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## Orange Production Down 1 Percent from February Forecast

**The United States all orange** forecast for the 2019-2020 season is 5.24 million tons, down 1 percent from the previous forecast and down 2 percent from the 2018-2019 final utilization. The Florida all orange forecast, at 71.0 million boxes (3.20 million tons), is down 1 percent from the previous forecast and down 1 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 30.0 million boxes (1.35 million tons), down 3 percent from the previous forecast and down 1 percent from last season's final utilization. The Florida Valencia orange forecast, at 41.0 million boxes (1.85 million tons), is unchanged from the previous forecast but 1 percent below last season's final utilization.

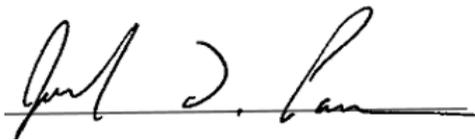
The California Valencia orange forecast is 8.50 million boxes (340,000 tons), down 6 percent from both last month and the previous season. This results in a California all orange forecast of 48.5 million boxes (1.94 million tons), down 1 percent from the previous forecast and down 3 percent from last season's final utilization. The forecast for Texas is carried forward from the previous forecast.

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This report was approved on March 10, 2020.



Secretary of Agriculture  
Designate  
Joseph Cooper



Agricultural Statistics Board  
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Joseph L. Parsons

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**Sugarcane Area Harvested, Yield, and Production – States and United States: 2018 and 2019**

State	Area harvested		Yield per acre <sup>1</sup>		Production <sup>1</sup>	
	2018	2019	2018	2019	2018	2019
	(1,000 acres)	(1,000 acres)	(tons)	(tons)	(1,000 tons)	(1,000 tons)
<b>For sugar</b>						
Florida .....	397.0	397.0	41.7	42.8	16,555	16,992
Louisiana .....	425.0	442.0	35.3	27.7	15,003	12,243
Texas .....	37.6	31.3	36.6	33.6	1,376	1,052
United States .....	859.6	870.3	38.3	34.8	32,934	30,287
<b>For seed</b>						
Florida .....	15.3	13.7	45.8	47.6	701	652
Louisiana .....	23.5	27.0	36.5	34.0	858	918
Texas .....	1.3	2.2	37.9	36.5	49	80
United States .....	40.1	42.9	40.1	38.5	1,608	1,650
<b>For sugar and seed</b>						
Florida .....	412.3	410.7	41.9	43.0	17,256	17,644
Louisiana .....	448.5	469.0	35.4	28.1	15,861	13,161
Texas .....	38.9	33.5	36.6	33.8	1,425	1,132
United States .....	899.7	913.2	38.4	35.0	34,542	31,937

(NA) Not available.

(X) Not applicable.

<sup>1</sup> Net tons.

## Utilized Production of Citrus Fruits by Crop – States and United States: 2018-2019 and Forecasted March 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	2019-2020	2018-2019	2019-2020
	(1,000 boxes)	(1,000 boxes)	(1,000 tons)	(1,000 tons)
<b>Oranges</b>				
California, all .....	49,800	48,500	1,992	1,940
Early, mid, and Navel <sup>2 3</sup> .....	40,800	40,000	1,632	1,600
Valencia .....	9,000	8,500	360	340
Florida, all .....	71,750	71,000	3,229	3,195
Early, mid, and Navel <sup>3</sup> .....	30,400	30,000	1,368	1,350
Valencia .....	41,350	41,000	1,861	1,845
Texas, all <sup>2</sup> .....	2,500	2,560	106	109
Early, mid, and Navel <sup>3</sup> .....	2,210	1,950	94	83
Valencia .....	290	610	12	26
United States, all .....	124,050	122,060	5,327	5,244
Early, mid, and Navel <sup>3</sup> .....	73,410	71,950	3,094	3,033
Valencia .....	50,640	50,110	2,233	2,211
<b>Grapefruit</b>				
California <sup>2</sup> .....	3,200	4,100	128	164
Florida, all .....	4,510	5,400	192	229
Red .....	3,740	4,500	159	191
White .....	770	900	33	38
Texas <sup>2</sup> .....	6,100	6,200	244	248
United States .....	13,810	15,700	564	641
<b>Tangerines and mandarins <sup>4</sup></b>				
California <sup>2</sup> .....	26,000	22,000	1,040	880
Florida .....	990	1,050	47	50
United States .....	26,990	23,050	1,087	930
<b>Lemons <sup>2</sup></b>				
Arizona .....	1,350	1,400	54	56
California .....	22,800	19,000	912	760
United States .....	24,150	20,400	966	816

<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> Estimates for current year carried forward from previous forecast.

<sup>3</sup> Navel and miscellaneous varieties in California. Early (including Navel) and midseason varieties in Florida and Texas.

<sup>4</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		2,182	
Corn for grain <sup>1</sup> .....	89,700		81,482	
Corn for silage .....	(NA)		6,587	
Hay, all .....	(NA)		52,425	
Alfalfa .....	(NA)		16,743	
All other .....	(NA)		35,682	
Oats .....	2,810		826	
Proso millet .....	506		465	
Rice .....	2,540		2,472	
Rye .....	1,865		310	
Sorghum for grain <sup>1</sup> .....	5,265		4,675	
Sorghum for silage .....	(NA)		339	
Wheat, all .....	45,158		37,162	
Winter .....	31,159	30,804	24,327	
Durum .....	1,339		1,175	
Other spring .....	12,660		11,660	
<b>Oilseeds</b>				
Canola .....	2,040.0		1,910.0	
Cottonseed .....	(X)		(X)	
Flaxseed .....	374		319	
Mustard seed .....	98.0		90.0	
Peanuts .....	1,427.7		1,391.7	
Rapeseed .....	11.3		10.4	
Safflower .....	165.8		152.7	
Soybeans for beans .....	76,100		75,021	
Sunflower .....	1,350.6		1,244.5	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all .....	13,737.8		11,804.5	
Upland .....	13,508.0		11,580.0	
American Pima .....	229.8		224.5	
Sugarbeets .....	1,132.0		979.3	
Sugarcane .....	(NA)		913.2	
Tobacco .....	(NA)		227.1	
<b>Dry beans, peas, and lentils</b>				
Chickpeas .....	451.4		404.0	
Dry edible beans .....	1,287.4		1,176.5	
Dry edible peas .....	1,103.0		1,052.0	
Lentils .....	486.0		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		883,030	
Corn for grain <sup>1</sup> .....	36,300,690		32,974,950	
Corn for silage .....	(NA)		2,665,690	
Hay, all <sup>2</sup> .....	(NA)		21,215,870	
Alfalfa .....	(NA)		6,775,720	
All other .....	(NA)		14,440,150	
Oats .....	1,137,180		334,270	
Proso millet .....	204,770		188,180	
Rice .....	1,027,910		1,000,390	
Rye .....	754,750		125,450	
Sorghum for grain <sup>1</sup> .....	2,130,690		1,891,930	
Sorghum for silage .....	(NA)		137,190	
Wheat, all <sup>2</sup> .....	18,274,990		15,039,090	
Winter .....	12,609,740	12,466,070	9,844,890	
Durum .....	541,880		475,510	
Other spring .....	5,123,380		4,718,690	
<b>Oilseeds</b>				
Canola .....	825,570		772,960	
Cottonseed .....	(X)		(X)	
Flaxseed .....	151,350		129,100	
Mustard seed .....	39,660		36,420	
Peanuts .....	577,780		563,210	
Rapeseed .....	4,570		4,210	
Safflower .....	67,100		61,800	
Soybeans for beans .....	30,796,910		30,360,250	
Sunflower .....	546,570		503,640	
<b>Cotton, tobacco, and sugar crops</b>				
Cotton, all <sup>2</sup> .....	5,559,550		4,777,160	
Upland .....	5,466,550		4,686,310	
American Pima .....	93,000		90,850	
Sugarbeets .....	458,110		396,310	
Sugarcane .....	(NA)		369,560	
Tobacco .....	(NA)		91,910	
<b>Dry beans, peas, and lentils</b>				
Chickpeas .....	182,680		163,490	
Dry edible beans .....	521,000		476,120	
Dry edible peas .....	446,370		425,730	
Lentils .....	196,680		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	564	641
Lemons ..... 1,000 tons	966	816
Oranges ..... 1,000 tons	5,327	5,244
Tangerines and mandarins ..... 1,000 tons	1,087	930
<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.

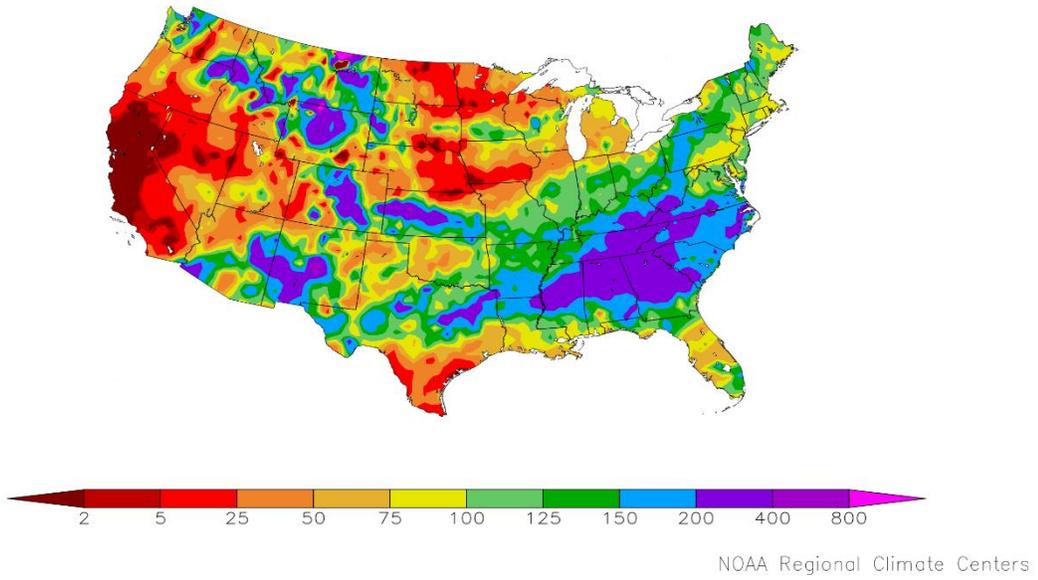
## Fruits and Nuts Production in Metric Units – United States: 2019 and 2020

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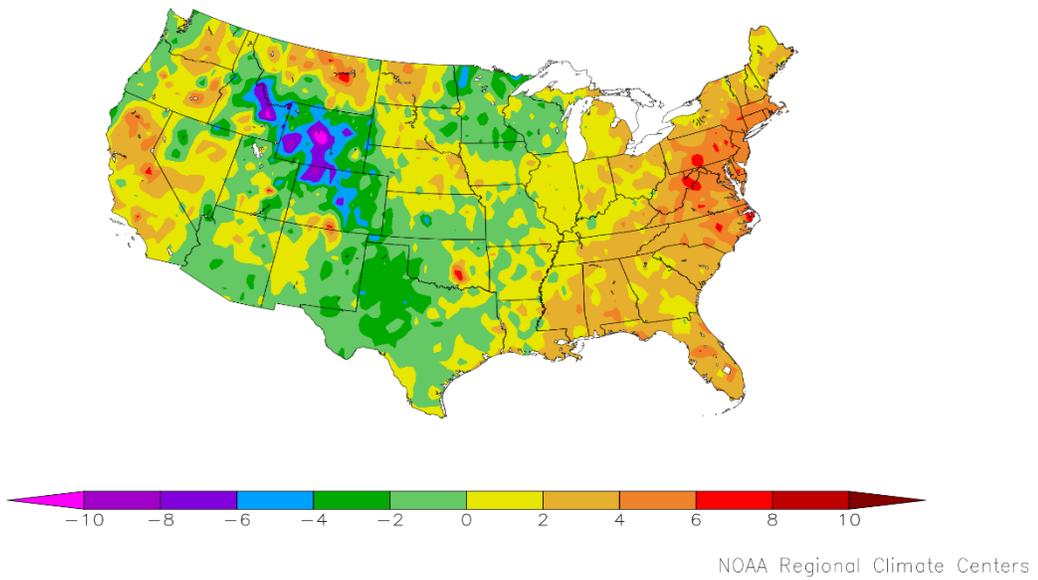
Crop	Production	
	2019 (metric tons)	2020 (metric tons)
<b>Citrus <sup>1</sup></b>		
Grapefruit .....	511,650	581,510
Lemons .....	876,340	740,260
Oranges .....	4,832,570	4,757,280
Tangerines and mandarins .....	986,110	843,680
<b>Noncitrus</b>		
Apples, commercial .....	4,821,690	
Apricots .....	58,510	
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 (%)  
2/1/2020 – 2/29/2020



Departure from Normal Temperature (F)  
2/1/2020 – 2/29/2020



## February Weather Summary

Significant precipitation deficits persisted through a second consecutive month in much of California and the Great Basin. In fact, parts of California received no precipitation during the month, setting February records for dryness. In addition, little snow has fallen in the Sierra Nevada over the last 2 months, leaving the average water equivalency of the high-elevation snowpack less than one-half of the end-of-February average.

Other areas of the West received occasional rain and snow. Northwestern snowpack, which had stabilized during a wet January, continued to benefit from periods of stormy weather. Pockets of drought persisted, however, along the eastern slopes of the Cascades and in south-central Idaho. In contrast, an early-February deluge—following a heavy-snow event—triggered significant flooding in northeastern Oregon and environs.

Farther east, most areas from the Plains to the Atlantic Seaboard experienced another wet month. In some cases, Southern rivers that had flooded in mid-to-late January surged to even higher levels during the second half of February. Lowland flooding also extended northward into the lower Midwest, while parts of the northern Corn Belt continued to brace for spring flooding. Conversely, drier-than-normal February weather affected a few areas, including southern Texas, the upper Great Lakes region, parts of New England, and the northern part of peninsular Florida.

Some areas in the upper Midwest, including the eastern Dakotas, have since late November reported a continuous snow cover, beneath which soils remain saturated. During February, North Dakota's corn harvest advanced from 49 to 61 percent complete, while the state's sunflower harvest advanced from 67 to 79 percent complete. Other states in the northern Corn Belt, including Minnesota and Wisconsin, reported some corn still standing in the field.

Elsewhere, relatively benign weather prevailed on the Plains, as generally mild weather accompanied frequent precipitation events. However, short-lived cold outbreaks delivered sub-zero temperatures as far south as Colorado and Nebraska. Similarly, a mid-month cold blast produced Midwestern readings below 0°F into northern Missouri and central Illinois.

Despite the brief cold waves, above-normal February temperatures dominated the country. The warmest weather, relative to normal, covered areas east of the Mississippi River, where many locations reported monthly temperatures more than 5°F above normal. Slightly cooler-than-normal February weather was mostly confined to the Pacific Northwest and Desert Southwest.

## February Agricultural Summary

February was warmer than normal for most of the eastern half of the Nation. Temperatures averaged 5°F or more above normal for much of the Mid-Atlantic and southern New England States. Most of California, the northern Great Plains, and the Pacific Northwest saw above average temperatures. In contrast, much of the upper Midwest, Rocky Mountain States, and most of Texas saw below average temperatures. Some parts of Colorado, Idaho, and Wyoming saw average temperatures 8°F or more below normal.

During the month of February, most of the eastern United States received higher than average precipitation with the exception of much of the Great Lakes region and along much of the Gulf Coast. Most of the Southeast received 6 inches of rain or more above normal. In contrast, much of the West and Midwest saw drier than normal conditions, with large parts of California receiving little or no rain in February.

## Crop Comments

**Sugarcane:** Production of sugarcane for sugar and seed in 2019 was estimated at 31.9 million tons, down 8 percent from 2018. Producers harvested 913,200 acres for sugar and seed during the 2019 crop year, up 2 percent from 2018. Yield for sugar and seed was estimated at 35.0 tons per acre, down 3.4 tons from 2018.

**Grapefruit:** The United States 2019-2020 grapefruit crop is forecast at 641,000 tons, down 3 percent from the previous forecast but up 14 percent from last season's final utilization. In Florida, expected production, at 5.4 million boxes

(229,000 tons), is down 8 percent from the previous forecast but up 20 percent from last year. California and Texas grapefruit production forecasts were carried forward from the previous forecast.

**Tangerines and mandarins:** The United States tangerine and mandarin crop is forecast at 930,000 tons, unchanged from the previous forecast but down 14 percent from last season's final utilization. The Florida tangerine and mandarin forecast, at 1.05 million boxes (50,000 ton), is unchanged from the previous forecast but up 6 percent from last year. The California tangerine and mandarin forecast was carried forward from the previous forecast.

## Statistical Methodology

**Survey procedures:** The orange objective yield survey for the March 1 forecast was conducted in Florida. In August and September last year, the number of bearing trees and the number of fruit per tree was 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 March 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 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 4.0 percent. However, if the three abnormal production seasons (three hurricane seasons) are excluded, the "Root Mean Square Error" is 4.3 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 4.0 percent, or 4.3 percent excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 6.9 percent, or 7.5 percent excluding abnormal seasons.

Changes between the March 1 orange forecast and the final estimates during the past 20 years have averaged 198,000 tons (224,000 tons, excluding abnormal seasons), ranging from 8 tons to 733,000 tons (18 tons to 733,000 tons, excluding abnormal seasons). The March 1 forecast for oranges has been below the final estimate 9 times and above 11 times (below 8 times and above 9 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@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

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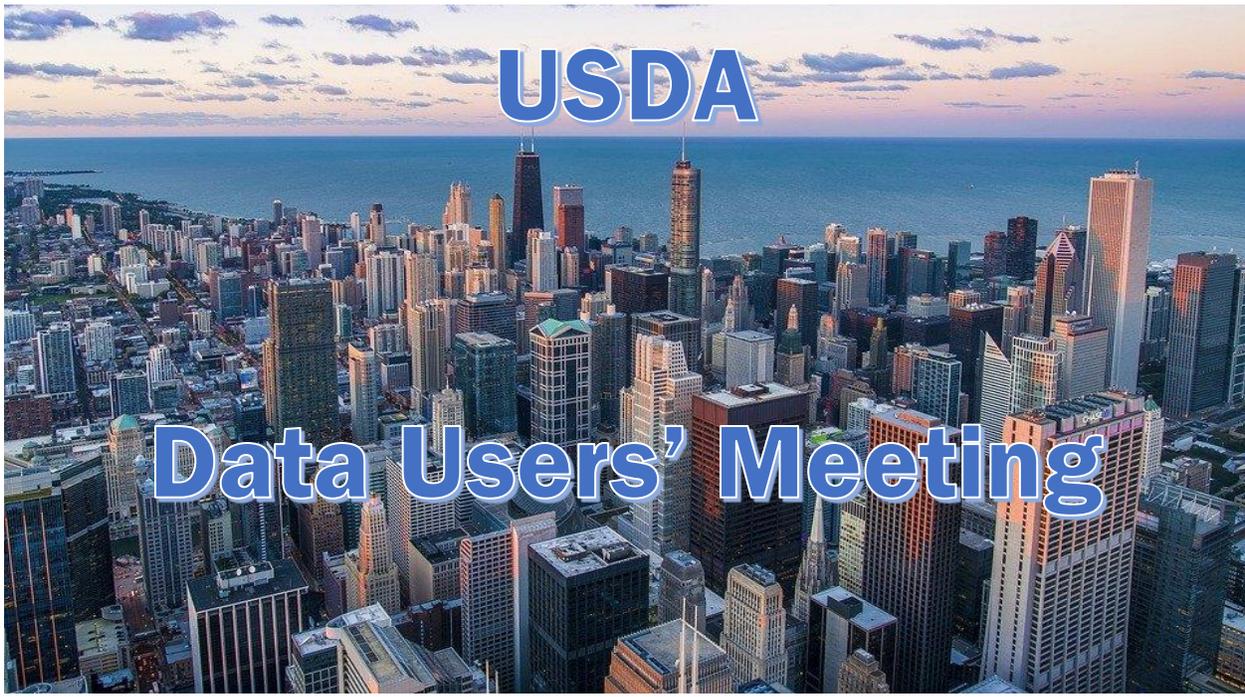
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For more information on NASS surveys and reports, call the NASS Agricultural Statistics Hotline at (800) 727-9540, 7:30 a.m. to 4:00 p.m. ET, or e-mail: [nass@usda.gov](mailto:nass@usda.gov).

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**USDA NASS Data Users' Meeting**  
**Tuesday, April 21, 2020**

Embassy Suites by Hilton Chicago Downtown  
600 North State Street  
Chicago, IL 60654  
312-943-3800

USDA's National Agricultural Statistics Service will hold an open forum 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.

The Data Users' Meeting precedes the Industry Outlook Conference at the same location on Wednesday, April 22, 2020. The outlook meeting brings together analysts from various commodity sectors to discuss developments and trends. For registration details or additional information about the Industry Outlook Conference, see the conference page on the LMIC website (<http://lmic.info/page/meetings>). Or contact Laura Lahr at 303-716-9935 or [laura.lahr@lmic.info](mailto:laura.lahr@lmic.info).