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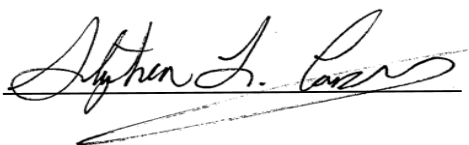
## Orange Production Down 1 Percent from March Forecast

**The United States all orange** forecast for the 2019-2020 season is 5.19 million tons, down 1 percent from the previous forecast and down 4 percent from the revised 2018-2019 final utilization. The Florida all orange forecast, at 70.0 million boxes (3.15 million tons), is down 1 percent from the previous forecast and down 3 percent from last season's revised final utilization. In Florida, early, midseason, and Navel varieties are forecast at 30.0 million boxes (1.35 million tons), unchanged from the previous forecast but down 1 percent from last season's final utilization. The Florida Valencia orange forecast, at 40.0 million boxes (1.80 million tons), is down 2 percent from the previous forecast and 3 percent below last season's revised final utilization.

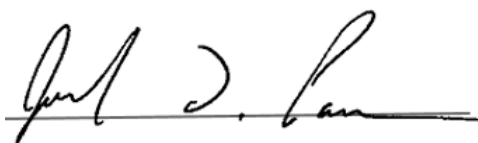
The California all orange forecast is 48.5 million boxes (1.94 million tons), unchanged from the previous forecast but down 6 percent from last season's revised final utilization. The California Navel orange forecast, at 40.0 million boxes (1.60 million tons), is unchanged from the previous forecast but down 5 percent from last season's revised final utilization. The California Valencia orange forecast, at 8.50 million boxes (340,000 tons), is unchanged from the previous forecast but down 10 percent from last season's revised final utilization. The Texas all orange forecast, at 2.30 million boxes (98,000 tons), is down 10 percent from the previous forecast and down 8 percent from last season's final utilization.

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This report was approved on April 9, 2020.



Secretary of Agriculture  
Designate  
Stephen L. Censky



Agricultural Statistics Board  
Chairperson  
Joseph L. Parsons

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## Utilized Production of Citrus Fruits by Crop – States and United States: 2018-2019 and Forecasted April 1, 2020

[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	
	2018-2019 (1,000 boxes)	2019-2020 (1,000 boxes)	2018-2019 (1,000 tons)	2019-2020 (1,000 tons)
<b>Oranges</b>				
California, all .....	51,400	48,500	2,056	1,940
Early, mid, and Navel <sup>2</sup> .....	42,000	40,000	1,680	1,600
Valencia .....	9,400	8,500	376	340
Florida, all .....	71,850	70,000	3,233	3,150
Early, mid, and Navel <sup>2</sup> .....	30,400	30,000	1,368	1,350
Valencia .....	41,450	40,000	1,865	1,800
Texas, all .....	2,500	2,300	106	98
Early, mid, and Navel <sup>2</sup> .....	2,210	1,800	94	77
Valencia .....	290	500	12	21
United States, all .....	125,750	120,800	5,395	5,188
Early, mid, and Navel <sup>2</sup> .....	74,610	71,800	3,142	3,027
Valencia .....	51,140	49,000	2,253	2,161
<b>Grapefruit</b>				
California .....	4,100	4,300	164	172
Florida, all .....	4,510	5,200	192	221
Red .....	3,740	4,300	159	183
White .....	770	900	33	38
Texas .....	6,100	5,800	244	232
United States .....	14,710	15,300	600	625
<b>Tangerines and mandarins <sup>3</sup></b>				
California .....	26,500	23,000	1,060	920
Florida .....	990	1,050	47	50
United States .....	27,490	24,050	1,107	970
<b>Lemons</b>				
Arizona .....	1,350	1,900	54	76
California .....	23,700	21,000	948	840
United States .....	25,050	22,900	1,002	916

<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.

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

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

**Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2019 and 2020**

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2020 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2019	2020	2019	2020
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
<b>Grains and hay</b>				
Barley .....	2,721	2,921	2,182	
Corn for grain <sup>1</sup> .....	89,700	96,990	81,482	
Corn for silage .....	(NA)		6,587	
Hay, all .....	(NA)	(NA)	52,425	53,283
Alfalfa .....	(NA)		16,743	
All other .....	(NA)		35,682	
Oats .....	2,810	3,012	826	
Proso millet .....	506		465	
Rice .....	2,540	2,847	2,472	
Rye .....	1,865		310	
Sorghum for grain <sup>1</sup> .....	5,265	5,820	4,675	
Sorghum for silage .....	(NA)		339	
Wheat, all .....	45,158	44,655	37,162	
Winter .....	31,159	30,775	24,327	
Durum .....	1,339	1,290	1,175	
Other spring .....	12,660	12,590	11,660	
<b>Oilseeds</b>				
Canola .....	2,040.0	1,989.0	1,910.0	
Cottonseed .....	(X)		(X)	
Flaxseed .....	374	270	319	
Mustard seed .....	98.0		90.0	
Peanuts .....	1,427.7	1,529.0	1,391.7	
Rapeseed .....	11.3		10.4	
Safflower .....	165.8		152.7	
Soybeans for beans .....	76,100	83,510	75,021	
Sunflower .....	1,350.6	1,558.0	1,244.5	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all .....	13,737.8	13,703.0	11,804.5	
Upland .....	13,508.0	13,475.0	11,580.0	
American Pima .....	229.8	228.0	224.5	
Sugarbeets .....	1,132.0	1,138.5	979.3	
Sugarcane .....	(NA)		913.2	
Tobacco .....	(NA)	(NA)	227.1	201.8
<b>Dry beans, peas, and lentils</b>				
Chickpeas .....	451.4	306.0	404.0	
Dry edible beans .....	1,287.4	1,372.0	1,176.5	
Dry edible peas .....	1,103.0	971.0	1,052.0	
Lentils .....	486.0	474.0	431.0	
<b>Potatoes and miscellaneous</b>				
Hops .....	(NA)		56.5	
Maple syrup .....	(NA)		(NA)	
Mushrooms .....	(NA)		(NA)	
Peppermint oil .....	(NA)		52.4	
Potatoes .....	968.3		942.2	
Spearmint oil .....	(NA)		18.5	

See footnote(s) at end of table.

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**Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States:  
2019 and 2020 (continued)**

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2020 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Yield per acre		Production	
	2019	2020	2019 (1,000)	2020 (1,000)
<b>Grains and hay</b>				
Barley .....	bushels	77.7	169,566	
Corn for grain .....	bushels	168.0	13,691,561	
Corn for silage .....	tons	20.2	132,807	
Hay, all .....	tons	2.46	128,864	
Alfalfa .....	tons	3.28	54,875	
All other .....	tons	2.07	73,989	
Oats .....	bushels	64.3	53,148	
Proso millet .....	bushels	35.7	16,608	
Rice <sup>2</sup> .....	cwt	7,471	184,675	
Rye .....	bushels	34.3	10,622	
Sorghum for grain .....	bushels	73.0	341,460	
Sorghum for silage .....	tons	11.9	4,019	
Wheat, all .....	bushels	51.7	1,920,139	
Winter .....	bushels	53.6	1,304,003	
Durum .....	bushels	45.7	53,756	
Other spring .....	bushels	48.2	562,380	
<b>Oilseeds</b>				
Canola .....	pounds	1,781	3,402,000	
Cottonseed .....	tons	(X)	6,232.0	
Flaxseed .....	bushels	20.0	6,395	
Mustard seed .....	pounds	706	63,580	
Peanuts .....	pounds	3,949	5,496,087	
Rapeseed .....	pounds	2,160	22,464	
Safflower .....	pounds	1,272	194,295	
Soybeans for beans .....	bushels	47.4	3,558,281	
Sunflower .....	pounds	1,562	1,943,435	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	bales	817	20,102.0	
Upland <sup>2</sup> .....	bales	803	19,380.0	
American Pima <sup>2</sup> .....	bales	1,544	722.0	
Sugarbeets .....	tons	29.2	28,600	
Sugarcane .....	tons	35.0	31,937	
Tobacco .....	pounds	2,060	467,956	
<b>Dry beans, peas, and lentils</b>				
Chickpeas <sup>2</sup> .....	cwt	1,544	6,237	
Dry edible beans <sup>2</sup> .....	cwt	1,769	20,811	
Dry edible peas <sup>2</sup> .....	cwt	2,124	22,346	
Lentils <sup>2</sup> .....	cwt	1,250	5,388	
<b>Potatoes and miscellaneous</b>				
Hops .....	pounds	1,981	112,041.2	
Maple syrup .....	gallons	(NA)	4,240	
Mushrooms .....	pounds	(NA)	846,491	
Peppermint oil .....	pounds	104	5,452	
Potatoes .....	cwt	449	422,890	
Spearmint oil .....	pounds	130	2,413	

(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: 2019 and 2020

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2020 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2019	2020	2019	2020
	(hectares)	(hectares)	(hectares)	(hectares)
<b>Grains and hay</b>				
Barley .....	1,101,160	1,182,100	883,030	
Corn for grain <sup>1</sup> .....	36,300,690	39,250,880	32,974,950	
Corn for silage .....	(NA)		2,665,690	
Hay, all <sup>2</sup> .....	(NA)	(NA)	21,215,870	21,563,100
Alfalfa .....	(NA)		6,775,720	
All other .....	(NA)		14,440,150	
Oats .....	1,137,180	1,218,930	334,270	
Proso millet .....	204,770		188,180	
Rice .....	1,027,910	1,152,150	1,000,390	
Rye .....	754,750		125,450	
Sorghum for grain <sup>1</sup> .....	2,130,690	2,355,300	1,891,930	
Sorghum for silage .....	(NA)		137,190	
Wheat, all <sup>2</sup> .....	18,274,990	18,071,430	15,039,090	
Winter .....	12,609,740	12,454,330	9,844,890	
Durum .....	541,880	522,050	475,510	
Other spring .....	5,123,380	5,095,050	4,718,690	
<b>Oilseeds</b>				
Canola .....	825,570	804,930	772,960	
Cottonseed .....	(X)		(X)	
Flaxseed .....	151,350	109,270	129,100	
Mustard seed .....	39,660		36,420	
Peanuts .....	577,780	618,770	563,210	
Rapeseed .....	4,570		4,210	
Safflower .....	67,100		61,800	
Soybeans for beans .....	30,796,910	33,795,660	30,360,250	
Sunflower .....	546,570	630,510	503,640	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	5,559,550	5,545,470	4,777,160	
Upland .....	5,466,550	5,453,200	4,686,310	
American Pima .....	93,000	92,270	90,850	
Sugarbeets .....	458,110	460,740	396,310	
Sugarcane .....	(NA)		369,560	
Tobacco .....	(NA)	(NA)	91,910	81,670
<b>Dry beans, peas, and lentils</b>				
Chickpeas .....	182,680	123,840	163,490	
Dry edible beans .....	521,000	555,230	476,120	
Dry edible peas .....	446,370	392,950	425,730	
Lentils .....	196,680	191,820	174,420	
<b>Potatoes and miscellaneous</b>				
Hops .....	(NA)		22,880	
Maple syrup .....	(NA)		(NA)	
Mushrooms .....	(NA)		(NA)	
Peppermint oil .....	(NA)		21,210	
Potatoes .....	391,860		381,300	
Spearmint oil .....	(NA)		7,490	

See footnote(s) at end of table.

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**Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States:  
2019 and 2020 (continued)**

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2020 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Yield per hectare		Production	
	2019	2020	2019	2020
	(metric tons)	(metric tons)	(metric tons)	(metric tons)
<b>Grains and hay</b>				
Barley .....	4.18		3,691,860	
Corn for grain .....	10.55		347,781,670	
Corn for silage .....	45.20		120,480,480	
Hay, all <sup>2</sup> .....	5.51		116,903,450	
Alfalfa .....	7.35		49,781,760	
All other .....	4.65		67,121,690	
Oats .....	2.31		771,440	
Proso millet .....	2.00		376,660	
Rice .....	8.37		8,376,720	
Rye .....	2.15		269,810	
Sorghum for grain .....	4.58		8,673,480	
Sorghum for silage .....	26.58		3,645,980	
Wheat, all <sup>2</sup> .....	3.47		52,257,620	
Winter .....	3.60		35,489,150	
Durum .....	3.08		1,463,000	
Other spring .....	3.24		15,305,480	
<b>Oilseeds</b>				
Canola .....	2.00		1,543,120	
Cottonseed .....	(X)		5,653,580	
Flaxseed .....	1.26		162,440	
Mustard seed .....	0.79		28,840	
Peanuts .....	4.43		2,492,980	
Rapeseed .....	2.42		10,190	
Safflower .....	1.43		88,130	
Soybeans for beans .....	3.19		96,840,540	
Sunflower .....	1.75		881,530	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	0.92		4,376,690	
Upland .....	0.90		4,219,500	
American Pima .....	1.73		157,200	
Sugarbeets .....	65.47		25,945,480	
Sugarcane .....	78.40		28,972,760	
Tobacco .....	2.31		212,260	
<b>Dry beans, peas, and lentils</b>				
Chickpeas .....	1.73		282,910	
Dry edible beans .....	1.98		943,970	
Dry edible peas .....	2.38		1,013,600	
Lentils .....	1.40		244,400	
<b>Potatoes and miscellaneous</b>				
Hops .....	2.22		50,820	
Maple syrup .....	(NA)		21,200	
Mushrooms .....	(NA)		383,960	
Peppermint oil .....	0.12		2,470	
Potatoes .....	50.31		19,181,970	
Spearmint oil .....	0.15		1,090	

(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: 2019 and 2020

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2020 crop year, except citrus which is for the 2019-2020 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production	
	2019	2020
<b>Citrus</b> <sup>1</sup>		
Grapefruit ..... 1,000 tons	600	625
Lemons ..... 1,000 tons	1,002	916
Oranges ..... 1,000 tons	5,395	5,188
Tangerines and mandarins ..... 1,000 tons	1,107	970
<b>Noncitrus</b>		
Apples, commercial ..... million pounds	10,630.0	
Apricots ..... tons	64,500	
Avocados ..... tons		
Blueberries, Cultivated ..... 1,000 pounds		
Blueberries, Wild (Maine) ..... 1,000 pounds		
Cherries, Sweet ..... tons	362,000	
Cherries, Tart ..... million pounds	290.2	
Coffee (Hawaii) ..... 1,000 pounds	26,430	
Cranberries ..... barrel	9,040,000	
Dates ..... tons		
Grapes ..... tons	7,500,000	
Kiwifruit (California) ..... tons		
Nectarines (California) ..... tons		
Olives (California) ..... tons		
Papayas (Hawaii) ..... 1,000 pounds		
Peaches ..... tons	733,500	
Pears ..... tons	805,000	
Plums (California) ..... tons		
Prunes (California) ..... tons	110,000	
Raspberries, all ..... 1,000 pounds		
Strawberries ..... 1,000 cwt		
<b>Nuts and miscellaneous</b>		
Almonds, shelled (California) ..... 1,000 pounds	2,200,000	
Hazelnuts, in-shell (Oregon) ..... tons	49,000	
Macadamias (Hawaii) ..... 1,000 pounds		
Pecans, in-shell ..... 1,000 pounds	264,500	
Pistachios (California) ..... 1,000 pounds		
Walnuts, in-shell (California) ..... tons	630,000	

<sup>1</sup> Production years are 2018-2019 and 2019-2020.

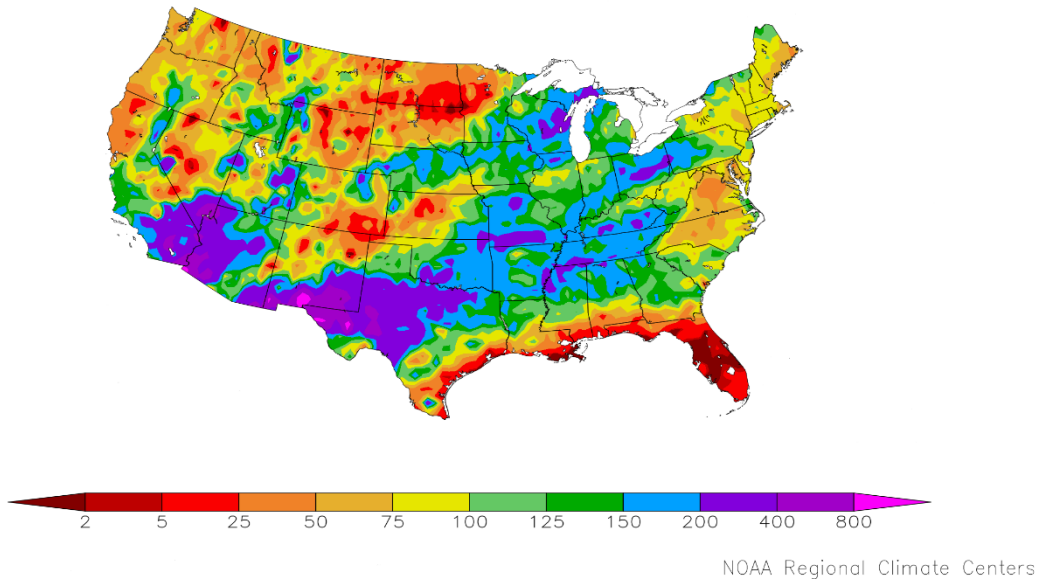
## Fruits and Nuts Production in Metric Units – United States: 2019 and 2020

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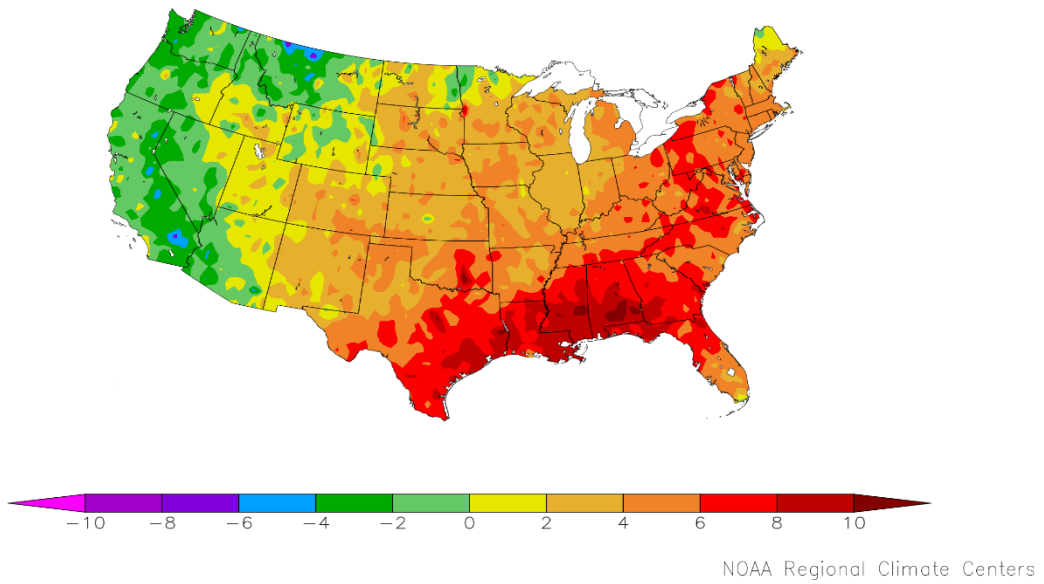
Crop	Production	
	2019 (metric tons)	2020 (metric tons)
<b>Citrus<sup>1</sup></b>		
Grapefruit .....	544,310	566,990
Lemons .....	909,000	830,980
Oranges .....	4,894,260	4,706,470
Tangerines and mandarins .....	1,004,250	879,970
<b>Noncitrus</b>		
Apples, commercial .....	4,821,690	
Apricots .....	58,510	
Avocados .....		
Blueberries, Cultivated .....		
Blueberries, Wild (Maine) .....		
Cherries, Sweet .....	328,400	
Cherries, Tart .....	131,630	
Coffee (Hawaii) .....	11,990	
Cranberries .....	410,050	
Dates .....		
Grapes .....	6,803,890	
Kiwifruit (California) .....		
Nectarines (California) .....		
Olives (California) .....		
Papayas (Hawaii) .....		
Peaches .....	665,420	
Pears .....	730,280	
Plums (California) .....		
Prunes (California) .....	99,790	
Raspberries, all .....		
Strawberries .....		
<b>Nuts and miscellaneous</b>		
Almonds, shelled (California) .....	997,900	
Hazelnuts, in-shell (Oregon) .....	44,450	
Macadamias (Hawaii) .....		
Pecans, in-shell .....	119,980	
Pistachios (California) .....		
Walnuts, in-shell (California) .....	571,530	

<sup>1</sup> Production years are 2018-2019 and 2019-2020.

Percent of Normal Precipitation (%)  
3/1/2020 – 3/31/2020



Departure from Normal Temperature (F)  
3/1/2020 – 3/31/2020



## March Weather Summary

A wet March in California's key watershed areas dented seasonal precipitation deficits and improved the average water equivalency of the Sierra Nevada snowpack from 10 to 15 inches, according to the California Department of Water Resources. However, the 15-inch equivalency on April 1, the traditional peak snowpack date, was barely one-half of normal.

Pockets of dryness and drought existed in other areas of the West, including the Four Corners region, the Great Basin, and the Pacific Northwest (excluding western Washington). In contrast, March was a very wet month across the southern tier of the West, stretching from southern California to southern New Mexico.

Meanwhile, drought intensified during March along and near the Gulf Coast, including Florida, amid summer-like heat and near-record to record-setting dryness. No measurable rain fell during the month in Florida locations such as Tampa and Lakeland. By March 29, Florida's topsoil moisture was rated 65 percent very short to short, up from 20 percent just 4 weeks earlier. Although the dryness favored planting operations, there was little moisture for germination and establishment. In Texas, 56 percent of the intended rice acreage had been planted by March 29, compared to the 5-year average of 25 percent. While drought worsened in coastal Texas, interior sections of southern Texas received much-needed rain.

Many other parts of the country, including the southern Plains and interior South, experienced a wet month, hampering spring fieldwork. By late March, topsoil moisture in Tennessee was rated 60 percent surplus. Early-spring precipitation also plagued much of the Midwest, maintaining soggy conditions in fields and feedlots. Late-March topsoil moisture was rated at least one-half surplus in several Midwestern States, including Ohio (72 percent), Illinois (56 percent), Missouri (56 percent), Indiana (53 percent), and Michigan (50 percent).

Farther west, conditions remained mostly favorable on the Plains, where all major winter wheat-production states reported at least one-half of the winter wheat rated in good to excellent condition by late March. Still, pockets of drought on the High Plains adversely affected a portion of the crop, with 27 percent of Colorado's winter wheat rated very poor to poor. In North Dakota, the corn harvest was 75 percent complete by the end of March, although a mild, mostly dry month allowed for orderly melting of snow that had been on the ground in the eastern part of the state since Thanksgiving.

In fact, warmer-than-normal March weather dominated areas from the Plains to the East Coast, with temperatures averaging at least 5°F above normal across much of the southern and eastern United States. Conversely, cooler-than-normal conditions covered the West, particularly across southern California and the Desert Southwest.

## March Agricultural Summary

March was warmer than normal for most of the eastern half of the Nation. Temperatures averaged 5°F or more above normal for most of the South and much of the Mid-Atlantic Region. Much of the Gulf Coast saw temperatures 8°F or more above normal for the month of March. In contrast, much of the western half of the Nation saw below average temperatures for the month of March. In parts of California and Montana temperatures averaged 5°F or more below normal.

During the month of March, much of the Midwest, the South, the Southwest, and Texas, received higher than average precipitation. Much of the South received 6 inches of rain or more. In contrast, Florida, the Gulf Coast Region, and parts of the Northwest and Upper Midwest saw drier than normal conditions, with most of Florida and the Gulf Coast receiving little or no rain in March.

In Kansas, 43 percent of the winter wheat acreage was rated in good to excellent condition on March 1, but improved during the month with 50 percent rated in good to excellent condition on March 29. In Texas, 36 percent of the acreage was rated in good to excellent condition on March 1, but improved during the month with 56 percent of the acreage rated in good to excellent condition on March 29.

In Arizona and Texas, 19 percent and 29 percent of pasture and rangeland was rated in very poor to poor condition, respectively on March 1. On March 29, Arizona had 20 percent of pasture and rangeland rated very poor to poor. In Texas, conditions had improved with 22 percent of pasture and rangeland rated in very poor to poor condition.

In Florida, March temperatures were on average 1 to 10 degrees warmer than historical values. Total rainfall for the month ranged from no rain in multiple locations to 3.7 inches in Leon County. According to the U.S. Drought Monitor, the State went from 39.5 percent experiencing abnormally dry conditions at the beginning of March to 88.5 percent by the end of the month. Pasture conditions steadily declined throughout the month due to the dry soil and the increasing temperatures. Cattle conditions remained mostly good. Sugarcane harvest was ongoing. Pest and disease pressures were reported on strawberries and tomatoes throughout the month. Citrus fruit harvested for the fresh market included white and red grapefruit, Valencia oranges, as well as Honey, Tango, and Royal tangerines. Citrus grove activities were normal for this time of year, which included mowing before harvest, fertilizing, hedging, topping, and irrigation.

## **Crop Comments**

**Grapefruit:** The United States 2019-2020 grapefruit crop is forecast at 625,000 tons, down 2 percent from the previous forecast but up 4 percent from last season's revised final utilization. In Texas, expected production, at 5.80 million boxes (232,000 tons), is down 6 percent from the previous forecast and down 5 percent from last year.

**Tangerines and mandarins:** The United States tangerine and mandarin crop is forecast at 970,000 tons, up 4 percent from the previous forecast but down 12 percent from last season's revised final utilization. The California tangerine and mandarin forecast, at 23.0 million boxes (920,000 ton), is up 5 percent from the previous forecast but down 13 percent from last year's revised total.

**Lemons:** The 2019-2020 United States lemon crop is forecast at 916,000 tons, up 12 percent from previous forecast but down 9 percent from last season's revised final utilization. The California production forecast, at 21.0 million boxes (840,000 tons), is up 11 percent from last month but down 11 percent from the revised 2018-2019 season total.

## Statistical Methodology

**Survey procedures:** The orange objective yield survey for the April 1 forecast was conducted in Florida. In August and September of last year, 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 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 April 1 forecast. Reports from growers 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 four abnormal production years (three hurricane seasons), the "Root Mean Square Error" is 3.2 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 3.2 percent excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 5.2 percent, or 5.6 percent, excluding abnormal seasons.

Changes between the April 1 orange forecast and the final estimates during the past 20 years have averaged 155,000 tons (174,000 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 once (below 6 times, above 10 times, and equal once excluding abnormal seasons). The difference does not imply that the April 1 forecast this year is likely to understate or overstate final production.

### Reliability of April 1 Crop Production Forecasts

[Based on data for the past twenty years]

Crop	Root mean square error	90 percent confidence interval	Difference between forecast and final estimate				
			Production			Years	
			Average	Smallest	Largest	Below final	Above final
	(percent)	(percent)	(millions)	(millions)	(millions)	(number)	(number)
Oranges <sup>1</sup> ..... tons	3.0	5.2	155	0	502	8	11
Oranges <sup>1 2</sup> ..... tons	3.2	5.6	174	0	502	6	10

<sup>1</sup> Quantity is in thousands of units.

<sup>2</sup> Excluding freeze and hurricane seasons.

## 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@usda.gov](mailto:nass@usda.gov)

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Chris Hawthorn, Head, Field Crops Section .....	(202) 720-2127
David Colwell – Current Agricultural Industrial Reports .....	(202) 720-8800
Chris Hawthorn – Corn, Flaxseed, Proso Millet .....	(202) 720-2127
James Johanson – County Estimates, Hay .....	(202) 690-8533
Jeff Lemmons – Oats, Soybeans .....	(202) 690-3234
Irwin Anolik – Crop Weather.....	(202) 720-7621
Chris Hawthorn – Peanuts, Rice.....	(202) 720-2127
Jean Porter – Rye, Wheat .....	(202) 720-8068
Chris Singh – Cotton, Cotton Ginnings, Sorghum .....	(202) 720-5944
Travis Thorson – Barley, Sunflower, Other Oilseeds .....	(202) 720-7369
Jorge Garcia-Pratts, Head, Fruits, Vegetables and Special Crops Section.....	(202) 720-2127
Joshua Bates – Almonds, Apples, Apricots, Asparagus, Carrots, Coffee, Onions, Plums, Prunes, Sweet Corn, Tobacco .....	(202) 720-4288
Fleming Gibson – Cauliflower, Celery, Grapefruit, Lemons, Macadamia, Mandarins and tangerines, Mushrooms, Olives, Oranges .....	(202) 720-5412
Greg Lemmons – Cranberries, Cucumbers, Pistachios, Potatoes, Pumpkins, Raspberries, Squash, Strawberries, Sugarbeets, Sugarcane, Sweet Potatoes, Tame Blueberries, Wild Blueberries.....	(202) 720-4285
Dan Norris – Artichokes, Cantaloupes, Dry Edible Peas, Green Peas, Lentils, Nectarines, Papayas, Peaches, Snap Beans, Spinach, Walnuts, Watermelons .....	(202) 720-3250
Krishna Rizal – Dry Beans, Garlic, Hazelnuts, Honeydews, Kiwifruit, Lettuce, Maple Syrup, Mint, Pears, Sweet Cherries, Tart Cherries, Tomatoes .....	(202) 720-2157
Dawn Smoker – Avocados, Bell Peppers, Broccoli, Cabbage, Chickpeas, Chile Peppers, Dates, Floriculture, Grapes, Hops, Pecans .....	(202) 720-4215



## Access to NASS Reports

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- Cornell’s Mann Library has launched a new website housing NASS’s and other agency’s archived reports. The new website, <https://usda.library.cornell.edu>. All email subscriptions containing reports will be sent from the new website, <https://usda.library.cornell.edu>. To continue receiving the reports via e-mail, you will have to go to the new website, create a new account and re-subscribe to the reports. If you need instructions to set up an account or subscribe, they are located at: <https://usda.library.cornell.edu/help>. You should whitelist [notifications@usda-esmis.library.cornell.edu](mailto:notifications@usda-esmis.library.cornell.edu) in your email client to avoid the emails going into spam/junk folders.

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@usda.gov](mailto:nass@usda.gov).

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## **USDA NASS Data Users' Meeting**

**Tuesday, April 21, 2020  
1:00 p.m. – 3:30 p.m. EDT**

USDA's National Agricultural Statistics Service will hold a virtual meeting for users of U.S. domestic and international agriculture data. NASS is organizing the 2020 Data Users' Meeting in cooperation with five other USDA agencies – Agricultural Marketing Service, Economic Research Service, Farm Service Agency, Foreign Agricultural Service, and World Agricultural Outlook Board – and the Census Bureau's Foreign Trade Division. Agency representatives will provide updates on recent and pending changes in statistical and information programs important to agriculture, answer questions, and welcome comments and input from data users.

For registration details or additional information about the Data Users' Meeting, see the meeting page on the NASS website ([https://www.nass.usda.gov/Education\\_and\\_Outreach/Meeting/index.php](https://www.nass.usda.gov/Education_and_Outreach/Meeting/index.php)). Contact Vernita Murray (NASS) at 202-690-8141 or [vernita.murray@usda.gov](mailto:vernita.murray@usda.gov) or Patricia Snipe (NASS) at 202-720-2248 or [patricia.snipe@usda.gov](mailto:patricia.snipe@usda.gov) for information.