



Crop Production

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Released December 9, 2021, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

Special Note

Due to a lack of funding, this report does not contain forecasted pecan production estimates, as has been the case in recent years. Also, NASS will not publish the *Pecan Production* report in January 2022 that typically contains preliminary acreage, yield, production, price, and value estimates.

The costs associated with these estimates in recent seasons have been funded through a cooperative agreement, which was not renewed. As a result, NASS is suspending these estimates.

This change does not impact the forecast published in the October *Crop Production* report or the annual estimates that are included in the *Noncitrus Fruits and Nuts Annual Summary*, which will be released on May 4, 2022.

Cotton Production Up less than 1 Percent from November Forecast Orange Production Down 1 Percent from October Forecast

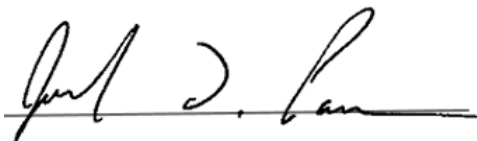
All cotton production is forecast at 18.3 million 480-pound bales, up less than 1 percent from the previous forecast, and up 25 percent from 2020. Based on conditions as of December 1, yields are expected to average 885 pounds per harvested acre, up 5 pounds from the previous forecast and up 38 pounds from 2020. Upland cotton production is forecast at 17.9 million 480-pound bales, up less than 1 percent from the previous forecast and up 27 percent from 2020. Pima cotton production is forecast at 374,000 bales, up 8 percent from the previous forecast but down 32 percent from 2020. All cotton area harvested is forecast at 9.92 million acres, unchanged from the previous forecast, but up 20 percent from 2020.

The United States all orange forecast for the 2021-2022 season is 3.83 million tons, down 1 percent from the previous forecast and down 13 percent from the 2020-2021 final utilization. The Florida all orange forecast, at 46.0 million boxes (2.07 million tons), is down 2 percent from the previous forecast and down 13 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 18.0 million boxes (810,000 tons), down 5 percent from the previous forecast and down 21 percent from last season's final utilization. The Florida Valencia orange forecast, at 28.0 million boxes (1.26 million tons), is unchanged from the previous forecast but down 7 percent from last season's final utilization. California and Texas orange production forecasts were carried forward from the previous forecast.

This report was approved on December 9, 2021.



Secretary of Agriculture
Designate
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Agricultural Statistics Board
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Cotton Area Harvested, Yield, and Production by Type – States and United States: 2020 and Forecasted December 1, 2021

Type and State	Area harvested		Yield per acre			Production ¹	
	2020	2021	2020	2021		2020	2021
				November 1	December 1		
	(1,000 acres)	(1,000 acres)	(pounds)	(pounds)	(pounds)	(1,000 bales) ²	(1,000 bales) ²
Upland							
Alabama	446.0	400.0	790	906	906	734.0	755.0
Arizona	123.0	119.0	1,179	1,291	1,291	302.0	320.0
Arkansas	520.0	470.0	1,179	1,226	1,287	1,277.0	1,260.0
California	33.5	24.5	2,006	1,900	2,155	140.0	110.0
Florida	93.0	89.0	532	701	701	103.0	130.0
Georgia	1,180.0	1,160.0	887	952	952	2,180.0	2,300.0
Kansas	184.0	101.0	783	1,022	998	300.0	210.0
Louisiana	165.0	105.0	986	960	960	339.0	210.0
Mississippi	525.0	430.0	1,079	1,150	1,116	1,180.0	1,000.0
Missouri	287.0	310.0	1,144	1,285	1,316	684.0	850.0
New Mexico	26.0	28.0	1,052	1,029	943	57.0	55.0
North Carolina	330.0	350.0	759	933	1,029	522.0	750.0
Oklahoma	435.0	415.0	702	879	867	636.0	750.0
South Carolina	179.0	205.0	802	925	960	299.0	410.0
Tennessee	275.0	270.0	1,066	1,067	1,067	611.0	600.0
Texas	3,200.0	5,250.0	686	741	731	4,570.0	8,000.0
Virginia	79.0	73.0	772	1,118	1,315	127.0	200.0
United States	8,080.5	9,799.5	835	874	877	14,061.0	17,910.0
American Pima							
Arizona	6.5	9.0	1,034	853	960	14.0	18.0
California	146.0	85.0	1,562	1,581	1,722	475.0	305.0
New Mexico	10.5	12.2	663	708	708	14.5	18.0
Texas	31.0	16.0	666	960	990	43.0	33.0
United States	194.0	122.2	1,352	1,359	1,469	546.5	374.0
All							
Alabama	446.0	400.0	790	906	906	734.0	755.0
Arizona	129.5	128.0	1,171	1,260	1,268	316.0	338.0
Arkansas	520.0	470.0	1,179	1,226	1,287	1,277.0	1,260.0
California	179.5	109.5	1,645	1,653	1,819	615.0	415.0
Florida	93.0	89.0	532	701	701	103.0	130.0
Georgia	1,180.0	1,160.0	887	952	952	2,180.0	2,300.0
Kansas	184.0	101.0	783	1,022	998	300.0	210.0
Louisiana	165.0	105.0	986	960	960	339.0	210.0
Mississippi	525.0	430.0	1,079	1,150	1,116	1,180.0	1,000.0
Missouri	287.0	310.0	1,144	1,285	1,316	684.0	850.0
New Mexico	36.5	40.2	940	931	872	71.5	73.0
North Carolina	330.0	350.0	759	933	1,029	522.0	750.0
Oklahoma	435.0	415.0	702	879	867	636.0	750.0
South Carolina	179.0	205.0	802	925	960	299.0	410.0
Tennessee	275.0	270.0	1,066	1,067	1,067	611.0	600.0
Texas	3,231.0	5,266.0	685	741	732	4,613.0	8,033.0
Virginia	79.0	73.0	772	1,118	1,315	127.0	200.0
United States	8,274.5	9,921.7	847	880	885	14,607.5	18,284.0

¹ Production ginned and to be ginned.

² 480-pound net weight bale.

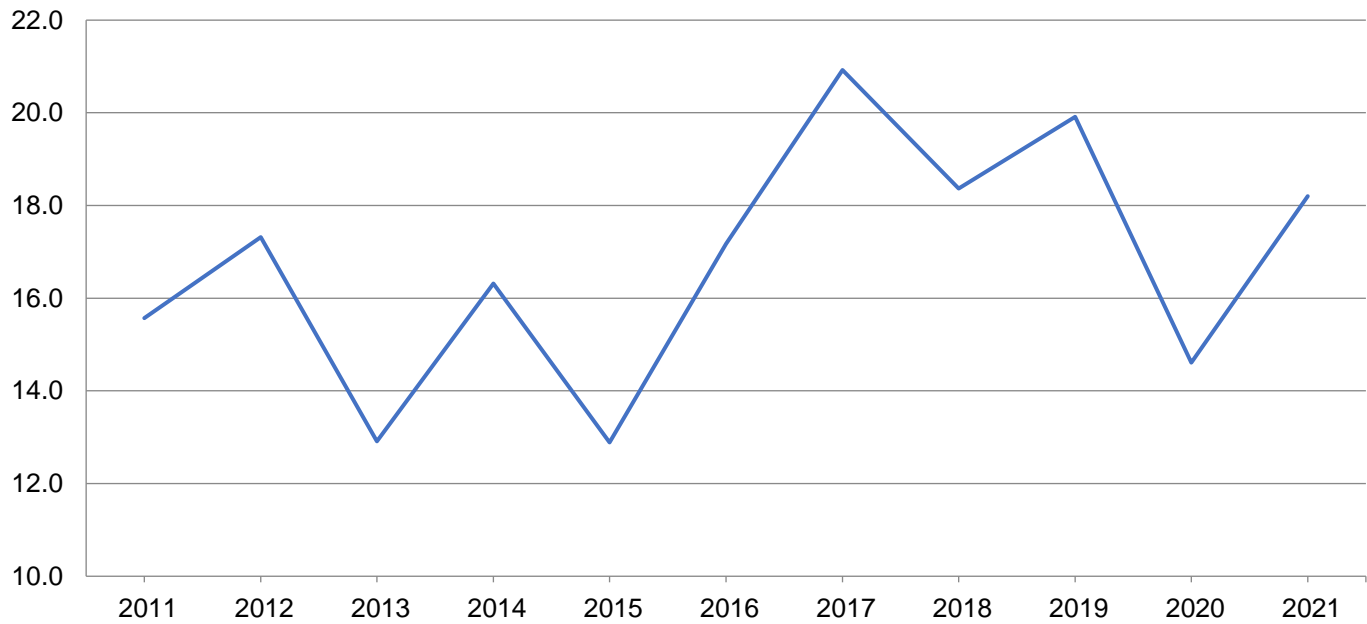
Cottonseed Production – United States: 2020 and Forecasted December 1, 2021

State	Production	
	2020 (1,000 tons)	2021 ¹ (1,000 tons)
United States	4,509.0	5,576.0

¹ Based on a 3-year average lint-seed ratio.

Cotton Production - United States

Million bales



Utilized Production of Citrus Fruits by Crop – States and United States: 2020-2021 and Forecasted December 1, 2021

[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 ¹		Utilized production ton equivalent	
	2020-2021 (1,000 boxes)	2021-2022 (1,000 boxes)	2020-2021 (1,000 tons)	2021-2022 (1,000 tons)
Oranges				
California, all ²	50,100	43,500	2,004	1,740
Early, mid, and Navel ³	40,600	35,000	1,624	1,400
Valencia	9,500	8,500	380	340
Florida, all	52,800	46,000	2,377	2,070
Early, mid, and Navel ³	22,700	18,000	1,022	810
Valencia	30,100	28,000	1,355	1,260
Texas, all ²	1,050	550	45	23
Early, mid, and Navel ³	1,000	450	43	19
Valencia	50	100	2	4
United States, all	103,950	90,050	4,426	3,833
Early, mid, and Navel ³	64,300	53,450	2,689	2,229
Valencia	39,650	36,600	1,737	1,604
Grapefruit				
California ²	3,900	3,900	156	156
Florida	4,100	4,100	174	174
Texas ²	2,400	3,100	96	124
United States	10,400	11,100	426	454
Tangerines and mandarins ⁵				
California ²	28,100	21,000	1,124	840
Florida	890	900	42	43
United States	28,990	21,900	1,166	883
Lemons ²				
Arizona	800	1,300	32	52
California	21,300	21,000	852	840
United States	22,100	22,300	884	892

¹ 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.

² Estimates for current year carried forward from an earlier forecast.

³ Navel and miscellaneous varieties in California. Early (including Navel) and midseason varieties in Florida and Texas.

⁴ Includes tangelos and tangors.

**Sugarcane for Sugar and Seed Area Harvested, Yield, and Production – States and United States:
2020 and Forecasted December 1, 2021**

State	Area harvested		Yield per acre ¹			Production ¹	
	2020	2021	2020	2021		2020	2021
				November 1	December 1		
	(1,000 acres)	(1,000 acres)	(tons)	(tons)	(tons)	(1,000 tons)	(1,000 tons)
Florida	423.3	405.0	44.4	42.7	42.8	18,795	17,334
Louisiana	488.4	490.0	33.1	31.8	30.5	16,167	14,945
Texas	35.9	36.4	31.7	32.8	32.4	1,138	1,179
United States	947.6	931.4	38.1	36.6	35.9	36,100	33,458

¹ Net tons.

Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2020 and 2021

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2021 crop year.
Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2020	2021	2020	2021
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Grains and hay				
Barley	2,726	2,660	2,214	1,948
Corn for grain ¹	90,652	93,304	82,313	85,085
Corn for silage	(NA)		6,711	
Hay, all	(NA)	(NA)	52,238	51,537
Alfalfa	(NA)	(NA)	16,230	16,123
All other	(NA)	(NA)	36,008	35,414
Oats	3,009	2,550	1,009	650
Proso millet	609	600	484	
Rice	3,036	2,541	2,987	2,499
Rye	1,955	2,133	330	294
Sorghum for grain ¹	5,880	7,340	5,095	6,520
Sorghum for silage	(NA)		239	
Wheat, all	44,450	46,703	36,789	37,163
Winter	30,450	33,648	23,029	25,464
Durum	1,690	1,635	1,665	1,534
Other spring	12,310	11,420	12,095	10,165
Oilseeds				
Canola	1,824.0	2,152.0	1,787.8	2,104.5
Cottonseed	(X)	(X)	(X)	(X)
Flaxseed	305	390	296	366
Mustard seed	97.0	88.0	91.4	84.0
Peanuts	1,662.5	1,580.0	1,615.2	1,533.0
Rapeseed	11.2	15.5	10.1	14.5
Safflower	136.0	135.0	126.7	127.5
Soybeans for beans	83,354	87,235	82,603	86,436
Sunflower	1,719.1	1,280.0	1,666.1	1,223.2
Cotton, tobacco, and sugar crops				
Cotton, all	12,092.0	11,190.5	8,274.5	9,921.7
Upland	11,890.0	11,066.0	8,080.5	9,799.5
American Pima	202.0	124.5	194.0	122.2
Sugarbeets	1,162.2	1,161.5	1,142.3	1,150.5
Sugarcane	(NA)	(NA)	947.6	931.4
Tobacco	(NA)	(NA)	198.1	221.2
Dry beans, peas, and lentils				
Chickpeas	269.8	376.3	262.9	367.6
Dry edible beans	1,740.0	1,399.0	1,676.5	1,341.0
Dry edible peas	999.0	970.0	973.0	919.0
Lentils	528.0	711.0	514.0	667.0
Potatoes and miscellaneous				
Hops	(NA)	(NA)	58.6	60.8
Maple syrup	(NA)	(NA)	(NA)	(NA)
Mushrooms	(NA)	(NA)	(NA)	(NA)
Peppermint oil	(NA)		50.1	
Potatoes	918.5	951.0	911.7	942.3
Spearmint oil	(NA)		17.7	

See footnote(s) at end of table.

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**Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States:
2020 and 2021 (continued)**

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2021 crop year.
Blank data cells indicate estimation period has not yet begun]

Crop	Yield per acre		Production	
	2020	2021	2020 (1,000)	2021 (1,000)
Grains and hay				
Barley bushels	77.2	60.4	170,813	117,673
Corn for grain bushels	171.4	177.0	14,111,449	15,062,002
Corn for silage tons	20.5		137,675	
Hay, all tons	2.43	2.34	126,812	120,482
Alfalfa tons	3.27	2.99	53,067	48,156
All other tons	2.05	2.04	73,745	72,326
Oats bushels	65.1	61.3	65,694	39,836
Proso millet bushels	19.0		9,210	
Rice ² cwt	7,619	7,756	227,583	193,818
Rye bushels	34.9	33.4	11,532	9,808
Sorghum for grain bushels	73.2	72.3	372,960	471,125
Sorghum for silage tons	13.1		3,125	
Wheat, all bushels	49.7	44.3	1,828,043	1,645,764
Winter bushels	50.9	50.2	1,171,397	1,277,365
Durum bushels	41.5	24.3	69,141	37,259
Other spring bushels	48.6	32.6	587,505	331,140
Oilseeds				
Canola pounds	1,931	1,119	3,453,062	2,354,080
Cottonseed tons	(X)	(X)	4,509.0	5,576.0
Flaxseed bushels	19.3		5,706	
Mustard seed pounds	895		81,770	
Peanuts pounds	3,813	4,072	6,158,350	6,242,500
Rapeseed pounds	1,971		19,910	
Safflower pounds	1,167		147,800	
Soybeans for beans bushels	51.0	51.2	4,216,302	4,424,942
Sunflower pounds	1,790	1,554	2,982,890	1,900,920
Cotton, tobacco, and sugar crops				
Cotton, all ² bales	847	885	14,607.5	18,284.0
Upland ² bales	835	877	14,061.0	17,910.0
American Pima ² bales	1,352	1,469	546.5	374.0
Sugarbeets tons	29.4	32.2	33,618	37,040
Sugarcane tons	38.1	35.9	36,100	33,458
Tobacco pounds	1,966	2,097	389,413	463,835
Dry beans, peas, and lentils				
Chickpeas ² cwt	1,625	825	4,273	3,033
Dry edible beans ² cwt	1,966	1,686	32,963	22,609
Dry edible peas ² cwt	2,234	1,322	21,733	12,150
Lentils ² cwt	1,442	763	7,411	5,090
Potatoes and miscellaneous				
Hops pounds	1,770	1,924	103,810.3	116,880.0
Maple syrup gallons	(NA)	(NA)	4,111	3,424
Mushrooms pounds	(NA)	(NA)	816,367	757,987
Peppermint oil pounds	99		4,984	
Potatoes cwt	461	438	420,020	413,162
Spearmint oil pounds	121		2,134	

(NA) Not available.

(X) Not applicable.

¹ Area planted for all purposes.

² Yield in pounds.

Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2020 and 2021

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2021 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2020	2021	2020	2021
	(hectares)	(hectares)	(hectares)	(hectares)
Grains and hay				
Barley	1,103,180	1,076,480	895,980	788,340
Corn for grain ¹	36,685,960	37,759,200	33,311,250	34,433,050
Corn for silage	(NA)		2,715,870	
Hay, all ²	(NA)	(NA)	21,140,200	20,856,510
Alfalfa	(NA)	(NA)	6,568,120	6,524,820
All other	(NA)	(NA)	14,572,080	14,331,690
Oats	1,217,710	1,031,960	408,330	263,050
Proso millet	246,460	242,810	195,870	
Rice	1,228,640	1,028,320	1,208,810	1,011,320
Rye	791,170	863,200	133,550	118,980
Sorghum for grain ¹	2,379,580	2,970,420	2,061,900	2,638,580
Sorghum for silage	(NA)		96,720	
Wheat, all ²	17,988,470	18,900,240	14,888,140	15,039,490
Winter	12,322,810	13,617,010	9,319,610	10,305,030
Durum	683,930	661,670	673,810	620,790
Other spring	4,981,730	4,621,560	4,894,730	4,113,670
Oilseeds				
Canola	738,150	870,890	723,500	851,670
Cottonseed	(X)	(X)	(X)	(X)
Flaxseed	123,430	157,830	119,790	148,120
Mustard seed	39,250	35,610	36,990	33,990
Peanuts	672,800	639,410	653,660	620,390
Rapeseed	4,530	6,270	4,090	5,870
Safflower	55,040	54,630	51,270	51,600
Soybeans for beans	33,732,530	35,303,130	33,428,610	34,979,780
Sunflower	695,700	518,000	674,250	495,020
Cotton, tobacco, and sugar crops				
Cotton, all ²	4,893,510	4,528,680	3,348,610	4,015,210
Upland	4,811,760	4,478,300	3,270,100	3,965,760
American Pima	81,750	50,380	78,510	49,450
Sugarbeets	470,330	470,050	462,280	465,600
Sugarcane	(NA)	(NA)	383,480	376,930
Tobacco	(NA)	(NA)	80,150	89,520
Dry beans, peas, and lentils				
Chickpeas	109,190	152,280	106,390	148,760
Dry edible beans	704,160	566,160	678,460	542,690
Dry edible peas	404,290	392,550	393,760	371,910
Lentils	213,680	287,730	208,010	269,930
Potatoes and miscellaneous				
Hops	(NA)	(NA)	23,730	24,580
Maple syrup	(NA)	(NA)	(NA)	(NA)
Mushrooms	(NA)	(NA)	(NA)	(NA)
Peppermint oil	(NA)		20,270	
Potatoes	371,710	384,860	368,960	381,340
Spearmint oil	(NA)		7,160	

See footnote(s) at end of table.

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Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2020 and 2021 (continued)

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2021 crop year.
Blank data cells indicate estimation period has not yet begun]

Crop	Yield per hectare		Production	
	2020	2021	2020	2021
	(metric tons)	(metric tons)	(metric tons)	(metric tons)
Grains and hay				
Barley	4.15	3.25	3,719,010	2,562,030
Corn for grain	10.76	11.11	358,447,310	382,592,470
Corn for silage	45.99		124,896,660	
Hay, all ²	5.44	5.24	115,041,910	109,299,430
Alfalfa	7.33	6.70	48,141,570	43,686,390
All other	4.59	4.58	66,900,340	65,613,040
Oats	2.34	2.20	953,550	578,220
Proso millet	1.07		208,880	
Rice	8.54	8.69	10,322,990	8,791,440
Rye	2.19	2.09	292,930	249,130
Sorghum for grain	4.59	4.54	9,473,620	11,967,130
Sorghum for silage	29.31		2,834,950	
Wheat, all ²	3.34	2.98	49,751,180	44,790,360
Winter	3.42	3.37	31,880,200	34,764,180
Durum	2.79	1.63	1,881,710	1,014,020
Other spring	3.27	2.19	15,989,270	9,012,150
Oilseeds				
Canola	2.16	1.25	1,566,280	1,067,790
Cottonseed	(X)	(X)	4,090,500	5,058,460
Flaxseed	1.21		144,940	
Mustard seed	1.00		37,090	
Peanuts	4.27	4.56	2,793,380	2,831,550
Rapeseed	2.21		9,030	
Safflower	1.31		67,040	
Soybeans for beans	3.43	3.44	114,748,940	120,427,190
Sunflower	2.01	1.74	1,353,020	862,240
Cotton, tobacco, and sugar crops				
Cotton, all ²	0.95	0.99	3,180,410	3,980,870
Upland	0.94	0.98	3,061,420	3,899,440
American Pima	1.52	1.65	118,990	81,430
Sugarbeets	65.97	72.17	30,497,740	33,602,120
Sugarcane	85.40	80.53	32,749,370	30,352,590
Tobacco	2.20	2.35	176,630	210,390
Dry beans, peas, and lentils				
Chickpeas	1.82	0.92	193,820	137,570
Dry edible beans	2.20	1.89	1,495,180	1,025,530
Dry edible peas	2.50	1.48	985,790	551,110
Lentils	1.62	0.86	336,160	230,880
Potatoes and miscellaneous				
Hops	1.98	2.16	47,090	53,020
Maple syrup	(NA)	(NA)	20,560	17,120
Mushrooms	(NA)	(NA)	370,300	343,820
Peppermint oil	0.11		2,260	
Potatoes	51.64	49.14	19,051,790	18,740,710
Spearmint oil	0.14		970	

(NA) Not available.

(X) Not applicable.

¹ Area planted for all purposes.

² Total may not add due to rounding.

Fruits and Nuts Production in Domestic Units – United States: 2021 and 2022

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2021 crop year, except citrus which is for the 2020-2021 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production		
	2021	2022	
Citrus ¹			
Grapefruit	1,000 tons	426	454
Lemons	1,000 tons	884	892
Oranges	1,000 tons	4,426	3,833
Tangerines and mandarins	1,000 tons	1,166	883
Noncitrus			
Apples, commercial	million pounds	10,525.0	
Apricots	tons	55,500	
Avocados	tons		
Blueberries, Cultivated	1,000 pounds		
Blueberries, Wild (Maine)	1,000 pounds		
Cherries, Sweet	tons	369,000	
Cherries, Tart	million pounds	142.0	
Coffee (Hawaii)	1,000 pounds		
Cranberries	barrel	7,900,000	
Dates	tons		
Grapes	tons	6,470,000	
Kiwifruit (California)	tons		
Nectarines (California)	tons		
Olives (California)	tons		
Papayas (Hawaii)	1,000 pounds		
Peaches	tons	696,500	
Pears	tons	670,000	
Plums (California)	tons		
Prunes (California)	tons		
Raspberries, all	1,000 pounds		
Strawberries	1,000 cwt		
Nuts and miscellaneous			
Almonds, shelled (California)	1,000 pounds	2,800,000	
Hazelnuts, in-shell (Oregon)	tons		
Macadamias (Hawaii)	1,000 pounds		
Pecans, in-shell	1,000 pounds	258,000	
Pistachios (California)	1,000 pounds		
Walnuts, in-shell (California)	tons	670,000	

¹ Production years are 2020-2021 and 2021-2022.

Fruits and Nuts Production in Metric Units – United States: 2021 and 2022

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2021 crop year, except citrus which is for the 2020-2021 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production	
	2021 (metric tons)	2022 (metric tons)
Citrus¹		
Grapefruit	386,460	411,860
Lemons	801,950	809,210
Oranges	4,015,200	3,477,240
Tangerines and mandarins	1,057,780	801,040
Noncitrus		
Apples, commercial	4,774,060	
Apricots	50,350	
Avocados		
Blueberries, Cultivated		
Blueberries, Wild (Maine)		
Cherries, Sweet	334,750	
Cherries, Tart	64,410	
Coffee (Hawaii)		
Cranberries	358,340	
Dates		
Grapes	5,869,490	
Kiwifruit (California)		
Nectarines (California)		
Olives (California)		
Papayas (Hawaii)		
Peaches	631,850	
Pears	607,810	
Plums (California)		
Prunes (California)		
Raspberries, all		
Strawberries		
Nuts and miscellaneous		
Almonds, shelled (California)	1,270,060	
Hazelnuts, in-shell (Oregon)		
Macadamias (Hawaii)		
Pecans, in-shell	117,030	
Pistachios (California)		
Walnuts, in-shell (California)	607,810	

¹ Production years are 2020-2021 and 2021-2022.

Cotton Objective Yield Data

The National Agricultural Statistics Service conducted objective yield surveys in four cotton-producing States during 2021. Randomly selected plots in cotton fields are visited monthly from September through harvest to obtain specific counts and measurements. Data in this table are actual field counts from this survey.

Cotton Cumulative Boll Counts – Selected States: 2017-2021

[Includes small bolls (less than one inch in diameter), large unopened bolls (at least one inch in diameter), open bolls, partially opened bolls, and burrs per 40 feet of row. November, December, and Final exclude small bolls. Blank data cells indicate estimation period has not yet begun]

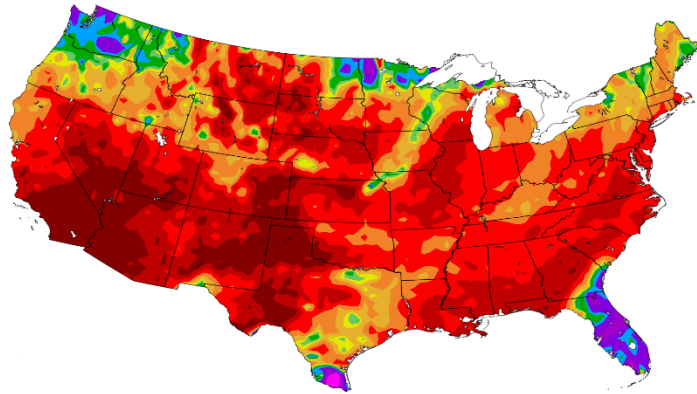
State and month	2017	2018	2019	2020	2021
	(number)	(number)	(number)	(number)	(number)
Arkansas					
September	911	891	900	994	990
October	839	910	896	849	838
November	825	892	925	820	809
December	825	892	900	820	807
Final	825	892	900	820	
Georgia					
September	593	605	598	606	597
October	608	737	783	747	658
November	680	712	790	761	669
December	684	719	799	784	694
Final	684	713	803	785	
Louisiana ¹					
September	648	759	(NA)	(NA)	(NA)
October	667	734	(NA)	(NA)	(NA)
November	665	739	(NA)	(NA)	(NA)
December	665	739	(NA)	(NA)	(NA)
Final	665	739	(NA)	(NA)	
Mississippi					
September	904	871	944	900	957
October	810	895	895	867	807
November	804	846	904	877	848
December	797	846	901	875	849
Final	797	846	901	875	
North Carolina ¹					
September	637	601	(NA)	(NA)	(NA)
October	705	641	(NA)	(NA)	(NA)
November	769	714	(NA)	(NA)	(NA)
December	769	719	(NA)	(NA)	(NA)
Final	769	719	(NA)	(NA)	
Texas					
September	592	570	458	576	491
October	602	576	438	581	512
November	603	553	456	595	538
December	615	583	459	608	539
Final	614	582	461	608	
4-State ²					
September	633	627	551	645	567
October	635	661	562	661	573
November	649	640	579	671	595
December	656	659	580	683	599
Final	656	657	593	693	

(NA) Not available.

¹ Objective yield survey discontinued in 2019.

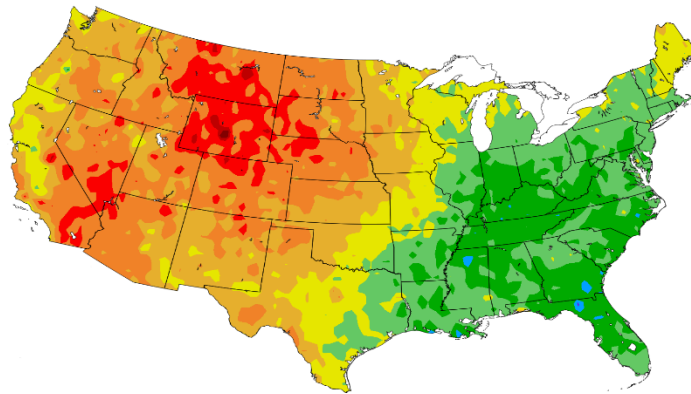
² 6-State total prior to 2019.

Percent of Normal Precipitation (%)
11/1/2021 – 11/30/2021



NOAA Regional Climate Centers

Departure from Normal Temperature (F)
11/1/2021 – 11/30/2021



NOAA Regional Climate Centers

November Weather Summary

November warmth from the Pacific Coast to the Plains promoted late-season fieldwork but reduced moisture availability for winter wheat establishment. Monthly temperatures averaged at least 5°F above normal in several locations across northern sections of the Rockies and High Plains. Above-normal temperatures also extended into the western Corn Belt, allowing corn and soybean harvest efforts to near completion west of the Mississippi River. In the eastern Corn Belt, however, lingering wetness limited fieldwork. By November 28, the corn harvest was 89 percent complete in Michigan and Ohio—the only major reporting states with more than one-tenth of the crop remaining in the field on that date.

Except in the northernmost Rockies and Pacific Northwest, general dryness accompanied the warmth. By November 28, topsoil moisture was rated at least one-third very short to short in each state across the Rockies and Plains, along with Washington and Oregon. On that date, Montana led the Nation with topsoil moisture rated 96 percent very short to short, followed by Colorado (84 percent), New Mexico (81 percent), Texas (64 percent), and Oklahoma (59 percent). Meanwhile, more than one-quarter of the winter wheat was rated in very poor to poor condition in Montana (56 percent), Oregon (48 percent), Texas (45 percent), Colorado (33 percent), and South Dakota (26 percent). Nationally, more than one-fifth (23 percent) of the winter wheat was rated in those two categories in late November for the first time since 2012, when 26 percent of the crop was rated very poor to poor.

During November, short-term dryness began to develop in parts of the Southeast, particularly in the southern Atlantic States. The dryness was a concern with respect to the establishment of winter grains and cover crops—but favored a rapid harvest pace for Southern crops such as cotton and peanuts. Forty percent of the Nation’s cotton was harvested during the 4-week period ending November 28, compared to the 5-year average of 31 percent; the national harvest was 85 percent complete on that date. By the 28th, topsoil moisture was rated more than one-half very short to short in the Carolinas, along with 46 percent in Georgia. In contrast, persistently wet weather in the Pacific Northwest culminated in mid-November flooding along several rivers in western Washington. Although some precipitation spilled east of the Cascades, drought lingered in many agricultural areas across the interior Northwest.

Elsewhere, drier-than-normal November conditions were common across the central and eastern United States. Notable exceptions included Florida’s peninsula and Deep South Texas, with both areas receiving significant rain. Parts of the north-central United States, including eastern North Dakota and northern Minnesota, also received above-normal precipitation. However, unlike the western half of the country, cooler-than-normal conditions were common from the middle and lower Mississippi Valley to the middle and southern Atlantic States.

During the 4-week period ending November 30, drought coverage in the contiguous United States increased from 47.8 to 53.4 percent, according to the *Drought Monitor*. By November 23, national drought coverage crept above the 50 percent mark for the first time since September 10, 2013. Indeed, national drought coverage has been significantly elevated for more than a year—and was last below 40 percent in September 2020.

November Agricultural Summary

Most of the western half of the Nation recorded warmer than normal temperatures during the month of November. Parts of the Great Plains, Rockies, and Southwest recorded temperature 6°F or more above normal for the month. In contrast, most of the eastern half of the Nation was cooler than normal. Locations in the Delta and Southeast recorded temperatures 4°F or more below normal. While most of the Nation remained drier than normal for the month of November, twice the normal amount of precipitation was recorded in much of Florida, Coastal Georgia, the Upper Midwest, South Texas, and Washington. Parts of Coastal Washington recorded 30 inches or more of precipitation during the month.

Seventy-four percent of the 2021 corn acreage was harvested by October 31, seven percentage points behind last year but 8 percentage points ahead of the 5-year average harvest pace. Ninety-one percent of the 2021 corn acreage was harvested by November 14, three percentage points behind last year but 5 percentage points ahead of the 5-year average. Ninety-five percent of the 2021 corn acreage was harvested by November 21, two percentage points behind last year but 3 percentage points ahead of the 5-year average.

Soybean harvest across the Nation was 79 percent complete by October 31, seven percentage points behind last year and 2 percentage points behind the 5-year average. Soybean harvest across the Nation was 92 percent complete by November 14, three percentage points behind last year and 1 percentage point behind the 5-year average. Soybean harvest across the Nation was 95 percent complete by November 21, three percentage points behind last year and 1 percentage point behind the 5-year average.

Nationwide, producers had sown 87 percent of the intended 2022 winter wheat acreage by October 31, one percentage point behind last year but 1 percentage point ahead of the 5-year average. Nationwide, 67 percent of the winter wheat acreage had emerged by October 31, three percentage points behind last year and 1 percentage point behind the 5-year average. Nationwide, producers had sown 94 percent of the intended 2022 winter wheat acreage by November 14, two percentage points behind last year but equal to the 5-year average. Nationwide, 81 percent of the winter wheat acreage had emerged by November 14, three percentage points behind last year and 2 percentage points behind the 5-year average. Nationwide, 92 percent of the winter wheat acreage had emerged by November 28, equal to last year but 1 percentage point ahead of the 5-year average. As of November 28, forty-four percent of the 2022 winter wheat acreage was reported in good to excellent condition, 2 percentage points below the same time last year.

By October 31, ninety-four percent of the Nation's cotton had open bolls, 4 percentage points behind last year and 1 percentage point behind the 5-year average. By October 31, forty-five percent of the Nation's cotton acreage had been harvested, 6 percentage points behind last year and 3 percentage points behind the 5-year average. On October 31, sixty-two percent of the 2021 cotton acreage was rated in good to excellent condition, 25 percentage points above the same time last year. By November 14, sixty-five percent of the Nation's cotton acreage had been harvested, 3 percentage points behind last year but 1 percentage point ahead of the 5-year average. By November 28, eighty-five percent of the Nation's cotton acreage had been harvested, 2 percentage points ahead of last year and 6 percentage points ahead of the 5-year average.

Eighty percent of the 2021 sorghum acreage had been harvested by October 31, one percentage point behind last year but 10 percentage points ahead of the 5-year average. Eighty-nine percent of the 2021 sorghum acreage had been harvested by November 14, four percentage points behind last year but 2 percentage points ahead of the 5-year average. Ninety-seven percent of the 2021 sorghum acreage had been harvested by November 28, two percentage points behind last year but 1 percentage point ahead of the 5-year average.

Sixty-seven percent of the Nation's peanut acreage was harvested as of October 31, two percentage points ahead of last year but 7 percentage points behind the 5-year average. Eighty-six percent of the Nation's peanut acreage was harvested as of November 14, two percentage points ahead of last year but 3 percentage points behind the 5-year average. Ninety-six percent of the Nation's peanut acreage was harvested as of November 28, equal to both last year and the 5-year average.

By October 31, sugarbeet producers had harvested 87 percent of the Nation's crop, 7 percentage points behind last year but 3 percentage points ahead of the 5-year average. By November 7, sugarbeet producers had harvested 96 percent of the Nation's crop, 2 percentage points behind last year but 4 percentage points ahead of the 5-year average. Harvest progress was ahead of the 5-year average pace in all estimating States.

By October 31, fifty-three percent of this year's sunflower crop was harvested, 6 percentage points behind last year but 3 percentage points ahead of the 5-year average. By November 14, eighty-three percent of this year's sunflower crop was harvested, 4 percentage points behind last year but 9 percentage points ahead of the 5-year average. By November 28, ninety-four percent of this year's sunflower crop was harvested, 2 percentage points behind last year but 8 percentage points ahead of the 5-year average. Harvest progress was ahead of the 5-year average pace in all estimating States.

Crop Comments

Cotton: Upland harvested area for the Nation is expected to total 9.80 million acres, unchanged from the previous forecast but up 21 percent from last year. Expected Pima harvested area, at 122,200 acres, is unchanged from the previous forecast but down 37 percent from last year.

Harvest progressed well throughout the cotton producing region during November. As of November 29, eighty-five percent of the cotton acreage was harvested, 2 percentage points ahead of last year and 6 percentage points ahead of the 5-year average. At that time, harvest progress was near the five-year average in most of the estimating States except Texas, California, and Kansas which were at least 10 percentage points ahead of the five-year average. Georgia remained 7 percentage points behind the five-year average. If realized, the forecasted yield for all cotton in Arkansas, California, South Carolina, and Virginia will be a record high.

Ginnings totaled 9,820,350 running bales prior to December 1, compared with 9,575,300 running bales ginned prior to the same date last year.

Grapefruit: The United States 2021-2022 grapefruit crop is forecast at 454,000 tons, up 3 percent from the previous forecast and up 7 percent from last season's final utilization. The Florida forecast, at 4.10 million boxes (174,000 tons), is up 8 percent from previous forecast but unchanged from the last season. 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 883,000 tons, unchanged from the previous forecast but down 24 percent from the last season's final utilization. The Florida tangerine and mandarin forecast, at 900,000 boxes (43,000 tons), is unchanged from the previous forecast but up 1 percent from last year. The California tangerine and mandarin forecast was carried forward from the previous forecast.

Sugarcane: Production of sugarcane for sugar and seed is forecast at 33.5 million tons, down 2 percent from last month and down 7 percent from 2020. Producers intend to harvest 931,400 acres for sugar and seed during the 2021 crop year, down slightly from last month, and down 2 percent from 2020. Yields for sugar and seed are expected to average 35.9 tons per acre, down 0.7 ton from last month and down 2.2 tons from 2020.

Statistical Methodology

Cotton survey procedures: Objective yield surveys were conducted between November 24 and December 1 to gather information on expected yields as of December 1. The objective yield survey for cotton was conducted in producing States that usually account for approximately 75 percent of the United States production. At crop maturity, the fruit is harvested and weighed. After the farm operator has harvested the sample field, another plot is sampled to obtain current year harvesting loss.

Orange survey procedures: In August and September, the number of bearing trees and the number of fruit per tree is determined. In August and subsequent months, fruit size measurement and fruit droppage surveys are conducted, which combined with the previous components are used to develop the current forecast of production. California and Texas conduct grower on a quarterly basis for the forecast, in October, January, April, and July. California conducts an objective measurement survey in September for Navel oranges and in March for Valencia oranges.

Cotton estimating procedures: National and State level objective yield estimates for cotton were reviewed for errors, reasonableness, and consistency with historical estimates. For cotton, reports from cotton ginner in each State were also considered. Each cotton Regional Field Office submits its analysis of the current situation to the Agricultural Statistics Board (ASB). The ASB uses the survey data and the State analyses to prepare the published December 1 forecast.

Orange 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 objective yield survey data and their analyses to prepare the published December 1 forecast. The December 1 orange production forecasts for California and Texas were carried forward from October.

Revision policy: The December 1 production forecasts will not be revised. For cotton, a new estimate will be made in January followed by end-of-season revisions in May. Administrative records are reviewed and revisions are made, if data relationships warrant changes. Harvested acres may be revised any time a production forecast is made, if there is strong evidence that the intended harvested area has changed since the last estimate.

For oranges, the December 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 December 1 production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the December 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. For example, the "Root Mean Square Error" for the December 1 cotton production forecast is 3.1 percent. This means that chances are 2 out of 3 that the current cotton production forecast will not be above or below the final estimate by more than 3.1 percent. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 5.4 percent.

Also, shown in the following table is a 20-year record for selected crops of the differences between the December 1 forecast and the final estimate. Using cotton again as an example, changes between the December 1 forecast and the final estimate during the last 20 years have averaged 350,000 bales, ranging from 40,000 bales to 1,334,000 bales. The December 1 forecast for cotton has been below the final estimate 8 times and above 12 times. This does not imply that the December 1 cotton forecast this year is likely to understate or overstate final production.

Reliability of December 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 ¹tons	6.3	10.9	357	21	1,012	4	16
Sugarcanetons	3.9	6.7	1	(Z)	2	6	14
Upland cotton ¹bales	3.1	5.4	350	40	1,334	8	12

(Z) Less than half of the unit shown.

¹ Quantity is in thousands of units.

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

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David Colwell – Current Agricultural Industrial Reports.....	(202) 720-8800
Michelle Harder – Barley, County Estimates, Hay.....	(202) 690-8533
James Johanson – Rye, Wheat	(202) 720-8068
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Becky Sommer – Cotton, Cotton Ginnings, Sorghum.....	(202) 720-5944
Travis Thorson – Sunflower, Other Oilseeds.....	(202) 720-7369
Lihan Wei – Peanuts, Rice.....	(202) 720-7688
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Fleming Gibson – Blueberries, Cranberries, Cucumbers, Pistachios, Potatoes, Pumpkins, Raspberries, Squash, Strawberries, Sugarbeets, Sugarcane, Sweet Potatoes	(202) 720-2127
Robert Little – Apricots, Dry Beans, Lettuce, Macadamia, Maple Syrup, Nectarines, Pears, Snap Beans, Spinach, Tomatoes	(202) 720-3250
Deonne Holiday – Almonds, Apples, Asparagus, Carrots, Coffee, Onions, Plums, Prunes, Sweet Corn, Tobacco.....	(202) 720-4288
Krishna Rizal – Artichokes, Cauliflower, Celery, Grapefruit, Garlic, Hazelnuts, Kiwifruit, Lemons, Mandarins and tangerines, Mint, Mushrooms, Olives, Oranges.....	(202) 720-5412
Antonio Torres – Cantaloupes, Dry Edible Peas, Green Peas, Honeydews, Lentils, Papayas, Peaches, Sweet Cherries, Tart Cherries, Walnuts, Watermelons	(202) 720-2157
Chris Wallace – Avocados, Bell Peppers, Broccoli, Cabbage, Chickpeas, Chile Peppers, Dates, Floriculture, Grapes, Hops, Pecans	(202) 720-4215

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