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# Fruit and Tree Nuts Outlook

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## Adverse Weather Cuts into Noncitrus Fruit Production

### Contents

[Price Outlook](#)

[Fruit and Tree](#)

[Nut Outlook](#)

[Trade Outlook](#)

[Commodity](#)

[Highlight:](#)

[Almonds](#)

[Special article:](#)

[U.S. Wine Sales](#)

[To China Sluggish](#)

[In Spite of Import](#)

[Growth](#)

[Contacts and Links](#)

### Selected Tables

[Grower prices](#)

[Retail prices](#)

[Production and](#)

[grower price:](#)

[Apples](#)

[Pears](#)

[Grapes](#)

[Cranberries](#)

[Sweet cherries](#)

[Tart cherries](#)

[Fruit exports](#)

[Fruit imports](#)

### Topic Page

[Fruit & Tree Nuts](#)

The next release is  
December 18, 2012.

Approved by the  
World Agricultural  
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**Beginning in 2012**, *Fruit and Tree Nuts Outlook* will consist of four issues released in March, June, September, and December. Market analysis and data coverage for melons is now included in *Fruit and Tree Nuts Outlook* and *Fruit and Tree Nuts Yearbook*. Market analysis of melons prior to 2012 can be found in historical *Vegetable and Melon Outlook* reports.

In August, USDA's National Agricultural Statistics Service (NASS) initial forecast for the 2012 U.S. apple crop was 8.1 billion pounds, down 14 percent from a year ago and the smallest in over two decades. Multiple spring freezes significantly reduced crops across the central and eastern U.S. apple-growing regions while a fairly normal growing season encouraged reasonable-sized crops in the western region. Although shipments are up thus far, anticipated production shortages in the central and eastern regions are boosting demand for western U.S. apples, resulting in strong early-season apple grower prices.

The 2012 U.S. pear crop was forecast by NASS in August at 1.76 billion pounds, down 8 percent from a year ago. Replenishing energy from last year's large crop and unfavorable weather this growing season was behind this decline. Among the top three producing States, production is forecast to decline in Washington and California but to increase slightly in Oregon. With the fresh-market share of total utilized production remaining at over 60 percent in recent years, ERS projects U.S. fresh pear production in 2012/13 to be down 11 percent from 2011/12. This decline should elevate 2012/13 fresh pear grower prices, especially as competing U.S. fresh-apple supplies are also anticipated to be down.

Back in August, NASS forecast the 2012 U.S. grape crop at 14.6 billion pounds, down 1 percent from a year ago. While deep production cuts are expected in many States, forecast steady production in California and a significant boost in Washington will temper the overall decline. A forecast 9-percent bigger wine-grape crop in California should offset forecast declines in the States' table- and raisin-grape crops. California's crop matured ahead of last year's delayed crop and this is being reflected in higher shipments thus far. As a result, fresh grape grower prices declined below a year ago in August.

NASS forecasts the 2012 U.S. tart cherry crop to be only 73.1 million pounds, down 68 percent from a year ago. This huge decline, combined with low carryover stocks, should lead to tight overall supplies of frozen tart cherries, raising tart cherry grower prices to near or at record-setting levels.

## Price Outlook

### *Fruit and Nut Grower Prices Drop Below Year-Ago Levels in August*

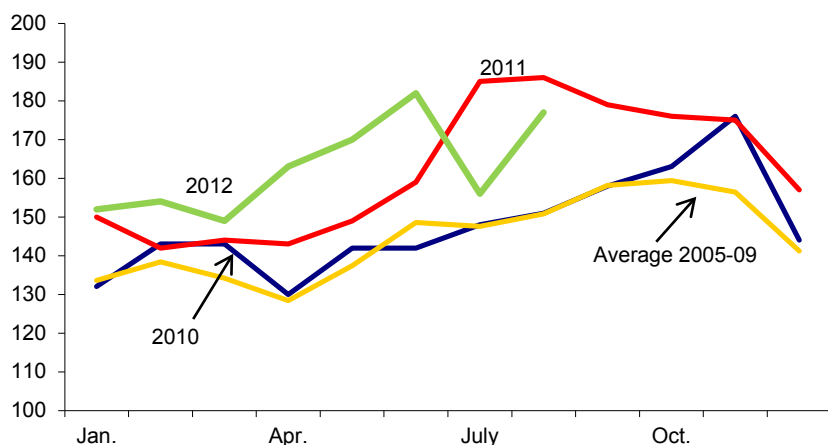
The index of prices received by fruit and tree nut growers in August remained below year-ago levels for a second consecutive month this year (fig. 1). At 177 (1990-92=100), the index reported in August dropped 9 percent from the August 2011 index but declined at a slower pace than in the previous month. Grower price declines for fresh lemons, oranges, grapes, and pears in August more than offset the increases for fresh grapefruit, apples, peaches, and strawberries, pulling down this year's August index (table 1).

The biggest declines in August prices were in lemon and grape prices. Despite anticipated reduced grape and pear production in the United States this year, early-season supplies, particularly in California, are running ahead of last year's volumes due to an earlier harvest compared with delays last year. A warmer than normal spring this year led to premature crop growth, while last year's crop progress was slowed by a cold, wet spring. Ample supplies of imported lemons and heat-related quality issues with late-summer California Valencia oranges has dampened grower prices for these fruit in August while production declines are keeping apple, peach, and strawberry prices above year-ago levels this summer.

Good growing conditions this spring have increased navel orange fruit set in California. Based on results of an objective measurement survey conducted in July and August, the NASS California Field Office forecast the California navel crop in 2012 up 6 percent from a year ago. Although fruit size is expected to be smaller due to the bigger crop, overall quality should be good due to lack of adverse weather conditions this growing season. Increased supplies and reduced fruit size will likely keep fresh orange grower prices below those of a year ago this fall.

Although Mexican grape supplies in the United States were winding down in July and August for the 2012/13 season, higher volumes than a year ago late in the season placed additional downward pressure on U.S. fresh-grape prices this summer

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



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

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

Commodity	2011		2012		2011-12 change	
	July	August	July	August	July	August
	-----Dollars per box-----				Percent	
Citrus fruit: 1/						
Grapefruit, all	8.20	7.10	13.23	10.33	61.3	45.5
Grapefruit, fresh	8.20	7.10	13.23	10.33	61.3	45.5
Lemons, all	16.16	21.99	15.97	11.89	-1.2	-45.9
Lemons, fresh	22.43	25.09	20.59	19.15	-8.2	-23.7
Oranges, all	7.74	7.53	9.85	7.81	27.3	3.7
Oranges, fresh	9.85	10.95	11.03	10.23	12.0	-6.6
	-----Dollars per pound-----					
Noncitrus fruit:						
Apples, fresh 2/	0.358	0.458	0.419	0.529	17.0	15.5
Grapes, fresh 2/	--	0.480	--	0.390	--	-18.8
Peaches, fresh 2/	0.316	0.352	0.375	0.369	18.5	4.8
Pears, fresh 2/	0.261	0.288	0.310	0.264	18.8	-8.5
Strawberries, fresh	0.892	0.788	0.740	0.850	-17.0	7.9

-- 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 2011 Summary*.

to date. Harvesting of California grapes is currently in full swing. Shipments in the coming weeks relative to a year ago will more likely reflect the forecast smaller crop, and with great quality, will likely boost 2012/13 grower fresh grape prices. Fresh pear grower prices are also likely to turn around as reduced supplies in the Northwest become more apparent and competing apple prices are likely to be pressured higher by the forecast smaller apple harvest this year.

### ***Fresh Fruit Retail Prices Remain Strong***

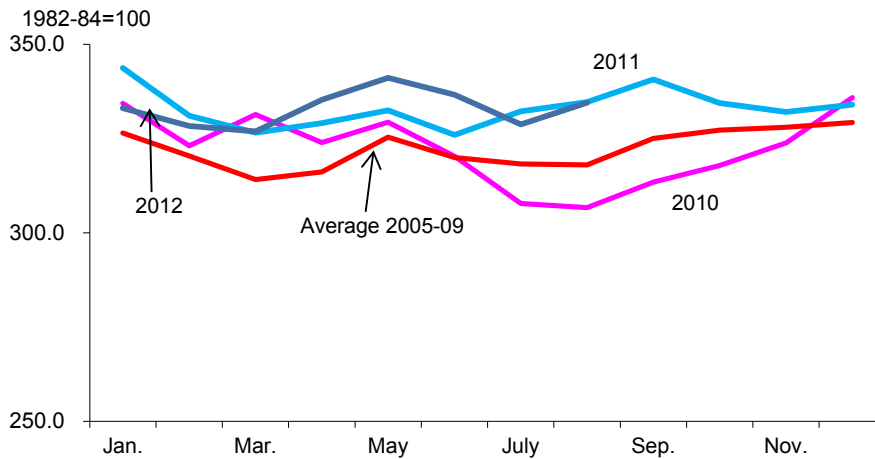
According to data from the U.S. Department of Labor, Bureau of Labor Statistics (BLS), the U.S. consumer price index (CPI) for fresh fruit in August 2012 was 334.6 (1982-84=100), unchanged from the same period a year ago and keeping the record as second highest for the month over the last 20 years (fig. 2). Gains in fresh citrus retail prices in August from a year ago were balanced out by declines in major noncitrus fruits (table 2). Specifically, retail prices were down for Red Delicious apples, bananas, strawberries, and Thompson seedless grapes. Grapefruit prices led the gains in August, increasing 17 percent from the same time last year, accompanied by slight to moderate gains in Valencia orange and lemon prices.

Although retail prices were down for Red Delicious apples, consumer prices for apples in general remained strong in August. BLS reported the CPI for apples at 371.9 (1982-84=100), up from 354.1 the previous month and from 337.7 in August 2010. Weakening of grape prices in August may be attributed to overall increased supplies thus far compared with last season due to the early harvest in California and the bigger volumes of imported Mexican grapes that have penetrated the market this season. Banana retail prices have declined from year-ago levels every month this year since February due partly to higher imports through most of the first 7 months of 2012 compared with a year ago. Seasonally declining supplies helped strengthen strawberry retail prices in August from earlier this summer. However,

after supplies had fallen below year-ago levels in June and July, a turnaround in August helped retailers with strawberry promotions during the month, indicated by the month's 5-percent lower average price compared with last year.

As summer ends, consumers are likely to see higher prices for apples and pears this fall compared with last year as retailers face tighter supplies due to reduced domestic production. The California navel orange crop, however, is forecast 6 percent larger than last season, increasing promotable supplies available for retailers this fall, likely driving down fresh orange prices.

Figure 2  
Consumer Price Index for fresh fruit



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, 2011-12

Commodity	Unit	2011		2012		2011-12 change	
		July	August	July	August	July	August
		--- Dollars ---		--- Dollars ---		--- Percent ---	
<b>Fresh:</b>							
Valencia oranges	Pound	--	--	--	--	--	--
Navel oranges	Pound	1.078	1.268	1.127	1.283	4.5	1.2
Grapefruit	Pound	1.060	1.080	1.192	1.261	12.5	16.8
Lemons	Pound	1.554	1.626	1.622	1.678	4.4	3.2
Red Delicious apples	Pound	1.374	1.529	1.435	1.504	4.4	-1.6
Bananas	Pound	0.611	0.606	0.604	0.595	-1.1	-1.8
Peaches	Pound	1.578	1.569	1.633	1.599	3.5	1.9
Anjou pears	Pound	1.389	--	--	--	--	--
Strawberries 1/	12-oz. pint	1.618	1.794	1.594	1.709	-1.5	-4.7
Thompson seedless grapes	Pound	2.452	2.033	2.268	1.961	-7.5	-3.5
<b>Processed:</b>							
Orange juice, concentrate 2/	16-fl. oz.	2.734	2.730	2.643	2.625	-3.3	-3.8
Wine	liter	8.742	11.691	9.014	11.764	3.1	0.6

-- 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>.

### *Adverse Weather To Blame for Smaller U.S. Apple Crop in 2012*

In August, USDA's NASS initial forecast for the 2012 U.S. apple crop was pinned at 8.1 billion pounds, down 14 percent from a year ago (table 3). If realized, this would be the smallest crop produced by the U.S. apple industry in over two decades. On top of other weather problems experienced this growing season, multiple spring freezes were mostly to blame for significantly smaller crops produced across the central and eastern U.S. apple-growing regions. In the western region, a relatively normal growing season encouraged reasonable-sized crops. Despite the occurrence of a late spring hailstorm, the region's largest producer—Washington—is forecast to produce 5.7 billion pounds, up 5 percent from a year ago and 6 percent above the previous 5-year average. Given these initial NASS forecasts, total production in the western region should reach 6.2 billion pounds in 2012, up 6 percent from a year ago, with most other States in the region also achieving production gains. At the same time, production in the eastern region is forecast at 1.6 billion pounds, down 31 percent from a year ago, and in the central region, a more substantial decline, with production forecast at only 252 million pounds, down 79 percent. Together, the production shortages in these two regions will more than offset production gains in the west, resulting in an overall smaller U.S. apple crop this year.

Unusually mild temperatures early this spring promoted premature bud growth which increased their susceptibility to frost damage from the spring freezes that later followed. A very hot summer, coupled with drought conditions, also contributed to lower fruit yields. Across the central States, Missouri's crop was the only one spared this year, with production forecast to be more than double the size of last year's crop. All the rest have production down markedly in 2012, including the lead production State in the region—Michigan—with only 105 million pounds, down 89 percent from a year ago and the smallest crop since the 1980s. In the eastern region, production declines ranged from 3 percent to 71 percent, except in Maryland, Pennsylvania, Virginia, and West Virginia where crop size is forecast to increase. Production in the region's largest producer—New York—is forecast at only 590 million pounds, down 52 percent from a year ago and the lowest over the past three decades.

The smaller than average crop this year will limit production for fresh and processing use for the marketing year 2012/13 (August-July), most especially in the regions where production is anticipated to be down substantially. Based on 2012/13 forecast growth rates from the U.S. Apple Association on apple production shares designated for fresh and processing uses, ERS projects about 5.8 billion pounds of the 2012 U.S. utilized apple crop (between 1 to 2 percent of total production is not marketed) will be going to the fresh market, down 8 percent from a year ago and the smallest since 2003's 5.4 billion pounds (fig. 3). Although Washington contributes over 70 percent of all U.S. apples for fresh use, sharp production declines in the central and eastern United States will likely drive down the overall fresh-market crop in 2012/13. Moreover, because most central and eastern apple States market a larger proportion of their crop to the processing sector, total processing-use apples in 2012/13 is projected to be reduced by a bigger magnitude than in the fresh market—down 26 percent from a year ago to 2.2 billion pounds—a record low since the 1970s.

Table 3--Apples: Total production and season-average price received by growers, 2009-11, and indicated 2012 production 1/

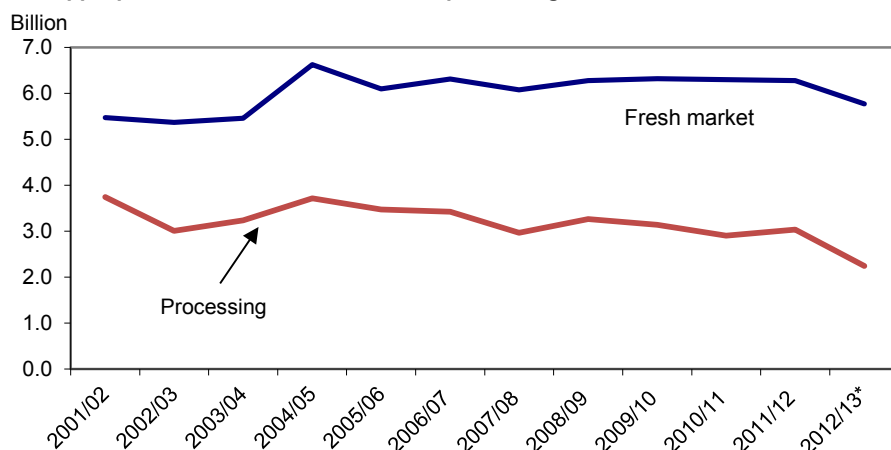
States	Production				Price		
	2009	2010	2011	2012	2009	2010	2011
	----- Million pounds -----				---- Cents per pound ----		
Eastern States:							
Connecticut	20	23	22	18	51.7	53.9	53.9
Georgia	2/	2/	2/	2/	2/	2/	2/
Maine	34	31	29	24	42.6	46.1	47.4
Maryland	47	43	40	41	15.4	18.2	25.9
Massachusetts	44	37	39	31	46.1	57.0	60.3
New Hampshire	30	21	18	17	45.1	46.3	50.5
New Jersey	43	43	36	35	49.9	48.0	67.2
New York	1,370	1,270	1,220	590	15.5	17.9	20.8
North Carolina	120	136	140	40	16.9	18.5	19.2
Pennsylvania	510	492	458	481	13.9	15.8	18.2
Rhode Island	2	3	3	2	61.0	82.0	79.3
South Carolina	2/	2/	2/	2/	2/	2/	2/
Vermont	40	35	34	24	23.7	30.9	30.4
Virginia	245	200	220	230	13.5	15.4	18.2
West Virginia	82	64	67	70	13.8	14.4	17.5
Total	2,586	2,397	2,325	1,602			
Central States:							
Illinois	46	52	40	26	51.8	61.7	57.5
Indiana	30	26	20	6	30.0	40.3	39.8
Iowa	5	4	4	1	66.2	71.9	66.3
Kentucky	2/	2/	2/	2/	2/	2/	2/
Michigan	1,150	570	985	105	13.1	18.1	19.9
Minnesota	23	19	24	14	59.1	79.6	81.4
Missouri	19	33	15	34	26.6	30.1	31.3
Ohio	116	83	67	40	35.2	38.3	36.7
Tennessee	8	8	9	8	32.7	30.5	27.9
Wisconsin	44	37	51	20	41.1	51.6	48.5
Total	1,440	832	1,214	252			
Western States:							
Arizona	6	17	11	14	23.7	17.9	24.1
California	265	280	280	280	23.5	20.7	21.5
Colorado	16	14	9	17	25.8	21.6	29.3
Idaho	45	60	60	70	21.8	23.2	23.9
Oregon	130	120	93	115	19.7	22.4	22.1
Utah	18	12	19	16	29.6	25.0	22.2
Washington	5,200	5,550	5,410	5,700	27.2	27.8	33.8
Total	5,680	6,053	5,882	6,212			
United States	9,705	8,282	9,420	8,066	23.1	25.2	29.2

1/ Commercial production from orchards of at least 100 bearing-age trees.

2/ Estimates discontinued in 2009.

Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts 2011 Summary and Crop Production* (August 2012 issue).

Figure 3  
**U.S. apple production for fresh market and processing**



\* 2012/13 production are projected by the USDA, Economic Research Service.  
 Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts Summary*, various issues.

Apple harvesting for the 2012/13 season is already in progress for earlier varieties, with USDA's Agricultural Marketing Service (AMS) data showing apple shipments through late August, up 31 percent from the same period in 2011/12. Washington and California apples make up most of the shipments to date, partly explaining the increase in shipments. Although shipments are up thus far, anticipated production shortages, particularly in the central and eastern regions, are boosting demand for western U.S. apples, resulting in strong early-season apple grower prices. The August NASS *Agricultural Prices* report show U.S. fresh apple grower prices at an average \$0.529 per pound in August, increasing from \$0.419 the previous month and \$0.458 in August 2011. Historically, it is the second highest August price dating back to 1985, only short of a few cents from the August 2009 price of \$0.537. NASS also reported August prices in Washington at \$0.490 per pound, up from \$0.422 the same time last year and in California, \$0.756 per pound, from \$0.634. Overall, fresh apple grower prices are likely to remain strong this season as a result of below average production. Less market competition, resulting from a smaller U.S. pear crop this year, will also help boost 2012/13 apple grower prices.

The higher early-season fresh-apple grower prices have not translated yet to higher prices at the retail level for some apple varieties. BLS price data for Red Delicious apples—still the most prominent variety produced in the country—report an average retail price of \$1.504 per pound in August 2012, down from \$1.529 per pound the same time last year. From AMS *Market News*, U.S. advertised retail prices for Red Delicious apples and gala apples averaged below a year ago in August and through early September, while prices for Fuji and Honeycrisp apples averaged higher for both months (price data comparison during these two months only available for September for Honeycrisp).

A projected smaller than average fresh-market apple crop this year will likely result in reduced fresh-apple domestic consumption in 2012/13 (table 4). This would mean that domestic fresh-apple per capita use this season could slip below the 15.3 pounds estimated in 2011/12 which was comparable to the 2010/11 estimate but was below the average of the past three decades. In 2011/12, with the fresh-market

Table 4 --Fresh apples: Supply and utilization, 1990/91 to date

Season 1/	Supply			Utilization		
	Utilized production	Imports	Total supply	Exports	Consumption	
					Total	Per capita
			-- Million pounds --			Pounds
1990/91	5,515.0	229.7	5,744.7	818.0	4,926.7	19.58
1991/92	5,447.0	303.0	5,750.0	1,132.0	4,618.0	18.11
1992/93	5,767.0	259.4	6,026.4	1,082.2	4,944.2	19.14
1993/94	6,124.6	238.9	6,363.5	1,390.6	4,972.9	19.01
1994/95	6,368.8	286.9	6,655.7	1,526.7	5,129.0	19.37
1995/96	5,840.2	383.4	6,223.6	1,217.2	5,006.4	18.69
1996/97	6,206.9	373.3	6,580.2	1,518.3	5,061.9	18.67
1997/98	5,814.5	356.4	6,170.9	1,209.1	4,961.8	18.09
1998/99	6,412.5	344.2	6,756.7	1,487.8	5,268.9	18.98
1999/2000	5,995.7	377.5	6,373.2	1,175.2	5,198.1	18.50
2000/01	6,265.5	358.9	6,624.4	1,667.1	4,957.3	17.46
2001/02	5,467.5	361.4	5,828.9	1,353.1	4,475.8	15.61
2002/03	5,366.0	412.4	5,778.4	1,144.9	4,633.5	16.01
2003/04	5,453.3	472.7	5,926.0	986.3	4,939.7	16.91
2004/05	6,619.0	262.8	6,881.8	1,339.0	5,542.8	18.81
2005/06	6,096.9	348.8	6,445.7	1,488.4	4,957.3	16.67
2006/07	6,308.5	427.9	6,736.4	1,407.3	5,329.1	17.74
2007/08	6,077.3	381.2	6,458.5	1,484.1	4,974.4	16.41
2008/09	6,273.9	363.8	6,637.7	1,767.6	4,870.1	15.92
2009/10	6,313.9	401.8	6,715.7	1,696.0	5,019.7	16.25
2010/11	6,296.8	328.7	6,625.5	1,821.6	4,803.9	15.45
2011/12	6,277.1	381.1	6,658.2	1,853.8	4,804.4	15.31
2012/13*	5,768.9	371.3	6,140.2	1,724.6	4,415.6	13.95

\* Projected. 1/ Season begins in August.

Source: USDA, Economic Research Service calculations.

crop relatively flat from the previous season, and exports up 2 percent to a record 1.85 billion pounds, domestic fresh apple use stayed unchanged as imports grew over 15 percent. In terms of value, exports were also at an all-time high last season, amounting to \$996.9 million. Increased export volume to Mexico, partly aided by the termination of the import tariff related to the U.S.-Mexico trucking dispute, countered the declines to Canada, along with strong exports to India. Exports in 2012/13 will likely fall behind this record volume, as there would be a bigger demand for Washington apples to fulfill domestic demand, particularly in portions of the country with apple production shortages. Though the domestic market would have a greater need to import fresh apples this season, weather-reduced crops in Canada and Chile, both major suppliers of fresh apples to the United States, will likely limit imports.

At the same time also contributing to strong fresh-apple grower prices, the projected significant decline in processing-use apples will likely result in higher processed-apple grower prices in 2012/13. Prices are likely to be strong across all processed-apple product categories (juice and cider, canned, frozen, dried, fresh-sliced, and other) as this season's production for use in each of the processed product categories are projected to decline substantially. Biggest declines so far are for fresh sliced apples and frozen apples, down over 30 percent each, followed by canned, juice, and other (which include vinegar, wine, and slices for pie making) with declines ranging from 24 to 26 percent, and dried apples down 13 percent.

Even though U.S. juice-apple production rose slightly during the 2011/12 season from the previous, production was relatively below average, partly contributing to higher grower prices for juice apples. World apple juice concentrate supplies were hampered last season by reduced production and inventories from China. This translated back to increased demand for U.S. juice apples from domestic processors, boosting average grower prices for U.S. juice apples in 2011/12. U.S. juice apple grower prices increased from \$149 per ton in 2010/11 to \$196 per ton in 2011/12,



the highest reported season-average price since the 1980s. As a net importer of apple juice, primarily from China, U.S. apple juice imports (mostly in concentrate form) decreased to a 5-year low of 446.6 million gallons single-strength equivalent (sse) in 2011/12, down 24 percent from the previous season. Imports from China alone declined 27 percent. Imports were up from Argentina and Poland, but were down significantly from most of the United States' other major suppliers like Chile, Brazil, Canada, Mexico, and Turkey.

U.S. apple juice exports totaled 9.3 million gallons sse in 2011/12, up 3 percent from 2010/11. In value terms, these exports amounted to \$ 37.5 million, up from \$33.1 million in 2010/11. Reduced shipments to leading export markets—Canada, and Japan—were compensated by increases to most other markets, including South Korea, Mexico, and Taiwan. Though indications point to smaller crops in Canada and Europe, projections of decreased U.S. apple juice production will likely dampen export prospects for the industry in 2012/13.

### ***Smaller Pear Crop To Boost Fresh Pear Prices***

The 2012 U.S. pear crop was forecast by NASS in August at 1.76 billion pounds, 8 percent smaller than a year ago (table 5). Replenishing energy from last year's large crop and unfavorable weather this growing season was behind this decline. Yields for D'Anjou and Bosc varieties in Washington, for instance, were negatively affected by poor weather during pollination while some producers also reported reduced production due to late-spring hail, wind damage, and fire blight problems.

Among the top three producing States, production is forecast down 8 percent in Washington and down 13 percent in California, but up 3 percent in Oregon. While most of the Nation's pear-growing States are expecting production to decline this year, Oregon is expecting Bartlett tonnage to increase 23 percent. Tonnage for Oregon's non-Bartlett varieties is expected to decline only slightly, leaving a net gain from 2011. In Washington and California, the Bartlett and non-Bartlett crops are both expected to be smaller. The combined forecast for the 3-State Bartlett pear crop was set at 816 million pounds, down 5 percent from a year ago, and the 3-State non-Bartlett crop at 930 million pounds, down 8 percent. Among minor producing States, sharply reduced production in New York due to spring freezes and the hot and dry summer also contributed to the smaller overall non-Bartlett crop. Although the NASS production estimate for Michigan will not be available until January 2013, knowing that the State's pear crop also suffered the same adverse weather conditions this growing season point to marked declines in production.

With the fresh-market share of total utilized production remaining at over 60 percent in recent years, ERS projects U.S. fresh pear production at 1.15 billion pounds for the 2012/13 marketing season (July-June), down 11 percent from 2011/12 but fairly steady from the previous 5-year average (table 6). The projected fresh production is in line with NASS's forecast smaller non-Bartlett pear crop—the varieties that make up nearly 70 percent of all U.S. pears for fresh use. The forecast smaller Bartlett crop also bears influence as more than one-third of domestic Bartlett production, on average (based on 2009/10-2011/12 production), is destined for the fresh market. The projected reduced fresh-use production is expected to elevate domestic fresh pear prices in 2012/13, especially as competing U.S. fresh apples are also anticipated to be down.

Table 5--Pears: Total production and season-average price received by growers, 2009-11 and indicated 2012 production

State	Production 1/				Price		
	2009	2010	2011	2012	2009	2010	2011
	--- Million pounds ---				--- Cents per pound ---		
Pacific Coast:							
California:							
Bartlett	400	340	390	340	17.6	19.0	15.6
Other	110	100	114	100	21.1	31.3	32.6
Total	510	440	504	440	18.3	21.8	19.4
Oregon:							
Bartlett	132	94	94	116	22.0	23.2	20.0
Other	326	290	360	350	19.9	25.6	16.3
Total	458	384	454	466	20.5	25.0	17.1
Washington:							
Bartlett	372	336	376	360	15.5	18.4	18.1
Other	532	444	538	480	18.9	28.4	22.1
Total	904	780	914	840	17.5	24.1	20.4
Three States:							
Bartlett	904	770	860	816	17.4	19.2	17.2
Other	968	834	1,012	930	19.5	27.7	21.2
Total	1,872	1,604	1,872	1,746			
Michigan							
	8	2	9	2/	17.2	17.4	13.8
New York							
	22	17	24	5	24.5	30.1	30.0
Pennsylvania							
	12	5	4	6	35.6	55.0	49.8
Total	42	23	37	11			
United States							
Bartlett	904	770	860	816	17.4	19.2	17.2
Other	1,010	857	1,049	941	19.5	27.7	21.2
Total	1,914	1,627	1,909	1,757	18.6	23.8	19.5

1/ Includes unharvested production and production not sold.

2/ First production estimate will be published in January 2013.

Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts 2011 Summary and Crop Production* (August 2012 issue).

Both reduced production and higher prices will likely translate to a decline in domestic fresh pear use and limit the prospects for continued strong exports in 2012/13. If U.S. fresh pear imports in 2012/13 increase by 20 percent from the 2011/12 volume, overall domestic supplies will still be down 8 percent from the last season's bumper supplies, but consistent with the previous 5-year average. Should the export market continue to absorb about one-third of the season's fresh domestic production as has been the case during the past several years, U.S. fresh pear exports could reach 360 million pounds in 2012/13, down 14 percent from the record volume in 2011/12.

Fresh pear volume imported in the United States in 2011/12 declined 20 percent from the previous season, with volume from most trade partners posting declines. These included significant declines from leading U.S. sources overseas—Argentina (down 25 percent) and Chile (down 21 percent). Aside from the big harvest in the United States in 2011/12, production declines and weather-related fruit quality issues dampened fresh pear exports from both leading sources, driving down U.S. imports last season. Meanwhile, abundant supplies and lower prices in the domestic market supported a strong export season for U.S. fresh pears in 2011/12. Exports reached record levels for volume (420 million pounds) and value (\$191 million). Export volumes increased to most markets, including to top market—Mexico—where U.S. shipments took a 55-percent gain, aided in part by the elimination of the import tariff related to the U.S.-Mexico trucking dispute. Strong export gains were

Table 6--Fresh pears: Supply and utilization, 1990/91 to date

Season 1/	Supply			Utilization		
	Utilized production	Imports	Total supply	Exports	Consumption	
					Total	Per capita
-- Million pounds --						
1990/91	931.2	101.0	1,032.2	222.4	809.7	3.22
1991/92	924.0	130.5	1,054.5	252.9	801.6	3.14
1992/93	884.4	142.8	1,027.2	221.3	805.9	3.12
1993/94	1,014.8	144.4	1,159.2	282.9	876.3	3.35
1994/95	1,102.0	105.9	1,207.9	297.1	910.8	3.44
1995/96	1,088.5	126.4	1,214.9	316.0	899.0	3.36
1996/97	919.1	171.9	1,091.0	263.4	827.6	3.05
1997/98	1,144.6	149.0	1,293.6	363.2	930.4	3.39
1998/99	1,067.6	190.5	1,258.1	305.2	952.9	3.43
1999/2000	1,130.0	199.0	1,328.9	336.8	992.1	3.53
2000/01	1,146.5	187.6	1,334.1	370.2	963.9	3.40
2001/02	1,136.6	175.8	1,312.4	380.3	932.1	3.25
2002/03	1,048.9	190.3	1,239.2	352.6	886.6	3.06
2003/04	1,119.9	147.1	1,267.0	367.1	899.8	3.08
2004/05	1,028.5	168.6	1,197.1	325.4	871.7	2.96
2005/06	1,008.8	184.6	1,193.4	326.5	866.9	2.91
2006/07	1,001.4	236.9	1,238.3	280.2	958.1	3.19
2007/08	1,103.9	189.2	1,293.2	356.2	937.0	3.09
2008/09	1,097.9	185.0	1,282.8	331.0	951.8	3.11
2009/10	1,207.6	138.3	1,345.9	361.7	984.2	3.19
2010/11	1,062.9	173.6	1,236.4	332.6	903.8	2.91
2011/12	1,285.4	138.8	1,424.2	420.0	1,004.2	3.20
2012/13*	1,146.2	169.0	1,315.2	360.3	954.9	3.02

\* Projected. 1/ Season begins in August.

Source: USDA, Economic Research Service calculations.

also achieved to many key markets in Asia and South and Central America, while shipment volumes were relatively unchanged to Canada, the second largest destination, and down to Russia, where exports have shown remarkable growth in recent years.

The Bartlett harvest in California had already started in the Sacramento Valley as of mid-July, ahead of last year's delayed start. Harvesting in the Lake and Mendocino regions was expected to commence in late August. Despite the overall smaller domestic crop, AMS reports overall U.S. fresh pear shipment volume through late August running 15 percent above the same period last year, reflecting the earlier harvest in California. Over 95 percent of total season-to-date shipments were California pears. U.S. fresh pear grower prices in 2012/13 started out strong, with the July average price at \$0.31 per pound (or \$620 per ton), up from \$0.28 in July 2010 and from the previous 5-year July average of \$0.29. As overall shipments in 2012/13 overtook last season's through late August, grower prices in August fell to an average \$0.26 per pound (or \$527 per ton), 8 percent below the August 2011 price, but still slightly higher than the 5-year average for the month.

Price movements were almost similar at the retail level so far this season. Based on AMS data, advertised retail prices for Bartlett pears in the United States in July 2012 averaged \$1.50 per pound, compared with \$1.21 per pound in July 2011. For the same period, retail advertised prices for D'Anjou pears rose from \$1.10 per pound to \$1.52 per pound. August retail prices for Bartlett pears, however, rose from \$1.30 per pound the same time last year to \$1.31.

In Oregon, the Bartlett pear harvest was underway as of early September and timing for peak harvest, in general, occurring about a week after and winter pears by months end. Though prices appear to be weakened seasonally with the height of harvest, effects of the overall smaller crop this year on prices will likely be more apparent in the coming months, with likely upward pressure to surpass 2011/12

price-levels. Both quality and sizing of California and Oregon pears were reported to be good which will also aid prices.

On the processing side, the 5-percent smaller Bartlett pear crop signal a decline in raw material pears in 2012/13, likely driving up this season's grower prices for processing-use pears above 2011/12 price levels. Last season, processing-use production rose above the 2010/11 production which was the lowest tonnage reported over the past three decades. Grower prices for processing-use pears remained at historical highs, averaging \$244 per ton for the 2011/12 season, slightly surpassing the previous 30-year record-high of \$243 per ton in 2010/11.

### ***Reduced Production To Bolster Fresh Grape Prices***

Back in August, NASS forecast the 2012 U.S. grape crop at 14.6 billion pounds, down 1 percent from a year ago (table 7). Unfavorable weather conditions this growing season affected a number of grape-producing States. In parts of the central and eastern United States, mild temperatures this past winter advanced vine development, increasing crop vulnerability to severe damage when freezes hit this spring. Impact on yields are expected to be substantial, particularly in Michigan, Ohio, Pennsylvania, and New York where production cuts are forecast in the range of 35 percent to 75 percent from year-ago levels. While deep production cuts are expected in many States, forecast steady production in California, which supplies 90 percent of all U.S. grapes, and a significant boost in Washington, the second-largest producer, will temper the overall decline.

The overall California grape crop in 2012 is forecast at 13.2 billion pounds, only fractionally down from a year ago. A forecast 9-percent bigger California wine grape crop pegged at 7.4 billion pounds should offset declines for the State's table and raisin grape crops. Despite warm and dry growing conditions this spring, the California table grape crop is forecast to decline 3 percent from a year ago to 2.0 billion pounds, and the raisin grape crop at 3.8 billion pounds, down 13 percent. These same growing conditions, however, benefitted Washington's grape crop, currently forecast to reach 830 million pounds, up 31 percent from last year.

**Projected Smaller Fresh-Market Crop To Strengthen Prices:** Table grape harvest for the 2012/13 marketing season (May-April) already ended in July in southern California's Coachella Valley with total shipment volumes 2 percent higher than in 2011/12. Harvesting has shifted northward to major growing areas in the central portion of the State, particularly in the Kern and San Joaquin growing districts. While NASS forecast the State's table grape crop to be slightly smaller this year, crop maturity moved ahead of last year's delayed crop, prolonged by cool, wet weather in the spring of 2011. This is being reflected in the region's shipments thus far, July through early September, running 14 percent above the same period in 2011/12.

Despite increased early-season shipments in 2012/13 relative to last season, U.S. grower prices for fresh grapes averaged \$0.705 per pound (or \$1,410 per ton) in June, 31 percent higher than the June 2011 price, 68 percent above the previous 5-year July average price, and the second highest July price on record since NASS started reporting monthly grape prices in 1995. In addition to the anticipated reduced domestic table grape production, lower overall imports from Chile this

Table 7--Grapes: Total production and season-average price received by growers in principal States, 2009-11 and indicated 2012 production

State	Production				Price		
	2009	2010	2011	2012	2009	2010	2011
	-- Million pounds --				-- Cents per pound --		
Arkansas	4	4	2	2	37.7	40.6	49.1
Georgia	8	9	7	8	74.0	63.5	64.0
Michigan	193	72	189	60	17.1	21.4	18.3
Missouri	9	10	10	10	45.1	44.3	41.6
New York	266	352	376	230	18.4	19.4	18.1
North Carolina	10	10	10	11	40.9	45.9	51.5
Ohio	11	7	15	7	48.7	35.6	19.9
Oregon	80	62	83	92	95.5	101.5	97.5
Pennsylvania	128	166	182	108	14.7	15.3	15.3
Texas	12	18	11	18	58.5	62.5	76.0
Virginia	17	13	14	18	80.0	85.0	77.0
Washington							
Wine	312	320	284	370	49.5	52.0	49.4
Juice	450	352	348	460	12.2	13.6	14.2
All	762	672	632	830	27.4	31.9	30.0
Total 1/	1,501	1,396	1,531	1,394			
California:							
Wine	7,486	7,258	6,774	7,400	30.7	28.8	31.9
Table	1,752	2,022	2,062	2,000	23.2	19.1	40.5
Raisin 2/	3,876	4,266	4,388	3,800	14.5	17.2	19.7
All	13,114	13,546	13,224	13,200	24.9	23.7	29.2
United States	14,615	14,942	14,755	14,594	25.3	24.4	29.1

1/ Sum of State production, excluding California. 2/ Fresh weight of raisin-type grapes.

Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts 2011 Summary and Crop Production* (August 2012 issue).

winter and spring likely contributed to strong early-season grower prices for U.S. fresh grapes. This year, no comparable July average grower price was available for the \$0.740 per pound (or \$1,480 per ton) NASS reported in July 2011, the highest July price since 1995. Harvest in the San Joaquin Valley was in full swing in August and larger shipment volumes drove grower prices down to \$0.390 per pound (\$780 per ton), from \$0.480 per pound (\$960 per ton) in August 2010. Prices have weakened seasonally from earlier in the season due to increasing supplies in the San Joaquin Valley. Harvest continued to pick up through early September in the Valley where the heaviest harvest typically runs from September through early November. Through the rest of September and through early fall, shipment volumes will likely be more reflective of the smaller table grape crop, likely putting upward pressure on fresh grape prices.

At the retail level, BLS reported May and June prices for Thompson seedless grapes higher than a year ago for the same months. In July and August, prices had dropped below year-ago levels due to the higher shipments. Imports were also coming in higher than a year ago during those months, increasing overall supplies. AMS data reported that U.S. advertised retail prices for red/green grapes were also almost consistently higher than a year ago since May, except in June when prices were \$0.19 a pound higher than the June 2011 price. So far, the July average price declined the most to \$1.84 per pound, from \$2.22 in July 2011 when harvest delays last season resulted in tight supplies. Prices averaged \$2.04 per pound in May but have since declined seasonally to around \$1.63 in early September.

Reduced table grape production in California will be mostly behind the lower tonnage of U.S. grapes for fresh use in 2012/13. Only a small volume of California wine grapes are diverted to the fresh market each year. While raisin grapes are mostly used for raisin production, the volume of raisin grapes for fresh use far exceeds those from wine grapes. Therefore, the decline in California's raisin grape production would more than offset the increase in the States' wine grape production in reducing fresh-market supplies in 2012/13. Based on the 2012/13 NASS forecast production, ERS projects U.S. fresh-market grape production to decline for a second consecutive year to 1.92 billion pounds, down 2 percent from 2011/12 (table 8). Despite this decline, the current projected fresh production, if realized, will be relatively the same as the previous 5-year average crop size. That should mean overall supply shortages in the U.S. fresh grape market will not be an issue in 2012/13. California produces 90 percent of all U.S. grapes and supplies almost all of production for fresh use. Domestic fresh grape use averaged 8.0 pounds per person over the previous 5 years (2007/08-2011/12).

Also aiding domestic supplies, U.S. fresh grape imports 3 months (May-July) into the current season are strong, with volume up 17 percent from the same period in 2011/12. Most of the growth in imports reflects increased volume from Mexico, accounting for over 90 percent of total volume during this 3-month period. Moreover, as Chilean grape shipments to this market wound down for their 2011/12 shipping season, ending-season volumes came in higher than in 2010/11 even though overall shipments declined for the season.

Despite the smaller crop, U.S. fresh grape exports this first 3 months of 2012/13 remained strong, with volume up 63 percent from the same period in 2011/12, partially made possible by increased domestic shipments due to the earlier harvest. May-July exports to top market, Canada, were up 32 percent alongside also strong

Table 8--Fresh grapes: Supply and utilization, 1990/91 to date

Season 1/	Supply			Utilization		
	Utilized production	Imports	Total supply	Exports	Consumption	
	-- Million pounds --				Total	Per capita
					Pounds	
1990/91	1,698.0	728.5	2,426.5	458.5	1,968.0	7.82
1991/92	1,600.8	690.2	2,291.0	438.6	1,852.4	7.26
1992/93	1,538.1	714.1	2,252.3	412.6	1,839.7	7.12
1993/94	1,601.0	680.7	2,281.7	455.3	1,826.5	6.98
1994/95	1,617.1	719.1	2,336.2	474.2	1,861.9	7.03
1995/96	1,705.2	792.6	2,497.8	500.2	1,997.5	7.46
1996/97	1,534.1	746.5	2,280.6	457.1	1,823.5	6.73
1997/98	1,874.2	862.2	2,736.4	606.6	2,129.8	7.76
1998/99	1,561.6	874.6	2,436.2	446.1	1,990.1	7.17
1999/2000	1,774.3	993.7	2,768.1	530.0	2,238.1	7.97
2000/01	1,813.7	954.9	2,768.6	655.7	2,112.9	7.44
2001/02	1,728.7	1,043.5	2,772.2	656.4	2,115.7	7.37
2002/03	1,964.7	1,174.4	3,139.1	702.4	2,436.6	8.40
2003/04	1,610.9	1,258.7	2,869.6	632.2	2,237.4	7.64
2004/05	1,765.2	1,225.7	2,990.8	691.5	2,299.4	7.78
2005/06	1,991.2	1,406.0	3,397.2	838.3	2,558.9	8.59
2006/07	1,595.2	1,291.2	2,886.4	604.3	2,282.1	7.59
2007/08	1,840.7	1,255.1	3,095.8	663.4	2,432.3	8.01
2008/09	1,970.4	1,379.2	3,349.6	739.5	2,610.2	8.52
2009/10	1,877.6	1,230.8	3,108.4	662.5	2,445.9	7.92
2010/11	1,986.2	1,278.8	3,265.0	720.4	2,544.6	8.18
2011/12	1,965.4	1,174.6	3,140.0	762.7	2,377.3	7.58
2012/13*	1,920.0	1,300.0	3,220.0	724.9	2,495.1	7.88

\* Projected.

1/ Season beginning May from 1990/91 to date. A July-June marketing season used prior to 1990/91.

Source: USDA, Economic Research Service calculations.

shipments to most major markets in East and Southeast Asia. However, with reduced domestic production and higher prices, overall exports for the 2012/13 season may not achieve last season's 763 million pounds, the second highest reported since the 838 million pounds exported in 2005/06.

**More Grapes Likely To Be Crushed for Wine:** Despite substantial production declines expected in New York, Michigan, Pennsylvania, and Ohio, larger wine grape crops in California and Washington (and a few others such as Oregon, Texas, Virginia) in 2012 will likely lead to increased grape tonnage crushed for wine in the United States. This higher volume will likely put downward pressure on overall domestic grower prices for grapes sold to wineries in 2012/13, although regional price effects may move differently. Wine grape production in California is forecast at 3.7 million tons in 2012, up 9 percent from the previous year. In Washington, wine grape production is forecast at 185,000 tons, 30 percent above last year. Based on recent 5-year average shares of State-level grape production going to wineries, ERS projects total tonnage of grapes to be crushed for wine up 6 percent in 2012/13 from the previous season, totaling 4.4 million tons. California remains the primary source of all U.S. grapes sent to wineries annually, accounting for over 80 percent of total volume. Washington accounts for another 3 to 4 percent. In 2011/12, grape tonnage for wine declined 3 percent from the previous season to 4.2 million tons which drove prices up 8 percent to \$614 per ton.

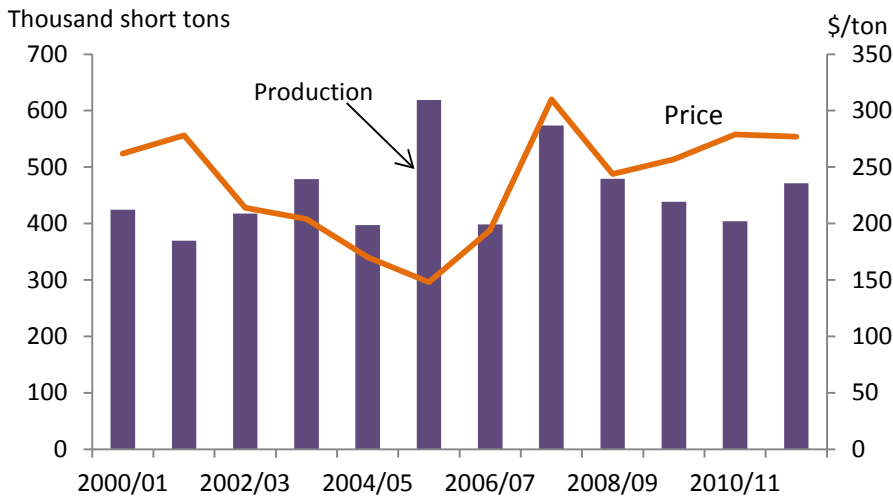
**Grape Tonnage for Juice Likely To Decline:** Although juice-grape production in Washington is forecast to total 230,000 tons in 2012, up 32 percent from a year ago, fairly extensive grape production declines in Michigan, New York, Ohio, and Pennsylvania will likely limit grape tonnage crushed for juice in 2012/13. The expected reduced tonnage heading to juice processors from this year's harvest will likely drive up juice-grape grower prices during the 2012/13 marketing season (August-July), returning to the recent trend of increasing prices after averaging almost unchanged in 2011/12 from the previous season (fig. 4). Utilized production for juice increased 17 percent to 471,100 in 2011/12 from the previous season, pressuring the season-average juice-grape grower price down slightly to \$277 per ton, from \$279 per ton in 2010/11.

The NASS annual national-level data for grape tonnage produced for juice does not include California, although California grapes crushed for concentrate production has been reported by NASS California Field Office since 1999. Last year, grape tonnage crushed for concentrate production totaled 598,365 tons, 15 percent of the 2011 grape crush total. However, the share of total concentrate tonnage used specifically for making juice has not been disclosed as well as the type and variety composition making up total concentrate volume. In comparison to State total crop size, tonnage crushed for concentrate production averages 9 percent annually over the last 5 years.

Despite increased domestic grape production for juice in 2011/12, U.S. grape juice imports rose 11 percent from 2010/11, totaling 63.1 million gallons sse. Import volume from Argentina continued to climb for a third season in 2011/12, increasing 32 percent from 2010/11. Imports from Mexico also posted a gain, up 7 percent, while those from Chile and Italy fell 53 and 24 percent, respectively. While relatively minor suppliers of imported grape juice to the United States, shipment volumes from Australia, France, and the Republic of South Africa increased sharply in 2011/12.

Figure 4

**U.S. utilized grape production for juice and average grower price**



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

The total volume of U.S. grape juice exports also rose 11 percent in 2011/12 from the previous season. Exports totaled 16.9 million gallons sse; although lower than the high’s achieved during the 1990s and early 2000s, the value reached a record-high \$93.1 million. Among the leading markets, demand in Japan continued strong, indicated by increasing U.S. export volume to this market over the last 3 consecutive seasons. Shipment volume to Japan increased 18 percent in 2011/12 from the previous, putting this market at the top for U.S. grape juice exports, outranking Canada where U.S. exports declined 4 percent in volume during the past season. Following a drop in 2010/11, U.S. exports to South Korea rebounded in 2011/12, more than double the previous season’s low and consistent with average levels during 2000/01-2010/11.

**U.S. Raisin Production To Decline a Second Straight Year:** In August, the NASS California Field Office released their *2012 California Raisin Grape Objective Measurement Report* with a forecast for the California raisin grape crop in 2012 at 1.90 million tons, fresh basis, (or 3.80 billion pounds), down 13 percent from last year. If realized, this would be the smallest crop since 2006. Having declined each year since 2003, bearing area remained unchanged this year from the 205,000 acres reported in 2011, but yields declined from 10.7 tons per acre last year to 9.3 tons, pulling down production. The average bunches per vine were reported down from 39 last year to 29, with some attributing the lower estimates to spring frost damage.

The forecast smaller California raisin crop this year is expected to lower the quantity of available grapes for drying. The slightly reduced table grape crop also will contribute to less available grapes for drying as 4 to 5 percent of California’s table grapes are also used in raisin production each year. USDA forecast U.S. raisin production to be down a second straight year in 2012/13, declining 11 percent from the previous season to 300,700 short tons or 300,000 metric tons as reported by the



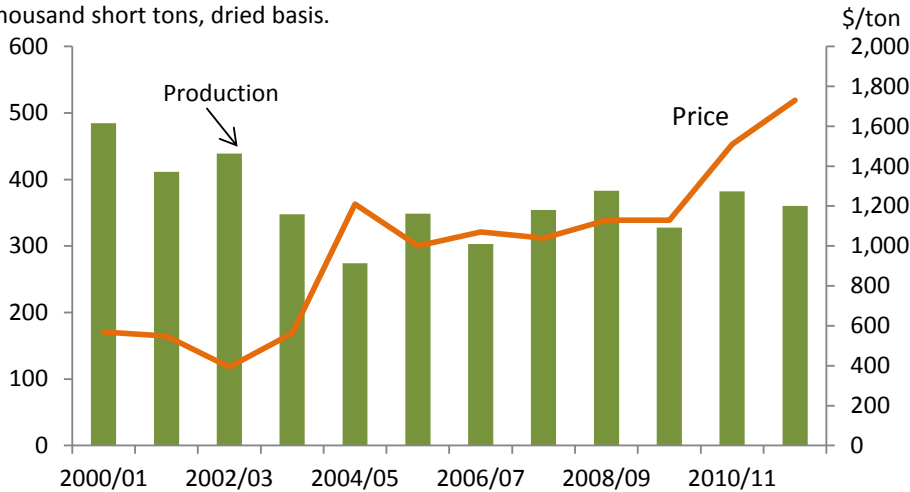
USDA’s Foreign Agricultural Service (FAS). On the fields as of early September, raisin grapes continued to be harvested and laid on paper to dry.

U.S. grower prices for raisin grapes dried into raisins have held strong in recent years, averaging \$1,457 per ton (dried basis) from 2009/10 to 2011/12 (fig. 5). In 2011/12, prices averaged at a record \$1,730 per ton, exceeding the previous high of \$1,510 in 2010/11. Low carryover inventories, reduced domestic production, and a decline in imports, reduced overall supplies needed to meet domestic and export demand during the 2011/12 season, driving raisin grape prices higher for the season. As raisin ending stocks fell to below-average levels during 2009/10 and 2010/11, the industry also needed to build back inventories in 2011/12. These combined limitations in overall supplies have led to lower domestic raisin consumption and exports in 2011/12.

U.S. raisin exports in 2011/12, at 294.1 million pounds (or around 147,000 short tons), declined 9 percent from 2010/11 and were at its lowest volume over the last 5 seasons. Big export declines to the United Kingdom, Germany, and Canada more than offset gains to Japan, Australia, and China. Shipments also declined to many trade partners in the EU-27 and in East and Southeast Asia. While the volume of U.S. raisin exports has declined annually in recent years, higher prices for U.S. raisins have pushed the value of exports each year to record highs since 2007/08. In 2011/12, this record-breaking value increased to \$382.1 million, up from the previous high of \$361.2 million in 2010/11. Improved ending inventory levels in 2011/12 will enable the industry to free up more supplies to meet overseas demand. Despite the anticipated decline in domestic production, U.S. raisin exports in 2012/13 are forecast to increase 4 percent from 2011/12 to around 154,300 short tons (140,000 metric tons).

Imports in 2011/12 declined 8 percent from the previous season, reflecting sharply lower shipments from Mexico, the Republic of South Africa, China, and Greece. These declines offset the huge gains received from Chile, the top supplier for the

Figure 5  
**California raisin grape production dried into raisins and average grower price**  
 Thousand short tons, dried basis.



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

United States for imported raisins, and Argentina, another key source. According to FAS, slightly reduced production in Chile will likely cut the country's raisin exports by 2 percent in 2012/13. However, with larger production, forecast increased exports in China, Argentina, and the Republic of South Africa will help meet raisin demand in the United States. U.S. raisin imports in 2012/13 are forecast to increase 12 percent from the previous season to 22,000 short tons (or 20,000 MT).

### ***2012 Cranberry Crop Third Largest on Record***

The NASS August forecast for U.S. cranberries is for production to total 768.5 million pounds (or 7.69 million barrels where 1 barrel=100 pounds) in 2012 (table 9). If realized, crop size this year will be down only fractionally from a year ago and rank the third largest on record. Historically, record-high production was achieved in the industry in 2008 at 786.5 million pounds, followed by the 771.2 million pounds produced in 2011.

Despite the hot and dry conditions this summer, production for this year is forecast to increase across most States that NASS reports annual cranberry production. The only exception is Massachusetts where the early onset of spring conditions this year prompted the State's crop to develop ahead of normal, exposing some production to frost damage. Forecast production in Massachusetts calls for a 9-percent decline in 2012 from a year ago, to 210.0 million pounds. In Wisconsin, the largest producer historically supplying almost 60 percent of the total crop, production this year is forecast to reach a record 450.0 million pounds, up 2 percent from a year ago. Bigger gains in production are forecast for New Jersey (up 6 percent), Oregon (up 11 percent), and Washington (up 23 percent).

Based on data from the Cranberry Marketing Committee (CMC), demand for U.S. cranberries during the 2011/12 marketing season fell slightly short of the previous season, with total sales down 2 percent to 8.36 million barrels, but 2 percent above the 2006/07-2010/11 average. Relative to the record sales achieved in 2010/11, U.S. cranberry sales last season declined due to reduced sales to the domestic market. Total sales to the international market in 2011/12, on the other hand, came in strong, fractionally exceeding the record volume reported in 2010/11.

Table 9--Cranberries: Total production and season-average prices received by growers, 2009-11, and indicated 2012 production

State	Production				Price		
	2009	2010	2011	2012	2009	2010	2011
	-- Million pounds --				-- Cents per pound --		
Massachusetts	182	189	232	210	46.1	42.1	44.1
New Jersey	56	56	51	54	54.5	53.7	51.0
Oregon	43	29	36	40	36.3	34.5	39.5
Washington	16	11	12	14	59.4	60.0	55.0
Wisconsin	395	396	441	450	42.1	43.7	44.3
United States	691	681	771	768	44.2	43.9	44.6

Source: USDA, National Agricultural Statistics Service, *Noncitrus Fruit and Nuts 2011 Summary and Cranberries* (released August 2012).

With increased domestic production and above-average carryover inventories in 2011/12, the overall decline in sales last season drove ending inventories up 12 percent from the previous season to 4.6 million barrels, nearly matching the record set in 2009/10 and, similar to the past 4 years, well over the average 3.2 million barrels the industry requires to fulfill pipeline needs. As the industry waits to harvest their third largest crop this fall, the large inventory volume carried forward to the 2012/13 marketing season will likely put downward pressure on U.S. cranberry grower prices for this coming season.

During the past season, U.S. cranberry grower prices averaged \$44.60 per barrel (about 45 cents per pound), up from \$43.9 per barrel in 2010/11. The higher price reflects slightly improved prices for processing-use cranberries (up from \$43.00 to \$43.90 per barrel). A 10-percent increase in domestic fresh-market production drove fresh cranberry prices down from \$72.5 per barrel in 2010/11 to \$68.5 per barrel in 2011/12. Together, increased production and lower fresh prices helped boost demand, especially in the export market. CMC reported stronger sales growth to export markets in 2011/12; fresh cranberry sales to the domestic market rose nearly 1 percent in volume in 2011/12 from the previous year while those to the export market rose 22 percent. The domestic market, however, continues to receive the bulk of U.S. fresh cranberries.

Domestic production for processing increased 13 percent in 2011/12 from the previous season but was tempered by an 11-percent decline in carryover inventories, providing a slight boost to processing-use cranberry grower prices. While not disclosing cranberry product types, CMC reported 2011/12 total processed sales down about 5 percent from the previous year, virtually falling short in the domestic market.

### ***Combined 3-State Strawberry Production Down Slightly in 2012***

This month, NASS released this year's forecast estimates for strawberry area, yield, and production in California, Florida, and Oregon—the top 3 strawberry-producing States. Combined area harvested and average yield per acre in these top three States are forecast down this year, suggesting lower overall U.S. strawberry production in 2012. The 3-State total production is forecast at 2.77 billion pounds, down 3 percent from a year ago, with harvested area down 1 percent to 49,300 acres and yields averaging 2 percent lower at 56,100 pounds.

Of the 3-State total, California will account for 92 percent total volume in 2012. Production in California is forecast at 2.55 billion pounds, down 1 percent from a year ago. This smaller crop reflects 500 fewer acres to be harvested this year (from 38,000 acres in 2011) as average yields per acre remained constant from last year's 680 hundredweight (or 68,000 pounds as 1 cwt = 100 pounds). Florida's winter strawberry crop was forecast down 20 percent from a year ago, totaling 247.5 million pounds. Although harvested area increased by 2 percent to 10,100 acres, weather-related losses reduced yields by 21 percent to 19,700 pounds per acre. While production share is small relative to California and Florida, Oregon's crop is forecast to decline the most, totaling 22.6 million pounds, down 21 percent from last year. Along with a 15-percent decline in area harvested, yields are also reported down 9 percent.

## ***Increased Production Puts Downward Pressure on Sweet Cherry Prices***

On June 28, NASS released its first forecast for the 2012 U.S. sweet cherry crop, which consisted of forecast estimates of crop size for seven of the eight States integrated in their annual sweet cherry production enumeration. The forecast calls for the U.S. crop to be 764.3 million pounds, 11 percent larger than in 2011 (table 10). Generally good weather this growing season benefitted bloom and pollination for much of the western U.S. sweet-cherry producing regions. Forecast larger crops in Washington, Oregon, and Utah will boost Northwest supplies. Production in the No.1 producing State—Washington—is forecast to increase 17 percent to 470 million pounds. Production in California is forecast at 170 million pounds, up 13 percent from a year ago. Meanwhile, due to severe spring frost damage, production is forecast down sharply in Michigan (down 82 percent from a year ago) and New York (down 64 percent).

The bigger crop made available plenty of promotional supplies for retailers, driving down the prices consumers had to pay for cherries this summer compared to last. Based on AMS data, U.S. advertised retail cherry prices in May when the season started averaged \$3.68 per pound, down from last year's May average of \$3.91 per pound (fig. 6). Despite cool weather in early June that slowed crop progress, harvest in the Northwest got underway reaching peak volumes in July and cherry prices declining seasonally to \$3.30 per pound during the month and ending the season at \$3.05 per pound in August. Light rains in June raised concerns among Northwest growers of early-season varieties but overall shipments have remained well ahead of a year ago since June, putting downward pressure on overall prices for the season. While prices in July averaged 7 percent above the same time last year, prices in August fell 10 percent below.

Abundant exportable supplies are aiding U.S. cherry export sales in 2012. May-July export volume totaled 178.8 million pounds, up 51 percent from the same period last year and the highest so far for this 3-month period. In value terms, exports are also setting records, increasing 29 percent from last year to \$418 million. Export volume is strong to major markets—Canada, Japan, South Korea, Hong Kong, and Taiwan. Spurred by the trade agreement signed this year, shipments to South Korea are expected to more than double, according to USDA's FAS. Though domestic supplies were winding down for the season in August,

Table 10--Sweet cherries: Total production and season-average price received by growers, 2009-11 and indicated 2012 production

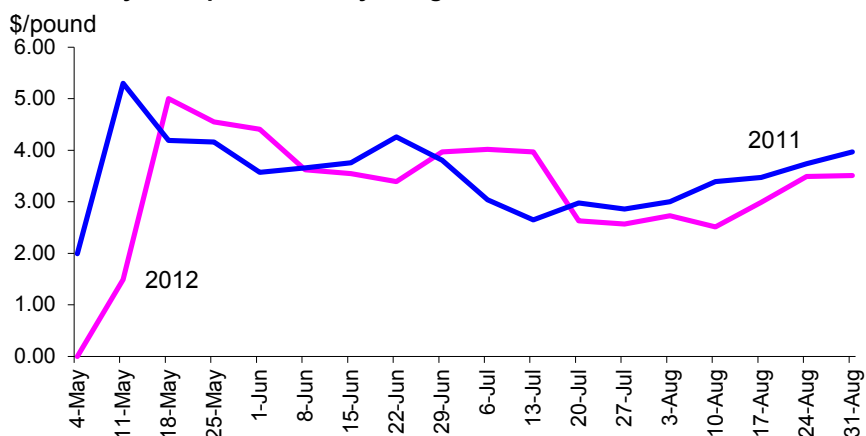
State	Production				Price		
	2009	2010	2011	2012	2009	2010	2011
	-- Million pounds --				-- Cents per pound --		
California	184.0	194.0	150.0	170.0	127.0	137.5	149.5
Idaho	12.0	3.8	5.6	8.0	55.0	111.5	131.0
Michigan	57.4	30.2	37.2	6.6	23.9	33.9	48.5
Montana	4.8	4.9	4.0	1/	74.5	98.0	123.5
New York	2.5	2.0	1.4	0.5	122.0	141.0	157.0
Oregon	132.0	76.3	86.4	106.0	39.9	95.5	88.5
Utah	3.1	2.2	1.6	3.2	84.0	66.5	73.5
Washington	490.0	312.0	400.0	470.0	53.0	116.5	134.5
United States	885.7	625.4	686.2	764.3	66.5	116.5	126.5

1/ The first estimate for 2012 will be released in January 2013.

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

Figure 6

**U.S. cherry retail prices below year-ago levels for most of this season**



Source: USDA, Agricultural Marketing Service, Market News, <http://www.marketnews.usda.gov/portal/fv>.

exports were projected to continue higher than a year ago for the remainder of 2012. Total export volume for the season is forecast to outpace last year’s record, increasing by more than 25 percent to 198 million pounds.

U.S. cherry imports in 2012 through July totaled 14.7 million pounds, 25 percent below the same period last year. Chile supplied 93 percent of total volume thus far, reflecting the decline in total import volume. Remaining imports were from Canada and Argentina where volumes shipped to the United States are also down by almost as much or more.

***Tart Cherry Production Down Sharply in 2012***

NASS forecasts the 2012 U.S. tart cherry crop to be only 73.1 million pounds, down 68 percent from a year ago (table 11). If realized, this will be the second-smallest crop for the industry since the 1980s and 72 percent below the 2000-11 average crop size of 262 million pounds (excluding 2002 when production was at a record low at only 62.5 million). Early-spring warm temperatures that led to premature crop development, followed by multiple freezes, devastated tart cherry crops in Michigan, New York, and Wisconsin. Spring frost also reduced production in Pennsylvania. In contrast, fairly good growing conditions promoted good to excellent pollination in the western U.S. producing States, keeping crop size fairly unchanged or bigger than last year.

Traditionally accounting for about 70 percent of the total crop, a majority of tart cherry growers in Michigan lost their entire harvestable crop. Production in Michigan this year is forecast at only 5.5 million pounds, down 97 percent from 2011 and accounting for only 8 percent of the total crop. Production in New York, Oregon, and Pennsylvania are forecast down 81 percent, 93 percent, and 22 percent, respectively.

The United States produces tart cherries primarily for the frozen fruit market, which accounts for nearly 70 percent of domestic production. Based on NASS’s *Cold Storage 2011 Summary*, domestic frozen tart cherry stocks as of December 31, 2011

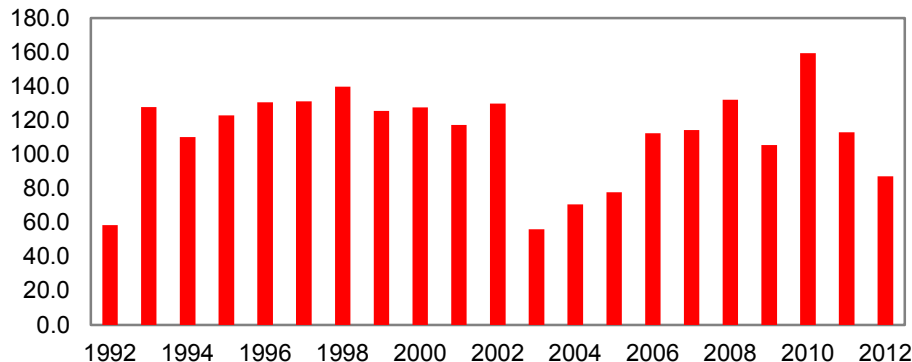
Table 11--Tart cherries: Total production and season-average price received by growers, 2009-11 and indicated 2012 production

State	Production				Price		
	2009	2010	2011	2012	2009	2010	2011
	-- Million pounds --				-- Cents per pound --		
Michigan	266.0	135.0	157.5	5.5	15.7	21.2	30.1
New York	11.2	7.8	5.9	1.1	24.3	17.4	24.2
Oregon	3.2	1.2	2.5	2.5	31.5	31.7	34.0
Pennsylvania	3.9	2.3	3.2	2.5	25.0	25.7	37.1
Utah	47.0	23.0	35.0	34.0	27.0	27.0	29.0
Washington	16.7	15.4	20.9	27.0	46.8	22.8	31.2
Wisconsin	10.9	5.7	6.7	0.5	20.8	29.3	28.5
United States	358.9	190.4	231.7	73.1	19.2	22.2	30.0

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 storage\***

Million pounds



\* Represents cold storage stocks on December 31 of the previous year.

Source: USDA, National Agricultural Statistics Service, *Cold Storage Summary*, various issues.

totaled 87.1 million pounds, declining for a second straight year from 112.9 million pounds on December 31, 2010 and 30 percent below the previous 5-year average. This decline would mean much lower carryover supplies for the 2012 marketing season (fig. 7) and, together with the huge decline in domestic production this year, should create a tight market in the United States, likely raising domestic tart cherry prices to or at near record-setting levels as in 2002. When production bottomed out that year, tart cherry grower prices increased to 44.8 cents per pound, well above the historical average but slightly lower than the 46.6 cents per pound in 1983, the highest so far since the 1980s.

Though only a minor proportion of overall domestic supplies, U.S. imports of frozen tart cherries will help mitigate the shortage in domestic supplies, with 2012 cumulative import volume during the first 7 months at 12.5 million pounds, increasing more than threefold from the same time last year. Canada, Poland, and Chile accounted for almost all of the imports thus far and shipments received from all three were up sharply. Imports to date have already exceeded total annual volumes of the last 4 years, reversing the trend of declining U.S. frozen tart cherry imports in recent years. Current levels are already approaching the historical highs achieved in 2002, 2003, and 2007. Tight supplies in 2002 resulted in record-high

imports that year totaling 18.6 million pounds and 12.3 million pounds the following year. Imports were also high in 2007 at 13.3 million pounds, declining consecutively thereafter for the last 4 years, with 5.4 million pounds reported in 2011.

U.S. frozen tart cherry exports are sluggish this year. Through July, exports totaled 4.59 million pounds, 32 percent below the same time last year, with value down at \$2.8 million, down from the past two years. More than half of this year's exports to date went to Canada, with export volume posting a 23-percent decline from the same period in 2011. While exports thus far are showing increases to a few markets in the EU-27, and to Mexico, Japan, and Taiwan, volumes are down to China. Exports account for a small share of U.S tart cherry supplies, averaging 3 percent annually from 2005-11.

### ***California Navel Orange Production Forecast Up in 2012/13***

On September 12, California NASS released its first estimate for the 2012/13 California navel orange crop, forecasting production at 46.5 million boxes (80-pound equivalent or 93.0 million cartons at 40-pound equivalent), or 1.86 million tons. The current forecast is up 6 percent from last year's 1.76 million tons crop. If realized, this would be the third largest crop on record. The forecast was reported in the *2012-13 California Navel Orange Objective Measurement Report* which collected survey data from July 15 through September 3, 2012. The survey data was collected in the California's Central Valley, which produces roughly 97 percent of the State's navel oranges, including Cara Cara and Blood oranges.

Bearing acreage in the Central Valley is forecast down fractionally from 2011/12 at 131,000 acres. If realized, this is the lowest bearing acreage since 2004/05, but the higher density plantings should offset the overall acreage decline. Currently, trees per acre average 134, relatively unchanged from last season, while average fruit set per tree is up 8 percent to 344, but well below the 418 in 2010/11. While the average fruit set per tree is up, the average fruit size is down from 2011/12. The upcoming season forecast average fruit size at 2.195 inches in diameter, down 3 percent from 2.270 inches in 2011/12.

U.S. fresh orange exports in 2011/12, November through July, are at 1.47 billion pounds, down 7 percent compared to the same period in 2010/11. Last season's shipments to date were at record high, so this season's shipments are still above average when compared to previous seasons. Exports through July 2012 to South Korea are up 28 percent compared to the same time last season and accounted for 27 percent of total volume. Among the other top markets, shipments declined 16 percent to Canada but increased 12 percent to Japan.

The *2012 Citrus Summary*, released September 20, reports that the season-average equivalent-on-tree price for California navels in 2011/12 was \$10.86 per-pound box, up 35 percent from the \$8.05 per box recorded in 2010/11. The total value of California navel production was up as well, at over \$607 million, 21 percent above the 2010/11 total value. With only a slightly upward projection of navel production in 2012/13, prices should remain relatively close to the 2011/12 season average.

The California Citrus Mutual, the California Citrus Research Board, the University of California and the USDA-Agricultural Research Service (ARS) concluded joint research into a new California Navel Maturity Standard, which is to aid in consumer acceptance of early season navel oranges. The previous maturity standard for oranges did not correlate strongly with flavor when the fruit had low-acidity, which is common in earlier season citrus. In order to provide a more consistent quality of fruit harvested earlier in the season, the California Citrus Research Board did extensive research into a different method in calculating orange maturity using brix and acidity ratio rather than the current sugar to acid standard ratio. The new standard is an attempt to increase the probability that a consumer will have a higher quality navel orange resulting in a more consistent positive eating experience. Testing by the new standard method in 2009/10 led navel growers to experience a very successful season with strong customer acceptance and increased sales.

### ***Florida Fresh Citrus Shipments Down in 2011/12 Season***

The Florida Department of Citrus (FDOC) released its final weekly fresh citrus shipment report for the 2011/12 season on August 17. The report indicates that Florida fresh-citrus shipments were down 3 percent, continuing the fifth consecutive year of declining shipments. Shipments totaled 29.5 million 4/5-bushel cartons in 2011/12 compared to 30.5 million cartons last season.

Almost half of the citrus volume was fresh grapefruit, with total shipments down 6 percent. Fresh grapefruit shipments declined 10 percent to the Canadian market but increased 3 percent to the domestic market. More than half of the grapefruit shipments go to overseas markets. Representing over one-third of fresh citrus volume, fresh round-oranges were up 3 percent. Fresh honey tangerine shipments declined 7 percent with other tangerine varieties down 5 percent and tangelo shipments down nearly 2 percent in 2011/12. The increase in fresh orange volume was not enough to outweigh the declines in grapefruit, tangerine, and tangelo shipments.

Though total shipments were down, a slightly higher share went to the domestic market: 67 percent versus 63 percent for 2010/11. For both oranges and specialty citrus, shipments were predominantly (over 90 percent) destined for the domestic market. The leading fresh orange domestic markets include Florida, New York, New Jersey and Georgia, while those for fresh tangelo's (specialty citrus) included Florida, Georgia, New Jersey and Pennsylvania. In contrast, 62 percent of fresh Florida grapefruit is exported. Leading markets for fresh grapefruit was Japan, the Netherlands, and Belgium.

### ***Florida Citrus Acreage Continues To Decline in 2012***

Although the first official NASS estimate for Florida's 2012/13 citrus crops will not be released until October, the first data regarding the upcoming crop was released on September 20 in the Florida NASS Field Office *Commercial Citrus Industry Preliminary Report*. The report is the first estimate of commercial citrus acreage in 2012 for oranges, grapefruits, tangerines and tangelos. Net acreage loss from 2011 is estimated at 9,385 acres, down 2 percent from last year and the lowest level in the series, which began collecting acreage data in 1966. New planting acreage is estimated at 9,548 acres, an increase from 9,060 acres in 2011. However, the new



citrus acreage was not enough to compensate for the gross loss of 19,383 acres. Out of the 29 counties surveyed, 24 recorded citrus acreage losses for the upcoming year, while 5 counties illustrated increases. Oranges led with the largest acreage decline in absolute terms, down 8,168 acres (2 percent) from last year. This is the lowest acreage reported for Florida oranges, standing at 464,918 acres.

Grapefruit acreage saw a decline as well but at a slower rate than previous years. Grapefruit acreage declined less than 2 percent of total production area in 2012 to 48,191 acres, from 48,990 in 2011. Even specialty citrus lost 868 acres, a 5-percent decline to 18,384 acres. Despite the reductions in acreage, some of the counties have seen an increase in total number of trees, suggesting some acreage is being removed to plant high-density production sites. Florida fields are being attended to for fall miticide applications, grove maintenance, irrigation, and young tree care, with all citrus growing area's currently drought free.

**Melon Prices Higher This Summer**

According to USDA's AMS *Market News*, total melon shipments (domestic and imports) in the United States ran 5 percent below a year earlier during the peak May-July period, mostly reflecting declines in cantaloupe and watermelon supplies. For this 3-month period, cantaloupe shipments had the greatest deficit, down 9 percent from the same period last year. Watermelon shipments, a majority of which involved seedless watermelons, declined 3 percent, while honeydew shipments matched last year's. Most of the shipments thus far are of domestic origin as imported melons generally are at a seasonal low in the U.S. market during the summer months.

AMS *Market News* reported U.S. advertised retail prices for cantaloupes have averaged around \$2.42 each this summer (table 12). Average retail prices for seedless watermelon have declined seasonally since peaking at the start of the domestic season in April at \$5.76 each—falling to \$4.72 in July and down further to \$4.54 in August. Honeydew melon retail prices have been relatively steady, averaging between \$3.08 and \$3.28 from April through August. With retailers facing lower supplies overall, the prices that domestic consumers have seen so far this summer (May to August) have averaged 8-9 percent higher than last year for cantaloupes and seedless watermelons. Honeydew prices remained relatively the same.

Table 12--U.S. advertised retail prices for melons, 2011-12

	Quarters				Months			
	Jan-Mar		Apr-Jun		July		August	
	2011	2012	2011	2012	2011	2012	2011	2012
	---- \$ per melon ----							
Cantaloupe	2.24	2.38	2.21	2.45	2.26	2.49	2.14	2.16
Honeydew	3.40	3.60	3.20	3.22	3.12	3.24	3.26	3.08
Watermelon, miniature	3.33	3.35	3.19	3.07	3.28	3.24	3.23	2.95
Watermelon, seedless	3.81	4.05	4.72	5.18	3.62	4.72	4.70	4.54

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

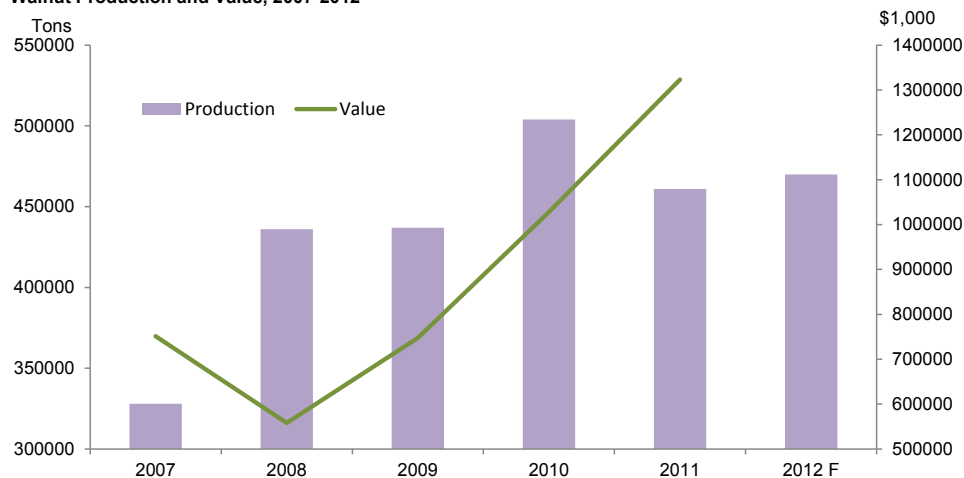
## Walnut Production Expected To Increase

On September 5, 2012, California NASS released the *California Walnut Objective Measurement Report* with the estimate for the 2012 harvest forecast at 470,000 tons, 2 percent higher than the 2011 harvest but 7 percent below 2010's record harvest of 504,000 tons (fig. 8). If realized, this could be the second highest harvest on record. The average nut set per tree was 1,375, down slightly from last year but yield is 2 percent above last year at 1.92 tons per acre. Bearing acreage is estimated at 245,000 acres, unchanged from last season's record high but with 2 percent more trees per acre at 69. At the beginning of September, the orchards were swept and prepared for harvest.

So far, this season's crop experienced close to ideal weather with few issues during pollination. Spring weather allowed for the crop to size up nicely. In some orchards, dramatic nut drop was seen in June and July caused by walnut blight. University of California's Cooperative Extension has indicated that the rainfall in spring 2011 set the stage for the blight problem and wet weather conditions in spring 2012 also fostered the disease. Walnut Vina variety orchards seemed to be the most affected but other varieties also saw significant disease and crop loss. Most of the nuts appear to have blight lesions typical of "end blight," which are the result of early season infections from overwintering buds. This blight is very likely to spread to the kernel and will eventually cause nut drop, which was experienced around mid-summer. Orchards that lacked an effective protective copper spray residue were at risk to develop "end blight." The ability to treat the disease can greatly alter crop production in coming years and posed a challenge to walnut growers this season.

The 2011 season was the second largest harvest on record with a total of 461,000 in-shell tons. The crop also received the highest grower price at \$2,870 per ton

Figure 8  
Walnut Production and Value, 2007-2012



F=Forecast  
Source: USDA, NASS, *Non-Citrus Fruit and Tree Nut Summary*, various issues.

resulting in the highest valued walnut crop to date at \$1.3 billion. The value pushed walnuts up to the 8<sup>th</sup> most valuable crop produced in California, up 33 percent from 2010's overall value. Demand was high for U.S. walnuts, especially with the smaller crop pushing prices and overall crop value to record levels.

Exports through July are down compared to last season, with in-shell shipments down 14 percent to 239 million pounds, and shelled shipments down 10 percent to 155 million pounds. The largest volume of in-shell shipments went to Hong Kong, with 50 million pounds, followed closely by Turkey, with 49 million pounds, both volumes representing a decline of 12 percent and 18 percent, respectively. China represents the 3<sup>rd</sup> largest export destination for in-shell walnuts with 32 million pounds, a slight decline from last season. Through July, the leading market for shelled walnuts is South Korea, with 23 million pounds, usurping Germany from 2010/11's top position. Japan received 22 million pounds while Germany received 20 million pounds of shelled walnuts so far this season.

### ***Another Record-Breaking Almond Crop Forecasted***

In late June, California NASS released the *2012 California Almond Objective Measurement Report* with a crop forecast of 2.1 billion pounds. If realized, this will be the largest almond crop on record. The crop is anticipated 3 percent above the previous all-time high of 2.03 billion pounds in 2011. Higher acreage is behind the increase in production with 780,000 bearing acres, a continuation of the increasing acreage trend. The average nut set per tree is 7,048, down 4 percent from last season. Weather damage in March and April affected some orchards in Merced County and the San Joaquin Valley which also experienced heavier than normal nut drop. Weather in the Sacramento Valley has been great for almonds and disease and insect pressure state-wide has been negligible. As of early September, the almond harvest is at full swing with the south San Joaquin Valley starting harvest in August.

The 2011/12 almond season ended July 31, boasting a few season records. Both production and bearing acreage were at an all-time high until the 2012 forecast figures were released; production at 2.03 billion pounds and bearing acreage at 760,000. Yield remained the highest on record, with 2,670 pounds per acre. The overall grower price, at \$1.92 per pound, was up 7 percent from 2010 but well below the record price of \$2.81 per pound in 2005. The large production size made up for the lower grower price with a total crop value of \$3.9 billion, making almonds California's second most valuable commodity in 2011.

The record-large harvest had no issue with demand. Seventy percent of total domestic production went to the export market, with export volume reaching a record-high 1.4 billion pounds. Spain was the largest receiver of California shelled almonds, with 150 million pounds, down less than a percent from last season. The second largest market for California shelled almonds was Germany with 115 million pounds, down 2 percent compared to 2010. With a 25-percent increase, Hong Kong received 113 million pounds while the United Arab Emirates also gained ground, receiving 34 percent more shelled U.S. almonds. Hong Kong led the in shell almond export market with 142 million pounds, a 37-percent increase from last year. In-shell shipments also saw a jump in shipments to India with an

increase of 11 percent, totaling just below 142 million pounds. The top 3 in-shell almond export markets were rounded out by Turkey shipping 34 million pounds.

U.S. almond imports were at a record high this season totaling 15.9 million pounds (shelled equivalent). Australia was the United States' leading source for imported shelled almonds with 4.8 million pounds, increasing shipments threefold from last year's 1.5 million pounds. Spain shipped 4.0 million pounds of shelled almonds, an increase of 60 percent. Italy rounded out the top three shelled almond exporter to the United States, with 1.8 million pounds. Chile sent the most in-shell almonds to the United States this season with 893,813 pounds. Italy was the second largest shipper of in-shell almonds with 306,112 pounds, a dramatic increase from the 2,000 pounds shipped in 2010/11. The United States also received substantial gains in in-shell almond shipments from Vietnam in 2011/12, shipping 81,478 pounds, nearly 68 times more than the volume they sent the previous season. Huge import gains from Hong Kong (from 6,018 pounds in 2010/11 to 63,237 in 2011/12) made it the 4<sup>th</sup> largest supplier to the United States, a decline from last season, during which it was the 2<sup>nd</sup> largest supplier behind Ecuador.

### ***Pecan Industry Estimate Down Slightly From 2011***

Based on NASS 2011 final estimates, all pecan harvest in the United States totaled 269.7 million pounds in 2011, a decline of 8 percent from 2010 and down 11 percent from the 2009 on-year crop. For 2011, improved varieties contributed 227 million pounds to the overall total, with native and seedling pecans making up the remainder with 42.7 million pounds. The decline in production seen was strongly attributed to drought that heavily affected Texas and much of the southeast. A bright spot in the lower yield was the highest grower price at \$2.43 per pound for all pecans. Even with the higher price, the value of utilized production was down 3 percent from 2010, tallying in at \$656 million--the second highest crop value on record.

Demand was strong for U.S. pecans on the international market with in-shell exports reaching 75 million pounds and shelled exports reaching 30 million pounds this season through July. Both in-shell and shelled pecans have experienced an increase in shipments of 13 percent and 21 percent, respectively, through July. Hong Kong is the leading market for in-shell pecans, with 39 million pounds, up 19 percent from the same period last year. In-shell export shipments to Vietnam increased threefold, offsetting the decline in shipments to Mexico. Exports of shelled pecans increased 20 percent to Canada and 68 percent to Mexico. Shipments to the Netherlands declined 11 percent but ranked the third largest international market for U.S. shelled pecans through July.

With no official USDA estimate for the upcoming 2012 pecan harvest, pecan industry experts at the annual Tri-State Pecan Growers Conference in June estimated crop size to be 265 million pounds. More recent industry estimates give a wider range of possible harvest sizes. According to the Texas NASS *Crop Progress & Condition Report*, pecan trees are experiencing limb breaks due to the heavy crop and windy conditions as of early September. Even with this news, Texas growers are still feeling the effects of the 2011 drought as the 2012 season begins with some trees experiencing limb dieback and entire tree death. The most susceptible pecan trees to these dry conditions are ones on inferior soil.

### ***Another Good Harvest Expected for Hazelnut Crop***

The Oregon NASS field office forecast the 2012/13 hazelnut crop at 40,000 tons, in-shell. If realized, this would be up 4 percent from 2011/12 and 43 percent above 2010's 28,000-ton harvest. Total value of utilized production in 2011 was \$89.7 million, 33 percent above 2010/11 season, with an average grower price per ton of \$2,330. The price per ton was down 3 percent compared to 2010/11 season's record high grower price but the larger crop pushed total value to a record. Bearing acreage has continued to increase since 2008, with 2011/12 acreage up 1 percent to 29,500 acres.

The 2011/12 season ended in June with year-to-year increases in both shelled and in-shell hazelnut exports. In shell exports were up 15 percent to 45 million pounds, while shelled exports were up 63 percent to 2.5 million pounds. Hong Kong was the lead in-shell export destination, with 27 million pounds, up 63 percent over the 2010/11 season's 16.6 million pounds. The second largest market for in shell hazelnuts, Vietnam, dropped volumes 5 percent to 6.6 million pounds, while Canada rounded out the top 3 with just below 5 million pounds for the season. For shelled hazelnuts, Canada remained the top market with 1.03 million pounds, an increase of 6 percent from 2010/11. Israel and Hong Kong finish the top 3 destinations for shelled U.S. hazelnuts in 2011/12.

## Fruit and Tree Nuts Trade Outlook

### *Noncitrus Fruits Face Strong International Demand*

As the cherry harvest went in full swing in early summer, U.S. exports increased 51 percent from the same period last year through July (table 13). The estimated size for the 2012 U.S. sweet cherry crop is 764.3 million pounds, 11 percent larger than in 2011. The ample crop has found strong demand internationally so far this season, with shipments increasing to Canada by 34 percent to 68.1 million pounds, valued at \$131.4 million. Shipments to South Korea are showing a more than twofold increase to date, stimulated by the trade agreement signed this year. Japan and Hong Kong remain strong markets for U.S. cherry shipments. Total export value for the season thus far is \$418.5 million.

Despite a forecast smaller crop, U.S. pear exports continued strong early into the 2012/13 season, pulling on the higher supplies thus far as a result of a timelier harvest compared to last year. Following record-high exports in 2011/12 (July-June), export volume already was at 18 million pounds during the first month of the 2012/13 marketing season, up 58 percent from July 2011. Strong demand continues from top markets—Mexico and Canada—which have received most of the shipments to date. Export growth to Mexico has been partly spurred by the reductions in and eventually the elimination last year of the import tariff related to the U.S.-Mexico trucking dispute.

U.S. fresh grape exports are substantially up during the first 3 months of the 2012/13 season, totaling 78 million pounds valued at \$84.9 million. While forecast production is down slightly, ample mid-season supplies from California have been able to sufficiently provide the domestic and international market. U.S. exports to

Table 13--U.S. exports of selected fruit and tree nut products

Commodity	Marketing season	Season-to-date (through July)		Year-to-date change
		2011	2012	
		----- 1,000 pounds -----		Percent
Fresh market:				
Oranges	November-October	1,585,412	1,473,887	-7.0
Grapefruit	September-August	497,688	458,472	-7.9
Lemons	August-July	220,053	201,516	-8.4
Apples	August-July	1,821,609	1,853,808	1.8
Grapes	May-April	48,018	78,045	62.5
Pears	July-June	11,475	18,175	58.4
Peaches (including nectarines)	January-December	113,006	108,742	-3.8
Straw berries	January-December	195,031	203,811	4.5
Cherries	January-December	118,383	178,948	51.2
		----- 1,000 sse gallons 1/ -----		
Processed:				
Orange juice, frozen concentrate	October-September	108,155	53,884	-50.2
Orange juice, not-from-concentrate	October-September	68,401	70,595	3.2
Grapefruit juice	October-September	12,428	12,510	0.7
Apple juice and cider	August-July	9,460	9,958	5.3
Wine	January-December	64,929	60,210	-7.3
		----- 1,000 pounds -----		
Raisins	August-July	322,997	294,145	-8.9
Canned pears	June-May	2,682	3,083	14.9
Canned peaches	June-May	5,392	4,551	-15.6
Frozen straw berries	January-December	22,478	29,312	30.4
		----- 1,000 pounds -----		
Tree nuts:				
Almonds (shelled basis)	August-July	1,188,556	1,357,484	14.2
Walnuts (shelled basis)	September-August	293,653	260,396	-11.3
Pecans (shelled basis)	October-September	56,707	64,628	14.0
Pistachios (shelled basis)	September-August	134,709	212,607	57.8

1/ Single-strength equivalent.

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

top market Canada are making a turnaround after a sluggish performance in 2011/12. May-July export shipments to Canada increased 35 percent in volume over the same time last year and accounted for 35 percent of total export volume thus far. Exports to Mexico is showing tremendous growth so far this season, with the first 3-month shipments up more than threefold from last year and back to levels achieved prior to the imposition of the trucking-dispute import tariff that was revoked last year. Export shipments also increased to Indonesia and to other Asian markets, like the Philippines and Hong Kong, pushing overall fresh grape exports up this season to date.

Although combined strawberry production in California, Florida, and Oregon in 2012 is expected to be 3 percent below last year, U.S. fresh strawberry exports during the first 7 months of this year increased 4 percent. Most of the shipments had gone to Canada which posted a 4-percent gain over last year, offsetting declines to Mexico, Japan, and Hong Kong among key markets. For the same period, U.S. fresh peach exports have slowed, particularly to Canada and Mexico. Taking nearly 70 percent of total export shipments to date, declines to both these markets have offset gains to Taiwan and the very strong exports to China thus far.

As the 2011 orange marketing window draws to a close, exports are down through July, with a 7-percent loss over the same period last year. This year marked a relatively strong production season for U.S. oranges, down only slightly from last season but larger than production levels since 2004/05. The carbendazim contamination of frozen concentrate orange juice (FCOJ) was from international sources where the fungicide is legal, thus putting pressure on local processors to use contaminant-free domestic orange juice. This has resulted in a 50-percent decline in FCOJ exports through July, as domestic demand was very strong this season to meet processor and fresh market requirements.

### ***Imports Up for Fresh Pears and Oranges, Attributed to Smaller Crops***

With the decline in U.S. pear production, imports are up more than double for the first month of the marketing year (table 14). Even with the earlier harvest, imports from Chile are already at 3.4 million pounds in July, roughly 80 percent of total imports for the month and more than double the same time last year. South Africa and Argentina make up the remaining import volumes with 512,892 pounds and 408,278 pounds, respectively. With the domestic harvest in full swing by mid-summer, imports should decline as harvest ends in the southern hemisphere, the United States' main source for off-season pears.

Banana imports increased 4 percent during the first 7 months of 2012 from the same period in 2011. Imports from Guatemala increased 10 percent through July to 1.9 billion pounds. While Guatemala has seen an increase in production due to favorable weather so far this year, Ecuador and Costa Rica have not been as fortunate. Fungus related production issues have caused problems in Ecuador this season as well as some industry issues, forcing year-to-date imports to the United States to decline 15 percent. Costa Rica is having similar issues combating the devastating black sigatoka fungus and has also seen a decline in shipments to this market. Imports from Honduras and Columbia increased, but both are small suppliers compared to Ecuador and Costa Rica.

Fresh orange imports jumped up 61 percent over the same time last season, mostly representing a rebound in imports after 2010/11's strong domestic crop that pushed imports down. The total value of shipments through July, estimated at \$40 million, was up from \$24 million for the same period last year. Mexico is the leading source for fresh citrus into the United States. Season-to-date shipments from Mexico were at 33.2 million pounds, up 37 percent from 2010/11. South Africa and Chile have increased shipments by 62 percent and 102 percent, respectively.

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

Commodity	Marketing season	Season-to-date (through July)		Year-to-date change
		2011	2012	
		----- 1,000 pounds -----		Percent
Fresh market:				
Oranges	November-October	63,988	102,870	60.8
Tangerines (including clementines)	October-September	267,710	260,997	-2.5
Lemons	August-July	94,837	126,568	33.5
Limes	January-December	440,954	551,431	25.1
Apples	August-July	328,678	381,061	15.9
Grapes	May-April	304,012	354,780	16.7
Pears	July-June	2,162	4,406	103.8
Peaches (including nectarines)	January-December	94,232	80,581	-14.5
Bananas	January-December	5,797,773	6,018,470	3.8
Mangoes	January-December	633,305	626,115	-1.1
		----- 1,000 sse gallons 1/ -----		
Processed:				
Orange juice, frozen concentrate	October-September	212,626	199,542	-6.2
Apple juice and cider	August-July	590,007	450,307	-23.7
Wine	January-December	142,121	172,097	21.1
		----- 1,000 pounds -----		
Canned pears	June-May	7,085	6,816	-3.8
Canned peaches (including nectarines)	June-May	17,435	19,671	12.8
Canned pineapple	January-December	443,718	420,779	-5.2
Frozen straw berries	January-December	150,284	177,300	18.0
		----- 1,000 pounds -----		
Tree nuts:				
Brazil nuts (shelled basis)	January-December	8,559	6,409	-25.1
Cashew s (shelled basis)	January-December	135,429	141,761	4.7
Pine nuts (shelled basis)	January-December	1,072	305	-71.6
Pecans (shelled basis)	October-September	61,293	66,859	9.1

1/ Single-strength equivalent.

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



# Commodity Highlight: Almonds <sup>1</sup>

## Almond Background

Almond trees are native to the Middle East and South Asia. They are drupes and are closely related to stone fruits such as the peach and nectarine. Spanish missions first introduced the almond to the Mediterranean climate of California in the 1700s. Almond trees tend to live 20 to 25 years and bear after year 3 to 4, reaching their maximum potential in years 6 to 10. The harvest season for California almonds begin in mid- to late-August and runs through the beginning of October, with the marketing year from August to July.

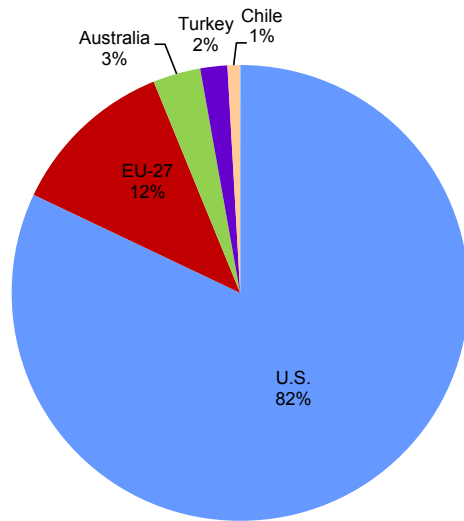
## California Is the World's Top Producer

The United States has been the largest producer of almonds worldwide since 1987 when it bypassed Spain. On average from 2006-2010, the United States cultivated just half the almond acreage Spain cultivated, but U.S. production was five times greater, with yield nearly 11 times above those of Spain over the same period. Nearly all U.S. commercial almonds are grown in California. In 2011, almond acreage was estimated at 835,000 acres of which 760,000 acres were bearing and 75,000 still non-bearing. Between 2006 and 2010, the United States produced 82 percent of the world's almonds on a shelled basis. The other top producers for shelled almonds over the same period were the European Union (EU-27) with 12 percent, Australia with 3 percent, Turkey with 2 percent, and Chile with 1 percent (fig. 9).

In terms of yield, the United States ranks fourth highest in the world, averaging 1,600 pounds per acre on a shelled basis between 2006 and 2010. The United Arab Emirates led worldwide yield with 8,400 pounds per acre, followed by Jordan

<sup>1</sup> Sabrina Correll, ERS, Market and Trade Economics Division, Crops Branch summer intern.

Figure 9  
Top five global almond producers, shelled basis\*



\* Average share of 2006-2010 world production  
Source: USDA, Foreign Agricultural Service, *Tree Nuts: World Markets and Trade*, October 2011

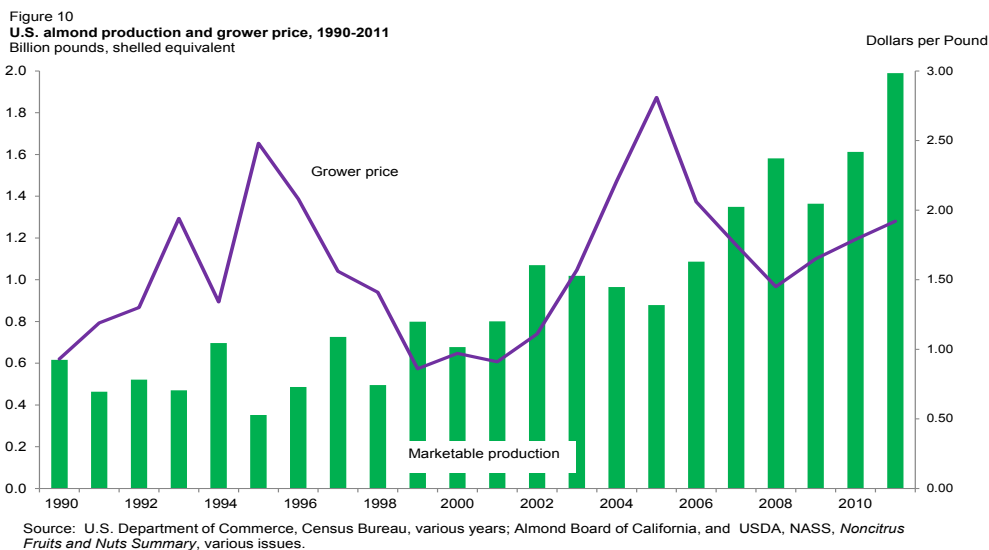
(1,900 pounds) and Lebanon (1,800 pounds). However, the combined acreage of these three high-yielding countries was only 16,000 acres versus the 683,000 acres cultivated in the United States.

The success of the California crop in seizing the No. 1 rank in world almond production is due in large part to the use of irrigation and mechanization, resulting in higher yields and cost effectiveness. Lower-than-average yields in Spain are due to the implementation of fewer technological inputs, small-scale production, with growers often relying on family labor (<http://ucce.ucdavis.edu/files/repositoryfiles/ca4706p11-70066.pdf>). Nevertheless, Spain has remained a significant global supplier because it cultivates the largest number of almond acres in the world, averaging 1.4 million acres between 2006 and 2010. However, acreage alone may not be enough to remain competitive in the global market. The Australian Almond Board projects that Australia will out-produce Spain in a matter of years, due to greater use of higher technology (such as drip irrigation) and large-scale production for greater efficiency and growth.

### ***California Experiences Record-Breaking Almond Production***

Marketable almond production in the United States reached a record high of 1.99 billion shelled pounds during the 2011/12 season (fig. 10). The increase in bearing acreage, ideal weather, and production technology changes led to the high level of production. Advances in irrigation, fertigation, and denser tree plantings (from 84.5 trees per acre in 1986 to 111 trees per acre in 2011) allow for more efficient production and higher yields per acre. Included in the increased bearing acreage are newer almond variety plantings for better pollination which in turn leads to larger crops.

Pollination is critical for strong almond yields. Since almond trees cannot self-pollinate, 1.6 million beehives (roughly 2 hives per acre) are brought in from all over the country for a few weeks every spring when the trees bloom. Industry sources site this as the largest single managed pollination event in the world. The



plight of bees struggling with Colony Collapse Disorder (CCD) has caused an increase in hive prices for almond growers and substantial interest in research to stop the loss of productive hives across the country.

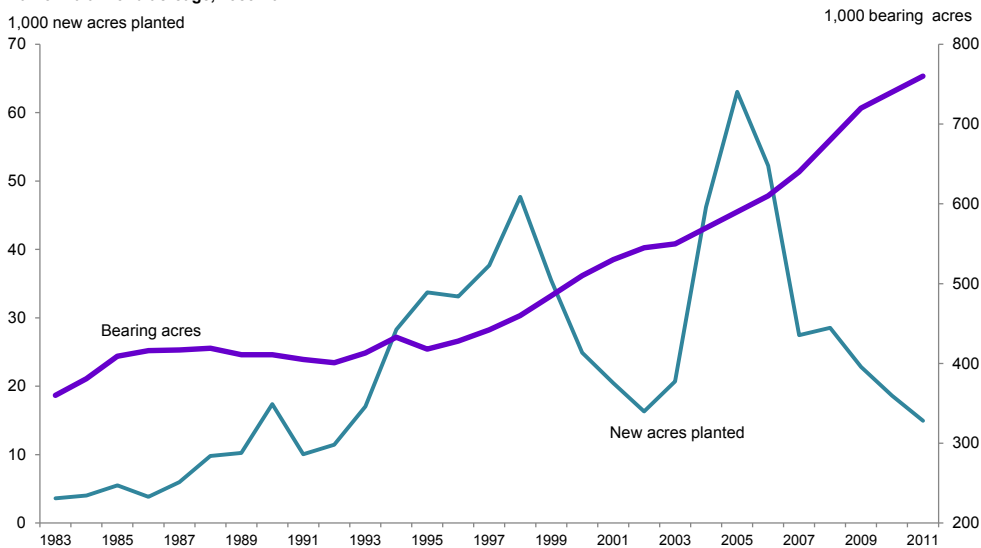
As with production, the rest of the almond industry is centralized in California, with 104 handlers to support over 6,000 growers in the State. Within California, production is largely concentrated in Kern, Fresno, Merced, and Stanislaus counties in the San Joaquin Valley. In 2011, these counties accounted for 64 percent of the State’s total almond bearing acreage. Additional almond production occurs in the Sacramento Valley. Nonpareil remained the most popular variety, with 37 percent of almond acres (bearing and nonbearing), followed by Butte (12 percent), Carmel (12 percent), Monterey (11 percent), and Padre (8 percent). The top five varieties accounted for 80 percent of the total almond acres in 2010.

Almonds were the fourth largest crop in terms of acreage in California behind hay, wheat, and grapes in 2010. Bearing acreage in California increased an average of 21,000 acres each year since 1995, reaching a record high of 760,000 acres in 2011. However, new plantings have slowed in recent years (fig. 11).

Since 1970, almonds have traditionally dominated bearing acreage of tree-nut crops in the United States. Between 2006 and 2010, almond acreage averaged 678,000 acres, followed by walnuts with 224,000 acres and pistachios with 122,000 acres. Since the 1996/97 season, almonds have consistently out-produced walnuts to become the largest tree nut crop grown in the United States on a per pound basis.

Despite swings in production due to the almond’s alternate bearing cycle, yields have seen vast and consistent improvement. Beginning with an average of 211 pounds per acre in the 1920s, yield has steadily increased through the first decade of the 2000s (2000-2009) when average yield reached 1,886 pounds per acre. Yields may continue to increase, as 2011 saw a record-breaking 2,600 pounds per acre. Improvements in production technology continue to drive growth in the industry.

Figure 11  
California almond acreage, 1983-2011



Source: California, *California Almond Acreage Report*, various issues.

## ***Strong Almond Crop Value Continues Through 2011***

The overall value of almond production has risen dramatically since the 1970s. From 2000 to 2009, crop value increased an average 15 percent a year, and reached a record \$3.86 billion in 2011. Grower prices, however, can vary widely year to year. As expected, grower prices have an inverse relationship with production and stock volumes. During the 2000s, grower prices averaged \$1.65 per pound, ranging from a low of \$0.91 in 2001 and a record high of \$2.81 in 2005.

## ***Small-Scale Producers Are Behind Increase in Number of Operations***

According to the Census of Agriculture, the number of almond farm operations decreased from 6,911 in 1997 to 6,482 in 2002. While 2007 levels are still below those of 1997, they did increase over the previous Census to 6,700. The majority of almond operations fall within the range of 5 to 249 acres, but most of the growth in the number of operations between 2002 and 2007 came from operations that were less than an acre in size.

## ***Exports Surge To Meet Growing Global Demand***

With large production and relatively low domestic demand compared to overall global demand, around 70 percent of the U.S. crop is destined for the export market (table 5). U.S. almond exports averaged 942 million pounds (shelled equivalent) annually between 2007 and 2011. The United States remains the world's largest exporter of almonds, accounting for over 80 percent of total volume during the last 5 years. Even with stagnating trade with traditional export markets such as the EU-

Table 15--Almonds: Supply and utilization (shelled basis), 1970/71 to date

Season 1/	Supply				Utilization		
	Beginning stocks 2/	Marketable Production 2/	Imports 2/	Total supply 3/	Exports 2/	Total	Per Capita
							Pounds
				--million pounds--			
1990/91	203.1	615.8	0.13	819.0	391.7	185.9	0.74
1991/92	241.4	463.2	0.20	704.8	401.2	155.5	0.61
1992/93	148.1	521.3	0.26	669.7	385.8	152.8	0.59
1993/94	131.1	470.1	0.29	601.5	343.2	155.7	0.59
1994/95	102.6	696.2	0.39	799.2	453.8	140.6	0.53
1995/96	204.8	351.4	0.56	556.9	335.1	129.0	0.48
1996/97	92.8	486.3	1.25	580.4	374.5	157.6	0.58
1997/98	48.3	726.2	0.10	774.6	447.9	154.8	0.56
1998/99	172.0	495.4	0.15	667.5	410.4	165.3	0.60
1999/00	91.8	798.6	0.19	890.6	439.5	275.2	0.98
2000/01	175.9	677.0	0.43	853.3	513.3	232.7	0.82
2001/02	107.3	800.7	0.81	908.8	585.7	242.1	0.84
2002/03	80.9	1,069.8	1.86	1,152.6	673.6	316.9	1.09
2003/04	162.0	1,018.2	2.77	1,183.0	698.9	335.2	1.15
2004/05	148.9	965.1	5.66	1,119.7	712.7	269.3	0.91
2005/06	137.7	878.5	9.21	1,025.4	728.5	184.7	0.62
2006/07	112.2	1,086.5	8.14	1,206.9	768.0	304.9	1.01
2007/08	133.9	1,348.5	7.11	1,489.6	891.4	367.0	1.21
2008/09	231.2	1,581.6	4.23	1,816.9	980.2	423.0	1.38
2009/10	413.7	1,363.7	5.61	1,783.0	1,030.7	431.0	1.40
2010/11	321.4	1,612.1	8.11	1,941.6	1,188.2	499.1	1.60
2011/12	253.9	1,989.5	15.93	2,259.3	1,351.8	572.3	1.82

1/ Season beginning July 1. Beginning in 1999-2000, season begins August 1.

2/ From the Almond Board of California.

3/ Marketable production plus imports plus beginning stocks.

Sources: USDA, Economic Research Service calculations.

27, Japan, and Canada, U.S. almond exports continue to climb. Much of the sustained growth in export volume is due to rising demand for U.S. almonds from emerging markets including China, Hong Kong, India, and the United Arab Emirates (fig. 12).

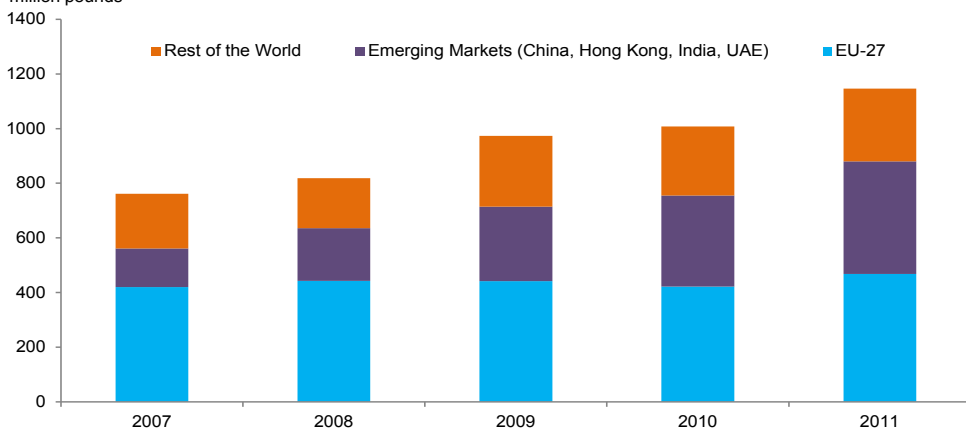
The value of California almond exports has been on the rise. In 2005, the University of California-Davis' annual *California's Agricultural Exports* report listed almonds as the State's most highly valued export commodity. Almond's value continued to grow at an average of 9 percent annually from 2005 to 2010. Almonds, in particular, are now California's most valuable individual export commodity, having surpassed cotton in 1998. From 2003 to 2010, California almond export value averaged \$1.79 billion. While the percentage of marketable production exported fluctuated from a low of 47 percent in 1984/85 to a high of 95 percent in 1995/96, there has been a general upward trend from the 1970s onward. In 2005, the University of California-Davis' annual *California's Agricultural Exports* listed almonds as the State's most highly valued export commodity.

### ***Almond Imports Growing but Remain Small***

During the 2000s, the United States only imported 2 percent of what was used in the domestic market on average. However, this figure is up from the 1970s average of 0.3 percent. Between 2007 and 2011, the United States imported almonds mostly from Spain (45 percent of total import volume), followed by Italy (15 percent), Chile (10 percent), Germany (9 percent) and China (2 percent)<sup>2</sup>. On average, during this period, imports averaged 3.7 million pounds.

Despite an upward trend since the 1990s, import volumes tend to fluctuate widely. After a rapid rise beginning in 2000, imports peaked in 2006, dropped off in 2009 and 2010 but then surged to a record high of 15.9 million pounds in 2011. Shelled

Figure 12  
U.S. almond exports, 2007-2011\*  
million pounds



\*shelled equivalents

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

<sup>2</sup> It is important to note that while Australia was the second largest source of imports in 2011 with 2.9 million pounds, there are no data available from 2007-2010 and consequently is not included in the preceding averages. Although Australia appears to be an outlier, given past trade patterns, this outlier may turn into a trend as Australian production continues to rise in both volume and share of world production.

almonds account for nearly all imports, in the 1990s averaging 88 percent share and in the first decade of the 2000s averaging an 86 percent share of total imports.

***Tree Nut Demand Is on the Rise, Especially for Almonds***

Tree nut consumption tends to be lower in the United States compared to other parts of the world, such as the European Union. However, per capita tree nut use in the United States is growing; up 40 percent from the average during the 1990s to reach an average of 3.3 pounds in the 2000s.

Almond use, in particular, experienced even faster growth, rising 77 percent from the 1990s' average to 1.2 pounds per person in the 2000s, reaching a record high of 1.6 pounds per capita in 2008/09. Additionally, the share of almonds in relation to the consumption of other tree nuts is on the rise. As pecan and walnut use fell by an annual average of 3 and 6 percent, respectively, between 2006 and 2010, almond use grew 9 percent annually, reaching a record high of 42 percent during the 2010/11 season. The U.S. is not alone in its increasing interest in almonds; global demand for almonds grew by an average of 10 percent per year between 2006 and 2010 to end at nearly 1.9 billion pounds.

Americans are including more almonds in their diet, typically in the form of a snack. Almonds are widely considered a nutrient-dense food, meaning they have high quantities of vitamins and minerals in relation to the number of calories per serving. These rising trends in domestic consumption of all tree nuts may continue as the industry invests in more diet-related research and domestic marketing at the same time the U.S. population continues to be health-conscious.

### *U.S. Wine Sales to China Sluggish in Spite of Strong Import Growth*<sup>1</sup>

The growth of the Chinese economy over the past 20 years has led to rising incomes and changes in consumer preferences resulting in increased demand for luxury goods and consumption of higher quality food and beverages. There is a longstanding tradition of grain-based alcohol consumption in China. However, the increase in per capita income and purchasing power, combined with an increase in Western influence, expatriates, Western-educated young professionals, and government campaigns to promote healthier lifestyles, have all led to an expansion of wine consumption. Consequently, China has emerged as a major player in global wine trade and is an important destination market for exporting countries.

According to United Nations trade data, in 2000, China ranked 51<sup>st</sup> in the world in terms of the value of bottled wine imports. That year, imports of bottled wine were only \$4.9 million, whereas major importers such as the United Kingdom, United States, and Germany imported \$2.1 billion, \$1.9 billion, and \$1.1 billion, respectively. However, China's imports increased to \$1.3 billion by 2011, making it the 5<sup>th</sup> largest importer in the world. In 2002, China accounted for less than a percent of bottled wine exports from any country. By 2010, however, it accounted for 8 percent of Australian exports, 7 percent of French exports, and 4 percent of U.S. exports. In spite of the significant growth in bottled wine imports in China, imports of American wine have not kept pace, while French wine continues to dominate the market.

#### *China's Preference for Foreign Bottled Wine Growing*

Although domestic wine comprises the majority of consumption in China, foreign wine represents a significant opportunity for expansion given the changing lifestyles and preferences of urban consumers, as well as the problems and challenges associated with domestic wine production and distribution. The fraudulent labeling of bulk and domestic wines has caused a lack of trust by consumers. Scandals involving counterfeit wine that are often sold at lower prices have been prevalent in China. Fake wine producers purchase used bottles from underground markets and refill them with either mixed cheap wines or grape juice. In October 2010, five wineries in the Changli district of Hebei province were found producing and distributing fake wines, by mixing sugar water with coloring and flavoring chemicals (<http://ntdtv.org/en/news/china/2010-12-31/630772304584.html>).

In 2011, a famous French winemaker Domaines Barons de Rothschild exported 200,000 bottles of Chateau Lafite Rothschild wine to China while media reports claimed that 600,000 bottles were traded that year. In addition to refilling used bottles, there are brand infringement problems in China where domestic suppliers mimic foreign wine labels. For instance, producers use brand names such as Lafite Family or Lafite Empire, but have no connection to the well-known French brand Lafite (Wang and Xiao, 2012). Other fraudulent practices include mislabeling low-end varieties as high-end to command higher prices. The fraudulent activities undertaken by domestic producers have resulted in a greater demand for foreign bottled wine.

<sup>1</sup>Andrew Muhammad, ERS, Market and Trade Economics Division (MTED), International Markets and Trade Branch. Amanda Leister, ERS, MTED, International Markets and Trade Branch (formerly). Lihong McPhail, ERS, MTED, Crops Branch.

## U.S. Share of Chinese Wine Imports Declining

According to China Customs data, bottled wine imports consistently grew over the last decade, doubling in some years (table 1A). From 2000 to 2011, imports increased steeply from \$4.87 million to \$1.274 billion. France has consistently been the primary supplier, accounting for 44 percent of the foreign bottled wine market on average. While the market share of Australian wine fluctuates from year to year, Australia has consistently been the second largest supplier, averaging 19 percent since 2000, reaching \$200 million in 2011. The average market share for the remaining major suppliers is 8.2 percent (United States), 8.1 percent (Italy), 5.3 percent (Chile), and 4.7 percent (Spain). In 2004, the U.S. share of the Chinese foreign bottled wine market peaked at 12.6 percent, but has since declined and is now around 4.2 percent.

Using China Customs data on bottled wine imports from the World Trade Atlas database, Global Trade Information Services, Inc., ERS estimated foreign wine demand in China for each exporting source (France, Australia, United States, etc.). Results of the study include marginal share estimates, which are measures of the responsiveness of wine imports from a particular country to a dollar increase in total wine imports in China (fig. 1A)<sup>2</sup>. In 2006, about \$0.35 of every dollar spent on foreign bottled wine in China went to French wine. During this same period, about \$0.15 of every dollar went to American wine. Since that time, there has been a growing preference for French wine, while the preference for American wine has declined. Currently, about \$0.55 of every dollar is spent on French wine, while less than \$0.05 is spent on American wine.

Chinese wine consumers are primarily interested in purchases that convey a level of prestige, status, and respect, all of which are important components of Chinese culture. Consequently, quality wines, especially quality imported wines have

Table 1A--Chinese bottled wine imports and exporter market share, 2000–12

Year	Imports (\$US mill.)	France	Spain	Italy	Australia	Chile	U.S.	ROW*
		Market share (%)						
2000	\$4.87	36.28	2.63	15.08	12.78	10.13	10.19	12.91
2001	4.98	48.67	4.93	8.57	16.08	1.57	11.39	8.78
2002	9.26	42.39	4.85	7.63	16.62	3.66	12.53	12.32
2003	12.89	43.39	4.46	6.75	19.34	4.01	11.74	10.31
2004	25.25	37.26	4.69	6.68	22.55	5.28	12.62	10.91
2005	39.94	37.67	4.02	7.09	22.61	6.4	8.58	13.62
2006	77.26	37.8	7.58	9.73	22.14	5.37	6.86	10.52
2007	184.13	44.93	6.76	9.71	19.8	4.61	4.67	9.53
2008	276.31	45.94	4.34	7.82	19.87	5.21	5.34	11.48
2009	377.42	47.99	3.64	5.98	21.22	6.38	5.54	9.24
2010	657.35	51.68	4.04	5.91	17.71	5.63	4.88	10.15
2011	1,274.26	55.39	4.86	6.07	15.21	5.4	4.23	8.83
<b>Average</b>	<b>245.33</b>	<b>44.12</b>	<b>4.73</b>	<b>8.09</b>	<b>18.83</b>	<b>5.31</b>	<b>8.21</b>	<b>10.72</b>

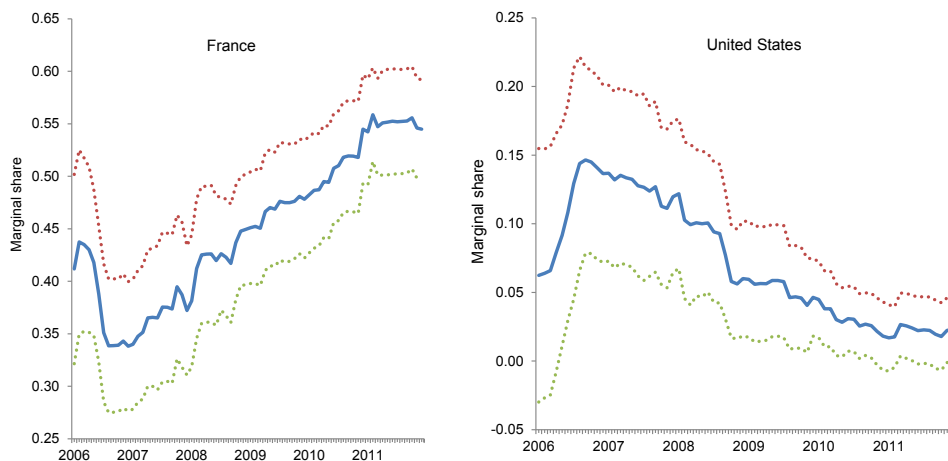
\* ROW is the rest of the world.

Source: World Trade Atlas, Global Trade Information Services, Inc.

<sup>2</sup> The Rotterdam demand system was used to estimate the demand for imported bottled wine in China. Wine imports were assumed different based on country of origin, which allowed for estimating how imports from a given country responded to prices in all supplying countries and total wine expenditures.



Figure 1A  
The effects of a dollar increase in total wine expenditures in China on imports from France and the United States



Notes: Each graph gives the responsiveness of bottled wine imports from a particular source to a dollar increase in total bottled wine imports at a particular point in time. The solid line is the mean or average response; dotted lines are 95-percent confidence bands.  
Source: USDA, Economic Research Service calculations.

become the choice of many high-end consumers. This preference for imported wine is also brand driven, often lacking emphasis on taste. Bordeaux and Burgundy wines enjoy strong recognition among Chinese consumers, and high-end consumers demand First Growth (*Premier cru*) French wines, such as Lafite and Latour.<sup>3</sup> Because French wines are considered of the highest quality, they currently dominate the Chinese import market, which is likely to continue according to a recent survey at <http://www.winesino.com/html/201206/10949.html>.

Although the growth in Chinese wine imports has been phenomenal, there is the potential for further growth in the future. Domestic wine still accounts for the majority of wine sales, but the share of imports in total sales has been increasing. In the early 2000s, imports were around 10 percent of the total market. Estimates for 2011 indicate that Chinese wine production reached 1.16 billion liters, while imports were about 365 million liters, which is 25 percent of the total market. Although per capita wine consumption in China more than tripled in recent years to 0.9 liters, this is still low when compared to France (45 liters), Argentina (25 liters), Australia (25 liters), and the United States (9 liters) ([www.wineinstitute.org/files/PerCapitaWineConsumptionCountries.pdf](http://www.wineinstitute.org/files/PerCapitaWineConsumptionCountries.pdf)). Old World countries like Italy and Spain are gaining more recognition as Chinese consumers gain a greater knowledge of wine. Additionally, imports from New World countries like Australia and Chile are also growing as they sell at lower price points than other foreign suppliers. If U.S. wine exporters want to gain a greater share of the Chinese market, they must change of the quality perceptions of American wines to Chinese consumers.

## References

Wang, Zhuoqiong and Xiangyi Xiao, 2012. "Wine Firm Vows to Protect Lafite's Image," *China Daily*, May 26.

<sup>3</sup> *Premier cru* is a French wine term corresponding to "First Growth", which can be used to refer to classified vineyards, wineries and wines.

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