Crop Production

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

Winter wheat production is forecast at 1.29 billion bushels, up 1 percent from the May 1 forecast and up 4 percent from 2023. As of June 1, the United States yield is forecast at 51.4 bushels per acre, up 0.7 bushel from last month and up 0.8 bushel from last year's average yield of 50.6 bushels per acre.

Hard Red Winter production, at 726 million bushels, is up 3 percent from last month. Soft Red Winter, at 342 million bushels, is down less than 1 percent from the May forecast. White Winter, at 226 million bushels, is down 1 percent from last month. Of the White Winter production, 17.8 million bushels are Hard White and 209 million bushels are Soft White.

The United States all orange forecast for the 2023-2024 season is 2.69 million tons, up less than 1 percent from the previous forecast but up 6 percent from the 2022-2023 final utilization. The Florida all orange forecast, at 17.9 million boxes (804,000 tons), is up less than 1 percent from the previous forecast and up 13 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 6.76 million boxes (304,000 tons), down 1 percent from the previous forecast but up 10 percent from last season's final utilization. The Florida Valencia orange forecast, at 11.1 million boxes (500,000 tons), is up 1 percent from the previous forecast and up 15 percent from last season's final utilization.

This report was approved on June 12, 2024.

Secretary of Agriculture
Designate
Jason Hafemeister

Agricultural Statistics Board
Chairperson
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Contents

Winter Wheat Area Harvested, Yield, and Production – States and United States: 2023 and Forecasted June 1, 2024

State	Area harvested		Yield per acre			Production	
	2023	2024	2023	2024		2023	2024
				May 1	June 1		
	(1,000 acres)	(1,000 acres)	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)
Arkansas	165	75	57.0	50.0	50.0	9,405	3,750
California	80	80	80.0	80.0	82.0	6,400	6,560
Colorado	1,820	1,850	41.0	44.0	41.0	74,620	75,850
Idaho	630	690	89.0	90.0	85.0	56,070	58,650
Illinois	780	680	87.0	83.0	82.0	67,860	55,760
Indiana	335	240	92.0	84.0	86.0	30,820	20,640
Kansas	5,750	7,050	35.0	38.0	40.0	201,250	282,000
Kentucky	460	370	88.0	83.0	83.0	40,480	30,710
Maryland	195	175	85.0	82.0	82.0	16,575	14,350
Michigan	560	380	83.0	85.0	87.0	46,480	33,060
Missouri	600	500	70.0	67.0	68.0	42,000	34,000
Montana	1,680	1,850	51.0	47.0	51.0	85,680	94,350
Nebraska	880	850	42.0	47.0	50.0	36,960	42,500
North Carolina	400	320	70.0	64.0	60.0	28,000	19,200
Ohio	590	450	90.0	84.0	83.0	53,100	37,350
Oklahoma	2,450	2,600	28.0	37.0	38.0	68,600	98,800
Oregon	725	715	56.0	68.0	70.0	40,600	50,050
Pennsylvania	230	200	76.0	77.0	77.0	17,480	15,400
South Dakota	700	780	47.0	52.0	54.0	32,900	42,120
Tennessee	390	310	80.0	80.0	76.0	31,200	23,560
Texas	2,100	2,100	37.0	34.0	34.0	77,700	71,400
Virginia	135	100	78.0	71.0	70.0	10,530	7,000
Washington	1,750	1,800	54.0	65.0	64.0	94,500	115,200
Wisconsin	230	200	76.0	78.0	79.0	17,480	15,800
Other States [1]	1,048	833	58.3	56.2	56.2	61,058	46,825
United States	24,683	25,198	50.6	50.7	51.4	1,247,748	1,294,885

[1] For 2023, other States include Alabama, Delaware, Georgia, Mississippi, New Jersey, New Mexico, New York, North Dakota, South Carolina, Utah, and Wyoming. For 2024, other States include Alabama, Delaware, Georgia, Mississippi, New Mexico, New York, North Dakota, South Carolina, Utah, and Wyoming. Individual State level estimates will be published in the *Small Grains 2024 Summary*.

Durum Wheat Area Harvested, Yield, and Production – States and United States: 2023 and Forecasted June 1, 2024

[Area harvested for the United States and remaining States will be published in the *Acreage* report released June 2024. Yield and production will be published in the *Crop Production* report released July 2024. Blank data cells indicate estimation period has not yet begun]

State	Area harvested		Yield per acre			Production	
	2023	2024	2023	2024		2023	2024
				May 1	June 1		
	(1,000 acres)	(1,000 acres)	(bushels)	(bushels)	(bushels)	(1,000 bushels)	(1,000 bushels)
Arizona	37	59	103.0	103.0	102.0	3,811	6,018
California	17	16	114.0	103.0	103.0	1,938	1,648
Idaho [1]	10	(NA)	65.0	(NA)	(NA)	650	(NA)
Montana	675		31.0			20,925	
North Dakota	865		37.0			32,005	
United States	1,604		37.0			59,329	

(NA) Not available.
[1] Estimates discontinued in 2024.

Wheat Production by Class – United States: 2023 and Forecasted June 1, 2024

[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	2023	2024
	(1,000 bushels)	(1,000 bushels)
Winter		
Hard red	601,017	726,443
Soft red	449,017	342,052
Hard white	14,142	17,778
Soft white	183,572	208,612
Spring		
Hard red	468,068	
Hard white	8,745	
Soft white	28,087	
Durum	59,329	
Total	1,811,977	

Hops Area Harvested by Variety – States and United States: 2023 and 2024

State and variety	Area harvested	Strung for harvest
	2023	2024
	(acres)	(acres)
Idaho		
Amarillo [R], VGXP01	537	514
Apollo [TM]	209	211
Cascade	699	325
Cashmere	91	(D)
Chinook	409	191
Citra [R], HBC 394	1,014	609
Columbus/Tomahawk [R]/Zeus (CTZ)	1,059	822
Comet	108	(D)
El Dorado [R]	242	(D)
Elani [TM], YQH-1320	8	8
Eureka! [TM]	525	376
Hallertauer Mittelfruher	159	159
Helios [TM], HS15619	503	642
Idaho 7 [R]	290	260
Mosaic [R], HBC 369	1,120	497
Mt. Rainier	66	-
Saaz	380	379
Simcoe [R], YCR 14	257	70
Willamette	459	157
Experimental	(D)	35
Other varieties [1]	510	715
Total	8,645	5,970
Oregon		
Amarillo [R], VGXP01	204	217
Cascade	629	493
Centennial	386	420
Chinook	76	63
Citra [R], HBC 394	1,528	1,326
Crystal	240	198
Liberty	25	25
Mosaic [R], HBC 369	847	690
Mt. Hood	188	145
Mt. Rainier	109	(D)
Nugget	375	257
Simcoe [R], YCR 14	466	401
Sterling	30	40
Strata [R], OR91331	839	583
Tahoma	104	(D)
Willamette	439	181
Other varieties [1]	337	552
Total	6,822	5,591

See footnote(s) at end of table.

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Hops Area Harvested by Variety – States and United States: 2023 and 2024 (continued)

State and variety	Area harvested	Strung for harvest
	2023	2024
	(acres)	(acres)
Washington		
Amarillo [R], VGXP01	1,436	1,275
Apollo [TM]	802	870
Azacca [R], ADHA-483	401	387
Bravo [TM]	206	102
Cascade	3,156	2,167
Cashmere	258	202
Centennial	2,103	2,082
Chinook	1,216	954
Citra [R], HBC 394	6,314	4,785
Cluster	195	281
Columbus/Tomahawk [R]/Zeus (CTZ)	5,295	4,666
Comet	175	173
Ekuanot [R], HBC 366	373	347
El Dorado [R]	621	481
Elani [TM], YQH-1320	61	58
Eureka! [TM]	621	480
HBC 682	2,226	2,414
Helios [TM], HS15619	1,006	1,287
Idaho 7 [R]	148	150
Loral [R], HBC 291	161	107
Mosaic [R], HBC 369	3,309	2,430
Mt. Hood	(D)	50
Mt. Rainier	212	(D)
Palisade [R], YCR 4	260	316
Pekko [R], ADHA-871	1,045	(D)
Sabro [R], HBC 438	203	203
Simcoe [R], YCR 14	3,483	2,839
Super Galena [TM]	354	355
Tahoma	385	258
Talus [R], HBC 692	147	95
Warrior [R], YCR 5	148	128
Willamette	199	176
Experimental	602	567
Other varieties [1]	1,730	2,297
Total	38,851	32,982
United States	54,318	44,543

- Represents zero.
(D) Withheld to avoid disclosing data for individual operations.
[R] Registered
[TM] Trademark
[1] Includes data withheld to avoid disclosure of individual operations and varieties not listed.

Hops Organic Area Harvested – United States: 2023 and 2024

	Area harvested	Strung for harvest
	2023	2024
	(acres)	(acres)
United States	634	476

Utilized Production of Citrus Fruits by Crop – States and United States: 2022-2023 and Forecasted June 1, 2024

[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	
	2022-2023	2023-2024	2022-2023	2023-2024
	(1,000 boxes)	(1,000 boxes)	(1,000 tons)	(1,000 tons)
Oranges				
California, all [2]	44,700	46,000	1,788	1,840
Early, mid, and Navel [3]	36,100	38,000	1,444	1,520
Valencia	8,600	8,000	344	320
Florida, all	15,820	17,860	712	804
Early, mid, and Navel [3]	6,150	6,760	277	304
Valencia	9,670	11,100	435	500
Texas, all [2]	1,130	1,100	48	47
Early, mid, and Navel [3]	570	700	24	30
Valencia	560	400	24	17
United States, all	61,650	64,960	2,548	2,691
Early, mid, and Navel [3]	42,820	45,460	1,745	1,854
Valencia	18,830	19,500	803	837
Grapefruit				
California [2]	4,300	4,100	172	164
Florida, all	1,810	1,790	77	76
Texas [2]	2,250	2,600	90	104
United States	8,360	8,490	339	344
Tangerines and mandarins [4]				
California [2]	23,550	22,000	942	880
Florida	480	450	23	21
United States	24,030	22,450	965	901
Lemons [2]				
Arizona	1,400	1,050	56	42
California	26,000	22,000	1,040	880
United States	27,400	23,050	1,096	922

[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: 2023 and Forecasted June 1, 2024

State	Total production	
	2023	2024
	(million pounds)	(million pounds)
Michigan	133.0	182.0
New York [1]	(D)	(NA)
Utah	32.7	40.0
Washington [1]	(D)	(NA)
Wisconsin [1]	10.0	(NA)
Other States	24.5	(X)
United States	200.2	222.0

(D) Withheld to avoid disclosing data for individual operations.
(NA) Not available.
(X) Not applicable.
[1] Estimates discontinued in 2024.

Sweet Cherry Production – States and United States: 2023 and Forecasted June 1, 2024

State	Total production	
	2023	2024
	(tons)	(tons)
California	107,500	105,000
Michigan [1]	(NA)	22,000
Oregon	38,800	43,000
Washington	208,000	185,000
United States	354,300	355,000

(NA) Not available.
[1] Estimates began in 2024.

Maple Syrup Taps, Yield, and Production – States and United States: 2022-2024

State	Acreage			Number of taps			Yield per tap			Production		
	2022	2023	2024 [1]	2022	2023	2024	2022	2023	2024	2022	2023	2024
	(acres)	(acres)	(acres)	(1,000 taps)	(1,000 taps)	(1,000 taps)	(gallons)	(gallons)	(gallons)	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)
Connecticut [1]	(NA)	(NA)	2,800	(NA)	(NA)	60	(NA)	(NA)	0.186	(NA)	(NA)	11
Indiana [1]	(NA)	(NA)	3,300	(NA)	(NA)	95	(NA)	(NA)	0.228	(NA)	(NA)	22
Maine	(NA)	(NA)	21,500	1,950	1,880	1,900	0.349	0.250	0.369	681	470	701
Massachusetts [1]	(NA)	(NA)	4,600	(NA)	(NA)	200	(NA)	(NA)	0.244	(NA)	(NA)	49
Michigan	(NA)	(NA)	11,300	640	620	650	0.336	0.330	0.308	215	205	200
Minnesota [1]	(NA)	(NA)	3,700	(NA)	(NA)	96	(NA)	(NA)	0.271	(NA)	(NA)	26
New Hampshire	(NA)	(NA)	11,200	560	490	520	0.308	0.303	0.286	172	148	149
New York	(NA)	(NA)	60,000	2,900	2,500	2,800	0.291	0.300	0.302	844	750	846
Ohio [1]	(NA)	(NA)	12,300	(NA)	(NA)	400	(NA)	(NA)	0.240	(NA)	(NA)	96
Pennsylvania	(NA)	(NA)	13,700	920	780	790	0.219	0.263	0.231	201	205	182
Vermont	(NA)	(NA)	141,000	8,500	8,100	8,400	0.384	0.322	0.370	3,264	2,608	3,108
West Virginia [1]	(NA)	(NA)	2,200	(NA)	(NA)	70	(NA)	(NA)	0.171	(NA)	(NA)	12
Wisconsin	(NA)	(NA)	31,100	1,270	1,120	1,140	0.481	0.408	0.402	611	457	458
United States	(NA)	(NA)	318,700	16,740	15,490	17,121	0.358	0.313	0.342	5,988	4,843	5,860

(NA) Not available.
[1] Estimates began in 2024.

Maple Syrup Price and Value – States and United States: 2022-2024

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

State	Average price per gallon			Value of production		
	2022	2023	2024 [1]	2022	2023	2024 [1]
	(dollars)	(dollars)	(dollars)	(1,000 dollars)	(1,000 dollars)	(1,000 dollars)
Maine	34.90	31.50		23,767	14,805	
Michigan	37.10	42.80		7,977	8,774	
New Hampshire	52.20	50.30		8,978	7,444	
New York	37.50	35.40		31,650	26,550	
Pennsylvania	34.90	37.00		7,015	7,585	
Vermont	33.10	30.30		108,038	79,022	
Wisconsin	31.40	31.70		19,185	14,487	
United States	34.50	32.80		206,610	158,667	

[1] Price and value for 2024 will be published in *Crop Production* released June 2025.

Maple Syrup Sales by Type – States and United States: 2022 and 2023

State	Retail		Wholesale		Bulk		Value Added	
	2022	2023	2022	2023	2022	2023	2022	2023
	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)	(1,000 gallons)
Maine	32	32	80	67	567	354	2	17
Michigan	68	65	77	69	60	68	10	3
New Hampshire	57	34	85	80	24	27	6	7
New York	177	155	164	106	463	458	40	31
Pennsylvania	50	78	44	33	95	82	12	12
Vermont	302	221	250	125	2,675	2,209	37	53
Wisconsin	48	51	105	40	456	354	2	12
United States	734	636	805	520	4,340	3,552	109	135

Maple Syrup Retail and Wholesale Price – States and United States: 2022 and 2023

State	Retail		Wholesale	
	2022	2023	2022	2023
	(dollars per gallon)	(dollars per gallon)	(dollars per gallon)	(dollars per gallon)
Maine	63.00	69.80	39.60	41.90
Michigan	50.80	56.60	31.90	44.30
New Hampshire	59.60	64.90	54.90	53.70
New York	53.00	53.80	43.60	43.40
Pennsylvania	45.40	47.10	38.60	42.00
Vermont	54.00	57.10	37.30	40.80
Wisconsin	52.70	52.00	35.70	46.40
United States	53.60	55.70	40.00	44.40

Maple Syrup Bulk Price – States and United States: 2022 and 2023

State	Bulk all grades		Bulk all grades	
	2022	2023	2022	2023
	(dollars per pound)	(dollars per pound)	(dollars per gallon)	(dollars per gallon)
Maine	2.96	2.37	32.60	26.10
Michigan	2.58	2.56	28.40	28.20
New Hampshire	2.33	1.97	25.70	21.70
New York	2.67	2.48	29.40	27.30
Pennsylvania	2.51	2.30	27.70	25.30
Vermont	2.75	2.45	30.30	27.00
Wisconsin	2.56	2.46	28.20	27.10
United States	2.70	2.40	30.20	26.90

Maple Syrup Grade – States and United States: 2022 and 2023

State	Grade A		Processing Grade	
	2022	2023	2022	2023
	(gallons)	(gallons)	(gallons)	(gallons)
Maine	630,791	413,136	48,209	39,864
Michigan	189,215	198,970	15,785	3,030
New Hampshire	152,720	137,052	13,280	3,948
New York	766,212	688,802	37,788	30,198
Pennsylvania	175,014	176,016	13,986	16,984
Vermont	2,797,809	2,498,790	429,191	56,210
Wisconsin	572,460	436,100	36,540	8,900
United States	5,284,221	4,548,866	594,779	159,134

Maple Sap Sales and Price – States and United States: 2022 and 2023

State	Sap Sales		Sap Price	
	2022	2023	2022	2023
	(gallons)	(gallons)	(dollars per gallon)	(dollars per gallon)
Maine	(D)	(D)	(D)	(D)
Michigan	(D)	193,650	(D)	0.34
New Hampshire	60,000	260,000	0.27	0.28
New York	794,000	1,419,000	0.52	0.23
Pennsylvania	108,000	(D)	0.35	(D)
Vermont	4,634,000	8,447,000	0.90	0.31
Wisconsin	1,487,000	1,502,000	0.29	0.33
Other States [1]	104,000	172,000	1.55	0.22
United States	7,187,000	11,993,650	0.70	0.30

(D) Withheld to avoid disclosing data for individual operations.
[1] Includes data withheld above.

Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2023 and 2024

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2023	2024	2023	2024
	(1,000 acres)	(1,000 acres)	(1,000 acres)	(1,000 acres)
Grains and hay				
Barley	3,101	2,566	2,555	
Corn for grain [1]	94,641	90,036	86,513	
Corn for silage	(NA)		6,471	
Hay, all	(NA)	(NA)	52,821	51,562
Alfalfa	(NA)		15,634	
All other	(NA)		37,187	
Oats	2,555	2,318	831	
Proso millet	619		572	
Rice	2,894	2,932	2,854	
Rye	2,293		322	
Sorghum for grain [1]	7,195	6,395	6,115	
Sorghum for silage	(NA)		384	
Wheat, all	49,575	47,498	37,272	
Winter	36,699	34,135	24,683	25,198
Durum	1,676	2,028	1,604	
Other spring	11,200	11,335	10,985	
Oilseeds				
Canola	2,344.5	2,366.5	2,319.2	
Cottonseed	(X)		(X)	
Flaxseed	178	105	160	
Mustard seed	245.0		238.1	
Peanuts	1,645.0	1,651.0	1,574.0	
Rapeseed	13.2		10.1	
Safflower	129.5		126.0	
Soybeans for beans	83,600	86,510	82,356	
Sunflower	1,315.0	957.5	1,267.5	
Cotton, tobacco, and sugar crops				
Cotton, all	10,230.0	10,673.0	6,439.6	
Upland	10,083.0	10,470.0	6,301.8	
American Pima	147.0	203.0	137.8	
Sugarbeets	1,137.4	1,129.0	1,127.3	
Sugarcane	(NA)		929.6	
Tobacco	(NA)	(NA)	187.6	165.3
Dry beans, peas, and lentils				
Chickpeas	372.4	429.0	359.2	
Dry edible beans	1,180.0	1,316.0	1,156.9	
Dry edible peas	966.0	974.0	941.0	
Lentils	546.0	762.0	523.0	
Potatoes and miscellaneous				
Hops	(NA)	(NA)	54.3	44.5
Maple syrup	(NA)	(NA)	(NA)	(NA)
Mushrooms	(NA)		(NA)	
Peppermint oil	(NA)		31.3	
Potatoes	965.0		960.2	
Spearmint oil	(NA)		12.2	

See footnote(s) at end of table.

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Crop Area Planted and Harvested, Yield, and Production in Domestic Units – United States: 2023 and 2024 (continued)

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Yield per acre		Production	
	2023	2024	2023	2024
			(1,000)	(1,000)
Grains and hay				
Barley ..... bushels	72.4		185,036	
Corn for grain ..... bushels	177.3		15,341,595	
Corn for silage ..... tons	20.1		129,994	
Hay, all ..... tons	2.25		118,769	
Alfalfa ..... tons	3.19		49,916	
All other ..... tons	1.85		68,853	
Oats ..... bushels	68.6		57,045	
Proso millet ..... bushels	34.2		19,572	
Rice [2] ..... cwt	7,649		218,291	
Rye ..... bushels	32.2		10,375	
Sorghum for grain ..... bushels	52.0		317,745	
Sorghum for silage ..... tons	13.0		4,981	
Wheat, all ..... bushels	48.6		1,811,977	
Winter ..... bushels	50.6	51.4	1,247,748	1,294,885
Durum ..... bushels	37.0		59,329	
Other spring ..... bushels	46.0		504,900	
Oilseeds				
Canola ..... pounds	1,793		4,157,420	
Cottonseed ..... tons	(X)		3,644.0	
Flaxseed ..... bushels	18.5		2,961	
Mustard seed ..... pounds	627		149,305	
Peanuts ..... pounds	3,742		5,890,020	
Rapeseed ..... pounds	2,003		20,230	
Safflower ..... pounds	1,036		130,570	
Soybeans for beans ..... bushels	50.6		4,164,677	
Sunflower ..... pounds	1,786		2,263,520	
Cotton, tobacco, and sugar crops				
Cotton, all [2] ..... bales	899		12,066.0	
Upland [2] ..... bales	895		11,750.0	
American Pima [2] ..... bales	1,101		316.0	
Sugarbeets ..... tons	31.2		35,226	
Sugarcane ..... tons	36.3		33,766	
Tobacco ..... pounds	2,305		432,452	
Dry beans, peas, and lentils				
Chickpeas [2] ..... cwt	1,315		4,722	
Dry edible beans [2] ..... cwt	2,067		23,910	
Dry edible peas [2] ..... cwt	1,922		18,086	
Lentils [2] ..... cwt	1,098		5,742	
Potatoes and miscellaneous				
Hops ..... pounds	1,915		104,042.5	
Maple syrup ..... gallons	(NA)	(NA)	4,843	5,860
Mushrooms ..... pounds	(NA)		666,647	
Peppermint oil ..... pounds	90		2,811	
Potatoes ..... cwt	459		440,750	
Spearmint oil ..... pounds	126		1,541	

(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: 2023 and 2024

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Area planted		Area harvested	
	2023	2024	2023	2024
	(hectares)	(hectares)	(hectares)	(hectares)
Grains and hay				
Barley	1,254,940	1,038,430	1,033,980	
Corn for grain [1]	38,300,270	36,436,670	35,010,950	
Corn for silage	(NA)		2,618,750	
Hay, all [2]	(NA)	(NA)	21,376,130	20,866,630
Alfalfa	(NA)		6,326,920	
All other	(NA)		15,049,210	
Oats	1,033,980	938,070	336,300	
Proso millet	250,500		231,480	
Rice	1,171,170	1,186,550	1,154,990	
Rye	927,950		130,310	
Sorghum for grain [1]	2,911,740	2,587,990	2,474,680	
Sorghum for silage	(NA)		155,400	
Wheat, all [2]	20,062,510	19,221,970	15,083,610	
Winter	14,851,720	13,814,090	9,988,960	10,197,380
Durum	678,260	820,710	649,120	
Other spring	4,532,530	4,587,160	4,445,520	
Oilseeds				
Canola	948,800	957,700	938,560	
Cottonseed	(X)		(X)	
Flaxseed	72,030	42,490	64,750	
Mustard seed	99,150		96,360	
Peanuts	665,720	668,140	636,980	
Rapeseed	5,340		4,090	
Safflower	52,410		50,990	
Soybeans for beans	33,832,080	35,009,730	33,328,650	
Sunflower	532,170	387,490	512,940	
Cotton, tobacco, and sugar crops				
Cotton, all [2]	4,139,980	4,319,260	2,606,040	
Upland	4,080,490	4,237,100	2,550,280	
American Pima	59,490	82,150	55,770	
Sugarbeets	460,290	456,900	456,210	
Sugarcane	(NA)		376,200	
Tobacco	(NA)	(NA)	75,930	66,900
Dry beans, peas, and lentils				
Chickpeas	150,710	173,610	145,360	
Dry edible beans	477,530	532,570	468,190	
Dry edible peas	390,930	394,170	380,810	
Lentils	220,960	308,370	211,650	
Potatoes and miscellaneous				
Hops	(NA)	(NA)	21,980	18,030
Maple syrup	(NA)	(NA)	(NA)	(NA)
Mushrooms	(NA)		(NA)	
Peppermint oil	(NA)		12,670	
Potatoes	390,530		388,580	
Spearmint oil	(NA)		4,940	

See footnote(s) at end of table.

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Crop Area Planted and Harvested, Yield, and Production in Metric Units – United States: 2023 and 2024 (continued)

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year. Blank data cells indicate estimation period has not yet begun]

Crop	Yield per hectare		Production	
	2023	2024	2023	2024
	(metric tons)	(metric tons)	(metric tons)	(metric tons)
Grains and hay				
Barley	3.90		4,028,680	
Corn for grain	11.13		389,694,460	
Corn for silage	45.03		117,928,570	
Hay, all [2]	5.04		107,745,420	
Alfalfa	7.16		45,283,030	
All other	4.15		62,462,390	
Oats	2.46		828,010	
Proso millet	1.92		443,890	
Rice	8.57		9,901,510	
Rye	2.02		263,540	
Sorghum for grain	3.26		8,071,090	
Sorghum for silage	29.08		4,518,690	
Wheat, all [2]	3.27		49,313,930	
Winter	3.40	3.46	33,958,140	35,240,990
Durum	2.49		1,614,670	
Other spring	3.09		13,741,130	
Oilseeds				
Canola	2.01		1,885,770	
Cottonseed	(X)		3,305,780	
Flaxseed	1.16		75,210	
Mustard seed	0.70		67,720	
Peanuts	4.19		2,671,670	
Rapeseed	2.25		9,180	
Safflower	1.16		59,230	
Soybeans for beans	3.40		113,343,930	
Sunflower	2.00		1,026,720	
Cotton, tobacco, and sugar crops				
Cotton, all [2]	1.01		2,627,060	
Upland	1.00		2,558,260	
American Pima	1.23		68,800	
Sugarbeets	70.05		31,956,490	
Sugarcane	81.42		30,632,000	
Tobacco	2.58		196,160	
Dry beans, peas, and lentils				
Chickpeas	1.47		214,190	
Dry edible beans	2.32		1,084,540	
Dry edible peas	2.15		820,370	
Lentils	1.23		260,450	
Potatoes and miscellaneous				
Hops	2.15		47,190	
Maple syrup	(NA)	(NA)	24,220	29,300
Mushrooms	(NA)		302,390	
Peppermint oil	0.10		1,280	
Potatoes	51.45		19,992,090	
Spearmint oil	0.14		700	

(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: 2023 and 2024

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year, except citrus which is for the 2023-2024 season. Blank data cells indicate estimation period has not yet begun]

Crop		Production	
		2023	2024
Citrus [1]			
Grapefruit	1,000 tons	339	344
Lemons	1,000 tons	1,096	922
Oranges	1,000 tons	2,548	2,691
Tangerines and mandarins	1,000 tons	965	901
Noncitrus			
Apples, commercial	million pounds	11,357.5	
Apricots	tons	35,820	
Avocados	tons	128,850	
Blueberries, Cultivated	1,000 pounds	648,000	
Blueberries, Wild (Maine)	1,000 pounds	87,600	
Cherries, Sweet	tons	354,300	355,000
Cherries, Tart	million pounds	200.2	222.0
Coffee (Hawaii)	1,000 pounds	23,310	
Cranberries	barrel	8,110,000	
Dates	tons	49,050	
Grapes	tons	5,909,500	
Kiwifruit (California)	tons	27,400	
Nectarines (California)	tons	145,500	
Olives (California)	tons	121,500	
Papayas (Hawaii)	1,000 pounds	10,250	
Peaches	tons	588,540	
Pears	tons	665,500	
Plums (California)	tons	89,600	
Prunes (California)	tons	287,400	
Raspberries	1,000 pounds	138,100	
Strawberries	1,000 cwt	27,560.0	
Nuts and miscellaneous			
Almonds, shelled (California)	1,000 pounds	2,470,000	3,000,000
Hazelnuts, in-shell (Oregon)	tons	94,200	
Macadamias (Hawaii)	1,000 pounds	36,800	
Pecans, in-shell	1,000 pounds	306,750	
Pistachios (California)	1,000 pounds	1,490,000	
Walnuts, in-shell (California)	tons	824,000	

[1] Production years are 2022-2023 and 2023-2024.

Fruits and Nuts Production in Metric Units – United States: 2023 and 2024

[Data are the latest estimates available, either from the current report or from previous reports. Current year estimates are for the full 2024 crop year, except citrus which is for the 2023-2024 season. Blank data cells indicate estimation period has not yet begun]

Crop	Production	
	2023	2024
	(metric tons)	(metric tons)
Citrus [1]		
Grapefruit	307,540	312,070
Lemons	994,270	836,420
Oranges	2,311,510	2,441,230
Tangerines and mandarins	875,430	817,370
Noncitrus		
Apples, commercial	5,151,680	
Apricots	32,500	
Avocados	116,890	
Blueberries, Cultivated	293,930	
Blueberries, Wild (Maine)	39,730	
Cherries, Sweet	321,420	322,050
Cherries, Tart	90,810	100,700
Coffee (Hawaii)	10,570	
Cranberries	367,860	
Dates	44,500	
Grapes	5,361,010	
Kiwifruit (California)	24,860	
Nectarines (California)	132,000	
Olives (California)	110,220	
Papayas (Hawaii)	4,650	
Peaches	533,910	
Pears	603,730	
Plums (California)	81,280	
Prunes (California)	260,720	
Raspberries	62,640	
Strawberries	1,250,100	
Nuts and miscellaneous		
Almonds, shelled (California)	1,120,370	1,360,780
Hazelnuts, in-shell (Oregon)	85,460	
Macadamias (Hawaii)	16,690	
Pecans, in-shell	139,140	
Pistachios (California)	675,850	
Walnuts, in-shell (California)	747,520	

[1] Production years are 2022-2023 and 2023-2024.

Winter Wheat for Grain Objective Yield Data

The National Agricultural Statistics Service is conducting objective yield surveys in 10 winter wheat-producing States during 2024. 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.

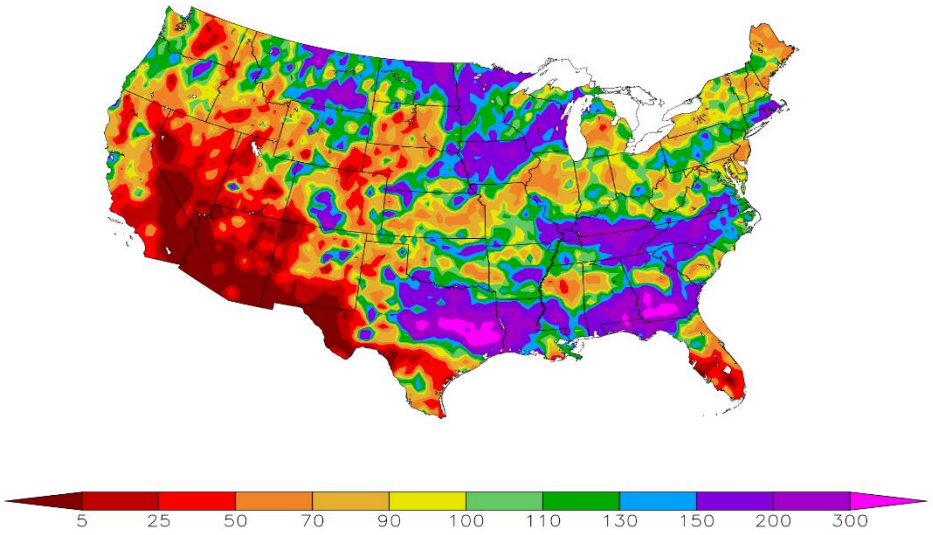
Winter Wheat Objective Yield Percent of Samples Processed in the Lab – United States: 2020-2024

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

Year	June	July	August
	Mature [1]	Mature [1]	Mature [1]
	(percent)	(percent)	(percent)
2020	14	64	92
2021	7	64	97
2022	14	64	91
2023	9	52	94
2024	21		

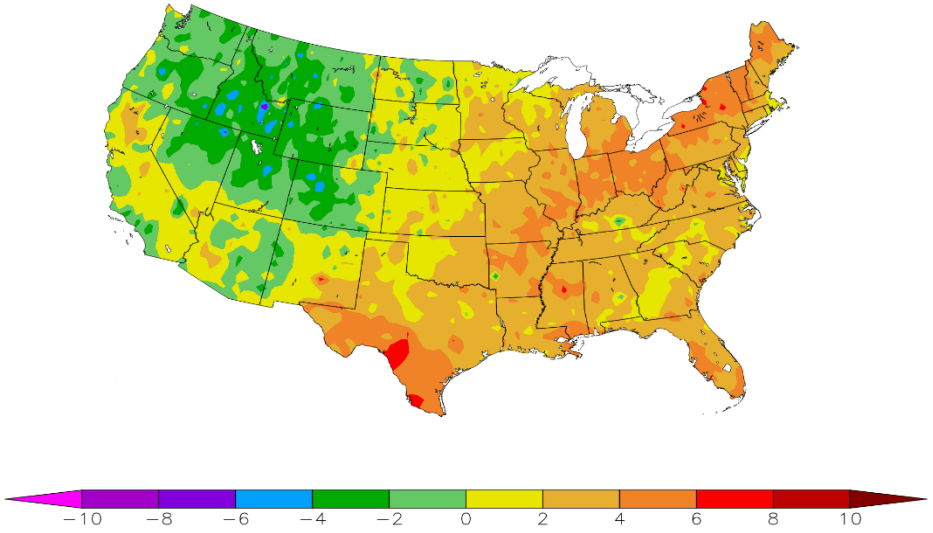
[1] Includes winter wheat in the hard dough stage or beyond and are considered mature or almost mature.

Percent of Normal Precipitation (%)
5/1/2024 – 5/31/2024



NOAA Regional Climate Centers

Departure from Normal Temperature (F)
5/1/2024 – 5/31/2024



NOAA Regional Climate Centers

May Weather Summary

A stable jet-stream configuration (Western trough and Eastern ridge), combined with a moisture contribution from elevated sea-surface temperatures in the Atlantic Basin, fueled almost daily showers and thunderstorms in the central and eastern United States. Tornadoes were reported somewhere in the continental United States each day during the month, except May 15 and 18, while there were more than 3,800 May reports of thunderstorm-induced wind damage and well over 1,800 observations of hail at least one inch in diameter. The Nation's preliminary monthly count of 571 tornadoes nearly matched the highest May total on record; 573 twisters were documented in May 2003. The month's most frenetic periods of severe weather included May 6-9 and 19-28, with major outbreaks occurring on the night of May 8-9 from the Ozark Plateau to the Carolinas, and on May 26-27 from the middle Mississippi Valley to the Mid-Atlantic. Tragically, ten individual tornadoes—on May 6, 8, 13, 21, 25, and 26—resulted in 25 fatalities across eight states. On May 25, a thunderstorm over Cooke County, Texas, spawned the Nation's deadliest tornado (seven fatalities) since March 31, 2023, when nine individuals perished in McNairy County, Tennessee.

National drought coverage remained at a 4-year low during May, according to the *U.S. Drought Monitor*, dropping to 12.55 percent by May 28. That value was down more than 20 percentage points from 32.98 percent on January 2, 2024. As recently as October 10, 2023, national drought coverage had been above 40 percent. Correspondingly, national corn and soybean production areas in drought dropped to 5 and 3 percent, respectively, by May 28. In fact, among major row crops in the United States, only sorghum (54 percent in drought) and winter wheat (25 percent) had appreciable acreage still experiencing drought at the end of May, largely due to lingering pockets of soil moisture shortages on the Plains. By June 2, topsoil moisture was rated at least one-quarter very short to short in seven of ten states comprising the Rockies and Plains—all but Nebraska and the Dakotas—led by New Mexico (83 percent very short to short), Montana (47 percent), Colorado (33 percent), and Texas (33 percent). By month's end, however, pockets of short-term dryness developed in portions of the Atlantic Coast States, including South Carolina (topsoil moisture rated 59 percent very short to short), Delaware (49 percent), and Florida (40 percent).

Florida's peninsula also contended with its hottest May on record, encompassing most communities along and south of a line from Tampa to Orlando. Record-setting heat extended westward along the Gulf Coast into southern and coastal Texas. The unprecedented, early-season heat across southern Texas and peninsular Florida contributed to heavy irrigation demands for citrus and other crops. Farther north, however, frequent showers erased most of the remaining vestiges of Midwestern drought and provided abundant moisture in most areas for emerging summer crops. Excessively wet conditions developed in a few areas, slowing late-season planting and leaving topsoil moisture rated more than 20 percent surplus by June 2 in seven Midwestern States and six Southern States. On that date, topsoil moisture was rated at least 40 percent surplus in Louisiana (47 percent), Kentucky (42 percent), and Minnesota (40 percent).

Despite the local wetness, planting progress for all major row crops, except peanuts, was at or ahead of the 5-year average pace by June 2. On that date, only 9 percent of the Nation's intended corn acreage, along with 22 percent of the soybeans, remained to be planted. Given the warmth and ample wetness of May, many crops that had been planted were able to emerge and quickly develop. Winter wheat development was also generally ahead of schedule on June 2, with 83 percent of the crop headed (versus the 5-year average of 78 percent) and 6 percent harvested (versus the average of 3 percent). On that date, Texas led the Nation with 33 percent of its winter wheat harvested, followed by Oklahoma at 22 percent. Among the 18 reporting states for winter wheat, only four—Kansas (34 percent very poor to poor), Colorado (24 percent), Washington (19 percent), and Texas (19 percent)—noted a very poor to poor rating on June 2 above the national value of 18 percent.

With the jet stream often diving southward in the western United States, monthly temperatures averaged at least 2 to 4°F below normal across the Intermountain region. Conversely, a northward-displaced jet stream east of the Rockies led to May readings broadly ranging from 2 to 6°F above normal from the mid-South into the Northeast, including the southern and eastern Corn Belt. Similar temperature departures (2 to 6°F above normal) across the Deep South were sufficiently extreme to shatter May heat records that had stood since 1915 in Orlando, Florida, and since 1933 in Baton Rouge, Louisiana. For the first time on record, the May average temperature topped 80°F in Baton Rouge, along with Florida locations such as Melbourne and Vero Beach.

May Agricultural Summary

May was warmer than average for most of the Nation's East and midsection. Parts of South Texas, as well as locations in Mississippi and New York, recorded temperature 6°F or more above normal. In contrast, much of the West was cooler than normal. Parts of the Rockies recorded temperatures 4°F or more below normal. While most of southern Florida and the Southwest remained dryer than normal, at least twice the normal amount of rainfall was recorded in parts of the Upper Midwest, Rockies, and South. A series of storms during the month of May brought 18 inches of rain or more to parts of East Texas.

By May 5, producers had planted 36 percent of the Nation's corn crop, 6 percentage points behind last year and 3 percentage points behind the 5-year average. Twelve percent of the Nation's corn acreage had emerged by May 5, two percentage points ahead of the previous year and 3 percentage points ahead of the 5-year average. By May 19, producers had planted 70 percent of the Nation's corn crop, 6 percentage points behind last year and 1 percentage point behind the 5-year average. Forty percent of the Nation's corn acreage had emerged by May 19, six percentage points behind the previous year but 1 percentage point ahead of the 5-year average. By June 2, producers had planted 91 percent of the Nation's corn crop, 4 percentage points behind last year but 2 percentage points ahead of the 5-year average. Seventy-four percent of the Nation's corn acreage had emerged by June 2, seven percentage points behind the previous year but 1 percentage point ahead of the 5-year average. On June 2, seventy-five percent of the Nation's corn acreage was rated in good to excellent condition, 11 percentage points above the previous year.

Twenty-five percent of the Nation's soybean acreage was planted by May 5, five percentage points behind last year but 4 percentage points ahead of the 5-year average. Nine percent of the Nation's soybean acreage had emerged by May 5, two percentage points ahead of last year and 5 percentage points ahead of the 5-year average. Fifty-two percent of the Nation's soybean acreage was planted by May 19, nine percentage points behind last year but 3 percentage points ahead of the 5-year average. Twenty-six percent of the Nation's soybean acreage had emerged by May 19, five percentage points behind last year but 5 percentage points ahead of the 5-year average. Seventy-eight percent of the Nation's soybean acreage was planted by June 2, eleven percentage points behind last year but 5 percentage points ahead of the 5-year average. Fifty-five percent of the Nation's soybean acreage had emerged by June 2, fourteen percentage points behind last year but 3 percentage points ahead of the 5-year average.

By May 5, forty-three percent of the Nation's winter wheat crop was headed, 9 percentage points ahead of last year and 11 percentage points ahead of the 5-year average. By May 19, sixty-nine percent of the Nation's winter wheat crop was headed, 11 percentage points ahead of last year and 12 percentage points ahead of the 5-year average. By June 2, eighty-three percent of the Nation's winter wheat crop was headed, 4 percentage points ahead of last year and 5 percentage points ahead of the 5-year average. Six percent of the 2024 winter wheat acreage had been harvested by June 2, three percentage points ahead of both last year and the 5-year average. On June 2, forty-nine percent of the 2024 winter wheat crop was reported in good to excellent condition, 13 percentage points above the same time last year.

Nationwide, 24 percent of the cotton crop was planted by May 5, four percentage points ahead of both the previous year and the 5-year average. Nationwide, 44 percent of the cotton crop was planted by May 19, two percentage points ahead of the previous year but equal to the 5-year average. Nationwide, 70 percent of the cotton crop was planted by June 2, two percentage points ahead of the previous year but equal to the 5-year average. Nine percent of the Nation's cotton acreage had reached the squaring stage by June 2, four percentage points ahead of last year and 1 percentage point ahead of the 5-year average. On June 2, sixty-one percent of the 2024 cotton acreage was rated in good to excellent condition, 10 percentage points above the same time last year.

Twenty-three percent of the Nation's sorghum acreage was planted by May 5, equal to last year but 1 percentage point ahead of the 5-year average. Thirty-two percent of the Nation's sorghum acreage was planted by May 19, equal to last year but 2 percentage points ahead of the 5-year average. Fifty-one percent of the Nation's sorghum acreage was planted by June 2, four percentage points ahead of last year and 5 percentage points ahead of the 5-year average. Texas had planted 84 percent of its sorghum acreage by June 2, equal to last year but 1 percentage point behind the 5-year average.

By May 5, producers had seeded 78 percent of the 2024 rice acreage, 9 percentage points ahead of the previous year and 18 percentage points ahead of the 5-year average. By May 5, sixty percent of the Nation's rice acreage had emerged, 10 percentage points ahead of last year and 21 percentage points ahead of the 5-year average. By May 19, producers had seeded 92 percent of the 2024 rice acreage, 4 percentage points ahead of the previous year and 8 percentage points ahead of the 5-year average. By May 19, seventy-six percent of the Nation's rice acreage had emerged, 3 percentage points ahead of last year and 13 percentage points ahead of the 5-year average. By June 2, eighty-eight percent of the Nation's rice acreage had emerged, 1 percentage point ahead of last year and 4 percentage points ahead of the 5-year average. On June 2, eighty-one percent of the Nation's rice acreage was rated in good to excellent condition, 11 percentage points above the same time last year.

Nationally, oat producers had seeded 70 percent of this year's acreage by May 5, thirteen percentage points ahead of last year and 9 percentage points ahead of the 5-year average. Forty-nine percent of the Nation's oat acreage was emerged by May 5, ten percentage points ahead of the previous year and 7 percentage points ahead of the 5-year average. Nationally, oat producers had seeded 87 percent of this year's acreage by May 19, eight percentage points ahead of last year and 5 percentage points ahead of the 5-year average. Sixty-nine percent of the Nation's oat acreage was emerged by May 19, seven percentage points ahead of the previous year and 6 percentage points ahead of the 5-year average. Nationally, oat producers had seeded 97 percent of this year's acreage by June 2, one percentage point ahead of last year and 2 percentage points ahead of the 5-year average. Eighty-seven percent of the Nation's oat acreage was emerged by June 2, four percentage points ahead of both the previous year and the 5-year average. Thirty-three percent of the Nation's oat acreage had headed by June 2, three percentage points ahead of last year and 5 percentage points ahead of the 5-year average. On June 2, sixty-eight percent of the Nation's oat acreage was rated in good to excellent condition, 11 percentage points above the same time last year.

Forty-seven percent of the Nation's barley crop was planted by May 5, fourteen percentage points ahead of last year and 3 percentage points ahead of the 5-year average. Fourteen percent of the Nation's barley crop had emerged by May 5, five percentage points ahead of the previous year but 1 percentage point behind the 5-year average. Seventy-eight percent of the Nation's barley crop was planted by May 19, thirteen percentage points ahead of last year and 4 percentage points ahead of the 5-year average. Forty-eight percent of the Nation's barley crop had emerged by May 19, twenty percentage points ahead of the previous year and 5 percentage points ahead of the 5-year average. Ninety-four percent of the Nation's barley crop was planted by June 2, four percentage points ahead of last year and 1 percentage point ahead of the 5-year average. Seventy-four percent of the Nation's barley crop had emerged by June 2, seven percentage points ahead of the previous year but equal to the 5-year average. On June 2, seventy-four percent of the Nation's barley acreage was rated in good to excellent condition, 9 percentage points above the same time last year.

By May 5, forty-seven percent of the spring wheat crop was seeded, 26 percentage points ahead of last year and 16 percentage points ahead of the 5-year average. By May 5, twelve percent of the Nation's spring wheat crop had emerged, 8 percentage points ahead of the previous year and 3 percentage points ahead of the 5-year average. By May 19, seventy-nine percent of the spring wheat crop was seeded, 22 percentage points ahead of last year and 14 percentage points ahead of the 5-year average. By May 19, forty-three percent of the Nation's spring wheat crop had emerged, 16 percentage points ahead of the previous year and 10 percentage points ahead of the 5-year average. By June 2, ninety-four percent of the spring wheat crop was seeded, 3 percentage points ahead of last year and 4 percentage points ahead of the 5-year average. Spring wheat planting progress was at or ahead of the 5-year average in all 6 estimating States. By June 2, seventy-eight percent of the Nation's spring wheat crop had emerged, 7 percentage points ahead of the previous year and 9 percentage points ahead of the 5-year average. On June 2, seventy-four percent of the Nation's spring wheat was rated in good to excellent condition, 10 percentage points above last year.

Nationally, peanut producers had planted 22 percent of the 2024 peanut acreage by May 5, eight percentage points ahead of the previous year and 4 percentage points ahead of the 5-year average. Nationally, peanut producers had planted 54 percent of the 2024 peanut acreage by May 19, four percentage points ahead of the previous year but equal to the 5-year average. Nationally, peanut producers had planted 82 percent of the 2024 peanut acreage by June 2, one percentage point ahead of the previous year but 1 percentage point behind the 5-year average. Producers in Georgia, the largest peanut-producing State, had planted 79 percent of the 2024 intended acreage by June 2, six percentage points behind the previous year and 8 percentage points behind the 5-year average. On June 2, sixty-three percent of the Nation's peanut acreage was rated in good to excellent condition, 9 percentage points below the same time last year.

By May 5, eighty percent of the sugarbeet crop was planted, 44 percentage points ahead of last year and 34 percentage points ahead of the 5-year average. By May 19, ninety-eight percent of the sugarbeet crop was planted, 8 percentage points ahead of last year and 17 percentage points ahead of the 5-year average. Planting progress was nearing completion in all 4 estimating States.

Ten percent of the Nation's intended 2024 sunflower acreage was planted by May 19, six percentage points ahead of last year and 4 percentage points ahead of the 5-year average. Thirty-eight percent of the Nation's intended 2024 sunflower acreage was planted by June 2, one percentage point ahead of last year and 4 percentage points ahead of the 5-year average. Planting progress in North Dakota and South Dakota advanced by 22 percentage points and 20 percentage points, respectively, during the week ending June 2.

Crop Comments

Winter wheat: Production is forecast at 1.29 billion bushels, up 1 percent from the May 1 forecast and up 4 percent from 2023. As of June 1, the United States yield is forecast at 51.4 bushels per acre, up 0.7 bushel from last month and up 0.8 bushel from last year's average yield of 50.6 bushels per acre. Montana, Pennsylvania, and Wisconsin are expecting record high yields. As of June 2, forty-nine percent of the winter wheat acreage in the 18 major producing States was rated in good to excellent condition, 13 percentage points higher than at the same time last year. Nationally, 83 percent of the winter wheat crop was headed by June 2, five percentage points ahead of 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, Oklahoma, and Texas, but are above last year's in Kansas, Montana, and Nebraska. As of June 2, the winter wheat crop in Kansas, Oklahoma, and Texas was rated in good to excellent condition at 34 percent, 56 percent, and 36 percent, respectively. In Texas, winter wheat harvest was 33 percent complete, 6 percentage points ahead of 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 above last year's final head count. As of June 2, the winter wheat crop in Illinois, Missouri, and Ohio was rated in good to excellent condition at 73 percent, 68 percent, and 71 percent, respectively.

Forecasted head counts from the objective yield survey in Washington are above last year's final head count. As of June 2, the winter wheat crop in Idaho, Oregon, and Washington was rated in good to excellent condition at 68 percent, 54 percent, and 48 percent, respectively.

Durum wheat: Production of Durum wheat in Arizona and California is forecast at a collective 7.67 million bushels, down 1 percent from last month but up 33 percent from last year.

Grapefruit: The United States 2023-2024 grapefruit crop is forecast at 344,000 tons, down less than 1 percent from the previous forecast but up 1 percent from last season's final utilization. The Florida forecast, at 1.79 million boxes (76,000 tons), is down 1 percent from previous forecast and down 1 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 901,000 tons, down less than 1 percent from the previous forecast and down 7 percent from last season's final utilization. The Florida tangerine and mandarin forecast, at 450,000 boxes (21,000 tons), is down 10 percent from the previous forecast and down 6 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 2024 is forecast at 44,543 acres, down 18 percent from last year's total of 54,318 acres. In Washington, the largest acreage State, 32,982 acres were strung for harvest, down 15 percent from the previous season. In Idaho, area strung for harvest was 5,970 acres, down 31 percent from 2023. Oregon hop growers strung 5,591 acres for harvest this season, down 18 percent compared to 6,822 acres last season.

Cherries, Tart: United States tart cherry production for 2024 is forecast at 222 million pounds, up 34 percent from 2023, in comparable States. In Michigan, an unusually mild winter was followed by frost events in March. The month of May brought warmer conditions with adequate moisture which improved tree growth and fruit development, with good pollination. In Utah, improved snowpack and increased reservoir water levels provided adequate moisture.

Beginning in 2024, tart cherry estimates were discontinued in New York, Washington, and Wisconsin.

Cherries, Sweet: United States sweet cherry total production for 2024 is forecast at 355,000 tons, down 6 percent from 2023, in comparable states. In Washington, the largest producing state, several counties reported freezing temperatures that damaged the crop in January. In California, harvest began in late April and is expected to continue into the middle of June.

Estimates began for sweet cherries in 2024 for Michigan.

Maple syrup: The 2024 United States maple syrup production totaled 5.86 million gallons, up 17 percent from the previous season for comparable States. The number of taps totaled 17.1 million, up 5 percent from the 2023 total for comparable States. Yield per tap was 0.342 gallon, up 0.035 gallon from the previous season for comparable States.

The 2023 United States average price per gallon was $32.80, down $1.70 from 2022. Value of production, at $159 million for 2023, was down 23 percent from the 2022 season.

Estimates began for maple in 2024 for Connecticut, Indiana, Massachusetts, Minnesota, Ohio, and West Virginia.

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 64 percent of the 2023 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 2,900 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 August. 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 5.2 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 5.2 percent. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 9.0 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	3.7	6.4	136	10	475	8	12
Wheat							
Winter wheat ..... bushels	5.2	9.0	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

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- Joshua Bates – Hemp, Oats, Soybeans..... (202) 690-3234
- Natasha Bruton – Barley, Cotton System Consumption and Stocks, Grain Crushings ..... (202) 690-1042
- David Colwell – Fats and Oils, Flour Milling Products..... (202) 720-8800
- Michelle Harder – Hay, Peanuts ..... (202) 690-8533
- James Johanson – Rye, Wheat ..... (202) 720-8068
- Greg Lemmons – Corn, Proso Millet, Rice..... (202) 720-9526
- Becky Sommer – Cotton, Cotton Ginnings, Sorghum..... (202) 720-5944
- Travis Thorson – Canola, Rapeseed, Safflower, Sunflower ..... (202) 720-7369

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- Bret Holliman – Apricots, Chickpeas, Nectarines, Peaches, Snap Beans, Sweet Corn, Tomatoes..... (202) 720-7235
- Robert Little – Blueberries, Cabbage, Dry Beans, Lettuce, Macadamia, Maple Syrup, Pears, Raspberries, Spinach..... (202) 720-3250
- Krishna Rizal – Artichokes, Asparagus, Celery, Grapefruit, Kiwifruit, Lemons, Mandarins and tangerines, Mint, Mushrooms, Olives, Oranges, Pistachios ..... (202) 720-5412
- Chris Singh – Apples, Cucumbers, Hazelnuts, Potatoes, Pumpkins, Squash, Strawberries, Sugarbeets, Sugarcane, Sweet Potatoes ..... (202) 720-4285
- Antonio Torres – Cantaloupes, Dry Edible Peas, Grapes, Green Peas, Honeydews, Lentils, Sweet Cherries, Tart Cherries, Walnuts, Watermelons ..... (202) 720-2157
- Chris Wallace – Avocados, Bell Peppers, Broccoli, Cauliflower, Chile Peppers, Dates, Floriculture, Hops, Papayas, Pecans ..... (202) 720-4215

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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.