006/07

Exports of fresh citrus fruit—oranges, grapefruit, and lemons—are up for the 2006/07 season through January compared with the same time last season. Despite a smaller California orange crop forecast for 2006/07, the high quality of the crop until the freeze in mid-January helped increase international demand, pushing exports up 4 percent from the same period last season (table 15). Shipments increase to the second and third largest markets, South Korea and Hong Kong, as well as to Japan and Australia. Shipments declined, however, to Canada, the No. 1 market, as well as to China and Mexico. Shipments to Japan, once the top market, along with Canada, have been declining annually since 1999/2000 until this season. The growing markets in South Korea and China are helping offset some of the losses from the shrinking markets. Although shipments were down to China, much of what is sent to Hong Kong will end up on China's mainland.

The bigger, high quality grapefruit crop produced in Florida this season, compared with the past 2 seasons, helped increase exports for the first time in 3 years. While shipments were up to the major markets—Japan, South Korea, Canada, the Netherlands, and France, it is the shipments to South Korea that are most remarkable. The quantity of fresh grapefruit shipped to South Korea so far this season exceeds any shipments previously sent. While the quantity sent through January is more than double the amount sent for the same time period last season and that of 1994/95, the last time they received very large shipments, they were about 20 to 30 times what had been shipped in most recent years. Shipments to the other major markets while up from the last 2 seasons, are lower than many of the recent seasons that had more average-sized production.

Tree nut exports often reflect crop size. With the record big almond crop in 2006, exports have increased 9 percent this August through January over the same time last season (table 15). According to the California Almond Board data, exports have been up this season for the major European markets—Spain, Germany, the Netherlands, and the United Kingdom—but down to Italy, France, and Greece. They were also up to Japan, the United Arab Emirates, China, and Russia. Inshell almond exports, which account for about a tenth of the amount of shelled exports, were up so far this season to India, China, and Turkey, their three biggest markets.

While almond production was up in 2006, walnuts and pistachio nut crops were smaller and their export shipments declined this season through January. Pecan production also declined in 2006, however, exports through January were 66 percent higher than the same time last season. While most exports of inshell pecans are sent from Texas growers across the border to Mexico for shelling and then mostly re-exported to the United States as shelled, this season an equal quantity of inshell pecans were shipped to Hong Kong, more than 3 times the amount for last season. Hong Kong also received about 10 times the quantity of shelled pecans than the same time last season. In recent years, there has been an increase in U.S. tree nut exports going to Hong Kong, China, and Vietnam. While there is some evidence that China's nut consumption may be increasing because of their health benefits, there also is some evidence that China and Vietnam may be importing nuts to create mixed nuts and then re-exporting the mix as a value added product.

Table 15--U.S. exports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through January)		Year-to-date change
		2006	2007	
		--- 1,000 pounds ---		Percent
Fresh-market:				
Oranges	November-October	261,463	272,469	4.2
Grapefruit	September-August	225,054	348,792	55.0
Lemons	August-July	104,711	110,436	5.5
Apples	August-July	859,756	797,592	-7.2
Grapes	May-April	805,098	588,685	-26.9
Pears	July-June	248,466	218,124	-12.2
Peaches (including nectarines)	January-December	561	556	-0.9
Straw berries	January-December	10,269	11,074	7.8
Sweet cherries 1/	January-December	1,425	20	-98.6
		--- 1,000 case gallons 2/ ---		
Processed:				
Orange juice, frozen concentrate	October-September	21,698	10,860	-50.0
Orange juice, not-from-concentrate	October-September	21,378	21,745	1.7
Grapefruit juice	October-September	4,704	4,359	-7.3
Apple juice and cider	August-July	3,589	3,359	-6.4
Wine	January-December	6,223	7,985	28.3
		--- 1,000 pounds ---		
Raisins	August-July	125,312	136,018	8.5
Canned pears	June-May	10,894	14,940	37.1
Canned peaches	June-May	45,899	31,885	-30.5
Frozen straw berries	January-December	2,096	2,708	29.2
		--- 1,000 pounds ---		
Tree nuts:				
Almonds (shelled basis)	August-July	461,249	503,166	9.1
Walnuts (shelled basis)	August-July	135,732	98,303	-27.6
Pecans (shelled basis)	October-September	9,583	15,932	66.3
Pistachios (shelled basis)	September-August	29,816	27,085	-9.2

1/ Beginning July 2005, includes tart cherries.

2/ Single-strength equivalent.

Source: U.S. trade data provided by the U.S. Census Bureau, U.S. Department of Commerce.

More Fresh Citrus Being Imported This Season

In response to the expected smaller orange and lemon crop this season, suppliers increased the quantity of fresh citrus they imported through January to be able to meet consumer demand (table 16). About two-thirds of the fresh orange imports came from Mexico with the remainder coming from Spain, Morocco, and the Dominican Republic. Mexico was also a major source of fresh-lemon imports during the first half of the new season. While the quantity of traditional tangerine variety imports increased this season, almost all coming from Mexico, the biggest share of the tangerine category imports are clementine and other mandarin varieties. Spain is the major supplier of clementines and a large part of the import increase is due to the bigger Spanish crop this year.

Imports of bananas, the No. 1 fresh fruit consumed in the United States were up 14 percent this January. Improved weather conditions increased quantities shipped from Costa Rica, Guatemala, and Ecuador—the major sources of bananas for the month. Mango imports were also up, as were Chilean peaches and grapes.

Table 16--U.S. imports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through January)		Year-to-date change
		2006	2007	
		--- 1,000 pounds ---		Percent
Fresh-market:				
Oranges	November-October	4,779	14,522	203.9
Tangerines (including clementines)	October-September	146,639	154,473	5.3
Lemons	August-July	50,339	53,657	6.6
Limes	January-December	43,773	60,847	39.0
Apples	August-July	73,620	67,894	-7.8
Grapes	May-April	628,560	608,749	-3.2
Pears	July-June	22,111	40,511	83.2
Peaches (including nectarines)	January-December	37,212	51,059	37.2
Bananas	January-December	678,780	772,947	13.9
Mangoes	January-December	35,619	38,704	8.7
		--- 1,000 sse gallons 1/ ---		
Processed:				
Orange juice, frozen concentrate	October-September	81,662	90,198	10.5
Apple juice and cider	August-July	210,239	223,012	6.1
Wine	January-December	16,137	18,662	15.6
		--- 1,000 pounds ---		
Canned pears	June-May	34,433	48,524	40.9
Canned peaches (including nectarines)	June-May	71,348	107,394	50.5
Canned pineapple	January-December	90,395	79,325	-12.2
Frozen strawberries	January-December	15,180	13,096	-13.7
		--- 1,000 pounds ---		
Tree nuts:				
Brazil nuts (shelled basis)	January-December	910	810	-11.1
Cashews (shelled basis)	January-December	20,043	22,068	10.1
Pine nuts (shelled basis)	January-December	860	1,093	27.1
Pecans (shelled basis)	October-September	40,915	31,395	-23.3

1/ Single-strength equivalent.

Source: U.S. trade data provided by the U.S. Census Bureau, U.S. Department of Commerce.

Commodity Highlight: Fresh-Market Grapes

Fresh-Market Grapes Account for Less than Half of All U.S. Grapes

Grapes are a popular fruit for fresh consumption although they are also widely used in the making of processed products such as raisins, wine, juice, and canned fruit salad. Fresh-market grapes represent only over one-tenth of all the grapes produced in the United States each year with the remaining majority share absorbed by the processing sector (fig. 4). Fresh-market grapes have always been overshadowed by the quantity of grapes produced for wineries and raisin processors but it has exceeded the production of grapes going to canneries and juice processors. During the period 2000/01-2006/07, grapes going to wineries made up more than half of the U.S. grape crop utilized and those for making raisins accounted for about 20 percent.

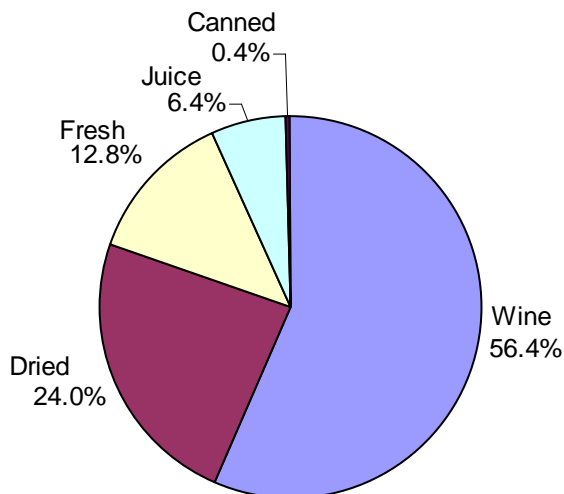
U.S. fresh-market grape production has averaged over 880,000 short tons annually from 2000/01 to 2006/07, about 26 percent larger than average production during the 1980s but not much changed from the 1990s. This level of production has generated an average of over \$600 million annually at the farm level, higher than the value of production for any of the major processed products for grapes with the exception of those utilized for making wine. The greater value generated in the fresh market relative to most processed products are reflective of the higher prices growers receive for fresh-market grapes.

California Produces the Bulk of Fresh-Market Grapes

Several States across the United States produce grapes for fresh use but California supplies approximately 99 percent of all of the country's fresh-market grapes (table 17). New York and Pennsylvania are the next two largest producers of grapes for the fresh market. The quantity that they produce only amounts to a fraction of a

Figure 4

Product share of all utilized grapes in the United States*



* 2000-2006 average share.

Source: Calculated by USDA's Economic Research Service from data provided by USDA's National Agricultural Statistics Service.

percent each. A major proportion of New York's and Pennsylvania's production move through the processing sector, primarily to juice processors and to a lesser extent to wineries.

California's dominance in the fresh market for grapes also extends to overall grape production in the United States. The 2002 Census of Agriculture reported that California accounted for almost half of all the farms growing grapes in the country, covering over 80 percent of the total area devoted to grapes. Presently, there are around 800,000 acres of productive grape vineyards in California producing the highest average yields among the other grape-producing States (table 18).

While producing the most grapes for fresh use, over 80 percent of California's grapes are sold to processors. Wineries account for the largest use of California grapes, capturing approximately 85 percent of all grapes produced in the State. California supplies over 90 percent of all domestically-produced grapes crushed for wine. Virtually all U.S. raisin production and canned grapes are made from California grapes. Other States such as Washington, New York, Michigan, Pennsylvania, and Ohio are larger producers for the grape juice industry. In California, about one-tenth of all the grapes crushed are processed into grape concentrate.

Since 1990, fresh-market grape production in California increased at an average rate of less than 1 percent annually and averaged 877,143 tons during 2000/01-2006/07. U.S. consumers can choose from among many different varieties of grapes sold in the fresh market but based on the three major variety types of grapes, table grape varieties comprise over 70 percent of all of the grapes in California for fresh use. Raisin grapes, consisting mostly of the Thompson seedless variety, account for almost 25 percent while wine grapes, the most heavily produced grapes in California, make up about 5 percent.

Table 17--State-level production of grapes for the fresh market in the United States

State	Average	Marketing year						
	1990s	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07 1/
		---Tons---						
Arizona	15,730	12,100	10,200	2/	2/	2/	2/	2/
Arkansas	2,521	800	2/	2/	2/	2/	2/	2/
California	799,700	888,000	849,000	971,000	792,000	876,000	988,000	776,000
Georgia	1,520	1,000	1,700	2/	2/	2/	2/	2/
Michigan	570	500	300	300	500	500	700	100
Missouri	130	150	100	240	60	80	60	70
New York	3,000	2,000	1,000	2,000	3,000	2,000	3,000	3,000
North Carolina	2/	2/	2/	300	300	200	200	180
Ohio	180	100	100	100	100	100	100	100
Pennsylvania	1,000	1,500	1,000	1,000	1,000	500	500	300
Texas	-	-	3/	3/	3/	3/	3/	100
Washington	200	-	-	-	-	-	-	-
Other States	789	675	930	7,400	8,500	3,200	3,050	1,720
United States total	825,220	906,825	864,330	982,340	805,460	882,580	995,610	781,570

1/ Preliminary. 2/ Included in other States to avoid disclosure of individual operations.

3/ Quantities sold fresh included in processed.

Source: *Noncitrus Fruit and Nuts Summary* (various issues), National Agricultural Statistics Service, USDA.

Table 18--Grape bearing acreage and yields per acre in the United States, by State

State	Average	Marketing year						
	1990s	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07 1/
	--- Acres ---							
Arizona	4,480	4,100	3,200	2,400	2,100	1,000	400	400
Arkansas	1,820	1,400	1,300	1,200	1,100	900	750	700
California	687,860	827,000	803,000	820,000	819,000	800,000	800,000	800,000
Georgia	1,480	1,200	1,100	1,100	1,100	1,100	1,100	1,100
Michigan	11,700	12,500	12,300	12,300	13,200	13,900	14,200	14,200
Missouri	975	850	870	900	960	1,100	1,200	1,300
New York	32,450	31,500	31,500	31,000	31,000	31,000	31,000	31,000
North Carolina	518	600	700	850	950	1,100	1,300	1,300
Ohio	2,000	2,000	2,000	2,000	2,100	2,100	2,200	2,200
Oregon	5,380	8,100	8,800	9,400	10,700	11,100	11,800	12,200
Pennsylvania	11,400	12,300	12,100	12,000	12,000	12,000	12,000	12,100
South Carolina	274	400	2/	2/	2/	2/	2/	2/
Texas	3/	3/	2,900	2,900	2,900	2,900	2,900	2,900
Virginia	3/	3/	1,700	1,900	1,900	1,900	2,000	2,300
Washington	34,450	48,000	51,000	52,000	52,000	53,000	54,000	55,500
United States	794,787	949,950	932,470	949,950	951,010	933,100	934,850	937,200
	--- Tons per acre ---							
Arizona	5.50	4.88	4.84	3.50	3.81	4.00	2.50	2.25
Arkansas	3.79	3.00	1.81	4.00	2.18	3.33	2.53	3.29
California	7.97	8.54	7.45	8.17	7.16	7.03	8.70	7.12
Georgia	2.10	2.92	2.91	2.55	2.82	3.00	3.18	2.64
Michigan	5.11	6.98	2.35	3.47	7.16	4.50	7.23	2.29
Missouri	2.42	3.47	2.64	3.67	3.16	3.30	3.25	3.21
New York	5.08	4.89	4.73	5.03	6.39	4.58	5.74	5.00
North Carolina	2.86	3.83	2.86	2.71	2.95	3.18	3.00	3.52
Ohio	4.02	3.85	3.00	2.90	3.86	2.29	3.86	1.41
Oregon	2.46	2.30	2.59	2.34	2.24	2.16	2.29	2.79
Pennsylvania	6.12	5.12	5.08	4.43	7.08	7.23	7.50	6.78
South Carolina	1.83	1.3	2/	2/	2/	2/	2/	2/
Texas	3/	3/	3.28	1.62	2.07	3.03	3.34	2.45
Virginia	3/	3/	2.47	2.58	1.89	1.95	2.8	2.91
Washington	7.17	5.52	5.55	6.38	6.62	5.04	7.69	5.69
United States	7.65	8.09	7.04	7.73	6.99	6.69	8.36	6.77

1/ Preliminary. 2/ Estimates discontinued in 2001/02. 3/ Estimates began in 2001/02.

Source: *Noncitrus Fruit and Nuts Summary* (various issues), National Agricultural Statistics Service, USDA.

California Fresh-Market Grapes Grown Mostly in the San Joaquin Valley

California's grape production extends to 52 of its counties but the majority of the State's fresh-market grapes originate from the San Joaquin Valley, principally in Kern, Tulare, and Fresno counties where most of the table grapes are grown. California's Desert Area, specifically in Riverside County, is another production region for table grapes. Based on the County Agricultural Commissioner's Data, the top three counties (Kern, Tulare, and Fresno) in the San Joaquin Valley grape growing region accounted for over 80 percent of all of California's harvested acreage and production of table grapes in 2005 while Riverside County accounted for 10 percent and 8 percent, respectively. The Desert Area's Riverside County also produced some raisin grapes for the fresh market.

San Joaquin Valley's Fresno County also has the largest production of raisin and wine grapes. Fresno County produced 79 percent of the raisin grapes and 20 percent of the wine grapes during 2005. Completing the top five counties in California for growing wine grapes were San Joaquin, Madera, Kern, and Monterey, representing a combined share of over 60 percent of all wine grape production during that year. All the top counties, except Monterey, are in the San Joaquin Valley. Monterey County is a large production area for wine grapes in California's Central and North Coast areas, along with Sonoma, Napa, San Luis

Obispo, and Mendocino counties. Along the south coast, Santa Barbara is a principal producer of wine grapes.

Supplies of Fresh-Market Grapes Peak in Summer and Early Fall

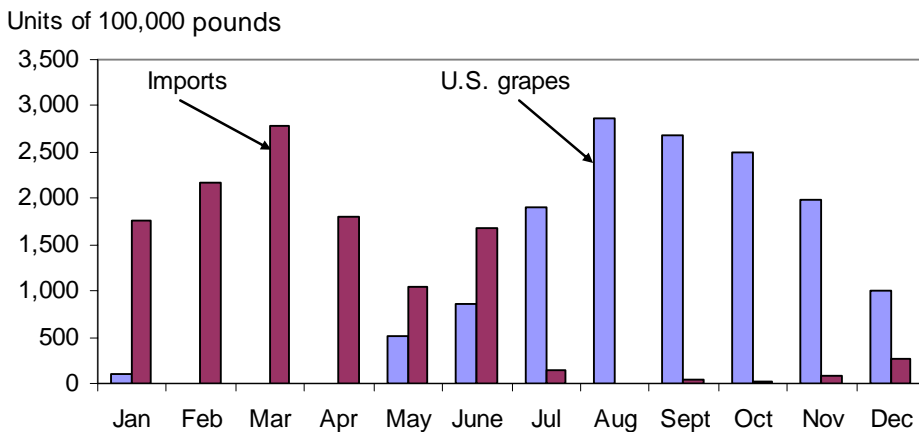
Shipments of domestically produced grapes for the fresh market typically run from May through December, although in some years small quantities may be shipped as early as April and/or as late as January or February of the following year (fig. 5). During the U.S. off-season, fresh grape supplies are supplemented by imports, primarily from Chile. Therefore, given the timing of most of the imports, U.S. consumers have access to fresh grape supplies all year round, but the bulk of the domestic shipments occur from August through October.

California table grapes produced in the Desert Area growing region are the first to come in season for the domestic fresh grape market. Harvesting of table grapes in this region begins around mid-May and last through mid-July. This coincides with the region’s harvesting period for raisin grapes that are also destined for the fresh market. Raisin grapes harvested in July through early December are mostly utilized for raisin production. The harvesting period for table grapes in the San Joaquin Valley, meanwhile, usually runs from early July through about mid-December, but it is most active from September through early November.

Grower Prices Highly Seasonal

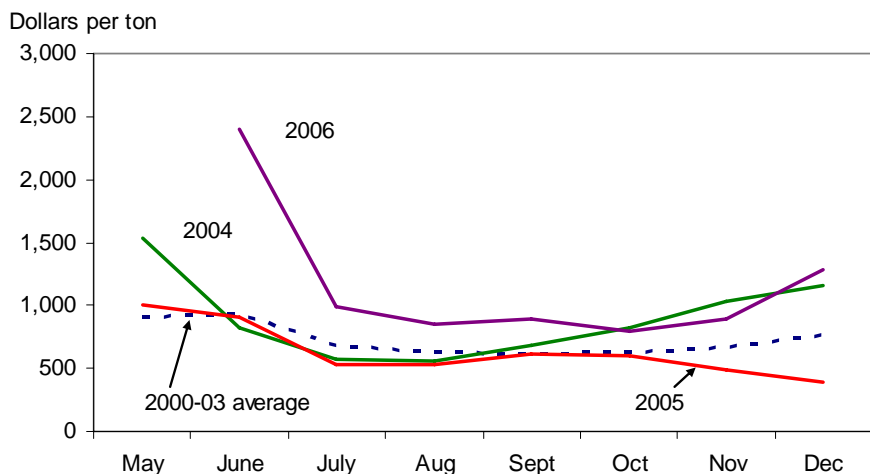
The average prices U.S. growers receive for fresh-market grapes show a strong seasonal pattern during the marketing season (fig. 6). Prices are generally high at the start of the season in May when supplies are still limited. Prices normally weaken as supplies build up towards the summer months, bottoming out around August and September when supplies are greatest and most available. Prices then begin to strengthen as supplies diminish heading up toward the end of the season.

Figure 5
Fresh-market grape shipments in the United States*



* Average 2003-2005.
 Source: *Fresh Fruit and Vegetable Shipments*, Agricultural Marketing Service, USDA.

Figure 6
Monthly grower prices for fresh-market grapes in the United States



Source: *Agricultural Prices*, National Agricultural Statistics Service, USDA.

In some years, however, monthly price movements may deviate from historical patterns due to certain weather and economic factors affecting the short-term supply situation in the industry. In 2005, for example, grower prices continued to decline in the fall, reaching a seasonal low in December, which was much later than in previous years. Although California produced a relatively large crop that year, the very hot and dry summer slowed crop maturity and delayed the harvesting of the crop. Grape supplies did not really pick up until around August and remained heavy through December when Chilean grapes have already started to enter the market, driving down prices.

A Mix of Varieties Comprise Fresh-Market Supplies

The discussion on the grape variety mix comprising the U.S. fresh grape market in this article will pertain to varieties grown in California because of the predominance of production in that State. Among the more than 40 different varieties of table grapes grown in California, the principal varieties consist of Flame Seedless, Crimson Seedless, Red Globe, Ruby Seedless, and Perlette. Based on the 2005 California Grape Acreage Report, the combined acreage for these 5 varieties accounted for 73 percent of table grape bearing acreage in the State.

The Flame Seedless, Crimson Seedless, Red Globe, and Ruby Seedless varieties are all red grapes but these varieties differ mostly in color intensity and in fruit shape and size. The Red Globe is distinctly different from the other leading red table grape varieties because it is not a seedless variety. The Perlette, on the other hand, is a green-variety table grape. Other popular green table grapes include Sugraone, Princess, and Calmeria which is also a seeded variety. The Thompson seedless is a raisin-type green grape that is also popular in the fresh market.

Perlettes, Flame seedless, and Sugraone varieties are among the first table grapes that become available in the market, usually around May. Availability of Flame seedless, however, usually last through December whereas the other two varieties are usually in the market only through August. The Thompson seedless generally

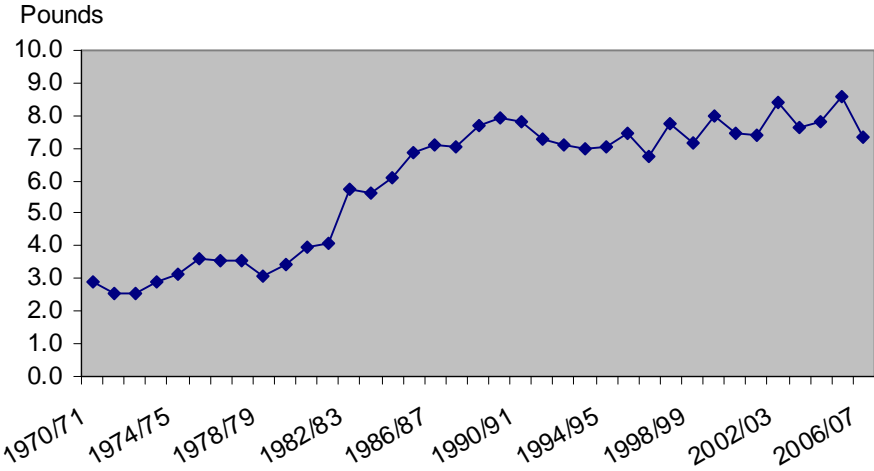
prices also average significantly higher than processing grape prices, with a price differential ranging from \$141 to \$558 per ton from 2000/01 to 2006/07. The higher average prices for fresh-market grapes are associated with the higher production cost incurred by fresh-market growers, especially when taking into consideration the more intensive use of labor when tending and harvesting the crop.

Domestic Consumption Steady

Grapes rank fourth in per capita fresh-fruit consumption in the United States, after bananas, oranges, and apples. While grapes continue to be one of the most consumed fresh fruit in the country, increases in fresh grape demand have slowed since the 1980s (fig. 8). Per capita consumption increased only less than 1 percent annually during the 1990s and less so during the 2000s, compared with an average of about 9 percent during the 1980s. It was in the 1980s when domestic fresh-market production and imports grew the most for the U.S. fresh grape market and the average U.S. per capita consumption of fresh grapes doubled from what it was during the previous decade, to 6.2 pounds annually. It was also during this period when per capita fresh-grape consumption began to exceed those for fresh grapefruit and peaches (including nectarines) and have remained higher ever since.

Domestic fresh-market grape production grew at an average rate of almost 5 percent annually during the 1980s while the growing presence of imported grapes from Chile has led the way to expanding imports. The development of seedless varieties and later on, greater consumer awareness about making healthy food choices have also influenced increased fresh-grape consumption over the last 20 years. However, consumer access to a wider array of fresh fruit choices during the 1990s, stemming from both increased domestic production and imports and partly stimulated by a more ethnically diverse population, have likely influenced some shifting of demand away from fresh grapes, slowing the growth in domestic fresh-grape consumption. U.S. fresh-grape consumption averaged over 7.0 pounds per person in the 1990s and in more recent years.

Figure 8
Per capita consumption of fresh grapes in the United States



Source: Prepared and calculated by the Economic Research Service, USDA.

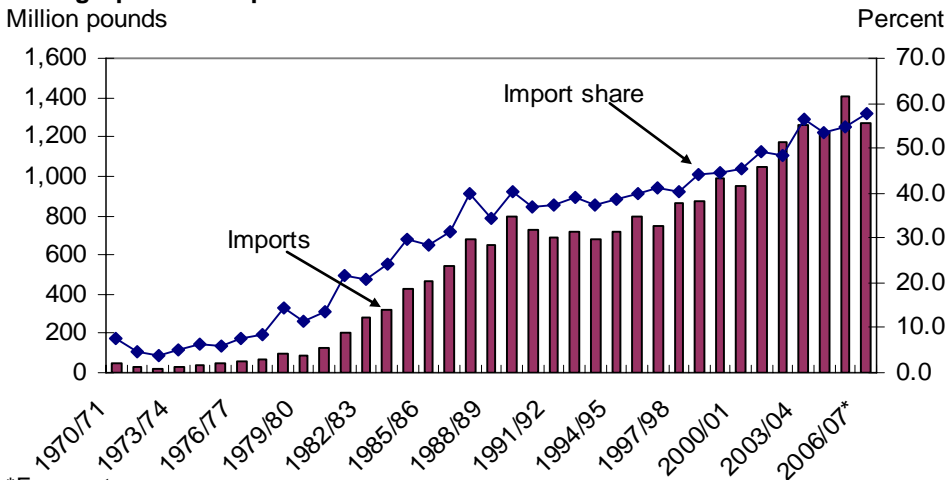
As competition continues to increase in the fresh-fruit market, U.S. fresh-grape marketers, like other produce marketers, are likely to face more challenges in successfully maintaining and improving demand for their product in the coming years. Their ability to adapt to market changes and take leadership roles in product and marketing innovations will help shape the demand for fresh grapes in the years ahead.

Imports’ Increasing Role in Boosting Domestic Demand

The U.S. fresh grape market has been witnessing the growing role of imports in fulfilling domestic demand (fig. 9). More than half of the fresh-market grapes consumed in the United States were from domestic production during the 1970s and 1980s. However, more steady production during the 1990s and in recent years, ever-growing imports, and the expansion of export markets for U.S. fresh grapes have reversed this trend. The United States has become a net importer of fresh grapes around the mid-1980s and has remained a net importer since. During the 1970s, imports accounted for an average of only 8 percent of fresh-grape supplies available for domestic consumption each year and this share has continually risen to 28 percent during the 1980s, 40 percent during the 1990s, and over 50 percent during 2000/01 to 2006/07.

About 75 percent of all imported grapes in the United States come from Chile, and most of the remaining imported grapes from Mexico. There are also small quantities coming from Brazil, Peru, Canada, the Republic of South Africa, and Italy. Imports from Chile grew most rapidly during the 1980s when that country’s overall fruit industry began to develop and mature into an export-oriented industry. Years later, the implementation of the North American Free Trade Agreement in 1994 aided the growth in imports from Mexico. During the 2000/01- 2005/06, U.S. fresh-grape imports averaged over 1.0 billion pounds, up from the average of 780.2

Figure 9
Trend in U.S. fresh grape imports and share of imports to domestic fresh grape consumption



*Forecast.

Source: Trade provided by the U.S. Census Bureau, U.S. Department of Commerce; Share calculated by the Economic Research Service, USDA.

million pounds during the 1990s, 449.1 million pounds during the 1980s, and only 52.2 million pounds during the 1970s.

The bulk of imported grapes, primarily from Chile, enter the U.S. market from December through April, coinciding with the low period for domestic production. Shipments from South Africa and Peru also enter the market during this period. Imports from Mexico typically enter the U.S. fresh-grape market from May through October, overlapping with the marketing season for California's Desert Area table grapes, which runs from May through July. Production in this region, however, is low relative to the overall table grape crop in California. Because imports have mostly served to augment domestic production, it has allowed for year-round supplies to U.S. consumers and has aided in boosting domestic consumption, especially during the off-season months for domestic production.

Exports Trending Up

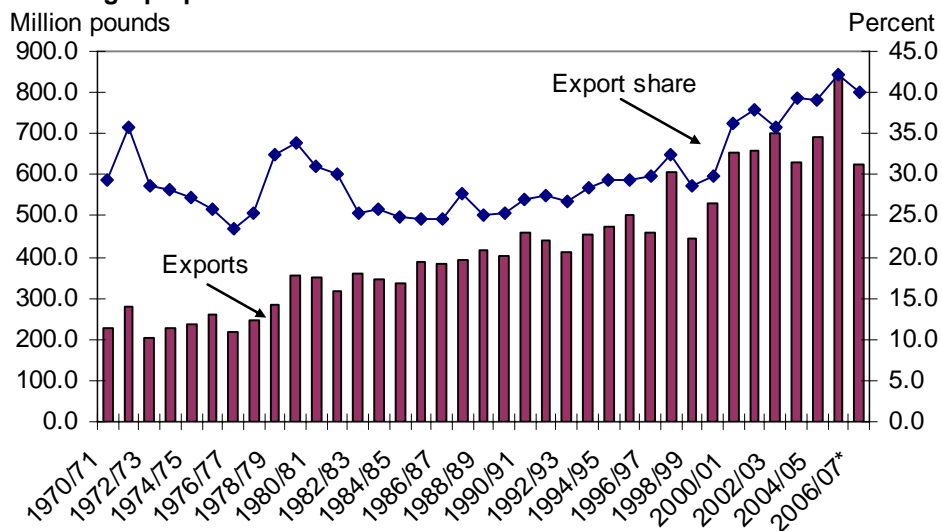
Over the last several years, increases in domestic production, greater variety choices, and marketing efforts by the California Table Grape Commission (CTGC), along with funds from the USDA Market Access Program, have aided in expanding global demand for U.S. fresh grapes. The total volume of U.S. fresh grape exports has trended up over the last several years, increasing from an average of over 400 million pounds during the 1990s to a record 838 million pounds in 2005/06. Export markets are becoming a growing outlet for U.S. fresh grapes as the share of exports to domestic production has increased from an average of 29 percent during the 1990s to 38 percent during the period 2000/01 to 2005/06 (fig. 10).

The CTGC, formed in 1968 and now representing approximately 600 table grape growers, is the promotional arm of California's fresh-grape industry, mainly focusing on activities covering critical issues and trade management, research, education and outreach, and advertising. It is expected that the CTGC will continue to play a key role for the industry in these efforts because recently, California's fresh grape growers have voted to continue to fund the organization's existence and promotional programs for another 5 years. Of the nearly 60 percent of eligible growers who voted, 80 percent of the growers representing over 67 percent of California's fresh-grape volume voted for the continuation of CTGC. In past years (1990s and 2000s), the CTGC has continued to expand the number of countries in which it operates its market development programs, including China, Australia, India, other countries in Southeast Asia, and some countries in Central America, the Middle East, and the Caribbean.

U.S. fresh grape exports to China have risen 63 percent since the country opened its doors to imported California grapes in August 1997. Now China is the fifth-largest export market for U.S. fresh grapes. Russia is a more recent new market for the industry and the potential to expand exports to this market is large. Russia's population of 141.4 million is ranked 8th highest in the world, it has a steadily improving economy, and a market window for U.S. exporters in November to December when fresh fruit supplies in the country are relatively low. Presently, Canada and Mexico continue to be the two leading markets for U.S. fresh grapes (table 19). Malaysia, Hong Kong, China, and Taiwan are also major markets. Together these six countries account for over 70 percent of U.S. fresh-grape exports.

Figure 10

Trend in U.S. fresh grape exports and share of exports to domestic fresh market grape production



*Forecast.

Source: Trade provided by the U.S. Census Bureau, U.S. Department of Commerce; share calculated by the Economic Research Service, USDA.

Table 19--U.S. fresh grape exports, by destination

	Average 1990s	Marketing season 1/					2005/06
		2000/01	2001/02	2002/03	2003/04	2004/05	
--- Pounds ---							
Canada	225,720,112	209,900,328	195,623,769	218,741,226	195,221,447	223,325,082	222,922,574
Mexico	31,452,178	89,488,954	78,400,197	104,178,718	78,085,767	84,094,678	115,363,795
Malaysia	9,076,608	35,709,881	52,814,718	60,618,481	68,284,467	65,213,083	87,704,757
Hong Kong	65,405,509	80,181,430	98,373,521	108,411,685	77,934,580	48,554,163	75,466,504
China	2,010,429	19,916,974	18,999,355	12,218,002	7,796,524	36,901,541	63,045,381
Taiwan	29,659,435	44,252,540	33,004,060	24,196,491	19,806,871	22,661,493	50,207,063
Other countries	117,826,657	175,716,193	179,436,989	174,052,142	185,330,865	210,744,691	223,562,353
World total	477,909,796	655,166,299	656,652,609	702,416,745	632,460,522	691,494,730	838,272,427

1/ Marketing season runs from May of the first year shown to April of the following year shown.

Source: Trade data provided by the U.S. Census Bureau, U.S. Department of Commerce.

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