



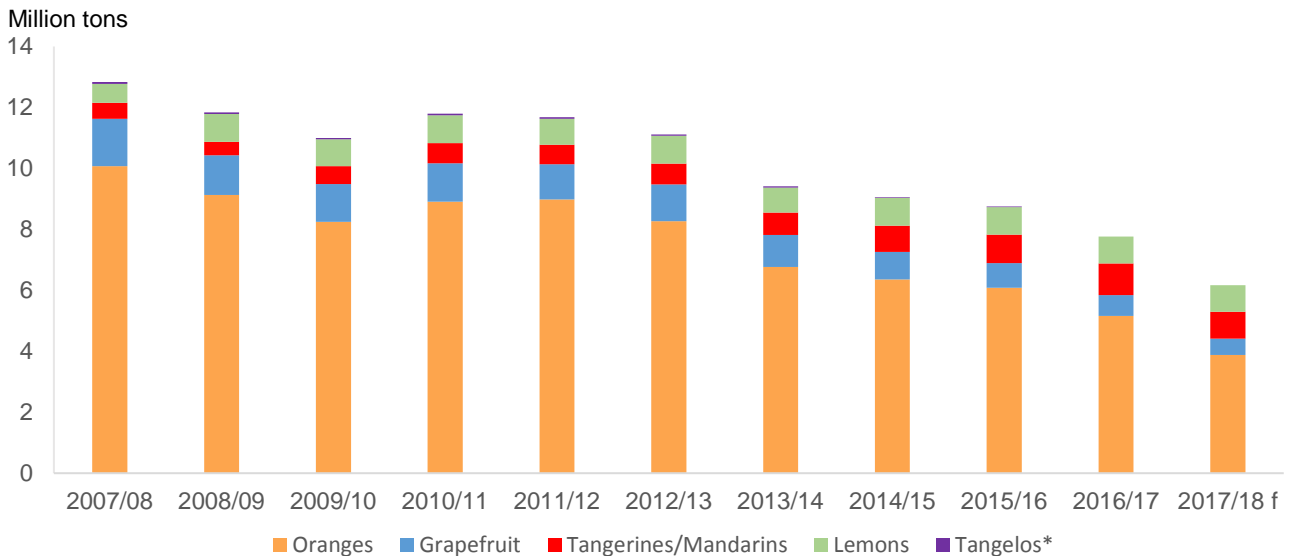
Fruit and Tree Nuts Outlook

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Tight Supplies in the U.S. Citrus Market

U.S. citrus production continues to decline. At the current forecast of 6.16 million tons for 2017/18, the U.S. citrus crop is down 21 percent from the previous season, reflecting expected reduced national production across all major citrus commodities and overall smaller crops in the four major-producing States. The decline in citrus production is expected to be the greatest in Florida, largely driven by crop losses from Hurricane Irma. At the same time, orange and grapefruit crops are anticipated to have the largest declines in national citrus output, with reductions by as much as 25 percent and 22 percent, respectively, if realized. Tight supplies are resulting in higher citrus prices in the domestic market.

U.S citrus production declining



f = forecast

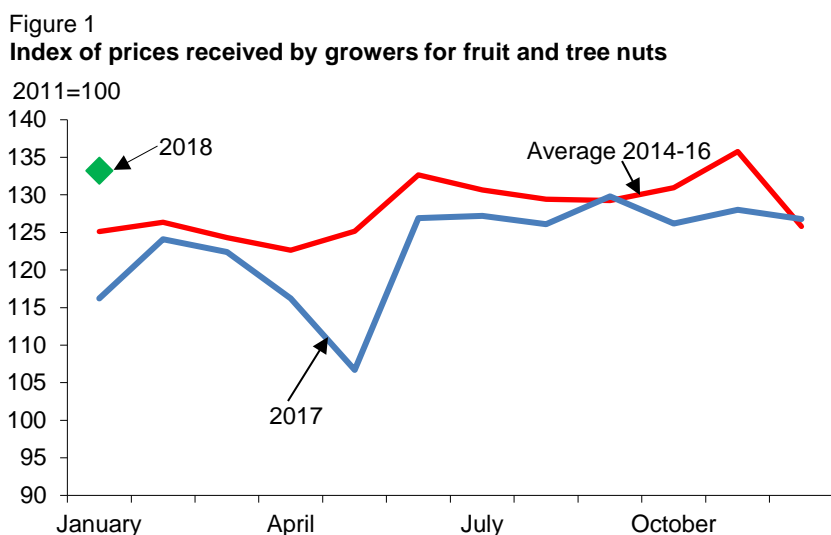
* Included with tangerines/mandarins beginning in 2016/17.

Source: USDA, National Agricultural Statistics Service, *Crop Production*, March 2018 issue, and *Citrus Fruit Summary*, various

Price Outlook

Fruit and Nut Grower Price Index Higher

Fruit grower prices in 2018 began the year strong, denoted by the higher grower price index for fruit and nuts in January. At 133.2 (2011=100), the index was up from both the January 2017 index of 116.2 and the January 2014–16 index average of 125.1 (fig. 1). Significantly higher grower prices for citrus fruits as well as fresh pears and strawberries strengthened the January index (table 1).



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

Citrus fruit prices, especially in the fresh market, have held strong this season, mostly on account of reduced domestic production. January 2018 prices for fresh oranges, grapefruit, and lemons were at their highest average levels for the month since the 1990s. Smaller orange and grapefruit crops in Florida and California have contributed to tight domestic supplies. A mid-February cold snap in California, the dominant supplier of U.S. fresh-market oranges, further slowed fresh orange shipments that month, although potential losses to the crop were mitigated with the application of frost protection methods. The shipping season for U.S. citrus is expected to finish early given the smaller crops, likely keeping upward pressure on prices this spring.

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

Commodity	December		January		Year-to-year change	
	2016	2017	2017	2018	December	January
	-----Dollars per box-----				Percent	
Citrus fruit: ¹						
Grapefruit, all	12.14	15.14	11.25	15.42	24.7	37.1
Grapefruit, fresh	15.94	20.51	16.23	22.43	28.7	38.2
Lemons, all	23.13	29.77	23.44	29.93	28.7	27.7
Lemons, fresh	31.60	37.88	30.91	38.61	19.9	24.9
Oranges, all	9.64	12.33	9.63	14.74	27.9	53.1
Oranges, fresh	16.96	24.67	16.09	25.45	45.5	58.2
Noncitrus fruit:						
Apples, fresh ²	0.396	0.396	0.397	0.376	0.0	-5.3
Grapes, fresh ²	1.550	0.800	--	--	-48.4	--
Peaches, fresh ²	--	--	--	--	--	--
Pears, fresh ²	0.378	0.445	0.391	0.439	17.7	12.3
Strawberries, fresh	1.540	1.820	1.470	1.690	18.2	15.0

-- Insufficient number of reports to establish an estimate.

¹ Equivalent on-tree price.

² Equivalent packinghouse-door returns for CA, MI, NY, and PA (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*.

Overall tight fresh-pear supplies from domestic and import sources have resulted in relatively strong grower prices since fall 2017. As with citrus fruit, fresh pear prices in January 2018 also averaged a record high for the month since 1990, continuing the pattern held since October 2017. Prices are likely to continue higher as 2017/18-season (July–June) supplies continue to wane through the early summer.

Despite the expected smaller U.S. apple crop, plentiful supplies in cold storage in early 2018 have weakened fresh apple prices. By January 2018, the average price had declined to \$0.376 per pound, down 5 percent from the same period last year, a change from earlier in the 2017/18 season (August–July) when prices were higher than the previous year. The recent lower prices are likely helping to increase sales, especially in the export market. Data from the U.S. Apple Association indicate fresh apple movement was up 15 percent in January and February compared with same time last year. More than half way through the season, fresh apple holdings (supplies in cold storage) as of March 1 remained higher than the 5-year average, likely keeping a lid on prices through the end of the season.

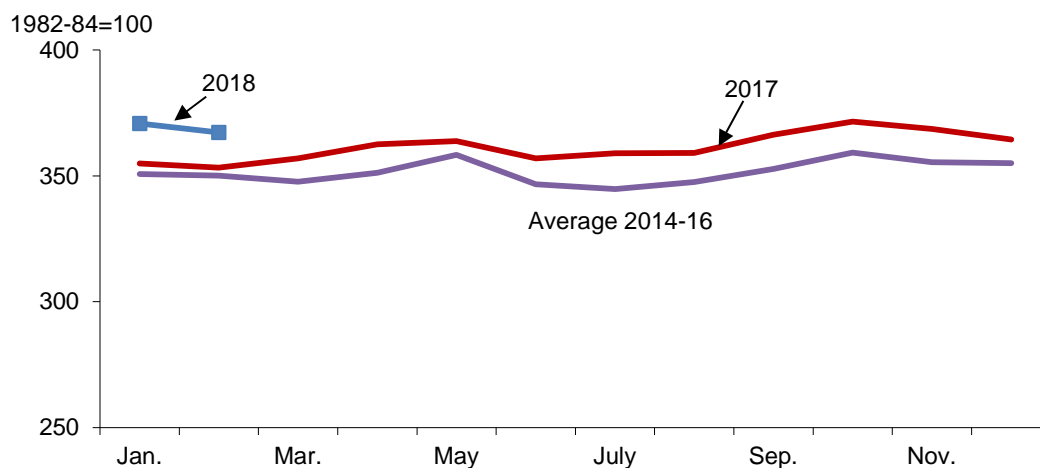
Reduced strawberry supplies from Florida and Mexico due to frigid temperatures in December 2017 and January 2018 provided a boost for early-winter strawberry prices. Warm weather thereafter has improved supply volumes, likely driving prices lower for the rest of the winter. Meanwhile, a mild winter in California advanced the strawberry harvest in that State, with early-season supplies running above last year's volume. Recent cold and rainy weather, however,

could result in short-term supply gaps, likely providing strength to early-spring strawberry prices as winter supplies from Florida and Mexico finish for the season.

Consumer Price Index for Fresh Fruit Continues Strong

Staying higher than-year-ago levels since April 2017, the Consumer Price Index (CPI) for fresh fruit was reported at 367.2 (1982–84=100) in February 2018, up from 353.2 in February 2017 and higher relative to previous years (fig. 2). Based on data from the U.S. Department of Labor, Bureau of Labor Statistics (BLS), year-to-year retail price increases for navel oranges, grapefruit, lemons, strawberries, and Thompson seedless grapes in February bolstered the February fresh fruit CPI (table 2).

Figure 2
Consumer Price Index for fresh fruit



Source: U.S. Department of Labor, Bureau of Labor Statistics.

BLS has not reported the average retail price for Red Delicious apples since November 2017. Despite the downward pressure on grower prices, the monthly CPI for apples was reported higher than year-ago levels since September 2017, suggesting generally higher retail apple prices through the first 2 months of 2018 (fig. 3). Lower imports and increased movement to export markets likely contributed to the boost in apple retail prices.

Overall reduced supplies of major citrus fruit, grapes, and strawberries (primarily from Florida and Mexico) have elevated prices to consumers for these fruits. Delays in crop maturity due to cold weather have resulted in lower grape import volumes from Chile and Peru early this winter, reducing overall supplies in the United States. USDA, Agricultural Marketing Service (AMS) data on advertised retail prices for different varieties of table grapes averaged higher than last year from January through mid-March (except for March prices to date for Red Globe grapes).

Despite lower shipment volumes in the early winter, Chile's production for 2017/18 is expected to grow due to increased bearing acreage, potentially leading to a modest growth in exports, according to USDA's Foreign Agricultural Service (FAS). Chilean grape volumes are rebounding in March, likely softening grape prices in the U.S. market through early spring.

Table 2--U.S. monthly retail prices for selected fruit, 2017-18

Commodity	Unit	2017		2018		2017-18 change	
		January	February	January	February	January	February
		--- Dollars ---		--- Dollars ---		--- Percent ---	
Fresh:							
Navel oranges	Pound	1.186	1.191	1.326	1.339	11.8	12.4
Grapefruit	Pound	1.163	1.125	1.251	1.269	7.6	12.8
Lemons	Pound	1.937	1.970	2.045	2.060	5.6	4.6
Red Delicious apples	Pound	1.247	1.200	--	--	--	--
Bananas	Pound	0.573	0.573	0.568	0.574	-0.9	0.2
Peaches	Pound	--	--	--	--	--	--
Anjou pears	Pound	1.577	1.570	1.641	1.560	4.1	-0.6
Strawberries ¹	12-oz. pint	2.612	2.367	2.872	2.492	10.0	5.3
Thompson seedless grapes	Pound	3.238	2.836	3.023	2.900	-6.6	2.3
Processed:							
Orange juice, concentrate ²	16-fl. oz.	2.608	2.653	2.521	2.538	-3.3	-4.3
Wine	liter	12.391	12.363	12.740	12.553	2.8	1.5

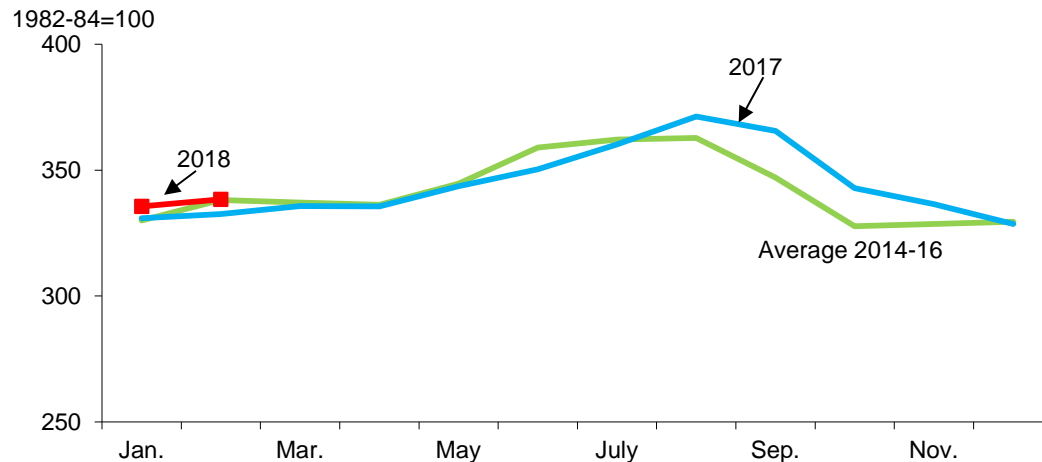
-- Insufficient marketing to establish a price.

¹ Dry pint.

² Data converted from 12-fluid-ounce containers.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Figure 3
Consumer Price Index for apples



Source: U.S. Department of Labor, Bureau of Labor Statistics.

With tight supplies, banana retail prices have strengthened in February from the previous month and increased to match the February 2017 average price. AMS shipment data show the February import volume lagged by as much as 50-60 percent from the previous month and last year's February volume. Supplies have remained diminished through mid-March, likely providing continued strength to prices.

Citrus Fruit Outlook

Lower 2017/18 Harvest Anticipated for All Citrus Fruit

The current U.S. citrus crop forecast for 2017/18 is at 6.16 million tons, down 21 percent from the 2016/17 final utilized total of 7.77 million tons (table 3). This forecast is 9 percent lower than the initial USDA, National Agricultural Statistics Service (NASS) forecast of 6.8 million tons in October 2017. The overall decline reflects reduced citrus production across all major citrus producing States and decreased U.S. production for all the major citrus crops. Decreases in Florida's citrus production are largely explained by Hurricane Irma, which hit the State in September 2017, coinciding with the start of the 2017/18 season. The hurricane reduced the amount of fruit going into processing and severely damaged many citrus trees. As of the March 2018 NASS *Crop Production* report, domestic all-orange production is forecast at 3.88 million tons in 2017/18, down 25 percent from 2016/17—the largest crop loss of all the citrus fruits. Grapefruit production is also expected to suffer a significant decline, dropping to 530,000 tons in 2017/18, 22 percent below last season. Production is expected to be down this season for tangerines/mandarins, declining by 15 percent to 881,000 tons, while lemon production is forecast to decrease 2 percent to 870,000 tons.

California Orange Production Continues To Decline

The March issue of the NASS *Crop Production* report forecast the 2017/18 California all-orange production at 1.78 million tons, down 12 percent from 2016/17. This year-to-year decline is steeper than what was initially forecast in October 2017. Both the navel and Valencia orange crops are expected to be smaller, putting upward pressure on fresh orange prices as California supplies a majority of U.S. oranges for fresh use.

The California navel crop is estimated at 1.40 million tons, down 11 percent from last season. Similarly, Valencia orange production in California is estimated at 380,000 tons, 14 percent less than last season's final utilized production of 440,000 tons. Though imports of fresh oranges are increased so far this season, fresh orange prices in California, November 2017 through January 2018, were significantly higher than the same time in 2016/17, averaging \$26.65 per 80-pound box (table 4). Based on AMS data, year-to-date movement of California oranges through early March was up 27 percent from the same period last year, reflecting increased shipments in January. California navels typically remain in season through early summer while the Valencia crop, along with imports, have a heavier market presence in the spring through early summer.

The anticipated smaller Valencia crop and the expected earlier finish to the season will likely continue to keep the upward pressure on fresh orange prices in the coming months.

Table 3--Citrus: Utilized production, 2015/16, 2016/17 and forecast for 2017/18¹

Crop and State	Utilized		Forecast for	Utilized		Forecast for
	2015/16	2016/17	2017/18 as of 03-2018	2015/16	2016/17	2017/18 as of 03-2018
	---- 1,000 boxes ² ----			----1,000 tons ----		
Oranges:						
Early/midseason and navel:						
California	47,200	39,300	35,000	1,888	1,572	1,400
Florida ³	36,100	33,000	19,000	1,625	1,485	855
Texas	1,351	1,090	1,430	57	46	61
Total ⁴	84,651	73,390	55,430	3,570	3,103	2,316
Valencia:						
California	11,300	11,000	9,500	452	440	380
Florida	45,600	35,750	26,000	2,052	1,609	1,170
Texas	340	280	400	14	12	17
Total	57,240	47,030	35,900	2,518	2,061	1,567
All oranges	141,891	120,420	91,330	6,088	5,164	3,883
Grapefruit:						
California	3,800	4,000	4,200	152	160	168
Florida	10,800	7,760	4,650	459	330	198
Texas	4,800	4,800	4,100	192	192	164
All grapefruit	19,400	16,560	12,950	803	682	530
Tangerines and mandarins:						
Arizona	--	--	--	--	--	--
California	21,700	23,900	21,000	868	956	840
Florida	1,415	1,620	860	67	77	41
All tangerines and mandarins	23,115	25,520	21,860	935	1,033	881
Lemons:						
Arizona	1,600	1,650	1,250	64	66	50
California	21,000	20,500	20,500	840	820	820
All lemons	22,600	22,150	21,750	904	886	870
Tangelos ⁴						
Florida	390	--	--	18	--	--
All citrus ⁵	207,396	184,650	147,890	8,748	7,765	6,163

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

²Net pounds per box: oranges in California (CA)-80 (75 prior to the 2010-11 crop year), Florida (FL)-90,

Texas (TX)-85; grapefruit in CA-80 (67 prior to the 2010-11 crop year), FL-85, TX-80; lemons-80 (76 prior to the 2010-11 crop year); tangelos-90; tangerines and mandarins in AZ and CA-80 (75 prior to the 2010-11 crop year), FL-95.

³Includes Temples. Beginning in 2016/17, Temples included in tangerines and mandarins for Florida.

⁴Beginning in 2016/17, tangelos are included in tangerines and mandarins for Florida.

⁵Totals may not be equivalent to the sum of the categories due to rounding.

Source: USDA, National Agricultural Statistics Service, *Crop Production*, March 2018 issue, and *Citrus Fruits 2017* Summary (August 2017).

Table 4--Fresh oranges: Average equivalent on-tree prices received by California growers, 2012/13-2017/18

Month	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	----- Dollars/box ¹ -----					
November	15.20	18.17	20.14	21.20	19.76	28.02
December	12.90	15.97	19.24	19.40	16.96	25.72
January	11.50	21.77	17.84	16.90	15.96	26.22
February	10.10	23.67	16.74	14.30	17.56	
March	10.13	23.41	16.14	13.14	18.45	
April	11.45	23.90	16.6	12.65	18.72	
May	14.05	23.70	16.77	14.15	20.4	
June	15.31	20.74	15.78	14.06	21.62	
July	11.90	18.17	14.24	13.56	24.26	
August	12.30	17.67	16.34	13.30	26.16	
September	14.80	18.27	20.04	14.90	28.86	
October	15.30	15.77	--	--	31.04	
Nov.-January average	13.20	18.64	19.07	19.17	17.56	26.65

¹80-lb box.

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

Tighter supply conditions are limiting export volumes thus far. With the bulk of U.S. fresh orange exports normally occurring in the spring, season-to-date exports (November 2017 through January 2018) are at 136,971 short tons, down 11 percent from the same time last season. Data show moderate to significant declines in exports to several major markets in East Asia and to Canada, the leading export market for U.S. oranges. USDA's Economic Research Service (ERS) forecast U.S. orange exports to reach 571,000 tons in 2017/18, down 15 percent from last season.

For the same 3-month period, fresh orange imports are strong at 19,251 short tons, up 43 percent from the matching period last season and 53 percent above the previous 5-year average for those 3 months. Current import levels indicate the potential for a continuation of the trend of year-to-year increases in total import volume experienced since 2011/12. Given the smaller fresh-orange crop in California and Florida, ERS forecasts imports to be 225,294 tons in 2017/18. If realized, imports would be 12 percent above last season's 180,529 tons. Mexico and Chile continue to be the two most important suppliers of fresh oranges for the U.S. market, followed by South Africa. Mexico has shipped 39 percent higher volume of fresh oranges to the United States this season to date, while imports from Chile normally take place between June and October.

Hurricane Irma Contributed To Florida Orange Crop Decline

NASS forecasts Florida's 2017/18 all-orange crop at 2.03 million tons, down 53 percent from last season's 3.09 million tons. Aside from disease pressure, primarily citrus greening, Hurricane Irma was the main contributor to reduced production. In addition, fruit size was projected to remain below average at harvest. Currently, the Valencia orange production forecast is 1.17 million tons, down 27 percent from 2016/17 and 43 percent below the 2.05-million-ton 2015/16 harvest. At 855,000 tons, the non-Valencia crop faces a 42-percent decline from 2016/17 and a 47-percent decline from 2015/16. According to NASS, 99 percent of the early-midseason rows and 96 percent of the navel rows were harvested by late February. As of early March, 48 percent of all the oranges produced this season have been utilized for the processing and fresh market, according to the Florida Citrus Administrative Committee (FCAC).

Despite the impacts of Hurricane Irma, the average processing orange price reported in November 2017 was only \$5.05 per box which has kept the 3-month (November-January) average price 9 percent lower than the same period in 2016/17 (table 5). Current tight supplies, however, are being better reflected in prices averaging higher than year-ago levels in December 2017 and January 2018.

Table 5--Processing oranges: Average equivalent on-tree prices received by Florida growers, 2012/13-2017/18

Month	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
----- Dollars per 90-lb box -----						
October	--	--	--	--	--	--
November	5.38	7.08	--	--	--	5.05
December	5.82	7.90	7.25	8.25	7.25	7.65
January	6.00	8.20	8.15	8.46	8.25	8.55
February	6.17	8.20	8.56	9.59	8.85	
March	8.40	10.35	10.04	10.55	10.37	
April	8.60	10.75	10.20	10.55	10.50	
May	8.70	10.95	10.30	10.65	10.60	
June	8.80	11.45	10.30	--	--	
Oct.-January average	5.73	7.73	7.70	8.36	7.75	7.08

-- = Insufficient data to establish price.

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

With overall Florida orange production down, ERS forecasts orange juice production in 2017/18 to decline 39 percent to 266 million single-strength equivalent (sse) gallons from the previous season (table 6). Lower juice yields and the smaller crop size will be partially supplemented by more imports. ERS forecasts imports to increase to 466 million sse gallons. If realized, this would represent a 12-percent increase from a season ago. Already, year-over-year increases in import volume have been reported for each of the first 4 months of the current marketing

season, with season-to-date shipments gains of over 30 percent from Brazil, the major supplier, and Mexico. The combination of lower beginning stocks and the decline in orange juice production resulted in reduced overall domestic supplies, which in turn have diminished export volumes thus far. Monthly exports are significantly lower, lagging below last season's volumes in all 4 months of 2017/18. Based on these early indications and lower domestic production levels, ERS forecasts U.S. orange juice exports in 2017/18 to be down 22 percent from last season. Lower exports and increased imports are not likely to offset lower domestic production, driving down orange juice supplies for domestic utilization and ending stocks.

Table 6 --United States: Orange juice supply and utilization, 2000/01 to present

Season ¹	Beginning stocks	Production	Imports	Supply	Exports	Domestic consumption	Ending stocks	Per capita consumption
-----Million SSE gallons ² -----								Gallons
2000/01	645	1,387	258	2,291	123	1,470	698	5.18
2001/02	698	1,433	189	2,321	181	1,452	688	5.06
2002/03	688	1,250	291	2,229	103	1,419	707	4.90
2003/04	707	1,467	222	2,395	123	1,451	822	4.96
2004/05	822	970	358	2,149	119	1,407	623	4.77
2005/06	623	986	299	1,909	138	1,312	459	4.41
2006/07	459	889	399	1,747	123	1,248	376	4.15
2007/08	376	1,156	404	1,935	136	1,152	647	3.80
2008/09	647	1,060	317	2,025	125	1,221	679	3.99
2009/10	679	840	328	1,848	147	1,143	557	3.70
2010/11	557	919	265	1,742	210	1,140	391	3.67
2011/12	391	959	223	1,574	154	971	449	3.10
2012/13	449	847	421	1,717	159	1,024	534	3.25
2013/14	534	663	418	1,615	158	974	483	3.06
2014/15	483	592	460	1,534	113	922	499	2.88
2015/16	499	503	390	1,392	92	880	420	2.73
2016/17	420	422	416	1,258	79	806	374	2.48
2017/18F	374	257	466	1,097	61	714	321	2.18

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

²SSE = single-strength equivalent.

Source: USDA, Economic Research Service.

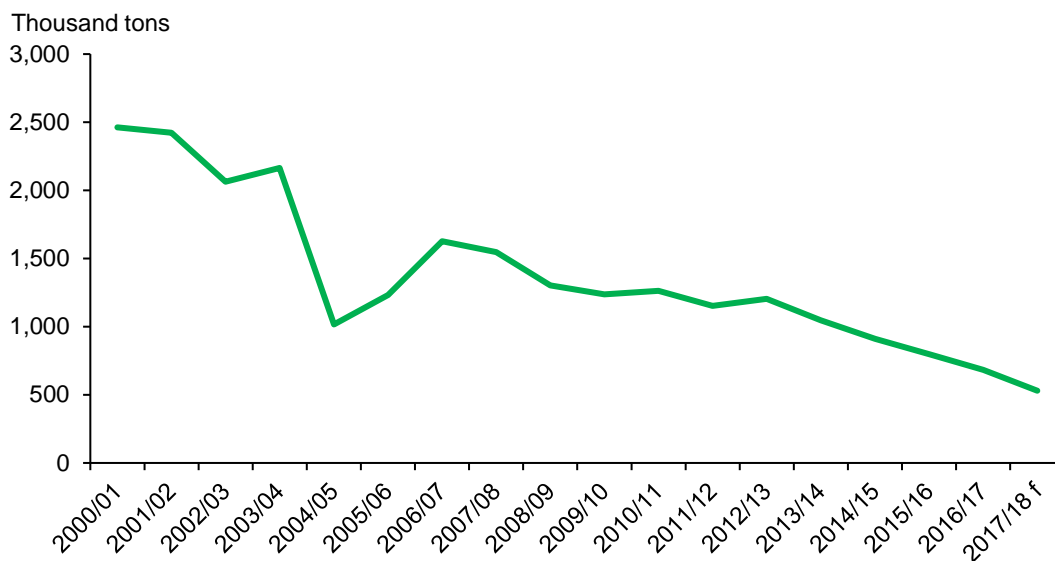
The Florida Department of Citrus's (FDOC) Nielsen retail sales data through February shows a trend of overall increased price per gallon and lesser sales. Total orange juice sales volume from October 2017 through mid-February 2018 is down 4 percent compared to the previous season, with prices up 2 percent. Not-from-concentrate (NFC) orange juice sales are also down 4 percent through mid-February, with prices up only 1 percent. NFC orange juice prices for the season so far are averaging \$7.69 per gallon, compared to \$7.61 per gallon in 2016/17.

Forecast Decline in Grapefruit Production for 2017/18

Total U.S. grapefruit production is projected down 22 percent to 530,000 tons (or approximately 1.06 billion pounds) in 2017/18, from 682,000 tons (or 1.36 billion pounds) in 2016/17 (fig. 4).

While California grapefruit production is expected to increase this season, it will not offset larger crop losses in Florida and Texas.

Figure 4
Total U.S. grapefruit production, 2000/01-2017/18



f = forecast

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

The Row Count Survey conducted by NASS in late February indicated that 89 percent of the red grapefruit rows and 92 percent of the white grapefruit rows were already harvested. Due to the smaller crop size, FCAC reported less fruit waiting to be harvested as of early March, compared with the remaining fruit reported during the same period last season. AMS also reported cumulative movement of grapefruit to markets through early March slowed significantly relative to the same period in 2016/17. As a result, fresh grapefruit prices are registering their highest levels in the past 5 years, despite increased imports for the season thus far. The October 2017 to January 2018 average price was 34 percent above the average price from last season for the same period (table 7).

U.S. fresh grapefruit import volume for the season through January 2018 was up 9 percent, compared with the same period in 2016/17, mostly on higher volumes received from South Africa and Mexico. At the same time, with the smaller crop, season-to-date fresh grapefruit

exports were down 45 percent, with significantly lower volumes sent to key markets, including Japan, Canada, France, South Korea, and the Netherlands.

Florida grower prices for processing grapefruit are up from last season for the first 4 months of 2016/17 (table 8). Prices in January 2018 averaged \$4.27 per 85-lb box, which is the strongest price since 2011/12 for the same month. Seasonal declines in supplies characteristic of the latter half of the season, coupled with the crop losses in Florida, point to a continued strengthening of prices for the remainder of the season. Season-to-date retail grapefruit juice sales are currently down 3 percent from the previous season due in part to reduced availability, with juice prices up by 2 percent to \$7.39 per gallon, according to FDOC's February Nielsen sales report.

Table 7--Fresh grapefruit: Average equivalent on-tree prices received by U.S. growers, 2012/13-2017/18

Month	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
October	16.28	7.96	15.42	17.54	22.63	27.90
November	11.40	12.63	12.99	16.51	16.03	24.36
December	9.87	12.73	12.49	15.68	15.94	20.51
January	10.70	13.07	10.90	15.32	16.23	22.43
February	9.16	11.73	10.43	14.95	16.45	
March	7.73	11.89	10.33	14.59	18.37	
April	9.11	10.85	9.93	18.06	19.98	
May	8.26	8.70	--	--	--	
Oct.-Jan. average	12.06	11.60	12.95	16.26	17.71	23.80

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

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

Table 8--Processing grapefruit: Average equivalent on-tree prices received by Florida growers, 2011/12-2017/18

Month	2011/12	2013/14	2014/15	2015/16	2016/17	2017/18
October	--	3.00	-0.47	--	-0.04	--
November	2.06	3.82	-0.19	1.36	-0.01	1.82
December	2.43	3.59	0.40	2.27	0.03	2.74
January	2.90	3.91	3.23	2.58	1.65	4.27
February	3.33	4.34	3.55	2.95	1.35	
March	3.06	4.41	3.47	2.91	2.34	
April	2.78	0.20	3.25	2.48	2.70	
May	3.48	--	--	--	--	
Oct.-Jan. average	2.46	3.58	0.74	2.07	0.41	2.94

-- = Insufficient data to establish price.

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

Forecast Lemon Production Down Slightly in 2017/18

The U.S. lemon crop for the 2017/18 marketing season (August–July) is anticipated to be down 2 percent to 870,000 tons from the 2016/17 final utilized production of 886,000 tons. The overall smaller crop is driven exclusively by a 24-percent reduction in Arizona’s production. Despite some heavy wind events during the latter part of 2017, the California lemon crop is forecast to remain unchanged at 820,000 tons.

AMS reported overall slower movement of U.S. lemons this season through mid-March. Despite tighter domestic supplies, fresh lemon grower prices for the season through January averaged \$35.38 per box, compared to \$36.48 over the same period in 2016/17 (table 9). Besides very strong imports at the start of the season in August (up significantly from Chile and Mexico), industry reports of wind-related fruit scarring may have also weakened early-season prices. Prices in December of 2017 and January of 2018 improved, averaging the highest for those months since the 2011/12 season. Seasonally increasing supplies from California, along with increased imports, could temper price increases in the near term.

Table 9--Fresh lemons: Average equivalent on-tree prices received by U.S. growers, 2012/13-2017/18

Month	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
	----- Dollars per box ¹ -----					
August	21.62	31.62	43.81	--	--	34.25
September	20.25	33.38	44.45	36.16	36.2	34.39
October	19.47	35.17	44.88	39.38	35.94	32.04
November	17.30	32.94	39.86	39.73	33.93	35.11
December	16.48	30.53	34.69	36.00	31.6	37.88
January	15.82	31.71	32.84	33.48	30.91	38.61
February	14.37	30.79	31.24	33.62	31.45	
March	13.72	30.73	30.05	32.40	33.68	
April	17.62	32.92	30.51	32.4	36.58	
May	21.92	35.02	37.81	37.3	38.98	
June	24.62	38.52	45.01	40	46.18	
July	25.82	44.22	47.21	37.9	45.78	
Aug.-Jan. average	19.08	33.96	38.53	36.22	36.48	35.38

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

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

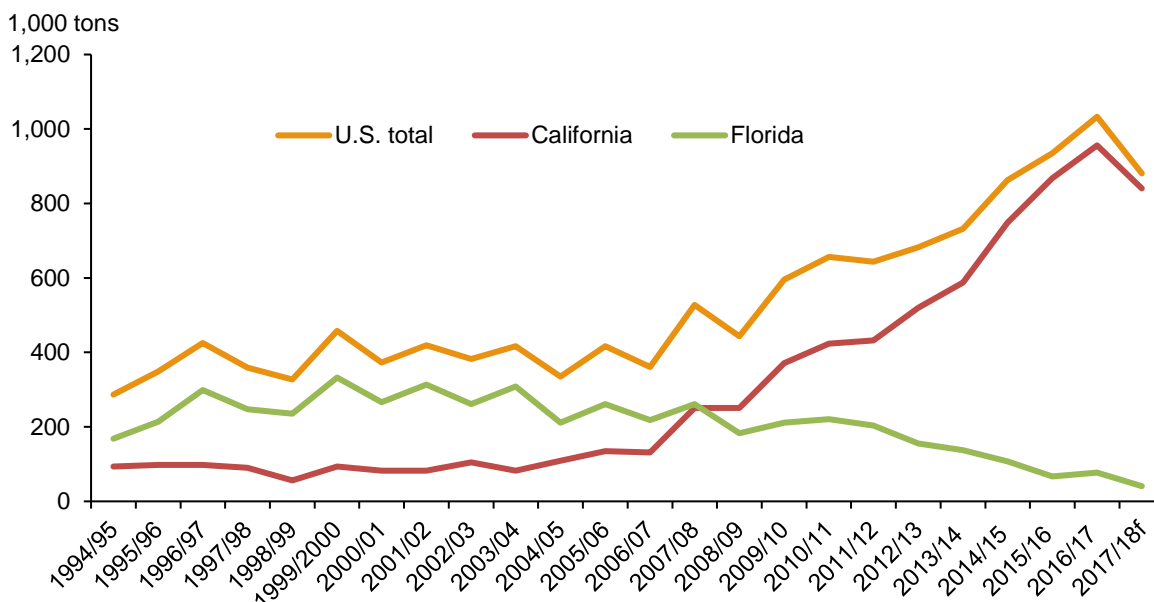
Imports of fresh lemons from August 2017 through January 2018 were 10 percent above the same period last year, reaching 73,112 tons. This represents a continuation of a season-to-season growth in U.S. fresh lemon imports, starting in 2013. Chile and Mexico continue to be the main suppliers of fresh lemons to the United States, with their combined share to total U.S. lemon imports ranging from 91 to 97 percent in the 2012–17 period. Fresh lemon exports from

August of 2016 through January 2018 were down 6 percent compared to last year, due to lower export volume to major destination markets such as Canada, Hong Kong, and Australia.

Smaller Tangerine Crops in California and Florida in 2017/18

Total production of U.S. tangerines/mandarins is estimated at 881,000 tons in 2017/18 (October–September), down 15 percent from the previous year, if realized (fig. 5). As of March’s NASS *Crops Production* report, California’s crop is estimated at 840,000 tons, down 12 percent from last season. However, the most significant decrease in production will be in Florida where crop size is estimated at 41,000 tons, a 47-percent decline year-over-year. AMS reports tangerine movement is down 59 percent this season through mid-March, likely putting upward pressure on 2017/18 prices. Lower overall imports for the season through January 2018, in volume terms, have contributed to the overall tighter market for tangerines in the United States relative to last season.

Figure 5
U.S., California, and Florida Total Tangerine Production, 1994/95-2017/18f



f = forecast.

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

Noncitrus Fruit Outlook

Strawberry Supplies Pick Up, Lowering Prices

Cold snaps in December 2017 and January 2018 slowed early-season strawberry shipments from Florida and Mexico—main suppliers to the U.S. market during the winter months. As a result, U.S. strawberry grower prices averaged 15–18 percent higher year over year during those 2 months (at \$1.82 and \$1.69 per pound, respectively). Warm weather since has aided production in these two production regions, improving supply volumes and putting downward pressure on prices. In February, strawberry shipping-point prices in Central Florida ranged from \$8–\$10 per flat (18 (1-pound) containers with lids), compared with \$8–\$11 per flat the same time last year. March prices were averaging \$6–\$11 per flat, down from \$9–\$12 per flat a year ago. As the winter strawberry season progressed, increasing supplies weakened U.S. strawberry retail prices from \$2.87 12-oz. pint in January to \$2.49 per pint in February, but prices remained higher than average prices during the same 2 months a year ago. Overall, cumulative shipment volumes in Florida this season through mid-March are down 10 percent from the same period last year.

With spring underway, Florida and Mexico supplies are finishing for the season as California supplies take over the market. California strawberries are available year-round, but heaviest supply volumes occur during the spring and summer. California's relatively mild winter this year advanced the start of strawberry harvest, resulting in higher early-season volumes. In California's Santa Maria and Oxnard growing districts, prices in March were in the range of \$10–\$14 per flat (18 (1-pound) containers with lids), compared with \$12–16 per flat in last year. However, recent heavy rains and cold weather may result in short-term supply gaps, likely putting upward pressure on early-spring prices.

California strawberry acreage down: Total strawberry acreage in California for 2018 is reported at 33,792 acres, fewer by 2,595 acres from 2017, according to the *2018 California Strawberry Acreage Survey* published by the California Strawberry Commission (CSC). Eighty-two percent of this acreage was planted last fall, producing for the winter, spring, and summer of 2018. Fall 2017 planted acreage declined 6 percent from the same period the previous year, with expansion absent in any of the five growing districts. The Watsonville/Salinas growing district remains the largest, with nearly half of the fall acreage, followed by the Santa Maria district (31 percent) and Oxnard district (21 percent); Orange County/San Diego/Coachella growing district only had less than 1 percent while San Joaquin district had no fall plantings for a

second consecutive year. Projected planted acreage this summer, for production during the fall season, is anticipated to be down 10 percent from last year. More than half of this acreage will be in the Oxnard district where summer planted area is projected to be down about 1 percent from last year. Most of the remaining summer planted acreage will be in the Santa Maria district where an 18-percent decline is anticipated. While California strawberry acreage is projected to decline in 2018, increased Statewide production is still achievable, barring major weather problems, as acreage continues to shift to more productive varieties, according to CSC.

Record-high fresh per capita use in 2017, frozen use down: As domestic fresh-market production increased again in 2017, estimated fresh strawberry per capita use rose to a new record at 8.34 pounds last year, up 4 percent from the previous high in 2016 (table 10). Domestic fresh-market production, the principal outlet for the U.S. strawberry crop, increased 5 percent in 2017 from the previous year—the highest on record. Mexico continued to supply nearly all the fresh strawberry imports in the United States in 2017 with overall volume relatively steady from the previous year. The large domestic crop supported increased U.S. fresh strawberry exports last year, with volume increases to principal markets—Canada, Mexico, Japan, and Saudi Arabia—which received 95 percent of the total export volume.

The Processing Strawberry Advisory Board of California reported the 2017 pack estimate for frozen strawberries in the United States declined 14 percent from the previous year to 423.5 million pounds, product-weight equivalent. Even though imports also fell, overall frozen strawberry supplies declined only 3 percent from the previous year to 969.8 million pounds, mostly offset by a 29-percent rise in beginning inventories (table 11). Reduced availability in 2017 led to lower exports and per capita use. Strong U.S. export volumes to China and some Middle East markets were more than offset by declines in key markets such as Canada, Japan, Mexico, and the United Kingdom. Historically, the U.S. frozen strawberry market has served as a residual outlet for the fresh market, with the domestic market receiving about two-thirds of total frozen supplies.

Table10 --Fresh strawberries: Supply and utilization in the United States, 1980 to 2017

Year	Supply			Utilization		
	Utilized production	Imports	Total supply	Exports	Consumption	
					Total	Per capita
----- Million pounds -----						Pounds
1980	482.1	12.7	494.8	47.1	447.7	1.97
1981	537.5	6.7	544.2	44.4	499.8	2.17
1982	589.6	4.5	594.1	44.0	550.1	2.37
1983	585.4	5.1	590.5	46.4	544.1	2.32
1984	748.2	8.8	757.0	56.3	700.7	2.96
1985	754.1	9.6	763.7	51.5	712.2	2.99
1986	734.8	13.0	747.8	51.5	696.3	2.89
1987	780.4	33.2	813.6	57.1	756.5	3.12
1988	855.5	39.4	894.9	78.0	816.9	3.33
1989	861.6	36.0	897.6	93.0	804.7	3.25
1990	863.6	32.2	895.8	85.7	810.1	3.24
1991	968.2	31.5	999.7	95.2	904.4	3.57
1992	999.7	23.8	1,023.5	102.3	921.2	3.59
1993	1,010.8	31.4	1,042.2	102.1	940.1	3.62
1994	1,147.7	43.7	1,191.4	126.4	1,065.0	4.05
1995	1,145.6	58.8	1,204.4	111.4	1,093.1	4.10
1996	1,212.6	67.3	1,279.9	116.0	1,163.9	4.32
1997	1,201.8	31.9	1,233.7	115.8	1,117.9	4.10
1998	1,132.2	58.1	1,190.3	109.3	1,081.1	3.92
1999	1,305.2	94.8	1,400.0	124.3	1,275.7	4.57
2000	1,433.3	76.2	1,509.5	136.5	1,373.0	4.86
2001	1,259.7	70.7	1,330.4	128.1	1,202.3	4.21
2002	1,406.3	89.9	1,496.2	156.9	1,339.3	4.65
2003	1,642.4	90.3	1,732.7	194.8	1,537.9	5.29
2004	1,694.4	94.4	1,788.8	182.6	1,606.3	5.48
2005	1,811.0	122.7	1,933.7	207.6	1,726.1	5.83
2006	1,910.9	153.4	2,064.3	229.1	1,835.2	6.14
2007	1,973.3	157.7	2,131.0	240.3	1,890.7	6.26
2008	2,091.1	143.0	2,234.1	269.2	1,964.9	6.45
2009	2,288.0	187.2	2,475.2	271.8	2,203.3	7.17
2010	2,319.6	198.3	2,517.9	279.8	2,238.1	7.23
2011	2,332.4	243.5	2,575.9	279.6	2,296.4	7.36
2012	2,455.2	351.3	2,806.5	301.6	2,504.8	7.97
2013	2,508.5	330.6	2,839.1	306.3	2,532.7	8.00
2014	2,454.3	356.0	2,810.3	273.7	2,536.6	7.96
2015	2,437.2	314.4	2,751.6	273.3	2,478.2	7.72
2016	2,516.7	364.5	2,881.2	276.9	2,604.3	8.05
2017 ¹	2,640.0	367.2	3,007.2	290.4	2,716.8	8.34

¹ Preliminary.

Source: USDA, Economic Research Service.

Table 11--Frozen strawberries: Supply and utilization in the United States, 1980 to 2017

Year	Industry pack ²	Imports	Beginning stocks	Total supply	Ending stocks ³	Exports	Consumption	
							Total	Per capita product weight
----- Million pounds-----							<i>Pounds</i>	
1980	253.1	83.5	132.5	469.1	151.9	4.4	312.8	1.37
1981	210.6	60.1	151.9	422.6	115.2	6.6	300.8	1.31
1982	272.7	34.9	115.2	422.8	139.9	7.1	275.8	1.19
1983	292.7	42.6	139.9	475.2	176.6	5.9	292.7	1.25
1984	231.4	50.9	176.6	458.9	166.0	8.0	284.9	1.21
1985	229.2	59.7	166.0	454.9	167.1	6.6	281.2	1.18
1986	237.6	52.5	167.1	457.2	146.6	8.5	302.1	1.26
1987	334.4	75.3	146.6	556.3	236.0	10.8	309.5	1.27
1988	274.6	64.3	236.0	574.9	235.2	17.8	321.9	1.31
1989	238.2	55.0	235.2	528.4	167.2	20.5	340.7	1.38
1990	305.9	72.1	167.2	545.2	198.3	32.8	314.1	1.26
1991	330.2	70.5	198.3	599.1	219.9	26.1	353.1	1.39
1992	268.5	58.2	219.9	546.6	173.8	30.0	342.8	1.34
1993	365.7	54.5	173.8	594.0	214.1	40.4	339.5	1.31
1994	369.0	55.2	214.1	638.3	244.7	63.1	330.4	1.26
1995	371.1	73.5	244.7	689.4	255.1	53.1	381.2	1.43
1996	330.1	56.9	255.1	642.1	212.0	46.9	383.2	1.42
1997	328.2	61.0	212.0	601.1	220.5	47.3	333.3	1.22
1998	373.8	54.2	220.5	648.6	201.4	59.6	387.6	1.40
1999	419.8	89.8	201.4	711.0	277.7	55.6	377.7	1.35
2000	439.7	78.0	277.7	795.4	310.5	42.8	442.2	1.57
2001	422.4	76.0	310.5	808.8	243.7	42.9	522.2	1.83
2002	415.9	112.7	243.7	772.2	263.7	45.4	463.1	1.61
2003	429.1	120.1	263.7	812.9	247.2	22.9	542.8	1.87
2004	433.6	125.7	247.2	806.4	293.6	22.0	490.9	1.67
2005	416.5	161.6	293.6	871.7	218.8	22.2	630.7	2.13
2006	458.5	181.5	218.8	858.8	202.5	28.1	628.2	2.10
2007	502.2	182.2	202.5	886.8	280.2	32.0	574.6	1.90
2008	424.9	173.8	280.2	878.9	235.2	35.0	608.6	2.00
2009	482.4	170.3	235.2	887.9	322.5	32.1	533.4	1.74
2010	459.0	188.0	322.5	969.5	263.1	34.3	672.1	2.17
2011	458.3	193.1	263.1	914.6	291.7	45.1	577.7	1.85
2012	497.9	215.6	291.7	1,005.2	303.0	53.5	648.7	2.06
2013	460.0	199.3	303.0	962.3	279.1	62.9	620.3	1.96
2014	465.3	224.2	279.1	968.6	206.8	63.3	698.4	2.19
2015	473.2	298.9	206.8	978.9	235.9	50.3	692.8	2.16
2016	494.0	272.9	235.9	1,002.8	304.8	54.0	644.0	1.99
2017 ¹	423.5	241.5	304.8	969.8	281.1	47.1	641.7	1.97

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

Source: USDA, Economic Research Service.

Early-Winter Blueberry Prices Higher Than A Year Ago

Blueberry import supplies in the United States started slow this winter, a period during the year that generally marks the off-season for U.S. blueberry production. January supplies were limited due to a delayed harvest in Chile, brought on by slow fruit maturity from the cold weather. This has resulted in high early-winter prices in the U.S. market compared with last year, as Chile is the United States' main off-shore supplier of blueberries. Free-on-board (f.o.b.) shipping-point prices for Chilean blueberries (ports of entry in the Miami area) in January 2018 ranged \$22–\$28 per flat, 12 (1-pint) cups with lids, compared with about \$12–17 per flat the same time last year. At the retail level, advertised prices across all package sizes were also averaging significantly higher in January than in the previous year.

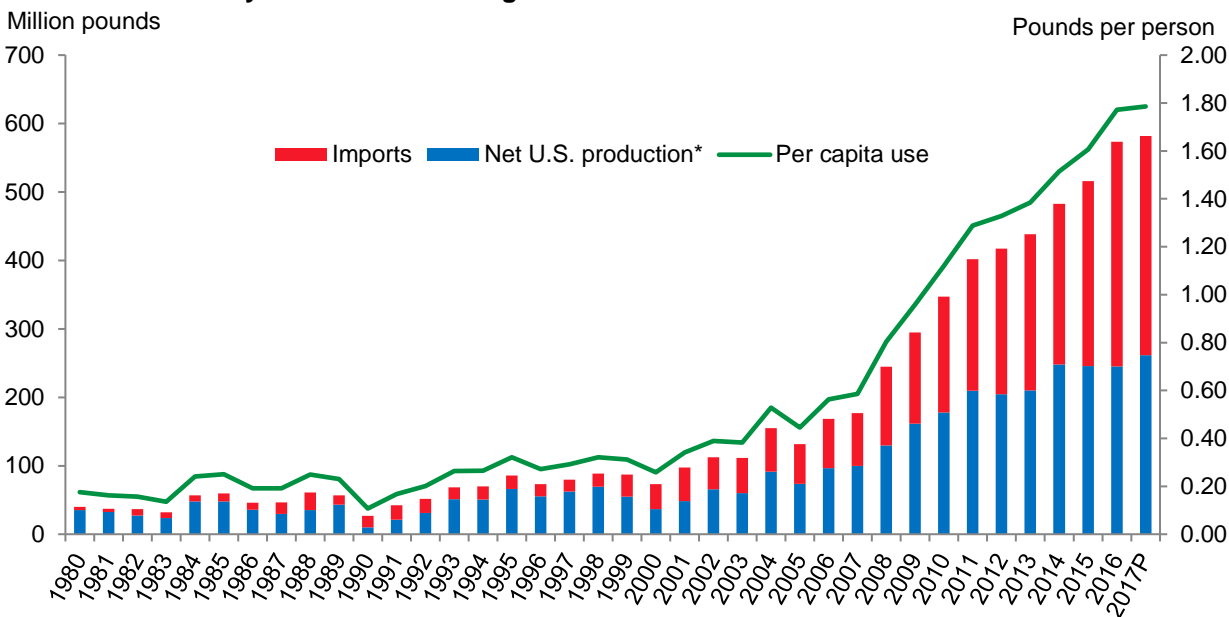
AMS data show Chile's cumulative shipment volume to the United States for the 2018 season through early March was down 23 percent from the same period last year. Despite the limited supplies in January, volumes have advanced by 5–7 percent above year-ago levels in February and early March, weakening domestic prices. F.o.b. prices for Chilean blueberries in February and early March declined to about \$19–\$24 per flat and \$15–\$22 per flat, respectively, nearly steady from the same time last year. Although dwarfed by Chile's supplies, significant increases in imports from Mexico have also contributed to the downward pressure on prices. Mexican supplies also enter this market during the winter but extend throughout the spring, overlapping with early domestic production. F.o.b. prices for Mexican blueberries crossing through Arizona, California, and Texas also averaged higher (at \$17 per flat (12 (6-ounce) cups with lids per flat) in January 2018, compared with \$12 in January 2017, but have since dropped significantly year over year.

Domestic blueberry production kicks off with the Florida crop, with good volume normally expected from April through early May. Production then transitions to the Georgia crop, supplying around late April through June, followed by other major producing States that come into production during the summer months. Late-winter colder-than-normal temperatures in the southeastern United States, however, have delayed the harvest in Florida. Light-early shipments from Florida in mid-March are significantly down from the same time last year. Following a sharply reduced crop last year, early industry reports indicate a delayed start to the season and freeze-related damage to the crop in Georgia, the fourth largest blueberry-producing State. Last year, a late-spring freeze cut Georgia's production by more than 50 percent from the previous year, based on data from the North American Blueberry Council

(NABC). Slowed early-season shipments from Florida and Georgia will likely help strengthen prices this spring.

Besides Georgia, several other States experienced smaller crops in 2017, including large-producing States—Oregon, Washington State, Michigan, and North Carolina. Based on NABC estimates, U.S. production in 2017 decreased 12 percent from the previous year. However, the overall fresh-market crop increased about 2 percent, reflecting increased fresh-market production in California, Oregon, Washington, Michigan, New Jersey, and Florida. Though imports fell slightly last year, the larger fresh-market crop, along with slowed exports (mostly to Canada), left slightly higher overall supplies for domestic fresh use. After factoring population growth of slightly less than 1 percent, U.S. fresh blueberry per capita use was estimated at 1.79 pounds in 2017, almost unchanged from the previous year and the highest by far. Over the past two decades, increased availability from domestic production and imports has supported the growing demand for fresh blueberries in the United States (fig. 6). Fresh blueberry per capita use has continued to increase to record-breaking levels each year since 2006.

Figure 6
U.S. fresh blueberry demand increasing



P = Preliminary.

*Domestic production (minus exports. For 2017, based on production estimates from the North American Blueberry Council.

Source: USDA, Economic Research Service.

Plentiful Avocado Supplies To Soften Grower Prices

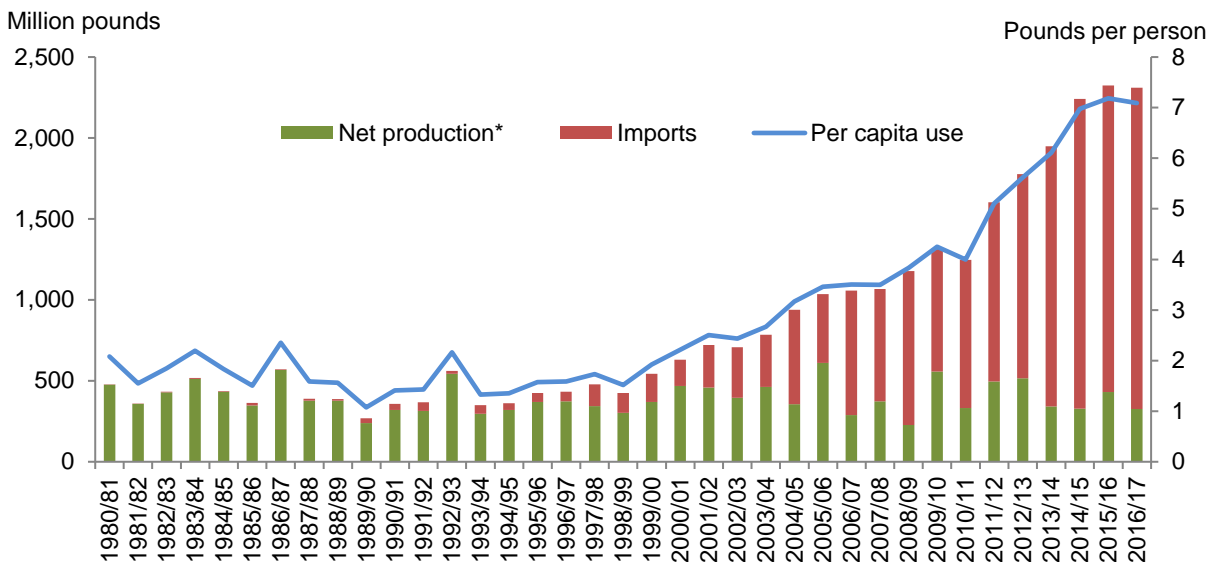
Despite some wind and wildfire damage in December 2017, early projections from the California Avocado Commission (CAC) indicate Statewide avocado production for the 2017/18 marketing season (November–October) will rebound from the previous season, climbing to about 375 million pounds (or about 188,000 tons). If realized, California’s production will be up significantly from the “off-year” 2016/17 crop estimate, reported by NASS to be 296 million pounds (or 148,000), and above the average of the past 5 years. While natural causes do influence year-to-year fluctuations in production, avocados tends to exhibit an alternate-bearing pattern (whereby a large crop one year is followed by a smaller crop the next year) as trees try to replenish the energy reserves depleted following a large crop.

Data from AMS show aggregated early shipments of California avocados for this season through early March have been running at more than twice the volume than the same time last year. Initial shipments, however, are still fairly small as harvest in the State mostly occurs from spring to summertime. F.o.b. shipping-point prices for Southern District California Hass avocados in February through early March averaged about \$39–\$41 per 2-layer flat (size 32s–48s), compared with around \$53 per flat during the same time a year ago. At the same time, season-to-date volumes from Mexico were running 6 percent higher than the same time last year. F.o.b. prices of Mexican Hass avocados crossing through Texas from January through early March this year averaged \$36–\$37 per 2-layer cartons (size 32s–48s), down from around \$44 during the same period last year.

The USDA’s Foreign Agricultural Service overseas office in Mexico reported in early December 2017 that production in Mexico will increase slightly to 1.8–1.9 million metric tons (or 4.0–4.2 billion pounds) in 2017/18, and exports to the U.S. market will continue strong and growing. As has generally been the case since 2004/05, U.S. fresh avocado imports have continued to grow and dwarf domestic production, facilitated by Mexico’s year-round access to this market. Over the last 5 years, imports have reached nearly 2.0 billion pounds annually, accounting for over 80 percent, on average, of domestic fresh avocado availability (fig. 7). Hence, during the 2016/17 season, while U.S. utilized production declined 25 percent from the previous year (mostly due to the smaller crop in California), record-high imports helped drive down U.S. avocado grower prices to an average \$1,840 per ton, down from \$1,890 per ton the previous season. As California produces over 80 percent of all U.S. avocados each year, a potentially large domestic crop in 2017/18, coupled with likely higher imports (primarily from Mexico), point to lower avocado grower prices this season.

Figure 7

Avocado imports play a dominant role in meeting growing U.S. demand



*Domestic production minus exports.
Source: USDA, Economic Research Service.

Tropical Fresh Fruit Supplies Lower

This year's early supplies of fresh tropical fruit in the United States are lagging 2017 levels, based on import volumes. AMS shipment data show combined imports of bananas, pineapples, papayas, and mangoes in 2018 through early-March were down 15 percent from the same period a year ago. Among these mainstream tropical fruit, cumulative import supplies were mostly down, except for mangoes. U.S. advertised retail prices for these fruit were averaging mostly higher to date, except for pineapples.

Making up 70 percent of combined cumulative shipments to date, banana imports are down 16 percent, mostly reflecting lower shipments from Guatemala, Costa Rica, and Honduras. The first two suppliers are the top two banana sources for the United States while Honduras ranks fourth largest. Cooler weather in Guatemala, heavy rainfall in Costa Rica, and worker strikes in Honduras have all contributed to reduced overall import supplies early this year. BLS reported retail prices for bananas rose slightly to \$0.574 per pound in February, from \$0.568 per pound the previous month, but unchanged from the same time last year. Average monthly advertised retail prices, however, showed year-to-year gains through mid-March.

Season-to-date papaya imports through early March are down 35 percent from the same period a year ago, partly reflecting the oversupply of Mexican papayas in the U.S. market early last year. About 80 percent of papaya imports in the United States come from Mexico. Import volumes from three other major suppliers—Guatemala, Brazil, and Belize—are also down to date. AMS data show papaya advertised retail prices, on a per pound basis, mostly averaged higher than year-ago levels during this period on reduced supplies.

Pineapple imports are down 9 percent, season to date volume, mostly on reduced shipments from Costa Rica, which supplies over 80 percent of U.S. fresh pineapple imports annually. Despite reduced supplies, sluggish demand, likely attributed to the North American deep freeze, have put downward pressure on pineapple advertised retail prices this winter.

As for mangoes, higher supplies to date mostly reflect increased shipments from Peru, Mexico, and Ecuador. Shipments from Peru are winding down while imports from Mexico are gaining ground. Nearly two-thirds of U.S. mango imports come from Mexico, with heaviest volume in the spring and summer. On a per pound basis, advertised retail mango prices have declined from an average \$3.34 per pound in January 2018 to \$3.18 in early March. Prices the same time last year averaged \$2.95 and \$3.49 per pound, respectively. Early indications from industry suggest increased supplies from Mexico for the season, likely keeping mango prices leaning favorably towards U.S. consumers.

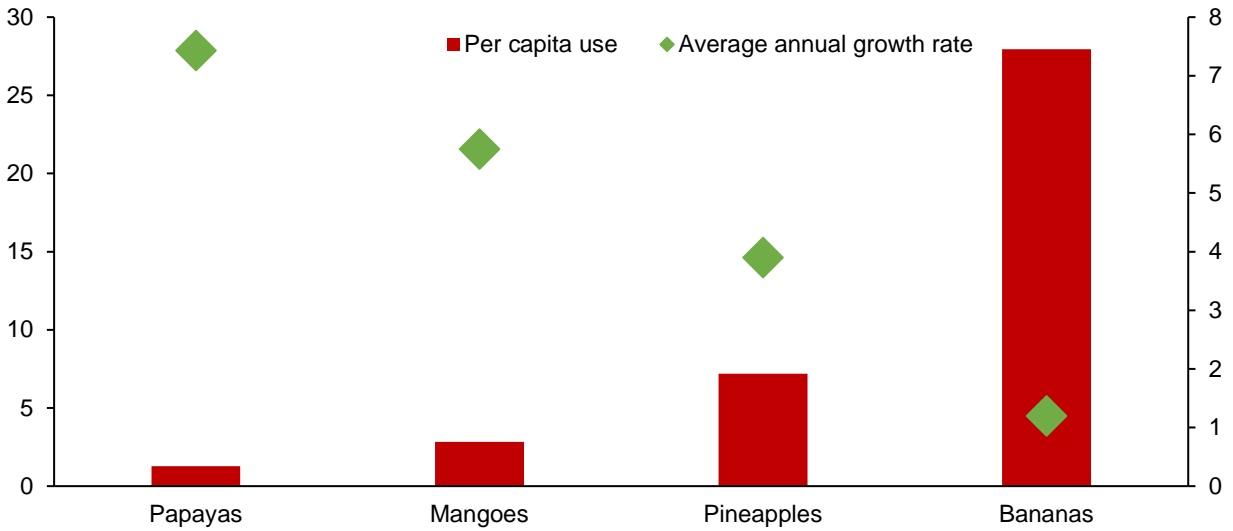
With limited U.S. production, growth in domestic tropical fruit demand continues to be vastly fulfilled by imports. Bananas continue to outrank all other fruit in terms of U.S. fresh import volume and fresh per capita use. Among the above-mentioned tropical fruit, bananas consistently show a distant lead, with average per capita use estimated at 28 pounds annually during the period 2013–17, while the estimates for fresh pineapples, mangoes, and papayas each average less than 10 pounds (fig. 8). However, per capita demand for these other mainstream tropical fruit has grown at much faster average rates than bananas during the past 5 years.

Figure 8

Average annual per capita demand growth for bananas outpaced by other fresh tropical fruit, 2013-2017

Pounds per person

Percent



Source: USDA, Economic Research Service calculations.

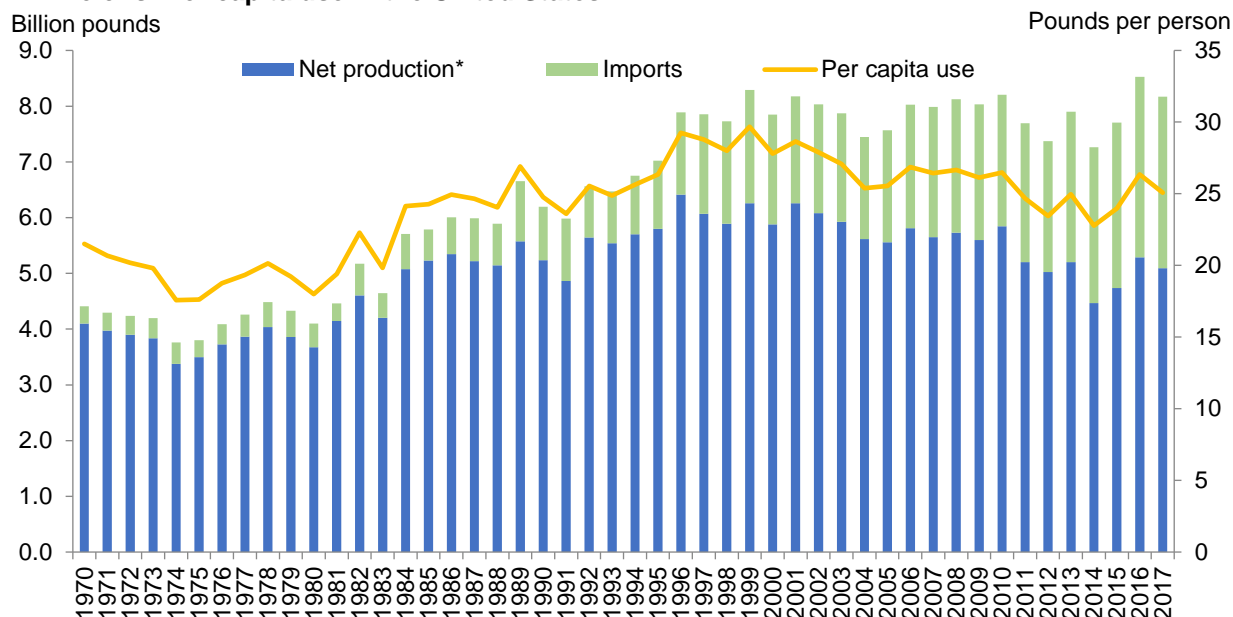
Melon Outlook

Melons Per Capita Use Down in 2017

Estimated domestic disappearance (also known as net domestic availability, which is a proxy for consumption) of melons totaled 8.17 billion pounds in 2017, down 4 percent from the previous year's record high. This estimate translates to 25.1 pounds per person, down from the 26.3 pounds in 2016 and slightly above the previous 5-year average (fig.9). Declines in domestic cantaloupe and honeydew production and overall lower imports reduced total melon supplies in 2017.

The United States remains a net importer of melons, with exports very much dwarfed by the volume of imports. As total melon imports have generally risen over the past few decades, they have captured an increasing share of the U.S. fresh melon market—from an average share of less than 10 percent during the 1980s and 1990s to about 37 percent over the last 5 years. Meanwhile, following rapid growth in the 1990s, total melon exports have remained relatively steady at nearly 600 million pounds since 2000; on average, 7 percent of U.S. supplies have been diverted away from the domestic market each year.

Figure 9
All melons: Per capita use in the United States



* Domestic production minus exports.

Source: USDA, Economic Research Service.

Watermelons: Both total domestic disappearance (total supply minus exports) and per capita use declined slightly in 2017 (table 12). Lack of growth in domestic production and a 7-percent decline in imports drove down overall watermelon supplies in 2017. Despite higher yields achieved last year, a 4-percent decline in harvested acreage kept U.S. watermelon production relatively unchanged from 2016. Production totaled 4.01 billion pounds in 2017, nearly all going to the fresh market where grower prices averaged \$14.90 per pound, 8 percent above the previous-year average. Production declines ranging 8–33 percent in Texas, Arizona, Indiana, Maryland, and Missouri offset increases in other States, including major producers—California, Florida, and Georgia. Imports in 2017 totaled 1.59 billion pounds, down from the 2016 record-high of 1.71 billion pounds. Shipments from Mexico, which accounted for 83 percent of the total import volume, fell 8 percent in 2017 from the previous year, along with lower volumes from most other suppliers.

Partly influenced by lower availability and higher prices, U.S. watermelon exports experienced a 3-percent decline from the previous year while export value remained fairly steady at \$82 million. Exports to several markets were down, particularly to Canada which received nearly all of the volume.

Table 12--U.S. watermelons: Supply and utilization, 1970s average-2017

Year	Supply			Utilization		Per capita use	Trade shares of:	
	Production ¹	Imports ²	Total	Exports ²	Domestic		Use imported	Supply exported
	----- Million pounds -----			----- Pounds -----			----- Percent -----	
Average								
1970s	2,564.7	165.8	2,730.4	91.4	2,639.1	12.3	6.3	3.4
1980s	2,842.0	238.6	3,080.5	61.4	3,019.1	12.7	7.8	2.0
1990s	3,766.4	342.0	4,108.4	216.7	3,891.8	14.7	8.6	5.2
Annual								
2000	3,749.4	446.0	4,195.4	293.3	3,902.1	13.8	11.4	7.0
2001	4,047.8	483.5	4,531.3	249.4	4,281.9	15.0	11.3	5.5
2002	3,958.5	451.3	4,409.8	364.5	4,045.4	14.0	11.2	8.3
2003	3,832.7	489.2	4,321.9	383.7	3,938.3	13.5	12.4	8.9
2004	3,688.0	546.9	4,234.9	424.0	3,810.9	13.0	14.4	10.0
2005	3,702.3	659.8	4,362.1	349.9	4,012.2	13.5	16.4	8.0
2006	3,986.5	830.5	4,817.0	297.4	4,519.6	15.1	18.4	6.2
2007	3,734.9	902.7	4,637.6	286.0	4,351.6	14.4	20.7	6.2
2008	3,994.0	1,057.1	5,051.1	307.1	4,744.0	15.6	22.3	6.1
2009	3,893.1	1,002.6	4,895.7	307.9	4,587.8	14.9	21.9	6.3
2010	4,170.1	989.9	5,160.0	296.1	4,863.9	15.7	20.4	5.7
2011	3,612.7	1,044.3	4,657.0	343.2	4,313.8	13.8	24.2	7.4
2012	3,615.3	1,092.6	4,707.9	344.1	4,363.7	13.9	25.0	7.3
2013	3,610.2	1,302.9	4,913.1	332.9	4,580.2	14.5	28.4	6.8
2014	3,326.3	1,442.6	4,768.9	338.0	4,430.9	13.9	32.6	7.1
2015	3,547.5	1,555.3	5,102.8	332.2	4,770.7	14.8	32.6	6.5
2016	3,967.6	1,709.6	5,677.2	350.0	5,327.2	16.5	32.1	6.2
2017	3,989.2	1,595.4	5,584.6	339.1	5,245.4	16.1	30.4	6.1

¹ Source: USDA, National Agricultural Statistics Service. Production data were estimated by ERS for 1982-91 based on available State data adjusted to the national level. Includes all uses.

² Source: U.S. Dept. of Commerce, U.S. Census Bureau.
Source: USDA, Economic Research Service (ERS).

As the 2018 U.S. watermelon season is on track to begin this spring, winter demand has relied mostly on imports. AMS data show continued lower imports in 2018, with the cumulative volume through early-March down 6 percent from the same time a year ago. Almost 80 percent of the import shipments to date were from Mexico; overall volumes were down slightly from the same time last year, but seedless-type volumes registered higher. U.S. advertised retail prices for seedless watermelons, however, were somewhat mixed on a per fruit basis—higher than year-ago levels for the miniature type and lower for conventional red flesh. Season-to-date shipments of watermelons, in general, were also running lower from other suppliers such as Guatemala, Honduras, Costa Rica, Brazil, and Nicaragua.

Cantaloupe: Domestic disappearance (or domestic availability) in 2017 is estimated down 8 percent from the previous year to 2.2 billion pounds (table 13). With annual population growth at nearly 1 percent, domestic per capita use is estimated at 6.84 pounds in 2017, down from 7.49 pounds in 2016. Both domestic production and imports decreased last year, while exports were fairly strong. National production saw an 8-percent reduction from the previous year because of lower average yield per acre and smaller harvested area. Total crop size was 1.38 billion pounds, the third smallest since 2000. Production declines were spread across growing regions; crop size was down 8 percent in California, which supplied 59 percent of the total volume, to as much as a 37-percent drop in Georgia, which produced 3 percent of the total. Other producing States that registered smaller crops included Arizona, Florida, South Carolina, and Texas.

U.S. fresh cantaloupe imports in 2017 declined slightly from the previous year, mostly because of lower shipments from the dominant suppliers, Guatemala and Costa Rica. Import value last year dropped from the record \$250.1 million in 2016 to reach \$240.9 million, still the second highest since 1989. For the same period, export volume rebounded from below-average volume in 2016 to 178.4 million pounds, or a 55-percent gain, valued at around \$40 million. Export volumes rose significantly to leading markets—Canada, Mexico, South Korea, Kuwait, and Japan. Canada and Mexico together accounted for 95 percent of total volume.

Continued slowed shipments from Guatemala and Honduras have reduced overall import shipments into 2018, fetching higher prices to consumers for much of this winter. U.S. advertised retail prices for cantaloupes in January and February 2018 averaged 4–9 cents each higher than those for the same time last year. As of early March, prices strengthened to around \$2.42 each from \$2.23 in February, about 2 cents lower than the same time last year.

Table 13--U.S. cantaloupes: Supply and utilization, 1970s average-2017

Year	Supply			Utilization		Per capita use	Trade shares of:	
	Production ¹	Imports ²	Total	Exports ^{2 3}	Domestic		Use imported	Supply exported
	----- Million pounds -----					---- Pounds --	----- Percent -----	
Average								
1970s	1,163.7	166.3	1,330.0	46.7	1,283.3	6.0	13.0	3.5
1980s	1,716.7	257.3	1,974.0	87.7	1,886.4	7.9	13.3	4.5
1990s	1,953.1	691.9	2,644.9	117.6	2,527.3	9.5	26.8	4.4
Annual								
2000	2,177.4	1,119.2	3,296.6	155.5	3,141.0	11.1	35.6	4.7
2001	2,261.3	1,070.1	3,331.4	146.0	3,185.4	11.2	33.6	4.4
2002	2,244.3	1,108.6	3,352.9	156.1	3,196.8	11.1	34.7	4.7
2003	2,206.9	1,079.2	3,286.1	147.3	3,138.8	10.8	34.4	4.5
2004	2,129.8	910.8	3,040.6	160.7	2,879.9	9.8	31.6	5.3
2005	2,046.5	952.0	2,998.5	162.2	2,836.3	9.6	33.6	5.4
2006	1,949.8	962.8	2,912.6	146.4	2,766.1	9.3	34.8	5.0
2007	2,042.6	1,008.2	3,050.8	157.9	2,893.0	9.6	34.9	5.2
2008	1,929.4	931.0	2,860.4	157.7	2,702.7	8.9	34.4	5.5
2009	1,905.9	1,045.0	2,950.9	169.9	2,781.0	9.0	37.6	5.8
2010	1,880.8	949.2	2,830.0	186.1	2,643.9	8.5	35.9	6.6
2011	1,869.2	1,033.1	2,902.3	202.4	2,699.9	8.7	38.3	7.0
2012	1,670.6	841.7	2,512.3	150.1	2,362.1	7.5	35.6	6.0
2013	1,817.3	948.9	2,766.2	146.6	2,619.6	8.3	36.2	5.3
2014	1,361.2	902.2	2,263.4	161.5	2,101.9	6.6	42.9	7.1
2015	1,355.2	939.8	2,295.0	122.8	2,172.2	6.8	43.3	5.4
2016	1,497.3	1,041.4	2,538.8	115.4	2,423.4	7.5	43.0	4.5
2017	1,382.0	1,026.4	2,408.3	178.4	2,229.9	6.8	46.0	7.4

¹Source: USDA, National Agricultural Statistics Service. Production data were estimated by ERS for 1982-91 based on available State data adjusted to the national level. Includes all uses.

²Source: U.S. Dept. of Commerce, U.S. Census Bureau.

³Exports for 1978-89 adjusted using Canadian import data.

Source: USDA, Economic Research Service (ERS).

Honeydew: Area harvested and average yield per acre in California was reduced in 2017, driving down Statewide honeydew production 14 percent below the previous year. At 336.4 million pounds, last year's national production (NASS production estimates for Arizona and Texas were discontinued beginning in 2016) was the lowest in the past 5 years (table 14). Reduced production boosted the average grower price to \$28 per hundredweight (cwt), up from \$19.1 per cwt in 2016, more than enough to raise the 2017 crop value by 25 percent to \$94.2 million. Imports partly offset the decline in production.

U.S. honeydew melon imports for the 2018 season through early March were running more than 20 percent behind volumes of the same time last year, based on AMS data. Though shipments reflected Mexican supplies at nearly the same volumes as a year ago to date, shipments from Guatemala and Honduras were down significantly. U.S. advertised retail prices averaged \$3.00 each from January through early March, about 2 cents higher than the same period a year ago. Like the other melons, preparations are underway for the 2018 U.S. honeydew melon season, which typically starts in late spring with peak harvest in the summer months.

Table 14--U.S. honeydew melons: Supply and utilization, 1970s average-2017

Year	Supply			Utilization			Trade shares of:	
	Production ¹	Imports ²	Total	Exports ²	Domestic	Per capita use	Use imported	Supply exported
	----- Million pounds -----					---- Pounds ----	----- Percent -----	
Average								
1970s	251.4	18.7	270.0	25.1	245.0	1.1	7.7	9.7
1980s	437.1	61.7	498.7	23.5	475.3	2.0	12.4	4.8
1990s	455.7	143.1	598.7	48.0	550.7	2.1	25.8	8.2
Annual								
2000	511.6	174.1	685.7	46.8	638.9	2.3	27.3	6.8
2001	472.0	139.9	611.9	48.6	563.2	2.0	24.8	8.0
2002	506.5	171.5	678.0	47.3	630.6	2.2	27.2	7.0
2003	507.5	163.9	671.4	39.4	632.1	2.2	25.9	5.9
2004	478.1	165.6	643.7	42.2	601.5	2.0	27.5	6.6
2005	424.3	175.7	600.0	45.6	554.4	1.9	31.7	7.6
2006	422.1	187.3	609.4	46.2	563.2	1.9	33.3	7.6
2007	414.4	180.8	595.2	42.3	552.9	1.8	32.7	7.1
2008	369.0	191.5	560.5	46.3	514.2	1.7	37.2	8.3
2009	365.7	171.8	537.5	40.2	497.4	1.6	34.5	7.5
2010	370.4	188.8	559.2	43.1	516.1	1.7	36.6	7.7
2011	362.8	180.0	542.8	42.6	500.1	1.6	36.0	7.9
2012	328.6	180.1	508.7	43.3	465.4	1.5	38.7	8.5
2013	360.5	195.4	555.9	47.6	508.3	1.6	38.4	8.6
2014	373.9	193.6	567.5	40.6	526.9	1.7	36.7	7.2
2015	376.9	204.6	581.5	38.6	542.9	1.7	37.7	6.6
2016	393.3	262.5	655.8	56.9	598.9	1.9	43.8	8.7
2017	336.4	270.4	606.8	57.3	549.4	1.7	49.2	9.4

¹ Source: USDA, National Agricultural Statistics Service.

² Source: U.S. Dept. of Commerce, U.S. Census Bureau. Honeydews do not have a separate HS code. From 1970-1979, trade was estimated as 50 percent of the category called "other melons." Since 1980, shipment data were used to estimate the distribution of the "other melon" category (ranged from 42-97 percent). From 2001-15, trade was kept at 44 percent of "other melons" because of Mexican market share not captured by shipment data. Since 2016, shipment data were used to estimate the distribution of the "other melon" category (ranged from 54-60 percent).

Source: USDA, Economic Research Service.

Tree Nuts Outlook

California Almond Crop Forecast Larger in 2017/18

Expanded bearing acreage more than made up for slightly lower yields to boost almond production in California during the 2017/18 marketing season (August–July). The current crop forecast is estimated by NASS at 2.25 billion shelled pounds, up 5 percent from the 2016/17 production total and would be a record, if achieved. The large production overlaps with above-average beginning stocks, likely keeping downward pressure on 2017/18 almond prices.

The first estimate for the 2017/18 season-average grower price for California almonds will be available on June 26, 2018 when NASS releases the *Noncitrus Fruit and Nuts 2017 Summary* report. BLS producer price index (PPI) data for almonds indicate current-season grower prices have remained below previous-year levels, with the PPI from November 2017 to February 2018 down 9 percent from the same period the previous year. Production increases and huge beginning stocks over the past 2 years have led to lower average grower prices in 2015/16 and 2016/17, reversing the trend of continued higher prices in the years 2010/11 to 2014/15. Slowed movement to domestic and international markets in 2014/15 and continued lackluster exports in 2015/16 drove ending stocks higher during both years, reaching a near-record of 412.0 million pounds in 2015/16—the largest ending stocks during the past 6 years. Despite strong domestic and export demand, ending stocks in 2016/17 remained huge at 398.7 million pounds, 11 percent above the previous 5-year average.

Almond Board of California data indicate continued higher shipments to domestic and export markets in 2017/18 through February, with increases of 6 percent and 15 percent, respectively, from the same period in 2016/17. Export volumes to nearly all regional partners are up. While exports to key markets such as China/Hong Kong, India, and Spain are up, the largest increases thus far on a regional scale are to South and Central America (mostly shelled) and Central and Eastern Europe (mostly shelled). While stocks remain high and domestic production is large, overall increased movement to markets should help ease any buildup in ending stocks this season.

Walnut Crop in 2017/18 Forecast Down From A Record High

During the 2017 walnut crop year in California, lower average yields per acre outweighed the increase in bearing acreage, reducing forecast production for the 2017/18 season (September–

August) to 650,000 tons, in shell basis, down 5 percent from the record-large crop in 2016/17. Combined with a 13-percent drop in 2017/18 beginning stocks, the forecast smaller crop is poised to drive overall supplies down from the record high of the previous season. Aided in part by huge available supplies and relatively lower grower prices, improved demand for California walnuts the past 2 years helped ease ending stocks, which declined from a near-record high of 74 million pounds in 2014/15 to 56.6 million pounds in 2015/16 and to 49.4 million pounds in 2016/17 (which is carried forward into 2017/18). While down from the previous year, the current crop tonnage, if realized, measures 5 percent above the previous 5-year average output, likely mitigating any upward pressure on grower prices.

Data from the California Walnut Board show total shipments this season through February 2017 were down 14 from the same period in 2016/17. Based on in-shell equivalent tonnage, domestic shipments were down 5 percent because of reduced shelled walnut shipments (down 8 percent). On the international side, combined shelled and in-shell California walnut shipments were down 17 percent from the same time last season to date, particularly to several markets in Europe (including Spain, a major market), Asia/Pacific Rim (including China, Hong Kong, India, South Korea, and Vietnam), and the Middle East. Exports continue to gain market share of domestic walnut production. At 446.6 million pounds (shelled basis) in 2016/17, the record-high exports accounted for nearly three-quarters of domestic production, up from nearly 50 percent from 2000/01–2004/05.

U.S. Pecan Production Forecast Up in 2017/18

In October 2017, NASS reported the initial U.S. pecan crop forecast for the 2017/18 marketing season (October–September) at 277.4 million pounds, utilized in-shell basis, up 3 percent from the previous year. This increase is attributed to the expected sharply higher production of native-variety pecans, reversing the recent 5-year downward trend for the native crop. Increases in native-variety pecans are expected in Oklahoma and Louisiana, whose combined production, at 24 million pounds, will account for more than three-fourths of total U.S. native pecan volume for the season, if realized. Improved varieties, which accounted for almost 90 percent of the total crop, were forecast down 2 percent.

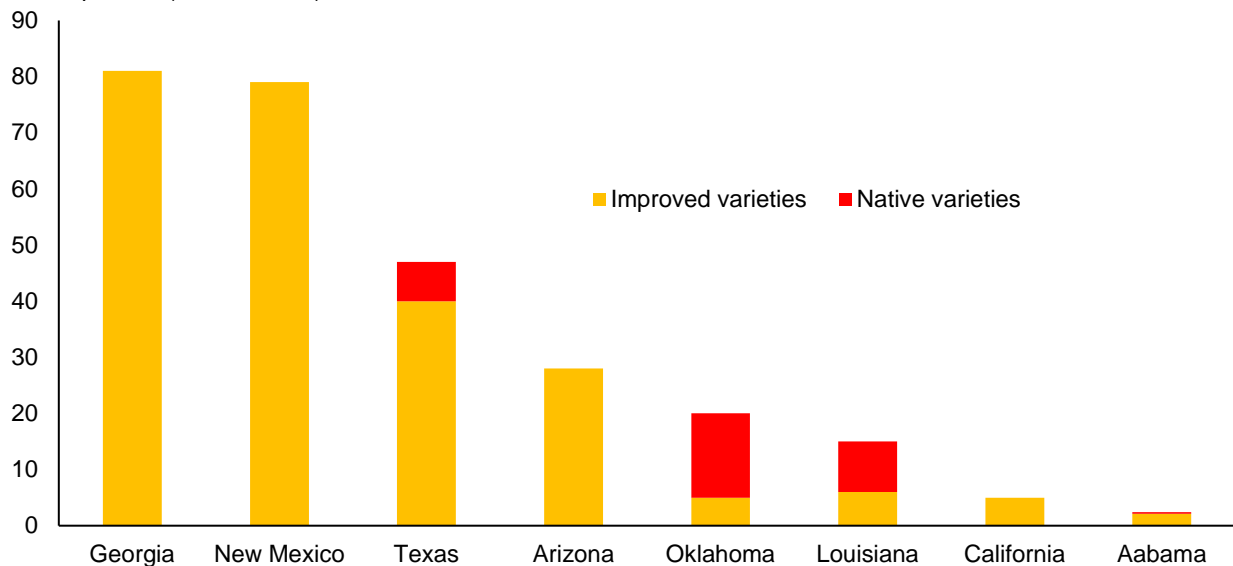
Georgia, New Mexico, and Texas remain the top three pecan-producing States in 2017/18, and together will account for 81 percent of the total crop size (fig. 10). Current season production increases are expected in most States, except Georgia (down 25 percent) and California (down 13 percent). Following a large crop in 2016/17, production in Georgia was hampered by damage

from Hurricane Irma in September 2017, which included downed trees and nuts blown off trees. Despite Hurricane Harvey making landfall in Texas in August 2017, production in Texas is expected up 21 percent to 47 million pounds, reflecting increased output of improved varieties. The native-variety crop in Texas remains unchanged from the previous year. At the same time, a 79-million pound crop in New Mexico, if achieved, will be a record high.

Regardless of increases in domestic production and beginning stocks, significantly lower imports (primarily from Mexico) for the current season through January 2018 thus far point to reduced U.S. supplies in 2017/18, potentially driving up prices. Meanwhile, overall export demand for U.S. pecans is running a bit sluggish, reflected by lower shipments of the shelled nuts to several international markets to date (down 18 percent), including Canada, South Korea, China, Japan, and Spain. Exports of in-shell pecans continue strong (up 19 percent), with sharply higher volumes shipped to China, Mexico, and Japan to date.

Figure 10
Georgia, New Mexico, and Texas Continue As the Top 3 Pecan-Producing States in 2017/18*

Million pounds (in-shell basis)



* Forecast for 2017/18.

Source: USDA, National Agricultural Statistics Service, *Crop Production* (October 2017 issue).

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Data

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Related Websites

Fruit and Tree Nuts Outlook

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

Fruit and Tree Nuts Topic Page <https://www.ers.usda.gov/topics/crops/fruit-tree-nuts/>

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