Crop Production

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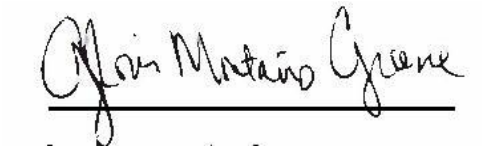
Winter Wheat Production Up 1 Percent from May Forecast
Orange Production Up 1 Percent

Winter wheat production is forecast at 1.18 billion bushels, up 1 percent from the May 1 forecast but down 7 percent from 2021. As of June 1, the United States yield is forecast at 48.2 bushels per acre, up 0.3 bushel from last month but down 2.0 bushels from last year's average yield of 50.2 bushels per acre.

Hard Red Winter production, at 582 million bushels, is down 1 percent from last month. Soft Red Winter, at 358 million bushels, is up 1 percent from the May forecast. White Winter, at 242 million bushels, is up 5 percent from last month. Of the White Winter production, 15.6 million bushels are Hard White and 226 million bushels are Soft White.

The United States all orange forecast for the 2021-2022 season is 3.90 million tons, up 1 percent from the previous forecast but down 11 percent from the 2020-2021 final utilization. The Florida all orange forecast, at 40.7 million boxes (1.83 million tons), is up 1 percent from the previous forecast but down 23 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 18.2 million boxes (819,000 tons), unchanged from the previous forecast but down 20 percent from last season's final utilization. The Florida Valencia orange forecast, at 22.5 million boxes (1.01 million tons), is up 2 percent from the previous forecast but down 26 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 June 10, 2022.



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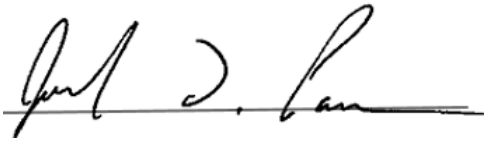

Agricultural Statistics Board
Chairperson
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Winter Wheat Area Harvested, Yield, and Production – States and United States: 2021 and Forecasted June 1, 2022

State	Area harvested		Yield per acre			Production	
	2021	2022	2021	2022		2021	2022
				May 1	June 1		
	(1,000 acres)	(1,000 acres)	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)
Arkansas	145	160	58.0	55.0	57.0	8,410	9,120
California	80	80	82.0	59.0	73.0	6,560	5,840
Colorado	1,880	1,600	37.0	31.0	28.0	69,560	44,800
Idaho	640	730	71.0	91.0	94.0	45,440	68,620
Illinois	610	660	79.0	75.0	78.0	48,190	51,480
Indiana	270	240	85.0	76.0	78.0	22,950	18,720
Kansas	7,000	6,950	52.0	39.0	39.0	364,000	271,050
Kentucky	350	365	87.0	80.0	79.0	30,450	28,835
Maryland	160	140	79.0	75.0	78.0	12,640	10,920
Michigan	560	425	81.0	79.0	79.0	45,360	33,575
Mississippi	70	75	59.0	51.0	53.0	4,130	3,975
Missouri	490	620	65.0	67.0	71.0	31,850	44,020
Montana	1,730	1,900	31.0	39.0	33.0	53,630	62,700
Nebraska	840	900	49.0	41.0	41.0	41,160	36,900
North Carolina	345	385	56.0	67.0	65.0	19,320	25,025
North Dakota	60	90	33.0	47.0	47.0	1,980	4,230
Ohio	515	460	85.0	76.0	76.0	43,775	34,960
Oklahoma	2,950	2,400	39.0	25.0	27.0	115,050	64,800
Oregon	705	720	45.0	61.0	62.0	31,725	44,640
South Dakota	720	720	38.0	45.0	47.0	27,360	33,840
Tennessee	330	330	71.0	76.0	73.0	23,430	24,090
Texas	2,000	1,300	37.0	32.0	31.0	74,000	40,300
Virginia	120	150	67.0	63.0	64.0	8,040	9,600
Washington	1,690	1,800	42.0	67.0	73.0	70,980	131,400
Wisconsin	245	220	75.0	70.0	73.0	18,375	16,060
Other States [1]	959	1,079	61.5	57.6	57.6	59,000	62,132
United States	25,464	24,499	50.2	47.9	48.2	1,277,365	1,181,632

[1] Other States include Alabama, Delaware, Georgia, New Jersey, New Mexico, New York, Pennsylvania, South Carolina, Utah, and Wyoming. Individual State level estimates will be published in the *Small Grains 2022 Summary.*

Durum Wheat Area Harvested, Yield, and Production – States and United States: 2021 and Forecasted June 1, 2022

[Area harvested for the United States and remaining States will be published in the *Acreage* report released June 2022. Yield and production will be published in the *Crop Production* report released July 2022. Blank data cells indicate estimation period has not yet begun]

State	Area harvested		Yield per acre			Production	
	2021	2022	2021	2022		2021	2022
				May 1	June 1		
	(1,000 acres)	(1,000 acres)	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)
Arizona	52	59	90.0	108.0	103.0	4,680	6,077
California	20	24	110.0	112.0	113.0	2,200	2,712
Idaho	7		77.0			539	
Montana	635		16.0			10,160	
North Dakota	820		24.0			19,680	
United States	1,534		24.3			37,259	

Wheat Production by Class – United States: 2021 and Forecasted June 1, 2022

[Wheat class estimates are based on the latest available data including both surveys and administrative data. The previous end-of-year season class percentages are used throughout the forecast season for States that do not have survey or administrative data available. Blank data cells indicate estimation period has not yet begun]

Crop	2021	2022
	(1,000 bushels)	(1,000 bushels)
Winter		
Hard red	749,489	581,801
Soft red	360,689	357,953
Hard white	20,283	15,554
Soft white	146,904	226,324
Spring		
Hard red	297,366	
Hard white	5,662	
Soft white	28,112	
Durum	37,259	
Total	1,645,764	

Hops Area Harvested by Variety – States and United States: 2021 and 2022

State and variety	Area harvested	Strung for harvest
	2021	2022
	(acres)	(acres)
Idaho		
Amarillo [R], VGXP01	380	541
Cascade	479	837
Cashmere	124	142
Chinook	521	569
Citra [R], HBC 394	1,743	1,737
Columbus/Tomahawk [R]/Zeus (CTZ)	1,046	520
Comet	146	145
El Dorado [R]	621	292
Eureka! [TM]	332	419
Hallertauer Mittelfruher	159	159
Idaho 7 [R]	592	(D)
Mosaic [R], HBC 369	1,380	1,464
Mt. Rainier	84	85
Northern Brewer	58	-
Saaz	330	380
Simcoe [R], YCR 14	388	451
Triumph	72	65
Willamette	389	459
Experimental	(D)	61
Other varieties [1]	850	1,114
Total	9,694	9,440
Oregon		
Amarillo [R], VGXP01	193	214
Cascade	666	660
Centennial	364	410
Chinook	79	130
Citra [R], HBC 394	1,472	1,775
Crystal	159	191
Golding	78	32
Liberty	54	(D)
Mosaic [R], HBC 369	844	889
Mt. Hood	123	174
Mt. Rainier	126	126
Nugget	572	518
Sabro [TM], HBC 438	225	147
Simcoe [R], YCR 14	499	547
Sterling	58	35
Strata [TM], OR91331	833	1,083
Tahoma	(D)	100
Talus [TM], HBC 692	(NA)	49
Willamette	446	463
Other varieties [1]	604	485
Total	7,395	8,028

See footnote(s) at end of table.

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Hops Area Harvested by Variety – States and United States: 2021 and 2022 (continued)

State and variety	Area harvested	Strung for harvest
	2021	2022
	(acres)	(acres)
Washington		
Ahtanum [R], YCR 1	166	168
Amarillo [R], VGXP01	1,334	1,364
Azacca [R], ADHA-483	730	871
Bravo [TM]	238	(D)
Cascade	3,183	3,578
Cashmere	690	773
Centennial	1,978	2,149
Chinook	1,174	1,394
Citra [R], HBC 394	8,766	8,609
Cluster	390	287
Columbus/Tomahawk [R]/Zeus (CTZ)	4,523	3,559
Comet	386	327
Ekuanot [R], HBC 366	381	367
El Dorado [R]	1,113	908
Eureka! [TM]	466	595
Idaho 7 [R]	388	158
Loral [R], HBC 291	197	197
Mosaic [R], HBC 369	4,193	4,160
Mt. Hood	(D)	41
Mt. Rainier	209	211
Pahto [TM], HBC 682	2,114	1,710
Palisade [R], YCR 4	333	377
Pekko [R], ADHA-871	1,070	1,084
Sabro [TM], HBC 438	1,120	549
Simcoe [R], YCR 14	3,172	3,528
Summit [TM]	437	(D)
Super Galena [TM]	480	354
Tahoma	388	361
Talus [TM], HBC 692	(NA)	367
Warrior [R], YCR 5	128	147
Willamette	132	144
Zappa [TM]	(NA)	68
Experimental	575	714
Other varieties [1]	3,329	3,309
Total	43,783	42,428
United States [2]	60,872	59,896

- Represents zero.
(D) Withheld to avoid disclosing data for individual operations.
(NA) Not available.
[R] Registered
[TM] Trademark
[1] Includes data withheld to avoid disclosure of individual operations and varieties not listed.
[2] Includes 984 organic acres in 2022 and 772 organic acres in 2021.

Utilized Production of Citrus Fruits by Crop – States and United States: 2020-2021 and Forecasted June 1, 2022

[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	2021-2022	2020-2021	2021-2022
	(1,000 boxes)	(1,000 boxes)	(1,000 tons)	(1,000 tons)
Oranges				
California, all [2]	49,000	51,300	1,960	2,052
Early, mid, and Navel [3]	41,300	43,000	1,652	1,720
Valencia	7,700	8,300	308	332
Florida, all	52,950	40,700	2,383	1,832
Early, mid, and Navel [3]	22,700	18,200	1,022	819
Valencia	30,250	22,500	1,361	1,013
Texas, all [2]	1,050	350	45	15
Early, mid, and Navel [3]	1,000	250	43	11
Valencia	50	100	2	4
United States, all	103,000	92,350	4,388	3,899
Early, mid, and Navel [3]	65,000	61,450	2,717	2,550
Valencia	38,000	30,900	1,671	1,349
Grapefruit				
California [2]	4,200	4,100	168	164
Florida, all	4,100	3,300	174	140
Texas [2]	2,400	2,000	96	80
United States	10,700	9,400	438	384
Tangerines and mandarins [4]				
California [2]	28,800	21,000	1,152	840
Florida	890	750	42	36
United States	29,690	21,750	1,194	876
Lemons [2]				
Arizona	750	1,500	30	60
California	20,100	23,000	804	920
United States	20,850	24,500	834	980

[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.

Tart Cherry Production – States and United States: 2021 and Forecasted June 1, 2022

State	Total production	
	2021	2022
	(million pounds)	(million pounds)
Michigan	96.6	159.5
New York	(D)	(D)
Utah	33.4	27.3
Washington	(D)	(D)
Wisconsin	10.5	13.3
Other States	31.6	29.1
United States	172.1	229.2

(D) Withheld to avoid disclosing data for individual operations.

Sweet Cherry Production – States and United States: 2021 and Forecasted June 1, 2022

State	Total production	
	2021	2022
	(tons)	(tons)
California	98,300	53,000
Oregon	46,000	37,000
Washington	234,000	185,000
United States	378,300	275,000

Maple Syrup Taps, Yield, and Production – States and United States: 2020-2022

State	Number of taps			Yield per tap			Production		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
	(1,000 taps)	(1,000 taps)	(1,000 taps)	(gallons)	(gallons)	(gallons)	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)
Maine	1,970	1,960	1,970	0.299	0.262	0.341	590	514	672
Michigan	570	550	570	0.298	0.273	0.333	170	150	190
New Hampshire	530	530	540	0.291	0.240	0.309	154	127	167
New York	2,800	2,900	2,900	0.287	0.223	0.291	804	647	845
Pennsylvania	740	745	750	0.241	0.226	0.219	178	168	164
Vermont	5,700	6,500	6,650	0.342	0.269	0.383	1,950	1,750	2,550
Wisconsin	780	900	920	0.340	0.406	0.478	265	365	440
United States	13,090	14,085	14,300	0.314	0.264	0.352	4,111	3,721	5,028

Maple Syrup Price and Value – States and United States: 2020-2022

[Blank data cells indicate estimation period has not yet begun]

State	Average price per gallon			Value of production		
	2020	2021	2022 [1]	2020	2021	2022 [1]
	(dollars)	(dollars)	(dollars)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
Maine	34.90	38.60		20,591	19,840	
Michigan	48.60	46.30		8,262	6,945	
New Hampshire	52.10	64.90		8,023	8,242	
New York	34.40	37.80		27,658	24,457	
Pennsylvania	38.40	36.20		6,835	6,082	
Vermont	27.00	32.00		52,650	56,000	
Wisconsin	29.10	33.10		7,712	12,082	
United States	32.00	35.90		131,731	133,648	

[1] Price and value for 2022 will be published in *Crop Production* released June 2023.

Maple Syrup Season – States and United States: 2020-2022

State	Date season opened [1]			Date season closed [2]			Average season length [3]		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
	(date)	(date)	(date)	(date)	(date)	(date)	(days)	(days)	(days)
Maine	Feb 2	Feb 15	Feb 5	May 5	Apr 30	May 30	39	31	36
Michigan	Feb 2	Feb 1	Feb 16	Apr 25	Apr 14	Apr 30	29	25	30
New Hampshire	Jan 5	Jan 11	Feb 4	Apr 28	Apr 16	Apr 28	35	26	36
New York	Jan 2	Jan 1	Jan 1	Apr 30	May 4	May 2	37	29	33
Pennsylvania	Jan 12	Jan 4	Feb 4	Apr 10	Apr 15	Apr 22	31	25	27
Vermont	Jan 8	Jan 25	Jan 1	Apr 30	Apr 23	May 16	38	28	40
Wisconsin	Feb 15	Feb 20	Feb 20	Apr 26	Apr 10	May 3	29	25	34
United States	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	34	27	34

(NA) Not available.
[1] Approximately the first day that sap was collected.
[2] Approximately the last day that sap was collected.
[3] The average number of days that sap was collected.

Maple Syrup Average Open and Close Season Dates – States and United States: 2020-2022

State	Season Opened [1]			Season Closed [2]		
	2020	2021	2022	2020	2021	2022
	(date)	(date)	(date)	(date)	(date)	(date)
Maine	Feb 29	Mar 6	Mar 4	Apr 8	Apr 6	Apr 9
Michigan	Mar 1	Mar 2	Mar 9	Mar 30	Mar 28	Apr 8
New Hampshire	Feb 24	Mar 6	Feb 27	Mar 30	Apr 1	Apr 4
New York	Feb 19	Mar 4	Feb 28	Mar 28	Apr 2	Apr 2
Pennsylvania	Feb 18	Feb 27	Feb 24	Mar 20	Mar 24	Mar 23
Vermont	Feb 28	Mar 8	Feb 28	Apr 6	Apr 5	Apr 9
Wisconsin	Mar 7	Mar 6	Mar 18	Apr 4	Mar 31	Apr 20
United States	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

(NA) Not available.
[1] Approximate average opened date based on reported data.
[2] Approximate average closed date based on reported data.

Maple Syrup Price by Type of Sale and Size of Container – States: 2020 and 2021

Type and State	Gallon		1/2 Gallon		Quart		Pint		1/2 Pint	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)	(dollars)
Retail										
Maine	53.00	61.40	31.20	32.70	19.20	18.10	10.20	10.60	6.70	6.50
Michigan	48.50	47.70	28.30	28.40	16.30	14.70	10.80	9.60	10.00	6.80
New Hampshire	58.00	65.50	31.70	35.10	18.60	19.90	10.70	11.40	(D)	7.50
New York	48.10	45.60	27.60	25.20	16.60	17.00	10.60	9.60	7.10	5.70
Pennsylvania	43.60	41.30	25.50	24.30	15.70	14.20	9.60	8.85	5.60	5.00
Vermont	45.50	46.30	25.10	27.80	15.60	16.20	9.30	11.40	6.10	7.10
Wisconsin	41.30	45.20	22.30	26.30	11.90	14.60	7.40	8.80	(D)	6.00
Wholesale										
Maine	46.20	48.30	(D)	24.80	13.70	14.50	7.80	7.90	4.80	(D)
Michigan	42.60	37.60	22.80	24.90	11.90	14.60	7.80	8.50	6.60	5.70
New Hampshire	45.50	48.20	(D)	28.80	12.70	14.20	6.90	8.25	4.10	(D)
New York	40.60	41.50	23.30	23.80	13.80	14.10	9.40	9.10	5.70	4.60
Pennsylvania	40.50	39.80	18.80	20.30	11.20	13.40	6.20	7.90	3.40	4.40
Vermont	40.20	37.90	22.80	22.30	12.70	13.80	6.30	8.50	3.80	5.10
Wisconsin	37.20	40.70	22.90	25.70	12.10	13.20	6.50	7.50	5.10	4.60

(D) Withheld to avoid disclosing data for individual operations.

Maple Syrup Bulk Price – States: 2020 and 2021

State	Bulk all grades		Bulk all grades	
	2020	2021	2020	2021
	(dollars per pound)	(dollars per pound)	(dollars per gallon)	(dollars per gallon)
Maine	2.26	3.20	24.90	35.10
Michigan	2.00	2.40	21.70	26.80
New Hampshire	2.05	2.40	22.60	26.40
New York	2.10	2.40	23.50	26.70
Pennsylvania	2.21	2.50	24.40	27.60
Vermont	2.15	2.60	23.80	28.30
Wisconsin	2.10	2.50	23.20	27.40

Maple Syrup Percent of Sales by Type – States: 2020 and 2021

State	Retail		Wholesale		Bulk	
	2020	2021	2020	2021	2020	2021
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Maine	3	6	6	12	91	82
Michigan	40	27	17	15	43	58
New Hampshire	35	71	48	14	17	15
New York	19	24	12	13	69	63
Pennsylvania	45	30	8	14	47	56
Vermont	9	10	3	4	88	86
Wisconsin	17	13	6	5	77	82

Crop Area Planted and Harvested, Yield, and 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 2022 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2021	2022	2021	2022
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Grains and hay				
Barley	2,660	2,941	1,948	
Corn for grain [1]	93,357	89,490	85,388	
Corn for silage	(NA)		6,481	
Hay, all	(NA)	(NA)	50,736	50,332
Alfalfa	(NA)		15,246	
All other	(NA)		35,490	
Oats	2,550	2,547	650	
Proso millet	725		662	
Rice	2,532	2,452	2,488	
Rye	2,133		294	
Sorghum for grain [1]	7,305	6,205	6,490	
Sorghum for silage	(NA)		331	
Wheat, all	46,703	47,351	37,163	
Winter	33,648	34,236	25,464	24,499
Durum	1,635	1,915	1,534	
Other spring	11,420	11,200	10,165	
Oilseeds				
Canola	2,152.0	2,158.0	2,089.0	
Cottonseed	(X)		(X)	
Flaxseed	325	360	268	
Mustard seed	103.0		89.3	
Peanuts	1,585.2	1,571.0	1,545.0	
Rapeseed	14.3		12.5	
Safflower	152.0		135.0	
Soybeans for beans	87,195	90,955	86,332	
Sunflower	1,288.5	1,416.0	1,243.8	
Cotton, tobacco, and sugar crops				
Cotton, all	11,215.5	12,234.0	10,272.3	
Upland	11,089.0	12,058.0	10,148.5	
American Pima	126.5	176.0	123.8	
Sugarbeets	1,160.0	1,143.4	1,107.6	
Sugarcane	(NA)		935.2	
Tobacco	(NA)	(NA)	218.9	226.3
Dry beans, peas, and lentils				
Chickpeas	368.5	303.6	351.0	
Dry edible beans	1,394.0	1,313.0	1,335.6	
Dry edible peas	977.0	1,088.0	834.0	
Lentils	708.0	788.0	549.0	
Potatoes and miscellaneous				
Hops	(NA)	(NA)	60.9	59.9
Maple syrup	(NA)	(NA)	(NA)	(NA)
Mushrooms	(NA)		(NA)	
Peppermint oil	(NA)		44.0	
Potatoes	943.0		935.7	
Spearmint oil	(NA)		14.9	

See footnote(s) at end of table.

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Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2021 and 2022 (continued)

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2022 crop year. Blank data cells indicate estimation period has not yet begun]

Crop		Yield per acre		Production	
		2021	2022	2021	2022
				(1,000)	(1,000)
Grains and hay					
Barley	bushels	60.4		117,673	
Corn for grain	bushels	177.0		15,115,170	
Corn for silage	tons	20.1		130,317	
Hay, all	tons	2.37		120,196	
Alfalfa	tons	3.23		49,245	
All other	tons	2.00		70,951	
Oats	bushels	61.3		39,836	
Proso millet	bushels	23.2		15,376	
Rice [2]	cwt	7,709		191,796	
Rye	bushels	33.4		9,808	
Sorghum for grain	bushels	69.0		447,810	
Sorghum for silage	tons	15.4		5,083	
Wheat, all	bushels	44.3		1,645,764	
Winter	bushels	50.2	48.2	1,277,365	1,181,632
Durum	bushels	24.3		37,259	
Other spring	bushels	32.6		331,140	
Oilseeds					
Canola	pounds	1,302		2,720,550	
Cottonseed	tons	(X)		5,323.0	
Flaxseed	bushels	10.1		2,708	
Mustard seed	pounds	491		43,834	
Peanuts	pounds	4,135		6,389,300	
Rapeseed	pounds	1,809		22,616	
Safflower	pounds	1,001		135,175	
Soybeans for beans	bushels	51.4		4,435,232	
Sunflower	pounds	1,530		1,902,985	
Cotton, tobacco, and sugar crops					
Cotton, all [2]	bales	819		17,523.0	
Upland [2]	bales	813		17,191.0	
American Pima [2]	bales	1,287		332.0	
Sugarbeets	tons	33.2		36,751	
Sugarcane	tons	35.1		32,838	
Tobacco	pounds	2,183		477,973	
Dry beans, peas, and lentils					
Chickpeas [2]	cwt	815		2,861	
Dry edible beans [2]	cwt	1,701		22,721	
Dry edible peas [2]	cwt	1,025		8,549	
Lentils [2]	cwt	606		3,327	
Potatoes and miscellaneous					
Hops	pounds	1,900		115,630.9	
Maple syrup	gallons	(NA)	(NA)	3,721	5,028
Mushrooms	pounds	(NA)		757,987	
Peppermint oil	pounds	104		4,566	
Potatoes	cwt	438		409,671	
Spearmint oil	pounds	119		1,775	

(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: 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 2022 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2021	2022	2021	2022
	(hectares)	(hectares)	(hectares)	(hectares)
Grains and hay				
Barley	1,076,480	1,190,190	788,340	
Corn for grain [1]	37,780,640	36,215,710	34,555,670	
Corn for silage	(NA)		2,622,800	
Hay, all [2]	(NA)	(NA)	20,532,350	20,368,860
Alfalfa	(NA)		6,169,900	
All other	(NA)		14,362,450	
Oats	1,031,960	1,030,750	263,050	
Proso millet	293,400		267,900	
Rice	1,024,680	992,300	1,006,870	
Rye	863,200		118,980	
Sorghum for grain [1]	2,956,260	2,511,100	2,626,440	
Sorghum for silage	(NA)		133,950	
Wheat, all [2]	18,900,240	19,162,480	15,039,490	
Winter	13,617,010	13,854,970	10,305,030	9,914,500
Durum	661,670	774,980	620,790	
Other spring	4,621,560	4,532,530	4,113,670	
Oilseeds				
Canola	870,890	873,320	845,400	
Cottonseed	(X)		(X)	
Flaxseed	131,520	145,690	108,460	
Mustard seed	41,680		36,140	
Peanuts	641,510	635,770	625,250	
Rapeseed	5,790		5,060	
Safflower	61,510		54,630	
Soybeans for beans	35,286,940	36,808,580	34,937,700	
Sunflower	521,440	573,040	503,350	
Cotton, tobacco, and sugar crops				
Cotton, all [2]	4,538,800	4,950,980	4,157,100	
Upland	4,487,610	4,879,750	4,107,000	
American Pima	51,190	71,230	50,100	
Sugarbeets	469,440	462,720	448,230	
Sugarcane	(NA)		378,470	
Tobacco	(NA)	(NA)	88,600	91,580
Dry beans, peas, and lentils				
Chickpeas	149,130	122,860	142,050	
Dry edible beans	564,140	531,360	540,500	
Dry edible peas	395,380	440,300	337,510	
Lentils	286,520	318,900	222,170	
Potatoes and miscellaneous				
Hops	(NA)	(NA)	24,630	24,240
Maple syrup	(NA)	(NA)	(NA)	(NA)
Mushrooms	(NA)		(NA)	
Peppermint oil	(NA)		17,810	
Potatoes	381,620		378,670	
Spearmint oil	(NA)		6,030	

See footnote(s) at end of table.

--continued

Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2021 and 2022 (continued)

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2022 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Yield per hectare		Production	
	2021	2022	2021	2022
	(metric tons)	(metric tons)	(metric tons)	(metric tons)
Grains and hay				
Barley	3.25		2,562,030	
Corn for grain	11.11		383,943,000	
Corn for silage	45.07		118,221,590	
Hay, all [2]	5.31		109,039,980	
Alfalfa	7.24		44,674,310	
All other	4.48		64,365,660	
Oats	2.20		578,220	
Proso millet	1.30		348,720	
Rice	8.64		8,699,720	
Rye	2.09		249,130	
Sorghum for grain	4.33		11,374,900	
Sorghum for silage	34.42		4,611,220	
Wheat, all [2]	2.98		44,790,360	
Winter	3.37	3.24	34,764,180	32,158,750
Durum	1.63		1,014,020	
Other spring	2.19		9,012,150	
Oilseeds				
Canola	1.46		1,234,020	
Cottonseed	(X)		4,828,940	
Flaxseed	0.63		68,790	
Mustard seed	0.55		19,880	
Peanuts	4.64		2,898,140	
Rapeseed	2.03		10,260	
Safflower	1.12		61,310	
Soybeans for beans	3.45		120,707,230	
Sunflower	1.71		863,180	
Cotton, tobacco, and sugar crops				
Cotton, all [2]	0.92		3,815,180	
Upland	0.91		3,742,900	
American Pima	1.44		72,280	
Sugarbeets	74.38		33,339,950	
Sugarcane	78.71		29,790,130	
Tobacco	2.45		216,800	
Dry beans, peas, and lentils				
Chickpeas	0.91		129,770	
Dry edible beans	1.91		1,030,610	
Dry edible peas	1.15		387,780	
Lentils	0.68		150,910	
Potatoes and miscellaneous				
Hops	2.13		52,450	
Maple syrup	(NA)	(NA)	18,610	25,140
Mushrooms	(NA)		343,820	
Peppermint oil	0.12		2,070	
Potatoes	49.07		18,582,370	
Spearmint oil	0.13		810	

(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 2022 crop year, except citrus which is for the 2021-2022 season. Blank data cells indicate estimation period has not yet begun]

Crop		Production	
		2021	2022
Citrus [1]			
Grapefruit	1,000 tons	438	384
Lemons	1,000 tons	834	980
Oranges	1,000 tons	4,388	3,899
Tangerines and mandarins	1,000 tons	1,194	876
Noncitrus			
Apples, commercial	million pounds	9,848.5	
Apricots	tons	41,740	
Avocados	tons	150,740	
Blueberries, Cultivated	1,000 pounds	669,100	
Blueberries, Wild (Maine)	1,000 pounds	105,000	
Cherries, Sweet	tons	378,300	275,000
Cherries, Tart	million pounds	172.1	229.2
Coffee (Hawaii)	1,000 pounds	28,440	
Cranberries	barrel	7,074,000	
Dates	tons	59,450	
Grapes	tons	6,050,000	
Kiwifruit (California)	tons	40,100	
Nectarines (California)	tons	116,500	
Olives (California)	tons	101,000	
Papayas (Hawaii)	1,000 pounds	13,400	
Peaches	tons	688,770	
Pears	tons	701,500	
Plums (California)	tons	83,500	
Prunes (California)	tons	222,000	
Raspberries	1,000 pounds	178,900	
Strawberries	1,000 cwt	26,700.0	
Nuts and miscellaneous			
Almonds, shelled (California)	1,000 pounds	2,915,000	2,800,000
Hazelnuts, in-shell (Oregon)	tons	77,500	
Macadamias (Hawaii)	1,000 pounds	51,000	
Pecans, in-shell	1,000 pounds	255,300	
Pistachios (California)	1,000 pounds	1,155,000	
Walnuts, in-shell (California)	tons	725,000	

[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 2022 crop year, except citrus which is for the 2021-2022 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production	
	2021	2022
	(metric tons)	(metric tons)
Citrus [1]		
Grapefruit	397,350	348,360
Lemons	756,590	889,040
Oranges	3,980,730	3,537,110
Tangerines and mandarins	1,083,180	794,690
Noncitrus		
Apples, commercial	4,467,200	
Apricots	37,870	
Avocados	136,750	
Blueberries, Cultivated	303,500	
Blueberries, Wild (Maine)	47,630	
Cherries, Sweet	343,190	249,480
Cherries, Tart	78,060	103,960
Coffee (Hawaii)	12,900	
Cranberries	320,870	
Dates	53,930	
Grapes	5,488,470	
Kiwifruit (California)	36,380	
Nectarines (California)	105,690	
Olives (California)	91,630	
Papayas (Hawaii)	6,080	
Peaches	624,840	
Pears	636,390	
Plums (California)	75,750	
Prunes (California)	201,400	
Raspberries	81,150	
Strawberries	1,211,090	
Nuts and miscellaneous		
Almonds, shelled (California)	1,322,220	1,270,060
Hazelnuts, in-shell (Oregon)	70,310	
Macadamias (Hawaii)	23,130	
Pecans, in-shell	115,800	
Pistachios (California)	523,900	
Walnuts, in-shell (California)	657,710	

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

Winter Wheat for Grain Objective Yield Data

The National Agricultural Statistics Service is conducting objective yield surveys in 10 winter wheat-producing States during 2022. Randomly selected plots in winter wheat for grain fields are visited monthly from May through harvest to obtain specific counts and measurements. Data in this table are based on counts from this survey.

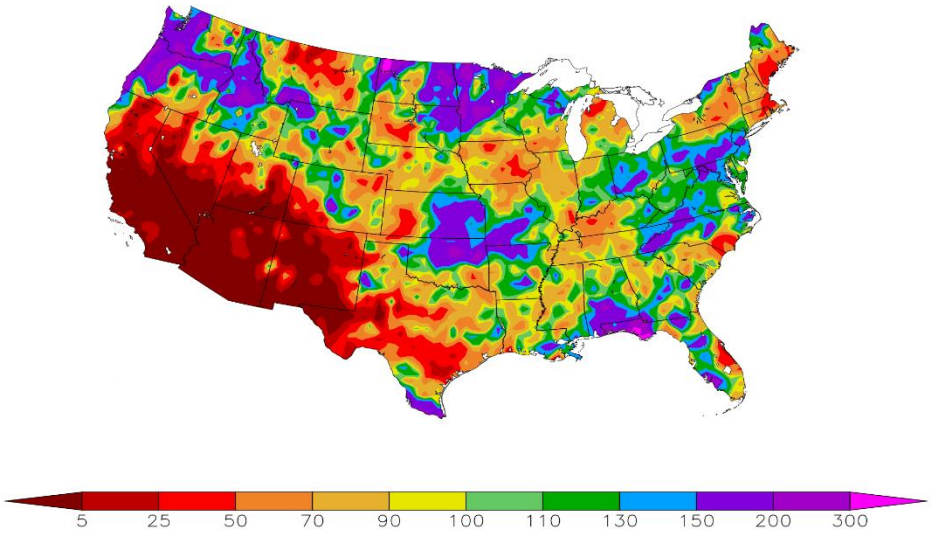
Winter Wheat Objective Yield Percent of Samples Processed in the Lab – United States: 2018-2022

[Blank data cells indicate estimation period has not yet begun]

Year	June	July	August
	Mature [1]	Mature [1]	Mature [1]
	(percent)	(percent)	(percent)
2018	18	69	93
2019	8	50	89
2020	14	64	92
2021	7	64	97
2022	14		

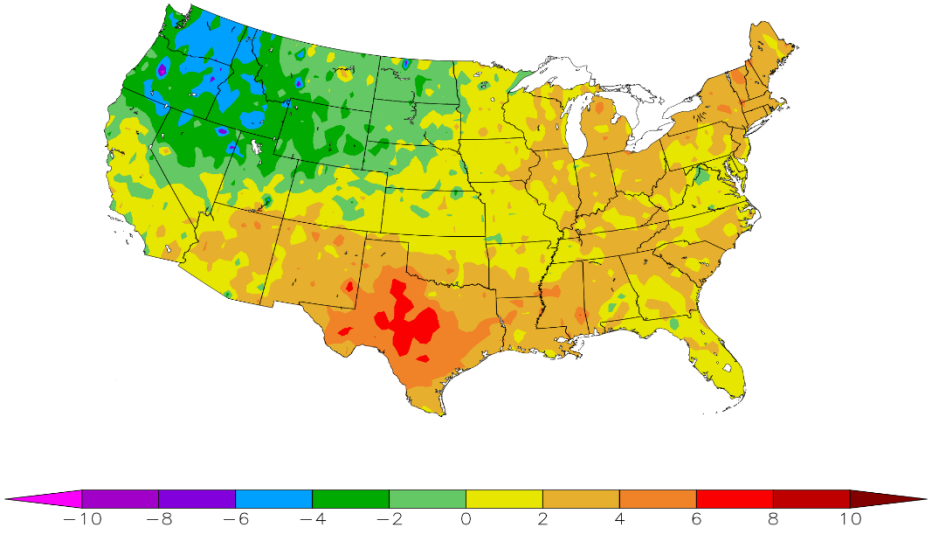
[1] Includes winter wheat in the hard dough stage or beyond and are considered mature or almost mature.

Percent of Normal Precipitation (%)
5/1/2022 – 5/31/2022



NOAA Regional Climate Centers

Departure from Normal Temperature (F)
5/1/2022 – 5/31/2022



NOAA Regional Climate Centers

May Weather Summary

In late May, national drought coverage fell below 50 percent for the first time since November 2021, but serious drought concerns persisted from the Pacific Coast to the High Plains—except from the Pacific Northwest to the northernmost Rockies. According to the *Drought Monitor*, drought coverage across the Lower 48 States stood at 49.3 percent at the end of May, down from 53.4 percent just 4 weeks earlier and an early-March peak of 61.1 percent. Much of the reduction in drought coverage occurred across the northern United States and eastern sections of the Plains.

In fact, many Midwestern producers contended with too much rain and soggy field conditions, leading to extensive planting delays. For example, only 22 percent of the Nation's intended corn acreage had been seeded by May 8. Although planting conditions eventually improved across the heart of the Midwest, with an additional 64 percent of the national corn acreage planted during the 3 weeks ending May 29, major delays persisted in Minnesota and North Dakota. Those planting delays extended to other Northern crops, including spring wheat (73 percent planted, nationally, by May 29) and sugarbeets (75 percent, a record-slow pace for that date). Among 21st century years, only 2011 featured a slower spring wheat planting pace by May 29.

In contrast, drought continued to ravage much of the Plains' winter wheat, with the crop maturing in southern production areas amid ongoing drought and periods of extreme heat. By May 29, more than one-quarter of the winter wheat was rated in very poor to poor condition in each of the Plains' major production states, ranging from 26 percent in Montana and South Dakota to 80 percent in Texas. Nationally, 40 percent of the winter wheat was rated very poor to poor on May 29, with harvest already underway in the South—and 22 percent complete on that date in Texas.

Despite the drought, May thunderstorms—featuring high winds, large hail, and isolated tornadoes—peppered the Plains. Storms extended into other regions, including the Midwest, South, and East. One of the most prolific severe-weather outbreaks occurred on May 12, when a derecho spanned hundreds of miles from eastern Nebraska into central Minnesota, spawning dozens of tornadoes and resulting in localized wind gusts above 100 mph. Due to late planting and emergence, the primarily agricultural impact from the May 12 high-wind event was damage to farm buildings and equipment. Another outbreak on May 30 struck a similar area, from Nebraska to Minnesota. Despite the almost-daily frequency of severe weather in May 2022, preliminary reports indicated that only slightly more than 200 tornadoes occurred, nationally—well below the final counts of May 2003, 2004, and 2019, all of which featured more than 500 twisters.

Meanwhile, the Southwest endured a difficult May, with a backdrop of worsening drought and periods of extreme heat. In addition, several high-wind events fanned early-season wildfires, which included New Mexico's largest blaze in modern history. The Hermits Peak Fire, an escaped April 6 prescribed burn near Las Vegas, New Mexico, joined with the Calf Canyon Fire—a holdover (or sleeper) fire that reemerged on April 19, following about 3 months of dormancy—growing to about 318,000 acres by early June and surpassing the 297,845-acre Whitewater-Baldy Complex of May-July 2012. Another active blaze, the 287,000-acre Black Fire in southwestern New Mexico, was ignited on May 14, with containment near 50 percent by early June.

Cooler-than-normal conditions were prevalent from the Pacific Northwest to the northern Intermountain West and northern sections of the Rockies and Plains, while near- or above-normal temperatures covered the remainder of the country. In portions of central Texas, early-season heat boosted May temperatures at least 6°F above normal. Temperatures averaged 2 to 4°F above normal in parts of the Northeast. Conversely, Northwestern readings generally averaged at least 2 to 4°F below normal. On May 21-22, a late-season freeze extending as far south and east as Nebraska resulted in some damage to winter grains and spring-sown crops, although concerns for the latter were limited by late planting and slow emergence.

May Agricultural Summary

May was warmer than average for much of the Nation. Parts of Texas recorded temperatures 6°F or more above normal. In contrast, most of the Pacific Northwest, Northern Plains, and Rockies recorded below normal temperatures for the month. Large parts of Idaho, Oregon, and Washington recorded temperatures 4°F or more below normal. While most of the Southwest remained dry, at least twice the normal amount of rainfall was recorded in parts of the Mid-Atlantic, Midwest, Mississippi Valley, Pacific Northwest, Plains, Northern Rockies, and Southeast.

By May 1, producers had planted 14 percent of the Nation's corn crop, 28 percentage points behind last year and 19 percentage points behind the 5-year average. Three percent of the Nation's corn acreage had emerged by May 1, four percentage points behind the previous year and 3 percentage points behind the 5-year average. By May 15, producers had planted 49 percent of the Nation's corn crop, 29 percentage points behind last year and 18 percentage points behind the 5-year average. Fourteen percent of the Nation's corn acreage had emerged by May 15, twenty-four percentage points behind the previous year and 18 percentage points behind the 5-year average. By May 29, producers had planted 86 percent of the Nation's corn crop, 8 percentage points behind last year and 1 percentage point behind the 5-year average. At that time, 94 percent of Iowa's intended corn acreage was planted, 5 percentage points behind last year but equal to the 5-year average. Sixty-one percent of the Nation's corn acreage had emerged by May 29, eighteen percentage points behind the previous year and 7 percentage points behind the 5-year average.

Eight percent of the Nation's soybean acreage was planted by May 1, fourteen percentage points behind last year and 5 percentage points behind the 5-year average. Thirty percent of the Nation's soybean acreage was planted by May 15, twenty-eight percentage points behind last year and 9 percentage points behind the 5-year average. Nine percent of the Nation's soybean acreage had emerged by May 15, ten percentage points behind last year and 3 percentage points behind the 5-year average. Sixty-six percent of the Nation's soybean acreage was planted by May 29, seventeen percentage points behind last year and 1 percentage point behind the 5-year average. Thirty-nine percent of the Nation's soybean acreage had emerged by May 29, twenty percentage points behind last year and 4 percentage points behind the 5-year average.

By May 1, twenty-three percent of the Nation's winter wheat crop was headed, 3 percentage points behind last year and 6 percentage points behind the 5-year average. By May 15, forty-eight percent of the Nation's winter wheat crop was headed, 3 percentage points behind last year and 5 percentage points behind the 5-year average. By May 29, seventy-two percent of the Nation's winter wheat crop was headed, 5 percentage points behind last year and 4 percentage points behind the 5-year average. On May 29, twenty-nine percent of the 2022 winter wheat crop was reported in good to excellent condition, 19 percentage points below the same time last year.

Nationwide, 16 percent of the cotton crop was planted by May 1, one percentage point ahead of both the previous year and the 5-year average. Nationwide, 37 percent of the cotton crop was planted by May 15, one percentage point ahead of the previous year but equal to the 5-year average. Nationwide, 68 percent of the cotton crop was planted by May 29, six percentage points ahead of the previous year and 4 percentage points ahead of the 5-year average. Seven percent of the Nation's cotton acreage had reached the squaring stage by May 29, one percentage point ahead of last year but equal to the 5-year average. On May 29, forty-four percent of the 2022 cotton acreage was rated in good to excellent condition, 1 percentage point above last year.

Twenty percent of the Nation's sorghum acreage was planted by May 1, equal to the previous year but 3 percentage points behind the 5-year average. Twenty-six percent of the Nation's sorghum acreage was planted by May 15, equal to the previous year but 4 percentage points behind the 5-year average. Forty percent of the Nation's sorghum acreage was planted by May 29, equal to the previous year but 3 percentage points behind the 5-year average.

By May 1, producers had seeded 45 percent of the 2022 rice acreage, 17 percentage points behind the previous year and 11 percentage points behind the 5-year average. By May 1, twenty-four percent of the Nation's rice acreage had emerged, 12 percentage points behind last year and 14 percentage points behind the 5-year average. By May 15, producers had seeded 80 percent of the 2022 rice acreage, 5 percentage points behind the previous year but 1 percentage point ahead of the 5-year average. By May 15, fifty-three percent of the Nation's rice acreage had emerged, 8 percentage points behind last year and 7 percentage points behind the 5-year average. By May 29, producers had seeded 95 percent of the 2022 rice acreage, 2 percentage points behind the previous year but 1 percentage point ahead of the 5-year average. By May 29, seventy-nine percent of the Nation's rice acreage had emerged, 6 percentage points behind last year and 2 percentage points behind the 5-year average. On May 29, seventy-one percent of the Nation's rice acreage was rated in good to excellent condition, 3 percentage points below the same time last year.

Nationally, oat producers had seeded 45 percent of this year's acreage by May 1, twenty-five percentage points behind the previous year and 13 percentage points behind the 5-year average. Thirty-one percent of the Nation's oat acreage was emerged by May 1, fifteen percentage points behind the previous year and 9 percentage points behind the 5-year average.

Nationally, oat producers had seeded 67 percent of this year's acreage by May 15, twenty-four percentage points behind the previous year and 15 percentage points behind the 5-year average. Forty-five percent of the Nation's oat acreage was emerged by May 15, twenty-six percentage points behind the previous year and 17 percentage points behind the 5-year average. Nationally, oat producers had seeded 88 percent of this year's acreage by May 29, ten percentage points behind the previous year and 7 percentage points behind the 5-year average. At that time, oat planting progress was behind the 5-year average in 6 of the 9 estimating States. Seventy-one percent of the Nation's oat acreage was emerged by May 29, nineteen percentage points behind the previous year and 13 percentage points behind the 5-year average. On May 29, fifty-one percent of the Nation's oat acreage was rated in good to excellent condition, 4 percentage points below the same time last year.

Thirty-six percent of the Nation's barley crop was planted by May 1, fourteen percentage points behind last year and 1 percentage point behind the 5-year average. Ten percent of the Nation's barley crop had emerged by May 1, six percentage points behind the previous year and 2 percentage points behind the 5-year average. Sixty-one percent of the Nation's barley crop was planted by May 15, twenty percentage points behind last year and 12 percentage points behind the 5-year average. Thirty-two percent of the Nation's barley crop had emerged by May 15, fifteen percentage points behind the previous year and six percentage points behind the 5-year average. Eighty-five percent of the Nation's barley crop was planted by May 29, nine percentage points behind last year and 8 percentage points behind the 5-year average. At that time, planting progress in Minnesota and North Dakota remained far behind the average pace. Sixty-two percent of the Nation's barley crop had emerged by May 29, fifteen percentage points behind the previous year and 10 percentage points behind the 5-year average. On May 29, forty-six percent of the Nation's barley acreage was rated in good to excellent condition, 2 percentage points below the same time last year.

By May 1, nineteen percent of the spring wheat crop was seeded, 27 percentage points behind last year and 9 percentage points behind the 5-year average. By May 1, five percent of the Nation's spring wheat crop had emerged, 8 percentage points behind the previous year and 2 percentage points behind the 5-year average. By May 15, thirty-nine percent of the spring wheat crop was seeded, 44 percentage points behind last year and 28 percentage points behind the 5-year average. By May 15, sixteen percent of the Nation's spring wheat crop had emerged, 28 percentage points behind the previous year and 14 percentage points behind the 5-year average. By May 29, seventy-three percent of the spring wheat crop was seeded, 24 percentage points behind last year and 19 percentage points behind the 5-year average. At that time, planting progress in Minnesota and North Dakota remained far behind the average pace. By May 29, forty-two percent of the Nation's spring wheat crop had emerged, 36 percentage points behind the previous year and 27 percentage points behind the 5-year average.

Nationally, peanut producers had planted 10 percent of the 2022 peanut acreage by May 1, equal to the previous year but 3 percentage points behind the 5-year average. Nationally, peanut producers had planted 47 percent of the 2022 peanut acreage by May 15, nine percentage points ahead of the previous year and 2 percentage points ahead of the 5-year average. Nationally, peanut producers had planted 79 percent of the 2022 peanut acreage by May 29, four percentage points ahead of the previous year and 2 percentage points ahead of the 5-year average. On May 29, seventy-three percent of the Nation's peanut acreage was rated in good to excellent condition, 8 percentage points above the same time last year.

By May 1, eighteen percent of the sugarbeet crop was planted, 58 percentage points behind last year and 29 percentage points behind the 5-year average. By May 15, thirty-seven percent of the sugarbeet crop was planted, 61 percentage points behind last year and 49 percentage points behind the 5-year average. By May 29, seventy-five percent of the sugarbeet crop was planted, 25 percentage points behind last year and 23 percentage points behind the 5-year average. At that time, planting progress in Minnesota and North Dakota remained far behind the average pace.

One percent of the Nation's intended 2022 sunflower acreage was planted by May 15, four percentage points behind both last year and the 5-year average. Twenty-one percent of the Nation's intended 2022 sunflower acreage was planted by May 29, eighteen percentage points behind last year and 11 percentage points behind the 5-year average.

Crop Comments

Winter wheat: Production is forecast at 1.18 billion bushels, up 1 percent from the May 1 forecast, but down 7 percent from 2021. As of June 1, the United States yield is forecast at 48.2 bushels per acre, up 0.3 bushel from last month but

down 2.0 bushels from last year's average yield of 50.2 bushels per acre. Producers in Missouri and Tennessee are expecting record yields. As of May 29, twenty-nine percent of the winter wheat acreage in the 18 major producing States was rated in good to excellent condition, 19 percentage points lower than at the same time last year. Nationally, 72 percent of the winter wheat crop was headed by May 29, four percentage points behind the 5-year average pace.

Forecasted head counts from the objective yield survey in the six Hard Red Winter States (Colorado, Kansas, Montana, Nebraska, Oklahoma, and Texas) are below last year's final head count in Colorado, Kansas, Oklahoma, and Texas, but are above last year's in Montana and Nebraska. As of May 29, Kansas, Oklahoma, and Texas winter wheat was rated in good to excellent condition at 28 percent, 8 percent, and 5 percent, respectively. In Texas, winter wheat harvest was 22 percent complete, 1 percentage point behind the 5-year average pace.

Forecasted head counts from the objective yield survey in the three soft Red Winter States (Illinois, Missouri, and Ohio) are all below last year's final head count. As of May 29, Illinois, Missouri, and Ohio winter wheat was rated 60 percent, 69 percent, and 55 percent, in good to excellent condition, respectively.

Forecasted head counts from the objective yield survey in Washington are above last year's final head count. As of May 29, Idaho, Oregon, and Washington winter wheat crop was rated in good to excellent condition at 61 percent, 67 percent, and 62 percent, respectively.

Durum wheat: Production of Durum wheat in Arizona and California is forecast at a collective 8.79 million bushels, down 3 percent from last month but up 28 percent from last year.

Grapefruit: The United States 2021-2022 grapefruit crop is forecast at 384,000 tons, down 1 percent from the previous forecast and down 12 percent from last season's final utilization. The Florida forecast, at 3.30 million boxes (140,000 tons), is down 3 percent from previous forecast and down 20 percent 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 876,000 tons, down slightly from the previous forecast and down 27 percent from the last season's final utilization. The Florida tangerine and mandarin forecast, at 750,000 boxes (36,000 tons) is down 6 percent from the previous forecast and down 16 percent from last season. The California tangerine and mandarin forecast was carried forward from the previous forecast.

Hops: United States hop acreage strung for harvest in 2022 is forecast at 59,89 acres, down 2 percent from last year's record of 60,872 acres. In Washington, the largest acreage State, 42,428 acres strung for harvest, down 3 percent from the previous season. In Idaho area strung for harvest was 9,440 acres, down 3 percent from 2021. Oregon hop growers strung 8,028 acres for harvest this season, up 9 percent compared to 7,395 acres last season.

Cherries, Tart: United States tart cherry total production for 2022 is forecast at 229 million pounds, up 33 percent from the 2021 production. In Michigan, the largest tart cherry producing State, the season started slowly due to cooler weather but progressed with no major freeze events. In Utah, as of week-ending May 29, bloom was 81 percent complete compared with 95 percent for the previous year. In Wisconsin, blossoms have progressed with no frost.

Cherries, Sweet: United States sweet cherry total production for 2022 is forecast at 275,000 tons, down 27 percent from 2021. In Washington, the largest producing State, severe cold weather in winter and spring reduced pollination and fruit set. In California, most trees received adequate chilling hours, however, frosts in February and March damaged the crop in some areas. In Oregon, cold winter with high rainfall and low temperatures reduced fruit set for the 2022 crop. A late spring storm slowed pollination with some growers reporting damage to blossoms.

Maple syrup: The 2022 United States maple syrup production totaled 5.03 million gallons, up 35 percent from the previous season. The number of taps totaled 14.3 million, up 2 percent from the 2021 total. Yield per tap was 0.352 gallon, up 0.088 gallon from the previous season.

The earliest sap flow reported was January 1 in New York and Vermont. The latest sap flow reported to open the season was February 20 in Wisconsin. On average, the season lasted 34 days, compared with 27 days in 2021. The 2021

United States average price per gallon was $35.90, up $3.90 from 2020. Value of production, at $134 million for 2021, was up 1 percent from the 2020 season.

Statistical Methodology

Wheat survey procedures: Objective yield and farm operator surveys were conducted between May 25 and June 7 to gather information on expected yield as of June 1. The objective yield survey was conducted in 10 States that accounted for about 70 percent of the 2021 winter wheat production. Farm operators were interviewed to update previously reported acreage data and seek permission to randomly locate two sample plots in selected winter wheat fields. The counts made within each sample plot depended upon the crop's maturity. Counts such as number of stalks, heads in late boot, and number of emerged heads were made to predict the number of heads that will be harvested. The counts are used with similar data from previous years to develop a projected biological yield. The average harvesting loss is subtracted to obtain a net yield. The plots are revisited each month until crop maturity when the heads are clipped, threshed, and weighed. After the farm operator has harvested the sample field, another plot is sampled to obtain current year harvesting loss.

The farm operator survey was conducted primarily by telephone with some use of mail, internet, and personal interview. Approximately 3,000 producers were interviewed during the survey period and asked questions about the probable yield on their operation. These growers will continue to be surveyed throughout the growing season to provide indications of average yields.

Orange survey procedures: The orange objective yield survey for the June 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 combined with the previous components are used 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.

Wheat estimating procedures: National and State level objective yield and grower reported data were reviewed for reasonableness and consistency with historical estimates. The survey data were also reviewed considering weather patterns and crop progress compared to previous months and previous years. Each Regional Field Office submits their 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 June 1 forecasts.

Orange estimating procedures: State level objective yield indications 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 analysis to prepare the published June 1 forecast. The June 1 orange production forecasts for California and Texas are carried forward from April.

Revision policy: The June 1 production forecast will not be revised; instead, a new forecast will be made each month throughout the growing season. End-of-season wheat estimates are made after harvest. At the end of the wheat marketing season, a balance sheet is calculated using carryover stocks, production, exports, millings, feeding, and ending stocks. Revisions are then made if the balance sheet relationships or other administrative data warrant changes. End-of-season orange estimates will be published in the *Citrus Fruits Summary* released in September. The orange 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 June 1 production forecast, the “Root Mean Square Error,” a statistical measure based on past performance, is computed. The deviation between the June 1 production forecast and the final estimate is expressed as a percentage of the final estimate. The average of the 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 June 1 winter wheat production forecast is 5.0 percent. This means that chances are 2 out of 3 that the current winter wheat production will not be above or below the final estimate by more than 5.0 percent. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 8.6 percent.

Also shown in the following table is a 20-year record for selected crops of the differences between the June 1 forecast and the final estimate. Using winter wheat again as an example, changes between the June 1 forecast and final estimate during the last 20 years have averaged 59 million bushels, ranging from 4 million to 166 million bushels. The June 1 forecast has been below the final estimate 9 times and above 11 times. This does not imply that the June 1 winter wheat forecast this year is likely to understate or overstate final production.

Reliability of June 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 [1] .....tons	2.0	3.5	118	18	272	9	11
Wheat							
Winter wheat ..... bushels	5.0	8.6	59	4	166	9	11

[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

Lance Honig, Chief, Crops Branch ..... (202) 720-2127

Chris Hawthorn, Head, Field Crops Section ..... (202) 720-2127
- Irwin Anolik – Crop Weather ..... (202) 720-7621
- Joshua Bates – Hemp, Oats, Soybeans ..... (202) 690-3234
- 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
- Greg Lemmons – Corn, Flaxseed, Proso Millet ..... (202) 720-9526
- Becky Sommer – Cotton, Cotton Ginnings, Sorghum ..... (202) 720-5944
- Travis Thorson – Sunflower, Other Oilseeds ..... (202) 720-7369
- Lihan Wei – Peanuts, Rice ..... (202) 720-7688

Fleming Gibson, Head, Fruits, Vegetables and Special Crops Section ..... (202) 720-2127
- Deonne Holiday – Almonds, Asparagus, Carrots, Coffee, Cranberries, Onions, Plums, Prunes, Sweet Corn, Tobacco ..... (202) 720-4288
- Robert Little – Apricots, Dry Beans, Lettuce, Macadamia, Maple Syrup, Nectarines, Pears, Snap Beans, Spinach, Tomatoes ..... (202) 720-3250
- Krishna Rizal – Artichokes, Cauliflower, Celery, Garlic, Grapefruit, Kiwifruit, Lemons, Mandarins and tangerines, Mint, Mushrooms, Olives, Oranges, Pistachios ..... (202) 720-5412
- Chris Singh – Apples, Blueberries, Cucumbers, Hazelnuts, Potatoes, Pumpkins, Raspberries, Squash, Strawberries, Sugarbeets, Sugarcane, Sweet Potatoes ..... (202) 720-4285
- 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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- Both national and state specific reports are available via a free e-mail subscription. To set-up this free subscription, visit www.nass.usda.gov and click on "National" or "State" in upper right corner above "search" box to create an account and select the reports you would like to receive.

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

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