



Economic
Research
Service

Situation and
Outlook

FTS-359

June 30, 2015

Fruit and Tree Nuts Outlook

Agnes Perez
acperez@ers.usda.gov
Kristy Plattner
kplattner@ers.usda.gov

Smaller Crops Forecast in Major-Producing Peach and Cherry States

Contents

[Price Outlook](#)
[Noncitrus and Citrus](#)
[Melons](#)
[Tree Nuts](#)
[Trade Summary](#)
[Economic Insight:](#)
[2012 Census of](#)
[Agriculture](#)
[Contacts and Links](#)

Selected Tables

[Grower prices](#)
[Retail prices](#)
[Production and price:](#)
[Sweet cherries](#)
[Tart cherries](#)
[Tropical fruit imports:](#)
[Pineapples](#)
[Mangoes](#)
[Papayas](#)
[Bananas](#)
[Citrus production](#)
[Supply and use:](#)
[Orange juice](#)
[Grapefruit juice](#)
[U.S. trade](#)

Topic Page

[Fruit & Tree Nuts](#)

The next release is
September 30, 2015.

Approved by the
World Agricultural
Outlook Board.

As summer has arrived, the 2015 California peach harvest is underway. The initial USDA, National Agricultural Statistics Service (NASS) forecast for California’s 2015 peach crop was set at 566,000 tons, down 8 percent from last year and the smallest crop in over a decade. The freestone peach crop, destined mainly for the fresh market, is forecast at 260,000 tons, while clingstone peach production, used entirely for processing, is forecast at 306,000 tons. Both are down 8 percent from a year ago, at the lowest level in at least the past decade. Light supplies have put little upward pressure on fresh peach prices early this summer. In addition to increased supplies from South Carolina and Georgia, increased imports from Chile this winter have resulted in lower prices for off-season imported fruit, mitigating early-season price gains in California.

USDA’s NASS Pacific Regional Office forecast California’s 2015 dried plum (prune) crop at 100,000 tons, dried basis, down 4 percent from the previous year. Though higher than 2013’s 85,000-ton harvest, this year’s crop is 14 percent below the previous 5-year average—the fifth smallest crop since 2000. Statewide bearing acreage has steadily declined since 2000 and this year’s warm winter and early spring likely limited fruit size, causing average yields to decline. Because production is forecast to be slightly down in 2015, only a little increase in carry-in volume will keep this upcoming season’s overall domestic supplies relatively unchanged from 2014/15, likely preventing any major swing in the 2015/16 season-average price.

On June 24, NASS released its first forecast for the 2015 U.S. sweet cherry crop. The current forecast puts domestic production at 338,485 tons, down 11 percent from 2014 and 5 percent below the previous 5-year average, if realized. Smaller crops in the Pacific Northwest and in Michigan, the main producer in the eastern half of the country, are pulling down overall production. Despite the anticipated smaller crop this year, domestic shipments for the season through mid-June were running significantly above volume levels reported the same time last year, easing early prices for U.S. sweet cherries.

Warm weather this winter and spring accelerated the progress of melon crops in Arizona, California, and parts of the U.S. south. Domestic shipments for the season through mid-June were running ahead of last year’s.

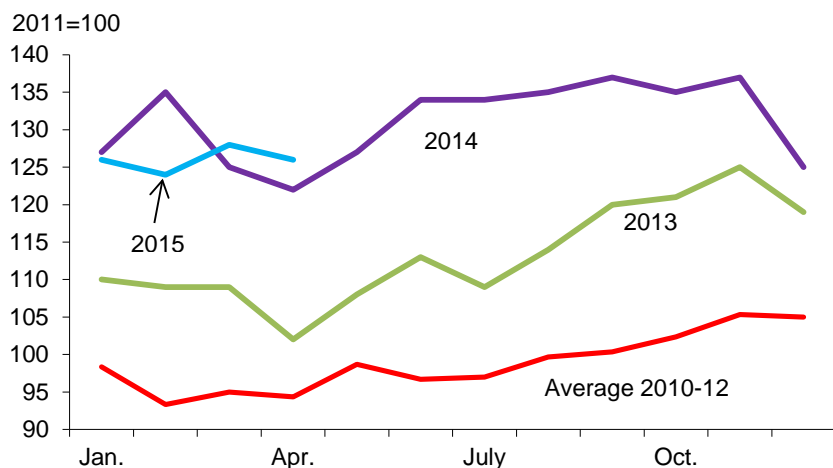
Grower Price Index for Fruit and Nuts Strengthens in 2015

The 2015 grower price index for fruit and nuts surpassed last year's relatively strong levels in March and April. The index was reported at 128 (2011=100) in March and 126 (2011=100) in April, compared with 125 and 122 last year, respectively (fig. 1). Grower prices for fresh pears hit a record high for the month in April, which provided a boost to the April index, along with year-to-year gains in all-lemon and all-orange prices (table 1). These price gains have more than offset declines in grapefruit, apple, and strawberry prices.

As the 2014/15 season (July-June) winds down for U.S. pears, fresh supplies continue to be tight due to the smaller domestic crop harvested in 2014 compared with the previous year. With the smaller crop, fresh-market production in 2014/15 was reported by USDA's National Agricultural Statistics Service (NASS) back in January to be down 6 percent from 2013/14, aiding fresh pear grower prices, along with a high-quality crop. Prices are likely to hold strong through season's end as supplies dwindle. This is quite the opposite for fresh apple prices—huge supplies during the 2014/15 (August-July), mostly from the record-large harvest in Washington State, have driven down fresh apple grower prices. NASS reported the preliminary estimate for U.S. apple production at 11.3 billion pounds in 2014, up 9 percent from the previous year and the highest since peak production in 1998. Of this quantity, 7.3 billion pounds was produced in Washington State, up 24 percent. Large cold storage supplies still need to be moved to market this summer, with fresh apple holdings as of May 1 at above-average levels, according to data from the U.S. Apple Association.

Smaller fruit size and increased incidence of fruit drop further curtailed Florida's 2014/15 orange crop from reaching expected levels earlier in the season, holding production down from last season's volume and driving up grower prices for Florida's fresh and processed oranges. These resulting higher prices have held the U.S. all-orange grower price above a year ago since the start of the season in

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



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

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

Commodity	March		April		2014-15 change	
	2014	2015	2014	2015	March	April
	-----Dollars per box-----				Percent	
Citrus fruit: ¹						
Grapefruit, all	5.60	4.87	5.34	5.32	-13.0	-0.4
Grapefruit, fresh	11.91	9.54	11.12	11.03	-19.9	-0.8
Lemons, all	21.31	16.20	22.39	22.76	-24.0	1.7
Lemons, fresh	30.74	30.03	32.92	30.51	-2.3	-7.3
Oranges, all	10.90	10.83	9.68	9.85	-0.6	1.8
Oranges, fresh	21.47	15.93	22.08	16.18	-25.8	-26.7
	-----Dollars per pound-----					
Noncitrus fruit:						
Apples, fresh ²	na	0.279	0.393	0.261		-33.6
Grapes, fresh ²	na	--	--	--	--	--
Peaches, fresh ²	na	--	--	--	--	--
Pears, fresh ²	na	0.652	0.592	0.607		2.5
Strawberries, fresh	na	0.636	0.876	0.768		-12.3

na=not available.

-- Insufficient number of reports to establish an estimate.

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* and *Noncitrus Fruit and Nuts 2014 Preliminary Summary*.

November (except in March 2015 when prices declined marginally). At the same time, despite expected reduced domestic production, grapefruit prices have remained below year-ago levels since December 2014. In April, the all-lemon price was up almost 2 percent while the average fresh lemon price was down 7 percent from last season. While increased production drove down fresh lemon prices, the slight gain in the all-lemon price likely point to strong prices for processing lemons.

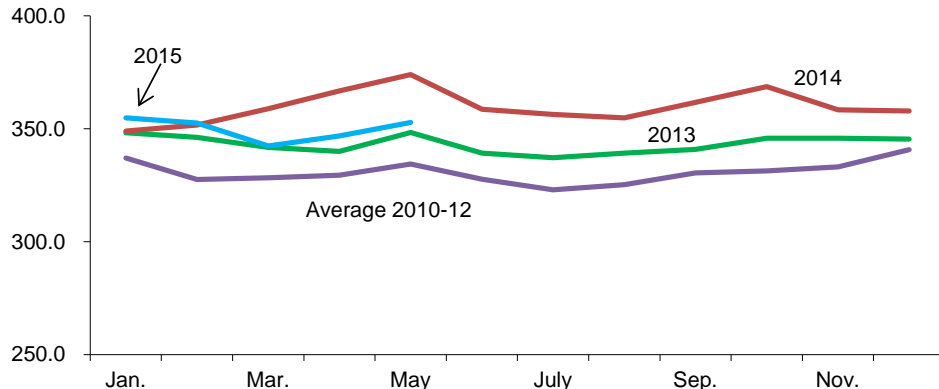
Mostly warm, dry weather this winter and spring accelerated progress of this year's California strawberry crop. Some early spring rains slowed California movement in April but U.S. grower prices averaged 12 percent below the April 2014 average price. Harvest is underway in all of California's strawberry growing districts and though increasing seasonally, statewide supply volumes continued to run lower in May from the previous year but showed signs of a rebound in early June. Free-on-board (f.o.b.) shipping-point prices in May in California's Salinas-Watsonville growing district were quoted by USDA's Agricultural Marketing Service (AMS) at \$9-\$10 per flat of 8 (1-pound) containers with lids for medium-large strawberries, compared with \$9-\$11 the same time a year ago. In California's Santa Maria district, f.o.b. prices were at \$10-\$12 per flat, compared with \$9-\$10 the year before. F.o.b. prices have weakened in both districts in early June, falling to \$8-\$9 per flat. Last year the same time, prices ranged from \$6-\$8 per flat.

Consumer Price Index for Fresh Fruit Falls Below a Year Ago

The Consumer Price Index (CPI) for fresh fruit in May 2015, at 352.8 (1982-84=100), held strong relative to recent years but down from the May 2014 CPI of 373.9 (fig. 2). Based on data from the U.S. Department of Labor, Bureau of Labor Statistics (BLS), year-to-year retail price declines for navel oranges, Red Delicious apples, bananas, and Thompson seedless grapes in May more than offset price gains for grapefruit, lemons, and strawberries (table 2), driving down the fresh fruit CPI.

Figure 2
Consumer Price Index for fresh fruit

1982-84=100



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

Table 2--U.S. monthly retail prices for selected fruit, 2014-15

Commodity	Unit	2014		2015		2014-15 change	
		April	May	April	May	April	May
		--- Dollars ---		--- Dollars ---		--- Percent ---	
Fresh:							
Valencia oranges	Pound	--	--	--	--	--	--
Navel oranges	Pound	1.261	1.342	1.165	1.208	-7.6	-10.0
Grapefruit	Pound	1.021	1.006	1.067	1.070	4.5	6.4
Lemons	Pound	1.743	1.818	1.750	1.874	0.4	3.1
Red Delicious apples	Pound	1.356	1.393	1.245	1.301	-8.2	-6.6
Bananas	Pound	0.597	0.603	0.597	0.582	0.0	-3.5
Peaches	Pound	--	--	--	--	--	--
Anjou pears	Pound	--	--	--	--	--	--
Straw berries ¹	12-oz. pint	1.713	1.892	1.852	2.087	8.1	10.3
Thompson seedless grapes	Pound	3.059	3.158	2.737	3.001	-10.5	-5.0
Processed:							
Orange juice, concentrate ²	16-fl. oz.	2.426	2.571	2.662	2.709	9.7	5.4
Wine	liter	12.303	10.996	14.099	11.410	14.6	3.8

-- Insufficient marketing to establish price.

¹ Dry pint.

² Data converted from 12-fluid-ounce containers.

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

Despite lower import volumes, U.S. banana retail prices have consistently shown no gains relative to a year ago during the first 5 months of 2015. While higher fresh apple exports have been absorbing some domestic supplies, large supplies still need to move to markets as the 2014/15 U.S. apple season winds down, coinciding with the coming into season of a variety of summer fruit. The early grape harvest in California's Coachella Valley shows shipments fairly unchanged from a year ago, May through mid-June, while supplies from Mexico were down slightly. However, lingering supplies of Chilean grapes in April and May provided sufficient volumes to retailers, preventing retail prices to rise above a year ago. Grape production in Chile rebounded from the previous season's freeze-reduced crop, resulting in significantly larger exports to the United States this winter and spring.

The 2015 strawberry season is underway in California. Though supplies are building up, rains led to short-term gaps in central California supplies, contributing to higher strawberry retail prices in April and May relative to last year. Strawberry shipments in California fell 12 percent and 8 percent from last year in April and May, the same time competing supplies from Mexico were dwindling. Initial June shipments from California were rebounding, likely putting downward pressure on early summer strawberry prices.

Noncitrus and Citrus

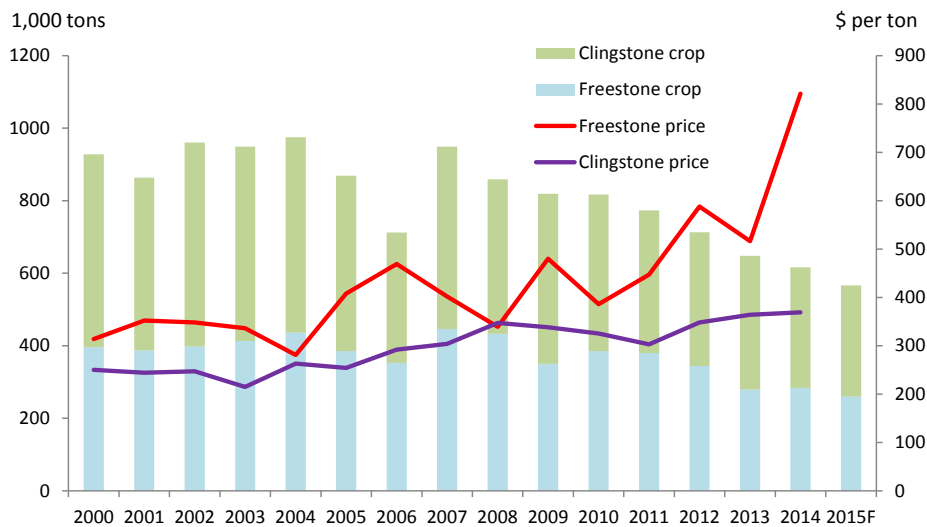
2015 Summer Peach Supplies Likely Down From A Year Ago

As summer has arrived, the 2015 California peach harvest is underway. As with last season, a warm, dry winter has prompted early crop maturity and potentially limited the amount of chill hours that fruit trees normally require to produce a full crop. Beginning volumes are down by about 17 percent through mid-June from the same time last year, based on USDA, Agricultural Marketing Service (AMS) Market News shipment data. Meanwhile, supplies from South Carolina and Georgia are up sharply from last year thus far, partially making up for tight supplies out of California.

The initial NASS forecast for California’s 2015 peach crop was set at 566,000 tons (or 1.13 billion pounds), down 8 percent from last year and smallest crop in over a decade. This year’s freestone peach crop in California, destined mainly for the fresh market, is forecast at 260,000 tons while the State’s clingstone peach production, used entirely for processing, is forecast at 306,000 tons (fig. 3). Both production levels are down 8 percent from a year ago and the lowest in at least a decade. Industry sources have indicated quality of the crop to be good despite the warm winter weather but as growers continued to thin the crop, fruit set was reported as variable. With the ongoing drought, some growers expected to offset reduced irrigation district water deliveries by using wells to pump groundwater. Additional wells have been installed in some of the orchards while others deepened pre-existing ones.

Light supplies have put little upward pressure on fresh peach prices early this summer. In addition to increased supplies from South Carolina and Georgia, increased imports from Chile this winter has resulted in lower prices for off-season imported fruit, mitigating early-season price gains in California. Free-on-board

Figure 3
Declining peach production in California improves grower prices



F=forecast.

Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts Summary*, various issues and *Crop Production*, May 2015 issue.

(f.o.b.) shipping-point prices in California's central and southern San Joaquin Valley averaged in the range of \$26-\$31 per 2-layer tray pack carton (size 48-50s) of various yellow flesh varieties in late May, compared with \$27-\$29 the same time last year. Through mid-June, prices averaged lower at \$18-\$20 per tray pack, compared with \$19-\$23 last year. At the retail level, national advertised retail prices for yellow variety peaches in the month of May averaged \$2.50 per pound, compared with \$2.49 per pound the same time a year ago, according to AMS data. Comparative prices for white flesh varieties, on the other hand, averaged \$2.78 per pound in May 2015 versus \$2.63 in May 2014. Prices for yellow varieties have weakened into June, averaging \$1.81 per pound, compared with \$2.01 the same time last year but prices for white flesh varieties are still running higher. Further into summer, seasonal supply increases are expected as other producing States will come into production to coincide with peak harvest period in California. However, the forecast smaller crop in California will likely minimize any downward adjustments on prices.

According to the California Canning Peach Association, pullouts (or tree removals) since June 2014 have left 2015 clingstone bearing acreage at about 10 percent below the previous year, resulting in lower production. Forecast reduced clingstone production in California suggests raw material processing supplies in 2015 will be down from last year, putting upward pressure on prices growers will receive for their clingstone peaches this year. As bearing acreage continued to drop in the last few years, resulting year-over year declining output has bumped up clingstone grower prices. In 2009, NASS reported statewide processing clingstone production at 469,000 tons, with the season-average grower price at \$338 per ton. By 2014, clingstone production fell to 332,000 tons for which growers received \$369 per ton.

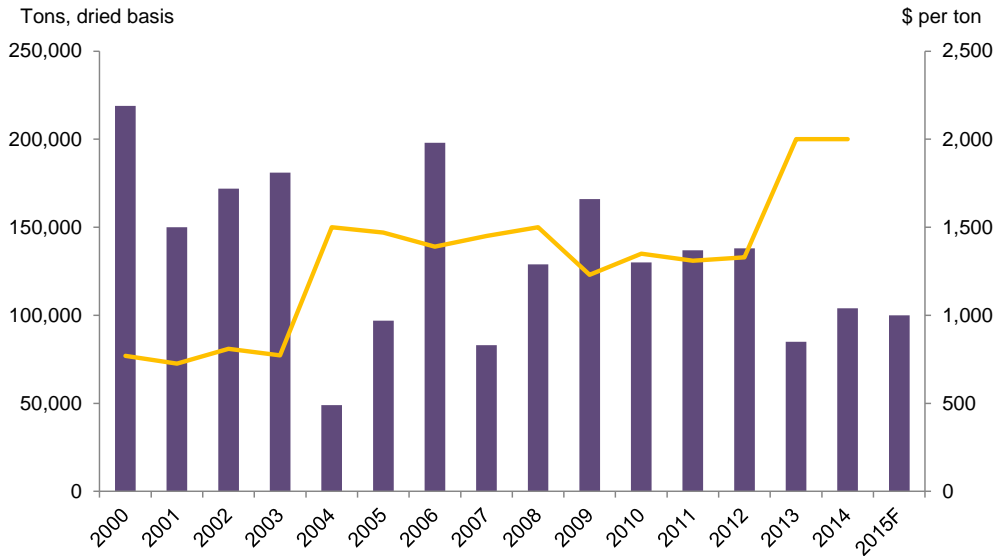
2015 California Prune Crop Forecast Smaller Than 5-Year Average

The NASS Pacific Regional Office forecast California's 2015 dried plum (prune) crop at 100,000 tons, dried basis, down 4 percent from the previous year. Though higher than 2013's 85,000-ton harvest, this year's crop is 14 percent below the previous 5-year average—the fifth smallest crop since 2000 (fig. 4). Prompted by declining grower prices for prunes, statewide bearing acreage has steadily declined since 2000 when there were 86,000 acres reported, stabilizing at 48,000 acres in 2014 and 2015 (fig. 5). This year's warm winter and early spring likely limited fruit size, resulting in a decline in average yields to 2.08 pounds per acre, 4 percent below a year ago. Harvest is on track to begin by mid-August.

California prune growers started to see an upswing in prices during the marketing year 2013/14, the season production dropped to a 5-year low. There were 5,000 fewer bearing acres of prunes in 2013 as some trees were removed after the 2012 harvest in an effort to improve grower prices. Combined with reduced global supplies, the very small domestic harvest in 2013 led to a 50-percent boost in the season-average grower price during 2013/14, and at \$2,000 per ton, dried basis, was the highest price received as far back as 2000/01. Stronger yields the following year led to an increase in 2014 production, but the season-average grower price was maintained at the previous-year's strong level.

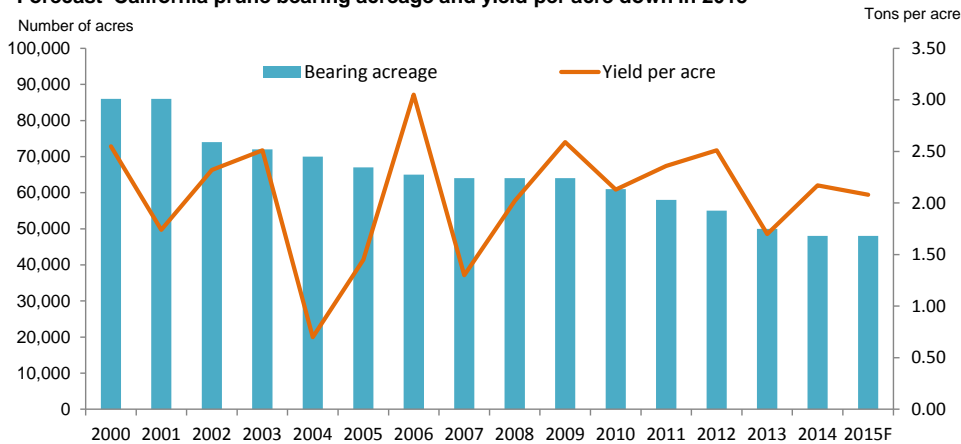
As of April 30, 2015, remaining dried-prune inventories in 2014/15 were running slightly higher than the same period in 2013/14, suggesting a fairly steady carry-in

Figure 4
Forecast California prune production well below the previous 5 years



F = forecast.
 Source: USDA, California National Agricultural Statistics Service Field Office, *2015 California Dried Plum (Prune) Forecast*, June 2015.

Figure 5
Forecast California prune bearing acreage and yield per acre down in 2015



F = forecast
 Source: California Department of Food and Agriculture in cooperation with USDA, National Agricultural Statistics Service, Pacific Regional Office-California, *2015 California Dried Plum (Prune) Forecast*, June 2015.

volume going into the 2015/16 season. Because production is forecast to be slightly down in 2015, only a little increase in carry-in volume will keep this upcoming season’s overall domestic supplies relatively unchanged from 2014/15, likely preventing any major swing in the 2015/16 season-average price. In the ongoing 2014/15 season (August-July), even though domestic production rebounded slightly, U.S. prune imports through April are more than three times the volume reported for the same period during 2013/14. This increase is likely influenced by the low carry-in inventory volume from the previous season and the strong U.S. dollar favoring imports more than exports. Season-to-date exports of U.S. prunes are down about 13 percent from the previous year. Shipment volumes slowed to key foreign markets such as Japan, Hong Kong, and China, and to other important markets such as Italy, Poland, and Switzerland (as part of the European Union (EU)). Exports to Russia also dropped sharply due to the Russian ban on certain

U.S. fruits. Over the past 5 years, Russia ranked as the 6th largest export destination for U.S. prunes, receiving 6 percent of U.S. export volume on average.

U.S. Sweet Cherry Crop Smaller Than A Year Ago In 2015

On June 24, NASS released its first forecast for the 2015 U.S. sweet cherry crop, consisting of crop size forecasts for seven of the eight States included in their sweet cherry annual production survey. The current forecast puts domestic production at 338,485 tons (or 677 million pounds), down 11 percent from 2014 and 5 percent below the previous 5-year average, if realized (table 3). Smaller crops in the Pacific Northwest and in Michigan, the main producer in the eastern half of the country, are pulling down overall production. A freeze in November 2014 resulted in some tree loss in the Pacific Northwest and early-June rains in the region damaged early varieties, particularly in Washington.

The Washington crop is forecast to decline 17 percent from a year ago reaching 210,000 tons while bigger declines are anticipated in Utah (down 90 percent) and Oregon (down 24 percent). Industry sources reported that early-June rains in Washington caused fruit cracking and splitting, leading to low early-season packouts. The rains did not affect later ripening varieties such as Bing cherries that were harvest ready by mid-June with great quality and fruit size. A late-May freeze hampered production in Michigan where the 2015 crop is forecast at 15,900 tons, down 47 percent from a year ago.

Despite reports from some growers of minimal hail damage to their crops, this year's production in California is forecast up 70 percent from a year ago at 68,000 tons, but down 10 percent from the previous 5-year average. Last year's production in the State was small due to insufficient chill hours to produce a full crop and poor pollination.

The warm, dry winter advanced crop maturity by as much as 2 weeks in California and much of the Northwest growing regions. California's season kicked off early, with initial shipments reported as of late April, finishing harvest around mid-June. Starting early as well, initial volumes from the Pacific Northwest (mainly from Washington State) reached market in late May. Despite the anticipated smaller U.S. sweet cherry crop this year, domestic shipment volumes for the season through mid-June were running significantly above what AMS had reported the same time last year. Both California and Washington have reported increased supplies thus far due mainly to the earlier harvest.

The increased available supplies so far helped ease early prices for U.S. sweet cherries. This year, May free-on-board shipping-point prices for sweet cherries in California's San Joaquin Valley were 30-40 percent lower than prices reported in May 2014. At the retail level, U.S. advertised retail prices for cherries in May averaged \$3.76 per pound for red varieties, down from \$4.10 in May 2014. Prices in early June have softened from earlier in the season with California and Northwest cherries increasing supplies. The advertised retail price as of June 5 was \$3.65 per pound, down from \$5.03 the same time a year ago. Barring any more weather woes affecting Northwest production and other cherry producing States, supplies will be at promotable levels into July but supplies could taper off sooner due to the early start. U.S. sweet cherry per capita use has, for the most part, exceeded the 1-pound

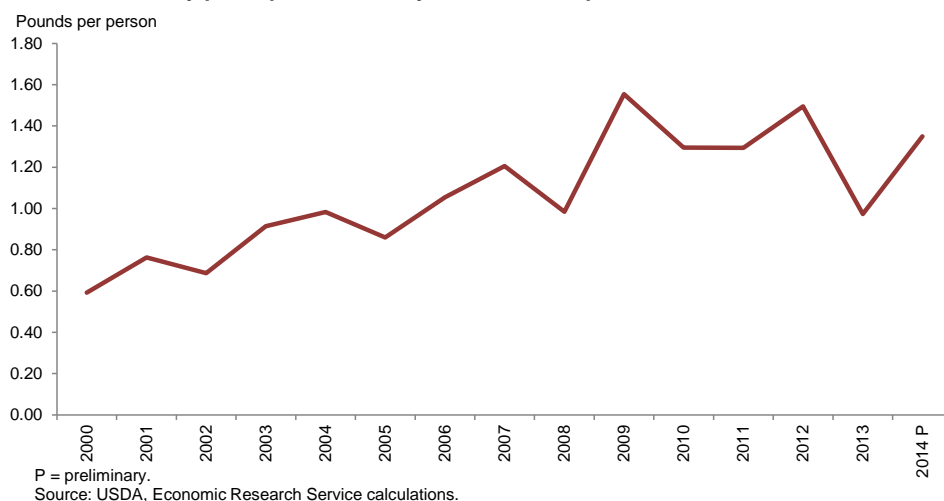
Table 3 --Sweet cherries: Total production and season-average price received by growers, 2012-14 and indicated 2015 production

State	Production				Price		
	2012	2013	2014	2015	2012	2013	2014
	-- Tons --				-- Dollar per ton --		
California	92,300	82,000	40,000	68,000	2,890	3,390	4,970
Idaho	3,600	2,300	2,800	2,600	2,640	2,550	2,290
Michigan	4,250	22,900	29,860	15,900	1,440	964	876
Montana	2,250	2,015	2,010	1/	1,450	2,070	2,100
New York	300	1,045	630	900	3,700	3,750	3,290
Oregon	56,000	52,000	53,700	41,000	1,370	1,980	1,460
Utah	1,300	830	900	85	1,450	2,490	2,460
Washington	264,000	169,000	252,000	210,000	1,860	2,630	2,020
United States	424,000	332,090	381,900	338,485	2,020	2,610	2,140

1/ The first estimate for 2015 will be released in January 2016.

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

Figure 6
U.S. sweet cherry per capita use mostly exceeds the 1-pound mark since the mid-2000s



mark since 2006, supported by generally expanding domestic production, increased year-round availability from imports, and heightened consumer interest in healthy eating (fig. 6). The end of season winding down of supplies will likely lead to upward seasonal price adjustments.

As with domestic demand, U.S. cherry sales to international markets have also trended generally upward over the past 15 years. Export sales remain strong, aided by good quality and increased volumes thus far in 2015. The U.S. Department of Commerce, U.S. Census Bureau reported export volume in April at 2.12 million pounds (or 1,062 tons), only 1 percent below last year's record high exports for the month. Demand continues strong in South Korea taking more than 60 percent of the total export volume so far, and showing a 41-percent increase year-over-year for the month. Second to Canada as the top market for U.S. sweet cherry exports, South Korea has surpassed Japan as the largest market in Asia for the fruit in recent years. Early export volume to Japan is only down marginally from a year ago while those to Canada and other markets such as Hong Kong, China, Thailand, and the UK are significantly down.

Off-season imports in the United States were slightly higher in 2015, with January-April volume totaling 5.58 million pounds, up 1 percent from the same period a year ago. Chile supplied 99 percent of total volume thus far, the rest from Canada, Argentina, Mexico, and Portugal.

Late-Spring Frost in Michigan Curtails 2015 U.S. Tart Cherry Crop

NASS forecasts the 2015 U.S. tart cherry crop to be 222.6 million pounds, 23 percent smaller than last year’s crop (table 4). While down from the 2014 crop, this year’s production will be 2 percent above the previous 5-year average, if realized. Most of the production decline is attributed to reduced production in Michigan, the leading U.S. producer for tart cherries. On an average normal crop year, Michigan supplies over 70 percent of U.S. tart cherries. This year, this share is anticipated to be only 60 percent as statewide production is forecast to decline 34 percent from a year ago, reaching only 134 million pounds. A hard freeze in late May cut yields significantly, especially tart cherry orchards in the northern portion of the State. Other producing States with forecast smaller crops this year include New York (down 18 percent from a year ago) and Wisconsin (down 22 percent), attributed to tree damage from two back-to-back harsh winter weather. In Pennsylvania, production is forecast to increase more than twofold on improved yields due to favorable growing weather. Despite loss of some trees in Utah and Oregon due to a cold snap, production in these two States are forecast up 11 percent and 27 percent, respectively, from a year ago.

A majority of U.S. tart cherries are destined for the frozen fruit market, taking over 60 percent of the crop, on average, over the past 3 years. Based on NASS’s *Cold Storage 2014 Summary*, domestic frozen tart cherry stocks as of December 31, 2014 totaled 139.2 million pounds, up 20 percent from the level reported on December 31, 2013 and 31-percent higher than the previous 5-year average. Despite the forecast smaller domestic crop, above-average ending stocks last year would mean large carryover supplies for the 2015 marketing season (fig.7), mitigating the potential for tight domestic supplies and high prices.

Table 4 --Tart cherries: Total production and season-average price received by growers, 2012-14 and indicated 2015 production

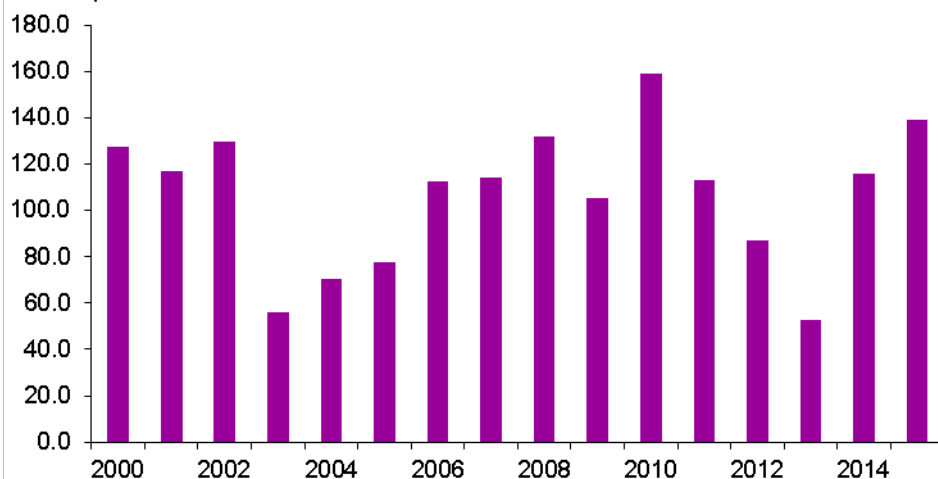
State	Production				Price		
	2012	2013	2014	2015	2012	2013	2014
	-- Million pounds --				-- Cents per pound --		
Michigan	11.6	218.7	203.0	134.0	111.0	34.5	36.3
New York	2.7	12.0	10.0	8.2	105.0	35.8	30.4
Oregon	1.0	4.3	2.2	2.8	95.1	34.4	37.4
Pennsylvania	3.3	2.2	1.2	3.2	111.0	39.0	77.0
Utah	40.0	26.8	36.1	40.0	51.0	47.6	45.8
Washington	24.8	17.9	24.3	25.0	32.3	34.4	30.0
Wisconsin	1.8	12.3	12.0	9.4	111.0	35.7	39.4
United States	85.2	294.2	288.8	222.6	59.4	35.9	37.0

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

Figure 7

U.S. beginning stocks of frozen tart cherries in cold storage¹

Million pounds

¹Represents cold storage stocks on December 31 of the previous year.Source: USDA, National Agricultural Statistics Service, *Cold Storage Summary*, various issues.***Blueberry Prices Eased This Spring/Early Summer***

U.S. blueberry marketers have turned to domestic production in the spring as off-season imports from the Southern Hemisphere (primarily from Chile) have already finished. Based on weekly AMS data, Florida shipments started in late-March and finished in May with 50 percent more volume for the 2015 season compared to last year despite a February freeze. Entering the market before other eastern U.S. states had begun their harvests, the increased shipments from Florida helped softened domestic blueberry prices this spring. F.o.b. shipping-point prices for Florida blueberries in April ranged from \$16-\$25 per flat of 12 (6-ounce) cups with lids (medium-large) and dropping to \$11-\$15 in May as production from other producers such as Georgia and North Carolina also reached the market. Last year, Florida f.o.b. prices were \$28-\$35 and \$15-\$23 per flat in April and May, respectively.

The cold snap in February slowed crop progress in Georgia, delaying harvest from a typical mid-April start to around an early-May start instead. Cumulative supplies in Georgia through mid-June were down 9 percent from a year ago; North Carolina shipment volumes were 21 percent lower, demonstrating the slower movement. While May f.o.b. shipping-point prices in South Georgia averaged near last year's (\$18-\$24 per flat of 12 (1-pint) cups with lids (medium-large) in May 2015 versus \$19-\$25 in May 2014), prices through mid-June dropped further, averaging \$10-\$15 per flat compared with \$14-\$18 the same time last year. At the same time, prices in eastern North Carolina in May averaged \$19-\$23 per flat of 12 (1-pt) cups with lids (medium-large), compared with \$18-\$21 in May 2014, and \$13-\$16 into mid-June, compared with \$15-18 the same time last year.

Harvest in California started early due to warm weather during the growing period, with cumulative shipment volumes down slightly through mid-June. F.o.b. prices in California's south and central districts in late April were fetching \$18-\$22 per flat

of 12 (6-oz) cup with lids (medium-large) and averaged \$13-\$16 in May and \$9-\$13 through mid-June. These prices were averaging lower relative to last year despite reduced supplies to date (\$28-\$32 in late April 2014, \$14-\$17 in May 2014, and \$10-\$15 through mid-June 2014).

At retail markets, AMS data show U.S. advertised retail prices for blueberries in 1-pt packages averaging 20 to 22 percent higher than a year ago in April and May and those in 6-oz packages averaging 3-10 percent higher than last year. Prices have weakened into early summer. Through mid-June, prices averaged \$4.86 per pint, compared with \$5.92 the same time last year; for a 6-oz package, the June average price midway through the month was \$2.31 versus \$2.42 the same time last year.

As of July, harvesting will be in progress among other large producers such as Michigan, New Jersey, Oregon, and Washington. Industry indications point to a potentially good-size crop in New Jersey, aided by favorable spring growing weather and ample winter chill hours to produce a strong crop. In contrast, the Michigan crop faced some winter kill damage from 2 consecutive years of below-normal winter temperatures, likely reducing yields. Moreover, cool, wet weather in the State this spring also hampered pollination activity.

Tropical Fresh Fruit Supplies Only Down Slightly

Tropical fresh fruit supplies in the United States are starting off the year fairly strong. During the first 4 months of 2015, combined import volumes for major fresh tropical fruit (i.e., bananas, papayas, mangoes, and pineapples) totaled 2.68 billion pounds, based on U.S. Census Bureau data, down almost 1 percent from the same four months in 2014—the year annual import volumes broke record highs for fresh bananas, papayas, and pineapples in the United States. Mango imports fell 12 percent in 2014 but remained 6 percent higher than the previous 5-year average.

Of the January-April total import volume for these four tropical commodities for 2015, bananas—which dominate U.S. fresh fruit imports—represented 57 percent, followed by pineapples (27 percent), mangoes (11 percent), and papayas (5 percent). Gains to banana and papaya imports were slightly offset by declines to pineapples (down 6 percent) and mangoes (down 3 percent). Reduced pineapple volumes from Costa Rica, the United States' largest source for fresh pineapples, have curtailed overall supplies of the fruit in 2015 so far (table 5). Even though cumulative mango imports through April were up 11 percent from Mexico, this gain was more than offset by lower volumes from Peru, Guatemala, and Haiti, among the leading suppliers to the United States. Mexico dominates the U.S. market for mangoes and papayas (tables 6 and 7). Nearly 60 percent of U.S. mango imports to date were from Mexico, along with 76 percent of papaya imports.

Banana market: Close to 40 percent of U.S. banana imports so far in 2015, January-April, were from Guatemala, continuing to serve as the No. 1 source for bananas in the U.S. market (table 8). Import volume gains from Guatemala and other major suppliers such as Ecuador and Honduras just barely countered significant declines from Costa Rica and Colombia. U.S. banana retail prices reported by BLS averaged consistently lower than a year ago each month from January through March 2015, with a first-quarter average of \$0.589 per pound, compared with \$0.597 the same time last year. As import volume dropped in April

Table 5--U.S. imports of fresh pineapples, by country, 2010-15¹

Country	2010	2011	2012	2013	2014	Jan-Apr 2014	Jan-Apr 2015	Change 2012-13
	----- 1,000 pounds -----							Percent
Costa Rica	1,493,524	1,538,799	1,738,262	1,882,506	2,081,202	677,426	601,987	-11
Mexico	110,230	80,336	121,743	119,451	89,493	38,820	59,965	54
Honduras	48,702	60,056	82,206	85,747	84,115	25,484	32,506	28
Guatemala	27,888	32,262	31,096	30,433	32,756	12,527	13,553	8
Panama	35,721	31,113	32,356	11,227	9,969	2,467	1,679	-32
Ecuador	54,444	47,525	17,362	7,029	8,519	2,770	3,036	10
Thailand	9,627	8,143	9,956	7,196	7,579	2,052	2,090	2
Dominican Republic	935	551	2,245	3,772	4,271	2,303	2,477	8
Colombia	853	1,879	1,449	2,339	1,276	432	611	42
Chile	65	148	228	511	1,023	146	1,506	930
Other countries	1,366	1,606	1,329	590	736	221	1,029	366
World	1,783,354	1,802,418	2,038,231	2,150,802	2,320,939	764,648	720,439	-5.8

¹ Includes dried pineapples.

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

Table 6 --U.S. imports of fresh mangoes, by country, 2010-15

Country	2010	2011	2012	2013	2014	Jan-Apr 2014	Jan-Apr 2015	Change 2014-15
	----- 1,000 pounds -----							Percent
Mexico	475,194	518,420	538,590	615,710	517,309	151,839	169,148	11.4
Peru	70,925	99,609	59,421	90,967	98,425	98,138	68,963	-29.7
Ecuador	56,518	66,942	83,427	101,156	75,902	6,106	11,175	83.0
Brazil	53,711	54,643	53,382	52,739	49,298	-	1,914	--
Guatemala	27,952	39,406	37,448	37,363	45,862	27,213	24,900	-8.5
Haiti	14,226	20,331	17,633	22,548	21,800	6,226	3,547	-43.0
Other countries	8,166	11,055	14,344	15,272	14,247	11,791	12,395	5.1
World	706,691	810,405	804,246	935,755	822,843	301,314	292,043	-3.1

-- = Not available.

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

Table 7--U.S. imports of fresh papayas, by country, 2010-15

Country	2010	2011	2012	2013	2014	Jan-Apr 2014	Jan-Apr 2015	Change 2014-15
	----- 1,000 pounds -----							Percent
Mexico	254,003	222,432	236,685	246,843	280,879	89,022	96,434	8
Guatemala	8,559	13,658	24,739	32,628	27,957	7,953	14,662	84
Belize	62,983	58,141	40,823	52,191	32,157	9,008	11,826	31
Brazil	6,578	7,897	5,157	5,588	6,622	2,297	2,451	7
Dominican Republic	4,911	4,805	4,405	3,341	2,537	1,481	1,233	-17
Jamaica	1,664	1,207	1,711	1,199	1,039	431	487	13
Other countries	575	91	20	167	78	41	37	-11
World	339,271	308,231	313,539	341,957	351,268	110,233	127,129	15

-- = Not applicable.

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

Table 8 --U.S. imports of fresh bananas, excluding plantains, by country, 2010-15

Country	2010	2011	2012	2013	2014	Jan-Apr 2014	Jan-Apr 2015	Change 2014-15
	----- Million pounds -----							Percent
Guatemala	2,539	2,940	3,216	3,555	3,695	1,323	1,499	13
Costa Rica	1,841	1,862	1,870	1,759	1,824	743	709	-5
Ecuador	2,160	1,938	1,587	1,682	1,715	789	747	-5
Honduras	961	982	1,181	1,330	1,263	530	575	8
Colombia	1,016	848	970	1,004	826	409	430	5
Other countries	509	520	766	715	794	243	317	31
World	9,026	9,089	9,589	10,046	10,116	3,379	3,402	1

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

both from the previous month and year to year, the average price for the month strengthened and was unchanged from the April 2014 average. Recent AMS shipment data, however, show cumulative banana imports running behind last year through early June. In addition to Honduras, imports from Mexico and Nicaragua

appeared to have slowed and those from Costa Rica and Colombia continue to lag. Despite tighter supplies, retail prices declined 4 percent below a year ago in May.

Mango market: While mango supplies were down in January and February, volumes were picking up in March and April, supporting industry reports of a big mango crop in Mexico that will boost U.S. mango imports beginning in the second quarter of 2015. As supplies increase, retail pricing for mangoes will likely bode well to U.S. consumers into the summer months, potentially leading to record-breaking domestic consumption in 2015. National advertised retail prices for mangoes in early June were reported by AMS at \$0.87 each, unchanged from the same time a year ago. Mango pricing dropped below the \$1 level in April and have averaged 5-10 percent below last year's levels through May. The first quarter 2015 average price was \$1.12 each, compared to \$1.06 a year ago.

Papaya market: While papaya import volumes increased from a year ago during the first four months of this year, supplies have remained fairly steady month-to-month with reports of consistent good quality. U.S. advertised retail prices for papayas in early June were at \$2.50 each for the Maradol and Tainung type varieties. Prices for the same series were not reported last year or the year before. The Maradol papaya is still the most prominent variety imported from Mexico. However, other varieties are gaining popularity among retailers based on flavor, size, and shelf life characteristics.

Pineapple market: Larger year-to-year declines in pineapple imports at the start of 2015 led to tighter supplies for retailers. National advertised retail prices for pineapples were 4-7 percent higher than last year in January and February, at \$2.91 and \$2.81 each. As supplies have mostly inched up month to month since January, prices have declined from earlier in the year and were at levels relatively unchanged from last year. Continued seasonal increases in supplies are expected as the warm summer weather leans favorably to pineapple demand. More recent AMS shipment data show pineapple imports this year through early June have already exceeded last year's volume to date, including a 10-percent year-to-year increase from Costa Rica. Imports from other top suppliers also remained ahead of last year's volumes to date, including Mexico, Honduras, Ecuador, and Colombia.

Total U.S. Citrus Production Forecast Down for 2014/15

The June NASS *Crop Production* report projected the total 2014/15 citrus crop at 9.09 million tons, down 4 percent from the 2013/14 production estimate and down 6 percent from the seasons initial forecast in October (table 9). Florida is the main state with citrus declines totaling 9 percent; citrus production is forecast up 4 percent in California and in Texas and Arizona, up 23 percent and 19 percent, respectively. Total orange production remains unchanged from the May forecast but is down 2 percent from last year based on production declines in Florida and in California's Valencia orange output. Texas is the only State with increased orange production from last season, up 22 percent for all oranges. Overall grapefruit production is down 6 percent for 2014/15 but upward revisions to California's production and increased production out of Texas have partially offset the 17 percent decline out of Florida. Florida revised the June grapefruit forecast up slightly but high droppage rates and small sizes kept total grapefruit production levels down. U.S. tangerine production is up this year, with increased production in

Table 9--Citrus: Utilized production, 2012/13, 2013/14 and forecast for 2014/15¹

Crop and State	Utilized		Forecast for	Utilized		Forecast for
	2012/13	2013/14	2014/15 as of 5-2015	2012/13	2013/14	2014/15 as of 5-2015
	---- 1,000 boxes ² ----			---- 1,000 tons ----		
Oranges:						
Early/mid-season and navel:						
California	42,500	38,700	40,000	1,700	1,548	1,600
Florida ³	67,100	53,300	47,400	3,020	2,398	2,133
Texas	1,499	1,400	1,800	64	60	77
Total ⁴	111,099	93,400	89,200	4,783	4,006	3,810
Valencia:						
California	12,000	10,700	10,000	480	428	400
Florida	66,500	51,400	49,000	2,993	2,313	2,205
Texas	289	376	380	12	16	16
Total	78,789	62,476	59,380	3,485	2,765	2,621
All oranges	189,888	155,876	148,580	8,268	6,771	6,431
Grapefruit:						
California	4,500	3,850	3,800	180	154	152
Florida	18,350	15,650	12,950	780	665	550
Texas	6,100	5,700	7,000	244	228	280
All grapefruit	28,950	25,200	23,750	1,204	1,047	982
Tangerines and mandarins:						
Arizona	200	200	220	8	8	9
California	13,000	14,700	16,000	520	588	640
Florida	3,280	2,900	2,300	156	138	109
All tangerines and mandarins	16,480	17,800	18,520	684	734	758
Lemons:						
Arizona	1,800	1,800	2,150	72	72	86
California	21,000	18,800	20,000	840	752	800
All lemons	22,800	20,600	22,150	912	824	886
Tangelos						
Florida	1,000	880	700	45	40	32
All citrus ⁴	259,118	220,356	213,700	11,113	9,415	9,089

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

²Net pounds per box: oranges in California (CA)-80 (75 prior to the 2010-2011 crop year), Florida (FL)-90, Texas (TX)-85; grapefruit in CA-80 (67 prior to the 2010-11 crop year), FL-85, TX-80; lemons-80 (76 prior to the 2010-11 crop year); tangelos-90; tangerines and mandarins in AZ and CA-80 (75 prior to the 2010-11 crop year), FL-95.

³Includes Temples. ⁴Totals may not be equivalent to the sum of the categories due to rounding.

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

Arizona and California's crop potentially reaching a record high of 640,000 tons. Lemon production has regained ground after a smaller crop last season. Arizona and California produced larger crops this season pushing U.S. lemon production up nearly 8 percent year over year in 2014/15.

U.S. Quarantine Area Expands for Asian Citrus Psyllid

California continues to expand the quarantine for the citrus greening (Huanglongbing or HLB) carrying vector, the Asian Citrus Psyllid (ACP), as psyllids continue to appear. However, no trees with the disease have been discovered as of May 2015. Roughly 51,677 square miles in California are under quarantine, which restricts movement of certain plant materials and nursery stock out of the infected area. Fruits and certain processed products can be moved but must be treated according to regulations. Nursery stock must be grown in an ACP-free and protected environment in order to be moved into groves and increase the likelihood of plant survival due to reduced or deferred infection of HLB.

Florida All-Orange Crop Down Due to Smaller Sizes and High Drop in 2014/15

The NASS June citrus production forecast reports Florida's all-orange estimate for 2014/15 is now down 8 percent from 2013/14. As the season progressed, Florida experienced downward production revisions from the original October 2014 forecast. The initial estimate only reported a 3-percent decline from the 2013/14 final estimate. Non-Valencia orange production is estimated at 2.13 million tons, down 11 percent from 2013/14 and 9 percent below the initial October forecast. Smaller fruit sizes and high droppage rates affected early-midseason oranges and navel oranges resulting in the lower production. Valencia harvest is underway and production estimated at 2.2 million tons, down 5 percent from last season. Sizes are above minimum but are expected to be near minimum at harvest with 28 percent droppage rate, all factors contributing to Valencia production loss, much the same as navels and early-midseason oranges.

As of early-June, the early-midseason orange crop was fully harvested while the Valencia harvest was running behind last season, with still 4 percent of the crop remaining on trees to be harvested, according to the Florida Citrus Administrative Committee (FCAC). The season begun winding down in early June and will wrap up before July. AMS shows movement of oranges out of Florida through early June above last season for the same week. Most orchard activity involves irrigation, mowing, and fertilization to ensure a healthy crop for the 2015/16 harvest season. Next season's fruit is shaping up well and is currently about the size of a golf ball.

With the lower production, Florida grower prices for processing oranges have averaged \$6.99 per 90-lb box, up 10 percent compared to the same period in 2013/14 (table 10). Prices should remain elevated for the remainder of season as is typically observed in late spring and summer.

Smaller Fruit Reduces Florida Orange Juice Production Forecast in 2014/15

In June 2015, Florida's Valencia orange crop was revised down 13 percent from the initial October forecast of 2.52 million tons (5.04 million pounds). Totaling 2.2 million tons (4.4 million pounds), the current forecast is down 5 percent from last season's total. As of the June NASS *Crop Production* report, the Florida all orange yield is estimated at 1.50 gallons per box (at 42.0 degrees Brix), down 4 percent year-over-year. Smaller fruit sizes are producing less juice, ultimately reducing the USDA, Economic Research Service (ERS) forecast of 2014/15 orange juice production to 620 million gallons single-strength equivalent (sse), down 9 percent from 2013/14 and potentially the lowest level produced since the 646 million gallons in 1989/90 (table 11).

Beginning stocks during the 2014/15 season declined 10 percent from the previous season to 483 million gallons sse. The lower beginning stocks, along with reduced domestic production, contributed to increased imports so far this season. Orange juice imports from October through April are up 19 percent from the same period in 2013/14, reaching 322.9 million gallons. Brazil has increased orange juice shipments to the United States by 38 percent through April. Industry sources suggest that Brazil is trying to reduce inventory levels to a manageable volume in order to help raise prices. Shipments from Mexico are up negligibly over the same

period last season. Overall, February was the only month where orange juice imports were below last season's monthly volumes and the previous 5-year average, demonstrating the strong import season so far. Using historical import volume through April and current strong imports so far, ERS forecast orange juice imports to reach 450 million gallons sse, up 8 percent from last year, if realized. With

Table 10 --Processing oranges: Average equivalent on-tree prices received by Florida growers, 2009/10-2014/15

Month	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
----- Dollars per 90-lb box -----						
October	--	--	--	--	--	--
November	3.73	4.59	5.59	3.64	3.49	2.90
December	5.15	6.45	6.05	4.98	5.17	6.30
January	5.99	6.60	6.75	5.30	6.59	7.14
February	6.09	6.39	8.10	6.30	7.00	7.60
March	7.10	7.50	7.85	7.20	7.50	8.90
April	7.90	8.50	9.25	8.95	8.30	9.10
May	8.10	8.77	11.90	11.95	9.00	
June	8.00	8.87	--	13.45	--	
Oct.-April average	5.99	6.67	7.27	6.06	6.34	6.99

-- = Insufficient data to establish price.

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

Table 11 --United States: Orange juice supply and utilization, 1986/87 to present

Season ¹	Beginning		Imports	Supply	Exports	Domestic consumption	Ending stocks	Per capita consumption
	stocks	Production						
-----Million sse gallons ² -----								
1986/87	204	781	396	1,381	73	1,106	201	4.57
1987/88	201	907	296	1,404	90	1,103	212	4.52
1988/89	212	970	272	1,454	73	1,148	233	4.66
1989/90	233	652	350	1,235	90	920	225	3.70
1990/91	225	876	320	1,422	94	1,170	158	4.65
1991/92	158	930	286	1,374	107	1,096	170	4.30
1992/93	170	1,207	324	1,701	114	1,337	249	5.18
1993/94	249	1,133	405	1,787	107	1,320	360	5.04
1994/95	360	1,257	198	1,815	117	1,264	434	4.77
1995/96	434	1,271	261	1,967	119	1,431	417	5.34
1996/97	417	1,437	256	2,110	148	1,398	564	5.16
1997/98	564	1,555	281	2,400	150	1,571	679	5.73
1998/99	679	1,236	350	2,265	147	1,585	534	5.71
1999/2000	534	1,493	339	2,366	146	1,575	645	5.60
2000/01	645	1,389	258	2,292	123	1,471	698	5.18
2001/02	698	1,435	189	2,322	181	1,448	692	5.05
2002/03	692	1,250	291	2,233	103	1,426	705	4.93
2003/04	705	1,467	222	2,393	123	1,448	822	4.96
2004/05	822	974	358	2,153	119	1,411	623	4.79
2005/06	623	986	299	1,909	138	1,312	459	4.41
2006/07	459	889	399	1,747	123	1,248	376	4.15
2007/08	376	1,156	406	1,938	136	1,155	647	3.80
2008/09	647	1,060	317	2,025	125	1,206	594	3.93
2009/10	694	837	328	1,859	147	1,155	557	3.75
2010/11	558	919	265	1,742	210	1,128	404	3.63
2011/12	404	949	223	1,576	154	973	449	3.11
2012/13	449	845	421	1,714	159	1,022	534	3.24
2013/14	534	684	418	1,635	158	994	483	3.13
2014/15 F	483	620	450	1,553	115	918	520	2.87

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

²SSE = single-strength equivalent.

Source: USDA, Economic Research Service.

reduced production, lower stocks, and higher imports, overall domestic supply is anticipated down 5 percent to 1.55 million gallons sse.

U.S. orange juice exports during the 2014/15 season, October through April, are down 35 percent from last season on low domestic production, competition with Brazil in global markets, and high orange juice prices (prices are from Nielsen data and reported by the Florida Department of Citrus (FDOC). Export volumes fell below year-ago and 5-year average levels every month of the 2014/15 season to date. Export volume to Canada dropped 20 percent so far this season and those to South Korea down 82 percent. More than half (55 percent of total volume) of U.S. orange juice exports occur from October through April, based on the previous 5-year average export volume. Hence, as exports remained sluggish through over half of the 2014/15 season, ERS forecasts orange juice exports to decline 27 percent from last season, reaching 115 million gallons. Inventory is slowly building up given the larger imports from Brazil, the decline in exports, and lackluster domestic demand. Stocks are sitting in storage. FDOC's May processors report was showing frozen-concentrate orange juice stocks up around 10 percent and the NASS *Cold Storage* report also showing increasing stocks. Considering these factors, ERS forecast ending stocks in 2014/15 to be up 8 percent from last season, reaching 520 million gallons sse.

After total U.S. orange juice supplies in 2014/15 have been adjusted for exports and ending stocks, the net domestic supply is estimated to reach 918 million gallons sse, down 8 percent from last season, if realized. This will push U.S. orange juice consumption down to 2.87 gallons per person in 2014/15, from 3.13 gallons in 2013/14. Nielsen sales data from FDOC shows slowed sales of orange juice throughout the 2014/15 season, supporting the expected decline in overall domestic consumption.

California Orange Production Forecast Up Marginally in 2014/15

Amid drought conditions and ACP quarantine, California orange growers were still able to increase production over 1 percent in 2014/15 from the previous season. Main production gains are from the navel crop; the Valencia crop is forecast down 7 percent to reach 400,000 tons. As of early June, the navel harvest was winding down while the Valencia harvest was ongoing. Navel harvest also slowed in May due to low quality (rind issues) and lack of labor, according to the NASS Pacific Coast Office *California Crop Weather* report.

Fresh orange prices received by California growers this season through April 2015 have average \$17.74 per 80-lb box, down 16 percent from last season's average of \$21.14 per 80-lb box for the same period (table 12). Despite the decline from last season, prices remain 27 percent above the previous 5-year average of \$13.96 per 80-lb box. Last season's fruit was very sweet and of good eating quality, promoting high prices. However, the 2014/15 end-of-season navel exports are being hampered by rind issues, redirecting export supplies to the domestic market and driving down prices.

Table 12--Fresh oranges: Average equivalent on-tree prices received by California growers, 2009/10-2014/15

Month	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
	----- Dollars/box ¹ -----					
November	17.76	15.31	15.52	15.20	18.17	19.39
December	13.06	13.75	13.53	12.90	15.97	19.14
January	11.56	12.35	11.73	11.50	21.77	18.44
February	10.86	9.65	11.13	10.10	23.67	16.74
March	10.90	8.90	10.86	10.13	23.38	16.14
April	10.66	9.22	13.82	11.45	23.90	16.56
May	14.66	10.63	15.38	14.05	23.31	
June	14.22	11.81	14.81	15.31	20.11	
July	9.29	9.85	11.03	11.90	17.67	
August	9.49	10.75	10.23	12.30	17.67	
September	9.29	11.45	12.53	14.80	18.27	
October	9.29	11.15	12.13	15.30	15.77	
Nov.-April average	12.47	11.53	12.77	11.88	21.14	17.74

¹75-lb box prior to 2010/11; 80-lb box thereafter.

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

From November 2014 through April 2015, U.S. fresh orange exports have totaled 912 million pounds, an increase of 6 percent from the same period last season. South Korea remains the top export market for U.S. fresh oranges, with 241 million pounds, up 24 percent season to date. U.S. exports also showed gains to Canada (up 6 percent) while declining to Hong Kong (down 22 percent). Since fresh orange domestic production is almost even with last season and harvest is quickly wrapping up (only a few of months left for bulk shipments to exit the domestic market), ERS forecasts fresh orange exports at 1.25 million pounds in 2014/15, up 6 percent from last season, if realized.

U.S. fresh orange imports for the season through April are down 8 percent season over season, to reach 63.6 million pounds. While down from last season, import volumes rose above the previous 5-year average for each month of the season through April. Imports reached a record high for the 2013/14 season at 315.4 million pounds. Mexico is by far the largest source for fresh orange imports in the United States. From November 2014 through April 2015, imports from Mexico totaled 60.6 million pounds, down 4 percent from the same period last season and the main reason for the decline in imports so far this season. AMS's movement report has imports through June 6 up 6 percent when compared through the same period of last year. Given this increase and the propensity of fresh orange imports to occur most heavily during the summer months (previous 5-year average has 85 percent of imports occurring May through October), ERS forecasts fresh orange import levels to reach 335 million pounds. If realized, this import level would represent a 6-percent increase in fresh orange imports over last season.

U.S. Total Grapefruit Production Down in 2014/15

If realized, U.S. grapefruit production will total just 982,000 tons, down 6 percent from last season's total of 1.05 million tons. California's production dropped over 1 percent while Texas' production increased 23 percent to 280,000 tons. Texas

grapefruit quality was very good this season, receiving strong grower prices on the fresh market for much of the season. Florida accounts for the largest decline in production, with an estimated crop volume of 550,000 tons, down 17 percent year over year. Of this estimate, 260,000 tons were for white grapefruit and 290,000 tons for colored grapefruit. Output levels for both varieties declined 22 percent and 16 percent, respectively, due to high fruit droppage issues. Size was better than last season with white grapefruits requiring 113 fruit per box and colored grapefruit having 118 fruit per box, up from 118 per box and 123 per box, respectively. As of early May, FCAC estimates that virtually all grapefruit has been harvested for the season.

The initial crop forecast in October estimated the Florida grapefruit crop just 4 percent below 2013/14's final harvest total of 665,000 tons. High fruit drop and small sizes early in the season led to low early-season processed grapefruit grower prices. As the season progressed and fruit gained in size, prices rose but never outperformed grower prices in 2013/14 (table 13). The season-average price through April is \$0.96 per 85-lb box, 46 percent lower than last season.

With overall grapefruit production down this season, ERS forecasted total fresh grapefruit production in 2014/15 to be 1.03 billion pounds, down just 1 percent from last season. The decline is not as steep as the decline in total production. Increased production and high fresh market prices in Texas is directing more grapefruit to the fresh market. Even in Florida, 1 percent more of its crop went to the fresh market than the same time last season, according to FCAC's utilization reports. California experienced only a slight decline in production so the higher Texas crop tempered any larger decline that may have occurred this season.

Fresh grapefruit imports for this season have been sluggish compared to last season's strong import market. Thus far, the current import volume from October through April is 67 percent below last season the same time and down 22 percent from the previous 5-year average. Hence, ERS forecast imports to just reach 18 million pounds in 2014/15, a 54-percent decline from 2013/14, if realized. The lower overall supply of fresh grapefruit this season reduced the volume available for exports. Thus far, only 1 month this season had exports exceed 2013/14 monthly exports. Due to weaker movement to export markets, ERS forecast total fresh

Table 13--Processing grapefruit: Average equivalent on-tree prices received by Florida growers, 2009/10-2014/15

Month	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
	----- Dollars per 85-lb box -----					
October	-1.65	2.35	3.00	-0.47	--	-0.25
November	0.48	2.78	3.42	-0.19	0.01	-0.06
December	1.56	3.10	3.98	0.40	0.93	-0.93
January	2.35	3.54	4.66	1.76	1.91	1.69
February	2.76	3.81	4.60	3.14	2.29	1.23
March	2.85	3.65	4.90	3.67	2.72	2.36
April	1.73	3.62	4.45	2.53	2.79	2.69
May	0.93	3.48	--	--	--	
Oct.-April average	1.44	3.26	4.14	1.55	1.78	0.96

-- = Insufficient data to establish price.

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

grapefruit exports to reach 295 million pounds in 2014/15, down 9 percent from 2013/14. The lower exports will redirect supplies to the domestic market and put fresh grapefruit per capita use at an estimated 2.36 pounds in 2014/15, down less than 2 percent from last season.

According to FCAC utilization data through early June, the share of grapefruit for processing in 2014/15 is 58 percent, lower by 1 percent than the previous year. Actual quantity of grapefruit sent to processing is down 20 percent, following the trend in total Florida grapefruit production. The decline in overall production and thus quantity available to send to processors has reduced ERS forecasted juice production to 59.5 million sse gallons in 2014/15, down 8 percent from the 2013/14 estimate of 64.7 million gallons sse (table 14).

U.S. grapefruit juice imports this season through April are up over twofold (115 percent from 2013/14), totaling 235,784 gallons. Mexico has increased shipments substantially to the United States, accounting for 96 percent of all grapefruit juice imports season to date. The current ERS forecast for total juice imports is 350,000 gallons, a 60-percent increase over last season. If realized, the forecasted import volume remains 30 percent below the previous 5-year average. Strong imports from Mexico and higher beginning stocks will help lessen the severity of the drop in production, keeping total domestic supply at 100.2 million sse gallons, just 3 percent below last season.

Table 14--Grapefruit juice: Supply and utilization 1991/92-2014/15

Year ¹	Supply				Ending stocks	Exports	Utilization	
	Production	Imports	Beginning stocks	Total			Total	Per capita
	----- Million sse gallons ² -----						Gallons	
1991/92	119.5	4.2	41.6	165.3	38.6	23.2	103.5	0.40
1992/93	186.3	1.9	38.6	226.8	70.5	22.0	134.3	0.52
1993/94	168.5	0.9	70.5	239.8	59.4	17.4	163.0	0.62
1994/95	190.8	0.9	59.4	251.1	72.0	22.1	157.0	0.59
1995/96	171.5	0.5	72.0	244.0	66.2	26.8	151.0	0.56
1996/97	192.0	0.2	66.2	258.3	86.3	21.3	150.8	0.55
1997/98	166.0	0.2	86.3	252.5	67.8	18.1	166.6	0.60
1998/99	170.9	1.3	67.8	240.0	54.3	24.3	161.3	0.58
1999/2000	203.4	5.0	54.3	262.7	81.9	32.9	147.8	0.52
2000/01	183.3	0.9	81.9	266.2	74.8	39.0	152.3	0.53
2001/02	179.4	0.3	74.8	254.5	83.6	36.3	134.7	0.47
2002/03	140.5	0.4	83.6	224.5	71.7	38.3	114.4	0.39
2003/04	146.7	0.5	71.7	218.9	65.5	42.3	111.1	0.38
2004/05	49.0	11.5	65.5	125.9	35.5	23.9	66.5	0.22
2005/06	80.8	5.6	35.5	121.9	42.0	18.7	61.2	0.21
2006/07	121.4	0.9	42.0	164.4	57.9	20.2	86.3	0.29
2007/08	109.2	0.3	57.9	167.4	59.8	16.1	91.6	0.30
2008/09	83.6	0.5	59.8	143.9	47.8	15.6	80.5	0.26
2009/10	76.9	0.6	47.8	125.3	44.8	12.8	67.7	0.22
2010/11	83.9	0.4	44.7	128.9	36.6	15.9	76.4	0.24
2011/12	77.0	0.5	36.6	114.1	40.1	15.1	58.9	0.19
2012/13	75.0	0.8	40.1	115.9	37.9	14.6	63.4	0.20
2013/14	64.7	0.2	37.9	102.8	40.4	12.5	49.9	0.16
2014/15 F	59.5	0.3	40.4	100.2	39.4	12.4	48.4	0.15

F = forecast. ¹Marketing season October-September. ²sse= single-strength equivalent.

Source: USDA, Economic Research Service.

Exports of grapefruit juice this season are down year over year, likely hampered by reduced domestic production and higher grapefruit juice prices (according to FDOC processor reports, prices for grapefruit juice are up 4 percent season to date). Current export levels through April are at 6.2 million gallons, down 3 percent from the same period in 2013/14. With the slower export movement, ERS projects grapefruit juice exports in 2014/15 to reach 12.4 million sse gallons, down 1 percent from last season, if realized. Ending stocks are slightly down for the season through June. ERS forecast 2014/15 ending stocks to hit 39.4 million gallons, a 2-percent drop from last season. Overall domestic use is forecast to reach 48.4 million gallons, down 3 percent from last season, translating into 0.15 gallons per person, down from 0.16 gallons per person in 2013/14.

Demand for Fresh Lemons Increases Imports Despite Larger Domestic Crop in 2014/15

The June NASS *Crop Production* forecast has total U.S. lemon production in 2014/15 at 1.77 billion pounds, up 8 percent, year over year, with production gains in California and Arizona. The 5-year production average is 1.76 billion pounds. California's production increased 6 percent this season while Arizona's is up 19 percent.

Despite increased production, grower prices have been above the previous 5-year average each month through April. The season-to-date average grower price for fresh lemons is \$37.22 per 80-lb box, August-April, (table 15), 16 percent above the 2013/14 August to April average of \$32.20 per 80-lb box and nearly 58 percent above the previous 5-year average price of \$23.53 per 80-lb box. The higher price is partially attributed to strong demand for lemons, which began in the spring of 2014, when lemons were purchased in higher volumes than usual due to high prices for fresh limes. Since lemons and limes are considered substitutes, consumers purchased lemons in lieu of the high-priced limes, reducing available summer lemon supplies in 2014. These prices are observed through most of 2013/14 and into the 2014/15 season. In March and April of 2015, however, prices began to dip below last season's prices for the same months. Demand is picking up again this summer, typically a high-demand period for lemons, aiding fresh lemon prices. While prices should remain fairly strong for the season, they may not reach levels seen during the 2013/14 season. Lime supplies are much more stable this year, reducing substitution between the two fruits.

The lemon harvest is winding down and movement from California during the first week in June fell below last season's volume for the same period, based on AMS data. Arizona shipments already ended, following the completion of harvest, while Southern California is continuing to pack and ship through early June. Overall movement for the season through the first week of June 2015 is 2 percent above last season's for the same period. Lemon imports are up 47 percent through April, totaling 118.2 million pounds. Mexico has shipped 83.2 million pounds to the U.S. market this season, up 44 percent from last season and the main driving force behind the overall boost in imports. Though smaller in share of U.S. imports, shipments from Chile increased 72 percent from last season and those from Spain were up 88 percent. Above-average import volumes over the winter helped boost overall imports so far this season through April.

Table 15--Fresh lemons: Average equivalent on-tree prices received by U.S. growers, 2009/10-2014/15

Month	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
----- Dollars per box ¹ -----						
August	24.26	25.43	25.09	21.62	31.62	45.01
September	27.06	25.83	22.59	20.25	33.38	43.01
October	25.08	25.20	19.50	19.47	35.17	45.94
November	25.44	26.06	18.97	17.30	32.93	41.46
December	22.42	18.78	19.77	16.48	30.53	34.87
January	22.43	14.80	21.12	15.82	31.71	32.91
February	22.27	12.46	18.50	14.37	30.79	31.26
March	21.26	12.87	17.89	13.72	30.74	30.03
April	22.86	14.83	18.89	17.62	32.92	30.51
May	23.36	16.13	21.29	21.92	35.02	
June	23.86	17.93	22.29	24.62	38.52	
July	24.96	22.43	20.59	25.82	44.22	
Aug.-April average	23.68	19.58	20.26	17.41	32.20	37.22

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

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

2014/15 Specialty Citrus Production Up With Strong Grower Prices

The current specialty citrus crop forecast for 2014/15 released in early June has production up 4 percent from last season. Production out of California and Arizona are each up by, at levels of 10 percent. Florida is experiencing another year of declined tangerine production, with 219 million pounds. That is down 21 percent from last season's 276 million pounds, an amount that was revised downward in the April *Crop Production* due to reductions in Honey tangerine production. According to the FCAC, only less than 2 percent of the honey tangerine crop remains on trees for harvest; and all other tangerine varieties finished earlier in the year. Even under drought conditions and warmer winter temperatures, California's production is forecast at 1.28 billion pounds. If realized, this will be the largest mandarin/clementine crop harvested in the State. Florida's tangelo production is down 20 percent to 63 million pounds, from 79 million pounds in 2013/14.

Despite the overall increase in specialty citrus volume in 2014/15, season-to-date average grower prices for fresh tangerines are \$30.97 per box, just 3 percent above the same period last year. The high prices in the beginning of the season compensated for lower prices in December and January, with insufficient data to establish a fresh tangerine price for the remainder of the season. High prices, ample production, and strong imports all point to growing demand for specialty citrus varieties.

Total specialty citrus imports are down 10 percent this season through April from the same time last season, totaling 212.3 million pounds. Strong production in California this season is likely resulting in the lack of demand for imports. Imports slowed during the first two months of the 2014/15 season (October-September) and the month-over-month gains in the winter did not offset the slow start, reducing imports by 10 percent through April. For the tangerine market, imports typically are most heavy from June through January. Hence, there is still the potential for import volumes to grow as the season continues into high demand period when domestic

supplies dwindle. Through April, Morocco is the largest supplier of imported mandarins to the United States, with 97.2 million pounds, which is up 17 percent from last season as the country's citrus production continues to expand. Spain, the main supplier of specialty citrus, as well as Chile, are shipping less to the United States this season.

Tangerine exports are up through April, with 92.2 million pounds shipped globally, up 35 percent from last season. Canada is the main terminus, receiving 46.4 million pounds, up 42 percent from the same period in 2013/14 and representing half of all specialty citrus exports in 2014/15 thus far. Exports are also strong to Japan (up 44 percent) and the Netherlands (up nearly two-fold). Strong demand through the winter kept export volumes up during the busiest time for shipments. Export movement will likely slow as harvest has wrapped up for the domestic crop and supplies of U.S. specialty citrus dwindle.

Melons

Domestic Melon Season Begins With Larger Supplies Than Last Year

Mid-spring/early summer is when the U.S. melon market transitions from imports to domestic production. As imports typically wind down during this time, U.S. consumers look forward to seeing U.S. melons increasingly available in the market well into the summer months. This year, cumulative domestic shipments through mid-June were running ahead of last year's by about 9 percent, in part due to the warm weather this winter and spring that accelerated the progress of melon crops in Arizona, California, and parts of the U.S. south. AMS data indicated increased shipments thus far for cantaloupes (up 11 percent) and watermelons (up 9 percent), but a 12-percent decline in honeydew melon shipments.

As the most predominantly produced melon crop in the United States, watermelons made up over 75 percent of this season's domestic melon shipments thus far, a vast majority of which are the seedless type. Larger early-season supplies have enabled retailers to feature watermelons in their stores in April and May, especially as import supplies, particularly from Mexico, continued to be available but winding down. AMS reported nationally advertised retail prices for red flesh miniature seedless watermelons averaging 15-18 cents cheaper than last year in April and May (table 16). Through mid-June, prices declined from the previous month's average and averaged 26 percent lower than what was advertised the same time last year. Meanwhile, April and May prices for regular-size seedless watermelons averaged 4 to 9 cents higher than the same time a year ago but averaged 7 percent below year-ago levels through mid-June. Among the largest producers, seedless-watermelon shipments are reported up in Florida and Georgia due to good growing weather, but down in California and Texas.

Cantaloupe shipments to date are up in California and Arizona as well as in Florida and Georgia. Early honeydew shipments in California are also up, but down thus far in Arizona. Increased early domestic production and lingering imports from Mexico left retailers with plenty to promote this spring, driving cantaloupe prices lower. Advertised retail prices for cantaloupes have consistently averaged below year-ago levels each month since the winter when the domestic market yielded to foreign supplies to meet demand, and imports volumes came in higher than last year. In June, prices were at \$2.23 each, compared with \$2.31 the same time last year. Honeydew prices also began the year lower than in 2014 due to increased imports, based on AMS data. While prices strengthened in May, prices fell in June.

Table 16--U.S. advertised retail prices for melons, 2014-15

	Quarters		Months						June change 2014-2015
	Jan-Mar		Apr		May		Mid-June		
	2014	2015	2014	2015	2014	2015	2014	2015	Percent
	----- \$ per melon -----								
Cantaloupe	2.43	2.39	2.31	2.10	2.36	2.34	2.31	2.23	-4
Honeydew	3.31	3.16	3.11	3.05	2.98	3.11	2.91	2.86	-2
Seedless watermelon									
Red flesh, miniature	3.07	3.44	3.07	2.89	3.17	3.02	3.58	2.63	-27
Red flesh	5.01	4.25	4.60	4.64	4.56	4.65	4.86	4.52	-7

Source: USDA, Agricultural Marketing Service, *National Fruit and Vegetable Retail Report*, various issues.

2015/16 Almond Crop Shaping Up Well Despite Drought Conditions In California

The 2015/16 almond crop is shaping up well on tree. The *2015 California Almond Subjective Measurement Report*, released on May 5, estimates the upcoming crop at 1.85 billion shelled pounds. The *Almond Objective Measurement* report will be released on the same day as this report. If the current estimate is realized, the harvest would only be 1 percent smaller than 2014/15's harvest, but 2 percent below the previous 5 year production average of 1.89 billion pounds. Some almond trees experienced insufficient chilling hours due to a warm dry winter, with some trees lower two thirds blooming ahead of the top one-third of the tree. To add to the complication of a warm winter, the bloom period arrived in early February—one of the earliest blooms recorded—and had a very quick bloom session. Nuts are sizing up well and are expected to have an early hull split, nearly 2 weeks earlier than usual. Water remains a concern for many growers across the reported 890,000 bearing acres of almonds in 2015. Bearing acreage increased 2 percent from last year as more acres came into production. Through June, growers continued to irrigate orchards to aid in crop development while herbicide and mowing applications took place to reduce pest pressure through the summer.

Shelled almond imports during the 2014/15 season through April are up nearly 50 percent from the same period in 2013/14, reaching 14,380 thousand pounds (or 14.4 million pounds). Spain and Australia remain the predominant shippers of shelled almonds into the United States and both show increased shipments in 2014/15 through April from the previous season. Thus far, Spain has shipped 6.67 million pounds, up 72 percent, while Australia has shipped 5.3 million pounds, up 31 percent. Most of the shelled almonds being imported from Spain are organic shelled almonds with a season-to-date total of 5.22 million pounds. Italy is also increasing shipments of organic shelled almonds during the 2014/15 season, with a season-to-date total of 2.18 million pounds, out of a total of 2.2 million shelled pounds shipped. The United States does not produce large volumes of organic almonds due to production practices which make organic production difficult to achieve. The low domestic organic-almond supply pushes the market to source organic almonds from other countries.

U.S. shelled almond exports in 2014/15 are down 12 percent season to date, reaching just 737.9 million pounds from 836.5 million pounds the previous season. Spain is the main destination for U.S. shelled almonds with 105.6 million pounds, which is down 18 percent from the previous season. Similarly, exports to Germany declined 5 percent to 94.8 million pounds while those to the United Arab Emirates increased 11 percent. U.S. exports of inshell almonds through April were higher compared to last season, increasing to 344.6 million pounds, from 322.4 million pounds in 2013/14. India is the main destination for U.S. inshell almond exports so far this season, receiving 126.8 million pounds, up 21 percent. Shipments to Hong Kong declined 4 percent thus far while those to the United Arab Emirates more than doubled from last season at 32.6 million inshell pounds.

Trade Summary Tables

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

Commodity	Marketing season	Season to date (through April)		Year-to-date change
		2014	2015	
		----- 1,000 pounds -----		Percent
Fresh market:				
Oranges	November-October	863,822	912,357	5.6
Grapefruit	September-August	305,776	294,756	-3.6
Lemons	August-July	214,613	205,039	-4.5
Apples	August-July	1,476,153	1,708,697	15.8
Grapes	May-April	916,905	862,292	-6.0
Pears	July-June	408,305	352,634	-13.6
Peaches (including nectarines)	January-December	3,210	2,956	-7.9
Strawberries	January-December	88,955	93,353	4.9
Cherries	January-December	2,509	2,363	-5.8
Cantaloupe	January-December	8,351	7,873	-5.7
Watermelon	January-December	17,414	13,612	-21.8
		----- 1,000 sse gallons ¹ -----		
Processed:				
Orange juice, frozen concentrate	October-September	35,742	12,164	-66.0
Orange juice, not-from-concentrate	October-September	61,994	51,412	-17.1
Grapefruit juice	October-September	7,215	6,234	-13.6
Apple juice and cider	August-July	7,416	8,111	9.4
Wine	January-December	35,639	35,470	-0.5
		----- 1,000 pounds -----		
Raisins	August-July	264,179	220,348	-16.6
Canned pears	June-May	13,337	10,287	-22.9
Canned peaches	June-May	43,130	40,747	-5.5
Frozen straw berries	January-December	18,250	15,434	-15.4
		----- 1,000 pounds -----		
Tree nuts:				
Almonds (shelled basis)	August-July	1,029,900	944,662	-8.3
Walnuts (shelled basis)	September-August	258,372	293,968	13.8
Pecans (shelled basis)	October-September	53,921	71,363	32.3
Pistachios (shelled basis)	September-August	118,874	97,568	-17.9

¹Single-strength equivalent.

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

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

Commodity	Marketing season	Season to date (through April)		Year-to-date change
		2014	2015	
		----- 1,000 pounds -----		Percent
Fresh market:				
Oranges	November-October	68,757	63,570	-7.5
Tangerines (including clementines)	October-September	235,578	212,354	-9.9
Lemons	August-July	80,293	118,240	47.3
Limes	January-December	262,975	325,286	23.7
Apples	August-July	160,760	138,919	-13.6
Grapes	May-April	1,147,373	1,205,230	5.0
Pears	July-June	127,113	120,169	-5.5
Peaches (including nectarines)	January-December	43,425	77,036	77.4
Cantaloupe	January-December	620,698	651,337	4.9
Watermelon	January-December	743,295	674,395	-9.3
Bananas	January-December	3,610,890	3,634,043	0.6
Mangoes	January-December	308,806	300,695	-2.6
		----- 1,000 sse gallons ¹ -----		
Processed:				
Orange juice, frozen concentrate	October-September	221,711	222,629	0.4
Apple juice and cider	August-July	341,186	321,583	-5.7
Wine	January-December	95,614	95,612	0.0
		----- 1,000 pounds -----		
Canned pears	June-May	67,369	69,176	2.7
Canned peaches (including nectarines)	June-May	193,012	218,595	13.3
Canned pineapple	January-December	238,505	251,284	5.4
Frozen straw berries	January-December	101,788	147,673	45.1
		----- 1,000 pounds -----		
Tree nuts:				
Brazil nuts (shelled basis)	January-December	3,976	3,619	-9.0
Cashew s (shelled basis)	January-December	75,815	66,846	-11.8
Pine nuts (shelled basis)	January-December	225	281	25.0
Pecans (shelled basis)	October-September	42,663	76,373	79.0

¹Single-strength equivalent.

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

Contacts and Links

Contact Information

Agnes Perez (Noncitrus and tropical fruit; melons), (202) 694-5255,
acperez@ers.usda.gov

Kristy Plattner (Citrus and tree nuts), (202) 694-5190, kplattner@ers.usda.gov

Subscription Information

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

E-mail Notification

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

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

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

Data

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

Related Websites

Fruit and Tree Nuts Outlook

<http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1378>

Fruit and Tree Nuts Topic Page

<http://www.ers.usda.gov/topics/crops/fruit-tree-nuts.aspx>

Organic Farming Topic Page

<http://www.ers.usda.gov/topics/natural-resources-environment/organic-agriculture.aspx>

Vegetable and Pulses Topic Page

<http://www.ers.usda.gov/topics/crops/vegetables-pulses.aspx>

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and, where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.



Economic
Research
Service

Situation and
Outlook

FTS-359SA

June 30, 2015

Fruit and Tree Nuts Outlook: Economic Insight

2012 Census of Agriculture: Overview of Fruit and Tree Nut Sector

Agnes Perez and Kristy Plattner
acperez@ers.usda.gov and kplattner@ers.usda.gov

Approved by the
World Agricultural
Outlook Board.

The 2012 Census Shows Change in U.S. Fruit and Tree Nut Sector

The 2012 Census of Agriculture, released in May 2014 by USDA, National Agricultural Statistics Service (NASS), reported the number of U.S. farms growing tree fruit, vine fruit, berries, and tree nuts fell 6 percent to 105,737 farms from the last census in 2007 (results were released in February 2009). Total acreage for these crops, on the other hand, increased 4 percent between 2007 and 2012, reaching 5.49 million acres. Acreage gains in noncitrus fruit, berry, and tree nut production offset the 13-percent reduction in total citrus acreage.

The U.S. farm sales of fruit, tree nuts, and berries in 2012 totaled \$25.9 billion, 7 percent of total agricultural sales and the fifth highest of all surveyed agricultural industries (table 1). The 2012 value increased 39 percent from the \$18.6 billion in farm sales in 2007. Fruit, tree nuts, and berries are only outranked in value by the following agricultural product groupings: grains, oilseeds, dry beans, and dry peas; cattle and calves, poultry and eggs, and dairy milk.

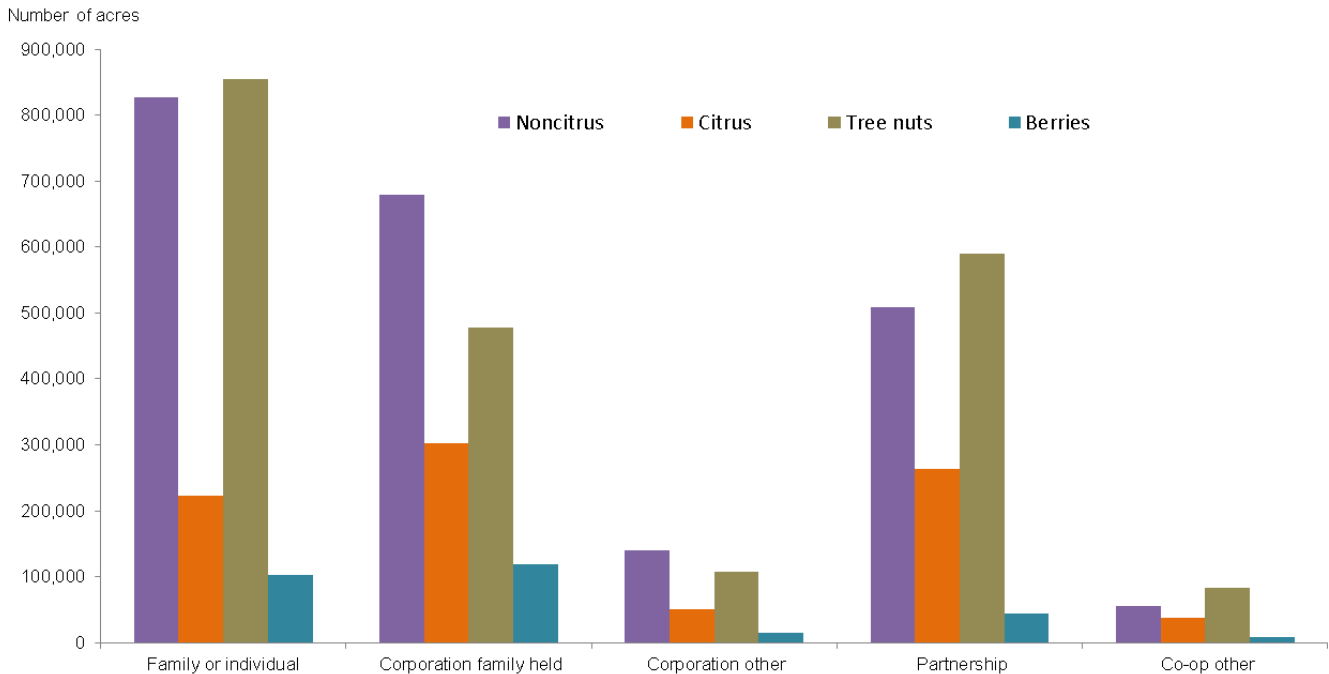
California continues to dwarf other States' fruit, tree nut, and berry production sectors. Of the U.S. totals in 2012, California accounted for 31 percent of the total number of farms and 80 percent of the acreage, far more than those reported in the No. 2 State, Florida, with 10 percent and 17 percent, respectively. Fruit, tree nut, and berry farm's market value of products sold was \$17.6 billion in California, 68 percent of U.S. total value for these crops. The 2012 Census of Agriculture's Specialty Crops supplement, issued in February 2015, indicated that roughly 98 percent of land in orchards in California and all of the State's land dedicated to berries was irrigated in 2012. These irrigated acreage made up more than half of total irrigated land in orchards and almost a quarter of total irrigated land in berries in the United States.

Table 1--Ranking of market value of agricultural products sold in United States, 2012

Commodity group	Farms	Sales	Rank by	Percent of
	Number	\$1,000	sales	total sales
				- Percent -
Grains, oilseeds, dry beans, and dry peas	503,315	131,135,151	1	33.2
Cattle and calves	740,978	76,380,153	2	19.4
Poultry and eggs	137,541	42,751,468	3	10.8
Milk from cows	50,556	35,512,150	4	9.0
Fruits, tree nuts, and berries	105,737	25,869,700	5	6.6
Hogs and pigs	55,882	22,492,611	6	5.7
Vegetables, melons, potatoes, and sweet potatoes	72,267	16,851,235	7	4.3
Other crops and hay	478,632	16,061,669	8	4.1
Nursery, greenhouse, floriculture, and sod	52,751	14,517,593	9	3.7
Cotton and cottenseed	18,143	6,137,649	10	1.6
Aquaculture	5,533	1,552,375	11	0.4
Tobacco	10,001	1,491,208	12	0.4
Horses, ponies, mules, burros, and donkeys	114,255	1,390,703	13	0.4
Other animals and animal products	46,971	1,228,315	14	0.3
Sheep, goats, wool, mohair and milk	114,746	939,662	15	0.2
Cut Christmas Trees and short-rotation woody crops	12,976	332,870	16	0.1
Total sales	2,109,303	394,644,481		100.0

Source: USDA, National Agricultural Statistics Service, Census of Agriculture, 2012.

Figure 1
Legal status of owners of U.S. farms with specialty crops, 2012



Types of farm ownership, Corporation other and co-op other are both defined by federal tax filings to determine operations legal status
Source: USDA, National Agricultural Statistics Service, 2012 Census of Agriculture, Specialty Crop Supplement, 2015.

Fruit and Tree Nut Farms Mostly Family or Individual Operations

The Specialty Crops supplement to the 2012 Census of Agriculture reported U.S. fruit and tree nut farms are predominantly family or individual operations (fig. 1). Nationally, 80 percent of fruit, nut, and berry farms are run by families or individuals. Only 8 percent of farms are operated by corporations. Partnership operated farms account for roughly 9 percent of total farms growing specialty crops but account for about 23 percent of all acres.

Family farms account for the most acreage in specialty crops with 39 percent and while number of farms operated by corporations is small in number, that group of farms does control 30 percent of acreage under production. California represents 65 percent of national family-farm acreage, which equates to 29 percent of the State's fruit, nut, and berry acreage being owned and operated by families. Thirty percent of California's total specialty-crop acreage is operated by corporations but those crops are only grown by 9 percent of total farms, while family farms account for 73 percent of the 45,646 California farms.

The big orchards, however, produce the bulk of the fruit. The 2012 Census reports that only 3 percent of the 106,488 farms with orchard land had 1,000 or more acres in 2012 but these farms accounted for 33 percent of the acreage. The number of farms in the 1,000-acre or more category declined 6 percent from the 2007 Census and although acreage for these farms all together has increased, their share of orchard acreage also fell from 41 percent in 2007. Nearly half of U.S. fruit, tree nut, and berry farm sales come from farms with 1,000 or more acres. The census only reported 15 States that had farms with at least 1,000 acres in orchards, with California accounting for 14 percent of the farms but 53 percent of the acreage. More than half of this acreage in California in 2012 is from farms with at least 3,000 acres in fruit and tree nut production.

Characteristics of Nationally Classified 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 93,020 in 2012, 88 percent of the 105,737 farms that were reported by the census growing these commodities. A vast majority of these fruit and tree nut farms have growers who fully own the farms that they operate, with only 9 percent of the farms having growers who are part owners and only 4 percent of the farms tended by tenants. Due to the particular nature of growing most fruit, nut trees, and fruit vines, where land needs to be dedicated to the production of these crops for many years, as well as specialized production practices, producers tend to concentrate their production in growing just these crops. Some growers, however, also grow other agricultural crops and/or have some livestock, but the returns from these enterprises, on average, account for only a small part of total sales for these farms. In 2012, fruit, tree nuts, and berries accounted for 96 percent of the market value of agricultural products sold by these enterprises.

Because they are heavily reliant on the production of fruit and tree nuts, these operations do not receive many Government payments. In 2012, only 9 percent (or 8,549 farms) of fruit, tree nut, or berry farms reported under the NAICS system received Government payments valued at \$76.6 million. The only agricultural industries to receive lower payments were vegetables and melons, greenhouse, nursery, and floriculture, tobacco, poultry and egg, and sheep and goat farming producers. Only 2 percent of the fruit and tree nut farms participated 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.

Farm expenses 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 \$25.6 billion received by these producers, 79 percent went to production expenses. Hired-labor costs remained the single biggest expense for these operations, which accounted for 24 percent of all production expenditures. Fruit operations, in particular, rely heavily on labor for harvesting and other production practices, such as orchard maintenance. Since the fresh market is the first choice for many fruit producers, hand picking insures minimal damage to the fruit, assuring a greater share of the crop will meet fresh-market standards. Mechanical harvesting can damage and alter appearance of fruit, making it an unviable option for most fresh-market-bound fruit. While there are growers who produce for processing, there are few

mechanical harvesters available because of the prohibitive cost of crop-customized harvesters. 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. Each crop would also have different requirements for harvest based on fruit softness, how the fruit is attached to plant, and tree growth heights and habits. Tree shakers are used for nut trees since the nuts are protected by a hard shell and are easily recovered from orchard floors.

Other major expenses incurred in fruit and tree nut operations include: chemicals; plants, trees, and vines; fertilizer; lime; soil conditioners; equipment and capital 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 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 95 percent of the acreage in fruit and nut production is owned by the operators.

Number of Farms Drop But Orchard Acreage Increases

The number of farms with orchard land in the United States fluctuated since 1997 (table 2). From 2007 to 2012, this number dropped 8 percent to 106,288 farms, reflecting declines in noncitrus, citrus, and tree nut orchards. Total orchard acreage (including vineyards), meanwhile, grew 3 percent over the same period, totaling 5,199,729 acres, reversing the downward trend in acreage since 1997. Though up, orchard acreage has not surpassed the 5,349,292 acres in 1997 and 5,330,439 acres in 2002.

Citrus orchards slipped the most in farm numbers, down 17 percent to 13,055 farms in 2012 from 2007. These farms generally declined in number for all types of citrus orchards, except for lemons, which grew 15 percent. Over the same period, a rise in the number of farms growing almonds and pistachios was offset by fewer farms for most other tree nuts reported in the census, including pecan farms, which continued to account for more than half of the 36,302 farms with tree nut acreage. Farms with noncitrus fruit orchards declined the least between the two census years, down 5 percent to 69,233 farms in 2012 and continued to comprise well over half of all the U.S. farms with orchard acreage.

Noncitrus Fruit and Nut Trees Continue To Comprise Most Orchard Acreage

Acres planted to noncitrus and tree nut crops accounted for 83 percent of all orchard acreage in 2012, with citrus crops accounting for the remaining 17 percent (table 2). Overall orchard composition has not deviated much from the previous census, which reported noncitrus fruit and nut trees at 80 percent of orchard acreage and citrus trees the balance in 2007. The shares are almost equally split between noncitrus fruit (42 percent) and tree nuts (41 percent) in 2012. Tree nut production, however, has expanded since the previous census to account for 41 percent of total orchard acreage, up from 37 percent in 2007.

Noncitrus crops were produced on approximately 2.21 million acres, up 2 percent from total orchard acreage in 2007. Production area rose for 11 of 24 noncitrus fruit crops reported in the census, including the category "other noncitrus fruit." Among the traditional major noncitrus fruit crops, acreage expanded for grapes and sweet cherries, but declined for apples, peaches, pears, and plums and prunes. Noncitrus fruit acreage is more widely spread across the 50 States; citrus acreage is mostly limited to California, Arizona, Florida, and Texas due to their subtropical climates. Due in large part to disease pressures, citrus acreage declined 13 percent from 2007 to 2012. Total citrus acreage amounted to 877,701 acres in 2012, witnessing reduced acreage to nearly all citrus crops, except for tangerines.

Table 2 --Number of fruit and nut farms and acreage in the United States, 2002, 2007, and 2012

Commodity	Total farms			Percent	Share of	Total acres			Percent	Share of
	2002	2007	2012	change	total farms	2002	2007	2012	change	total acreage
				--Percent--					--Percent--	
Noncitrus	67,113	72,757	69,233	-4.8	65.0	2,322,905	2,176,511	2,209,192	1.5	42.5
Apples	23,853	25,591	25,129	-1.8	23.6	464,025	398,770	384,237	-3.6	7.4
Apricots	2,698	3,141	2,305	-26.6	2.2	18,191	13,750	12,863	-6.5	0.2
Avocados	6,254	8,245	7,495	-9.1	7.0	75,570	82,647	73,534	-11.0	1.4
Bananas	765	1,326	1,169	-11.8	1.1	1,975	2,547	2,444	-4.0	0.0
Sweet cherries	8,043	8,051	7,663	-4.8	7.2	91,735	100,705	105,244	4.5	2.0
Tart cherries	2,955	3,028	3,052	0.8	2.9	47,138	49,561	49,785	0.5	1.0
Cherries, not specified	--	--	--	--	--	--	--	--	--	--
Coffee	1,202	1,521	1,577	3.7	1.5	7,986	7,891	9,872	25.1	0.2
Dates	209	168	213	26.8	0.2	7,585	7,669	10,981	43.2	0.2
Figs	812	1,101	989	-10.2	0.9	14,274	9,739	7,084	-27.3	0.1
Grapes	23,856	25,892	27,878	7.7	26.2	1,060,295	1,051,407	1,139,146	8.3	21.9
Guava	308	487	399	-18.1	0.4	1,213	883	1,733	96.3	0.0
Kiwifruit	474	430	345	-19.8	0.3	4,984	4,509	4,395	-2.5	0.1
Mangoes	623	877	933	6.4	0.9	1,938	2,259	3,006	33.1	0.1
Nectarines	2,261	2,269	1,275	-43.8	1.2	45,645	31,846	22,368	-29.8	0.4
Olives	1,549	1,696	2,092	23.3	2.0	39,591	39,540	51,150	29.4	1.0
Papayas	451	586	401	-31.6	0.4	3,001	2,501	2,272	-9.2	0.0
Passion fruit	66	129	153	18.6	0.1	53	93	125	34.4	0.0
Peaches	14,526	13,582	13,916	2.5	13.1	184,495	149,237	128,480	-13.9	2.5
Pears	10,809	9,878	10,246	3.7	9.6	80,801	68,215	56,749	-16.8	1.1
Persimmons	1,425	1,505	1,389	-7.7	1.3	4,855	4,191	1,968	-53.0	0.0
Pluots	--	308	223	--	0.2	--	4,332	3,317	-23.4	0.1
Plums/prunes	7,300	6,987	5,888	-15.7	5.5	148,839	109,319	88,122	-19.4	1.7
Pomegranates	369	599	1,056	76.3	1.0	9,535	24,517	32,887	34.1	0.6
Other noncitrus	1,640	4,866	3,096	-36.4	2.9	9,184	10,383	14,428	39.0	0.3
Citrus	17,727	15,658	13,055	-16.6	12.3	1,279,324	1,005,806	877,701	-12.7	16.9
Grapefruit	4,006	2,923	2,144	-26.7	2.0	156,869	102,578	88,393	-13.8	1.7
Kumquats	114	154	102	-33.8	0.1	192	183	136	-25.7	0.0
Lemons	2,142	2,607	3,007	15.3	2.8	80,898	66,972	62,324	-6.9	1.2
Limes	633	862	583	-32.4	0.5	1,368	1,251	820	-34.5	0.0
Oranges	14,288	12,116	9,437	-22.1	8.9	987,743	785,856	670,386	-14.7	12.9
Tangelos	961	800	507	-36.6	0.5	14,382	9,694	8,548	-11.8	0.2
Tangerines	1,731	1,976	1,395	-29.4	1.3	31,419	36,965	42,289	14.4	0.8
Honey tangerines	--	--	--	--	--	--	--	--	--	--
Other tangerines	--	--	--	--	--	--	--	--	--	--
Temples	345	116	37	-68.1	0.0	3,678	1,211	491	-59.5	0.0
Other citrus	461	407	873	114.5	0.8	2,624	1,097	4,313	293.2	0.1
Tree nuts	--	39,480	36,302	-8.0	34.1	--	1,857,179	2,112,869	13.8	40.6
Almonds	6,482	6,700	7,052	5.3	6.6	696,635	790,245	936,248	18.5	18.0
Chestnuts	--	1,200	919	--	0.9	--	3,334	3,784	13.5	0.1
Filberts (hazelnuts)	1,231	1,557	1,458	-6.4	1.4	33,801	34,465	38,082	10.5	0.7
Macadamia nuts	1,059	1,150	995	-13.5	0.9	18,682	17,811	18,283	2.7	0.4
Pecans	22,371	21,856	19,253	-11.9	18.1	545,344	581,809	543,486	-6.6	10.5
Pistachios	1,320	1,306	1,496	14.5	1.4	126,569	154,103	232,653	51.0	4.5
English walnuts	7,025	7,161	6,656	-7.1	6.3	292,691	267,751	332,045	24.0	6.4
Other nuts	--	1,302	1,126	-13.5	1.1	--	7,661	8,289	8.2	0.2
Other fruit and nuts	--	--	--	--	--	--	--	--	--	--
Total land in orchards¹	113,649	115,935	106,488	-8.1	111.4	5,330,439	5,039,476	5,199,729	3.2	100.0
Berries										
Blackberries & dewberries	--	5,694	7,291	28.0	23.9	--	14,874	14,982	0.7	0.3
Blueberries	--	9,991	13,432	34.4	44.0	--	77,150	96,169	24.7	1.8
Wild blueberries	--	907	1,297	43.0	4.2	--	45,763	41,087	-10.2	0.8
Boysenberries	--	304	375	23.4	1.2	--	1,068	542	-49.3	0.0
Cranberries	--	1,134	1,040	-8.3	3.4	--	41,310	43,918	6.3	0.8
Currants	--	323	528	63.5	1.7	--	382	580	51.8	0.0
Loganberries	--	97	135	39.2	0.4	--	93	160	72.0	0.0
Raspberries	--	6,588	8,052	22.2	26.4	--	21,554	23,104	7.2	0.4
Strawberries	--	8,638	10,388	20.3	34.0	--	58,718	67,467	14.9	1.3
Other berries	--	856	1,286	50.2	4.2	--	828	1,913	131.0	0.0
Total land in berries¹	--	25,017	30,538	22.1	143.5	--	261,733	289,913	10.8	100.0

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

Source: USDA, National Agriculture Statistics Service, Census of Agriculture, 2007 and 2012.

Grapes Still Top Fruit and Tree Nut Crops in Farm Numbers and Acreage

Of all the individual fruit, tree nut, and berry crops produced in 2012, grapes represent the largest number of farms and the greatest acreage in production. Grape vineyards accounted for over a quarter of U.S. farms producing noncitrus fruit crops, with production on nearly a quarter of total noncitrus fruit acreage in 2012. The current census totals for grapes well exceed farm number and acreage totals for “all” citrus and berry crops and stand at more than three-quarters of the total number of tree nut farms and more than half the acreage devoted to tree nuts, re-emphasizing grapes’ importance in the fruit and tree nut sector. Grapes have historically been the highest valued fruit and tree nut crop produced in the United States, with almost 8.0 million tons in production each year valued at around \$6.0 billion. In recent years, however, above-average production, robust demand, and resulting strong prices have pushed the almond crop value to No.1 rank, slightly exceeding grapes.

The number of grape vineyards has continued to rise since 2002 (table 3). Along with the rise in the number of farms, total grape acreage increased 8 percent from 2007 to 2012, to approximately 1.14 million acres. California continued to claim over 80 percent of U.S. grape acreage in 2012. Although grape vineyards exist all across the United States, most of the remaining grape acreage in 2012 was in Washington, New York, Oregon, Michigan, and Pennsylvania. The other minor grape States combined made up 39 percent of the grape vineyards but only 4 percent of total grape acreage.

Due to California’s vast production for the crop, the State grows nearly all the U.S. grapes for fresh use, even though the processing sector is the destination for almost 90 percent of the State’s annual grape crop. Wineries utilize nearly three-fourths of California’s annual processed-grape volume. Other leading grape States also produce primarily for the processing sector, especially Michigan, Oregon, and Washington. In those three States, grape production is entirely destined for the wine and juice sector. Unlike in California, where farm numbers for grapes declined slightly over 1 percent in 2012 from the previous census year, Washington and Michigan reported more farms.

Trend Continues as Citrus Acreage Declines in 2012

Total number of farms producing citrus—oranges, grapefruit, lemons, limes, tangerines, mandarins, and tangelos—declined 17 percent between the 2007 and 2012 (table 4). Arizona was the only State to increase the number of citrus farms in 2012 while the other major citrus-producing States—California, Florida, and Texas—witnessed a decline. In conjunction with fewer farms, total citrus acreage declined 13 percent from 2007 to 877,701 acres in 2012—a

Table 3 --U.S. grape farms and acreage, 2002, 2007, and 2012

Commodity	Total farms			Percent change 2007-12	Share of total farms 2012	Total acres			Percent change 2007-12	Share of total acres 2012
	2002	2007	2012			2002	2007	2012		
				--Percent--					--Percent--	
California	11,128	11,623	11,462	-1.4	41.1	890,896	868,330	940,177	8.3	82.5
Washington	1,199	1,219	1,355	11.2	4.9	62,515	61,056	71,494	17.1	6.3
New York	1,384	1,438	1,392	-3.2	5.0	36,716	42,544	39,216	-7.8	3.4
Oregon	1,220	1,380	1,305	-5.4	4.7	14,262	18,192	20,090	10.4	1.8
Michigan	678	711	745	4.8	2.7	13,420	14,701	15,037	2.3	1.3
Pennsylvania	768	812	806	-0.7	2.9	12,565	14,113	12,415	-12.0	1.1
Sub-total	16,377	17,183	17,065	-0.7	61.2	1,030,374	1,018,936	1,098,429	7.8	96.4
Other States	7,479	8,709	10,813	24.2	38.8	29,921	32,471	40,717	25.4	3.6
United States	23,856	25,892	27,878	7.7	100.0	1,060,295	1,051,407	1,139,146	8.3	100.0

-- = Not available.

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

trend that has continued since 1997 (fig. 2). All major citrus producing States experienced acreage reductions with Florida having the most dramatic decline. Since 2002, the State has lost 38 percent of total citrus acres, mostly attributed to urbanization and disease pressures. Florida's acreage loss is even higher since 1997, at 44 percent.

Most citrus farms and acreage are in orange production, with orange acreage representing 76 percent of total citrus acreage in 2012, down marginally from 77 percent in 2002 (table 5). Arizona was the only major producing State to see an increase in both orange farms and acreage since 2007, but have not rebounded to historical levels. Plant diseases, resource competition from urban development, and diminishing consumer demand stemming from a broader mix of fruit available to consumers are all contributing factors to the overall orange acreage decline in all major citrus producing States. Canker and citrus greening disease (Huanglongbing) created systematic tree removal and disease loss which has reduced acres planted to oranges, particularly in Florida and Texas. Controlling the Asian Citrus Psyllid (ACP), the known vector for citrus greening, has posed a problem in all citrus States. California has recently discovered the ACP infected with HLB but have yet to see expansive greening in commercial orchards. This, however, would not have been captured in the 2012 census as discovery was after surveying concluded.

Valencia orange acres have declined a bit more drastically than other oranges (which includes navels), down 36 percent from 2002 to 290,905 acres in 2012 (table 6). Slight gains in navel orange acres in Hawaii and Louisiana have been unable to counter the substantial losses in the main citrus States. In the United States, Valencia oranges are primarily destined for the processing sector since the flavor profile and juice content characteristics of this variety lends itself to high quality orange juice. Partially behind the loss in Valencia acreage is the decline in domestic orange juice consumption—a double-edged sword of reduced production that has increased orange juice prices, reducing consumer demand further. Orange juice consumption has declined to 3.21 gallons per person in 2011/12 down from the high of 5.82 gallons per person in 1997/98. Florida has the most acres dedicated to Valencia orange production, with 243,150 acres in 2012, down 18 percent from 2007, due partly to a decline in the number of farms by nearly half, from 3,432 farms in 2007 to 1,841 farms in 2012.

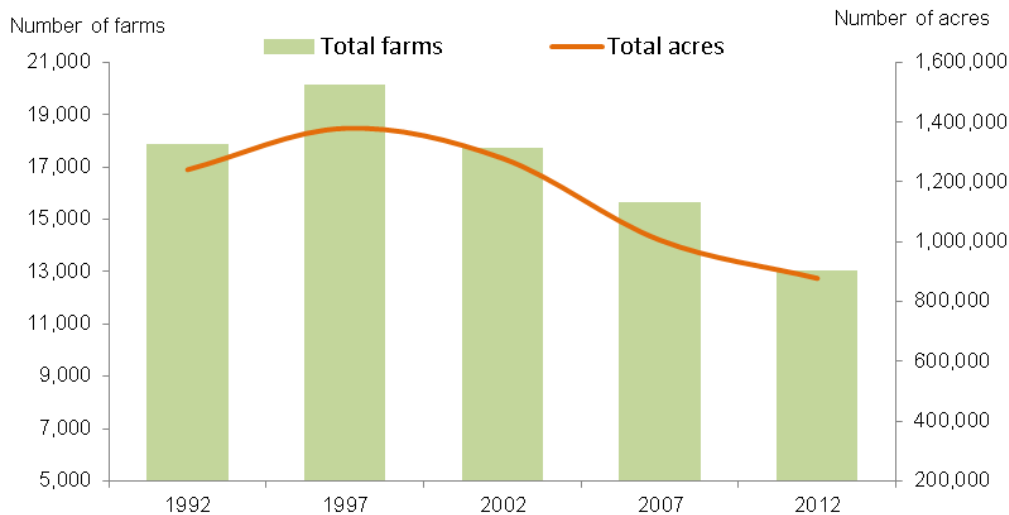
Table 4—U.S. Citrus fruit farm and acreage, 2002, 2007, and 2012

Commodity	Total farms			Percent change 2007-12	Share of total farms 2012	Total acres			Percent change 2007-12	Share of total farms 2012
	2002	2007	2012			2002	2007	2012		
	--Number--	--Number--	--Number--	--Percent--	--Number--	--Number--	--Number--	--Percent--		
Alabama	-	40	81	102.5	0.6	-	109	231	111.9	0.0
Arizona	695	329	528	60.5	4.0	33,129	18,261	17,830	-2.4	2.0
Arkansas			4		0.0			5		0.0
California	7,654	7,358	7,283	-1.0	55.8	342,053	303,101	293,387	-3.2	33.4
Florida	7,653	6,061	3,639	-40.0	27.9	871,733	654,747	539,181	-17.7	61.4
Georgia	-	6	17	183.3	0.1	-	6	25	316.7	0.0
Hawaii	474	884	616	-30.3	4.7	641	893	928	3.9	0.1
Illinois			3		0.0			(D)		
Kentucky			6		0.0			3		0.0
Louisiana		210	216	2.9	1.7			957		0.1
Maryland			2		0.0			(D)		
Mississippi	15	14	53	278.6	0.4	72	(D)	246		0.0
Missouri			1		0.0			(D)		
Nevada			1		0.0			(D)		
North Carolina			6		0.0			2		0.0
North Dakota			4		0.0			(D)		
Oregon			11		0.1			71		0.0
New Mexico	-	2		-100.0	0.0	-	(D)			0.0
South Carolina	-	4	11	175.0	0.1	-	6	4	-33.3	0.0
South Dakota			10		0.1			6		0.0
Texas	1,053	750	553	-26.3	4.2	30,299	27,701	24,778	-10.6	2.8
Virginia			2		0.0			(D)		
Washington			8		0.1			1		0.0
United States	17,727	15,658	13,055	-16.6	100.0	1,279,324	1,005,806	877,701	-12.7	100.0

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

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

Figure 2
Total citrus farms and acres, 1992-2012



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

Though less extreme, other-oranges (mostly navel oranges) have also experienced a decline in both total farms and acres since the 2007 census (fig. 3). Total farms dropped 14 percent while total acres declined 12 percent. California is the main producer of fresh navel oranges, with the number of farms increasing almost 2 percent to 4,114 in 2012 from 2007, but has yet to rebound to 2002 farm levels. California navel orange acreage continues to decline, with a 6-percent drop in the most recent period and a 13-percent drop over the past decade. Most of the acreage decline can be attributed to land competition for alternative crops (i.e., mandarin oranges, almonds) and urbanization. Florida continues to see reductions in total navel orange farms, declining 47 percent from 2002 to 2012, with a corresponding 16 percent reduction in acreage. Even with the decline in acres, Florida navel orange production still accounts for just below 60 percent of total navel/other orange acres in the United States. Over the last decade, Florida lost 61 percent of its non-Valencia acres.

Grapefruit farms in the United States have declined 27 percent since 2007 and 46 percent since 2002, with only 2,144 farms reported in 2012. Nationwide, grapefruit acreage dropped almost in half in a decade, falling from 156,869 acres in 2002 to 88,393 total acres in 2012. Arizona and Louisiana have increased plantings but still remain miniscule producers when compared to Florida, California and Texas. As with their orange crop, Florida's grapefruit is mostly destined for the juice market and have been affected by disease pressures, urbanization, and weakening consumer demand. Total farms with grapefruit production in the State declined by 35 percent since 2007 and by 60 percent over a decade. Total Florida grapefruit acres have been cut in half since 2002, illustrating the change in consumer preference and challenges to Florida grapefruit growers to keep pests and diseases at bay.

California grapefruit is preferred for the fresh-fruit market. The States' grapefruit acreage has only declined in 3 percent since 2007 but experienced a 10-year decline of 32 percent to reach 10,447 acres in 2012. Texas is similarly struggling with pest and disease problems, specifically the ACP that carries citrus greening, as well as periods of drought in which production declined. Overall Texas has lost the least amount of grapefruit acres of all States, only declining 17 percent in a decade to reach 16,561 acres. Grapefruit grown in Texas has a strong market, particularly "Ruby" red grapefruit, a variety that has international and domestic consumer recognition that helps keep demand high and potentially has reduced the speed of acreage decline witnessed in other states.

The number of U.S. farms growing lemons has increased 15 percent since 2007 and has grown 40 percent since 2002 topping 3,007 in 2012. Gains in lemon farm numbers in Arizona and California—the major lemon producing areas—offset losses in the other minor lemon States. Lemon acres have dropped 4 percent in Arizona since 2007 and

Table 5 --U.S. grapefruit, lemon, tangerine, and lime farms and acreage, 2002, 2007, and 2012

Commodity State	Total farms			Percent change 2007-12	Share of total farms 2012	Total acres			Percent change 2007-12	Share of total farms 2012
	2002	2007	2012			2002	2007	2012		
	--Number--			--Percent--		--Number--			--Percent--	
Orange, all										
Alabama		7	8	14.3	0.1		6	9	50.0	0.0
Arizona	453	163	299	83.4	3.2	6,795	2,616	3,304	26.3	0.5
California	5,731	5,254	5,204	-1.0	55.1	250,329	212,313	193,087	-9.1	28.8
Florida	7,072	5,561	3,123	-43.8	33.1	719,674	561,324	465,001	-17.2	69.4
Hawaii	259	543	268	-50.6	2.8	237	322	377	17.1	0.1
Louisiana	153	130	164	26.2	1.7	969	542	777	43.4	0.1
Texas	620	458	371	-19.0	3.9	9,740	8,732	7,831	-10.3	1.2
United States	14,288	12,116	9,437	-22.1	100.0	987,743	785,856	670,386	-14.7	100.0
Grapefruit										
Arizona	221	63	120	90.5	5.6	2,192	537	604	12.5	0.7
California	955	879	714	-18.8	33.3	15,349	10,725	10,447	-2.6	11.8
Florida	1,861	1,185	771	-34.9	36.0	119,364	72,611	60,732	-16.4	68.7
Hawaii	77	201	104	-48.3	4.9	105	45	39	-13.3	0.0
Louisiana	20	22	36	63.6	1.7	20	10	11	10.0	0.0
Texas	872	573	399	-30.4	18.6	19,840	18,650	16,561	-11.2	18.7
United States	4,006	2,923	2,144	-26.7	100.0	156,869	102,578	88,393	-13.8	100.0
Lemons										
Arizona	234	172	312	81.4	10.4	17,537	12,891	12,370	-4.0	19.8
California	1,649	1,880	2,320	23.4	77.2	62,407	53,232	49,631	-6.8	79.6
Florida	49	60	56	-6.7	1.9	807	621	77	-87.6	0.1
Hawaii	122	406	250	-38.4	8.3	40	127	131	3.1	0.2
Louisiana	25	35	21	-40.0	0.7	9	8	8	0.0	0.0
Texas	63	54	48	-11.1	1.6	97	93	107	15.1	0.2
United States	2,142	2,607	3,007	15.3	100.0	80,898	66,972	62,324	-6.9	100.0
Tangerines										
Alabama			10		0.7			26		0.1
Arizona	83	36	38	5.6	2.7	3,290	544	429	-21.1	1.0
California	568	706	755	6.9	54.1	8,058	21,528	33,465	55.4	79.1
Florida	879	839	353	-57.9	25.3	19,696	14,604	8,122	-44.4	19.2
Hawaii	131	300	200	-33.3	14.3	75	87	115	32.2	0.3
Louisiana	26	36	10	-72.2	0.7	123	28	7	-75.0	0.0
Texas	44	59	29	-50.8	2.1	177	174	126	-27.6	0.3
United States	1,731	1,976	1,395	-29.4	100.0	31,419	36,965	42,289	14.4	100.0
Limes										
Arizona	26	3	5	66.7	0.9	(D)	(D)	1		0.1
California	354	363	296	-18.5	50.8	564	525	460	-12.4	56.1
Florida	81	57	40	-29.8	6.9	660	518	241	-53.5	29.4
Hawaii	171	427	232	-45.7	39.8	(D)	204	110	-46.1	13.4
Louisiana	-	6		-100.0	0.0	-	(D)			0.0
Texas	1	6	10	66.7	1.7	(D)	(D)	8		1.0
United States	633	862	583	-32.4	100.0	1,368	1,251	820	-34.5	100.0

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

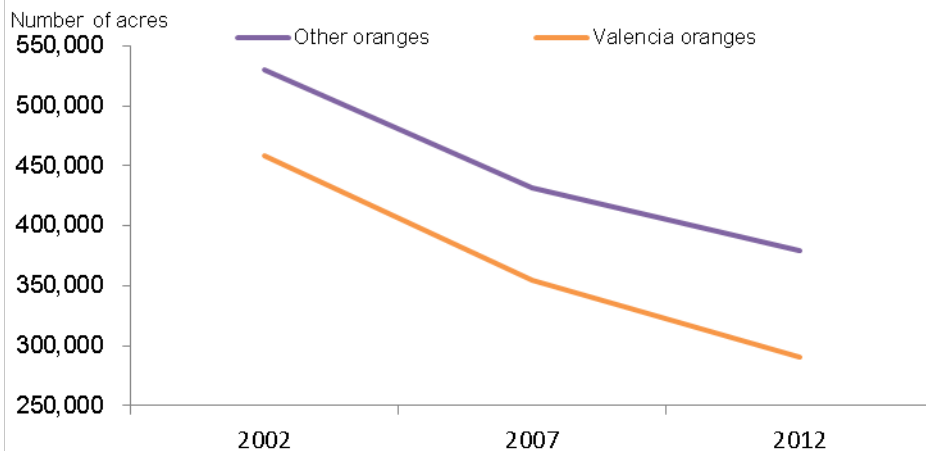
Source: USDA, National Agricultural Statistics Service, Census of Agriculture, various years.

Table 6--U.S. other and Valencia oranges farms and acreage, 2002, 2007 and 2012

Commodity/ State	Total Farms			Percent change 2007-12	Share of total farms 2012	Total Acres			Percent change 2007-12	Share of total farms 2012
	2002	2007	2012			2002	2007	2012		
	--Number--			--Percent--		--Number--			--Percent--	
Other oranges										
Alabama		7	8	14.3	0.1		6	9	50.0	0.0
Arizona	358	118	251	112.7	3.4	3,632	1,718	2,106	22.6	0.6
California	4,368	4,052	4,114	1.5	55.2	170,845	158,263	149,177	-5.7	39.3
Florida	6,183	4,575	2,421	-47.1	32.5	346,115	264,751	221,851	-16.2	58.5
Hawaii	203	407	206	-49.4	2.8	118	186	176	-5.4	0.0
Louisiana	134	116	148	27.6	2.0	840	503	728	44.7	0.2
Texas	540	384	304	-20.8	4.1	8,241	6,141	5,434	-11.5	1.4
United States	11,786	8,635	7,452	-13.7	100.0	529,821	431,568	379,481	-12.1	100.0
Valencia oranges										
Arizona	245	80	168	110.0	3.6	3,163	898	1,198	33.4	0.4
California	3,272	2,620	2,431	-7.2	52.0	79,454	54,051	43,910	-18.8	15.1
Florida	4,863	3,432	1,841	-46.4	39.4	373,559	296,574	243,150	-18.0	83.6
Hawaii	70	240	77	-67.9	1.6	119	136	201	47.8	0.1
Louisiana	21	23	26	13.0	0.6	129	39	49	25.6	0.0
Texas	164	142	131	-7.7	2.8	4,199	2,591	2,398	-7.4	0.8
United States	8,635	6,537	4,674	-28.5	100.0	457,922	354,288	290,905	-17.9	100.0

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

Figure 3
Valencia and other orange acreage, 2002-12



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

by 30 percent over the past 10-year period. Even with the decline, Arizona lemon acres account for 20 percent of total U.S. lemon acreage. Lemon acreage in California, on the other hand, declined 7 percent in 2012 from the previous census.

A bright spot for the U.S. citrus industry is the continued growth of tangerine/mandarin orange acres as the fruit continues to grow in consumer popularity. While total acreage has increased, the total number of farms growing tangerines has contracted by 30 percent from 2007 to 2012, with major losses stemming from Florida, Hawaii, Texas and Louisiana. Total tangerine acreage increased 14 percent between the latest census periods, and over 35 percent since 2002. California accounts for most of the acreage increase since 2007. Overall, California has increased acreage over fourfold from 8,058 acres in 2002 to 33,465 acres in 2012, accounting for 80 percent of all mandarin acres in the United States. Florida tangerine acreage, meanwhile, has declined almost 60 percent in the past decade

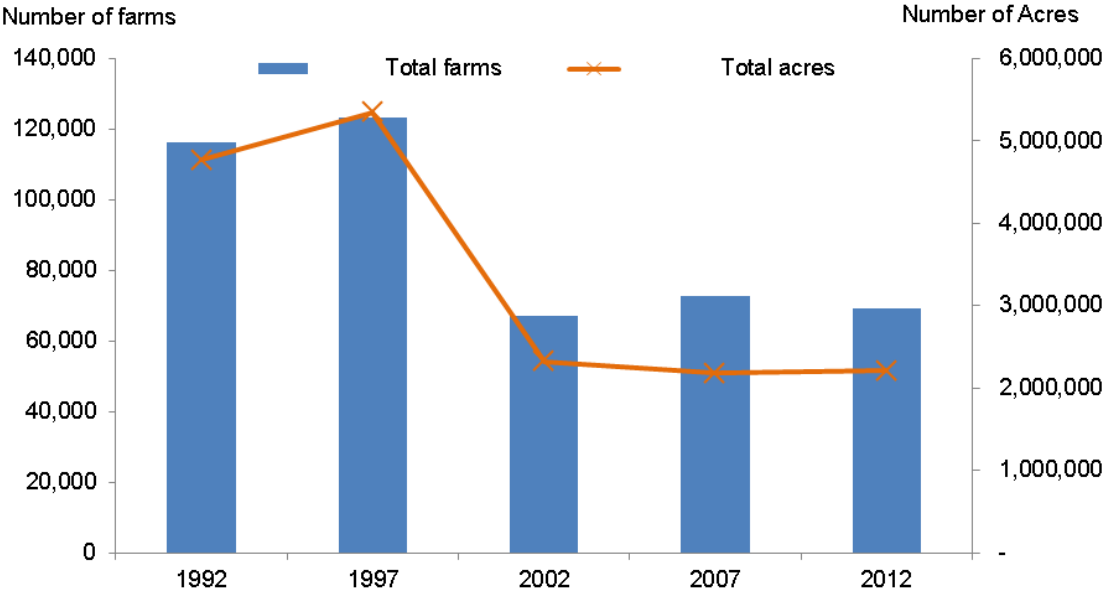
and by 44 percent since 2007, bottoming at 8,122 acres in 2012. Total farms growing mandarins in California has risen at a slower pace than gain in acreage, suggesting existing mandarin farms expanding acreage faster than new growers are entering the industry.

Limes are grown domestically but on a very minor scale, with only 820 acres in 2012. Most lime acreage has declined as a result of citrus canker and citrus leafminer infestations in the early 1990s in Florida, previously the major commercial lime State. Since 2000, lime production in Florida has been very small scale as imports from Mexico replaced domestic production's in the U.S. lime market. Hence, U.S. lime acreage spiraled down over the last 4 census years. The 2012 census indicated California surpassed Florida in lime acreage, accounting for more than half of the U.S. total. There were 296 farms engaged in lime production in California in 2012, covering 460 acres. This averages to about 1.55 acres per farm operation, demonstrating the smaller scale of the production. Farms in Florida declined in number to only 40 in 2012, from 270 farms in 1992. Mexico has the comparative advantage in lime production and continues to expand production to meet the ever-growing demand for this fruit in the United States.

Nearly Two-Thirds of U.S. Orchards Grow Noncitrus Fruit

Sixty-five percent of the 106,488 U.S. farms with orchards in 2012 engaged in noncitrus fruit production (table 2). These crops were produced on a total of approximately 2.2 million acres, making up 42 percent of the total orchard land in 2012 (fig. 4). Noncitrus fruit acres increased 2 percent in 2012 from 2007, largely reflecting expanded grape acreage that made up more than half of total noncitrus fruit area. Total acreage for 13 of the 24 listed noncitrus fruit crops reported reduced acreage, including among the major noncitrus crops—apples, peaches, and pears. The number of farms producing noncitrus fruit declined over the last 2 census years, from 72,757 in 2007 to 69,233 in 2012. Farm numbers were down for several noncitrus crops except for tart cherries, dates, grapes, mangoes, olives, passion fruit, peaches, pears, and pomegranate. Decline in farm numbers were most noticeable for nectarines, papayas, and apricots while the biggest gains were for pomegranates, dates, olives, and passion fruit. Noncitrus crops with the most significant increases in both farm numbers and acreage were those with relatively miniscule domestic production. Expansion in the production sectors of these relatively minor crops have been influenced by increasing domestic demand for these fruit and their products.

**Figure 4
Total farms and acres growing noncitrus fruit in the United States¹**



¹ Excluding berries.
Source: USDA, National Agricultural Statistics Service, Census of Agriculture, various issues.

California Dominates U.S. Noncitrus Fruit Production Sector

All 50 U.S. States reported having farms producing noncitrus fruit in 2012, but California remains a primary production area, accounting for over a third of the noncitrus farms and nearly two-thirds of total noncitrus acreage (table 7). Domestic grape production—the Nation’s No. 1 noncitrus fruit crop—is heavily concentrated in California, accounting for 41 percent of all the nation’s grape vineyards and 83 percent of total grape acreage in 2012 (table 3).

Acreage for apricots, avocados, figs, kiwifruit, nectarines, olives, persimmons, plums and prunes, and pomegranates were also predominantly in California, with the State’s share of U.S. total acreage for each crop in the range of 81 to 98 percent in 2012. California’s shares of date fruit and peach acreages also dwarfed other States but stood at 66 percent and 40 percent, respectively, and the States’ acreage for apples, sweet cherries, and pears were among the largest in the country. The other States with the highest noncitrus acreage in 2012 were Washington, Michigan, New York, and Oregon. Combined with California, these top five States made up approximately 87 percent of total noncitrus acreage in 2012, relatively unchanged from 2007.

Farm Numbers and Acreage for Other Leading Noncitrus Fruit Crops Mostly Down

While trailing grapes at a distance, the combined total acres planted to apples, peaches, sweet cherries, plums and prunes, and avocados made up approximately 35 percent of total U.S. noncitrus fruit acreage in 2012. Acreage for each of these crops in 2012 declined from 2007, except for sweet cherries whose production area increased 5 percent (table 8). Correspondingly, total farm numbers were down, except for those growing peaches.

Apples are grown widely across the Nation but Washington produces more than half of U.S. apples, mostly for the fresh market, based on annual NASS data. More than one-tenth of U.S. farms growing apples in 2012 were in Washington, accounting for nearly half of the total apple acreage that year. With production largely geared toward the processing sector, New York, Michigan, Pennsylvania, California, and Virginia, combined made up 31 percent of the apple farms and 37 percent of the total apple acreage that year. Industry-wide financial struggles, caused by low apple prices in the late 1990s and early 2000s, resulted in consolidation of the U.S. apple production sector, forcing out many smaller and less efficient growers (U.S. International Trade Commission, 2010). In Washington, the total number of apple orchards declined from each census year since 1997 (with 4,207 farms reported). Correspondingly, total production area (bearing and nonbearing) also fell from 204,674 acres in 1997 to 165,215 acres in 2007, but increased 5 percent in 2012. Though planted acreage declined over time (except during the 2012 census year), trees per acre increased by planting smaller trees for easier harvest. Hence, except for some annual fluctuations due to natural forces, annual production volumes in Washington have increased over time to a record 7.3 billion pounds in 2014.

Table 7 --U.S. noncitrus fruit (excluding berries) farms and acreage, 2002, 2007, and 2012.

Commodity	Total farms			Percent change 2007-12	Share of total farms 2012	Total acres			Percent change 2007-12	Share of total acres 2012
	2002	2007	2012			2002	2007	2012		
	--Number--			--Percent--		--Number--			--Percent--	
California	23,540	24,910	23,941	-3.9	34.6	1,418,093	1,312,994	1,346,040	2.5	60.9
Washington	5,984	5,363	4,769	-11.1	6.9	310,403	298,587	314,899	5.5	14.3
Michigan	2,501	2,581	2,394	-7.2	3.5	117,075	113,624	110,163	-3.0	5.0
New York	2,703	2,639	2,598	-1.6	3.8	98,460	99,658	93,304	-6.4	4.2
Oregon	3,148	3,171	2,751	-13.2	4.0	(D)	64,125	59,520	-7.2	2.7
Top 5-States	37,876	38,664	36,453	-5.7	52.7	1,944,031	1,888,988	1,923,926	1.8	87.1
Other States	29,237	34,093	32,780	-3.9	47.3	378,874	287,523	285,266	-0.8	12.9
United States	67,113	72,757	69,233	-4.8	100.0	2,322,905	2,176,511	2,209,192	1.5	100.0

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

Source: USDA, National Agricultural Statistics Service, Census of Agriculture, 2007 and 2012.

Table 8 --Number of farms and acres for selected noncitrus fruit in the United States, 2002, 2007, and 2012

Commodity/ State	Total farms			Percent change	Share of total farms	Total acres			Percent change	Share of total acres
	2002	2007	2012	2007-12	2012	2002	2007	2012	2007-12	2012
	--Number--			--Percent--		--Number--			--Percent--	
Apples:										
Washington	3,870	3,052	2,839	-7.0	11.3	172,810	165,215	174,152	5.4	45.3
New York	1,447	1,350	1,365	1.1	5.4	53,233	49,966	47,148	-5.6	12.3
Michigan	1,750	1,772	1,584	-10.6	6.3	50,539	44,189	43,240	-2.1	11.3
Pennsylvania	1,777	1,886	1,542	-18.2	6.1	28,110	23,552	21,556	-8.5	5.6
California	2,120	2,074	2,527	21.8	10.1	38,268	22,184	18,205	-17.9	4.7
Virginia	746	626	733	17.1	2.9	19,331	13,774	11,929	-13.4	3.1
Sub-total	11,710	10,760	10,590	-1.6	42.1	362,291	318,880	316,230	-0.8	82.3
Other States	15,143	14,831	14,539	-2.0	57.9	101,734	79,890	68,007	-14.9	17.7
United States	26,853	25,591	25,129	-1.8	100.0	464,025	398,770	384,237	-3.6	100.0
Peaches:										
California	2,446	2,005	2,201	9.8	15.8	93,257	66,408	51,948	-21.8	40.4
South Carolina	380	283	319	12.7	2.3	15,069	16,160	16,274	0.7	12.7
Georgia	304	279	225	-19.4	1.6	13,242	12,356	12,318	-0.3	9.6
Sub-total	3,130	2,567	2,745	6.9	19.7	121,568	94,924	80,540	-15.2	62.7
Other States	11,396	11,015	11,171	1.4	80.3	62,927	54,313	47,940	-11.7	37.3
United States	14,526	13,582	13,916	2.5	100.0	184,495	149,237	128,480	-13.9	100.0
Plums and prunes:										
California	2,852	2,024	1,656	-18.2	28.1	141,494	102,860	82,910	-19.4	94.1
Oregon	441	546	302	-44.7	5.1	2,096	1,921	1,446	-24.7	1.6
Michigan	230	313	286	-8.6	4.9	1,012	907	729	-19.6	0.8
New York	183	208	324	55.8	5.5	373	367	584	59.1	0.7
Idaho	118	152	96	-36.8	1.6	609	610	462	-24.3	0.5
Washington	317	418	281	-32.8	4.8	1,034	699	398	-43.1	0.5
Sub-total	4,141	3,661	2,945	-19.6	50.0	146,618	107,364	86,529	-19.4	98.2
Other States	3,159	3,326	2,943	-11.5	50.0	2,221	1,955	1,593	-18.5	1.8
United States	7,300	6,987	5,888	-15.7	100.0	148,839	109,319	88,122	-19.4	100.0
Sweet cherries:										
Washington	2,432	2,160	1,958	-9.4	25.6	34,835	38,811	38,457	-0.9	36.5
California	1,334	1,291	1,226	-5.0	16.0	26,440	30,433	37,944	24.7	36.1
Oregon	922	896	777	-13.3	10.1	15,018	17,288	15,602	-9.8	14.8
Michigan	690	683	639	-6.4	8.3	10,082	9,295	9,158	-1.5	8.7
Sub-total	5,378	5,030	4,600	-8.5	60.0	86,375	95,827	101,161	5.6	96.1
Other States	2,665	3,021	3,063	1.4	40.0	5,360	4,878	4,083	-16.3	3.9
United States	8,043	8,051	7,663	-4.8	100.0	91,735	100,705	105,244	4.5	100.0
Avocados:										
California	4,801	6,230	5,602	-10.1	74.7	67,553	74,767	59,814	-20.0	81.3
Florida	839	951	1,088	14.4	14.5	7,254	6,861	12,930	88.5	17.6
Hawaii	601	1,047	781	-25.4	10.4	628	974	726	-25.5	1.0
Sub-total	6,241	8,228	7,471	-9.2	99.7	75,435	82,602	73,470	-11.1	99.9
Other States	10	17	24	41.2	0.3	135	45	64	42.2	0.1
United States	6,251	8,245	7,495	-9.1	100.0	75,570	82,647	73,534	-11.0	100.0

-- = Not available.

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

Though still down from 2002, the number of U.S. peach farms increased almost 3 percent from 2007 to 2012 but total peach acreage continued to slip. The U.S. peach production sector is still largely concentrated in California with 40 percent of total acres in 2012. South Carolina and Georgia also remain in the top three and, combined with California, make up nearly two-thirds of the total acreage and, based on annual NASS data, over 80 percent of U.S. peach volume. Even though California supplies about half of all U.S. peaches for fresh consumption, over 65 percent

of the State's crop moves through the processing sector, mainly for canning. South Carolina and Georgia, on the other hand, specialize in fresh-market production as do most other peach-producing States. While the number of peach farms grew in California and South Carolina from 2007 to 2012, total acres in California declined by 22 percent, mostly reflecting tree removal of clingstone peaches in response to generally declining grower prices for canning peaches in the years between 2007 and 2012. Total acres increased only marginally in South Carolina while both farm numbers and acreage fell in Georgia.

Production sector growth was vast in smaller performing peach States, especially in Florida where the number of farms rose from 145 in 2007 to 345 in 2012 accompanied by acreage expansion from 234 acres in 2007 to 1,231 acres in 2012—more than a fivefold increase and the largest rate of growth among all producing States. New varieties more adaptable to Florida's tropical climate have been bred over the past years that require fewer chill hours to produce a strong crop as well as to ripen before summer, before Georgia and California peaches reach the market. This has opened high-price market opportunities for the State's peach industry, especially as major citrus diseases (citrus canker and citrus greening) have and continue to force more citrus acreage out of production, prompting Florida growers to find alternative crops as profitable replacements. Also worth noting are the new winter-hardy varieties that have been developed that withstand very cold winters, leading to increased plantings in Maine in recent years. Though still small in scale like Florida, the number of peach farms and acreage in Maine more than doubled from 2007 to 2012.

Plums and prunes were produced on about 9 percent of all U.S. farms growing noncitrus fruit crops in 2012, covering 88,122 acres, 4 percent of total noncitrus fruit acreage. Both the number of farms and production area for plums and prunes has continued to decline since 2002, mostly depicting the trend seen in California's production sector, which represents more than one-fourth of all U.S. farms producing plums and prunes and over 90 percent of total acreage. According to industry sources, California's steadily declining prune acreage may be attributed to the conversion of some prune-bearing acreage into higher valued tree crops such as almonds and walnuts.

There were 5 percent fewer farms growing sweet cherries in the United States in 2012 than in 2007 but total area in production rose 5 percent to 104,244 acres. Sixty percent of these 7,663 sweet cherry farms in 2012 were in Washington, California, Oregon, and Michigan, covering 96 percent of the 105,244 acres in sweet cherry production during 2012. Farm numbers and acreage declined in the top 4 States, except in California where total acreage rose 25 percent. Strong domestic and export demand for sweet cherries have led to high grower prices during the 2000s (except during the bumper crop years of 2009 and 2012), stimulating further expansion in production. California has the advantage of marketing sweet cherries before northern U.S. producers begin harvesting, thereby capturing the high-price timing advantage in the domestic and export markets, particularly exports to Japan. With the desire to capture more of that early market, cherry plantings in California have steadily increased in the past two decades, spreading production regions further south from the traditional growing areas in the San Joaquin and Santa Clara counties (American Society of Farm Managers and Rural Appraisers, 2012). With new varieties developed, earlier harvest dates are achievable from the warmer, drier climate in the southern San Joaquin Valley, specifically in the Fresno, Kings, and Kern counties.

The avocado production sector in the United States had 9 percent fewer farms and an 11-percent smaller acreage in 2012 from 2007. About 75 percent of these farms were in California, accounting for 81 percent of the Nation's total avocado acreage while most of the remaining farms and acreage were in Florida and Hawaii. Of these 3 States, farm numbers and acreage grew only in Florida from 2007 to 2012. In 2012, industry data indicated that abandoned acres in California since 2011 exceeded new/young acres, reducing the State's overall acres. This decline was partially prompted by urbanization and competition over limited water supply which has raised the cost to irrigate avocado orchards.

Minor Crops Grew the Most in Noncitrus Fruit Farm Numbers and Acreage

Noncitrus crops with the most significant increases in both farm numbers and acreage were pomegranates, dates, passion fruit, olives, and mangoes (table 2). Domestic production of these crops are relatively smaller in scale than most traditional U.S. fruit crops and largely concentrated in one (California for pomegranates, dates, and olives;

Florida for mangoes) or a few States (Florida, Hawaii, and California for passion fruit). Total acreage for guava grew the most (up 96 percent from 2007 to 2012) but contracted 18 percent in number of farms. Expansion in the production sectors of most these relatively minor crops has been spurred by the growing trend in health foods and the influence of a more ethnically-diverse U.S. consumer base.

Pomegranate and passion fruit have both been around for many years but their popularity grew over the last two decades, having been reintroduced to U.S. consumers as a super food. California's pomegranate production has increased more than sevenfold from 2007 to 2012, totaling 282,532 tons valued at \$115.4 million (County Agricultural Commissioners' Data, 2007 and 2012). Packed with nutritional benefits (high in antioxidants, potassium, and vitamin C) and a great source of fiber, pomegranate use extends beyond fresh fruit and juice (including juice blends) to include other freshly prepared products (such as salad garnish), tea, fruit and nut mixes, ingredients to various other food products (salad dressings, marinades, ice cream, chewing gum, and more), as well as nonfood products (University of Georgia Cooperative Extension, 2014). Passion fruit is widely used in juice form, although the growing popularity of tropical cuisines has increased the incorporation of this fruit in other food uses.

U.S. date fruit per capita use has seen a rebound in recent years to around the highs achieved in the mid- to late-1970s, drawing some benefits from national obesity awareness. Aside from the fruit's nutritional benefits, the sweet flavor of dates opened opportunities for the industry to promote the fruit as a natural alternative to sugar. The number of farms growing dates in California rose from 151 in 2007 to 169 in 2012 (up 6 percent), along with increased acreage from 6,315 acres to 7,257 acres (up 15 percent). Despite this growth, expansion in California has been limited by expanding vegetable acreage, urban encroachment, and water supply issues. Production expansion for dates appears to be moving more into Arizona, where the growth in farm numbers and total acreage have more than doubled from 2007 to 2012. While California remains the primary producer of dates, the State's share of all U.S. farms growing dates declined from 89 percent in 2007 to 79 percent in 2012 and correspondingly, total acreage share for the State fell 82 percent to 66 percent. Meanwhile, Arizona's share of all U.S. date farms grew from 10 percent to 17 percent from the 2007 census to the 2012 one, and from 18 percent to 34 percent of total U.S. acreage for dates.

California accounted for 93 percent of all U.S. farms with olive production and 97 percent of total olive acreage in 2012. Historically, California's olive production was destined mostly for canning; the State's olive oil industry existed mainly as a marketing option for olive producers during bumper crop years or when the harvested crop was of poor quality (Huntrods, AgMRC, 2013). In the 1990s and through 2007, the share of California olives for canning was nearly 90 percent of the State's total production, based on NASS annual production data. However, despite the United States remaining a minor olive oil producer on a global scale, increasing U.S. and global demand for olive oil, fueled in part by publicity surrounding its health benefits, has translated to rapidly increasing domestic olive oil production in recent years (U.S. International Trade Commission, 2013). Although olive farm numbers and acreage in California saw increases of just over 10 percent from 2007 to 2012, total crop use has shifted, closing the gap between output for canning (53 percent of total production in California in 2012) and for olive oil production (46 percent in 2012). Production crushed for oil has reached highs of over 70,000 short tons in recent years, up dramatically from over 6,000 short tons in the 1990s. Banking on the "locally grown" movement and the California brand, active marketing and promotion efforts led by the industry have also aided demand for California olive oil, even encouraging some foreign firms to invest in agricultural land in California to develop their own California product lines (U.S. International Trade Commission, 2013).

The U.S. Berry Sector Continues To Grow

There were more farms and acres in berry production in the United States in 2012 than in 2007. A total of 30,538 farms grew berries in 2012, up 22 percent from 2007. These farms had 11 percent more acres devoted to berries over the same period, for a total of 289,913 acres. Of these farms, the number of harvested farms increased significantly for most berries, except for cranberries (table 9). Correspondingly, harvested acres also rose for most berries from 2007 to 2012, except for wild blueberries and boysenberries.

Growing domestic and global demand for berries—spurred by healthy diet awareness, increased world supplies, and rising populations with higher per capita incomes—has influenced U.S. growers to increase new varietal plantings that extend typical marketing periods and/or thrive in other growing regions where previously no production existed, gaining market opportunities to fill these supply gaps.

Strawberry production has the largest annual volume among all the U.S. berry crops. Eighty-five percent of the 10,388 U.S. strawberry farms in 2012 harvested strawberries on 62,968 acres (table 10). Together, these farms produce, on average, an estimated 1.5 million tons of strawberries valued at over \$2.4 billion, next to grapes and apples in total noncitrus fruit crop value with a 16-percent share, based on annual NASS data. More than half of strawberry harvested acreage is in California and almost two-tenths in Florida. Both harvested-farm numbers and harvested acres increased in California and Florida while in Oregon, a 20-percent increase in harvested farms was met by an 11-percent decline in harvested acres. Harvested farms grew more rapidly in California than in Florida (up 23 percent versus up 15 percent from 2007 to 2012), but the increase in harvested acreage was more aggressive in Florida, up 74 percent versus a 14-percent increase in California. While harvested acreage reported in census has trended up over time, total planted acreage in California has declined in more recent years (California Strawberry Commission, 2015), mostly reflecting declining acreage in the Orange County/San Diego (southern region) growing district as agricultural land continues to face increased competition from urbanization. Some of the loss in strawberry acreage, however, is offset by acreage gains in the northern most growing districts, including additional planted acreage in the summer (for fall/winter harvests) that helps bring California strawberries closer to a year-round supply, and by the breeding of new varieties that tend to yield more and adapt to different growing climate.

Although strawberries still rank No. 1 in annual U.S. berry production, harvested acres for cultivated blueberries in 2012 continued to exceed those for strawberries as has been reported in 2007. Part of the expansion in blueberry acreage may be attributed to new entrants to the industry as the number of reported harvested cultivated-blueberry farms in 2012 grew 39 percent to 10,449 farms, 1,621 more than the number of harvested-strawberry farms. U.S. demand for blueberries has exploded in over the past decade, resulting in favorable grower prices that have encouraged significant supply adjustments from both domestic and import sources. Domestic production accounts for a majority of fresh blueberries consumed in the United States each year while imports fill in seasonal gaps. On a per capita basis, U.S. fresh-blueberry consumption has increased more than fourfold since 2000, now over 1.0 pound per person annually.

Table 9 --U.S. berry farms and acreage, 2002, 2007, and 2012

Commodity	Harvested farms			Percent	Harvested acres			Percent	Share of
	2002	2007	2012	change	2002	2007	2012	change	total acres
	--Number--			--Percent--	--Number--			--Percent--	2012
Blackberries ¹	3,565	4,471	5,580	24.8	10,210	10,728	10,586	-1.3	4.5
Blueberries, tame	6,428	7,516	10,449	39.0	52,002	60,353	81,953	35.8	34.5
Blueberries, wild	665	728	952	30.8	23,851	23,492	19,209	-18.2	8.1
Boysenberries	320	270	301	11.5	1,097	823	439	-46.7	0.2
Cranberries	1,099	1,088	965	-11.3	40,685	38,597	40,695	5.4	17.1
Currants	103	276	363	31.5	294	253	478	88.9	0.2
Loganberries	129	89	101	13.5	--	77	79	2.6	0.0
Raspberries	4,521	5,719	6,508	13.8	19,888	19,363	20,500	5.9	8.6
Strawberries	6,799	7,807	8,828	13.1	55,866	55,601	62,968	13.2	26.5
Other berries	353	691	760	10.0	--	503	916	82.1	0.4
Total ²	18,234	--	--	--	206,034	209,790	237,823	13.4	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, Census of Agriculture, various issues.

Table 10 --Number of farms and acreage for selected berries in the United States and top states, 2002, 2007, and 2012

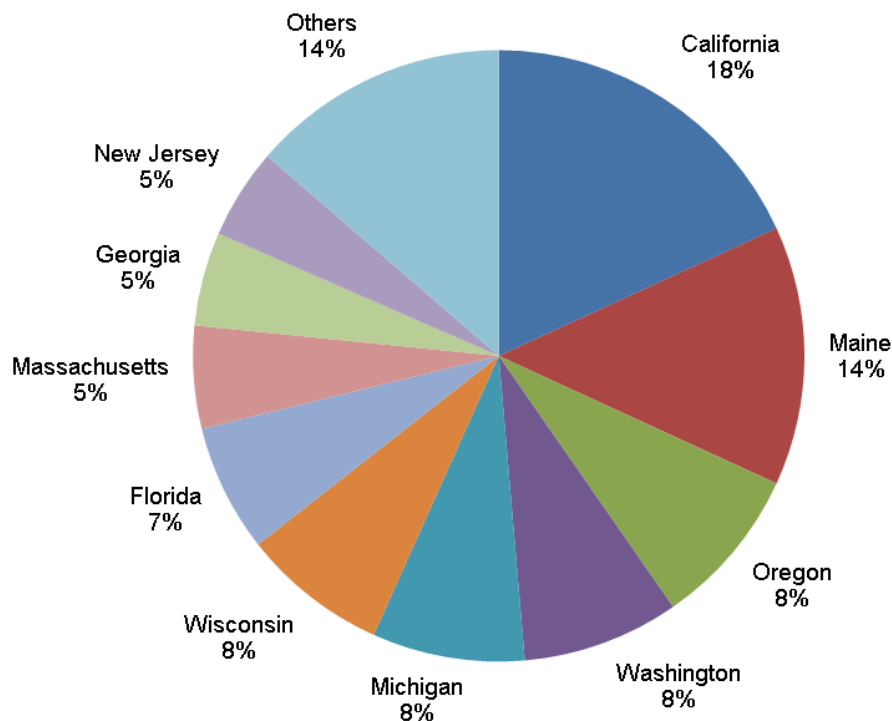
Commodity	Harvested farms			Percent	Share of	Harvested acres			Percent	Share of
	2002	2007	2012	change	total farms	2002	2007	2012	change	total acres
	--Number--			--Percent--		--Number--			--Percent--	
Strawberry:										
California	684	719	887	23.4	10.0	32,183	34,101	38,800	13.8	61.6
Florida	217	202	233	15.3	2.6	6,595	6,538	11,350	73.6	18.0
Oregon	328	285	342	20.0	3.9	3,013	1,960	1,742	-11.1	2.8
Top 3 States	1,229	1,206	1,462	21.2	16.6	41,791	42,599	51,892	21.8	82.4
Other States	5,570	6,601	7,366	11.6	83.4	14,075	13,002	11,076	-14.8	17.6
United States	6,799	7,807	8,828	13.1	100.0	55,866	55,601	62,968	13.2	100.0
Blueberry (cultivated):										
Michigan	590	758	591	-22.0	5.7	17,274	19,641	18,746	-4.6	22.9
Georgia	408	343	612	78.4	5.9	1,646	4,802	11,565	140.8	14.1
New Jersey	240	170	216	27.1	2.1	7,468	7,605	8,792	15.6	10.7
Oregon	659	713	767	7.6	7.3	3,887	5,185	8,484	63.6	10.4
Washington	289	475	639	34.5	6.1	2,569	3,926	7,758	97.6	9.5
Florida	343	442	825	86.7	7.9	1,646	2,376	6,179	160.1	7.5
North Carolina	267	297	711	139.4	6.8	5,009	5,323	5,747	8.0	7.0
California	97	186	324	74.2	3.1	827	2,232	4,187	87.6	5.1
Mississippi	249	317	361	13.9	3.5	1,289	2,209	2,050	-7.2	2.5
New York	351	407	552	35.6	5.3	842	1,097	1,194	8.8	1.5
Top 10 States	3,493	4,108	5,598	36.3	53.6	42,457	54,396	74,702	37.3	91.2
Other States	2,935	3,408	4,851	42.3	46.4	9,545	5,957	7,251	21.7	8.8
United States	6,428	7,516	10,449	39.0	100.0	52,002	60,353	81,953	35.8	100.0
Cranberry:										
Wisconsin	237	259	235	-9.3	24.4	17,494	17,752	19,377	9.2	47.6
Massachusetts	482	448	391	-12.7	40.5	14,707	12,521	13,058	4.3	32.1
New Jersey	41	39	28	-28.2	2.9	3,105	3,111	2,965	-4.7	7.3
Oregon	161	149	143	-4.0	14.8	2,958	2,766	2,822	2.0	6.9
Washington	131	123	106	-13.8	11.0	2,001	1,752	1,671	-4.6	4.1
Top 5 States	1,052	1,018	903	-11.3	93.6	40,265	37,902	39,893	5.3	98.0
Other States	47	70	62	-11.4	6.4	420	695	802	15.4	2.0
United States	1,099	1,088	965	-11.3	100.0	40,685	38,597	40,695	5.4	100.0

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

Next to blueberries and strawberries, harvested-cranberry area ranked third among berry crops in 2012, totaling 40,695 acres, 17 percent of total harvested acres. There were 1,040 farms growing cranberries in 2012, and of these farms, 92 percent harvested a crop that year. Harvested farm numbers for cranberries declined 11 percent from 2007 and 2012 but harvested acreage increased 17 percent, mostly reflecting increased acreage in Wisconsin, the largest cranberry-producing State. Expanded acreage has contributed to large inventories in recent years, resulting in declining U.S. cranberry grower prices and consequently forcing some growers out of business.

California leads in U.S. berry production with 18 percent of total berry acres in 2012 (fig. 5). Aside from dominating in U.S. strawberry production, California is also the largest producing State for raspberries and the seventh-largest for cultivated blueberries. Maine accounted for the second-largest share of total berry acres, with a 14-percent share, principally attributed to wild blueberry production, although the State also reports acreage for strawberries, raspberries, cranberries, and blackberries and dewberries. Completing the top 10 berry States are Oregon, Washington, Michigan, Wisconsin, Florida, Massachusetts, Georgia, and New Jersey, also major producers of blueberries and/or strawberries.

Figure 5
Top 10 U.S. berry-producing States share of total acres in 2012



Source: USDA, National Agricultural Statistics Service, Census of Agriculture, 2012.

Tree Nut Acreage Keeps Growing Nationwide

Acreage planted to tree nuts increased 14 percent in 2012 since the 2007 census to reach 2.11 million acres, and accounted for 41 percent of all orchard land in 2012. Acreage increased for all tree nut varieties except pecans, which lost about 7 percent of total acreage. Almonds account for about 18 percent of all orchard acreage in 2012 up from 15 percent in 2007, illustrating the strong growth in demand for almonds worldwide. California is the predominant global almond producer, with nearly 936,248 acres in 2012, a 19-percent increase since the last census, and 35 percent above 2002 levels. Small acres of production occur in Arizona, with increased acreage in 2012 but levels are miniscule when compared to California (table 11). The total number of farms growing almonds increased 5 percent from 2007 to 2012 and is up 9 percent since 2002.

California dominates tree nut production in the United States, with the most acres in almonds, pistachios, and walnuts. For pistachios, California accounted for 98 percent of total acres in 2012, with 228,248 acres, a 51-percent increase from 2007's 151,484 acres and a nearly twofold increase from 2002. Arizona's pistachio acres have more than doubled, almost rebounding to 2002 levels. Acreage declined in the other States producing pistachios, but the increases in California and Arizona negated those losses to increase total pistachio acreage by 51 percent from 2007 to 2012. California alone increased acreage 88 percent since 2002. Total farms increased 15 percent in 2012, with Arizona jumping up to 77 farms from 50 in 2007, but still below 2002's total of 109 farms. California continues to increase acres and farms dedicated to pistachios, with a 14-percent increase of farms accounting for 87 percent of total pistachio farms in the United States. Overall, pistachio farms increased 15 percent between the most recent census years.

English walnut acreage continues to climb, extending the trend of increased tree nut acreage in the United States, with a 24-percent growth since 2007. Acres declined between 2002 and 2007 but the most recent census has that growth returning and adding 13 percent more acres in 2012 than in 2002. California represents almost all walnut

Table 11 --Almond, macadamia nut, pistachio nut and walnut farms and acreage, 2002, 2007, and 2012

Commodity/ State	Total farms			Percent change 2007-12	Share of total farms 2012	Total acres			Percent change 2007-12	Share of total farms 2012
	2002	2007	2012			2002	2007	2012		
	--Number--			--Percent--		--Number--			--Percent--	
Almonds										
Arizona	32	16	29	81.3	0.4	9	6	326	5333.3	0.0
California	6,391	6,474	6,841	5.7	97.0	696,424	790,161	935,804	18.4	100.0
New Mexico	14	15	29	93.3	0.4	11	6	13	116.7	0.0
Texas	10	12	13	8.3	0.2	(D)	2	24	1100.0	0.0
Utah	12	30	17	-43.3	0.2	8	11	39	254.5	0.0
sub-total	6,459	6,547	6,929	5.8	98.3	696,452	790,186	936,206	18.5	100.0
Other States	23	153	123	-19.6	1.7	183	59	42	-28.8	0.0
United States	6,482	6,700	7,052	5.3	100.0	696,635	790,245	936,248	18.5	100.0
Hazelnuts										
Oregon	958	850	827	-2.7	56.7	33,151	33,661	37,097	10.2	97.4
Washington	106	160	115	-28.1	7.9	282	298	228	-23.5	0.6
sub-total	1,064	1,010	942	-6.7	64.6	33,433	33,959	37,325	9.9	98.0
Other States	167	547	516	-5.7	35.4	368	506	757	49.6	2.0
United States	1,231	1,557	1,458	-6.4	100.0	33,801	34,465	38,082	10.5	100.0
Macadamia nuts										
California	159	139	146	5.0	14.7	213	184	277	50.5	1.5
Hawaii	900	1,011	849	-16.0	85.3	18,469	17,628	18,006	2.1	98.5
United States	1,059	1,150	995	-13.5	100.0	18,682	17,811	18,283	2.7	100.0
Pistachio nuts										
Arizona	109	50	77	54.0	5.1	3,509	1,523	3,645	139.3	1.6
California	1,055	1,141	1,305	14.4	87.2	121,562	151,484	228,248	50.7	98.1
Nevada	8	19	16	-15.8	1.1	85	154	85	-44.8	0.0
New Mexico	126	70	76	8.6	5.1	1,350	767	513	-33.1	0.2
Texas	15	16	15	-6.3	1.0	32	127	114	-10.2	0.0
Utah	7	10	7	-30.0	0.5	31	49	48	-2.0	0.0
United States	1,320	1,306	1,496	14.5	100.0	126,569	154,103	232,653	51.0	100.0
Walnuts (English)										
California	6,293	5,712	5,712	0.0	85.8	289,742	264,517	329,112	24.4	99.1
Oregon	379	354	205	-42.1	3.1	1,948	1,460	1,031	-29.4	0.3
Michigan	19	84	47	-44.0	0.7	114	219	239	9.1	0.1
Washington	132	173	119	-31.2	1.8	197	173	221	27.7	0.1
Kansas	1	-	23	-	0.3	(D)	-	173	-	0.1
sub-total	6,824	6,323	6,106	-3.4	91.7	292,001	266,369	330,776	24.2	99.6
Other states	201	838	550	-34.4	8.3	690	1,382	1,269	-8.2	0.4
United States	7,025	7,161	6,656	-7.1	100.0	292,691	267,751	332,045	24.0	100.0

- = Not applicable.

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

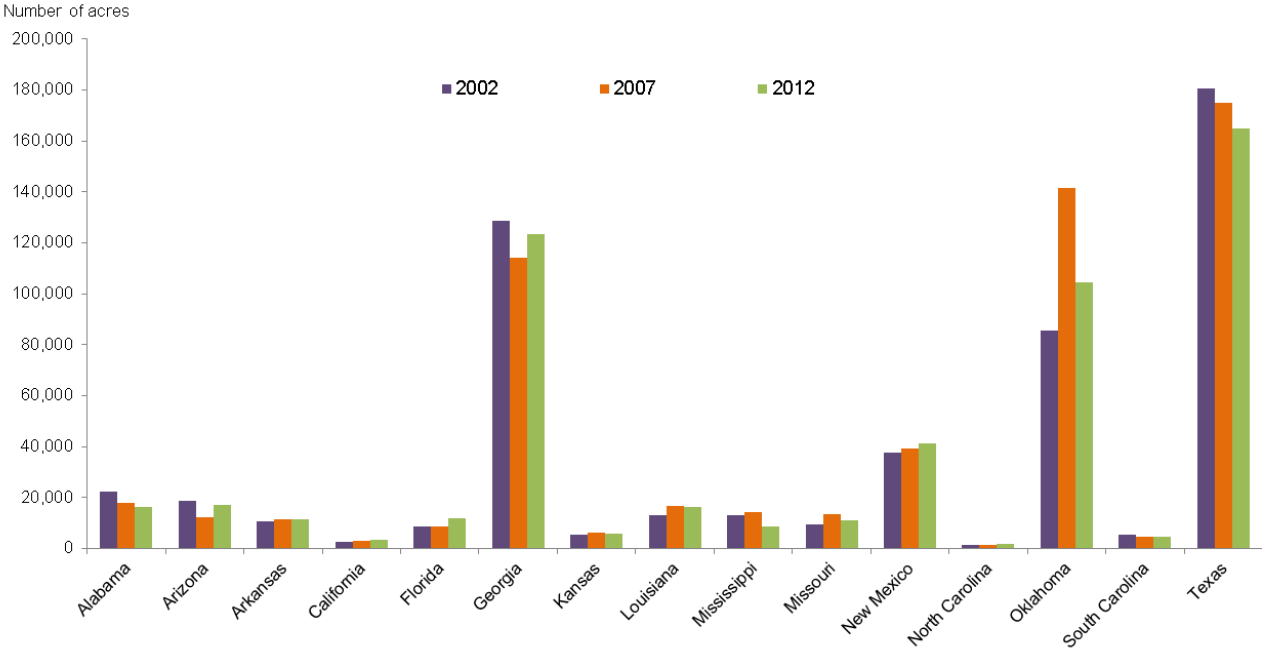
acres in the United States, with some acreage in Oregon. Oregon has experienced a 47-percent acreage loss since 2002. While acres have increased, total farms have declined, with losses in every State but California, which has remained stable since 2007, with 5,712 farms.

Pecans are grown across a larger geographic area than other tree nuts, with 39 States reporting some pecan acreage in 2012. Both total number of farms and acres dedicated to growing pecans have declined since 2007, 12 percent and 7 percent, respectively. The major pecan-producing States are Georgia, New Mexico and Texas. While both Georgia and Texas have witnessed a consolidation of pecan farms, New Mexico has seen a 19-percent increase in farms. Acreage in both Georgia and New Mexico gained ground, but in Texas, 6 percent of acres were lost between 2007 and 2012 and a 9-percent decline over the last decade (fig. 6). Some of the loss of Texas pecan acreage could be attributed to a few stints of drought, which stressed the trees and prompted removal of dead/damaged orchards. Even with some orchard removal, Texas accounts for the most pecan acreage, with 30 percent of the U.S. total. Though Georgia has added acreage since 2007, the State is still below the level of production seen in 2002.

Hazelnut acreage witnessed its first major gain in nearly 20 years, with almost an 11-percent jump from 2007 to 2012. Oregon, the main hazelnut-producing State, has spent many years combating the fungal disease Eastern Filbert

Blight, which has kept production constrained. The disease is native to the northeastern United States and, for native hazelnut trees, provides little effect on tree production and health. But the disease is quite deadly to the commercially produced European Hazelnut. Breeding programs have introduced several cultivars of blight-resistant trees that can grow well in Oregon conditions. This has helped increase hazelnut acreage and aided increased global demand for the nut. Since 1992, acreage has hovered in the low 30,000-acre range but by 2012, acreage was at 37,097 acres in Oregon, 15 percent above 1992 levels. As more blight-resistant trees begin to bear nuts, planting may increase in Oregon and Washington, adding larger production volumes of domestic hazelnuts.

Figure 6
Pecan acre by State, 2002, 2007, and 2012 ¹



¹ Only shows states with 1,000 or more acres in 2012
 Source: USDA, National Agricultural Statistics Service, Census of Agriculture, various years.

References

- American Society of Farm Managers and Rural Appraisers. 2012. *2012 Trends in Agricultural Land and Lease Values, California & Nevada*. http://www.calasfmra.com/db_trends/2012%20Trends.pdf
- California County Agricultural Commissioners Data., 2007. August 29, 2008. Prepared by USDA, National Agricultural Statistics Service, California Field Office in cooperation with the California Department of Food and Agriculture. http://www.nass.usda.gov/Statistics_by_State/California/Publications/AgComm/200708cavtb00.pdf
- California County Agricultural Commissioners' Reports Crop Year 2012-2013. March 4, 2015. Prepared by California Department of Food and Agriculture in cooperation with the USDA, National Agricultural Statistics Service, Pacific Regional Office. http://www.nass.usda.gov/Statistics_by_State/California/Publications/AgComm/2013croplearactb00.pdf
- California Strawberry Commission. 2015 Acreage Survey. <http://reports.calstrawberry.org/Reports/Acreage%20Survey/2015%20Acreage%20Survey.pdf>
- Huntrods, D. 2013. Olive Profile. Agricultural Marketing Resource Center (AgMRC). Iowa State University. http://www.agmrc.org/commodities__products/fruits/olive-profile/
- U.S. Department of Agriculture, Economic Research Service. 2014. Fruit and Tree Nuts Yearbook.
- U.S. Department of Agriculture, National Agricultural Statistics Service. Census of Agriculture. 1992, 1997, 2002, 2007, and 2012. <http://agcensus.usda.gov/Publications/>
- U.S. Department of Agriculture, National Agricultural Statistics Service. 2012 Census of Agriculture, Specialty Crop Supplement. February 2015.
- U.S. Department of Agriculture, National Agricultural Statistics Service. Non-citrus Fruit and Tree Nut Summary. Various Issues. <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1113>
- U.S. International Trade Commission. February 2010. Apples: Industry & Trade Summary. Office of Industries, Publication ITS-04.
- U.S. International Trade Commission. August 2013. Olive Oil: Conditions of Competition between U.S. and Major Foreign Supplier Industries. Investigation No. 332-537, USITC Publication 4419. <http://www.usitc.gov/publications/332/pub4419.pdf>
- University of Georgia, Cooperative Extension Service. January 2014. Pomegranate Production. Circular 997. http://extension.uga.edu/publications/files/pdf/C%20997_4.PDF