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Fruit and Tree Nuts Outlook

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Smaller U.S. Citrus Crop Forecast for 2008/09

The next release is May 29, 2009.

Approved by the World Agricultural Outlook Board

The index of prices for fruit and tree nut growers this January and February were considerably down from the same 2 months in 2008. Bigger apple, lemon, and Florida strawberry crops helped drive prices below last season and more in line with the 3-year average for 2004-06. The Consumer Price Index for fresh fruit declined in January and February 2009. Navel orange prices were lower at retail stores this January but rose in February. Banana prices were up in January and February from a year ago.

U.S. citrus production is forecast at 11.7 million tons in 2008/09, 10 percent lower than in 2007/08. Weather factors have hampered production in the two major citrus-producing States, Florida and California. Production of all major citrus fruit except lemons is forecast down, with the sharpest declines expected for the tangelo and Valencia orange crops.

The smaller crop of fresh oranges out of California this season boosted the average price growers received November 2008 through February 2009 over the same time last season. Weak demand for oranges for processing has driven down Florida's processing-orange grower prices this season.

U.S grapefruit production is forecast at 1.4 million tons this season, 13 percent below last season and 16 percent below 2006/07. Despite the smaller crop this season, grower prices for fresh grapefruit have been running behind the past several seasons.

Lemon production is forecast at 817,000 tons, 16 percent higher than last season and 2 percent higher than 2 seasons ago. Tangerine and mandarin production is forecast to be down 6 percent this season due to a smaller crop in Florida. California's crop, however, is expected to be bigger, and will surpass the size of Florida's crop for the first time.

The commodity highlight: *The 2007 Census of Agriculture Provides a Snapshot of the U.S. Fruit and Tree Nuts Industries* gives an overview of the data from the 2007 Census of Agriculture.

Price Outlook

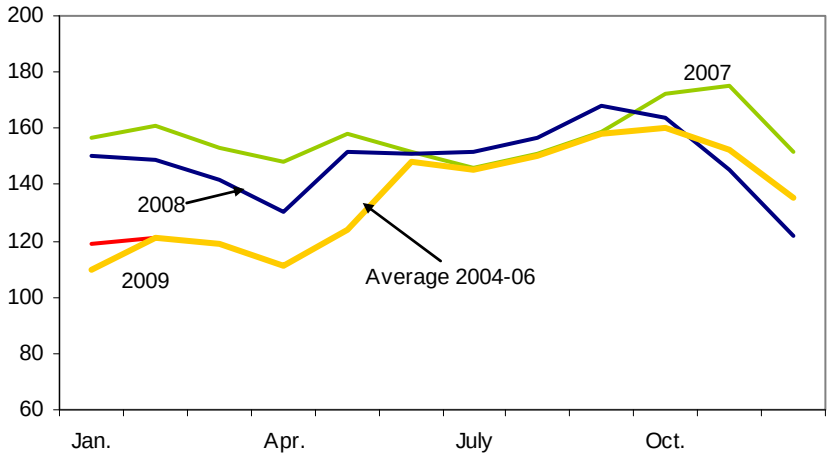
Grower Prices for Fruit and Tree Nuts Declining After 2 Years of Above-Average Prices

The index of prices for fruit and tree nut growers this January and February were down considerably from the same 2 months in 2008 (fig.1). Bigger apple, lemon, and Florida strawberry crops this season helped drive prices below last season and were more in line with the 3-year average for 2004-06 (table 1). During the last 2 years, tight lemon supplies drove lemon prices very high, helping drive up the index. This season's lemon crop has returned to a more normal size and prices have responded; fresh lemon prices averaged $14 per 76-lb box this January and $10.54 per box in February, down 70 and 78 percent respectively from the same 2 months last year. While apple supplies were initially forecast to be tight at the beginning of this season, similar to the previous season, the forecasts were revised and supplies are now expected to be ample to meet demand, which drove prices for January and February below last year.

Fresh orange and grapefruit crops are forecast smaller for this season than last. Despite the reduced availability of fresh grapefruit in the market, prices in January and February declined from the same time last season. Domestic shipments are above last season through early March, the bulk of the season, but down to international markets. The decline in demand in international markets is the major factor pulling down the returns to grapefruit producers. Fresh orange prices are nearly double this January and February compared with the same time last season. Tight supplies in California this season is helping to drive up prices.

The index rose slightly between January and February, mostly due to a 14-percent increase in strawberry grower price as early February rains in Southern California decreased the quantity of strawberries in the market.

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



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

Consumer Price Index for Fresh Fruit Down the First 2 Months of 2009

The Consumer Price Index (CPI) for fresh fruit declined in January 2009 to 332.7 (1982-84=100), down 2 percent from December 2008. It declined an additional 1 percent in February to 329.3 (fig. 2). While the CPI for fresh fruit was lower the past 2 months, the CPI for all food was up 1 percent this January from December and unchanged between January and February. These data indicate that fresh fruit were a good deal at retail markets during these months.

Citrus prices were lower at retail stores this January from December and from last January. Plentiful fruit supplies in the markets helped drive down prices. The bigger lemon crop this season drove retail prices down to $1.541 a pound this January, the lowest monthly lemon retail price since August 2006. Strawberry and Thompson seedless grape prices were also down this January from the previous 2 months, giving consumers many fresh fruit from which to choose. On the other hand, banana prices rose in January, after falling slightly in December. Tight supplies due to weather-damaged crops in Costa Rica and Panama, and the ensuing higher production costs to repair the plantations, have kept banana prices above average since April 2008. Red Delicious apple prices also rose this January from December, to $1.233 per pound, the highest January price in recent years. Retail apple prices may have been higher due to strong demand for apples as some consumers looked for an alternative to the high-priced bananas.

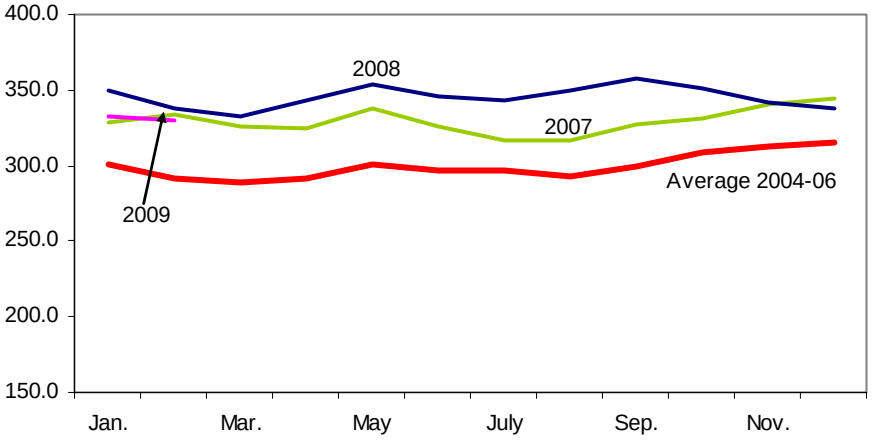
In February, retail navel orange prices rose as supplies tightened. Prices also rose from January for Anjou pears and bananas. Navel oranges and bananas are major fresh winter fruit, and their higher prices this February moderated the fresh fruit-CPI monthly decline.

Retail prices for all other fresh fruit reported in the CPI decreased between January and February and from February 2008. Retail Thompson seedless grape prices this February were the lowest since 2005. A good grape crop in Chile, the source of most of the grapes in the U.S. market from November through March, provided for ample supplies and kept prices down. Poor international demand for fresh grapefruit benefited U.S. consumers by increasing the supplies available for the domestic market, and contributing to retail prices averaging $0.75 per pound, the lowest since April 2004.

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

Commodity	2008		2009		2008-09 Change	
	January	February	January	February	January	February
	Dollars per box				*Percent*	
Citrus fruit: 1/						
Grapefruit, all	4.67	3.30	3.88	3.79	-16.9	14.8
Grapefruit, fresh	8.94	8.00	7.33	7.29	-18.0	-8.9
Lemons, all	23.90	29.41	6.45	4.03	-73.0	-86.3
Lemons, fresh	45.50	47.10	14.00	10.54	-69.2	-77.6
Oranges, all	5.77	5.83	5.57	5.43	-3.5	-6.9
Oranges, fresh	8.60	7.62	12.44	11.89	44.7	56.0
	Dollars per pound					
Noncitrus fruit:						
Apples, fresh 2/	0.36	0.35	0.28	0.24	-22.3	-30.5
Grapes, fresh 2/	--	--	--	--	--	--
Peaches, fresh 2/	--	--	--	--	--	--
Pears, fresh 2/	0.28	0.28	0.27	0.23	-5.4	-18.5
Strawberries, fresh	1.94	1.31	1.13	1.29	-41.8	-1.5

1/ Equivalent on-tree price.
2/ Equivalent packinghouse-door returns for CA, NY (apples only), OR (pears only), and WA (apples, peaches, and pears). Prices as sold for other States.
Source: USDA, National Agricultural Statistics Service, *Agricultural Prices*.

Table 2--U.S. monthly retail prices, selected fruit, 2008-09

Commodity	Unit	2008		2009		2008-09 Change	
		January	February	January	February	January	February
		--- *Dollars* ---		--- *Dollars* ---		--- *Percent* ---	
Fresh:							
Valencia oranges	Lb.	--	--	--		--	--
Navel oranges	Lb.	0.905	0.887	0.896	0.912	-1.0	2.8
Grapefruit	Lb.	0.854	0.898	0.794	0.750	-7.0	-16.5
Lemons	Lb.	2.025	1.951	1.541	1.433	-23.9	-26.6
Red Delicious apples	Lb.	1.161	1.176	1.233	1.191	6.2	1.3
Bananas	Lb.	0.521	0.540	0.629	0.641	20.7	18.7
Peaches	Lb.	--	1.825	--	1.719	--	-5.8
Anjou pears	Lb.	1.272	1.246	1.261	1.297	-0.9	4.1
Strawberries 1/	12-oz. pint	3.024	2.821	2.613	2.447	-13.6	-13.3
Thompson seedless grapes	Lb.	3.411	2.219	2.169	1.987	-36.4	-10.5
Processed:							
Orange juice, concentrate 2/	16-fl. oz.	2.544	2.529	2.570	2.611	1.0	3.2
Wine	liter	8.152	9.998	8.627	10.578	5.8	5.8

-- 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.

The U.S. 2008/09 Citrus Crop Forecast Down 10 Percent from 2007/08

U.S. citrus production is forecast at 11.7 million tons in 2008/09, 10 percent lower than the 13 million ton crop produced in 2007/08. Weather factors have hampered production in the two major citrus-producing States—Florida and California. Both States have experienced drought conditions during this season. Florida also experienced two freezes, one in January and one in February, that were severe enough to damage the fruit still on the trees, especially Valencia oranges, reducing the forecast for this season's production from the initial estimate in October. Production in Texas is also down this season. Only Arizona has a bigger citrus crop this season compared with last season.

Production of all major citrus fruit except lemons is forecast down this season (table 3). The tangelo and Valencia orange crops are forecast to have the sharpest season to season decline. Tangelo production data are only available for Florida and the industry is fairly stable; declines in production are due to alternate bearing patterns of the trees as well as to weather factors. Valencia production this season is down in both Florida and California. While California's navel orange production declined even more than its Valencia production, national production of early variety oranges, which includes navels, did not experience as drastic an overall drop. Florida's production of early variety oranges is forecast to be above last season; damage from the frost occurred mostly after these oranges had been harvested.

Grapefruit production continues to decline in all production areas. Weak demand, tight supplies of citrus nursery stock due to disease problems in Florida, and weather factors all contributed to the overall decline in production.

Lemon production, concentrated in California and Arizona, made a comeback this season. A freeze two seasons ago affected lemon tree production in 2006/07 and again in 2007/08 as the trees continued to recover. This season, the trees are back to full production.

Total tangerine and mandarin production is down from last season due to a smaller crop forecast from Florida; the freezes damaged the Honey tangerine crop still on the trees. California's crop, however, is expected to be up this season and double the size of two seasons ago. California and Florida produce different types of tangerines/mandarins and market their fruit in different parts of the country. Therefore, pricing and supply availability varies on the East and West Coasts.

Smaller Crop of Oranges for Fresh Use Drives Up Grower Prices

The smaller crop of fresh oranges out of California this season boosted the average price growers received November 2008 through February 2009 over the same time last season (table 4). Prices started out low in November as the end of last season's Valencia harvest was winding down and the 2008/09 navel harvest was slow to begin. They increased in December, however, and have averaged $13.17 per 75-lb box, $2.17 per box more than the average for November through February last season. Prices are running higher this season compared with seasons that have had

Table 3--Citrus: Utilized production, 2006/07, 2007/08 and forecast for 2008/09 1/

Crop and state	Utilized		Forecast for 2008/09	Utilized		Forecast for 2008/09
	2006/07	2007/08	as of 3-2009	2006/07	2007/08	as of 3-2009
	---- *1,000 boxes 2/* ----			----*1,000 tons* ----		
Oranges:						
Early/mid-season and navel:						
Arizona	200	230	150	7	9	6
California	34,500	48,500	34,500	1,294	1,819	1,294
Florida 3/	65,600	83,500	85,000	2,952	3,757	3,825
Texas	1,600	1,500	1,450	68	64	62
Total	101,900	133,730	121,100	4,321	5,649	5,187
Valencia:						
Arizona	100	150	100	4	6	4
California	11,500	16,000	15,000	431	600	563
Florida	63,400	86,700	73,000	2,853	3,902	3,285
Texas	380	234	200	16	10	9
Total	75,380	103,084	88,300	3,304	4,518	3,861
All oranges	177,280	236,814	209,400	7,625	10,167	9,048
Grapefruit:						
Arizona	100	100	150	3	3	5
California	5,500	5,700	4,500	184	191	151
Florida	27,200	26,600	23,000	1,156	1,131	978
Texas	7,100	6,100	5,700	284	244	228
All grapefruit	39,900	38,500	33,350	1,627	1,569	1,362
Tangerines:						
Arizona	300	400	250	11	15	9
California	3,500	5,700	7,000	131	214	263
Florida	4,600	5,500	4,000	219	261	190
All tangerines	8,400	11,600	11,250	361	490	462
Lemons:						
Arizona	2,500	1,500	2,500	95	57	95
California	18,500	17,000	19,000	703	646	722
All lemons	21,000	18,500	21,500	798	703	817
				88	92	88
Tangelos						
Florida	1,250	1,500	1,200	56	68	54
All citrus	247,830	306,914	276,700	10,467	12,997	11,743

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest following year.
2/ Net pounds per box: oranges-Arizona (AZ) and California (CA)-75, Florida (FL)-90, Texas (TX)-85; grapefruit-AZ and CA-67, FL-85, TX-80; lemons-76; tangelos -90; tangerines-AZ and CA-75, FL-95. 3/ Includes Temples
Source: USDA, National Agricultural Statistics Service, *Crop Production* , various issues.

more favorable weather conditions, such as in 2004/05 and 2005/06. Prices have also been higher this season compared with last season's smaller crop, because the initial forecast for this season was for a much smaller navel crop than is now expected. Prices started out higher at the beginning of this season compared with the 2006/07 season, which had the same size crop. The early harvest in 2006/07 produced more oranges than the same time this season, until a damaging freeze hit

Table 4--Fresh oranges: Average equivalent on-tree prices received by growers, California, 2004/05-2008/09

Month	2004/05	2005/06	2006/07	2007/08	2008/09
			---Dollars/75-lb box---		
November	13.00	13.00	9.49	15.28	10.47
December	10.40	10.60	12.39	10.98	13.97
January	9.50	9.10	12.39	9.48	14.87
February	8.95	9.11	24.68	8.27	13.37
March	9.34	9.20	22.71	8.39	
April	10.47	11.30	22.74	7.61	
May	10.63	12.55	21.98	9.25	
June	9.02	12.99	18.03	10.81	
July	7.24	12.94	16.83	7.72	
August	6.84	14.84	14.63	7.72	
September	8.14	22.04	12.83	10.22	
October	7.84	14.49	14.74	10.12	
Nov.-Feb. Average	10.46	10.45	14.74	11.00	13.17

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

California in January 2007 and markedly reduced the crop and doubled the price per box between January and February.

California Valencia orange crop harvest began in early March. Prices can be expected to drop slightly from February as the two crops are in the market. Once the market changes over to only Valencia oranges, prices relative to last season should be higher.

USDA's National Agricultural Statistics Service (NASS) California Field Office released its *2008-09 California Valencia Orange Objective Measurement Report* this month. The report showed an increase in the State's bearing acreage by 1,000 acres to 45,000, the first increase in 9 years. The number of trees per acre also increased slightly after remaining unchanged since 2004/05. The number of fruit per tree measured 435, however, which is the lowest fruit set since 2003/04. This low fruit set contributed to the overall forecast for a smaller crop of 563,000 tons, down 6 percent from last season.

The severe drought conditions in California are affecting fruit and nut tree production in the San Joaquin Valley, the State's major orange production region. The effects of the drought, along with State regulations restricting the amount of water used for irrigation, are driving producers to use well water, a more costly method of watering the trees. There have already been reports of damage to navel oranges due to insufficient water. This situation is likely to also affect Valencia oranges, potentially reducing the amount of fruit harvested below the present NASS forecast. Continued drought conditions could stress the trees beyond this year's crop and may potentially have an adverse effect on next season's production.

Orange Juice Supplies Expected To Be More Than Ample To Meet Demand This Season

USDA's Economic Research Service (ERS) forecasts orange juice production to be down 10 percent in 2008/09 from the previous season. Due to very high beginning

juice stocks, however, total juice supply is forecast up 1 percent (table 5). Because of very high beginning stocks, a large crop of Florida early-to mid-season oranges, and sluggish juice movement, imports are forecast down 31 percent. Demand is expected to be down in both the domestic and international markets. The increase in the value of the U.S. dollar on the world market is likely to put some downward pressure on international demand for U.S. orange juice. Despite the expected decrease in demand, international movement, while below last season, is still better than past seasons, especially 2004/05 and 2005/06 when Florida's crop was severely damaged by hurricanes. As a result, ERS is forecasting exports to decrease by only 2 percent from last season, but still be higher than the past 5 seasons.

Data from the Florida Department of Citrus (FDOC) show that orange juice movement continues to be slow, resulting in a forecast for per capita consumption to decline to 3.80 gallons per person. Movement of frozen concentrated orange juice has been up slightly from last season, but not-from-concentrate juice movement continues to decline. According to Nielsen Scantrak data, retail sales of not-from-concentrate orange juice picked up in November through January, before declining in February (fig. 3). Throughout this season, October through February, prices have averaged $6.66 per gallon, virtually unchanged from the same time period last season. The only bright light for orange juice at the retail level has been the sales of reconstituted orange juice. The Nielsen Scantrak data showed a 2-percent increase in sales of reconstituted orange juice through February. At the same time, the retail price declined 6-percent over last season, the only price decline among all retail orange juice categories. The lower retail prices likely contributed to the increase in reconstituted orange juice sales.

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	1,251	291	2,235	103	1,427	705	4.93
2003/04	705	1,467	222	2,393	123	1,448	822	4.95
2004/05	822	974	358	2,153	119	1,411	623	4.77
2005/06	623	986	299	1,909	138	1,312	459	4.40
2006/07	459	889	399	1,747	123	1,248	376	4.15
2007/08	376	1,157	411	1,944	151	1,157	636	3.81
2008/09 f/	636	1,040	285	1,961	148	1,163	650	3.80

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.

Weak demand for oranges for processing has driven down their grower prices this season. Despite a late start to the 2008/09 season, grower prices for early to-mid season oranges in Florida began at $1.40 per 90-lb box in November, lower than any November price in at least the past 20 years (table 6). Prices picked up in December and January but fell again in February for an average price this season of $3.64 per box, the lowest since 2005/06. Harvesting of Florida's Valencia orange crop began in March. The most recent NASS forecast reduced this season's crop size, which could help bolster grower prices. Continued slow demand for orange juice, however, is likely to keep prices on the lower side.

Table 6--Processing oranges: Average equivalent on-tree prices received by growers, Florida, 2004/05-2008/09

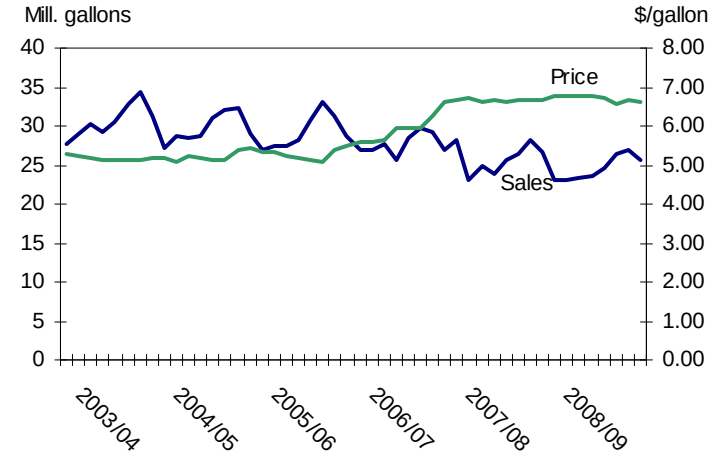
Month	2004/05	2005/06	2006/07	2007/08	2008/09
			---Dollars/90-lb box---		
October	--	0.40	4.25	--	--
November	2.04	3.23	7.45	3.85	1.40
December	2.32	3.94	8.05	5.14	3.90
January	2.52	4.33	8.55	5.44	4.70
February	2.71	5.24	9.25	5.80	4.55
March	3.59	6.04	11.15	6.28	
April	4.27	6.31	11.45	6.85	
May	4.37	6.52	11.85	7.15	
June	4.26	6.73	12.15	6.65	
July	--	6.28			
Oct.-Feb. Average	2.40	3.43	7.51	5.06	3.64

-- = Not available.

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

Figure 3

Retails sales of NFC orange juice, July-February 2003/04-2008/09



Source: Florida Department of Citrus, http://www.floridajuice.com/

Grapefruit Production and Prices Down in 2008/09

The 2008/09 NASS U.S grapefruit production forecast is 1.4 million tons, 13 percent below last season and 16 percent below 2006/07. Production is forecast down in all major production States, except Arizona. Florida, the major grapefruit producer in the United States, is forecast to have a crop of only 978,000 tons, 14 percent below last season. Texas grapefruit production, the second-highest in the country, is forecast down 7 percent to 228,000 tons. Texas' citrus region was hit by Hurricane Dolly in July 2008, causing some damage to trees and reducing the crop size. The hurricane, however, did bring some needed rain to the State. Damage was more concentrated in some areas than others, sparing the major citrus areas from the most severe damage. Trees are expected to recover from the storm and effects on next season's crop are likely to be minimal.

Despite Florida's smaller crop this season, grower prices for fresh grapefruit have been running behind the past several seasons (table 7). Prices started off strong in October 2008, the first month of the present season, at $12.63 per box. Then they dropped by about $5 per box in November and have averaged slightly over $7.00 per box through February.

Florida Department of Citrus (FDOC) shipment data show that through February, fresh grapefruit shipments were up both domestically and to Canada. Shipments to other export markets during this time, however, were down 9 percent and revenues from these shipments were down 20 percent. Since almost twice as many fresh grapefruit are shipped to markets outside the United States and Canada, the low returns from these exports are a major factor driving down grower prices this season.

The lower grower prices this season are translating into lower retail prices for U.S. consumers. According to Cognos Freshlook Marketing data, sales of fresh grapefruit at major retailers ran about 2 percent ahead of last season through mid-February. The price per pound was down 2 percent so far this season, averaging $0.89 per pound during this period, compared to $0.92 per pound last season.

Table 7--Fresh grapefruit: Average equivalent on-tree prices received by growers, 2004/05-2008/09

Month	2004/05	2005/06	2006/07	2007/08	2008/09
		----------*Dollars per box*----------			
October	16.05	16.9	15.15	11.63	12.63
November	19.93	14.66	12.41	13.94	7.60
December	18.87	14.37	11.89	10.84	6.37
January	19.41	15.29	9.95	8.94	7.33
February	18.93	13.89	8.27	8.00	7.29
March	18.32	12.60	7.77	7.44	
April	18.91	12.11	8.08	8.89	
May	17.78	15.13	10.54	10.45	
Oct.-Feb. Average	18.64	15.02	11.53	10.67	8.24

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

Demand for Grapefruit Juice Expected To Be Up for Third Straight Year

After dropping off sharply in the mid-2000s, demand for grapefruit juice appears to be up this season, for the third straight year. While ERS forecasts production will be down 8 percent from last season due to the smaller Florida grapefruit crop, juice stocks were large coming into the new season, and total supply is forecast to be down 4 percent (table 8). FDOC data show that movement of not-from-concentrate grapefruit juice is up 12 percent from October through early March, and goods on hand were down 16 percent. Based on these data, ERS forecasts that grapefruit juice consumption will reach 0.31 gallons per person in 2008/09, up 4 percent from last season and the highest since 2003/04, before the hurricanes and disease dramatically reduced Florida's grapefruit crop and grapefruit juice supplies.

Grower prices for processing grapefruit remain below average this season, October 2008 through February 2009, but appear to be improving relative to last season (table 9). Averaging $-0.77 per 85-lb box, the equivalent-on-tree price growers are receiving this season are not covering their costs of picking, hauling, and other costs incurred to get the fruit to market. Prices moved to the plus side in February, and are likely to increase monthly through the remainder of the processing season. Improving demand for grapefruit juice might stimulate processor demand for the fruit. Weak international demand for fresh grapefruit, however, increases the quantity of fruit available for processing, increasing supplies to an already weak market.

Table 8--Grapefruit juice: Supply and utilization 1991/92-2008/09

Year 1/	Supply					Utilization		
			Beginning		Ending		Consumption	
	Production	Imports	stocks	Total	stocks	Exports	Total	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	80	6	35	121	42	19	60	0.20
2006/07	120	1	42	163	58	20	85	0.28
2007/08	110	0	58	168	60	17	91	0.30
2008/09 f/	101	0	60	161	48	17	96	0.31

1/single-strength equivalent. f = forecast.

Source: Prepared by USDA, Economic Research Service.

Table 9--Processing grapefruit: Average equivalent on-tree prices received by growers, Florida, 2004/05-2008/09

Month	2004/05	2005/06	2006/07	2007/08	2008/09
	---Dollars per 85-lb box---				
October	3.88	1.90	1.70	--	-2.25
November	4.14	3.03	0.47	-1.38	-1.76
December	5.01	3.69	1.32	-0.90	0.15
January	5.57	4.77	1.32	-0.57	-0.10
February	5.77	5.17	1.24	-0.18	0.10
March	5.24	4.61	1.00	0.28	
April	4.39	4.04	0.81	0.39	
May	4.24	3.23	-0.03	0.38	
Oct.-Feb. Average	4.87	3.71	1.21	-0.76	-0.77

-- = Not available.

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

Nielsen Scantrak data show that retail sales of not from concentrate grapefruit juice were up 5 percent through mid-February compared to last season at the same time. Price per gallon had declined 1 percent from an average of $6.84 (October through mid-February) last season to $6.77 this season. Sales of reconstituted grapefruit juice, while only a fraction of retail grapefruit juice sales, were up 6 percent over the same time period last season, with a price decline of 10 percent. Frozen concentrated grapefruit juice sales, however, were down 9 percent; with the price per gallon 3-percent higher this season. Not-from-concentrate grapefruit juice accounts for over 50 percent of grapefruit juice sales at retail outlets.

Lemon Production Forecast To Be Largest in 3 Years

With the lemon trees appearing to have recovered from the effects of the 2006/07 freeze in California and Arizona, lemon production is forecast at 817,000 tons, 16 percent higher than last season and 2 percent higher than 2 seasons ago. California's production, accounting for 88 percent of the total, is expected to increase 12 percent. Arizona's production accounts for the remaining 12 percent and is forecast to be up 67 percent over last season.

The *2008 California Citrus Acreage Report*, released by NASS this past November, shows that the State's lemon production is heavily concentrated in Ventura County, where about 42 percent of lemon acreage is located. Lemon acreage ranks second in the State after navel oranges. While the number of acres planted to lemons is only about a third of those planted to navels, there are slightly more lemon acres than Valencia oranges and tangerines.

This season's crop is reported to be of good quality, and through February supplies had been keeping up with demand. USDA's Agricultural Marketing Service (AMS) reports that shipments through the first week of March were running about 16 percent ahead of last season through the same time. By the first week of March, shipments were finished from Arizona and Central California, with all the lemons shipped from the Southern California production area.

Grower prices have averaged lower this season than the past two seasons, due to this season's bigger crop (table 10). Between August 2008 and February 2009, prices have averaged $21.14 per 76-lb box, about 54 percent lower than last season and 22 percent lower than two seasons ago. Because lemons are harvested year round, prices at the start of this season were still reflecting the tight supplies brought on by last season's particularly small crop. Prices have dropped each month through February, but should increase by June in response to the high-demand summer months.

Tangerine and Mandarin Production Forecast Down in 2008/09

Tangerine and mandarin production is forecast to be down 3 percent this season due to a smaller crop in Florida. Florida has traditionally been the major tangerine producer in the United States, but this season for the first time, California's crop is expected to be 73,000 tons larger than Florida's.

NASS reduced its forecast for Florida's late-variety Honey tangerines, which accounts for about 40 percent of the State's tangerine crop. The freezing temperatures that hit Florida in late January and early February occurred after the harvest of the early varieties, Fallglo and Sunburst were near or at completion. The freezing temperatures stunted the Honey tangerine fruit growth and affected quality, decreasing the quantity of fruit suitable for fresh market sales.

The *2008 California Citrus Acreage Report* shows the State's bearing acreage for tangerines more than doubled between 2005 and 2008. The number of nonbearing acres planted to tangerines is second only to navel oranges among the State's citrus acreage. About a third of the acreage is in Kern County, followed by Tulare County. The W. Murcott mandarin variety still has the most acreage of all the tangerine varieties. It appears to remain a very popular variety because it also has the biggest number of nonbearing acres. Various clementine varieties account for the second biggest number of acres, followed by the Minneola, which is a tangelo.

Table 10--Fresh lemons: Average equivalent on-tree prices received by growers, 2004/05-2008/09

Month	2004/05	2005/06	2006/07	2007/08	2008/09
			--Dollars per 76-lb box--		
August	20.31	15.72	27.01	43.40	35.58
September	19.73	13.41	31.37	46.10	28.54
October	17.87	12.06	34.03	47.95	22.40
November	16.39	12.35	26.55	47.99	20.87
December	16.53	12.33	18.31	42.71	16.03
January	16.33	10.99	16.24	45.50	14.00
February	15.40	13.47	37.31	47.10	10.54
March	15.00	16.00	37.71	45.90	
April	17.71	23.82	36.71	43.20	
May	26.71	28.02	36.11	44.40	
June	21.31	27.62	38.21	45.90	
July	20.51	26.22	40.91	43.00	
Aug.-Feb. Average	17.51	12.90	27.26	45.82	21.14

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

Table 11--Fresh tangerines and mandarins: Average equivalent on-tree prices received by growers, United States, 2004/05-2008/09

Month	2004/05	2005/06	2006/07	2007/08	2008/09
			--Dollars per box 1/--		
October	15.90	20.12	16.67	16.00	7.65
November	16.46	19.78	21.69	26.58	16.79
December	16.40	17.18	21.77	23.65	11.06
January	17.12	15.85	19.58	17.98	17.81
February	15.82	13.79	18.29	18.95	24.10
March	16.15	11.78	17.58	18.36	
April	19.79	11.25	21.02	14.56	
May	16.00	8.57	20.50	7.00	
Oct.-Feb. Average	16.34	17.34	19.60	20.63	15.48

1/ The net weight of a tangerine box for Florida: 95 pounds, for Arizona and California: 75 pounds.
Source: USDA, National Agricultural Statistics Service, Agricultural Prices, various issues.

Tangerine and mandarin grower prices started off low at the beginning of the 2008/09 season, averaging $7.65 per box in October, about half the price they received the two previous Octobers (table 11). This October, most of the domestic tangerines in the marketplace were Florida's early varieties. Fruit were reported to be on the small side and that can have an adverse effect on price. Prices more than doubled in November as California tangerines and mandarins entered the market. After subsiding somewhat in December, prices rose again in January and February as the result of Florida's freeze being felt in the marketplace.

2009 Strawberry Acreage Forecast up for Major Producing States

Barring any major weather problems through the rest of the growing season, prospects look positive for another year of increased strawberry production in the United States in 2009. Forecast bigger acreage in major strawberry-producing States will help boost domestic production, likely surpassing the record-large crop of 2.5 billion pounds produced last year. In January, NASS had forecast 2009 combined strawberry planted acreage in California, Florida, and Oregon to increase by 2,800 acres from a year ago, totaling 48,500 acres. Acreage increased for all three States, with California having the largest additional production area, increasing by 2,300 acres. The forecasts also show Florida with 400 more acres in production and Oregon having an additional 100 acres.

The entire planted area for California in 2009 is forecast to be harvested, while about 100 acres planted in Florida and 400 acres in Oregon will not be harvested. Combined harvested acreage for the three States is forecast to reach 48,000 acres, 6 percent more than last year. While yields per acre can vary greatly from year-to-year depending on weather conditions during the growing and harvesting period, ERS projects a potential production increase of 3 to 4 percent from a year ago for the three major States for 2009 based on NASS' forecast increased acreage and a 3-year average (2006-08) yield per acre factor. Because over 80 percent of domestic production is supplied by the three major States, with California accounting for a vast portion, the combined production increase in these States will likely be reflected in the entire crop, as had been the case in previous years, likely driving down U.S. strawberry prices for this season.

The strawberry season in the United States starts off each year with the winter crop in Florida. Despite the threats from three freezes this winter, Florida's 2009 winter strawberry crop, planted in the fall of 2008, was spared serious damage. Cumulative shipments of Florida strawberries through early March were 12 percent above the same period the year before, according to AMS data. Freezing weather had threatened the crop in November 2008 and in early January and early February of this year. Most of the resulting impact from the freezing temperatures back in November was a delayed start to the harvest, with first shipments reported in early December, a few weeks behind last season. Total early shipments from the 2009 Florida winter strawberry crop through the second week in December were down 81 percent from the same time last year, providing a boost to strawberry prices at the start of the season. Harvesting for Florida's early-season crop began to pick up by mid- to late-December, and although volumes were still behind the previous year, increased imports, mostly from Mexico, supplemented demand for the year-end holidays, driving prices lower and below previous-year levels. All through most of the first 2 months of 2009, Florida shipments and imports remained above the weekly volumes the same time last year, keeping downward pressure on prices. The late-season crop in Florida began shipping in February and will culminate around early April when the California shipping season gets well underway.

Because Florida's 2009 winter strawberry crop started the season with lighter-than-previous-year volumes, Central Florida free-on-board (f.o.b.) shipping-point prices early into this winter (week ending December 13) ranged from $22.90 to $24.90 per flat of 12 1-pint basket, medium to large berries, compared with $16.90 to $24.90 the same time last year. F.o.b. prices declined seasonally and fell slightly below previous-year levels through much of January and February, except in late February, when f.o.b. prices averaged around $12.90 per flat, compared with $8.90-$9.90 per flat the same time last year. Aside from strong market demand, Florida strawberry prices were higher due to less competition with early-season supplies from California. Although California supplies are typically at a seasonal low during the early part of the year, heavy rains affecting southern California strawberry fields during the first half of February cut short their supplies significantly in mid-February from last year's volume. Also, there was more of a between season gap for California strawberries last year due to frost-induced delayed plantings and late January rains, benefitting the market for Florida strawberries during the first 2 months of last year.

There is the potential for increased production in California this year. Despite the rains in early February, improved weather during the latter part of the month helped strawberry fields to recover. California shipments for the 2009 season through early March were up 11 percent from last year the same time.

At the national level, NASS reports U.S. average grower prices for fresh strawberries in January and February at $1.13 and $1.29 per pound, compared with $1.94 and $1.31 in January and February 2008. Consumers also found prices at the retail level for these two months relatively more affordable than last year's prices, helping stimulate demand especially at a time of economic and financial uncertainty. Retail strawberry prices averaged $2.61 and $ 2.45 per 12-ounce pint of strawberries during the first 2 months of 2009, compared with $3.02 and $2.82 the same time last year. Prices are likely to decline heading into the spring as production in California builds up for the season. Increased domestic production and lower prices will help boost strawberry demand both here and internationally.

Although not quite the peak period for U.S. fresh strawberry exports, volumes shipped to export markets in January were up 37 percent, mostly to Canada.

U.S. Avocado Demand To Be Met Mostly by Imports for a Third Consecutive Year

U.S. avocado production is expected to be down for a third consecutive year in 2008/09, increasing the window of opportunity for imports to expand market share in the United States. Based on crop projection estimates from the California Avocado Commission, production in California for the current marketing season (2008/09) is expected to be down by about 36 percent from the previous season, ranking it as their second-smallest crop since the mid-1970s. An unusually warm spring last year aborted blooms in some growing areas and provided poor conditions for pollination and fruit set. These factors, along with water supply shortages, have contributed to the expected light crop in 2008/09. California produces about 90 percent of U.S. avocados and therefore this huge decline in their production will be reflected in this season's overall crop size. ERS projects 2008/09 U.S. avocado production to be down by about 34 percent from 2007/08, totaling around 248 million pounds (table 12).

U.S. fresh avocado imports have been increasing consecutively over the last seven years, reaching a record 694.0 million pounds in 2007/08. In 2006/07 and 2007/08, imports made up 65 to 75 percent of all the avocados for domestic fresh-market consumption. As in the two previous marketing seasons, imports will again play a dominant role in meeting avocado demand in the United States in 2008/09. With yet another large crop expected for this year, Mexico will likely fill in for most of the slack in U.S. supplies. Imports from Chile have increasingly faced competition with Mexico in the U.S. market over the last few years, with its share of U.S. import volume declining from over 60 percent during the early 2000s to 21 percent in 2007/08.

According to the USDA's Foreign Agricultural Service, Mexican Hass avocado production is forecast to increase to a record 1.15 million metric tons, up 13 percent from 2007/08. With this level of production, Mexico is forecast to increase avocado exports 6 percent, to a record 320 million metric tons. Most of these exports will be bound for the U.S. market. U.S. avocado imports in January were up 16 percent from the same period in January 2008, according to data from the U.S. Department of Commerce, U.S. Census Bureau. January imports from Mexico rose 70 percent while those from Chile were 48 percent lower. Based on AMS shipment data, cumulative avocado imports from Mexico through mid-March were up 38 percent from the same time a year ago. While November marks the start of the California avocado season, shipments are just getting started in the early spring because growers wanted to hold off harvesting to allow fruit to grow larger. With a relatively small crop, there is more potential for fruit to be harvested at larger sizes and growers could get better pricing for these large-size fruit. Supply increases through much of the first 3 months of this year, mainly from imports, have put downward pressure on avocado prices in the United States. For consumers, January-March avocado retail prices were averaging 92 cents less per fruit than what they paid the same time a year ago.

As the current economic crisis lingers, it may affect U.S. demand for avocados. There could be some downward pressure on demand since avocados are one of the most expensive fruit at the retail level. However, a large segment of the U.S. avocado market is the country's Hispanics population–a group that is growing. Avocados are very common in their diet and they may not wish to cut back on buying the fruit. U.S. fresh avocado consumption has more than doubled since the mid-1990s, increasing to an estimated 3.42 pounds per person in 2007/08. While the consumption level of over 3 pounds per person was maintained in 2007/08, it was down slightly from the record 3.59 pounds per person in 2006/07. Exports represent only a small segment of the market for U.S. avocados, averaging 2.5 percent of domestic production over the previous three marketing seasons. Most of the exports went to Canada the previous two marketing seasons. Exports are projected to be lower in 2008/09 due to the significantly reduced domestic crop. Should imports continue to increase for the rest of the year at the same pace as in January, preliminary projections from ERS put per capita consumption at 3.39 pounds in 2008/09, declining for a second straight year.

Table12 --Fresh avocados: Supply and utilization

Season	Supply			Utilization		
					Consumption	
1/	Utilized production	Imports 2/	Total supply	Exports 2/	Total	Per capita
			-- Million pounds --			*Pounds*
1990/91	328.6	37.6	366.2	10.1	356.1	1.41
1991/92	326.4	53.2	379.6	13.8	365.8	1.43
1992/93	576.8	18.1	594.9	33.7	561.2	2.16
1993/94	318.0	52.8	370.8	21.3	349.5	1.33
1994/95	348.0	41.0	389.0	28.9	360.1	1.35
1995/96	389.0	56.0	445.0	20.6	424.5	1.58
1996/97	382.0	58.8	440.8	9.2	431.6	1.58
1997/98	354.0	133.7	487.7	10.3	477.4	1.73
1998/99	316.6	121.7	438.3	13.9	424.4	1.52
1999/00	374.6	173.3	548.0	5.5	542.5	1.92
2000/01	472.6	162.1	634.7	3.9	630.8	2.21
2001/02	462.7	262.4	725.1	4.1	721.0	2.50
2002/03	370.8	311.1	681.9	2.7	679.2	2.33
2003/04	488.7	320.3	809.1	3.5	805.6	2.74
2004/05	326.8	582.5	909.3	2.9	906.3	3.06
2005/06	629.0	424.8	1,053.8	14.5	1,039.3	3.47
2006/07	320.2	769.1	1,089.3	4.9	1,084.4	3.59
2007/08	363.5	694.0	1,057.5	13.3	1,044.3	3.42
2008/09 f	247.8	804.8	1,052.6	10.9	1,041.7	3.39

f=Forecast.

1/ Marketing season extends over 12 months, with California marketings running from November of the first year mentioned through November of the following year, and Florida marketings running from June of the second year mentioned through the following February.

2/ Imports and exports are on a calendar year. 3/ Preliminary.

Source: USDA, Economic Research Service calculations.

Tree Nut Outlook

U.S. Tree Nut Production Forecast up in 2008 Due to Bigger Almond and Walnut Crops

The 2008 almond crop is expected to set yet another record high at 1.55 billion pounds, 12 percent bigger than last year's record crop. The 2008 walnut crop is also set to reach a new record high, at 750 million pounds, 14 percent more than last season's crop and 6 percent bigger than the last record high crop in 2005. Macadamia nut production is also expected to be up this season, but production, at 54 million pounds, would be lower than in 2006, the last on-cycle of the trees' alternate bearing nature. Production of all the other major tree nut crops produced in the United States—pistachio nuts, pecans, and hazelnuts—is all expected to be down for the year.

The value of the 2008 tree nut crop (excluding walnuts for which data will be available July 8) is estimated at $3.1 billion, down 11 percent from 2007. The pecan crop value experienced the steepest year-to-year decline, with NASS initial estimates at $270 million, down 38 percent. The 2008 pecan crop was the smallest in 4 years, and although prices were up from the previous year, they were low relative to the 3 years prior. The value of the 2008 almond crop, at $2.2 billion was 7 percent lower than the previous year. Despite the record large crop, lower grower prices brought down its total value. The 2008 hazelnut crop experienced a decline in both crop size and grower prices, resulting in a decline in the crop value by 32 percent, to $52.2 million. Pistachio nut grower prices were the third highest on record in 2008, but the 33 percent smaller crop offset the higher prices to bring returns of $539 million, down from 2007, but still the third-highest on record. Macadamia nut grower prices were down 3 percent between 2007 and 2008. Production, however, was up 32 percent, resulting in the value of the 2008 macadamia nut crop at $31.3 million, 27 percent high than last season, but lower than any year since 2002.

Almond Shipments up Through February

Almond shipments this season, August 2008 through February 2009, ran 4 percent ahead of last season during this time, according to data from the Almond Board of California. Domestic shipments, which accounted for 29 percent of the total, were down slightly from last season. Export shipments, however, were up 5 percent. The lower grower prices for almonds this season likely has passed along to purchasers, and helped keep demand up during tight economic times in both its domestic market and major European markets. Western Europe remains the major destination for U.S. almond shipments, but markets are changing, and China and India are becoming increasingly important for both shelled and inshell almond sales.

Although shipments are up this season, 2008's record large crop has left the industry with a very large quantity of inventory. At this point, there are 40 percent more almonds in inventory than last February. Should stocks remain high by season's end in July, they could potentially have an adverse effect on next season's crop prices. Reports of damage to some of the 2009 crop, due to a March freeze, could potentially reduce next season's crop size. In that case, the big stocks could be beneficial to the industry to meet its market demands.

Walnut Shipments Down Despite Record Crop

Even though 2008 was a record-high year for walnut production, stocks coming into the season were the lowest in about 20 years, moderating supplies. Still, ERS forecasts supply to be bigger than the previous 2 seasons. Grower prices for walnuts will not be available until the July 8 NASS *Noncitrus Fruit and Nuts 2008 Summary*. Terminal market price data from AMS, however, show that walnut prices began the season averaging $2.60-$4.50 per pound in October Sales of the new season began in October. Higher prices for October 2008, relative to the previous 2 years, reflect the low ending stocks for the new season, as the new crop harvest was just getting underway. Price came down to $1.52-$2.60 per pound in November and $1.52-$2.69 in December (table 13). These prices were in the midrange compared to 2007 prices during the fall months. Most of the crop is sold by the end of fall. The high end of the price range for walnuts have mostly remained below last season as of mid-March, indicating that grower prices may average lower than a season ago.

Table 13--Average monthly terminal market inshell tree nut prices, 2006-2008

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

	Walnuts, Mostly Hartley				Pistachios, Various varieties			
	2006	2007	2008	2009	2006	2007	2008	2009
	Dollars per pound							
January	0.76-1.83	1.00-2.13	1.40-2.42	1.50-2.60	3.40-4.40	3.44-3.61	2.88-3.44	2.44-4.40
February	1.26-1.52	1.00-1.73	1.90-2.38	1.50-2.25	3.52-3.61	3.44-3.61	3.20-3.44	3.00-4.40
March 1/	1.30-1.32	1.40-1.50	2.20-2.38	1.50-2.25	3.52-3.61	3.44-3.68	3.20-3.44	3.30-4.40
April	1.30-1.32	1.44-1.50	2.20-2.38		3.52-3.61	3.44-3.68	3.20-3.44	
May	1.30-1.32	1.44-1.50	2.20-2.38		3.52-3.61	3.20-3.61	3.20-3.44	
June	1.30-1.32	1.44-1.60	2.30-2.33		3.52-3.61	3.20-3.61	3.20-3.44	
July	1.26-1.32	1.60-1.70	2.30-2.33		3.04-3.61	3.20-3.61	3.20-3.44	
August	1.26-1.30	1.60	2.60-2.50		3.04-3.61	3.20-3.61	3.20-3.44	
September	1.26-1.44	--	2.60		3.04-3.61	2.88-3.61	3.20-3.33	
October	1.06-3.50	1.40-2.70	1.64-4.50		3.16-5.07	2.88-3.44	2.44-4.40	
November	1.06-3.50	1.40-2.70	1.52-2.60		3.16-5.50	2.88-3.44	2.24-4.40	
December	1.06-3.25	1.40-4.50	1.52-2.69		3.60-5.50	2.88-5.22	2.24-5.67	

-- = Not available. 1/ March 2009 data are through March 14.

Source: USDA, Agricultural Marketing Service.

Domestic shipments of inshell walnuts were down 21 percent, and shelled walnut shipments were down 14 percent, September 2008 through February 2009, over this period last season. Shipments were also down to major export markets, Germany, Spain, and the Netherlands, but were up to Italy and Israel. Exports of inshell walnuts rose sharply to Turkey where the popularity of walnuts is growing. Inshell exports also rose to Egypt, and most of the major Asian markets. On the other hand, export of shelled walnuts fell to some of the bigger markets—Canada, Australia, Japan, and South Korea.

Pistachio Nut Shipments Strong so far This Season

The Administrative Committee for Pistachios reports that so far this season, August 2008 through February 2009, pistachio export shipments have been a record high; domestic shipments, while strong, are trailing last season.

As of the end of February, pistachio shipments to domestic processors and markets have accounted for only one-third of the total, the remainder have been shipped for export. At 57 million pounds, domestic shipments so far were down 20 percent from last season but were 4 percent above the 2006/07 season. About 85 percent of the shipments were open inshell pistachios, mostly used as a snack food.

Pistachio nut export shipments were 22 percent above last season through February. Last season was a record year for exports for the pistachio nut industry, 60 percent higher than 2006/07 and almost double 2005/06. As with most of the U.S. tree nut industry, Western Europe is the major destination for U.S. pistachios. Shipments there increased 9 percent so far this season, with bigger shipments to the Netherlands, which received about a third of the Western Europe shipments, as well as to France, Luxembourg, and Spain. The Asian market, propelled by demand in China and Hong Kong, also has been very strong. Through February, almost 17.9 million pounds of pistachios have been shipped to China, 3 times the quantity last season. Another 8 million pounds went to Hong Kong; this amount was just slightly more than last season.

The 33-percent smaller crop this season over last, along with the strong international demand for U.S. pistachios, brought near record grower returns this season. The grower price for 2008 averaged $1.94 per pound, 38 percent higher than last season and the second highest return on record. The highest grower price was $2.05 per pound in 1980 and 2005. Terminal price ranges were also averaging on the high side. The 2008/09 terminal prices started the new season ranging $2.24-$4.40 per pound. In 2007/08, the range was from $2.88-$3.44 per pound. Since January, prices have gone as high as $4.40 per pound, almost $1 more than the high end of the price range last season. While the higher prices helped boost grower returns, the smaller crop is expected to reduce the value of this season's crop by 8 percent over last year to $539 million. Although down from last year, if realized it would be the third highest crop value on record.

Hazelnut Production Forecast Down in 2008; Prices Also Expected Lower Than Last Season

NASS forecast the 2008 hazelnut crop to be smaller in 2008, down for the second consecutive year. If realized, the 2008/09 crop, at 32,000 tons, would be 14 percent

smaller than last season and 26 percent smaller than the near-record crop in 2006. The crop, however, would be about average with production during the first half of the 2000s.

Grower prices are also forecast to be lower in 2008, even though the crop is expected to be smaller. With a large share of each season's hazelnut crop sold on the international market, U.S. grower prices are influenced by world supplies most of which come from Turkey. For the 2008/09 season, FAS reports that Turkey's hazelnut production is expected to be a record high. This, in turn, put downward pressure on prices U.S. growers received this season. At $1,630 per ton, the 2008 grower price is down 20 percent from 2007. Although lower than last season, the 2008 price is still strong for hazelnuts. If realized, they would be 51 percent higher than in 2007 and the third highest on record. The small crop and reduced grower price are expected to result in the 2008 crop value to be down 31 percent to $52 million, still the third highest on record.

Both domestic and export hazelnut shipments are up this season, July 2008 through February 2009, over the previous two seasons, according to data from the Hazelnut Marketing Board. Hong Kong is the major export market, followed by Vietnam, Germany, Canada, and China. U.S. Census Bureau data show that, through January, exports were higher this season over last to Hong Kong and Vietnam, but down to Canada and China.

Pecan Production Down Cyclically in 2008

Pecan production, heavily alternate-bearing in nature, was in its off-cycle in 2008. NASS forecast production at 165.2 million pounds, down 51percent from 2007, but higher than most off-cycle crops. Because the crop is big for the off cycle, grower prices increased 25 percent from last season's big crop, to $1.40 per pound, but lower than the previous two off-cycle crops. The 2008 pecan crop value is forecast at $270 million, 38 percent lower than in 2007, and the lowest since 2002.

Terminal market prices for pecans have been averaging higher this season, September 2008 through March 2009. Prices started off the season at $2.80 per pound this September, about $0.36 above two seasons ago. Last season's crop harvest didn't get fully underway until October, and so there were no September prices available. In October, however, prices averaged $2.20-$3.00 per pound, higher than last October's average of $1.40-$2.96 per pound. Prices have continued above last season, monthly through mid-March. The pecan shelling and processing industries are not as strongly integrated with the growers as they are in other tree nuts industries, and wholesale prices may not be as reflective of grower prices as they are for the other nuts.

Inshell pecan exports have been down this season to Hong Kong, the No.1 market, but up to Mexico and the United Kingdom. Shelled pecan exports have been up 12 percent through January. Shelled pecan shipments to major markets, led by Canada, are down from last season, but these declines are offset by an increase of 50 fold to China. Last season, China was among the smaller export markets for shelled pecans. This season it is the third biggest destination. Tree nuts of all varieties have become very popular in China because they are reported to provide

many health benefits. This, along with China's strong economy, has driven it to the forefront as an export destination for most U.S. tree nuts.

California's Drought May Affect 2009 Tree Nut Crops

The 2009 tree nut crops in California have begun to develop; almond pollination took place beginning in February and most trees have set their nuts. Other nut trees have or will soon begin to flower. This year, the State's tree nut industry has been dealing with insufficient supplies of water, due to drought conditions in the State. Water rationing has been implemented in many parts of the State. Many growers have turned to well water which increases their production costs. Growers are concerned that the drought will adversely affect the 2009 crop because it may stress the trees and hinder nut set and development.

Rains in February and snow in the mountains in March have helped provide some relief for tree nut producers. However, the State still considers itself under drought conditions and is still rationing water.

Instances of rain in February occurred at the same time that bees were busy pollinating the almond groves. The rains slowed bee activity, concerning growers because the more active the bees, the higher the nut set. However, overall pollination was reported to have turned out well. Coming on the heels of the concerns about pollination, an unexpected freeze in mid-March hit parts of California, including much of the almond-production area. The freeze destroyed nutlets in some orchards. Damage was scattered and some production areas received greater losses than others. As a result, the overall almond crops may well be down this season for the first time in 4 years.

California Citrus Exports Down This Season Through January

Exports of fresh oranges and lemons are down this season through January compared to last season at the same time (table 14). California's orange season got off to a late start due to late maturing fruit, contributing to the 29 percent decrease in export shipments from November 2008 through January 2009. This season's crop was initially expected to be smaller than it turned out, which may have contributed to slower movement to ensure sufficient fruit throughout the season. Adding to these factors, the increase in the strength of the U.S. dollar in some markets this season over last has made the fruit more expensive in many markets, decreasing international demand. Shipments were down to all major export markets, but declined the least to China, compared to last season. While so far this season, shipments to China are down 5 percent from last season, they are still higher than through January in 2005/06 and 2006/07.

California's fresh lemon exports are down 31 percent so far, August 2008 through January 2009, compared to 2007/08 through January, despite the much bigger crop this season. Exports to Japan, the No. 1 market, are down by half from last season, and the lowest since 2001/02. According to a Foreign Agriculture Service attaché report last November, Japan had big supplies of lemons imported from Chile from the past summer, which were likely still around when California's season began, reducing demand at the beginning of California's season. The report also said that demand for lemons was down this season due to the economic downturn. Lemons are often used in restaurants in Japan. In order to curb costs, the report stated that many restaurants had reduced their lemon use, in turn lowering demand for U.S lemons. Shipments to Canada, on the other hand, were down only 2 percent and were above the previous two seasons during the same time period. Shipments to China and Hong Kong had been very strong through January, as China has felt less of the effects of the world's economic crisis than other countries.

Tree nut exports are down for walnuts, almonds, and pecan this season through January, according to U.S. Census Bureau data. While the 2008/09 pecan crop is on the off cycle in the alternate-bearing nature of its trees, producing the smallest crop in 5 years, the walnut and almond crops are both record large crops this season. Also, unlike the pecan crop, which is mostly sold domestically, the walnut and almond industries rely heavily on sales to export markets. U.S. Census Bureau export data are only available through January at the time of this report's release. Their data showed almond exports down 2 percent August 2008-January 2009 over the same time last season. The Almond Board of California reports show exports through February. According to their data, exports through February increased 5 percent over last season. Inshell shipments were up 33 percent from last season and shelled almond exports were up 4 percent over the same time period. It also reported that almonds sold but not yet shipped were 21 percent higher this season as of end of February, indicating that the almond industry should end its exporting season strong. Most of the growth in exports occurred in Middle Eastern and Asian markets; shipments to major markets in Europe were down. Shipments to China have been particularly strong so far this season, placing it as the No. 3 export market for shelled almonds after Spain and Germany, and the No. 2 market for inshell almonds after India.

Table 14--U.S. exports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through January) 2008	2009	Year-to-date change
		---------- *1,000 pounds* ----------		*Percent*
Fresh-market:				
Oranges	November-October	328,973	234,385	-28.8
Grapefruit	September-August	271,678	284,170	4.6
Lemons	August-July	149,796	103,722	-30.8
Apples	August-July	811,366	879,319	8.4
Grapes	May-April	655,218	735,361	12.2
Pears	July-June	264,711	254,233	-4.0
Peaches (including nectarines)	January-December	566	678	19.8
Straw berries	January-December	11,123	13,353	20.1
Cherries	January-December	461	193	-58.0
		------ *1,000 sse gallons 1/* -------		
Processed:				
Orange juice, frozen concentrate	October-September	8,636	14,119	63.5
Orange juice, not-from-concentrate	October-September	37,348	24,229	-35.1
Grapefruit juice	October-September	4,798	6,133	27.8
Apple juice and cider	August-July	4,086	3,738	-8.5
Wine	January-December	8,949	7,867	-12.1
		---------- *1,000 pounds* ----------		
Raisins	August-July	159,365	172,631	8.3
Canned pears	June-May	8,695	10,317	18.7
Canned peaches	June-May	54,944	67,069	22.1
Frozen straw berries	January-December	3,158	2,312	-26.8
		---------- *1,000 pounds* ----------		
Tree nuts:				
Almonds (shelled basis)	August-July	510,099	500,720	-1.8
Walnuts (shelled basis)	September-August	135,679	99,699	-26.5
Pecans (shelled basis)	October-September	22,453	17,842	-20.5
Pistachios (shelled basis)	September-August	54,604	75,252	37.8

1/ Single-strength equivalent.

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

The California Walnut Board reported that walnut exports, September 2008 through February 2009, were unchanged from last season. Inshell shipments were up 15 percent, but shelled shipments were down 10 percent.

Among its major markets, shelled walnut exports were up to Italy and Israel, but down to Germany, Spain, Japan, and Canada. Export shipments of inshell walnuts were reported up to Italy, the No.1 market, as well as to Turkey, Israel, Egypt, Venezuela, and Brazil, Hong Kong, and South Korea, but were offset by reduced quantities shipped to Germany and Spain.

The U.S. pistachio nut industry is having a great year for exports, with the quantity shipped 38 percent higher this September through January, than a season ago. Although this is an off year in the trees' production cycle, and the 2008/09 crop is 33 percent smaller than the previous season, large beginning stocks, and reduced domestic shipments helped boost supplies available for export. At the time of this report's release, the Administrative Committee for Pistachios had export shipments data through February. According to their data, shipments to Western Europe, the major market for U.S. pistachios, were up 9 percent from last season. Bigger shipments to France, the Netherlands, Norway, Spain, Luxembourg and Switzerland, offset smaller shipments to Germany, Belgium, Greece, Italy, and the United Kingdom. Throughout the rest of the world, shipments were up to Eastern Europe and the Middle East, especially to the United Arab Emirates, but the biggest increase was in the quantity shipped to China. Shipments to China so far this season, increased more than three times that of the same period last season, and made China the No. 2 export market for U.S. pistachios. The bulk of the shipments were open inshell pistachios, most commonly used for snacking. There was also a

slight increase in shipments to Hong Kong. Shipments to Japan, the next biggest Asian market for U.S. pistachios was down slightly through February.

Reduced Banana Shipments Drive Down U.S. Fresh Fruit Imports

As the No. 1 fresh fruit import, banana shipments dominate overall U.S. fresh fruit imports. Due to adverse weather in Costa Rica and Panama, two of the major sources of bananas for the U.S. market, shipments this January were down 8 percent from last January (table 15). Heavy flooding in November damaged plantations in both countries, reducing supplies. Costa Rica also experienced an earthquake in January, bringing more damage to its banana industry. Banana supplies were tight throughout much of 2008, and are likely to remain so through at least early 2009. As a result, American consumers can expect to continue to pay higher than average prices over the next few months.

Shipments of Spanish clementines and Chilean grapes were up this season due to good crops in the respective countries. During the winter months, all the grapes in the U.S. grocery stores are from the Southern Hemisphere, mostly from Chile. As a result of the increased quantity of grapes imported into the United States from November through March, consumers paid less at retail throughout much of the import season. Spanish clementines compete in the U.S. markets with fresh navel oranges, and tangerines and mandarins—including California clementines. California's clementine production has grown in recent years, increasing market availability of the fruit. Retail prices for clementines were lower this January and February than last year, according to AMS retail price data, largely due to the increase in the quantity of Spanish and California clementines in U.S. markets.

Lemon imports declined 47 percent from August 2008 through January 2009 over last season. Increased U.S. production reduced the need for imports to meet domestic demand.

On the processed fruit side, demand for frozen concentrated orange juice (FCOJ) fell 56 percent October 2008 through January 2009 over the same time last season. Big juice stocks held by Florida processors, coupled with sluggish demand for orange juice among Americans, reduced demand for imported FCOJ by processors and those who reconstitute orange juice.

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

Commodity	Marketing season	Season-to-date (through January) 2008	Season-to-date (through January) 2009	Year-to-date change
		1,000 pounds		*Percent*
Fresh-market:				
Oranges	November-October	9,462	5,229	-44.7
Tangerines (including clementines)	October-September	129,301	166,978	29.1
Lemons	August-July	125,334	66,064	-47.3
Limes	January-December	55,354	64,062	15.7
Apples	August-July	102,972	78,034	-24.2
Grapes	May-April	450,644	482,809	7.1
Pears	July-June	42,018	40,172	-4.4
Peaches (including nectarines)	January-December	43,200	36,286	-16.0
Bananas	January-December	714,981	661,070	-7.5
Mangoes	January-December	43,746	28,040	-35.9
		1,000 sse gallons 1/		
Processed:				
Orange juice, frozen concentrate	October-September	128,584	56,702	-55.9
Apple juice and cider	August-July	282,181	241,981	-14.2
Wine	January-December	17,950	18,922	5.4
		1,000 pounds		
Canned pears	June-May	52,598	43,630	-17.0
Canned peaches (including nectarines)	June-May	141,756	99,053	-30.1
Canned pineapple	January-December	89,324	73,558	-17.6
Frozen strawberries	January-December	13,022	12,974	-0.4
		1,000 pounds		
Tree nuts:				
Brazil nuts (shelled basis)	January-December	1,516	1,846	21.7
Cashews (shelled basis)	January-December	23,769	20,125	-15.3
Pine nuts (shelled basis)	January-December	1,146	1,015	-11.4
Pecans (shelled basis)	October-September	37,617	30,775	-18.2

1/ Single-strength equivalent.

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

Commodity Highlight

The 2007 Census of Agriculture Provides a Snapshot of the U.S. Fruit and Tree Nut Industries

The 2007 Census of Agriculture, released in February 2009, showed that the number of farms growing tree fruit, vine fruit, berries, and tree nuts, increased 2 percent in 2007 to 112,690 farms from the last Census in 2002 (the term fruit and tree nut farms will be used to refer to all these commodities throughout the paper). At the same time, however, the number of acres planted to tree fruit, vine fruit, and tree nuts fell 6 percent to 5.03 million acres. Harvested berry area increased 3 percent to 209,790 acres.

California remains the No.1 State for fruit, tree nut, and berry farms. With 34 percent of the total, it accounts for far more farms than the No. 2 State, Florida, with 8 percent of the total. Topping off the remaining five States with the most farms are: Texas-6 percent, Washington-5 percent, and Oregon-4 percent.

The value of sales for fruit, tree nuts, and berries in 2007 totaled $18.6 billion, the highest of any agricultural industry except total grains, oilseeds, dry beans, and dry peas. The fruit and tree nuts industries accounted for 6 percent of the total sales valued at $297 billion for all agricultural commodities sold in 2007.

Most Farms Are Family or Individual Operations

Fruit and tree nut farms are predominantly family or individual operations. On the national level, 80 percent of the farms are run by families or individuals. Only 8 percent are run by corporations. South Dakota has the largest share of corporate run farms, with 26 percent of their 61 farms reported as part of a corporation; most of these are family-held. Individual State laws and earnings from sales may contribute to farms incorporating themselves, explaining why some States may have a higher share than others.

About 26 percent of all farms growing fruit and tree nuts had sales of $50,000 or more. Washington had 44 percent of its farms and California had 40 percent in this category, the most of any States. About one-third of the farms in Oregon, Michigan, and Florida fit into this category. A bigger share of farms with sales of at least $50,000 in 2007 were organized as a corporation but compared with the total fruit and tree nuts farms, still 58 percent were family or individually operated. Among the 20 percent that were in corporations, 82 percent were family held with 10 or fewer stockholders. About 2 percent of these farms were corporations other than family. Almost all of these farms were in California, Florida, and Washington.

About 82 percent of all fruit and tree nut farms are small, family operations. About 11 percent of this group was limited resource farmers, almost a quarter of whom were located in California with the remainder dispersed throughout the country. Another 27 percent were retirement or residential/lifestyle farms. These growers, however, likely had other sources of income and were less dependent on their sales from fruit and tree nuts. Small family farms with farming as their major occupation accounted for 17 percent of all fruit and tree nut farms. Only 9 percent of these farms were defined as nonfamily farms.

While the farms with sales of at least $50,000 accounted for only about a quarter of all fruit and tree nut farms, their sales accounted for 95 percent of all sales for these growers, generating $18 billion of sales in 2007. Returns were further concentrated among the large to very large family farms and nonfamily farms.

Having the majority of fruit, tree nut, and berry farms as small, family operations, it is not surprising to find that among the 112,690 farms that produce these products, only 4,711 had sales of $1 million or more. Another 8,900 farms had sales between $250,000 and $999,000. The remaining 99,039 farms had sales of less than $250,000.

Characteristics of Farms Classified as Fruit and Tree Nut Farms

The number of farms classified as fruit and tree nut farms under the North American Industry Classification System (NAICS) totaled 98,281 in 2007, 87 percent of the farms that were reported to grow these commodities. Due to the particular nature of growing fruit, nut trees, and fruit vines, where land needs to be dedicated to the production of these crops for many years, as well as production practices that are specific to these crops, producers tend to concentrate their production in growing these crops. Some growers also plant other agricultural crops and/or have some livestock. However, the returns from these enterprises, on average, account for only a small part of total sales for these farms.

Because they are heavily reliant on the production of fruit and tree nuts, these operations do not receive many government payments. In 2007, only 6,729 fruit, tree nut, or berry farms reported receiving government payments, which were valued at $59 million. The only agricultural industries to receive lower payments were the greenhouse, nursery, and floriculture industry; tobacco; and sheep and goat farming industries. Fruit and tree nut farms were not very likely to participate in Federal conservation practice programs, such as the Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement programs, and only about 20 percent of the farms had land enrolled in crop insurance programs. Crop insurance is not available for all fruit and tree nut crops, reducing the number of those farms eligible to participate.

Farm expense took up a big portion of total market value of the total agricultural products sold and government payments received by NAICS fruit and tree nut farms. Of the total $18.4 billion received by these producers, 76 percent went to production expenses. The single biggest expense for these operations was hired labor costs, which accounted for 25 percent of all production expenditures. Fruit operations, in particular, rely heavily on labor for harvesting and other production practices. Since the fresh market is the first choice for many fruit producers, hand picking insures minimal damage to the fruit, insuring a greater share of the crop will meet the qualifications for selling in the fresh market. Shaking fruit trees mechanically would bruise too many of the fruit. While there are growers who produce for processing, there are few machines available because of the cost of making specific shakers. Mechanized harvesters would have to be different for citrus trees than noncitrus trees, because, on citrus trees, the following season's crop is already forming on the trees that are being harvested. Tree shakers are used for nut trees since the nuts are protected by a hard shell.

Other major expenses incurred in fruit and tree nut operations include the purchase of chemicals; fertilizer, lime, and soil conditioners; depreciation; supplies, repairs, and maintenance; utilities; gasoline, fuels, and oils; interest payments; and property taxes.

Almost all of the capital assets on fruit and nut farms were in land and buildings. Machinery and equipment accounted for only about 5 percent of the total. Most of the producers own the land on which they plant their orchards or vines. About 96 percent of the farms and 99 percent of the acreage in fruit and nut production is owned by the operators.

Most Orchard Acreage Planted to Noncitrus Fruit and Nut Trees

Acres planted to noncitrus and tree nut crops accounted for 80 percent of all orchard acreage in 2007, with citrus accounting for the remaining 16 percent (table 16). With the expansion of tree nut production in the United States, especially of almond production in California, it is not surprising that tree nuts accounted for 37 percent of all orchard acreage.

While there are noncitrus fruit planted in each of the 50 States, citrus production is limited to California, Arizona, and the Gulf Coast States due to their subtropical climate. Tree nut acreage is concentrated in California, but pecan acreage is reported in 15 southern States.

As has already been mentioned, most fruit farms are small, family-run operations. Production, however, is concentrated among the big orchards, which produce the bulk of the fruit. The 2007 Census of Agriculture reports that there were 608 farms in 2007 that had 1,000 or more acres and accounted for 31 percent of the acreage. Farms in this category increased 4 percent from the 2002 Census, however, the concentration of acreage increased 3 percent. Only 16 States had farms with at least 1,000 acres of fruit and tree nut production, with California accounting for 60 percent of the farms. While the number of farms in California in this category grew between the two Census years, as it did in several other States, Florida experienced a 25-percent decline in farms and number of acres. Florida, mostly a citrus producer, lost production due to hurricane damage and disease. Only 6 States had fruit and tree nut farms with at least 3,000 acres—California, Florida, Washington, Texas, Georgia, and Arizona. Only 1 farm in Arizona was reported to have at least 3,000 acres in orchard, 2 farms in Georgia and Texas, and 7 in Washington. Florida had 37 farms with at least 3,000 acres while California had the most, 78 farms. The acreage from these 131 farms accounted for 16 percent of all land in orchards.

Fewer Citrus Farms and Acreage in 2007

The number of farms producing citrus fruit—oranges, grapefruit, lemons, limes, tangerines, mandarins, and tangelos, declined 12 percent in 2007 from 2002. All the major citrus-producing States—Florida, California, Texas, and Arizona, experienced a decline in the number of farms (table 17). The number of acres planted to citrus also declined between 2002 and 2007. Only Hawaii, which has a number of small farms, showed any increase in the number of farms and acres during this time.

Table 16 --Number of fruit and nut farms and acreage in the United States, 2002 and 2007

Commodity	Total farms 2002	Total farms 2007	Percent change 2002-07	Share of total farms 2007	Total acres 2002	Total acres 2007	Percent change 2002-07	Share of total acreage 2007
			--Percent--				--Percent--	
Noncitrus	67,113	72,757	8.4	62.8	2,322,905	2,176,511	-6.3	43.2
Apples	23,853	25,591	7.3	22.1	464,025	398,770	-14.1	7.9
Apricots	2,698	3,141	16.4	2.7	18,191	13,750	-24.4	0.3
Avocados	6,254	8,245	31.8	7.1	75,570	82,647	9.4	1.6
Bananas	765	1,326	73.3	1.1	1,975	2,547	29.0	0.1
Sweet cherries	8,043	8,051	0.1	6.9	91,735	100,705	9.8	2.0
Tart cherries	2,955	3,028	2.5	2.6	47,138	49,561	5.1	1.0
Cherries, not specified	--	--	--	--	--	--	--	--
Coffee	1,202	1,521	26.5	1.3	7,986	7,891	-1.2	0.2
Dates	209	168	-19.6	0.1	7,585	7,669	1.1	0.2
Figs	812	1,101	35.6	0.9	14,274	9,739	-31.8	0.2
Grapes	23,856	25,892	8.5	22.3	1,060,295	1,051,407	-0.8	20.9
Guava	308	487	58.1	0.4	1,213	883	-27.2	0.0
Kiwifruit	474	430	-9.3	0.4	4,984	4,509	-9.5	0.1
Mangoes	623	877	40.8	0.8	1,938	2,259	16.6	0.0
Nectarines	2,261	2,269	0.4	2.0	45,645	31,846	-30.2	0.6
Olives	1,549	1,696	9.5	1.5	39,591	39,540	-0.1	0.8
Papayas	451	586	29.9	0.5	3,001	2,501	-16.7	0.0
Passion fruit	66	129	95.5	0.1	53	93	75.5	0.0
Peaches	14,526	13,582	-6.5	11.7	184,495	149,237	-19.1	3.0
Pears	10,809	9,878	-8.6	8.5	80,801	68,216	-15.6	1.4
Persimmons	1,425	1,505	5.6	1.3	4,855	4,191	-13.7	0.1
Pluots	--	308	--	0.3	--	4,332	--	0.1
Plums/prunes	7,300	6,987	-4.3	6.0	148,839	109,319	-26.6	2.2
Pomegranates	369	599	62.3	0.5	9,535	24,517	157.1	0.5
Other noncitrus	1,640	4,866	196.7	4.2	9,184	10,383	13.1	0.2
Citrus	17,727	15,658	-11.7	13.5	1,279,324	1,005,806	-21.4	20.0
Grapefruit	4,006	2,923	-27.0	2.5	156,869	102,578	-34.6	2.0
Kumquats	114	154	35.1	0.1	192	183	-4.7	0.0
Lemons	2,142	2,607	21.7	2.2	80,898	66,972	-17.2	1.3
Limes	633	862	36.2	0.7	1,368	1,251	-8.6	0.0
Oranges	14,288	12,116	-15.2	10.5	987,743	785,856	-20.4	15.6
Tangelos	961	800	-16.8	0.7	14,382	9,694	-32.6	0.2
Tangerines	1,731	1,976	14.2	1.7	31,419	36,965	17.7	0.7
Honey tangerines	--	--	--	--	--	--	--	--
Other tangerines	--	--	--	--	--	--	--	--
Temples	345	116	-66.4	0.1	3,678	1,211	-67.1	0.0
Other citrus	461	407	-11.7	0.4	2,624	1,097	-58.2	0.0
Tree nuts	--	39,480	--	34.1	--	1,857,179	--	36.9
Almonds	6,482	6,700	3.4	5.8	696,635	790,245	13.4	15.7
Chestnuts	--	1,200	--	1.0	--	3,335	--	0.1
Filberts (hazelnuts)	1,231	1,557	26.5	1.3	33,801	34,465	2.0	0.7
Macadamia nuts	1,059	1,150	8.6	1.0	18,682	17,811	-4.7	0.4
Pecans	22,371	21,856	-2.3	18.9	545,344	581,809	6.7	11.5
Pistachios	1,320	1,306	-1.1	1.1	126,569	154,103	21.8	3.1
English walnuts	7,025	7,161	1.9	6.2	292,691	267,751	-8.5	5.3
Other nuts	--	1,302	--	1.1	--	7,661	--	0.2
Other fruit and nuts	--	--	--	--	--	--	--	--
Total land in orchards 1/	113,649	115,935	2.0	110.3	5,330,439	5,039,476	-5.5	100.0
Berries								
Blackberries & dew berries	--	5,694	--	22.8	--	14,874	--	5.7
Blueberries	--	9,991	--	39.9	--	77,150	--	29.5
Wild blueberries	--	907	--	3.6	--	45,763	--	17.5
Boysenberries	--	304	--	1.2	--	1,068	--	0.4
Cranberries	--	1,134	--	4.5	--	41,310	--	15.8
Currants	--	323	--	1.3	--	382	--	0.1
Loganberries	--	97	--	0.4	--	93	--	0.0
Raspberries	--	6,588	--	26.3	--	21,554	--	8.2
Strawberries	--	8,638	--	34.5	--	58,718	--	22.4
Other berries	--	856	--	3.4	--	828	--	0.3
Total land in berries 1/	--	25,017	--	138.0	--	261,733	--	100.0

-- = Not available. 1/ Share of total farm over 100 percent because farms may grow more than one fruit, tree nut, or berry crop.

Source: USDA, National Agricultrure Statistics Service, Census of Agriculture, 2002 and 2007.

Table 17--U.S. Citrus fruit farm and acreage, 2007 and 2002

Commodity	Total Farms 2002	Total Farms 2007	Percent change	Total Acres 2002	Total Acres 2007	Percent change
Alabama	-	40	-	-	109	-
Arizona	695	329	-53	33,129	18,261	-45
California	7,654	7,358	-4	342,053	303,101	-11
Florida	7,653	6,061	-21	871,733	654,747	-25
Georgia	-	6	-	-	6	-
Hawaii	474	884	86	641	893	39
Mississippi	15	14	-7	72	(D)	-
New Mexico	-	2	-	-	(D)	-
South Carolina	-	4	-	-	6	-
Texas	1,053	750	-29	30,299	27,701	-9
United States	17,727	15,658	-12	1,279,324	1,005,806	-21

-- = Not available. D = Data not disclosed to prevent identification of producers.

Source: USDA, National Agricultural Statistics Service, 2007 Census of Agriculture.

Most of the citrus farms and acreage are in orange production. In 2007, about 77 percent of all citrus farms grew oranges, down from 80 percent 5 years ago. Conversely, orange acres accounted for a slightly bigger share of total citrus acres in 2007 than in 2002 despite the decline in the number of orange acres between the two Census years. The biggest declines occurred in Valencia farms and acreage (table 18). California, the major producer of oranges for fresh market, has been reducing the number of acres planted to Valencia oranges due to changes in consumer purchasing patterns. Consumers show a much stronger preference for navel over Valencia oranges. While the two varieties have different seasons and are not competing in the market place, except for a small window in late winter, growers are not getting the price premiums for their Valencias they can get for the navels. As a result, California growers have removed acreage planted to Valencia oranges and those who have replanted, put in later-variety navel oranges to extend their marketing season or planted various mandarins, including clementines.

In Florida, the Valencia orange is prized because of the color and flavor it provides when juiced. Most of Florida's orange production is for processing into juice. Much of the decline in Florida's Valencia acreage, as well as all other orange acreage has more to do with weather occurrences and diseases. Florida was hit by two very destructive hurricanes in 2004 and 2005, between the two Census periods, that toppled trees, destroying many of them. Equally important in the decline in Florida citrus acreage during this time was the attempts to control citrus canker by removing acres and acres of trees, and the further loss of trees due to a new citrus disease, citrus greening (Huanglongbing). The hurricanes spread citrus canker despite the industry's best efforts to control the disease, and the program to remove infected trees and those in a surrounding area was stopped. Many producers have chosen not to replant their citrus groves because of the increasingly higher costs of production required to cope with these diseases and low returns on their fruit. Over the past few years, American consumers have been purchasing less orange juice. With the reduced demand for the juice, processors, the major purchasers of Florida's oranges, have reduced their demand for new season oranges as they try to reduce ever growing juice inventories. In turn, they are offering growers lower prices for their fruit.

The number of farms and acres growing grapefruit also fell between the 2002 Census and 2007 Census (table 19). The number of farms declined 27 percent and acreage 35 percent. Florida, which accounted for 41 percent of the farms and 71 percent of the grapefruit acreage in 2007, has had problems with all of its citrus production. The 2004 and 2005 hurricanes directly hit Florida's major grapefruit production counties on the State's east coast, resulting in a great deal of damage. Just as influential in the decline in the number of farms and acreage is the declining demand for grapefruit. Grower prices have been weak during normal production years and costs of production have increased as growers must include new production measures to keep diseases at bay. Also, in the early to-mid 2000s, much of Florida's grapefruit were grown in areas with high residential value. After the storms, many growers chose to sell their land and take it out of production, contributing to the reduction in Florida's grapefruit farms and acreage. The other grapefruit-producing States have also been experiencing the same pricing situation as Florida, and have also responded by reducing their involvement in producing

Table 18--U.S. orange farms and acreage, 2007 and 2002

		Total Farms		Percent	Total Acres		Percent
Commodity		2002	2007	change	2002	2007	change
Alabama							
	Valencia						
	Other oranges 1/	-	7	-	-	6	-
	All oranges 2/	-	7	-	-	6	-
Arizona							
	Valencia	245	80	-67.3	3,163	898	-71.6
	Other oranges 1/	358	118	-67.0	3,632	1,718	-52.7
	All oranges 2/	453	163	-64.0	6,795	2,616	-61.5
California							
	Valencia	3,272	2,620	-19.9	79,454	54,051	-32.0
	Other oranges 1/	4,368	4,052	-7.2	170,875	158,263	-7.4
	All oranges 2/	5,731	5,254	-8.3	250,329	212,313	-15.2
Florida							
	Valencia	4,863	3,432	-29.4	373,559	296,574	-20.6
	Other oranges 1/	6,183	4,575	-26.0	346,115	264,751	-23.5
	All oranges 2/	7,072	5,561	-21.4	719,674	561,324	-22.0
Hawaii							
	Valencia	70	240	242.9	119	136	14.3
	Other oranges 1/	203	407	100.5	118	186	57.6
	All oranges 2/	259	543	109.7	237	322	35.9
Louisiana							
	Valencia	21	23	9.5	129	39	-69.8
	Other oranges 1/	134	116	-13.4	840	503	-40.1
	All oranges 2/	153	130	-15.0	969	542	-44.1
Texas							
	Valencia	164	142	-13.4	1,499	2,591	72.8
	Other oranges 1/	540	384	-28.9	8,241	6,141	-25.5
	All oranges 2/	620	458	-26.1	9,740	8,732	-10.3
United States							
	Valencia	8,635	6,537	-24.3	457,922	354,288	-22.6
	Other oranges 1/	11,786	9,659	-18.0	529,821	431,568	-18.5
	All oranges 2/	14,288	12,116	-15.2	987,743	785,856	-20.4

1/ Includes all other orange varieties, such as navels, early and mid-season oranges, and Temple.

2/ Valencia and other orange farms and acreage may not add to total oranges because some farms and acreage may be growing both.

Source: USDA, National Agricultural Statistics Service, 2007 Census of Agriculture.

Table 19--U.S. grapefruit, lemon, tangerine, and lime farms and acreage, 2007 and 2002

Commodity/ State	Total Farms 2002	Total Farms 2007	Percent change	Total Acres 2002	Total Acres 2007	Percent change
Grapefruit						
Arizona	221	63	-71.5	2,192	537	-75.5
California	955	879	-8.0	15,349	10,725	-30.1
Florida	1,861	1,185	-36.3	119,364	72,611	-39.2
Hawaii	77	201	161.0	105	45	-57.1
Louisiana	20	22	10.0	20	10	-50.0
Texas	872	573	-34.3	19,840	18,650	-6.0
United States	4,006	2,923	-27.0	156,869	102,578	-34.6
Lemons						
Arizona	234	172	-26.5	17,537	12,891	-26.5
California	1,649	1,880	14.0	62,407	53,232	-14.7
Florida	49	60	22.4	807	621	-23.0
Hawaii	122	406	232.8	40	127	217.5
Louisiana	25	35	40.0	9	8	-11.1
Texas	63	54	-14.3	97	93	-4.1
United States	2,142	2,607	21.7	80,898	66,972	-17.2
Tangerines						
Arizona	83	36	-56.6	3,290	544	-83.5
California	568	706	24.3	8,058	21,528	167.2
Florida	879	839	-4.6	19,696	14,604	-25.9
Hawaii	131	300	129.0	75	87	16.0
Louisiana	26	36	38.5	123	28	-77.2
Texas	44	59	34.1	177	174	-1.7
United States	1,731	1,976	14.2	31,419	36,965	17.7
Limes						
Arizona	26	3	-88.5	(D)	(D)	-
California	354	363	2.5	564	525	-6.9
Florida	81	57	-29.6	660	518	-21.5
Hawaii	171	427	149.7	(D)	204	-
Louisiana	-	6	-	-	(D)	-
Texas	1	6	500.0	(D)	(D)	-
United States	633	862	36.2	1,368	1,251	-8.6

= -- Not available. D=Data not disclosed to prevent identification of producers.

Source: USDA, National Agricultural Statistics Service, 2007 Census of Agriculture.

the crop. In Texas, the second major grapefruit production State, the number of grapefruit acres declined much less than the number of farms. It appears there may be some consolidation going on in the grapefruit industry in the State.

The number of farms growing lemons increased between 2002 and 2007. California is the major lemon producer in the United States, followed by Arizona. Production in the other States would be mostly for local markets. Despite the increase in the number of lemon-producing farms in California, acreage declined 15 percent. Arizona experienced a 27-percent decline in both number of farms and

acres planted to lemons. Arizona has long been dealing with disease problems that have affected its lemon production and the industry has continued to decline for many years.

Tangerine/mandarin farms and acreage both increased between the 2002 and 2007 Census. Florida, traditionally the major tangerine producer in the United States, experienced a decline in both farms and acreage due to hurricane damages and diseases. Weakening demand for tangerine varieties grown in Florida has put downward pressure on grower prices as competition has increased from the very popular clementines imported during Florida's tangerine marketing season. California, on the other hand, increased its tangerine/mandarin acreage by 167 percent between the 2 Census years. California planted mostly mandarin and clementine varieties, for which there is strong demand.

The United States no longer has a big commercial lime industry. Florida was the major producer of limes until citrus canker removed the last of the acreage that was left after Hurricane Andrew in 1992 decimated most of the production. Today, the majority of the limes consumed in the United States are imported from Mexico.

Farms Producing Noncitrus Fruit Comprise More Than Half of All U.S. Orchards and Vineyards

More than half of the 115,935 U.S. farms with orchards in 2007 were engaged in noncitrus fruit production. These noncitrus crops were produced on a total of approximately 2.2 million acres, making up 43 percent of the total land in orchards in 2007. Noncitrus fruit acres declined 6 percent in 2007 from 2002. Production area was cut back for 13 of the 24 noncitrus fruit crops, including some of the major noncitrus crops like grapes, apples, peaches, and pears. The number of farms producing noncitrus fruit, however, increased 8 percent in 2007 to 72,757. Farm numbers rose for most noncitrus crops except for dates, kiwifruit, peaches, pears, and plums/prunes. Noncitrus crops with the most significant increases in both farm numbers and acreage were those with relatively miniscule domestic production such as pomegranates, passion fruit, mangoes, and bananas. Expansion in the production sectors of these relatively minor crops have been influenced by increasing domestic demand for these fruit and their products. Although pomegranate and passion fruit production has been around in the United States for many years, the growing trend for health foods has aided in reintroducing these fruit to consumers, mostly in the form of juice products, with a focus on their powerful health-promoting nutrients and antioxidants, boosting their recent popularity.

California Dominates U.S. Noncitrus Fruit Production Sector

Farms producing noncitrus fruit are present across all 50 U.S. States, but California continues to be singled out as a primary production area for noncitrus fruit. California accounted for over a third of the noncitrus farms and more than half of total noncitrus acreage in 2007 (table 20). Domestic production of grapes, the country's No. 1 noncitrus fruit crop is heavily concentrated in California, with about 45 percent of all the grape vineyards spread across 83 percent of total grape acreage in 2007 (table 21). California also dominates in the production of other noncitrus crops, ranking at the top in terms of the acreage for apricots (82 percent of U.S. total in 2007), avocados (90 percent), dates (82 percent), figs (96 percent), kiwifruit

(97 percent), nectarines (89 percent), olives (96 percent), peaches (44 percent), persimmons (77 percent), pluots (95 percent), plums and prunes (94 percent), and pomegranates (99 percent). Moreover, acreage for apples, sweet cherries, and pears in California was among the largest in the country. Completing the top five States for noncitrus acreage in 2007 were Washington, Michigan, New York, and Oregon. Combined with California, these top five States made up approximately 87 percent of total noncitrus acreage in 2007.

Grapes Continue To Outrank Other Fruit and Tree Nut Crops in Farm Numbers and Acreage

Among the fruit, tree nut, and berry crops produced in the United States, grapes account for the largest number of farms and biggest acreage in production in 2007. A total of 25,892 farms produced grapes in 2007, up almost 9 percent from 2002 and surpassing the farm number totals for all citrus and berry crops (table 16). U.S. farms producing tree nuts totaled 39,480 in 2007 with pecan crops having the most farms at 21,856—still lower than for grapes. Rounding out the top five crops with the most farms include apples, pecans, peaches, and oranges. These five crops account for 86 percent of all U.S. farms with orchards in 2007.

Table 20--U.S. noncitrus fruit (excluding berries) farms and acreage, 2002 and 2007

	Total farms		Percent change	Share of total farms	Total acres		Percent change	Share of total acres
Commodity	2002	2007	2002-07	2007	2002	2007	2002-07	2007
			--Percent--				*--Percent--*	
California	23,540	24,910	5.8	34.2	1,418,093	1,312,994	-7.4	60.3
Washington	5,984	5,363	-10.4	7.4	310,403	298,587	-3.8	13.7
Michigan	2,501	2,581	3.2	3.5	117,075	113,624	-2.9	5.2
New York	2,703	2,639	-2.4	3.6	98,460	99,658	1.2	4.6
Oregon	3,148	3,171	0.7	4.4	(D)	64,125	--	2.9
Top 5-States	37,876	38,664	2.1	53.1	1,944,031	1,888,988	-2.8	86.8
Other States	29,237	34,093	16.6	46.9	378,874	287,523	-24.1	13.2
United States	67,113	72,757	8.4	100.0	2,322,905	2,176,511	-6.3	100.0

-- = Not available. D = Data not disclosed to prevent identification of producers.

Source: USDA, National Agricultural Statistics Service, Census of Agriculture, 2002 and 2007.

Table 21--U.S. grape farms and acreage, 2002 and 2007

	Total farms		Percent change	Share of total farms	Total acres		Percent change	Share of total acres
Commodity	2002	2007	2002-07	2007	2002	2007	2002-07	2007
			--Percent--				*--Percent--*	
California	11,128	11,623	4.4	44.9	890,896	868,330	-2.5	82.6
Washington	1,199	1,219	1.7	4.7	62,515	61,056	-2.3	5.8
New York	1,384	1,438	3.9	5.6	36,716	42,544	15.9	4.0
Oregon	1,220	1,380	13.1	5.3	14,262	18,192	27.6	1.7
Michigan	678	711	4.9	2.7	13,420	14,701	9.5	1.4
Pennsylvania	768	812	5.7	3.1	12,565	14,113	12.3	1.3
Sub-total	16,377	17,183	4.9	66.4	1,030,374	1,018,936	-1.1	96.9
Other States	7,479	8,709	16.4	33.6	29,921	32,471	8.5	3.1
United States	23,856	25,892	8.5	100.0	1,060,295	1,051,407	-0.8	100.0

-- = Not available.

Source: USDA, National Agricultural Statistics Service, Census of Agriculture, 2002 and 2007.

Acreage devoted to grape production totaled 1.05 million acres in 2007, down less than 1 percent from 2002. Grape acreage in 2007 accounted for 48 percent of noncitrus fruit acreage, more than four times the size of land devoted to berry production, 5 percent bigger than the production area for all citrus, and already more than half the total acreage for all tree nuts. While a majority of the grape acreage was in California in 2007, Washington, New York, Oregon, Michigan, and Pennsylvania had a combined acreage share of 14 percent. All these States produce grapes for the fresh market, however, a much larger proportion of their crop is for the processing sector than in California, mostly for wine and/or juice production. Like in California, there were more farms reported producing grapes in 2007 in each of these five States than in 2002. Other more minor grape-producing States each accounted for only a fraction of total acreage and a combined share of 3 percent but some of the largest growth in number of farms and acreage devoted to grape production were from these States. While demand for fresh market grapes has trended up over the last several years, overall increases in the number of farms and acreage for grapes largely is in response to the growing wine industry in the United States.

Apples, Peaches, Plums and Prunes, and Sweet Cherries Lead in Other Noncitrus Fruit Acreage

Apples, peaches, plums/prunes, and sweet cherries represented 35 percent of total noncitrus fruit acreage in the United States in 2007. Acreage for each of these crops in 2007 declined from 2002, except for sweet cherries whose production area remained relatively unchanged. Between the two census periods, the number of farms also declined for those producing peaches and plums/prunes, remained fairly constant for sweet cherries, and increased 7 percent for apples.

While California is the main producer for peaches as well as plums and prunes in the United States, Washington is the leader in apple and sweet cherry production (table 22). For apples, the next four largest producers are New York, Michigan, Pennsylvania, and California. Combined, these top five states accounted for 77 percent of U.S. apple acreage in 2007. A total of 3,052 farms in Washington produced apples in 2007, 12 percent of all the U.S. farms with apple production. These farms in Washington grew apples on a total of 165,215 acres, 41 percent of U.S. apple acreage in 2007. Both apple farm numbers and acreage declined in Washington from the previous census year, declining 21 percent and 4 percent, respectively. While the apple production sector in Washington appears to have contracted, annual data from NASS indicate increased apple production in the top apple-producing State as average yields per acre have improved with newer varieties and the practice of higher density plantings. Apple acreage also declined in the other four leading States in 2007, along with having fewer farms, except in Michigan and Pennsylvania where the number of apple farms rose 1 percent and 6 percent, respectively. Except for California, an upward trend in average yields for these States also led to positive growth in apple production between 2002 and 2007.

Both the total number of U.S. farms growing peaches and the total acreage dedicated to growing peaches declined in 2007, with farm numbers 7 percent fewer and acreage smaller by 19 percent from 2002. There were 13,582 U.S. farms growing peaches in 2007 with total production area of 149,237 acres. Although

Table 22--Number of farms and acres for selected noncitrus fruit in the United States, 2002 and 2007

Commodity/ State	Total farms 2002	Total farms 2007	Percent change 2002-07	Share of total farms 2007	Total acres 2002	Total acres 2007	Percent change 2002-07	share of total acres 2007
			--Percent--				--Percent--	
Apples:								
Washington	3,870	3,052	-21.1	11.9	172,810	165,215	-4.4	41.4
New York	1,447	1,350	-6.7	5.3	53,233	49,966	-6.1	12.5
Michigan	1,750	1,772	1.3	6.9	50,539	44,189	-12.6	11.1
Pennsylvania	1,777	1,886	6.1	7.4	28,110	23,552	-16.2	5.9
California	2,120	2,074	-2.2	8.1	38,268	22,184	-42.0	5.6
Sub-total	10,964	10,134	-7.6	39.6	342,960	305,106	-11.0	76.5
Other States	15,889	15,457	-2.7	60.4	121,065	93,664	-22.6	23.5
United States	26,853	25,591	-4.7	100.0	464,025	398,770	-14.1	100.0
Peaches:								
California	2,446	2,005	-18.0	14.8	93,257	66,408	-28.8	44.5
South Carolina	380	283	-25.5	2.1	15,069	16,160	7.2	10.8
Georgia	304	279	-8.2	2.1	13,242	12,356	-6.7	8.3
Sub-total	3,130	2,567	-18.0	18.9	121,568	94,924	-21.9	63.6
Other States	11,396	11,015	-3.3	81.1	62,927	54,313	-13.7	36.4
United States	14,526	13,582	-6.5	100.0	184,495	149,237	-19.1	100.0
Plums and prunes:								
California	2,852	2,024	-29.0	29.0	141,494	102,860	-27.3	94.1
Oregon	441	546	23.8	7.8	2,096	1,921	-8.3	1.8
Michigan	230	313	36.1	4.5	1,012	907	-10.4	0.8
Washington	317	418	31.9	6.0	1,034	699	-32.4	0.6
Idaho	118	152	28.8	2.2	609	610	0.2	0.6
Sub-total	3,958	3,453	-12.8	49.4	146,245	106,997	-26.8	97.9
Other States	3,342	3,534	5.7	50.6	2,594	2,322	-10.5	2.1
United States	7,300	6,987	-4.3	100.0	148,839	109,319	-26.6	100.0
Sweet cherries:								
Washington	2,432	2,160	-11.2	26.8	34,835	38,811	11.4	38.5
California	1,334	1,291	-3.2	16.0	26,440	30,433	15.1	30.2
Oregon	922	896	-2.8	11.1	15,018	17,288	15.1	17.2
Michigan	690	683	-1.0	8.5	10,082	9,295	-7.8	9.2
Sub-total	5,378	5,030	-6.5	62.5	86,375	95,827	10.9	95.2
Other States	2,665	3,021	13.4	37.5	5,360	4,878	-9.0	4.8
United States	8,043	8,051	0.1	100.0	91,735	100,705	9.8	100.0

-- = Not available.

Source: USDA, National Agricultural Statistics Service, Census of Agriculture, 2002 and 2007.

California is the dominant producer, peaches are also well-known fruit crops in Georgia and South Carolina. Several other States have far more farms producing peaches than in both Georgia and South Carolina however, both these States have the next two largest peach acreages in the country after California. The number of peach farms declined the most in South Carolina in 2007 but the biggest loss in acreage was in California. California's acreage declined 29 percent in 2007 and number of farms also fell 18 percent. These declines likely exhibit California's shrinking canned peach industry. Annual NASS data on California peach production indicate declining bearing acreage and production for Clingstone peaches over the last 8 years. Clingstone peaches are mostly used for canning and with lack of demand growth for canned peaches in the United States during the 2000s, more Clingstone acres in California have been pulled than planted since 2003, according to data from the California Canning Peach Association.

About 10 percent of all farms in the United States growing noncitrus fruit crops in 2007 produced plums and prunes. These farms totaled 6,987 in 2007 with plum and prune acreage covering 109,319 acres, 2 percent of total noncitrus acreage.

Relative to 2002, there were 4 percent fewer plum and prune farms in 2007 and 27 percent smaller acreage devoted to the crop. California accounted for nearly one-third of the plum and prune farms in 2007 but these farms made up 94 percent of the total acreage in production. Oregon, Michigan, Washington, and Idaho combined represented 4 percent of total acreage with 20 percent of all the plum and prune farms. Unlike in California, where both farm numbers and acreage have declined between 2002 and 2007, more farms were reported for the other four States. Prune and plum acreage also declined in these States except in Idaho which remained relatively the same as in 2002.

More than 60 percent of the 8,051 U.S. farms producing sweet cherries in 2007 were in Washington, California, Oregon, and Michigan. Combined, sweet cherry acreage in the four states covered 95 percent of the 100,705 acres in sweet cherry production during 2007. Washington continues to be the No. 1 State in sweet cherry production, with 2,160 farms and 38,811 acres reported in 2007. These figures represented 27 percent and 39 percent of all sweet cherry farms and total sweet cherry acreage that year. Sweet cherry farms and acreage in California lagged those in Washington, totaling 1,291 in farm number (16 percent of total farms) and 30,433 acres (30 percent of total acreage), respectively, in 2007. Both Oregon and Michigan combined comprised 20 percent of all the farms growing sweet cherries and 26 percent of the total acreage in 2007.

Unlike the general trend observed for noncitrus fruit, the number of U.S. farms producing sweet cherries in 2007 hardly changed from 2002, and there were 10 percent more acres in production. Strong domestic and export demand for sweet cherries have led to high grower prices during the 2000s, encouraging further expansion in production. Overall farm numbers remained relatively steady as significant increases in several minor producing States offset the combined effect of declines in each of the four major States. Acreage increased by more than 10 percent each in the four major States except in Michigan where the total acres devoted to sweet cherry production fell 8 percent in 2007. Acreage outside the four major States also was smaller, declining a total of 9 percent from 2002.

More Farms and Acreage in Berries in 2007

The U.S. berry industry grew as there were more farms and acres in berry production in 2007 than in 2002. Over this period, the sum of all the farms with harvested acreage across all berry crops increased 20 percent while the total for harvested acres rose 3 percent (table 23). Harvested farm numbers increased for most berry crops, except for boysenberries, cranberries, and loganberries. These three crops combined made up only 5 percent of all the berry farms with harvested acres. More than half the number of berry farms in 2007 produced strawberries and blueberries, with increases of 15 percent and 17 percent from 2002. However, farm numbers for other less produced berries such as currants, raspberries, and blackberries (including dewberries) experienced bigger increases over the same period.

U.S. and State total farms and acres (includes harvested and not harvested) with berries were reported for the first time in the 2007 Census of Agriculture. In previous census years, berry data was only reported for harvested and not harvested

farms and acreage. U.S. berry farms totaled 25,017 in 2007 with production covering 261,733 acres.

The overall growth in harvested berry acreage is attributed mostly to the expansion in tame (cultivated) blueberry acres, from 52,002 acres in 2002 to 60,353 acres in 2007. Harvested acres for wild blueberries declined from 2 percent between the two censuses. The only other berry crop with more harvested acres reported in 2007 was blackberries (including dewberries). Although U.S. cultivated blueberry production averages only slightly over one-tenth of the annual strawberry crop size, harvested blueberry acres is now bigger than for strawberries. Harvested acres for cultivated blueberries exceeded those for strawberries by 4,752 acres in 2007. In 2002, harvested strawberry acreage exceeded blueberry acreage by 3,864 acres.

Among all the berry crops produced in the United States, strawberries account for the largest annual production volume. Ninety-percent of the 8,638 U.S. strawberry farms in 2007 harvested strawberries on a total of 55,601 acres. These farms produced an estimated 1.2 million tons of strawberries in 2007 valued at $1.7 billion, next to grapes and apples in total noncitrus fruit crop value with a 15-percent share, based on annual NASS data. While production is present across the country, nearly 90 percent of the U.S. strawberry crop comes from California, another 8 percent from Florida, and most of the remaining volume from Oregon. Overall, U.S. strawberry farms with harvested acres increased 15 percent in 2007 from the previous census year while harvested acres declined by only a fraction even though California's acreage increased 6 percent (table 24). Both harvested farm numbers and acres in Florida and Oregon declined over the same period. Harvested farm numbers also declined in Texas, South Dakota, Mississippi, Georgia, and Delaware, while many other minor producing States experienced significantly reduced harvested acres in 2007. On the other hand, California's

Table 23--U.S. berry farms and acreage, 2002 and 2007

	Harvested farms		Percent change	Harvested acres		Percent change	Share of total acres
Commodity	2002	2007	2002-07	2002	2007	2002-07	2007
			--Percent--			*--Percent--*	
Blackberries 1/	3,565	4,471	25.4	10,210	10,728	5.1	5.1
Blueberries	6,428	7,516	16.9	52,002	60,353	16.1	28.8
Wild blueberries	665	728	9.5	23,851	23,492	-1.5	11.2
Boysenberries	320	270	-15.6	1,097	823	-25.0	0.4
Cranberries	1,099	1,088	-1.0	40,685	38,597	-5.1	18.4
Currants	103	276	168.0	294	253	-13.9	0.1
Loganberries	129	89	-31.0	--	77	--	0.0
Raspberries	4,521	5,719	26.5	19,888	19,363	-2.6	9.2
Strawberries	6,799	7,807	14.8	55,866	55,601	-0.5	26.5
Other berries	353	691	95.8	--	503	--	0.2
Total 2/	18,234	--	--	206,034	209,790	1.8	100.0

-- = Not available. 1/ Includes dewberries.

2/ Total harvested farms and acres in 2002 are from 2002 Census of Agriculture. Harvested acres in 2007 is the sum of individual berry crops.

Source: USDA, National Agricultural Statistics Service, 2007 Census of Agriculture.

Table 24--U.S. strawberry farms and acreage, 2002 and 2007

Commodity	Harvested farms 2002	Harvested farms 2007	Percent change 2002-07	Share of total farms 2007	Harvested acres 2002	Harvested acres 2007	Percent change 2002-07	Share of total acres 2007
			--Percent--				--Percent--	
California	684	719	5.1	34.2	32,183	34,101	6.0	61.3
Florida	217	202	-6.9	10.8	6,595	6,538	-0.9	11.8
Oregon	328	285	-13.1	16.4	3,013	1,960	-34.9	3.5
Top 3 states	1,229	1,206	-1.9	15.4	41,791	42,599	1.9	76.6
Other States	5,570	6,601	18.5	84.6	14,075	13,002	-7.6	23.4
United states	6,799	7,807	14.8	100.0	55,866	55,601	-0.5	100.0

Source: USDA, National Agricultural Statistics Service, Census of Agriculture, 2002 and 2007.

harvested farm numbers and acres both increased moderately in 2007. California housed only 9 percent of all the harvested strawberry farms in 2007 but accounted for 61 percent of total harvested strawberry acreage.

Harvested cranberry acres ranked third among the berry crops in 2007, following blueberries and strawberries. Harvested area for cranberries totaled 38,597 acres in 2007, 18 percent of the total harvested acres for berries. There were 1,134 farms growing cranberries in 2007, and of these farms 96 percent harvested a crop that year. Harvested farm numbers and acreage for cranberries in 2007 declined 1 percent and 5 percent, respectively, from 2002. These declines partly reflect adjustments made by the U.S. cranberry industry in response to the supply glut situation that occurred during the late 1990's through early 2000s. While the industry has now recovered from this situation, some of the declines in harvested acres during 2007 may be attributed to the renovation of a number of cranberry bogs in recent years that had temporarily left some acreage out of production.

Tree Nut Acreage Growth Strong Through Mid-2000s

Acreage planted to tree nuts accounted for 35 percent of all orchard land in 2007. Acreage for most tree nut varieties increased between the 2002 and 2007 Census' of Agriculture, except for macadamia nuts and walnuts. Almond acreage, which increased 13 percent over the 5-year period, accounted for 15 percent of all acres in orchards, slightly more than the quantity of acres planted to oranges, ranking second in greatest number of acres after grapes (table 16). Almost all the almond production is centered in California.

California is the major producer of most tree nuts in the United States, including almonds, walnuts and pistachio nuts (table 25). Hazelnut production is concentrated in Oregon, and macadamia nut production is concentrated in Hawaii.

Pecan production is different from most tree nuts in the United States. Acreage is spread out throughout most of the Southern United States (table 26). Production is divided between producers who have orchards dedicated to pecan production and producers who have small scale production with only a few trees. Over the 5 years between the two censuses pecan acreage declined in Georgia and Texas which had the most acreage in 2002, but increased in Oklahoma and New Mexico among the top pecan-production States. Despite the decline in both the number of acres and farms, Texas still ranks No.1 in both of these.

Table 25--Almond, macadamia nut, pistachio nut and walnut farms and acreage, 2007 and 2002

Commodity/ State	Total Farms 2002	Total Farms 2007	Percent change	Total Acres 2002	Total Acres 2007	Percent change
Almonds						
Arizona	32	16	-50.0	9	6	-33.3
California	6,391	6,474	1.3	696,424	790,161	13.5
New Mexico	14	15	7.1	11	6	-45.5
Oregon	3	31	933.3	(D)	6	-
Utah	12	30	150.0	8	11	37.5
Virginia	1	20	1900.0	(D)	8	-
United States	6,482	6,700	3.4	696,635	790,245	13.4
Hazelnuts						
Oregon	958	850	-11.3	33,151	33,661	1.5
Washington	106	160	50.9	282	298	5.7
Other States	167	547	227.5	368	506	37.5
United States	1,231	1,557	26.5	33,801	34,465	2.0
Macadamia nuts						
California	159	139	-13	213	184	-14
Hawaii	900	1,011	12	18,469	17,628	-5
United States	1,059	1,150	9	18,682	17,811	-5
Pistachio nuts						
Arizona	109	50	-54	3,509	1,523	-57
California	1,055	1,141	8	121,562	151,484	25
Nevada	8	19	138	85	154	81
New Mexico	126	70	-44	1,350	767	-43
Texas	15	16	7	32	127	297
Utah	7	10	43	31	49	58
United States	1,320	1,306	-1	126,569	154,103	22
Walnuts (English)						
California	6,293	5,712	-9	289,742	264,517	-9
Oregon	379	354	-7	1,948	1,460	-25
Michigan	19	84	342	114	219	92
Pennsylvania	37	128	246	98	122	24
Washington	132	173	31	197	173	-12
Other states	165	710	330	592	1,260	113
United States	7,025	7,161	2	292,691	267,751	-9

- = Not applicable.

Source: USDA, National Agricultural Statistics Service, 2007 Census of Agriculture.

Unlike most of the fruit and tree nut industries in the United States where domestic demand has driven the expansion of many industries, for most of the major tree nut crops, it is demand from international markets that has driven their expansion. Americans consume very few tree nuts compared with other fruit or compared with consumers in other parts of the world. For most of the major trees nuts, except pecans and macadamia nuts, about two-thirds to three-quarters of each year's supply is shipped abroad. Traditionally, the No. 1 destination for these nuts was the Western European markets. In recent years, however, Asia markets have also grown, boosting grower prices for these products which has provided most of the impetus for the acreage expansion. While international demand is likely to remain strong in the coming years, should drought conditions continue in California,

acreage expansion may slow as the tree nut industry must compete with other agricultural and nonagricultural water users.

Table 26--Pecan farms and acreage, 2007 and 2002

Commodity	Total Farms 2002	Total Farms 2007	Percent change	Total Acres 2002	Total Acres 2007	Percent change
Alabama	1,402	1,323	-6	22,266	18,025	-19
Arizona	466	196	-58	18,811	12,365	-34
Arkansas	272	312	15	10,704	11,396	6
California	283	283	0	2,667	3,128	17
Colorado	2	7	250	(D)	48	-
Florida	760	963	27	8,625	8,652	0
Georgia	3,762	3,210	-15	128,550	114,227	-11
Idaho	-	6	-	-	18	-
Illinois	76	90	18	298	359	20
Indiana	49	32	-35	175	106	-39
Iowa	15	24	60	15	28	87
Kansas	204	215	5	5,215	6,178	18
Kentucky	94	105	12	762	594	-22
Louisiana	679	778	15	13,026	16,557	27
Maryland	1	15	1400	(D)	(D)	-
Michigan	1	30	2900	(D)	(D)	-
Minnesota	-	4	-	-	(D)	-
Mississippi	828	673	-19	12,871	14,343	11
Missouri	381	391	3	9,452	13,369	41
Nebraska	16	23	44	66	102	55
Nevada	8	7	-13	59	4	-93
New Jersey	-	3	-	-	(D)	-
New Mexico	1,740	1,742	0	37,763	39,245	4
New York	2	9	350	(D)	3	-
North Carolina	270	318	18	1,343	1,262	-6
Ohio	42	21	-	56	(D)	-
Oklahoma	2,879	3,589	25	85,740	141,675	65
Pennsylvania	5	19	280	10	29	190
South Carolina	757	634	-16	5,490	4,600	-16
Tennessee	32	56	75	182	143	-21
Texas	7,243	6,625	-9	180,719	174,929	-3
Utah	21	38	81	184	104	-43
Virginia	76	88	16	196	241	23
West Virginia	5	26	420	1	41	4000
Wisconsin	-	1	-	-	(D)	-
United States	22,371	21,856	-2	545,344	581,809	7

-- = Not available. D = Data not disclosed to prevent identification of producers.

Source: USDA, National Agricultural Statistics Service, 2007 Census of Agriculture.

Contacts and Links

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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.

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