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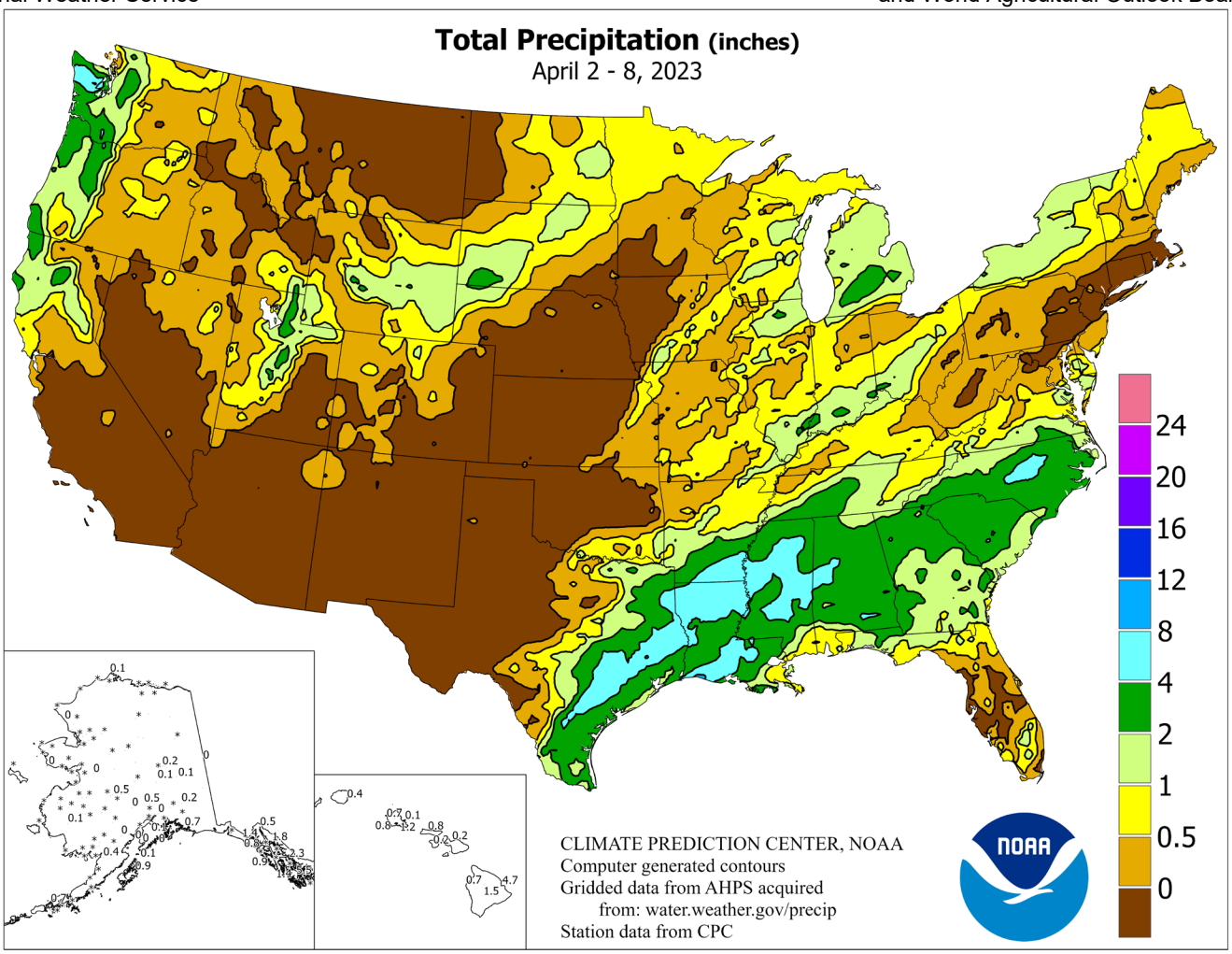
WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service
and World Agricultural Outlook Board



HIGHLIGHTS
April 2 – 8, 2023

Highlights provided by USDA/WAOB

The last in a series of winter-like storms punched inland across the **West** before crossing the **central Plains** and **upper Midwest**. The storm's path dictated observed conditions, which included heavy, early-week snow across parts of the **northern Plains** and the **West**; showers and locally severe thunderstorms in the **mid-South** and **Midwest**, mainly on April 4-5; significant, late-week rain in much of the **South**; and dry, windy weather on the drought-stricken **southern High Plains**. The **Plains'** drought maintained abysmal conditions for U.S. winter

(Continued on page 3)

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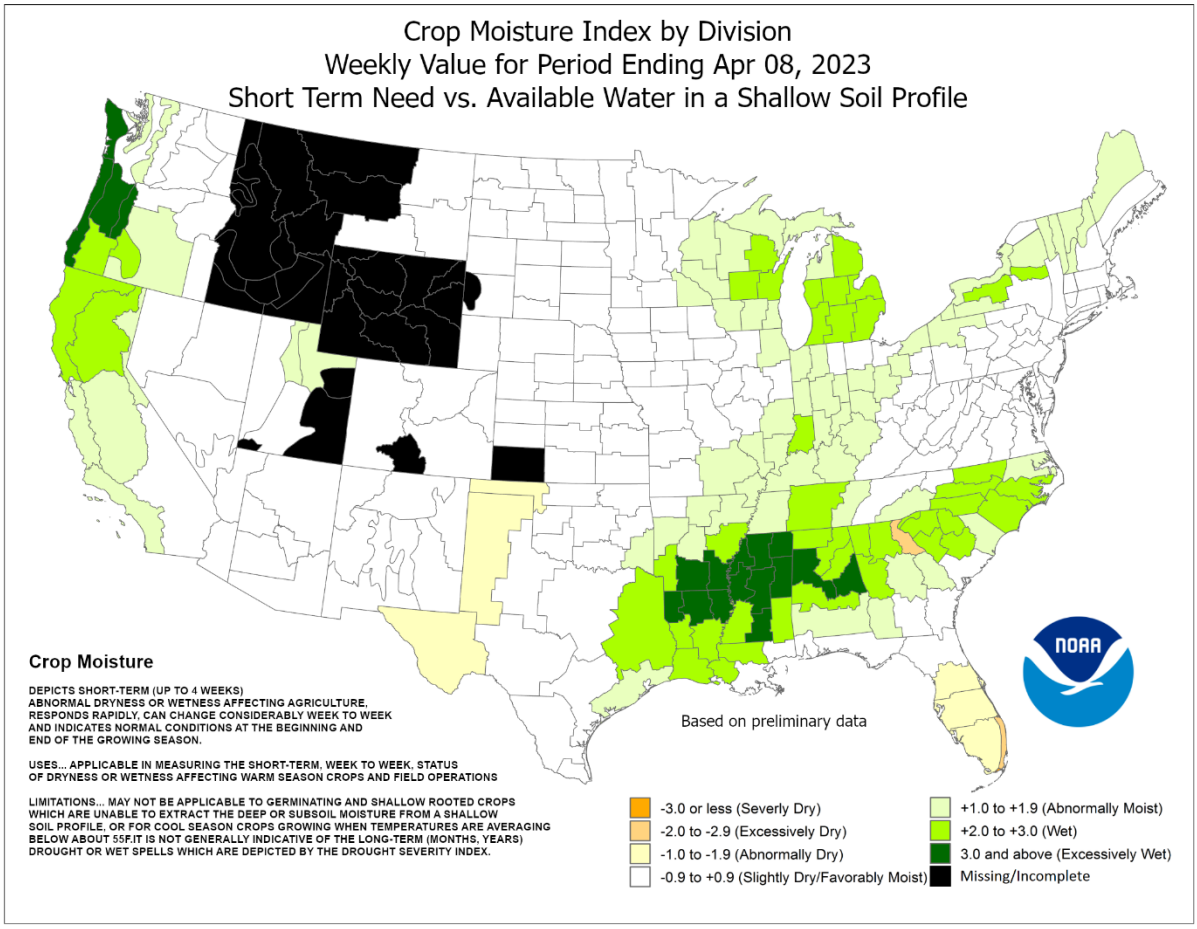
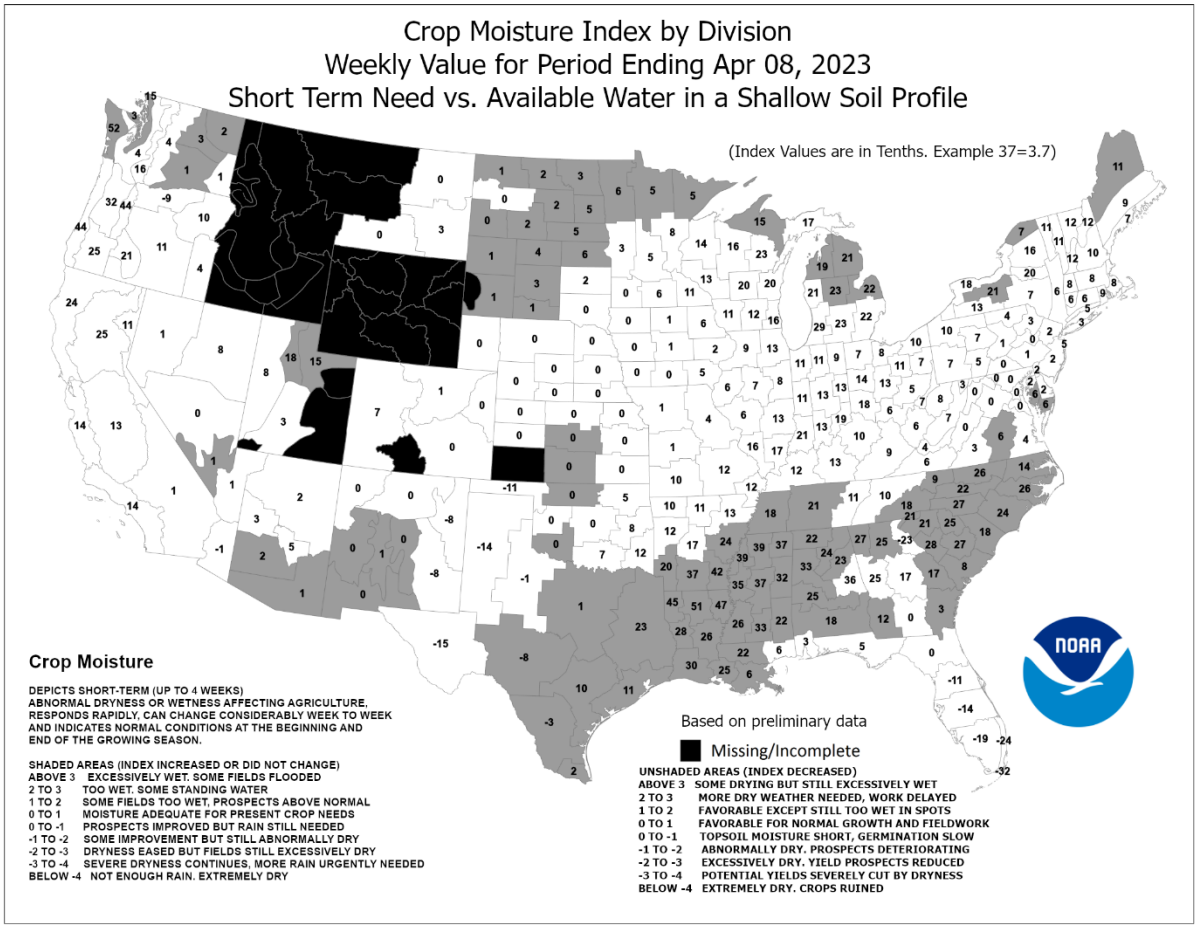
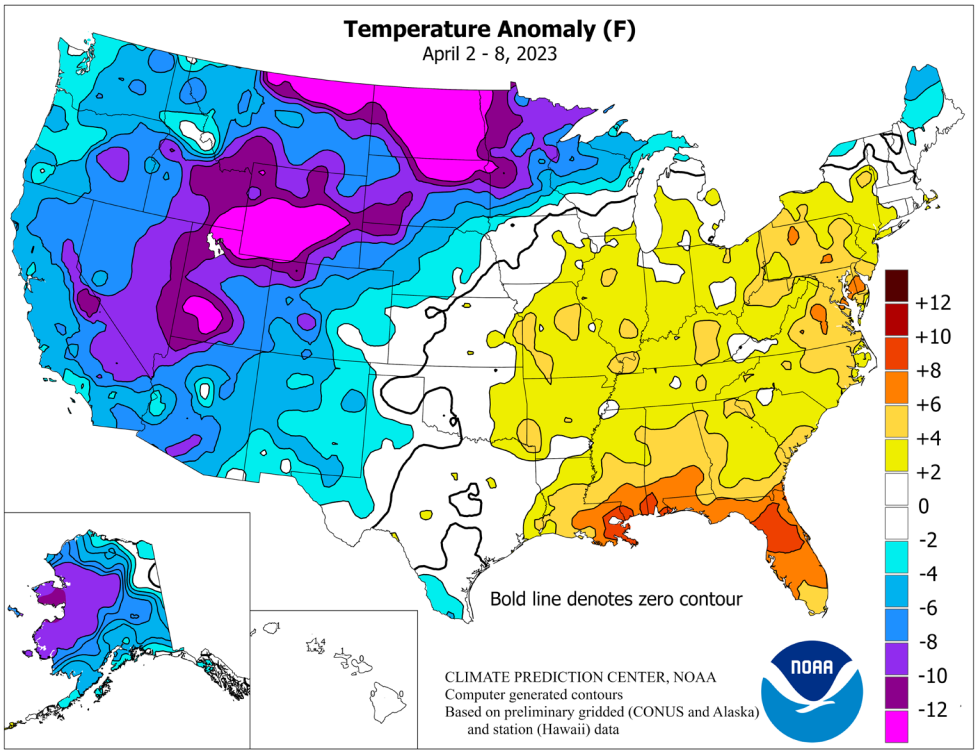

Crop Moisture Index by Division
Weekly Value for Period Ending Apr 08, 2023
Short Term Need vs. Available Water in a Shallow Soil Profile
Crop Moisture
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.
USES... APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS
LIMITATIONS... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A SHALLOW SOIL PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55F.IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.
Based on preliminary data
-3.0 or less (Severly Dry)
-2.0 to -2.9 (Excessively Dry)
-1.0 to -1.9 (Abnormally Dry)
-0.9 to +0.9 (Slightly Dry/Favorably Moist)
+1.0 to +1.9 (Abnormally Moist)
+2.0 to +3.0 (Wet)
3.0 and above (Excessively Wet)
Missing/Incomplete


Crop Moisture Index by Division
Weekly Value for Period Ending Apr 08, 2023
Short Term Need vs. Available Water in a Shallow Soil Profile
(Index Values are in Tenths. Example 37=3.7)
Crop Moisture
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.
SHADED AREAS (INDEX INCREASED OR DID NOT CHANGE)
ABOVE 3 EXCESSIVELY WET. SOME FIELDS FLOODED
2 TO 3 TOO WET. SOME STANDING WATER
1 TO 2 SOME FIELDS TOO WET, PROSPECTS ABOVE NORMAL
0 TO 1 MOISTURE ADEQUATE FOR PRESENT CROP NEEDS
0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2 SOME IMPROVEMENT BUT STILL ABNORMALLY DRY
-2 TO -3 DRYNESS EASED BUT FIELDS STILL EXCESSIVELY DRY
-3 TO -4 SEVERE DRYNESS CONTINUES, MORE RAIN URGENTLY NEEDED
BELOW -4 NOT ENOUGH RAIN. EXTREMELY DRY
Based on preliminary data
Missing/Incomplete
UNSHADED AREAS (INDEX DECREASED)
ABOVE 3 SOME DRYING BUT STILL EXCESSIVELY WET
2 TO 3 MORE DRY WEATHER NEEDED, WORK DELAYED
1 TO 2 FAVORABLE EXCEPT STILL TOO WET IN SPOTS
0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
0 TO -1 TOPSOIL MOISTURE SHORT, GERMINATION SLOW
-1 TO -2 ABNORMALLY DRY. PROSPECTS DETERIORATING
-2 TO -3 EXCESSIVELY DRY. YIELD PROSPECTS REDUCED
-3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DRYNESS
BELOW -4 EXTREMELY DRY. CROPS RUINED

(Continued from front cover)

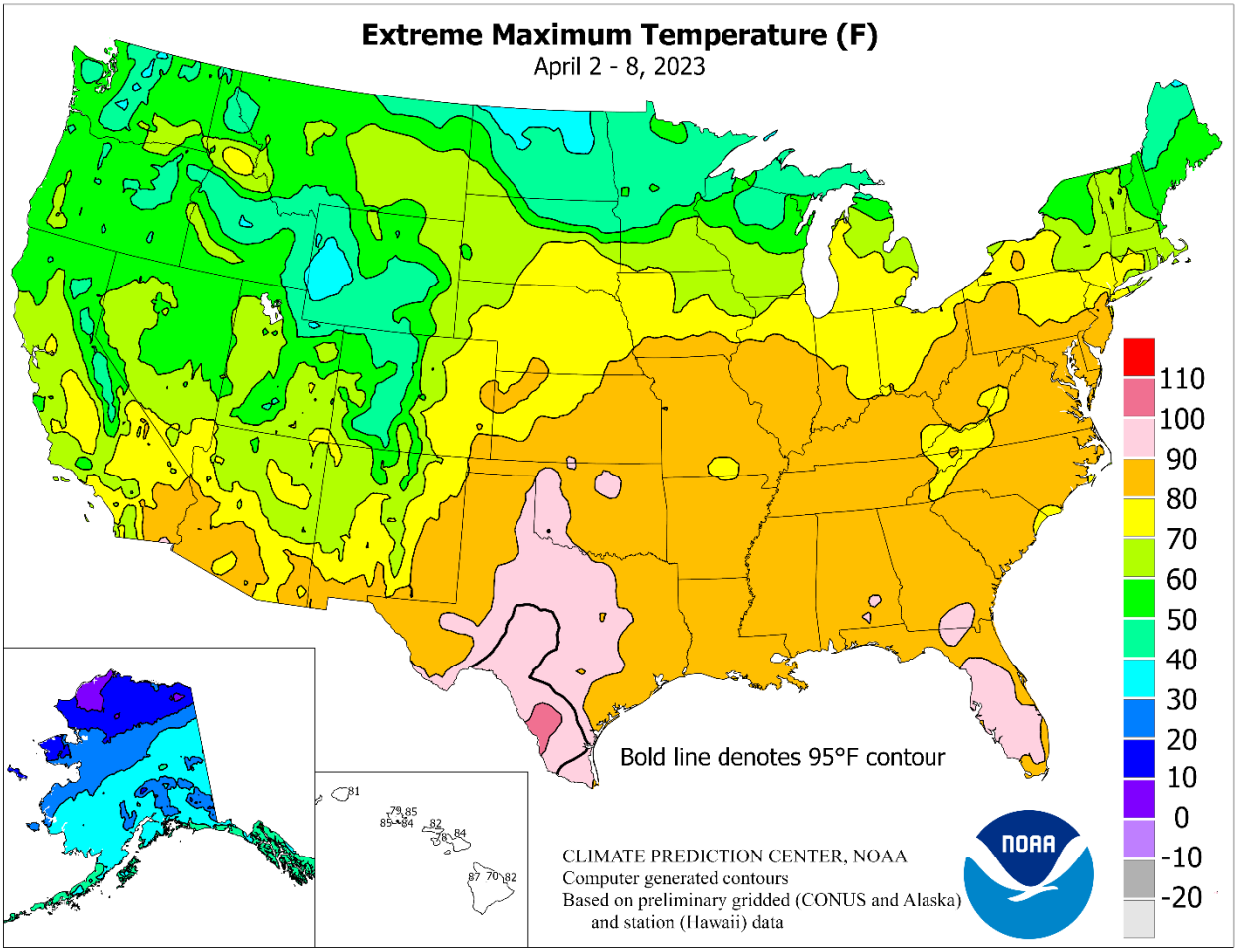
wheat, which on April 9 was rated 37 percent very poor to poor—slightly worse than the same time a year ago (36 percent), but slightly better than the record-low 40 percent very poor to poor rating on April 7, 1996. Farther north, snow that initially covered the ground in November 2022 remained in place across portions of the **north-central U.S.**, with a new round of wind-driven snow falling during the first half of the week. In those snow-covered areas, producers remained unable to plant crops such as barley, oats, spring wheat, and sugarbeets. Weekly temperatures averaged at least 10 to 15°F below normal in **northeastern Montana** and parts of the **Dakotas**. Similar departures were observed across much of the **Intermountain West**. Meanwhile, warmer-than-normal weather covered areas from the **middle and lower Mississippi Valley to the middle and southern Atlantic Coast**. Weekly readings averaged more than 10°F above normal in scattered locations along and near the **Gulf Coast from Louisiana to Florida**.

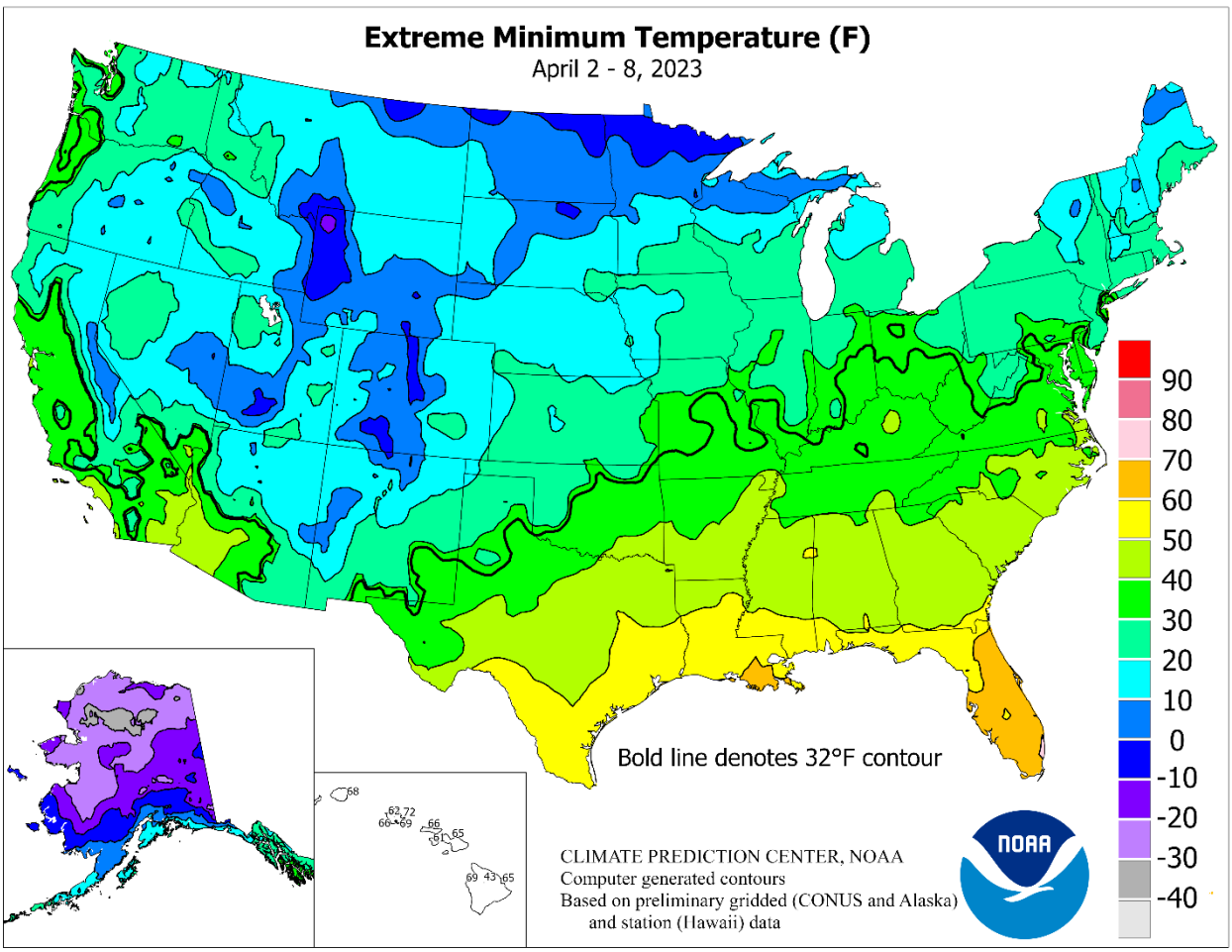


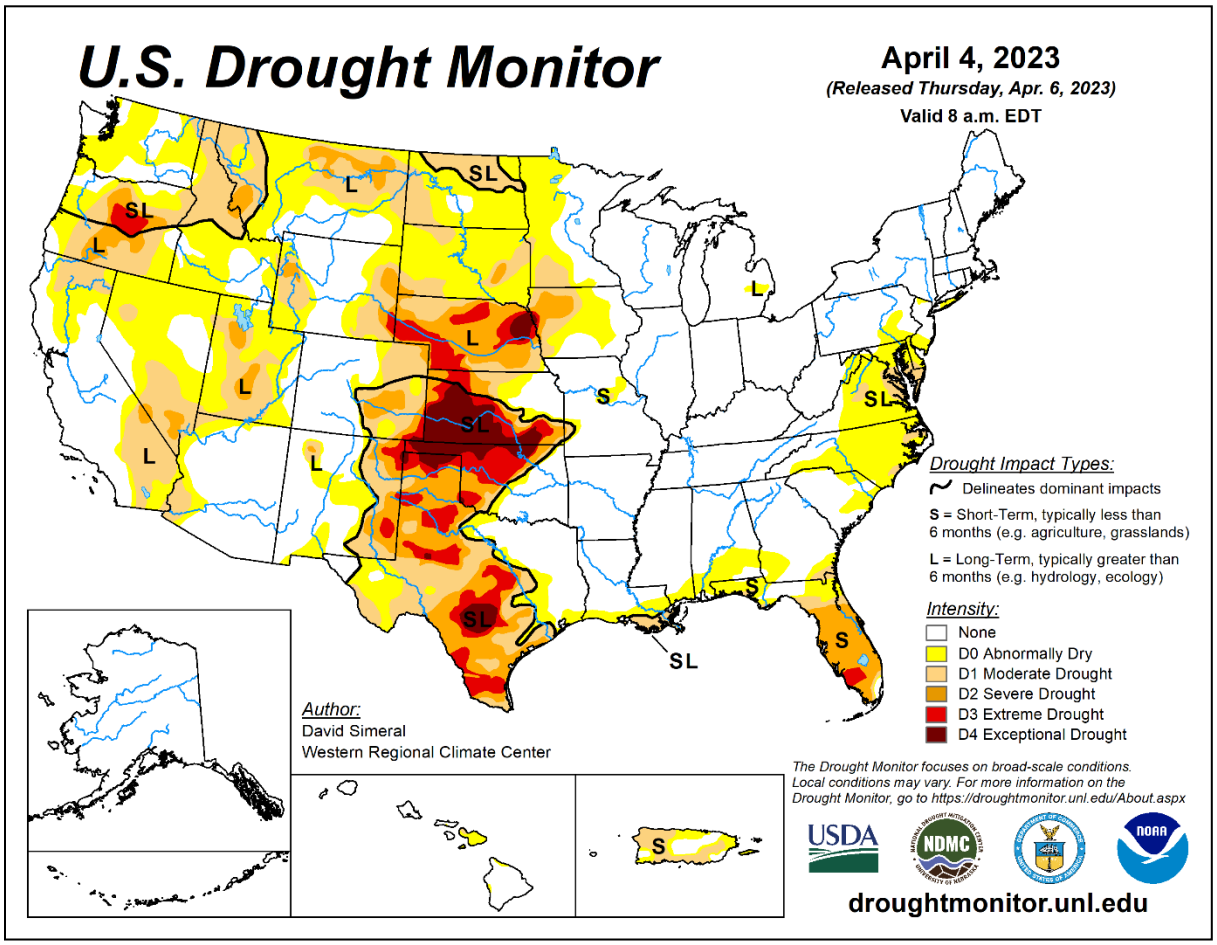
As April began, impressive snowfall spread inland across the **West**. In a 48-hour period from April 2-4, snowfall in **Utah** totaled 21.5 inches in **Randolph** and 16.6 inches in **Laketown**. **Alta, UT**, was blanketed by 63.2 inches of snow during the first 5 days of April. In **Wyoming**, **Casper** measured its greatest 1- and 2-day snowfall totals on record—26.7 and 36.0 inches, respectively, on April 3 and April 3-4. **Casper's** previous records, 24.3 and 31.3 inches, had been set on December 24 and December 23-24, 1982. Elsewhere in **Wyoming**, daily-record snowfall totals for April 4 reached 12.5 inches in **Lander** and 6.0 inches in **Riverton**. Daily-record amounts for the 4th extended into the **Dakotas**, where snowfall totaled 11.0 inches in **Mobridge, SD**, and 6.9 inches in **Grand Forks, ND**. **Pierre, SD**, received 10.0 inches on April 4-5, accompanied by a peak wind gust to 51 mph. By April 5, rain showers overspread the **Great Lakes States**, resulting in daily-record totals in **Massena, NY** (1.55 inches); **Alpena, MI** (1.33 inches); and **Cincinnati, OH** (1.31 inches). The **Grand River at Comstock Park, MI**, crested 4.05 feet above flood stage on April 8—highest level in that location since May 2020. Subsequently, heavy rain shifted southward; April 6 totals of 4.20 inches in **Lufkin, TX**, and 3.07 inches in **Shreveport, LA**, were records for the date. Rain lingered in the **western and central Gulf Coast States** through April 17, when **McComb, MS** (3.51 inches); **Baton Rouge, LA** (2.83 inches); and **Brownsville, TX** (1.30 inches), collected daily records. At week's end, heavy rain overspread the **Southeast**, resulting in daily-record totals exceeding the 2-inch mark in **Birmingham, AL** (2.86 inches), and **New Bern, NC** (2.46 inches). Chilly weather accompanied the **Southeastern** rain, with April 8 maximum temperatures remaining below the 60-degree mark in **Charleston, SC** (56°F), and **Tuscaloosa, AL** (58°F).

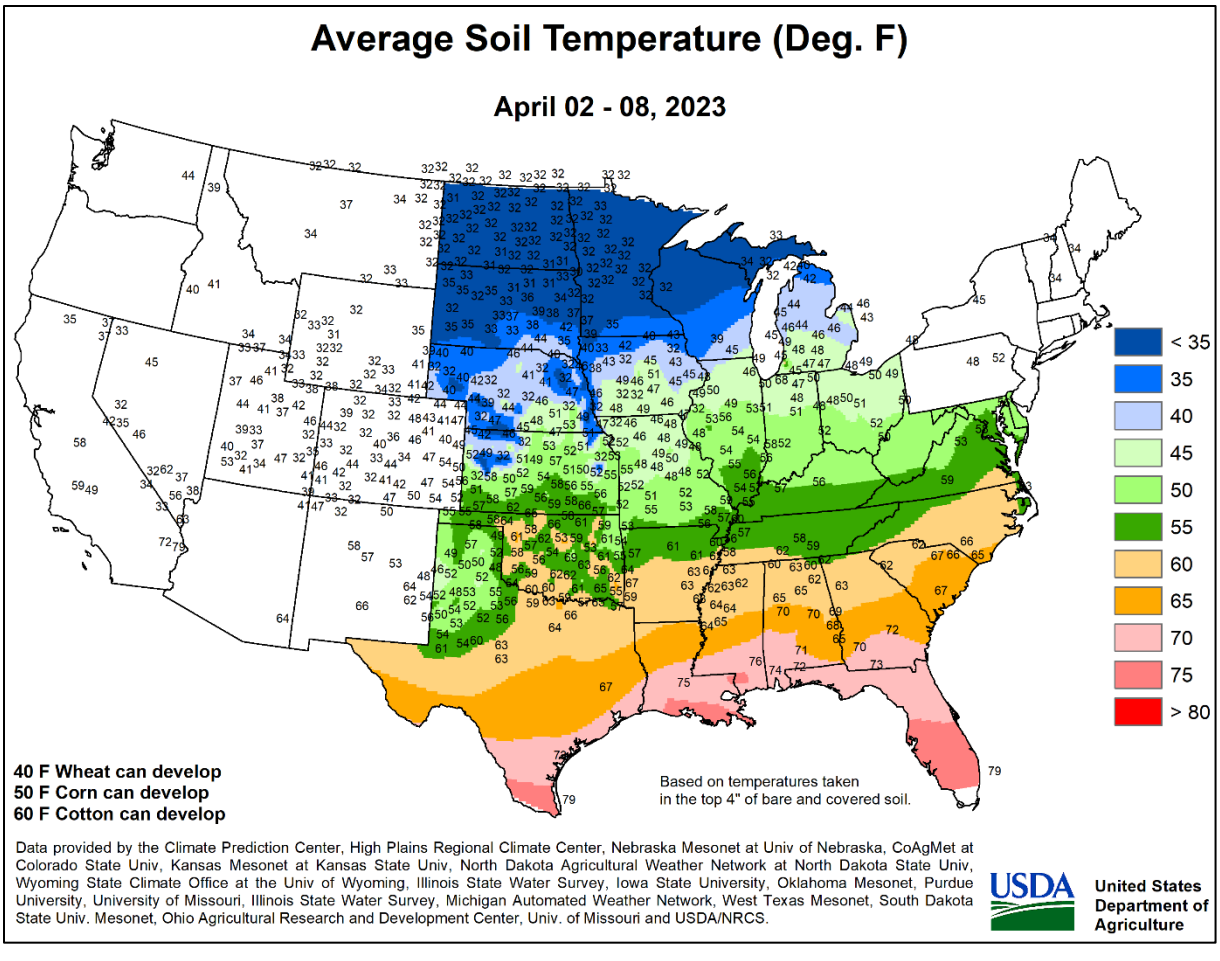
Warmth preceded the **Southern** rain, with April 3 highs setting daily records in **Texas** locations such as **Del Rio** (99°F), and **Austin's Camp Mabry** (93°F). Daily-record warmth extended to other areas, including the **southern Plains** and **Midwest**; April 3 highs rose to 89°F in **Tulsa, OK**, and 86°F in **Springfield, MO**. Additional **Midwestern** records on April 4 included 87°F in **Quincy, IL**, and 86°F in **Burlington, IA**. **Eastern** warmth peaked on April 5-6, with **Georgetown, DE**, reporting consecutive daily-record highs of 85 and 89°F. The temperature touched 90°F on April 5 as far north as **Huntington, WV**. In the **South**, **Baton Rouge, LA**, tallied a trio of daily-record highs (90, 89, and 88°F) from April 4-6. **Florida's peninsula** experienced multiple days of record-breaking warmth, as temperatures in **Fort Myers** surged to 94 and 93°F, respectively, on April 5 and 6. In stark contrast, persistently chilly conditions gripped the **western and north-central U.S.** In **Washington**, the week began (on April 2) with daily-record lows in **Ephrata** (23°F) and **Wenatchee** (27°F). **South Lake Tahoe, CA**, notched three consecutive daily-record lows (9, 7, and 8°F) from April 3-5. Post-storm temperatures plunged to sub-zero, daily-record levels on April 7 in **Randolph, UT** (-15°F), and **Hibbing, MN** (-2°F). **Big Piney, WY**, registered consecutive daily-record lows (-7 and -5°F, respectively) on April 6-7. Elsewhere on the 6th, daily-record lows dipped to 0°F in **Aberdeen, SD**, and 1°F in **Bismarck ND**.

Winter-like temperatures engulfed the **Alaskan mainland**, holding weekly temperatures as much as 20°F below normal across the west-central part of the state. Patchy precipitation preceded the frigid weather, with **Fairbanks, Alaska**, reporting daily-record totals on April 2 for precipitation (0.21 inch) and snowfall (4.8 inches). Two days later, on the 4th, **McGrath** noted a daily-record sum of 0.37 inch. By April 7, however, **McGrath** posted a daily-record low of -23°F. Other Alaskan daily-record lows for April 7 included -30°F in **Nome** and -28°F in **Kotzebue**. **McGrath** registered additional daily-record lows, -24 and -28°F, respectively, on April 8-9. Farther south, scattered to widespread showers occurred in **Hawaii**. On the **Big Island**, **Hilo** received rainfall totaling 4.69 inches during the first 8 days of April, aided by a 3.26-inch sum on the 2nd. **Honolulu, Oahu**, also reported significant rain on April 2, with 1.16 inches. Winds on April 2 were clocked to 51 mph in **Lihue, Kauai**, and 44 mph at **Kaneohe Bay, Oahu**.


Extreme Maximum Temperature (F)
April 2 - 8, 2023
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (F)
April 2 - 8, 2023
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


U.S. Drought Monitor
April 4, 2023
(Released Thursday, Apr. 6, 2023)
Valid 8 a.m. EDT
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought
Author:
David Simeral
Western Regional Climate Center
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx
droughtmonitor.unl.edu


Average Soil Temperature (Deg. F)
April 02 - 08, 2023
< 35
35
40
45
50
55
60
65
70
75
> 80
40 F Wheat can develop
50 F Corn can develop
60 F Cotton can develop
Based on temperatures taken in the top 4" of bare and covered soil.
Data provided by the Climate Prediction Center, High Plains Regional Climate Center, Nebraska Mesonet at Univ of Nebraska, CoAgMet at Colorado State Univ, Kansas Mesonet at Kansas State Univ, North Dakota Agricultural Weather Network at North Dakota State Univ, Wyoming State Climate Office at the Univ of Wyoming, Illinois State Water Survey, Iowa State University, Oklahoma Mesonet, Purdue University, University of Missouri, Illinois State Water Survey, Michigan Automated Weather Network, West Texas Mesonet, South Dakota State Univ. Mesonet, Ohio Agricultural Research and Development Center, Univ. of Missouri and USDA/NRCS.
United States Department of Agriculture

National Weather Data for Selected Cities

Weather Data for the Week Ending April 8, 2023

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE ˚F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. ˚F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AK	ANCHORAGE	35	23	39	13	29	-4	0.12	0.02	0.07	0.27	33	2.50	103	85	47	0	7	2	0
	BARROW	-2	-12	8	-28	-7	0	0.10	0.06	0.07	0.29	129	1.87	320	82	70	0	7	3	0
	FAIRBANKS	28	6	40	-13	17	-8	0.21	0.13	0.21	0.54	110	2.20	136	80	46	0	7	1	0
	JUNEAU	43	31	51	26	37	-1	1.76	1.00	0.53	4.59	101	15.85	106	98	65	0	4	7	1
	KODIAK	39	29	44	22	34	-2	0.86	-0.54	0.81	2.81	43	13.59	64	83	53	0	5	2	1
	NOME	8	-15	22	-29	-4	-20	0.00	-0.17	0.00	2.94	315	5.23	182	94	65	0	7	0	0
AL	BIRMINGHAM	75	56	86	44	66	5	3.18	1.94	2.88	7.76	109	19.59	114	88	50	0	0	3	1
	HUNTSVILLE	71	53	86	42	62	2	1.61	0.47	0.77	7.47	111	17.44	103	95	62	0	0	4	2
	MOBILE	83	65	88	56	74	10	0.59	-0.75	0.59	5.64	80	12.70	74	91	54	0	0	1	1
	MONTGOMERY	81	59	90	49	70	7	2.52	1.50	1.39	7.61	119	15.90	100	93	53	1	0	3	2
AR	FORT SMITH	76	49	88	40	63	3	0.07	-0.89	0.07	7.12	142	12.98	122	82	30	0	0	1	0
	LITTLE ROCK	75	56	89	45	65	6	1.13	-0.03	0.68	9.57	152	23.20	168	78	42	0	0	3	1
AZ	FLAGSTAFF	49	20	58	7	35	-7	0.02	-0.23	0.01	7.24	332	16.10	251	71	23	0	7	2	0
	PHOENIX	78	51	85	46	65	-6	0.00	-0.09	0.00	1.44	153	2.81	105	40	9	0	0	0	0
	PRESCOTT	60	28	69	19	44	-7	0.00	-0.14	0.00	2.06	182	5.47	151	58	15	0	4	0	0
	TUCSON	78	43	85	32	61	-5	0.00	-0.09	0.00	0.66	98	2.96	126	32	8	0	1	0	0
CA	BAKERSFIELD	67	44	73	35	55	-6	0.00	-0.19	0.00	2.30	168	6.68	178	80	32	0	0	0	0
	EUREKA	50	39	55	30	45	-6	0.86	-0.22	0.29	8.05	115	17.91	92	92	75	0	1	4	0
	FRESNO	66	45	73	39	56	-4	0.00	-0.33	0.00	4.09	179	12.11	189	83	31	0	0	0	0
	LOS ANGELES	64	50	69	47	57	-3	0.01	-0.20	0.01	7.36	370	18.70	238	82	39	0	0	1	0
	REDDING	60	41	65	33	51	-6	0.87	0.16	0.52	12.20	224	25.29	149	87	39	0	0	2	1
	SACRAMENTO	62	43	69	37	53	-5	0.15	-0.26	0.15	5.25	165	13.04	126	85	38	0	0	1	0
	SAN DIEGO	64	50	70	46	57	-5	0.00	-0.22	0.00	3.91	228	10.81	183	77	41	0	0	0	0
	SAN FRANCISCO	59	48	65	42	53	-3	0.06	-0.40	0.06	6.62	202	19.14	172	81	54	0	0	1	0
	STOCKTON	64	43	69	39	53	-5	0.14	-0.21	0.14	5.34	231	12.94	173	85	41	0	0	1	0
CO	ALAMOSA	55	15	63	4	35	-6	0.00	-0.13	0.00	0.31	47	0.98	77	67	15	0	7	0	0
	CO SPRINGS	59	25	71	12	42	-3	0.16	-0.08	0.11	0.24	22	1.14	67	66	15	0	5	3	0
	DENVER INTL	58	25	71	11	41	-5	0.09	-0.19	0.09	0.56	47	2.04	103	72	23	0	6	1	0
	GRAND JUNCTION	58	28	68	20	43	-6	0.00	-0.23	0.00	1.68	158	3.06	139	78	23	0	4	0	0
	PUEBLO	68	27	78	23	48	-1	0.00	-0.29	0.00	0.10	8	0.72	40	56	11	0	7	0	0
CT	BRIDGEPORT	56	38	64	30	47	1	0.01	-0.93	0.01	3.74	72	9.94	86	80	40	0	2	1	0
	HARTFORD	60	34	73	23	47	2	0.00	-0.87	0.00	4.42	92	11.96	106	75	30	0	3	0	0
DC	WASHINGTON	71	50	87	42	60	6	0.04	-0.69	0.03	1.80	41	5.46	55	75	36	0	0	2	0
DE	WILMINGTON	67	46	85	32	57	7	0.00	-0.83	0.00	2.69	52	6.73	60	77	37	0	1	0	0
FL	DAYTONA BEACH	85	68	86	65	76	8	0.00	-0.58	0.00	1.61	37	3.56	38	95	52	0	0	0	0
	JACKSONVILLE	86	60	89	54	73	7	0.24	-0.48	0.24	3.27	79	6.58	64	98	47	0	0	1	0
	KEY WEST	84	77	85	72	80	4	0.00	-0.39	0.00	0.27	13	0.36	6	81	63	0	0	0	0
	MIAMI	87	75	90	72	81	5	0.04	-0.63	0.04	4.04	125	7.67	106	83	52	1	0	1	0
	ORLANDO	91	69	93	67	80	9	0.01	-0.60	0.01	0.15	4	1.69	20	94	39	7	0	1	0
	PENSACOLA	81	68	84	56	74	9	0.96	-0.36	0.90	4.02	59	10.38	62	94	64	0	0	2	1
	TALLAHASSEE	84	61	87	53	72	7	0.67	-0.26	0.63	4.01	63	14.56	97	98	52	0	0	2	1
	TAMPA	88	71	92	68	80	8	0.00	-0.55	0.00	0.35	11	2.35	28	89	45	2	0	0	0
	WEST PALM BEACH	88	75	90	70	81	8	0.00	-0.81	0.00	0.13	3	1.44	14	83	49	1	0	0	0
GA	ATHENS	73	52	87	41	62	3	2.22	1.37	2.13	6.61	123	18.62	132	90	56	0	0	3	1
	ATLANTA	73	55	87	44	64	4	1.09	0.17	0.85	6.98	121	16.46	110	89	55	0	0	3	1
	AUGUSTA	76	50	89	44	63	1	2.89	2.11	1.64	7.21	144	18.98	151	99	56	0	0	3	2
	COLUMBUS	77	57	89	46	67	4	1.38	0.39	0.71	6.17	102	14.80	100	96	52	0	0	3	2
	MACON	77	54	89	46	66	4	1.39	0.46	0.67	6.80	126	17.78	128	96	56	0	0	3	2
	SAVANNAH	80	58	88	47	69	5	0.64	-0.17	0.41	3.56	80	10.75	102	91	45	0	0	3	0
HI	HILO	79	66	82	65	73	0	4.67	2.15	3.81	12.15	78	50.70	150	95	61	0	0	7	1
	HONOLULU	83	73	84	69	78	2	1.18	0.91	1.18	3.89	146	7.43	115	81	56	0	0	1	1
	KAHULUI	83	67	84	65	75	0	0.23	-0.15	0.23	1.67	54	7.46	99	84	51	0	0	1	0
	LIHUE	80	71	81	68	76	1	0.41	-0.24	0.19	6.64	104	20.22	158	86	69	0	0	6	0
IA	BURLINGTON	68	36	86	28	52	3	0.23	-0.52	0.23	3.05	93	7.03	109	80	31	0	3	1	0
	CEDAR RAPIDS	64	32	71	20	48	3	0.12	-0.55	0.11	0.72	26	3.82	77	83	32	0	4	2	0
	DES MOINES	63	37	76	25	50	2	0.72	-0.02	0.72	2.05	68	5.67	104	65	28	0	2	1	1
	DUBUQUE	60	33	67	25	46	3	0.41	-0.43	0.35	1.97	61	7.12	117	88	44	0	4	2	0
	SIOUX CITY	61	29	77	17	45	0	0.00	-0.65	0.00	1.22	48	3.94	97	79	33	0	3	0	0
	WATERLOO	62	33	72	24	47	2	0.46	-0.32	0.45	2.15	75	6.35	126	78	35	0	5	2	0
ID	BOISE	53	33	63	24	43	-6	0.01	-0.29	0.01	2.46	146	3.54	86	74	28	0	3	1	0
	LEWISTON	55	37	64	30	46	-3	0.06	-0.28	0.06	1.15	68	1.87	48	77	34	0	1	1	0
	POCATELLO	42	23	55	14	33	-11	0.57	0.30	0.31	2.30	151	4.17	116	92	52	0	7	4	0
IL	CHICAGO/O_HARE	61	37	72	30	49	3	1.14	0.37	0.76	4.94	149	11.24	154	82	41	0	2	3	1
	MOLINE	67	36	76	27	52	4	0.39	-0.38	0.39	2.97	85	8.60	123	79	34	0	2	1	0
	PEORIA	71	38	97	31	54	5	0.04	-0.79	0.04	4.64	127	9.49	123	84	34	1	2	1	0
	ROCKFORD	62	32	71	25	47	2	1.26	0.46	0.88	4.55	137	10.19	155	86	42	0	4	3	1
	SPRINGFIELD	69	38	83	29	53	3	0.53	-0.27	0.53	4.00	109	7.56	99	86	43	0	2	1	1
IN	EVANSVILLE	69	46	84	31	58	4	0.96	-0.02	0.57	9.53	166	17.82	144	81	39	0	1	2	1
	FORT WAYNE	61	37	74	31	49	3	0.39	-0.46	0.27	5.17	137	11.96	142	84	47	0	2	2	0
	INDIANAPOLIS	66	42	80	34	54	4	0.75	-0.20	0.74	6.70	140	13.04	126	80	40	0	0	2	1
	SOUTH BEND	60	35	74	23	47	3	0.74	0.03	0.73	6.64	211	13.03	160	83	43	0	3	2	1
KS	CONCORDIA	69	37	79	23	53	3	0.00	-0.49	0.00	0.50	23	2.23	61	63	19	0	3	0	0
	DODGE CITY	72	32	82	20	52	0	0.00	-0.41	0.00	0.23	12	1.06	35	61	12	0	4	0	0
	GOODLAND	62	28	79	19	45	-2	0.00	-0.33	0.00	0.74	58	1.32	64	64	20	0	4	0	0
	TOPEKA	72	37	89	28	55	2	0.54	-0.15	0.54	2.14	70	5.16	98	76	26	0	1	1	1

Based on 1991-2020 normals

***** Not Available**

Weather Data for the Week Ending April 8, 2023

STATES AND STATIONS		TEMPERATURE ˚F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
																	TEMP. ˚F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	73	40	89	29	56	3	0.16	-0.39	0.16	0.27	9	2.75	55	70	18	0	1	1	0
KY	LEXINGTON	68	47	87	40	58	5	0.52	-0.41	0.42	5.31	95	15.23	120	77	41	0	0	2	0
	LOUISVILLE	69	48	85	40	58	3	0.28	-0.72	0.27	7.37	128	15.11	120	74	36	0	0	2	0
	PADUCAH	71	48	86	36	60	4	0.02	-1.00	0.02	9.19	157	20.15	148	78	39	0	0	1	0
LA	BATON ROUGE	83	67	90	59	75	9	5.20	4.05	2.73	8.65	150	22.27	134	93	57	1	0	4	3
	LAKE CHARLES	77	63	84	53	70	3	7.49	6.54	5.69	9.04	190	16.30	117	97	72	0	0	2	2
	NEW ORLEANS	82	70	86	62	76	8	0.41	-0.73	0.38	2.55	45	8.15	54	95	63	0	0	2	0
	SHREVEPORT	73	56	88	50	65	1	0.00	-1.22	0.00	0.00	0	0.00	0	94	62	0	0	0	0
MA	BOSTON	54	37	58	31	45	0	0.01	-0.89	0.01	4.33	83	10.82	91	77	37	0	1	1	0
	WORCESTER	56	33	70	28	45	3	0.00	-0.97	0.00	4.78	90	12.55	103	75	30	0	2	0	0
MD	BALTIMORE	70	45	87	33	58	6	0.20	-0.59	0.20	2.03	41	5.83	53	78	34	0	0	1	0
ME	CARIBOU	37	18	42	10	28	-5	0.35	-0.30	0.27	2.55	72	9.18	103	83	42	0	7	3	0
	PORTLAND	48	30	54	21	39	-1	0.19	-0.81	0.08	3.25	62	12.51	102	81	36	0	4	3	0
MI	ALPENA	47	26	58	17	37	0	1.46	0.83	1.33	4.54	179	8.89	151	92	45	0	6	3	1
	GRAND RAPIDS	55	35	71	24	45	2	2.09	1.25	1.23	7.10	212	13.16	164	83	48	0	3	3	1
	HOUGHTON LAKE	49	29	66	17	39	1	1.15	0.46	1.02	4.83	188	8.52	150	88	46	0	4	3	1
	LANSING	56	36	72	24	46	3	2.38	1.69	1.22	6.96	238	11.96	178	80	45	0	2	3	2
	MUSKEGON	56	36	71	23	46	3	0.52	-0.24	0.20	4.84	148	10.62	136	80	46	0	2	3	0
	TRAVERSE CITY	53	31	73	22	42	2	1.51	0.91	1.30	3.65	163	6.12	124	84	41	0	4	3	1
MN	DULUTH	36	20	41	8	28	-7	0.79	0.28	0.50	3.74	183	8.45	211	90	62	0	7	3	0
	INT_L FALLS	35	15	50	-3	25	-8	0.53	0.19	0.22	4.43	315	5.20	180	90	53	0	7	4	0
	MINNEAPOLIS	47	29	67	22	38	-5	0.07	-0.54	0.06	2.88	121	7.44	180	79	46	0	4	2	0
	ROCHESTER	49	29	64	22	39	-2	0.06	-0.69	0.06	3.68	128	8.35	171	85	55	0	4	1	0
	ST. CLOUD	40	23	51	13	31	-7	0.11	-0.42	0.09	2.99	138	6.35	176	88	57	0	7	2	0
MO	COLUMBIA	73	43	87	35	58	5	0.22	-0.72	0.22	2.85	70	6.89	83	75	31	0	0	1	0
	KANSAS CITY	68	38	85	27	53	1	0.12	-0.59	0.10	2.80	88	7.39	127	68	30	0	1	2	0
	SAINT LOUIS	71	45	85	36	58	4	0.70	-0.29	0.70	5.67	122	9.78	103	79	34	0	0	1	1
	SPRINGFIELD	73	43	86	32	58	4	0.63	-0.23	0.55	7.38	163	12.84	135	80	30	0	1	2	1
MS	JACKSON	76	59	89	47	68	5	3.77	2.32	1.34	9.09	123	20.97	117	92	61	0	0	5	4
	MERIDIAN	77	58	88	46	68	5	4.63	3.36	2.01	8.38	118	24.49	135	95	61	0	0	4	3
	TUPELO	73	55	90	42	64	3	3.06	1.80	1.17	12.19	179	21.44	126	89	58	1	0	5	3
MT	BILLINGS	48	27	63	20	37	-6	0.03	-0.35	0.02	1.50	113	2.61	106	69	30	0	6	2	0
	BUTTE	38	10	49	2	24	-12	0.00	-0.28	0.00	0.86	89	1.47	81	83	33	0	7	0	0
	CUT BANK	45	23	60	12	34	-4	0.00	-0.17	0.00	0.22	40	0.49	48	88	39	0	6	0	0
	GLASGOW	34	17	51	3	25	-16	0.05	-0.12	0.05	1.12	168	2.97	204	84	66	0	7	1	0
	GREAT FALLS	48	24	63	11	36	-4	0.00	-0.35	0.00	1.23	113	2.87	129	78	33	0	5	0	0
	HAVRE	38	21	59	14	29	-11	0.07	-0.13	0.06	0.50	68	1.34	87	92	63	0	7	2	0
	MISSOULA	49	28	62	23	39	-3	0.12	-0.19	0.07	0.83	65	2.30	73	88	36	0	6	2	0
NC	ASHEVILLE	68	47	80	38	57	3	2.65	1.73	1.61	4.84	99	12.52	100	85	46	0	0	3	2
	CHARLOTTE	72	52	86	41	62	3	2.48	1.61	1.33	4.63	93	13.30	115	88	56	0	0	4	2
	GREENSBORO	71	49	84	40	60	4	3.18	2.31	1.55	6.18	131	13.50	123	90	54	0	0	3	3
	HATTERAS	68	54	76	45	61	2	0.52	-0.35	0.29	3.54	65	9.18	62	96	68	0	0	3	0
	RALEIGH	74	53	87	42	63	6	3.45	2.65	2.02	6.55	130	12.13	108	88	53	0	0	2	2
	WILMINGTON	76	55	86	46	66	5	1.93	1.22	1.78	4.64	97	10.06	83	94	51	0	0	3	1
ND	BISMARCK	32	16	44	1	24	-15	0.48	0.22	0.25	2.00	175	2.96	138	83	63	0	7	3	0
	DICKINSON	34	17	46	6	26	-13	0.00	-0.26	0.00	0.19	21	0.29	20	93	65	0	7	0	0
	FARGO	37	16	45	5	26	-12	0.61	0.29	0.48	2.47	153	3.12	103	85	65	0	7	3	0
	GRAND FORKS	34	11	43	-2	22	-14	0.37	0.13	0.16	1.46	124	1.91	87	92	70	0	7	4	0
	JAMESTOWN	32	12	42	3	22	-15	0.05	-0.15	0.03	0.30	32	0.52	32	88	66	0	7	2	0
NE	GRAND ISLAND	61	31	77	19	46	-2	0.00	-0.48	0.00	0.70	36	2.60	79	63	25	0	3	0	0
	LINCOLN	67	30	76	14	49	0	0.00	-0.49	0.00	0.61	28	2.81	75	65	22	0	3	0	0
	NORFOLK	59	29	77	16	44	-2	0.00	-0.54	0.00	0.55	26	2.90	83	72	27	0	4	0	0
	NORTH PLATTE	61	21	80	13	41	-5	0.00	-0.41	0.00	0.41	28	2.35	97	75	26	0	6	0	0
	OMAHA	65	33	75	21	49	0	0.00	-0.61	0.00	0.81	32	3.81	91	66	23	0	2	0	0
	SCOTTSBLUFF	52	23	69	18	38	-8	0.10	-0.28	0.10	0.51	35	2.31	97	89	48	0	7	1	0
	VALENTINE	51	24	76	14	37	-7	0.08	-0.38	0.08	0.77	50	4.35	177	84	34	0	6	1	0
NH	CONCORD	51	29	59	18	40	-1	0.20	-0.60	0.08	4.25	101	11.33	116	83	34	0	4	3	0
NJ	ATLANTIC_CITY	64	42	87	28	53	4	0.39	-0.43	0.39	3.28	60	8.76	72	86	43	0	2	1	0
	NEWARK	64	42	83	36	53	4	0.00	-0.89	0.00	3.53	68	9.14	79	71	34	0	0	0	0
NM	ALBUQUERQUE	65	35	75	21	50	-4	0.00	-0.12	0.00	0.52	87	1.14	82	38	10	0	3	0	0
NV	ELY	44	17	56	1	31	-10	0.25	-0.01	0.24	2.23	174	5.09	177	80	38	0	7	2	0
	LAS VEGAS	68	46	78	41	57	-8	0.00	-0.06	0.00	0.50	101	1.45	78	32	11	0	0	0	0
	RENO	53	32	65	24	43	-7	0.09	-0.02	0.08	2.04	219	5.63	174	71	24	0	4	2	0
	WINNEMUCCA	44	28	58	22	36	-10	0.27	0.06	0.16	2.37	212	3.39	160	80	45	0	5	2	0
NY	ALBANY	55	35	65	24	45	2	0.31	-0.40	0.15	4.81	123	9.93	113	77	35	0	4	3	0
	BINGHAMTON	56	33	69	24	45	5	0.19	-0.63	0.07	3.30	82	8.47	94	80	39	0	4	4	0
	BUFFALO	55	35	77	25	45	3	1.20	0.43	0.58	5.91	157	12.32	128	85	47	0	3	3	2
	ROCHESTER	56	33	79	25	44	2	1.09	0.41	0.66	4.56	139	10.47	131	83	40	0	4	3	1
	SYRACUSE	56	34	75	26	45	3	1.14	0.33	0.94	4.95	125	11.51	127	85	38	0	4	3	1
OH	AKRON-CANTON	61	37	78	28	49	3	1.07	0.18	1.05	5.86	138	12.53	130	80	39	0	3	2	1
	CINCINNATI	64	44	77	37	54	3	1.34	0.38	1.30	7.27	138	13.91	118	84	48	0	0	2	1
	CLEVELAND	59	39	79	31	49	3	0.33	-0.52	0.33	4.00	99	12.03	126	71	37	0	2	1	0
	COLUMBUS	63	40	78	33	51	2	0.92	0.05	0.92	6.57	142	12.31	122	83	46	0	0	1	1
	DAYTON	62	41	76	35	52	2	1.07	0.11	1.07	7.69	167	13.10	130	78	45	0	0	1	1
	MANSFIELD	60	39	78	30	49	4	1.06	0.11	1.06	5.83	131	12.87	126	78	43	0	3	1	1

Based on 1991-2020 normals ***** Not Available**

Weather Data for the Week Ending April 8, 2023

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	61	37	79	30	49	2	0.11	-0.63	0.11	3.32	96	10.70	132	81	40	0	2	1	0
	YOUNGSTOWN	61	37	81	25	49	4	0.45	-0.42	0.43	5.01	119	11.86	121	81	37	0	3	2	0
OK	OKLAHOMA CITY	72	45	86	36	58	2	0.01	-0.64	0.01	2.57	78	4.94	82	75	25	0	0	1	0
	TULSA	76	46	89	33	61	3	0.06	-0.72	0.06	3.74	93	8.36	115	87	28	0	0	1	0
OR	ASTORIA	50	40	54	32	45	-3	2.22	0.69	1.06	10.24	105	21.48	78	95	67	0	1	7	1
	BURNS	43	24	52	13	33	-9	0.49	0.25	0.46	3.66	295	5.74	163	83	50	0	6	3	0
	EUGENE	54	40	61	35	47	-2	1.33	0.41	0.48	6.25	109	10.99	66	92	59	0	0	6	0
	MEDFORD	54	38	65	34	46	-4	0.23	-0.17	0.12	2.37	104	3.91	56	90	42	0	0	5	0
	PENDLETON	54	35	64	28	45	-3	0.55	0.25	0.36	1.48	88	2.81	64	79	38	0	4	3	0
	PORTLAND	52	42	58	38	47	-4	1.31	0.56	0.59	5.68	117	11.45	84	86	59	0	0	6	1
	SALEM	52	39	58	34	45	-5	1.37	0.52	0.57	6.72	126	12.87	80	93	63	0	0	6	1
PA	ALLENTOWN	62	37	78	25	49	2	0.01	-0.83	0.01	3.21	70	8.25	77	78	36	0	3	1	0
	ERIE	56	38	80	26	47	4	0.58	-0.22	0.58	5.61	140	14.30	144	76	45	0	2	1	1
	MIDDLETOWN	66	42	79	33	54	5	0.07	-0.74	0.07	3.04	65	6.50	63	79	34	0	0	1	0
	PHILADELPHIA	65	45	83	35	55	5	0.27	-0.56	0.27	2.74	55	7.38	68	76	36	0	0	1	0
	PITTSBURGH	63	39	85	27	51	4	0.08	-0.67	0.06	2.97	74	7.94	82	76	31	0	3	2	0
	WILKES-BARRE	62	38	79	28	50	5	0.04	-0.69	0.02	2.41	67	6.15	74	76	33	0	3	2	0
	WILLIAMSPORT	63	37	78	28	50	4	0.03	-0.80	0.03	1.55	38	4.92	52	78	33	0	3	1	0
RI	PROVIDENCE	57	36	70	27	46	1	0.01	-1.06	0.01	5.35	87	13.50	99	84	36	0	2	1	0
SC	CHARLESTON	79	58	86	47	68	5	0.67	-0.10	0.47	1.99	47	9.44	88	93	51	0	0	2	0
	COLUMBIA	76	54	89	44	65	4	2.38	1.70	2.06	7.38	169	16.61	147	96	57	0	0	2	1
	FLORENCE	76	52	87	43	64	2	1.78	1.07	1.24	6.60	165	14.65	145	95	51	0	0	3	2
	GREENVILLE	71	49	85	39	60	2	3.05	2.13	1.59	7.24	130	17.83	132	88	52	0	0	3	2
SD	ABERDEEN	35	14	43	0	24	-16	0.14	-0.17	0.14	1.88	150	2.98	123	88	69	0	7	1	0
	HURON	46	25	75	15	36	-6	0.24	-0.25	0.24	1.04	61	1.93	63	89	53	0	7	1	0
	RAPID CITY	43	20	61	9	32	-9	2.18	1.79	1.87	3.63	269	4.88	226	88	47	0	6	2	1
	SIOUX FALLS	51	29	77	21	40	-3	0.16	-0.46	0.16	1.32	57	5.04	135	81	44	0	6	1	0
TN	BRISTOL	69	46	86	37	57	4	0.74	-0.15	0.74	4.92	98	13.99	112	86	42	0	0	1	1
	CHATTANOOGA	71	53	89	43	62	3	1.46	0.32	0.87	7.19	108	16.82	100	89	54	0	0	3	1
	KNOXVILLE	69	50	89	37	60	3	0.56	-0.54	0.31	6.52	106	16.26	103	83	51	0	0	2	0
	MEMPHIS	70	53	87	44	62	1	2.62	1.38	1.44	10.92	152	23.37	147	90	51	0	0	3	2
	NASHVILLE	69	52	87	39	60	3	1.95	0.98	1.38	5.33	94	11.91	84	86	43	0	0	4	1
TX	ABILENE	80	51	95	42	65	2	0.01	-0.33	0.01	1.04	50	3.06	68	65	20	3	0	1	0
	AMARILLO	72	37	86	27	54	-1	0.00	-0.30	0.00	0.32	19	0.81	28	50	11	0	3	0	0
	AUSTIN	75	60	93	47	67	0	2.52	1.98	1.97	3.15	89	6.13	76	92	59	2	0	2	2
	BEAUMONT	78	63	84	55	71	4	3.69	2.77	2.58	4.87	104	11.27	86	98	71	0	0	3	2
	BROWNSVILLE	80	65	90	56	73	-3	1.37	1.02	1.30	2.53	137	3.07	77	99	71	1	0	3	1
	CORPUS CHRISTI	78	64	91	55	71	0	2.45	2.02	1.50	3.18	114	4.06	74	97	70	1	0	3	2
	DEL RIO	84	63	99	55	74	3	0.03	-0.29	0.03	1.87	121	2.09	74	75	26	3	0	1	0
	EL PASO	76	47	85	38	62	-3	0.00	-0.03	0.00	0.06	19	0.64	59	24	8	0	0	0	0
	FORT WORTH	76	57	94	49	66	3	0.39	-0.28	0.39	3.02	73	7.84	83	81	42	1	0	1	0
	GALVESTON	77	66	81	59	72	2	1.37	0.88	0.69	3.41	95	7.18	71	94	80	0	0	3	2
	HOUSTON	76	61	87	54	68	1	2.62	1.73	1.00	3.76	84	11.76	105	96	72	0	0	3	3
	LUBBOCK	75	40	89	29	57	-1	0.00	-0.27	0.00	0.00	0	0.74	27	41	11	0	1	0	0
	MIDLAND	76	47	89	40	62	-2	0.00	-0.18	0.00	0.00	0	0.40	18	46	15	0	0	0	0
	SAN ANGELO	80	51	96	41	65	1	0.00	-0.32	0.00	0.57	31	2.00	50	65	21	3	0	0	0
	SAN ANTONIO	77	60	92	50	68	1	1.61	1.10	1.10	2.90	100	4.77	72	92	53	1	0	2	2
	VICTORIA	75	62	86	54	69	0	2.06	1.39	0.91	3.14	83	10.40	124	99	70	0	0	3	2
	WACO	72	55	89	48	63	-1	0.57	-0.09	0.29	1.95	47	6.63	71	97	57	0	0	3	0
	WICHITA FALLS	76	45	91	34	60	0	0.48	0.00	0.48	3.26	127	6.22	120	87	27	1	0	1	0
UT	SALT LAKE CITY	48	32	64	27	40	-10	2.11	1.59	1.67	4.94	211	8.50	167	86	48	0	5	4	1
VA	LYNCHBURG	73	46	87	36	60	7	0.51	-0.27	0.43	2.45	52	8.51	77	86	41	0	0	2	0
	NORFOLK	70	51	85	43	61	4	0.58	-0.16	0.54	2.22	49	7.44	68	91	55	0	0	2	1
	RICHMOND	72	50	87	40	61	6	0.78	0.07	0.52	2.30	47	7.28	68	85	42	0	0	2	1
	ROANOKE	71	46	85	37	58	4	0.26	-0.51	0.26	2.22	50	7.86	75	81	42	0	0	1	0
	WASH/DULLES	71	44	88	31	58	6	0.13	-0.64	0.13	1.89	43	5.51	55	81	33	0	1	1	0
VT	BURLINGTON	51	32	66	24	41	1	0.59	-0.04	0.56	3.42	115	8.26	120	77	30	0	4	2	1
WA	OLYMPIA	51	36	56	25	44	-3	1.42	0.42	0.63	5.24	76	12.12	61	97	62	0	3	6	2
	QUILLAYUTE	50	37	52	28	43	-2	3.20	0.99	1.38	12.22	85	28.95	73	100	66	0	1	7	2
	SEATTLE-TACOMA	51	40	56	35	45	-4	1.02	0.19	0.44	3.56	69	8.91	60	89	52	0	0	5	0
	SPOKANE	48	33	56	27	40	-4	0.16	-0.17	0.10	1.43	64	3.49	62	87	44	0	5	3	0
	YAKIMA	54	28	60	21	41	-6	0.24	0.11	0.16	1.32	166	2.63	93	83	34	0	5	3	0
WI	EAU CLAIRE	48	26	63	17	37	-3	0.12	-0.54	0.08	3.00	110	6.12	126	86	46	0	6	2	0
	GREEN BAY	47	30	55	25	38	-2	0.92	0.27	0.50	4.42	164	7.39	139	89	54	0	6	4	1
	LA CROSSE	56	32	68	25	44	0	0.16	-0.63	0.16	3.00	102	7.08	131	79	35	0	4	1	0
	MADISON	56	32	64	27	44	2	0.52	-0.29	0.23	4.12	129	8.87	143	82	40	0	4	3	0
	MILWAUKEE	57	35	70	25	46	3	1.09	0.25	0.54	5.07	160	11.36	171	82	46	0	1	3	1
WV	BECKLEY	64	42	83	33	53	3	0.46	-0.35	0.44	3.43	69	10.54	94	86	38	0	0	2	0
	CHARLESTON	68	44	88	34	56	3	0.02	-0.76	0.02	3.61	71	11.64	99	84	34	0	0	1	0
	ELKINS	65	35	86	26	50	2	0.12	-0.78	0.09	4.49	89	10.77	92	91	38	0	3	3	0
	HUNTINGTON	68	46	90	36	57	4	0.46	-0.37	0.29	4.30	84	12.02	103	76	35	1	0	2	0
WY	CASPER	35	19	46	3	26	-14	1.27	1.00	0.89	1.91	165	4.59	207	83	61	0	7	3	1
	CHEYENNE	46	21	61	10	34	-7	0.43	0.12	0.33	0.83	63	2.36	108	75	37	0	5	2	0
	LANDER	35	16	48	7	25	-16	1.37	0.94	0.86	1.95	110	5.85	196	81	55	0	7	2	2
	SHERIDAN	41	20	53	14	30	-11	0.50	0.15	0.41	2.11	149	4.52	168	77	44	0	7	3	0

Based on 1991-2020 normals ***** Not Available**

March Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: Drought continued to disappear at an incredibly fast pace across much of the country, although punishing conditions persisted on the central and southern High Plains. By April 4, drought covered just 28.23 percent of the contiguous United States, according to the *U.S. Drought Monitor*, down from 38.46 percent at the end of February and the October 2022 peak of 62.95 percent. A few spots, including much of California's San Joaquin Valley and parts of southeastern Oklahoma, made the transition from exceptional drought (D4) to neither dryness nor drought (D-nothing) over the last 5 months. Still, with worsening conditions gripping portions of the central and southern Plains, extreme to exceptional drought (D3 to D4) covered more than one-half (52 percent) of Kansas on April 4, along with 38 percent of Oklahoma, 33 percent of Nebraska, and 19 percent of Texas.

Most of those severely drought-affected areas endured mostly dry, windy March weather, leading to periods of blowing dust and a chronically elevated wildfire threat. In Oklahoma, several early-spring blazes charred more than 1,000 acres; among them: the Boar Creek Fire near Hominy, which was sparked on March 23, and the Keeler Fire near Burbank, which started on March 29. Meanwhile, Lubbock, Texas, reported peak wind gusts ranging from 45 to 60 mph on 10 days during March. By April 2, USDA/NASS noted more than one-third of the winter wheat was rated in very poor to poor condition in Kansas (57 percent), Texas (47 percent), Oklahoma (40 percent), and Nebraska (38 percent). On the same date, only 28 percent of the nation's winter wheat was rated in good to excellent condition, lowest since 1996, when the April 7 report showed 27 percent of the crop in those two categories.

USDA/NASS topsoil moisture reports also highlighted the severity of the central and southern Plains' drought. On April 2, topsoil moisture was rated one-half to three-quarters very short to short in Kansas (73 percent), Texas (72 percent), New Mexico (68 percent), Oklahoma (63 percent), and Nebraska (56 percent). Much of Florida's peninsula was also very dry during March, leading to a statewide value of 48 percent very short to short by April 2. In contrast, topsoil moisture on that date was rated 40 to 60 percent surplus in portions of the mid-South, Midwest, and West, including Arkansas, California, Nevada, Utah, and five Midwestern States east of the Mississippi River. Some of the wetness in the South and Midwest was accompanied by severe thunderstorms, especially on March 2-3, 24-26, and 31. Multiple deadly tornadoes occurred on the 24th and 31st.

Although stormy weather covered much of the western and north-central U.S. in March, there were subtle exceptions. For example, relatively dry weather prevailed along and near portions of the Canadian border, especially from Washington into northwestern Montana. Farther south, however, the average water equivalency of the Sierra Nevada snowpack topped 60 inches, according to the California Department of Water Resources, 235 percent of the normal April 1 value. Snowpack in the southern Sierra Nevada, also greater than 60 inches and roughly three times normal, surpassed the 1982-83 record value. Even with so much moisture still locked into the mountain snowpack, extensive flooding affected parts of California. On March 11, the Pajaro River at Chittenden, CA, achieved its highest crest since February 1998. Along the same waterway, extensive levee breaks flooded the northern Monterey County community of Pajaro, as well as neighboring agricultural land. Less than 2 weeks later in the San Joaquin Valley, Tulare Lake basin began to fill, covering pastures, fields, and orchards, while threatening low-lying communities such as Alpaugh and Allensworth. The historic lakebed, normally kept dry by a network of canals and levees, partially floods during and after extremely wet seasons, such as 1968-69 and 1982-83.

The West's stormy pattern, which also featured record-setting early-month snowfall in southern California and subsequent recovery efforts, extended to other areas, such as the northern Plains and Midwest. Some locations in the north-central U.S., including Bismarck and Grand Forks, ND, reported a continuous snow cover from November 10, 2022, through the end of March 2023. Minneapolis-St. Paul, MN, which had reported at least an inch of snow on the ground each day since November 29, 2022, finally saw its coverage reduced to less than an inch (a trace) by March 26. As late-winter storms continued to move across the northern Plains and upper Midwest, livestock producers faced challenges during lambing and calving, which in North Dakota was 62 and 39 percent complete, respectively, by April 2.

Elsewhere, March was generally a dry month in the middle and northern Atlantic States, following a nearly snowless winter from the Ohio Valley to the mid-Atlantic Coast. In fact, season-to-date snowfall through March totaled less than an inch in locations such as Washington, DC (0.4 inch, or 3 percent of normal); Philadelphia, PA (0.3 inch, or 1 percent), and Baltimore, MD (0.2 inch, or 1 percent). Farther south, a brief but sharp Southeastern cold snap peaked on March 20-21, with freezes occurring as far south as the Gulf Coast in Alabama, Mississippi, and western Florida. Readings below 10°F had been reported a few days earlier as far south as the central Plains. Overall, March was a warm month in the Deep South and along the Atlantic Seaboard, with temperatures averaging up to 5°F above normal across peninsular Florida, but was unusually cold across the Plains, West, and upper Midwest. Monthly temperatures averaged at least 10 to 15°F below normal in numerous locations from the Intermountain West to the northern Plains.

Historical Perspective: According to preliminary data provided by the National Centers for Environmental Information, the contiguous U.S. experienced its 45th-coolest, 33rd-wettest March during the 129-year period of record. The national average temperature of 40.7°F was 0.8°F below the 1901-2000 mean, while precipitation averaged 2.81 inches—112 percent of normal.

State temperature rankings ranged from the third-coldest March in Oregon to the eighth-warmest March in Florida (figure 1). In addition to Oregon, top-ten rankings for cool March weather were observed in California, Nevada, North Dakota, and Utah. Meanwhile, state precipitation rankings ranged from the eighth-driest March in Virginia to the third-wettest March in Utah (figure 2). California and Nevada also had top-ten rankings for March wetness.

Figure 1 Statewide Average Temperature Ranks
March 2023
Period: 1895–2023

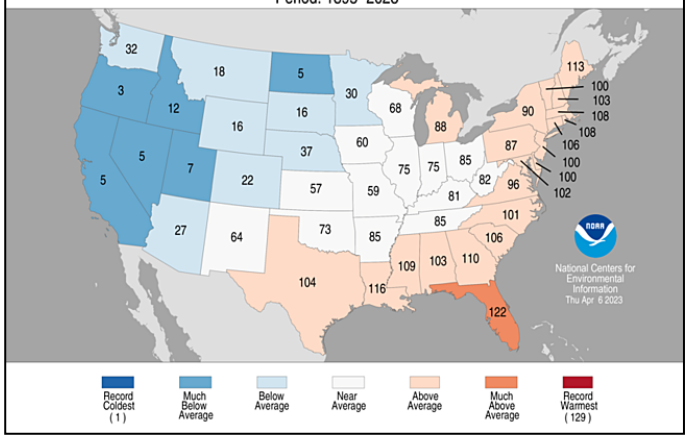
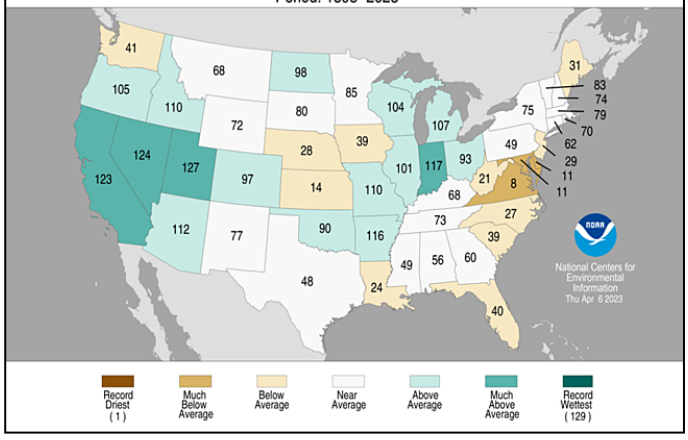


Figure 2 Statewide Precipitation Ranks
March 2023
Period: 1895–2023



Summary: Days after severe weather struck in late February from the southern Plains into the mid-South and lower Midwest, another outbreak struck in early March in the same geographic areas. The latter event caused extensive wind damage in Kentucky and environs, with widespread electrical disruptions. Additionally, significant snow accumulated on March 3-4 from the lower Great Lakes region into northern New England. The early-month snow resulted in daily-record amounts of 5.4 inches (on the 1st) in Bismarck, ND, and 6.2 inches (on the 3rd) in Detroit, MI. Renewed power outages in southern Michigan came as crews continued to repair damage from the February 22 ice storm. Farther south, a new wave of severe thunderstorms originated on March 2 in central Texas and quickly expanded northeastward, spawning more than two dozen tornadoes. In northeastern Texas, wind gusts on the 2nd were clocked to 78 mph in Corsicana and 71 mph in Dallas-Fort Worth. The following day, Louisville, KY, reported a daily-record rainfall of 2.79 inches and noted a peak gust to 79 mph. Other peak gusts in Kentucky included 78 mph in Lexington, 70 mph in London, 69 mph in Bowling Green, and 67 mph in Frankfort. In Jackson, KY, a gust to 65 mph on March 3 was the highest since that station opened more than 40 years ago. Elsewhere on March 3, daily rainfall records reached 4.16 inches in Paducah, KY; 3.60 inches in Evansville, IN; 2.78 inches in Carbondale, IL; and 2.70 inches in Dayton, OH, while all-time low barometric pressure records were broken in locations such as Paducah (977.7 millibars) and Evansville (976.0 millibars).

On March 2, daily-record lows dipped to 7°F in Burns, OR, and -5°F in Eureka, NV. With a daily-record low of 39°F on the 1st, downtown San Francisco, CA, fell below the 40-degree mark in March for the first time since March 11, 2006. In contrast, summer-like temperatures prevailed across the Deep South. From February 27 – March 2, Hattiesburg, MS, posted four consecutive daily-record highs (84, 86, 85, and 86°F). Warmth made its most significant northward surge on March 1, when Evansville, IN (80°F), notched its earliest-ever high of 80°F or greater (previously, 82°F on March 4, 1983). Other daily-record highs for March 1 included 101°F in Laredo, TX; 89°F in West Palm Beach, FL; and 80°F in Huntington, WV. Later, warmth intensified across Florida's peninsula, where Vero Beach (91°F both days) and Orlando (90°F both days) collected consecutive daily-record highs on March 3-4. On March 6, daily-record highs topped 90°F in Florida locations such as Fort Myers (92°F) and Miami (91°F). Miami again attained 91°F on March 7. Elsewhere on the 7th in Florida, additional daily-record highs above the 90-degree mark included 91°F in Melbourne and Fort Myers. Farther north, warmth peaked on March 6 with daily-record highs of 78°F in Louisville, KY, and 77°F in Evansville, IN. From March 7-9, New Orleans, LA, tallied a trio of daily-record highs (83, 84, and 86°F). Meanwhile in southern Texas, Harlingen notched daily-record highs of 91 and 90°F, respectively, on March 8 and 10. Corpus Christi, TX, collected consecutive daily-record highs (91 and 99°F, respectively) on March 11-12. Farther west, however, chilly weather persisted. Burns, OR, tallied multiple daily-record lows, including a reading of -3°F on March 6. Burns later received heavy snow, with a liquid equivalency of 0.53 inch on March 9, a day when a daily-record low of 5°F was reported. Sub-zero, daily-record lows were set in other Western locations, including Casper, WY (-6°F on March 8), and South Lake Tahoe, CA (-3° on March 9).

During the first full week of March, torrential rain in central California caused a levee break along the Pajaro River, flooding the community of Pajaro in Monterey County. Rain, along with melting of lower-elevation snowpack and dam releases, also led to significant water rises along many waterways in California's

Central Valley. Farther inland, snow blanketed portions of the Great Basin and Intermountain West. Reno, NV, measured 4.1 inches of snow on March 4-5, aided by a daily-record sum of 2.9 inches on the latter date. In Utah, 24-hour snowfall totals on March 4-5 reached 8.5 inches in Randolph and 8.0 inches in Laketown. Alta, UT, reported 30.5 inches of snow in a 48-hour period ending March 6. Later snow shifted into the upper Great Lakes region, where Marquette, MI (6.6 inches on March 6), measured a daily-record total. Subsequently, multi-day accumulations across the north-central U.S. included measurable snow falling on 6 consecutive days (March 7-12) in Grand Forks, ND, totaling 13.9 inches. Similarly, Bismarck, ND, reported snow each day from March 5-11, with measurable amounts on 5 days, totaling 17.1 inches. Daily-record snowfall amounts included 4.0 inches (on the 7th) in Mobridge, SD, and 4.1 inches (on the 9th) in Waterloo, IA. Snow soon expanded to other areas, including the Great Lakes region and the Northwest. On March 10, daily-record totals reached 8.7 inches in Grand Rapids, MI; 6.1 inches in Great Falls, MT; and 4.8 inches in Spokane, WA. A day later, record-setting snowfall totals for March 11 included 9.1 inches in Grand Forks, ND, and 6.4 inches in Des Moines, IA. Farther west, at the Central Sierra Snow Lab at California's Donner Pass, season-to-date snowfall exceeded 650 inches by March 13. Meanwhile, Bishop, CA (2.06 inches on the 10th), experienced its wettest March day on record, surpassing 1.75 inches on March 4, 1991. Closer to the Pacific Coast, the Pajaro River at Chittenden, CA, achieved its highest crest (on March 11) since February 1998. In California's Salinas River drainage basin, a record crest was set on March 10 along the Nacimiento River below Nacimiento Lake, with the water level edging the February 1969 high-water mark by 1.51 feet. The Salinas River near Spreckels, CA, rose 3.89 feet above flood stage on March 13, second only to the March 1995 high-water mark (7.29 feet above flood stage) and 2.29 feet above the level reached on January 13, 2023.

As the middle of the month approached, snow shifted from the upper Great Lakes region into the Northeast. In Wisconsin, record-setting snowfall totals for March 12 included 10.5 inches in Rhinelander, 9.6 inches in Wausau, and 8.8 inches in Green Bay. Farther west, March 11-12 snowfall totaled 12.5 inches in Duluth, MN, accompanied by a peak wind gust to 45 mph. Similar conditions unfolded across the Northeast on March 13-14, when Albany, NY, received 10.1 inches of snow and had a liquid equivalency of 1.98 inches. Other March 13-14 totals included 14.4 inches of snow (2.18 inches of liquid) in Worcester, MA, and 10.0 inches (1.95 inches of liquid) in Concord, NH. Boston, MA, received 2.54 inches, but reported only one-half inch of snow. Peak wind gusts during the March 13-14 storm included 47 mph in Concord, 45 mph in Boston, and 44 mph in Worcester. Farther south, Gainesville, FL, netted a daily-record rainfall (2.38 inches) on the 13th, accompanied by its second-highest March wind gust on record (62 mph, behind only 63 mph on March 13, 1993). Meanwhile, another round of Western precipitation moved ashore, starting in the Pacific Northwest. In Oregon, record-setting rainfall totals for March 13 included 1.39 inches in Salem and 1.19 inches in Portland. The following day in California, daily-record amounts reached 2.54 inches in Santa Barbara, 2.25 inches in Oxnard, and 2.04 inches in Camarillo. Water year-to-date (October 1 – March 18) precipitation in downtown Los Angeles climbed to 24.08 inches (196 percent of normal), the 14th-highest seasonal sum since records began in 1877-78. With a 1.53-inch total on the 14th, Long Beach, CA, experienced its seventh-wettest March day on record. Elsewhere in southern California, 24-hour precipitation totals on March 14-15 reached 5.22 inches on Palomar Mountain; 4.21 inches at Oceanside Harbor; and 2.55 inches at Newport Beach. In central California, the Middle Fork of the Feather River near Portola climbed 1.92 feet above flood stage on March 15, the second-highest level on record in that location behind 3.71 feet above flood stage on February 11, 2017. Southwestern desert locations such as Needles, CA (1.65 inches), and Kingman, AZ (1.05 inches) collected daily-record totals for March 15. By the 16th, heavy rain shifted into the mid-South, where daily-record amounts in Arkansas totaled 2.94 inches at Little Rock Air Force Base and 1.84 inches in Stuttgart. Farther north, snow in Montana led to daily-record totals for March 15 in Glasgow (6.2 inches) and Helena (4.7 inches). Eventually, beneficial precipitation developed in southern Texas, where Del Rio netted a daily-record sum of 1.13 inches.

Periods of summer-like heat heat gripped southern Texas, where March 12 highs soared to 100°F in Harlingen and 99°F in Corpus Christi. With a high of 88°F on the 12th, Galveston, TX, narrowly missed a March record (89°F on March 19, 2018). Mid-month warmth also prevailed in Florida, where record-setting highs for March 13 included 94°F in West Palm Beach and 90°F in Melbourne. In contrast, Hibbing, MN, tallied a daily-record low of -14°F on March 14. The following day, Jackson, TN, registered a record-setting low (22°F) for March 15. Cold air also prevailed across the Plains and Northwest; daily-record lows included 11°F (on March 16) in Burns, OR, and 15°F (on March 17) in Garden City, KS. As the spring cool spell intensified, some Southern fruits were threatened. Record-setting lows for March 19 in Tennessee included 18°F in Crossville and 21°F in Jackson. Cold weather extended westward to the Plains, where Garden City, KS, posted a daily record-tying low of 10°F on the 19th. Below-normal temperatures also persisted in the West, where selected daily-record lows on March 19 included -17°F in Big Piney, WY, and -12°Fin Randolph, UT. By March 20, the Southern cold wave generally peaked with lows in Tennessee again dipping to daily-record levels in Crossville (14°F) and Jackson (17°F). Elsewhere in the Southeast, record-setting lows for March 20 plunged to 19°F in Lynchburg, VA; 23°F in Anniston, AL; and 28°F in Augusta, GA. On the same date, freezes extended to Gulf Coast cities such as Mobile, AL (29°F), and Pensacola, FL (30°F). With cold air lingering in the Atlantic Coast States, daily-record lows for March 21 fell to 24°F in Elizabeth City, NC, and 32°F in Brooksville, FL. Soon, record-setting warmth returned across the south-central U.S. By March 22, San Angelo, TX, posted a daily-record high of 92°F. In Louisiana, Baton Rouge logged consecutive daily-record highs of 86°F on March 23-24. In Mississippi, daily-record highs on the 24th—the day of a tragic tornado outbreak—soared to 87°F in Greenwood and 85°F in Tupelo. On March 24, McAllen, TX, attained 101°F for the second time this month. McAllen also observed 2 days of triple-digit heat during March in 1954, 1971, 1991, 2008, and 2013. By March 25, daily-record highs topped

the 90-degree mark in Florida locations in Leesburg (92°F) and Vero Beach (91°F). Other Southeastern daily-record highs for the 25th reached 90°F in Montgomery, AL, and 89°F in Lafayette, LA.

On the morning of March 26, the snow depth in Alta, UT, climbed to 180 inches, following official monthly totals of 26.1 inches in October; 66.4 inches in November; 135.9 inches in December; 163.9 inches in January; and 72.0 inches in February. Alta's March snowfall totaled 191.0 inches, for a season-to-date sum of 655.3 inches. Earlier, some of California's heaviest late-month precipitation fell on the 21st, when daily-record rainfall amounts included 1.53 inches in Long Beach and 1.43 inches in downtown Los Angeles. Heavily managed waterways in California's Central Valley remained at elevated levels, with the Merced River at Stevinson continuing to experience its highest water—slightly above the 71-foot flood stage—since December 1950. Similarly, the San Joaquin River at Vernalis remained at its highest level since February 2017, with higher crests observed only in February-March 1938, April 1940, December 1950, January 1969, March 1986, and January 1997. Later, the focus for heavy precipitation shifted eastward. By March 23, Vichy-Rolla, MO, netted a daily-record rainfall of 1.54 inches. On the 24th, daily-record rainfall totals topped 3 inches in Arkansas locations such as Batesville (3.49 inches), Little Rock Air Force Base (3.17 inches), and Mount Ida (3.03 inches). Evansville, IN, with 3.10 inches on March 24, also netted a daily-record sum. Daily-record amounts exceeded 2 inches on the 24th in many other communities, including Carbondale, IL (2.76 inches); Louisville, KY (2.17 inches); and Cape Girardeau, MO (2.08 inches). From March 23-26, more than two dozen tornadoes were reported from Texas to Georgia, according to preliminary reports. The outbreak peaked on the 24th with a devastating, long-track, post-sunset tornado cutting more than 59 miles across parts of four Mississippi counties, resulting in 16 fatalities, more than a dozen of them in the Sharkey County community of Rolling Fork. During all of 2022, there were only 23 U.S. tornado-related fatalities. Meanwhile, heavy snow fell north of the storm's track, with Billings, MT, receiving 10.4 inches on March 25-26. In Wisconsin, the 25th was the snowiest March day on record in Madison, where 12.1 inches fell (previously, 12.0 inches on March 18, 1971). Elsewhere in Wisconsin, record-setting snowfall totals for March 25 included 11.8 inches in Appleton, 10.0 inches in Green Bay, and 8.9 inches in Milwaukee.

In late March, snow blanketed the northern Rockies and adjacent High Plains, where daily-record totals (for the 26th) in Montana reached 7.8 inches at Montana State University (MSU) in Bozeman and 5.0 inches in Billings. The 3-day (March 25-27) total in Billings climbed to 11.7 inches. Similarly, MSU reported a March 26-27 total of 17.1 inches, while the nearby Bozeman Airport set March records for 1- and 2-day snowfall—9.5 inches on March 25 and 11.5 inches on March 25-26, respectively. Meanwhile, heavy showers dotted the Southeast, resulting in a daily-record total (2.93 inches) for March 27 in Florence, SC. On March 28 in Georgia, the Flint River near Carsonville crested 16.43 feet above flood stage, reaching its highest level since the record-setting flood of July 1994. On the same date in Macon, GA, at the 5th Street Bridge, the Ocmulgee River rose 9.78 feet above flood stage, the highest level in that location since March 1998. Heavy rain also fell across the southern tip of Texas, where McAllen netted a daily-record sum (2.91 inches) for March 28. Farther west, heavy precipitation returned across parts of California, where recovery from a 3-year drought neared completion, and later spread inland. In northern California, record-setting rainfall totals for March 28 reached 1.97 inches in Mt. Shasta City and 1.64 inches in Ukiah. A day later in southern California, daily-record totals (for the 29th) included 0.98 inch at LAX Airport and 0.94 inch in Long Beach. A flood disaster, months in the making, continued to unfold in the formerly dry and heavily agricultural Tulare Lake basin of California's San Joaquin Valley, with a record-setting snowpack in the southern Sierra Nevada still left to melt. Farther inland, Winnemucca, NV, received 6.8 inches of snow on March 28-29, including a daily-record sum of 4.6 inches on the latter date. As the month ended, the storm careened eastward. On March 31, snowfall in South Dakota totaled 10.0 inches in Pierre, 8.6 inches in Sisseton, and 7.5 inches in Aberdeen, with respective peak wind gusts clocked to 53, 46, and 53 mph. Farther south, daily-record precipitation totaled topped 2 inches on March 31 in Rochester, MN (2.15 inches) and Grand Rapids, MI (2.02 inches). Meanwhile, more than 100 tornadoes swept across at least 10 states on March 31, resulting in well over two dozen fatalities. One long-track tornado, an EF-3 that touched down at 11:02 pm CDT, swept some 86 miles in 95 minutes across Tennessee from Hardeman to Lewis County, with nine deaths reported in McNairy County.

Late in the month, warmth returned across southern Atlantic States. On March 26, daily-record highs topped the 90-degree mark in Florida locations such as Leesburg (92°F) and Daytona Beach (91°F). The following day, record-setting highs for March 27 reached 90°F at Jacksonville, FL, and St. Simons Island, GA. West Palm Beach, FL, collected a daily-record high of 91°F on March 28. On the last day of March, Fort Myers, FL, posted a daily-record high. In the West, however, Yakima, WA, noted consecutive lows of 21°F on March 26-27, tying a daily record with the initial reading. March 27 featured daily-record lows in dozens of Western communities, including sub-zero readings in Big Piney, WY (-10°F), and Ely, NV (-1°F). Big Piney set another sub-zero, daily-record reading on March 28, with -16°F—and notched 18 days during the month with readings below 0°F, a 21st century record for March (previously, 11 days in 2019). Later, already-cold conditions intensified across the north-central U.S., where daily-record lows for March 29 plunged to -14°F in Aberdeen, SD; -13°F in Bismarck, ND; and -10°F in Brainerd, MN. Elsewhere, March 31 was the next-to-last of 143 consecutive days with high temperatures below 40°F in Fargo, ND, the second-longest such streak on record in that location, behind only 152 days from November 10, 1978 – April 10, 1979.

Rapidly fluctuating temperatures were observed during March in Alaska, with much of the state experiencing two distinct cycles of transition from cold to mild weather. Cold air engulfed much of the state as the month began. With a reading of -34°F on March 4, Fairbanks experienced its coldest weather since December 19-21, 2022. However, mild, stormy weather soon replaced the frigid conditions, with lingering cold weather

confined to southeastern Alaska. In the Aleutians, the 5th was the wettest March day on record in Cold Bay, where 2.98 inches fell (previously, 2.29 inches on March 15, 2002). The following day in western Alaska, record-setting precipitation totals for March 6 included 0.71 inch in Nome and 0.49 inch in Kotzebue. An easterly wind gust to 72 mph accompanied Kotzebue's precipitation, which included snow and freezing rain. Elsewhere on the 6th, Alaskan daily-record highs rose to 44°F in Cold Bay and 41°F in Bethel. Kotzebue reported a daily-record high of 34°F on March 7. Cold Bay's highest reading of the month, 50°F on March 9, also set a daily-record high. Another cold wave followed, with temperatures plunging below -30°F in parts of interior Alaska. Bettles reported lows of -36°F on March 13 and 16. In southeastern Alaska, Juneau tied a daily-record low on March 13 with a reading of 7°F. A second round of mild weather arrived in Alaska after mid-month. In Bettles, high temperatures reached or exceeded 32°F each day from March 18-23, peaking at 35°F on the 21st. Bettles had not been above the freezing mark since October 18, 2022. Similarly, Fairbanks attained 42°F on March 19, 22, and 27, the highest readings in that location since October 18. Late in the month, a storm system affecting western Alaska produced a wind gust to 75 mph (on March 25) in Kotzebue. On the strength of early- and late-month storminess, March precipitation was more than three times normal in Nome (2.62 inches, or 354 percent of normal) and Kotzebue (1.80 inches, or 346 percent). In contrast, Anchorage completed a rather dry month, with a March sum of 0.14 inch (20 percent of normal) and just 2.1 inches of snow. Meanwhile in Sitka, March precipitation totaled 3.06 inches (55 percent of normal).

During March, Hawaii's weather went from rainy to tranquil and back again. Early-March rain was a continuation from a very wet February, which featured some 50-inch monthly rainfall totals on the Big Island. Hilo, on the Big Island, noted 3.85 inches of rain during the first 4 days of March, following a February sum of 37.95 inches. On March 8, southerly to southwesterly winds gusted to 47 mph in Lihue, Kauai, and 45 mph in Kahului, Maui. Kahului also received rainfall totaling 0.90 inch from March 6-8. However, that marked Kahului's last measurable rainfall of the month; the March total of 1.42 inches was 54 percent of normal. As the month progressed, Hawaiian warmth accompanied a period of mostly dry weather. Hilo's highest reading of the month, 88°F on March 14, was a daily-record high. Kahului achieved highs of 88°F on March 25 and 30, tying records both days. Late in the month, spotty showers provided relief from the short spell of hot, dry weather. Honolulu, Oahu, received 1.81 inches of rain on March 23, accounting for more than two-thirds of the monthly sum. Lihue received more than an inch of rain on March 23, 29, and 31. Lihue's monthly sum of 6.12 inches was 109 percent of normal. Meanwhile on the Big Island, Hilo received a March sum of 7.40 inches (58 percent of normal).

Fieldwork

Fieldwork summary provided by USDA/NASS

Except for the Midwest, March was warmer than average for most of the eastern half of the nation. Large parts of New England, and much of the South recorded temperatures 3°F or more above normal. In contrast, most of the western half of the nation was cooler than normal. Much of the northern Plains and Rockies, as well as large parts of California, the Great Basin, and Pacific Northwest, recorded temperatures, 6°F or more below normal. Parts of Montana, North Dakota, and Wyoming recorded temperatures 15°F or more below normal. Meanwhile, much of the western half of the nation received higher-than-normal amounts of precipitation. Large parts of California, the Great Basin, Rockies, and Southwest received at least twice the normal amount of precipitation. Parts of the northern Plains and Pacific Northwest also recorded twice the normal amount of precipitation. Some areas in California received at least 15 inches of rain for the month. In the East, much of Florida, the Gulf Coast, and mid-Atlantic was drier than normal, while parts of the Midwest and Mississippi Valley received at least twice the normal amount of precipitation.

By April 2, six percent of the nation's winter wheat crop had headed, 2 percentage points ahead of last year and 4 points ahead of the 5-year average. On April 2, twenty-eight percent of the 2023 winter wheat crop was reported in good to excellent condition, 2 percentage points below last year.

U.S. Crop Production Highlights

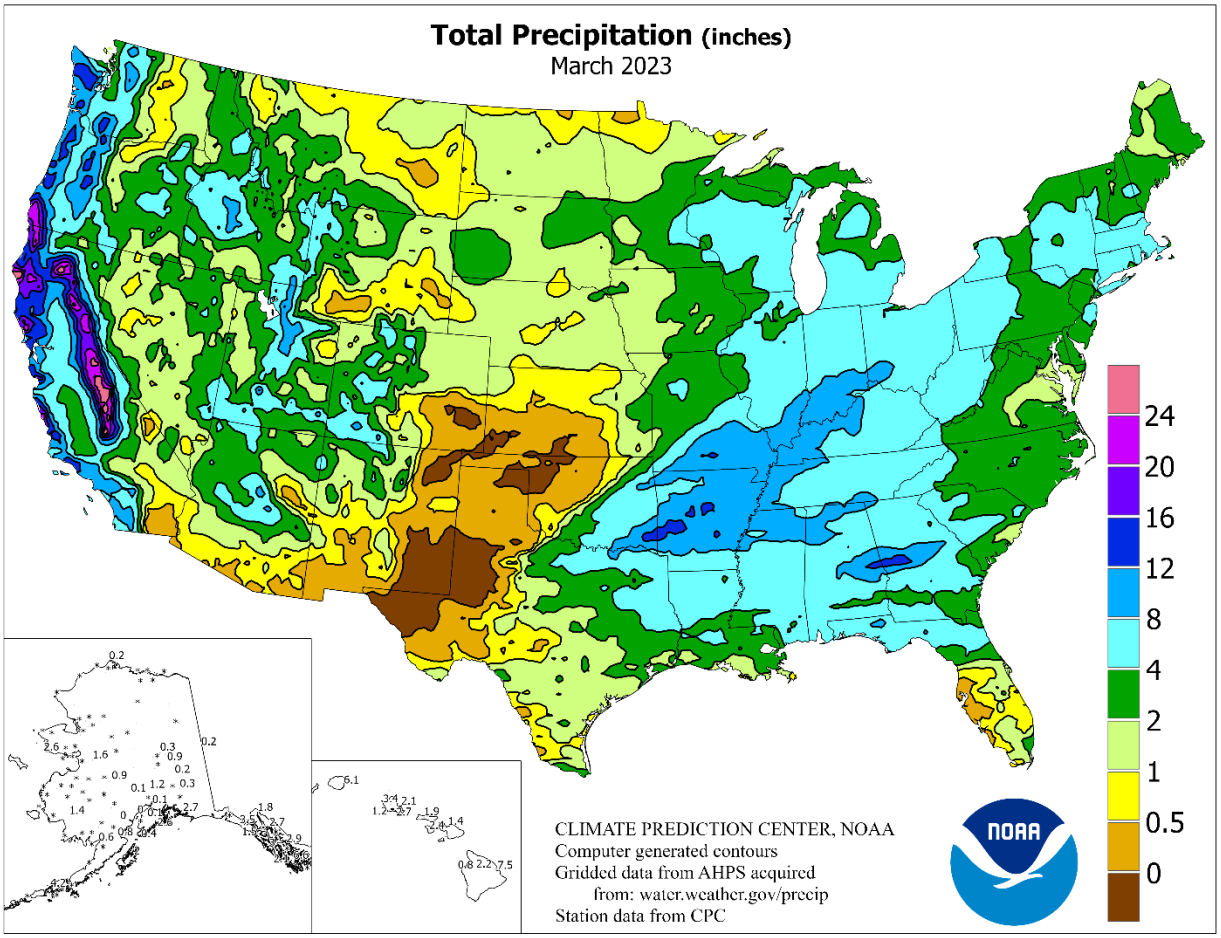
The following information was released by USDA's Agricultural Statistics Board on April 11, 2023. Forecasts refer to April 1.

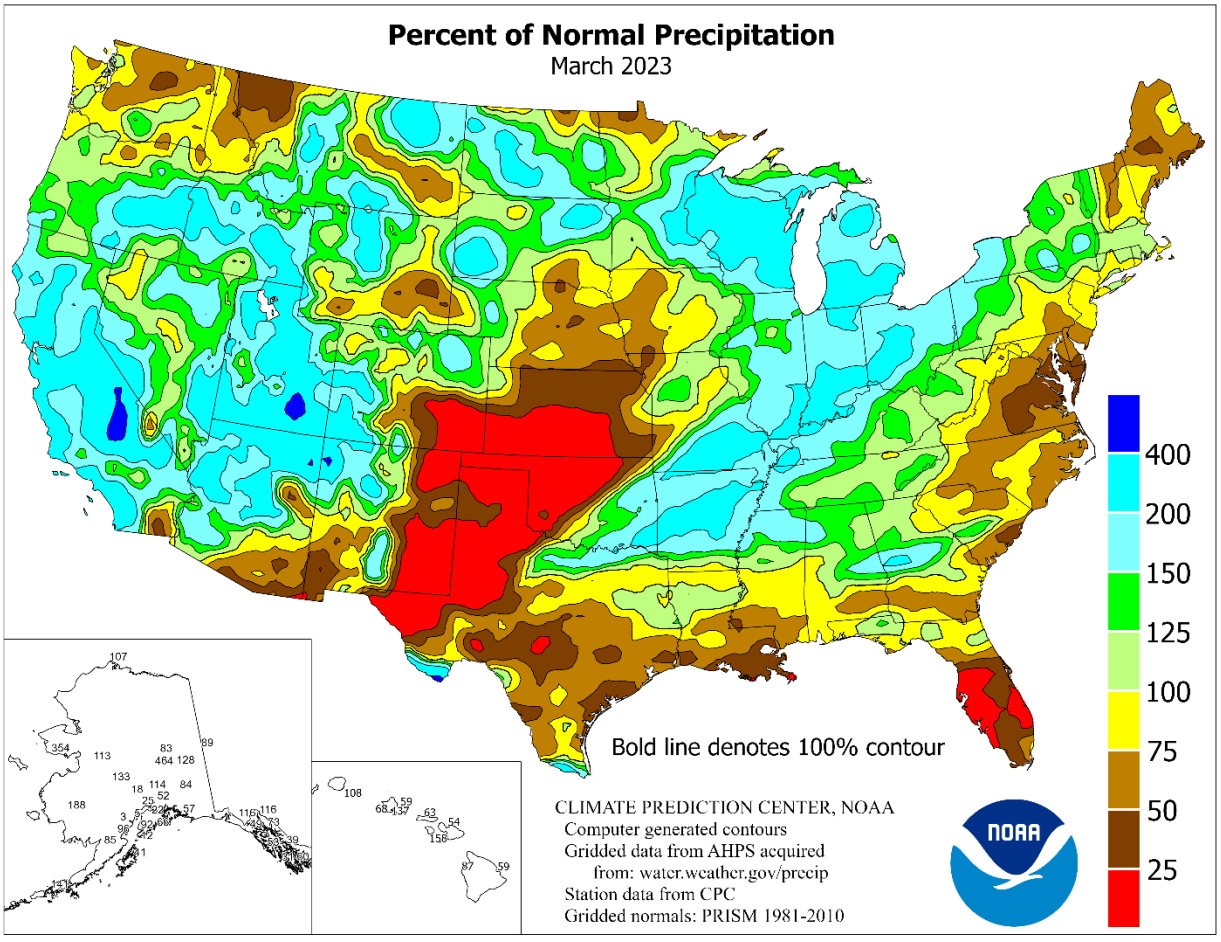
The **U.S. all orange** forecast for the 2022-2023 season is 2.57 million tons, down 2 percent from the previous forecast and down 25 percent from the 2021- 2022 revised utilization.

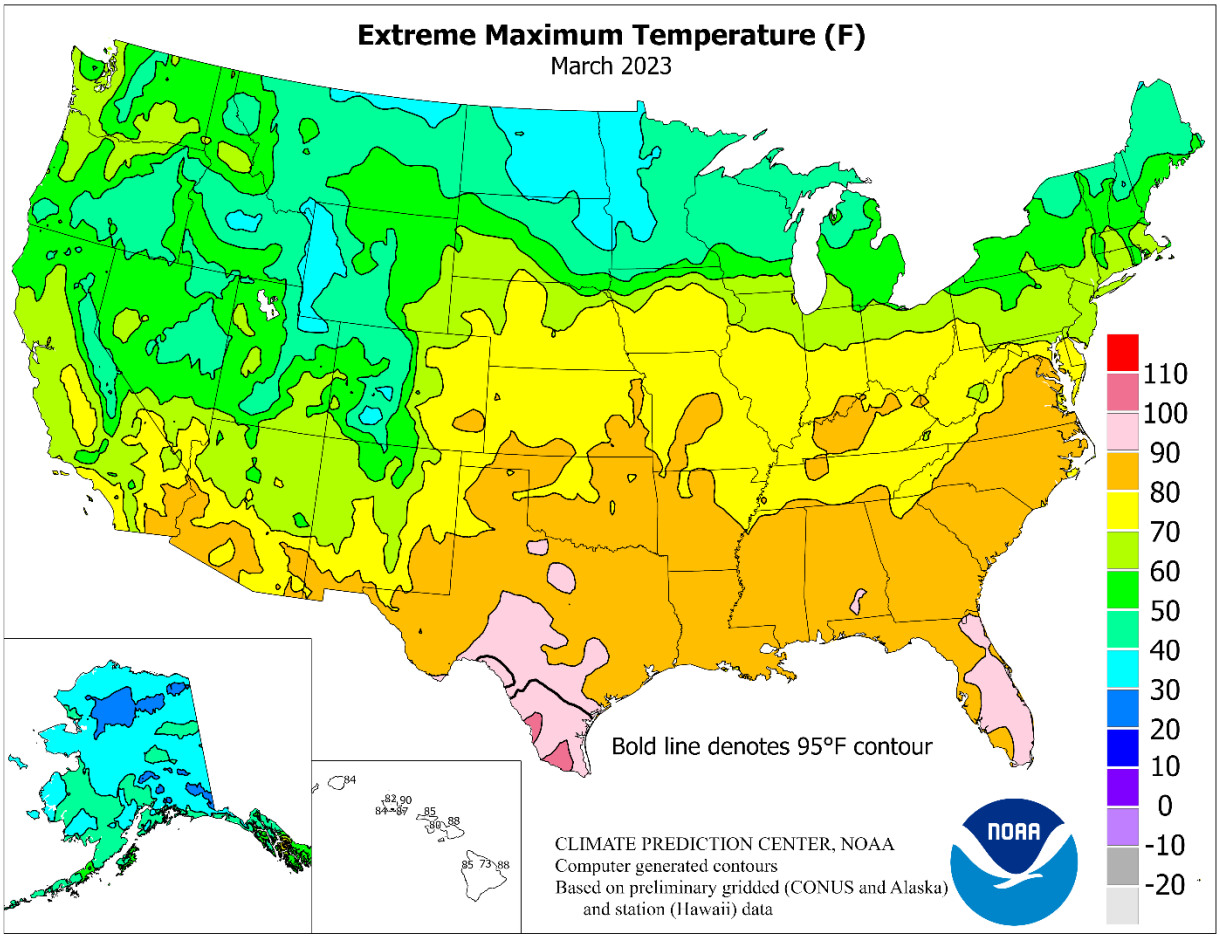
The Florida all orange forecast, at 16.1 million boxes (725,000 tons), is unchanged from the previous forecast but down 61 percent from last season's revised utilization. In Florida, early, midseason, and Navel varieties are forecast at 6.10 million boxes (275,000 tons), unchanged from the previous forecast but down 67 percent from last season's revised utilization. The Florida Valencia orange forecast, at 10.0 million boxes (450,000 tons), is unchanged from the previous forecast but down 56 percent from last season's revised utilization.

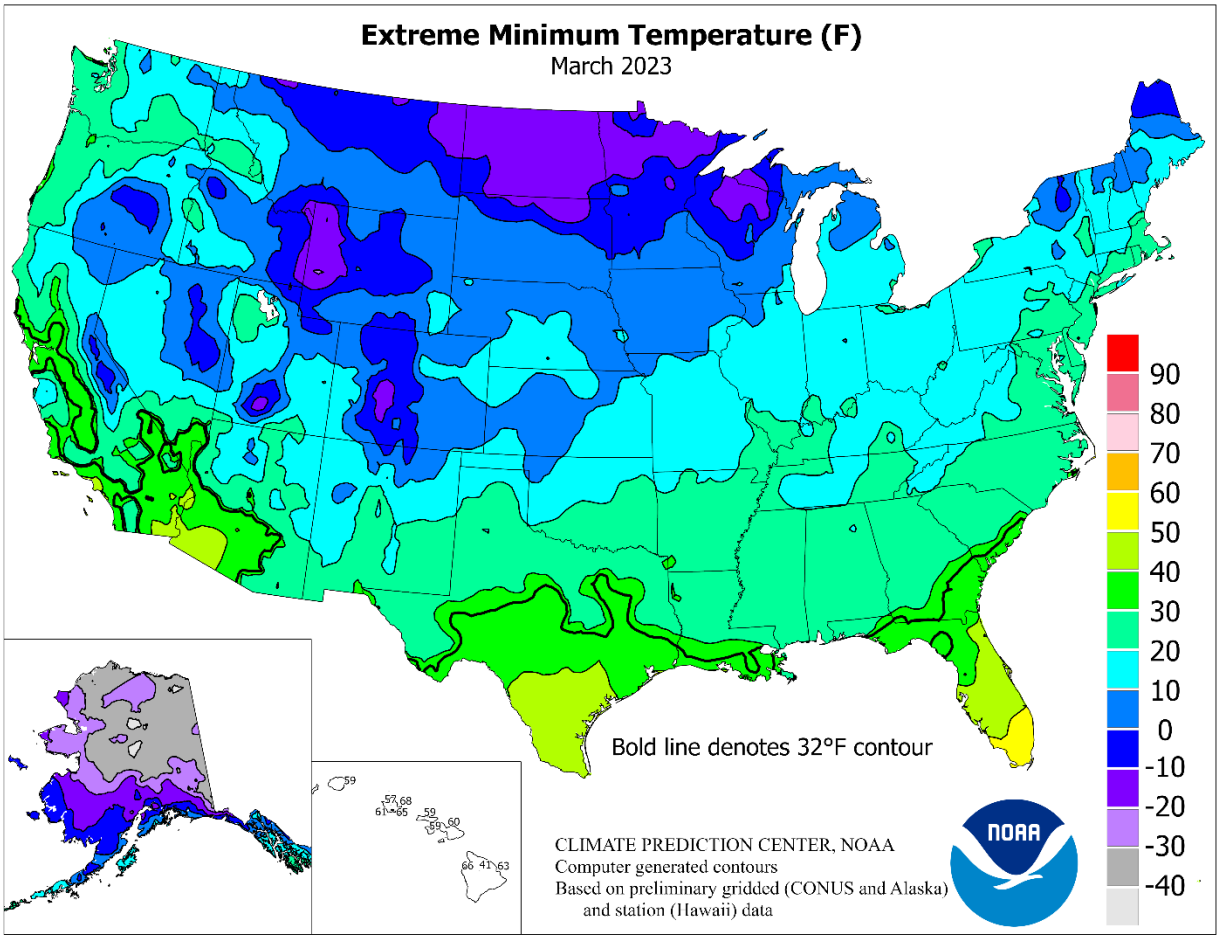
The California all orange forecast is 45.1 million boxes (1.80 million tons), is down 2 percent from previous forecast but up 15 percent from last season's revised utilization. The California Navel orange forecast is 37.0 million boxes (1.48 million tons), down 3 percent from the previous forecast but up 17 percent from last season's revised utilization. The California Valencia orange forecast is 8.10 million boxes (324,000 tons), unchanged from the previous forecast but up 7 percent from last season's revised utilization.

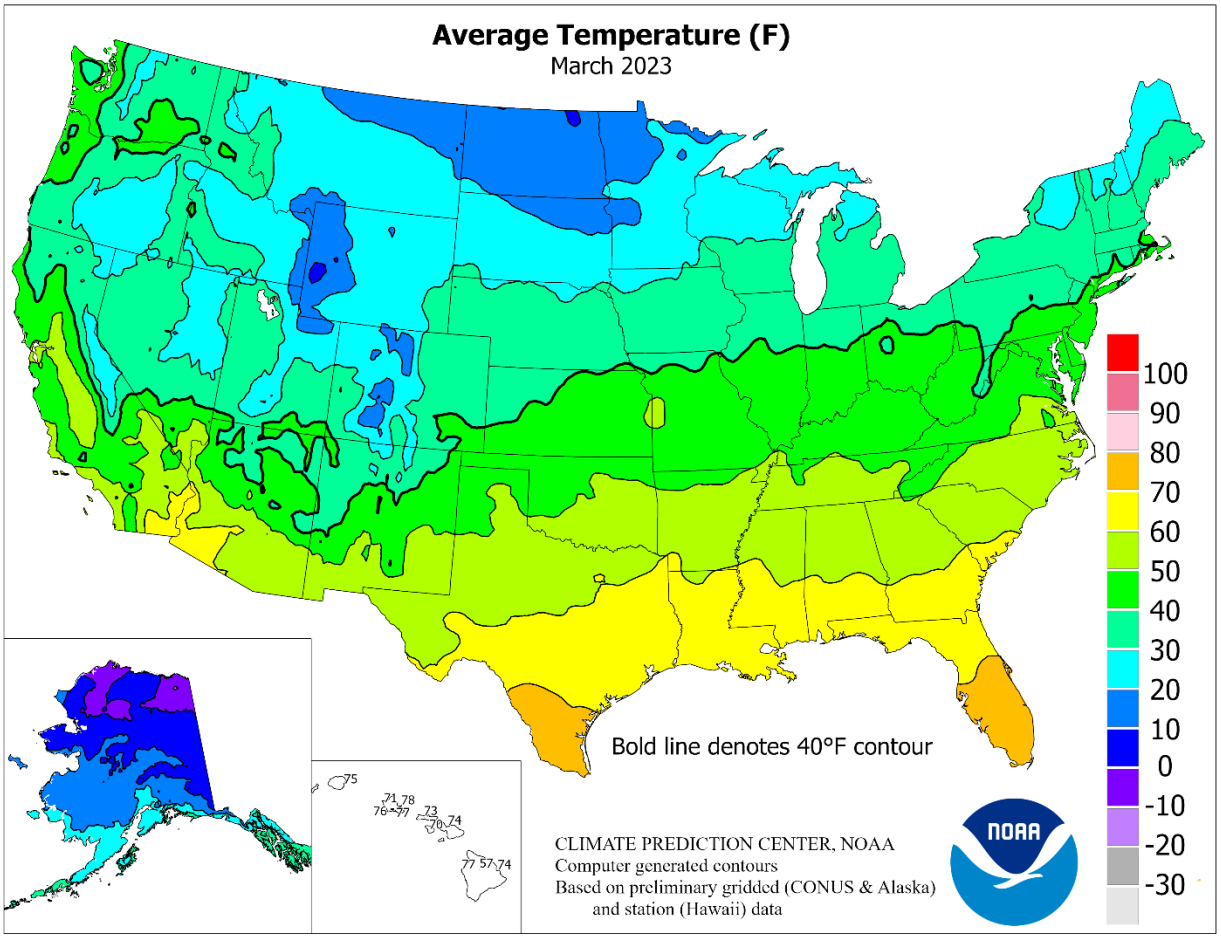
The Texas all orange forecast, at 1.05 million boxes (45,000 tons) down 9 percent from the previous forecast but up significantly from last season's revised utilization.

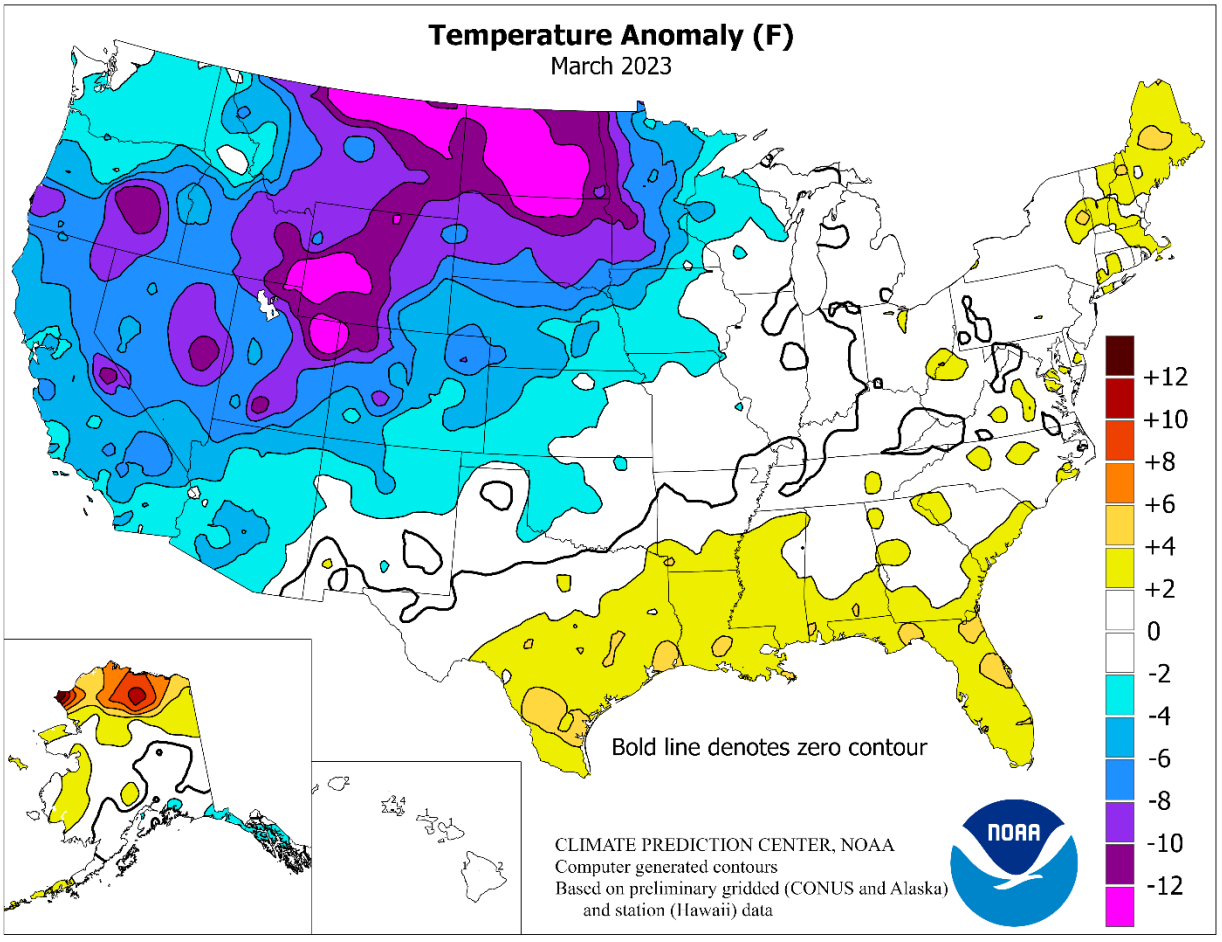

Total Precipitation (inches)
March 2023
24
20
16
12
8
4
2
1
0.5
0
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Gridded data from AHPS acquired
from: water.weather.gov/precip
Station data from CPC
NOAA


Percent of Normal Precipitation
March 2023
400
200
150
125
100
75
50
25
Bold line denotes 100% contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Gridded data from AHPS acquired
from: water.weather.gov/precip
Station data from CPC
Gridded normals: PRISM 1981-2010
NOAA


Extreme Maximum Temperature (F)
March 2023
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (F)
March 2023
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Average Temperature (F)
March 2023
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
Bold line denotes 40°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS & Alaska)
and station (Hawaii) data
NOAA


Temperature Anomaly (F)
March 2023
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
Bold line denotes zero contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA

National Weather Data for Selected Cities

March 2023

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AK ANCHORAGE	25	0	0.15	-0.54	WICHITA	46	-1	0.11	-2.18	TOLEDO	40	1	3.19	0.58
BARROW	-3	0	0.19	0.01	KY LEXINGTON	48	2	4.59	0.11	YOUNGSTOWN	38	1	4.42	1.21
FAIRBANKS	12	1	0.33	-0.07	LOUISVILLE	49	0	7.01	2.41	OK OKLAHOMA CITY	50	-1	2.56	0.01
JUNEAU	31	-2	2.69	-0.98	PADUCAH	50	1	9.17	4.52	TULSA	50	-2	3.68	0.58
KODIAK	33	0	1.95	-2.86	LA BATON ROUGE	67	5	3.44	-1.02	OR ASTORIA	43	-3	7.81	-0.09
NOME	11	2	2.62	1.88	LAKE CHARLES	66	2	1.55	-2.13	BURNS	26	-12	3.07	2.11
AL BIRMINGHAM	58	2	4.29	-1.36	NEW ORLEANS	68	4	2.14	-2.22	EUGENE	43	-4	4.35	-0.30
HUNTSVILLE	55	1	5.72	0.33	SHREVEPORT	62	3	0.00	-4.90	MEDFORD	43	-6	1.90	0.09
MOBILE	65	5	5.03	-0.41	MA BOSTON	41	2	3.96	-0.20	PENDLETON	43	-2	0.82	-0.51
MONTGOMERY	62	3	4.33	-0.87	WORCESTER	38	3	4.34	0.15	PORTLAND	45	-3	4.24	0.27
AR FORT SMITH	54	0	7.05	3.15	MD BALTIMORE	47	2	1.44	-2.57	SALEM	43	-5	4.94	0.59
LITTLE ROCK	56	3	8.44	3.48	ME CARIBOU	28	3	2.04	-0.73	PA ALLENTOWN	40	-1	2.73	-0.90
AZ FLAGSTAFF	33	-5	7.22	5.34	PORTLAND	36	1	2.55	-1.53	ERIE	36	0	4.65	1.57
PHOENIX	62	-4	1.44	0.61	MI ALPENA	30	0	2.61	0.79	MIDDLETOWN	43	1	2.78	-0.91
PRESCOTT	43	-5	2.06	1.09	GRAND RAPIDS	35	0	4.97	2.59	PHILADELPHIA	45	1	1.96	-1.99
TUCSON	59	-3	0.66	0.10	HOUGHTON LAKE	30	0	3.40	1.62	PITTSBURGH	40	0	2.67	-0.47
CA BAKERSFIELD	54	-5	2.30	1.15	LANSING	36	1	4.45	2.32	WILKES-BARRE	39	1	2.09	-0.68
EUREKA	44	-5	7.10	1.35	MUSKEGON	37	1	4.31	1.92	WILLIAMSPORT	40	1	1.22	-1.91
FRESNO	53	-4	4.09	2.19	TRAVERSE CITY	33	0	2.05	0.49	RI PROVIDENCE	40	1	4.87	-0.03
LOS ANGELES	55	-4	7.35	5.61	MN DULUTH	23	-4	2.96	1.50	SC CHARLESTON	62	3	1.32	-2.03
REDDING	48	-7	11.31	6.69	INT_L FALLS	19	-5	3.90	2.89	COLUMBIA	58	2	4.78	1.20
SACRAMENTO	51	-4	5.10	2.41	MINNEAPOLIS	29	-4	2.65	0.97	FLORENCE	58	1	4.66	1.47
SAN DIEGO	57	-4	3.91	2.45	ROCHESTER	29	-3	3.34	1.32	GREENVILLE	54	2	3.99	-0.49
SAN FRANCISCO	52	-3	6.56	3.83	ST. CLOUD	23	-6	2.86	1.30	SD ABERDEEN	17	-13	1.74	0.85
STOCKTON	52	-5	5.20	3.29	MO COLUMBIA	45	-1	2.63	-0.35	HURON	23	-10	0.80	-0.35
CO ALAMOSA	33	-2	0.31	-0.20	KANSAS CITY	42	-3	2.68	0.32	RAPID CITY	27	-9	1.46	0.54
CO SPRINGS	38	-3	0.08	-0.71	SAINT LOUIS	46	-1	4.97	1.48	SIOUX FALLS	27	-8	1.16	-0.44
DENVER INTL	36	-6	0.47	-0.39	SPRINGFIELD	46	-2	6.75	3.24	TN BRISTOL	49	1	3.69	-0.27
GRAND JUNCTION	39	-6	1.68	0.88	MS JACKSON	62	4	5.05	-0.63	CHATTANOOGA	55	1	5.34	-0.01
PUEBLO	40	-4	0.10	-0.72	MERIDIAN	61	2	3.44	-2.22	KNOXVILLE	52	1	5.42	0.53
CT BRIDGEPORT	41	2	3.38	-0.71	TUPELO	57	2	8.46	3.09	MEMPHIS	55	1	8.30	2.57
HARTFORD	40	2	4.10	0.29	MT BILLINGS	29	-9	1.46	0.57	NASHVILLE	52	1	3.19	-1.33
DC WASHINGTON	49	1	1.51	-1.99	BUTTE	23	-9	0.84	0.20	TX ABILENE	59	1	1.03	-0.65
DE WILMINGTON	45	2	2.26	-1.89	CUT BANK	21	-10	0.22	-0.14	AMARILLO	49	-1	0.32	-0.95
FL DAYTONA BEACH	69	4	1.61	-2.02	GLASGOW	17	-15	1.01	0.54	AUSTIN	66	3	0.63	-2.26
JACKSONVILLE	65	3	3.04	-0.26	GREAT FALLS	26	-8	1.23	0.55	BEAUMONT	68	4	1.18	-2.45
KEY WEST	77	3	0.27	-1.26	HAVRE	18	-14	0.42	-0.09	BROWNSVILLE	74	2	1.16	-0.29
MIAMI	77	4	3.48	1.02	MISSOULA	34	-3	0.69	-0.24	CORPUS CHRISTI	72	5	0.72	-1.56
ORLANDO	72	4	0.14	-2.89	NC ASHEVILLE	48	0	1.90	-1.91	DEL RIO	69	4	1.84	0.66
PENSACOLA	66	4	3.04	-2.21	CHARLOTTE	55	2	2.03	-1.93	EL PASO	59	0	0.06	-0.19
TALLAHASSEE	66	5	3.32	-1.93	GREENSBORO	51	1	2.77	-0.95	FORT WORTH	61	2	2.62	-0.68
TAMPA	72	4	0.35	-2.16	HATTERAS	54	0	3.02	-1.41	GALVESTON	69	4	2.04	-0.98
WEST PALM BEACH	76	4	0.13	-3.18	RALEIGH	54	3	3.08	-1.02	HOUSTON	67	3	1.14	-2.34
GA ATHENS	56	1	4.13	-0.24	WILMINGTON	59	3	2.71	-1.26	LUBBOCK	53	0	0.00	-1.09
ATLANTA	58	2	5.39	0.70	ND BISMARCK	15	-15	1.52	0.68	MIDLAND	57	-1	0.00	-0.68
AUGUSTA	57	0	4.13	0.05	DICKINSON	17	-14	0.19	-0.37	SAN ANGELO	60	1	0.57	-0.91
COLUMBUS	60	2	4.67	-0.24	FARGO	15	-12	1.87	0.62	SAN ANTONIO	67	4	1.28	-1.02
MACON	59	2	5.41	1.10	GRAND FORKS	12	-12	1.10	0.19	VICTORIA	68	4	0.76	-2.23
SAVANNAH	63	3	2.92	-0.57	JAMESTOWN	13	-14	0.25	-0.44	WACO	60	1	1.38	-1.93
HI HILO	74	2	7.47	-5.21	NE GRAND ISLAND	36	-5	0.70	-0.69	WICHITA FALLS	55	0	2.78	0.76
HONOLULU	77	2	2.71	0.36	LINCOLN	38	-3	0.61	-0.94	UT SALT LAKE CITY	39	-7	2.83	1.08
KAHULUI	74	0	1.44	-1.20	NORFOLK	34	-4	0.55	-0.89	VA LYNCHBURG	50	3	1.70	-2.05
LIHUE	75	2	6.07	0.46	NORTH PLATTE	34	-5	0.41	-0.59	NORFOLK	52	1	1.58	-2.11
IA BURLINGTON	39	-1	2.82	0.40	OMAHA	37	-5	0.81	-0.98	RICHMOND	51	2	1.21	-2.80
CEDAR RAPIDS	36	-1	0.60	-1.39	SCOTTSBLUFF	35	-5	0.41	-0.58	ROANOKE	50	2	1.58	-1.93
DES MOINES	37	-2	1.33	-0.84	VALENTINE	30	-8	0.69	-0.32	WASH/DULLES	46	2	1.56	-1.94
DUBUQUE	35	-1	1.57	-0.69	NH CONCORD	35	1	3.89	0.61	VT BURLINGTON	33	1	2.60	0.36
SIOUX CITY	33	-4	1.16	-0.60	NJ ATLANTIC_CITY	44	1	2.31	-2.21	WA OLYMPIA	42	-2	3.41	-2.27
WATERLOO	35	-2	1.69	-0.30	NEWARK	45	2	3.27	-0.85	QUILLAYUTE	42	-2	8.84	-2.94
ID BOISE	39	-6	2.28	0.94	NM ALBUQUERQUE	46	-4	0.52	0.07	SEATTLE-TACOMA	45	-3	2.54	-1.63
LEWISTON	43	-2	0.98	-0.32	NV ELY	26	-12	1.98	0.99	SPOKANE	38	-3	1.09	-0.74
POCATELLO	30	-9	1.73	0.52	LAS VEGAS	54	-6	0.50	0.08	YAKIMA	40	-3	1.08	0.44
IL CHICAGO/O_HARE	39	0	3.77	1.32	RENO	39	-8	1.95	1.15	WI EAU CLAIRE	28	-3	2.75	0.78
MOLINE	40	0	2.58	-0.04	WINNEMUCCA	36	-7	2.10	1.23	GREEN BAY	29	-3	3.42	1.46
PEORIA	41	0	4.56	1.87	NY ALBANY	37	1	4.05	0.96	LA CROSSE	34	-2	2.84	0.80
ROCKFORD	37	-1	3.28	0.89	BINGHAMTON	33	1	2.65	-0.40	MADISON	33	-1	3.58	1.32
SPRINGFIELD	42	-1	3.46	0.71	BUFFALO	35	1	3.80	0.92	MILWAUKEE	36	0	3.96	1.76
IN EVANSVILLE	47	0	8.57	3.96	ROCHESTER	35	0	2.80	0.30	WV BECKLEY	43	0	2.47	-1.56
FORT WAYNE	39	0	4.73	1.92	SYRACUSE	35	1	3.19	0.15	CHARLESTON	46	0	2.88	-1.26
INDIANAPOLIS	42	0	5.94	2.26	OH AKRON-CANTON	39	0	4.43	1.20	ELKINS	41	0	3.70	-0.28
SOUTH BEND	38	1	5.65	3.30	CINCINNATI	44	0	5.87	1.70	HUNTINGTON	46	0	3.06	-1.09
KS CONCORDIA	42	-2	0.50	-1.03	CLEVELAND	40	1	3.51	0.45	WY CASPER	27	-9	0.63	-0.21
DODGE CITY	43	-3	0.23	-1.13	COLUMBUS	42	1	5.31	1.69	CHEYENNE	31	-6	0.40	-0.56
GOODLAND	36	-5	0.74	-0.14	DAYTON	42	0	6.60	3.09	LANDER	22	-14	0.58	-0.70
TOPEKA	44	-1	1.60	-0.64	MANSFIELD	39	1	4.66	1.32	SHERIDAN	23	-12	1.61	0.59

Based on 1991-2020 normals

***** Not Available**

National Agricultural Summary

April 3 – 9, 2023

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

During the week ending April 9, much of the South and the Texas Coastal Plain received at least twice the normal amount of precipitation, as did parts of the Great Lakes, northern Plains, Pacific Northwest, and Rockies. Parts of the lower Mississippi Valley and southeastern Texas recorded 5 inches or more of rain for the week. Meanwhile, except for the upper Midwest and New England, most of the eastern half of the nation was warmer than normal during the week. Parts of the southern Delta and Florida recorded temperatures 9°F or more above normal. In contrast, most of the western half of the nation was cooler than normal for the week. Parts of the northern Plains and Rockies recorded temperatures 15°F or more below normal.

Corn: By April 9, producers had planted 3 percent of the nation's corn crop, 1 percentage point ahead of both last year and the 5-year average. Texas was the furthest advanced in progress with 61 percent planted.

Winter Wheat: By April 9, seven percent of the nation's winter wheat crop was headed, two percentage points ahead of last year and 3 points ahead of the 5-year average. On April 9, twenty-seven percent of the 2023 winter wheat crop was reported in good to excellent condition, 1 percentage point below the previous week and 5 points below last year. In Kansas, the largest winter wheat-producing state, 61 percent of the winter wheat crop was rated in poor to very poor condition.

Cotton: Nationwide, 6 percent of the cotton crop was planted by April 9, one percentage point behind both the previous year and the 5-year average. Arizona and Texas had the largest percentages of acreage seeded, with 13 and 11 percent planted, respectively.

Sorghum: Thirteen percent of the nation's sorghum acreage was planted by April 9, one percentage point behind last year and 2 points behind the 5-year average. Texas had planted 48 percent of its sorghum acreage by April 9, one percentage point ahead of last year but 4 points behind the 5-year average.

Rice: By April 9, producers had seeded 22 percent of the 2023 rice acreage, 6 percentage points ahead of the previous year and 2 points ahead of the 5-year average. Louisiana and Texas had the largest percentages of acreage sown, with 74 and 49 percent planted, respectively. By April 9, thirteen percent of the nation's rice acreage had emerged, 4 percentage points ahead of last year and 2 points ahead of the 5-year average.

Small Grains: Nationally, oat producers had seeded 28 percent of this year's acreage by April 9, equal to the previous year but 1 percentage point behind the 5-year average. Twenty-five percent of the nation's oat acreage was emerged by April 9, two percentage points ahead of the previous year and 1 point ahead of the 5-year average.

One percent of the nation's barley crop was planted by April 9, nine percentage points behind last year and 7 points behind the 5-year average.

By April 9, one percent of the spring wheat crop was seeded, 5 percentage points behind last year and 3 percentage points behind the 5-year average. Planting progress was furthest advanced in Washington, with 11 percent planted, 20 percentage points behind last year and 22 points behind the 5-year average.

Crop Progress and Condition

Week Ending April 9, 2023

Weekly U.S. Progress and Condition Data provided by USDA/NASS

Corn Percent Planted

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
CO	0	0	0	0
IL	0	0	1	1
IN	0	0	0	0
IA	0	0	0	0
KS	5	1	6	4
KY	4	2	5	4
MI	0	0	0	0
MN	0	0	0	0
MO	1	0	7	3
NE	0	0	0	0
NC	15	1	12	14
ND	0	0	0	0
OH	0	0	0	0
PA	2	0	0	0
SD	0	0	0	0
TN	3	1	5	6
TX	62	57	61	58
WI	0	0	0	0
18 Sts	2	2	3	2

These 18 States planted 92% of last year's corn acreage.

Rice Percent Planted

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
AR	4	5	12	9
CA	0	0	0	0
LA	62	68	74	70
MS	6	1	8	10
MO	1	0	1	4
TX	58	35	49	62
6 Sts	16	17	22	20

These 6 States planted 100% of last year's rice acreage.

Rice Percent Emerged

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
AR	0	0	1	0
CA	0	0	0	0
LA	48	49	63	51
MS	1	0	0	2
MO	0	0	0	0
TX	24	18	27	37
6 Sts	9	10	13	11

These 6 States planted 100% of last year's rice acreage.

Cotton Percent Planted

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
AL	0	0	0	0
AZ	16	7	13	27
AR	0	0	0	0
CA	31	0	0	10
GA	0	0	0	1
KS	0	0	0	0
LA	1	0	1	1
MS	0	0	0	0
MO	0	0	0	0
NC	0	0	0	0
OK	0	0	0	0
SC	0	0	0	0
TN	0	0	0	0
TX	11	7	11	12
VA	0	0	0	0
15 Sts	7	4	6	7

These 15 States planted 99% of last year's cotton acreage.

Spring Wheat Percent Planted

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
ID	21	0	2	20
MN	0	0	0	1
MT	6	0	0	3
ND	2	0	0	2
SD	14	0	0	8
WA	31	6	11	33
6 Sts	6	0	1	4

These 6 States planted 100% of last year's spring wheat acreage.

Barley Percent Planted

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
ID	24	0	2	21
MN	0	0	0	1
MT	7	0	1	3
ND	1	0	0	1
WA	24	2	5	23
5 Sts	10	0	1	8

These 5 States planted 84% of last year's barley acreage.

Sorghum Percent Planted

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
CO	0	0	0	0
KS	0	0	0	0
NE	0	0	0	0
OK	0	0	0	0
SD	0	0	0	0
TX	47	46	48	52
6 Sts	14	13	13	15

These 6 States planted 100% of last year's sorghum acreage.

Oats Percent Planted

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
IA	12	2	13	15
MN	0	0	0	3
NE	40	8	20	26
ND	0	0	0	0
OH	10	3	6	15
PA	5	1	20	14
SD	15	0	1	7
TX	100	100	100	100
WI	1	0	1	5
9 Sts	28	25	28	29

These 9 States planted 69% of last year's oat acreage.

Oats Percent Emerged

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
IA	1	0	0	1
MN	0	0	0	0
NE	5	0	1	3
ND	0	0	0	0
OH	1	2	2	3
PA	1	0	4	2
SD	1	0	0	0
TX	100	100	100	100
WI	0	0	0	0
9 Sts	23	24	25	24

These 9 States planted 69% of last year's oat acreage.

Crop Progress and Condition

Week Ending April 9, 2023

Weekly U.S. Progress and Condition Data provided by USDA/NASS

Winter Wheat Percent Headed

	Prev Year	Prev Week	Apr 9 2023	5-Yr Avg
AR	5	3	10	14
CA	37	30	45	13
CO	0	0	0	0
ID	0	0	0	0
IL	3	0	1	2
IN	0	0	0	0
KS	0	0	0	0
MI	0	0	0	0
MO	1	0	0	1
MT	0	0	0	0
NE	0	0	0	0
NC	11	2	17	5
OH	0	0	0	0
OK	0	0	2	2
OR	0	0	0	0
SD	0	0	0	0
TX	26	29	31	24
WA	0	0	0	0
18 Sts	5	6	7	4

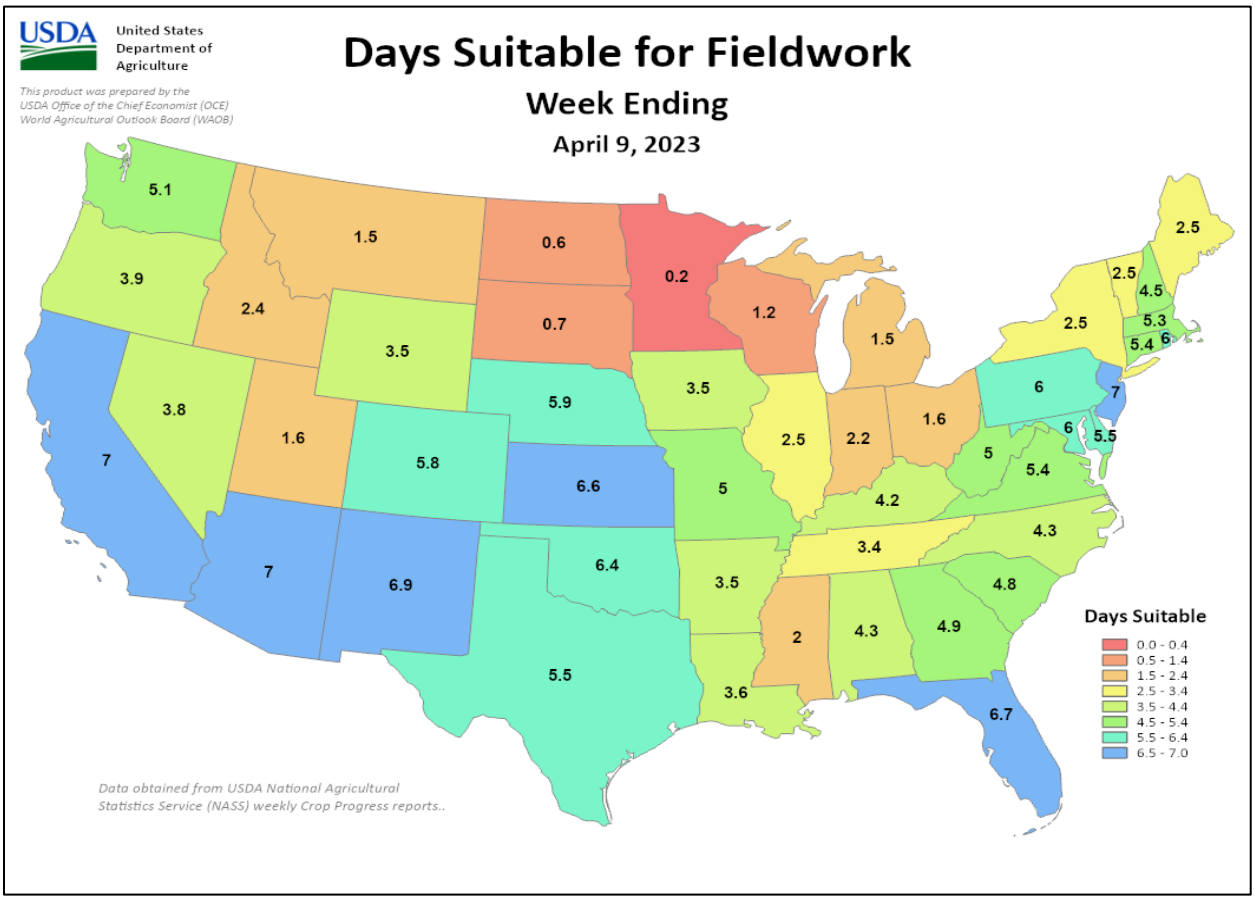
These 18 States planted 88% of last year's winter wheat acreage.

Winter Wheat Condition by Percent

	VP	P	F	G	EX
AR	1	4	26	55	14
CA	0	0	5	85	10
CO	12	22	41	23	2
ID	1	17	72	10	0
IL	4	6	26	46	18
IN	1	5	26	56	12
KS	33	28	26	12	1
MI	3	7	31	52	7
MO	1	2	24	67	6
MT	0	1	69	28	2
NE	10	31	36	20	3
NC	0	1	12	74	13
OH	2	11	25	48	14
OK	25	21	34	19	1
OR	4	19	35	39	3
SD	3	7	61	29	0
TX	22	25	36	15	2
WA	3	18	40	38	1
18 Sts	17	20	36	24	3
Prev Wk	16	20	36	25	3
Prev Yr	18	18	32	29	3

VP - Very Poor; P - Poor;
F - Fair;
G - Good; EX - Excellent

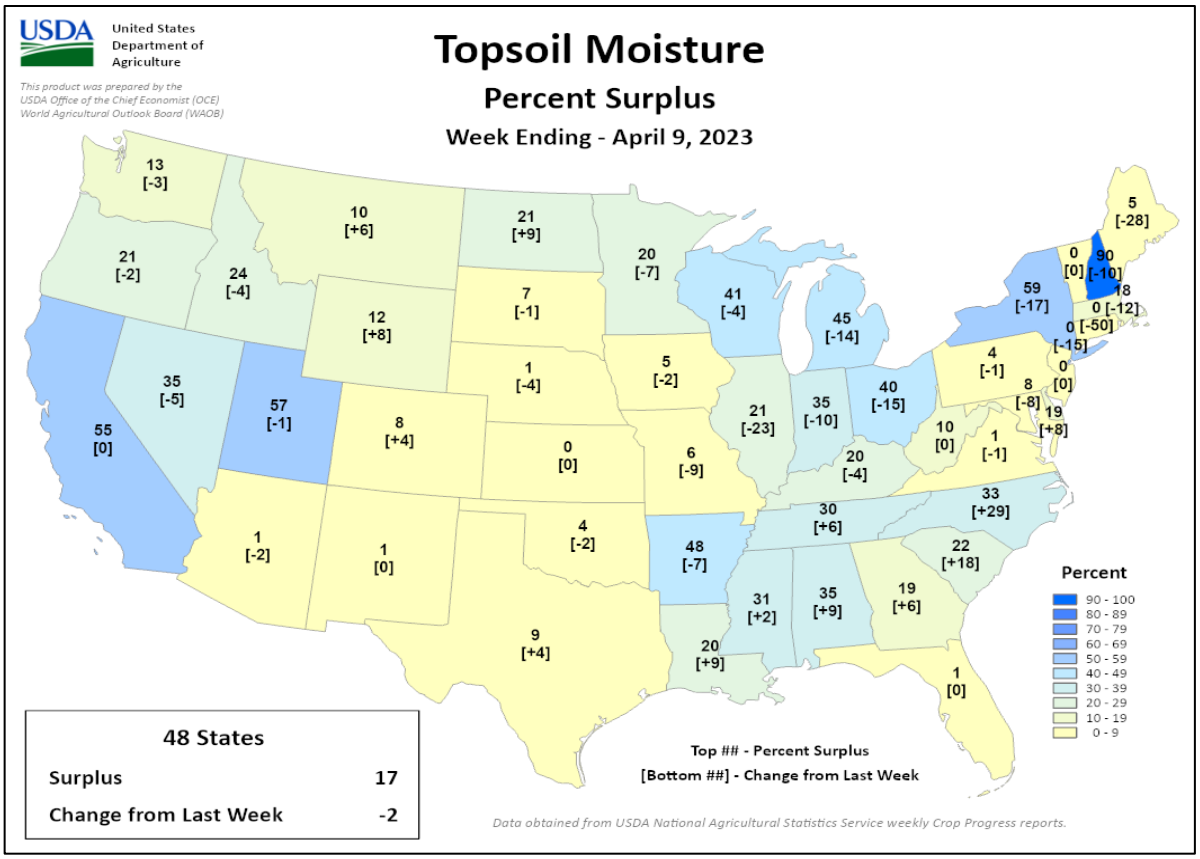
NA - Not Available
* Revised

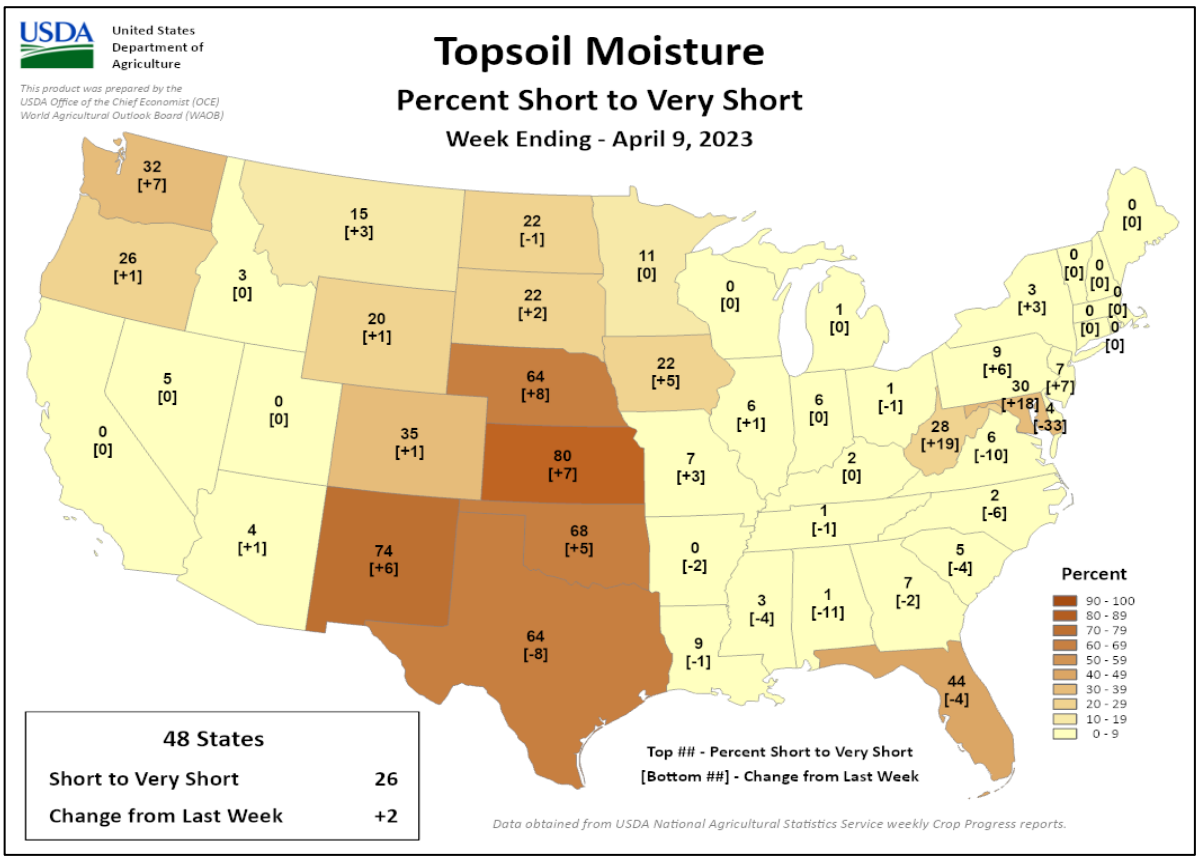


Crop Progress and Condition

Week Ending April 9, 2023

Weekly U.S. Progress and Condition Data provided by USDA/NASS

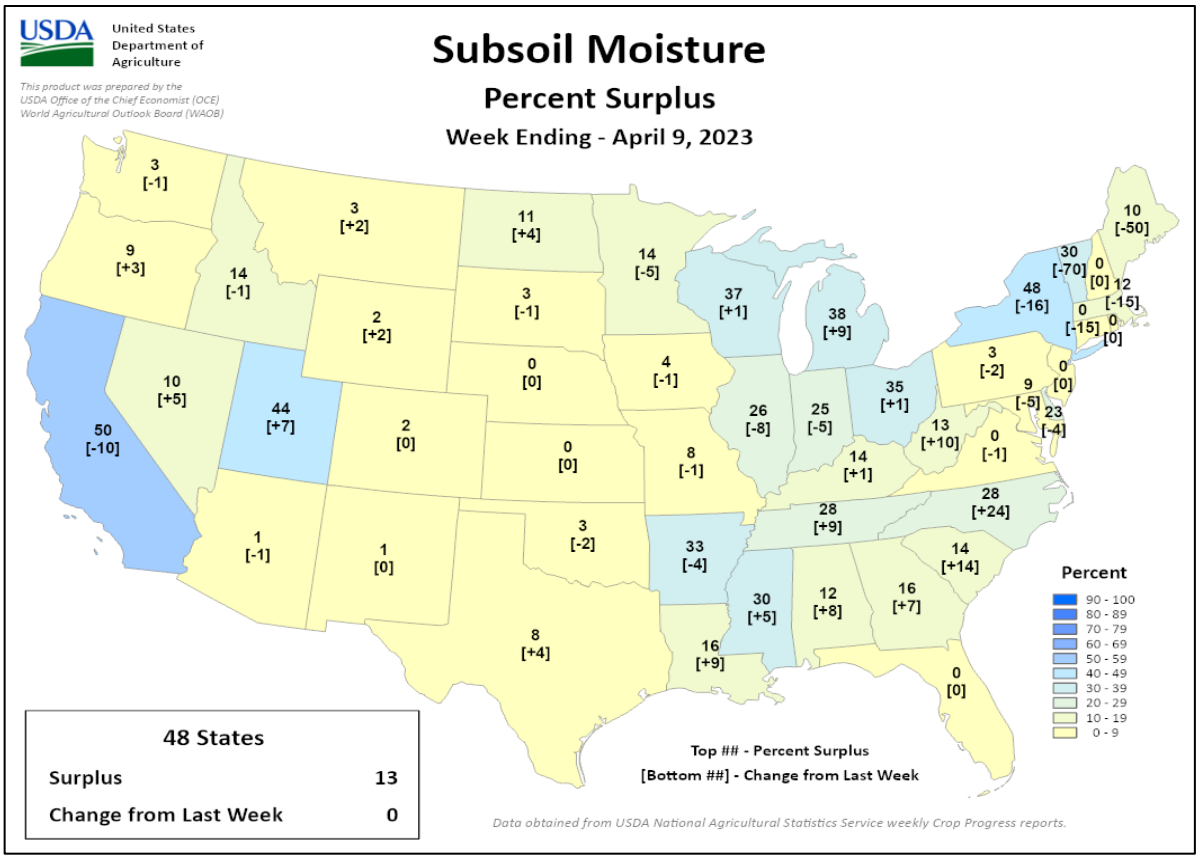


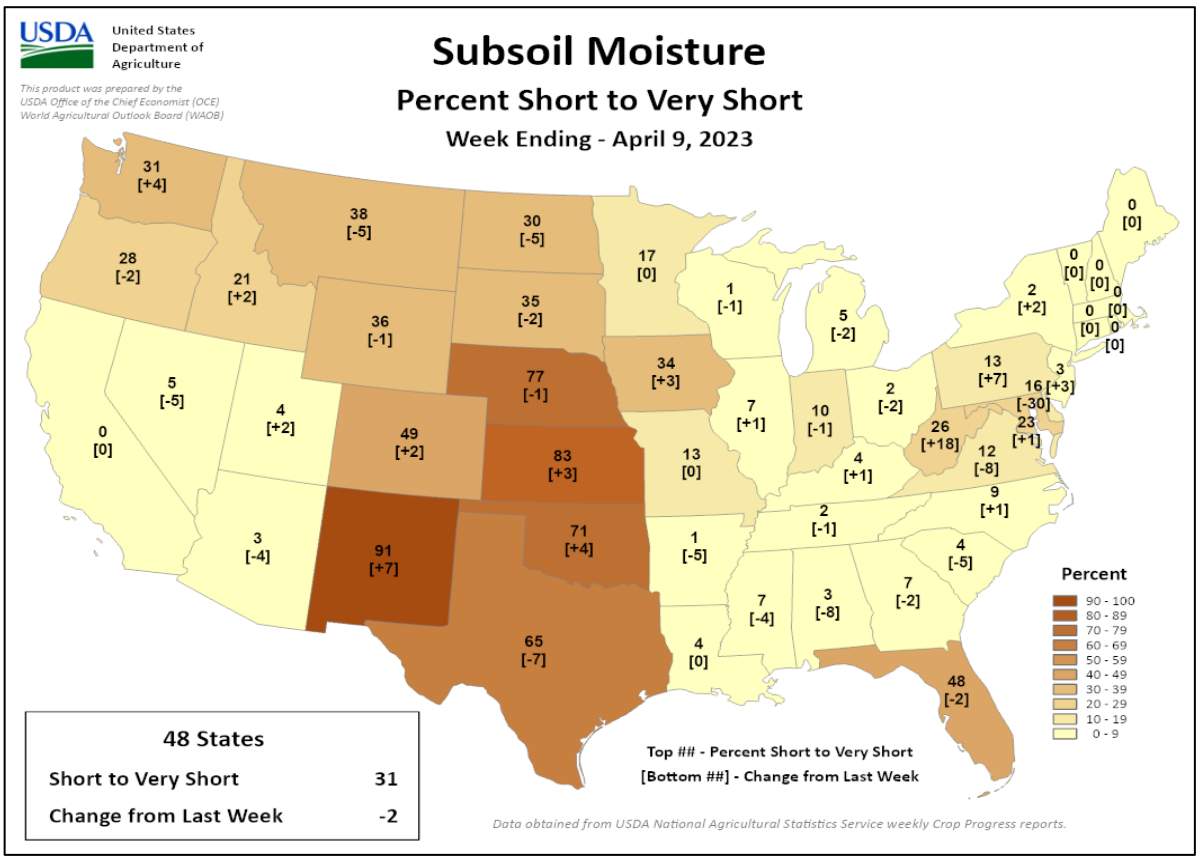


Crop Progress and Condition

Week Ending April 9, 2023

Weekly U.S. Progress and Condition Data provided by USDA/NASS





International Weather and Crop Summary

April 2-8, 2023

International Weather and Crop Highlights and Summaries provided by USDA/WAOB

HIGHLIGHTS

EUROPE: Wet weather maintained good to excellent prospects for winter grains and oilseeds, though drought intensified in southwestern growing areas.

WESTERN FSU: Heavy rain and mountain snow in the west alleviated the last vestiges of winter dryness and drought.

MIDDLE EAST: Additional moderate to heavy rain maintained or improved prospects for vegetative to reproductive winter wheat and barley in Turkey, while dry weather returned elsewhere.

NORTHWESTERN AFRICA: Despite some showers in the west and east, drought further lowered yield prospects for filling winter grains over much of the region.

EAST ASIA: Widespread showers in eastern and southern China boosted soil moisture for wheat and rapeseed.

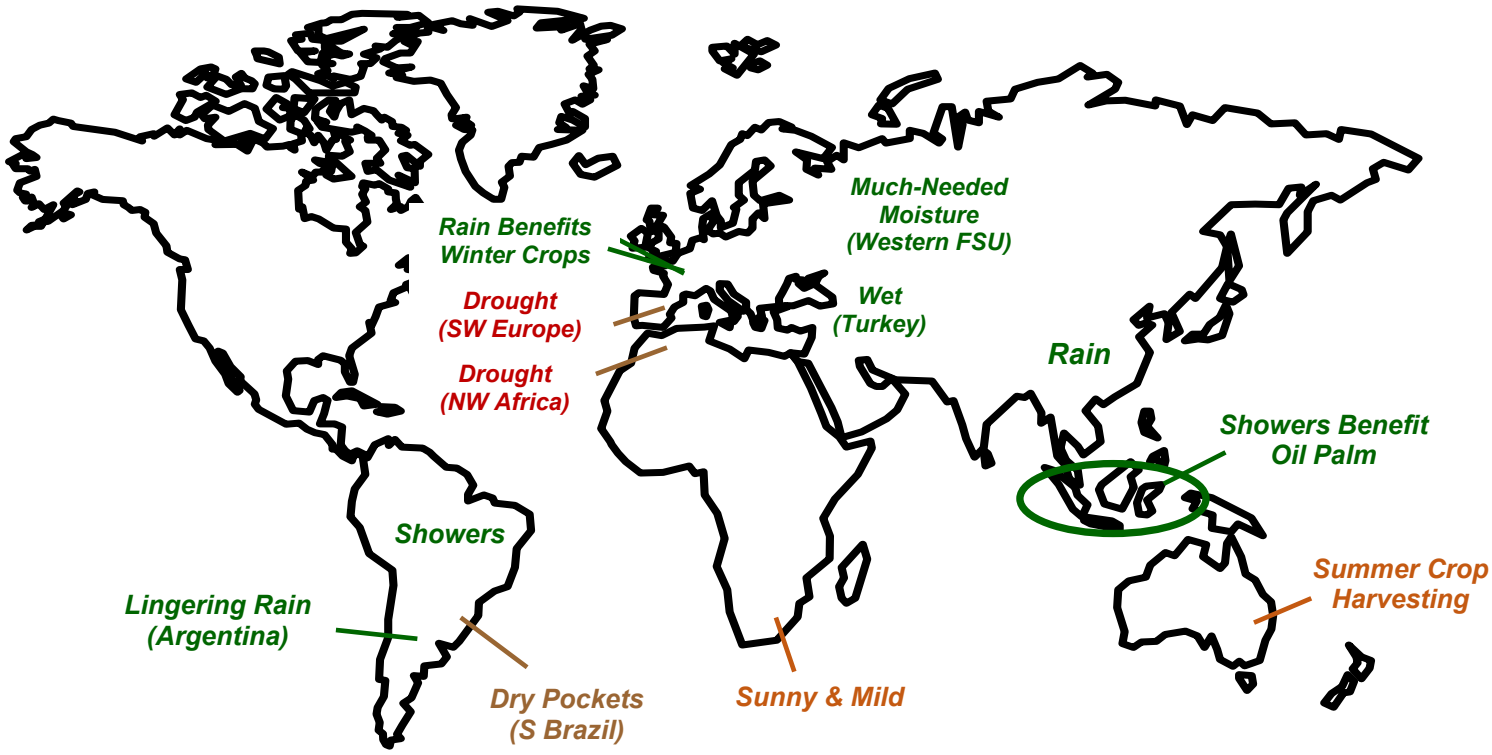
SOUTHEAST ASIA: Rainfall throughout Malaysia and Indonesia continued to benefit oil palm and other seasonal crops.

AUSTRALIA: Summer crop harvesting progressed, although late-week showers likely caused some interruptions.

SOUTH AFRICA: Conditions favored maturing summer crops.

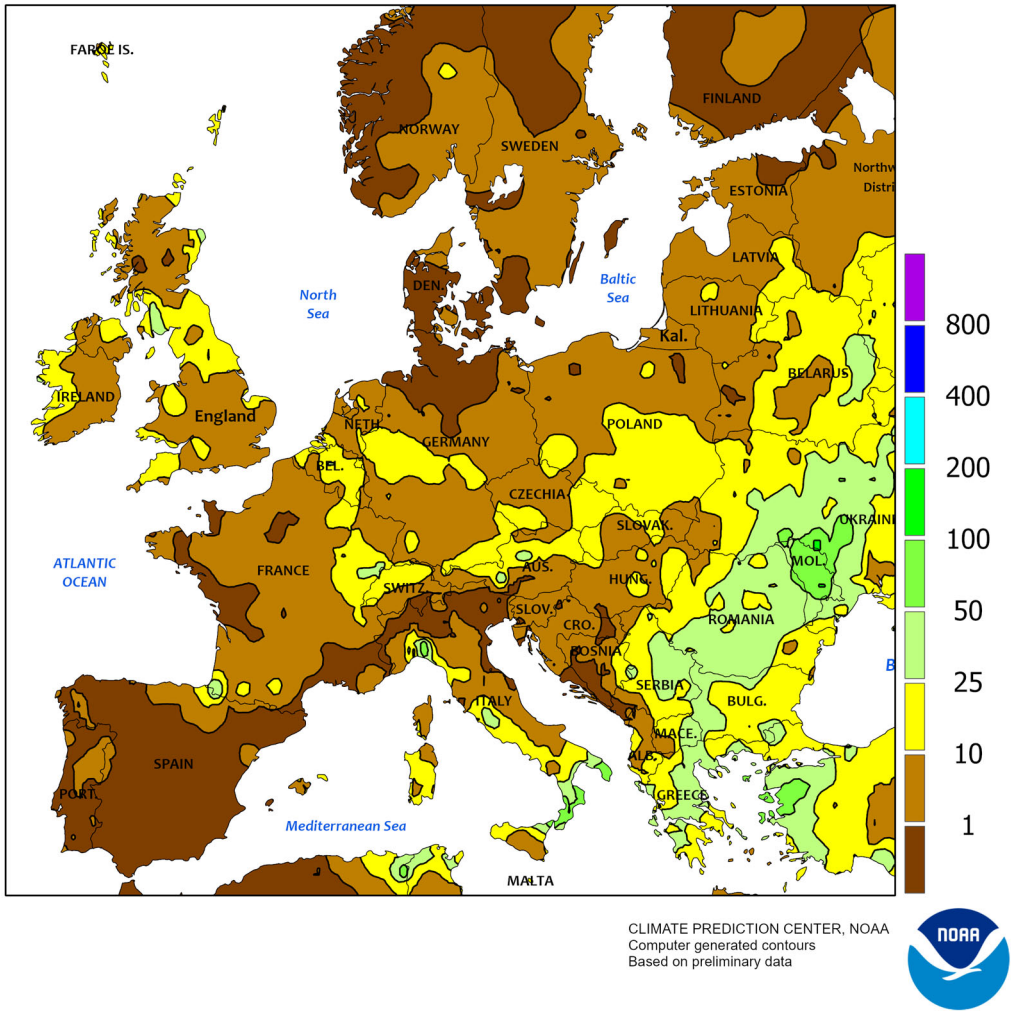
ARGENTINA: Lingering showers increased moisture for winter grain germination.

BRAZIL: Seasonal showers were scattered across the northern corn and cotton areas, while dryness lingered over parts of the south.



For additional information contact: mark.brusberg@usda.gov

EUROPE
Total Precipitation(mm)
April 2 - 8, 2023



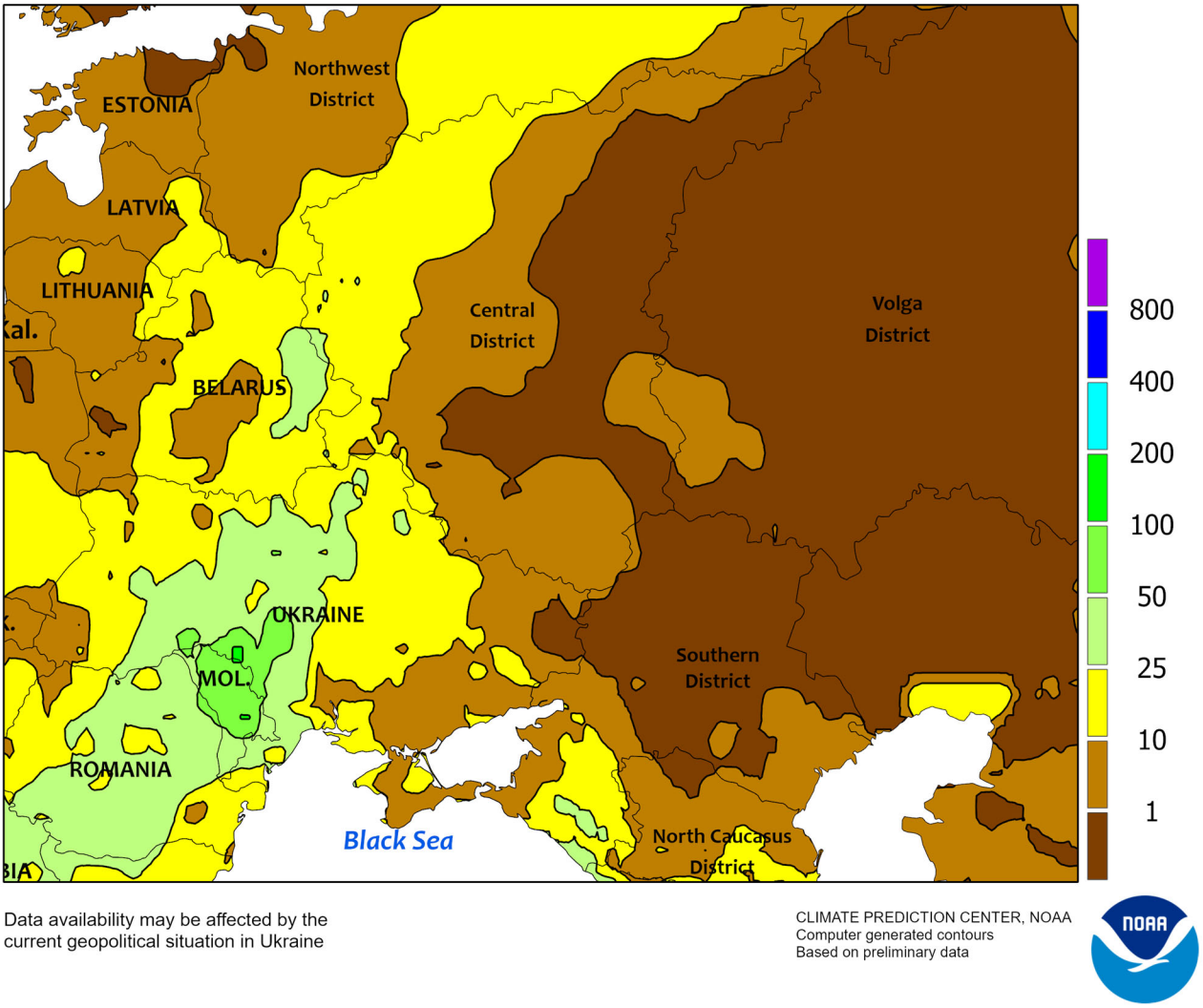
EUROPE

Wet and chilly conditions continued, though drought intensified in southwestern Europe. Light to moderate showers (2-20 mm) lingered in England, France, and Germany, maintaining good to excellent conditions for vegetative (north) to reproductive (south) winter grains and oilseeds. Rain and high elevation snow also prevailed over much of eastern Europe, with lighter totals in the north (2-25 mm) transitioning to heavier precipitation (20-100 mm) across Greece and the southern Balkans. Winter crop prospects remained good to excellent over the aforementioned locales, though temperatures up to 7°C below normal slowed or halted crop development.

Despite the generally favorable conditions over most of the continent, drought intensified in Portugal, Spain, and northern Italy. In particular, the favorable start to the 2022-23 Water Year in southern Spain (Andalucía) — courtesy of heavy December rainfall — continued to fade. Southern Spain's water-year total rainfall (since September 1) was now less than 75 percent of normal and has surpassed the 2021-22 Water Year for drought severity in Andalucía. Further compounding the drought in Spain were temperatures up to 5°C above normal, with daytime highs approaching or topping 30°C in southern growing areas.

For additional information contact: mark.brusberg@usda.gov

WESTERN FSU
Total Precipitation(mm)
April 2 - 8, 2023



Data availability may be affected by the current geopolitical situation in Ukraine

CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

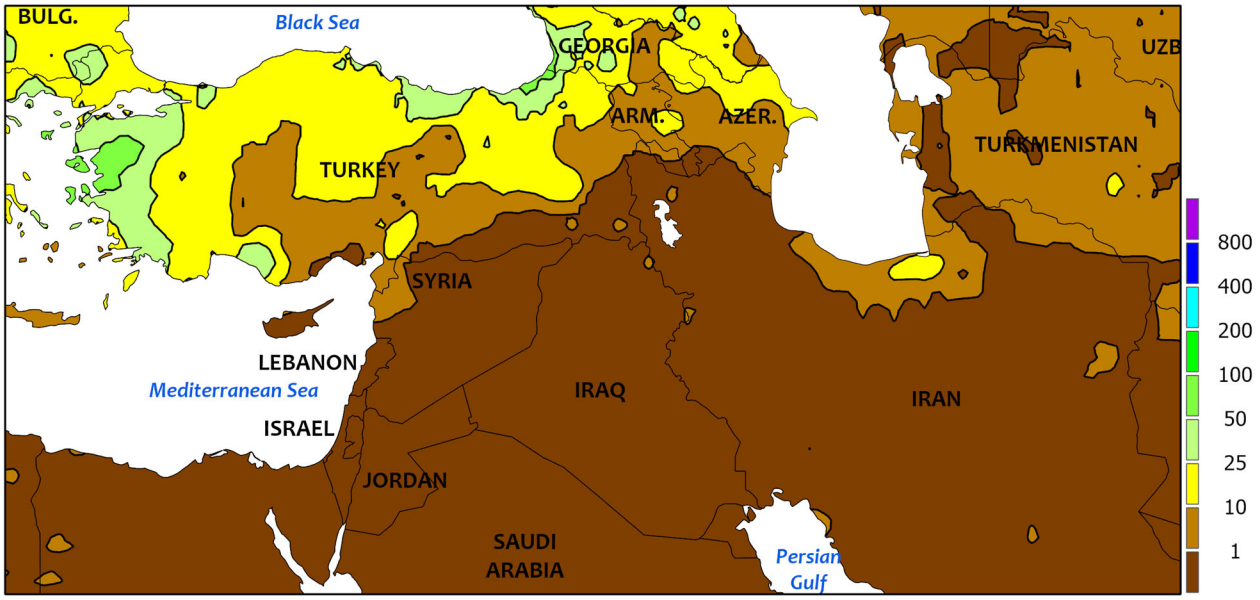
WESTERN FSU

Wet weather over western crop areas contrasted with dry and warm conditions farther east. Widespread moderate to heavy rain and high-elevation snow (20-100 mm liquid equivalent, locally more) was reported in Moldova and western Ukraine, alleviating the last vestiges of winter dryness and boosting moisture supplies for vegetative winter crops. Lighter showers (5-40 mm) were noted from Belarus southeastward across eastern Ukraine and southwestern Russia, maintaining favorable prospects for vegetative winter grains and oilseeds. Farther east, mostly sunny skies and above-normal temperatures (up to 6°C above normal) across Russia's Volga District and environs favored fieldwork and spring grain development.

The WWCB focuses entirely on weather and resultant crop conditions; conflict and unrest are beyond the scope of this publication.

For additional information contact: mark.brusberg@usda.gov

MIDDLE EAST
Total Precipitation(mm)
April 2 - 8, 2023



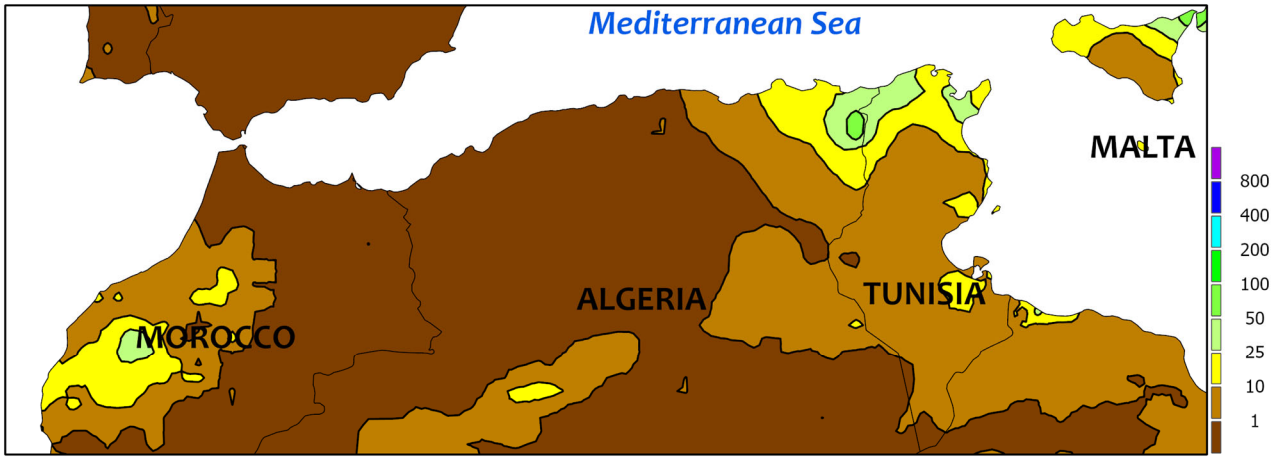
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

MIDDLE EAST

Additional wet weather in Turkey contrasted with dry conditions elsewhere. Another in a series of slow-moving Mediterranean storms produced widespread albeit highly variable rainfall in Turkey. Weekly totals in Turkey ranged from: 10-30 mm in Thrace; 25-110 mm in the Aegean Region; 5-20 mm on the Anatolian Plateau; 2-25 mm in Adana on the eastern Mediterranean Coast; and 5 mm or less in the GAP Region. Overall, Turkey's winter grain prospects have improved considerably following winter and early spring drought, with crops ranging from vegetative (center and north) to reproductive (south and southeast). Conversely, sunny skies favored the development of late vegetative to reproductive wheat and barley (locally filling in the warmest southern croplands) from the eastern Mediterranean Coast into Iran following good March rainfall. However, dryness concerns lingered in eastern Iran's Khorasan Province. Temperatures averaged within 1 to 2°C of normal across much of the Middle East, though northern-most reaches averaged up to 3°C above normal.

For additional information contact: mark.brusberg@usda.gov

NORTHWESTERN AFRICA
Total Precipitation(mm)
April 2 - 8, 2023



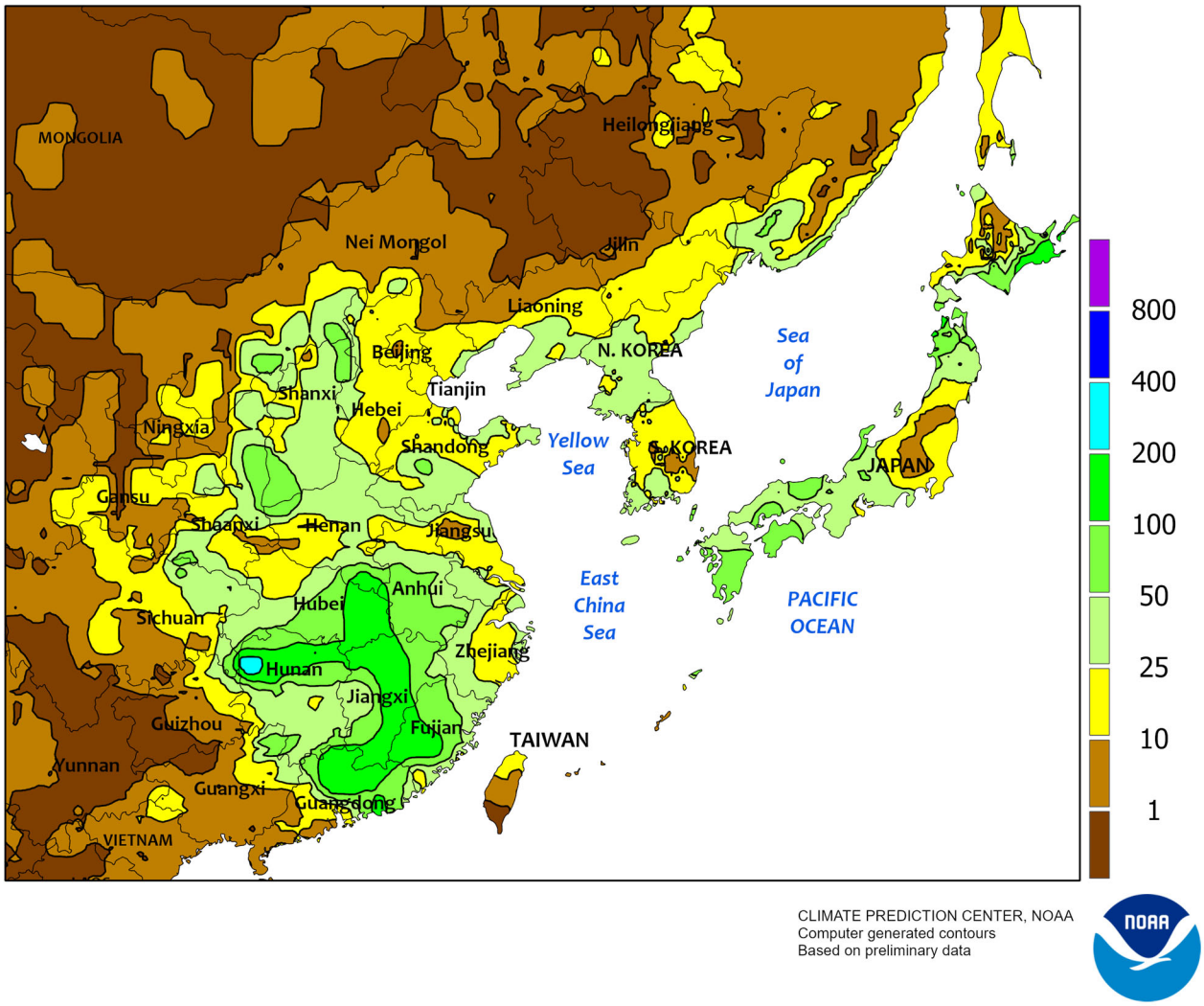
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

NORTHWESTERN AFRICA

Despite some showers in the western- and eastern-most portions of the region, most winter grain conditions continued to decline. Scattered showers in western Morocco (1-18 mm) were too late to offer much — if any — benefit to filling to maturing winter grains. Completely dry conditions exacerbated drought and further reduced wheat and barley yield prospects from northeastern Morocco into central Algeria. Moderate to heavy showers (10-75 mm) stabilized or improved conditions for reproductive to filling winter crops in northeastern Algeria and northern Tunisia, while inland growing areas continued to miss out. The latest satellite-derived Vegetation Health Index (VHI) depicted highly variable albeit deteriorating crop vigor across the region. As of April 10, the VHI indicated fair to very poor conditions across Morocco and western Algeria. Over eastern Algeria and northern Tunisia, the VHI varied sharply from favorable near the Mediterranean Coast to abysmal farther inland, in keeping with this season's rainfall distribution.

For additional information contact: mark.brusberg@usda.gov

EASTERN ASIA
Total Precipitation(mm)
April 2 - 8, 2023

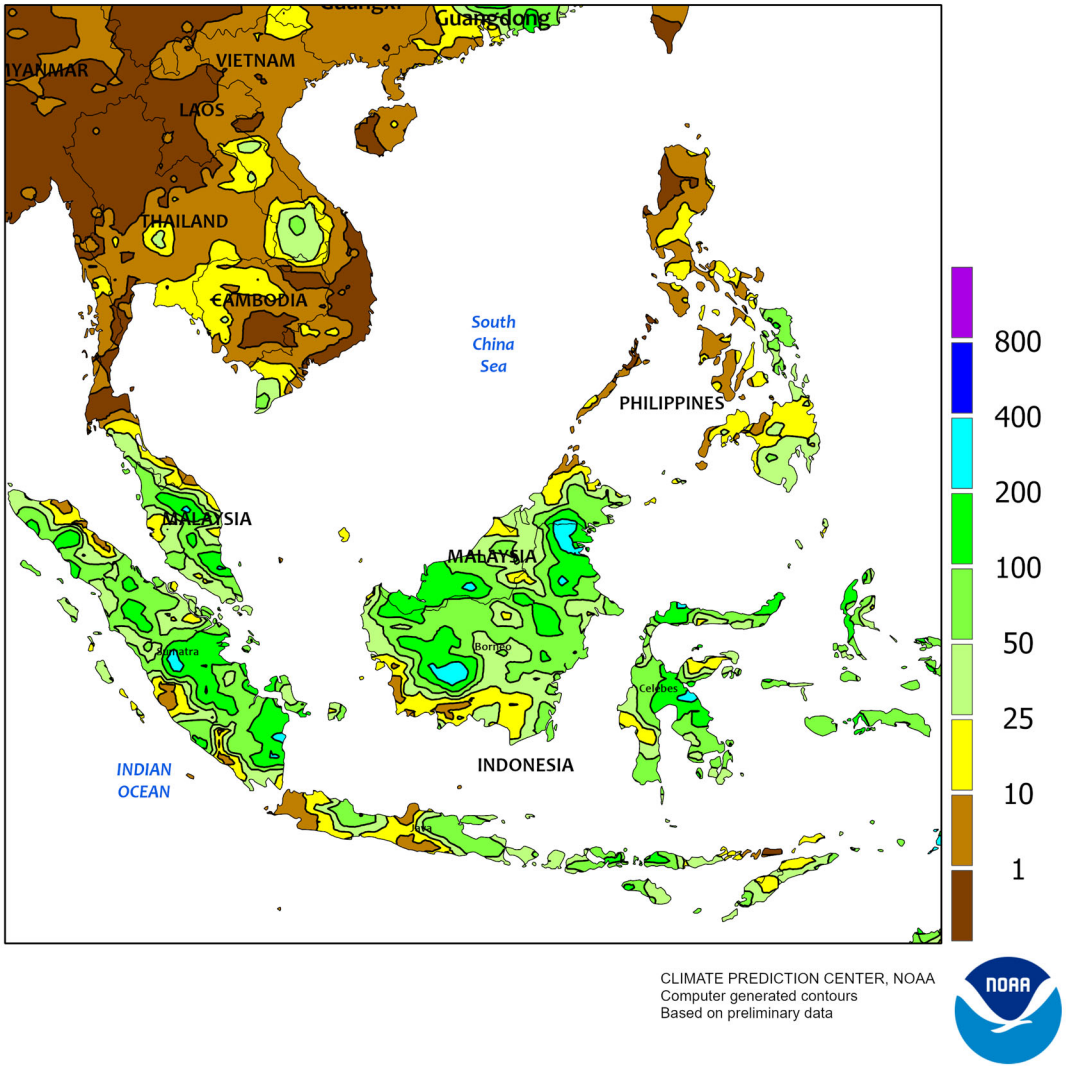


EASTERN ASIA

Widespread showers moved through eastern China during the first half of the period and lingered late into the week farther south. Rainfall totals were generally between 10 and 50 mm on the North China Plain, boosting soil moisture for wheat approaching reproduction. Although rainfall is typically light in the early spring, little if any had occurred to this point. Meanwhile, showers lingering for much of the week in the south produced over 100 mm, locally, benefiting reproductive rapeseed in the Yangtze Valley and vegetative early-crop rice in the southeast; unlike to the north, spring rain has been more consistent in these crop areas. Elsewhere, unusual heat (upper 30s degrees C, over 10°C above normal) occurred in southwestern provinces during the first half of the week, stressing rice and other seasonal crops, but diminished with the onset of rain by mid-week.

For additional information contact: mark.brusberg@usda.gov

SOUTHEAST ASIA
Total Precipitation(mm)
April 2 - 8, 2023



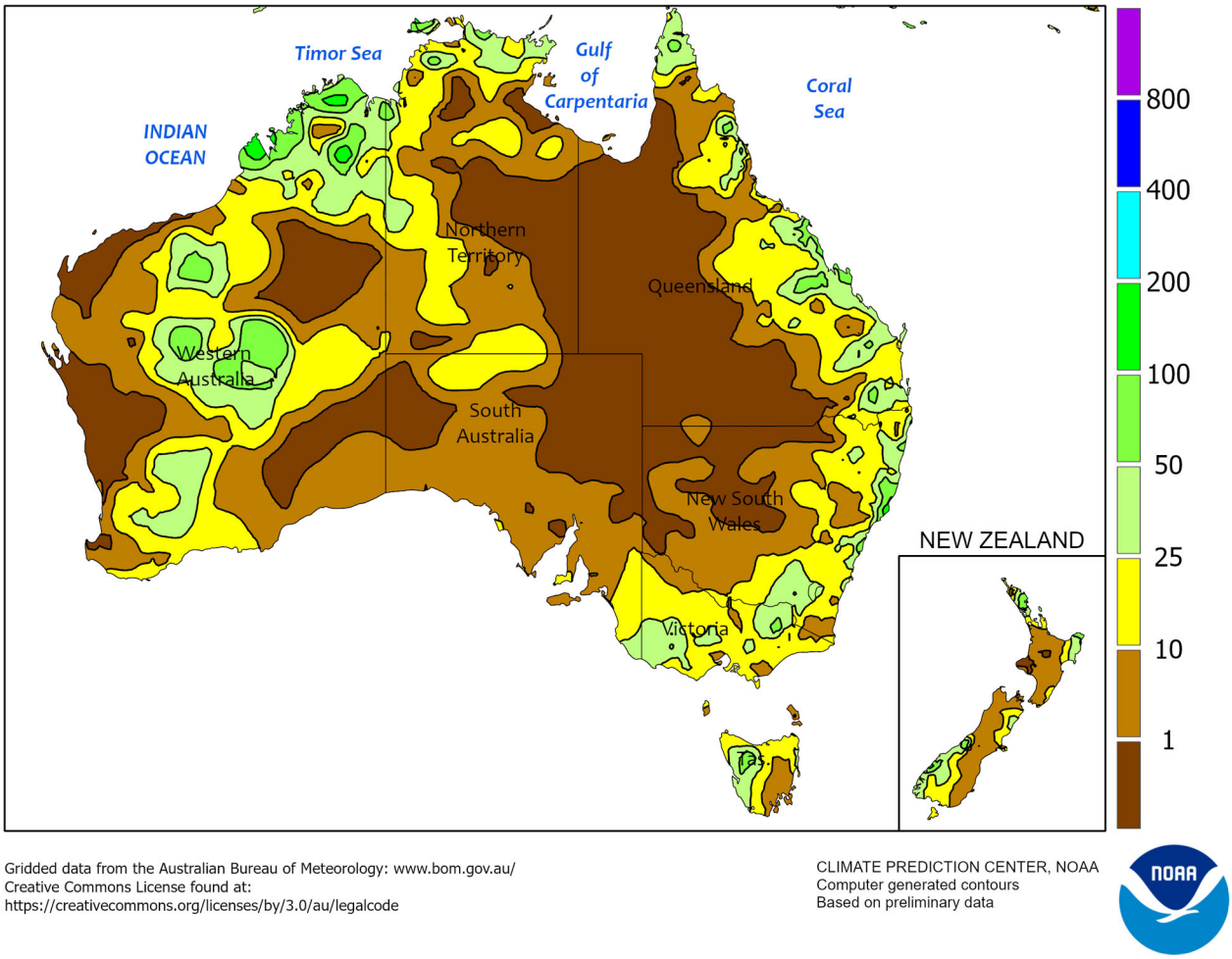
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

SOUTHEAST ASIA

Widespread showers (25-100 mm in most areas) in Malaysia and Indonesia continued to benefit oil palm and seasonal crops, including second-crop rice sowing in southern Indonesia (Java). Moisture conditions for oil palm over the last 90 days have been favorable (total rainfall 160 percent of normal) but not as good as last year. Meanwhile, rainfall covered most of the Philippines but was generally less than 25 mm, allowing seasonal fieldwork to proceed with few delays. Elsewhere, daytime temperatures in interior Thailand and some of the surrounding areas continued to consistently top 40°C (1-3°C above average), limiting fieldwork that typically occurs prior to the onset of monsoon rain in May.

For additional information contact: mark.brusberg@usda.gov

AUSTRALIA
Total Precipitation(mm)
April 2 - 8, 2023



Gridded data from the Australian Bureau of Meteorology: www.bom.gov.au/
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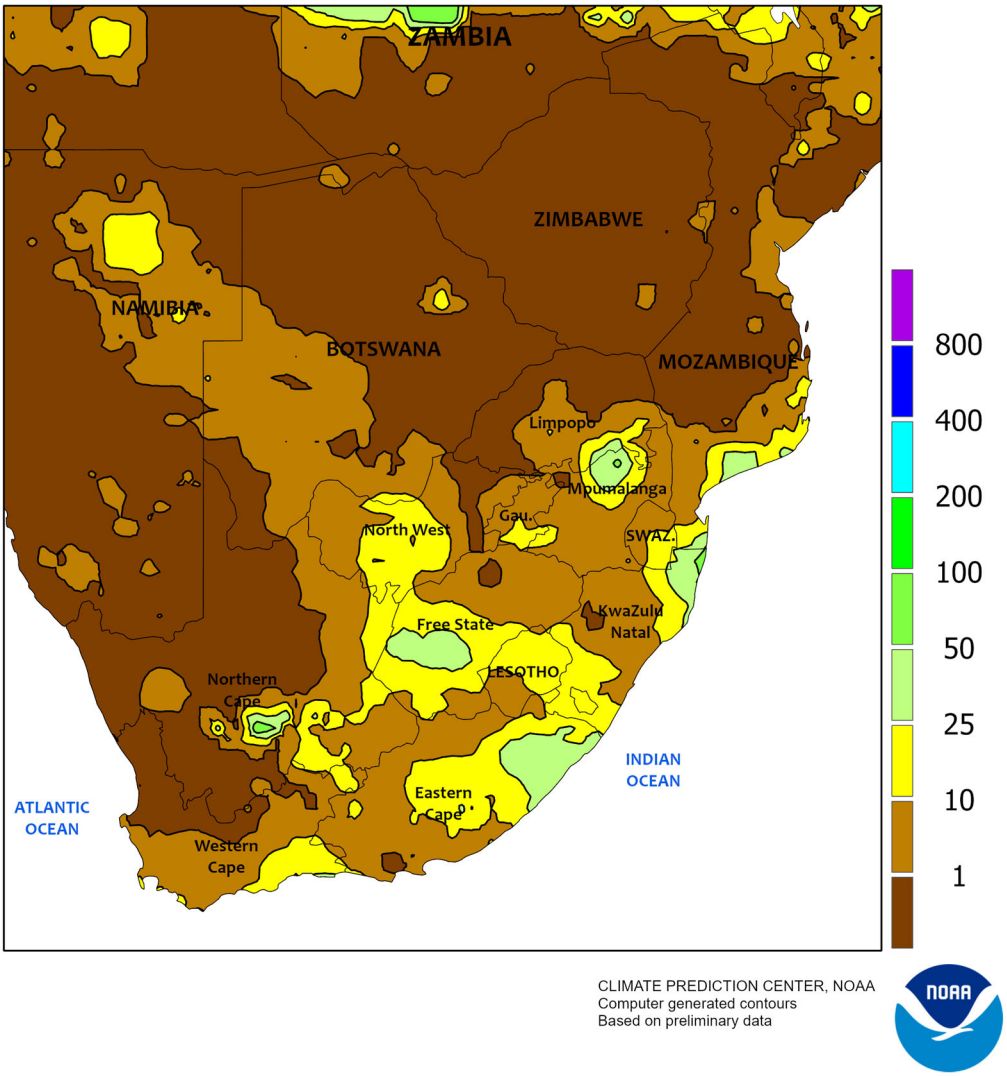
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

AUSTRALIA

Throughout much of the week, warm, sunny weather promoted fieldwork across most of the wheat belt, including cotton, sorghum, and other summer crop harvesting in the east. According to a local report, approximately 60 to 70 percent of the sorghum has been harvested. Later in the week, showers (generally 5-25 mm) overspread the wheat belt, likely interrupting local summer crop harvesting but further increasing soil moisture in advance of winter crop sowing. By the end of the week, root zone soil moisture was near to above normal in most areas. Temperatures averaged 1 to 2°C below normal in most major crop producing areas, with maximum temperatures ranging from the middle 20s to lower 30s (degrees C).

For additional information contact: mark.brusberg@usda.gov

SOUTH AFRICA
Total Precipitation(mm)
April 2 - 8, 2023

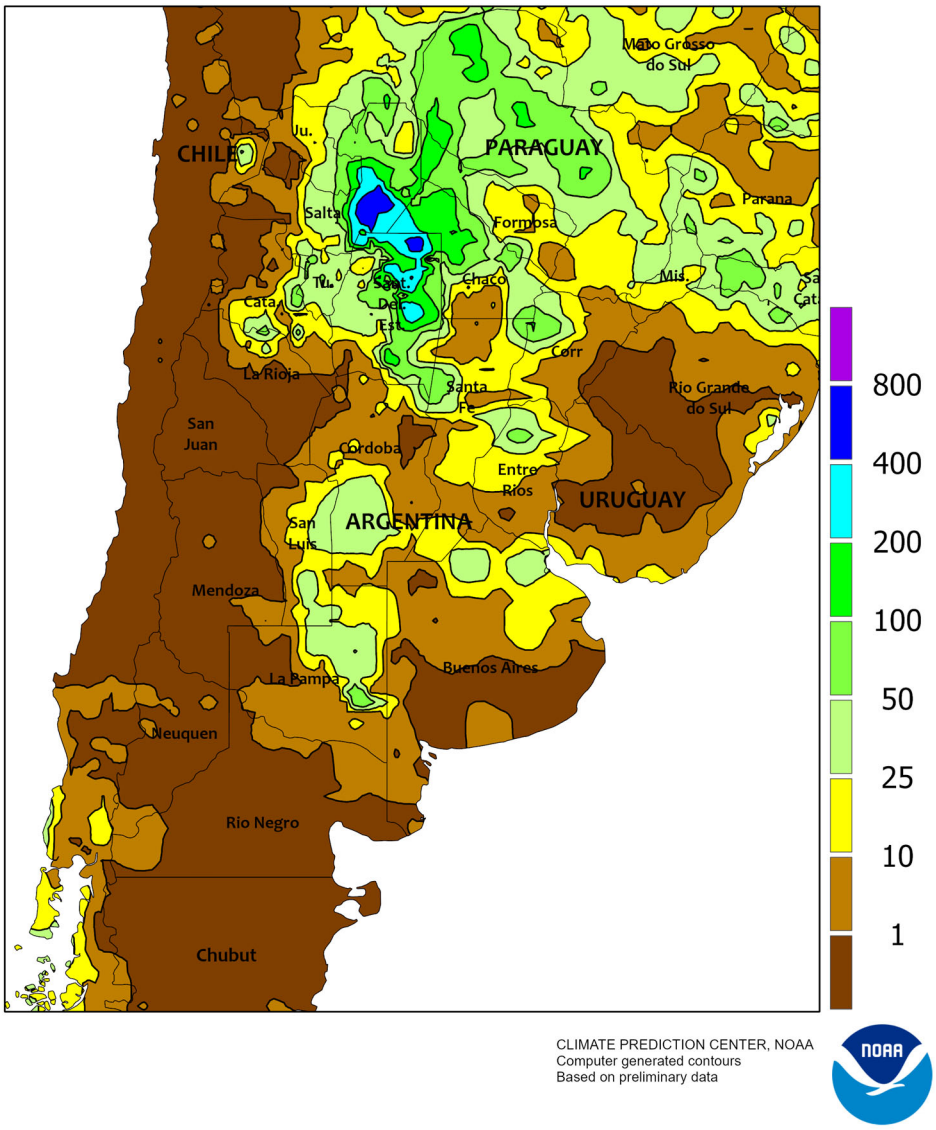


SOUTH AFRICA

Warm, sunny weather benefited corn and other maturing rain-fed summer crops. Weekly average temperatures were near to slightly above normal throughout the country, with daytime highs reaching the upper 20s and lower 30s (degrees C) in the corn belt (North West and Free State eastward) as well as in the main sugarcane areas of KwaZulu-Natal. Mostly dry conditions prevailed in the aforementioned areas, with few locations recording more than 10 mm. Farther west, light to moderate rain (10-40 mm) returned to watersheds along the lower Orange River, while heat and dryness (daytime highs reaching 40°C locally) dominated Western Cape.

For additional information contact: mark.brusberg@usda.gov

ARGENTINA
Total Precipitation(mm)
April 2 - 8, 2023

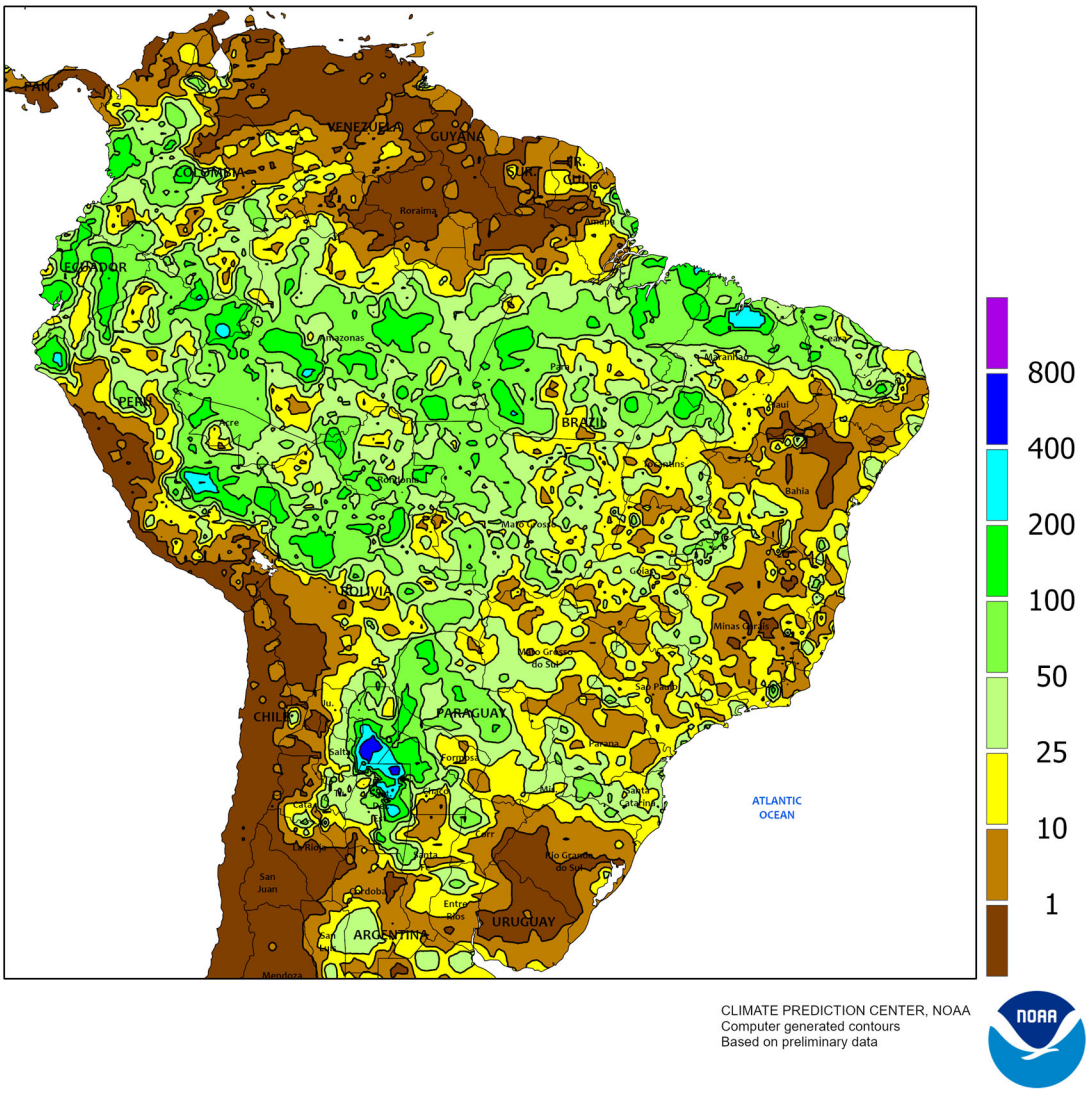


ARGENTINA

Scattered showers came too late for most summer crops, although the moisture will benefit winter grain germination. The heaviest rainfall (25-50 mm, locally higher) was concentrated over the northwest, with similar amounts recorded over La Pampa and northern Buenos Aires. Drier weather continued elsewhere, including locations in southern Buenos Aires receiving rain last week. Weekly average temperatures ranged from near normal in the north to as much as 2°C above normal in southwestern farming areas (Córdoba, La Pampa, and western Buenos Aires), with no freezes. According to the government of Argentina, sunflowers were 85 percent harvested as of April 5, slightly lagging last year's pace (88 percent); harvesting reached 78 percent in Buenos Aires (82 percent last year), the country's largest producer. Meanwhile, corn was 13 percent harvested versus 21 percent last year.

For additional information contact: mark.brusberg@usda.gov

BRAZIL
Total Precipitation(mm)
April 2 - 8, 2023



BRAZIL

Seasonal showers maintained overall favorable prospects for corn and cotton in Brazil's central and northeastern production areas. Rainfall totaled 10 to 50 mm – locally higher – from Mato Grosso eastward into western Bahia, although a few pockets of dryness lingered. Highest daytime temperatures were mostly in the lower 30s (degrees C), promoting growth of mostly reproductive to filling crops under generally seasonable conditions. These northern growing areas typically experience a reduction in rainfall toward the end of April, and crops would benefit from additional moisture in upcoming weeks. Meanwhile, mostly dry weather prevailed in southeastern Brazil, with amounts largely totaling below 10 mm from Rio Grande do Sul into southern Minas Gerais. According to the government of Rio Grande do Sul, soybeans were 36 percent reproductive to filling as of April 6, with 18 percent harvested, while corn was later in development and 79 percent harvested. In Paraná, soybeans and first crop corn were 89 and 70 percent harvested, respectively, as of March 27, with second-crop corn 99 percent planted (5 percent flowering).

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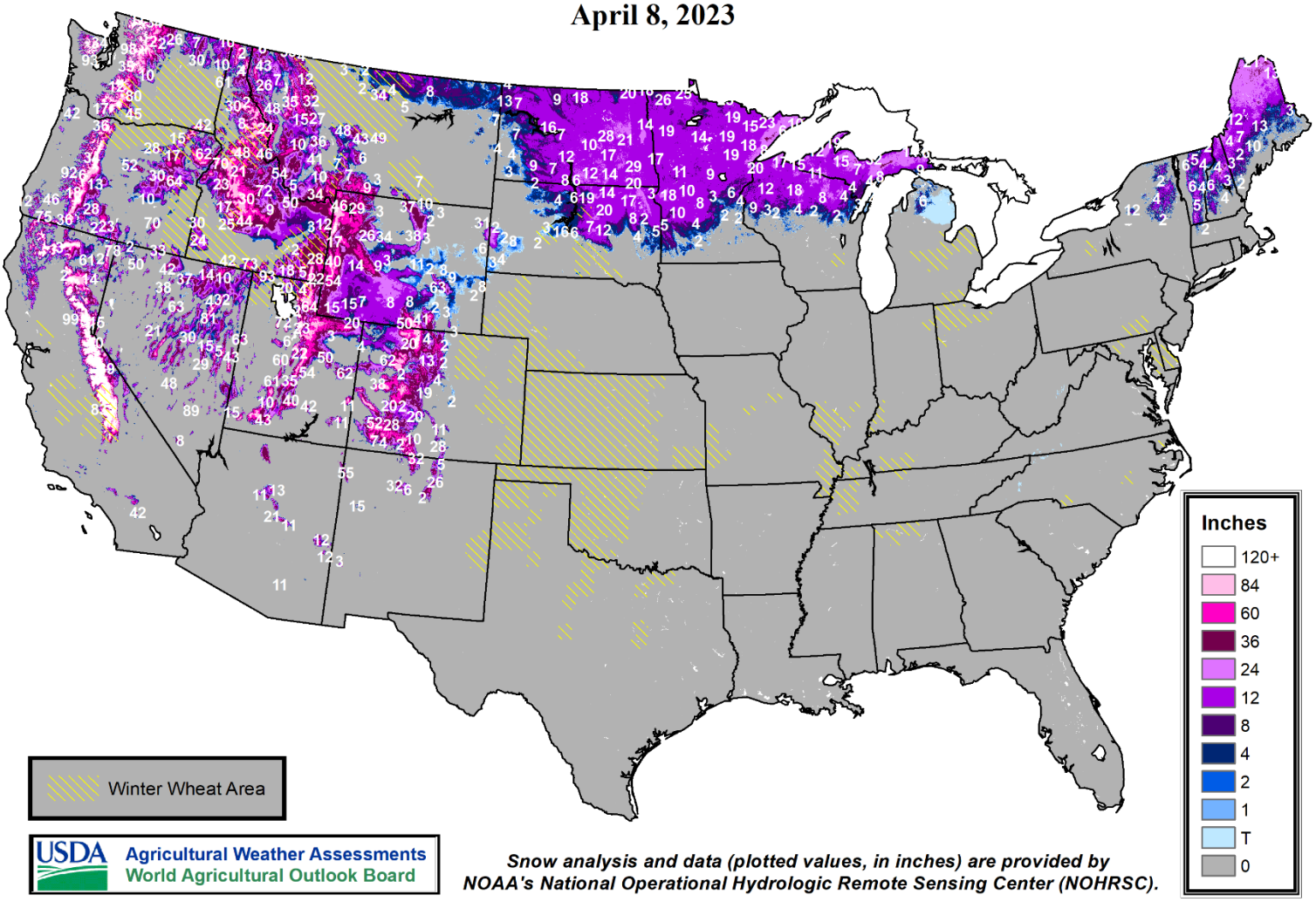
Snow Depth

April 8, 2023



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