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Released April 11, 2017, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

## Orange Production Down 1 Percent from March

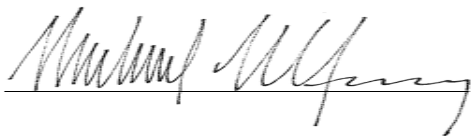
**The United States all orange** forecast for the 2016-2017 season is 5.11 million tons, down 1 percent from last month and down 16 percent from the 2015-2016 revised final utilization. The Florida all orange forecast, at 67.0 million boxes (3.02 million tons), is unchanged from last month but down 18 percent from last season's revised final utilization. Early, midseason, and Navel varieties in Florida are forecast at 33.0 million boxes (1.49 million tons), unchanged from last month but down 9 percent from last season's final utilization. The Florida Valencia orange forecast, at 34.0 million boxes (1.53 million tons), is unchanged from last month but down 25 percent from last season's revised final utilization.

The California Valencia orange forecast is 8.00 million boxes (320,000 tons), up 3 percent from the previous forecast but down 29 percent from last season's revised final utilization. The California Navel orange forecast is 43.0 million boxes (1.72 million tons), down 2 percent from the previous forecast and down 9 percent from last season's revised final utilization. The Texas all orange forecast, at 1.37 million boxes (59,000 tons), is down 24 percent from the previous forecast and down 19 percent from last season's final utilization.

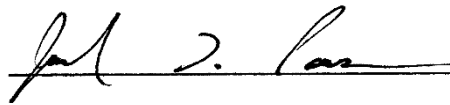
**Florida frozen concentrated orange juice (FCOJ)** yield forecast for the 2016-2017 season is 1.42 gallons per box at 42.0 degrees Brix, down 1 percent from last month but up 1 percent from last season's final yield of 1.41 gallons per box. The early and midseason portion is final at 1.34 gallons per box, unchanged from last month but down 1 percent from last season's final yield of 1.35 gallons per box. The Valencia portion is projected at 1.54 gallons per box, unchanged from last month but up 5 percent from last year's final yield of 1.47 gallons per box. All projections of yield assume the processing relationships this season will be similar to those of the past several seasons.

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This report was approved on April 11, 2017.



Secretary of Agriculture  
Designate  
Michael L. Young



Agricultural Statistics Board  
Chairperson  
Joseph L. Parsons

## Contents

Utilized Production of Citrus Fruits by Crop – States and United States: 2015-2016 and Forecasted April 1, 2017 .....	5
Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2016 and 2017.....	6
Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2016 and 2017 .....	8
Fruits and Nuts Production in Domestic Units – United States: 2016 and 2017 .....	10
Fruits and Nuts Production in Metric Units – United States: 2016 and 2017.....	11
Percent of Normal Precipitation Map .....	12
Departure from Normal Temperature Map .....	12
March Weather Summary .....	13
March Agricultural Summary .....	13
Crop Comments .....	14
Statistical Methodology .....	16
Information Contacts .....	17

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## Utilized Production of Citrus Fruits by Crop – States and United States: 2015-2016 and Forecasted April 1, 2017

[The crop year begins with the bloom of the first year shown and ends with the completion of harvest the following year]

Crop and State	Utilized production boxes <sup>1</sup>		Utilized production ton equivalent <sup>2</sup>	
	2015-2016 (1,000 boxes)	2016-2017 (1,000 boxes)	2015-2016 (1,000 tons)	2016-2017 (1,000 tons)
<b>Oranges</b>				
California, all .....	58,500	51,000	2,340	2,040
Early, mid, and Navel <sup>3</sup> .....	47,200	43,000	1,888	1,720
Valencia .....	11,300	8,000	452	320
Florida, all .....	81,700	67,000	3,677	3,015
Early, mid, and Navel <sup>3</sup> .....	36,100	33,000	1,625	1,485
Valencia .....	45,600	34,000	2,052	1,530
Texas, all .....	1,691	1,370	71	59
Early, mid, and Navel <sup>3</sup> .....	1,351	1,050	57	45
Valencia .....	340	320	14	14
United States, all .....	141,891	119,370	6,088	5,114
Early, mid, and Navel <sup>3</sup> .....	84,651	77,050	3,570	3,250
Valencia .....	57,240	42,320	2,518	1,864
<b>Grapefruit</b>				
California .....	3,800	3,800	152	152
Florida, all .....	10,800	8,100	459	345
Red .....	8,310	6,600	353	281
White .....	2,490	1,500	106	64
Texas .....	4,800	4,700	192	188
United States .....	19,400	16,600	803	685
<b>Tangerines and mandarins <sup>4</sup></b>				
California .....	21,600	22,000	864	880
Florida <sup>5</sup> .....	1,415	1,640	67	78
United States .....	23,015	23,640	931	958
<b>Lemons</b>				
Arizona .....	1,750	1,700	70	68
California .....	20,900	19,000	836	760
United States .....	22,650	20,700	906	828
<b>Tangelos <sup>6</sup></b>				
Florida .....	390	(NA)	18	(NA)

(NA) Not available.

<sup>1</sup> Net pounds per box: oranges in California-80, Florida-90, Texas-85; grapefruit in California-80, Florida-85, Texas-80; tangerines and mandarins in California-80, Florida-95; lemons-80; tangelos-90.

<sup>2</sup> Totals may not add due to rounding.

<sup>3</sup> Navel and miscellaneous varieties in California. Early (including Navel) and midseason varieties in Florida and Texas. For 2015-2016 included small quantities of Temples in Florida. Beginning in 2016-2017 Temples in Florida are included in tangerines and mandarins.

<sup>4</sup> Includes tangelos and tangors.

<sup>5</sup> Small quantities of Temples in Florida

<sup>6</sup> Beginning in 2016-2017, tangelos are included in tangerines and mandarins for Florida.

## Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2016 and 2017

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2017 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2016	2017	2016	2017
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
<b>Grains and hay</b>				
Barley .....	3,052	2,548	2,558	
Corn for grain <sup>1</sup> .....	94,004	89,996	86,748	
Corn for silage .....	(NA)		6,186	
Hay, all .....	(NA)	(NA)	53,461	52,811
Alfalfa .....	(NA)		16,885	
All other .....	(NA)		36,576	
Oats .....	2,828	2,699	981	
Proso millet .....	443		413	
Rice .....	3,150	2,626	3,097	
Rye .....	1,891		414	
Sorghum for grain <sup>1</sup> .....	6,690	5,757	6,163	
Sorghum for silage .....	(NA)		298	
Wheat, all .....	50,154	46,059	43,890	
Winter .....	36,137	32,747	30,222	
Durum .....	2,412	2,004	2,365	
Other spring .....	11,605	11,308	11,303	
<b>Oilseeds</b>				
Canola .....	1,714.0	1,927.0	1,685.7	
Cottonseed .....	(X)		(X)	
Flaxseed .....	374	313	367	
Mustard seed .....	103.1		98.2	
Peanuts .....	1,671.0	1,751.0	1,547.0	
Rapeseed .....	11.0		10.5	
Safflower .....	161.1		154.4	
Soybeans for beans .....	83,433	89,482	82,736	
Sunflower .....	1,596.6	1,454.0	1,534.0	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all .....	10,074.5	12,233.0	9,521.7	
Upland .....	9,880.0	12,001.0	9,332.0	
American Pima .....	194.5	232.0	189.7	
Sugarbeets .....	1,163.4	1,134.8	1,126.2	
Sugarcane .....	(NA)		903.1	
Tobacco .....	(NA)	(NA)	319.7	318.0
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas .....	38.0	26.0	28.0	
Dry edible beans .....	1,662.0	1,866.0	1,558.6	
Chickpeas, all .....	325.3	498.0	320.0	
Large .....	211.5	343.0	209.2	
Small .....	113.8	155.0	110.8	
Dry edible peas .....	1,382.0	1,141.0	1,329.8	
Lentils .....	933.0	1,055.0	908.0	
Wrinkled seed peas .....	(NA)		(NA)	
<b>Potatoes and miscellaneous</b>				
Hops .....	(NA)		50.9	
Maple syrup .....	(NA)		(NA)	
Mushrooms .....	(NA)		(NA)	
Peppermint oil .....	(NA)		65.3	
Potatoes, all .....	1,034.0		1,007.7	
Spring .....	51.0	52.0	48.0	
Summer .....	62.2		60.7	
Fall .....	920.8		899.0	
Spearmint oil .....	(NA)		24.5	
Sweet potatoes .....	168.1	158.4	163.3	
Taro (Hawaii) .....	(NA)		(D)	

See footnote(s) at end of table.

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## Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2016 and 2017 (continued)

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2017 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Yield per acre		Production	
	2016	2017	2016	2017
			(1,000)	(1,000)
<b>Grains and hay</b>				
Barley .....	bushels	77.9	199,282	
Corn for grain .....	bushels	174.6	15,148,038	
Corn for silage .....	tons	20.3	125,670	
Hay, all .....	tons	2.52	134,781	
Alfalfa .....	tons	3.45	58,263	
All other .....	tons	2.09	76,518	
Oats .....	bushels	66.0	64,770	
Proso millet .....	bushels	30.4	12,558	
Rice <sup>2</sup> .....	cwt	7,237	224,145	
Rye .....	bushels	32.5	13,451	
Sorghum for grain .....	bushels	77.9	480,261	
Sorghum for silage .....	tons	14.0	4,171	
Wheat, all .....	bushels	52.6	2,309,675	
Winter .....	bushels	55.3	1,671,532	
Durum .....	bushels	44.0	104,116	
Other spring .....	bushels	47.2	534,027	
<b>Oilseeds</b>				
Canola .....	pounds	1,824	3,075,200	
Cottonseed .....	tons	(X)	5,418.0	
Flaxseed .....	bushels	23.7	8,680	
Mustard seed .....	pounds	980	96,270	
Peanuts .....	pounds	3,675	5,684,610	
Rapeseed .....	pounds	1,840	19,320	
Safflower .....	pounds	1,425	220,090	
Soybeans for beans .....	bushels	52.1	4,306,671	
Sunflower .....	pounds	1,731	2,654,735	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	bales	855	16,958.5	
Upland <sup>2</sup> .....	bales	844	16,401.0	
American Pima <sup>2</sup> .....	bales	1,411	557.5	
Sugarbeets .....	tons	32.7	36,881	
Sugarcane .....	tons	35.6	32,118	
Tobacco .....	pounds	1,967	628,720	
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas <sup>2</sup> .....	cwt	1,704	477	
Dry edible beans <sup>2</sup> .....	cwt	1,842	28,712	
Chickpeas, all <sup>2</sup> .....	cwt	1,702	5,447	
Large <sup>2</sup> .....	cwt	1,677	3,509	
Small <sup>2</sup> .....	cwt	1,749	1,938	
Dry edible peas <sup>2</sup> .....	cwt	2,086	27,737	
Lentils <sup>2</sup> .....	cwt	1,397	12,685	
Wrinkled seed peas .....	cwt	(NA)	439	
<b>Potatoes and miscellaneous</b>				
Hops .....	pounds	1,713	87,139.6	
Maple syrup .....	gallons	(NA)	4,207	
Mushrooms .....	pounds	(NA)	945,639	
Peppermint oil .....	pounds	89	5,800	
Potatoes, all .....	cwt	437	440,725	
Spring .....	cwt	316	15,171	
Summer .....	cwt	323	19,602	
Fall .....	cwt	452	405,952	
Spearmint oil .....	pounds	131	3,208	
Sweet potatoes .....	cwt	193	31,546	
Taro (Hawaii) .....	pounds	(D)	(D)	

(D) Withheld to avoid disclosing data for individual operations.

(NA) Not available.

(X) Not applicable.

<sup>1</sup> Area planted for all purposes.

<sup>2</sup> Yield in pounds.

## Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2016 and 2017

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2017 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2016	2017	2016	2017
	(hectares)	(hectares)	(hectares)	(hectares)
<b>Grains and hay</b>				
Barley .....	1,235,110	1,031,150	1,035,200	
Corn for grain <sup>1</sup> .....	38,042,480	36,420,480	35,106,050	
Corn for silage .....	(NA)		2,503,410	
Hay, all <sup>2</sup> .....	(NA)	(NA)	21,635,130	21,372,080
Alfalfa .....	(NA)		6,833,190	
All other .....	(NA)		14,801,940	
Oats .....	1,144,460	1,092,260	397,000	
Proso millet .....	179,280		167,140	
Rice .....	1,274,770	1,062,720	1,253,320	
Rye .....	765,270		167,540	
Sorghum for grain <sup>1</sup> .....	2,707,380	2,329,800	2,494,100	
Sorghum for silage .....	(NA)		120,600	
Wheat, all <sup>2</sup> .....	20,296,820	18,639,620	17,761,840	
Winter .....	14,624,280	13,252,380	12,230,540	
Durum .....	976,110	811,000	957,090	
Other spring .....	4,696,430	4,576,230	4,574,210	
<b>Oilseeds</b>				
Canola .....	693,640	779,840	682,190	
Cottonseed .....	(X)		(X)	
Flaxseed .....	151,350	126,670	148,520	
Mustard seed .....	41,720		39,740	
Peanuts .....	676,240	708,610	626,060	
Rapeseed .....	4,450		4,250	
Safflower .....	65,200		62,480	
Soybeans for beans .....	33,764,500	36,212,470	33,482,430	
Sunflower .....	646,130	588,420	620,790	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	4,077,050	4,950,570	3,853,340	
Upland .....	3,998,340	4,856,680	3,776,570	
American Pima .....	78,710	93,890	76,770	
Sugarbeets .....	470,820	459,240	455,760	
Sugarcane .....	(NA)		365,480	
Tobacco .....	(NA)	(NA)	129,360	128,690
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas .....	15,380	10,520	11,330	
Dry edible beans .....	672,590	755,150	630,750	
Chickpeas <sup>2</sup> .....	131,650	201,540	129,500	
Large .....	85,590	138,810	84,660	
Small .....	46,050	62,730	44,840	
Dry edible peas .....	559,280	461,750	538,160	
Lentils .....	377,580	426,950	367,460	
Wrinkled seed peas .....	(NA)		(NA)	
<b>Potatoes and miscellaneous</b>				
Hops .....	(NA)		20,580	
Maple syrup .....	(NA)		(NA)	
Mushrooms .....	(NA)		(NA)	
Peppermint oil .....	(NA)		26,430	
Potatoes, all <sup>2</sup> .....	418,450		407,810	
Spring .....	20,640	21,040	19,430	
Summer .....	25,170		24,560	
Fall .....	372,640		363,820	
Spearmint oil .....	(NA)		9,910	
Sweet potatoes .....	68,030	64,100	66,090	
Taro (Hawaii) .....	(NA)		(D)	

See footnote(s) at end of table.

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**Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States:  
2016 and 2017 (continued)**

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2017 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Yield per hectare		Production	
	2016	2017	2016	2017
	(metric tons)	(metric tons)	(metric tons)	(metric tons)
<b>Grains and hay</b>				
Barley .....	4.19		4,338,850	
Corn for grain .....	10.96		384,777,890	
Corn for silage .....	45.54		114,005,910	
Hay, all <sup>2</sup> .....	5.65		122,271,270	
Alfalfa .....	7.74		52,855,300	
All other .....	4.69		69,415,960	
Oats .....	2.37		940,130	
Proso millet .....	1.70		284,810	
Rice .....	8.11		10,167,050	
Rye .....	2.04		341,670	
Sorghum for grain .....	4.89		12,199,190	
Sorghum for silage .....	31.38		3,783,870	
Wheat, all <sup>2</sup> .....	3.54		62,859,050	
Winter .....	3.72		45,491,650	
Durum .....	2.96		2,833,570	
Other spring .....	3.18		14,533,830	
<b>Oilseeds</b>				
Canola .....	2.04		1,394,890	
Cottonseed .....	(X)		4,915,130	
Flaxseed .....	1.48		220,480	
Mustard seed .....	1.10		43,670	
Peanuts .....	4.12		2,578,500	
Rapeseed .....	2.06		8,760	
Safflower .....	1.60		99,830	
Soybeans for beans .....	3.50		117,208,380	
Sunflower .....	1.94		1,204,170	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	0.96		3,692,280	
Upland .....	0.95		3,570,900	
American Pima .....	1.58		121,380	
Sugarbeets .....	73.41		33,457,880	
Sugarcane .....	79.72		29,136,960	
Tobacco .....	2.20		285,180	
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas .....	1.91		21,640	
Dry edible beans .....	2.06		1,302,350	
Chickpeas, all <sup>2</sup> .....	1.91		247,070	
Large .....	1.88		159,170	
Small .....	1.96		87,910	
Dry edible peas .....	2.34		1,258,130	
Lentils .....	1.57		575,380	
Wrinkled seed peas .....	(NA)		19,910	
<b>Potatoes and miscellaneous</b>				
Hops .....	1.92		39,530	
Maple syrup .....	(NA)		21,040	
Mushrooms .....	(NA)		428,930	
Peppermint oil .....	0.10		2,630	
Potatoes, all <sup>2</sup> .....	49.02		19,990,950	
Spring .....	35.43		688,150	
Summer .....	36.20		889,130	
Fall .....	50.61		18,413,670	
Spearmint oil .....	0.15		1,460	
Sweet potatoes .....	21.65		1,430,900	
Taro (Hawaii) .....	(D)		(D)	

(D) Withheld to avoid disclosing data for individual operations.

(NA) Not available.

(X) Not applicable.

<sup>1</sup> Area planted for all purposes.

<sup>2</sup> Total may not add due to rounding.

## Fruits and Nuts Production in Domestic Units – United States: 2016 and 2017

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2017 crop year, except citrus which is for the 2016-2017 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production	
	2016	2017
<b>Citrus <sup>1</sup></b>		
Grapefruit ..... 1,000 tons	803	685
Lemons ..... 1,000 tons	906	828
Oranges ..... 1,000 tons	6,088	5,114
Tangelos (Florida) <sup>2</sup> ..... 1,000 tons	18	(NA)
Tangerines and mandarins ..... 1,000 tons	931	958
<b>Noncitrus</b>		
Apples ..... million pounds	10,417.0	
Apricots ..... tons	61,400	
Avocados ..... tons		
Bananas (Hawaii) ..... 1,000 pounds		
Blackberries (Oregon) ..... 1,000 pounds		
Blueberries		
Cultivated ..... 1,000 pounds		
Wild (Maine) ..... 1,000 pounds		
Boysenberries (Oregon) ..... 1,000 pounds		
Raspberries, All ..... 1,000 pounds		
Cherries, Sweet ..... tons	318,000	
Cherries, Tart ..... million pounds	309.1	
Coffee ..... 1,000 pounds	38,640	
Cranberries ..... barrel	8,591,700	
Dates (California) ..... tons		
Figs (California) ..... tons		
Grapes ..... tons	7,823,900	
Kiwifruit (California) ..... tons		
Nectarines ..... tons		
Olives (California) ..... tons		
Papayas (Hawaii) ..... 1,000 pounds		
Peaches ..... tons	806,600	
Pears ..... tons	782,000	
Plums (California) ..... tons		
Prunes (California) ..... tons	45,000	
Strawberries ..... 1,000 cwt	31,321	
<b>Nuts and miscellaneous</b>		
Almonds, shelled (California) ..... 1,000 pounds	2,050,000	
Hazelnuts, in-shell (Oregon) ..... tons	38,000	
Macadamias (Hawaii) ..... 1,000 pounds		
Pecans, in-shell ..... 1,000 pounds	262,700	
Pistachios (California) ..... 1,000 pounds		
Walnuts, in-shell (California) ..... tons	670,000	

(NA) Not available.

<sup>1</sup> Production years are 2015-2016 and 2016-2017.

<sup>2</sup> Beginning in 2016-2017, tangelos are included in tangerines and mandarins for Florida.

## Fruits and Nuts Production in Metric Units – United States: 2016 and 2017

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2017 crop year, except citrus which is for the 2016-2017 season. Blank data cells indicate estimation period has not yet begun]

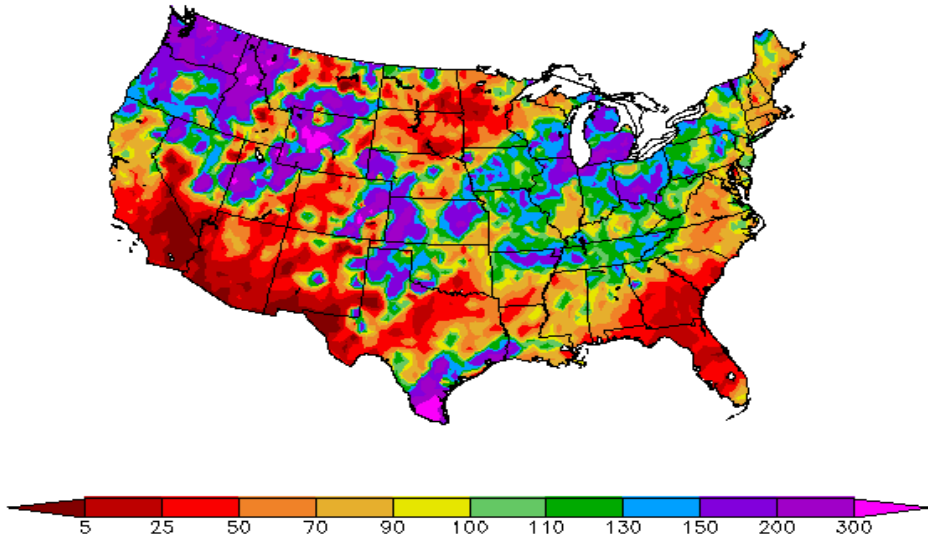
Crop	Production	
	2016 (metric tons)	2017 (metric tons)
<b>Citrus<sup>1</sup></b>		
Grapefruit .....	728,470	621,420
Lemons .....	821,910	751,150
Oranges .....	5,522,940	4,639,340
Tangelos (Florida) <sup>2</sup> .....	16,330	(NA)
Tangerines and mandarins .....	844,590	869,080
<b>Noncitrus</b>		
Apples .....	4,725,070	
Apricots .....	55,700	
Avocados .....		
Bananas (Hawaii) .....		
Blackberries (Oregon) .....		
Blueberries		
Cultivated .....		
Wild (Maine) .....		
Boysenberries (Oregon) .....		
Raspberries, All .....		
Cherries, Sweet .....	288,480	
Cherries, Tart .....	140,210	
Coffee .....	17,530	
Cranberries .....	389,710	
Dates (California) .....		
Figs (California) .....		
Grapes .....	7,097,720	
Kiwifruit (California) .....		
Nectarines .....		
Olives (California) .....		
Papayas (Hawaii) .....		
Peaches .....	731,740	
Pears .....	709,420	
Plums (California) .....		
Prunes (California) .....	40,820	
Strawberries .....	1,420,690	
<b>Nuts and miscellaneous</b>		
Almonds, shelled (California) .....	929,860	
Hazelnuts, in-shell (Oregon) .....	34,470	
Macadamias (Hawaii) .....		
Pecans, in-shell .....	119,160	
Pistachios (California) .....		
Walnuts, in-shell (California) .....	607,810	

(NA) Not available.

<sup>1</sup> Production years are 2015-2016 and 2016-2017.

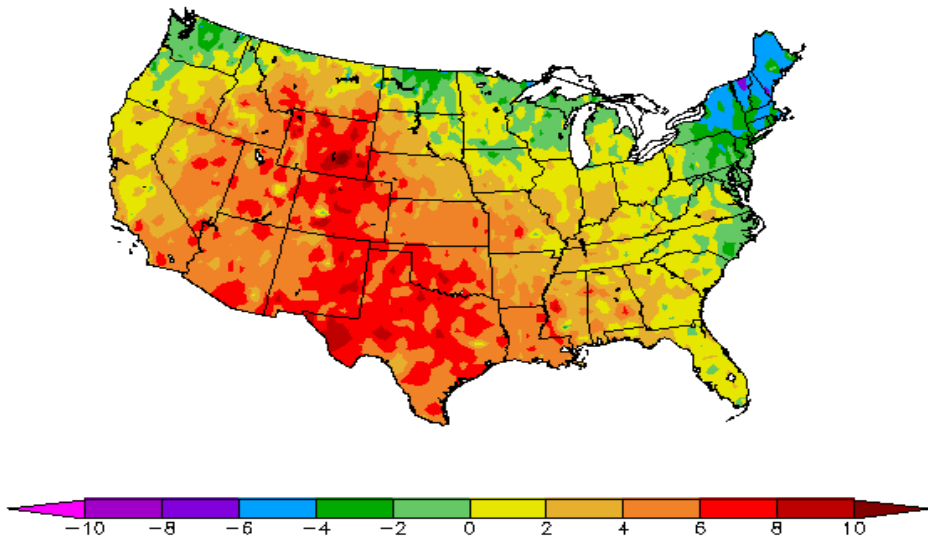
<sup>2</sup> Beginning in 2016-2017, tangelos are included in tangerines and mandarins for Florida.

Percent of Normal Precipitation (%)  
3/1/2017 - 3/31/2017



Regional Climate Centers

Departure from Normal Temperature (F)  
3/1/2017 - 3/31/2017



Regional Climate Centers

## March Weather Summary

Early-March wildfires on the central and southern Plains and mid-month freezes in the Southeast highlighted an active weather pattern. The Southeastern cold snap, which caused extensive fruit (e.g. peach, blueberry) losses in Georgia, South Carolina, and portions of neighboring States, peaked March 15-17, immediately in the wake of a Northeastern blizzard. From March 13-15, wind, rain, sleet, and snow caused extensive travel disruptions from the Mid-Atlantic States to New England.

In contrast, drier-than-normal March weather dominated the Nation's southern tier, from southern California to the southern Atlantic States, except in parts of southern Texas. The dry weather promoted a rapid fieldwork pace, allowing planting of corn and other summer crops to quickly proceed. However, in areas experiencing drought, such as parts of the Southeast, dry weather, mid-month freezes, and periods of unusual warmth resulted in declining crop and pasture conditions.

Meanwhile, beneficial precipitation fell across the central and southern Plains, reviving rangeland, pastures, and winter wheat that had been experiencing drought stress. However, the rain arrived in the wake of wildfires that charred hundreds of thousands of acres of grassland and other vegetation, along with fences and other farm infrastructure, in eastern Colorado, western Kansas, western Oklahoma, and northern Texas.

Similarly, increasingly showery weather in the Midwest boosted soil moisture but ultimately slowed pre-planting fieldwork. However, most of the precipitation bypassed the upper Midwest.

Elsewhere, California experienced a break from the deluges of January and February, as the primary storm track shifted across the Northwest. Late in the month, however, rain showers and high-elevation snow returned to northern California.

Persistently cold March weather was limited to the Northeast, although other parts of the northern and eastern United States experienced some sharp cold waves. In contrast, significantly above-normal temperatures stretched from the Southwest and Intermountain West to the central and southern Plains and the mid-South.

## March Agricultural Summary

Above average temperatures stretched across most of the United States during March. Most notably, temperatures in the majority of the Rocky Mountains and the southern Great Plains were more than 6°F above normal. Conversely, New England was the only region with temperatures well below normal in March. Precipitation levels were near normal throughout much of the Nation for the month. The major exception to this trend occurred in the Pacific Northwest. Over 20 inches of rainfall fell in parts of Washington during March. The United States Drought Monitor reported most of Florida was experiencing drought conditions as of March 28, 2017.

On April 2, fifty-one percent of the 2017 winter wheat crop was reported in good to excellent condition, compared with 59 percent at the same time last year. Kansas producers reported 43 percent of the winter wheat crop in good to excellent condition on April 2, equal to the February 26 rating. In Montana, the percent of the crop in the good to excellent categories increased 12 percentage points during March with 63 percent rated in these two categories on April 2. Winter wheat conditions declined in the Great Lakes Region during March, but condition ratings in Indiana, Michigan, and Ohio remained at or above their respective 5-year averages in the good to excellent categories. In Kansas, the winter wheat crop was 31 percent in the jointing stage or beyond on April 2, nine percentage points behind last year but slightly ahead of the 5-year average. Oklahoma's winter wheat was 66 percent jointing at the end of the month, 8 percentage points ahead of last year and 6 percentage points ahead of the 5-year average.

By the end of the month, Texas pasture and range condition was reported at 55 percent in the good to excellent categories, 21 percentage points above the 5-year average. Pasture and range conditions were below the 5-year average across much of the Southeast with Alabama at 35 percent, Florida at 19 percent, South Carolina at 33 percent, and Tennessee at 34 percent in the good to excellent categories. Wet and warm conditions led to more favorable pasture ratings in the West including California rated at 70 percent good to excellent and Idaho at 82 percent good to excellent.

March started with a lot of variation in the weather across California as a departing Pacific system exerted its influence onto the State. Towards the end of the month, the weather oscillated between warm and wet to dry and cool as early springtime Pacific systems moved through the State. Late navel orange harvest was underway in some areas. Navel oranges, Mandarins, lemons, Star Ruby grapefruit, and late harvest Finger limes were being packed and exported for foreign and domestic marketplaces. Valencia orange harvest started. Orange groves were hedge-rowed and skirted. Seedless tangerine groves continued to be netted to prevent cross pollination by bees during the coming bloom. Cherries and late varieties of stone fruit continued to bloom. Strawberry fields continued to thrive. Almonds and pistachios continued to be packed and exported mainly to foreign marketplaces. Bee colonies continued to be moved into nut and stone fruit orchards for pollination.

In Florida, processing plants finished with early and midseason oranges in mid-March. Grapefruit harvest decreased towards the middle of the month while Valencia harvest ramped up in the second half of the month. By the end of March, white and red grapefruit were still being harvested but going primarily to the processing plants. Citrus trees were in full bloom or had begun petal drop. Growers have had some success fighting greening with bactericides and pesticides and pushing dead and dying trees. In March, groves were irrigated heavily and other activities included fertilizing, hedging, and general maintenance.

## Crop Comments

**Grapefruit:** The United States 2016-2017 grapefruit crop is forecast at 685,000 tons, down 9 percent from last month and down 15 percent from last season's final utilization. In Florida, expected production, at 8.10 million boxes (345,000 tons), is down 9 percent from last month and down 25 percent from last year. California's grapefruit production forecast is unchanged from last year while Texas grapefruit production is down 100,000 boxes from last year.

**Tangerines and mandarins:** The United States tangerine and mandarin crop is forecast at 958,000 tons, down 3 percent from last month but up 1 percent from last season's revised final utilization if tangelos were included. If realized, this will be the largest production since records began in 1964-1965. The California tangerine and mandarin forecast is down 4 percent from the previous forecast but up 2 percent from last year's revised final utilization. The Florida forecast is up 10 percent from last month but down 9 percent from 2015-2016, if tangelos were included. Beginning in 2016-2017, tangerine and mandarin estimates in Florida include tangelos.

**Lemons:** The forecast for the 2016-2017 United States lemon crop is 828,000 tons, down 4 percent from the previous forecast and down 9 percent from last season's revised final utilization. Production is down from 2015-2016 in both Arizona and California.

**Florida citrus:** In the citrus growing region, daily temperatures were reported as average or above on most days. Daytime highs were mostly in the mid-70s to mid-80s, while nighttime lows were mostly in the 50s and 60s. There were only one or two days of cooler weather mid-month, when daytime highs barely reached the low 60s. Rainfall totals were far less than average for the month. Only five of nineteen monitored stations had more than an inch of rainfall, most of those were in the Central and Western citrus growing areas. The typical average rainfall for the month of March is about three and a half inches. According to the March 28, 2017 U.S. Drought Monitor, conditions have worsened since last month. Severe drought was affecting almost the complete southern citrus growing area. The remainder of the citrus region was in moderate drought or abnormally dry condition.

Early-midseason orange harvest was completed. Valencia orange harvest was going strong primarily for processing. Tangerine harvest slowed down significantly with only limited quantities of Honey and Royal tangerines remaining. Tangelo harvest was almost over for the season. Only two-thousand boxes of tangelos were harvested the final week of the month. During March, only a third of the red grapefruit was harvested for the fresh market. Almost all the white grapefruit went to the processing plants. Bloom was reported to be over for citrus. Growers reported most trees have pea size fruit, while some had marble size and larger fruit from the multiple blooms earlier this season. Trees in well cared for groves had significant new growth. Irrigation was becoming common-place due to the lack of significant rainfall over the past several weeks. Other grove activity included dead tree removal, spraying, fertilizing, hedging (mostly after harvest), and general grove maintenance.

**California citrus:** Citrus harvest of Cara Cara and Navel oranges, lemons, mandarins, and late harvest Finger limes continued. Fungicide applications were made to some citrus orchards. Rains early in the month impacted the overall quality of the citrus. Orange groves were hedge-rowed and skirted. A few seedless tangerine groves were netted to prevent cross pollination by bees during the pending bloom. Late navel orange harvest began in some areas mid-month. Star Ruby grapefruit harvest began with most of the fruit being packed for the domestic market. Valencia orange harvest began.

**California noncitrus fruits and nuts:** Pruning, disking, weed control, and pre-bloom spraying continued where drying orchard floor conditions permitted. Pruning of olive groves continued throughout the month. Pruning, tying, berm sanitation, and brush shredding continued as vineyard floors dried. Herbicides were applied in some vineyards to combat the increase in weeds after the exceptionally wet winter. Some bud break was observed in vineyards mid-month. Early varieties of stone fruit, including cherries, apricots, and plums were blooming in Tulare County and the San Joaquin Valley early in the month. Some persimmons and pomegranates were leafing out. New orchards were being planted. Strong winds across the Central Valley knocked off petals and hampered bee activity toward the end of the month.

Walnut and pistachio orchards were pruned as field conditions permitted. Almond bloom was progressing in the northern part of the State, while the southern bloom was nearing completion. By mid-month the almond bloom had slowed down. Bee colonies continued to be moved into nut and stone fruit orchards for pollination. Rain and wind caused some almond petal drop. Fungicides were applied in some almond orchards. Some walnut orchards were blooming mid-month. New orchards of almonds and walnuts continued to be planted. Winds that occurred during the last week of the month accelerated the drying of orchards that were flooded earlier this year. Orchard clean up continued in some of the most impacted areas.

## Statistical Methodology

**Survey procedures:** The orange objective yield survey for the April 1 forecast was conducted in Florida, which produces about 60 percent of the United States production last season. In August and September 2016, the number of bearing trees and number of fruit per tree is determined. In August and subsequent months, fruit size measurement and fruit droppage surveys are conducted, which are combined with the previous components to develop the current forecast of production. California and Texas conduct grower and packer surveys on a quarterly basis in October, January, April, and July. California also conducts objective measurement surveys in September for Navel oranges and in March for Valencia oranges.

**Estimating procedures:** State level objective yield estimates for Florida oranges were reviewed for errors, reasonableness, and consistency with historical estimates. Reports from growers and packers in California and Texas were also used for setting estimates. These three States submit their analyses of the current situation to the Agricultural Statistics Board (ASB). The ASB uses the survey data and the State analyses to prepare the published April 1 forecast.

**Revision policy:** The April 1 production forecasts will not be revised. A new forecast will be made each month throughout the growing season. End-of-season estimates will be published in the *Citrus Fruits Summary* released in August. The production estimates are based on all data available at the end of the marketing season, including information from marketing orders, shipments, and processor records. Allowances are made for recorded local utilization and home use.

**Reliability:** To assist users in evaluating the reliability of the April 1 production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the April 1 production forecast and the final estimate is expressed as a percentage of the final estimate. The average of squared percentage deviations for the latest 20-year period is computed. The square root of the average becomes statistically the "Root Mean Square Error." Probability statements can be made concerning expected differences in the current forecast relative to the final end-of-season estimate, assuming that factors affecting this year's forecast are not different from those influencing recent years.

The "Root Mean Square Error" for the April 1 orange production forecast is 3.0 percent. However, if you exclude the three abnormal production years (one freeze season and two hurricane seasons), the "Root Mean Square Error" is 3.3 percent. This means chances are 2 out of 3 that the current orange production forecast will not be above or below the final estimate by more than 3.0 percent, or 3.3 percent excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 5.2 percent, or 5.7 percent, excluding abnormal seasons.

Changes between the April 1 orange forecast and the final estimates during the past 20 years have averaged 174,000 tons (191,000 tons, excluding abnormal seasons), ranging from 0 to 502,000 tons regardless of exclusions. The April 1 forecast for oranges has been below the final estimate 8 times, above 11 times, and equal to once (below 6 times, above 10 times, and equal to once excluding abnormal seasons). The difference does not imply that the April 1 forecast this year is likely to understate or overstate final production.



## USDA, National Agricultural Statistics Service Information Contacts

Listed below are the commodity statisticians in the Crops Branch of the National Agricultural Statistics Service to contact for additional information. E-mail inquiries may be sent to [nass@nass.usda.gov](mailto:nass@nass.usda.gov)

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Daphne Schauber – Floriculture, Grapes, Hops, Maple Syrup, Nursery, Tree Nuts.....	(202) 720-4215
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