United States Department of Agriculture

FTS-346

March 30, 2011

A Report from the Economic Research Service

www.ers.usda.gov

Fruit and Tree Nuts Outlook

Agnes Perez
acperez@ers.usda.gov
Katherine Baldwin
kbaldwin@ers.usda.gov
Kristy Plattner
kplattner@ers.usda.gov
Erik Dohlman
edohlman@ers.usda.gov

U.S. Citrus Production Forecast up This Season

The next release is May 27, 2011.

Approved by the World Agricultural Outlook Board.

The index of prices received by fruit and tree nut growers averaged 144 (1990-92=100) the first 2 months of 2011, 2 percent below the same time in 2010. This decline reflects the lower price index in February. Growers received lower prices this February for most domestically produced fruit in the market this winter, except for fresh pears. The Consumer Price Index (CPI) for fresh fruit this January and February averaged 337 (1982-84=100), up 3 percent from the same 2-month average in 2010. Almost all fresh fruit received higher retail prices in 2011 compared to 2010 numbers.

In March, USDA's National Agricultural Statistics Service (NASS) forecast the 2010/11 U.S. citrus crop at 11.6 million tons, 6 percent larger than last season. The all-orange crop is forecast at 8.8 million tons, 8 percent larger than the previous season, with the largest year-to-year gains coming from California's non-Valencia crop and from Florida's production of Valencias—despite the freezing temperatures Florida experienced in December. Florida's non-Valencia crop is also forecast slightly higher than last year, while gains to California's non-Valencia crop outweighed a small decline in Valencia production.

NASS forecast Florida's 2010/11 orange crop at 6.39 million tons, up 6 percent from last season but down 13 percent from two seasons ago. Because most of Florida's orange production is directed into processing, USDA-ERS forecasts that the 6-percent increase in Florida orange production will translate into increased juice production—up 8 percent from last season to 900 million gallons, single-strength equivalent (sse). If realized, this would be the 4th lowest production level dating back to 1990/91.

U.S. grapefruit production for 2010/11 is forecast at 1.2 million tons this season, down 2 percent from 2009/10. Though the crop is down slightly and fresh-market demand remains virtually unchanged, fresh-market prices have fallen compared to last season, partially due to smaller fruit size. With fewer fruit having been sent to processing so far in the marketing year, ERS forecasts a slight decrease in grapefruit juice production to 76 million sse gallons by the end of the 2010/11 marketing year, down 1 percent from last season.

U.S. lemon production in 2010/11 is up 9 percent from last season. Reduced early-season supplies due to extreme wet conditions supported prices from September through November, but prices have since fallen because of larger supplies reaching the market.

Price Outlook

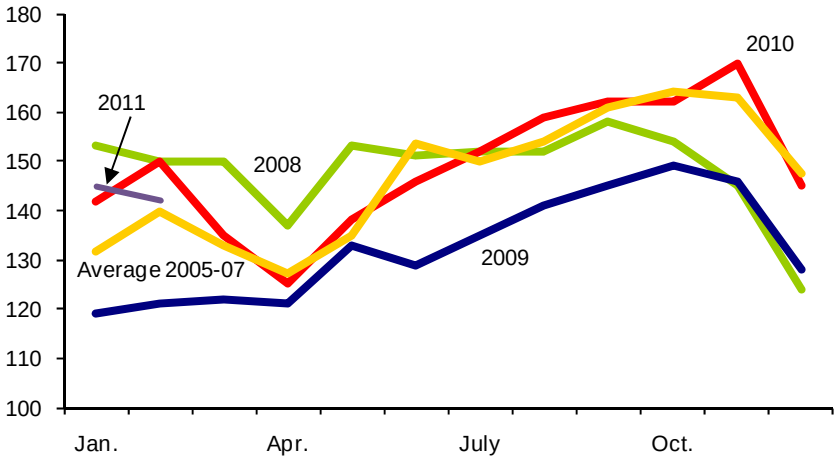
Fruit and Tree Nut Grower Prices Declining in Early 2011

The index of prices received by fruit and tree nut growers averaged 144 (1990-92=100) the first 2 months of 2011, 2 percent below the same time in 2010. This decline reflects the lower price index in February which at 142 is 8 points below last year's February price index of 150 (fig. 1). The January price index of 145 was unchanged from December 2010 and higher than in January of the last two years.

Growers received lower prices this February for all domestically produced fruit that are in the market during the winter months, except for fresh pears, which had a smaller crop this marketing season reducing available supplies (table 1). Strawberry prices declined by 19 percent in February 2011, compared with February 2010, as domestic supplies rose over last year the same time with greater volumes from Florida's late-season crop, California's early shipments, and imports from Mexico. As strawberry supplies rebounded back to normal after the December 2010 cold snaps in Florida and wet weather in California, February strawberry prices also fell from the previous month. Prices are likely to continue to decline seasonally through early summer as harvest in California reach peak levels.

Orange grower prices were slightly higher in January than the same time a year ago due to weather-related harvesting delays, but prices declined as the harvest became available. Fresh orange grower prices declined almost 9 percent in February 2011. The largest lemon crop since 2005/06, coupled with inconsistent quality early in the season, led to a decline in grower prices of nearly 44 percent for all lemons in February. Another year of forecast decline in grapefruit production did not cause grower prices to increase. Instead fresh grapefruit prices dropped 20 percent and 18 percent for January and February, respectively. The decrease in grapefruit prices is partially attributed to smaller fruit size.

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



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

Table 1--Monthly fruit prices received by U.S. growers

Commodity	2010		2011		2010-11 change	
	January	February	January	February	January	February
	Dollars per box				*Percent*	
Citrus fruit: 1/						
Grapefruit, all	8.86	7.10	7.10	6.58	-19.9	-7.3
Grapefruit, fresh	13.45	12.57	10.72	10.30	-20.3	-18.1
Lemons, all	9.88	8.48	9.06	4.74	-8.3	-44.1
Lemons, fresh	22.43	22.26	14.98	12.64	-33.2	-43.2
Oranges, all	6.41	6.78	6.49	6.36	1.2	-6.2
Oranges, fresh	11.59	10.52	11.93	9.62	2.9	-8.6
	Dollars per pound					
Noncitrus fruit:						
Apples, fresh 2/	0.290	0.289	0.297	0.285	2.4	-1.4
Grapes, fresh 2/	--	--	--	--	--	--
Peaches, fresh 2/	--	--	--	--	--	--
Pears, fresh 2/	0.191	0.184	0.331	0.337	73.3	82.9
Strawberries, fresh	2.180	1.790	2.240	1.450	2.8	-19.0

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

Consumer Price Index for Fresh Fruit Averaging Slightly Higher at the Beginning of 2011

The Consumer Price Index (CPI) for fresh fruit this January and February averaged 337 (1982-84=100), up 3 percent from the same 2-month average in 2010 (fig. 2). Almost all fresh fruit received higher retail prices in 2011 compared to 2010 numbers. As fresh fruit supplies increased, the CPI dropped 4 percent to 331 in February (1982-84=100).

Citrus fruit retail prices were up in early 2011 due to inconsistent supply and quality, which pushed high-quality fruit prices upward. Navel orange retail prices were up 17 percent and 14 percent for January and February, respectively. Weather-related harvesting delays were most likely the cause for the higher prices, but as this season's higher yielding crop begins to reach maturity, market prices should continue downward. Tight supplies for Red Delicious apples and Anjou pears were reflected by a more than 10-percent increase for both fruits in February.

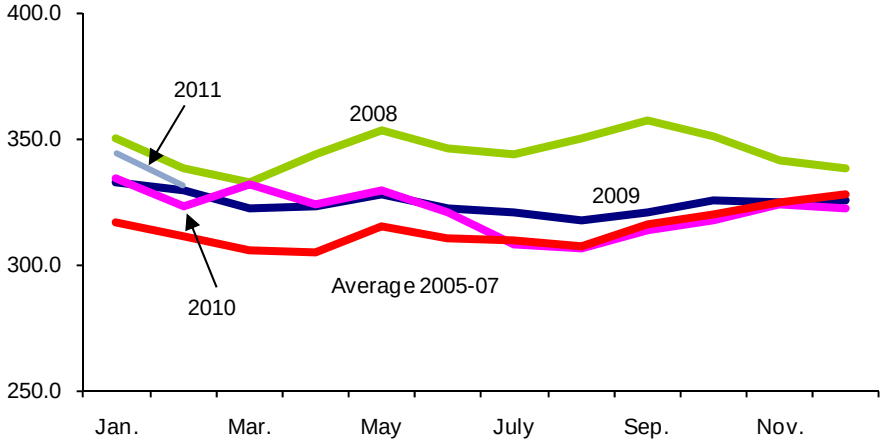
Retail prices for strawberries fell in February relative to the same time last year (table 2). Late-season strawberry supplies in Florida was picking up along with the early-season harvest in California and the ample supplies reduced retail prices by 11 percent in February.

Rain and/or cold weather during late fall 2010 affected banana production in Latin America, including major source countries for the United States such as Colombia, Costa Rica, Guatemala, Honduras, and Ecuador. USDA Agricultural Marketing Service (AMS) shipment data reports banana import volume in the United States through most of the first quarter of 2011 was down 8 percent from the same period a year ago, putting upward pressure on U.S. banana retail prices.

Figure 2

Consumer Price Index for fresh fruit

1982-84=100



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

Table 2--U.S. monthly retail prices, selected fruit, 2008-11

		2010		2011		2010-11 change	
Commodity	Unit	January	February	January	February	January	February
		--- *Dollars* ---		--- *Dollars* ---		--- *Percent* ---	
Fresh:							
Valencia oranges	Lb.	--		--	--	--	--
Navel oranges	Lb.	0.899	0.870	1.052	0.989	17.0	13.7
Grapefruit	Lb.	0.841	0.832	0.916	0.880	8.9	5.8
Lemons	Lb.	1.626	1.586	1.651	1.670	1.5	5.3
Red Delicious apples	Lb.	1.141	1.153	1.241	1.311	8.8	13.7
Bananas	Lb.	0.586	0.587	0.596	0.625	1.7	6.5
Peaches	Lb.	--	1.976	--	--	--	--
Anjou pears	Lb.	1.264	1.226	1.417	1.370	12.1	11.7
Strawberries 1/	12-oz. pint	2.854	2.700	3.003	2.417	5.2	-10.5
Thompson seedless grapes	Lb.	3.070	2.236	3.002	2.393	-2.2	7.0
Processed:							
Orange juice, concentrate 2/	16-fl. oz.	2.501	2.481	2.461	2.434	-1.6	-1.9
Wine	liter	8.564	11.331	7.972	11.230	-6.9	-0.9

-- Insufficient marketing to establish price.
1/ Dry pint.
2/ Data converted from 12-fluid-ounce containers.
Source: U.S. Dept. of Labor, Bureau of Labor Statistics (http://www.bls.gov/data/home.htm).

U.S. Citrus Production Forecast Is Up 6 Percent From Previous Season

In March, USDA's National Agricultural Statistics Service (NASS) forecast the 2010/11 U.S. citrus crop at 11.6 million tons, 6 percent larger than last season (table 3). The all-orange crop is forecast at 8.8 million tons, 8 percent larger than the previous season, with the largest year-to-year gains coming from California's non-Valencia crop and from Florida's production of Valencias—despite the freezing temperatures Florida experienced in December. Florida's non-Valencia crop is also forecast slightly higher than last year, while gains to California's non-Valencia crop outweighed a small decline in Valencia production. Overall orange production in Texas is expected to remain unchanged. Grapefruit production in the United States is projected to be down 2 percent to 1.2 million tons, while tangerine and mandarin production is expected to rise 2 percent to 605,000 tons. Since the initial October 2010 USDA forecast for all-orange production, the estimated 2010/11 crop has been revised down 222,000 tons, mainly due to reductions in the forecast for Florida's Valencia crop.

California's Navel Orange Crop Projected To Improve in 2010/11

California's navel orange utilized production forecasted by the March USDA-NASS *Crop Production* report is 1.86 million tons for the 2010/11 season, unchanged since the initial October 2010 forecast for the season, but a 17-percent increase over 2009/10. The December 2010 USDA *Crop Production* report noted that navels showed good color and maturity, but USDA's December *California Fruit & Nut Review* indicated that early harvesting was slowed by quality issues stemming from re-greening of fruit. In February, the navel orange harvest continued in the San Joaquin Valley, but wet conditions kept the pace slow and increased fruit decay. Growers subsequently accelerated harvest in order to limit fruit losses due to rind breakdown.

Coming off at least a 30-year high for November prices at the beginning of last season, fresh on-tree prices for California navel oranges started this season at $15.20 per 80-pound box, down from $17.76 per 75-pound box last November (note: all California citrus crops are now measured at 80 pounds per box). Despite the larger crop, harvesting delays were likely the reason prices rose above the recent 5-year monthly averages for December and January before sinking to below average levels in February 2011 (table 4).

The average price for November 2010 through February 2011 was $12.71 per box, 4.5 percent lower than the 2009/10 average and virtually the same as the 5-year average for those months. Adjusted for the change in box size from 75 lbs to 80 lbs in 2010/11, the current year's average price would be 11 percent lower than last season, year-to-date, and 6 percent lower than the 5-year average. Reflecting the pace of movement, data from USDA's AMS reported California orange shipments this season through mid March were 84,040 tons, 8 percent less than last season's shipments of 91,640 tons for the same time period.

Table 3--Citrus: Utilized production, 2008/09, 2009/10 and forecast for 2010/11 1/

Crop and state	Utilized		Forecast for 2010/11	Utilized		Forecast for 2010/11
	2008/09	2009/10	as of 3-2011	2008/09	2009/10	as of 3-2011
	---- *1,000 boxes 2/* ----			----*1,000 tons* ----		
Oranges:						
Early/mid-season and navel:						
Arizona 3/	150	--	--	5	--	--
California	34,500	42,500	46,500	1,294	1,594	1,860
Florida 4/	84,600	68,600	70,000	3,807	3,087	3,150
Texas	1,300	1,360	1,360	55	58	58
Total 5/	120,550	112,460	117,860	5,161	4,739	5,068
Valencia:						
Arizona 3/	100	--	--	4	--	--
California	12,000	14,000	13,000	450	525	520
Florida	77,900	65,000	72,000	3,506	2,925	3,240
Texas	159	275	280	7	12	12
Total	90,159	79,275	85,280	3,967	3,462	3,772
All oranges	210,709	191,735	203,140	9,128	8,201	8,840
Grapefruit:						
Arizona 3/	25	--	--	1	--	--
California	4,800	4,200	3,500	161	141	140
Florida	21,700	20,300	19,600	922	863	833
Texas	5,500	5,600	5,700	220	224	228
All grapefruit	32,025	30,100	28,800	1,304	1,228	1,201
Tangerines and mandarins:						
Arizona	250	350	300	9	13	12
California	6,700	9,900	9,600	251	371	384
Florida	3,850	4,450	4,400	183	211	209
All tangerines and mandarins	10,800	14,700	14,300	443	595	605
Lemons:						
Arizona	3,000	2,200	2,500	114	84	100
California	21,000	20,500	21,000	798	779	840
All lemons	24,000	22,700	23,500	912	863	940
Tangelos						
Florida	1,150	900	1,100	52	41	50
All citrus	278,684	260,135	270,840	11,839	10,928	11,636

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 in Arizona (AZ) and California (CA)-80 (75 prior to the 2010-2011 crop year), Florida (FL)-90, Texas (TX)-85; grapefruit in AZ and CA-80 (67 prior to the 2010-11 crop year), FL-85, TX-80; lemons-80 (76 prior to the 2010-11 crop year); tangelos-90; tangerines and mandarins in AZ and CA-80 (75 prior to the 2010-11 crop year), FL-95.
3/ Arizona estimates discontinued beginning with the 2009/10 crop. 4/ Includes Temples.
5/ Totals may not be equivalent to the sum of the categories due to rounding.
Source: USDA, National Agricultural Statistics Service, *Crop Production,* various issues.

Table 4--Fresh oranges: Average equivalent on-tree prices received by California growers, 2005/06-2010/11

Month	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
			---Dollars/box--- 1/			
November	13.00	9.49	15.27	14.91	17.76	15.20
December	10.60	12.39	10.98	12.07	13.06	13.65
January	9.10	12.39	9.48	14.17	11.56	12.35
February	9.11	24.68	8.28	12.74	10.86	9.65
March	9.20	22.71	8.40	11.58	10.90	
April	11.30	22.74	7.61	10.18	10.69	
May	12.55	21.98	9.28	11.37	12.97	
June	12.99	18.03	11.01	12.43	14.22	
July	12.94	16.83	7.72	10.51	9.29	
August	14.84	14.63	7.72	11.01	9.49	
September	22.04	12.83	10.22	--	10.69	
October	14.49	14.74	10.12	--	9.99	
Nov.-Feb. Average	10.45	14.74	11.00	13.47	13.31	12.71

Source: USDA, National Agricultural Statistics Service, *Agricultural Prices,* various issues.
1/ 75-lb box prior to 2010/11; 80-lb box thereafter.

NASS' California Field Office released its *2010/11 California Valencia Orange Objective Measurement Report* earlier this month. The report showed a decrease in the State's Valencia orange-bearing acreage by 2,000 acres to 41,000 acres, while average trees per acre remained the same as the past two seasons at 124. Bearing acreage has declined each year since 1999/00, when acreage was at 71,000. The average number of fruit per tree this season measured 631, which is down from 704 the previous season but unusually high following the strong fruit set last year. The average fruit diameter to date this year was 2.55 inches, down from 2.63 inches last year. As a result, the forecast for California's 2010/11 Valencia production was reduced 7 percent from the previous forecast for the season, but the current estimate of 520,000 tons is only 5,000 tons below last year.

Total fresh orange exports from November through January 2010/11 were 164,314 short tons, a 10 percent increase from the same period in 2009/10, and about 40 percent stronger than 2 years ago. However, based on the relationship between average year-to-date exports to season-total exports, Economic Research Service (ERS) projects that fresh orange exports will not match last year's record 736,000 tons. The current ERS forecast is for fresh orange exports to equal about 660,000 tons. For the year, Canada remains the No. 1 export market for U.S. fresh oranges, with shipments of 55,139 tons so far in 2010/11—down 12 percent from last year—followed by South Korea (26,531 tons), Hong Kong (20,553 tons), and Australia (17,659 tons).

Total fresh orange imports through this period were 4,262 tons, less than half the pace in 2009/10, but similar to the average for the past 5 years. It is still very early in the season for imports, with only 5 percent of total annual imports typically occurring in the first 3 months of the season (November-January). Imports typically peak in the summer months of July through September. Fresh orange imports for the 2010/11 season to date have originated mainly from Mexico, Chile, and the Dominican Republic. Mexican fresh orange imports totaled 2,524 tons, less than a third of the 2009/10 November through January imports from that country. Chile has shipped 733 tons to the United States so far this season, and the Dominican Republic has sent 543 tons. ERS forecasts fresh orange imports to total about

85,000 tons for marketing year 2010/11, down from 116,695 tons in 2009/10. For the 2009/10 season, South Africa was the leading exporter of oranges to the United States, with 36,746 tons, followed by Chile (36,087 tons), Mexico (22,705 tons), and Australia (16,933 tons).

Florida's Orange Crop Forecast Up 3 Percent From Last Season

NASS forecast Florida's 2010/11 orange crop at 6.39 million tons, up 6 percent from last season but down 13 percent from two seasons ago. The harvest is comprised of 3.15 million tons of early- to mid-season and navel oranges, 2 percent larger than last season, and 3.24 million tons of Valencia oranges, 11 percent higher than last season. The forecast for Florida's non-Valencia oranges is up 6 percent from February's *Crop Production* report but up 1 percent from the initial forecast in October 2010. The forecast for Florida's Valencia crop is unchanged from February, but down 6 percent, or 225,000 tons, from October's forecast. Since 1992/93, only last year's crop of 6.01 million tons and the 2006/07 crop (5.81 million tons) have been lower than this year's forecast. According to the March issue of the USDA-NASS *Citrus Maturity Test Results and Fruit Size* report, 98 percent of the non-Valencia crop had been harvested while less than 1 percent of the Valencia crop had been harvested as of early March.

Production of Florida oranges this season was hampered by periods of very dry weather during the season and by several cold fronts that brought freezing temperatures to citrus growing regions during December. A special survey was conducted by USDA-NASS on January 31 and February 1, 2011 to assess the effects of the sub-freezing temperatures on the Florida citrus region. The survey reported that 57 percent of early-season oranges and 79 percent of late-season oranges suffered no apparent damage. Of oranges assessed for damage at the center of the fruit, 17 percent of early-season oranges and 5 percent of late-season oranges suffered damage, with the majority of those being assessed as minor.

Fruit size for both Valencia and non-Valencia oranges is projected to be the smallest in any non-disaster season during the past 10 years. The drop rate is projected to be below average for non-Valencia oranges but above average for Valencia oranges.

Because most of Florida's orange production is directed into processing, USDA-ERS forecasts that the 6-percent increase in Florida orange production will translate into increased juice production–up 8 percent from last season to 900 million gallons, single-strength equivalent (sse). Higher overall orange production in the United States, slightly better processing yields, and the anticipation of a greater share of oranges going to processing this year are the basis for this forecast. If Florida's orange production is realized, this would be the 4th lowest production level dating back to 1990/91 (table 5). Lower beginning stocks and a projected reduction in imports are expected to lower overall supplies to 1.72 billion gallons this year, down 8 percent from last season's 1.86 billion gallons, and the lowest since 1992/93. With exports also projected to increase from last year, domestic consumption is projected to continue its general downward trend, falling to 1.1 billion gallons, down 5 percent from last year and off 18 percent from the 10-year

average. As a result, per-capita domestic consumption is expected to average 3.51 gallons, 6 percent less than last year and the lowest level dating back to at least 1970.

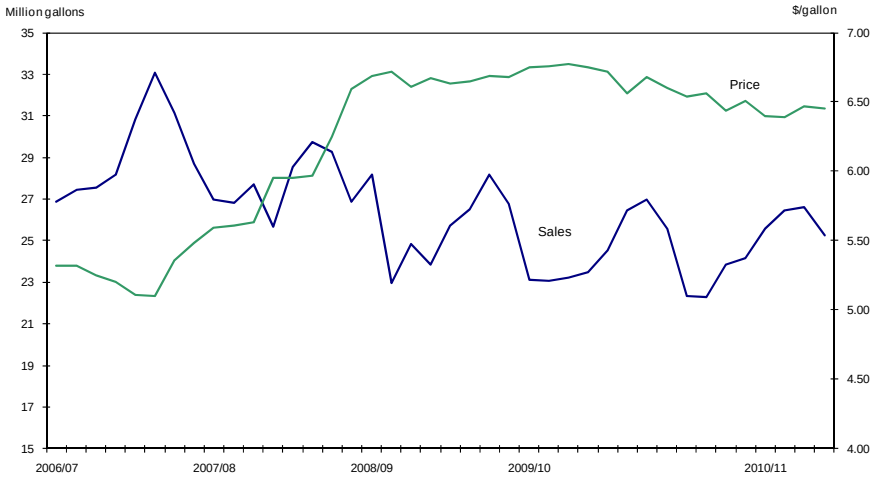
The projected reduction in domestic consumption is supported by Nielsen retail sales data reported by the Florida Department of Citrus (FDOC). This data indicate that overall orange juice sales for October through mid-February this season are down 8 percent compared to the same period last season, with prices up by an average of 6 percent. For refrigerated not-from-concentrate (NFC) orange juice, retail sales declined a more moderate 3 percent, with prices having climbed 4 percent (fig. 3). NFC retail sales were lower each month, October through February, this year compared to the corresponding months last season. Retail prices for NFC orange juice averaged $6.68 per gallon October-February this season compared to $6.44 per gallon during the same period last season, reaching a high of $6.78 in January before moderating slightly to $6.75 in February. Prices have been above $6.30 a gallon each month since June 2007, compared to an average monthly price of $5.40 for the 2003/04 through 2006/07 seasons. For the 2009-10 (October-September) season as a whole, total orange juice sales were down 3 percent compared to the previous year, while prices dipped 2 percent. NFC sales were down 2 percent and the price was down by 1 percent year-to-year.

Table 5 --United States: Orange juice supply and utilization, 1986/87 to present

Season 1/	Beginning stocks	Production	Imports	Supply	Exports	Domestic consumption	Ending stocks	Per capita consumption
	----------	----------	----------	*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	1,250	291	2,233	103	1,426	705	4.93
2003/04	705	1,467	222	2,393	123	1,448	822	4.96
2004/05	822	974	358	2,153	119	1,411	623	4.79
2005/06	623	986	299	1,909	138	1,312	459	4.41
2006/07	459	889	399	1,747	123	1,248	376	4.15
2007/08	376	1,156	406	1,938	136	1,155	647	3.81
2008/09	647	1,060	317	2,025	125	1,206	594	3.94
2009/10	694	837	328	1,859	147	1,155	558	3.74
2010/11 f/	558	900	260	1,718	175	1,093	450	3.51

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

Figure 3
Monthly NFC retail sales and price, 2006/07-2010/11



NFC= Not from concentrate.
Source: Florida Department of Citrus, www.fdocgrower.com.

Table 6--Processing oranges: Average equivalent on-tree prices received by Florida growers, 2005/06-2010/11

Month	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
			---Dollars/90-lb box---			
October	0.40	4.25	--	0.81	--	--
November	3.23	7.45	5.16	4.75	3.45	5.10
December	3.94	8.05	5.47	5.10	4.80	5.20
January	4.33	8.55	5.81	5.04	5.64	5.40
February	5.24	9.25	6.10	4.95	5.79	6.05
March	6.04	11.15	6.95	6.31	6.65	
April	6.31	11.45	7.32	6.63	7.10	
May	6.52	11.85	7.39	6.53	7.40	
June	6.73	12.15	7.17	6.87	7.40	
Oct.-Feb. Average	3.43	7.51	5.64	4.13	4.92	5.44

-- = Not available.

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

Florida's processing orange grower prices averaged 11 percent higher this October through February over the same period last season, averaging $5.44 per box (table 6). Once harvesting got underway in November, growers received an average price of $5.10 per 90-lb box. Prices improved monthly, reaching an average of $6.05 per box in February. Although monthly prices have been generally running above the last two seasons, they have been below those received in 2006/07 and 2007/08. Prices for oranges for processing were higher than average in 2006/07 to the small crop and lower than average beginning stocks. In 2007/08, the crop size had returned to normal but demand for oranges for processing was strong because beginning stocks were at their lowest level in over a dozen years. Excluding these two seasons, Florida growers are seeing better-than-average returns for their crop this season. Improved prices and the larger crop this season is likely to boost the overall gross value of the Florida orange crop this year.

Grapefruit Production Declines for Fourth Straight Season

U.S. grapefruit production for 2010/11 is forecast at 1.2 million tons this season, down 2 percent from 2009/10. While production has declined for the past 4 years, the decline is slowing—grapefruit production declined 6 percent in 2009/10 and 16 percent in 2008/09 compared to this year's 2 percent. Nevertheless, the crop is forecast to be the lowest since the hurricane-damaged crop of 2004/05. Production in Florida, which accounts for almost 70 percent of total domestic production, is projected down 3 percent from 2009/10. California's crop is down fractionally year-to-year, while Texas' crop is forecast to increase 2 percent.

According to data from the Florida Citrus Administrative Committee (FCAC), fresh grapefruit utilization this season through mid-March was down 12 percent from last season, with the share of production going to the fresh market virtually unchanged from last year. Though the crop is down slightly and fresh market demand remains virtually unchanged, prices have fallen compared to last season, partially due to smaller fruit size. Equivalent on-tree prices for fresh grapefruit received by growers have average $9.93 per box this season through February, a decline of more than 30 percent compared to last season (table 7).

Shipment data from FDOC show total shipments of fresh grapefruit through late February, both domestic and export, down 12 percent compared to last year. Reduced shipments to Japan and Canada—the No. 1 and 2 export markets respectively—were down through January, but were slightly offset by larger shipments to both China and South Korea.

At present, it is unknown how the situation in Japan will affect fresh grapefruit exports to that market for the rest of the marketing year. Fresh grapefruit exports to Japan fell 3 percent in 1994/95, the year of the Kobe earthquake. However, at that time Japan imported nearly twice the volume of U.S. grapefruit as it does currently.

Utilization of grapefruit for processing was down 12 percent this season through mid-March relative to last year, according to FCAC data. The decline in processed

Table 7--Fresh grapefruit: Average equivalent on-tree prices received by U.S. growers, 2005/06-2010/11

Month	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
		----------*Dollars per box 1/*----------				
October	16.90	15.15	13.16	11.96	19.80	1.10
November	14.66	12.41	14.01	8.18	13.95	16.41
December	14.37	11.89	11.16	7.89	12.33	11.14
January	15.29	9.95	9.35	7.08	13.45	10.72
February	13.89	8.27	8.26	7.44	12.57	10.30
March	12.60	7.77	7.66	8.00	11.25	
April	12.11	8.08	8.53	8.07	8.94	
May	15.13	10.54	9.44	7.00	6.07	
Oct.-Feb. Average	15.02	11.53	11.19	8.51	14.42	9.93

1/ The net weight of a grapefruit box for Florida: 85 pounds, for Arizona and California: 80 lb (67 prior to the 2010-11 crop year), for Texas: 80 lb.

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

grapefruit can be partially attributed to a smaller crop, as the share of the crop going to processing to date remains virtually unchanged from a year ago.

With fewer fruit having been sent to processing so far in the marketing year, ERS forecasts a slight decrease in grapefruit juice production to 76 million sse gallons by the end of the 2010/11 marketing year, down 1 percent from last season (table 8). With beginning stocks at their lowest since 2006/07, total supplies are forecast at 121 million sse gallons. U.S. per capita grapefruit juice consumption is forecast to decrease 3 percent this season—FDOC reports retail sales volumes down 3 percent for the marketing year through mid-February.

Table 8--Grapefruit juice: Supply and utilization 1991/92-2010/11

Year 1/	Supply				Ending stocks	Utilization		
	Production	Imports	Beginning stocks	Total		Exports	Consumption Total	Consumption Per capita
	Million sse gallons 1/							*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	81	6	35	122	42	19	61	0.21
2006/07	121	1	42	164	58	20	86	0.29
2007/08	109	0	58	167	60	16	92	0.30
2008/09	84	1	60	144	48	16	81	0.26
2009/10	77	1	48	125	45	13	68	0.22
2010/11 f/	76	0	45	121	40	15	66	0.21

1/single-strength equivalent. f = forecast.

Source: Prepared by USDA, Economic Research Service.

Table 9--Processing grapefruit: Average equivalent on-tree prices received by Florida growers, 2005/06-2010/11

Month	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
	---Dollars per 85-lb box---					
October	1.90	1.70	--	-1.29	-1.65	--
November	3.03	0.47	-0.20	0.11	0.54	0.27
December	3.69	1.32	-0.08	0.17	2.10	1.80
January	4.77	1.32	0.43	0.28	2.48	2.57
February	5.17	1.24	0.79	0.55	2.85	3.03
March	4.61	1.00	0.81	0.73	3.09	
April	4.04	0.81	0.75	0.86	2.30	
May	3.23	-0.03	0.69	--	1.27	
Oct.-Feb. Average	3.71	1.21	0.24	-0.04	1.26	1.92

-- = Not available.

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

Grower prices for Florida's processing grapefruit have been increasing each month, reaching a high of $3.03 per 85-lb box in February (table 9). Prices through February have averaged $1.92 per box—the highest since 2005/06. As the season winds down, demand for grapefruit for processing should rise, likely increasing prices in March. However, higher grower prices typically translate into higher retail prices, which may affect consumer demand for grapefruit juice during the remainder of the season.

Larger U.S. Lemon Crop in 2010/11 Leads To Increased Exports

U.S. lemon production in 2010/11 is forecast at 940,000 tons, up 9 percent from last season and the largest lemon crop since 2005/06. Accounting for 89 percent of total U.S. production, California's crop is forecast up 8 percent this season. Wet conditions, combined with inconsistent size and quality, slowed picking in the San Joaquin Valley earlier in the year, but harvest conditions have since improved. Arizona's crop is forecast up 19 percent to 100,000 tons.

The fresh lemon market is beginning to see signs of a return to historic demand levels after the economic downturn reduced consumption in 2009/10. Seasonal lemon shipments through mid-March are up nearly 20 percent this season according to AMS shipment data, with both domestic and imported shipments up from last season. Trade data through January, reported by the U.S. Census Bureau, showed imports up 7 percent over the same period last season. In August, the beginning of the 2010/11 lemon season, imports were higher than in 2009/10, but below the levels seen in 2007/08 and 2008/09. Imports have declined since November, with nearly all imports coming from Mexico—a country that begins its harvest at about the same time as the United States. Though imports through January have increased the past two years, they remain well below the volumes seen in 2007/08 when freezing temperatures substantially reduced the U.S. lemon crop.

Exports of fresh lemons through January 2011 are up for the first time in 3 years through this period. Though Japan remains the biggest export market for U.S. lemons with 17,000 tons to date this marketing year, exports to China reached a record 4,000 tons by January 2011 compared to 2,300 tons at this time last year. Production of lemons in China is projected to remain unchanged in 2010/11, while demand of lemons by Chinese consumers continues to increase, motivating increased imports of U.S. lemons. Exports to Australia and Chile were also up compared to last year, though shipments to Canada declined 4 percent.

Fresh lemon grower prices have averaged $22.29 per 80-lb box this season (the standard weight for a box of lemons was increased from 76 lbs to 80 lbs beginning in August of this marketing year), ranging from a high of $28.60 in September to a low of $12.64 in February (table 10). Extremely wet conditions reduced early-season supplies, supporting prices from September through November. Prices have fallen since November because of larger supplies reaching the market. The lemon harvest continues in the San Joaquin Valley as well as the desert and coastal regions of California.

Table 10--Fresh lemons: Average equivalent on-tree prices received by U.S. growers, 2005/06-2010/11

Month	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
			--Dollars per box 1/--			
August	15.72	27.01	43.40	35.58	24.26	26.93
September	13.41	31.37	46.10	29.81	27.06	28.60
October	12.06	34.03	47.98	20.15	24.77	26.20
November	12.35	26.55	48.00	17.85	25.37	26.93
December	12.33	18.31	42.66	14.06	22.41	19.78
January	10.99	16.24	45.50	14.24	22.43	14.98
February	13.47	37.31	47.10	11.27	22.26	12.64
March	16.00	37.71	45.90	8.85	21.26	
April	23.82	36.71	43.20	8.68	22.86	
May	28.02	36.11	44.40	11.48	23.36	
June	27.62	38.21	45.90	17.38	23.86	
July	26.22	40.91	43.00	22.78	24.96	
Aug.-Feb. Average	12.90	27.26	45.82	20.42	24.08	22.29

1/ Beginning in 2010/11, boxes are 80 lbs. Prior to 2010/11, box size was 76 lbs.

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

Production of U.S. Tangerines/Clementines Forecast Higher in 2010/11

U.S. production of tangerines and clementines is forecast up 2 percent in 2010/11 to 605,000 tons, with increased production in California offsetting small declines in Arizona and Florida. California continues to lead the nation in production, with its 2010/11 crop forecast at 384,000 tons—nearly 4 percent more than in 2009/10 and the largest California clementine/mandarin harvest on record. Acreage planted to clementine/mandarin varieties continues to increase in California, and the state is currently harvesting its first significant crop of the low-seed Tango mandarin variety. In contrast, Florida's tangerine production is forecast to decline 1 percent from 2009/10, largely due to smaller fruit size.

Average grower prices per box have seen a marked increase this season, driven partially by the increased size of tangerine boxes in California and Arizona, but also by strong consumer demand. For the 2010/11 crop year, box size for tangerines and mandarins in Arizona and California was increased 7 percent from 75 to 80 pounds per box. However, fresh on-tree equivalent grower prices per box more than outpaced this increase in box size, and are currently on track to set a marketing-year record. Grower prices began the season at $15.85 in October, 13 percent higher than October 2009. Between October and November of 2010, prices more than doubled to $33.56 (table 11). Prices have declined since November, with February's grower price estimated at $18.62 per box—still 66 percent higher than last year and 8 percent higher than the average of the preceding five Februarys. Marketing of Florida's early-variety tangerines was nearing completion by the end of February, but Honey tangerines were still in the market. In California's San Joaquin Valley, harvest of mandarin varieties continued, but wet conditions have hampered harvesting activities and increased fruit decay.

Table 11--Fresh tangerines and mandarins: Average equivalent on-tree prices received by U.S. growers, 2005/06-2010/11

Month	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
			--Dollars per box 1/--			
October	20.12	16.67	15.65	17.48	14.00	15.85
November	19.78	21.69	23.88	22.24	26.45	33.56
December	17.18	21.77	21.21	15.19	25.05	31.91
January	15.85	19.58	21.18	18.46	19.42	21.96
February	13.79	18.29	19.52	23.76	11.22	18.62
March	11.78	17.58	20.39	18.96	16.40	
April	11.25	21.02	17.45	--	18.55	
May	8.57	20.50	6.65	--	--	
Oct.-Feb. Average	17.34	19.60	20.29	19.43	19.23	24.38

1/ The net weight of a tangerine box for Florida: 95 lbs, for Arizona and California: 80 lbs (75 prior to the 2010-11 crop year).

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

Avocado Supplies Drop, Prices Strengthen

With last season's bumper supplies of avocados in California already behind us and Chilean supplies winding down, hass avocado prices in the United States have strengthened entering 2011 despite slightly higher imports from Mexico in January and February than a year ago. Mexico—now a year-round supplier to the U.S. avocado market—ships almost steady volumes to the United States each month throughout the year, adjusting their shipments either up or down depending on overall supply in this market. Averaging $31 to $33 per 2-layer carton (size 32s and 36s), free-on-board (f.o.b.) shipping-point prices for Mexican avocados crossing through Texas in January and February 2011 increased from average-levels of $25 to $27 in the fall 2010 but also gained against prices the same time last year ($22-$24). Slowed shipments in March further strengthened U.S. prices for Mexican avocados to around $42 to $44, up from the first 2 months of the year and nearly double prices in March 2010. As California supplies start to penetrate the market in mid-spring, these prices may see some weakening from earlier this year. Current-season projections of lower production in California, however, and the possibility of lower production in Mexico, would drive down overall U.S. avocado supplies, likely keeping domestic avocado prices above 2009/10 levels through the rest of this season. Harvest of the California crop will be in full swing this spring and summer.

Industry expectations are that California's avocado production will be down for the 2010/11 marketing season. Much of this decline is attributed to being an "off year" for the crop following the bumper harvest in 2009/10. Initial indications from the California Avocado Commission put this season's crop down 49 percent from 2009/10. With this 49-percent decline, ERS projects California production for the 2010/11 season to decline to approximately 283 million pounds, from last season's NASS production estimate of 550 million pounds—the largest crop since 1992/93. A decline of this magnitude will also bring production about 15 percent below the previous 5-year average (2004/05-2008/09).

In Mexico, mostly favorable weather throughout the growing season, continuous implementation of phytosanitary pest control programs, and new trees coming into

full production have all contributed to boosting avocado production in 2010/11. USDA's Foreign Agricultural Service (FAS) forecast 2010/11 production to increase to a record 1.24 million metric tons (2.73 billion pounds), up 6 percent from 2009/10. Exports, which take up about one-third of Mexico's production, are forecast up 3 percent, mostly serving the U.S. market. Freezing weather in early 2011, however, may have affected production in the State of Michoacán which produces over 90 percent of Mexico's avocado crop, leaving the possibility that overall production in that country will be lower than expected. Moreover, some in the industry had initially expected steady production from last season than an increase. Should this be the case, weather-related crop damage from earlier this year could adjust the 2010/11 forecast production in Mexico down instead from 2009/10.

Despite the possibility of steady to lower production in Mexico, strong prices in the United States due to the small crop in California should prompt Mexican exporters to continue to fill in the supply gaps in this market to meet the ever-growing U.S. demand for avocados. Whether or not it will match or exceed those in 2009/10 or the season before (2008/09—when U.S. production was lowest in over three decades) remains to be seen, but more than likely Mexican avocados will again dominate U.S. supplies in 2010/11 as has been observed during average crop years in the United States during the past 5 seasons. This was not the case last season (2009/10) when California had a very large crop and U.S. avocado imports from Mexico totaled 587.9 million pounds, 2 percent short of what was produced in the United States.

The expected limited supplies for this season, especially from California, should mean U.S. avocado exports will not be as robust as in 2009/10. Export volume reached near-record levels in 2009/10 at 40.7 million pounds, a sharp increase from most years prior to 1986/87 (when exports, at 47.2 million pounds, were at an all-time high). In most of the last 10 years, exports amounted to an average 4.0 million pounds (excluding robust years—2005/06, 2007/08, and 2009/10). Exports will likely drop sharply to around this average level in 2010/11. U.S. consumers remain the primary market for avocados produced in the United States, with exports representing less than 10 percent of domestic production.

Spring Strawberry Supplies Plentiful, Lowering Prices

Late winter, early spring U.S. strawberry supplies have caught up after freezing weather in December in Florida and periods of cold, wet weather in California have limited supply availability from December 2010 through the early weeks into February 2011. Weather since the latter part of February has improved for growing and harvesting Florida strawberries, resulting in late-season heavy volumes from the State in recent weeks. Ample early-spring supplies are driving down domestic strawberry prices. Rainy weather again in California around mid-March slowed their strawberry shipments temporarily but volumes were expected to bounce back in early April. The quality of Florida strawberries available in the market in recent weeks has also improved, according to some industry sources, because with the buildup in harvestable volumes and the resulting lower prices, substandard berries were not being picked to avoid selling at below the cost of harvesting.

Florida strawberries typically dominate the market in the winter months, winding down in late March or in April when the California harvest season gets underway. Supplies remained light in Florida back in January but their shipment volumes for that month still registered significantly higher than they were in January 2010 when an early-January freeze sharply reduced their supplies. Supplies from their previous-year crop did not pick up until late in the season. With early 2011 shipments from California also running low, overall domestic supplies in January 2011 were down about 2 percent from the same period a year ago. As supply volumes began to pick up momentum around the second half of February, U.S. strawberry grower prices averaged $1.45 per pound for the month, down from the record levels in December and January of $2.85 per pound and $2.24 per pound, respectively. Increased supplies have also weakened prices compared to last year, with the average grower price this year down 19 percent from the February 2010 average of $1.79 per pound—a record high for the month. Although down from last year's high, grower prices this February remained relatively strong, averaging about 30 percent higher than the February average price from 2000-09.

U.S. retailers found promotable supplies to be quite limited back in January through the first half of February covering the heavy demand period gearing towards Valentine's Day, putting upward pressure on U.S. strawberry retail prices. As market demand remained strong, retail prices in January averaged $3.00 per 12-oz dry pint, 5 percent above the January 2010 average price, based on data from the U.S. Department of Labor's Bureau of Labor Statistics (BLS). Increased imports in January, larger supplies from Florida than in December 2010, and likely some berry quality issues lingering from the December freeze, however, drove the January average retail price down slightly from $3.07 per pint in December 2010. In February, retail prices declined further to $2.42 per pint which was also below the average in February 2010. In comparison, AMS data on retail advertised prices show second-half February prices for strawberries declined 6 percent from the same period a year ago. In March these prices averaged 17 percent below the previous month and 5 percent lower than in March 2010. The decline in the prices was likely due to the buildup in promotable supplies. The market should see Florida supplies tapering off in the next few weeks but, if no major weather problems arise, California supplies are expected to build momentum as production reaches peak harvest period over the spring and summer months, likely leading to seasonal price declines. California supplies around 90 percent of annual U.S. strawberry production.

The NASS *Vegetables* report released back in January provided the 2011 strawberry area forecast for California, Florida, and Oregon—the three leading strawberry-producing States in the country. Total strawberry area planted for these three States in 2011 was forecast at 50,000 acres, up by 500 acres from 2010. Out of this total, forecast harvested area for this year was 49,800 acres, up from 49,300 acres harvested in 2010 but increasing only in Florida. As in the previous year, all planted acres in California are forecast to be harvested, totaling 38,000 acres. Marking the second consecutive year of declining strawberry acreage in the State, the 2011 acreage forecast was reduced by 600 acres from the previous year. The reduction in the 2011 California strawberry acreage more than likely reflects the forecast decline in this year's summer planted acreage (which produces during the fall season) compared to last summer, based on results of the *California Strawberry 2011 Acreage Survey* released by the California Strawberry Commission.

The forecast decline in summer planted acreage could be attributed to the acreage reduction in the Oxnard growing district which was the only area projected to have fewer acres planted among the other growing districts—Orange County/San Diego, Santa Maria, and Watsonville/Salinas. Forecast fall planted acreage (referring to fall 2010) which will produce for the 2011 winter, spring, and summer months was relatively steady from the previous year, increasing only by 13 acres, based on the 2011 acreage survey. Increases in fall plantings in Watsonville/Salinas—the State's largest strawberry growing district accounting for almost half of the fall acreage—and in the Orange County/San Diego growing district made up for acreage declines in the Oxnard, Santa Maria, and San Joaquin growing districts.

Similar to California, all of Florida's planted acreage was also harvested, based on the NASS *Vegetables* report. Florida's 2011 total strawberry acreage, however, was forecast larger than a year ago at 9,900 acres, up by 1,100 acres. In Oregon, about 90 percent of total planted strawberry area in 2011 was forecast to be harvested, totaling 1,900 acres—unchanged from the previous year.

With the forecast 2011 harvested acreage in the top three strawberry States and average yields from last year in these States, ERS projects U.S. strawberry production in 2011 to remain relatively unchanged from the year before at around 2.84 billion pounds. Last year, domestic production registered 2.85 billion pounds. State-level production is projected to be mostly up in 2011except for California due to the decline in acreage. California's production is projected to be down about 1 percent from last year's 2.58 billion pounds. However, should weather in California be mostly favorable through the rest of the season, significant improvements in yields compared to a year ago could further adjust the State's projected 2011 production. Last year, the increase in average yields per acre in California (up 7 percent from 2009) more than made up for the decline in harvested acres (down 3 percent), resulting in a larger crop. Should this be the case again this year, California's 2011 strawberry crop could end up being larger than in 2010, driving overall domestic strawberry production higher for the year.

Demand for strawberries continues to grow. In the domestic fresh market, U.S. strawberry production and imports have been increasing mostly through the past decade to meet demand (table 12). Exports have been mostly rising at the same time although the bulk of U.S. strawberries continue to be for domestic consumption. Only about one-tenth of the domestic fresh-market crop gets destined for the export market—a greater portion to Canada and most of the remaining portion to Mexico and Japan. U.S. fresh strawberry exports broke another record in 2010, with volume increasing for the sixth straight year to 279.5 million pounds valued at $340.7 million—also the highest thus far for the U.S. strawberry industry. Record sales to Canada and near-record sales to Japan mostly contributed to the strong export performance of the industry in 2010. Similarly, rising per capita strawberry consumption for fresh use in the United States has broken record levels each year since 2002 reaching an all-time high of 7.21 pounds estimated for 2010. Though not much changed from the 2009 estimate (7.17 pounds in 2009), per capita domestic fresh strawberry consumption has risen by almost half what it was 10 years ago.

U.S. strawberry imports continue to be dominated by supplies from Mexico, with shipments almost year round but peaking during the winter months. U.S. Department of Commerce trade data indicate that in January 2011, imports of fresh

Table 12--Fresh strawberries: Supply and utilization in the United States, 1980 to date

Year	Supply			Utilization		
					Consumption	
	Utilized production	Imports	Total supply	Exports	Total	Per capita
			-- Million pounds --			*Pounds*
1980	482.1	12.7	494.8	47.1	447.7	1.97
1981	537.5	6.7	544.2	44.4	499.8	2.17
1982	589.6	4.5	594.1	44.0	550.1	2.37
1983	585.4	5.1	590.5	46.4	544.1	2.32
1984	748.2	8.8	757.0	56.3	700.7	2.96
1985	754.1	9.6	763.7	51.5	712.2	2.99
1986	734.8	13.0	747.8	51.5	696.3	2.89
1987	780.4	33.2	813.6	57.1	756.5	3.12
1988	855.5	39.4	894.9	78.0	816.9	3.33
1989	861.6	36.0	897.6	93.0	804.7	3.25
1990	863.6	32.2	895.8	85.7	810.1	3.24
1991	968.2	31.5	999.7	95.2	904.4	3.57
1992	999.7	23.8	1,023.5	102.3	921.2	3.59
1993	1,010.8	31.4	1,042.2	102.1	940.1	3.62
1994	1,147.7	43.7	1,191.4	126.4	1,065.0	4.05
1995	1,145.6	58.8	1,204.4	111.4	1,093.1	4.10
1996	1,212.6	67.3	1,279.9	116.0	1,163.9	4.32
1997	1,201.8	31.9	1,233.7	115.8	1,117.9	4.10
1998	1,132.2	58.1	1,190.3	109.3	1,081.1	3.92
1999	1,305.2	94.8	1,400.0	124.3	1,275.7	4.57
2000	1,433.3	76.2	1,509.5	136.5	1,373.0	4.86
2001	1,259.7	70.7	1,330.4	128.1	1,202.3	4.21
2002	1,406.3	89.9	1,496.2	156.9	1,339.3	4.65
2003	1,642.4	90.3	1,732.7	194.8	1,537.9	5.29
2004	1,694.4	94.4	1,788.8	182.6	1,606.3	5.48
2005	1,811.0	122.7	1,933.7	207.6	1,726.1	5.83
2006	1,910.9	153.4	2,064.3	229.1	1,835.2	6.14
2007	1,973.3	157.7	2,131.0	240.3	1,890.7	6.27
2008	2,091.1	143.0	2,234.1	269.2	1,964.9	6.45
2009	2,288.0	187.2	2,475.2	271.8	2,203.3	7.17
2010 1/	2,317.8	198.3	2,516.1	279.5	2,236.6	7.21

1/ Preliminary.
Source: USDA, Economic Research Service calculations.

strawberries in the United States were up 5 percent in volume from the same period last year and higher than any January volume in the past decade. Virtually all of the imports in January were from Mexico. Strong demand for imported Mexican strawberries reflected the lack of supplies from the domestic crop during that period. More recent import data from BLS was not yet available at the time this report was released but based on AMS weekly shipment data, volumes from Mexico for this season through March 12 were up 1 percent over the same period last year. Shipments since the last week in February, however, have slowed relative to year-ago levels, likely due to the freeze Mexico experienced that month. Imports from Mexico have mostly trended up over the past decade and continued growth last year has brought total U.S. fresh strawberry imports to a record 198.5 million pounds in 2010, up 6 percent from the previous year. Canada, Peru, and Argentina provided less than 1 percent of last year's total imports volume.

While the fresh market remained the primary market for U.S. strawberries, close to 20 percent of the 2010 domestic strawberry crop was destined for the frozen market. Although considered by the industry as a residual market, demand for the frozen product also remained strong in 2010 (table 13). U.S. per capita consumption of frozen strawberries was estimated by ERS at a record 2.17 pounds (product-weight basis) in 2010, up from 1.74 pounds in 2009 and from the previous 10-year average of 1.84 pounds. While the Processing Strawberry Advisory Board of California reported total U.S. frozen strawberry pack in 2010 as 5 percent lower than the previous year, higher imports (also mostly from Mexico) and record-large beginning stocks (of frozen strawberries) boosted overall domestic supplies last year, driving domestic prices for frozen strawberries lower and encouraging more demand. NASS reported 2010 ending stocks of frozen strawberries (as of

Table 13--Frozen strawberries: Supply and utilization in the United States, 1980 to date

Year	Industry 1/ pack	Imports	Beginning stocks	Total supply	Ending stocks 2/	Exports	Consumption	
							Total	Per capita Product weight
	Million pounds							Pounds
1980	253.1	83.5	132.5	469.1	151.9	4.4	312.8	1.37
1981	210.6	60.1	151.9	422.6	115.2	6.6	300.8	1.31
1982	272.7	34.9	115.2	422.8	139.9	7.1	275.8	1.19
1983	292.7	42.6	139.9	475.2	176.6	5.9	292.7	1.25
1984	231.4	50.9	176.6	458.9	166.0	8.0	284.9	1.21
1985	229.2	59.7	166.0	454.9	167.1	6.6	281.2	1.18
1986	237.6	52.5	167.1	457.2	146.6	8.5	302.1	1.26
1987	334.4	75.3	146.6	556.3	236.0	10.8	309.5	1.27
1988	274.6	64.3	236.0	574.9	235.2	17.8	321.9	1.31
1989	238.2	55.0	235.2	528.4	167.2	20.5	340.7	1.38
1990	305.9	72.1	167.2	545.2	198.3	32.8	314.1	1.26
1991	330.2	70.5	198.3	599.1	219.9	26.1	353.1	1.39
1992	268.5	58.2	219.9	546.6	173.8	30.0	342.8	1.34
1993	365.7	54.5	173.8	594.0	214.1	40.4	339.5	1.31
1994	369.0	55.2	214.1	638.3	244.7	63.1	330.4	1.26
1995	371.1	73.5	244.7	689.4	255.1	53.1	381.2	1.43
1996	330.1	56.9	255.1	642.1	212.0	46.9	383.2	1.42
1997	328.2	61.0	212.0	601.1	220.5	47.3	333.3	1.22
1998	373.8	54.2	220.5	648.6	201.4	59.6	387.6	1.40
1999	419.8	89.8	201.4	711.0	277.7	55.6	377.7	1.35
2000	439.7	78.0	277.7	795.4	310.5	42.8	442.2	1.57
2001	422.4	76.0	310.5	808.8	243.7	42.9	522.2	1.83
2002	415.9	112.7	243.7	772.2	263.7	45.4	463.1	1.61
2003	429.1	120.1	263.7	812.9	247.2	22.9	542.8	1.87
2004	433.6	125.7	247.2	806.4	293.6	22.0	490.9	1.67
2005	416.5	161.6	293.6	871.7	218.8	22.2	630.7	2.13
2006	458.5	181.5	218.8	858.8	202.5	28.1	628.2	2.10
2007	502.2	182.2	202.5	886.8	280.2	32.0	574.6	1.90
2008	424.9	173.8	280.2	878.9	235.2	35.0	608.6	2.00
2009	482.4	170.3	235.2	887.9	322.5	32.1	533.4	1.74
2010 3/	459.0	188.1	322.5	969.5	263.1	33.9	672.5	2.17

1/ After 2002, estimates from the Processing Strawberry Advisory Board of California. Previous estimates from the American Frozen Food Institute. 2/ Stock data from USDA, National Agricultural Statistics Service, *Cold Storage Summary.* 3/ Preliminary.
Source: USDA, Economic Research Service calculations.

December 31) at 263.1 million pounds, down substantially from the record of 322.5 million pounds in 2009 but around the previous 10-year (including 2009) average 261.8 million pounds. The large supplies also helped promote export demand with 2010 volumes destined for international markets up 6 percent from 2009. Exports were up to top markets such as Canada, Japan, and Mexico.

Total Tree Nut Utilized Production Up in 2010

Utilized production of tree nuts in the United States for the 2010/11 season was forecast up 18 percent to 2.37 million tons (in-shell) from the previous season. The reduced production of hazelnuts, pecans and macadamias was offset by production increases in almonds, walnuts and pistachios. If realized these will be the largest almond, pistachio and walnut crops to date. Comprising the largest share of production the almond crop was forecast at 1.65 million pounds, just one-percent above the previous record crop of 1.63 million pounds in 2008.

The value of the 2010 tree nut crop (excluding walnuts for which data will be available in July) is estimated at $5.3 billion, up 29 percent from 2009. The pistachio crop value experienced the largest increase in value by almost double, to $1.15 dollars from $592 million in 2009. Almond value is forecasted at $2.6 billion, up 17 percent from 2009's crop value of $2.2 billion. Pecans also experienced an increase in value this year to $556 million, a 30-percent increase from 2009 values. Terminal market prices for pecans as of March range from 2.00-3.20 dollars per pound, higher than previous years (table 14). In March 2007, pecan

Table 14--Average monthly terminal market inshell tree nut prices, 2006-2011

Month	Almonds, Peerless						Pecans, Various varieties					
	2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
	----------Dollars per pound----------											
January	1.52-2.24	1.48-1.60	1.30-1.50	1.08-1.76	1.10-2.34	1.43-1.80	1.00-2.60	2.20-3.00	1.20-2.90	1.50-3.00	1.20-3.04	1.40-3.60
February	1.36-1.56	1.50-1.60	1.30-1.40	1.10-1.50	1.20-1.30	1.50	1.80-1.94	2.20-3.00	1.30-1.80	2.10-2.60	1.90-2.00	1.40-3.60
March 1/	1.48	1.50-1.60	1.30-1.40	1.10-1.30	1.20-1.40	1.50	1.20-2.00	2.20	1.40-1.80	2.10	1.90-2.00	2.00-3.20
April	1.48	1.50-1.60	1.30-1.40	1.20-1.30	1.30-1.40		1.20-2.00	2.20	1.40-1.80	2.10	1.90-2.00	
May	1.48	1.50-1.60	1.30	1.20-1.30	1.30-1.40		1.90-2.40	2.20-2.70	1.40-1.80	2.10	1.90-2.20	
June	1.48	1.50-1.60	1.30	1.20-1.30	1.40		2.40	2.60-2.70	1.40-1.80	2.10	2.10-2.20	
July	1.48-1.72	1.50	1.30	1.20-1.30	1.40		2.40-2.44	2.60	1.40-1.80	2.10	2.10-2.20	
August	1.60-1.72	1.40-1.50	1.30	1.20-1.30	1.40		2.44	--	1.40-1.80	2.10	2.10-2.20	
September	1.60-1.72	1.30-1.40	1.30	1.20-1.30	1.40		2.44	--	2.80	2.10	2.10-2.20	
October	1.12-1.75	0.94-1.97	1.24-1.94	0.95-2.40	1.40-1.80		2.30-3.0	1.40-2.96	2.20-3.00	1.90-2.72	2.10-3.60	
November	1.12-2.33	0.94-1.98	0.93-1.76	0.95-2.40	1.25-1.80		1.75-3.12	1.30-3.34	1.61-3.05	1.44-2.72	2.50-3.60	
December	1.12-1.78	1.00-2.15	1.02-1.72	0.95-2.34	1.25-1.80		1.75-3.12	1.30-3.34	1.60-3.05	1.20-3.04	2.50-3.60	

	Walnuts, Mostly Hartley						Pistachios, Various varieties					
	2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
	----------Dollars per pound----------											
January	0.76-1.83	1.00-2.13	1.40-2.42	1.50-2.60	1.50-2.00	1.58-2.54	3.40-4.40	3.44-3.61	2.88-3.44	2.44-4.40	3.89-4.20	2.78-4.20
February	1.26-1.52	1.00-1.73	1.90-2.38	1.50-2.25	1.70-2.00	1.70-2.50	3.52-3.61	3.44-3.61	3.20-3.44	3.00-4.40	3.89-4.20	4.20
March 1/	1.30-1.32	1.40-1.50	2.20-2.38	1.50-2.25	1.80-2.00	1.70-2.71	3.52-3.61	3.44-3.68	3.20-3.44	4.00-4.40	3.89-4.20	--
April	1.30-1.32	1.44-1.50	2.20-2.38	1.50-2.25	1.80-2.00		3.52-3.61	3.44-3.68	3.20-3.44	4.00-4.20	4.20	
May	1.30-1.32	1.44-1.50	2.20-2.38	1.50-2.00	1.80-2.05		3.52-3.61	3.20-3.61	3.20-3.44	4.00-4.20	4.20	
June	1.30-1.32	1.44-1.60	2.30-2.33	1.60-2.00	2.00-2.05		3.52-3.61	3.20-3.61	3.20-3.44	4.00-4.20	4.20	
July	1.26-1.32	1.60-1.70	2.30-2.33	1.60-2.00	2.00-2.05		3.04-3.61	3.20-3.61	3.20-3.44	4.00-4.20	4.20	
August	1.26-1.30	1.60	2.60-2.50	1.60-2.00	2.00-2.05		3.04-3.61	3.20-3.61	3.20-3.44	3.89-4.20	4.20	
September	1.26-1.44	--	2.60	1.60-2.00	2.00-2.05		3.04-3.61	2.88-3.61	3.20-3.33	3.89-4.20	4.20	
October	1.06-3.50	1.40-2.70	1.64-4.50	1.32-2.33	1.60-2.20		3.16-5.07	2.88-3.44	2.44-4.40	1.76-4.20	4.20-5.00	
November	1.06-3.50	1.40-2.70	1.52-2.60	1.32-2.33	1.58-2.19		3.16-5.50	2.88-3.44	2.24-4.40	1.76-4.20	4.20-4.44	
December	1.06-3.25	1.40-4.50	1.52-2.69	0.99-2.33	1.58-2.60		3.60-5.50	2.88-5.22	2.24-5.67	1.76-4.20	3.89-5.00	

-- = Not available. 1/ March 2011 data are through March 22.

Source: USDA, Agricultural Marketing Service.

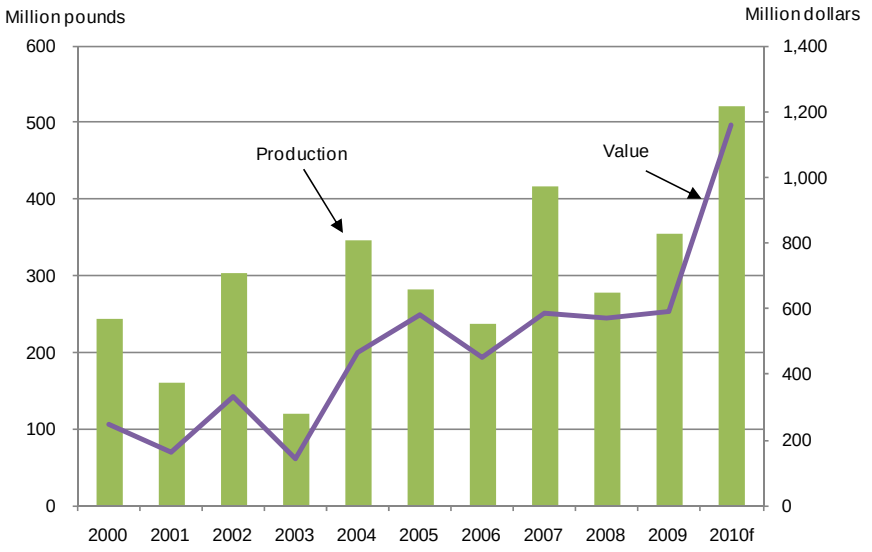
prices were $2.20 per pound those prices were not reached again until March 2011 with the average price being $2.60 per pound, an 18 percent increase.

Pistachio Nut 2010 Season Is Record-Breaking

The 2010 season proved successful for pistachio producers with record breaking utilized production and crop value. Utilized production was up almost 50 percent to 522 million pounds from 355 million pounds (fig. 4). Despite the large crop, prices were up to $2.22 per pound the highest grower price on record. The high grower price, valued the crop at $1.15 million, another record-high for the pistachio industry in 2010. Bearing acreage has increased this year to 137,000 acres. According to industry sources, the production trend should continue as more pistachios enter bearing status over the next 3 years. The weather was partially responsible for the successful 2010 crop with a cool wet spring and a mild summer. The 2010 crop was an "on year", 2011/12 will be an "off year" for pistachios.

Despite this season's large harvest, exports are down 14 percent through February, according to the Administrative Committee for Pistachios (ACP). Top markets are Hong Kong, China, Belgium, the Netherlands and France, with total exports at 128 million pounds. The U.S. Census Bureau reports Hong Kong imported 43 million pounds through February 2011, a 51-percent increase from the same time last year. Belgium experienced an 11-percent increase, up to 17 million pounds. Domestic shipments for February are down 20 percent compared to February 2009/10, while year-to-date shipments are down only 8 percent to 72 million pounds, according to the ACP shipment reports.

Figure 4
Pistachio acres and value of production, 2000-11



F=forecast
Source: USDA, National Agricultural Statistics Service, Non-Citrus Fruits and Nut Summary, various issues

Fruit and Tree Nuts Crop Value Up in 2010

NASS reported the 2010 value of U.S. fruit and tree nut production at $20.2 billion, up 8 percent from 2009 and 10 percent from 2 years earlier (table 15). Twenty-five out of the 43 fruit and tree nut-producing States reported an increase in crop value, including most of the top 10 producing States in 2010. Fruit and tree nut production in California, the No. 1 producer, was valued at $12.8 billion, up 9 percent from the previous year and accounting for 64 percent of the U.S. total. Among the major producers, the crop value declined in the No. 3-producing State, Florida (down almost 2 percent from the previous year), as well as the sixth and ninth producers, Michigan (down 2 percent) and Wisconsin (down less than 1 percent). Florida's 2010 fruit and tree nut production was valued at $1.9 billion, 9 percent of the U.S. total while Michigan and Wisconsin together accounted for almost 3 percent of the total.

Ranking as the second-largest producer, Washington's fruit and tree nut crop value totaled $2.2 billion in 2010, or about 11 percent of the total. Although apples are the No. 1 fruit crop in Washington, the boost in the State's total fruit and tree nut value in 2010 could be attributed mainly to the more than doubling in the grower prices for sweet cherries and higher prices for grapes, pears, strawberries, and cranberries. The higher prices for these fruit all resulted from lower production but the higher prices outweighed the production declines.

Citrus fruit production is the largest contributor to total fruit and tree nut crop value in Florida, generating approximately almost 80 percent of the total. Grower prices for most citrus in Florida were higher in 2010 than in 2009 but a significantly smaller orange crop was mainly responsible for driving the State's overall fruit crop value down 12 percent from the previous year. Meanwhile, crop values in 2010 were up for Florida grapefruit (up 45 percent from the previous year) and tangelos (up 22 percent) as higher grower prices more than made up for the lower

Table 15--Value of fruit and tree nut crops, by State, 2008-10

State	Crop value			Share of U.S. value			Percent change	State ranking
	2008	2009	2010	2008	2009	2010	2009-10	
	1,000 dollars			*Percent*				
Alabama	16,577	21,115	16,629	0.1	0.1	0.1	-21.2	26
Arizona	91,850	71,307	93,478	0.5	0.4	0.5	31.1	16
Arkansas	9,662	6,212	8,321	0.1	1/	1/	34.0	37
California	10,999,476	11,766,918	12,849,099	60.0	62.9	63.7	9.2	1
Colorado	23,654	22,170	26,260	0.1	0.1	0.1	18.4	23
Connecticut	13,104	11,467	12,678	0.1	0.1	0.1	10.6	29
Florida	2,146,860	1,932,364	1,901,662	11.7	10.3	9.4	-1.6	3
Georgia	210,236	217,265	241,630	1.1	1.2	1.2	11.2	8
Hawaii	57,180	54,773	53,411	0.3	0.3	0.3	-2.5	18
Idaho	29,110	21,041	22,669	0.2	0.1	0.1	7.7	24
Illinois	27,643	29,583	31,750	0.2	0.2	0.2	7.3	21
Indiana	13,957	13,679	13,374	0.1	0.1	0.1	-2.2	28
Iowa	1,961	2,715	2,228	1/	1/	1/	-17.9	40
Kansas	1,900	1,300	5,250	1/	1/	1/	303.8	38
Kentucky	6,335	--	--	1/	--	--	--	43
Louisiana	5,790	8,125	11,450	1/	1/	0.1	40.9	34
Maine	68,482	45,570	62,460	0.4	0.2	0.3	37.1	17
Maryland	11,714	11,362	12,001	0.1	0.1	0.1	5.6	33
Massachusetts	162,262	108,681	104,277	0.9	0.6	0.5	-4.1	14
Michigan	360,473	331,364	323,519	2.0	1.8	1.6	-2.4	6
Minnesota	17,827	11,988	12,571	0.1	0.1	0.1	4.9	31
Mississippi	9,690	12,598	11,020	0.1	0.1	0.1	-12.5	35
Missouri	25,111	18,387	20,642	0.1	0.1	0.1	12.3	25
Montana	3,958	1,567	4,026	1/	1/	1/	156.9	39
New Hampshire	16,298	12,630	8,740	0.1	0.1	1/	-30.8	36
New Jersey	147,887	151,007	146,116	0.8	0.8	0.7	-3.2	11
New Mexico	62,350	119,680	156,800	0.3	0.6	0.8	31.0	10
New York	346,663	286,892	327,800	1.9	1.5	1.6	14.3	5
North Carolina	104,907	103,427	116,230	0.6	0.6	0.6	12.4	13
Ohio	55,690	53,404	47,973	0.3	0.3	0.2	-10.2	20
Oklahoma	6,080	13,950	31,600	1/	0.1	0.2	126.5	22
Oregon	468,885	430,214	454,611	2.6	2.3	2.3	5.7	4
Pennsylvania	144,580	132,630	132,016	0.8	0.7	0.7	-0.5	12
Rhode island	1,549	1,403	1,674	1/	1/	1/	19.3	42
South Carolina	54,840	66,752	102,640	0.3	0.4	0.5	53.8	15
Tennessee	5,519	2,550	2,099	1/	1/	1/	-17.7	41
Texas	101,286	149,329	247,801	0.6	0.8	1.2	65.9	7
Utah	13,995	22,123	13,419	0.1	0.1	0.1	-39.3	27
Vermont	14,578	8,760	12,041	0.1	0.0	1/	37.5	32
Virginia	53,435	52,109	51,991	0.3	0.3	0.3	-0.2	19
Washington	2,126,786	2,137,430	2,240,113	11.6	11.4	11.1	4.8	2
West Virginia	14,880	14,832	12,665	0.1	0.1	0.1	-14.6	30
Wisconsin	283,053	215,932	214,002	1.5	1.2	1.1	-0.9	9
United States	18,338,073	18,696,605	20,160,736	100.0	100.0	100.0	7.8	

-- = Not available.
1/ Less than 0.05 percent.
Source: USDA, National Agricultural Statistics Service, *Crop Values 2010 Summary*.

production. Florida's tangerine and mandarin crop value in 2010 also rose due to the increase in production and higher grower prices.

The U.S. citrus crop value in 2010 rose 5 percent from the previous year (table 16). Most citrus crops generated larger returns in 2010, except for oranges which were reflective of the lower returns in Florida. The 2010 orange crop value in California increased 20 percent from the previous year as the overall larger production more than offset the decline in grower prices. Orange production accounted for 67 percent of the total citrus crop value in 2010. Estimated at $1.9 billion, the value of U.S. orange production declined almost 2 percent from the previous year. The other citrus crops generated significantly higher crop values, with tangerines (including mandarins) having the largest increase, up 33 percent from 2009.

Among noncitrus fruit crops, the largest increases in crop value in 2010 were for California olives, Oregon blackberries, Maine wild blueberries, sweet cherries, and California plums. Most of these fruit had lower production in 2010 (except for

Table 16--Value of fruit and tree nut crops, by commodity, 2008-10

Commodity	Crop value			Share of total value			Percent change
	2008	2009	2010	2008	2009	2010	2008-10
	1,000 dollars			*Percent*			*Percent*
Grapefruit	273,076	224,098	285,993	1.5	1.2	1.4	27.6
Lemons	523,528	335,065	380,634	2.9	1.8	1.9	13.6
Oranges	2,198,836	1,970,070	1,934,982	12.0	10.5	9.6	-1.8
Tangelos (FL)	8,638	5,528	6,780	1/	1/	1/	22.6
Tangerines & mandarins	236,193	207,249	276,135	1.3	1.1	1.4	33.2
Apples	2,214,717	2,187,008	2,150,092	12.1	11.7	10.7	-1.7
Apricots	41,196	44,912	47,498	0.2	0.2	0.2	5.8
Avocados	214,546	429,586	--	1.2	2.3	--	--
Bananas (HI)	8,004	10,175	12,749	0.0	0.1	0.1	25.3
Blackberries (OR)	27,773	30,842	35,504	0.2	0.2	0.2	15.1
Cultivated blueberries	536,992	485,920	589,917	2.9	2.6	2.9	21.4
Wild blueberries (ME)	54,850	31,945	50,750	0.3	0.2	0.3	58.9
Boysenberries	2,334	2,102	1,920	1/	1/	1/	-8.7
Sweet cherries	574,043	513,330	727,138	3.1	2.7	3.6	41.7
Tart cherries	80,344	63,231	39,844	0.4	0.3	0.2	-37.0
Cranberries	455,927	333,476	321,315	2.5	1.8	1.6	-3.6
Dates (CA)	26,334	27,492	27,729	0.1	0.1	0.1	0.9
Figs (CA)	25,954	30,422	--	0.1	0.2	--	--
Grapes	3,332,732	3,675,601	3,471,740	18.2	19.7	17.2	-5.5
Guavas (HI)	553	294	--	1/	1/	--	--
Kiwifruit (CA)	19,545	21,084	--	0.1	0.1	--	--
Loganberries (OR)	63	2/	2/	1/	--	--	--
Nectarines	110,915	138,611	130,794	0.6	0.7	0.6	-5.6
Olives (CA)	46,587	32,209	110,535	0.3	0.2	0.5	243.2
Papayas (HI)	14,393	14,186	10,450	0.1	0.1	0.1	-26.3
Peaches	545,854	593,653	614,619	3.0	3.2	3.0	3.5
Pears	396,081	355,662	333,943	2.2	1.9	1.7	-6.1
Plums (CA)	56,960	57,568	78,422	0.3	0.3	0.4	36.2
Dried prunes (CA)	193,500	204,180	153,750	1.1	1.1	0.8	-24.7
Prunes and plums (4 States) 3/	5,918	6,077	4,959	1/	1/	1/	-18.4
Black raspberries (OR)	5,815	1,181	2,323	1/	1/	1/	96.7
Red raspberies	100,177	64,110	57,490	0.5	0.3	0.3	-10.3
Raspberries (CA)	259,200	297,315	200,288	1.4	1.6	1.0	-32.6
Strawberries	1,918,288	2,129,585	2,245,319	10.5	11.4	11.1	5.4
Tree nuts							
Almonds	2,343,200	2,293,500	2,694,450	12.8	12.3	13.4	17.5
Hazelnuts	51,840	79,430	59,670	0.3	0.4	0.3	-24.9
Macadamia nuts	33,500	29,400	29,200	0.2	0.2	0.1	-0.7
Pecans	271,687	430,388	556,167	1.5	2.3	2.8	29.2
Pistachios	569,900	592,850	1,158,840	3.1	3.2	5.7	95.5
Walnuts	558,080	747,270	--	3.0	4.0	--	--
Totals 4/	18,338,073	18,696,605	20,160,736	100.0	100.0	100.0	100.0

-- Data not available until July 7, 2011.

1/ Less than 0.05 percent. 2/ Estimates discontinued in 2009.

3/ Idaho, Michigan, Oregon, and washington.

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

Source: USDA, National Agricultural Statistics Service, *Crop Values 2010 Summary*.

California olives and plums) and the resulting higher grower prices drove up grower returns. For California olives, however, higher grower returns were attributed more to the growth in production as grower prices fell. For California plums, on the other hand, even though production increased in 2010, grower prices held strong, boosting grower returns from the previous year. Although exhibiting the highest increase in crop value in 2010, these 5 noncitrus fruit crops accounted for only five percent of the total value of U.S. fruit and tree nut production. Of the highest noncitrus fruit crops in terms of crop value, grapes and apples posted lower returns in 2010 (down 6 percent and 2 percent, respectively) while those for strawberries were up 5 from the previous year. Slightly higher grower prices for grapes and apples were more than offset by the decline in their production, driving their crop respective crop values down in 2010 to $3.4 billion and $2.2 billion. Strawberry grower prices, meanwhile, held higher despite bigger production, boosting the strawberry crop value to $2.2 billion. Together, the crop value for these three major noncitrus fruit crops accounted for more than one-third of the U.S. fruit and tree nut production value in 2010. Grapes continued to be the highest valued fruit and tree nut crop in the United States in 2010, accounting for 17 percent of the total.

Along with almonds—the most prominent of tree nuts in the United States—most tree nut crops reported increases in crop value in 2010, including pecans and pistachios. Increased production helped boost grower returns for almonds and pistachios, although higher grower prices were also a factor for pistachios. For pecans, the increase in crop value was more a function of the higher prices received by growers which more than made up for the decline in production. Crop values for hazelnuts and macadamia nuts declined in 2010 because production declines were bigger than increases in the grower price. The estimate for the 2010 walnut crop value will be not be available until the NASS release of the *Noncitrus Fruit and Nuts 2010 Summary* on July 7, 2011.

Fruit and Tree Nuts Trade Outlook

Mixed Bag for Exports in Early 2011

Exports of fresh fruit and tree nuts through January 2011 have increased for current-season (2010/11) crops of oranges, lemons, apples, grapes, almonds and walnuts compared with the same time last year (table 17). Orange exports are up 10 percent season-to-date, but ERS forecasts lower exports this season despite the larger crop. Canada will remain the top market for U.S. fresh oranges.

Lemon exports are up 7 percent compared with this time last year, up for the first time in 3years. As the season continues and conditions improve, shipments should increase as more fruit enters the market and are met by good demand. Grapefruit exports declined 7 percent through early 2011. U.S. grapefruit production is below last season's utilized production and fresh fruit to market has been slow, reducing 2010/11 shipment levels. Japan remains the top export market for grapefruit through January 2011.

U.S. fresh apple exports are up this season to date. Although total U.S. apple production for the 2010/11 season is down 3 percent from the previous season, near record-large production in Washington State, the No. 1 apple-producing State, has allowed for continued strong exports so far this season. Mexico is the leading export market for U.S. apples. While U.S. apples continue to face a retaliatory import tariff in Mexico over a cross-border trucking dispute, current season U.S. apple exports to that country through January were up 6 percent in volume from the same period in 2009/10. Contributing to the higher exports to Mexico are Washington's smaller fruit size this season (a preference in Mexico) and a reduced Mexican apple crop.

U.S. fresh pear exports are down 10 percent this season due to reduced domestic production and higher prices. Export volumes were down to the top 2 markets for fresh U.S. pears— Canada and Mexico. Season-to-date exports to Canada are at 68 million pounds while to Mexico at 64 million pounds. Also faced with a retaliatory import tariff in Mexico related to the cross-border trucking dispute, exports of U.S. pears to that country have been hurt, declining 14 percent in volume season-to-date from the previous season. Similar to U.S. apples, Mexico is the United States' top export market for pears.

Almond and walnut exports were 11 and 19 percent higher than last seasons' exports, respectively. Utilized walnut production was record breaking at an estimated 510 thousand tons. Hong Kong represented the largest export market for California walnuts with 11.9 million pounds, more than double the quantity from the 2009/10 season.

Table 17--U.S. exports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through January) 2010	2011	Year-to-date change
		---------- *1,000 pounds* ----------		*Percent*
Fresh-market:				
Oranges	November-October	299,659	328,627	9.7
Grapefruit	September-August	261,582	244,358	-6.6
Lemons	August-July	99,670	106,669	7.0
Apples	August-July	910,930	966,645	6.1
Grapes	May-April	657,672	715,799	8.8
Pears	July-June	271,203	243,293	-10.3
Peaches (including nectarines)	January-December	479	771	61.0
Straw berries	January-December	15,351	9,482	-38.2
Cherries	January-December	358	142	-60.3
		------ *1,000 sse gallons 1/* -------		
Processed:				
Orange juice, frozen concentrate	October-September	14,398	24,953	73.3
Orange juice, not-from-concentrate	October-September	22,771	22,582	-0.8
Grapefruit juice	October-September	2,293	3,900	70.1
Apple juice and cider	August-July	10,913	3,855	-64.7
Wine	January-December	6,531	6,912	5.8
		---------- *1,000 pounds* ----------		
Raisins	August-July	190,665	162,000	-15.0
Canned pears	June-May	9,167	13,148	43.4
Canned peaches	June-May	23,845	30,656	28.6
Frozen straw berries	January-December	2,369	2,450	3.4
		---------- *1,000 pounds* ----------		
Tree nuts:				
Almonds (shelled basis)	August-July	594,038	663,738	11.7
Walnuts (shelled basis)	September-August	164,280	195,521	19.0
Pecans (shelled basis)	October-September	41,968	33,875	-19.3
Pistachios (shelled basis)	September-August	81,409	59,742	-26.6

1/ Single-strength equivalent.

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

Diverse Results for Fresh Fruit Imports Through 2011

Imports are up through January for many fresh fruit (table 18). Tangerine imports are up 33 percent mostly from Mexico, Spain and Chile. Lemons are also up by 6 percent for the 2010/11 marketing season. Grape imports are 15 percent higher than last season with 73 percent of total shipments originating from Chile and 24 percent from Peru.

Banana imports in January rose 11 percent over this time last year. Ecuador was the No. 1 supplier of fresh bananas to the United States through January 2011, with 2.43 billion pounds. Guatemala and Costa Rica were the other top U.S. source markets for bananas. Tight supplies due to adverse weather in major banana-producing countries in Latin America during the latter part of 2010 are anticipated to slow imports to the U.S. market through the first quarter of this year. Increased shipments from Peru and Ecuador aided in the 29-percent increase of imported mangos.

Lighter supplies of apples at the beginning of the 2010/11 season, resulting from lower domestic production, partly contributed to a 37-percent increase in fresh apple imports. Canada exported 34 million pounds to the United States, representing 52 percent of total U.S. apple imports. Pecan imports increased 24 percent for the season, almost entirely from Mexico through January 2011.

Table 18--U.S. imports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through January) 2010	2011	Year-to-date change
		---------- *1,000 pounds* ----------		*Percent*
Fresh-market:				
Oranges	November-October	19,393	8,524	-56.0
Tangerines (including clementines)	October-September	136,089	180,817	32.9
Lemons	August-July	72,670	77,418	6.5
Limes	January-December	60,256	44,725	-25.8
Apples	August-July	55,808	76,258	36.6
Grapes	May-April	556,364	639,329	14.9
Pears	July-June	32,959	27,489	-16.6
Peaches (including nectarines)	January-December	24,761	30,288	22.3
Bananas	January-December	674,341	745,177	10.5
Mangoes	January-December	29,330	37,867	29.1
		------ *1,000 sse gallons 1/* -------		
Processed:				
Orange juice	October-September	110,783	77,694	-29.9
Apple juice and cider	August-July	262,380	316,511	20.6
Wine	January-December	18,624	9,390	-49.6
		---------- *1,000 pounds* ----------		
Canned pears	June-May	38,921	41,005	5.4
Canned peaches (including nectarines)	June-May	88,917	105,224	18.3
Canned pineapple	January-December	67,217	70,491	4.9
Frozen strawberries	January-December	9,518	12,767	34.1
		---------- *1,000 pounds* ----------		
Tree nuts:				
Brazil nuts (shelled basis)	January-December	1,170	686	-41.4
Cashews (shelled basis)	January-December	22,519	20,372	-9.5
Pine nuts (shelled basis)	January-December	234	218	-6.6
Pecans (shelled basis)	October-September	59,647	73,926	23.9

1/ Single-strength equivalent.

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

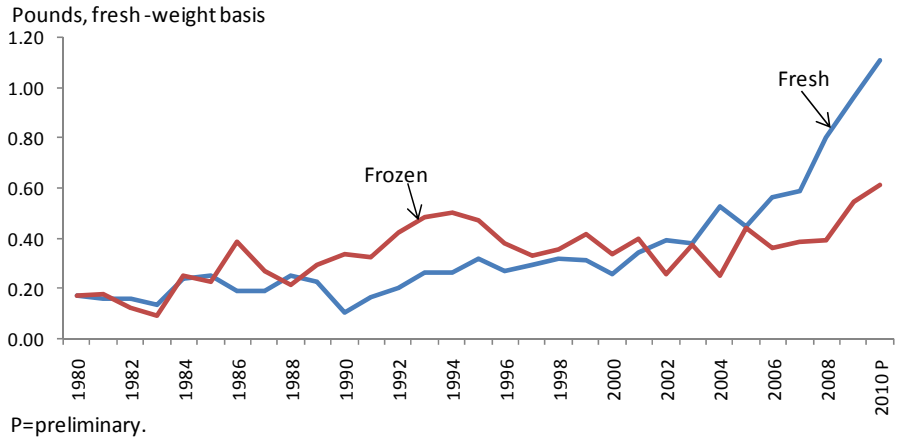
U.S. Blueberries: Update on Recent Industry Trends

Domestic demand rising: Demand for blueberries in the United States has continued to grow, with fresh and frozen per capita consumption both increasing over the last three decades (fig. 5). This growth was spurred by heightened consumer interest in healthy diets and the proactive efforts of the U.S. blueberry industry in raising consumer awareness on the health benefits derived from blueberry consumption. Blueberry demand for fresh use, however, has grown more rapidly in the recent decade, facilitated by expanding fresh-market production and rapidly rising imports. Throughout the 1990s to 2001, Americans were eating more frozen blueberries than fresh. Beginning in 2002, per capita fresh blueberry consumption was estimated to have exceeded those for frozen (on a fresh-weight basis). Since then, fresh blueberry demand continued to climb, with per capita consumption rising steeply to a record 1.11 pounds in 2010—the first time for the per capita estimate to reach the 1-pound mark. During the 1980s and 1990s, annual per capita fresh use averaged 0.20 pound and 0.25 pound, respectively.

Estimates for domestic consumption of frozen blueberries increased from an average of 0.22 pound per person annually during the 1980s to 0.50 pound during 2008-10. At an estimated 0.60 pound, per capita consumption was at an all-time high in 2010, aided by increased production, near-record imports, and continued large inventories at the beginning of the year.

Blueberry crop value second highest among berries: With a total crop value of $640.7 million in 2010 (cultivated crop at $589.9 million and wild crop at $50.7 million) and representing 18 percent of total crop value for berries, blueberries rank as the second most important berry in the United States, but far behind strawberries. Although U.S. blueberry grower prices have averaged generally higher than for strawberry prices, particularly for the cultivated fresh-market crop, the average farm value of the crop over the past three years (2008-10) remains well below the

Figure 5
U.S. per capita consumption of fresh and frozen blueberries



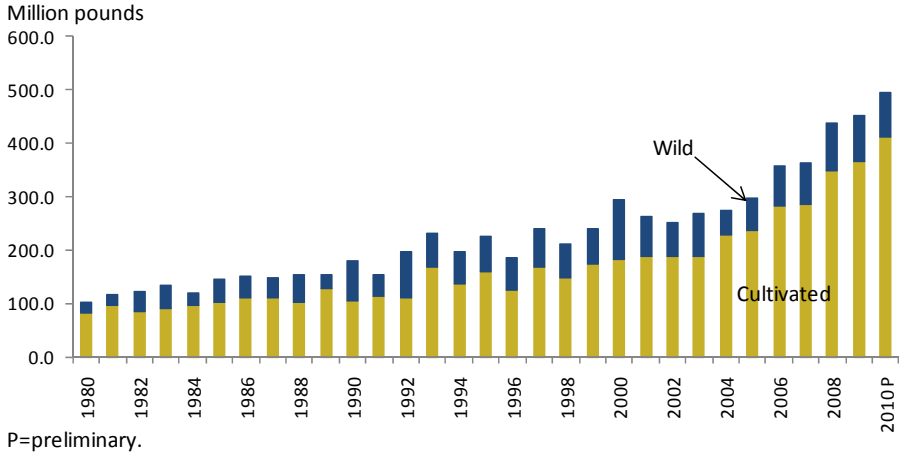
P=preliminary.
Source: USDA, Economic Research Service calculations.

$2.0 billion generated by the U.S. strawberry crop. The big gap in farm value stems mainly from the wide discrepancy in their crop size—the average 2008-10 strawberry production was 2.72 billion pounds while blueberry production was 462.5 million pounds.

Domestic production expanding: Total U.S. blueberry production (cultivated and wild) has trended up since the 1980s (fig. 6). Production growth, however, has slowed for the wild crop during the past decade, in part due to increased imports of frozen blueberries and the shift in demand toward more fresh use. U.S. wild blueberry production, primarily from managed wild stands in Maine, is almost all destined for processing, largely to the frozen market. Less than 1 percent goes to the local fresh market whereas the U.S. cultivated blueberry crop is split more closely between fresh and processing use. With recent rapid growth in blueberry demand for fresh use, fresh-market production surpassed those for processing use beginning in 2002 (fig. 7).

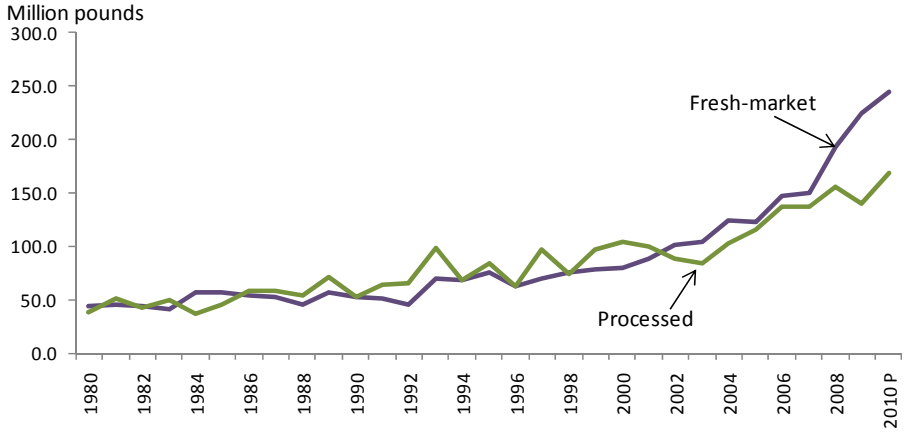
Year-after-year increases in fresh-market production since 2006 has taken the fresh-market crop to a record 244.4 million pounds in 2010, more than triple the output in 2000 and almost five times the size of the fresh-market crop in 1990. The cultivated crop also produced record production for processing use in 2010 totaling 168.6 million pounds, 62 percent higher than in 2000 and more than three times as much as in 1990. Together, the U.S. cultivated blueberry crop (fresh and processed) was 413.0 million pounds, up from 182.9 million pounds in 2000 and 103.8 million pounds in 1990. New and improved varieties more suitable to specific growing environments and/or developed to have resistance to specific pests and diseases, along with more intensive management practices by growers (including irrigation, fertilization, and pest and disease control), have contributed to higher yields. NASS estimated the wild blueberry crop at 83.0 million pounds in 2010, up from 75.3 million pounds in 1990 but down from the record-large crop in 2000 of 111.0 million pounds.

Figure 6
U.S. blueberry production, 1980-2010



P=preliminary.
Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts Summary*, various issues.

Figure 7
U.S. cultivated blueberries: Production for fresh and processing use, 1980-2010
Million pounds



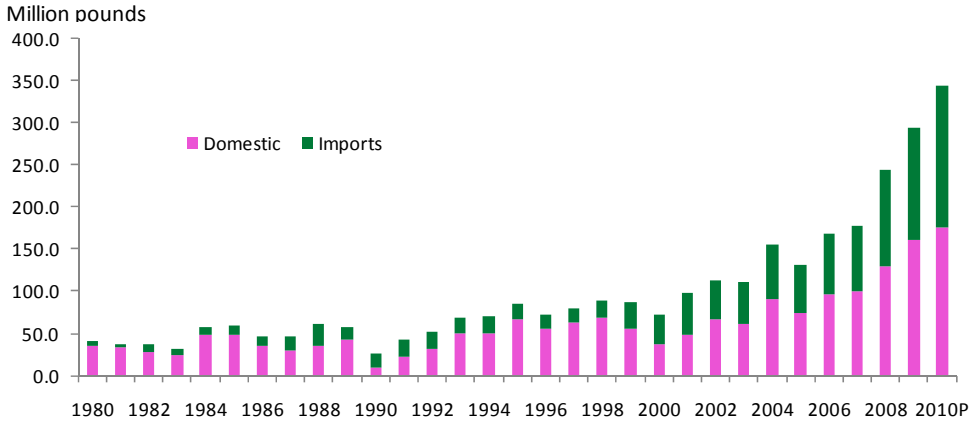
P=preliminary.
Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts Summary*, various issues.

Production share of leading States declining: Michigan and Maine continue to lead the country in blueberry production but their combined share of total utilized production has declined from 60 percent during the 1990s to around 40 percent during 2008-10. Average wild production in Maine and cultivated production in Michigan grew during the past decade relative to the 1990s, but stronger output growth occurred in other key producing States such as Georgia, Washington, Oregon, North Carolina, and New Jersey. Either larger increases in average yields or expansion in harvested acres or both have contributed to the stronger output growth in these other States over the past decade. Moreover, though production is still relatively small, average production in Florida this past decade increased more than 3 times from their average crop size during the 1990s. NASS also included California and Mississippi in their annual production enumeration for blueberries in the last 5 to 6 years. While Mississippi's production fluctuated annually, California's crop grew in each consecutive year. The California crop has tripled in size from the first reported estimate of 9.1 million pounds in 2005 to 28.0 million pounds in 2010—representing 7 percent of the total cultivated crop and produced from 4 percent of all the harvested cultivated blueberry acres in the United States.

Annual NASS blueberry production data for Maine include only the wild crop, which over the last 3 years (2008-10), averaged 87 million pounds—19 percent of U.S. blueberry production (cultivated and wild combined). A very small fraction of the U.S. cultivated blueberry crop, however, is produced in Maine. Based on the *2007 Census of Agriculture*, 144 farms out of 166 farms in Maine with cultivated blueberries harvested 267 acres (out of 409 acres of the crop). Meanwhile, 488 farms out of 577 farms in the State with wild blueberry production harvested 22,747 acres out of 44,462 acres of the crop in total.

The *2007 Census of Agriculture* also reported 758 farms in Michigan that harvested 19,641 acres of cultivated blueberries. This is out of a total of 840 cultivated blueberry farms in the State covering 21,758 acres in 2007. The census also reported Michigan had 19 farms harvesting 42 acres of wild blueberries in 2007, from a total of 35 wild blueberry farms and 112 acres. Michigan's production, virtually comprised of cultivated varieties, has mostly surpassed Maine's blueberry production during the past decade.

Figure 8
U.S. blueberry supplies for domestic fresh -market consumption , by source, 1980-2010



P= preliminary.
Source: USDA, Economic Research Service calculations.

Imports rising: Over the past 3 decades, imports have increased their presence in the U.S. fresh blueberry market, rising from around 36 million pounds in the 1980s to176 million pounds in 2010 (fig. 8). Together with increasing volume, imports as a share of domestic consumption rose from 24 percent during the 1980s to around 47 percent over the last 3 years (2008-10). Canada was the source of most fresh blueberries imported to the United States up until four years ago when imports from Chile began to take the lead. Earlier in the 1990s, U.S. imports of Canadian blueberries accounted for over 90 percent of all fresh imports. This share, however, has dropped to around 29 percent during 2008-10, reflecting mostly import growth from Chile and from Argentina where volumes to the United States has also risen over the past decade and increased in market share to over 50 percent and over 10 percent, respectively. In the past year (2010), imports were also up dramatically from relatively smaller suppliers such as Mexico and Peru. Both Chile and Argentina provide American consumers access to fresh blueberries during the U.S. off-season, aiding in increasing fresh blueberry consumption in the United States.

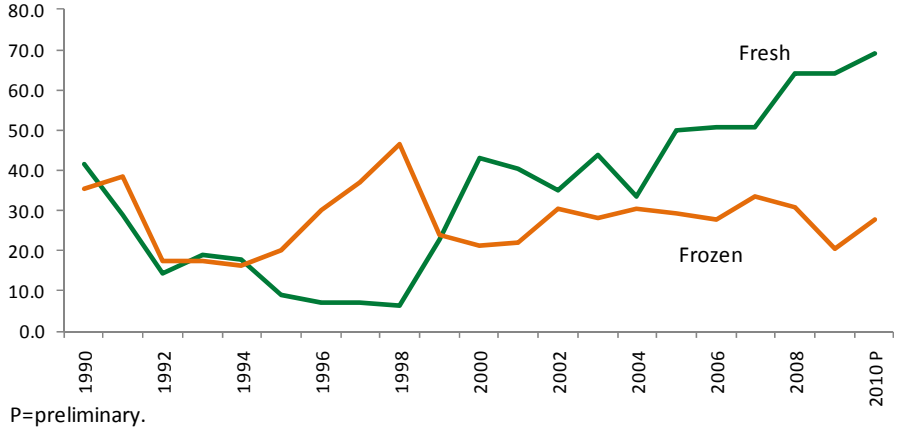
While both health and convenience factors boosted fresh blueberry consumption, they also were behind the increased demand for processed blueberries. Moreover, U.S. imports of frozen blueberries have increased over time and have played an increasing role in domestic frozen blueberry consumption. Frozen blueberry imports as a share of domestic consumption rose from an average 21 percent during the 1980s to 61 percent during the period 2008-10. The bulk of all frozen blueberry imports to the United States come from Canada but their share of total frozen imports has slightly dropped in recent years, from 99 percent in 2000-02 to around 87 percent in 2008-10. As in the fresh market, the boom in imports from Chile and Argentina has diminished Canada's share of the U.S. frozen blueberry market. Meanwhile, frozen blueberry imports from Mexico still rank second in terms of volume and while slightly higher in recent years than earlier in the decade, the import share has fallen.

Exports also growing: The United States exports more fresh blueberries than frozen (fig. 9). Presently, slightly more than half of all fresh-market blueberries produced in the United States are utilized for domestic consumption. U.S. fresh

blueberry exports, however, have expanded over time, from an average 14 million pounds during the 1980s to 17 million pounds in the 1990's and up to around 49 million pounds during the 2000s. Exports rose to over 60 million pounds in the past 3 years (2008-10), peaking at 69 million pounds in the most recent year. For the same time period, close to one-third of U.S. frozen pack remained destined for the export market, averaging 26 million pounds, fresh-weight basis. Exports of frozen blueberries, while up from the average 16 million pounds during the 1980s, remain relatively flat from the average 28 million pounds during the 1990s.

Canada remains as the major export market for U.S. blueberries. The United States currently ships over 90 percent of its fresh blueberry exports and nearly-40 percent of its frozen blueberry exports to this market. Annual fresh exports to Canada continue to climb while frozen exports remain fairly flat. Japan evolved as a growth market for U.S. blueberries beginning in the mid-1990s but export volume to that country in recent years has declined from peak levels, particularly for frozen blueberries. Average frozen blueberry exports to Mexico in the past 3 years and to South Korea in 2010 were up sharply from previous years, making up for reduced shipments to Japan. Japan's imports of U.S. fresh blueberries averages 5 percent of total export volume during 2008-10, compared with 7 percent in 2000-02. Recent fresh exports to Hong Kong, South Korea, Singapore, and Taiwan were strong.

Figure 9
U.S. blueberry exports, 1990-2010
Million pounds, fresh weight basis



P=preliminary.
Source: U.S. Department of Commerce, U.S. Census Bureau.

Contacts and Links

Contact Information
Agnes Perez (Noncitrus and tropical fruit), (202) 694-5255, acperez@ers.usda.gov
Kristy Plattner (Tree nuts), (202) 694-5190, kplattner@ers.usda.gov
Erik Dohlman (Citrus), (202) 694-5308, edohlman@ers.usda.gov
Katherine Baldwin (Citrus), (202) 694-5831, kbaldwin@ers.usda.gov

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

Data

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

Related Websites

Fruit and Tree Nuts Outlook
http://www.ers.usda.gov/publications/fts/

Fruit and Tree Nuts Briefing Room
http://www.ers.usda.gov/Briefing/FruitAndTreeNuts/

Organic Farming and Marketing Briefing Room
http://www.ers.usda.gov/Briefing/Organic/

Vegetable and Melons Briefing Room
http://www.ers.usda.gov/Briefing/Vegetables/

E-mail Notification

Readers of ERS outlook reports have two ways they can receive an e-mail notice about release of reports and associated data.

• Receive timely notification (soon after the report is posted on the web) via USDA's Economics, Statistics and Market Information System (which is housed at Cornell University's Mann Library). Go to http://usda.mannlib.cornell.edu/MannUsda/aboutEmailService.do and follow the instructions to receive e-mail notices about ERS, Agricultural Marketing Service, National Agricultural Statistics Service, and World Agricultural Outlook Board products.

• Receive weekly notification (on Friday afternoon) via the ERS website. Go to http://www.ers.usda.gov/Updates/ and follow the instructions to receive notices about ERS outlook reports, Amber Waves magazine, and other reports and data products on specific topics. ERS also offers RSS (really simple syndication) feeds for all ERS products. Go to http://www.ers.usda.gov/rss/ to get started.