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Released April 12, 2016, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

## Orange Production Up 4 Percent from March Forecast

**The United States all orange** forecast for the 2015-2016 season is 5.59 million tons, up 4 percent from the previous forecast but down 12 percent from the 2014-2015 revised final utilization. The Florida all orange forecast, at 76.0 million boxes (3.42 million tons), is up 7 percent from last month's forecast but down 22 percent from last season's revised final utilization. Early, midseason, and Navel varieties in Florida are forecast at 36.0 million boxes (1.62 million tons), unchanged from last month but down 24 percent from last season's final utilization. The Florida Valencia orange forecast, at 40.0 million boxes (1.80 million tons), is up 14 percent from last month but down 19 percent from last season's revised final utilization.

The California Valencia orange forecast is 10.5 million boxes (420,000 tons), unchanged from the previous forecast but up 11 percent from last season's final utilization. The California Navel orange forecast is 42.0 million boxes (1.68 million tons), unchanged from the previous forecast but up 7 percent from last season's revised final utilization. The Texas all orange forecast, at 1.57 million boxes (66,000 tons), is up 11 percent from the previous forecast and up 8 percent from last season's final utilization.


**Florida frozen concentrated orange juice (FCOJ)** yield forecast for the 2015-2016 season is 1.42 gallons per box at 42.0 degrees Brix, down 2 percent from the previous month's forecast and down 5 percent from last season's final yield of 1.50 gallons per box. The early and midseason portion is final at 1.35 gallons per box, down 5 percent from last season's final yield of 1.42 gallons per box. The Valencia portion is projected at 1.52 gallons per box, down 5 percent from the previous forecast and down 4 percent from last year's final yield of 1.58 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 12, 2016.



Secretary of Agriculture  
Designate  
Robert Johansson



Agricultural Statistics Board  
Acting Chairperson  
Hubert Hamer

## Contents

Utilized Production of Citrus Fruits by Crop – States and United States: 2014-2015 and Forecasted April 1, 2016.....	5
Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2015 and 2016.....	6
Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2015 and 2016 .....	8
Fruits and Nuts Production in Domestic Units – United States: 2015 and 2016 .....	10
Fruits and Nuts Production in Metric Units – United States: 2015 and 2016.....	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: 2014-2015 and Forecasted April 1, 2016

[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	
	2014-2015 (1,000 boxes)	2015-2016 (1,000 boxes)	2014-2015 (1,000 tons)	2015-2016 (1,000 tons)
<b>Oranges</b>				
California, all .....	48,600	52,500	1,944	2,100
Early, mid, and Navel <sup>2</sup> .....	39,100	42,000	1,564	1,680
Valencia .....	9,500	10,500	380	420
Florida, all .....	96,950	76,000	4,363	3,420
Early, mid, and Navel <sup>2</sup> .....	47,400	36,000	2,133	1,620
Valencia .....	49,550	40,000	2,230	1,800
Texas, all .....	1,452	1,570	62	66
Early, mid, and Navel <sup>2</sup> .....	1,170	1,350	50	57
Valencia .....	282	220	12	9
United States, all .....	147,002	130,070	6,369	5,586
Early, mid, and Navel <sup>2</sup> .....	87,670	79,350	3,747	3,357
Valencia .....	59,332	50,720	2,622	2,229
<b>Grapefruit</b>				
California .....	4,300	3,900	172	156
Florida, all .....	12,900	10,700	548	455
Red .....	9,650	8,200	410	349
White .....	3,250	2,500	138	106
Texas .....	4,250	5,200	170	208
United States .....	21,450	19,800	890	819
<b>Tangerines and mandarins</b>				
Arizona <sup>3 4</sup> .....	170	(NA)	7	(NA)
California <sup>3</sup> .....	18,500	22,000	740	880
Florida .....	2,265	1,400	108	67
United States .....	20,935	23,400	855	947
<b>Lemons</b>				
Arizona .....	2,000	1,500	80	60
California .....	20,600	21,000	824	840
United States .....	22,600	22,500	904	900
<b>Tangelos</b>				
Florida .....	665	390	30	18

(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 Arizona and California-80, Florida-95; lemons-80; tangelos-90.

<sup>2</sup> Navel and miscellaneous varieties in California. Early (including Navel) and midseason varieties in Florida and Texas. Small quantities of Temples in Florida.

<sup>3</sup> Includes tangelos and tangors.

<sup>4</sup> Estimates discontinued in 2015-2016.

## Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2015 and 2016

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

Crop	Area planted		Area harvested	
	2015	2016	2015	2016
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
<b>Grains and hay</b>				
Barley .....	3,558	3,140	3,109	
Corn for grain <sup>1</sup> .....	87,999	93,601	80,749	
Corn for silage .....	(NA)		6,221	
Hay, all .....	(NA)	(NA)	54,437	54,305
Alfalfa .....	(NA)		17,778	
All other .....	(NA)		36,659	
Oats .....	3,088	2,751	1,276	
Proso millet .....	445		418	
Rice .....	2,614	3,064	2,575	
Rye .....	1,569		360	
Sorghum for grain <sup>1</sup> .....	8,459	7,216	7,851	
Sorghum for silage .....	(NA)		306	
Wheat, all .....	54,644	49,559	47,094	
Winter .....	39,461	36,216	32,257	
Durum .....	1,936	1,995	1,896	
Other spring .....	13,247	11,348	12,941	
<b>Oilseeds</b>				
Canola .....	1,777.0	1,747.5	1,714.5	
Cottonseed .....	(X)		(X)	
Flaxseed .....	463	390	456	
Mustard seed .....	44.0		40.1	
Peanuts .....	1,625.0	1,476.0	1,567.0	
Rapeseed .....	1.2		1.1	
Safflower .....	168.2		159.1	
Soybeans for beans .....	82,650	82,236	81,814	
Sunflower .....	1,859.1	1,693.4	1,799.4	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all .....	8,580.5	9,562.0	8,057.9	
Upland .....	8,422.0	9,347.0	7,903.0	
American Pima .....	158.5	215.0	154.9	
Sugarbeets .....	1,158.8	1,158.6	1,144.3	
Sugarcane .....	(NA)		891.7	
Tobacco .....	(NA)	(NA)	326.6	314.5
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas .....	34.0	31.0	21.0	
Dry edible beans .....	1,764.4	1,559.0	1,711.4	
Chickpeas, all <sup>3</sup> .....	207.5	246.0	203.1	
Large .....	135.3	163.0	131.2	
Small .....	72.2	83.0	71.9	
Dry edible peas .....	1,143.0	1,423.0	1,083.5	
Lentils .....	493.0	850.0	476.0	
Wrinkled seed peas .....	(NA)		(NA)	
<b>Potatoes and miscellaneous</b>				
Hops .....	(NA)		43.6	
Maple syrup .....	(NA)		(NA)	
Mushrooms .....	(NA)		(NA)	
Peppermint oil .....	(NA)		65.2	
Potatoes, all .....	1,065.2		1,053.3	
Spring .....	70.1	55.0	68.5	
Summer .....	50.5		47.1	
Fall .....	944.6		937.7	
Spearmint oil .....	(NA)		27.2	
Sweet potatoes .....	156.9	169.4	153.1	
Taro (Hawaii) .....	(NA)		0.3	

See footnote(s) at end of table.

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## Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2015 and 2016 (continued)

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

Crop	Yield per acre		Production	
	2015	2016	2015	2016
			(1,000)	(1,000)
<b>Grains and hay</b>				
Barley .....	bushels	68.9	214,297	
Corn for grain .....	bushels	168.4	13,601,198	
Corn for silage .....	tons	20.4	126,894	
Hay, all .....	tons	2.47	134,388	
Alfalfa .....	tons	3.32	58,974	
All other .....	tons	2.06	75,414	
Oats .....	bushels	70.2	89,535	
Proso millet .....	bushels	33.9	14,159	
Rice <sup>2</sup> .....	cwt	7,470	192,343	
Rye .....	bushels	31.9	11,496	
Sorghum for grain .....	bushels	76.0	596,751	
Sorghum for silage .....	tons	14.6	4,475	
Wheat, all .....	bushels	43.6	2,051,752	
Winter .....	bushels	42.5	1,370,188	
Durum .....	bushels	43.5	82,484	
Other spring .....	bushels	46.3	599,080	
<b>Oilseeds</b>				
Canola .....	pounds	1,677	2,875,010	
Cottonseed .....	tons	(X)	4,153.0	
Flaxseed .....	bushels	22.1	10,095	
Mustard seed .....	pounds	671	26,927	
Peanuts .....	pounds	3,963	6,210,590	
Rapeseed .....	pounds	1,382	1,520	
Safflower .....	pounds	1,347	214,251	
Soybeans for beans .....	bushels	48.0	3,929,160	
Sunflower .....	pounds	1,625	2,923,730	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	bales	771	12,943.0	
Upland <sup>2</sup> .....	bales	760	12,508.0	
American Pima <sup>2</sup> .....	bales	1,348	435.0	
Sugarbeets .....	tons	30.8	35,278	
Sugarcane .....	tons	37.3	33,244	
Tobacco .....	pounds	2,178	711,236	
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas <sup>2</sup> .....	cwt	1,238	260	
Dry edible beans <sup>2</sup> .....	cwt	1,760	30,121	
Chickpeas, all <sup>2 3</sup> .....	cwt	1,242	2,523	
Large <sup>2</sup> .....	cwt	1,231	1,615	
Small <sup>2</sup> .....	cwt	1,263	908	
Dry edible peas <sup>2</sup> .....	cwt	1,687	18,283	
Lentils <sup>2</sup> .....	cwt	1,108	5,276	
Wrinkled seed peas .....	cwt	(NA)	384	
<b>Potatoes and miscellaneous</b>				
Hops .....	pounds	1,807	78,846.0	
Maple syrup .....	gallons	(NA)	3,414	
Mushrooms .....	pounds	(NA)	952,619	
Peppermint oil .....	pounds	90	5,882	
Potatoes, all .....	cwt	418	440,498	
Spring .....	cwt	296	20,251	
Summer .....	cwt	334	15,734	
Fall .....	cwt	431	404,513	
Spearmint oil .....	pounds	113	3,070	
Sweet potatoes .....	cwt	203	31,016	
Taro (Hawaii) .....	pounds	10,300	3,502	

(NA) Not available.

(X) Not applicable.

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

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

<sup>3</sup> Chickpeas included with dry edible beans.

## Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2015 and 2016

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

Crop	Area planted		Area harvested	
	2015	2016	2015	2016
	(hectares)	(hectares)	(hectares)	(hectares)
<b>Grains and hay</b>				
Barley .....	1,439,890	1,270,730	1,258,180	
Corn for grain <sup>1</sup> .....	35,612,320	37,879,390	32,678,310	
Corn for silage .....	(NA)		2,517,580	
Hay, all <sup>2</sup> .....	(NA)	(NA)	22,030,110	21,976,690
Alfalfa .....	(NA)		7,194,580	
All other .....	(NA)		14,835,530	
Oats .....	1,249,680	1,113,300	516,380	
Proso millet .....	180,090		169,160	
Rice .....	1,057,860	1,239,970	1,042,080	
Rye .....	634,960		145,690	
Sorghum for grain <sup>1</sup> .....	3,423,270	2,920,240	3,177,220	
Sorghum for silage .....	(NA)		123,840	
Wheat, all <sup>2</sup> .....	22,113,880	20,056,030	19,058,470	
Winter .....	15,969,470	14,656,250	13,054,090	
Durum .....	783,480	807,360	767,290	
Other spring .....	5,360,930	4,592,420	5,237,090	
<b>Oilseeds</b>				
Canola .....	719,130	707,200	693,840	
Cottonseed .....	(X)		(X)	
Flaxseed .....	187,370	157,830	184,540	
Mustard seed .....	17,810		16,230	
Peanuts .....	657,620	597,320	634,150	
Rapeseed .....	490		450	
Safflower .....	68,070		64,390	
Soybeans for beans .....	33,447,630	33,280,090	33,109,310	
Sunflower .....	752,360	685,300	728,200	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	3,472,440	3,869,650	3,260,950	
Upland .....	3,408,300	3,782,640	3,198,270	
American Pima .....	64,140	87,010	62,690	
Sugarbeets .....	468,950	468,870	463,090	
Sugarcane .....	(NA)		360,860	
Tobacco .....	(NA)	(NA)	132,150	127,250
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas .....	13,760	12,550	8,500	
Dry edible beans .....	714,040	630,910	692,590	
Chickpeas <sup>3</sup> .....	83,970	99,550	82,190	
Large .....	54,750	65,960	53,100	
Small .....	29,220	33,590	29,100	
Dry edible peas .....	462,560	575,870	438,480	
Lentils .....	199,510	343,990	192,630	
Wrinkled seed peas .....	(NA)		(NA)	
<b>Potatoes and miscellaneous</b>				
Hops .....	(NA)		17,660	
Maple syrup .....	(NA)		(NA)	
Mushrooms .....	(NA)		(NA)	
Peppermint oil .....	(NA)		26,390	
Potatoes, all <sup>2</sup> .....	431,080		426,260	
Spring .....	28,370	22,260	27,720	
Summer .....	20,440		19,060	
Fall .....	382,270		379,480	
Spearmint oil .....	(NA)		11,010	
Sweet potatoes .....	63,500	68,550	61,960	
Taro (Hawaii) .....	(NA)		140	

See footnote(s) at end of table.

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**Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States:  
2015 and 2016 (continued)**

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

Crop	Yield per hectare		Production	
	2015	2016	2015	2016
	(metric tons)	(metric tons)	(metric tons)	(metric tons)
<b>Grains and hay</b>				
Barley .....	3.71		4,665,770	
Corn for grain .....	10.57		345,486,340	
Corn for silage .....	45.73		115,116,300	
Hay, all <sup>2</sup> .....	5.53		121,914,740	
Alfalfa .....	7.44		53,500,310	
All other .....	4.61		68,414,430	
Oats .....	2.52		1,299,600	
Proso millet .....	1.90		321,120	
Rice .....	8.37		8,724,530	
Rye .....	2.00		292,010	
Sorghum for grain .....	4.77		15,158,170	
Sorghum for silage .....	32.78		4,059,650	
Wheat, all <sup>2</sup> .....	2.93		55,839,540	
Winter .....	2.86		37,290,410	
Durum .....	2.93		2,244,850	
Other spring .....	3.11		16,304,290	
<b>Oilseeds</b>				
Canola .....	1.88		1,304,080	
Cottonseed .....	(X)		3,767,540	
Flaxseed .....	1.39		256,420	
Mustard seed .....	0.75		12,210	
Peanuts .....	4.44		2,817,080	
Rapeseed .....	1.55		690	
Safflower .....	1.51		97,180	
Soybeans for beans .....	3.23		106,934,210	
Sunflower .....	1.82		1,326,180	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	0.86		2,818,010	
Upland .....	0.85		2,723,300	
American Pima .....	1.51		94,710	
Sugarbeets .....	69.11		32,003,660	
Sugarcane .....	83.57		30,158,450	
Tobacco .....	2.44		322,610	
<b>Dry beans, peas, and lentils</b>				
Austrian winter peas .....	1.39		11,790	
Dry edible beans .....	1.97		1,366,270	
Chickpeas, all <sup>3</sup> .....	1.39		114,440	
Large .....	1.38		73,260	
Small .....	1.42		41,190	
Dry edible peas .....	1.89		829,300	
Lentils .....	1.24		239,320	
Wrinkled seed peas .....	(NA)		17,420	
<b>Potatoes and miscellaneous</b>				
Hops .....	2.03		35,760	
Maple syrup .....	(NA)		17,070	
Mushrooms .....	(NA)		432,100	
Peppermint oil .....	0.10		2,670	
Potatoes, all <sup>2</sup> .....	46.87		19,980,650	
Spring .....	33.14		918,570	
Summer .....	37.44		713,680	
Fall .....	48.35		18,348,400	
Spearmint oil .....	0.13		1,390	
Sweet potatoes .....	22.71		1,406,860	
Taro (Hawaii) .....	11.55		1,590	

(NA) Not available.

(X) Not applicable.

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

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

<sup>3</sup> Chickpeas included with dry edible beans.

## Fruits and Nuts Production in Domestic Units – United States: 2015 and 2016

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2016 crop year, except citrus which is for the 2015-2016 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production		
	2015	2016	
<b>Citrus</b> <sup>1</sup>			
Grapefruit .....	1,000 tons	890	819
Lemons .....	1,000 tons	904	900
Oranges .....	1,000 tons	6,369	5,586
Tangelos (Florida) .....	1,000 tons	30	18
Tangerines and mandarins .....	1,000 tons	855	947
<b>Noncitrus</b>			
Apples .....	million pounds	10,171.8	
Apricots .....	tons	53,008	
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	338,485	
Cherries, Tart .....	million pounds	222.6	
Coffee .....	1,000 pounds	33,189	
Cranberries .....	barrel	8,412,700	
Dates (California) .....	tons		
Figs (California) .....	tons		
Grapes .....	tons	8,046,400	
Kiwifruit (California) .....	tons		
Nectarines .....	tons		
Olives (California) .....	tons		
Papayas (Hawaii) .....	1,000 pounds		
Peaches .....	tons	804,600	
Pears .....	tons	733,000	
Plums (California) .....	tons		
Prunes (California) .....	tons	100,000	
Prunes and Plums .....	tons		
Strawberries .....	1,000 cwt	30,867	
<b>Nuts and miscellaneous</b>			
Almonds, shelled (California) .....	1,000 pounds	1,800,000	
Hazelnuts, in-shell (Oregon) .....	tons	39,000	
Macadamias (Hawaii) .....	1,000 pounds		
Pecans, in-shell .....	1,000 pounds	272,340	
Pistachios (California) .....	1,000 pounds		
Walnuts, in-shell (California) .....	tons	575,000	

<sup>1</sup> Production years are 2014-2015 and 2015-2016.

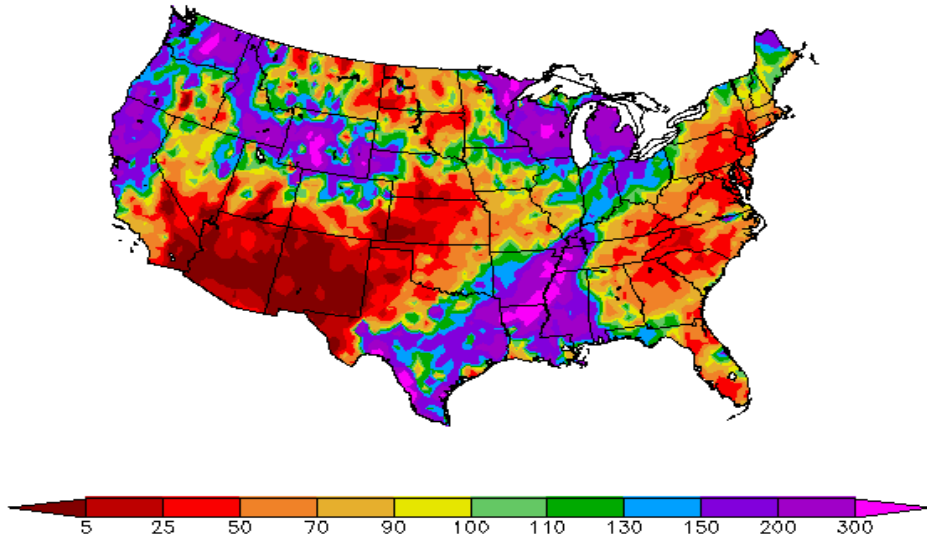
## Fruits and Nuts Production in Metric Units – United States: 2015 and 2016

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2016 crop year, except citrus which is for the 2015-2016 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production	
	2015 (metric tons)	2016 (metric tons)
<b>Citrus<sup>1</sup></b>		
Grapefruit .....	807,390	742,980
Lemons .....	820,100	816,470
Oranges .....	5,777,860	5,067,530
Tangelos (Florida) .....	27,220	16,330
Tangerines and mandarins .....	775,640	859,100
<b>Noncitrus</b>		
Apples .....	4,613,850	
Apricots .....	48,090	
Avocados .....		
Bananas (Hawaii) .....		
Blackberries (Oregon) .....		
Blueberries		
Cultivated .....		
Wild (Maine) .....		
Boysenberries (Oregon) .....		
Raspberries, All .....		
Cherries, Sweet .....	307,070	
Cherries, Tart .....	100,970	
Coffee .....	15,050	
Cranberries .....	381,590	
Dates (California) .....		
Figs (California) .....		
Grapes .....	7,299,570	
Kiwifruit (California) .....		
Nectarines .....		
Olives (California) .....		
Papayas (Hawaii) .....		
Peaches .....	729,920	
Pears .....	664,970	
Plums (California) .....		
Prunes (California) .....	90,720	
Prunes and Plums .....		
Strawberries .....	1,400,100	
<b>Nuts and miscellaneous</b>		
Almonds, shelled (California) .....	816,470	
Hazelnuts, in-shell (Oregon) .....	35,380	
Macadamias (Hawaii) .....		
Pecans, in-shell .....	123,530	
Pistachios (California) .....		
Walnuts, in-shell (California) .....	521,630	

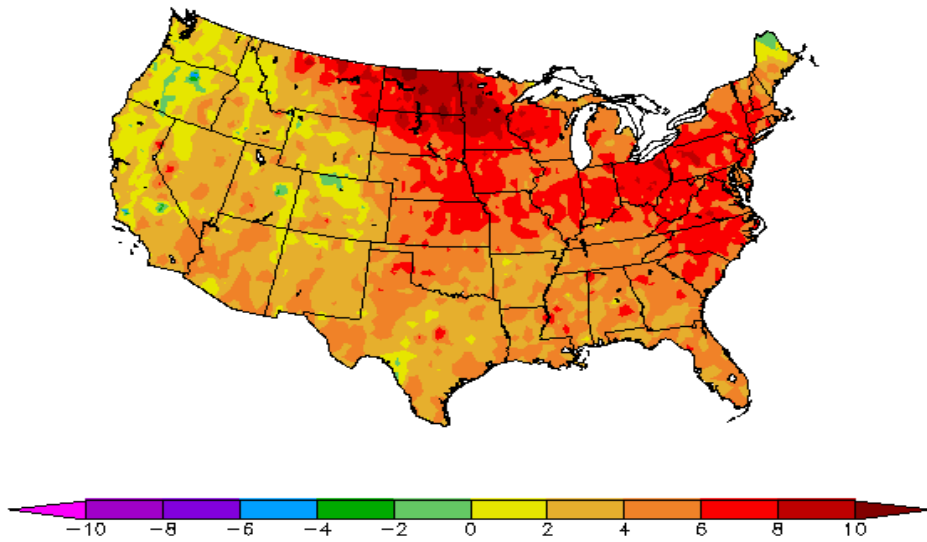
<sup>1</sup> Production years are 2014-2015 and 2015-2016.

Percent of Normal Precipitation (%)  
3/1/2016 – 3/31/2016



Regional Climate Centers

Departure from Normal Temperature (F)  
3/1/2016 – 3/31/2016



Regional Climate Centers

## March Weather Summary

Dry conditions intensified during March across the central and southern Plains and the Southwest, contributing to a rash of wildfires and combining with large temperature oscillations to increase stress on winter wheat. Still, the overall United States wheat condition improved during the overwintering period for the first time since 2011-12, mainly on the strength of favorable weather in the Northwest and lower Midwest.

Northwestern wetness not only aided winter wheat, but also led to further reductions in drought coverage and intensity as far south as northern California. However, a sharp southern boundary of recovery was evident, with southern California facing an almost certain fifth year of drought. In northern California, however, much-improved surface water supplies included a near-normal snowpack, abundant streamflow, and substantial reservoir recharge.

Meanwhile, much of the eastern United States experienced drier-than-normal March weather, favoring early-season fieldwork but reducing topsoil moisture. Elsewhere, generally wet weather affected several other areas, including the eastern Corn Belt, the upper Great Lakes region, and a broad section of the South stretching from southern and eastern Texas to the Mississippi Delta. Heavy Southern rain, much of which fell from March 8-13, resulted in severe flooding and spring fieldwork delays from easternmost Texas into the lower Mississippi Valley.

March also featured coast-to-coast warmth, with all States reporting monthly average temperatures in the upper, or warmest, one-fourth of the historical distribution. In fact, the expansive warmth pushed 29 of the Lower 48 States—mainly across the North, East, and Southwest—into top-ten territory in terms of March temperature rankings.

## March Agricultural Summary

Above average temperatures stretched across the United States during March. Most notably, temperatures in the majority of the Upper Midwest and Ohio Valley rose to more than 6 degrees above normal. Precipitation levels were near normal throughout much of the Nation during the month. The major exception to this trend occurred in the Mississippi Delta and Pacific Northwest. Over 21 inches of rainfall fell near the Arkansas/Louisiana State line throughout the month of March. The United States Drought Monitor reported areas in the exceptional drought rating were limited to within California and southeast Nevada on March 29, 2016.

Winter wheat conditions improved in most locations throughout the month of March. Condition ratings in California, Indiana, Michigan, Missouri, North Carolina, and Ohio experienced double-digit gains in the good to excellent categories. Conversely, the lower half of the Great Plains experienced declines in conditions. Fifty-six percent of the winter wheat crop in Kansas was rated in good to excellent condition on March 27, down 3 percentage points from February 28. In Kansas, the winter wheat crop was 30 percent in the jointing stage or beyond on March 27, eighteen percentage points ahead of last year and 14 percentage points ahead of the 5-year average. Colorado's winter wheat was 2 percent jointing at the end of the month, slightly ahead of last year but equal to 5-year average.

In March, warm weather conditions led to more favorable pasture ratings throughout most of the southern United States. Pasture and range conditions were above the five year average across parts of the southern half of the Nation with Arizona at 41 percent, Oklahoma at 39 percent, Louisiana at 69 percent, and Florida at 43 percent in the good to excellent categories, respectively. By the end of the month, Texas pasture and range condition was reported at 46 percent in the good to excellent categories, 22 percentage points above the 5-year average.

By the end of the month, some California winter forage crops were starting to be harvested and groundwork continued for spring plantings. Alfalfa growth was good and some fields were cut and baled. Navel and Valencia oranges and tangerines continued to be harvested throughout the month. Navel oranges and kiwifruit were packed and shipped. In Colusa County, dry weather conditions allowed resumption of tomato planting. In Fresno County, processing tomatoes were planted, cultivated, irrigated, and fertilized. In Tulare County, broccoli, cabbage, cauliflower, carrots, and Brussels sprouts were harvested and sold at farmer's markets. In Sutter County, pastures and rangeland continued to improve. In Tulare County, warmer weather continued to benefit rangeland forage growth, thus reducing the need for supplemental feed. Some beehives remained in prune orchards by the end of the month.

In Florida, processing plants finished with early and midseason oranges, began running grapefruit or had transitioned to late orange harvesting. The Valencia harvest was lagging behind last season due to low maturity levels. Honey tangerines, colored grapefruit, white grapefruit, midseason oranges, Temples, and Valencias were going to fresh market. Early, mid-season orange harvest was complete. Grove activities included fertilizing, irrigating, some hedging and topping of trees after harvest, applying herbicide, and removing brush. Citrus trees were in full bloom, petal drop began, and small pea size fruit was apparent on early variety citrus trees.

## Crop Comments

**Grapefruit:** The United States 2015-2016 grapefruit crop is forecast at 819,000 tons, up 1 percent from last month's forecast but down 8 percent from last season's revised final utilization. In Florida, expected production, at 10.7 million boxes, is unchanged from last month but down 17 percent from last year. California grapefruit production is up 5 percent from the previous forecast but down 9 percent from last season's revised final utilization. Texas grapefruit production is up 2 percent from the previous forecast and up 22 percent from the previous year.

**Tangerines and mandarins:** The United States tangerine and mandarin crop is forecast at 947,000 tons, up 4 percent from last month and up 11 percent from last season's revised final utilization. If realized, this will be the largest production ever recorded in the data series which began in 1964-1965. The California tangerine and mandarin production forecast is up 5 percent from the previous forecast and up 19 percent from last season's revised utilized production. The Florida forecast is unchanged from the previous month but down 38 percent from last year's revised utilized production. Estimates for Arizona have been discontinued.

**Lemons:** The forecast for the 2015-2016 United States lemon crop is 900,000 tons, up 4 percent from the previous forecast but down slightly from last season's revised final utilization. Arizona's harvest is complete for this year. In California the desert harvest is complete.

**Tangelos:** Florida's tangelo forecast is 390,000 boxes (18,000 tons), down 3 percent from last month and down 41 percent from last season's revised final utilization. The production is the lowest since the 1958-1959 season.

**Florida citrus:** In the citrus growing region, reported daily high temperatures were well above average for this time of the year. Most reporting stations had highs in the mid to upper 80s while a few stations had highs reaching over 90 degrees. Morning lows ranged from the 40s to the lower 70s. Rainfall was very sporadic in the citrus growing region. There were only two or three days of heavy rainfall, where totals were more than a half of an inch, and less than ten days where any rainfall was present. About half of the monitored weather stations recorded more than two inches of rainfall for the month. Five of eighteen monitored counties had totals higher than historical averages. The most rainfall was in Kenansville (Osceola County), at 5.16 inches, followed by Okeechobee (Okeechobee County), at 5.11 inches. According to the March 29, 2016 U.S. Drought Monitor, the entire citrus region is drought free.

All processing plants were running Valencia oranges at full capacity. Red and white grapefruit were being harvested primarily for the processed market. Packinghouse activity focused on Valencia oranges, Honey tangerines, and red grapefruit. By the end of the month, all other varieties were relatively complete for the season. Most citrus trees were in full bloom or were beginning petal drop. Some trees had already formed pea size fruit for next season. Irrigation was widespread across all areas, as well as applications of herbicides and fertilizer. Growers were promptly applying bactericides in foliar applications. Other grove activity included mowing before harvest, hedging, and topping. Some of the larger growers were pushing non-productive blocks and putting new trees in the ground. Some groves heavily affected by greening were being abandoned. General maintenance was being performed in blocks where growers were planning on keeping groves in business.

**California citrus:** In Tulare County, some citrus trees were still being topped, hedge rowed, and skirted, with the prunings being shredded. Seedless tangerines continued to be netted in preparation for the citrus bloom period. Navel oranges, Oro Blanco grapefruit, Mandarins, Minneola tangelos, grapefruit, and lemons continued to be packed for foreign and domestic markets.

**California noncitrus fruits and nuts:** Weed control was ongoing in orchards. Stone fruits were in full bloom and orchards continued to be treated with bloom sprays. Pruning continued in vineyards. In San Joaquin County, cherry orchards were blossoming, with later varieties still in bloom by the middle of the month. In Fresno County, nectarine, peach, apricot, and plum orchards continued to be pruned, fertilized, and treated for weed control. Early varieties of peaches and nectarines began to bloom in the southern region of the county. Orchard maintenance continued to be hampered during the month due to rainfall. Both mechanical and chemical weed control were ongoing. In Tulare County, stone fruit trees continued to bloom with many of the varieties leafing out and setting fruit. Repeated fungicide applications to protect the bloom and young fruit were being completed as rains continued throughout the month. Grape vines continued to be pruned and tied, with some vineyards beginning to bud-out. In Madera County, grape buds pushed, with some growth reported up to about one inch. Old vineyards continued to be pushed to make way for new plantings. In Fresno and Madera Counties, applications of copper and sulfur on grapes began mid-month. Pomegranate and persimmon orchards began to leaf-out. Kiwis were being trellised and new plants were planted. In San Joaquin County, almond orchard pollination was completed early in the month. Walnut orchards continued to be pruned, with fungicide being sprayed on blossoms before rain. In Fresno County, almond buds began an early push in some orchards. Growers continued to replace and replant new almond, walnut, and pistachio orchards. In Yuba County, preventive disease control continued in walnut orchards as blooms and flowers were exposed to rain. Almond growers reported continued rapid growth in many counties.

## Statistical Methodology

**Survey procedures:** The orange objective yield survey for the April 1 forecast was conducted in Florida, which accounts for about 61 percent of the United States production. Bearing tree numbers are determined at the start of the season based on a fruit tree inventory conducted every year, combined with ongoing review based on administrative data or special surveys. From mid-July to mid-September, the number of fruit per tree is determined. In August and subsequent months, fruit size measurement and fruit droppage surveys are conducted, which, when combined with the previous components, are used 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 September. 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 2.4 percent. However, if you exclude the three abnormal production years (one freeze season and two hurricane seasons), the "Root Mean Square Error" is 2.6 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 2.4 percent, or 2.6 percent excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 4.2 percent, or 4.5 percent, excluding abnormal seasons.

Changes between the April 1 orange forecast and the final estimates during the past 20 years have averaged 162,000 tons (177,000 tons, excluding abnormal seasons), ranging from 0 to 427,000 tons regardless of exclusions. The April 1 forecast for oranges has been below the final estimate 7 times, above 12 times, and equal to once (below 5 times, above 11 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 Schaubert – Floriculture, Grapes, Maple Syrup, Nursery, Tree Nuts.....	(202) 720-4215
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