



---

Released March 9, 2017, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

## Orange Production Down 3 Percent from February

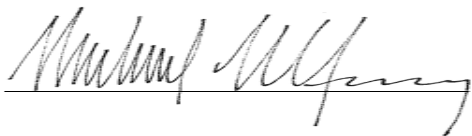
**The United States all orange** forecast for the 2016-2017 season is 5.16 million tons, down 3 percent from last month and down 13 percent from the 2015-2016 final utilization. The Florida all orange forecast, at 67.0 million boxes (3.02 million tons), is down 4 percent from last month and down 18 percent from last season's final utilization. Early, midseason, and Navel varieties in Florida are forecast at 33.0 million boxes (1.49 million tons), down 6 percent from last month and down 9 percent from last season's final utilization. The Florida Valencia orange forecast, at 34.0 million boxes (1.53 million tons), is down 3 percent from last month and down 25 percent from last season's final utilization.

The California Valencia orange forecast is 7.80 million boxes (312,000 tons), down 13 percent from previous forecast and down 10 percent from the previous season. This results in a California all orange forecast of 51.8 million boxes (2.07 million tons), down 2 percent from the previous forecast and down 4 percent from last season's final utilization. Objective survey measurements taken during January and February indicated that fruit set per tree was lower than the previous year and the lowest since 2009, but the measured average fruit size was slightly above the previous year. The forecast for Texas is carried forward from the previous forecast.

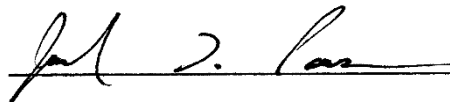
**Florida frozen concentrated orange juice (FCOJ)** yield forecast for the 2016-2017 season is 1.43 gallons per box at 42.0 degrees Brix, unchanged from last month but up 1 percent from last season's final yield of 1.41 gallons per box. The early and midseason portion is projected at 1.34 gallons per 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.

---

This report was approved on March 9, 2017.



Secretary of Agriculture  
Designate  
Michael L. Young



Agricultural Statistics Board  
Chairperson  
Joseph L. Parsons

## Contents

Sugarcane Area Harvested, Yield, and Production by Use – States and United States: 2015 and 2016 .....	4
Utilized Production of Citrus Fruits by Crop – States and United States: 2015-2016 and Forecasted March 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
February Weather Summary .....	13
February Agricultural Summary .....	13
Crop Comments .....	14
Statistical Methodology .....	16
Information Contacts .....	17

## Sugarcane Area Harvested, Yield, and Production by Use – States and United States: 2015 and 2016

Use and State	Area harvested		Yield per acre <sup>1</sup>		Production <sup>1</sup>	
	2015 (1,000 acres)	2016 (1,000 acres)	2015 (tons)	2016 (tons)	2015 (1,000 tons)	2016 (1,000 tons)
<b>For sugar</b>						
Florida .....	398.0	400.0	42.5	40.3	16,915	16,120
Hawaii .....	12.9	15.5	88.3	86.2	1,139	1,336
Louisiana .....	385.0	400.0	29.6	28.8	11,396	11,520
Texas .....	35.2	37.7	31.4	37.0	1,105	1,395
United States .....	831.1	853.2	36.8	35.6	30,555	30,371
<b>For seed</b>						
Florida .....	15.0	17.0	49.2	46.1	738	784
Hawaii .....	2.2	-	20.0	-	44	-
Louisiana .....	25.0	31.0	29.6	28.8	740	893
Texas .....	1.4	1.9	32.1	37.0	45	70
United States .....	43.6	49.9	35.9	35.0	1,567	1,747
<b>For sugar and seed</b>						
Florida .....	413.0	417.0	42.7	40.5	17,653	16,904
Hawaii .....	15.1	15.5	78.3	86.2	1,183	1,336
Louisiana .....	410.0	431.0	29.6	28.8	12,136	12,413
Texas .....	36.6	39.6	31.4	37.0	1,150	1,465
United States .....	874.7	903.1	36.7	35.6	32,122	32,118

- Represents zero.

<sup>1</sup> Net tons.

## Utilized Production of Citrus Fruits by Crop – States and United States: 2015-2016 and Forecasted March 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 .....	54,200	51,800	2,168	2,072
Early, mid, and Navel <sup>3 4</sup> .....	45,500	44,000	1,820	1,760
Valencia .....	8,700	7,800	348	312
Florida, all .....	81,600	67,000	3,672	3,015
Early, mid, and Navel <sup>4</sup> .....	36,100	33,000	1,625	1,485
Valencia .....	45,500	34,000	2,047	1,530
Texas, all <sup>3</sup> .....	1,691	1,800	72	77
Early, mid, and Navel <sup>4</sup> .....	1,351	1,450	57	62
Valencia .....	340	350	14	15
United States, all .....	137,491	120,600	5,911	5,164
Early, mid, and Navel <sup>4</sup> .....	82,951	78,450	3,502	3,307
Valencia .....	54,540	42,150	2,409	1,857
<b>Grapefruit</b>				
California <sup>3</sup> .....	3,800	4,100	152	164
Florida, all .....	10,800	8,900	459	378
Red .....	8,310	7,200	353	306
White .....	2,490	1,700	106	72
Texas <sup>3</sup> .....	4,800	5,300	192	212
United States .....	19,400	18,300	803	754
<b>Tangerines and mandarins <sup>5</sup></b>				
California <sup>3</sup> .....	21,700	23,000	868	920
Florida <sup>6</sup> .....	1,415	1,490	67	70
United States .....	23,115	24,490	935	990
<b>Lemons <sup>3</sup></b>				
Arizona .....	1,750	1,550	70	62
California .....	20,500	20,000	820	800
United States .....	22,250	21,550	890	862
<b>Tangelos <sup>7</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> Estimates for current year carried forward from previous forecast.

<sup>4</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 included in tangerines and mandarins.

<sup>5</sup> Includes tangelos and tangors.

<sup>6</sup> Small quantities of Temples in Florida.

<sup>7</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		2,558	
Corn for grain <sup>1</sup> .....	94,004		86,748	
Corn for silage .....	(NA)		6,186	
Hay, all .....	(NA)		53,461	
Alfalfa .....	(NA)		16,885	
All other .....	(NA)		36,576	
Oats .....	2,828		981	
Proso millet .....	443		413	
Rice .....	3,150		3,097	
Rye .....	1,891		414	
Sorghum for grain <sup>1</sup> .....	6,690		6,163	
Sorghum for silage .....	(NA)		298	
Wheat, all .....	50,154		43,890	
Winter .....	36,137	32,383	30,222	
Durum .....	2,412		2,365	
Other spring .....	11,605		11,303	
<b>Oilseeds</b>				
Canola .....	1,714.0		1,685.7	
Cottonseed .....	(X)		(X)	
Flaxseed .....	374		367	
Mustard seed .....	103.1		98.2	
Peanuts .....	1,671.0		1,547.0	
Rapeseed .....	11.0		10.5	
Safflower .....	161.1		154.4	
Soybeans for beans .....	83,433		82,736	
Sunflower .....	1,596.6		1,534.0	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all .....	10,074.5		9,521.7	
Upland .....	9,880.0		9,332.0	
American Pima .....	194.5		189.7	
Sugarbeets .....	1,163.4		1,126.2	
Sugarcane .....	(NA)		903.1	
Tobacco .....	(NA)		319.7	
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas .....	38.0		28.0	
Dry edible beans .....	1,662.0		1,558.6	
Chickpeas, all .....	325.3		320.0	
Large .....	211.5		209.2	
Small .....	113.8		110.8	
Dry edible peas .....	1,382.0		1,329.8	
Lentils .....	933.0		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		48.0	
Summer .....	62.2		60.7	
Fall .....	920.8		899.0	
Spearmint oil .....	(NA)		24.5	
Sweet potatoes .....	168.1		163.3	
Taro (Hawaii) .....	(NA)		(D)	

See footnote(s) at end of table.

--continued

**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		1,035,200	
Corn for grain <sup>1</sup> .....	38,042,480		35,106,050	
Corn for silage .....	(NA)		2,503,410	
Hay, all <sup>2</sup> .....	(NA)		21,635,130	
Alfalfa .....	(NA)		6,833,190	
All other .....	(NA)		14,801,940	
Oats .....	1,144,460		397,000	
Proso millet .....	179,280		167,140	
Rice .....	1,274,770		1,253,320	
Rye .....	765,270		167,540	
Sorghum for grain <sup>1</sup> .....	2,707,380		2,494,100	
Sorghum for silage .....	(NA)		120,600	
Wheat, all <sup>2</sup> .....	20,296,820		17,761,840	
Winter .....	14,624,280	13,105,080	12,230,540	
Durum .....	976,110		957,090	
Other spring .....	4,696,430		4,574,210	
<b>Oilseeds</b>				
Canola .....	693,640		682,190	
Cottonseed .....	(X)		(X)	
Flaxseed .....	151,350		148,520	
Mustard seed .....	41,720		39,740	
Peanuts .....	676,240		626,060	
Rapeseed .....	4,450		4,250	
Safflower .....	65,200		62,480	
Soybeans for beans .....	33,764,500		33,482,430	
Sunflower .....	646,130		620,790	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	4,077,050		3,853,340	
Upland .....	3,998,340		3,776,570	
American Pima .....	78,710		76,770	
Sugarbeets .....	470,820		455,760	
Sugarcane .....	(NA)		365,480	
Tobacco .....	(NA)		129,360	
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas .....	15,380		11,330	
Dry edible beans .....	672,590		630,750	
Chickpeas <sup>2</sup> .....	131,650		129,500	
Large .....	85,590		84,660	
Small .....	46,050		44,840	
Dry edible peas .....	559,280		538,160	
Lentils .....	377,580		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		19,430	
Summer .....	25,170		24,560	
Fall .....	372,640		363,820	
Spearmint oil .....	(NA)		9,910	
Sweet potatoes .....	68,030		66,090	
Taro (Hawaii) .....	(NA)		(D)	

See footnote(s) at end of table.

--continued



**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	754
Lemons ..... 1,000 tons	890	862
Oranges ..... 1,000 tons	5,911	5,164
Tangelos (Florida) <sup>2</sup> ..... 1,000 tons	18	(NA)
Tangerines and mandarins ..... 1,000 tons	935	990
<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]

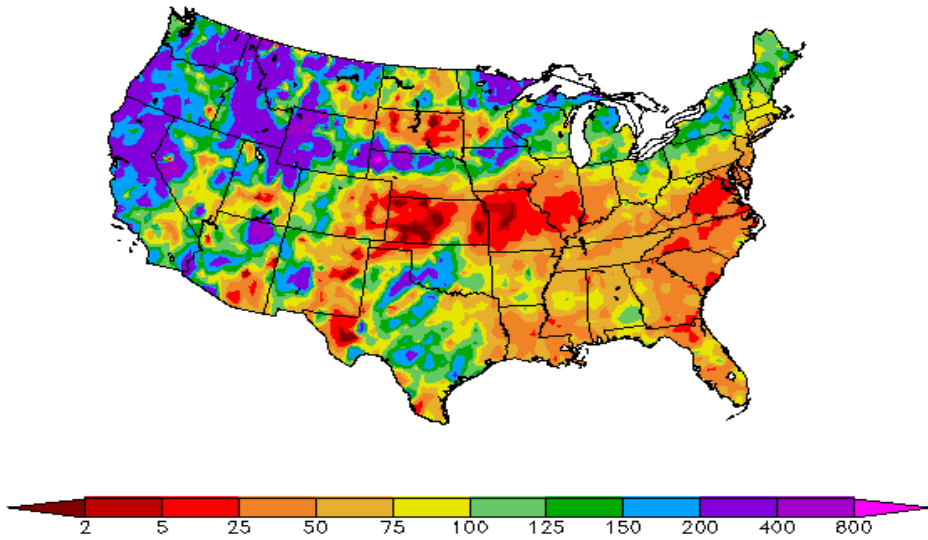
Crop	Production	
	2016 (metric tons)	2017 (metric tons)
<b>Citrus<sup>1</sup></b>		
Grapefruit .....	728,470	684,020
Lemons .....	807,390	781,990
Oranges .....	5,362,370	4,684,700
Tangelos (Florida) <sup>2</sup> .....	16,330	(NA)
Tangerines and mandarins .....	848,220	898,110
<b>Noncitrus</b>		
Apples .....	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.

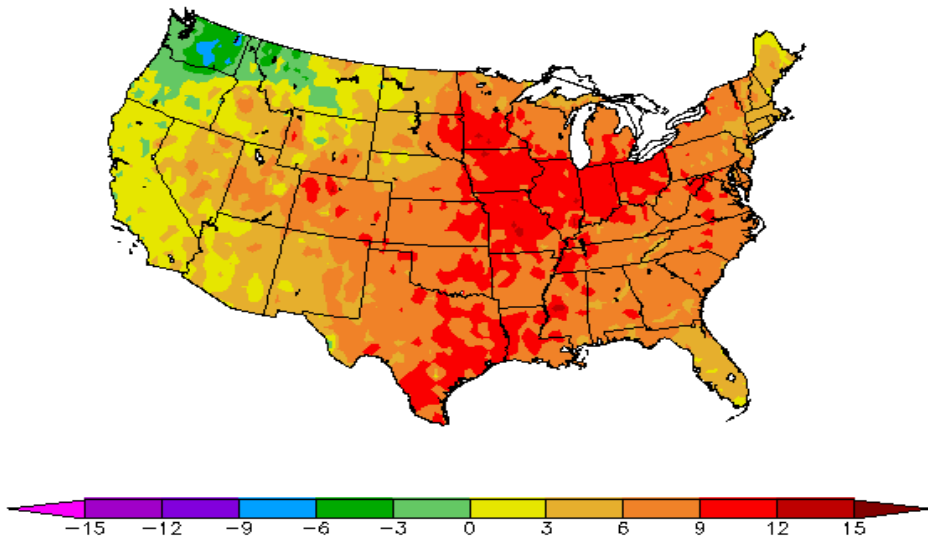
<sup>2</sup> Beginning in 2016-2017, Tangelos are included in tangerines and mandarins for Florida.

Percent of Normal Precipitation (%)  
2/1/2017 - 2/28/2017



Regional Climate Centers

Departure from Normal Temperature (F)  
2/1/2017 - 2/28/2017



Regional Climate Centers

## February Weather Summary

Outrageous February warmth brought winter wheat out of dormancy as far north as the central Plains and the lower Midwest, and left many fruits in bloom by month's end across the South. Monthly temperatures averaged at least 10°F above normal at many locations across the eastern half of the United States, shattering February average temperature records that had been set as far back as 1882, 1890, 1925, 1930, and 1932. Only the northwestern corner of the country, including Washington, was cooler than average, but even there February was far less harsh than December and January.

The warmth was in part supported by the continuation of an overactive Pacific jet stream that often took aim on northern and central California. As a result, California's 5-year drought all but disappeared, replaced by waves of heavy precipitation that threatened the auxiliary spillway of the Nation's tallest dam (Oroville); pressured and sometimes overtopped levees in the Central Valley; and sparked some of the worst flooding on record in San Jose and environs. By the end of February, the average water content of the Sierra Nevada snowpack stood at 45 inches, 185 percent of normal. The bounty extended beyond California to most other areas of the West, maintaining favorable spring and summer water-supply prospects in many river basins.

While parts of the central and eastern United States also experienced periods of stormy weather, erratic showers (and early-season warmth) contributed to some drought development or intensification from the central and southern Plains to the middle and southern Atlantic Coast States. By February 26, at least one-fifth of the winter wheat was rated very poor to poor in Colorado (27 percent), Kansas (21 percent), and Texas (20 percent), accompanied by a general increase in late-winter wildfires across the central and southern Plains. Farther east, drought worsened anew in the southern Appalachians and neighboring areas, where winter rainfall failed to vanquish long-term precipitation deficits. In addition, a warm, mostly dry winter across Florida's peninsula maintained heavy agricultural irrigation demands.

Most of the Midwest continued to experience a relatively benign winter, with periods of record warmth interspersed with brief episodes of rain or snow. Although the Midwest remained largely free of drought, topsoil moisture shortages were becoming more apparent in the southern Corn Belt. Elsewhere, New England endured a period of wintry weather, culminating in major snow accumulations on February 9 and 12-13. However, only a few days later, sudden warmth melted much of New England's snow.

## February Agricultural Summary

Above-normal temperatures blanketed much of the United States during February. Temperatures recorded in the Corn Belt were much higher than normal with most of Illinois, Indiana, Iowa, Missouri, and Ohio recording temperatures over 9°F above normal. Conversely, portions of the Northwest including all of Washington recorded below average temperatures for the month. Precipitation levels for the month were generally within 4 inches of normal across the Nation. The only areas with totals more than 4 inches above normal were reported along the Pacific Coast and a few scattered locations in the Rocky Mountains. Elsewhere, monthly precipitation in some areas of Kansas, Missouri, New Mexico, South Dakota, and western Texas totaled less than 2 percent of normal.

Kansas winter wheat condition was rated at 43 percent in the good to excellent categories as of February 26, down slightly from the end of January. Winter wheat conditions also declined over the month in some northern States due to fluctuating temperatures. In Montana, the percent of the crop in the good to excellent categories dropped 19 percentage points during February with 51 percent rated in these two categories on February 26. In South Dakota, winter wheat condition decreased 5 percentage points over the month to 57 percent good to excellent. Conversely, Colorado winter wheat conditions improved 4 percentage points during the month, with 40 percent rated in the good to excellent categories as of February 26.

At the beginning of February, all but 5 weather stations in Arizona reported above normal temperatures. However, at the end of the month only 14 of 52 weather stations reported temperatures above normal. Alfalfa conditions were mostly fair to excellent throughout the month. Alfalfa harvesting occurred on three-quarters of the alfalfa acres across the State. Barley and Durum wheat planting was virtually complete by the end of the month. Vegetable shipping activities continued throughout the month. Pasture and range conditions ranged from mostly fair to good for the entire month.

In California, widespread precipitation fell across the northern two-thirds of the State throughout February. At the beginning of the month, growers waited for fields to dry out sufficiently to resume planting winter grains. Rain greatly benefited the growth of already planted grains and fields crops. Navel orange harvest continued as weather permitted. Tangerines continued to be harvested. Winter vegetables continued to mature. Fields were planted with melon and sweet corn as weather permitted. At the end of the month, early varieties of nectarines and peaches were blooming in Fresno County. The Navel orange harvest resumed during the last week of the month. Almonds were beginning to bloom across the State by the end of February. Strawberry fields continued to thrive. Where field conditions permitted, bee hives were staged in preparation for the pending bloom season. Non-irrigated pasture and rangeland continued to improve due to precipitation. Range was reported to be in fair to excellent condition. Supplemental feeding of livestock continued to decline as range conditions improved.

In Florida, February weather conditions were similar to January for most of the month, warm and dry. Nighttime temperatures dipped during the first week of February, with some areas receiving frost. Although the Panhandle remained free of abnormally dry conditions, central and southern Florida did not. By the second week of the month all southern counties were considered abnormally dry, with the majority in a moderate drought. Producers began planting potatoes in Flagler and Putnam Counties towards the end of the month. Sugarcane harvest continued on schedule in Broward, Glades, Hendry, and Palm Beach Counties. A wide variety of vegetables, including collards, eggplant, strawberries, and zucchini were harvested across Florida and brought to market. Early and mid-season orange harvesting activities slowed down and were nearing the end for the season. Grapefruit harvest continued at levels lower than last season but were still coming in at a fairly steady pace each week. Honey and royal tangerines continued to be harvested for the fresh market. Pasture quality continued to decline in most counties. Cattle remained in mostly fair to good condition.

Texas experienced little to no measurable rainfall at the beginning of February. Precipitation was not experienced across the State until the latter half of the month, when isolated areas between South Central and the Upper Coast received upwards of 8 inches of precipitation. Overall, the State experienced mostly warm and windy weather with sporadic isolated showers. Cotton harvest concluded during the first week of the month. Winter wheat conditions throughout Texas were rated mostly fair to good during February. Pasture and range conditions were rated mostly fair to good throughout the month.

## Crop Comments

**Sugarcane:** Production of sugarcane for sugar and seed in 2016 is forecast at 32.1 million tons, of which 30.4 million tons are expected to be utilized for sugar and 1.75 million tons for seed. Total production is down 3 percent from last month, but virtually unchanged from the previous year. Producers intend to harvest 903,100 acres for sugar and seed during the 2016 crop year, down 12,500 acres from the previous forecast but up 28,400 acres from the previous year. Expected yield for sugar and seed is forecast at 35.6 tons per acre, down 0.4 ton from the previous forecast and down 1.1 tons per acre from the previous season.

**Grapefruit:** The United States 2016-2017 grapefruit crop is forecast at 754,000 tons, down 1 percent from last month and down 6 percent from last season's final utilization. In Florida, expected production, at 8.90 million boxes (378,000 tons), is down 1 percent from last month and down 18 percent from last year. California and Texas grapefruit production forecasts were carried forward from the previous month.

**Tangerines and mandarins:** The United States tangerine and mandarin crop is forecast at 990,000 tons, down slightly from last month but up 4 percent from last season's final utilization if tangelos were included. If realized, this will be the largest production since records began in 1964-1965. The Florida forecast is down 4 percent from last month and down 17 percent from 2015-2016, if tangelos were included. Beginning in 2016-2017, tangerine and mandarin estimates in Florida include tangelos. The California tangerine and mandarin forecast was carried forward from the previous month.

**Florida citrus:** In the citrus growing region, daily temperatures were above average on most days. Reported daytime highs were mostly in the upper 70s to mid-80s, while nighttime lows were mostly in the 50s and 60s. Only counties in the Northern and Western citrus growing areas received average or above average rainfall during the month. Most Southern area citrus growing counties received about half of the typical amounts for the month. According to the February 28, 2017

U.S. Drought Monitor, all citrus producing counties south of Polk County, as well as Indian River County, were showing moderate drought conditions. The remainder of the citrus region was in an abnormally dry state.

Early-midseason orange harvest decreased significantly each week. Several of the larger processing plants have closed and will re-open in early March to start taking Valencia oranges. Honey and Royal tangerines were picked primarily for the fresh market. Harvest has stabilized on these two varieties and was coming in at a constant pace, even though overall harvest was less than last season. White and red grapefruit harvest was continuing at levels lower than last season, but was still coming in at a fairly steady pace each week. Bloom was wide spread across the citrus region, still in various stages. Some groves were in early stages of bloom, while others were already showing petal drop and starting to form fruit. There was still opportunity for more bloom to pop-out this season. Growers were applying bactericides and continuing psyllid control. Other grove activity included spraying, hedging on all varieties, fertilizing (including liquid fertilizing), and general grove maintenance. Irrigation was running heavily in all areas.

**California citrus:** Satsuma tangerines continued to be harvested. Early varieties of nectarines began to bloom in Fresno County. Growers reported a second treatment spraying for citrus fungal diseases drew to a close by mid-month. Tangelo harvesting began at mid-month. The navel orange harvest was slowed mid-month due to rainy conditions, but picked up again as weather improved.

**California noncitrus fruits and nuts:** Orchards in the San Joaquin Valley began to dry out, allowing for some orchard pruning and new planting of trees where the ground had been previously prepared for planting. Pre-bloom sprays were applied to some stone fruit orchards. Pruning, tying, berm sanitation, and brush shredding were starting up again as vineyards and orchards dried. In drier locations, the removal of older orchards and vineyards continued in preparation for replanting with new varieties. The standing water in vineyards and orchards has been a cause for concern for the health of the trees and vines. Aerial applications were made where field conditions prevented ground application. Olive groves were pruned. Cherry bloom began in Tulare County near the end of the month. Harvest of Zutano avocados was ongoing. Date trees were planted in Imperial County.

Some late dormant sprays were applied. In the Southern San Joaquin Valley, almond buds were popping and swelling. Saturated soils and high winds toppled some walnut and almond trees in the San Joaquin Valley at the end of the month. Almond bloom was progressing well across the State with the southern bloom nearing completion at month's end. Rain and wind caused some almond petal drop. As flooded orchards dried and conditions permitted, beehives were moved in to facilitate almond pollination.

## Statistical Methodology

**Survey procedures:** The orange objective yield survey for the March 1 forecast was conducted in Florida, which produces about 62 percent of the United States production last season. In August and September 2016, the number of bearing trees and the 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. The Florida Field Office submits its analysis of the current situation to the Agricultural Statistics Board (ASB). The ASB uses the Florida survey data and their analyses to prepare the published March 1 forecast. 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 March 1 forecast.

**Revision policy:** The March 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 March 1 production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the March 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 March 1 orange production forecast is 3.7 percent. However, if the three abnormal production seasons (one freeze season and two hurricane seasons) are excluded, the "Root Mean Square Error" is 3.9 percent. This means that chances are 2 out of 3 that the current orange production forecast will not be above or below the final estimates by more than 3.7 percent, or 3.9 percent excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 6.4 percent, or 6.7 percent excluding abnormal seasons.

Changes between the March 1 orange forecast and the final estimates during the past 20 years have averaged 223,000 tons (234,000 tons, excluding abnormal seasons), ranging from 18,000 tons to 600,000 tons regardless of exclusions. The March 1 forecast for oranges has been below the final estimate 10 times and above 10 times (below 9 times and above 8 times, excluding abnormal seasons). The difference does not imply that the March 1 forecasts this year are 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)

Lance Honig, Chief, Crops Branch.....	(202) 720-2127
Anthony Prillaman, Head, Field Crops Section.....	(202) 720-2127
Tony Dahlman – Oats, Soybeans.....	(202) 690-3234
Chris Hawthorn – Corn, Flaxseed, Proso Millet.....	(202) 720-9526
James Johanson – County Estimates, Hay.....	(202) 690-8533
Scott Matthews – Crop Weather, Barley.....	(202) 720-7621
Sammy Neal – Peanuts, Rice.....	(202) 720-7688
Jean Porter – Rye, Wheat.....	(202) 720-8068
Bianca Pruneda – Cotton, Cotton Ginnings, Sorghum.....	(202) 720-5944
Travis Thorson – Sunflower, Other Oilseeds.....	(202) 720-7369
Jorge Garcia-Pratts, Head, Fruits, Vegetables and Special Crops Section.....	(202) 720-2127
Vincent Davis – Fresh and Processing Vegetables, Onions, Strawberries, Sugarbeets, Sugarcane, Cherries.....	(202) 720-2157
Fleming Gibson – Citrus, Coffee, Tropical Fruits.....	(202) 720-5412
Greg Lemmons – Berries, Cranberries, Potatoes, Sweet Potatoes.....	(202) 720-4285
Dan Norris – Austrian Winter Peas, Dry Edible Peas, Lentils, Mint, Mushrooms, Peaches, Pears, Wrinkled Seed Peas, Dry Beans.....	(202) 720-3250
Daphne Schauber – Floriculture, Grapes, Hops, Maple Syrup, Nursery, Tree Nuts.....	(202) 720-4215
Chris Singh – Apples, Apricots, Plums, Prunes, Tobacco.....	(202) 720-4288

## Access to NASS Reports

For your convenience, you may access NASS reports and products the following ways:

- All reports are available electronically, at no cost, on the NASS web site: [www.nass.usda.gov](http://www.nass.usda.gov)
- Both national and state specific reports are available via a free e-mail subscription. To set-up this free subscription, visit [www.nass.usda.gov](http://www.nass.usda.gov) and click on “National” or “State” in upper right corner above “search” box to create an account and select the reports you would like to receive.

For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: [nass@nass.usda.gov](mailto:nass@nass.usda.gov).

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the basis of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or all or part of an individual's income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases will apply to all programs and/or employment activities.)

If you wish to file a Civil Rights program complaint of discrimination, complete the [USDA Program Discrimination Complaint Form](#) (PDF), found online at [http://www.ascr.usda.gov/complaint\\_filing\\_cust.html](http://www.ascr.usda.gov/complaint_filing_cust.html), or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at [program.intake@usda.gov](mailto:program.intake@usda.gov).