

Crop Production

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Orange Production Down 2 Percent from December Forecast

The United States all orange forecast for the 2020-2021 season is 4.53 million tons, down 2 percent from the previous forecast and down 13 percent from the 2019-2020 final utilization. The Florida all orange forecast, at 54.0 million boxes (2.43 million tons), is down 4 percent from the previous forecast and down 20 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 20.0 million boxes (900,000 tons), down 9 percent from the previous forecast and down 33 percent from last season's final utilization. The Florida Valencia orange forecast, at 34.0 million boxes (1.53 million tons), is unchanged from the previous forecast but down 10 percent from last season's final utilization.

The California all orange forecast is 51.0 million boxes (2.04 million tons), up 1 percent from the previous forecast but down 4 percent from last season's final utilization. The California Navel orange forecast is 42.0 million boxes (1.68 million tons), is unchanged from the previous forecast but down 5 percent from last season's final utilization. The California Valencia orange forecast is 9.0 million boxes (360,000 tons), is up 6 percent from the previous forecast but unchanged from last season's final utilization. The Texas all orange forecast, at 1.50 million boxes (64,000 tons), is unchanged from the previous forecast but up 12 percent from last season's final utilization.

This report was approved on January 12, 2021.

Secretary of Agriculture

Sonny Perdue

Agricultural Statistics Board

Chairperson

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Utilized Production of Citrus Fruits by Crop – States and United States: 2019-2020 and Forecasted January 1, 2021

[The crop year begins with the bloom of the first year shown and ends with the completion of harvest the following year]

Cross and State	Utilized product	ion boxes 1	Utilized production	ton equivalent
Crop and State	2019-2020	2020-2021	2019-2020	2020-2021
	(1,000 boxes)	(1,000 boxes)	(1,000 tons)	(1,000 tons)
Oranges				
California, all	53,300	51,000	2,132	2,040
Early, mid, and Navel ²	44,300	42,000	1,772	1,680
Valencia	9,000	9,000	360	360
Florida, all	67,300	54,000	3,028	2,430
Early, mid, and Navel ²	29,650	20,000	1,334	900
Valencia	37,650	34,000	1,694	1,530
Texas, all	1,340	1,500	57	64
Early, mid, and Navel ²	1,150	1,300	49	55
Valencia	190	200	8	9
valoriola	100	200		Ŭ
United States, all	121,940	106,500	5,217	4,534
Early, mid, and Navel ²	75,100	63,300	3,155	2,635
Valencia	46,840	43,200	2,062	1,899
Grapefruit				
California	3,800	4,200	152	168
Florida, all	4,850	4,600	207	196
Red ³	4,060	(NA)	173	(NA)
White ³	790	(NA)	34	(NA)
Texas	4,400	5,000	176	200
United States	13,050	13,800	535	564
Tangerines and mandarins ⁴				
California	22,000	23,000	880	920
Florida	1,020	1,100	48	52
	.,020	.,		0 2
United States	23,020	24,100	928	972
Lemons				
Arizona	1,800	1,900	72	76
California	25,700	24,000	1,028	960
United States	27.500	25.900	1.100	1.036
United States	27,500	25,900	1,100	1,

(NA) Not available.

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

³ Estimates discontinued in 2020-2021.

⁴ Includes tangelos and tangors.

Hay Stocks on Farms - States and United States: May 1 and December 1, 2019 and 2020

State	May 1		December	1
State	2019	2020	2019	2020
	(1,000 tons)	(1,000 tons)	(1,000 tons)	(1,000 tons)
Alabama	200	120	1,100	1,800
Arizona	35	45	280	300
Arkansas	190	340	2,000	1,800
California	270	420	1,350	1,640
Colorado	300	410	2,000	1,700
Connecticut	6	8	43	30
elaware	2	2	16	10
lorida	80	80	540	520
eorgia	265	170	1,110	1,210
daho	400	490	2,400	2,500
linois	175	220	750	1,000
ndiana	130	140	730	800
owa	345	510	2,180	2,43
ansas	630	1,420	5,300	5,00
entucky	500	625	3,000	3,82
ouisiana	55	120	660	66
Maine	22	30	115	150
	78	60	315	290
laryland				
lassachusetts	12	8	55	6
lichigan	180	220	930	900
linnesota	280	360	1,690	2,24
lississippi	100	130	960	1,050
lissouri	480	1,410	6,900	6,000
lontana	1,100	1,040	5,100	4,80
lebraska	1,070	1,380	4,200	4,200
levada	65	80	935	40
lew Hampshire	6	7	30	30
lew Jersey	16	29	70	90
lew Mexico	105	50	330	21
lew York	260	350	1,600	1,000
North Carolina	235	180	1,300	1,12
lorth Dakota	1,000	1,290	4,200	3,70
Ohio	180	220	1,250	1,30
Oklahoma	740	1,350	4,200	4,10
Oregon	170	400	1,900	1,600
ennsylvania	290	350	1,650	1,41
hode Island	1	1	4	-
outh Carolina	95	75	360	40
outh Dakota	1,200	2,350	6,250	5,80
ennessee	485	425	2,900	2,93
exas	1,550	1,950	5,600	6,40
tah	280	300	1,300	1,25
ermont	48	36	165	14
irginia	270	310	1,800	2,05
/ashington	290	160	1,050	1,10
Vest Virginia	75	95	660	77
/isconsin	330	310	1,770	1,79
Vyoming	310	350	1,440	1,50
Jnited States	14,906	20,426	84,488	84,020

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]

Cron	Area p	lanted	Area harvested		
Crop	2020	2021	2020	2021	
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)	
Grains and hay					
Barley	2,621		2,133		
Corn for grain ¹	90,819		82,467		
Corn for silage	(NA)		6,719		
lay, all	(NA)		52,238		
Alfalfa	(NA)		16,230		
All other	(NA)		36,008		
Pats	2,984		1,004		
Proso millet	609		484		
	3,036		2,987		
ice					
ye	1,955		330		
orghum for grain ¹	5,880		5,095		
orghum for silage	(NA)		239		
/heat, all	44,349		36,746		
Winter	30,415	31,991	23,024		
Durum	1,684		1,662		
Other spring	12,250		12,060		
ilseeds					
anola	1,825.0		1,789.0		
ottonseed	(X)		(X)		
laxseed	305		296		
lustard seed	97.0		91.4		
eanuts	1,664.2		1,615.8		
apeseed	11.2		10.1		
·	136.0		126.7		
Safflower	83,084		82,318		
unflower	1,718.7		1,665.7		
tattan tahanan and ayunan anana					
Cotton, tobacco, and sugar crops	40,000 5		0.704.5		
Cotton, all	12,092.5		8,701.5		
Upland	11,890.0		8,507.0		
American Pima	202.5		194.5		
ugarbeets	1,162.2		1,142.3		
Sugarcane	(NA)		940.5		
obacco	(NA)		198.1		
ry beans, peas, and lentils					
Chickpeas	269.8		262.9		
Ory edible beans	1,740.0		1,676.5		
Dry edible peas	1,002.0		976.0		
entils	528.0		514.0		
otatoes and miscellaneous					
lops	(NA)		58.6		
. '	` '				
laple syrup	(NA)		(NA)		
Mushrooms	(NA)		(NA)		
Peppermint oil	(NA)		50.1		
Potatoes	921.0		914.1		
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	
Стор	2020	2021	2020	2021
			(1,000)	(1,000)
Grains and hay				
Barleybushels	77.5		165,324	
Corn for grain bushels	172.0		14,182,479	
Corn for silagetons	20.5		137,729	
Hay, alltons	2.43		126,812	
Alfalfatons	3.27		53,067	
All othertons	2.05		73,745	
Datsbushels	65.1		65,355	
Proso millet	19.0		9,210	
	7,619		,	
Rice ² cwt	,		227,583	
Ryebushels	34.9		11,532	
Sorghum for grainbushels	73.2		372,960	
Sorghum for silagetons	13.1		3,125	
Vheat, allbushels	49.7		1,825,820	
Winterbushels	50.9		1,171,022	
Durumbushels	41.4		68,808	
Other springbushels	48.6		585,990	
Dilseeds				
Canolapounds	1,931		3,454,950	
Cottonseedtons	(X)		4,587.0	
laxseed bushels	19.3		5,706	
Mustard seedpounds	895		81,770	
Peanutspounds	3,796		6,133,900	
Rapeseedpounds	1,971		19,910	
Safflowerpounds	1.167		147,800	
Soybeans for beansbushels	50.2		4,135,477	
Sunflowerpounds	1,790		2,982,410	
Cotton, tobacco, and sugar crops				
Cotton, all ² bales	825		14.953.0	
Upland ² bales	813		14,401.0	
American Pima ² bales	1,362		552.0	
Sugarbeetstons	29.4		33,618	
Sugarcanetons	37.7		35,457	
Tobaccopounds	1,966		389,413	
Ory beans, peas, and lentils				
Chickpeas ² cwt	1,625		4,273	
Ory edible beans ² cwt	1,966		32,963	
Ory edible peas ²	2,235		21,813	
entils ²	1,442		7,411	
Potatoes and miscellaneous				
Hopspounds	1.770		103.810.3	
Maple syrupgallons	(NA)		4,372	
Mushroomspounds	(NA)		816,367	
·	99		4,984	
Peppermint oilpounds			,	
Potatoes	453		414,248	
Spearmint oilpounds	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]

Cron	Area plar	nted	Area harvested		
Crop	2020	2021	2020	2021	
	(hectares)	(hectares)	(hectares)	(hectares)	
Grains and hay					
Barley	1,060,690		863,200		
Corn for grain ¹	36,753,540		33,373,570		
Corn for silage	(NA)		2,719,110		
tay, all ²	(NA)		21,140,200		
Alfalfa	(NA)		6,568,120		
All other	(NA)		14,572,080		
Dats	1,207,590		406,310		
Proso millet	246,460		195,870		
Rice	1,228,640		1,208,810		
Rye	791,170				
			133,550		
Sorghum for grain 1	2,379,580		2,061,900		
Sorghum for silage	(NA)		96,720		
Vheat, all ²	17,947,600	40.040.446	14,870,740		
Winter	12,308,650	12,946,440	9,317,580		
Durum	681,500		672,590		
Other spring	4,957,450		4,880,560		
Dilseeds					
Canola	738,560		723,990		
Cottonseed	(X)		(X)		
Flaxseed	123,430		119,790		
Mustard seed	39,250		36,990		
Peanuts	673,490		653,900		
Rapeseed	4,530		4,090		
Safflower	55,040		51,270		
Soybeans for beans	33,623,260		33,313,270		
Sunflower	695,540		674,090		
Cotton, tobacco, and sugar crops					
Cotton, all ²	4,893,710		3.521.410		
Upland	4,811,760		3,442,700		
American Pima	81,950		78,710		
	470,330		462,280		
Sugarcano	,		· ·		
Sugarcane Tobacco	(NA) (NA)		380,610 80,150		
	, ,		,		
Ory beans, peas, and lentils	100.153		400.000		
Chickpeas	109,190		106,390		
Ory edible beans	704,160		678,460		
Ory edible peas	404,290		393,760		
entils	213,680		208,010		
Potatoes and miscellaneous					
lops	(NA)		23,730		
Maple syrup	(NA)		(NA)		
Mushrooms	(NA)		(NA)		
Peppermint oil	(NA)		20,270		
Potatoes	372,720		369,930		
Spearmint oil	(NA)		7,160		

See footnote(s) at end of table. --continued

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		
Crop	2020	2021	2020	2021	
	(metric tons)	(metric tons)	(metric tons)	(metric tons)	
Grains and hay					
Barley	4.17		3,599,510		
Corn for grain	10.79		360,251,560		
9	45.95		124,945,650		
Corn for silage			, ,		
Hay, all ²	5.44		115,041,910		
Alfalfa	7.33		48,141,570		
All other	4.59		66,900,340		
Dats	2.33		948,630		
Proso millet	1.07		208,880		
Rice	8.54		10,322,990		
Rye	2.19		292,930		
Sorghum for grain	4.59		9,473,620		
Sorghum for silage	29.31		2,834,950		
Wheat, all ²	3.34		49,690,680		
Winter	3.42		31,870,000		
Durum	2.78		1,872,650		
Other spring	3.27		15,948,030		
Dilseeds					
Canola	2.16		1,567,140		
Cottonseed	(X)		4,161,260		
Flaxseed	1.21		144,940		
Mustard seed	1.00		37,090		
Peanuts	4.25		2.782.290		
Rapeseed	2.21		9,030		
Safflower	1.31		67,040		
Soybeans for beans	3.38		112,549,240		
Sunflower	2.01		1,352,800		
Cotton, tobacco, and sugar crops					
Cotton, all ²	0.92		3,255,630		
·	0.92				
Upland			3,135,450		
American Pima	1.53		120,180		
Sugarbeets	65.97		30,497,740		
Sugarcane	84.51		32,166,050		
Tobacco	2.20		176,630		
Ory beans, peas, and lentils					
Chickpeas	1.82		193,820		
Ory edible beans	2.20		1,495,180		
Dry edible peas	2.50		985,790		
entils	1.62		336,160		
Potatoes and miscellaneous					
Hops	1.98		47,090		
. ' .			21,860		
Maple syrup	(NA)				
Mushrooms	(NA)		370,300		
Peppermint oil	0.11		2,260		
Potatoes	50.79		18,789,970		
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: 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, except citrus which is for the 2020-2021 season. Blank data cells indicate estimation period has not yet begun]

Cron	Production			
Сгор	2020	2021		
Citrus ¹				
Grapefruit1,000 tons	535	564		
Lemons	1,100	1,036		
Oranges	5,217	4,534		
Tangerines and mandarins	928	972		
Noncitrus				
Apples, commercialmillion pounds	10,650.0			
Apricots tons	34,800			
Avocadostons				
Blueberries, Cultivated				
Blueberries, Wild (Maine)1,000 pounds				
Cherries, Sweettons	334,000			
Cherries, Tartmillion pounds	197.0			
Coffee (Hawaii)1,000 pounds				
Cranberriesbarrel	8,970,000			
Datestons				
Grapestons	7,180,000			
Kiwifruit (California)tons				
Nectarines (California)tons				
Olives (California)tons				
Papayas (Hawaii)1,000 pounds				
Peachestons	645,500			
Pearstons	800,000			
Plums (California)tons				
Prunes (California)tons				
Raspberries, all1,000 pounds				
Strawberries				
Nuts and miscellaneous				
Almonds, shelled (California)1,000 pounds	3,000,000			
Hazelnuts, in-shell (Oregon)tons	71,000			
Macadamias (Hawaii)1,000 pounds				
Pecans, in-shell1,000 pounds	306,500			
Pistachios (California)1,000 pounds				
Walnuts, in-shell (California)tons	780,000			

¹ Production years are 2019-2020 and 2020-2021.

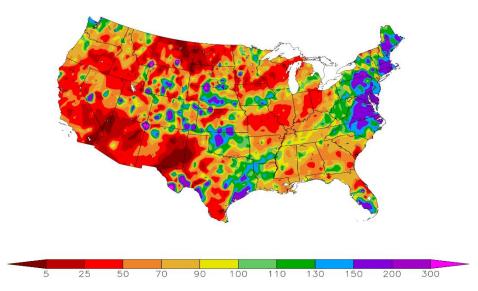
Fruits and Nuts Production in Metric Units - United States: 2020 and 2021

[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, except citrus which is for the 2020-2021 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production			
Crop	2020	2021		
	(metric tons)	(metric tons)		
Citrus ¹ Grapefruit Lemons Oranges Tangerines and mandarins	485,340 997,900 4,732,780 841,870	511,650 939,840 4,113,180 881,780		
Noncitrus Apples, commercial Apricots Avocados Blueberries, Cultivated Blueberries, Wild (Maine)	4,830,760 31,570 303,000			
Cherries, Sweet Cherries, Tart Coffee (Hawaii) Cranberries	89,360 406,870			
Dates Grapes Kiwifruit (California)	6,513,590			
Nectarines (California) Olives (California) Papayas (Hawaii) Peaches Pears	585,590 725,750			
Plums (California) Prunes (California) Raspberries, all Strawberries	. 25,. 66			
Nuts and miscellaneous Almonds, shelled (California)	1,360,780			
Hazelnuts, in-shell (Oregon) Macadamias (Hawaii) Pecans, in-shell	64,410 139,030			
Pistachios (California) Walnuts, in-shell (California)	707,600			

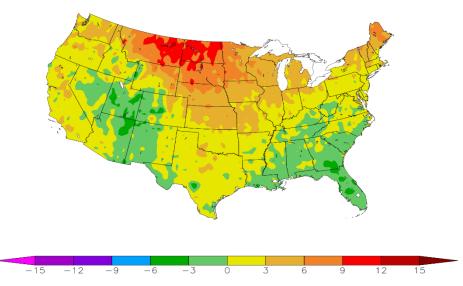
¹ Production years are 2019-2020 and 2020-2021.

Percent of Normal Precipitation (%) 12/1/2020 - 12/31/2020



NOAA Regional Climate Centers

Departure from Normal Temperature (F) 12/1/2020 - 12/31/2020



NOAA Regional Climate Centers

December Weather Summary

Mild weather and occasional storms benefited winter wheat across the Nation's mid-section, with crop conditions improving across the Great Plains between late November and the end of the year. Wheat rated in very poor to poor condition at the end of December stood at 5 percent in Montana, 8 percent in South Dakota, 15 percent in Nebraska, 17 percent in Kansas, and 34 percent in Colorado, compared to respective November 29 values of 10, 11, 26, 22, and 38 percent. Despite the mostly favorable December weather, significant soil moisture shortages persisted across parts of the Plains. By December 31, topsoil moisture was rated at least one-half very short to short in several states, including Colorado (77 percent), North Dakota (71 percent), Montana (61 percent), South Dakota (59 percent) and Nebraska (56 percent).

Meanwhile, significant drought persisted from Oregon and California to the central and southern Rockies. By December 29, drought covered 78.6 percent of the 11-state Western region and 49.0 percent of the contiguous United States, according to the *Drought Monitor*. A week earlier, National drought coverage had reached a 7-year high, peaking at 49.6 percent. By month's end, the average water equivalency of the high-elevation Sierra Nevada snowpack stood at just over 5 inches, barely one-half of late-December normal and about one-fifth of the typical spring maximum. Spring and summer water-supply concerns continued to mount in areas already experiencing below-average reservoir storage; that list included California, Colorado, Nevada, New Mexico, and Oregon. In contrast, a La Niña-driven storm track primarily affected the Pacific Northwest, delivering heavy precipitation across western Washington.

Although heavy snow bypassed much of the West, occasional December accumulations occurred from the Plains into the Midwest and Northeast. At mid-month, one of the most significant winter storms in several years deposited 1 to 3 feet of snow in parts of the Northeast. On December 3, a holiday storm produced blizzard conditions in the upper Midwest and sparked a rain-to-snow event (on December 24-25) from the Appalachians into the lower Great Lakes region. A sharp, but short-lived, cold outbreak trailed the wintry weather into the Midwest and East. By December 26, freezes occurred as far south as northern Florida, remaining north of the State's citrus, sugarcane, strawberries, and winter vegetables. Other cool spells in Florida peaked on December 1-2, 8-9, and 17-18.

However, significant early-winter cold outbreaks were scarce, as December temperatures averaged more than 10°F above normal in parts of North Dakota and eastern Montana. In fact, near- or above-normal temperatures covered the country, except for cooler-than-normal conditions in the southern Atlantic States and parts of the Southwest. Despite a cool December, the warmest year on record wrapped up in numerous Southeastern locations, mainly across Florida, but extending as far north as the mid-Atlantic. In addition, several communities in Virginia, including Lynchburg and Roanoke, as well as some places in neighboring States, completed a record-wet year. Southeastern wetness hampered late-season harvest efforts for crops such as cotton and soybeans.

December Agricultural Summary

Most of the Nation's midsection was warmer than average during the month of December. Large parts of the Northern Plains recorded temperatures 6°F or more above normal. In the western third of the Nation temperatures were moderately cooler than normal for large parts of the Southwest, while moderately warmer temperatures were recorded in California and the Pacific Northwest. Large parts of the Northern Rockies were 6°F or more above normal for the month. In the eastern third of the Nation, generally cooler than normal temperatures were recorded in the lower Mississippi Valley and the Southeast. Parts of Georgia and Florida were 3°F or more below normal. In contrast, the Northeast was generally warmer than normal with large parts of New England recording temperatures 3°F or more above normal for the month. While much of the Nation remained drier than normal for the month of December, above normal amounts of precipitation were recorded in large parts of the mid-Atlantic and the Northeast. Pockets in the Delta, Florida, Nevada, the Southern and Central Plains, the Pacific Northwest, the Rockies, and Texas, also received higher than normal precipitation amounts.

Nationwide, 92 percent of the winter wheat acreage was emerged by November 29, three percentage points ahead of last year and 1 percentage point ahead of the 5-year average. As of November 29, forty-six percent of the 2021 winter wheat acreage was reported in good to excellent condition, 6 percentage points below the same time last year.

By November 29, eighty-four percent of the Nation's cotton acreage was harvested, 2 percentage points ahead of last year and 5 percentage points ahead of the 5-year average.

Ninety-six percent of the Nation's peanut acreage was harvested as of November 29, two percentage points behind last year but equal to the 5-year average.

By November 29, ninety-seven percent of the Nation's sunflower crop was harvested, 35 percentage points ahead of last year and 10 percentage points ahead of the 5-year average.

Crop Comments

Grapefruit: The United States 2020-2021 grapefruit crop is forecast at 564,000 tons, up 5 percent from both the previous forecast and last season's final utilization. In Texas, expected production, at 5.0 million boxes (200,000 tons), is up 2 percent from previous forecast and up 14 percent from the 2019-2020 season.

Lemons: The 2020-2021 United States lemon crop is forecast at 1.04 million tons, up 11 percent from previous forecast but down 6 percent from last season's final utilization. The California forecast, at 24.0 million boxes (960,000 tons), is up 9 percent from the previous forecast but down 7 percent from the 2019-2020 season.

Tangerines and mandarins: The United States tangerine and mandarin crop is forecast at 972,000 tons, unchanged from the previous forecast but up 5 percent from last season's final utilization. The Florida tangerine and mandarin forecast, at 1.10 million boxes (52,000 tons) is unchanged from the previous forecast but up 8 percent from last season. The California tangerine and mandarin forecast at 23.0 million boxes (920,000 tons) is unchanged from the previous forecast but up 5 percent from 2019-2020 season.

Hay stocks on farms: All hay stored on United States farms as of December 1, 2020 totaled 84.0 million tons, down 1 percent from December 1, 2019, which is the third lowest December 1 stocks since 1977. Disappearance from May 1, 2020 - December 1, 2020 totaled 63.2 million tons, up 7 percent from the same period in 2019.

Record low December 1 hay stock levels were estimated in Connecticut, New York, Pennsylvania, and Rhode Island. During Autumn, dryness encroached upon New England resulting in a shorter grazing season. As a result, livestock producers began to feed hay stocks a bit earlier than expected.

Statistical Methodology

Survey procedures: The orange objective yield survey for the January 1 forecast was conducted in Florida. 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 in October, January, April, and July. California conducts an objective measurement survey in September for Navel oranges and in March for Valencia oranges.

Estimating procedures: State level objective yield estimates for Florida oranges were reviewed for errors, reasonableness, and consistency with historical estimates. Reports from growers 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 January 1 forecast.

Revision policy: The January 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 January 1 production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the January 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 January 1 orange production forecast is 5.2 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 5.2 percent. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 8.9 percent.

Changes between the January 1 orange forecast and the final estimates during the past 20 years have averaged 298,000 tons, ranging from 2,000 tons to 843,000 tons. The January 1 forecast for oranges has been below the final estimate 6 times and above 14 times. The difference does not imply that the January 1 forecast this year is likely to understate or overstate final production.

Reliability of January 1 Crop Production Forecasts

[Based on data for the past twenty years]

Сгор	90 percent		Difference between forecast and final estimate				
	Root mean square error	confidence	Production		Years		
	square error	interval	Average	Smallest	Largest	Below final	Above final
	(percent)	(percent)	(millions)	(millions)	(millions)	(number)	(number)
Oranges ¹ tons	5.2	8.9	298	2	843	6	14

¹ Quantity is in thousands of units.

USDA, National Agricultural Statistics Service Information Contacts

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Joshua Bates – Oats, Soybeans	
David Colwell – Current Agricultural Industrial Reports	
Becky Sommer – Cotton, Cotton Ginnings, Sorghum	
James Johanson – Barley, County Estimates, Hay	
Greg Lemmons – Corn, Flaxseed, Proso Millet	
Jean Porter – Rye, Wheat	
John Stephens – Peanuts, Rice	
Travis Thorson – Sunflower, Other Oilseeds	
Travis Thorson Sumfower, Other Onseeds	(202) 120-1307
Fleming Gibson, Head, Fruits, Vegetables and Special Crops Section	(202) 720-2127
Heidi Lanouette – Blueberries, Cranberries, Cucumbers, Pistachios, Potatoes, Pumpkins,	
Raspberries, Squash, Strawberries, Sugarbeets, Sugarcane, Sweet Potatoes	(202) 720-4285
Robert Little – Apricots, Dry Beans, Lettuce, Macadamia, Maple Syrup,	,
Nectarines, Pears, Snap Beans, Spinach, Tomatoes	(202) 720-3250
Anastasiya Osborne – 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
Fleming Gibson – Avocados, Bell Peppers, Broccoli, Cabbage, Chickpeas,	
Chile Peppers, Dates, Floriculture, Grapes, Hops, Pecans	(202) 720-2127
Fleming Gibson – Cantaloupes, Dry Edible Peas, Green Peas, Honeydews, Lentils,	(===)
Papayas, Peaches, Sweet Cherries, Tart Cherries, Walnuts, Watermelons	(202) 720-2127
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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.

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