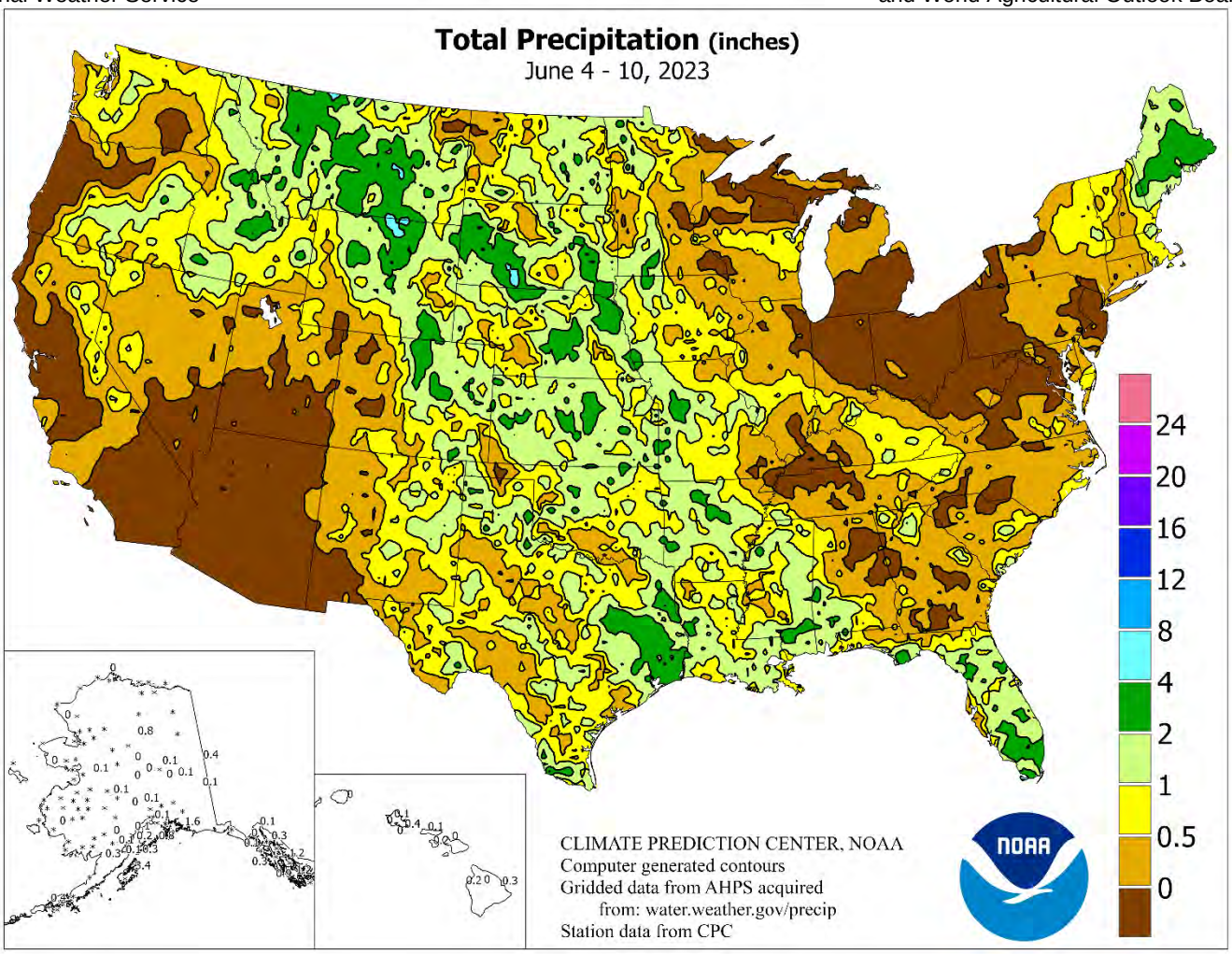
Volume 110, No. 24 www.usda.gov/oce/weather-drought-monitor June 13, 2023

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
June 4 – 10, 2023

Highlights provided by USDA/WAOB

Showers and thunderstorms across large sections of the **Plains** slowed fieldwork, including winter wheat harvesting, but provided beneficial moisture for rangeland, pastures, immature winter grains, and summer crops. Weekly totals greater than 2 inches were common, especially from **Montana to the central Plains**. Farther east, however, mostly dry weather further reduced **Midwestern** topsoil moisture, resulting in uneven summer crop emergence, as well as increasing stress on vegetative corn and soybeans. Late in the week, a few showers

(Continued on page 5)

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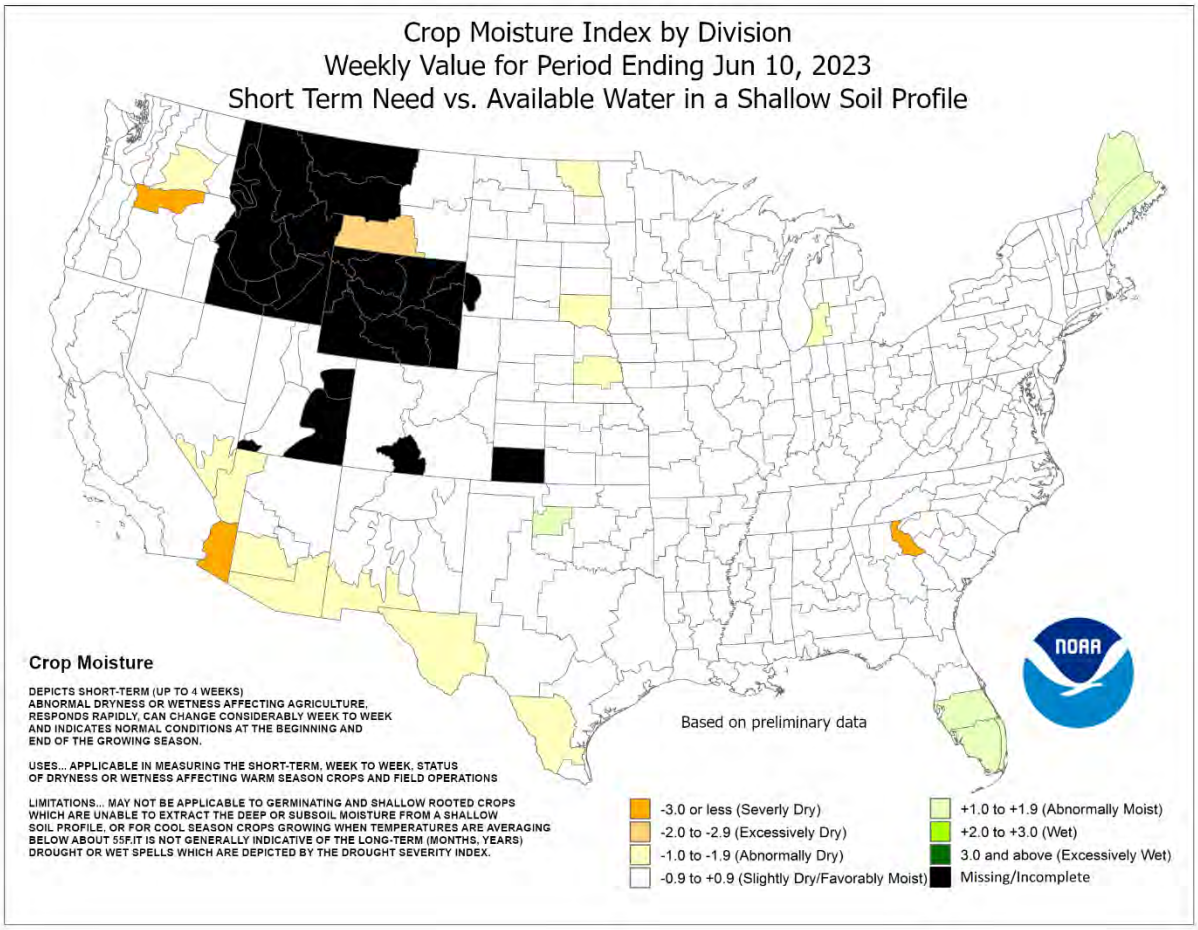
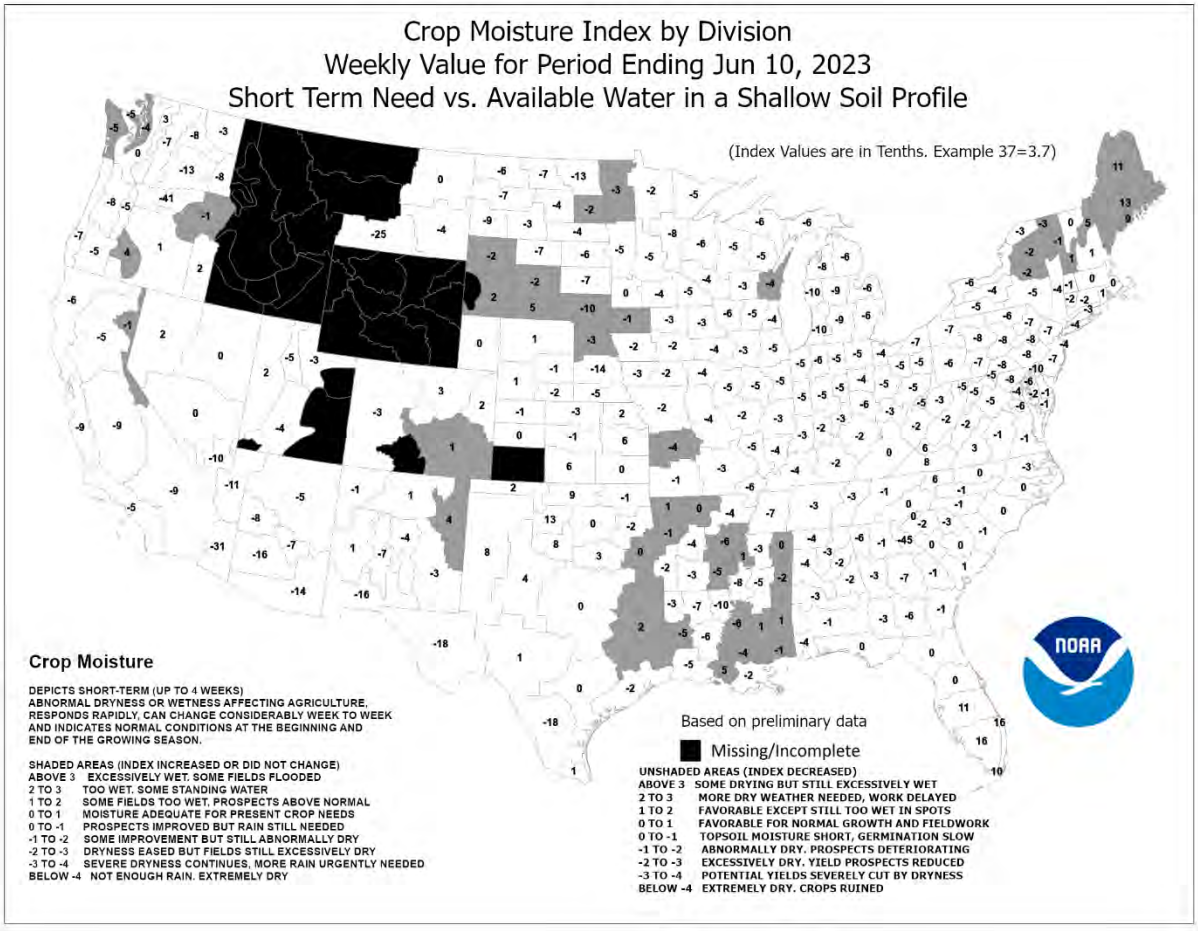
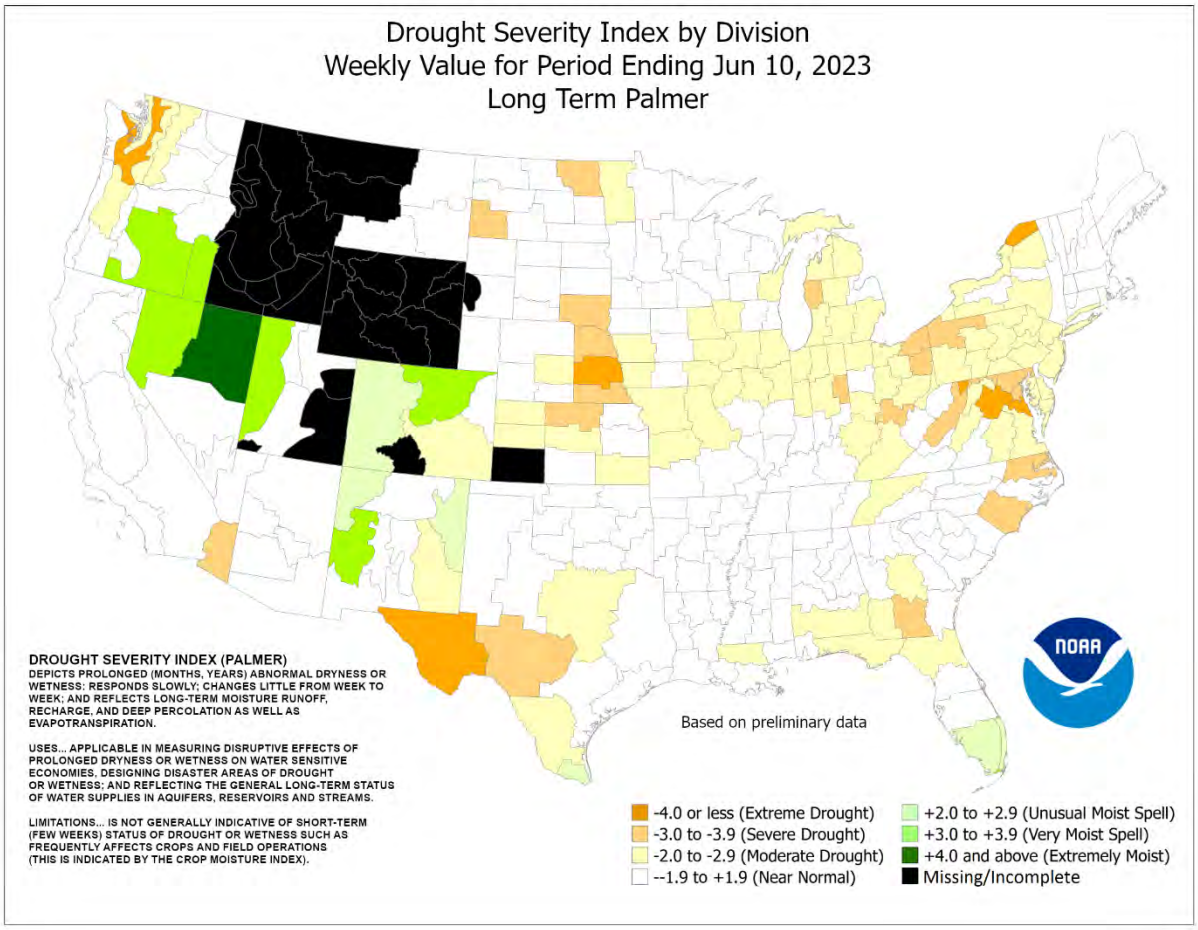
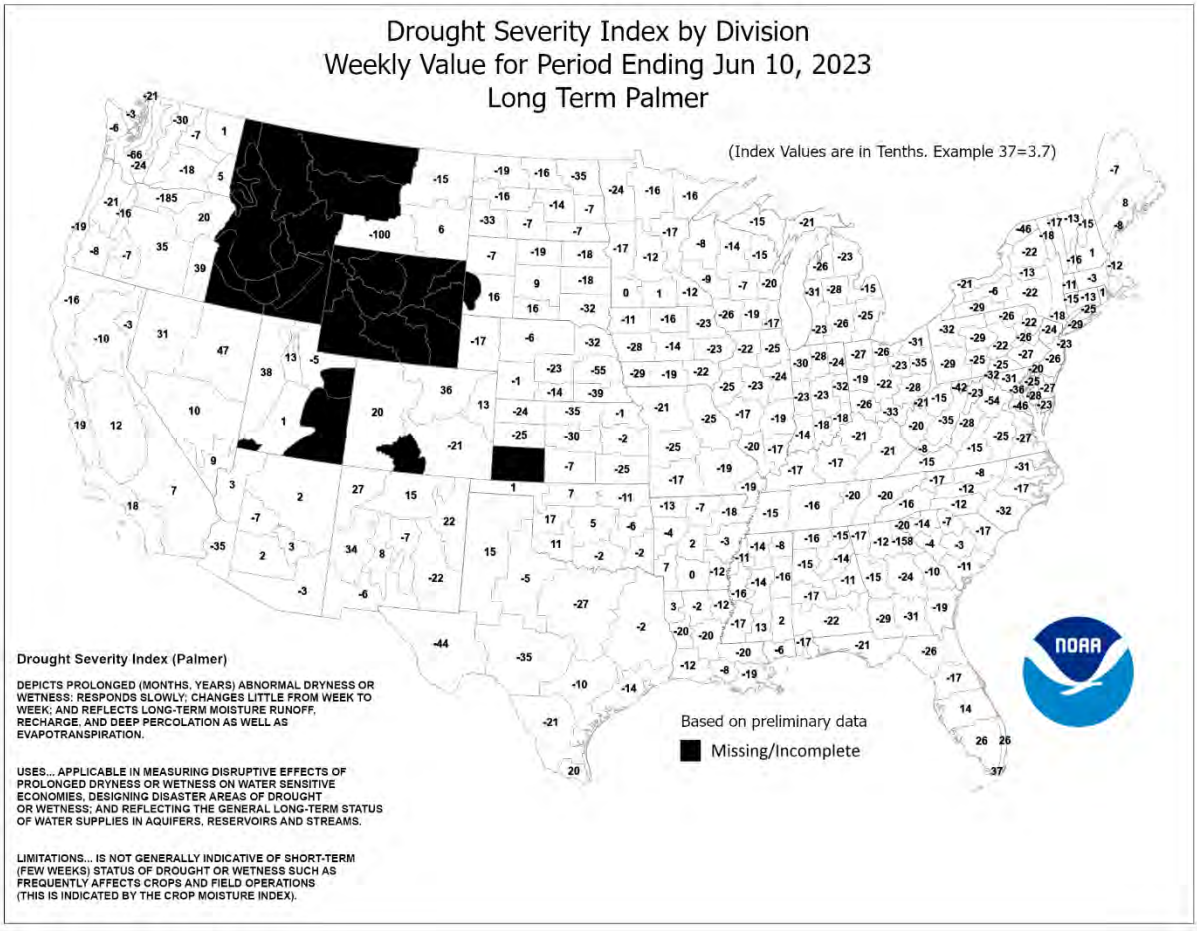

Crop Moisture Index by Division
Weekly Value for Period Ending Jun 10, 2023
Short Term Need vs. Available Water in a Shallow Soil Profile
Crop Moisture
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES 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
NOAA


Crop Moisture Index by Division
Weekly Value for Period Ending Jun 10, 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
NOAA


Drought Severity Index by Division
Weekly Value for Period Ending Jun 10, 2023
Long Term Palmer
DROUGHT SEVERITY INDEX (PALMER)
DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS: RESPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.
USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS AND STREAMS.
LIMITATIONS... IS NOT GENERALLY INDICATIVE OF SHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).
Based on preliminary data
-4.0 or less (Extreme Drought)
-3.0 to -3.9 (Severe Drought)
-2.0 to -2.9 (Moderate Drought)
--1.9 to +1.9 (Near Normal)
+2.0 to +2.9 (Unusual Moist Spell)
+3.0 to +3.9 (Very Moist Spell)
+4.0 and above (Extremely Moist)
Missing/Incomplete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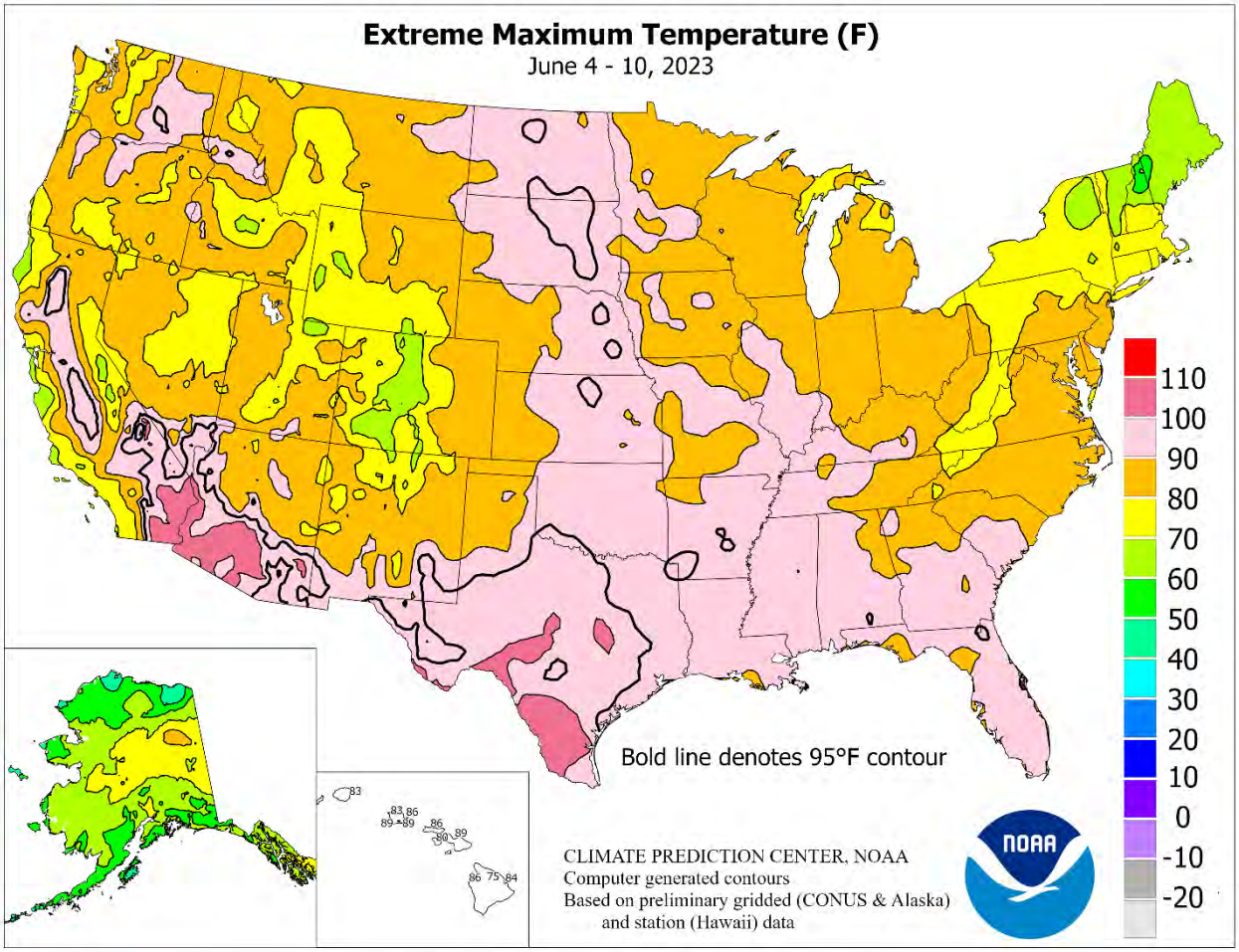
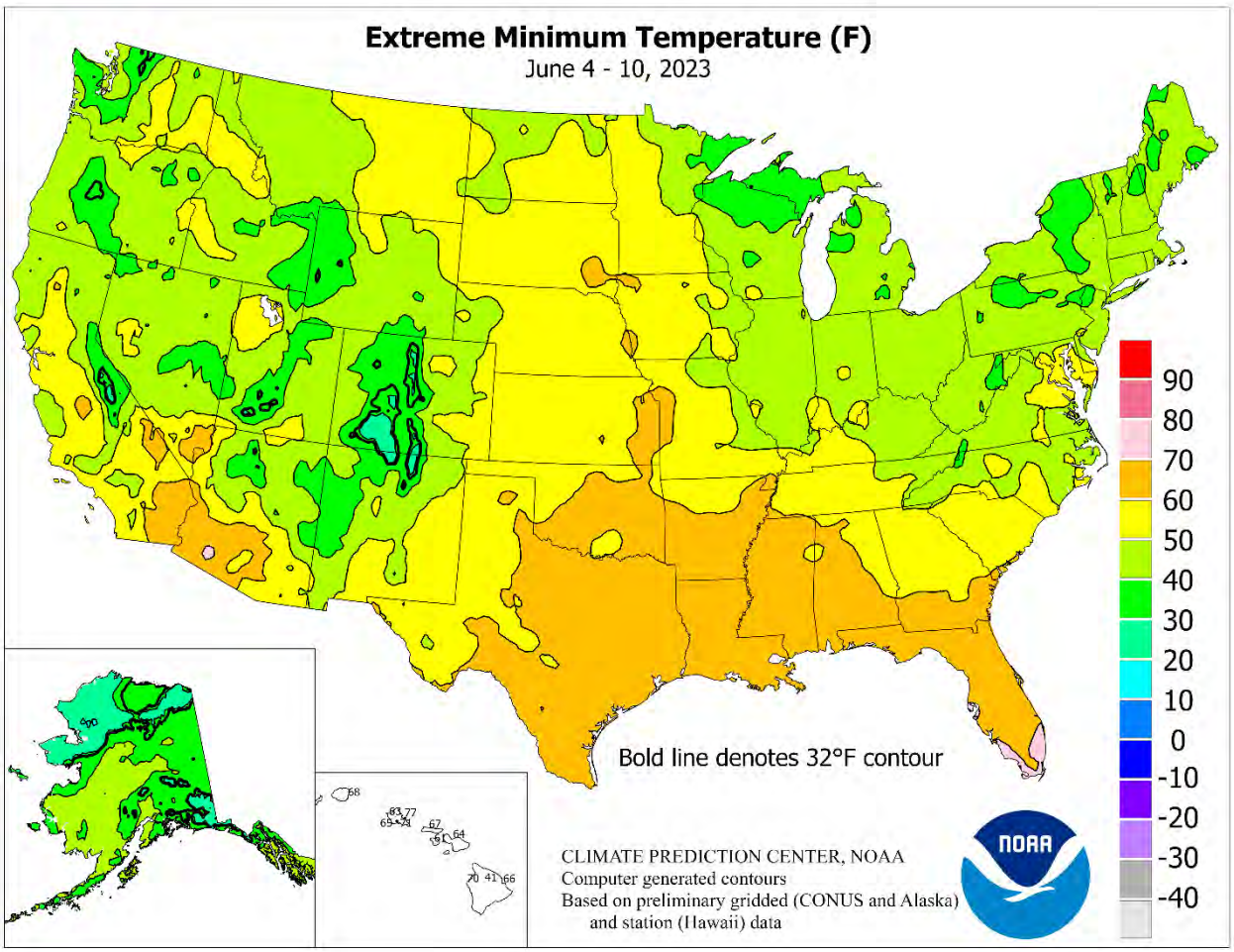
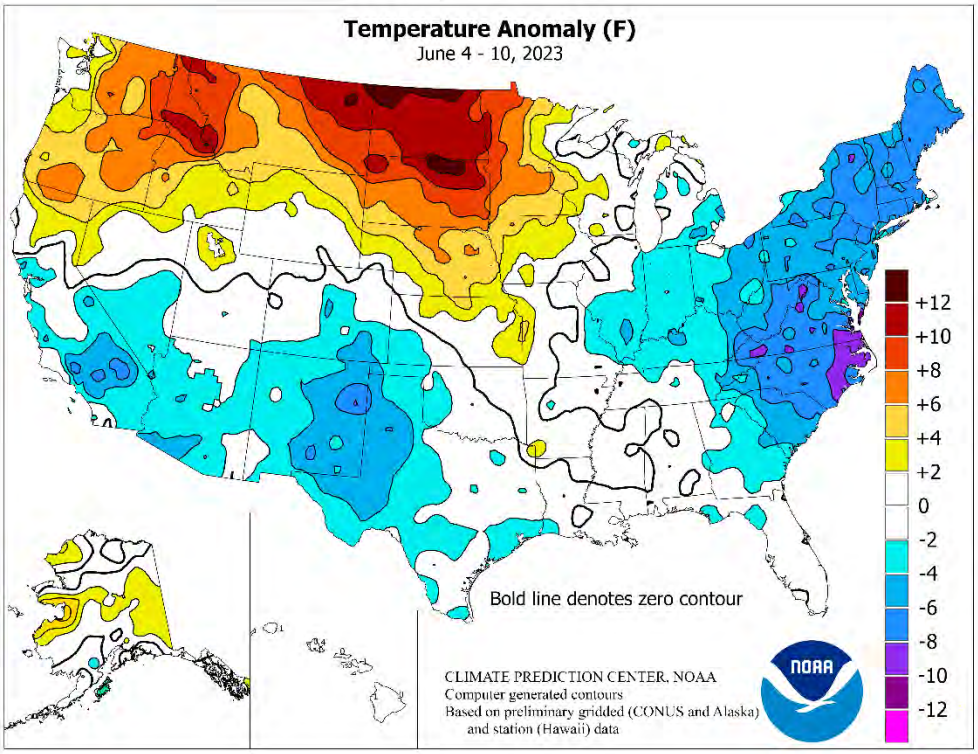
Based on preliminary data
Missing/Incomplete


Extreme Maximum Temperature (F)
June 4 - 10, 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 & Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (F)
June 4 - 10, 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

(Continued from front cover)

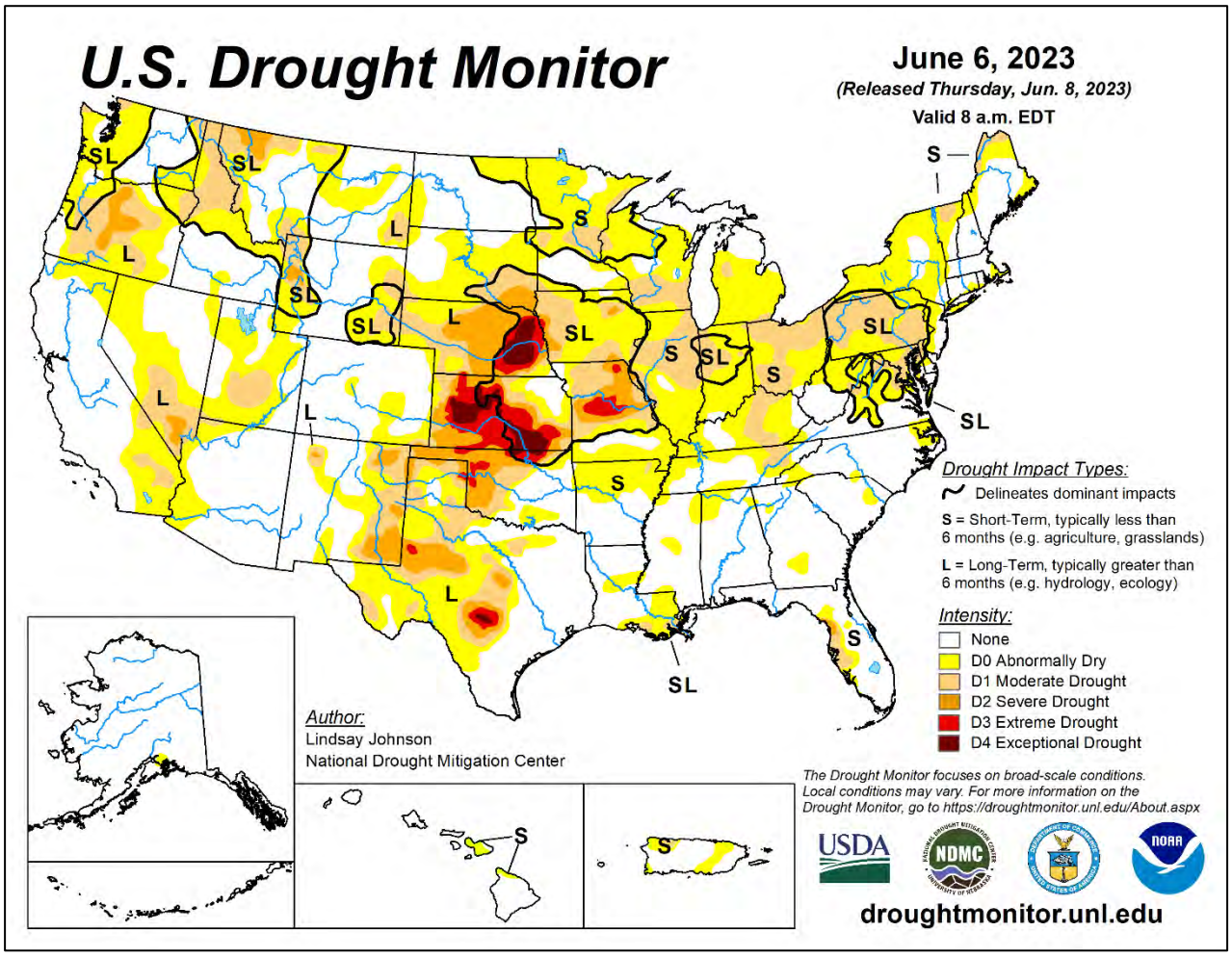
developed **west of the Mississippi River**. From **southern Illinois into the lower Great Lakes region**, much-needed rain fell on Sunday, June 11. Dry weather dominated several other areas, including the **mid-Atlantic** and **Southwest**. Dense smoke from **Canadian** forest fires drifted across the **Northeast** and neighboring regions, sharply reducing mid-week visibility and air quality. Parts of the **Southeast** were also mostly dry, although beneficial rain arrived on June 11 in the **southern Appalachians** and environs. Elsewhere, cool but mostly dry weather in the **Southwest** contrasted with warm, showery weather in parts of the **Northwest**, with rain falling at times as far south as **California** and the **Great Basin**. Weekly temperatures averaged at least 10°F above normal in scattered locations from the **northern Rockies to the Red River Valley of the North**. Meanwhile, readings averaged as much as 5°F below normal in parts of **southern California**, the **southern High Plains**, and the **Southwest**. Similarly, temperatures averaged 5 to 10°F below normal in the **Atlantic Coast States from the Carolinas to Maine**, along with parts of the **Ohio Valley**.

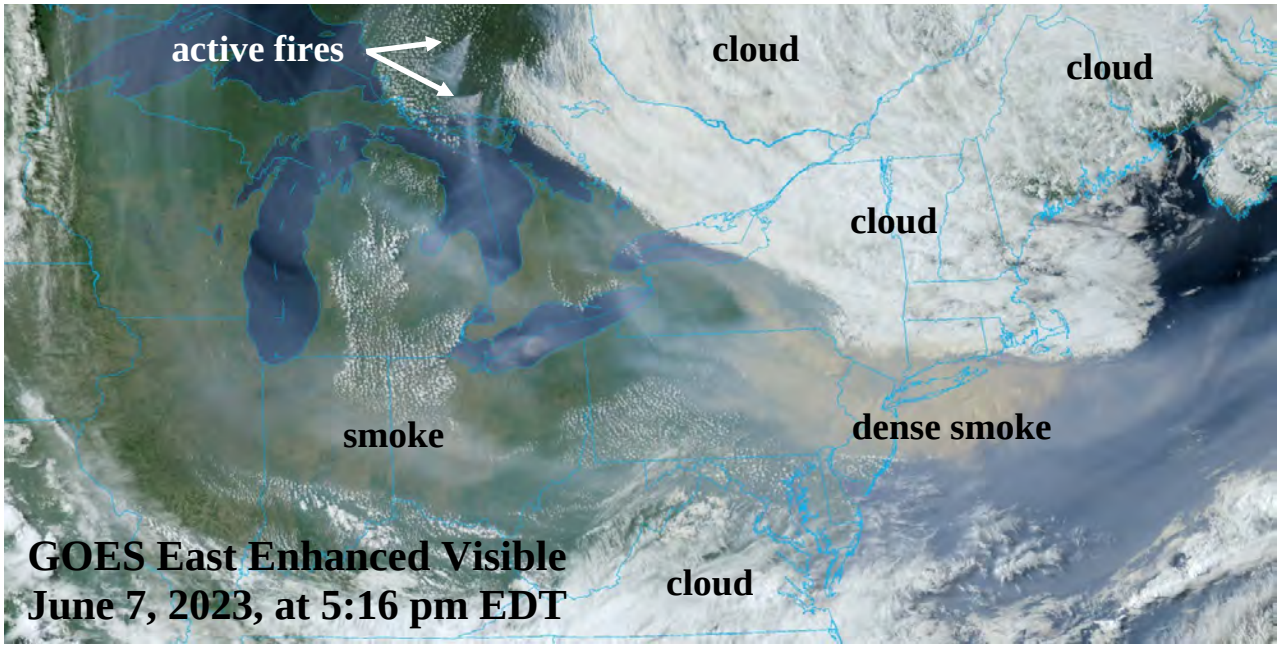


As the week began, scattered frost was noted on June 4 across the **interior Northeast**, where **Massena, NY**, posted a daily-record low of 34°F. The following day, record-setting lows for June 5 were reported in **Allentown, PA** (45°F), and **New Bern, NC** (49°F). Scattered daily-record lows were observed as far west as the **Great Lakes region**, where **Flint, MI**, registered 39°F on June 7. Late in the week, another round of cool air settled across the **Midwest** and **East**. By June 9, daily-record lows included 44°F in **Bristol, TN**; 46°F in **Asheville, NC**; and 49°F in **Cape Girardeau, MO**. In contrast, hot, dry weather settled over U.S. possessions in the **Caribbean**. **San Juan, PR**, notched daily-record highs of 95°F on June 6, 8, and 9. In the **U.S. Virgin Islands**, **Rohlsen Airport** on **St. Croix** measured a daily-record high of 92°F on June 10. Overnight temperatures at **Rohlsen Airport** remained at or above 80°F each day from May 31 to June 10, except for June 6 with a low of 79°F. In addition, **Rohlsen Airport** received May rainfall totaling just 0.34 inch (9 percent of normal), followed by no measurable rain during the first 10 days of June. Back on the **U.S. mainland**, persistent warmth across the **northern Plains** and **Northwest** led to scattered daily-record highs. On June 7, for example, temperatures rose to 97°F in **Huron, SD**, and 82°F in **Bellingham, WA**. Late in the week, heat began to intensify in parts of **Texas**. In the **western Gulf Coast region**, **Corpus Christi, TX**, collected a daily-record high (98°F) for June 9, followed by another record (100°F) on June 11.

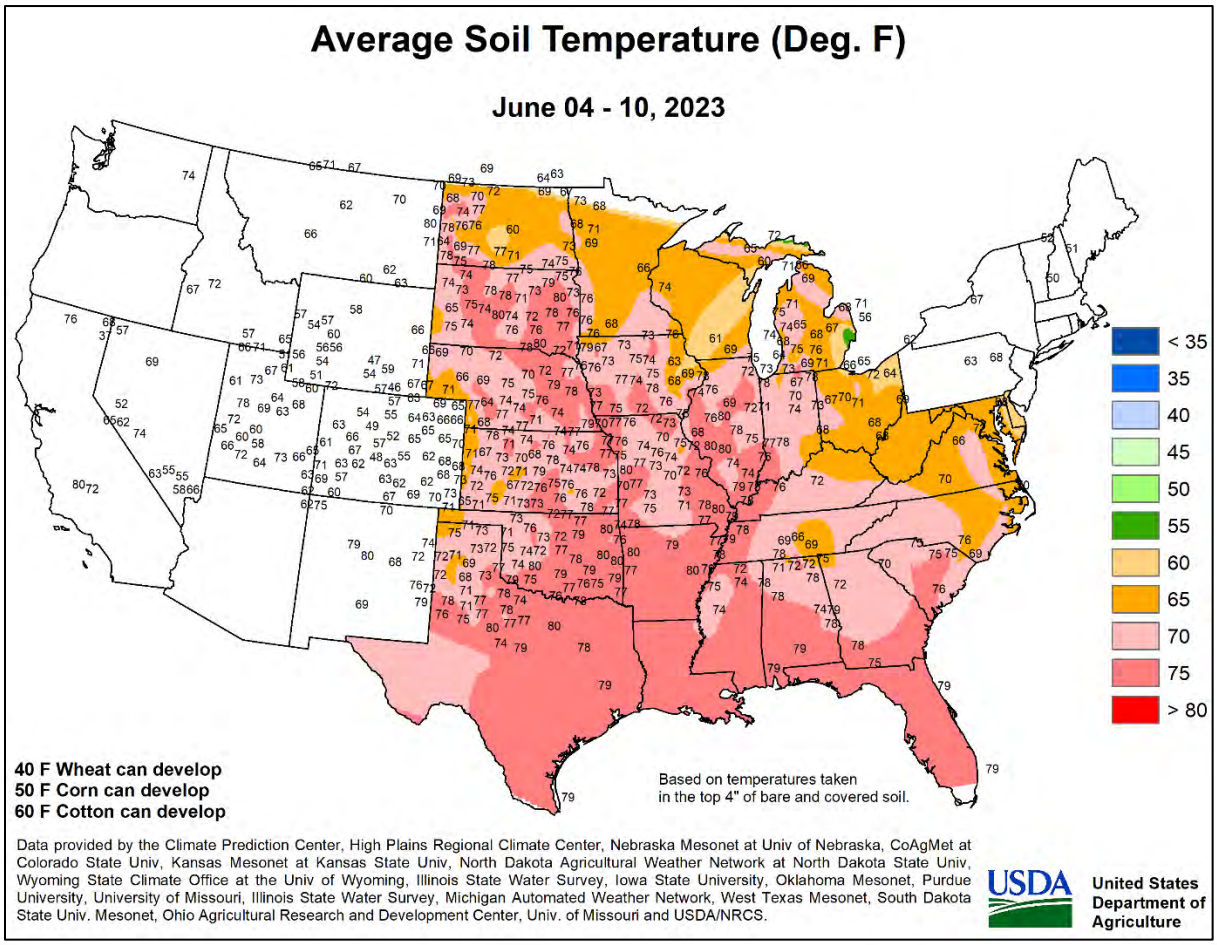
For much of the week, heavy showers peppered the **Plains**, **Rockies**, and **Intermountain West**. **Casper, WY**, received 1.77 inches of rain during the first 10 days of the month, aided by a daily-record total of 0.51 inch on June 4. Similarly, **Laramie, WY**, measured 2.08 inches from June 1-10, with 0.76 inch (a record for the date) falling on the 7th. During a streak of 9 consecutive days (May 30 – June 7) with 90-degree heat, **Sisseton, SD**, was pelted by 2.10 inches of rain, a record for the date, on June 5. In **Montana**, **Butte** (1.82 inches on the 6th) experienced its wettest June day in well over 100 years, surpassing 1.49 inches on June 14, 1948. Elsewhere in **Montana**, the airport in **Bozeman** endured its third-wettest day on record, with 1.89 inches falling on June 8. Wetter days at **Bozeman Airport** occurred on June 25, 1969, with 2.14 inches, and May 25, 1980, with 1.91 inches. Scattered showers also overspread the **mid-South**, where **Harrison, AR**, noted a record-setting total (2.61 inches) for June 8. Scattered daily-record amounts were also scattered across the **Plains** and **Northwest**; amounts included 1.12 inches (on June 7) in **Clayton, NM**, and 0.61 inch (on June 9) in **Burns, OR**. **Clayton** collected another record-setting sum (1.88 inches) on June 10. Late in the week, locally heavy showers continued across the **Plains** and adjacent **Rockies**—and dotted **California** and the **Great Basin**. Record-setting rainfall totals for June 10 reached 2.53 inches in **Valentine, NE**; 1.00 inch in **Sheridan, WY**; and 0.59 inch in **Bishop, CA**.

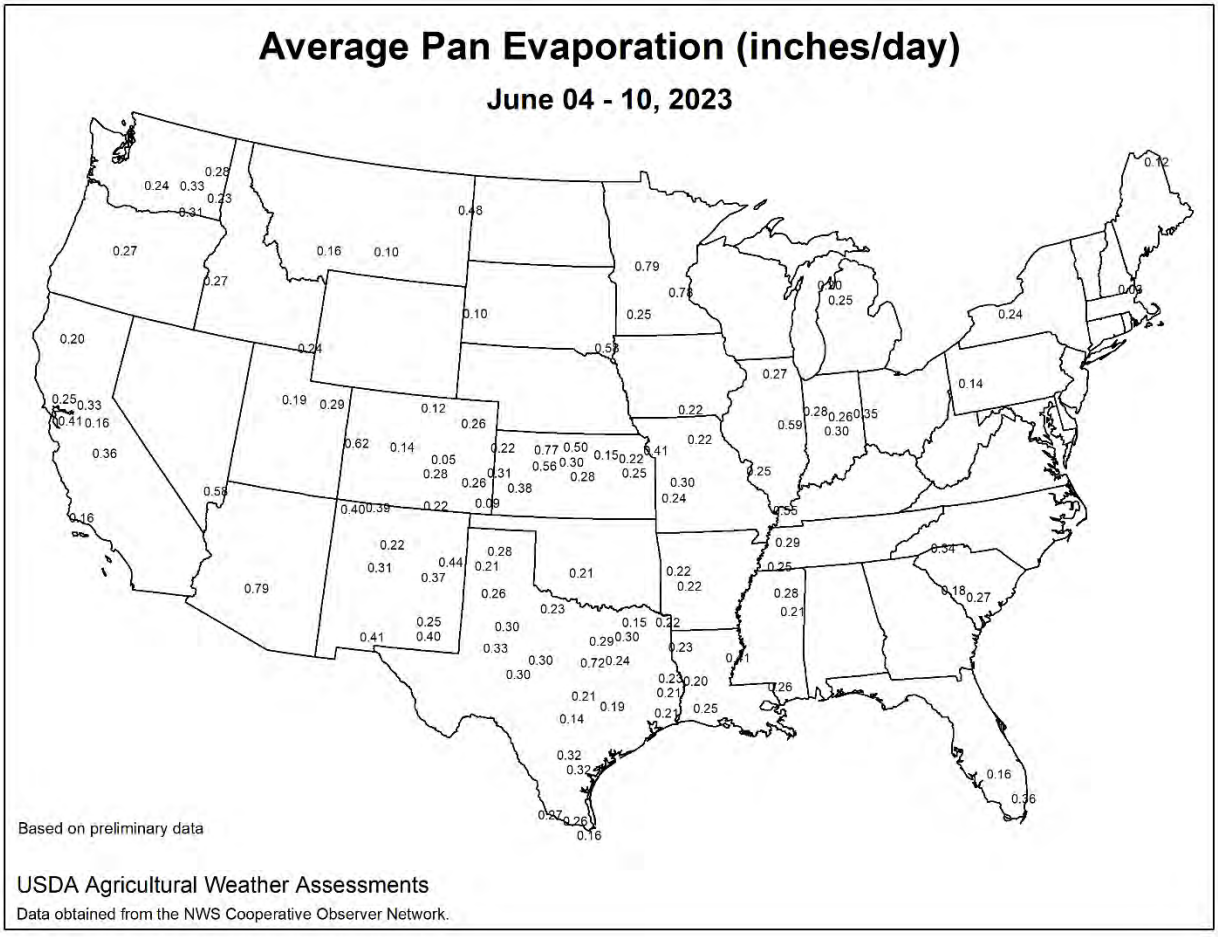
In **Alaska**, significant precipitation in early June was mostly limited to a few interior locations and the **state's southern tier**. From June 7-10, **Bettles** received rainfall totaling 0.86 inch. Similarly, **Kodiak** netted a weekly (June 4-10) sum of 3.75 inches. Meanwhile, **Alaskan** temperatures rebounded to near- or above-normal levels, following a generally cool start to June. Farther south, warm, tranquil weather prevailed in **Hawaii**. **Kahului, Maui**, continued to await its first measurable rain of the month, while the state's other major airport observation sites reported June 1-10 rainfall ranging from 0.01 inch (6 percent of normal) in **Honolulu, Oahu**, to 0.80 inch (36 percent) at **Hilo**, on the **Big Island**.

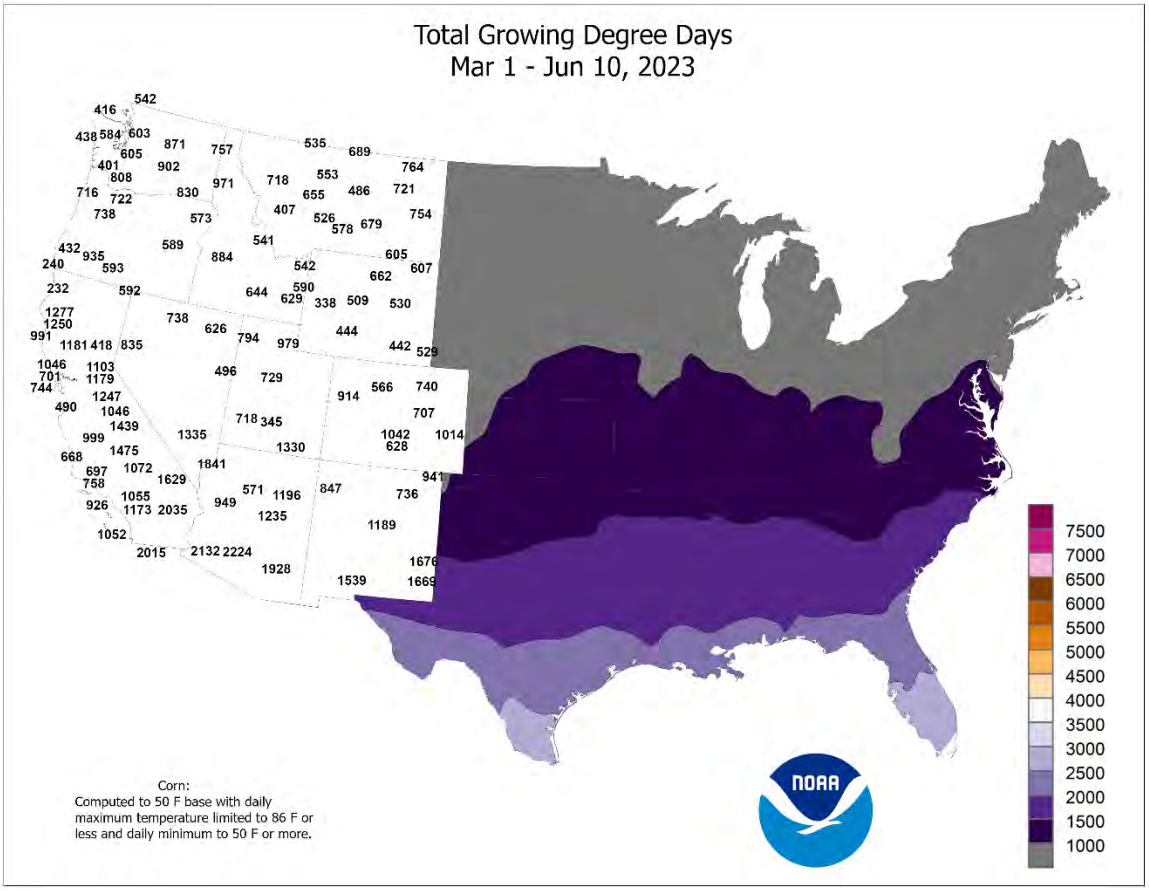


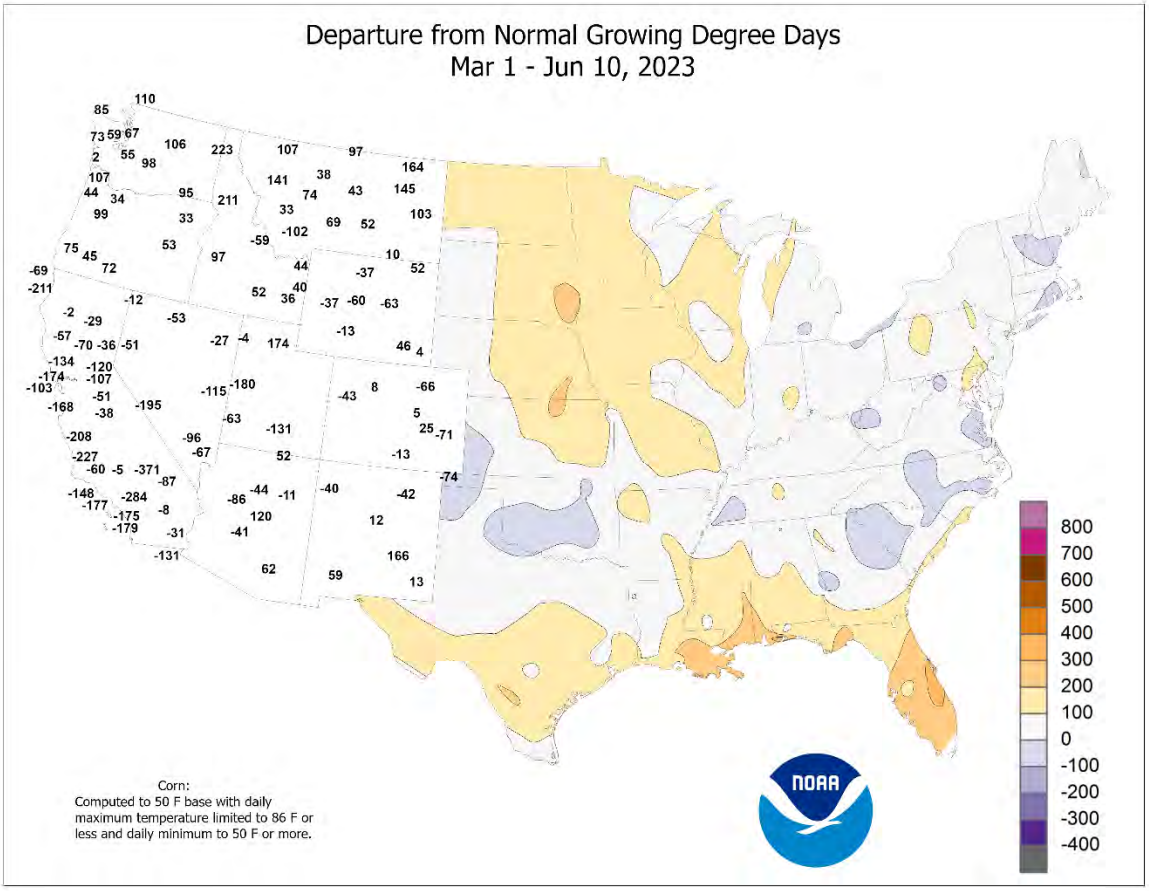


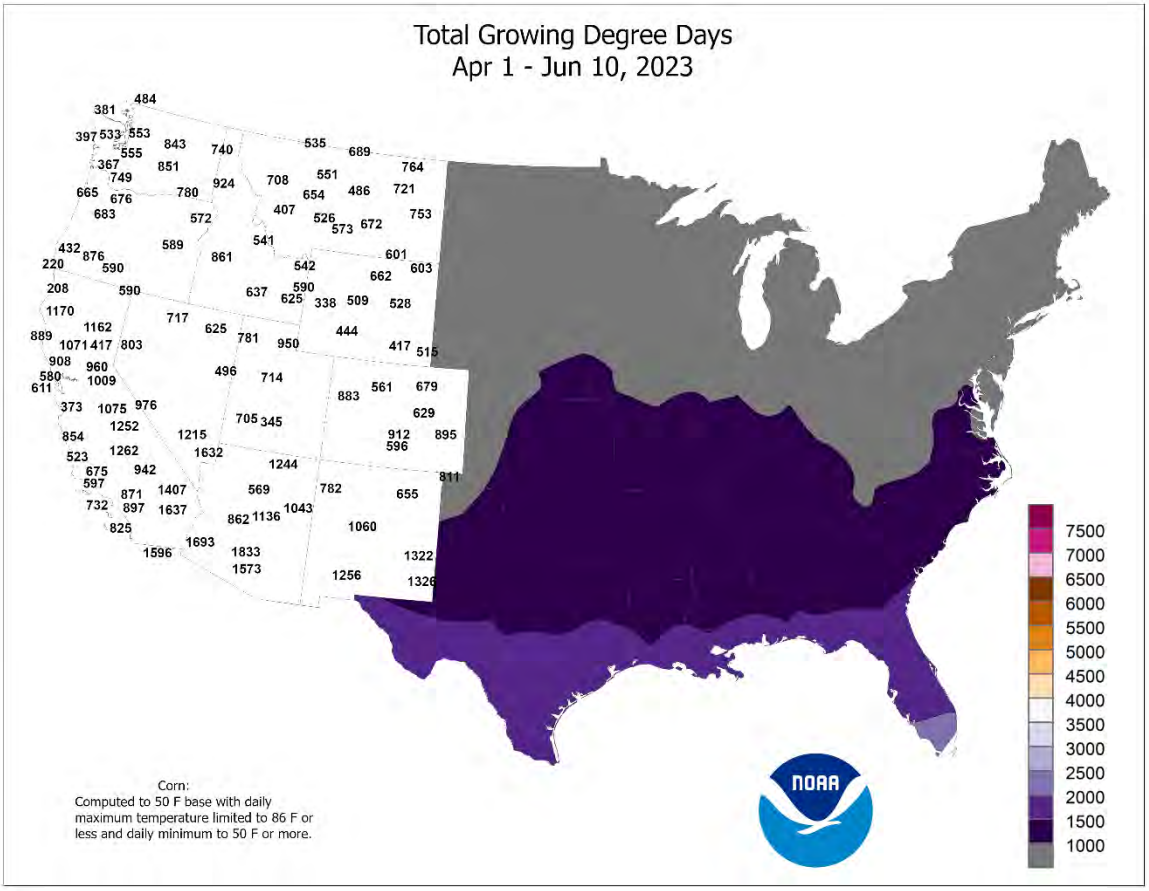
In early June, smoke from Canadian wildfires drifted southward across the Great Lakes and Northeastern States. By June 7, a low-pressure system over New England helped to drive dense smoke into the heavily populated Northeastern corridor, leading to low visibility (locally one-half mile or less), poor air quality, and health concerns. By the afternoon of the 7th, the thickest smoke extended across eastern Pennsylvania to the Atlantic coast, including Philadelphia and New York City. The smoke, which first appeared in the U.S. in early May, was initially noted in the upper atmosphere, but has since reached the surface as wildfire activity has shifted eastward.

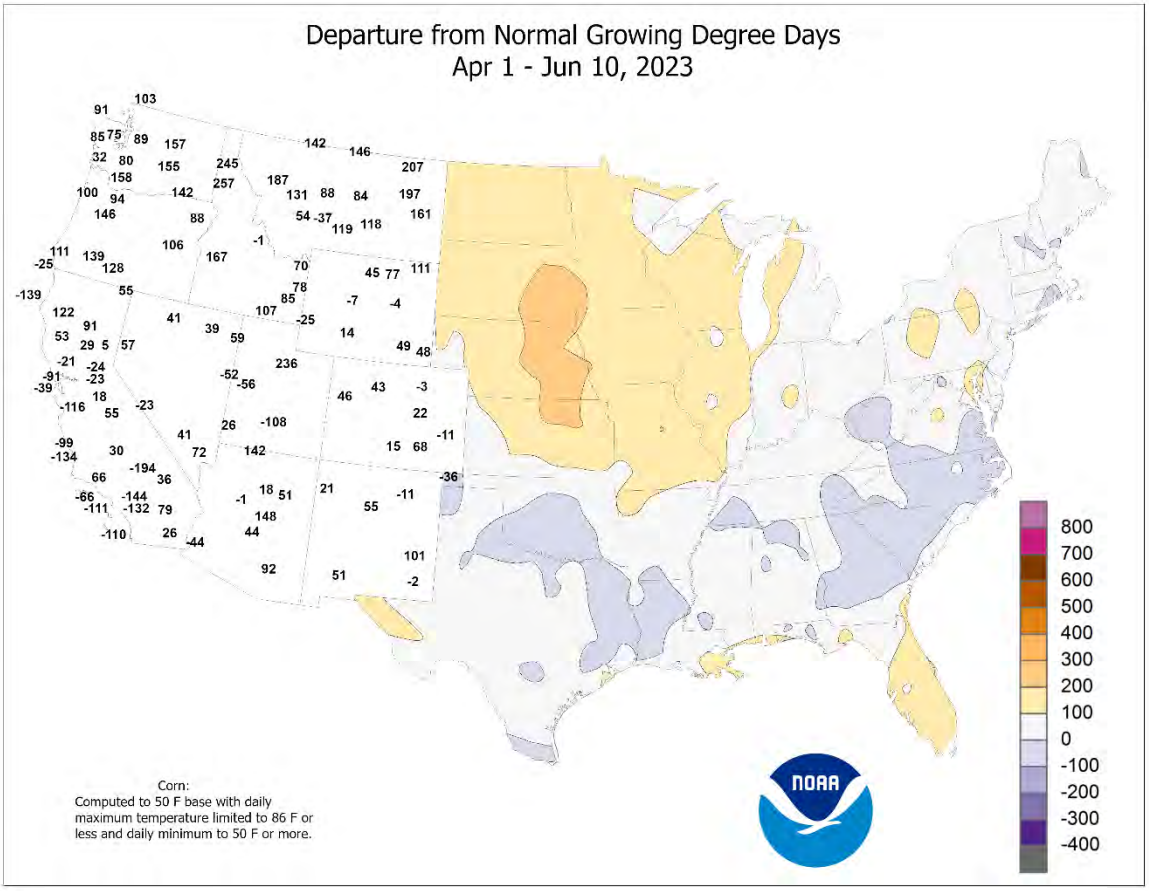

Average Soil Temperature (Deg. F)
June 04 - 10, 2023
< 35
35
40
45
50
55
60
65
70
75
> 80
40 F Wheat can develop
50 F Corn can develop
60 F Cotton can develop
Based on temperatures taken
in the top 4" of bare and covered soil.
Data provided by the Climate Prediction Center, High Plains Regional Climate 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.
USDA
United States Department of Agriculture


Average Pan Evaporation (inches/day)
June 04 - 10, 2023
Based on preliminary data
USDA Agricultural Weather Assessments
Data obtained from the NWS Cooperative Observer Network.


Total Growing Degree Days
Mar 1 - Jun 10, 2023
Corn:
Computed to 50 F base with daily maximum temperature limited to 86 F or less and daily minimum to 50 F or more.
NOAA
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000


Departure from Normal Growing Degree Days
Mar 1 - Jun 10, 2023
Corn:
Computed to 50 F base with daily maximum temperature limited to 86 F or less and daily minimum to 50 F or more.
NOAA
800
700
600
500
400
300
200
100
0
-100
-200
-300
-400


Total Growing Degree Days
Apr 1 - Jun 10, 2023
Corn:
Computed to 50 F base with daily maximum temperature limited to 86 F or less and daily minimum to 50 F or more.
NOAA
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000


Departure from Normal Growing Degree Days
Apr 1 - Jun 10, 2023
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NOAA
800
700
600
500
400
300
200
100
0
-100
-200
-300
-400

National Weather Data for Selected Cities

Weather Data for the Week Ending June 10, 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 JUN 1	PCT. NORMAL SINCE JUN 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	60	48	69	45	54	0	0.09	-0.11	0.05	0.22	77	4.97	135	87	48	0	0	3	0
	BARROW	36	28	42	25	32	0	0.04	-0.04	0.04	0.32	273	2.88	258	94	79	0	7	1	0
	FAIRBANKS	73	50	80	46	62	3	0.05	-0.22	0.04	0.26	71	3.05	109	79	30	0	0	2	0
	JUNEAU	61	46	73	42	54	0	0.31	-0.53	0.19	0.52	44	23.08	104	98	54	0	0	4	0
	KODIAK	49	44	50	43	46	-3	3.36	2.04	1.19	3.36	173	28.39	85	97	85	0	0	7	3
	NOME	59	43	66	27	51	6	0.04	-0.15	0.03	0.27	98	6.24	136	90	56	0	1	2	0
AL	BIRMINGHAM	89	66	91	63	78	1	0.03	-1.05	0.03	0.03	2	26.30	96	79	37	3	0	1	0
	HUNTSVILLE	90	64	92	62	77	0	0.06	-0.84	0.06	0.06	4	21.87	83	88	34	4	0	1	0
	MOBILE	91	69	95	67	80	1	0.42	-1.09	0.19	0.42	19	25.39	88	89	43	5	0	3	0
	MONTGOMERY	91	66	93	63	79	0	0.39	-0.50	0.39	0.39	30	21.31	89	91	38	6	0	1	0
AR	FORT SMITH	90	67	95	66	79	2	1.13	0.04	1.13	1.55	98	20.19	93	92	43	5	0	1	1
	LITTLE ROCK	91	69	96	67	80	4	2.24	1.33	1.45	2.24	169	35.76	146	84	41	4	0	2	2
AZ	FLAGSTAFF	72	36	77	30	54	-4	0.36	0.30	0.36	0.37	408	17.75	225	67	15	0	2	1	0
	PHOENIX	101	73	107	69	87	-2	0.00	0.00	0.00	0.00	0	2.81	96	22	5	7	0	0	0
	PRESCOTT	80	49	85	45	64	-5	0.00	-0.04	0.00	0.00	0	5.92	133	53	12	0	0	0	0
	TUCSON	98	67	105	63	83	-2	0.00	-0.03	0.00	0.00	0	3.49	128	27	7	7	0	0	0
CA	BAKERSFIELD	82	63	95	59	73	-4	0.35	0.33	0.24	0.35	900	7.17	163	76	38	1	0	2	0
	EUREKA	58	51	61	47	55	-1	0.00	-0.23	0.00	0.00	0	20.79	87	93	85	0	0	0	0
	FRESNO	85	64	96	62	74	-1	0.00	-0.08	0.00	0.00	0	12.44	164	67	33	1	0	0	0
	LOS ANGELES	66	58	68	56	62	-3	0.01	-0.02	0.01	0.01	30	19.07	224	88	65	0	0	1	0
	REDDING	89	66	101	62	78	3	0.14	-0.11	0.08	0.14	38	28.26	136	78	30	3	0	2	0
	SACRAMENTO	79	57	94	53	68	-3	0.00	-0.07	0.00	0.00	0	13.29	111	80	42	1	0	0	0
	SAN DIEGO	68	61	69	58	64	-2	0.00	-0.02	0.00	0.00	0	11.02	167	81	61	0	0	0	0
	SAN FRANCISCO	68	56	69	54	62	0	0.01	-0.04	0.01	0.01	16	19.90	159	81	56	0	0	1	0
	STOCKTON	84	57	96	53	70	-2	0.00	-0.04	0.00	0.00	0	13.27	150	81	35	1	0	0	0
CO	ALAMOSA	74	38	77	34	56	-2	0.06	-0.02	0.06	0.14	109	2.10	87	94	23	0	0	1	0
	CO SPRINGS	72	52	78	48	62	-3	0.37	-0.18	0.21	1.22	153	8.88	157	80	44	0	0	4	0
	DENVER INTL	73	52	79	50	63	-3	1.69	1.19	1.41	2.09	287	10.28	165	87	49	0	0	3	1
	GRAND JUNCTION	86	56	87	51	71	1	0.00	-0.11	0.00	0.03	20	4.04	103	51	14	0	0	0	0
	PUEBLO	80	55	85	51	67	-2	1.27	0.95	0.73	1.38	304	5.54	110	95	35	0	0	4	1
CT	BRIDGEPORT	71	51	77	46	61	-6	0.22	-0.76	0.18	0.22	16	16.74	85	82	45	0	0	2	0
	HARTFORD	70	48	75	46	59	-7	0.10	-0.94	0.08	0.19	12	20.77	107	89	46	0	0	2	0
DC	WASHINGTON	80	60	87	58	70	-4	0.00	-0.94	0.00	0.00	0	10.07	57	72	29	0	0	0	0
DE	WILMINGTON	80	53	86	50	67	-3	0.02	-1.10	0.02	0.02	1	10.92	57	79	26	0	0	1	0
FL	DAYTONA BEACH	88	69	94	66	78	-1	0.48	-1.01	0.29	0.48	22	13.30	79	95	52	3	0	5	0
	JACKSONVILLE	90	68	94	62	79	-1	0.89	-0.70	0.48	0.89	39	14.64	81	93	49	4	0	4	0
	KEY WEST	88	80	90	78	84	1	0.00	-1.00	0.00	0.04	2	4.23	36	83	64	1	0	0	0
	MIAMI	90	74	92	71	82	0	1.34	-1.09	0.70	1.58	46	23.68	121	92	55	5	0	4	1
	ORLANDO	90	71	93	68	80	0	2.32	0.50	1.65	2.50	98	10.86	65	94	48	3	0	4	1
	PENSACOLA	87	71	91	70	79	-2	1.33	-0.31	0.88	1.37	60	22.24	83	89	57	2	0	4	1
	TALLAHASSEE	89	68	94	65	78	-1	0.77	-0.89	0.64	0.77	32	20.84	90	94	50	2	0	3	1
	TAMPA	89	74	91	70	82	-1	0.11	-1.28	0.11	1.61	84	8.97	60	87	52	2	0	1	0
	WEST PALM BEACH	88	74	92	72	81	0	1.46	-0.52	0.78	2.88	101	20.91	100	91	56	2	0	5	1
GA	ATHENS	85	60	90	55	73	-3	0.22	-0.82	0.12	0.52	34	25.69	120	92	38	1	0	2	0
	ATLANTA	86	66	90	63	76	0	0.51	-0.45	0.51	0.51	37	21.24	94	75	39	2	0	1	1
	AUGUSTA	86	58	92	52	72	-6	0.27	-0.84	0.26	0.27	17	26.20	136	98	40	2	0	2	0
	COLUMBUS	88	65	91	60	77	-2	0.39	-0.54	0.33	0.39	29	21.47	96	90	39	3	0	2	0
	MACON	90	60	93	54	75	-3	0.00	-0.93	0.00	0.01	0	23.13	113	96	36	4	0	0	0
	SAVANNAH	86	65	92	60	76	-3	0.83	-0.65	0.71	0.83	39	18.46	98	89	43	2	0	2	1
HI	HILO	83	67	84	66	75	0	0.31	-1.26	0.16	0.94	42	61.25	124	90	58	0	0	4	0
	HONOLULU	87	73	89	71	80	1	0.00	-0.11	0.00	0.01	7	9.09	115	83	51	0	0	0	0
	KAHULUI	88	68	89	64	78	-1	0.00	-0.04	0.00	0.00	0	8.80	96	77	44	0	0	0	0
	LIHUE	82	72	83	68	77	-1	0.02	-0.36	0.02	0.25	46	28.57	170	90	68	0	0	1	0
IA	BURLINGTON	82	58	89	49	70	0	0.20	-0.98	0.10	1.60	96	12.35	76	84	33	0	0	3	0
	CEDAR RAPIDS	83	56	89	49	69	1	0.37	-0.89	0.36	0.63	35	7.91	57	81	28	0	0	2	0
	DES MOINES	82	62	89	54	72	2	0.24	-1.02	0.24	1.69	94	12.50	80	83	40	0	0	1	0
	DUBUQUE	81	54	87	47	68	1	0.13	-1.13	0.12	0.13	7	10.81	70	77	31	0	0	2	0
	SIOUX CITY	86	53	93	1	69	1	0.98	-0.08	0.94	1.13	74	10.59	89	93	48	3	1	4	1
	WATERLOO	86	58	92	47	72	3	0.17	-1.16	0.15	0.38	20	9.18	62	85	30	2	0	3	0
ID	BOISE	84	60	92	58	72	7	0.19	-0.04	0.08	0.19	55	5.12	75	81	33	2	0	3	0
	LEWISTON	87	62	95	59	75	10	0.90	0.56	0.69	0.90	179	4.30	60	77	29	2	0	3	1
	POCATELLO	79	46	84	42	62	3	0.12	-0.17	0.07	0.12	29	6.36	100	92	34	0	0	3	0
IL	CHICAGO/O_HARE	80	57	86	51	68	0	0.00	-1.00	0.00	0.88	62	13.57	84	70	27	0	0	0	0
	MOLINE	88	53	93	46	70	0	0.02	-1.16	0.02	0.05	3	10.72	66	80	21	2	0	1	0
	PEORIA	86	55	91	49	70	0	0.05	-0.89	0.04	0.05	3	12.99	77	79	23	2	0	2	0
	ROCKFORD	81	53	89	48	67	-1	0.15	-1.14	0.15	0.17	9	13.72	89	79	27	0	0	1	0
	SPRINGFIELD	85	53	90	48	69	-3	0.00	-1.13	0.00	0.00	0	12.57	74	82	25	2	0	0	0
IN	EVANSVILLE	86	57	93	52	71	-2	0.02	-1.02	0.02	0.02	1	23.14	101	81	28	1	0	1	0
	FORT WAYNE	81	50	86	46	65	-3	0.00	-1.12	0.00	0.00	0	16.83	97	75	23	0	0	0	0
	INDIANAPOLIS	81	55	86	50	68	-2	0.00	-1.16	0.00	0.00	0	17.41	87	70	24	0	0	0	0
	SOUTH BEND	80	50	86	44	65	-2	0.00	-0.99	0.00	0.08	5	16.19	98	78	28	0	0	0	0
KS	CONCORDIA	89	63	96	59	76	4	0.43	-0.50	0.35	1.02	76	8.08	71	89	36	4	0	2	0
	DODGE CITY	83	59	87	56	71	-2	1.02	0.25	0.71	3.42	310	8.33	96	92	44	0	0	3	1
	GOODLAND	81	55	85	51	68	-1	0.09	-0.66	0.05	1.24	115	7.16	98	92	39	0	0	3	0
	TOPEKA	88	64	93	61	76	3	0.31	-0.96	0.31	0.60	33	10.76	70	92	43	4	0	1	0

Based on 1991-2020 normals

***** Not Available**

Weather Data for the Week Ending June 10, 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 JUN 1	PCT. NORMAL SINCE JUN 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	88	63	92	59	76	1	2.11	0.90	1.28	2.65	151	8.93	62	89	39	1	0	4	2
KY	LEXINGTON	83	55	89	50	69	-3	0.36	-0.84	0.36	0.36	21	19.52	84	84	32	0	0	1	0
	LOUISVILLE	83	61	90	57	72	-2	1.11	0.10	1.11	1.11	78	22.26	97	79	34	1	0	1	1
	PADUCAH	87	57	95	51	72	-3	0.00	-1.09	0.00	0.00	0	27.48	114	93	30	1	0	0	0
LA	BATON ROUGE	92	69	96	67	81	1	0.63	-0.78	0.44	2.13	106	29.05	105	93	46	5	0	4	0
	LAKE CHARLES	87	68	90	65	77	-4	1.20	-0.28	0.75	1.41	68	25.44	102	99	53	1	0	4	1
	NEW ORLEANS	91	72	94	70	81	0	1.28	-0.41	0.87	1.28	53	15.43	57	91	44	5	0	5	1
	SHREVEPORT	90	68	93	64	79	0	0.00	-1.08	0.00	0.00	0	0.00	0	91	48	4	0	0	0
MA	BOSTON	64	53	75	47	59	-6	0.55	-0.41	0.33	1.00	73	16.78	88	87	57	0	0	5	0
	WORCESTER	64	49	73	45	56	-6	0.52	-0.50	0.37	0.66	45	20.10	100	87	52	0	0	4	0
MD	BALTIMORE	82	55	87	51	68	-3	0.01	-0.96	0.01	0.01	0	9.92	53	78	26	0	0	1	0
ME	CARIBOU	57	46	63	41	52	-7	1.54	0.73	0.47	1.81	157	14.27	90	95	75	0	0	7	0
	PORTLAND	62	48	68	43	55	-6	0.70	-0.31	0.37	1.26	86	22.15	107	97	64	0	0	4	0
MI	ALPENA	76	47	81	41	62	1	0.03	-0.61	0.02	0.03	3	11.98	101	86	30	0	0	2	0
	GRAND RAPIDS	80	51	85	47	65	-1	0.00	-0.94	0.00	0.01	0	14.83	90	79	27	0	0	0	0
	HOUGHTON LAKE	74	46	81	43	60	-2	0.01	-0.55	0.01	0.01	1	9.28	98	90	40	0	0	1	0
	LANSING	80	48	85	44	64	-2	0.00	-0.87	0.00	0.00	0	14.10	100	79	25	0	0	0	0
	MUSKEGON	78	53	85	47	65	0	0.00	-0.72	0.00	0.06	5	13.20	89	72	29	0	0	0	0
	TRAVERSE CITY	75	49	82	44	62	-1	0.00	-0.67	0.00	0.00	0	8.31	76	89	32	0	0	0	0
MN	DULUTH	72	48	85	43	60	1	0.04	-0.89	0.04	0.04	3	11.50	108	81	42	0	0	1	0
	INT_L FALLS	77	53	88	40	65	6	0.05	-0.75	0.04	0.05	4	8.60	102	86	42	0	0	2	0
	MINNEAPOLIS	86	65	92	55	75	8	0.06	-0.95	0.06	0.09	6	11.28	96	70	32	1	0	1	0
	ROCHESTER	82	59	86	51	70	5	0.00	-1.30	0.00	0.40	21	15.65	114	85	38	0	0	0	0
	ST. CLOUD	84	58	91	51	71	7	0.02	-0.83	0.02	0.08	6	10.95	104	80	39	1	0	1	0
MO	COLUMBIA	86	62	91	56	74	1	1.32	0.33	1.32	1.41	98	12.59	68	78	33	1	0	1	1
	KANSAS CITY	84	65	91	62	74	2	0.37	-0.88	0.33	0.53	29	14.74	91	87	43	1	0	2	0
	SAINT LOUIS	86	62	93	58	74	-1	0.33	-0.72	0.20	0.41	26	13.17	68	74	29	2	0	3	0
	SPRINGFIELD	85	62	89	58	73	1	0.07	-0.99	0.04	0.33	21	21.06	103	89	45	0	0	2	0
MS	JACKSON	92	66	95	64	79	1	0.74	-0.29	0.35	0.74	50	27.62	99	94	41	6	0	4	0
	MERIDIAN	91	66	93	63	78	0	0.91	-0.14	0.81	0.91	60	32.33	116	95	42	6	0	2	1
	TUPELO	91	66	95	65	79	1	0.94	-0.22	0.51	1.04	62	28.15	101	84	38	6	0	2	1
MT	BILLINGS	76	58	81	56	67	5	0.69	0.09	0.33	4.20	489	10.23	147	96	55	0	0	4	0
	BUTTE	72	47	77	43	60	6	2.04	1.35	1.82	2.95	297	8.40	144	97	40	0	0	5	1
	CUT BANK	76	50	83	43	63	7	1.22	0.51	0.69	1.30	128	3.96	89	95	46	0	0	3	1
	GLASGOW	85	63	90	57	74	12	0.97	0.25	0.86	1.48	142	8.80	159	86	45	1	0	2	1
	GREAT FALLS	75	51	80	43	63	6	0.44	-0.33	0.26	2.51	227	10.38	146	98	53	0	0	4	0
	HAVRE	79	58	84	52	69	8	0.51	-0.13	0.49	2.63	290	6.85	134	93	54	0	0	2	0
	MISSOULA	82	55	89	49	68	10	0.57	-0.02	0.41	0.60	71	5.44	80	95	40	0	0	4	0
NC	ASHEVILLE	77	53	82	46	65	-5	0.00	-1.00	0.00	0.02	1	18.92	89	93	39	0	0	0	0
	CHARLOTTE	80	59	85	54	69	-5	0.04	-0.91	0.04	0.83	59	20.60	107	89	43	0	0	1	0
	GREENSBORO	75	56	82	50	65	-8	0.23	-0.71	0.23	0.28	20	20.78	112	88	44	0	0	1	0
	HATTERAS	74	59	80	57	67	-9	0.37	-0.70	0.24	0.38	25	15.61	66	100	59	0	0	4	0
	RALEIGH	81	57	89	50	69	-6	0.03	-0.86	0.03	0.06	4	18.94	102	89	40	0	0	1	0
	WILMINGTON	82	58	89	52	70	-6	1.01	-0.26	0.86	1.04	57	21.04	101	90	40	0	0	2	1
ND	BISMARCK	89	61	95	55	75	12	0.69	-0.06	0.68	0.71	66	6.93	102	91	37	4	0	2	1
	DICKINSON	85	56	91	46	71	10	0.16	-0.57	0.11	0.23	22	3.60	59	91	40	2	0	2	0
	FARGO	88	66	94	56	77	12	0.71	-0.25	0.47	0.75	57	7.25	84	83	42	3	0	3	0
	GRAND FORKS	86	62	93	51	74	12	0.04	-0.77	0.04	0.06	5	4.19	59	84	42	2	0	1	0
	JAMESTOWN	87	62	93	55	74	12	0.57	-0.20	0.33	0.57	52	5.35	76	92	44	3	0	5	0
NE	GRAND ISLAND	89	62	94	59	76	5	0.26	-0.84	0.15	0.57	36	5.09	44	88	35	4	0	2	0
	LINCOLN	89	62	97	56	76	4	0.37	-0.73	0.18	1.76	111	5.68	46	87	37	4	0	3	0
	NORFOLK	88	61	96	57	75	6	2.59	1.50	2.11	2.59	169	6.74	61	87	37	3	0	3	1
	NORTH PLATTE	85	56	89	52	70	3	0.02	-0.93	0.01	0.59	43	10.20	113	95	40	0	0	2	0
	OMAHA	87	64	93	61	76	4	0.08	-1.05	0.07	1.13	69	8.38	64	87	40	4	0	2	0
	SCOTTSBLUFF	81	55	84	52	68	2	0.99	0.32	0.61	1.25	128	10.20	133	92	42	0	0	2	1
	VALENTINE	84	59	91	56	71	5	3.01	2.04	2.53	3.20	230	11.88	127	92	41	1	0	2	1
NH	CONCORD	65	46	74	45	56	-7	0.61	-0.28	0.31	0.61	47	14.66	86	99	53	0	0	5	0
NJ	ATLANTIC_CITY	77	48	83	45	63	-6	0.00	-0.84	0.00	0.00	0	15.54	81	85	31	0	0	0	0
	NEWARK	78	56	84	49	67	-3	0.00	-1.09	0.00	0.00	0	17.78	89	64	31	0	0	0	0
NM	ALBUQUERQUE	85	58	87	54	71	-3	0.00	-0.09	0.00	0.00	0	1.82	77	50	15	0	0	0	0
NV	ELY	70	39	77	36	55	-4	0.07	-0.10	0.06	0.09	36	5.97	120	83	26	0	0	2	0
	LAS VEGAS	91	72	98	66	82	-4	0.00	0.00	0.00	0.00	0	1.45	70	29	11	5	0	0	0
	RENO	80	56	86	52	68	2	0.15	0.03	0.07	0.15	84	8.26	194	69	21	0	0	4	0
	WINNEMUCCA	81	45	87	42	63	1	0.07	-0.09	0.04	0.13	53	4.80	113	82	24	0	0	2	0
NY	ALBANY	70	47	77	44	59	-7	0.26	-0.68	0.11	0.26	19	14.74	93	90	43	0	0	4	0
	BINGHAMTON	67	48	75	47	58	-5	1.19	0.11	0.90	1.19	78	13.94	82	84	42	0	0	2	1
	BUFFALO	70	52	73	49	61	-4	0.00	-0.83	0.00	0.00	0	15.59	93	81	36	0	0	0	0
	ROCHESTER	70	49	77	47	60	-6	0.02	-0.75	0.02	0.02	2	13.36	94	88	37	0	0	1	0
	SYRACUSE	71	50	78	44	60	-5	0.25	-0.59	0.24	0.25	20	15.81	97	80	38	0	0	2	0
OH	AKRON-CANTON	75	48	81	43	62	-6	0.00	-1.03	0.00	0.00	0	16.68	92	79	30	0	0	0	0
	CINCINNATI	81	56	86	49	68	-2	0.10	-1.04	0.08	0.10	6	18.50	86	85	31	0	0	2	0
	CLEVELAND	74	51	82	46	63	-5	0.00	-0.88	0.00	0.00	0	16.46	95	73	25	0	0	0	0
	COLUMBUS	80	52	87	47	66	-3	0.00	-0.98	0.00	0.00	0	17.69	96	82	26	0	0	0	0
	DAYTON	80	54	86	51	67	-3	0.12	-0.85	0.12	0.12	8	16.97	88	69	25	0	0	1	0
	MANSFIELD	76	49	82	46	63	-4	0.00	-1.15	0.00	0.00	0	16.87	88	77	28	0	0	0	0

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***** Not Available**

Weather Data for the Week Ending June 10, 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 JUN 1	PCT. NORMAL SINCE JUN 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	81	51	88	47	66	-4	0.00	-0.83	0.00	0.00	0	13.48	85	78	23	0	0	0	0
	YOUNGSTOWN	76	46	82	40	61	-5	0.00	-0.91	0.00	0.00	0	15.37	87	83	29	0	0	0	0
OK	OKLAHOMA CITY	86	64	91	63	75	0	0.72	-0.43	0.35	1.08	64	15.39	97	93	46	1	0	4	0
	TULSA	90	66	94	64	78	1	0.65	-0.54	0.38	2.52	146	16.52	91	95	41	5	0	2	0
OR	ASTORIA	64	49	76	41	56	0	0.05	-0.59	0.04	0.05	5	28.61	79	91	59	0	0	2	0
	BURNS	77	51	84	47	64	6	0.71	0.51	0.61	0.87	283	8.94	155	84	35	0	0	2	1
	EUGENE	80	51	90	45	65	6	0.00	-0.37	0.00	0.00	0	14.12	65	80	36	1	0	0	0
	MEDFORD	86	60	92	57	73	8	0.05	-0.15	0.03	0.05	16	5.31	55	76	28	1	0	2	0
	PENDLETON	84	56	90	50	70	7	0.07	-0.24	0.06	0.07	15	4.37	60	72	29	2	0	2	0
	PORTLAND	78	56	92	52	67	4	0.09	-0.37	0.09	0.09	13	15.98	85	70	36	1	0	1	0
	SALEM	78	52	91	47	65	4	0.01	-0.37	0.01	0.01	2	16.97	81	77	35	1	0	1	0
PA	ALLENTOWN	76	47	82	42	62	-7	0.00	-1.00	0.00	0.00	0	13.97	75	80	28	0	0	0	0
	ERIE	70	49	76	44	59	-7	0.00	-0.87	0.00	0.00	0	17.78	103	82	36	0	0	0	0
	MIDDLETOWN	78	55	84	51	66	-4	0.09	-0.83	0.09	0.21	16	11.84	65	78	29	0	0	1	0
	PHILADELPHIA	78	55	82	52	66	-5	0.02	-1.00	0.02	0.02	1	12.00	66	65	26	0	0	1	0
	PITTSBURGH	75	51	80	43	63	-4	0.00	-0.95	0.00	0.00	0	11.21	65	73	27	0	0	0	0
	WILKES-BARRE	73	46	79	41	59	-7	0.13	-0.75	0.12	0.54	43	11.66	76	92	33	0	0	2	0
	WILLIAMSPORT	76	48	83	41	62	-6	0.15	-0.74	0.14	0.15	12	9.18	53	83	28	0	0	2	0
RI	PROVIDENCE	65	48	74	45	57	-9	0.49	-0.47	0.35	0.52	37	22.13	103	97	58	0	0	5	0
SC	CHARLESTON	84	62	92	58	73	-5	1.46	0.08	1.15	1.46	75	15.83	86	90	45	1	0	2	1
	COLUMBIA	84	61	91	53	73	-5	0.14	-1.02	0.14	0.14	8	24.10	130	90	41	1	0	1	0
	FLORENCE	83	58	90	54	71	-7	0.03	-1.01	0.03	0.03	2	18.17	104	92	37	1	0	1	0
	GREENVILLE	82	58	87	51	70	-5	0.01	-0.91	0.01	0.01	0	29.21	133	88	40	0	0	1	0
SD	ABERDEEN	92	63	98	59	77	12	0.46	-0.36	0.43	0.65	56	6.07	72	88	35	5	0	2	0
	HURON	89	62	97	58	76	10	1.44	0.49	0.75	1.44	109	4.70	49	89	39	5	0	3	1
	RAPID CITY	79	56	87	54	68	6	2.06	1.28	1.25	2.28	201	12.79	152	93	49	0	0	3	2
	SIOUX FALLS	89	64	95	60	76	9	0.65	-0.43	0.48	0.65	42	7.25	63	82	39	3	0	2	0
TN	BRISTOL	78	52	86	44	65	-5	0.42	-0.48	0.42	0.42	32	19.57	96	94	38	0	0	1	0
	CHATTANOOGA	87	61	90	56	74	-2	0.17	-0.73	0.17	0.18	14	21.77	85	84	33	1	0	1	0
	KNOXVILLE	83	57	88	51	70	-4	0.00	-0.91	0.00	0.44	33	20.20	82	88	38	0	0	0	0
	MEMPHIS	89	68	94	64	79	0	0.45	-0.52	0.24	0.45	32	29.55	109	84	37	4	0	3	0
	NASHVILLE	88	61	93	54	74	-1	0.10	-0.90	0.10	0.10	6	17.56	72	86	31	3	0	1	0
TX	ABILENE	87	65	98	61	76	-4	0.91	-0.02	0.73	2.69	203	12.13	116	88	43	2	0	2	1
	AMARILLO	79	59	85	57	69	-5	0.75	0.04	0.66	3.02	299	11.96	165	92	48	0	0	3	1
	AUSTIN	91	69	100	67	80	-2	0.87	-0.12	0.67	0.91	64	12.96	79	91	42	3	0	2	1
	BEAUMONT	89	68	94	64	78	-3	2.35	0.87	1.14	2.36	117	23.67	104	96	52	4	0	4	2
	BROWNSVILLE	93	73	96	69	83	-2	1.07	0.52	0.73	1.09	145	12.09	151	97	55	7	0	3	1
	CORPUS CHRISTI	94	72	98	70	83	0	0.80	0.03	0.78	0.80	74	13.17	114	97	53	6	0	2	1
	DEL RIO	97	71	103	65	84	-1	0.09	-0.57	0.08	0.09	9	8.31	104	80	29	7	0	2	0
	EL PASO	94	66	97	61	80	-3	0.03	-0.08	0.03	0.03	20	0.79	43	41	11	7	0	1	0
	FORT WORTH	91	69	97	66	80	0	0.00	-0.92	0.00	0.00	0	12.67	70	86	41	5	0	0	0
	GALVESTON	87	72	89	70	79	-4	1.69	0.80	0.71	1.69	137	13.26	84	93	59	0	0	4	2
	HOUSTON	90	68	95	66	79	-3	2.52	1.07	1.32	2.52	125	26.13	123	95	48	4	0	5	2
	LUBBOCK	85	61	95	58	73	-4	0.08	-0.58	0.04	1.18	124	7.28	98	87	36	2	0	3	0
	MIDLAND	91	62	100	59	76	-5	0.00	-0.43	0.00	0.06	9	1.43	29	84	23	4	0	0	0
	SAN ANGELO	91	63	100	60	77	-4	1.42	0.76	0.51	1.42	148	7.78	85	91	35	4	0	4	2
	SAN ANTONIO	91	70	98	66	80	-1	0.36	-0.40	0.17	0.83	76	12.46	89	90	46	4	0	3	0
	VICTORIA	92	70	97	66	81	-1	0.00	-0.98	0.00	0.00	0	16.25	94	99	41	5	0	0	0
	WACO	91	66	100	64	78	-2	0.29	-0.62	0.29	0.30	23	15.49	87	99	45	4	0	1	0
	WICHITA FALLS	91	65	97	62	78	0	0.40	-0.48	0.36	0.54	41	11.74	96	94	38	4	0	2	0
UT	SALT LAKE CITY	85	60	91	57	73	4	0.12	-0.17	0.08	0.12	27	9.66	108	60	22	1	0	3	0
VA	LYNCHBURG	78	50	83	46	64	-6	0.03	-0.86	0.03	0.05	4	14.46	76	95	37	0	0	1	0
	NORFOLK	76	57	85	52	66	-8	0.71	-0.32	0.71	0.73	50	13.94	74	94	48	0	0	1	1
	RICHMOND	78	55	85	51	67	-6	0.06	-0.98	0.03	0.06	4	14.42	78	89	36	0	0	2	0
	ROANOKE	78	54	84	50	66	-5	0.00	-1.10	0.00	0.03	2	13.44	70	78	38	0	0	0	0
	WASH/DULLES	80	52	86	50	66	-4	0.00	-1.03	0.00	0.00	0	9.92	53	81	28	0	0	0	0
VT	BURLINGTON	67	50	73	47	59	-6	0.69	-0.26	0.40	0.69	50	12.84	89	90	47	0	0	3	0
WA	OLYMPIA	73	45	87	37	59	1	0.56	0.15	0.44	0.56	93	17.52	69	91	39	0	0	2	0
	QUILLAYUTE	67	46	87	37	57	2	0.21	-0.70	0.17	0.21	16	37.81	74	87	48	0	0	2	0
	SEATTLE-TACOMA	72	53	87	49	63	2	0.42	0.04	0.25	0.42	75	13.00	67	75	40	0	0	2	0
	SPOKANE	82	59	91	56	71	10	0.57	0.26	0.39	0.57	120	6.03	70	71	27	1	0	2	0
	YAKIMA	85	58	93	50	72	8	0.03	-0.11	0.03	0.03	14	3.54	85	60	21	3	0	1	0
WI	EAU CLAIRE	84	55	90	43	69	5	0.54	-0.63	0.52	0.56	34	11.07	87	86	30	1	0	2	1
	GREEN BAY	80	51	86	45	65	1	0.73	-0.29	0.73	0.73	51	11.04	89	80	30	0	0	1	1
	LA CROSSE	85	59	91	49	72	3	0.00	-1.24	0.00	0.10	5	9.81	68	78	29	1	0	0	0
	MADISON	80	52	86	45	66	1	0.07	-1.16	0.07	0.72	41	12.19	82	81	28	0	0	1	0
	MILWAUKEE	74	56	86	51	65	0	0.11	-0.93	0.11	0.11	7	13.43	92	73	36	0	0	1	0
WV	BECKLEY	73	48	79	44	60	-6	0.04	-0.96	0.04	0.29	20	16.99	85	88	40	0	0	1	0
	CHARLESTON	78	50	85	46	64	-6	0.00	-1.11	0.00	0.01	0	16.19	77	99	32	0	0	0	0
	ELKINS	74	42	79	39	58	-8	0.00	-0.97	0.00	0.36	26	16.42	77	94	36	0	0	0	0
	HUNTINGTON	80	51	85	46	65	-6	0.02	-0.94	0.02	0.03	2	17.84	87	92	33	0	0	1	0
WY	CASPER	74	49	82	44	62	2	1.25	0.89	0.51	1.76	331	8.56	141	97	47	0	0	6	1
	CHEYENNE	72	50	77	47	61	1	0.68	0.10	0.24	0.83	99	6.63	96	90	44	0	0	5	0
	LANDER	73	49	79	45	61	1	0.29	-0.07	0.16	1.27	233	9.44	121	88	46	0	0	3	0
	SHERIDAN	77	53	84	48	65	6	1.85	1.29	1.00	2.67	319	9.99	130	89	48	0	0	4	2

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

May Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: During May, atmospheric blocking resulted in unusual warmth across the North, especially from the Pacific Northwest into the upper Midwest. In fact, it was the warmest May on record in some Pacific Northwestern locations, fueled by an early-season heat wave peaking from May 11-20. Monthly temperatures averaged at least 5°F above normal as far east as Minnesota. In contrast, cooler-than-normal conditions dominated the East, particularly the middle Atlantic States.

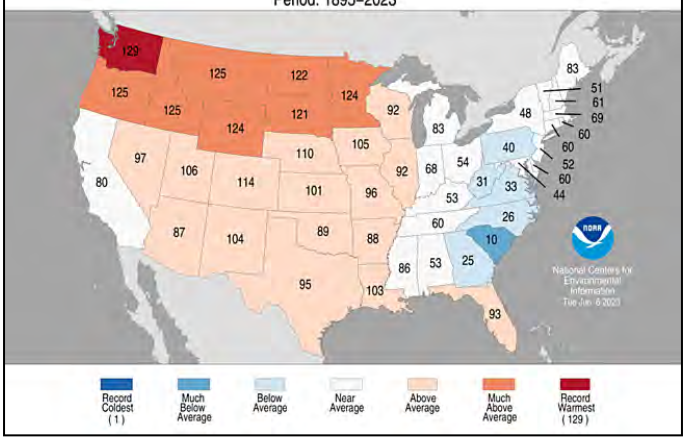
The same blocking high-pressure system responsible for the Northern warmth contributed to record-shattering dryness in parts of the Midwest and Northeast. Monthly rainfall totaling less than one-quarter inch marked the lowest May values on record in locations such as Omaha, NE (0.17 inch), and Reading PA (0.09 inch). By May 28, topsoil moisture rated very short to short climbed to 80 percent in Pennsylvania and 78 percent in Maryland. On the same date, topsoil moisture was rated at least 40 percent very short to short in all Midwestern States except Minnesota and North Dakota, led by Michigan (68 percent) and Missouri (62 percent). The Northern warmth and dryness promoted a rapid fieldwork pace, following earlier planting delays related to melting snow and low air and soil temperatures. For example, nearly all the northern Plains' sugarbeets were seeded in the 2-week period ending May 21, with North Dakota's planting progress advancing from 1 to 90 percent complete.

Meanwhile, copious rain fell on the High Plains from Montana to Texas, especially during the mid- to late-month period. Borger, TX, experienced its wettest month and May on record, with 9.70 inches—a value boosted by totals of at least an inch on May 3, 14, 17, and 18. On the strength of the Plains' rain, drought coverage in the contiguous U.S. fell to 18.95 percent by May 30, down from 24.42 percent early in the month and 62.95 percent on October 25, 2022. Despite the improvement, a core drought area persisted across much of Kansas, eastern Nebraska, and the northwestern half of Oklahoma. According to the *U.S. Drought Monitor*, Kansas led the nation on May 30 with nearly 57 percent of the state experiencing extreme to exceptional drought (D3 to D4). Correspondingly, Kansas led the U.S. on May 28 with 51 percent of its rangeland and pastures rated very poor to poor, followed by Nebraska at 43 percent. Additionally, late-spring rainfall on the central and southern Plains largely arrived too late to benefit winter wheat. On May 28, more than two-thirds (69 percent) of the winter wheat in Kansas was rated in very poor to poor condition, followed by Nebraska (51 percent) and Texas (40 percent).

Farther west, recovery from a drought that has lasted up to 3 years neared completion, aside from storage in larger reservoirs. By May 30, only 17 percent of the 11-state Western region was experiencing drought, down from nearly 74 percent as recently as early-November 2022. In California, runoff from earlier precipitation and melting snow led to ongoing flooding in the normally dry Tulare Lake basin, idling agricultural land and flooding low-lying communities in portions of the San Joaquin Valley. By the end of May, approximately one-third of the Sierra Nevada snowpack—containing more than 20 inches of liquid equivalency—had not yet melted, portending additional challenges for Western water managers contending with this year's heavy runoff. Meanwhile along the Colorado River, the surface elevation of Lake Mead—above Hoover Dam—rose to 1,054.28 feet by the end of May, up 13.36 feet from the end-of-month record low set on July 31, 2022. Farther north, however, patchy short-term drought began to re-emerge during May across roughly the northern one-third of the West, amid warmer-than-normal conditions. Some of the dryness was reflected by Oregon's statistics, which indicated that topsoil moisture was rated 60 percent very short to short by May 28. Elsewhere, much of the Deep South received ample rain during May, maintaining generally favorable conditions for pastures and summer crops. In fact, some previously dry areas, including Florida's peninsula, received beneficial May rainfall.

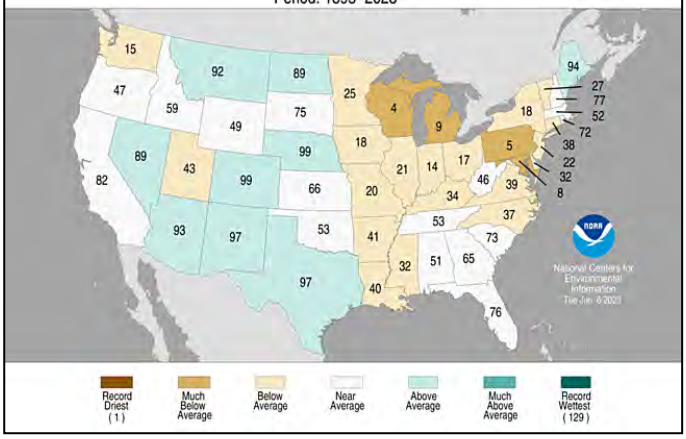
Historical Perspective: According to preliminary data provided by the National Centers for Environmental Information, the contiguous U.S. experienced its 11th-warmest, 29th-driest May during the 129-year period of record. The nation's monthly average temperature of 62.4°F was 2.2°F above the 1901-2000 mean. Warmer May weather has occurred several times in the last three decades, including 1998, 2000, 2001, 2012, and 2018. Meanwhile, May precipitation across the Lower 48 States averaged 2.56 inches, 88 percent of normal. That marked the nation's driest May since 2012, when an average of 2.50 inches fell.

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



State temperature rankings ranged from the tenth-coolest May in South Carolina to the warmest on record in Washington. Top-ten values for May warmth were observed in seven other North States, stretching from Oregon to Minnesota (figure 1). Meanwhile, state precipitation rankings ranged from the fourth-driest May in Wisconsin to the 31st-wettest May in Colorado and Nebraska (figure 2). In addition to Wisconsin, top-ten ranking for May dryness were achieved in Maryland, Michigan, and Pennsylvania.

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



Summary: Early-month freezes were reported on the Plains as far south as Nebraska and northern Kansas. Freezes also affected parts of the upper Midwest. Although North Platte, NE, reported a May 1 low of 21°F, lower readings have occurred there on that date as recently as 1989. Elsewhere, scattered, early-month frost was reported in the central and eastern Corn Belt, with temperatures remaining mostly above 32°F. Frost was also noted in parts of the interior Northeast and as far south as the Ohio Valley. Daily-record lows were widely scattered but included 39°F (on May 2) in Jackson, TN, and 46°F (on May 3) in Montgomery, AL. Meanwhile, record-setting warmth stretched from the Desert Southwest to the northern Rockies. Daily-record highs of 90°F occurred in Northwestern locations such as Boise, ID (on April 30), and Missoula, MT (on May 1). Spokane, WA, posted consecutive daily-record highs of 85°F on May 2-3. Later, heat developed across the south-central U.S. By May 5, Dallas-Fort Worth, TX, tallied a daily-record high of 96°F. The following day, record-setting highs for May 6 included 98°F in Topeka, KS; 93°F in Texarkana, AR; and 91°F in Kansas City, MO.

In the upper Mississippi River basin, snow-melt flooding quickly waned in early May. By April 30, a top-four crest—6.06 feet above flood stage—occurred in Fulton, IL; higher levels had been observed in April 1965 and 2001, along with July 1993. As runoff moved into drier areas of the Midwest, a top-seven crest was observed in Rock Island, IL, where the Mississippi River climbed 6.51 feet above flood stage on May 1. Meanwhile, the month began with heavy precipitation hammering the upper Great Lakes region. Marquette, MI, received 19.8 and 6.4 inches of snow, respectively, on May 1 and 2. Previously, Marquette's 1- and 2-day snowfall records during May had been 14.2 inches on May 10, 1990, and 22.4 inches on May 9-10, 1990. In addition, Marquette's snowiest May on record had occurred in 1990, with 22.6 inches. By May 2, precipitation spreading inland across northern California and the western Great Basin led to daily-record totals in Reno, NV (0.68 inch), and Montague, CA (0.55 inch). Reno, with snowfall totaling 0.5 inch on May 3, reported its 40th day this season with measurable snow, well above the former record of 35 days, set in 1921-22. Early-May accumulations also occurred on some of the highest Appalachian peaks, with a trace noted on the 3rd in West Virginia locations such as Charleston and Elkins. An observer near Davis, WV, received 20.3 inches from May 1-4, a single-storm state record for the month (previously, 12.0 inches from May 4-6, 1945, at Kumbrabow State Forest). Farther west, spotty showers on the Plains resulted in daily-record totals in North Platte, NE (1.47 inches on May 4), and Borger, TX (1.38 inches on May 3). North Platte had recently completed a record-dry April, tying 0.04 inch in 1928. In the upper Midwest, daily-record amounts reached 1.32 inches (on May 5) in Eau Claire, WI; 1.09 inches (on May 6) in Jamestown, ND; and 1.04 inches (on May 6) in Mobridge, SD. Meanwhile, showery weather continued in the Northwest and briefly affected southern California. Northwestern daily-record totals topped an inch in Burns, OR (1.14 inches on May 5), and Kalispell, MT (1.14 inches on May 6). In northern California, Redding netted a daily-record total of 2.02 inches on May 7. In southern California, record-breaking rainfall totals for May 4 reached 0.78 inch in Burbank and 0.52 inch in Camarillo. With a May 1-4 sum of 0.54 inch, the total (since July 1, 2022) in downtown Los Angeles climbed to 28.39 inches (204 percent of normal). In the history of Los Angeles' weather records, only seven July-June periods have featured higher totals: 1883-84, 1889-90, 1940-41, 1977-78, 1982-83, 1997-98, and 2004-05.

As the middle of the month approached, a complex, slow-moving storm system delivered heavy rain across much of the nation's mid-section, but largely bypassed some of the nation's driest areas in south-central and southwestern Kansas, as well as the northwestern half of Oklahoma. At the same time, excessive rainfall (locally 4 to 8 inches or more) sparked flooding in portions of the western Gulf Coast region. In northern Minnesota, International Falls received daily-record amounts on May 8 and 9, totaling 1.56 inches. By May 9, daily-record rainfall included 2.20 inches in Concordia, KS; 1.61 inches in Jackson, KY; and 1.48 inches in Tuscaloosa, AL. Meanwhile, scattered but locally severe thunderstorms developed across the Plains, South, and Midwest. On May 9, thunderstorm wind gusts were clocked to 78 mph in Springfield, MO, and 59 mph in Tulsa, OK. Earlier on the 9th, pre-dawn thunderstorms had produced

winds gusting from 70 to 90 mph in coastal southern Texas, with 84 mph recorded at Isla Blanca Park in the Brownsville Ship Channel entrance. On May 10 in New Mexico, wind gusts reached 71 mph in Clayton and 68 mph in Raton. Elsewhere on the 10th, Palacios, TX, measured 6.21 inches of rain—part of a very wet stretch that included 3.93 inches on May 13-14. Outside of the western Gulf Coast region, some of the heaviest rain fell from the central High Plains into the upper Midwest. Goodland, KS, received consecutive daily-record totals of 1.50 and 1.12 inches, respectively, on May 10 and 11. Daily-record totals topped 3 inches on the 11th in Imperial, NE (3.56 inches), and Colorado Springs, CO (3.18 inches). That marked the wettest day in May on record in Colorado Springs, toppling 2.34 inches on May 30, 1935. In Denver, CO, where 2.92 inches fell on the 11th, it was the wettest calendar day since May 6, 1973, when 3.27 inches fell. Denver's storm total (4.40 inches from May 10-12) represented more than 30 percent of its normal annual precipitation. By May 12, heavy rain shifted across portions of the northern Plains and Midwest, where daily-record amounts reached 2.49 inches in Columbus, OH, and 2.35 inches in Minot, ND. Downpours also returned to southern Texas, where Brownsville logged a record-setting total (2.61 inches) for May 13.

A Northwestern heat wave, rare for this time of year, resulted in multiple monthly record highs, starting on Sunday, May 14. On that date in Oregon, both Astoria and Seaside attained 93°F. Astoria tied a monthly record, originally set on May 16, 2008, while Seaside toppled its monthly mark of 86°F, attained most recently on May 19, 1978. Notably, Portland, OR, achieved highs of 90°F or greater on 4 consecutive days, from May 12-15. Prior to this year, Portland's May record of three 90-degree readings occurred in 1947 and 1987, with only the latter being observed on 3 consecutive days (May 6-8, 1987). Meanwhile in Washington, Hoquiam (91°F on the 14th) posted a monthly record high, shattering the standard of 87°F originally set on May 29, 2007. With a high of 92°F on the 14th, Quillayute, WA, tied a monthly record first achieved on May 7, 1987. Prior to the arrival of Northwestern heat, much of the nation's mid-section had experienced a brief surge of warmth. On May 7, daily-record highs were set in St. Louis, MO (93°F), and Moline, IL (92°F). Two days later, record-setting highs for May 9 included 91°F in Greenwood, MS, and 90°F in Little Rock, AR. Meanwhile, persistent heat in Florida led to consecutive daily-record highs (93 and 94°F, respectively) on May 11-12 in Naples. Elsewhere in Florida, daily-record highs for May 11 reached 95°F in Fort Myers and 94°F in Tampa.

In all, the Northwestern heat wave lasted more than a week, after starting on May 11 or 12. In Oregon locations such as Portland, Salem, and Eugene, May records were set with 9 consecutive days (May 12-20) of 80-degree warmth. Troutdale, OR, had 10 days in a row (May 11-20) with highs reaching 80°F or greater. Previous records, ranging from 6 to 8 days, had been set in 1938, 1947, 1958, 1973, 1983, and 1987, or a combination of those years. Vancouver, WA, and Portland recorded 5 days of 90-degree heat—on May 12-15 and 17—breaking monthly records of 3 days apiece. In addition, Portland's streak of 4 consecutive 90-degree days in May eclipsed a record originally set from May 6-8, 1987. On the 14th, Astoria, OR, reached or exceeded the 90-degree mark in May for only the fourth time on record, along with May 26, 2005; May 15, 2006; and May 16, 2008. In addition, Astoria tied a May record with a high of 93°F. Elsewhere in the Northwest, monthly records were shattered on the 14th in locations such as Seaside, OR (93°F), and Hoquiam, WA (91°F). Later, heat punched inland across the Northwest. On May 19-20, consecutive daily-record highs occurred in Pasco, WA (98°F both days), and Hermiston, OR (96 and 97°F). On the 20th, highs also reached or exceeded the 90-degree mark in Lewiston, ID (95°F); Montague, CA (93°F); and Reno, NV (90°F). Meanwhile, a few daily records were noted in the South, where highs on May 15 rose to 96°F in Fort Myers, FL, and 94°F in Tupelo, MS. Additional daily-record highs in Florida included 95°F (on May 17) in Vero Beach and 94°F (on May 15) in Pensacola. In contrast, a quick shot of cool air delivered daily-record lows (and freezes) on May 18 in dozens of Northeastern communities, including Saranac Lake, NY (16°F); Montpelier, VT (24°F); Concord, NH (25°F); Mount Pocono, PA (26°F); and Hartford, CT (31°F). Light freezes extended as far west as the lower Great Lakes region, where Akron-Canton, OH, reported 32°F.

During the second half of May, showery weather on the High Plains provided additional drought relief, following the major storm. Still, much of the rain arrived too late to rescue immature winter wheat, although rangeland, pastures, and summer crops greatly benefited. Drought-easing, daily-record totals included 1.81 inches (on the 14th) in Borger, TX, and 1.33 inches (on the 18th) in Russell, KS. In fact, Borger received more than an inch of rain on May 14, 17, and 18, totaling 4.38 inches. Locally heavy showers were also common across the South, where Orlando, FL, measured 3.90 inches, a record for May 18. Southern daily-record totals ranged from 1 to 3 inches in a multitude of locations, including Richmond, VA (2.78 inches on the 16th); Greenville-Spartanburg, SC (2.21 inches on the 16th); New Bern, NC (1.90 inches on the 19th); Alma, GA (1.73 inches on the 18th); Jackson, TN (1.54 inches on the 20th); and Paducah, KY (1.53 inches on the 19th). Meanwhile, out-of-season showers dotted the Southwest. In Arizona, daily-record amounts for May 18 included 0.48 inch in Tucson and 0.27 inch in Douglas. The following day, additional Arizona daily records were set in Prescott (1.61 inches) and Flagstaff (0.82 inch). With a 0.66-inch sum on the 16th, Safford, AZ, experienced its wettest day in May of the 21st century, surpassing 0.43 inch on May 19, 2015. In Utah, Capitol Reef National Park measured 1.74 inches in a 24-hour period on May 14-15. Farther east, beneficial rain spread northward along the Atlantic Coast, resulting in May 20 daily-record

totals of 2 to 3 inches or more in Providence, RI (3.02 inches), and Bridgeport, CT (2.34 inches).

Late in the month, dry weather dominated the country, except across the High Plains and environs, as well as portions of the Atlantic Coast States. The Southeastern storminess reached peak intensity during the Memorial Day weekend (May 27-29), when a low-pressure system moving ashore in the Carolinas delivered rain, cool conditions, and gusty winds. Daily-record totals were observed on May 27 in locations such as Columbia, SC (1.59 inches), and Savannah, GA (1.38 inches). In Charleston, SC, where May 26-27 rainfall totaled 2.09 inches, a north-northeasterly wind gust to 41 mph was clocked on the latter date. A similar gust (to 39 mph) had been reported on St. Simons Island, GA, on May 26. On May 28-29, Bluefield, WV, netted consecutive daily-record rainfall totals of 1.51 and 2.94 inches, respectively. Daily-record amounts also topped the 2-inch mark on May 29 in Virginia locations such as Danville (2.56 inches) and Blacksburg (2.30 inches). Earlier, showers had been concentrated across the Plains and Northwest. In Idaho, record-setting rainfall totals for May 23 included 1.27 inches in Idaho Falls and 0.46 inch in Pocatello. Eureka, NV, also reported a daily-record sum for May 23, receiving 0.91 inch. In New Mexico, a thunderstorm wind gust to 83 mph was recorded on May 24 near Clovis, at Cannon Air Force Base. Tucumcari, NM, measured gusts to 76 and 75 mph, respectively, on May 24 and 25. In fact, Tucumcari received measurable rain each day from May 21-28, totaling 1.46 inches. Daily-record rainfall totals were set in Plains locations such as Dalhart, TX (1.41 inches on May 25), and Sidney, NE (1.14 inches on May 26). Much heavier rain (isolated amounts greater than 10 inches) fell on May 25-26 in Hayes County, NE, north of Palisade. Flash flooding in the rain's wake sparked record flooding in Palisade along Stinking Water Creek and Frenchman Creek; previous high-water marks had been set on June 17, 1956, and June 22, 2011, respectively. In contrast, May rainfall totaled less than one-quarter inch in several Midwestern communities, including Omaha, NE (0.17 inch). Omaha set a May record for dryness (previously, 0.55 inch in 1925 and 1989). Record-low May totals were more widespread in the Northeast, where Pennsylvania locations such as Harrisburg (0.19 inch) and Reading (0.09 inch) toppled standards originally set in 1902 and 1903, respectively. The only drier month in Reading's history was October 1924, with 0.04 inch. May-record dryness extended to other Northeastern communities, including Wilmington, DE (0.20 inch); Philadelphia, PA (0.24 inch); and Binghamton, NY (0.71 inch). In Michigan, Grand Rapids (0.84 inch) completed its driest May since 1936, when 0.72 inch fell. Farther west, however, Texas locations such as Borger (9.70 inches) and Dalhart (6.62 inches) completed a record-wet May. For Borger, it was also the wettest month on record, edging 9.66 inches in July 1958. Record-setting May wetness extended as far north as western Nebraska, where Imperial received a monthly sum of 9.09 inches.

Late in the month, a hot spell peaked across the nation's mid-section. From May 22-25, Sisseton, SD, attained highs of 90°F or greater on 4 consecutive days. Sisseton's highs of 92°F on May 22 and 23 were records for those respective dates. Fargo, ND, also achieved a daily-record high for May 23, noting 93°F. In contrast, chilly air settled across the Great Lakes and Northeastern States. By May 25, daily-record lows dipped to 28°F in Marquette, MI, and 30°F in Watertown, NY. Elsewhere in New York, Saranac Lake noted 26°F, tying a record for the date, on May 26. As the Memorial Day weekend began on Saturday, May 27, cloudiness, onshore winds, and rain showers helped to hold high temperatures to just 61°F in locations such as Fayetteville, NC, and Savannah, GA. Savannah also tied a daily-record low on May 27, with a low of 53°F. On May 28, maximum temperatures failed to reach the 60-degree mark in several Kentucky communities, including Jackson (56°F) and London (59°F). Farther north, however, record-setting warmth covered parts of the northern U.S. For example, May 28 featured daily-record highs in Maine locations such as Augusta (92°F) and Bangor (91°F). Meanwhile in Michigan, a monthly record high was established on May 31 in Gaylord, with a reading of 93°F (previously, 92°F on May 25, 2010). Gaylord also posted highs of 90°F or greater each day from May 30 – June 2. In the Northwest, where monthly temperatures averaged at least 4°F above normal, 1992 records for record-high May average temperature were broken in Oregon locations such as Portland (64.3°F) and Troutdale (63.4°F). Similarly, May average temperature records from 1958 were tied or broken in Vancouver, WA (62.7°F), and Salem, OR (61.9°F). Portland also set several May records related to lack of precipitation, including 25 dry days (previously, 24 days in 1992, 2001, and 2018) and 16 consecutive days with no rain (previously, 15 days in 1995).

Following Alaska's coldest April since 2013, with statewide temperatures averaging 6.6°F below normal, mild weather (2.0°F above normal) returned in May. Any cooler-than-normal conditions were focused across the western part of the state, while warmer-than-normal weather prevailed in parts of northern and southeastern Alaska. However, signs of winter were still apparent early in the month, when Anchorage netted a daily-record precipitation total of 0.57 inch on May 3, along with 1.7 inches of snow. Farther north, Fairbanks topped 60°F for the first time this year on May 10, followed by highs of 70°F on May 16 and 80°F, a record for the date, on May 19. As the warm weather arrived, heavy precipitation fell in parts of southern Alaska. For example, Kodiak received more than an inch of rain each day from May 8-10, totaling 4.42 inches. Similarly, Ketchikan netted a May 11-13 sum of 3.94 inches, aided by a daily-record total of 2.66 inches on the middle date. Meanwhile, Bethel received consecutive daily-record amounts on May 14-15, totaling 1.03 inches. In the Aleutians, Cold Bay also measured a record-setting sum (0.85 inch) for May 14. By mid-May, the month's warmest weather featured daily-record

highs in locations such as Utqiagvik (40°F on the 14th) and Sitka (82°F on the 18th). On May 17-18, Juneau collected consecutive daily-record highs (73 and 76°F, respectively). Later, King Salmon reported measurable rain on each of the last 10 days of the month, totaling 2.23 inches. For the month, rainfall was more than twice the normal value in locations such as Gulkana (2.41 inches, or 317 percent of normal); King Salmon (2.99 inches, or 225 percent); and Delta Junction (1.90 inches, or 250 percent). The bulk of Gulkana's rain, 2.21 inches, fell from May 29-31. Additionally, May rainfall topped the 10-inch mark in Kodiak (10.64 inches, or 182 percent of normal) and Yakutat (10.59 inches, or 135 percent). At month's end, chilly weather returned across much of the state. In Kotzebue, temperatures remained below 40°F on 7 consecutive days from May 28 – June 3. Bettles stayed below 50°F each day from May 31 – June 3 and reported consecutive freezes (with lows of 30 and 29°F, respectively) on the 2nd and 3rd.

Hawaii experienced a relatively quiet month, with near-normal temperatures and pockets of heavier showers. Some of the heaviest rain fell across the western Hawaiian Islands, where Lihue measured 3.90 inches (179 percent of normal). However, all major islands except Maui reported numerous above-average monthly totals. May rainfall at the state's major airport observation sites ranged from 0.23 inch (32 percent of normal) in Kahului, Maui, to 5.46 inches (78 percent) in Hilo, on the Big Island.

Fieldwork

Fieldwork summary provided by USDA/NASS

Except for the East and Southwest, May was warmer than average. Parts of the upper Midwest, Pacific Northwest, northern Plains, and northern Rockies recorded temperatures 6°F or more above normal. In contrast, some locations in Alabama, southern Arizona, southern California, and the Carolinas recorded temperatures 4°F or more below normal. Meanwhile, most of the eastern half of the country was drier than normal, but at least twice the normal amount of May rainfall was recorded in parts of the Great Basin, Great Plains, and Southwest, as well as a few locations in Maine and the Southeast. Some locations on the Great Plains recorded more than 8 inches of rain.

By May 7, producers had planted 49 percent of the nation's corn crop, 28 percentage points ahead of last year and 7 points ahead of the 5-year average. Twelve percent of the nation's corn acreage had emerged by May 7, seven percentage points ahead of the previous year and 1 point ahead of average. By May 21, producers had planted 81 percent of the nation's corn crop, 12 percentage points ahead of last year and 6 points ahead of average. Fifty-two percent of the nation's corn acreage had emerged by May 21, seventeen percentage points ahead of the previous year and 7 points ahead of average. By June 4, producers had planted 96 percent of the nation's corn crop, 3 percentage points ahead of last year and 5 points ahead of average. At that time, corn planting progress was equal to or ahead of the 5-year average in 17 of the 18 estimating states. Eighty-five percent of the nation's corn acreage had emerged by June 4, nine percentage points ahead of the previous year and 8 points ahead of average. On June 4, sixty-four percent of the nation's corn acreage was rated in good to excellent condition, 9 percentage points below the same time last year.

Thirty-five percent of the nation's soybean acreage was planted by May 7, twenty-four percentage points ahead of last year and 14 points ahead of the 5-year average. Nine percent of the nation's soybean acreage had emerged by May 7, six percentage points ahead of last year and 5 points ahead of average. Sixty-six percent of the nation's soybean acreage was planted by May 21, nineteen percentage points ahead of last year and 14 points ahead of average. Thirty-six percent of the nation's soybean acreage had emerged by May 21, seventeen percentage points ahead of last year and 12 points ahead of average. Ninety-one percent of the nation's soybean acreage was planted by June 4, fifteen percentage points ahead of both last year and the 5-year average. At that time, soybean planting progress was ahead of average in all 18 estimating states. Seventy-four percent of the nation's soybean acreage had emerged by June 4, twenty percentage points ahead of last year and 18 points ahead of average. On June 4, sixty-two percent of the nation's soybean acreage was rated in good to excellent condition.

By May 7, thirty-eight percent of the nation's winter wheat crop was headed, 6 percentage points ahead of last year and 3 points ahead of the 5-year average. By May 21, sixty-one percent of the nation's winter wheat crop was headed, equal to both last year and the 5-year average. By June 4, eighty-two percent of the nation's winter wheat crop was headed, 4 percentage points ahead of the previous year and 1 point ahead of average. Four percent of the 2023 winter wheat acreage had been harvested by June 4, one percentage point behind last year but equal to the 5-year average. On June 4, thirty-six percent of the 2023 winter wheat crop was reported in good to excellent condition, 6 percentage points above the same time last year.

Nationwide, 22 percent of the cotton crop was planted by May 7, one percentage point behind both the previous year and the 5-year average. Forty-five percent of the cotton crop was planted by May 21, seven percentage points behind the previous year and 5 points behind average. Seventy-one percent of the cotton crop was planted by June 4, eleven percentage points behind the previous year and 4 points behind average. Six percent of the nation's cotton acreage had reached the squaring stage by June 4, four percentage points behind both last year and the 5-year average. On June 4, fifty-one percent of the 2023 cotton

acreage was rated in good to excellent condition, 3 percentage points above the same time last year.

Twenty-four percent of the nation's sorghum acreage was planted by May 7, two percentage points ahead of the previous year but equal to the 5-year average. Thirty-three percent of the nation's sorghum acreage was planted by May 21, one percentage point ahead of the previous year but equal to the average. Forty-nine percent of the nation's sorghum acreage was planted by June 4, five percentage points behind the previous year and 4 points behind average. Texas had planted 85 percent of its sorghum acreage by June 4, equal to the previous year but 3 percentage points behind average.

By May 7, producers had seeded 72 percent of the 2023 rice acreage, 9 percentage points ahead of both the previous year and the 5-year average. By May 7, fifty-five percent of the nation's rice acreage had emerged, 20 percentage points ahead of last year and 14 points ahead of average. By May 21, producers had seeded 90 percent of the 2023 rice acreage, 1 percentage point ahead of the previous year and 2 points ahead of average. By May 21, seventy-six percent of the nation's rice acreage had emerged, 12 percentage points ahead of last year and 10 points ahead of average. By June 4, eighty-eight percent of the nation's rice acreage had emerged, equal to last year but 1 percentage point ahead of average. On June 4, seventy percent of the nation's rice acreage was rated in good to excellent condition, 2 percentage points below the same time last year.

Nationally, oat producers had seeded 60 percent of this year's acreage by May 7, six percentage points ahead of the previous year but 4 points behind the 5-year average. Forty-two percent of the nation's oat acreage was emerged by May 7, seven percentage points ahead of the previous year but 1 point behind average. Nationally, oat producers had seeded 82 percent of this year's acreage by May 21, six percentage points ahead of the previous year but 3 points behind average. Sixty-five percent of the nation's oat acreage had emerged by May 21, nine percentage points ahead of the previous year but 2 points behind average. Nationally, oat producers had seeded 97 percent of this year's acreage by June 4, four percentage points ahead of the previous year and 1 point ahead of average. Eighty-six percent of the nation's oat acreage had emerged by June 4, seven percentage points ahead of the previous year but equal to the 5-year average. Thirty-two percent of the nation's oat acreage had headed by June 4, seven percentage points ahead of last year and 2 points ahead of average. On June 4, fifty-seven percent of the nation's oat acreage was rated in good to excellent condition, 2 percentage points above the same time last year.

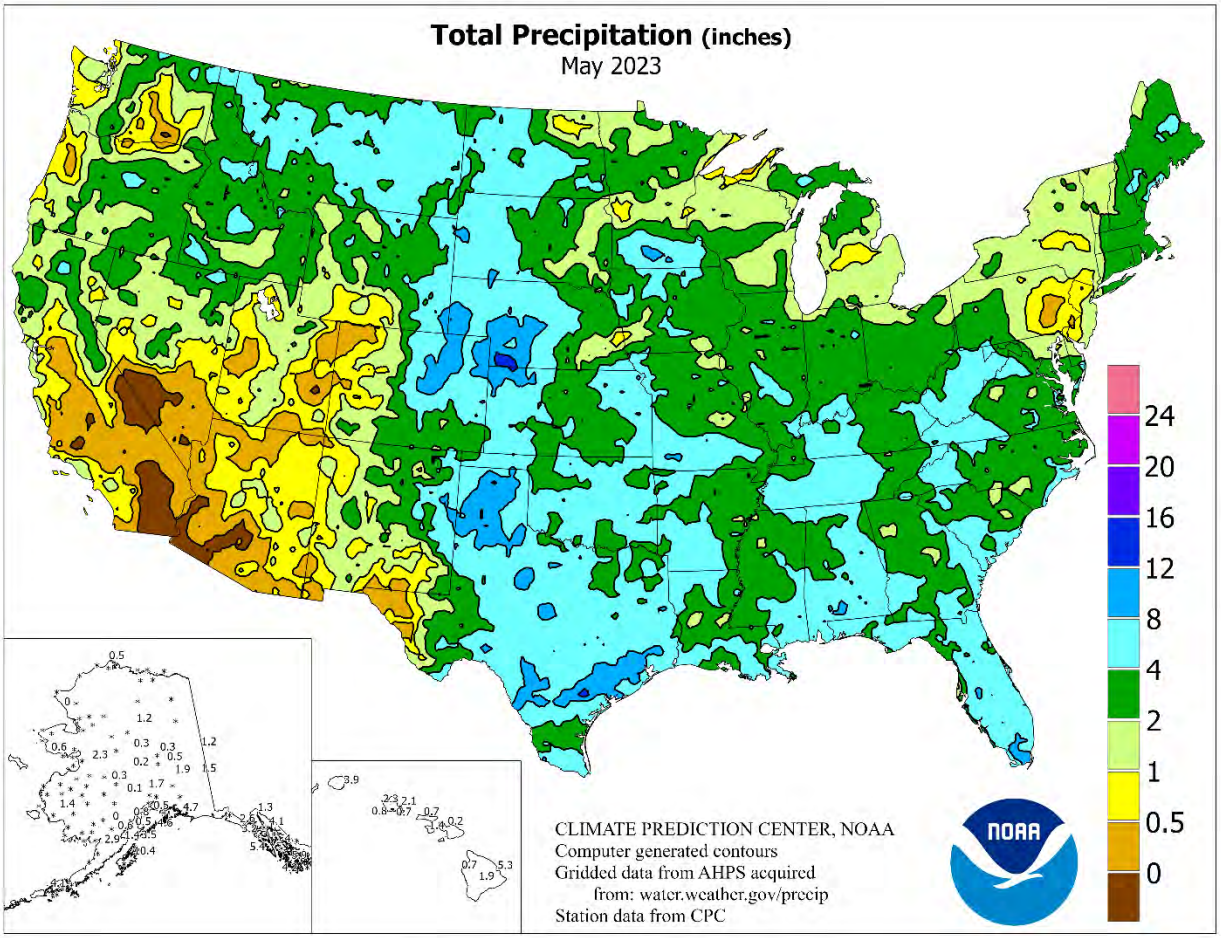
Thirty-eight percent of the nation's barley crop was planted by May 7, eight percentage points behind last year and 12 points behind the 5-year average. Eleven percent of the nation's barley crop had emerged by May 7, nine percentage points behind the previous year and 8 points behind average. Seventy percent of the nation's barley crop was planted by May 21, equal to last year but 10 percentage points behind average. Thirty-three percent of the nation's barley crop had emerged by May 21, twelve percentage points behind the previous year and 17 points behind average. Ninety-two percent of the nation's barley crop was planted by June 4, two percentage points ahead of last year but 3 points behind average. Seventy-two percent of the nation's barley crop had emerged by June 4, one percentage point ahead of the previous year but 8 points behind average. On June 4, sixty-five percent of the nation's barley acreage was rated in good to excellent condition, 19 percentage points above the same time last year.

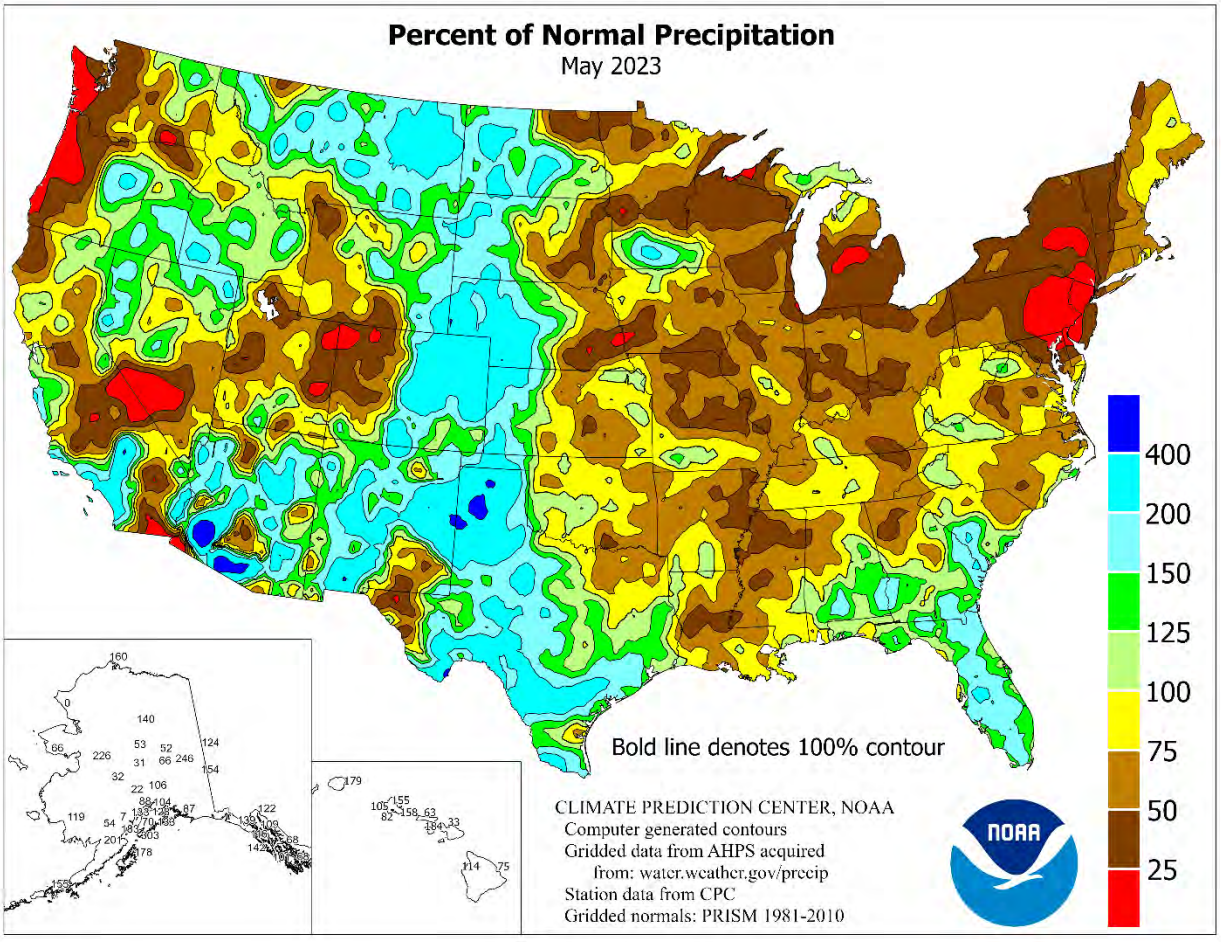
By May 7, twenty-four percent of the spring wheat crop was seeded, 2 percentage points behind last year and 14 points behind the 5-year average. By May 7, five percent of the nation's spring wheat crop had emerged, 3 percentage points behind the previous year and 6 points behind average. By May 21, sixty-four percent of the spring wheat crop was seeded, 16 percentage points ahead of last year but 9 points behind average. By May 21, thirty-two percent of the nation's spring wheat crop had emerged, 5 percentage points ahead of the previous year but 8 points behind average. By June 4, ninety-three percent of the spring wheat crop was seeded, 12 percentage points ahead of last year but equal to the 5-year average. By June 4, seventy-six percent of the nation's spring wheat crop had emerged, 23 percentage points ahead of the previous year and 2 points ahead of average. On June 4, sixty-four percent of the spring wheat was rated in good to excellent condition.

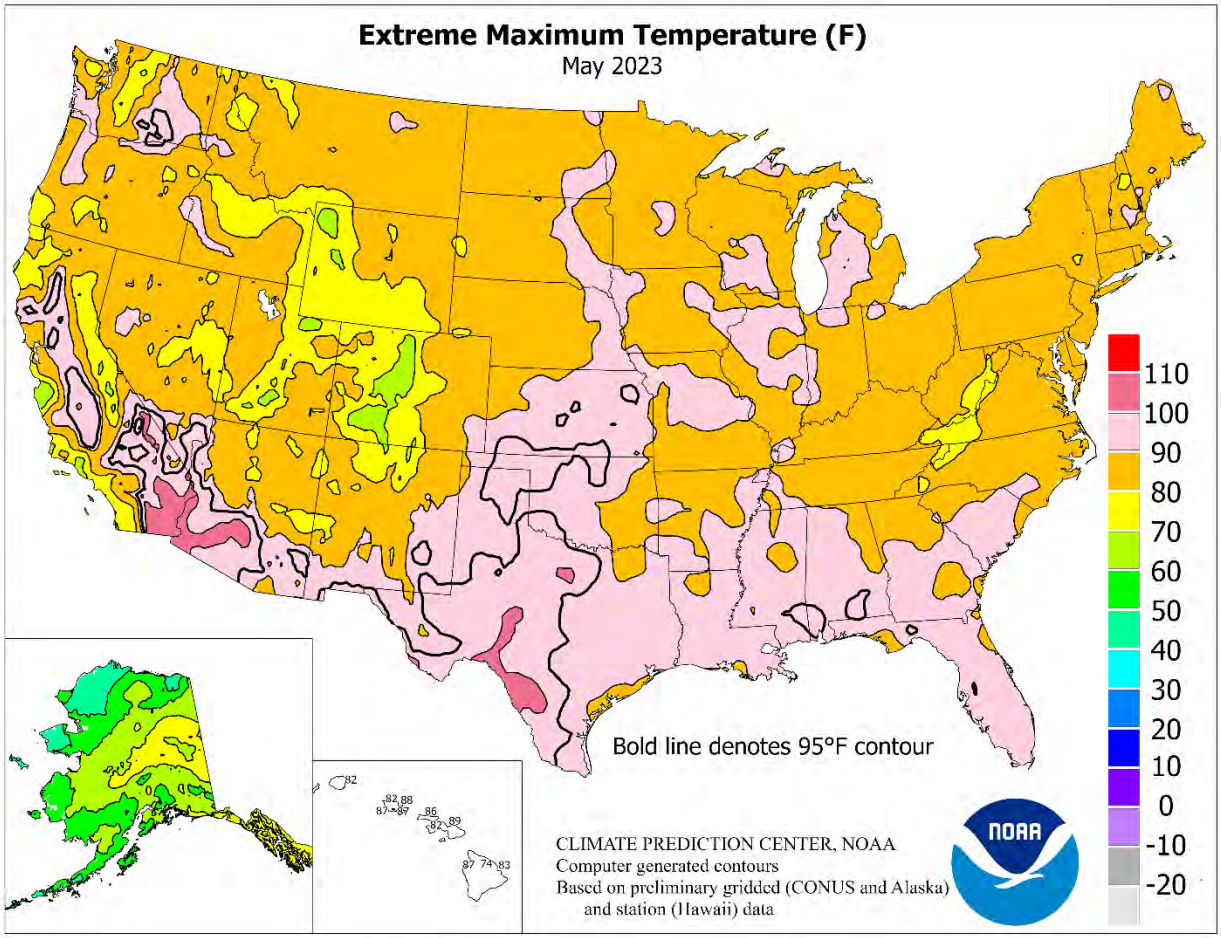
Nationally, producers had planted 17 percent of the 2023 peanut acreage by May 7, six percentage points behind both the previous year and the 5-year average. Producers had planted 55 percent of the 2023 peanut acreage by May 21, seven percentage points behind last year and 6 points behind average. Producers had planted 85 percent of the 2023 peanut acreage by June 4, two percentage points behind last year but equal to the 5-year average. On June 4, seventy-two percent of the nation's peanut acreage was rated in good to excellent condition, 1 percentage point below the same time last year.

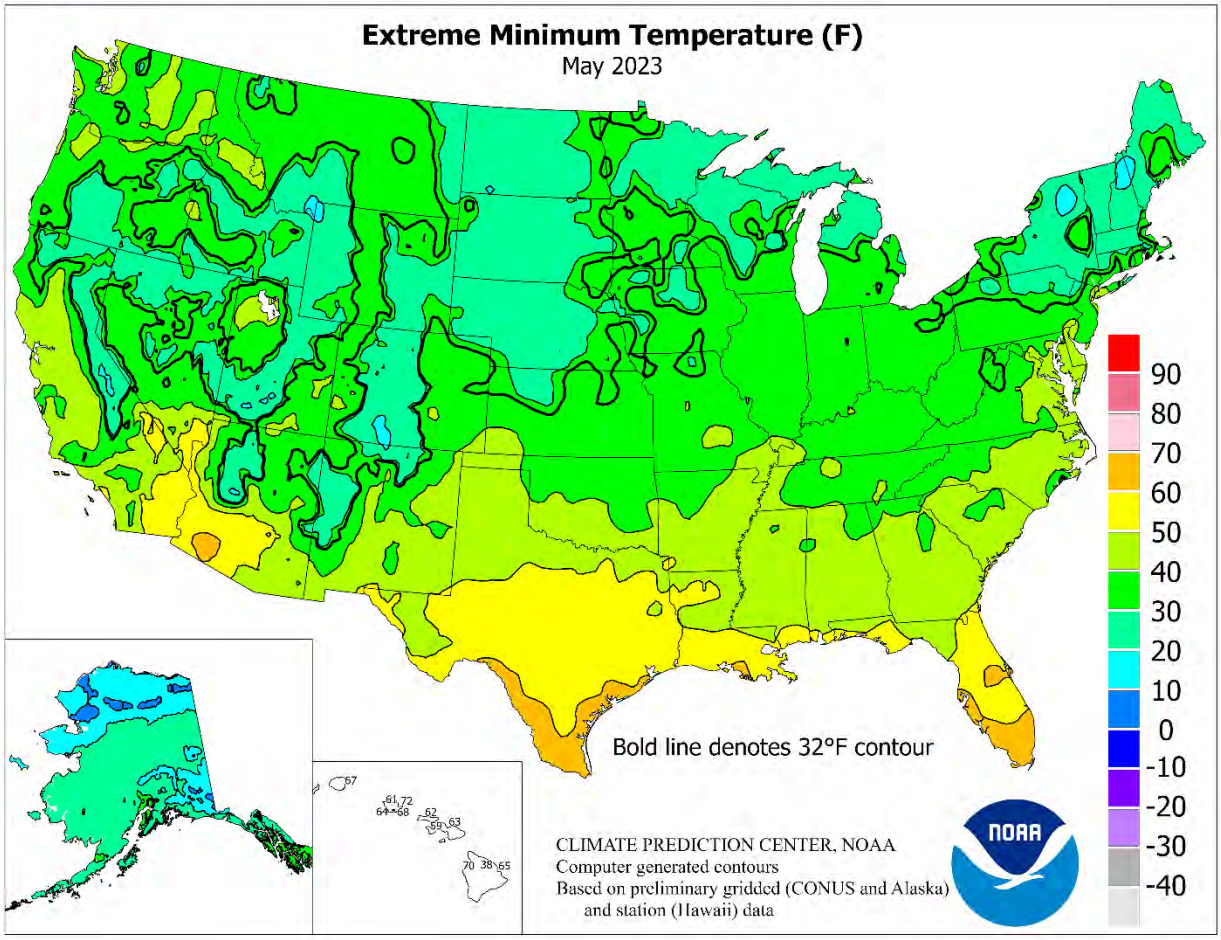
By May 7, forty-one percent of the sugarbeet crop was planted, 16 percentage points ahead of last year but 15 points behind the 5-year average. By May 21, ninety-five percent of the sugarbeet crop was planted, 47 percentage points ahead of last year and 11 points ahead of average.

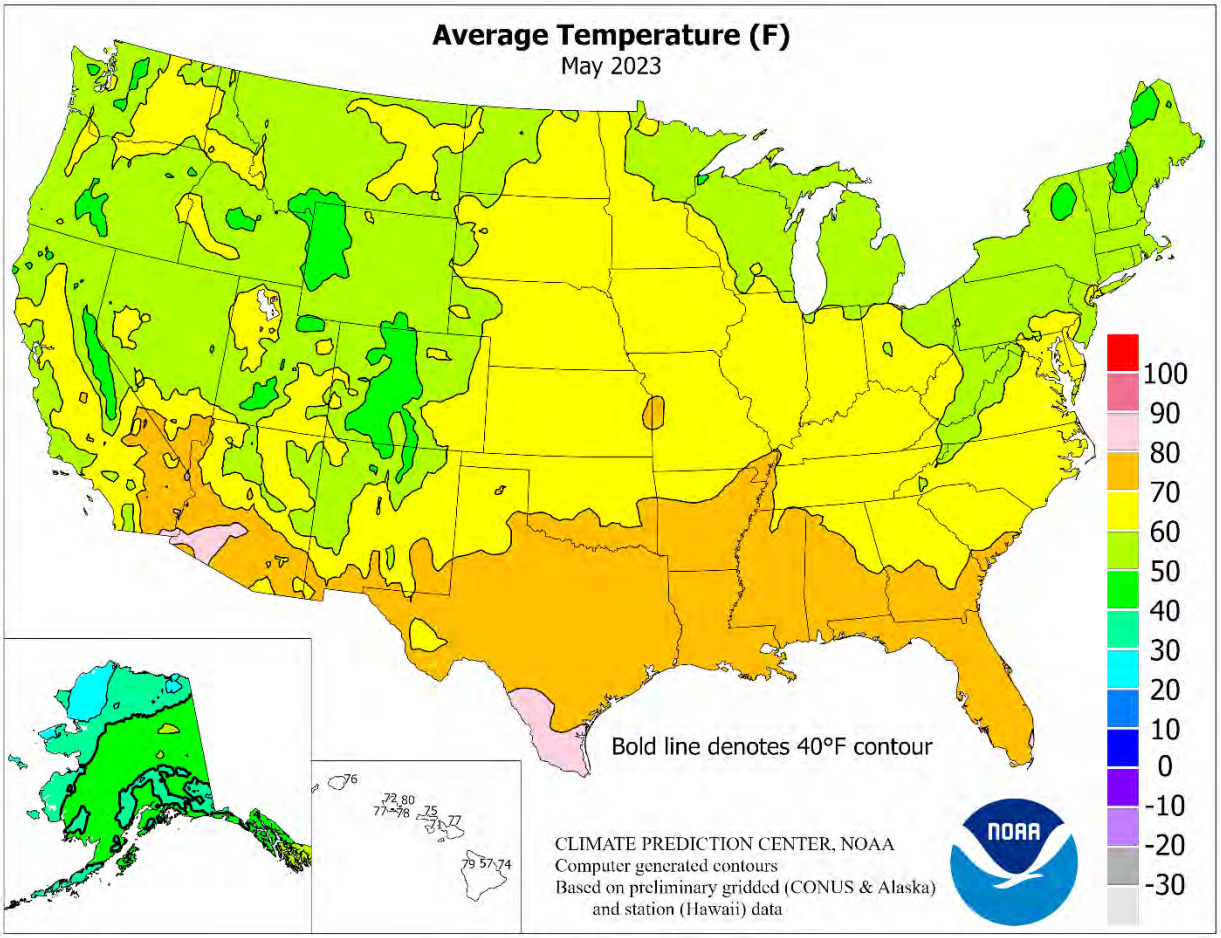
Five percent of the nation's 2023 sunflower acreage was planted by May 21, one percentage point ahead of last year but 5 points behind the 5-year average. Forty percent of the sunflower acreage was planted by June 4, nine percentage points ahead of last year but 1 point behind average.

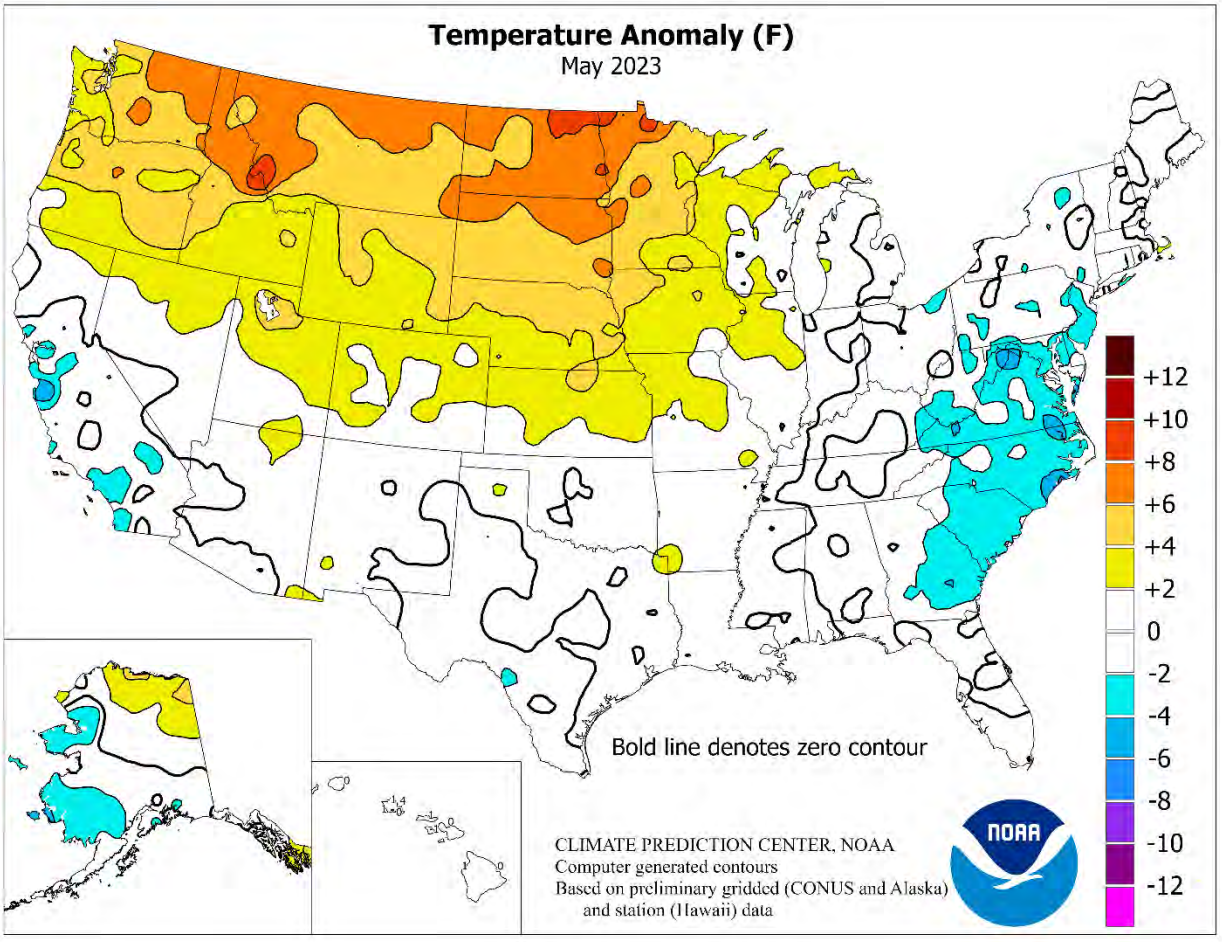

Total Precipitation (inches)
May 2023
24
20
16
12
8
4
2
1
0.5
0
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Gridded data from AHPS acquired
from: water.weather.gov/precip
Station data from CPC
NOAA


Percent of Normal Precipitation
May 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)
May 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)
May 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)
May 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)
May 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

May 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	47	-2	0.83	0.18	WICHITA	68	1	3.11	-2.06	TOLEDO	60	-2	0.89	-2.93
BARROW	26	0	0.45	0.17	KY LEXINGTON	65	-1	2.51	-2.93	YOUNGSTOWN	58	-1	1.31	-2.41
FAIRBANKS	52	1	0.28	-0.26	LOUISVILLE	67	-1	4.04	-1.14	OK OKLAHOMA CITY	69	1	5.97	0.66
JUNEAU	50	1	4.07	0.56	PADUCAH	69	1	3.96	-0.91	TULSA	70	0	3.06	-2.67
KODIAK	43	-2	10.41	4.57	LA BATON ROUGE	78	3	1.94	-3.29	OR ASTORIA	57	3	1.20	-2.20
NOME	35	-2	0.59	-0.30	LAKE CHARLES	75	-1	4.75	-0.65	BURNS	57	4	2.01	0.74
AL BIRMINGHAM	72	0	3.27	-1.64	NEW ORLEANS	78	1	3.28	-2.36	EUGENE	61	5	0.35	-2.11
HUNTSVILLE	70	-1	2.73	-1.94	SHREVEPORT	75	1	0.00	-4.46	MEDFORD	64	4	1.02	-0.31
MOBILE	75	1	4.32	-1.06	MA BOSTON	60	2	2.22	-1.03	PENDLETON	63	5	0.44	-1.01
MONTGOMERY	73	-1	2.62	-1.26	WORCESTER	58	1	2.41	-1.15	PORTLAND	64	5	0.90	-1.61
AR FORT SMITH	72	2	3.10	-2.53	MD BALTIMORE	63	-2	0.57	-3.29	SALEM	62	4	0.60	-1.65
LITTLE ROCK	74	4	1.72	-3.36	ME CARIBOU	52	-1	2.75	-0.71	PA ALLENTOWN	58	-4	0.22	-3.43
AZ FLAGSTAFF	52	0	1.27	0.50	PORTLAND	55	0	3.33	-0.34	ERIE	56	-3	1.64	-1.86
PHOENIX	83	1	0.00	-0.13	MI ALPENA	53	-1	0.89	-1.89	MIDDLETOWN	61	-2	0.19	-3.64
PRESCOTT	61	-1	0.45	-0.01	GRAND RAPIDS	59	0	0.75	-3.25	PHILADELPHIA	62	-2	0.24	-3.11
TUCSON	77	0	0.53	0.33	HOUGHTON LAKE	60	1	0.00	-0.72	PITTSBURGH	59	-2	1.65	-2.18
CA BAKERSFIELD	71	0	0.15	-0.10	LANSING	59	0	0.81	-2.85	WILKES-BARRE	58	-3	0.86	-2.40
EUREKA	52	-2	1.05	-0.61	MUSKEGON	59	1	0.84	-2.54	WILLIAMSPORT	59	-2	0.44	-3.42
FRESNO	71	0	0.33	-0.09	TRAVERSE CITY	56	1	1.42	-1.43	RI PROVIDENCE	57	-2	3.45	0.08
LOS ANGELES	61	-3	0.28	0.00	MN DULUTH	54	2	0.76	-2.61	SC CHARLESTON	71	-2	2.95	-0.37
REDDING	70	1	2.81	1.00	INT_L FALLS	57	6	2.13	-0.94	COLUMBIA	69	-3	4.94	1.46
SACRAMENTO	64	-2	0.25	-0.50	MINNEAPOLIS	64	5	1.60	-2.30	FLORENCE	69	-4	2.00	-1.70
SAN DIEGO	62	-3	0.08	-0.19	ROCHESTER	61	3	4.47	0.12	GREENVILLE	66	-3	4.63	0.57
SAN FRANCISCO	59	-1	0.71	0.23	ST. CLOUD	62	6	0.88	-2.79	SD ABERDEEN	64	6	1.53	-1.74
STOCKTON	65	-3	0.33	-0.24	MO COLUMBIA	68	2	3.93	-0.84	HURON	64	6	1.00	-2.15
CO ALAMOSA	53	1	0.85	0.25	KANSAS CITY	67	2	4.19	-1.13	RAPID CITY	59	5	5.62	2.16
CO SPRINGS	58	1	5.22	3.24	SAINT LOUIS	70	2	1.57	-3.26	SIOUX FALLS	65	6	1.26	-2.60
DENVER INTL	59	2	5.48	3.31	SPRINGFIELD	67	1	6.82	1.26	TN BRISTOL	64	-1	3.75	-0.07
GRAND JUNCTION	65	3	0.19	-0.65	MS JACKSON	74	1	1.50	-2.86	CHATTANOOGA	69	-1	2.14	-1.80
PUEBLO	64	2	1.13	-0.44	MERIDIAN	73	0	4.03	-0.17	KNOXVILLE	67	-1	1.34	-2.79
CT BRIDGEPORT	59	-1	2.57	-1.00	TUPELO	73	1	2.11	-3.11	MEMPHIS	73	1	2.02	-3.25
HARTFORD	59	-1	2.96	-0.83	MT BILLINGS	61	5	2.73	0.37	NASHVILLE	70	1	4.48	-0.55
DC WASHINGTON	65	-2	1.34	-2.60	BUTTE	53	5	2.70	0.68	TX ABILENE	74	0	5.03	1.82
DE WILMINGTON	62	-1	0.20	-3.37	CUT BANK	57	7	1.65	0.00	AMARILLO	67	0	7.19	4.91
FL DAYTONA BEACH	76	0	4.15	0.46	GLASGOW	63	7	3.72	1.50	AUSTIN	77	0	4.27	-0.77
JACKSONVILLE	74	-1	4.96	1.54	GREAT FALLS	57	6	2.61	0.18	BEAUMONT	78	1	7.12	2.42
KEY WEST	82	1	2.16	-0.96	HAVRE	61	7	2.47	0.61	BROWNSVILLE	82	0	4.24	2.02
MIAMI	81	1	5.83	-0.49	MISSOULA	61	8	2.16	0.39	CORPUS CHRISTI	80	1	3.33	-0.06
ORLANDO	78	1	3.17	-0.85	NC ASHEVILLE	63	-1	3.57	-0.57	DEL RIO	79	0	4.98	1.93
PENSACOLA	76	0	5.15	1.25	CHARLOTTE	68	-1	2.76	-0.60	EL PASO	77	2	0.12	-0.31
TALLAHASSEE	76	1	2.84	-0.51	GREENSBORO	64	-3	3.14	-0.34	FORT WORTH	76	2	2.31	-2.47
TAMPA	80	0	4.13	1.52	HATTERAS	66	-3	4.14	-0.23	GALVESTON	78	0	3.22	0.19
WEST PALM BEACH	79	1	5.48	0.57	RALEIGH	67	-2	1.74	-1.64	HOUSTON	77	-1	8.63	3.61
GA ATHENS	68	-3	3.01	-0.27	WILMINGTON	70	-2	5.54	1.00	LUBBOCK	70	0	5.25	2.56
ATLANTA	70	-1	1.56	-2.00	ND BISMARCK	61	6	2.97	0.47	MIDLAND	74	-1	0.96	-0.61
AUGUSTA	68	-5	3.48	0.43	DICKINSON	59	6	3.01	0.46	SAN ANGELO	76	1	4.17	1.12
COLUMBUS	71	-3	4.85	1.61	FARGO	65	8	2.52	-0.57	SAN ANTONIO	76	0	3.78	-0.63
MACON	71	-2	3.78	1.13	GRAND FORKS	62	8	1.12	-1.68	VICTORIA	78	1	3.06	-2.17
SAVANNAH	71	-3	4.33	0.70	JAMESTOWN	62	7	3.77	0.50	WACO	73	-1	5.25	0.81
HI HILO	74	0	5.27	-1.72	NE GRAND ISLAND	65	4	1.76	-2.94	WICHITA FALLS	72	0	3.25	-0.56
HONOLULU	78	0	0.67	-0.15	LINCOLN	67	4	0.51	-4.40	UT SALT LAKE CITY	67	6	0.51	-1.31
KAHULUI	77	0	0.23	-0.48	NORFOLK	66	5	0.82	-2.96	VA LYNCHBURG	63	-1	1.94	-2.04
LIHUE	76	0	3.89	1.72	NORTH PLATTE	62	3	7.22	3.87	NORFOLK	64	-4	2.56	-1.22
IA BURLINGTON	65	2	2.73	-2.20	OMAHA	67	3	0.17	-4.49	RICHMOND	65	-2	4.43	0.43
CEDAR RAPIDS	63	3	2.35	-1.90	SCOTTSBLUFF	61	4	6.19	3.41	ROANOKE	64	-2	2.29	-2.02
DES MOINES	66	4	3.33	-1.91	VALENTINE	62	4	3.64	0.13	WASH/DULLES	62	-2	1.48	-3.25
DUBUQUE	62	3	2.16	-2.14	NH CONCORD	55	-2	1.54	-1.93	VT BURLINGTON	57	-1	1.82	-1.94
SIOUX CITY	65	4	4.35	0.48	NJ ATLANTIC_CITY	58	-4	1.30	-2.04	WA OLYMPIA	59	4	0.59	-1.66
WATERLOO	64	3	1.69	-2.92	NEWARK	63	0	0.81	-3.15	QUILLAYUTE	56	4	0.50	-3.75
ID BOISE	65	5	1.06	-0.39	NM ALBUQUERQUE	67	1	0.68	0.24	SEATTLE-TACOMA	61	3	0.92	-0.96
LEWISTON	67	7	0.68	-1.01	NV ELY	52	0	0.75	-0.30	SPOKANE	64	8	1.30	-0.25
POCATELLO	58	4	2.01	0.61	LAS VEGAS	78	1	0.00	-0.07	YAKIMA	65	6	0.11	-0.63
IL CHICAGO/O_HARE	62	2	0.69	-3.80	RENO	60	0	2.41	1.85	WI EAU CLAIRE	60	3	2.04	-1.87
MOLINE	66	3	1.37	-3.30	WINNEMUCCA	58	2	1.17	0.04	GREEN BAY	58	1	1.31	-2.04
PEORIA	65	2	1.81	-2.88	NY ALBANY	59	-1	1.04	-2.37	LA CROSSE	63	2	1.28	-3.05
ROCKFORD	61	1	1.99	-2.19	BINGHAMTON	56	0	0.58	-3.20	MADISON	60	2	0.86	-3.24
SPRINGFIELD	65	0	3.52	-1.00	BUFFALO	56	-2	1.09	-2.28	MILWAUKEE	58	0	0.88	-2.66
IN EVANSVILLE	67	0	3.56	-1.56	ROCHESTER	56	-3	1.37	-1.50	WV BECKLEY	59	-2	3.92	-0.76
FORT WAYNE	61	-1	4.03	-0.56	SYRACUSE	57	-1	1.20	-2.22	CHARLESTON	62	-3	3.44	-1.49
INDIANAPOLIS	64	1	2.84	-1.91	OH AKRON-CANTON	58	-3	1.61	-2.52	ELKINS	57	-3	4.20	-0.94
SOUTH BEND	61	2	1.76	-2.44	CINCINNATI	63	-1	2.15	-2.52	HUNTINGTON	63	-3	3.70	-0.81
KS CONCORDIA	68	5	3.74	-0.60	CLEVELAND	58	-3	2.49	-1.30	WY CASPER	55	3	2.02	-0.19
DODGE CITY	67	2	2.22	-0.77	COLUMBUS	62	-1	3.63	-0.36	CHEYENNE	56	4	2.69	0.24
GOODLAND	62	2	4.04	1.22	DAYTON	62	-2	1.82	-2.69	LANDER	57	4	0.87	-1.81
TOPEKA	68	3	3.75	-1.43	MANSFIELD	59	-2	2.09	-2.09	SHERIDAN	58	5	2.07	-0.61

Based on 1991-2020 normals

***** Not Available**

National Agricultural Summary

June 5 – 11, 2023

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Most of the East remained drier than normal, although some locations in northern New England recorded at least twice the normal amount of weekly precipitation. A few places in the Florida Panhandle and Mississippi Valley also recorded at least twice the normal amount of rain. In the nation's mid-section and West, at least twice the normal amount of rain fell in portions of California, the Great Basin, Pacific Northwest, Rockies, and Southwest, as well as scattered areas on the Great Plains. Meanwhile, most of the East was cooler than normal. Large parts of the Carolinas, mid-Atlantic, and Northeast, as well as some locations in the Ohio and Tennessee Valleys, recorded temperatures 6°F or more below normal. Most of California, the southern Rockies, and the Southwest were also cooler than normal. In contrast, most of the upper Midwest, Pacific Northwest, northern Plains, and northern Rockies were warmer than normal, with many locations recording temperatures 6°F or more above normal.

Corn: Ninety-three percent of the nation's corn acreage had emerged by June 11, six percentage points ahead of both the previous year and the 5-year average. On June 11, sixty-one percent of the nation's corn acreage was rated in good to excellent condition, 3 percentage points below the previous week and 11 points below the previous year. In Iowa, the largest corn-producing state, 70 percent of the corn crop was rated in good to excellent condition.

Soybeans: Ninety-six percent of the nation's soybean acreage was planted by June 11, nine percentage points ahead of last year and 10 points ahead of the 5-year average. Soybean planting progress was ahead of the 5-year average in all 18 estimating states. Eighty-six percent of the nation's soybean acreage had emerged by June 11, eighteen percentage points ahead of last year and 16 points ahead of average. On June 11, fifty-nine percent of the nation's soybean acreage was rated in good to excellent condition, 3 percentage points below the previous week and 11 points below the previous year.

Winter Wheat: By June 11, eighty-nine percent of the nation's winter wheat crop was headed, 4 percentage points ahead of the previous year and 1 point ahead of the 5-year average. Eight percent of the 2023 winter wheat acreage had been harvested by June 11, one percentage point behind both last year and the 5-year average. On June 11, thirty-eight percent of the 2023 winter wheat crop was reported in good to excellent condition, 2 percentage points above the previous week and 7 points above the same time last year. In Kansas, the largest winter wheat-producing state, 56 percent of the winter wheat crop was rated in poor to very poor condition.

Cotton: Nationwide, 81 percent of the cotton crop was planted by June 11, eight percentage points behind the previous year and 5 points behind the 5-year average. In Texas, 72 percent of the 2023 cotton acreage was planted by June 11, sixteen percentage points behind last year and 10 points behind average. Eleven percent of the nation's cotton acreage had reached the squaring stage by June 11, three percentage points behind both last year and the 5-year average. On June 11, forty-nine percent of the 2023 cotton acreage was rated in good to excellent condition, 2 percentage points below the previous week but 3 points above the previous year.

Sorghum: Sixty-four percent of the nation's sorghum acreage was planted by June 11, one percentage point behind the previous year and 4 points behind the 5-year average. Texas had planted 92 percent of its sorghum acreage by June 11, three percentage points ahead of the previous year but 1 point behind average. Fifty-seven percent of the nation's sorghum acreage was rated in good to excellent condition on June 11, ten percentage points above the previous year.

Rice: By June 11, ninety-four percent of the nation's rice acreage had emerged, equal to both last year and the 5-year average. On June 11, sixty-seven percent of the rice acreage was rated in good to excellent condition, 3 percentage points below the previous week and 6 points below the same time last year.

Small Grains: Ninety-three percent of the nation's oat acreage had emerged by June 11, six percentage points ahead of the previous year but equal to the 5-year average. Forty-five percent of the nation's oat acreage had headed by June 11, fourteen percentage points ahead of last year and 8 points ahead of average. On June 11, fifty-three percent of the oat acreage was rated in good to excellent condition, 4 percentage points below the previous week and 5 points below the same time last year.

Ninety-seven percent of the nation's barley crop was planted by June 11, one percentage point ahead of last year but 1 point behind the 5-year average. Eighty-eight percent of the barley crop had emerged by June 11, three percentage points ahead of the previous year but 2 points behind average. On June 11, fifty-eight percent of the barley acreage was rated in good to excellent condition, 7 percentage points below the previous week but 9 points above the same time last year.

By June 11, ninety-seven percent of the spring wheat crop was seeded, 5 percentage points ahead of last year but equal to the 5-year average. On that date, 90 percent of the spring wheat crop had emerged, 20 percentage points ahead of the previous year and 3 points ahead of average. On June 11, sixty percent of the nation's spring wheat was rated in good to excellent condition, 4 percentage points below the previous week but 6 points above the same time last year.

Other Crops: Nationally, producers had planted 93 percent of the 2023 peanut acreage by June 11, equal to last year but 1 percentage point ahead of the 5-year average. Producers in Georgia, the largest peanut-producing state, had planted 95 percent of the 2023 intended acreage by week's end, 1 percentage point behind the previous week but equal to the average. On June 11, sixty-nine percent of the nation's peanut acreage was rated in good to excellent condition, 3 percentage points below the previous week and 2 points below the same time last year.

Seventy percent of the nation's intended 2023 sunflower acreage was planted by June 11, thirteen percentage points ahead of last year and 6 points ahead of the 5-year average. Weekly planting advances of 15 percentage points or more were reported in all four estimating states.

Crop Progress and Condition

Week Ending June 11, 2023

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

Soybeans Percent Planted

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
AR	90	94	97	85
IL	93	96	97	86
IN	91	95	97	84
IA	97	98	100	93
KS	67	80	88	75
KY	79	80	85	74
LA	100	96	99	96
MI	89	92	98	81
MN	86	94	99	93
MS	98	93	96	94
MO	70	91	93	71
NE	99	96	98	95
NC	81	73	79	74
ND	70	79	94	87
OH	79	94	97	77
SD	91	89	97	86
TN	80	76	82	77
WI	92	94	98	89
18 Sts	87	91	96	86

These 18 States planted 95% of last year's soybean acreage.

Soybeans Percent Emerged

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
AR	83	87	92	76
IL	86	89	92	75
IN	78	78	90	71
IA	82	87	95	79
KS	54	62	76	57
KY	64	65	73	58
LA	99	91	95	92
MI	72	62	83	67
MN	59	74	91	78
MS	93	87	91	87
MO	54	80	86	55
NE	87	85	93	84
NC	74	61	70	62
ND	21	32	60	55
OH	61	74	88	62
SD	52	63	84	64
TN	68	62	72	62
WI	73	62	83	70
18 Sts	68	74	86	70

These 18 States planted 95% of last year's soybean acreage.

Soybean Condition by Percent

	VP	P	F	G	EX
AR	1	5	31	49	14
IL	2	7	44	40	7
IN	4	7	33	50	6
IA	1	4	29	53	13
KS	1	7	33	53	6
KY	1	4	23	62	10
LA	0	1	8	83	8
MI	5	20	45	27	3
MN	1	7	17	64	11
MS	0	1	25	60	14
MO	5	12	38	42	3
NE	4	12	31	40	13
NC	0	1	33	57	9
ND	1	4	31	60	4
OH	1	4	40	51	4
SD	1	5	33	57	4
TN	3	6	23	56	12
WI	2	6	30	53	9
18 Sts	2	7	32	51	8
Prev Wk	2	5	31	53	9
Prev Yr	1	4	25	59	11

Corn Percent Emerged

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
CO	82	55	70	85
IL	95	91	97	88
IN	87	85	94	82
IA	94	94	98	93
KS	82	75	86	86
KY	85	86	94	88
MI	84	72	89	75
MN	82	88	94	90
MO	89	96	97	89
NE	91	92	97	93
NC	100	97	99	99
ND	46	47	75	71
OH	78	80	93	75
PA	61	73	79	72
SD	83	84	96	82
TN	96	95	97	95
TX	95	87	92	94
WI	82	76	89	82
18 Sts	87	85	93	87

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

Corn Condition by Percent

	VP	P	F	G	EX
CO	0	1	17	64	18
IL	2	7	43	41	7
IN	3	7	35	49	6
IA	1	3	26	58	12
KS	4	7	33	48	8
KY	1	6	26	57	10
MI	4	16	42	35	3
MN	1	5	19	62	13
MO	4	11	38	45	2
NE	4	9	26	43	18
NC	1	3	23	60	13
ND	0	1	22	70	7
OH	1	3	39	51	6
PA	2	9	67	20	2
SD	1	6	33	56	4
TN	2	6	24	51	17
TX	0	3	20	52	25
WI	1	6	27	53	13
18 Sts	2	6	31	51	10
Prev Wk	1	5	30	53	11
Prev Yr	1	4	23	59	13

Sorghum Percent Planted

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
CO	50	38	46	60
KS	52	31	49	54
NE	88	51	81	84
OK	43	32	44	45
SD	71	78	92	75
TX	89	85	92	93
6 Sts	65	49	64	68

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

Sorghum Condition by Percent

	VP	P	F	G	EX
CO	1	3	31	60	5
KS	3	7	33	53	4
NE	1	4	27	61	7
OK	3	13	38	41	5
SD	0	1	35	63	1
TX	1	4	42	34	19
6 Sts	2	6	35	49	8
Prev Wk	NA	NA	NA	NA	NA
Prev Yr	6	8	39	45	2

Crop Progress and Condition

Week Ending June 11, 2023

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

Cotton Percent Planted

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
AL	94	90	97	95
AZ	100	100	100	100
AR	100	100	100	99
CA	100	98	100	100
GA	91	83	93	91
KS	95	69	81	91
LA	100	98	100	97
MS	98	89	94	94
MO	97	96	97	91
NC	91	81	90	92
OK	61	46	66	59
SC	95	81	95	93
TN	97	96	98	96
TX	88	60	72	82
VA	94	94	95	95
15 Sts	89	71	81	86

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

Cotton Percent Squaring

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
AL	7	6	11	9
AZ	37	24	36	37
AR	9	1	9	16
CA	9	0	5	14
GA	14	6	14	18
KS	8	3	8	4
LA	34	1	18	24
MS	7	1	2	6
MO	4	8	22	9
NC	6	2	5	7
OK	0	0	0	2
SC	3	0	1	7
TN	14	4	10	15
TX	17	8	12	15
VA	17	3	10	13
15 Sts	14	6	11	14

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

Cotton Condition by Percent

	VP	P	F	G	EX
AL	0	2	16	81	1
AZ	0	0	0	54	46
AR	2	4	13	37	44
CA	0	0	5	90	5
GA	1	4	30	56	9
KS	1	13	39	45	2
LA	0	2	20	77	1
MS	0	2	30	60	8
MO	0	1	31	64	4
NC	1	4	30	62	3
OK	0	0	3	96	1
SC	0	0	25	70	5
TN	3	6	28	48	15
TX	3	20	47	22	8
VA	0	0	1	99	0
15 Sts	2	13	36	40	9
Prev Wk	1	11	37	43	8
Prev Yr	3	16	35	41	5

Rice Percent Emerged

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
AR	96	96	98	94
CA	83	40	70	88
LA	99	98	100	98
MS	100	99	100	96
MO	93	98	99	91
TX	95	92	95	95
6 Sts	94	88	94	94

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

Rice Condition by Percent

	VP	P	F	G	EX
AR	0	3	40	42	15
CA	0	0	0	80	20
LA	1	2	23	68	6
MS	0	2	38	47	13
MO	0	9	34	46	11
TX	0	4	30	59	7
6 Sts	0	3	30	54	13
Prev Wk	0	3	27	59	11
Prev Yr	0	1	26	57	16

Sunflowers Percent Planted

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
CO	44	36	55	50
KS	39	18	33	50
ND	65	41	75	76
SD	53	41	70	56
4 Sts	57	40	70	64

These 4 States planted 87% of last year's sunflower acreage.

Peanuts Percent Planted

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
AL	89	85	94	92
FL	98	91	96	97
GA	96	88	95	95
NC	94	90	95	92
OK	58	50	84	69
SC	95	89	95	95
TX	82	65	76	79
VA	99	92	97	96
8 Sts	93	85	93	92

These 8 States planted 96% of last year's peanut acreage.

Peanut Condition by Percent

	VP	P	F	G	EX
AL	0	0	15	82	3
FL	1	1	19	78	1
GA	1	6	27	57	9
NC	0	1	28	66	5
OK	0	1	1	98	0
SC	0	0	10	90	0
TX	2	16	40	36	6
VA	0	0	1	98	1
8 Sts	1	5	25	63	6
Prev Wk	2	4	22	67	5
Prev Yr	1	7	21	63	8

Crop Progress and Condition

Week Ending June 11, 2023

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

Winter Wheat Percent Headed

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
AR	100	100	100	100
CA	100	97	99	100
CO	88	68	81	88
ID	31	33	53	51
IL	98	98	99	97
IN	95	90	96	94
KS	99	93	97	98
MI	81	58	86	71
MO	99	98	99	98
MT	13	7	32	15
NE	85	61	87	83
NC	100	100	100	100
OH	93	89	94	94
OK	100	100	100	100
OR	70	89	94	90
SD	52	49	68	62
TX	100	100	100	100
WA	45	63	81	76
18 Sts	85	82	89	88

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

Winter Wheat Percent Harvested

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
AR	27	14	33	35
CA	18	0	2	21
CO	0	0	0	0
ID	0	0	0	0
IL	3	0	0	2
IN	0	0	0	1
KS	2	0	1	2
MI	0	0	0	0
MO	2	1	21	6
MT	0	0	0	0
NE	0	0	0	0
NC	26	8	25	28
OH	0	0	0	0
OK	30	15	28	26
OR	0	0	0	0
SD	0	0	0	0
TX	51	29	42	46
WA	0	0	0	0
18 Sts	9	4	8	9

These 18 States harvested 90% of last year's winter wheat acreage.

Winter Wheat Condition by Percent

	VP	P	F	G	EX
AR	0	3	25	55	17
CA	0	0	5	25	70
CO	8	14	24	41	13
ID	2	11	35	46	6
IL	1	4	32	49	14
IN	2	5	18	54	21
KS	28	28	30	13	1
MI	4	12	43	39	2
MO	2	9	34	45	10
MT	1	7	47	44	1
NE	17	21	33	27	2
NC	0	1	7	73	19
OH	2	7	32	49	10
OK	6	19	35	39	1
OR	7	37	26	29	1
SD	9	19	38	32	2
TX	10	22	32	27	9
WA	3	7	35	50	5
18 Sts	12	19	31	32	6
Prev Wk	14	20	30	31	5
Prev Yr	24	18	27	26	5

Spring Wheat Percent Planted

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
ID	100	100	100	99
MN	88	98	99	97
MT	99	88	95	98
ND	89	92	97	97
SD	100	100	100	99
WA	100	100	100	100
6 Sts	92	93	97	97

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

Spring Wheat Percent Emerged

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
ID	91	93	95	95
MN	60	87	96	89
MT	94	77	90	90
ND	53	66	86	83
SD	95	96	98	96
WA	93	99	100	96
6 Sts	70	76	90	87

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

Spring Wheat Condition by Percent

	VP	P	F	G	EX
ID	0	0	40	54	6
MN	0	16	12	67	5
MT	1	4	47	48	0
ND	2	4	27	62	5
SD	2	4	47	44	3
WA	3	19	40	31	7
6 Sts	1	6	33	56	4
Prev Wk	0	2	34	58	6
Prev Yr	2	7	37	49	5

Barley Percent Planted

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
ID	99	98	100	99
MN	85	97	99	97
MT	100	89	95	98
ND	88	90	97	96
WA	100	100	100	100
5 Sts	96	92	97	98

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

Barley Percent Emerged

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
ID	95	88	95	96
MN	55	87	94	87
MT	96	72	88	90
ND	59	56	81	83
WA	95	87	95	92
5 Sts	85	72	88	90

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

Barley Condition by Percent

	VP	P	F	G	EX
ID	0	0	11	87	2
MN	1	11	23	61	4
MT	1	8	53	37	1
ND	0	3	34	60	3
WA	3	9	31	55	2
5 Sts	1	5	36	56	2
Prev Wk	0	2	33	60	5
Prev Yr	6	15	30	42	7

Crop Progress and Condition

Week Ending June 11, 2023

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

Oats Percent Emerged

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
IA	98	99	100	99
MN	80	88	95	93
NE	98	95	96	96
ND	63	53	76	79
OH	95	83	88	94
PA	89	95	100	93
SD	92	95	99	94
TX	100	100	100	100
WI	85	81	90	88
9 Sts	87	86	93	93

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

Oats Percent Headed

	Prev Year	Prev Week	Jun 11 2023	5-Yr Avg
IA	36	38	66	37
MN	1	3	23	12
NE	36	18	37	49
ND	0	0	0	1
OH	19	22	45	28
PA	1	13	48	10
SD	14	11	40	21
TX	100	100	100	100
WI	4	6	14	15
9 Sts	31	32	45	37

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

Oat Condition by Percent

	VP	P	F	G	EX
IA	1	4	29	56	10
MN	4	7	24	54	11
NE	10	18	36	33	3
ND	0	2	33	62	3
OH	0	1	27	64	8
PA	0	1	58	41	0
SD	2	7	37	52	2
TX	19	8	45	26	2
WI	1	5	23	64	7
9 Sts	6	6	35	49	4
Prev Wk	6	7	30	53	4
Prev Yr	12	9	21	51	7

Pasture and Range Condition by Percent
Week Ending Jun 11, 2023

	VP	P	F	G	EX		VP	P	F	G	EX
AL	1	4	19	74	2	NH	0	0	11	36	53
AZ	9	23	29	21	18	NJ	3	5	59	33	0
AR	2	9	41	42	6	NM	4	21	42	20	13
CA	0	0	15	45	40	NY	2	15	42	36	5
CO	2	5	29	56	8	NC	0	3	28	66	3
CT	0	0	26	74	0	ND	1	4	26	63	6
DE	8	14	49	28	1	OH	1	8	31	55	5
FL	2	8	35	38	17	OK	3	9	29	55	4
GA	3	11	36	44	6	OR	1	7	47	36	9
ID	0	4	23	57	16	PA	10	29	54	7	0
IL	10	19	49	21	1	RI	0	50	40	10	0
IN	4	9	39	43	5	SC	1	7	16	71	5
IA	4	16	39	36	5	SD	4	14	51	28	3
KS	14	23	37	24	2	TN	2	13	32	48	5
KY	8	11	32	46	3	TX	9	16	35	30	10
LA	0	7	31	54	8	UT	2	7	27	56	8
ME	0	0	22	78	0	VT	0	0	0	25	75
MD	9	23	37	29	2	VA	1	20	37	41	1
MA	0	0	5	62	33	WA	2	6	61	25	6
MI	16	37	32	14	1	WV	5	13	31	50	1
MN	3	13	34	43	7	WI	3	9	30	50	8
MS	4	8	33	49	6	WY	1	6	27	61	5
MO	10	36	34	20	0	48 Sts	6	14	35	36	9
MT	2	11	53	34	0						
NE	19	18	30	25	8	Prev Wk	6	14	35	37	8
NV	0	5	35	40	20	Prev Yr	18	24	27	27	4

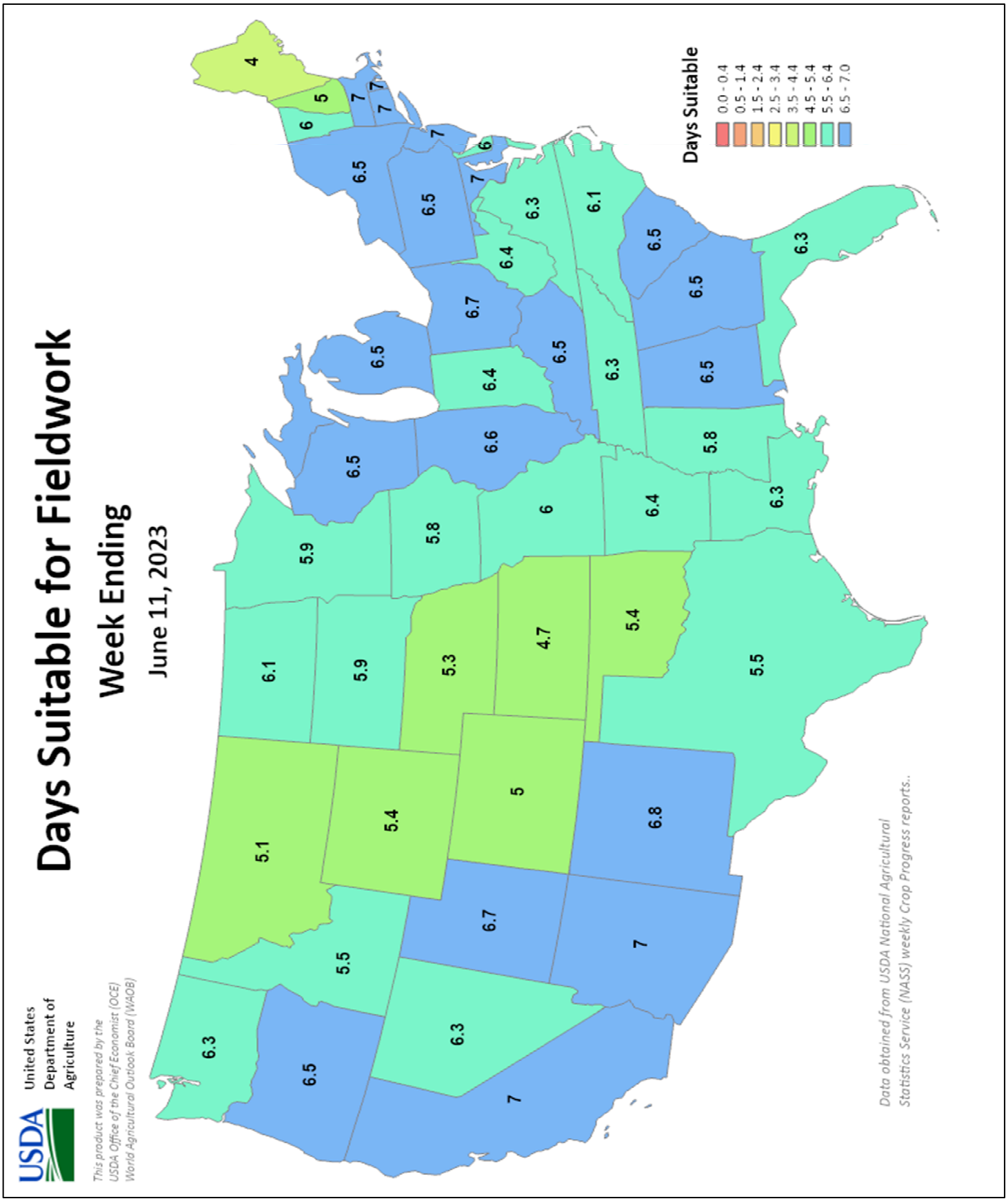
VP - Very Poor; P - Poor;
F - Fair;
G - Good; EX - Excellent

NA - Not Available
*** Revised**

Crop Progress and Condition

Week Ending June 11, 2023

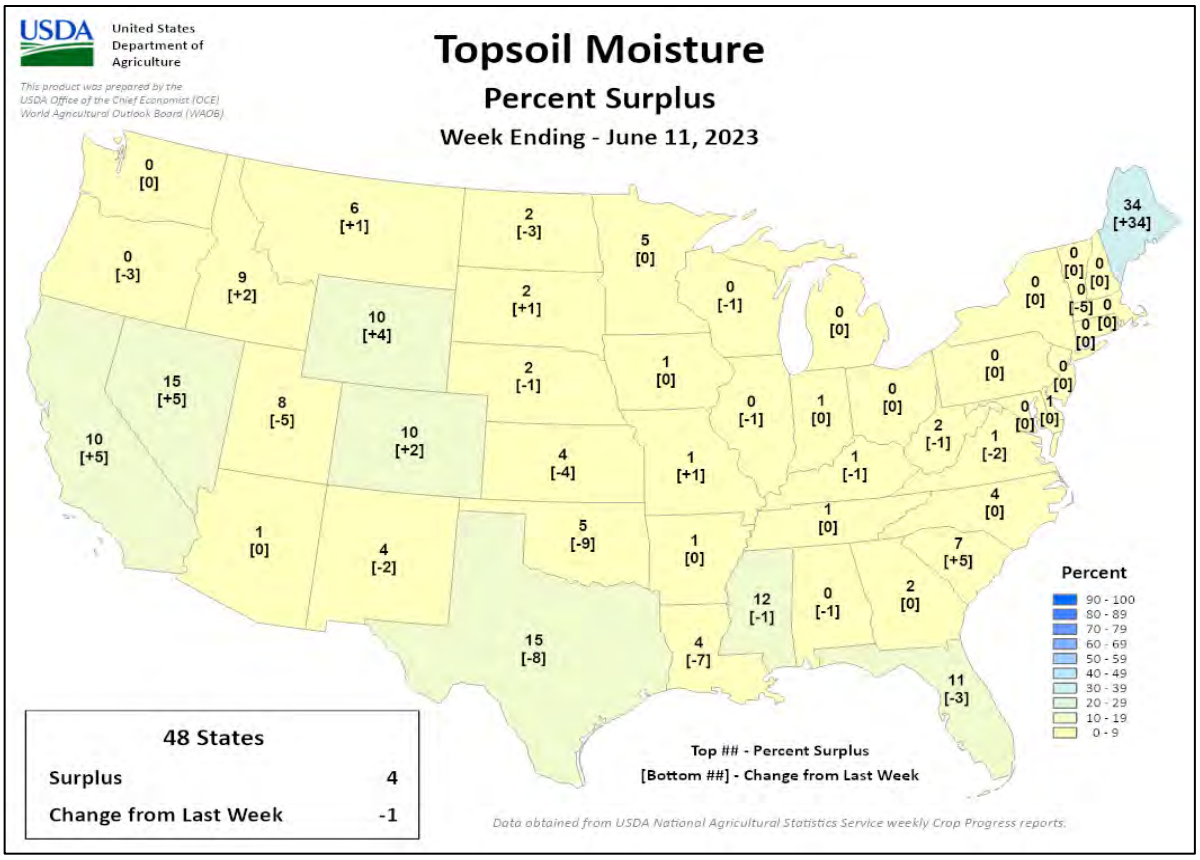
Weekly U.S. Progress and Condition Data provided by USDA/NASS

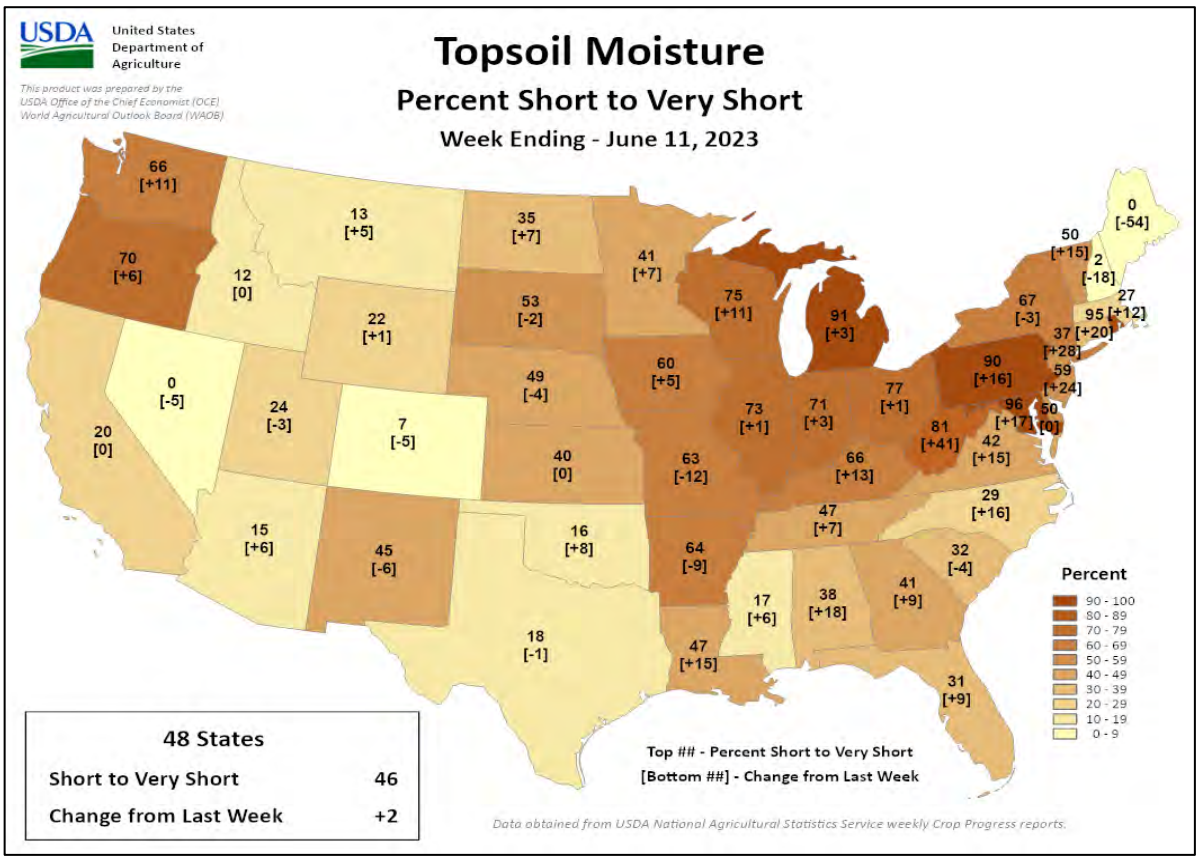


Crop Progress and Condition

Week Ending June 11, 2023

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

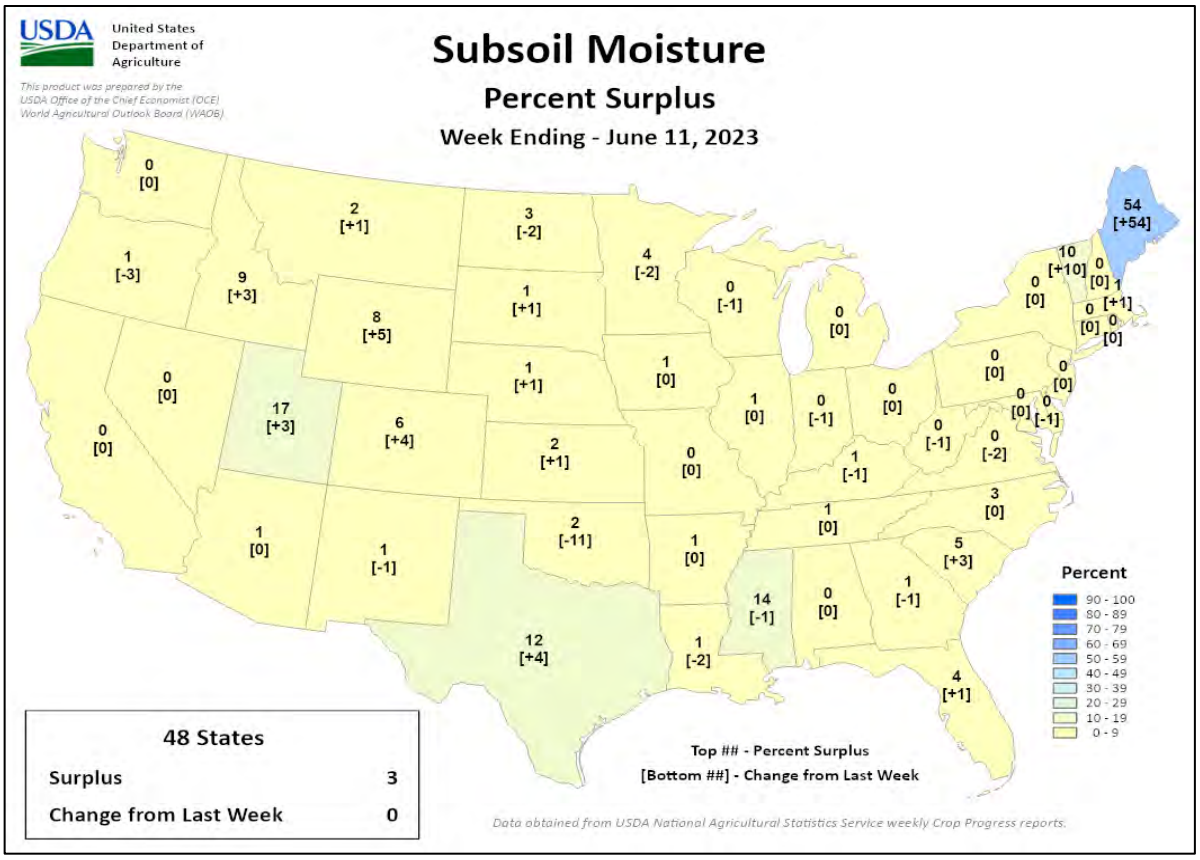


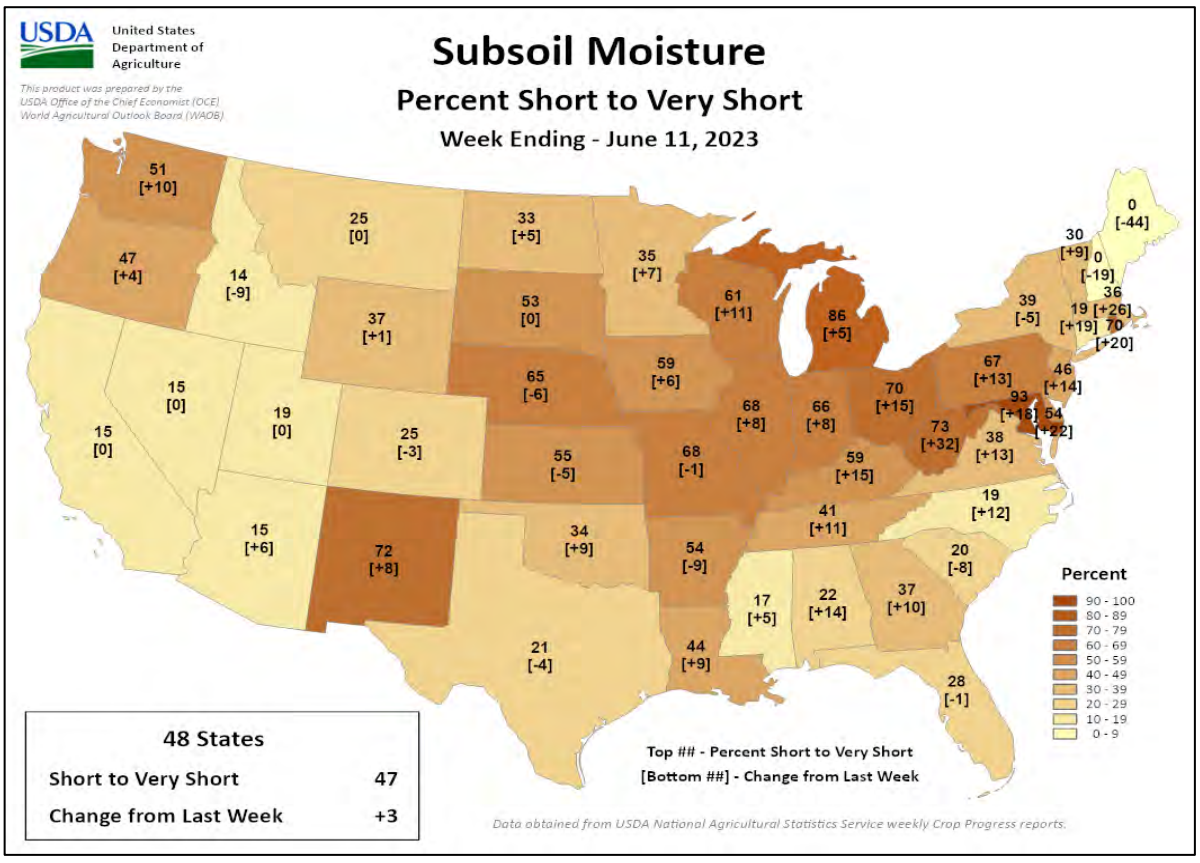


Crop Progress and Condition

Week Ending June 11, 2023

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





June 8 ENSO Diagnostic Discussion

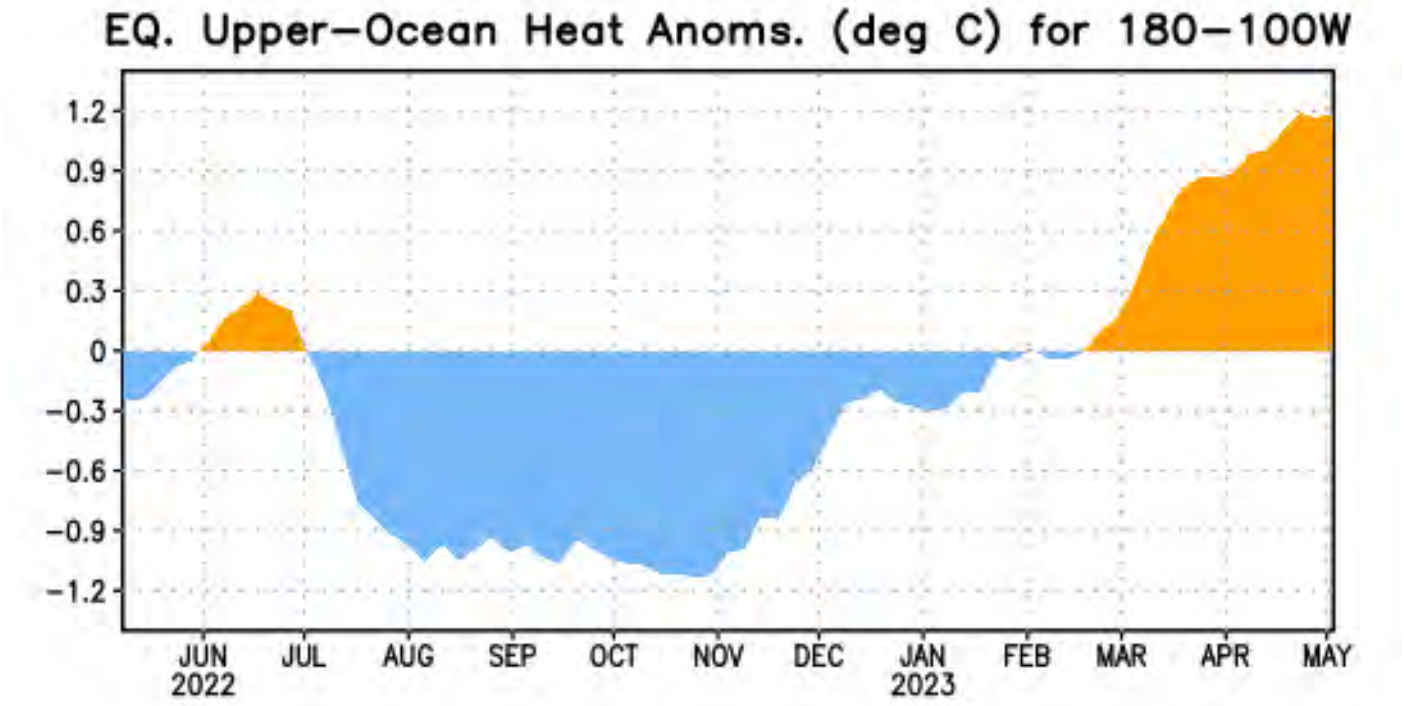


Figure 1: Area-averaged upper-ocean heat content anomaly (°C) in the equatorial Pacific (5°N-5°S, 180º-100ºW). The heat content anomaly is computed as the departure from the 1991-2020 base period pentad means.

ENSO Alert System Status: El Niño Advisory

Synopsis: El Niño conditions are present and are expected to gradually strengthen into the Northern Hemisphere winter 2023-24.

In May, weak El Niño conditions emerged as above-average sea surface temperatures (SSTs) strengthened across the equatorial Pacific Ocean. All of the latest weekly Niño indices were more than +0.5ºC: Niño-3.4 was +0.8ºC, Niño-3 was +1.1ºC, and Niño1+2 was +2.3ºC. Area-averaged subsurface temperatures anomalies remained positive (Fig. 1), reflecting the continuation of widespread anomalous warmth below the surface of the equatorial Pacific Ocean. For the May average, low-level wind anomalies were westerly over the western equatorial Pacific Ocean, while upper-level wind anomalies were westerly over the eastern Pacific Ocean. Convection was enhanced along the equator and was suppressed over Indonesia. Both the equatorial SOI and traditional SOI were significantly negative. Collectively, the coupled ocean-atmosphere system reflected the emergence of El Niño conditions.

The most recent IRI plume indicates the continuation of El Niño through the Northern Hemisphere winter 2023-24. Confidence in the occurrence of El Niño increases into the fall, reflecting the expectation that seasonally averaged Niño-3.4 index values will continue to increase. Another downwelling Kelvin wave is emerging in the western Pacific Ocean, and westerly wind anomalies are forecasted to recur over the western Pacific. At its peak, the chance of a strong El Niño is nearly the same as it was last month (56% chance of November-January Niño-3.4 ≥ 1.5°C), with an 84% chance of exceeding moderate strength (Niño-3.4 ≥ 1.0°C). In summary, El Niño conditions are present and are expected to gradually strengthen into the Northern Hemisphere winter 2023-24.

This discussion is a consolidated effort of the National Oceanic and Atmospheric Administration (NOAA), NOAA's National Weather Service, and their funded institutions. Oceanic and atmospheric conditions are updated weekly on the Climate Prediction Center website (El Niño/La Niña Current Conditions and Expert Discussions). Additional perspectives and analyses are also available in an ENSO blog. A probabilistic strength forecast is available here. The next ENSO Diagnostics Discussion is scheduled for **13 July 2023**. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: ncep.list.enso-update@noaa.gov.

International Weather and Crop Summary

June 4-10, 2023

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

HIGHLIGHTS

EUROPE: A blocking high centered over Scandinavia maintained dry weather across northern Europe and very wet conditions over central and southern portions of the continent.

WESTERN FSU: Dry and cool weather maintained good to excellent yield prospects for filling to maturing winter wheat from the Black Sea Coast into central Russia.

EASTERN FSU: Extremely hot weather in central Russia and northern Kazakhstan exacerbated drought and severely limited spring grain establishment, though showers signaled the arrival of cooler temperatures at week's end.

MIDDLE EAST: Additional showers in central Turkey and northern Iran benefited late filling winter grains and vegetative summer crops.

SOUTH ASIA: The onset of the southwest monsoon occurred in southern India, encouraging localized sowing of kharif crops.

EAST ASIA: While excessive wetness continued for mature wheat on the North China Plain, rainfall was welcome for summer crops elsewhere.

SOUTHEAST ASIA: Heavy showers materialized in northern portions of the region after a slow start to the wet season.

AUSTRALIA: Beneficial rain overspread much of the wheat belt, improving early-season wheat, barley, and canola prospects.

ARGENTINA: Seasonal fieldwork advanced under warm, sunny conditions.

BRAZIL: Warm, dry weather spurred rapid maturation of corn and cotton.

MEXICO: Showers returned to many eastern farming areas, but dryness persisted farther west.

CANADIAN PRAIRIES: Unseasonable warmth persisted, reducing topsoil moisture for emerging spring crops.

SOUTHEASTERN CANADA: Mild, mostly dry weather promoted growth of winter wheat, pastures, and emerging summer crops.

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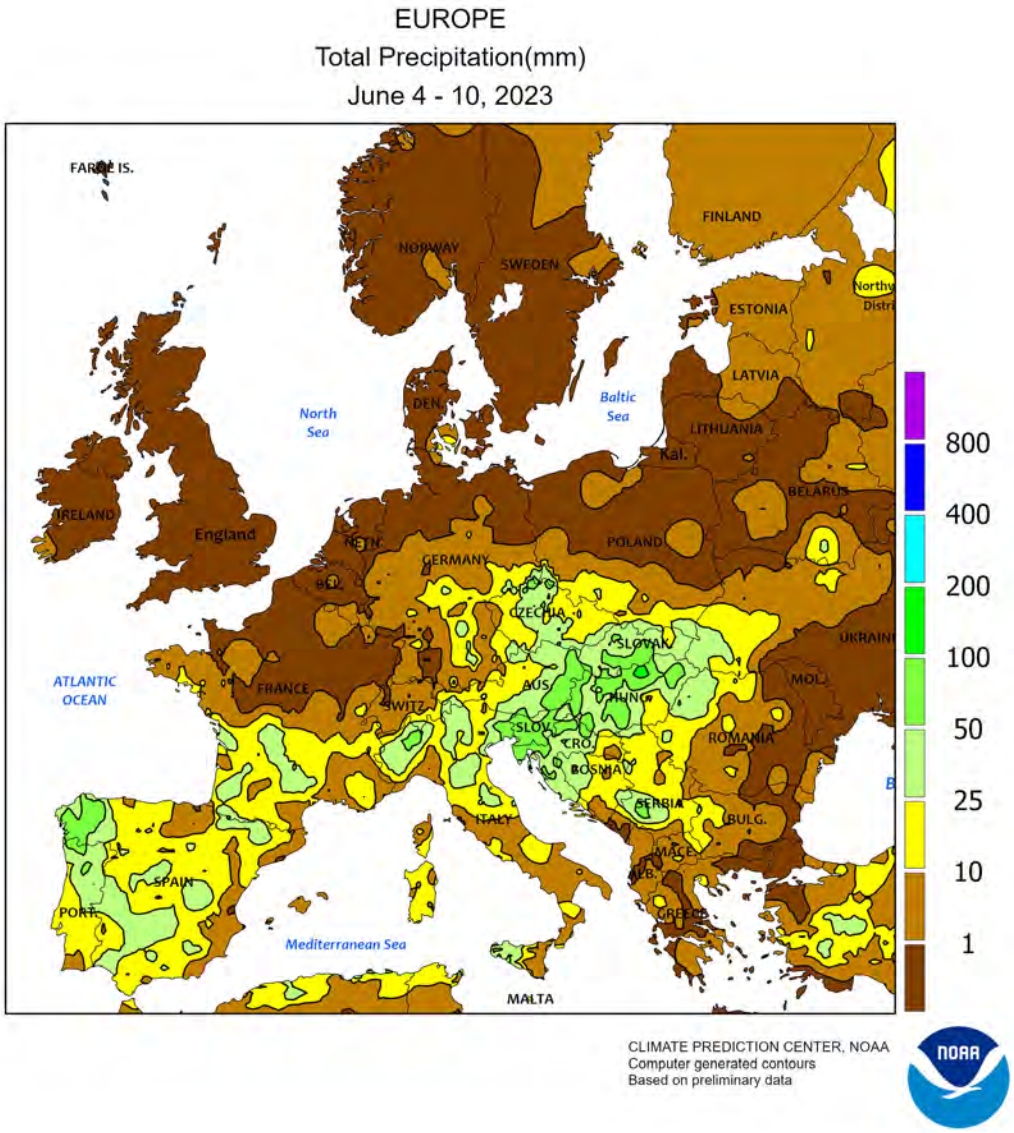

EUROPE

A blocking area of high pressure anchored over northern Europe maintained the recent pattern of northern dryness and southern rain. The large, sprawling high centered over Scandinavia sustained sunny skies and above-normal temperatures (2-5°C above normal) from England and northern France into Poland and the Baltic States. Overall, the dry and warm weather was beneficial for reproductive (northeast) to filling (elsewhere) winter grains and oilseeds after a wet first two months of spring, though soil moisture has become limited for vegetative spring grains and summer crops. Meanwhile, storminess persisted across much of central and southern Europe. Highly variable showers and thunderstorms (widespread 10-90 mm, but locally less than 5 mm) in Portugal, Spain, southern France, and Italy further eased long-term drought and maintained favorable early prospects for emerging to vegetative summer crops. Another area of moderate to heavy rain (10-100 mm, locally more) was noted from the Adriatic Sea into Hungary and the northern Balkans, triggering lowland flooding but maintaining abundant moisture supplies for vegetative summer crops. However, the rain slowed or halted winter crop maturation and seasonal fieldwork. Drier but cool weather (up to 3°C below normal) in the lower Danube River Valley favored maturing winter grains and oilseeds.

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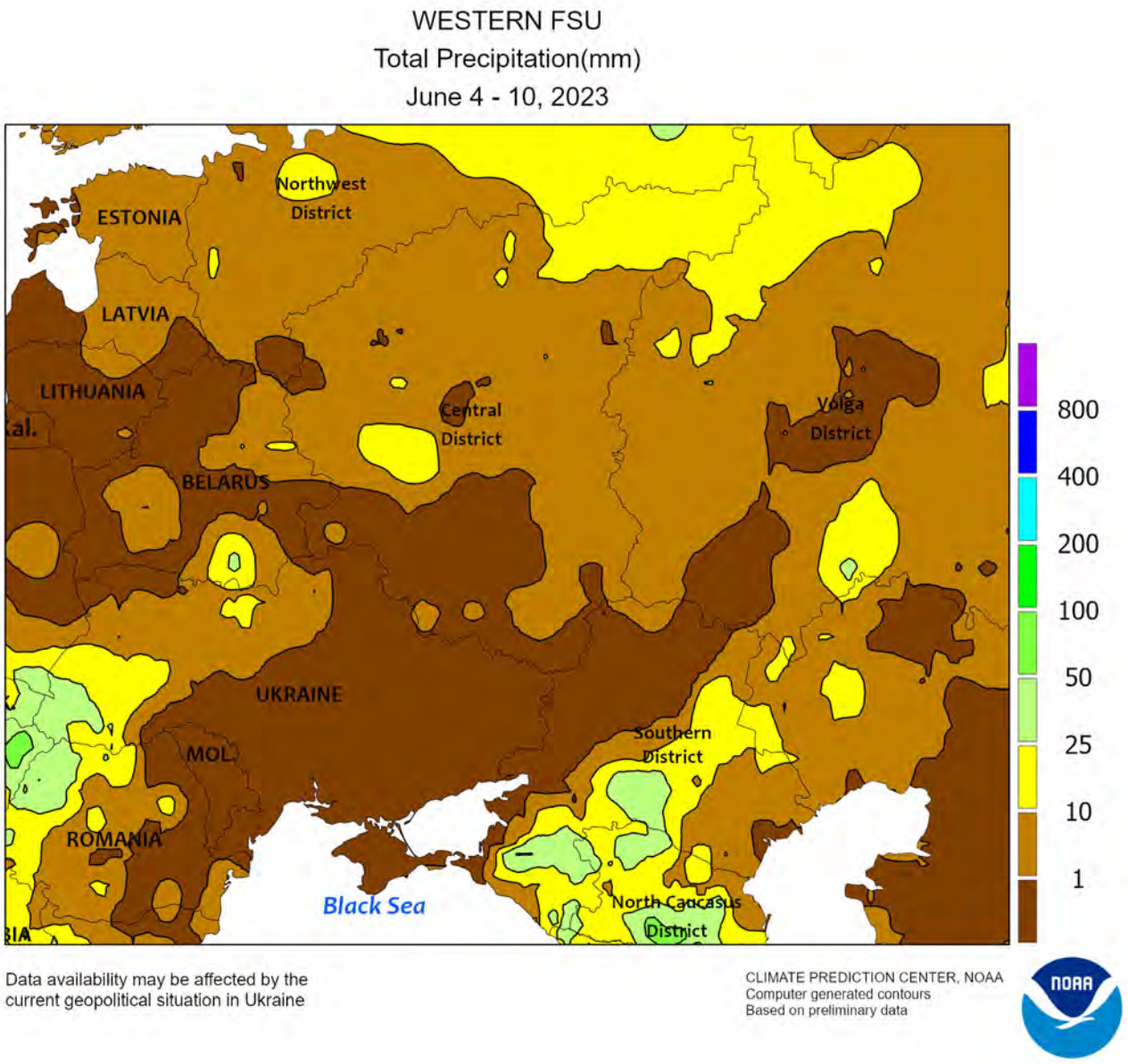

WESTERN FSU

Generally dry but cool weather prevailed over the winter wheat belt, while much-needed showers arrived in western- and eastern-most portions of the region. Sunny skies and near- to below-normal temperatures (up to 3°C below normal in western Russia) maintained good to excellent yield prospects for filling to maturing winter wheat. Conversely, showers and thunderstorms (2-50 mm) in northern and western Ukraine improved soil moisture for emerging to vegetative summer crops. Likewise, 2 to 30 mm of rainfall in Russia's southeastern Volga District improved soil moisture for vegetative to heading spring barley. More importantly, the recent spate of excessive heat in this locale was replaced by favorably cooler weather (up to 2°C below normal).

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

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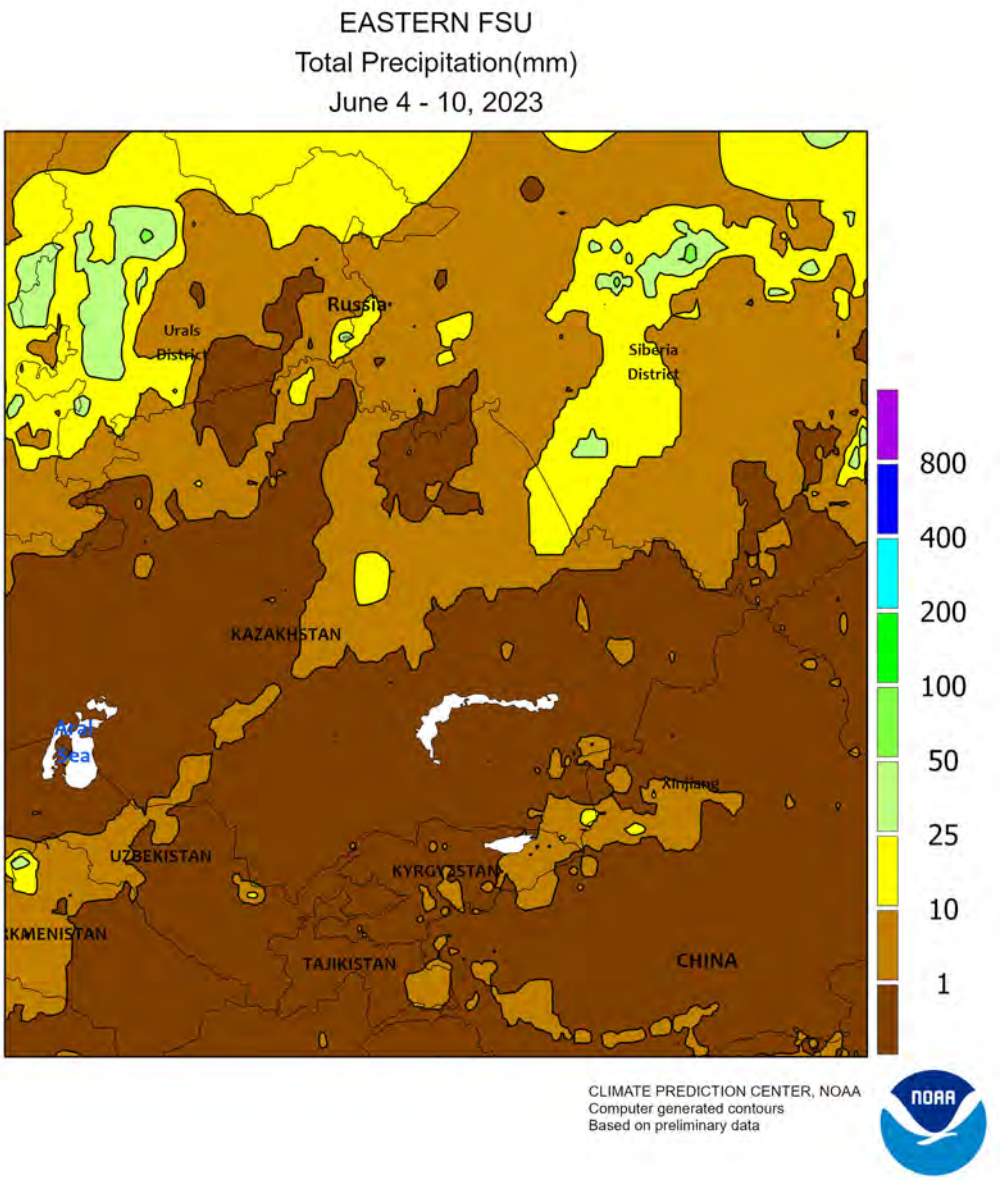

EASTERN FSU

Very hot weather prevailed, though showers signaled the arrival of cooler temperatures by week's end. Temperatures for the week averaged 5 to 11°C above normal across the entire spring grain belt save for western-most reaches. Daytime highs reached 38°C in central Russia and up to 41°C in northern Kazakhstan. The heat exacerbated short-term drought and lowered prospects for spring grain establishment. However, showers and thunderstorm associated with a strong cold front at week's end provided localized drought relief, with the widest swath of drought-easing rain noted in the southwestern Siberia District (10-50 mm). Showers were lighter and more scattered in northern Kazakhstan (1-15 mm), providing little — if any — significant drought relief. The latest satellite-derived Vegetation Health Index (VHI) indicated extremely poor conditions at this early juncture, with the VHI suggesting some fields were still barren. However, spring grains were still vegetative in areas where the crop emerged and there is time for wheat and barley to recover should rains arrive. Farther south over the Commonwealth of Independent States (CIS), the region's climatological wet season (October-May) has ended and been replaced by seasonal heat and dryness. However, temperatures across the cotton belt were warmer than normal (3-7°C above normal), accelerating cotton toward or into the squaring stage of development. While cotton across Uzbekistan and environs is heavily irrigated, excessive heat — especially during flower — can adversely impact yield potential.

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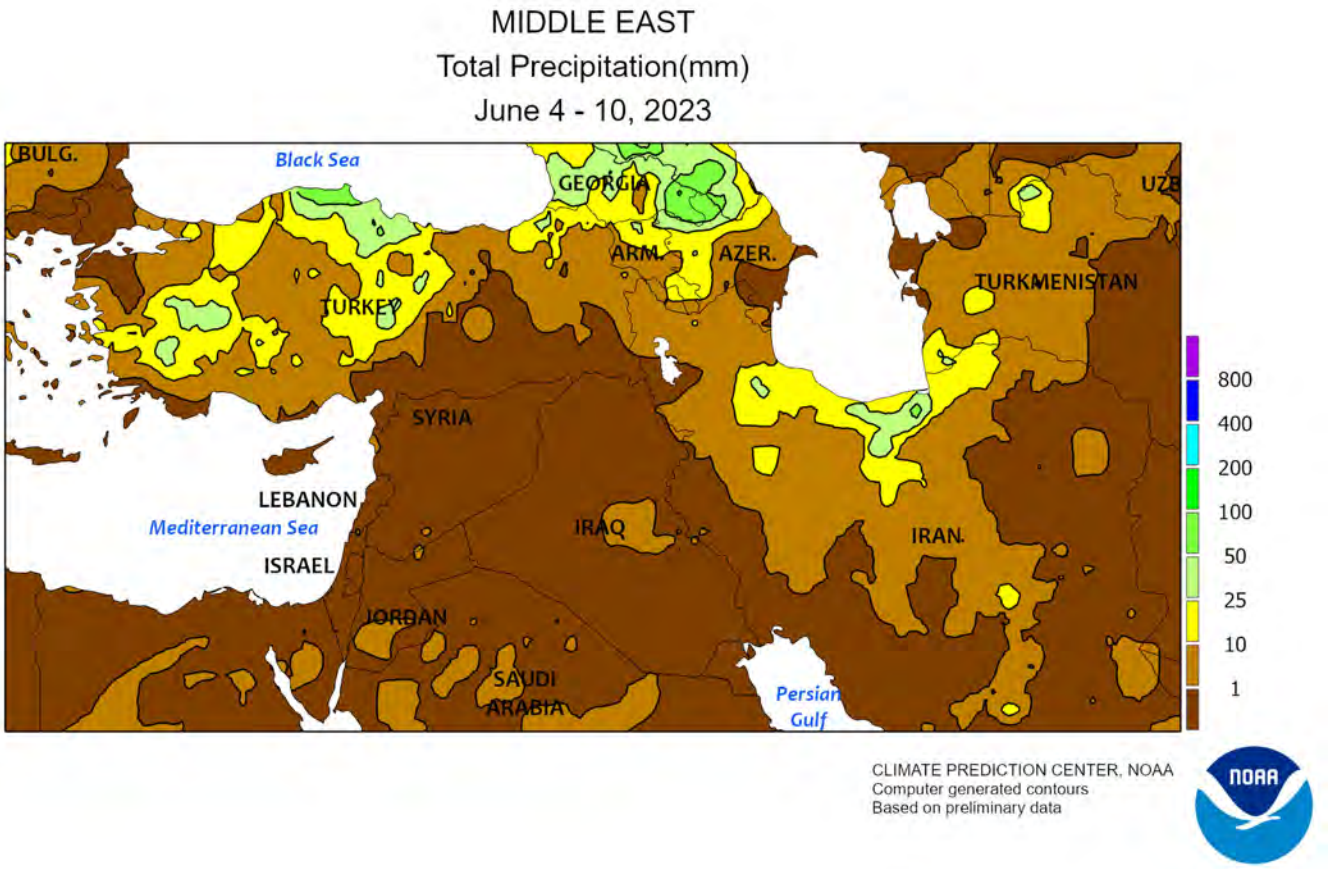

MIDDLE EAST

Showers continued in Turkey and northern Iran, while seasonably dry weather prevailed in central and southern portions of the region. Variable showers and thunderstorms (2-40 mm) were noted across central Turkey, though rain intensity and coverage were less than previous weeks. The rain maintained ample moisture supplies for filling winter grains and vegetative summer crops, but there were enough dry days to promote fieldwork and winter crop drydown. Furthermore, the country's northwestern wheat (Thrace), western cotton (Aegean), and southeastern winter grain and summer crop (GAP) areas were mostly dry. Farther east, showers across northern Iran (10-30 mm) eased drought in the northeast and provided supplemental moisture to summer crops along the Caspian Sea Coast (cotton, rice, soybeans, and sunflowers). Meanwhile, dry weather favored winter crop harvesting and other seasonal fieldwork from the eastern Mediterranean Coast into Iraq as well as central and southwestern Iran. Temperatures during the monitoring period averaged within 1 to 2°C of normal, with no large anomalies noted across the entire region.

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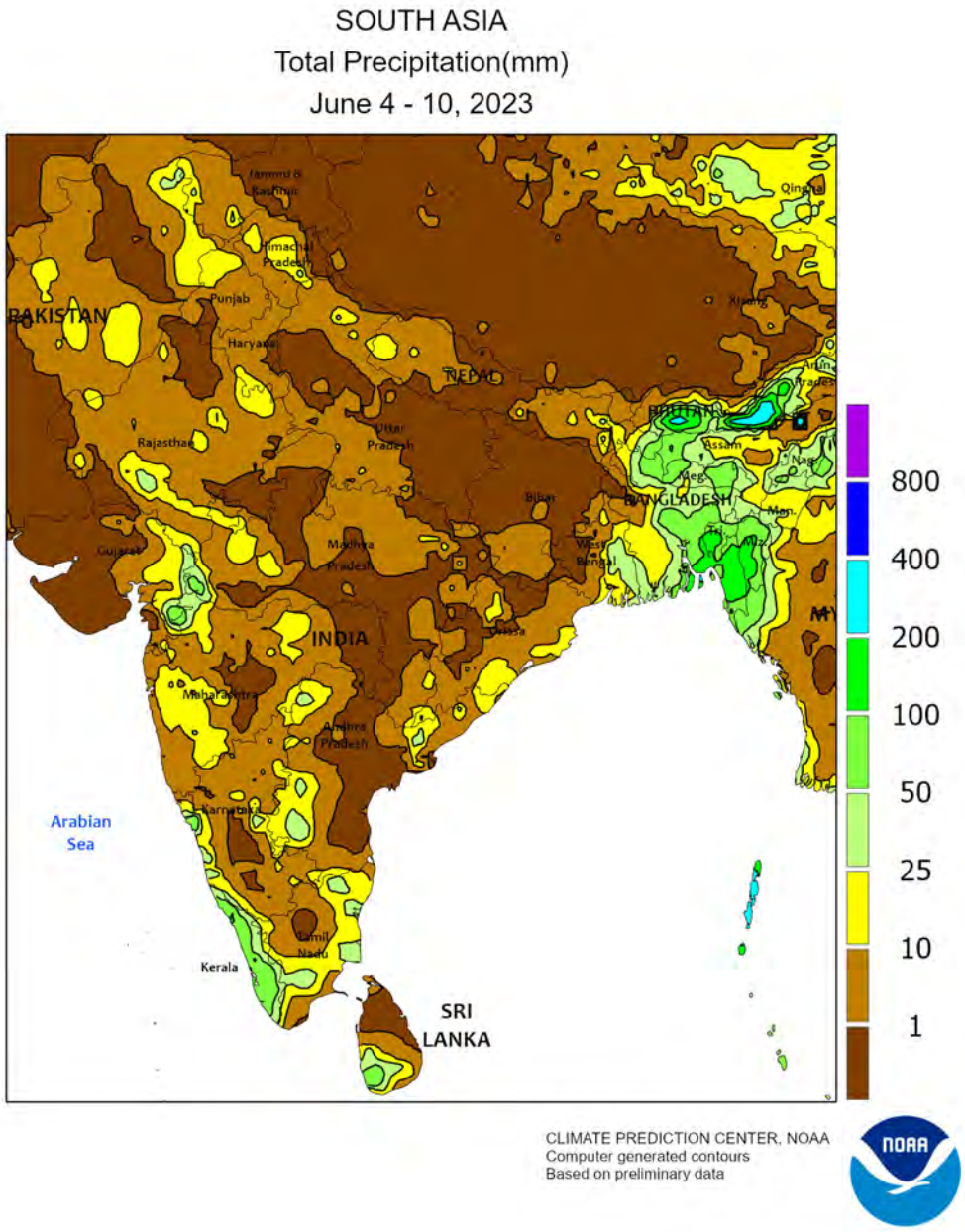

SOUTH ASIA

The onset of the southwest monsoon in southern India occurred on June 8 according to the Indian Meteorological Department, eight days later than normal. Downpours (over 50 mm) were limited to southwestern-most areas, with few locales recording more than 25 mm elsewhere in the country; notably, northeastern-most rice areas were seasonably wet (25-100 mm). Nevertheless, the localized onset of seasonal rain encouraged kharif sowing in southern sections of India, while growers in central and western portions typically wait until July, and a more regional onset of showers, to begin sowing activities. Meanwhile, Extremely Severe Cyclonic Storm Biparjoy (maximum sustained winds of 90 kts) was approaching the western coast of India (southern Gujarat) by the end of the period, but rainfall from outer bands had yet to be reported.

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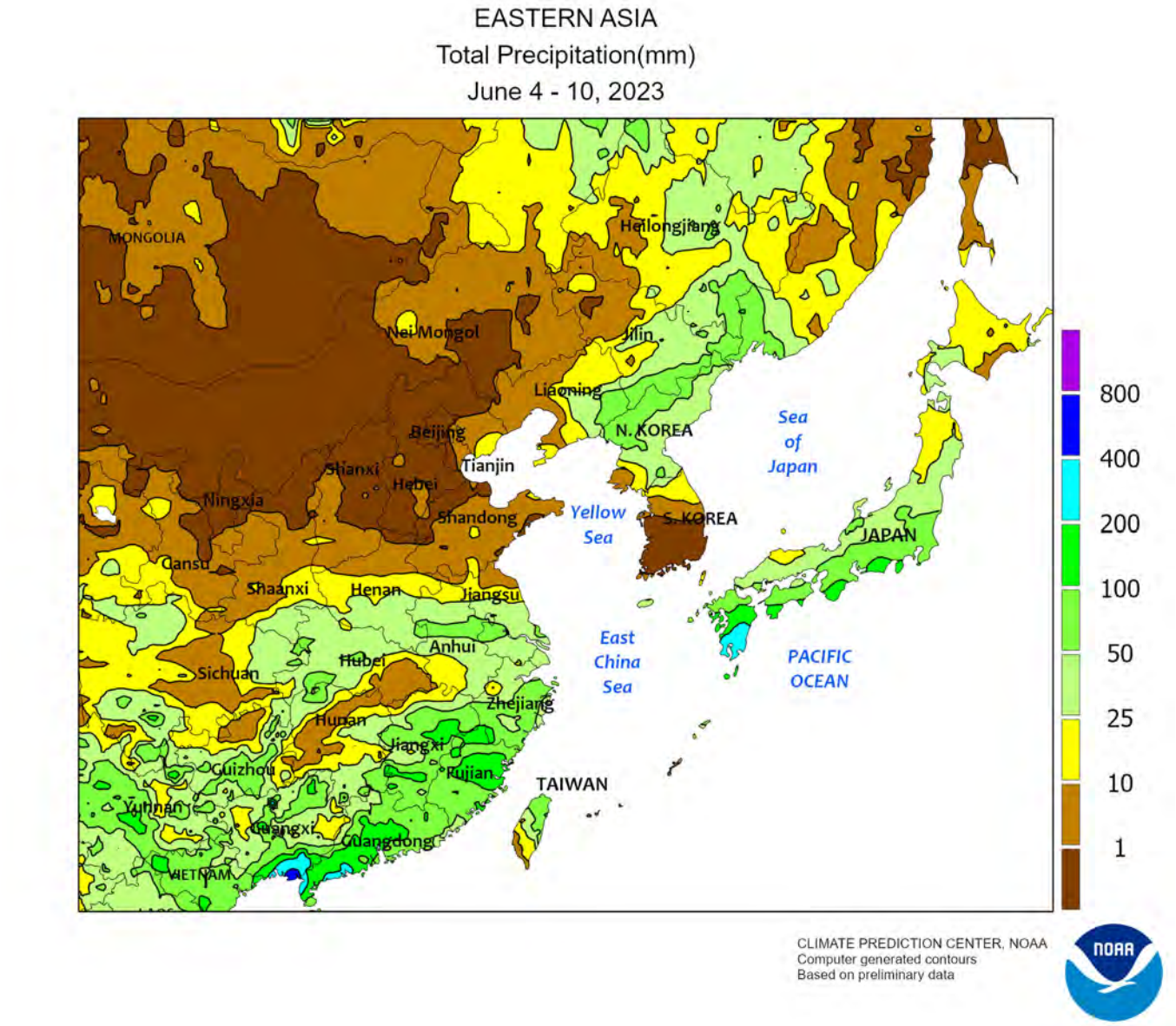

EASTERN ASIA

Showers moved through the eastern half of China during the period, bringing locally over 100 mm to southern growing areas and 10 to 50 mm in the northeast. While unfavorably wet for maturing early-crop rice in the south, the wet weather benefited vegetative summer crops. Similarly, the rainfall was unfavorable for mature wheat and harvesting in southern portions of the North China Plain; rainfall totals since May 1 in Henan were a 30-year high (nearly 100 mm more than usual). Meanwhile, the showers in the northeast favored vegetative corn and soybeans, though more rain would be welcome for some prefectures experiencing significant 30-day moisture deficits. Farther west, above-average temperatures promoted cotton development following unseasonably cool weather at the start of the growing season. However, cotton in some more northerly locales experienced heat stress with temperatures 7°C above average. Elsewhere, showery weather (25-100 mm) in North Korea and most of Japan supported moisture supplies for rice, while little rainfall occurred in South Korea.

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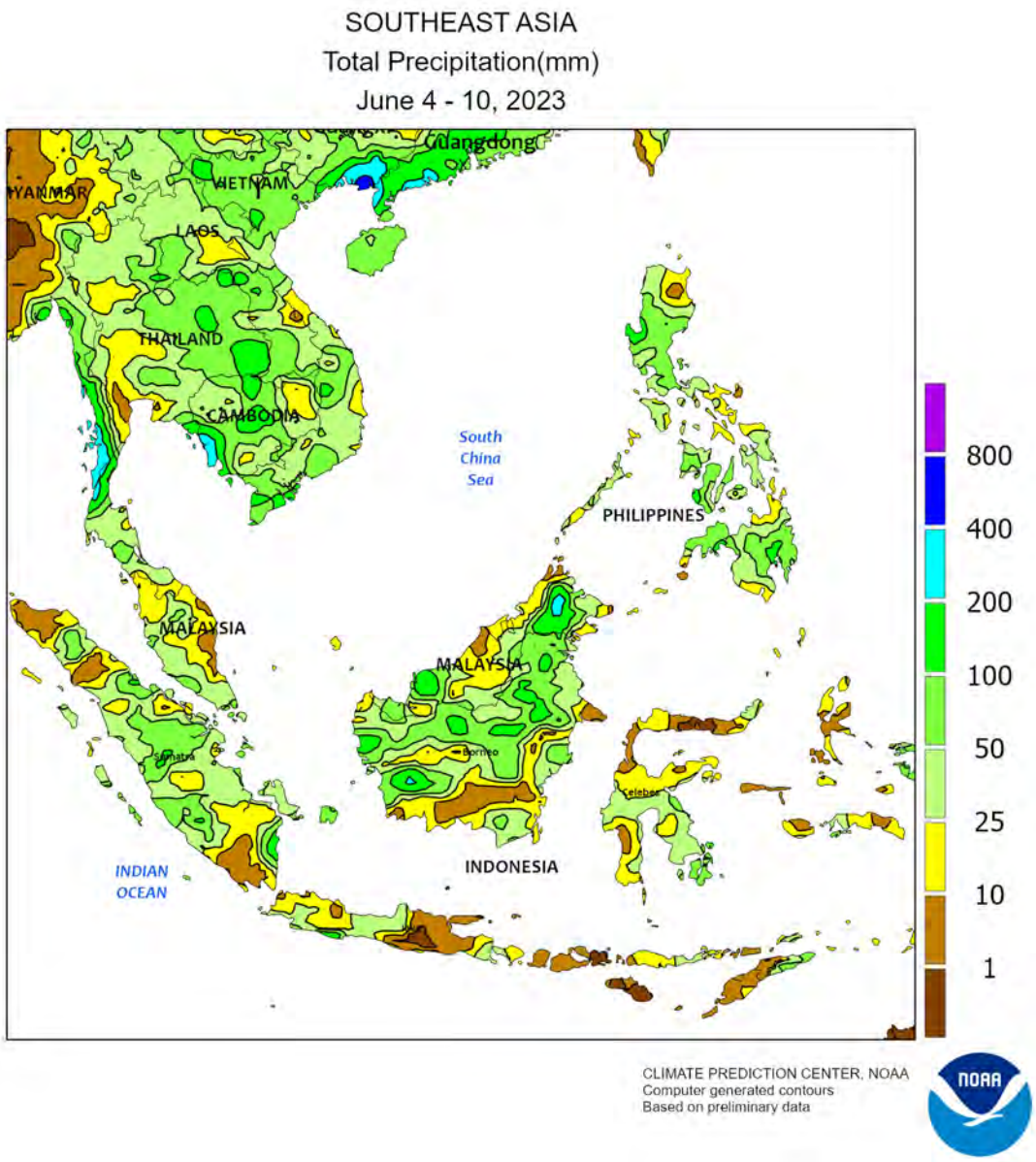

SOUTHEAST ASIA

After a lackluster start to the southwest monsoon season, widespread heavy showers prevailed in northern sections of the region. Nearly all areas from Thailand to the Philippines received over 25 mm of rain and locally over 100 mm. In fact, areas as far south as Java, Indonesia, recorded over 25 mm of rain; at this point in the year, weekly totals in Java don't usually surpass 25 mm until November. The influx of moisture encouraged rice sowing and boosted irrigation supplies in northern growing areas while benefiting oil palm to the south. Despite the recent rainfall, the slow start to the wet season has left many areas with month-long moisture deficits (slightly to moderately dry) and more showers would be welcome to aid rice establishment.

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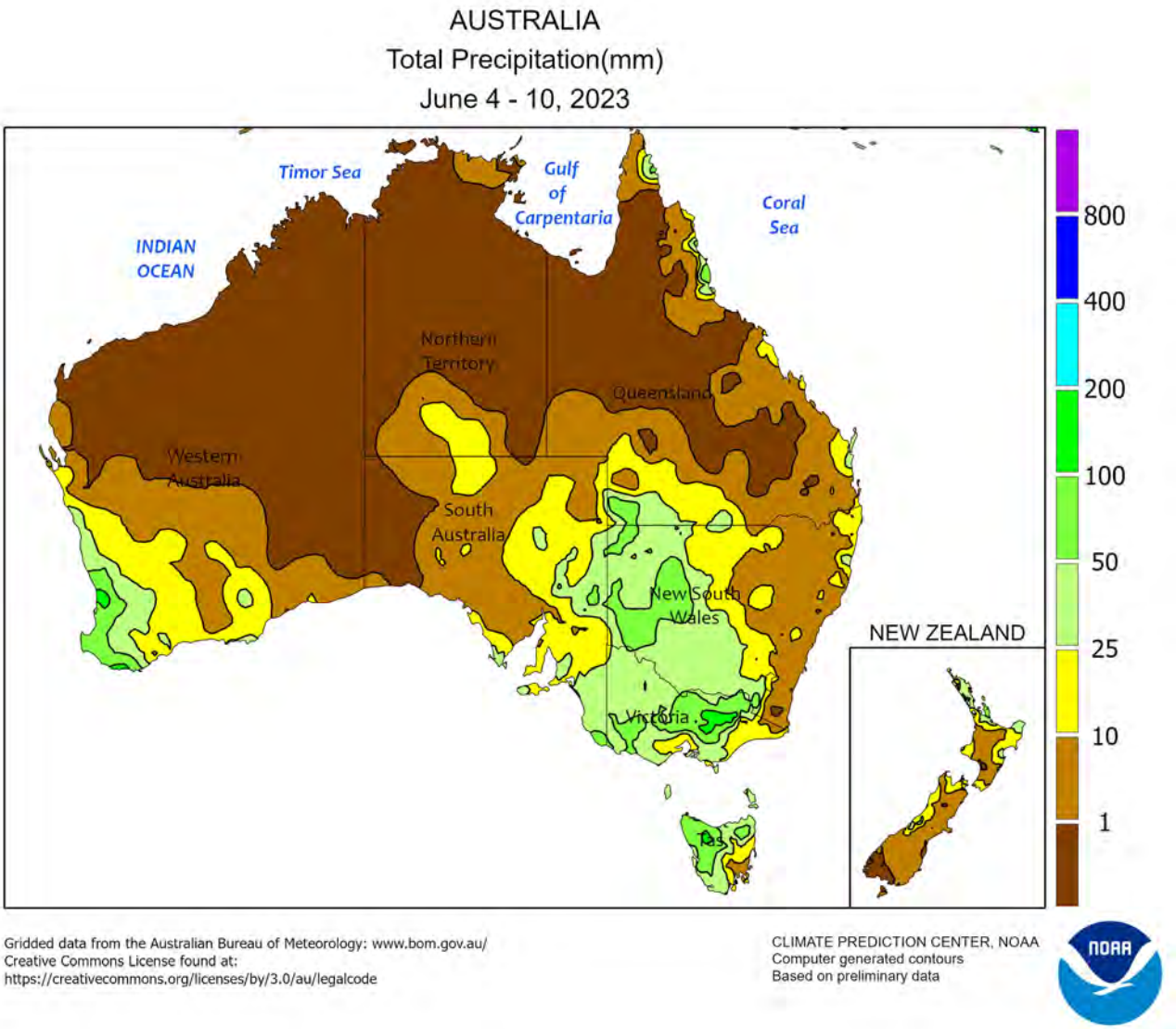

AUSTRALIA

Beneficial rain overspread much of the wheat belt, improving early-season wheat, barley, and canola prospects. The heaviest and most widespread rainfall was in western and southeastern Australia, where amounts approached or exceeded 25 mm in many areas. The rain helped increase root zone soil moisture to near- or somewhat above-normal levels, aiding winter crop germination, emergence, and establishment. Elsewhere in the wheat belt, lighter rain (generally 5-10 mm) fell across northern New South Wales, providing some additional moisture for recently planted winter grains and oilseeds. Farther north, mostly dry weather covered southern Queensland, aiding fieldwork but further reducing topsoil moisture for emerging wheat and other winter crops. More rain would be welcome in the northeast to help promote winter crop emergence and establishment. Temperatures averaged 2 to 3°C above normal in the south and east but 1 to 2°C below normal in the west. Maximum temperatures were mostly in the upper 10s and lower 20s (degrees C).

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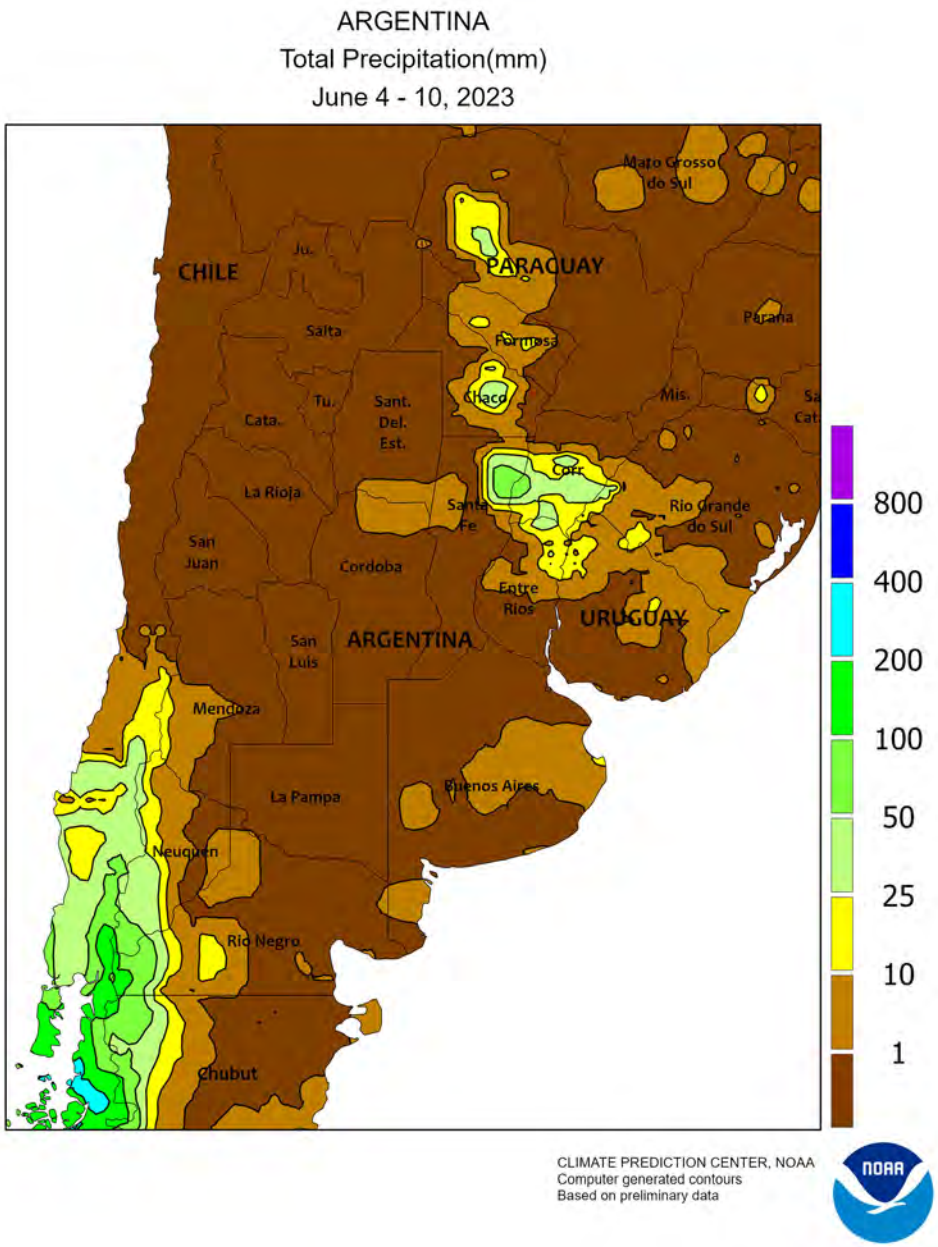

ARGENTINA

Warm, sunny weather supported seasonal fieldwork in most major farming areas. Except for a brief period of heavy rain (10-25 mm, locally exceeding 50 mm) centered over northeastern Santa Fe, which temporarily disrupted cotton harvesting, dryness prevailed, favoring summer crop harvesting and winter grain planting elsewhere. Weekly average temperatures ranged from 1 to 2°C above normal in La Pampa and Buenos Aries to as much as 8°C above normal across the north, where daytime highs reached the lower 30s (degrees C). Freezes (temperatures reaching as low as -2°C) were confined to climatologically cooler locations in southern Buenos Aires. According to the government of Argentina, corn was 46 percent harvested as of June 8 versus 57 percent last year, while soybeans were 94 percent harvested (98 percent last year). Cotton was 58 percent harvested, compared with 56 percent last year. Meanwhile, wheat was 21 percent planted, 9 points behind last year's pace.

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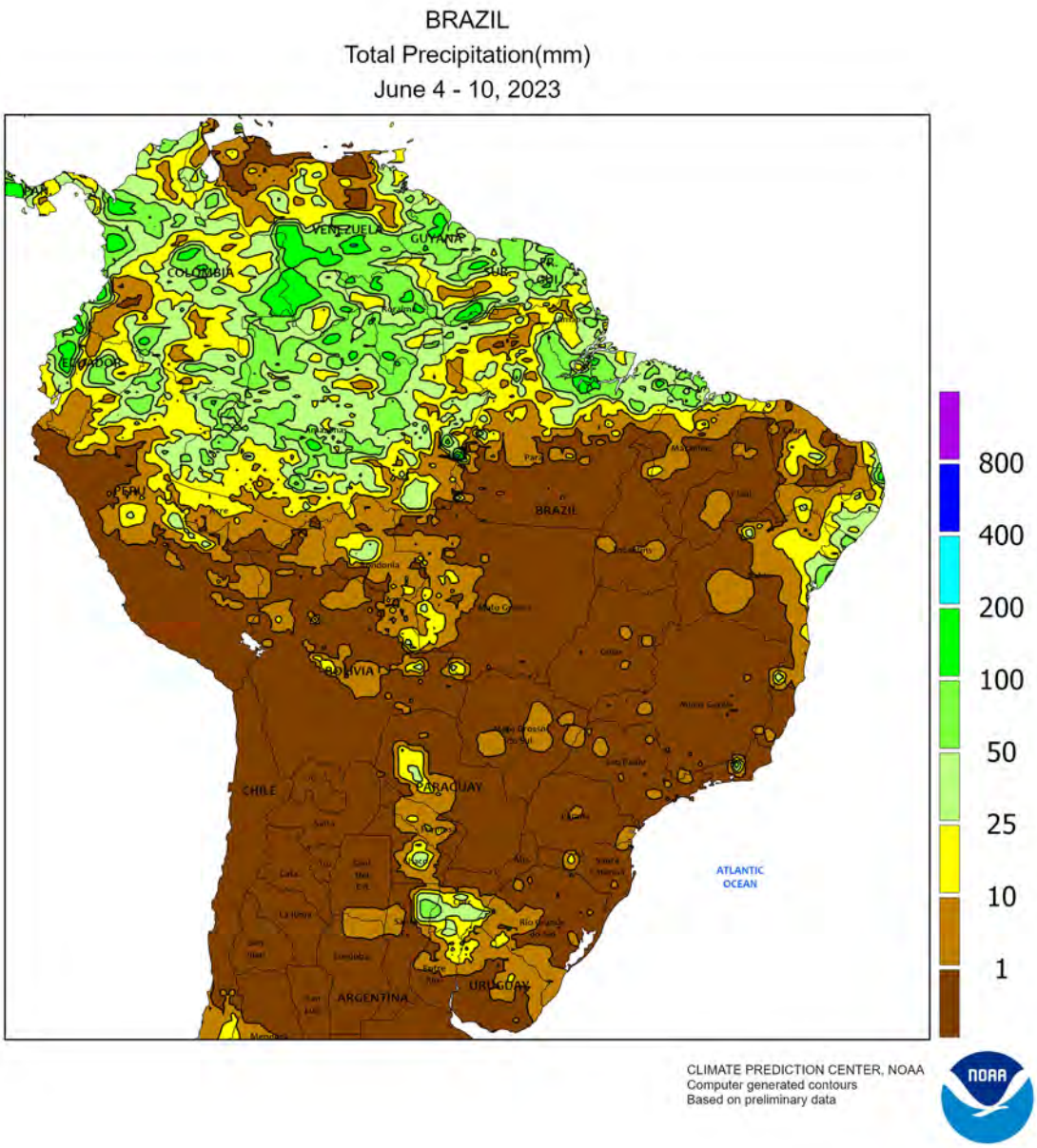

BRAZIL

Dry, generally warm weather dominated nearly all major agricultural areas, spurring rapid growth of late-developing summer crops and emerging wheat. Aside from cropping areas along the northeastern coast (Bahia northward), complete dryness prevailed, including southern farming areas which typically receive rainfall this time of year. Warm weather accompanied the dryness, with highest daytime temperatures ranging from middle 20s (degrees C) in the southeast (Rio Grande do Sul northeastward through Minas Gerais) to the middle 30s in eastern Mato Grosso and the northeastern interior (Tocantins and environs). According to the government of Paraná, more than 60 percent of second-crop corn was filling to maturing as of June 5; wheat was 75 percent planted, with the earliest planted fields approaching reproduction. Meanwhile, corn was reportedly 4 percent harvested in Mato Grosso as of June 9, compared with 15 percent last year.

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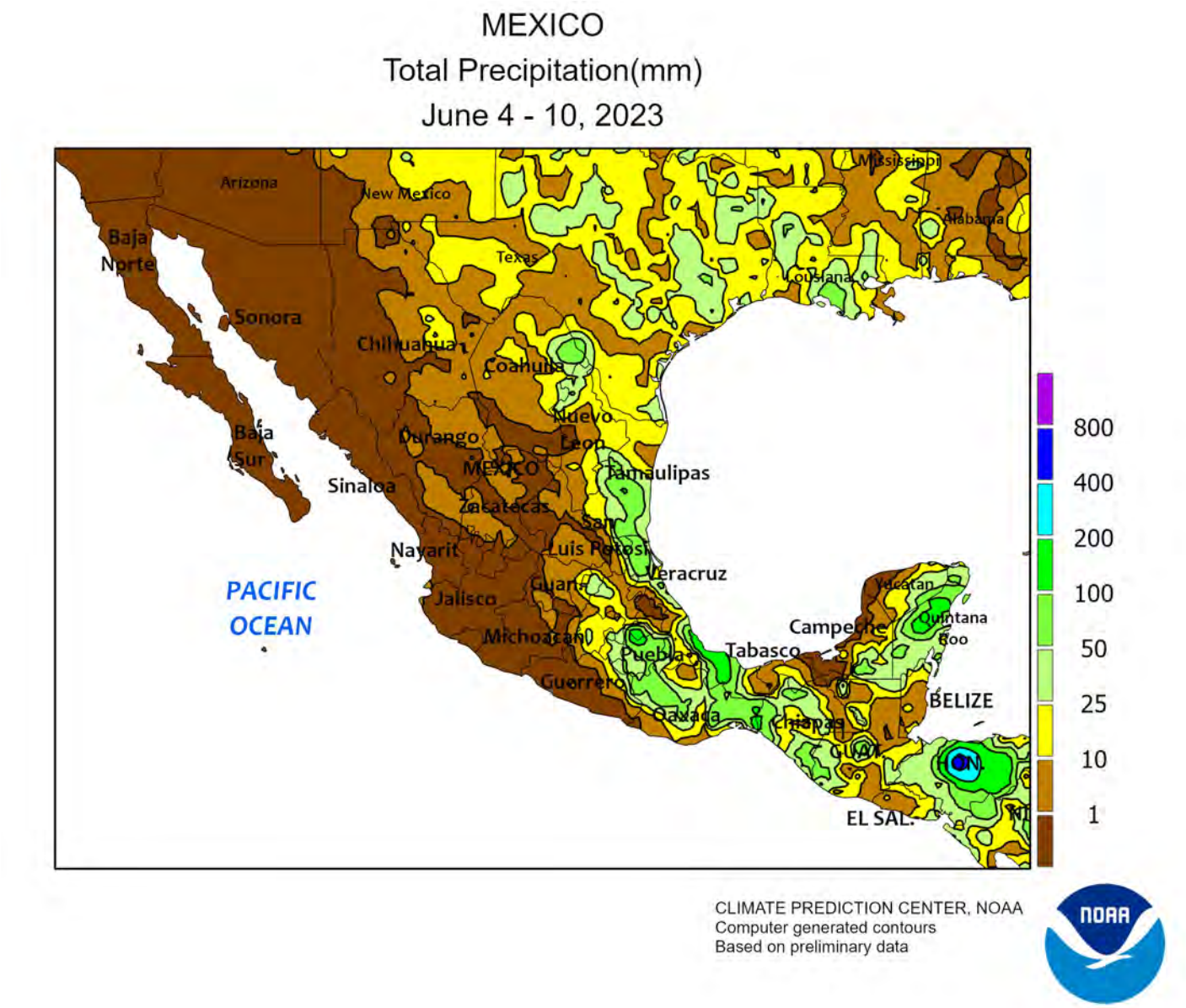

MEXICO

Showers returned to most eastern farming areas, increasing moisture for early summer crop development. Moderate to heavy rain (25-100 mm, locally higher) fell from the eastern southern Plateau (Puebla and environs) to Chiapas, including southern sugarcane areas in Veracruz. Similar amounts were recorded from southern Tamaulipas to northern Veracruz and over sections of the Yucatán Peninsula. However, dry weather continued to dominate western and central sections of the southern plateau, including key summer corn areas in Jalisco and Michoacán. Meanwhile, warm, sunny weather favored maturation and harvesting of winter grains – including corn – in northwestern farming areas.

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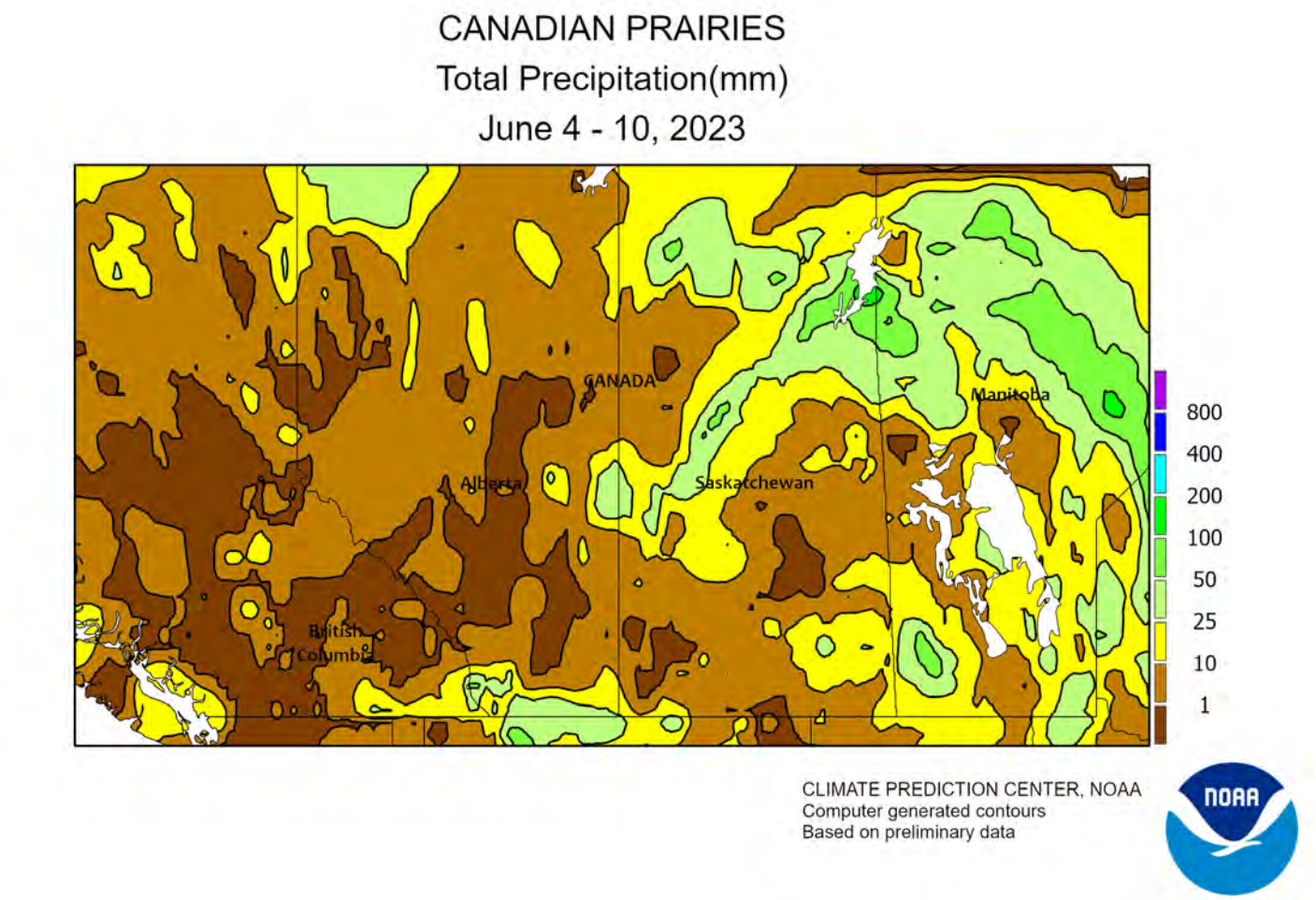

CANADIAN PRAIRIES

Unseasonable warmth continued across the region, spurring rapid emergence of spring crops but drying topsoils in areas not receiving rainfall. Weekly temperatures averaged 4 to 8°C above normal, with highest daytime temperatures reaching the low and middle 30s (degrees C) on several days during the early part of the week. Showers ushered cooler weather into the region at week's end, but amounts were variable, with most locations recording less than 10 mm. An exception was southwestern Manitoba and neighboring locations in Saskatchewan, where locally more than 25 mm fell, and in Saskatchewan's northwestern farming areas. According to the government of Saskatchewan, crops were 96 percent planted as of June 5, on par with the 5-year average pace (97 percent). Similarly, crops were 97 percent planted in Manitoba on June 4 and 100 percent planted in Alberta as of June 6.

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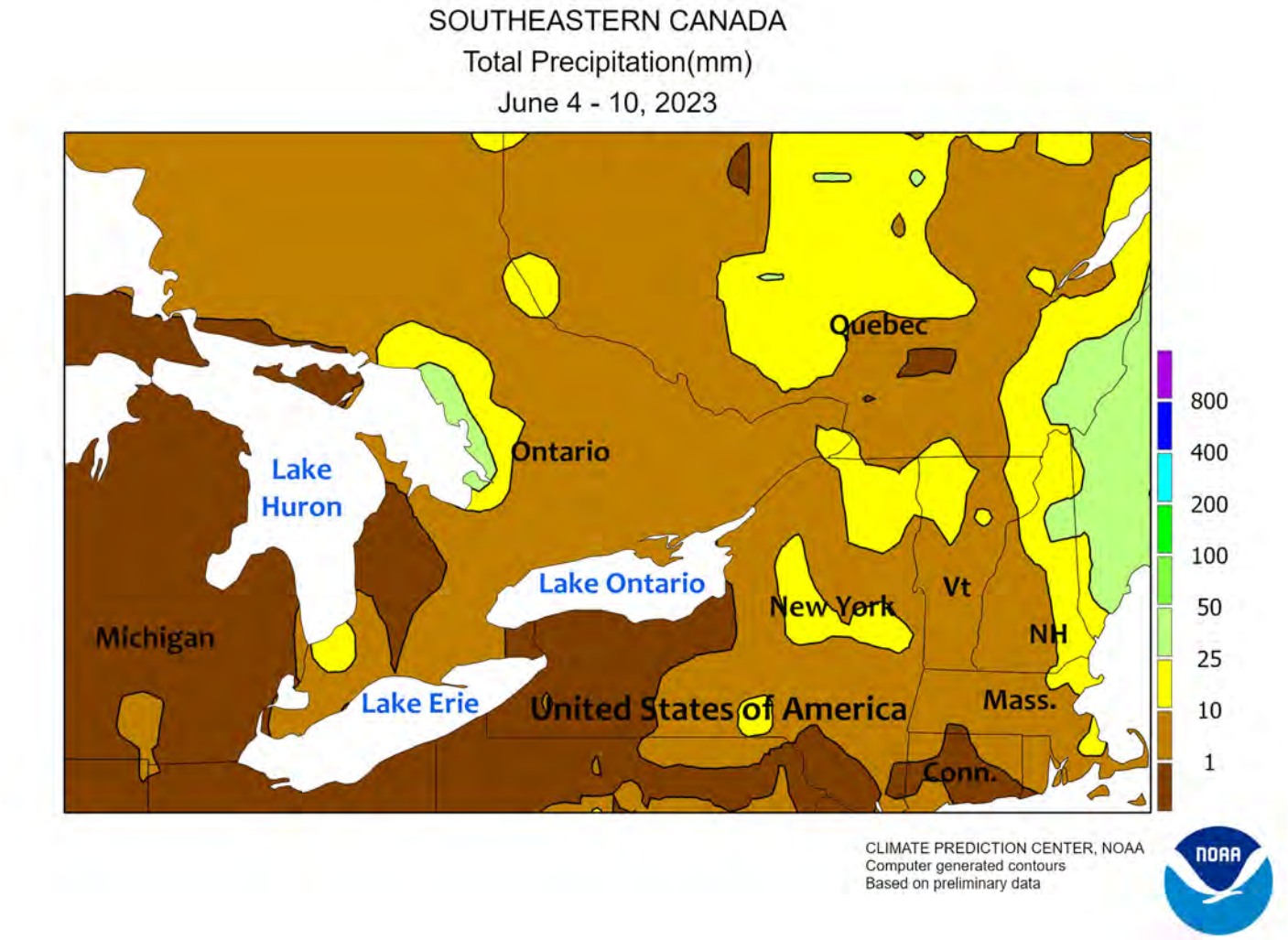

SOUTHEASTERN CANADA

Mild, sunny weather favored development of winter wheat, pastures, and early growth of emerging corn and soybeans. Weekly temperatures averaged 1 to 2°C below normal, with highest daytime temperatures ranging from the lower 20s (degrees C) in southern Quebec to the middle and upper 20s in Ontario's southwestern farming areas. Nighttime lows dropped into the low single digits in the cooler locations, but no freeze was recorded. Rainfall was generally light, with only a few locations region-wide totaling more than 10 mm. The relatively cool and dry conditions aided seasonal fieldwork, including the final stages of spring plantings and treatment of winter crops for any existing diseases and pests.

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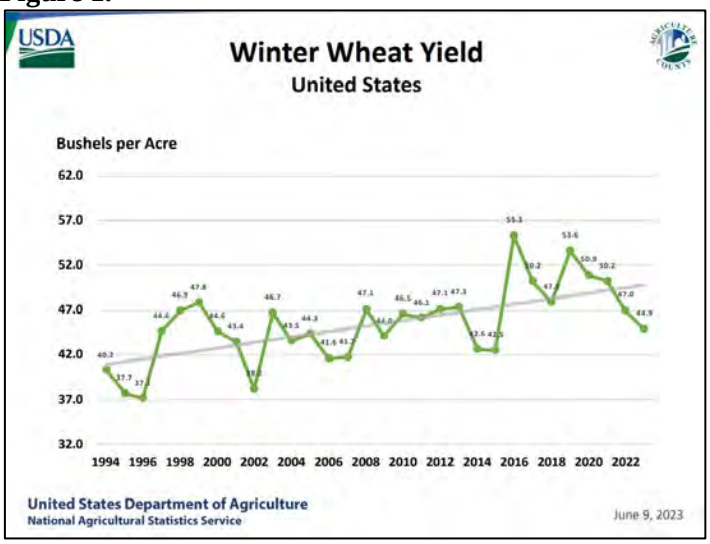
U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on June 9, 2023. Forecasts refer to June 1.

Winter wheat production is forecast at 1.14 billion bushels, up 1 percent from the May 1 forecast and up 3 percent from 2022. The U.S. yield is forecast at 44.9 bushels per acre (figure 1), up 0.2 bushel from last month but down 2.1 bushels from last year's average yield of 47.0 bushels per acre.

Figure 1.



Hard Red Winter production, at 525 million bushels, is up 2 percent last month. Soft Red Winter, at 402 million bushels, is down 1 percent from the May forecast. White Winter, at 209 million bushels, is down 1 percent from last month. Of the White Winter production, 10.3 million bushels are Hard White and 199 million bushels are Soft White.

The **U.S. all orange** forecast for the 2022-2023 season is 2.56 million tons, up less than 1 percent from the previous forecast but down 25 percent from the 2021-2022 final utilization.

The Florida all orange forecast, at 15.8 million boxes (709,000 tons), is up 1 percent from the previous forecast but down 62 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 6.15 million boxes (277,000 tons), unchanged from the previous forecast but down 66 percent from last season's final utilization.

The Florida Valencia orange forecast, at 9.60 million boxes (432,000 tons), is up 1 percent from the previous forecast but down 58 percent from last season's final utilization.

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