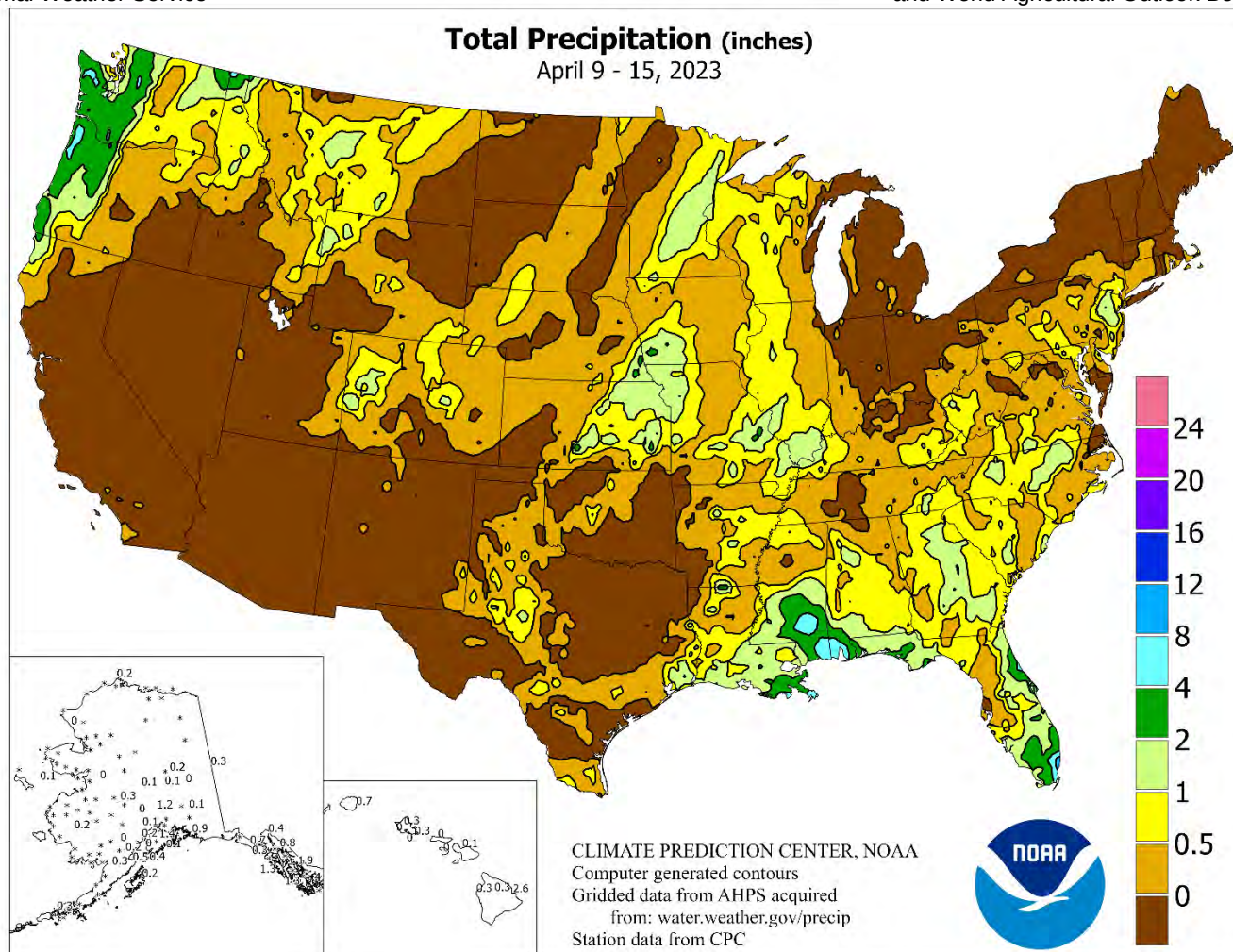


WEEKLY WEATHER AND CROP BULLETIN

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

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



HIGHLIGHTS

April 9 – 15, 2023

Highlights provided by USDA/WAOB

Open weather for much of the week favored a rapid fieldwork pace in many areas, including the **Plains** and **Midwest**. Exceptions included portions of the **northern Plains** and **far upper Midwest**, where melting snow led to sharp river rises, wet field conditions, and lowland flooding. In addition, a late-week storm system delivered precipitation (rain and wet snow) across the **upper Midwest**. Meanwhile, generally dry weather stretched from **California to the southern Plains**. In the latter region, punishing drought and warm, windy weather

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Water Supply Forecast for the Western United States

Highlights

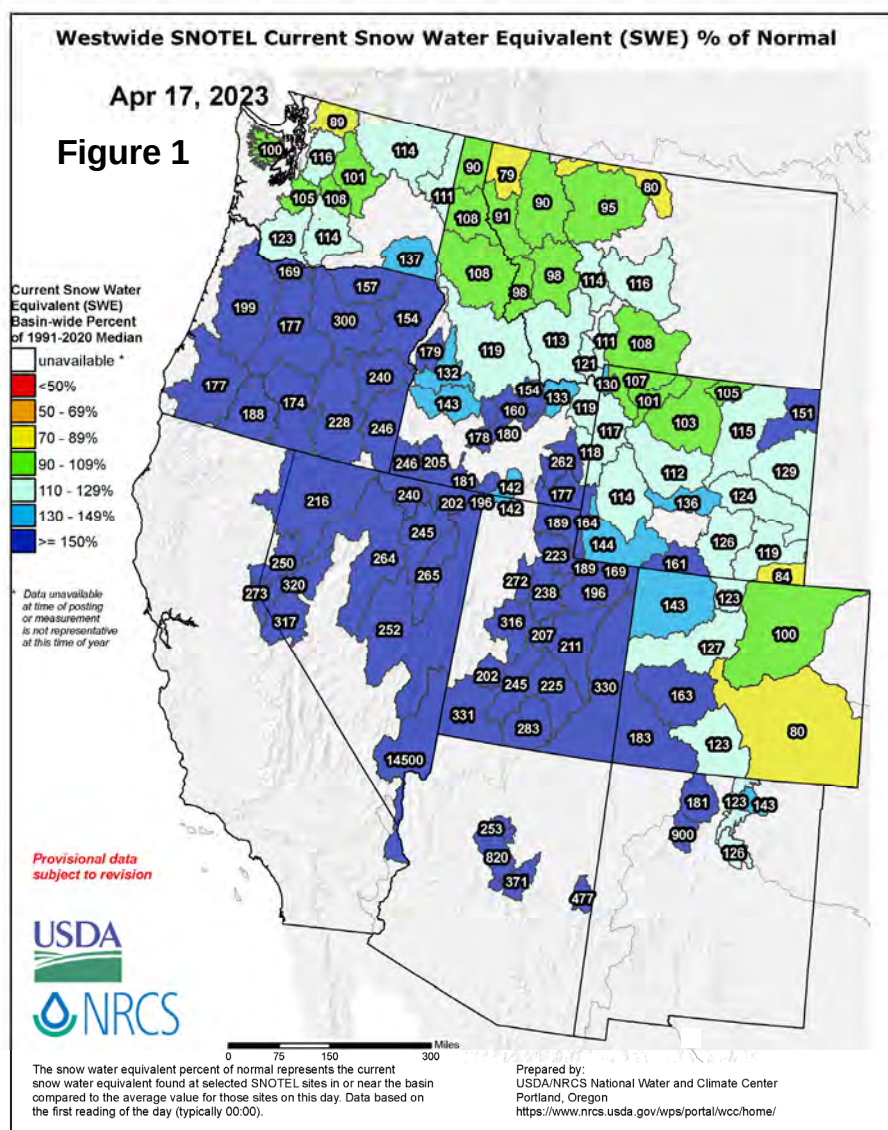
Amid a third consecutive La Niña winter, unexpectedly wet weather—especially in California and the Southwest—led to substantial drought relief and improved water-supply prospects. However, Colorado River water levels remained perilously low, with basin-wide storage standing at 15.1 million acre-feet (46 percent of average) at the end of March. Still, between July 31, 2022, and March 31, 2023, the surface elevation of Lake Mead (behind Hoover Dam on the Colorado River) rose more than 5 feet.

According to the California Department of Water Resources, the water equivalency of the Sierra Nevada snowpack topped 60 inches by April 1, roughly 235 percent of average for the date. With late-season precipitation, the Sierra Nevada snow-water equivalency easily surpassed final values in the two most recent wetter-than-normal seasons (2016-17 and 2018-19). California's bounty extended inland through the Great Basin to the western slopes of the central and southern Rockies. Meanwhile, parts of the Northwest remained drier than normal, although persistently cold weather led to a higher-than-average percentage of the precipitation falling as snow.

Winter and spring storms resulted in substantial drought relief, according to the *U.S. Drought Monitor*. In fact, drought coverage in the 11-state Western region decreased from 74 to 27 percent between September 27, 2022, and April 11, 2023. Additionally, Western coverage of extreme to exceptional drought (D3 to D4) during the same period decreased from 19 to 1 percent.

Snowpack and Precipitation

Western storminess waned in late March or early April, aside from lingering unsettled weather in the Northwest. With a boost from late-season accumulations in the central and southern Sierra Nevada (and some neighboring areas), record-high snowpack was achieved, eclipsing standards mostly set in 1982-83. By April 17, 2023, above-normal snow-water equivalency was reported throughout the West, except across the northern and eastern fringes of the region (figure 1). Snowpack was particularly impressive from the Sierra Nevada to the Wasatch Range, but basins as far north as Oregon greatly benefited from cold weather in winter and early spring, which allowed a higher-than-normal percentage of the precipitation to fall as snow. Snow-water equivalency was below average in widely scattered basins near the Canadian border, as well as a few areas in eastern Colorado and southeastern Wyoming.



Season-to-date precipitation (October 1, 2022 – April 17, 2023) was significantly above normal from California to the western slopes of the central and southern Rockies. In fact, precipitation during that period was more than 150 percent of normal in many basins from the Sierra Nevada into Utah (figure 2). Another area, covering higher elevations of Arizona and New Mexico, has received precipitation totaling roughly 130 to 180 percent of normal since the start of the water year on October 1. In contrast, below-normal precipitation has fallen in parts of the Northwest, with several basins—mainly from the Cascades to the northern Rockies—reporting season-to-date totals ranging from 75 to 90 percent of normal.

Spring and Summer Streamflow Forecasts

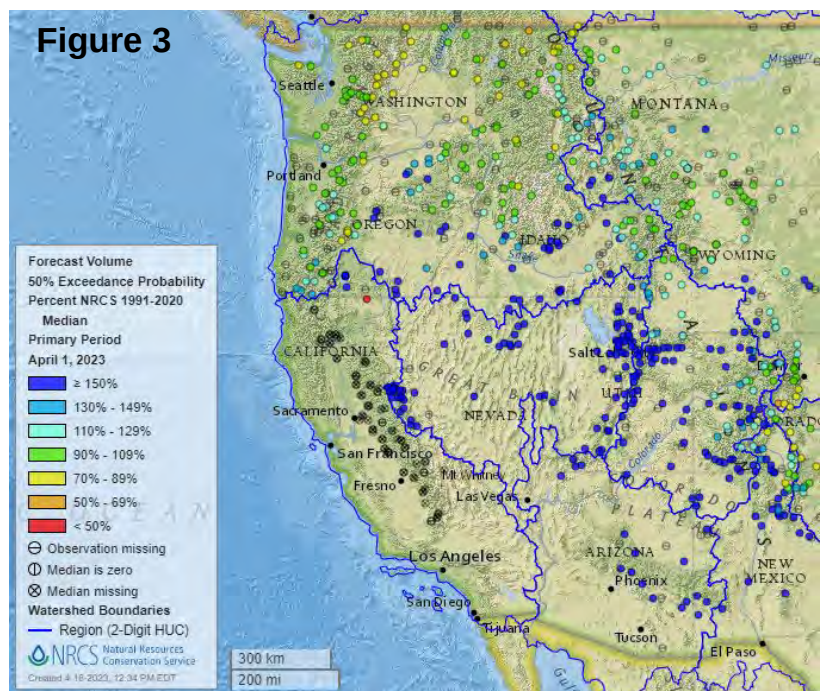
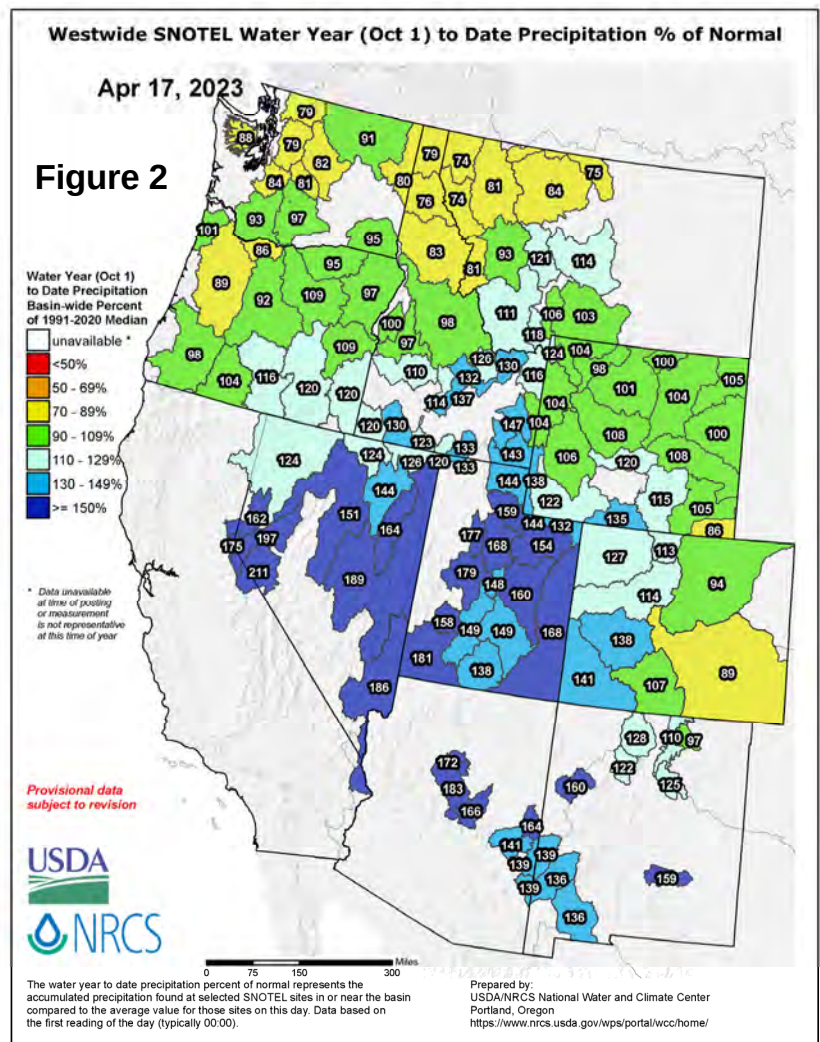
By April 1, 2023, projections for spring and summer streamflow were indicating the likelihood of favorable runoff (more than 150 percent of average) from the Sierra Nevada to the Wasatch Range and parts of the Southwest. However, runoff prospects were considerably less favorable—less than 90 percent of average—in several areas, including the northern Cascades and scattered basins in the northern Rockies. Portions of the eastern slopes of the central Rockies can also expect below-average streamflow (figure 3).

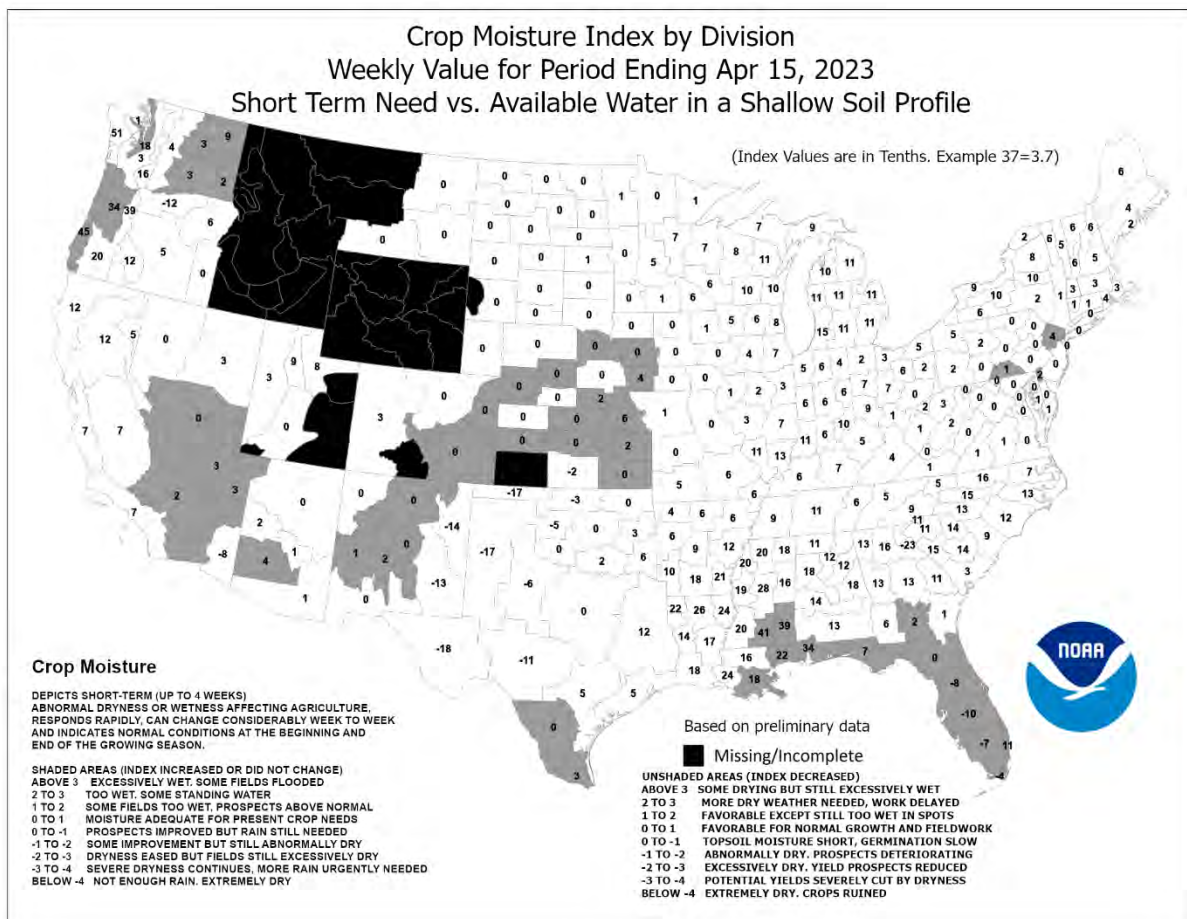
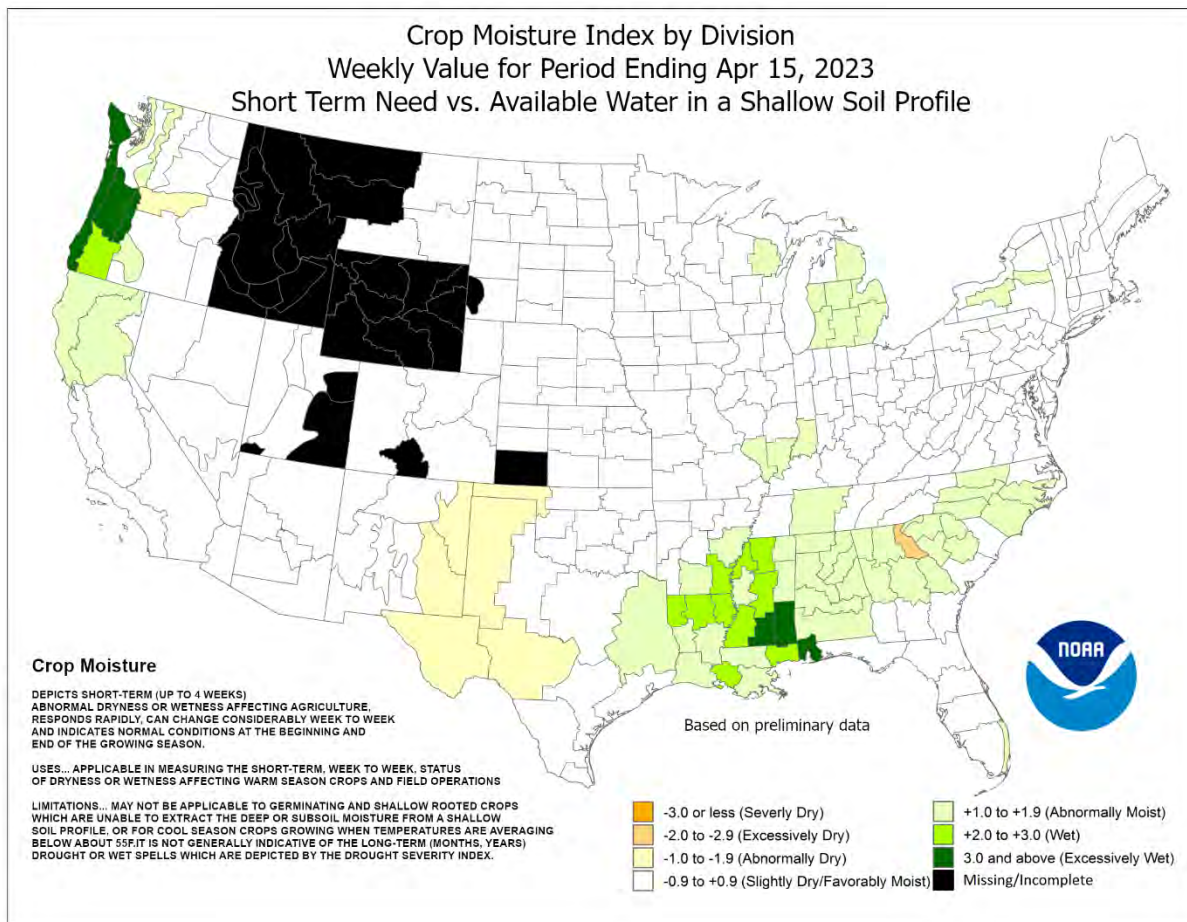
Reservoir Storage

On April 1, 2023, statewide reservoir storage as a percent of average for the date reflected varying degrees of recovery from long-term drought. As April began, California's 154 primary intrastate reservoirs held 27.5 million acre-feet of water, 105 percent of average (see back cover).

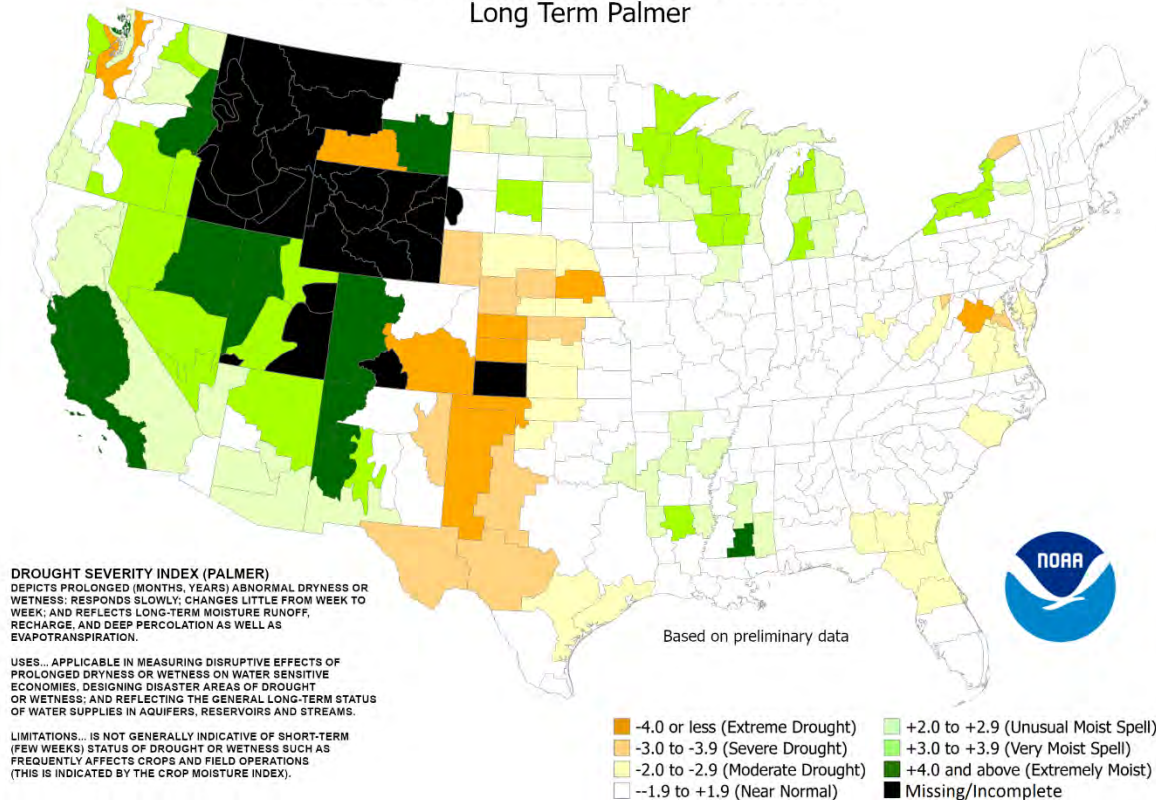
For More Information

The National Water and Climate Center homepage provides the latest available snowpack and water supply information. Please visit: <http://www.wcc.nrcs.usda.gov>

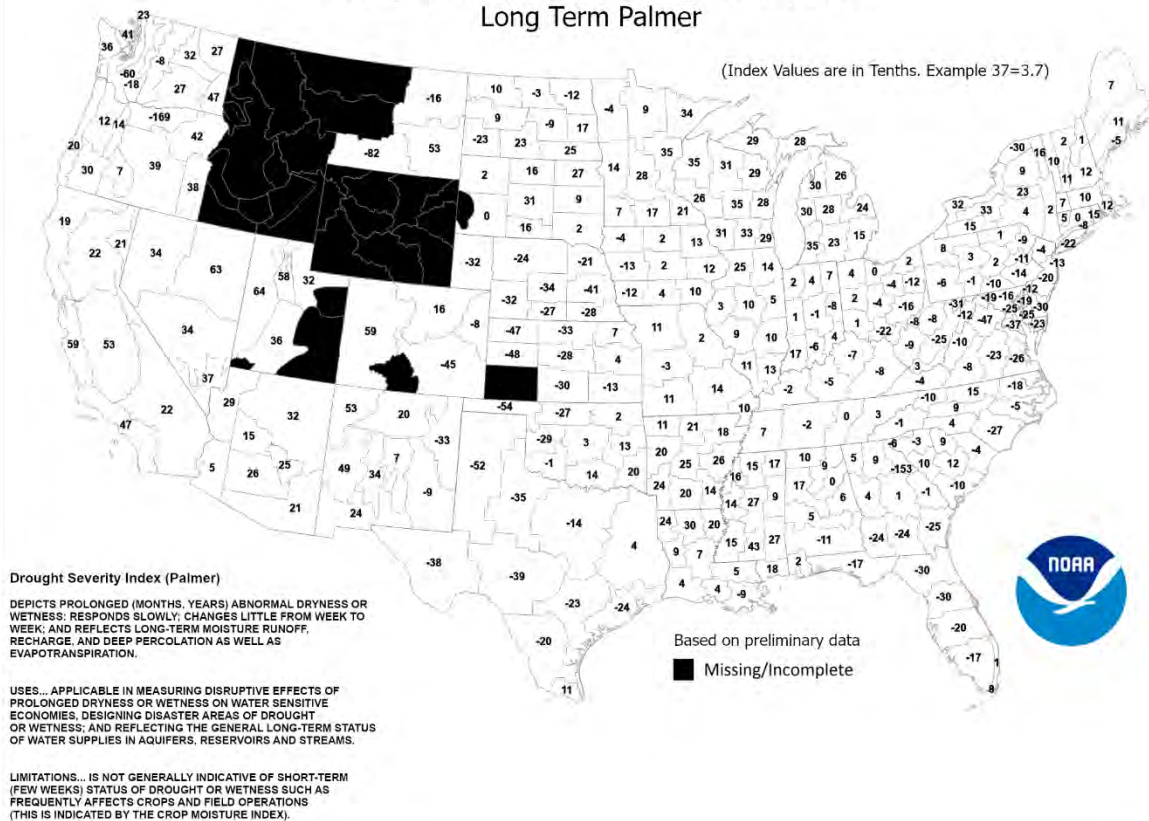


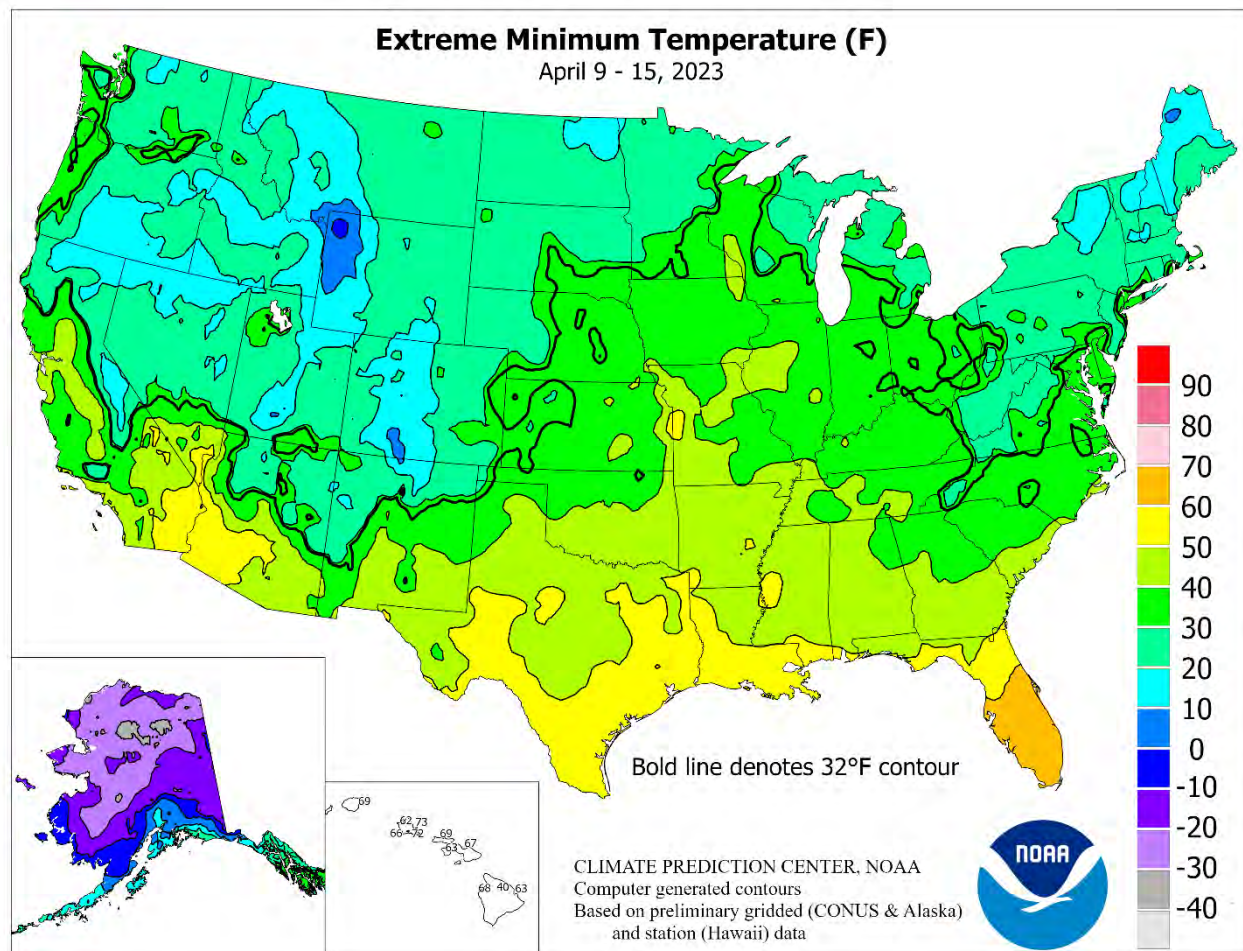
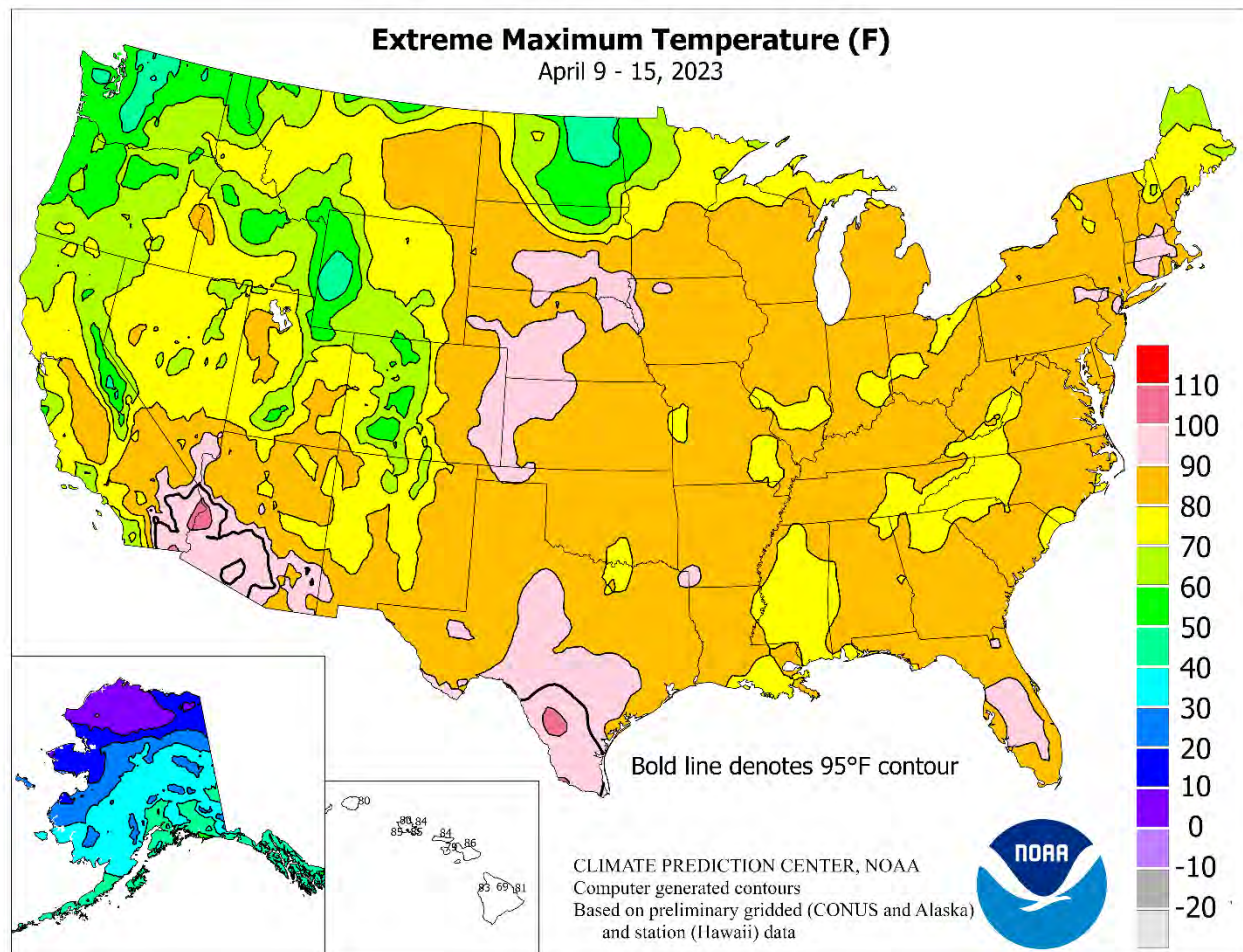


Drought Severity Index by Division Weekly Value for Period Ending Apr 15, 2023 Long Term Palmer



Drought Severity Index by Division Weekly Value for Period Ending Apr 15, 2023 Long Term Palmer



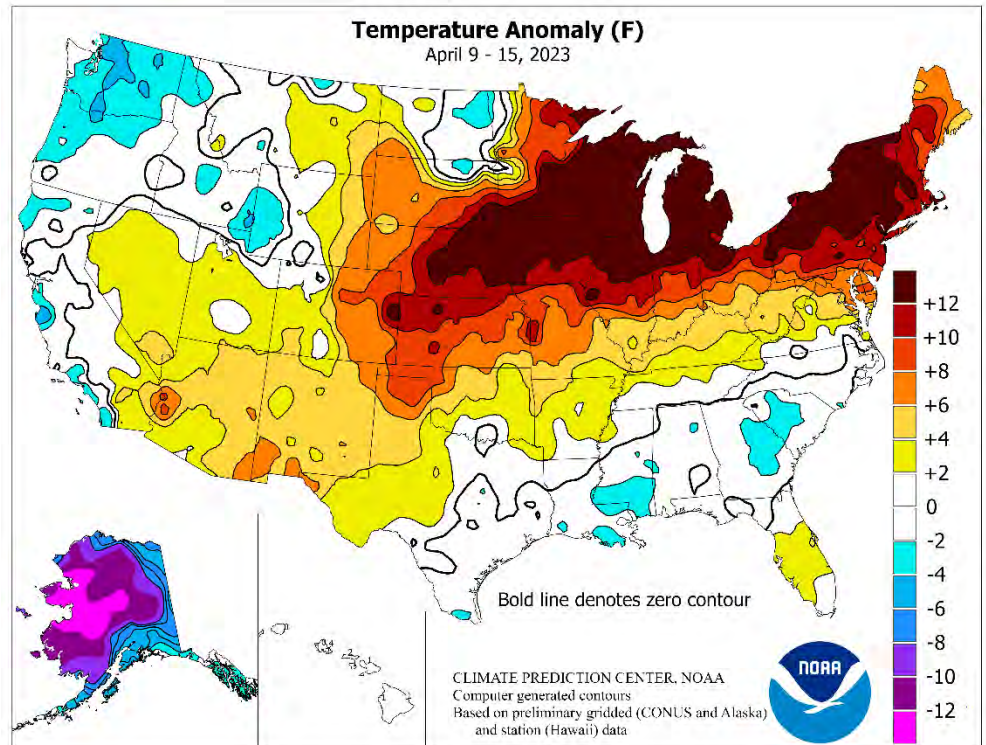


(Continued from front cover)

further stressed rangeland, pastures, and winter grains. Late-week showers provided very limited and localized drought relief in a few areas, including parts of **central and eastern Kansas**. In **California**, the **Great Basin**, and the **Southwest**, extensive snowpack began to melt, amid warm, sunny conditions. Elsewhere, showery weather returned across the **Northwest**, while locally heavy rain soaked the **South**. Some of the heaviest rain, locally 4 inches or more, fell in the **central Gulf Coast region** and across **southern Florida**. Late in the week, showers spread northeastward across the **eastern U.S.** Weekly temperatures averaged 10 to 20°F above normal from the **central Plains into the Great Lakes region** and parts of the **Northeast**. Warmer-than-normal weather also dominated the **mid-South, southern Plains**, and **Southwest**. In contrast, snow-covered areas in **eastern North Dakota** and environs experienced near-normal temperatures. Widespread below-normal temperatures were limited to the **Northwest**.

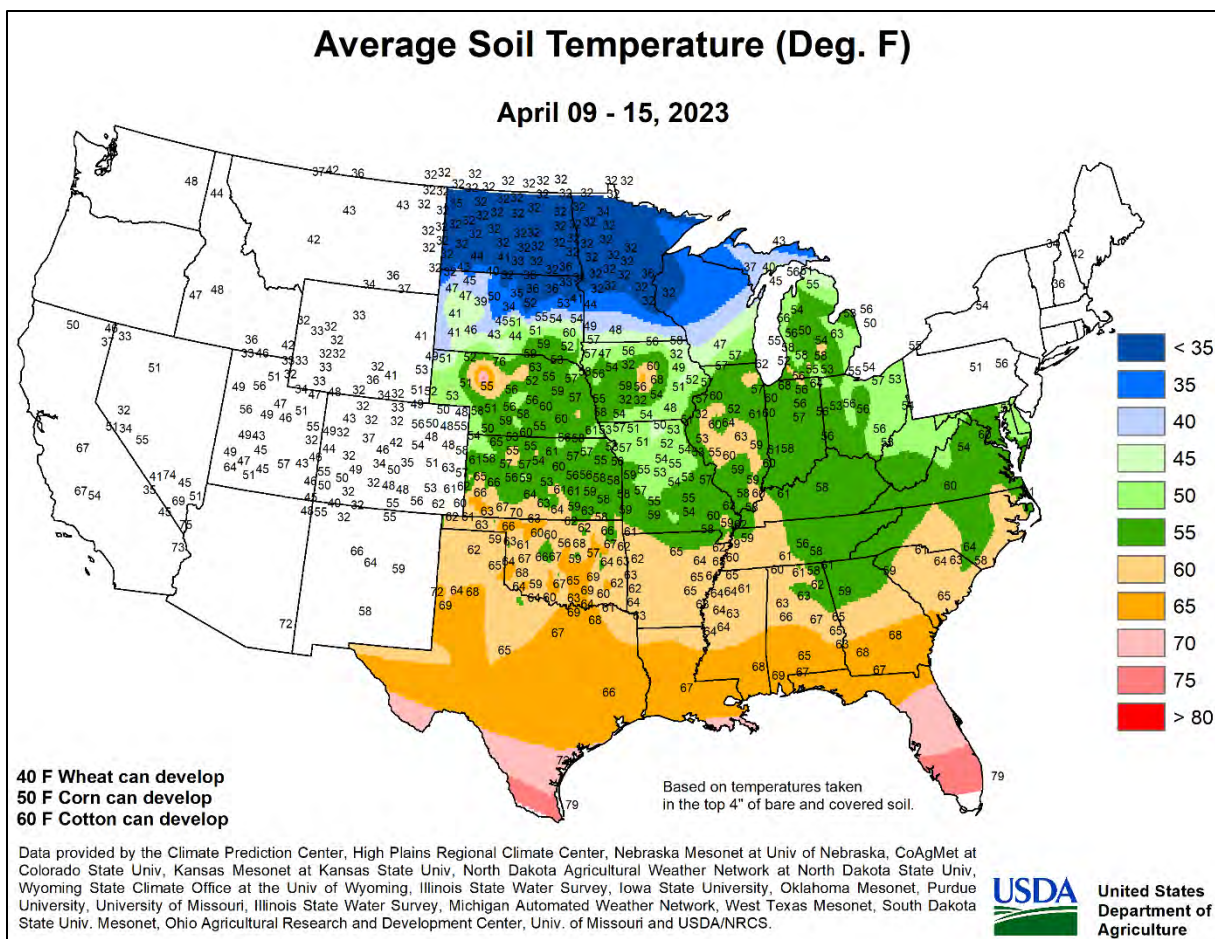
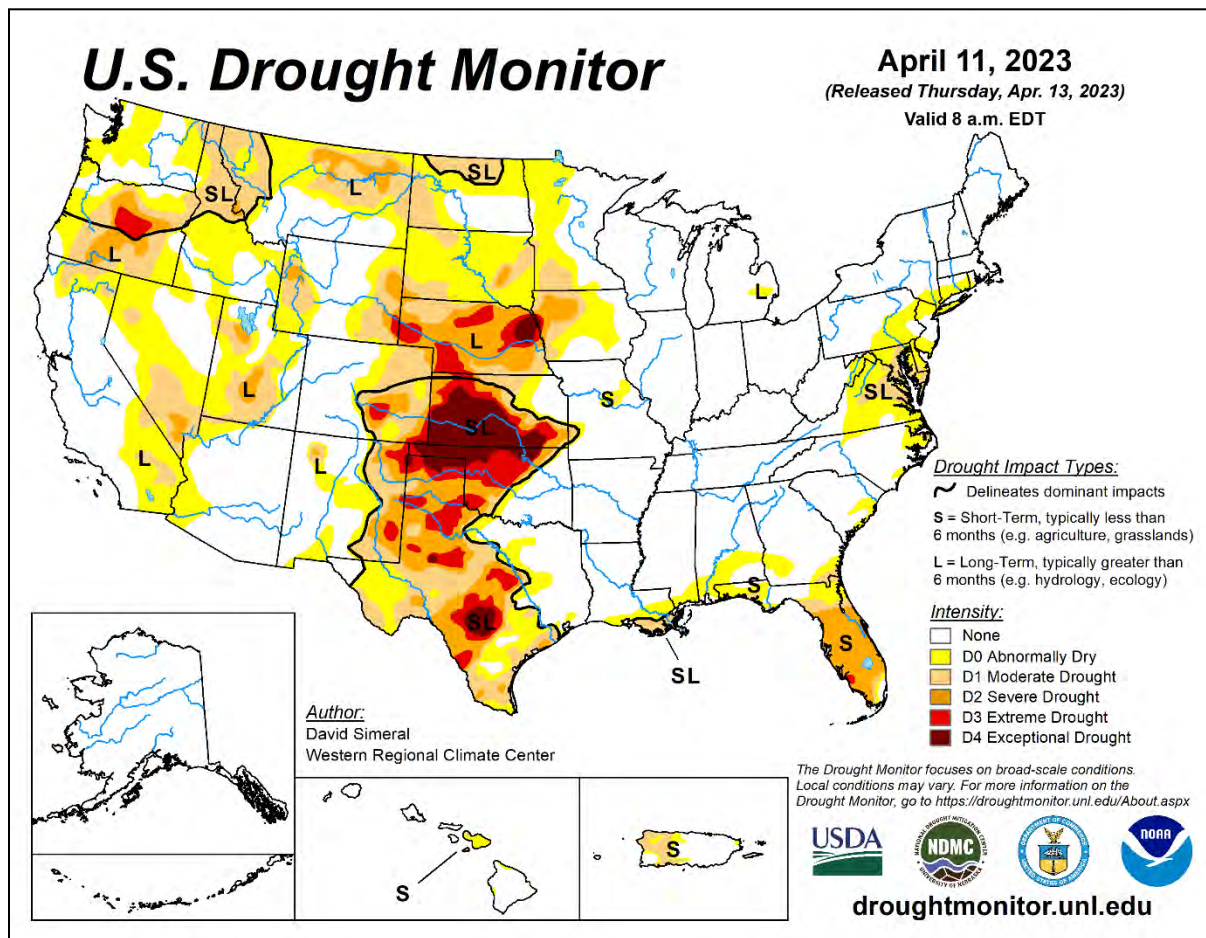
As the week began, warmth arrived in the **West**. By April 10, daily-record highs in **Montana** rose to 80°F in **Miles City** and **Missoula**. On the same date in **Arizona**, **Tucson** (97°F) registered a daily-record high. By April 11, **Cheyenne, WY** (80°F), tallied its earliest-ever reading at or above the 80-degree mark, previously set with a high of 82°F on April 21, 1960. **Tucson** (99°F on April 11) eventually posted another daily-record high, while other **Southwestern** records for the date included 99°F in **Phoenix, AZ**, and 93°F in **Las Vegas, NV**. Daily-record warmth also spread across the **Plains**, where April 11 highs surged to 94°F in **Pierre, SD**, and 92°F in **Scottsbluff, NE**. Three consecutive daily-record highs were set from April 11-13 in a few locations, including **North Platte, NE** (89, 93, and 95°F). In the **Great Lakes States**, a trio of daily-record highs occurred from April 12-14 in **Traverse City, MI** (83, 86, and 86°F), and **Scranton, PA** (84, 87, and 91°F). With a high of 86°F on April 12, **Green Bay, WI**, noted its earliest-ever reading above the 85-degree mark. **Binghamton, NY** (86°F on April 13), also topped 85°F earlier than ever before, breaking a record originally set with a high of 86°F on April 17, 2002. Late in the week, hot weather extended as far north as **New England**, where **Hartford, CT**, collected consecutive daily-record highs (92 and 96°F, respectively), on April 13-14. **Hartford's** high of 96°F tied a monthly record originally set on April 19, 1976. **Northeastern** daily-record highs above the 90-degree mark on April 14 included 93°F in **Newark, NJ**, and 91°F in **New York's Central Park**. Late-week heat also affected the **Deep South**, where record-setting highs for April 15 soared to 99°F in **McAllen, TX**, and 93°F in **Fort Myers, FL**.

Early-week showers dotted the **Southeast** and **Pacific Northwest**, resulting in daily-record totals for April 9 in **Punta**



Gorda, FL (2.29 inches), and **Quillayute, WA** (1.94 inches). **Miami, FL**, received at least 2 inches of rain on 3 consecutive days from April 10-12, with respective totals of 2.47, 2.76, and 2.15 inches. Elsewhere in **Florida**, historically heavy rain on April 13 caused severe but localized flooding in **Hollywood, Fort Lauderdale**, and environs, with several 1- to 2-foot totals reported. **Hollywood** received an April 13, calendar-day total of 16.52 inches. Meanwhile in the **Northwest**, daily-record totals for April 10 included 1.36 inches in **Salem, OR**, and 0.93 inch in **Ephrata, WA**. Subsequently, rain overspread portions of the **central and eastern U.S.**, although most amounts were generally light. However, **Raleigh-Durham, NC**, collected a daily-record sum (1.73 inches) on April 14. Meanwhile in **Alabama**, April 12-15 rainfall in **Mobile** totaled 5.09 inches. As the week ended, precipitation across the **upper Midwest** began to change to wet snow. By Sunday, April 16, daily-record snowfall totaled 7.0 inches in **La Crosse, WI**.

Very cold weather again prevailed in **Alaska**, with weekly temperatures averaging at least 20 to 25°F below normal in central and west-central sections of the state. On April 9, **McGrath** posted a daily-record low of -28°F. The following day, **McGrath's** low of -30°F was not a record for the date. Meanwhile, **Kotzebue** collected consecutive daily-record lows of -27°F on April 10-11. **King Salmon** (-6°F on the 9th) reported not only a record low for the date, but also experienced its coldest April weather since 2005, when the temperature fell to -10°F on April 4. Elsewhere, **Anchorage** received 8.8 inches of snow from April 8-10. Farther south, **Hawaii** settled into a more typical weather pattern, with showers occurring mostly in windward locations. On the **Big Island, Hilo** received 2.47 inches of rain from April 11-13. However, less than one-tenth of an inch fell during the week in **Honolulu, Oahu**, and **Kahului, Maui**.



National Weather Data for Selected Cities

Weather Data for the Week Ending April 15, 2023

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN. SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL IN. SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.		
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AK	ANCHORAGE	34	23	46	11	29	-7	1.37	1.28	0.98	1.65	181	3.87	153	90	60	0	6	5	1	
	BARROW	-1	-16	2	-24	-8	0	0.20	0.15	0.12	0.49	182	2.06	329	83	72	0	7	3	0	
	FAIRBANKS	24	0	38	-12	12	-19	0.22	0.15	0.15	0.76	137	2.42	144	75	45	0	7	3	0	
	JUNEAU	45	33	50	27	39	-1	0.82	0.04	0.29	5.42	101	16.67	106	93	50	0	3	6	0	
	KODIAK	40	28	48	18	34	-5	0.19	-1.28	0.09	3.00	38	13.78	61	77	49	0	5	3	0	
AL	NOME	9	-15	21	-24	-3	-24	0.05	-0.13	0.05	3.00	269	5.28	173	82	58	0	7	1	0	
	BIRMINGHAM	74	51	83	45	62	-1	0.66	-0.57	0.62	8.42	101	20.25	110	81	36	0	0	2	1	
	HUNTSVILLE	73	48	81	43	61	-1	0.13	-0.98	0.11	7.60	97	17.57	98	93	43	0	0	2	0	
	MOBILE	73	57	81	50	65	-1	5.09	3.78	2.82	10.73	129	17.79	96	90	50	0	0	3	3	
	MONTGOMERY	77	54	84	49	65	1	0.55	-0.41	0.35	8.15	111	16.44	97	86	42	0	0	2	0	
AR	FORT SMITH	80	51	85	48	65	4	0.04	-1.04	0.04	7.16	117	13.02	111	86	37	0	0	1	0	
	LITTLE ROCK	79	53	85	49	66	5	1.72	0.47	1.72	11.29	149	24.92	166	83	38	0	0	1	1	
AZ	FLAGSTAFF	64	29	73	22	47	4	0.00	-0.22	0.00	7.24	302	16.10	243	74	19	0	6	0	0	
	PHOENIX	89	62	99	58	76	3	0.00	-0.06	0.00	1.44	143	2.81	102	40	11	3	0	0	0	
CA	PRESCOTT	73	40	83	32	57	4	0.00	-0.11	0.00	2.06	165	5.47	146	57	15	0	1	0	0	
	TUCSON	89	57	99	50	73	6	0.00	-0.07	0.00	0.66	88	2.96	122	33	9	3	0	0	0	
	BAKERSFIELD	75	51	87	46	63	1	0.00	-0.14	0.00	2.30	152	6.68	172	80	33	0	0	0	0	
	EUREKA	54	40	63	33	47	-4	1.09	0.19	1.02	9.14	115	19.00	94	92	68	0	0	3	1	
	FRESNO	75	51	87	46	63	2	0.00	-0.25	0.00	4.09	161	12.11	182	78	32	0	0	0	0	
CO	LOS ANGELES	61	53	64	49	57	-4	0.08	-0.06	0.06	7.44	351	18.78	235	95	73	0	0	2	0	
	REDDING	71	46	77	37	59	0	0.00	-0.57	0.00	12.20	202	25.29	144	73	25	0	0	0	0	
	SACRAMENTO	71	47	78	43	59	0	0.00	-0.31	0.00	5.25	150	13.04	122	85	35	0	0	0	0	
	SAN DIEGO	62	55	65	53	58	-4	0.10	-0.06	0.08	4.01	214	10.91	180	90	65	0	0	2	0	
	SAN FRANCISCO	62	49	71	47	56	-1	0.00	-0.35	0.00	6.62	183	19.14	167	82	47	0	0	0	0	
CT	STOCKTON	72	46	82	41	59	-1	0.00	-0.28	0.00	5.34	206	12.94	166	83	37	0	0	0	0	
	ALAMOSA	65	21	75	14	43	2	0.00	-0.12	0.00	0.31	39	0.98	70	85	12	0	7	0	0	
	CO SPRINGS	69	38	83	29	54	7	0.27	-0.05	0.18	0.51	37	1.41	70	57	13	0	1	2	0	
	DENVER INTL	72	39	85	26	55	8	0.07	-0.29	0.07	0.63	41	2.11	90	58	19	0	4	1	0	
	GRAND JUNCTION	69	41	83	30	55	4	0.64	0.41	0.64	2.32	179	3.70	151	67	22	0	1	1	1	
DC	PUEBLO	77	37	90	30	57	6	0.08	-0.28	0.08	0.18	11	0.80	37	50	11	1	3	1	0	
	BRIDGEPORT	71	46	87	35	58	9	0.01	-1.01	0.01	3.75	60	9.96	79	85	35	0	0	1	0	
DE	HARTFORD	78	44	96	29	61	13	0.10	-0.83	0.10	4.52	79	12.06	99	77	21	2	2	1	0	
	WASHINGTON	77	51	88	40	64	7	0.53	-0.18	0.53	2.33	46	6.00	57	81	27	0	0	1	1	
FL	WILMINGTON	76	54	88	34	65	12	0.10	-0.72	0.10	2.78	46	6.83	57	71	32	0	0	1	0	
	DAYTONA BEACH	80	65	86	63	72	3	1.88	1.34	0.67	3.49	72	5.44	54	90	56	0	0	5	1	
	JACKSONVILLE	77	59	89	50	68	1	1.21	0.48	0.93	4.48	92	7.79	70	95	56	0	0	4	1	
	KEY WEST	83	75	86	70	79	1	0.62	0.21	0.58	0.89	37	0.98	17	90	31	0	0	3	1	
	MIAMI	84	71	89	68	78	1	6.80	6.09	2.44	10.83	275	14.46	182	95	62	0	0	4	3	
GA	ORLANDO	85	66	94	61	75	4	0.23	-0.36	0.12	0.38	8	1.92	21	93	46	3	0	4	0	
	PENSACOLA	74	59	80	51	67	-1	1.61	0.28	0.78	5.63	69	12.00	67	85	55	0	0	4	1	
	TALLAHASSEE	78	57	88	50	68	1	1.13	0.27	0.49	5.14	71	15.70	98	87	45	0	0	4	0	
	TAMPA	83	68	88	64	75	2	0.02	-0.58	0.02	0.37	10	2.37	26	89	52	0	0	1	0	
	WEST PALM BEACH	84	69	89	67	76	2	2.34	1.48	1.72	2.47	48	3.79	33	92	60	0	0	5	1	
HI	ATHENS	72	45	80	35	58	-3	0.84	0.01	0.42	7.45	120	19.46	130	93	37	0	0	2	0	
	ATLANTA	71	51	80	44	61	-1	0.86	-0.05	0.76	7.83	118	17.32	109	78	37	0	0	2	1	
	AUGUSTA	75	43	84	35	59	-5	0.61	-0.10	0.55	7.82	137	19.59	148	99	32	0	0	3	1	
	COLUMBUS	75	52	81	46	63	-1	0.37	-0.60	0.37	6.54	93	15.17	96	83	40	0	0	1	0	
	MACON	75	48	84	40	61	-2	0.51	-0.41	0.50	7.31	116	18.28	123	96	43	0	0	2	0	
IA	SAVANNAH	76	54	85	47	65	-1	0.67	-0.16	0.56	4.23	80	11.42	100	88	40	0	0	2	1	
	HILO	80	65	81	63	73	1	2.62	0.37	1.43	14.78	82	53.32	148	94	60	0	0	6	2	
	HONOLULU	84	73	85	72	78	2	0.02	-0.14	0.01	3.92	138	7.45	112	77	52	0	0	2	0	
	KAHULUI	83	69	86	67	76	1	0.08	-0.21	0.08	1.75	51	7.54	96	82	48	0	0	1	0	
	LIHUE	79	71	80	69	75	0	0.68	0.22	0.35	7.32	107	20.90	158	89	69	0	0	6	0	
ID	BURLINGTON	77	48	82	41	62	11	0.33	-0.51	0.33	3.38	82	7.36	101	67	31	0	0	1	0	
	CEDAR RAPIDS	78	46	83	39	62	14	0.27	-0.54	0.27	1.00	28	4.09	71	71	26	0	0	1	0	
	DES MOINES	76	50	84	37	63	13	0.41	-0.44	0.40	2.46	63	6.08	96	71	33	0	0	2	0	
	DUBUQUE	76	46	82	39	61	15	0.38	-0.55	0.38	2.35	57	7.50	107	82	30	0	0	1	0	
	SIOUX CITY	77	47	92	38	62	15	0.15	-0.54	0.10	1.37	42	4.10	86	75	30	2	0	4	0	
IL	WATERLOO	80	49	87	38	64	16	0.15	-0.77	0.15	2.30	60	6.50	109	65	27	0	0	1	0	
	BOISE	64	38	82	31	51	1	0.08	-0.22	0.08	2.54	128	3.61	82	64	23	0	2	1	0	
	LEWISTON	61	39	76	33	50	0	0.33	0.01	0.25	1.48	73	2.20	52	84	36	0	0	3	0	
IN	POCATELLO	60	31	75	22	46	1	0.04	-0.23	0.04	2.34	130	4.21	109	89	35	0	5	1	0	
	CHICAGO/O_HARE	78	53	83	41	66	17	0.01	-0.81	0.01	4.96	119	11.25	139	56	23	0	0	1	0	
	MOLINE	81	46	86	38	63	13	0.25	-0.57	0.25	3.22	74	8.85	113	70	25	0	0	1	0	
	PEORIA	78	50	82	44	64	12	0.31	-0.56	0.31	4.95	110	9.80	114	68	26	0	0	1	0	
	ROCKFORD	78	46	83	34	62	14	0.28	-0.57	0.28	4.82	116	10.46	141	76	27	0	0	1	0	
KS	SPRINGFIELD	78	49	82	41	64	11	0.26	-0.59	0.26	4.26	94	7.82	92	67	38	0	0	1	0	
	EVANSVILLE	78	47	82	39	62	6	0.42	-0.70	0.42	9.95	145	18.24	135	79	27	0	0	1	0	
	FORT WAYNE	76	44	83	33	60	11	0.00	-0.88	0.00	5.17	111	11.								

Weather Data for the Week Ending April 15, 2023

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
KY	WICHITA	78	47	86	39	63	7	0.01	-0.63	0.01	0.28	8	2.76	49	80	30	0	0	1	0
	LEXINGTON	76	45	84	36	61	6	0.00	-0.99	0.00	5.31	81	15.23	112	72	28	0	0	0	0
	LOUISVILLE	78	49	83	37	64	6	0.00	-1.07	0.00	7.37	108	15.11	110	69	25	0	0	0	0
LA	PADUCAH	78	46	83	41	62	4	0.51	-0.63	0.51	9.70	139	20.66	140	87	28	0	0	1	1
	BATON ROUGE	74	59	83	55	67	0	0.86	-0.33	0.86	9.51	136	23.13	130	87	57	0	0	1	1
	LAKE CHARLES	74	57	80	52	65	-3	1.12	0.09	0.90	10.16	175	17.42	116	96	58	0	0	2	1
MA	NEW ORLEANS	73	61	80	58	67	-2	1.47	0.30	1.43	4.02	58	9.62	59	89	61	0	0	4	1
	SHREVEPORT	78	56	90	52	67	2	0.00	-1.24	0.00	0.00	0	0.00	0	91	45	0	0	0	0
	BOSTON	70	45	88	35	57	10	0.00	-0.93	0.00	4.33	70	10.82	85	71	31	0	0	0	0
MD	WORCESTER	73	47	90	32	60	15	0.00	-1.02	0.00	4.78	75	12.55	95	63	22	1	1	0	0
	BALTIMORE	77	49	89	33	63	9	0.43	-0.33	0.43	2.46	43	6.26	53	77	28	0	0	1	0
	CARIBOU	56	29	63	19	42	6	0.03	-0.70	0.03	2.58	60	9.21	95	76	35	0	5	1	0
MI	PORTLAND	63	38	79	24	51	7	0.00	-1.07	0.00	3.25	51	12.51	93	74	26	0	2	0	0
	ALPENA	76	40	86	30	58	18	0.00	-0.70	0.00	4.54	140	8.89	135	86	26	0	1	0	0
	GRAND RAPIDS	75	50	83	34	62	16	0.00	-0.94	0.00	7.10	165	13.16	147	67	28	0	0	0	0
MN	HOUGHTON LAKE	75	42	83	30	59	18	0.00	-0.73	0.00	4.83	146	8.52	133	83	26	0	1	0	0
	LANSING	77	50	85	33	64	18	0.12	-0.65	0.12	7.08	191	12.08	162	66	24	0	0	1	0
	MUSKEGON	73	49	82	34	61	16	0.08	-0.72	0.08	4.92	120	10.70	124	64	29	0	0	1	0
MO	TRAVERSE CITY	80	50	87	34	65	23	0.00	-0.66	0.00	3.65	126	6.12	109	67	22	0	0	0	0
	DULUTH	57	37	69	33	47	9	0.54	-0.05	0.50	4.28	163	8.98	196	81	48	0	0	2	0
	INT_L FALLS	60	33	71	28	47	10	0.28	-0.09	0.20	4.72	265	5.49	168	85	41	0	3	2	0
MS	MINNEAPOLIS	76	51	88	35	64	18	0.38	-0.28	0.38	3.26	107	7.81	163	63	29	0	0	1	0
	ROCHESTER	76	48	87	38	62	18	0.31	-0.50	0.31	3.99	108	8.66	152	74	34	0	0	1	0
	ST. CLOUD	67	38	86	29	53	11	0.91	0.33	0.47	3.90	142	7.26	174	91	45	0	1	3	0
MT	COLUMBIA	78	49	83	43	63	8	0.22	-0.81	0.22	3.06	60	7.11	76	67	32	0	0	1	0
	KANSAS CITY	74	50	81	41	62	8	0.67	-0.19	0.43	3.47	86	8.07	121	83	43	0	0	2	0
	SAINT LOUIS	79	51	82	42	65	8	1.22	0.18	1.22	6.89	121	11.00	104	62	29	0	0	1	1
NC	SPRINGFIELD	75	48	81	43	62	6	0.23	-0.75	0.23	7.61	138	13.07	125	79	38	0	0	1	0
	JACKSON	72	54	79	49	63	-1	2.76	1.28	2.64	11.86	134	23.74	122	90	52	0	0	3	1
	MERIDIAN	73	52	78	47	62	-2	1.22	-0.13	1.04	9.61	113	25.71	132	95	52	0	0	2	1
ND	TUPELO	75	50	82	43	63	1	0.24	-1.07	0.14	12.43	153	21.68	118	86	38	0	0	3	0
	BILLINGS	60	36	80	26	48	3	0.47	0.05	0.44	1.96	112	3.07	107	75	34	0	3	2	0
	BUTTE	47	22	63	10	35	-3	0.31	0.00	0.25	1.18	92	1.78	83	91	43	0	7	3	0
NE	CUT BANK	55	29	75	19	42	3	0.08	-0.15	0.08	0.30	38	0.57	45	84	31	0	5	1	0
	GLASGOW	55	35	80	32	45	1	0.41	0.20	0.41	1.53	176	3.37	204	83	51	0	3	1	0
	GREAT FALLS	55	31	78	15	43	1	1.05	0.64	0.66	2.28	152	3.93	148	80	43	0	4	2	1
NH	HAVRE	59	34	76	25	46	3	0.28	0.07	0.28	0.78	82	1.62	92	83	40	0	3	1	0
	MISSOULA	60	31	80	24	46	3	0.01	-0.32	0.01	0.84	52	2.31	67	80	27	0	4	1	0
	ASHEVILLE	70	41	77	31	55	-1	0.26	-0.70	0.23	5.10	87	12.78	95	90	27	0	1	2	0
NJ	CHARLOTTE	74	47	80	37	60	0	0.33	-0.55	0.28	4.96	85	13.63	109	86	30	0	0	2	0
	GREENSBORO	72	46	80	36	59	0	0.79	-0.08	0.79	6.97	125	14.29	121	83	32	0	0	1	1
	HATTERAS	66	53	74	44	60	-1	0.86	-0.06	0.44	4.40	69	10.04	64	96	63	0	0	3	0
NM	RALEIGH	75	47	83	36	61	1	1.72	0.90	1.72	8.27	141	13.85	114	86	36	0	0	1	1
	WILMINGTON	76	51	84	42	64	1	1.05	0.36	0.78	5.69	104	11.11	87	90	37	0	0	2	1
	BISMARCK	51	32	58	22	42	0	0.00	-0.29	0.00	2.00	139	2.96	121	84	53	0	2	0	0
NV	DICKINSON	59	34	83	26	46	6	0.00	-0.31	0.00	0.19	15	0.29	16	87	39	0	3	0	0
	FARGO	49	35	57	29	42	0	0.02	-0.30	0.02	2.49	129	3.14	94	85	66	0	2	1	0
	GRAND FORKS	42	29	47	16	35	-4	0.24	0.00	0.24	1.70	120	2.15	88	89	70	0	5	1	0
NY	JAMESTOWN	47	32	54	24	40	0	0.05	-0.18	0.05	0.35	30	0.57	31	87	61	0	3	1	0
	GRAND ISLAND	77	47	90	35	62	12	0.00	-0.54	0.00	0.70	28	2.60	68	72	26	1	0	0	0
	LINCOLN	79	48	89	38	64	13	0.17	-0.37	0.10	0.78	29	2.99	70	72	29	0	0	2	0
OH	NORFOLK	77	48	91	35	62	14	0.18	-0.41	0.15	0.73	27	3.08	76	74	27	2	0	2	0
	NORTH PLATTE	79	38	95	24	59	11	0.03	-0.48	0.03	0.44	22	2.38	81	77	20	2	2	1	0
	OMAHA	77	49	88	38	63	12	1.31	0.63	1.07	2.13	67	5.12	105	78	33	0	0	4	1
PA	SCOTTSBLUFF	74	34	92	26	54	7	0.21	-0.23	0.20	0.72	38	2.53	89	79	21	2	3	2	0
	VALENTINE	72	38	91	30	55	9	0.21	-0.35	0.20	0.98	47	4.56	151	79	28	1	2	2	0
	CONCORD	74	36	90	20	55	11	0.00	-0.83	0.00	4.25	84	11.33	107	84	20	1	2	0	0
RI	ATLANTIC_CITY	74	47	87	30	61	10	0.05	-0.74	0.05	3.33	53	8.81	68	79	32	0	2	1	0
	NEWARK	78	51	93	35	65	13	0.15	-0.76	0.15	3.68	60	9.29	74	67	24	2	0	1	0
	ALBUQUERQUE	74	48	81	42	61	5	0.00	-0.13	0.00	0.52	71	1.14	75	47	10	0	0	0	0
SC	ELY	61	29	71	20	45	3	0.00	-0.26	0.00	2.23	145	5.09	162	75	22	0	5	0	0
	LAS VEGAS	82	60	92	54	71	4	0.00	-0.04	0.00	0.50	93	1.45	76	31	9	1	0	0	0
	RENO	68	39	78	30	54	3	0.00	-0.10	0.00	2.04	198	5.63	169	59	15	0	2	0	0
SD	WINNEMUCCA	66	33	79	19	49	3	0.00	-0.24	0.00	2.37	174	3.39	143	69	21	0	4	0	0
	ALBANY	77	45	89	29	61	14	0.00	-0.75	0.00	4.81	103	9.93	104	65	22	0	2	0	0
	BINGHAMTON	74	47	86	29	61	18	0.05	-0.81	0.05	3.35	69	8.52	86	57	25	0	2	1	0
TN	BUFFALO	66	44	83	29	55	11	0.00	-0.83	0.00	5.91	128	12.32	118	73	33	0	1	0	0
	ROCHESTER	73	45	84	27	59	14	0.00	-0.74											

Weather Data for the Week Ending April 15, 2023

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.		
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
OK	TOLEDO	79	45	86	32	62	12	0.00	-0.81	0.00	3.32	77	10.70	120	70	23	0	2	0	0	
	YOUNGSTOWN	76	44	86	26	60	12	0.00	-0.89	0.00	5.01	98	11.86	111	66	24	0	2	0	0	
	OKLAHOMA CITY	76	48	82	43	62	3	0.02	-0.72	0.02	2.60	64	4.96	73	92	39	0	0	1	0	
OR	TULSA	78	51	84	39	64	5	0.00	-0.92	0.00	3.74	75	8.36	102	83	38	0	0	0	0	
	ASTORIA	51	39	54	33	45	-3	2.34	0.91	1.01	12.58	113	23.82	82	95	64	0	0	5	2	
	BURNS	55	29	71	22	42	-1	0.01	-0.22	0.01	3.67	249	5.76	153	81	34	0	5	1	0	
PA	EUGENE	57	41	63	36	49	-1	1.41	0.58	1.01	7.66	117	12.40	71	93	56	0	0	4	1	
	MEDFORD	63	39	74	29	51	-1	0.19	-0.19	0.14	2.57	97	4.10	56	84	31	0	1	3	0	
	PENDLETON	57	38	66	35	48	-1	0.36	0.08	0.20	1.84	94	3.17	67	82	44	0	0	3	0	
	PORTLAND	57	41	62	37	49	-3	1.81	1.10	1.04	7.49	134	13.26	93	87	50	0	0	4	1	
	SALEM	55	40	60	36	47	-4	1.97	1.19	1.39	8.69	142	14.84	88	95	57	0	0	4	1	
	ALLENTOWN	75	43	88	26	59	8	1.22	0.35	1.22	4.43	81	9.47	82	75	30	0	2	1	1	
	ERIE	67	46	78	28	56	10	0.00	-0.85	0.00	5.61	115	14.30	132	63	28	0	2	0	0	
	MIDDLETOWN	75	47	86	32	61	9	0.16	-0.65	0.15	3.20	58	6.66	60	80	30	0	1	2	0	
	PHILADELPHIA	75	49	86	36	62	9	0.00	-0.81	0.00	2.74	47	7.38	63	81	29	0	0	0	0	
	PITTSBURGH	74	45	82	31	60	9	0.03	-0.74	0.03	3.00	62	7.97	76	62	22	0	1	1	0	
RI	WILKES-BARRE	76	47	91	30	62	13	0.01	-0.76	0.01	2.42	55	6.16	68	64	24	1	2	1	0	
	WILLIAMSPORT	77	43	90	29	60	11	0.20	-0.65	0.20	1.75	35	5.12	50	78	25	1	2	1	0	
	PROVIDENCE	73	43	88	31	58	10	0.00	-1.08	0.00	5.35	74	13.50	92	84	29	0	2	0	0	
SC	CHARLESTON	77	52	85	44	64	-1	0.39	-0.38	0.28	2.38	47	9.82	86	92	37	0	0	2	0	
	COLUMBIA	75	45	82	34	60	-3	0.23	-0.42	0.15	7.61	152	16.84	141	96	32	0	0	3	0	
	FLORENCE	76	47	84	35	61	-2	0.26	-0.43	0.11	6.86	146	14.91	138	90	31	0	0	3	0	
SD	GREENVILLE	72	44	79	34	58	-2	0.80	-0.13	0.74	8.04	124	18.63	129	87	32	0	0	2	1	
	ABERDEEN	48	33	57	24	40	-3	0.12	-0.26	0.11	2.00	123	3.11	111	90	64	0	2	2	0	
	HURON	68	37	92	29	53	8	0.00	-0.56	0.00	1.04	46	1.93	54	89	36	1	2	0	0	
TN	RAPID CITY	64	36	87	28	50	7	0.00	-0.46	0.00	3.63	201	4.88	186	79	30	0	2	0	0	
	SIOUX FALLS	75	46	92	33	61	15	0.15	-0.54	0.11	1.47	49	5.19	117	73	30	2	0	2	0	
	BRISTOL	74	41	85	32	58	2	0.15	-0.76	0.14	5.07	86	14.15	105	86	27	0	1	2	0	
TX	CHATTANOOGA	74	47	80	42	60	0	0.24	-0.89	0.18	7.43	95	17.06	95	93	35	0	0	3	0	
	KNOXVILLE	74	46	80	39	60	1	0.42	-0.70	0.35	6.94	95	16.68	99	85	31	0	0	2	0	
	MEMPHIS	74	54	80	49	64	2	0.84	-0.51	0.83	11.76	138	24.21	140	83	38	0	0	2	1	
	NASHVILLE	77	47	83	42	62	3	0.03	-1.02	0.03	5.36	80	11.94	78	86	29	0	0	1	0	
	ABILENE	83	56	93	53	69	4	0.01	-0.38	0.01	1.06	42	3.07	63	80	27	1	0	1	0	
	AMARILLO	79	46	87	38	63	6	0.41	0.13	0.41	0.73	38	1.23	39	80	18	0	0	1	0	
	AUSTIN	80	56	94	51	68	-1	0.00	-0.52	0.00	3.15	78	6.13	71	94	46	1	0	0	0	
	BEAUMONT	77	59	87	53	68	0	0.56	-0.34	0.31	5.43	97	11.82	84	96	56	0	0	3	0	
	BROWNSVILLE	83	64	94	55	74	-3	0.01	-0.36	0.01	2.54	114	3.08	71	99	58	1	0	1	0	
	CORPUS CHRISTI	83	63	93	56	73	0	0.01	-0.46	0.01	3.19	98	4.07	68	96	59	1	0	1	0	
UT	DEL RIO	87	62	96	57	75	3	0.02	-0.32	0.02	1.89	100	2.11	67	78	29	2	0	1	0	
	EL PASO	85	58	89	51	72	6	0.00	-0.04	0.00	0.06	17	0.64	57	41	8	0	0	0	0	
	FORT WORTH	78	55	81	53	67	2	0.00	-0.69	0.00	3.02	63	7.84	78	89	42	0	0	0	0	
	GALVESTON	76	65	85	63	71	0	0.00	-0.51	0.00	3.41	83	7.18	68	90	62	0	0	0	0	
	HOUSTON	77	58	90	53	67	-2	0.06	-0.87	0.06	3.81	70	11.82	97	99	52	1	0	1	0	
	LUBBOCK	81	49	84	45	65	5	0.08	-0.20	0.08	0.08	4	0.82	27	78	20	0	0	1	0	
	MIDLAND	82	55	84	52	68	3	0.00	-0.17	0.00	0.00	0	0.40	17	75	21	0	0	0	0	
	SAN ANGELO	84	55	92	48	69	3	0.18	-0.13	0.18	0.76	35	2.18	50	86	26	1	0	1	0	
	SAN ANTONIO	79	57	93	51	68	-1	0.20	-0.35	0.20	3.09	90	4.97	69	90	45	1	0	1	0	
	VICTORIA	81	57	93	53	69	-1	0.00	-0.71	0.00	3.14	70	10.40	114	100	55	1	0	0	0	
VA	WACO	76	50	88	42	63	-3	0.00	-0.74	0.00	1.95	40	6.63	65	100	51	0	0	0	0	
	WICHITA FALLS	79	49	86	45	64	2	0.02	-0.50	0.02	3.28	106	6.24	109	93	37	0	0	1	0	
	SALT LAKE CITY	67	43	83	33	55	5	0.08	-0.43	0.08	5.02	176	8.57	153	73	24	0	0	1	0	
	LYNCHBURG	76	42	87	31	59	4	0.85	0.08	0.85	3.30	60	9.36	79	83	27	0	1	1	1	
	NORFOLK	71	50	82	38	61	2	0.03	-0.76	0.03	2.26	42	7.47	64	86	41	0	0	1	0	
	RICHMOND	75	46	87	35	61	3	0.20	-0.51	0.17	2.50	45	7.48	65	80	30	0	0	2	0	
	ROANOKE	75	43	85	31	59	2	0.35	-0.44	0.35	2.57	49	8.22	73	74	25	0	1	1	0	
	WASH/DULLES	78	46	87	30	62	8	0.02	-0.74	0.02	1.92	37	5.53	51	77	24	0	1	1	0	
	BURLINGTON	72	42	88	24	57	13	0.00	-0.72	0.00	3.42	92	8.26	108	67	22	0	2	0	0	
	OLYMPIA	52	38	58	33	45	-2	2.26	1.35	0.69	7.50	97	14.38	69	100	60	0	0	6	2	
WI	QUILLAYUTE	51	38	55	32	45	-2	2.85	0.84	2.06	15.07	92	31.80	76	97	63	0	1	5	1	
	SEATTLE-TACOMA	52	40	56	38	46	-4	1.31	0.52	0.64	4.88	82	10.23	66	89	55	0	0	4	2	
	SPOKANE	54	35	63	28	45	-1	0.31	0.01	0.25	1.74	69	3.80	64	85	40	0	4	3	0	
WV	YAKIMA	58	34	63	28	46	-3	0.62	0.49	0.54	1.94	210	3.25	111	82	34	0	5	3	1	
	EAU CLAIRE	78	48	89	40	63	20	0.05	-0.66	0.05	3.06	88	6.17	110	71	28	0	0	1	0	
	GREEN BAY	78	49	86	29	63	21	0.00	-0.69	0.00	4.42	130	7.39	123	74	30	0	1	0	0	
WY	LA CROSSE	80	55	90	42	67	20	0.01	-0.87	0.01	3.01	79	7.09	113	59	26	0	0	0	0	
	MADISON	78	52	83	36	65	20	0.31	-0.56	0.31	4.44	109	9.19	130	62	25	0	0	1	0	
	MILWAUKEE	77	51	83	36	64	19	0.02	-0.89	0.02	5.09	125	11.38	150	60	26	0	0	1	0	
	BECKLEY	71	43	80	27	57	5	0.09	-0.72	0.08	3.52	61	10.63	88	70	25	0	1	2	0	
	CHARLESTON	78	41	87	29	60	4														

National Agricultural Summary

April 10 – 16, 2023

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

During the week ending April 16, most of the nation experienced drier-than-normal weather. In contrast, parts of the Midwest, lower Mississippi Valley, Pacific Northwest, Rockies, and Southeast recorded at least twice the normal amount of weekly precipitation, as well as some locations in the mid-Atlantic, central Plains, and Texas. Parts of southern Florida recorded rainfall totaling 6 inches or

more. Meanwhile, much of the Great Lakes, mid-Atlantic, Midwest, Northeast, and Plains recorded weekly temperatures 5°F or more above normal. Parts of Michigan and Wisconsin recorded temperatures 20°F or more above normal. In contrast, parts of California, North Dakota, the Rockies, and South, as well as most of the Pacific Northwest, recorded below-normal weekly temperatures.

Corn: By April 16, producers had planted 8 percent of the nation's corn crop, 4 percentage points ahead of last year and 3 points ahead of the 5-year average. Texas was the furthest advanced in progress with 65 percent planted, 1 percentage point ahead of last year and 4 points ahead of the 5-year average.

Soybean: Four percent of the nation's soybean acreage was planted by April 16, three percentage points ahead of both last year and the 5-year average. Progress was furthest advanced in Louisiana with 30 percent planted, 8 percentage points ahead of last year and 14 points ahead of the 5-year average.

Winter Wheat: By April 16, ten percent of the nation's winter wheat crop was headed, 3 percentage points ahead of last year and 2 points ahead of the 5-year average. On April 16, twenty-seven percent of the 2023 winter wheat crop was reported in good to excellent condition, unchanged from the previous week but 3 percentage points below last year. In Kansas, the largest winter wheat-producing state, 60 percent of the winter wheat crop was rated in poor to very poor condition.

Cotton: Nationwide, 8 percent of the cotton crop was planted by April 16, two percentage points behind the previous year and 1 point behind the 5-year average. Progress was furthest advanced in Arizona with 21 percent planted, 5 percentage points behind last year and 15 points behind the 5-year average.

Sorghum: Fifteen percent of the nation's sorghum acreage was planted by April 16, two percentage points behind both the previous year and the 5-year average. Texas had planted 52 percent of its sorghum acreage by April 16, four percentage points behind last year and 6 points behind the 5-year average.

Rice: By April 16, producers had seeded 38 percent of the 2023 rice acreage, 17 percentage points ahead of the previous

year and 10 points ahead of the 5-year average. Louisiana and Texas had sown the largest percentages of acreage, with 83 and 55 percent planted, respectively. By April 16, eighteen percent of the nation's rice acreage had emerged, 5 percentage points ahead of last year and 3 points ahead of the 5-year average.

Small Grains: Nationally, oat producers had seeded 36 percent of this year's acreage by April 16, three percentage points ahead of the previous year and 1 point ahead of the 5-year average. Twenty-six percent of the nation's oat acreage was emerged by April 16, two percentage points ahead of the previous year but equal to the 5-year average.

Five percent of the nation's barley crop was planted by April 16, eleven percentage points behind last year and 9 points behind the 5-year average. Progress was furthest advanced in Washington and Idaho, with 15 percent planted for both states.

By April 16, three percent of the spring wheat crop was seeded, 5 percentage points behind last year and 4 points behind the 5-year average. Progress was furthest advanced in Washington and Idaho, with 27 and 25 percent planted, respectively.

Other Crops: Nationally, peanut producers had planted 1 percent of the 2023 peanut acreage by April 16, one percentage point behind both the previous year and the 5-year average. Producers in Florida had planted 12 percent of the 2023 intended acreage by week's end, 3 percentage points ahead of both last year and the 5-year average.

By April 16, thirteen percent of the sugarbeet crop was planted, 6 percentage points ahead of last year but equal to the 5-year average. Idaho and Michigan had planted 40 and 39 percent, respectively of their sugarbeet acreage by April 16.

Crop Progress and Condition

Week Ending April 16, 2023

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

Corn Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
CO	0	0	1	2
IL	0	1	10	3
IN	0	0	3	2
IA	0	0	7	1
KS	11	6	17	10
KY	6	5	14	12
MI	0	0	0	0
MN	0	0	0	1
MO	4	7	30	8
NE	2	0	2	1
NC	36	12	28	32
ND	0	0	0	1
OH	0	0	0	1
PA	2	0	0	0
SD	0	0	0	0
TN	7	5	23	16
TX	64	61	65	61
WI	0	0	1	0
18 Sts	4	3	8	5
These 18 States planted 92% of last year's corn acreage.				

Peanuts Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
AL	1	0	0	1
FL	9	3	12	9
GA	1	0	0	1
NC	0	NA	0	0
OK	0	NA	0	0
SC	0	0	0	0
TX	0	NA	0	0
VA	0	NA	0	0
8 Sts	2	NA	1	2
These 8 States planted 96% of last year's peanut acreage.				

Soybeans Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
AR	8	6	19	8
IL	0	NA	4	1
IN	0	NA	2	1
IA	0	NA	3	0
KS	1	NA	2	0
KY	2	4	7	2
LA	22	19	30	16
MI	0	NA	1	0
MN	0	NA	0	0
MS	10	6	23	14
MO	0	NA	5	0
NE	0	NA	0	0
NC	0	NA	0	0
ND	0	NA	0	0
OH	0	NA	0	1
SD	0	NA	0	0
TN	1	1	7	1
WI	0	NA	0	0
18 Sts	1	NA	4	1
These 18 States planted 95% of last year's soybean acreage.				

Sorghum Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
CO	0	0	0	0
KS	0	0	0	0
NE	0	0	0	0
OK	0	0	8	2
SD	0	0	0	0
TX	56	48	52	58
6 Sts	17	13	15	17
These 6 States planted 100% of last year's sorghum acreage.				

Sugarbeets Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
ID	40	2	40	52
MI	0	0	39	19
MN	0	0	0	0
ND	0	0	0	1
4 Sts	7	0	13	13
These 4 States planted 86% of last year's sugarbeet acreage.				

Cotton Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
AL	0	0	3	1
AZ	26	13	21	36
AR	1	0	1	0
CA	52	0	0	23
GA	1	0	1	3
KS	0	0	0	0
LA	3	1	3	2
MS	1	0	0	1
MO	0	0	0	0
NC	0	0	0	0
OK	0	0	0	1
SC	0	0	0	0
TN	0	0	1	0
TX	15	11	13	14
VA	2	0	8	1
15 Sts	10	6	8	9
These 15 States planted 99% of last year's cotton acreage.				

Rice Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
AR	8	12	33	20
CA	0	0	0	0
LA	72	74	83	78
MS	10	8	25	18
MO	1	1	30	12
TX	71	49	55	71
6 Sts	21	22	38	28
These 6 States planted 100% of last year's rice acreage.				

Rice Percent Emerged				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
AR	2	1	5	3
CA	0	0	0	0
LA	56	63	73	64
MS	3	0	2	6
MO	0	0	0	1
TX	41	27	41	51
6 Sts	13	13	18	15
These 6 States planted 100% of last year's rice acreage.				

Crop Progress and Condition

Week Ending April 16, 2023

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

Winter Wheat Percent Headed				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
AR	12	10	25	27
CA	61	45	63	29
CO	0	0	0	0
ID	0	0	0	0
IL	4	1	3	3
IN	0	0	0	0
KS	0	0	0	0
MI	0	0	0	0
MO	1	0	3	2
MT	0	0	0	0
NE	0	0	0	0
NC	27	17	33	14
OH	0	0	0	0
OK	0	2	15	11
OR	0	0	0	0
SD	0	0	0	0
TX	29	31	35	37
WA	0	0	0	0
18 Sts	7	7	10	8
These 18 States planted 88% of last year's winter wheat acreage.				

Winter Wheat Condition by Percent					
	VP	P	F	G	EX
AR	1	6	32	50	11
CA	0	0	5	85	10
CO	12	26	39	20	3
ID	1	13	61	25	0
IL	0	1	22	56	21
IN	2	4	17	59	18
KS	31	29	26	13	1
MI	1	5	25	57	12
MO	1	4	23	67	5
MT	1	3	65	29	2
NE	12	28	39	20	1
NC	0	1	12	74	13
OH	2	4	31	49	14
OK	30	23	34	12	1
OR	4	24	41	25	6
SD	4	8	64	23	1
TX	24	28	32	15	1
WA	1	12	42	43	2
18 Sts	18	21	34	24	3
Prev Wk	17	20	36	24	3
Prev Yr	19	18	33	27	3

Oats Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
IA	27	13	51	33
MN	1	0	3	7
NE	56	20	52	43
ND	0	0	0	1
OH	15	6	41	25
PA	10	20	42	27
SD	25	1	4	14
TX	100	100	100	100
WI	4	1	6	11
9 Sts	33	28	36	35
These 9 States planted 69% of last year's oat acreage.				

Oats Percent Emerged				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
IA	2	0	4	4
MN	0	0	0	1
NE	11	1	11	10
ND	0	0	0	0
OH	4	2	5	8
PA	2	4	5	10
SD	3	0	0	3
TX	100	100	100	100
WI	0	0	0	1
9 Sts	24	25	26	26
These 9 States planted 69% of last year's oat acreage.				

Spring Wheat Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
ID	27	2	25	33
MN	0	0	0	2
MT	10	0	1	6
ND	3	0	0	3
SD	24	0	1	15
WA	39	11	27	46
6 Sts	8	1	3	7
These 6 States planted 100% of last year's spring wheat acreage.				

Barley Percent Planted				
	Prev Year	Prev Week	Apr 16 2023	5-Yr Avg
ID	29	2	15	34
MN	0	0	0	1
MT	18	1	1	9
ND	1	0	0	2
WA	30	5	15	37
5 Sts	16	1	5	14
These 5 States planted 84% of last year's barley acreage.				

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

NA - Not Available
* Revised

Crop Progress and Condition

Week Ending April 16, 2023

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

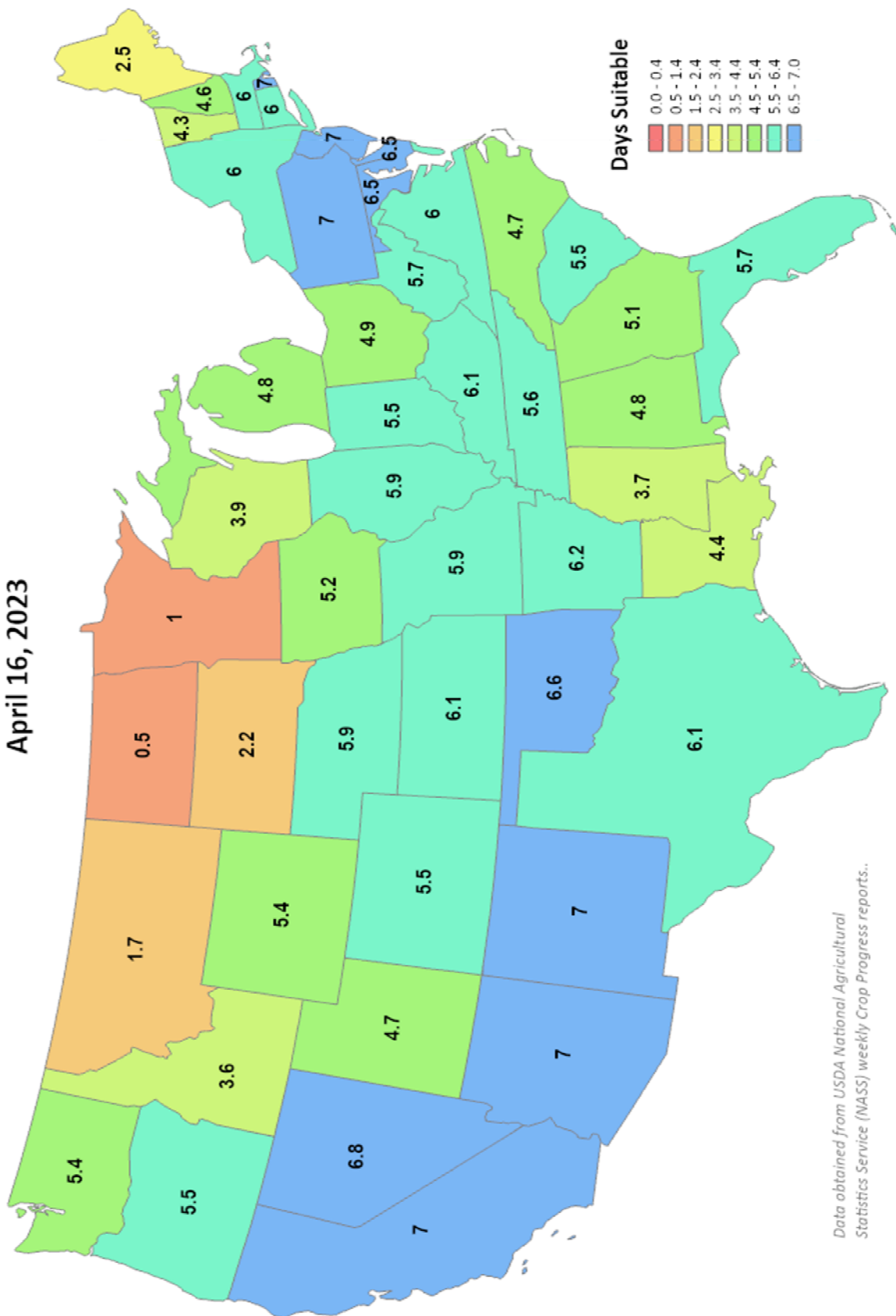
Days Suitable for Fieldwork

Week Ending

April 16, 2023



This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

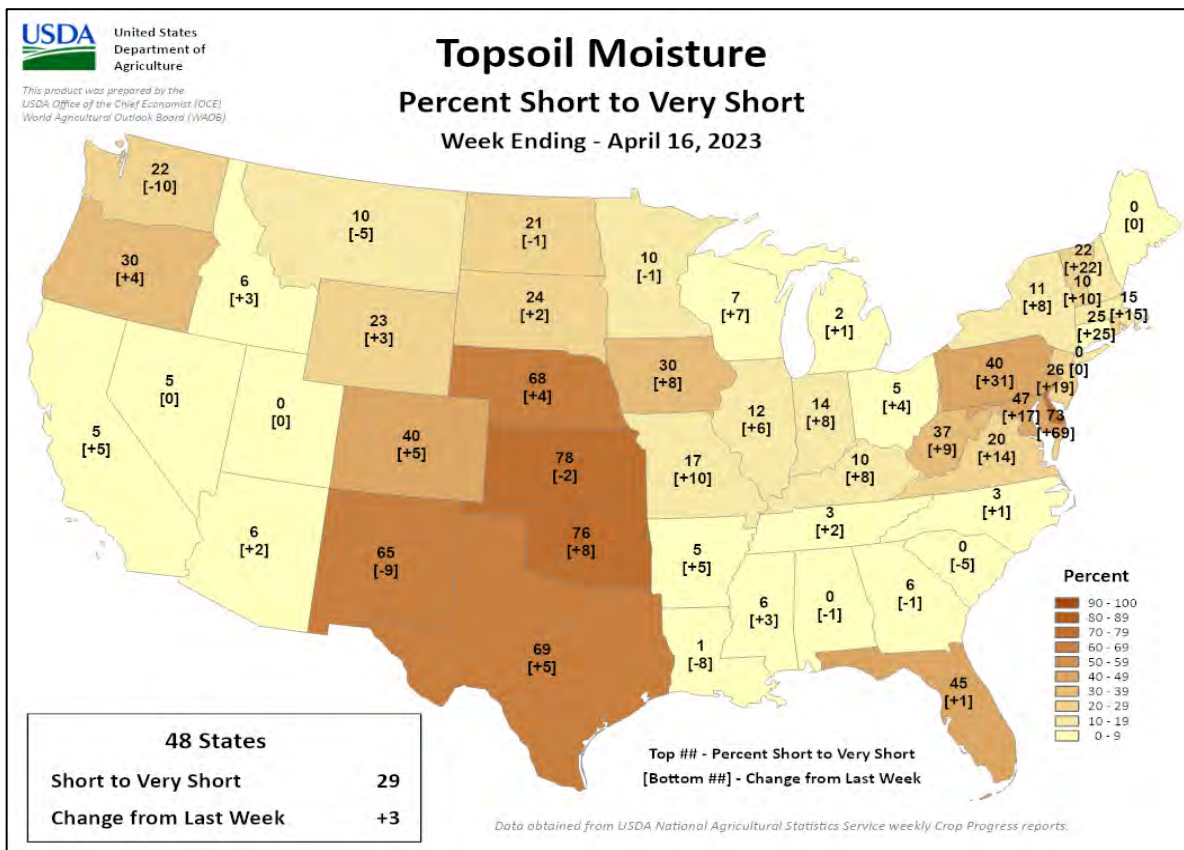
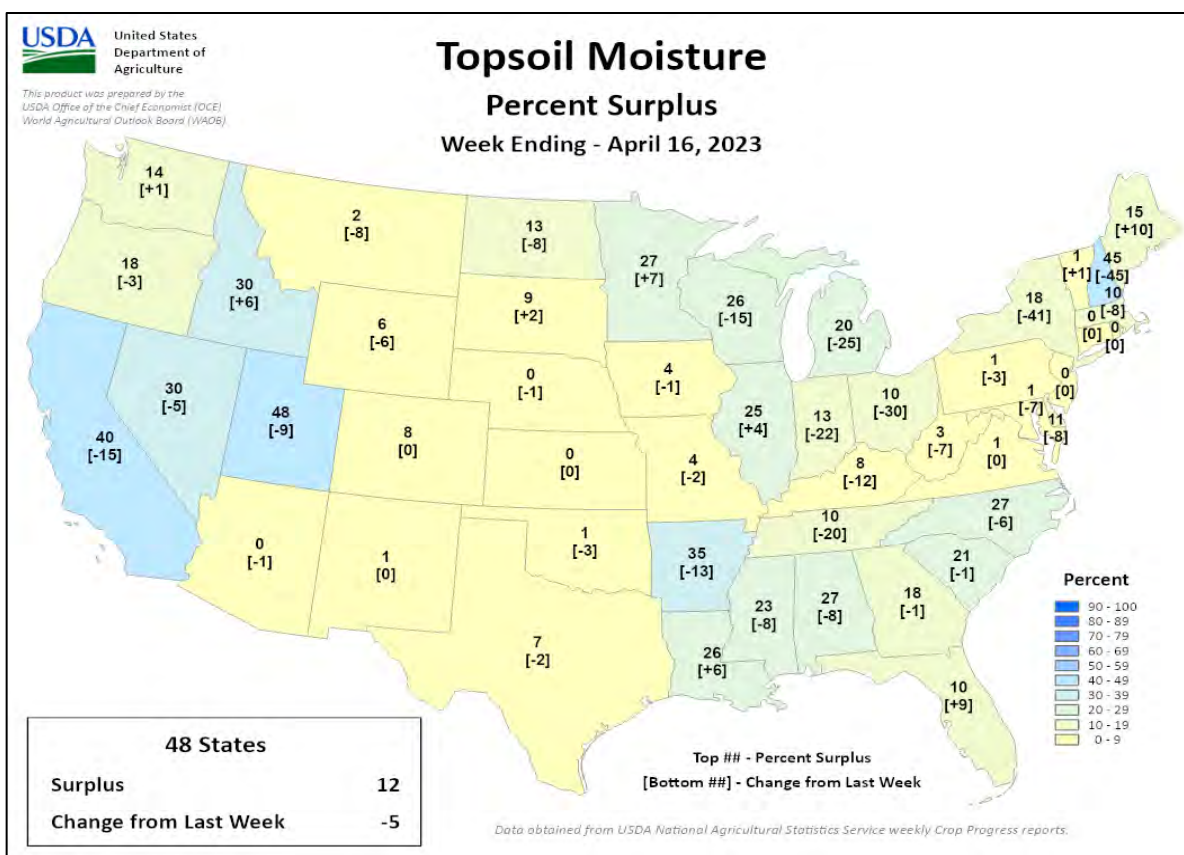


Data obtained from USDA National Agricultural
Statistics Service (NASS) weekly Crop Progress reports...

Crop Progress and Condition

Week Ending April 16, 2023

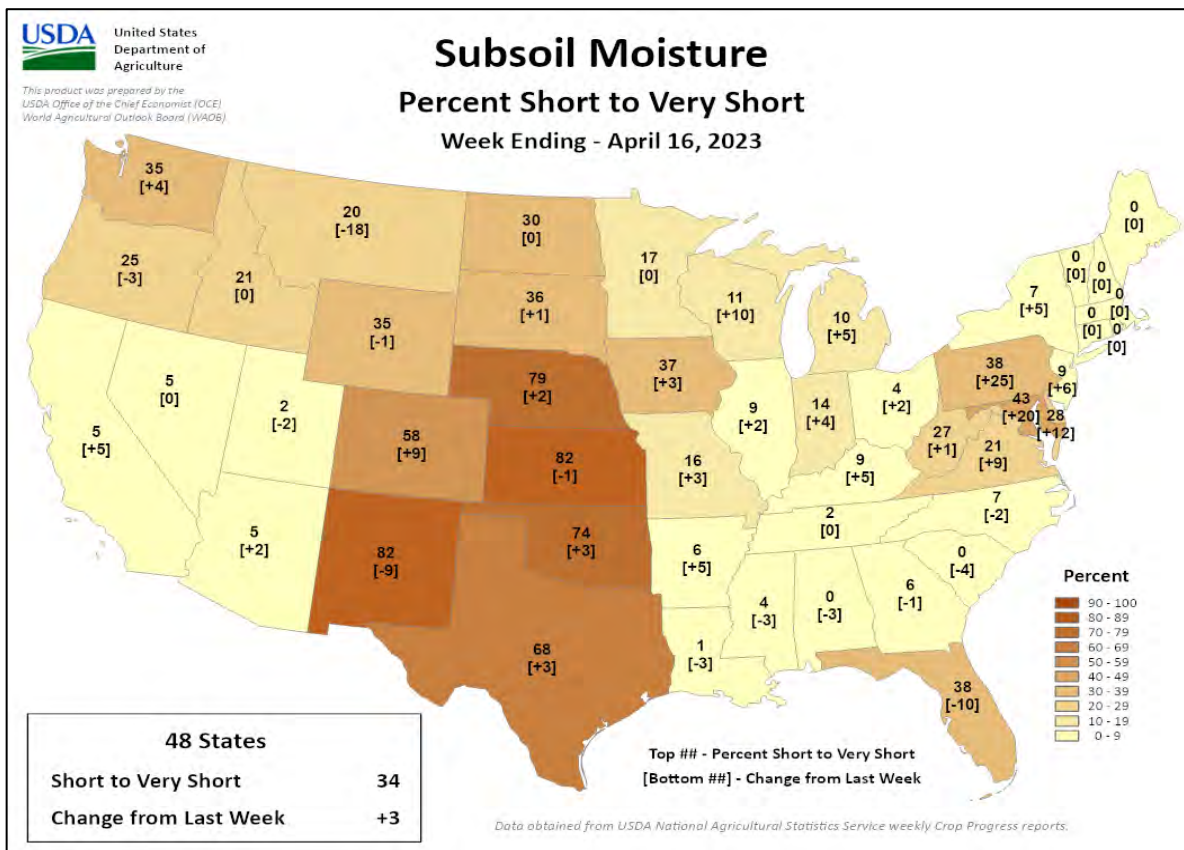
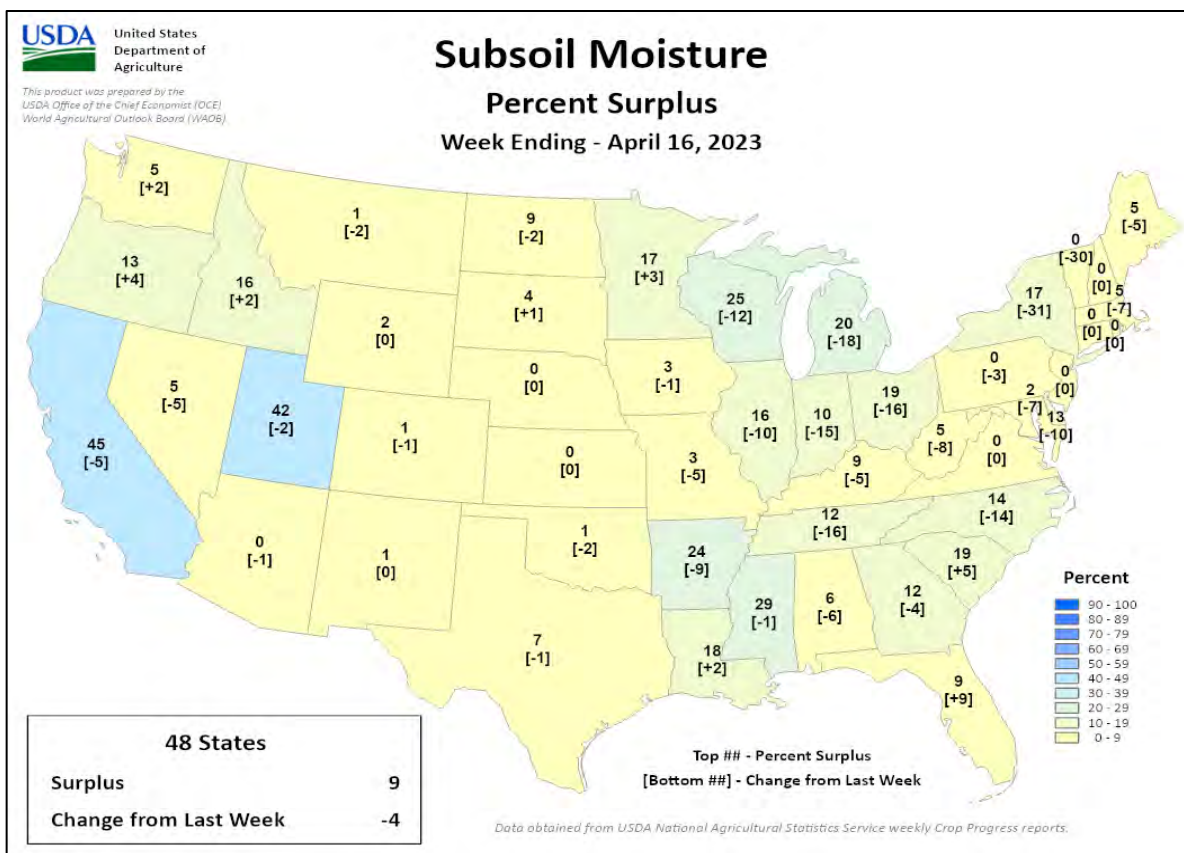
Weekly U.S. Progress and Condition Data provided by USDA/NASS



Crop Progress and Condition

Week Ending April 16, 2023

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



April 13 ENSO Diagnostic Discussion

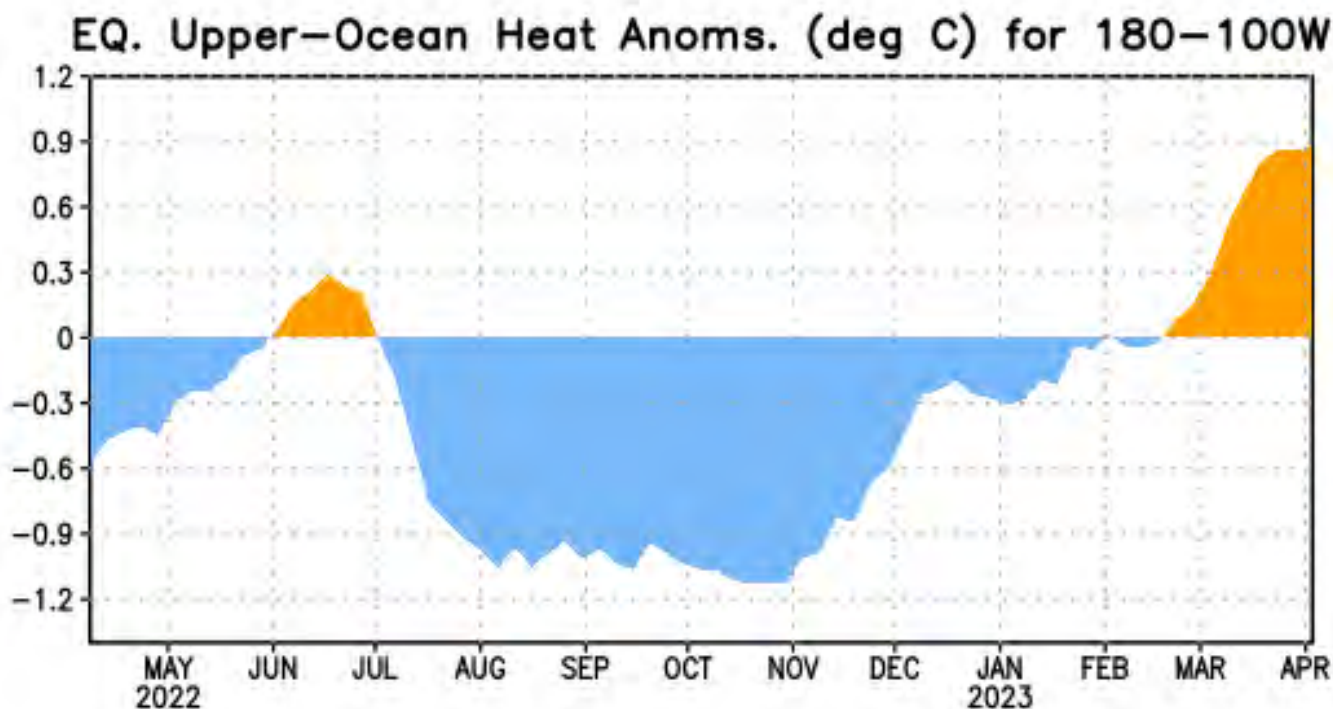


Figure 1: Area-averaged upper-ocean heat content anomaly (°C) in the equatorial Pacific (5°N-5°S, 180°-100°W). The heat content anomaly is computed as the departure from the 1991-2020 base period pentad means.

ENSO Alert System Status: **El Niño Watch**

Synopsis: ENSO-neutral conditions are expected to continue through the Northern Hemisphere spring, followed by a 62% chance of El Niño developing during May-July 2023.

During the last month, above-average sea surface temperatures (SSTs) became more prominent in the western and far eastern equatorial Pacific Ocean. The latest weekly Niño-3.4 index value was 0.0°C, but the Niño1+2 index value was +2.7°C, indicating significant warming along the South American coast. Area-averaged subsurface temperatures also increased over the past month (Fig. 1), reflecting the dominance of above-average subsurface temperatures across the equatorial Pacific Ocean. For the monthly average, upper-level and low-level winds were near normal across most of the equatorial Pacific Ocean. However, low-level westerly wind anomalies were evident in the first half of March associated with sub-seasonal activity. Suppressed convection was evident over the central tropical Pacific and over parts of Indonesia. While the warming near coastal South America was striking, the basin-wide coupled ocean-atmosphere system was consistent with ENSO-neutral.

The most recent IRI plume favors a transition to El Niño, beginning June-August 2023 and persisting into the winter. While the lower accuracy of forecasts during the spring can result in surprises, the recent oceanic Kelvin wave plus

recurring westerly wind anomalies are anticipated to further warm the tropical Pacific Ocean. The coastal warming in the eastern Pacific may foreshadow changes across the Pacific basin. Therefore, an El Niño Watch has been issued, and the range of possibilities toward the end of the year includes a strong El Niño (4 in 10 chance of Niño-3.4 $\geq 1.5^\circ\text{C}$) to no El Niño (1 in 10 chance). In summary, ENSO-neutral conditions are expected to continue through the Northern Hemisphere spring, followed by a 62% chance of El Niño developing during May-July 2023.

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 **11 May 2023**. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: ncep.list.ensu-update@noaa.gov.

International Weather and Crop Summary

April 9-15, 2023

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

HIGHLIGHTS

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

WESTERN FSU: Widespread showers boosted moisture supplies for vegetative winter grains and oilseeds across the region.

MIDDLE EAST: Expanding and intensifying rainfall maintained or improved prospects for vegetative to reproductive winter wheat and barley, though heat and dryness persisted in eastern Iran.

NORTHWESTERN AFRICA: Heat and drought further lowered yield prospects for filling winter grains over much of the region.

EAST ASIA: Dry, warm weather advanced winter crop development but increased moisture demands.

SOUTHEAST ASIA: Southern rainfall continued as seasonably hot weather prevailed in the north.

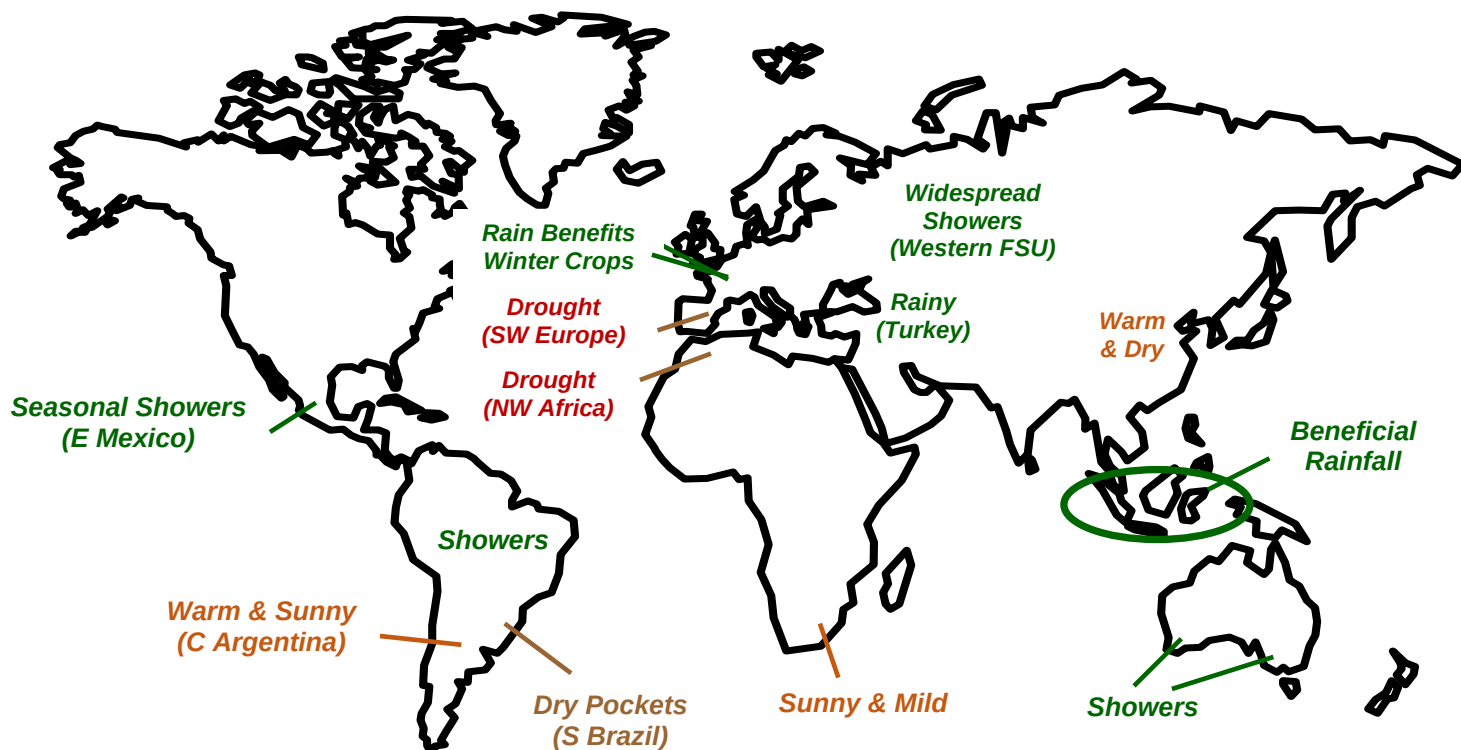
AUSTRALIA: Showers helped condition the soil in advance of winter crop planting.

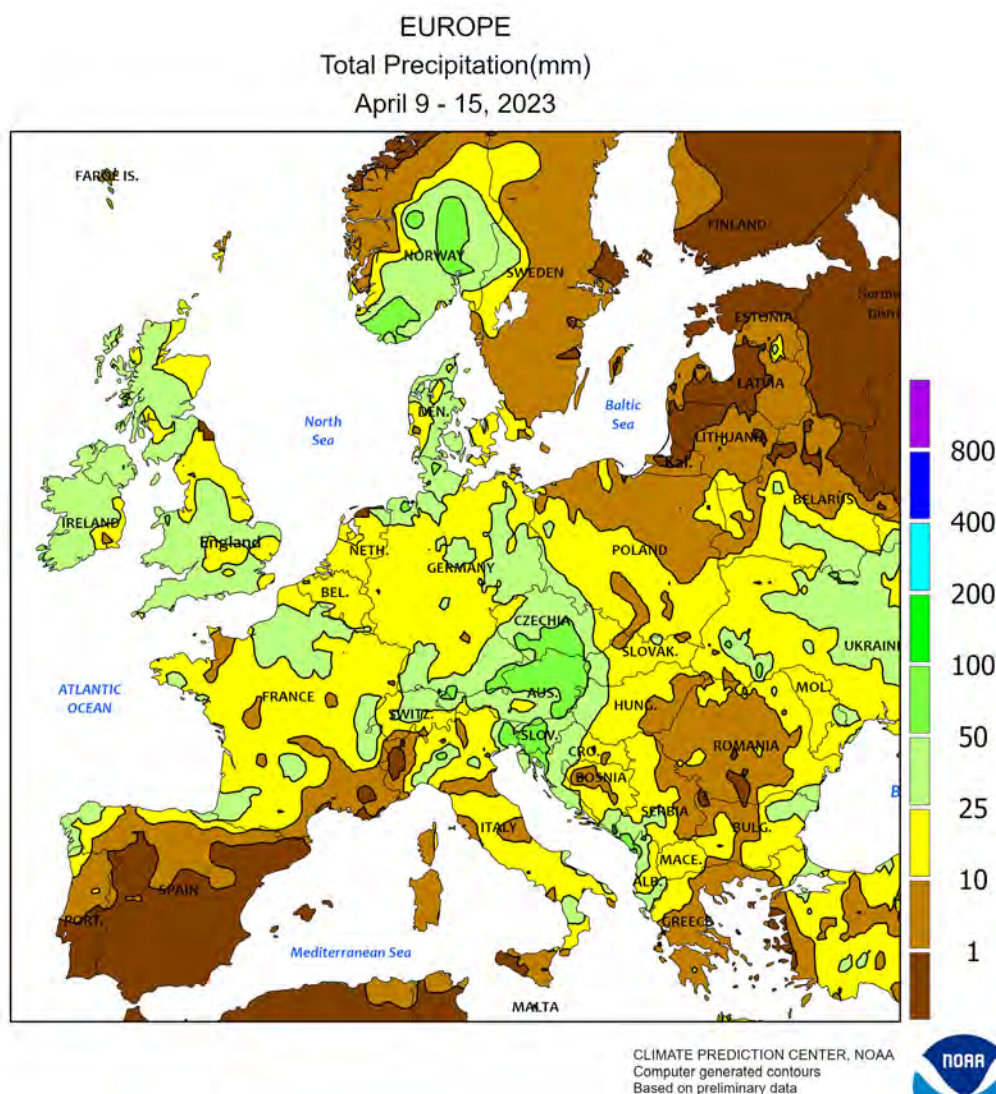
SOUTH AFRICA: Mild, dry weather favored corn and other maturing summer crops.

ARGENTINA: Warm, sunny weather promoted seasonal fieldwork in central Argentina.

BRAZIL: Scattered showers maintained generally favorable moisture reserves for corn and cotton in central and northeastern farming areas.

MEXICO: Showers provided timely moisture for summer crop planting.



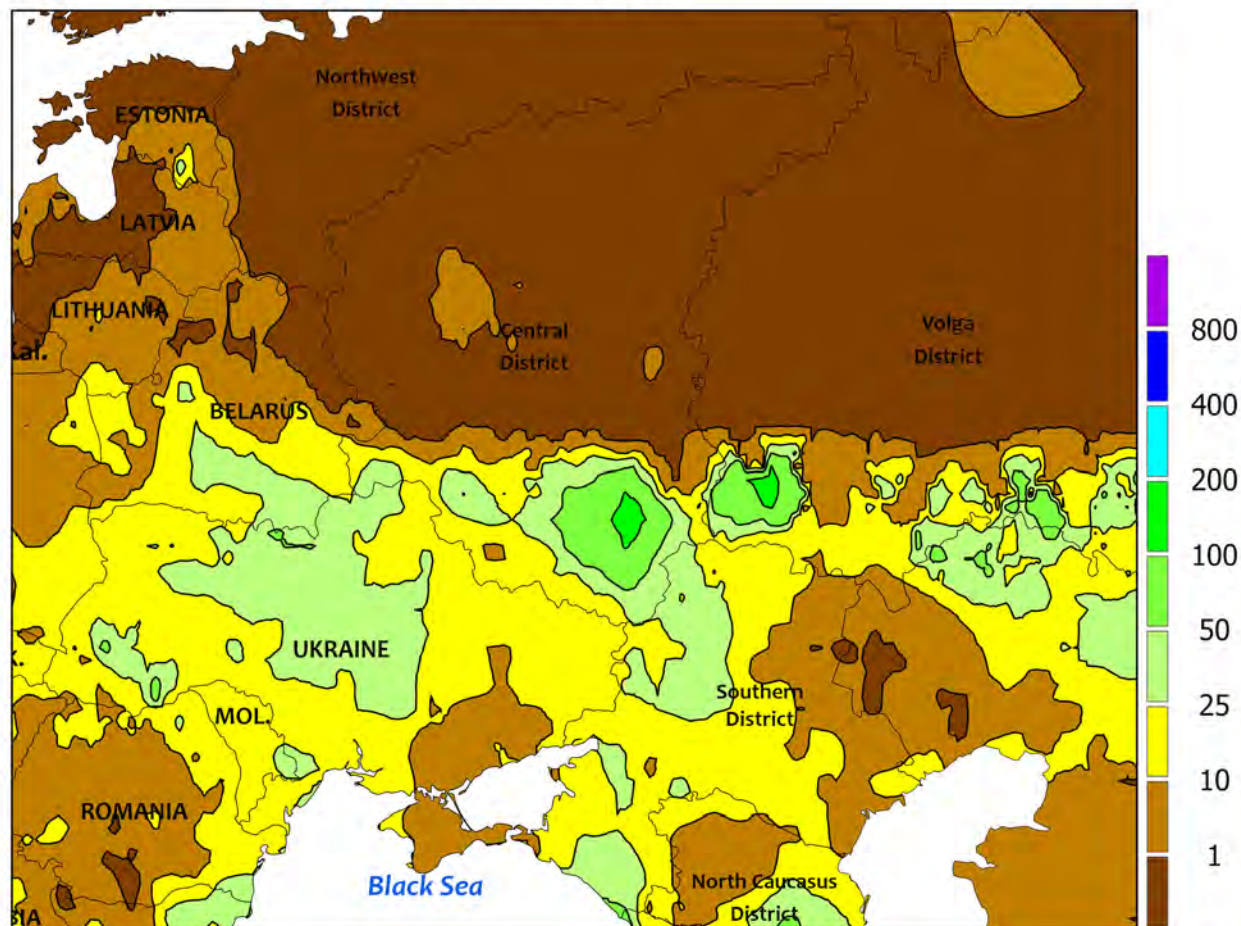


EUROPE

Wet and chilly weather continued, though drought intensified in southwestern Europe. Widespread moderate to heavy showers (10-60 mm) persisted from England and France eastward into western portions of Poland, Hungary, and the Balkans. As a result, conditions remained good to excellent for vegetative (north) to reproductive (south) winter grains and oilseeds. Rain was heavy to excessive (50-125 mm) from the southern Czech Republic into Slovenia, while a second area of heavier rainfall (50-90 mm) was noted in Norway. Showers were highly variable in Italy, with locally heavy rainfall in the northeast (25-50 mm) juxtaposed with dry weather and worsening drought in the Piedmont Region in the country's

northwest. The rainy weather largely bypassed the Balkans, northeastern Poland, and the central Danube River Valley, though most of these croplands have adequate soil moisture for spring growth. Conversely, drought intensified in Portugal and Spain. In particular, the favorable start to the 2022-23 Water Year in southern Spain (Andalucía) — courtesy of heavy December rainfall — continued to fade. Southern Spain's water-year total rainfall (since September 1) was now at 70 percent of normal and the driest since 2012. Further compounding the drought in Spain were temperatures up to 5°C above normal, with daytime highs approaching or topping 30°C in southern growing areas.

WESTERN FSU
Total Precipitation(mm)
April 9 - 15, 2023



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



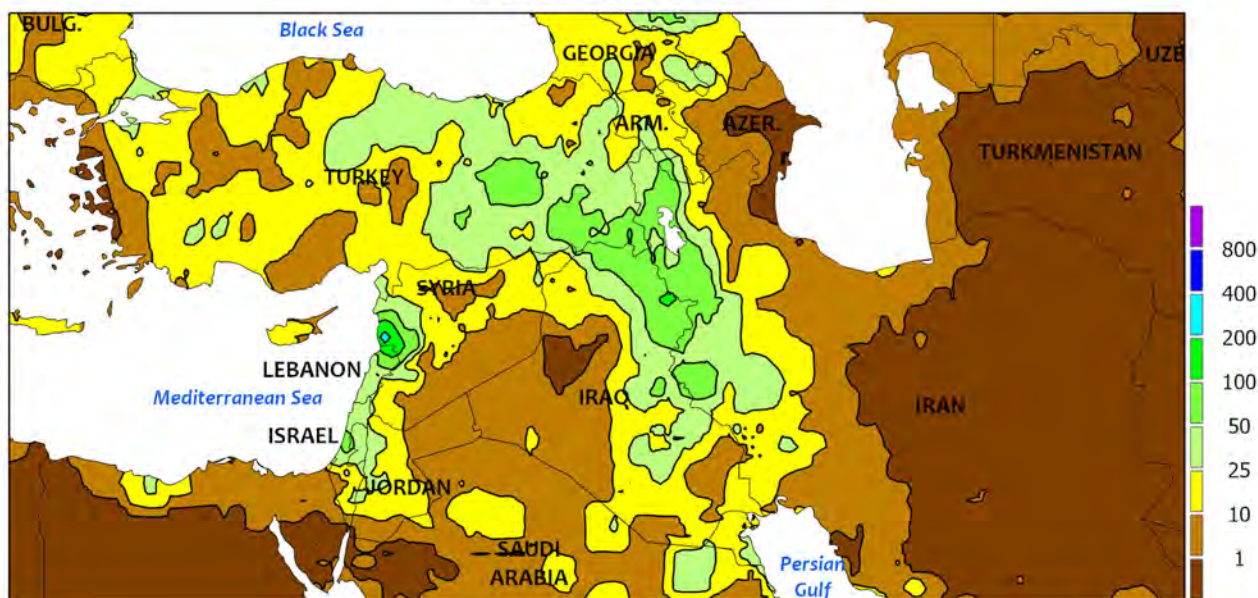
WESTERN FSU

Warm and wet weather expanded across the region. Moderate to heavy rain (10-40 mm) continued in Moldova, Ukraine, and southern Belarus and overspread much of western and central Russia (10-75 mm). Consequently, moisture supplies were adequate to abundant for vegetative winter crops as well as emerging to early vegetative spring grains. Temperatures averaged 1 to 3°C

above normal across most of the region save for Moldova (near normal), accelerating the development of vegetative wheat, barley, and rapeseed.

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

MIDDLE EAST
Total Precipitation(mm)
April 9 - 15, 2023



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



MIDDLE EAST

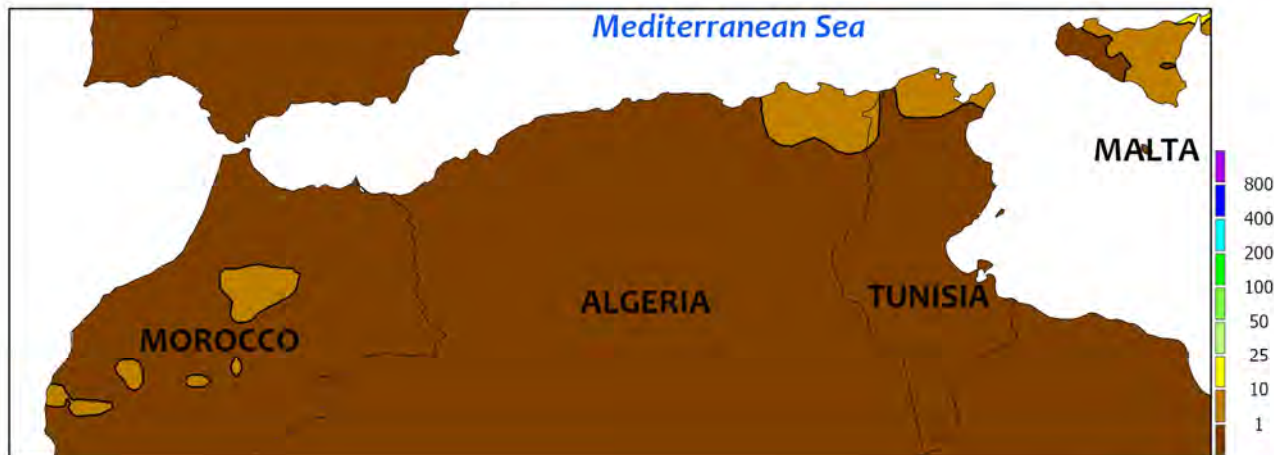
Wet weather intensified and expanded across the region, though eastern-most growing areas remained hot and dry. In Turkey, an additional 10 to 50 mm of rainfall — locally more than 150 mm in the east but less than 5 mm in the Aegean Region — further improved soil moisture supplies for vegetative to reproductive winter grains. Following last week's dry weather, moderate to heavy rainfall (10-140

mm) returned to growing areas from the eastern Mediterranean Coast into Iraq and western Iran, further boosting moisture supplies for vegetative (north) to reproductive (south) wheat and barley. However, dry and hot weather (up to 8°C above normal) in eastern Iran's Khorasan Province exacerbated drought and lowered winter grain yield prospects locally.

NORTHWESTERN AFRICA

Total Precipitation(mm)

April 9 - 15, 2023



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

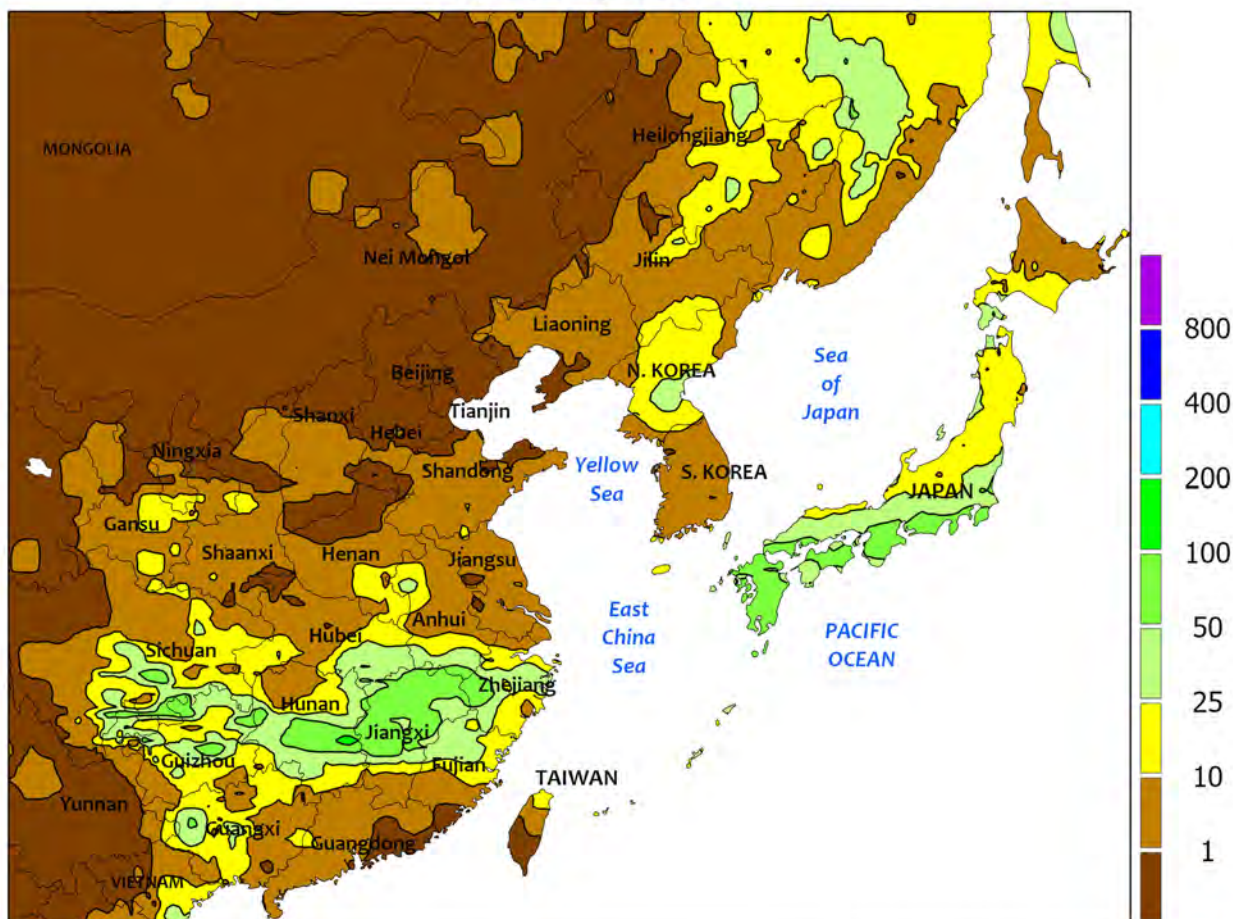


NORTHWESTERN AFRICA

Dry and hot weather further lowered winter grain yield prospects across much of the region. Measurable rain (1-5 mm) was confined to northeastern Algeria and northern Tunisia, the only part of the region that has been spared from severe drought and rapidly declining crop conditions since the beginning of the new year. Otherwise, dry and hot conditions (2-7°C above normal) from Morocco into Algeria and central

Tunisia exacerbated the region's drought and continued to reduce wheat and barley yields. The latest satellite-derived Vegetation Health Index (VHI) indicated fair to very poor conditions from Morocco into central Algeria. The VHI remained highly variable farther east, with good crop vigor in coastal portions of northeastern Algeria and Tunisia contrasting with abysmal conditions farther inland.

EASTERN ASIA
Total Precipitation(mm)
April 9 - 15, 2023



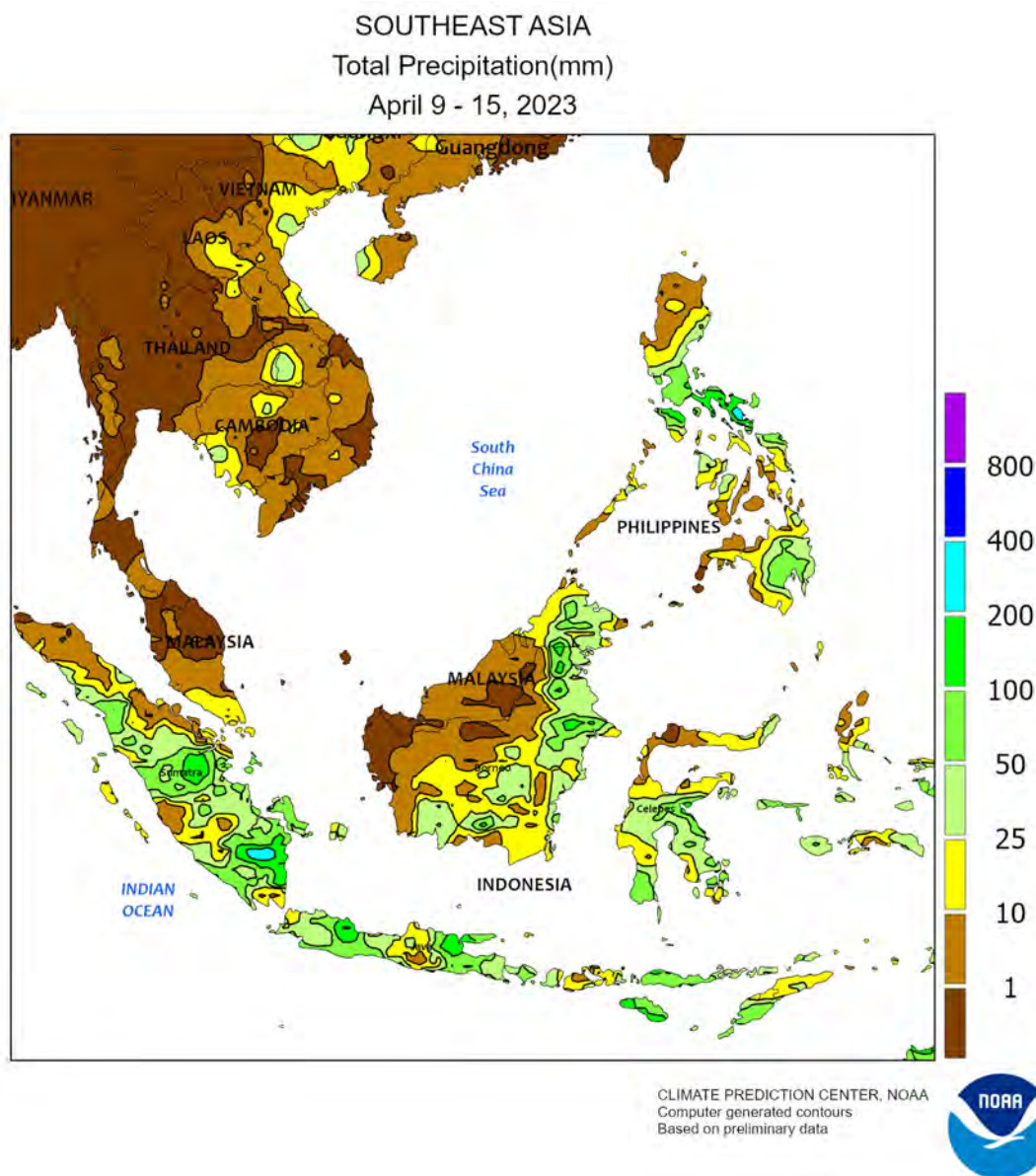
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data



EASTERN ASIA

Showers were generally light (less than 10 mm) throughout China, with higher totals limited to southern provinces. Rainfall amounts over 25 mm were almost exclusively located in the southeast, benefiting vegetative early-crop rice, while amounts dwindled rapidly outside of this area. The lack of appreciable rain in the Yangtze Valley and on

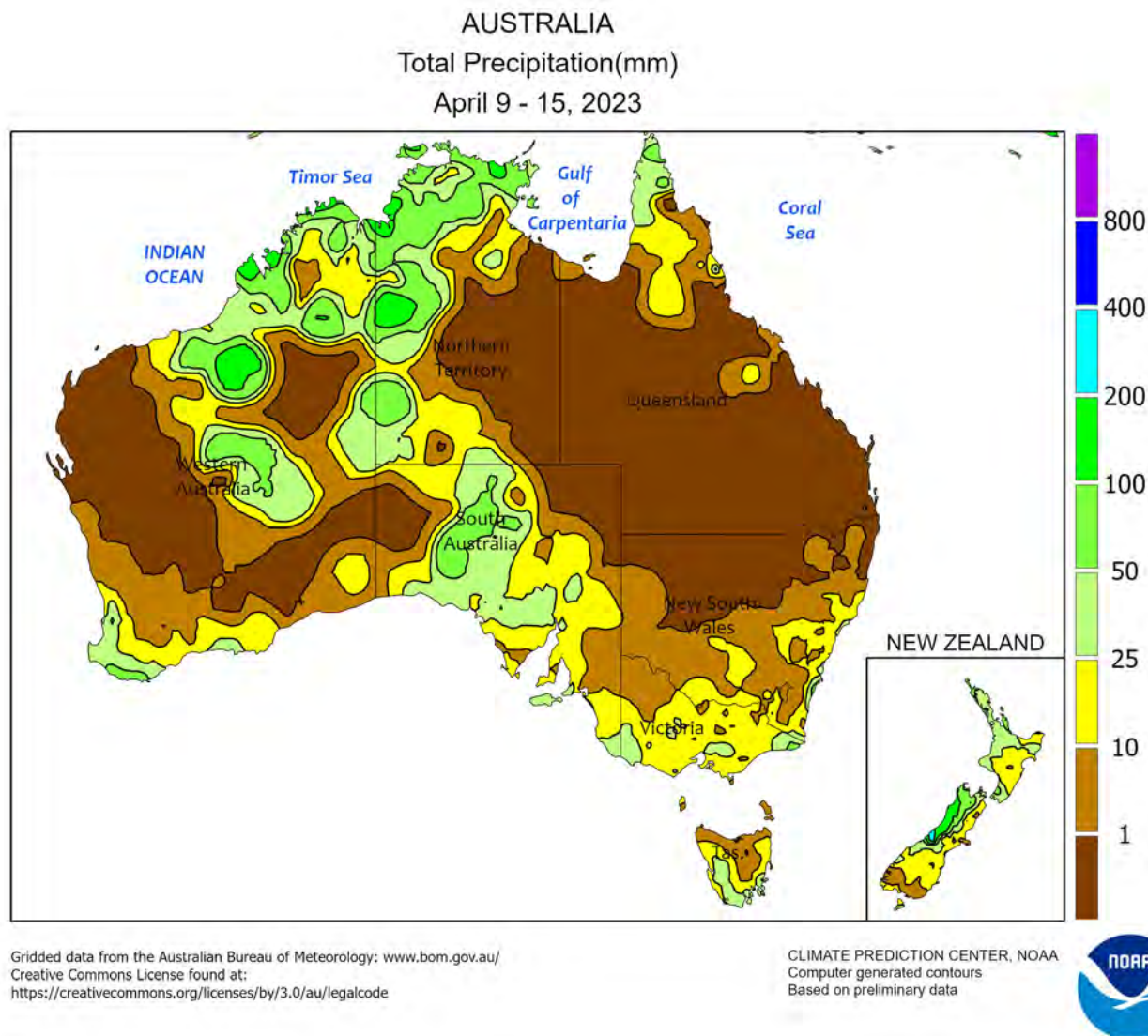
the North China Plain did little to support reproductive winter crops. In fact, unusually warm weather (temperatures up to 5°C above normal) advanced crop development and increased moisture demands. Elsewhere, increasing temperatures in western China (Xinjiang) were allowing some limited cotton sowing to begin.



SOUTHEAST ASIA

Widespread showers were generally confined to Indonesia and the Philippines during the period, with more scattered, albeit locally heavy, showers in other parts of the region. In Indonesia, 25 to 100 mm of rain continued to support oil palm and seasonal rice, while similar amounts in the Philippines supported seasonal crops there as well; the

main growing season in the Philippines is just underway. Meanwhile, sweltering heat (over 40°C), typical for this time of year, in Thailand and some of the surrounding areas remained ever present, limiting fieldwork activities but setting up the proper conditions for the onset of monsoon rainfall next month.

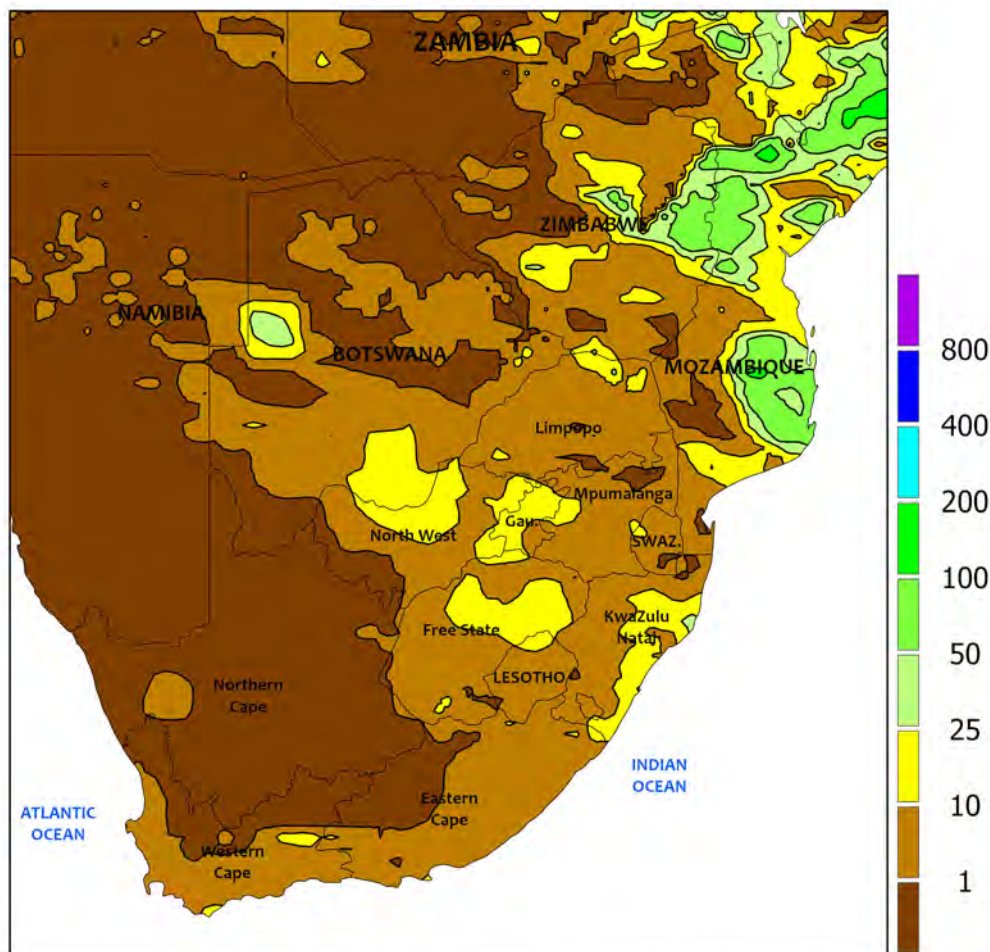


AUSTRALIA

After a rather dry start to the week, showers became more numerous across the wheat belt. Most growing areas received between 5 and 25 mm of rain, the exception being southern Queensland and extreme northern New South Wales where mostly dry weather persisted throughout the week. The relative dryness allowed cotton, sorghum, and other summer crop harvesting to continue without delay. Elsewhere in the wheat

belt, showers maintained near- to above-normal root zone soil moisture in the south and west, reportedly buoying farmer confidence in advance of wheat, barley, and canola planting. Each year, winter crop sowing typically begins in mid-April and gains momentum through May. Temperatures averaged 2 to 4°C below normal in most major crop producing areas, with maximum temperatures generally in the 20s (degrees C).

SOUTH AFRICA
Total Precipitation(mm)
April 9 - 15, 2023



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

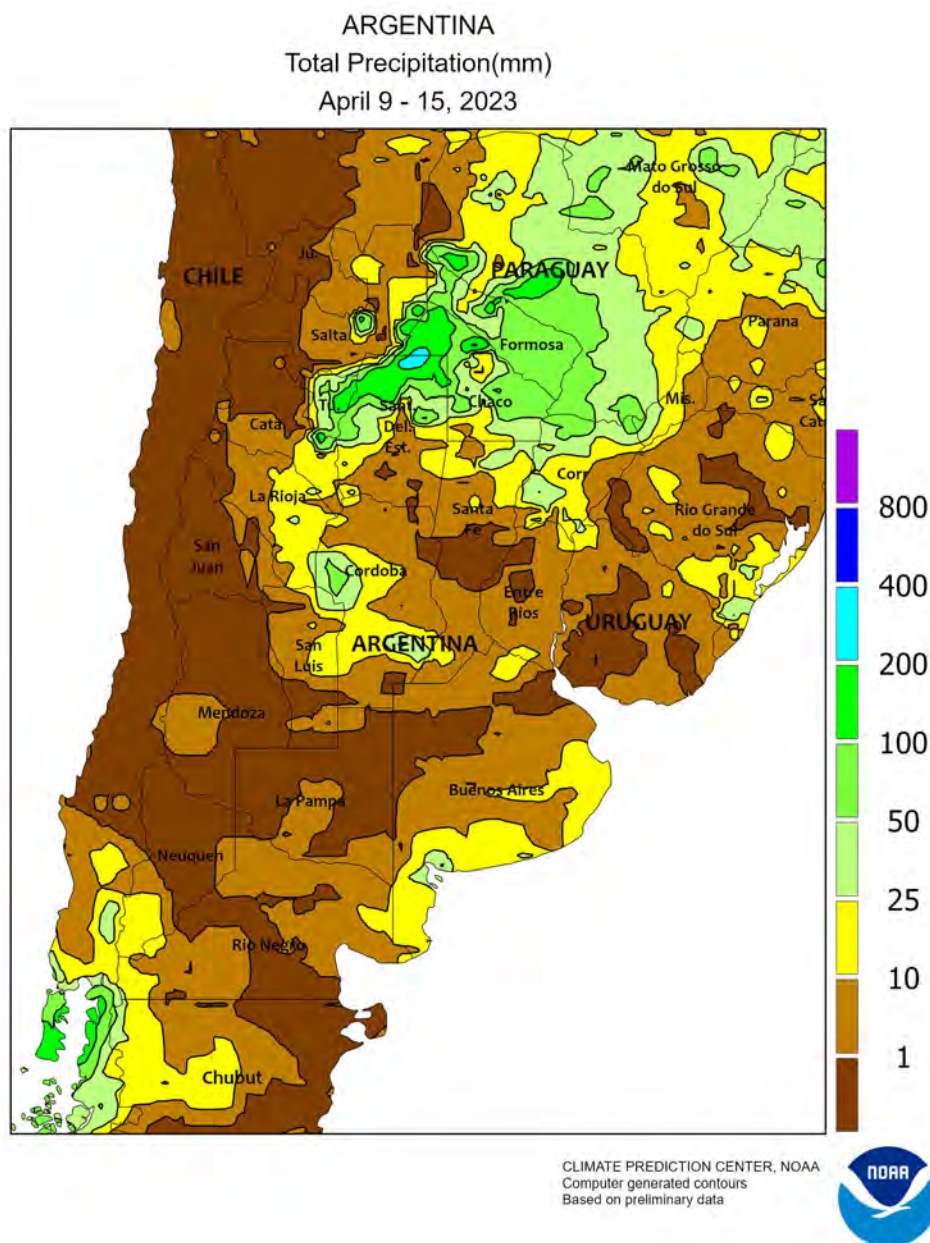


SOUTH AFRICA

Mild, dry weather maintained favorable conditions for corn and other maturing summer crops. Regionwide, rainfall was patchy and light, with few locations recording more than 10 mm. Weekly average temperatures ranged from near to slightly above normal in the east (eastern Limpopo southward through KwaZulu-Natal) to as much as 5°C below normal in interior sections of the Cape Provinces. Highest daytime temperatures (35°C or higher) were confined to eastern

sections of Limpopo and Mpumalanga, with milder conditions elsewhere. Nighttime lows dropped to near or slightly below freezing in the interior, but no freezes were recorded in commercial farming areas where crops would be susceptible to damage.

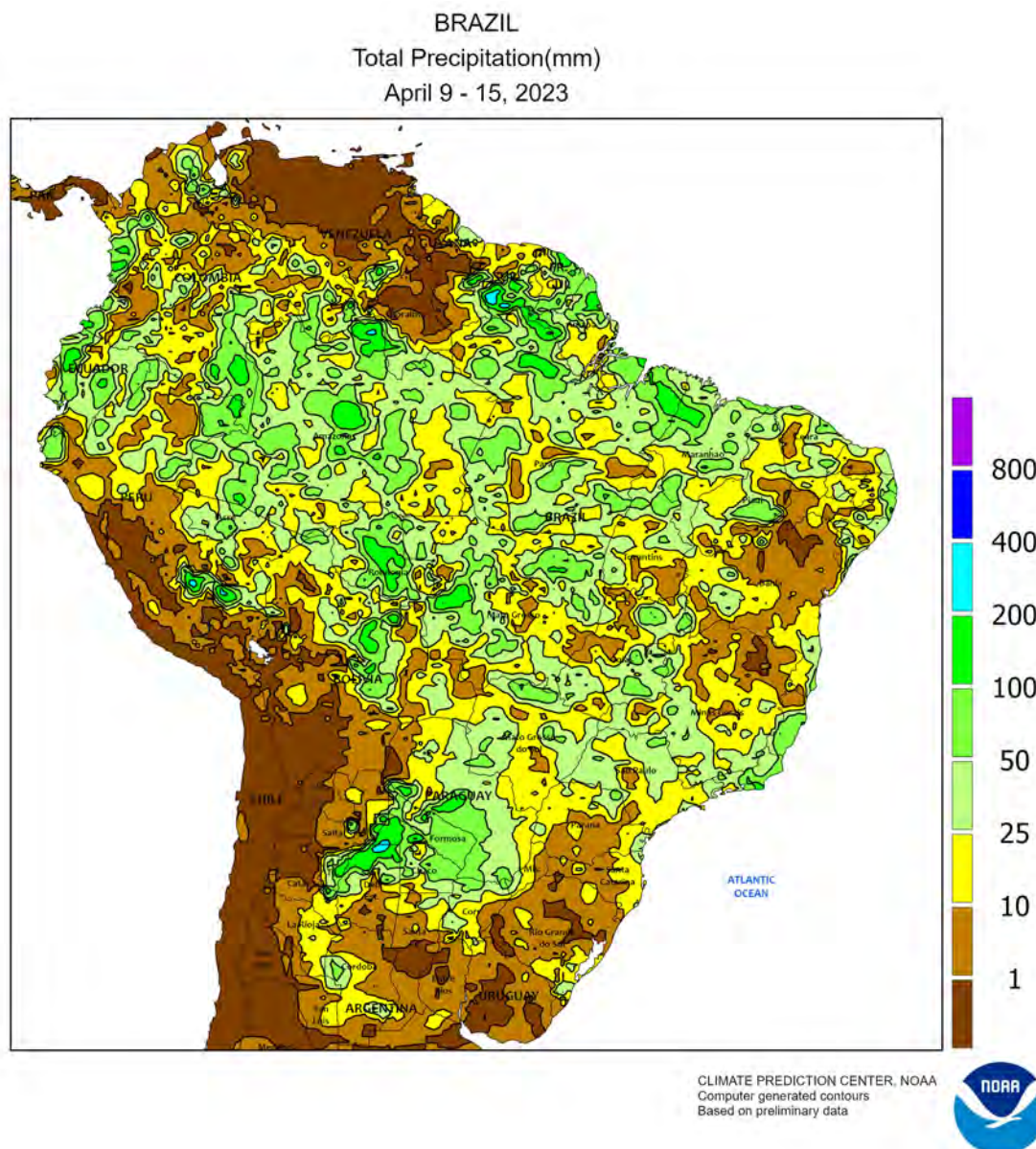
This is the final weekly summary for South Africa; coverage will resume in October 2023 as summer crop planting becomes widespread.



ARGENTINA

Dry, occasionally warm weather favored drydown and harvesting of summer grains and oilseeds in central Argentina. Little to no rain (amounts totaling 0-4 mm) fell in key summer grain and oilseed areas extending from La Pampa eastward across central Buenos Aires and from eastern Córdoba to Entre Rios. Light showers (greater than 10 mm) across southeastern Buenos Aires boosted moisture for the upcoming winter grain crop. Weekly temperatures averaged near normal, with daytime highs reaching the lower 30s (degrees C) early in the week, immediately followed by seasonably cooler conditions. Nighttime lows dropped below freezing locally in Buenos

Aires, but the event came too late in the season to significantly impact production. Meanwhile, showers (10-50 mm, locally higher) swept across northern farming areas late in the week, increasing moisture for later-developing summer crops, including cotton. According to the government of Argentina, sunflowers were 96 percent harvested as of April 13, slightly ahead of last year's pace (94 percent); harvesting reached 93 percent in Buenos Aires (91 percent last year), the country's largest producer. Meanwhile, corn was 18 percent harvested versus 27 percent last year and cotton was 13 percent harvested (10 percent last year).

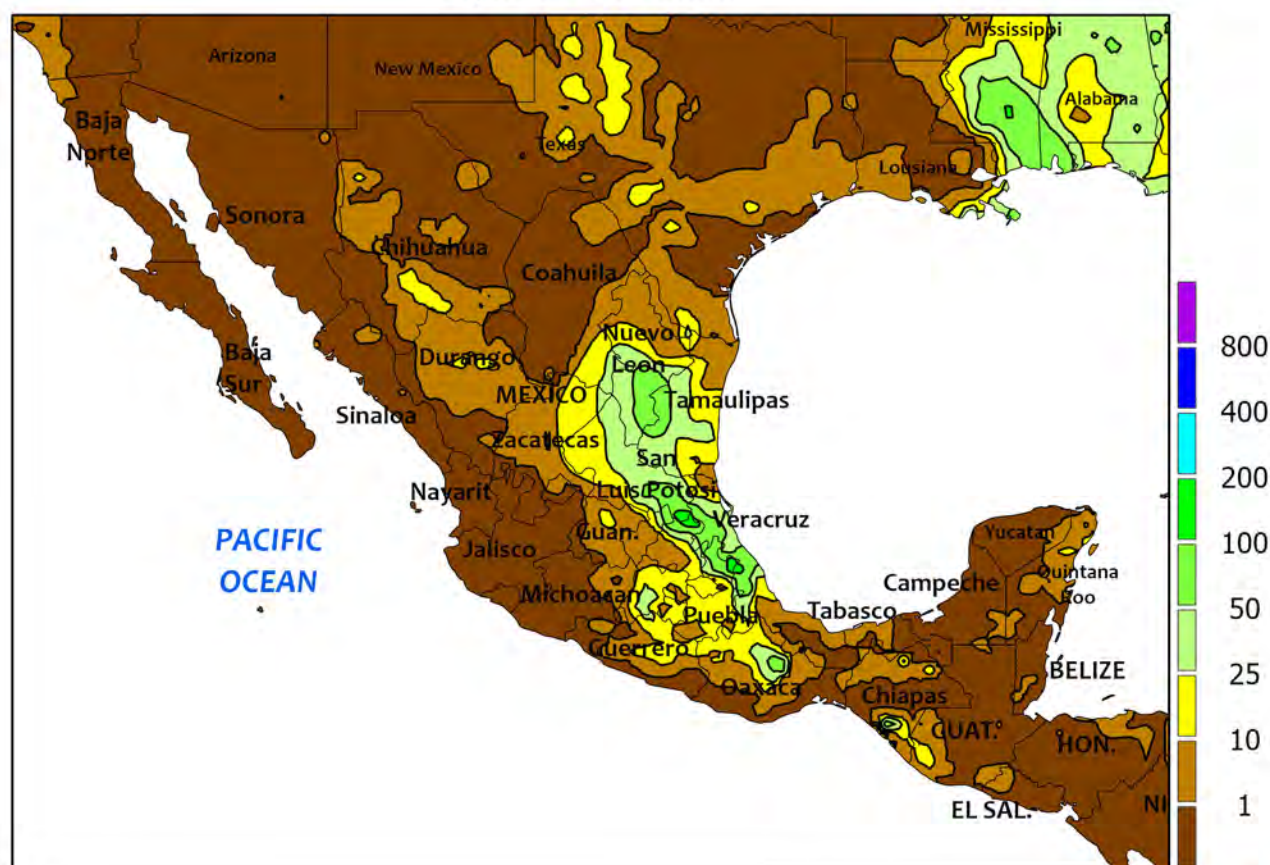


BRAZIL

Scattered showers maintained overall favorable conditions for cotton and corn in central and northeastern Brazil. Rainfall ranged from 10 to 50 mm – locally higher – over most locations from Mato Grosso eastward, including farmlands stretching from western Minas Gerais northward through Bahia and Tocantins. However, these areas will need more rain in upcoming weeks to ensure current yield expectations; these areas will soon undergo a seasonal decline in rainfall and many farmers planted later than normal, underscoring the benefit of an extended rainy season. Farther south, rainfall

was more patchy and generally lighter than normal, locally totaling below 10 mm from Rio Grande do Sul northward to southern sections of Mato Grosso do Sul and São Paulo. According to the government of Rio Grande do Sul, soybeans were 17 percent reproductive to filling as of April 13, with 32 percent harvested, while corn was farther along in development and 80 percent harvested. In Paraná, soybeans and first crop corn were 94 and 77 percent harvested, respectively, as of April 10; second-crop corn planting was completed, with 9 percent of the crop flowering.

MEXICO
Total Precipitation(mm)
April 9 - 15, 2023



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

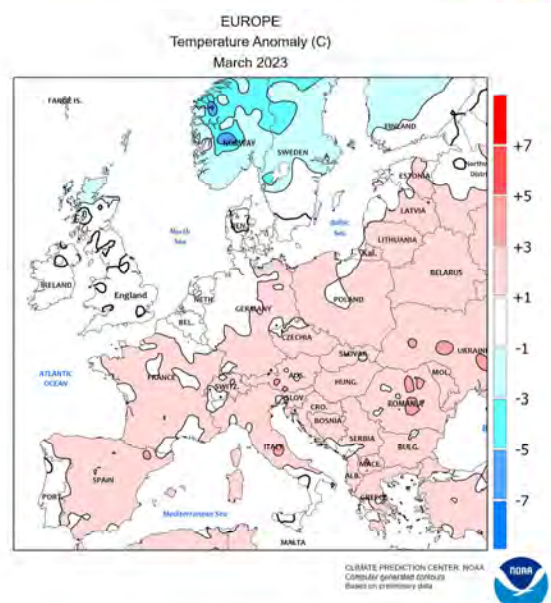
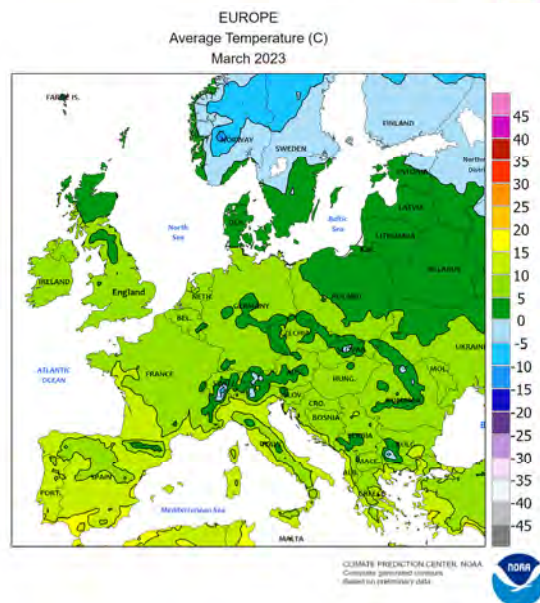
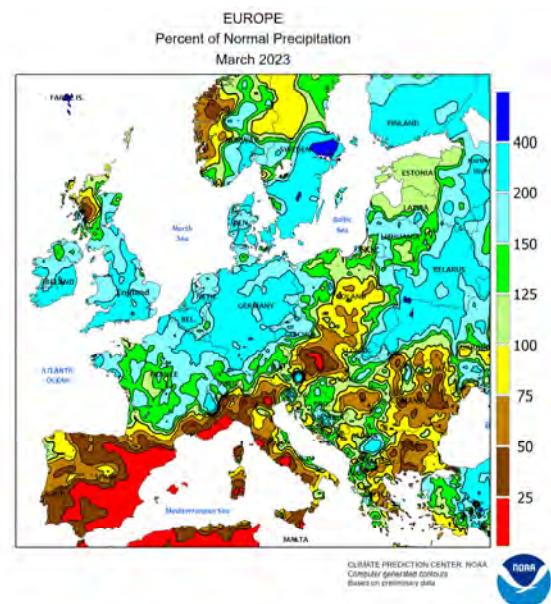
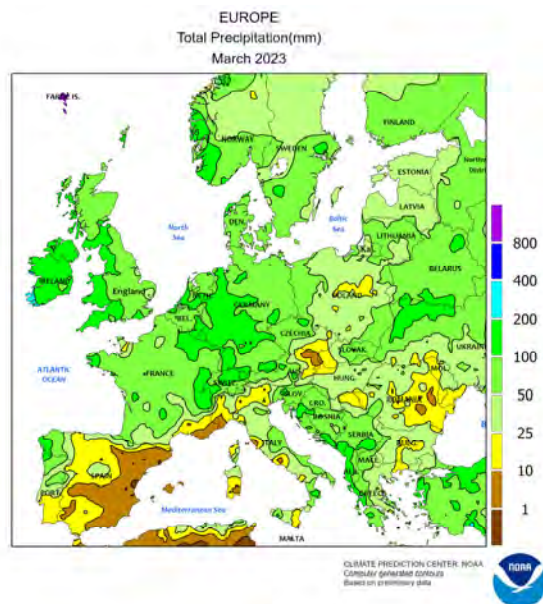


MEXICO

Seasonal showers provided timely moisture for summer crops in farming areas along the western Gulf Coast. Rainfall totaling 10 to 50 mm extended from southern Nuevo Leon southward through Veracruz, with scattered showers (5-25 mm) developing over eastern sections of the southern plateau (Puebla and environs). Summer crop planting is typically underway in the aforementioned locations, while more westerly locations – including key summer corn areas in

Jalisco and Michoacán – expect drier weather until May or June. In the northeast, the rain will also benefit the predominantly rain-fed winter sorghum crop, although early-planted portions of the crop are maturing and will likely not benefit from the late-season moisture. Meanwhile, sunny, occasionally hot weather (daytime highs exceeding 35°C) fostered rapid development of irrigated winter corn in key northwestern production areas (notably Sinaloa).

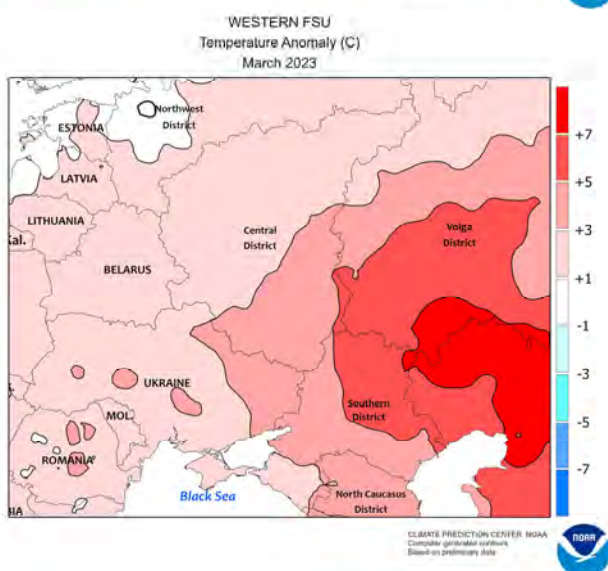
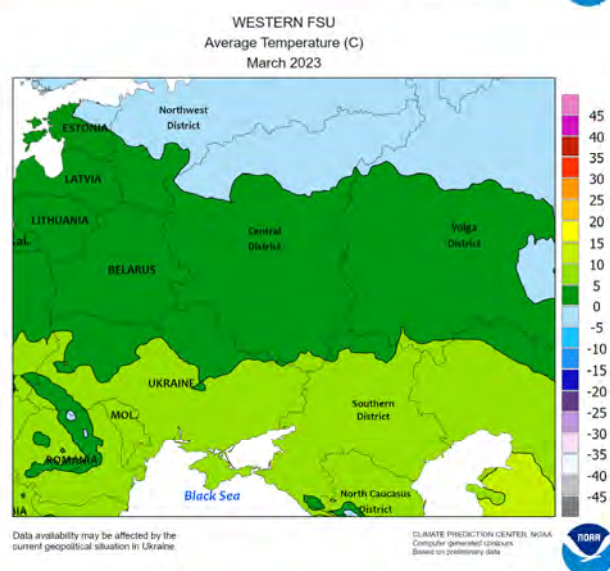
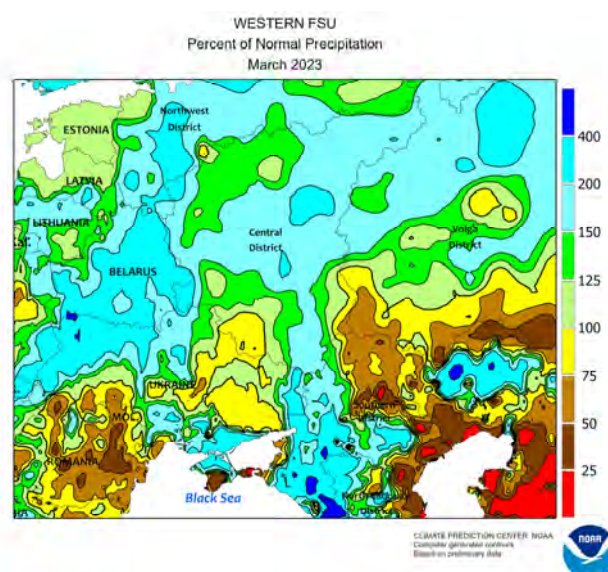
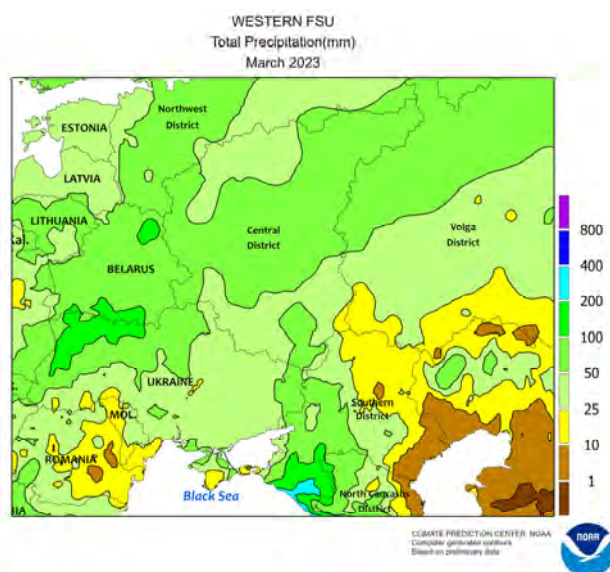
March International Temperature and Precipitation Maps



EUROPE

Wet weather during March over much of central and northern Europe contrasted with acute dryness and building heat in southwestern growing areas. Temperatures across the continent averaged near to below normal in the far north but 1 to 3°C above normal from France eastward. As a result, winter crops broke dormancy up to two weeks ahead of normal, especially in warmer western growing areas. March rainfall was favorable for spring growth, totaling 100 to locally more than 200 percent of

normal from England and France into Poland and northern and western portions of the Balkans. Several pockets of drier weather were noted over eastern Europe, however, with less than 50 percent-of-normal rainfall in eastern Romania as well as eastern Austria and environs. Meanwhile, acute dryness (less than 25 percent of normal) renewed drought concerns in Spain and northwestern Italy, with temperatures on the Iberian Peninsula up to 6°C above normal exacerbating soil moisture losses.

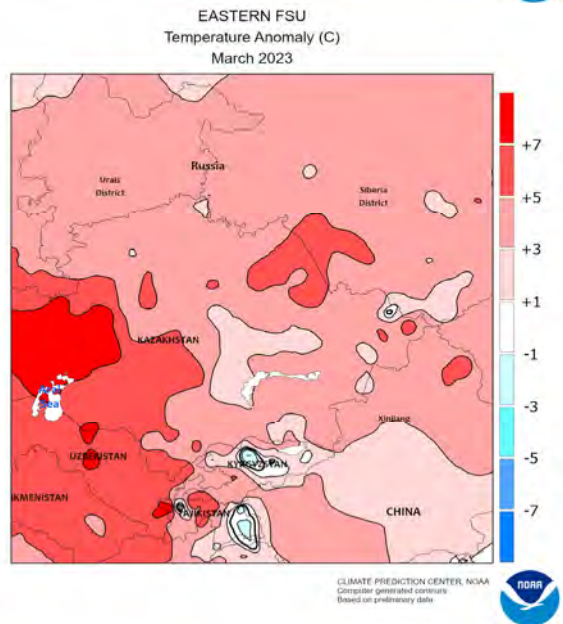
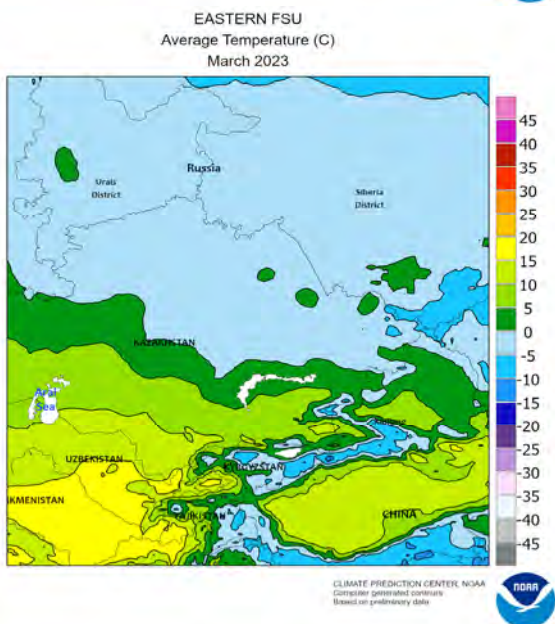
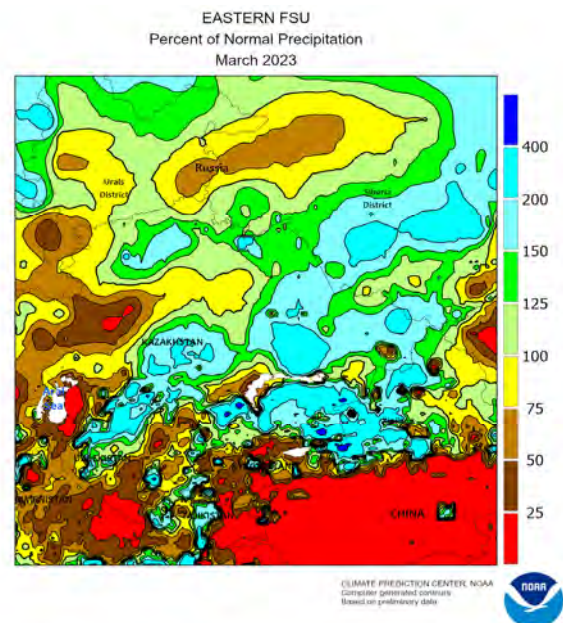
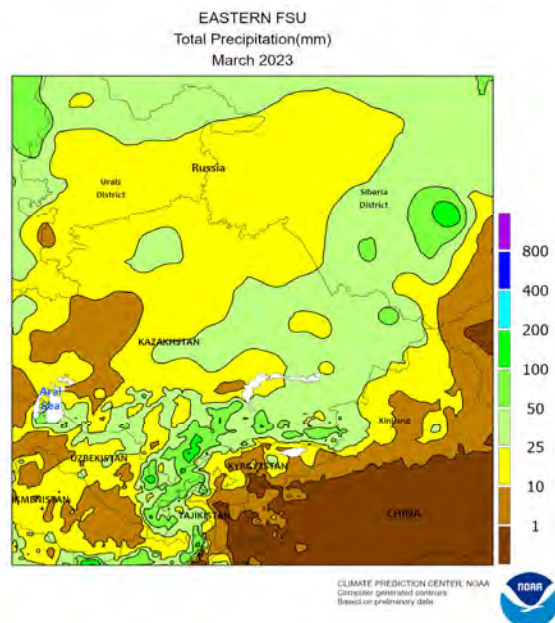


WESTERN FSU

Unseasonably warm weather ushered winter crops out of dormancy during March up to two weeks ahead of normal, though precipitation and soil moisture were overall favorable for spring growth. Temperatures averaged 1 to 3°C above normal in Moldova, 2 to 4°C above normal in Ukraine, and 3 to 9°C above normal in Russia (warmest in the Volga District). As a result, winter grains and oilseeds were vegetative by mid-March in most primary winter crop areas. Precipitation totaled near to above normal across much of the region, with the

greatest anomalies (locally more than 250 percent of normal) noted in Belarus and northern portions of Ukraine and Russia. Localized dryness lingered near the central and western Black Sea Coast, although heavy rain in early April alleviated precipitation deficits which accumulated over much of the winter.

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

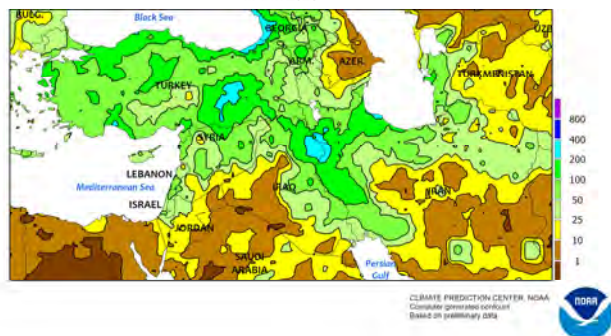


EASTERN FSU

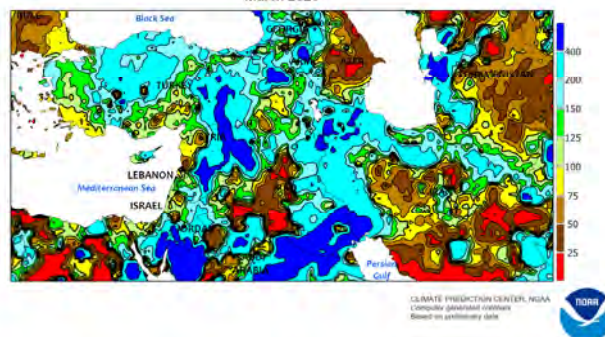
Unseasonable warmth during March accelerated snow melt in the north and hastened winter crop development in the south. Temperatures up to 7°C above normal across northern Kazakhstan and central Russia (daytime highs in the southern and western spring grain belt reaching the teens degrees C) eroded the region's deep snowpack, though spring grain planting typically does not begin until May. A wet March (100-250 percent of normal) maintained favorable moisture supplies for spring growth. Farther south across Uzbekistan, Turkmenistan, Tajikistan, and Kyrgyzstan, warm weather (4-8°C above normal) accelerated winter wheat development and triggered early melting of mountain

snowpacks. However, irrigation prospects courtesy of the 2022-23 Water Year remained favorable; as of April 15, season-to-date (since September 1) precipitation in the catchment basins of the Amu (south) and Syr (north) Darya Rivers — primary sources of summer crop irrigation — stood at 170 and 120 percent of normal, respectively. The Amu Darya's current water year (320 mm, 130 mm surplus) remained the wettest of the past 30 years, while the Syr Darya's 315 mm was enough to rank as the 7th wettest water year to date of the past 30 years. In fact, the Amu Darya has easily eclipsed the total water year normal of 250 mm with one month remaining in the climatological wet season.

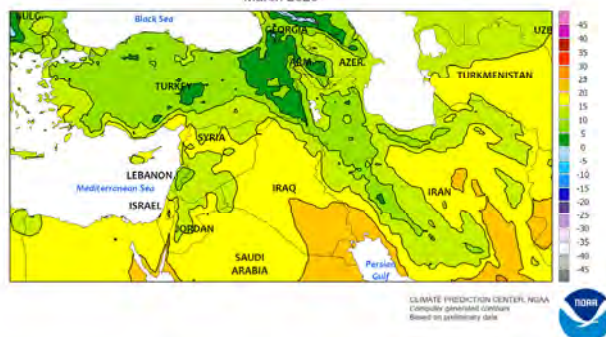
MIDDLE EAST
Total Precipitation(mm)
March 2023



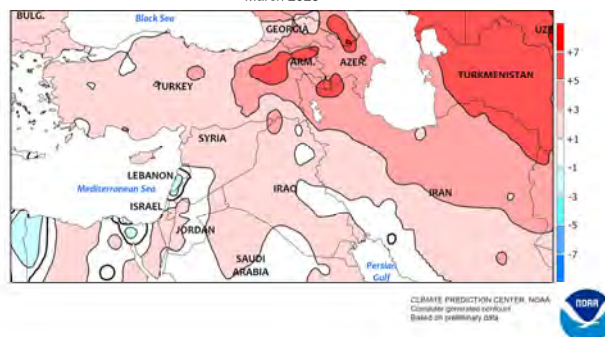
MIDDLE EAST
Percent of Normal Precipitation
March 2023



MIDDLE EAST
Average Temperature (C)
March 2023



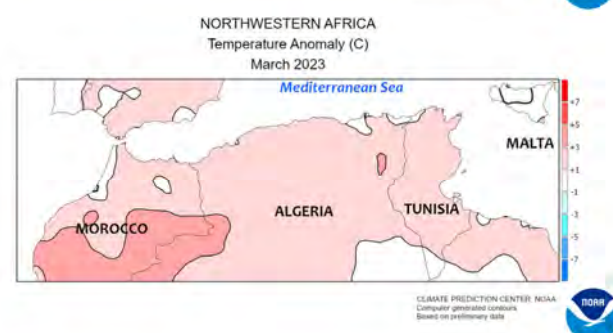
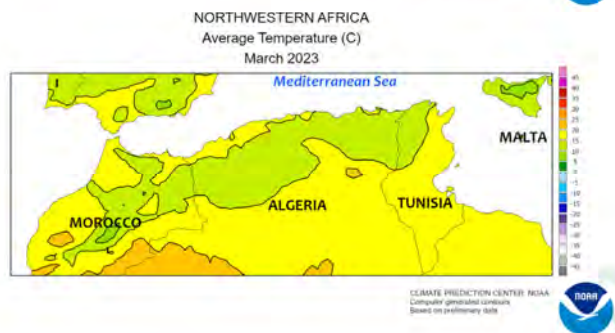
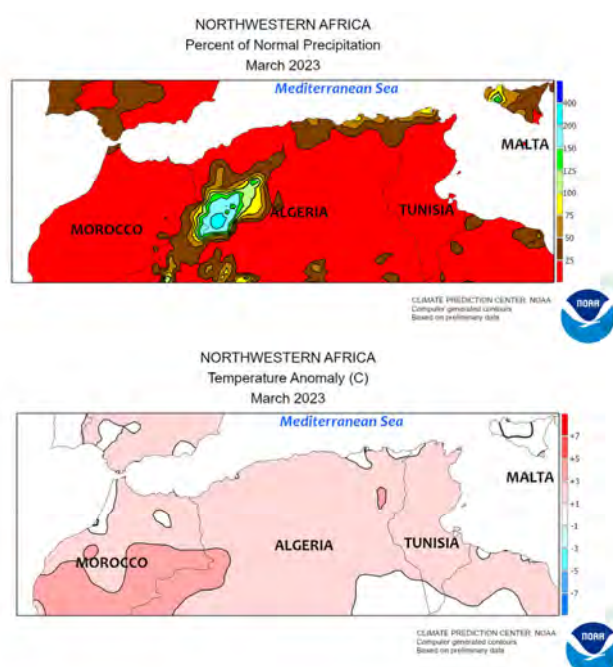
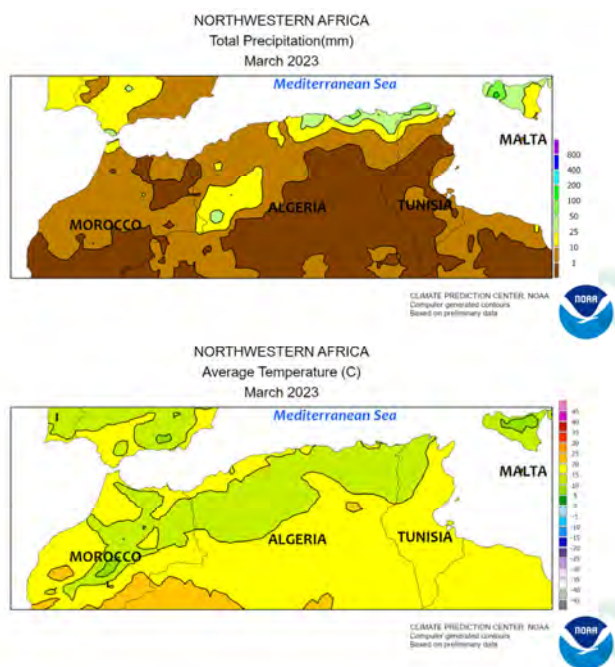
MIDDLE EAST
Temperature Anomaly (C)
March 2023



MIDDLE EAST

Wet March weather over western and central portions of the region contrasted with dry conditions farther east. Near- to above-normal precipitation in Turkey eased autumn-winter drought and vastly improved prospects for greening to vegetative winter grains. However, excessive rain (200 mm or more) in southeastern Turkey caused flooding and damage to infrastructure in the same region still dealing with the aftermath of the catastrophic February earthquake. The heavy rain extended southeastward into northern and eastern Syria, improving

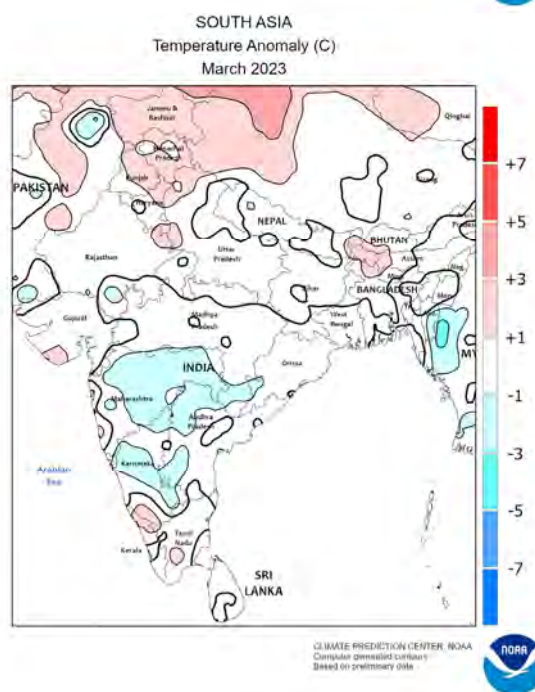
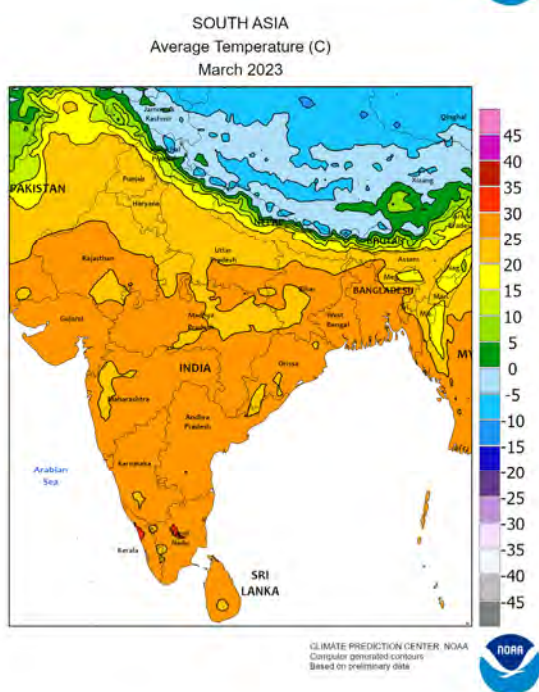
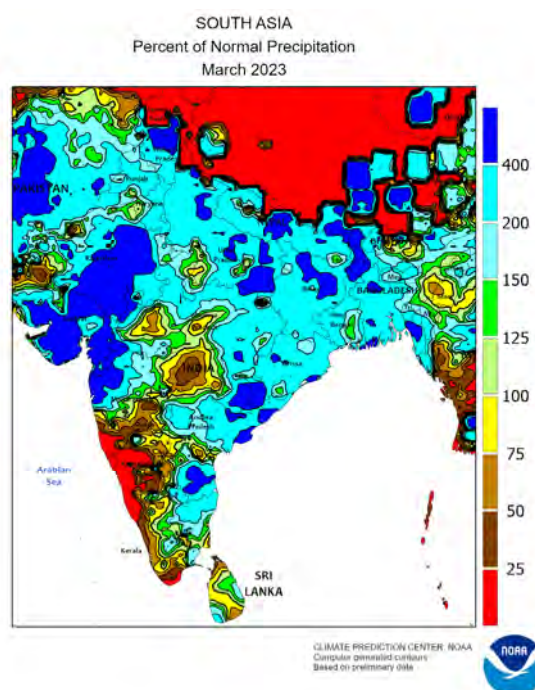
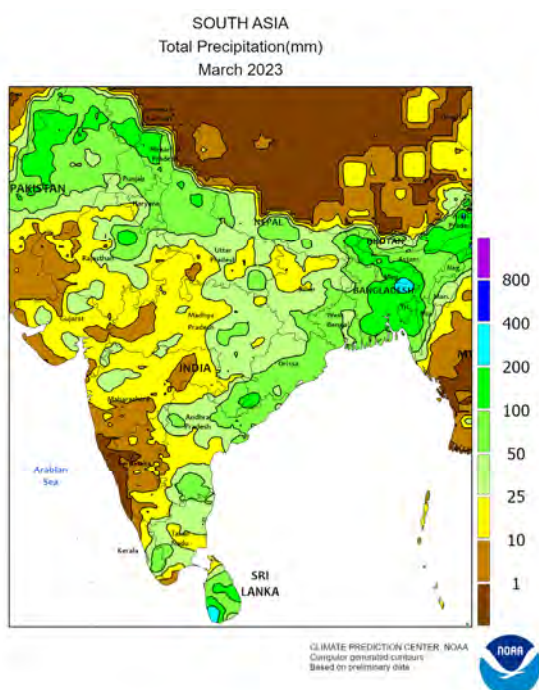
soil moisture for winter grains but also afflicting earthquake-ravaged locales. Moderate to heavy rainfall (50-250 mm) likewise boosted moisture reserves for spring growth in Iraq and western Iran. Conversely, drier-than-normal weather (locally less than 50 percent of normal) in eastern Iran's Khorasan Province renewed drought concerns for vegetative wheat and barley. Temperatures for the month averaged near normal across western and central Turkey but 3 to 5°C above normal from eastern Turkey into northern and eastern Iran.



NORTHWESTERN AFRICA

Drought and heat intensified across the entire region during March. Appreciable rainfall (25 mm or more) was confined to coastal areas of eastern Algeria and northern Tunisia, but even this rain was less than half of the monthly normal. Otherwise, little to no rain was reported from Morocco eastward into central Tunisia, renewing or exacerbating drought and

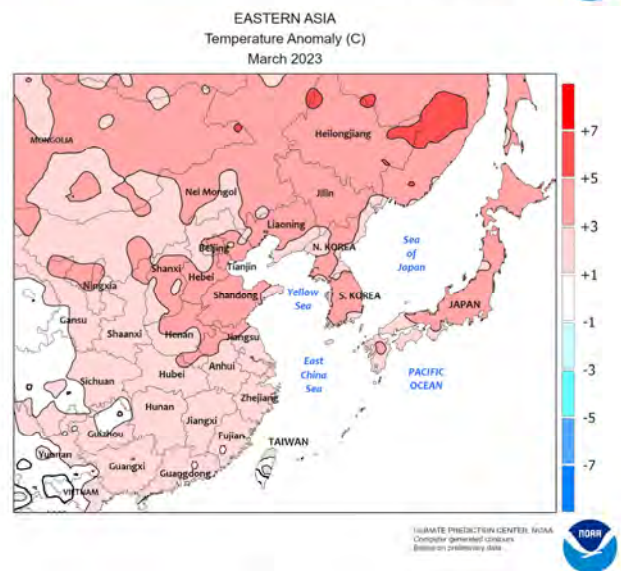
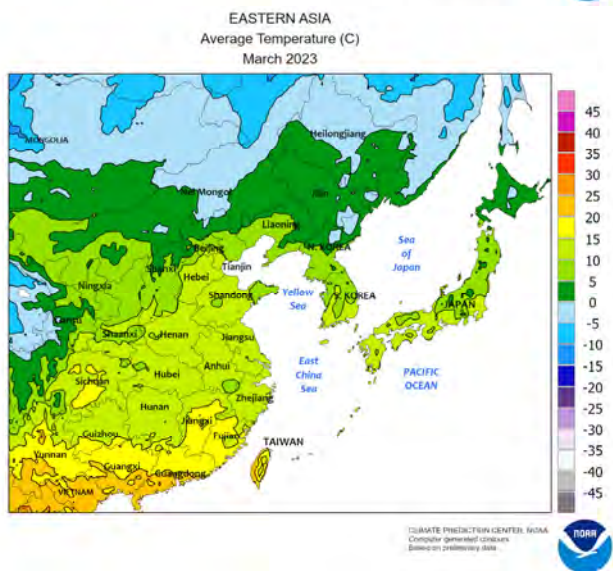
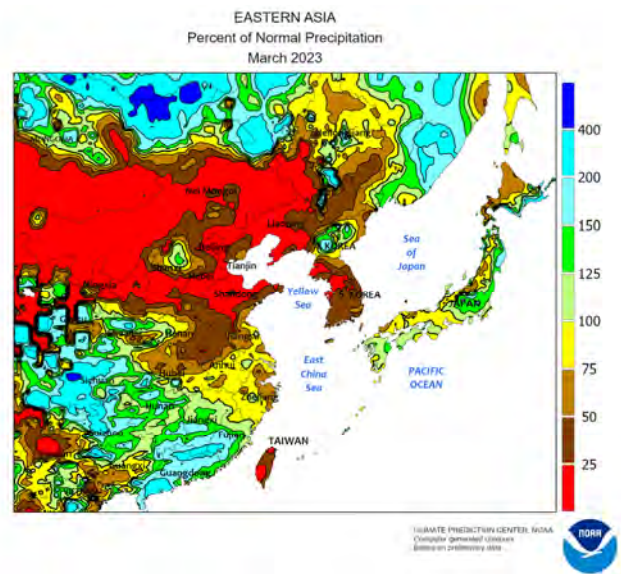
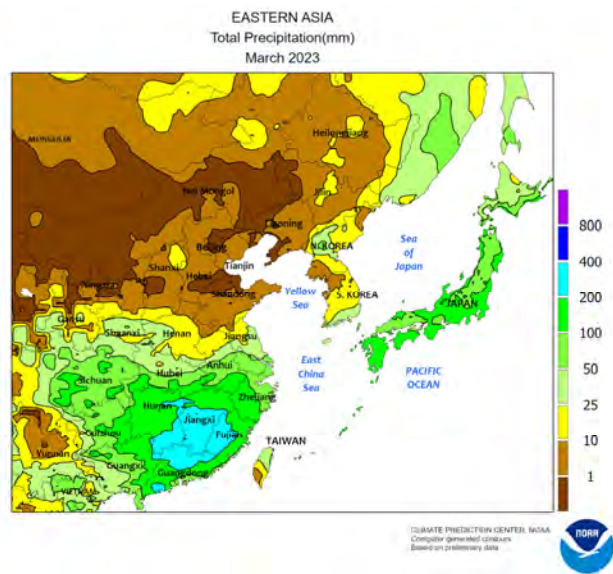
slashing yield prospects for winter grains approaching or progressing through reproduction. Compounding the effects of drought were temperatures which averaged up to 5°C above normal in western and southern Morocco (highs in the upper 30s degrees C) and 2 to 3°C above normal elsewhere save for the immediate Mediterranean Coast.



SOUTH ASIA

Wetter-than-normal weather prevailed across much of the region during March. Rainfall totals along the eastern and northern periphery of India (extending into Bangladesh and Pakistan) surpassed 25 mm and locally over 150 mm (two to four times the normal amounts). While the moisture was generally welcome for immature seasonal crops and boosted irrigation supplies depleted over the dry season, the northern reaches experienced stormy weather late in the month

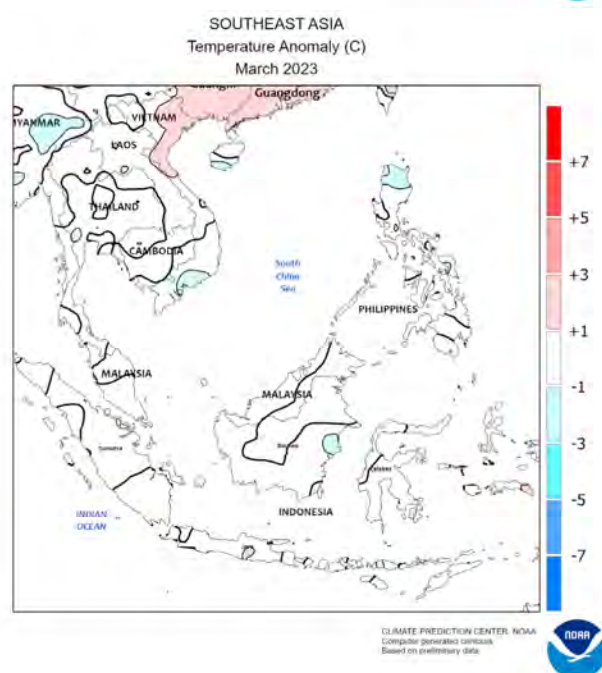
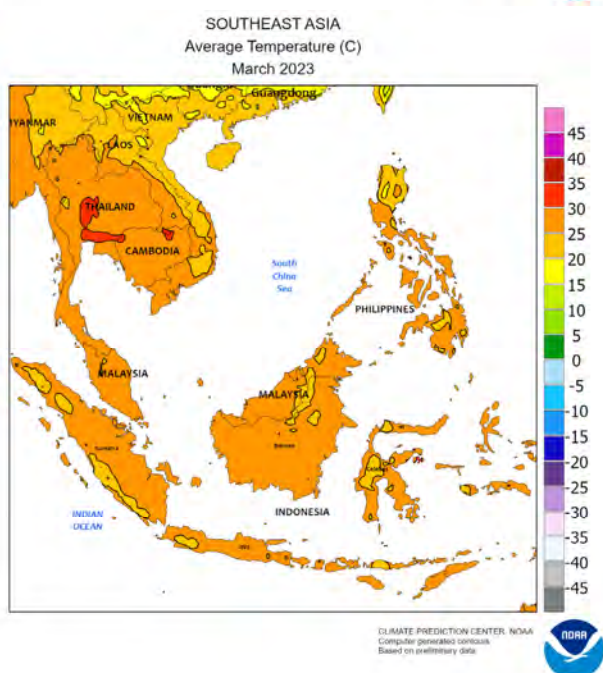
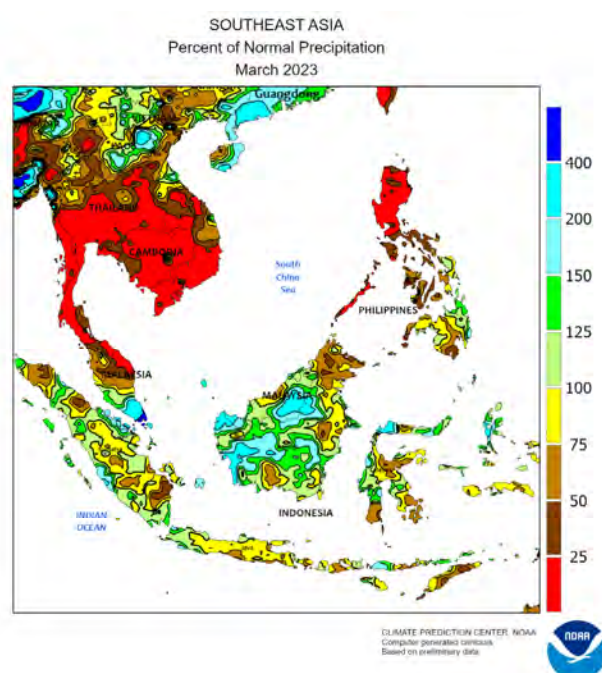
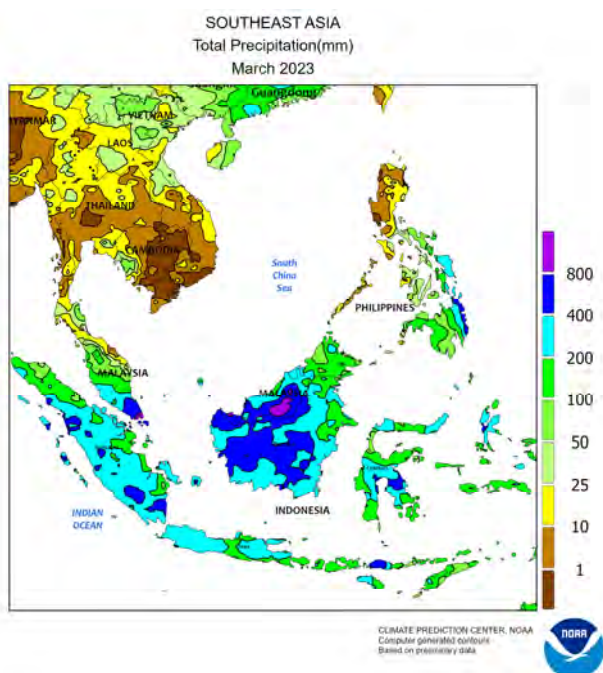
that caused localized damage to wheat and rapeseed. However, the storms were not on par with the extensive storminess in 2013 and 2015 that resulted in major yield reductions. Elsewhere, most of interior India extending westward experienced rainfall totals less than 25 mm - still above normal for the time of year - that provided some supplemental moisture to later-planted irrigated crops without hampering seasonal fieldwork.



EASTERN ASIA

During March, rainfall in China was generally confined to southern provinces and mostly in the latter half of the month. Locales south of the Yangtze River recorded over 25 mm of rain and many southeastern areas recorded over 150 mm (100-200 percent of normal overall). The moisture was welcome for rapeseed entering reproduction by month's end and newly sown early-crop rice, though a stripe of drought, established in the autumn, lingered in the upper Yangtze Valley and southwest. In addition, almost summer-like temperatures (daytime temperatures approaching 30°C, 15°C above

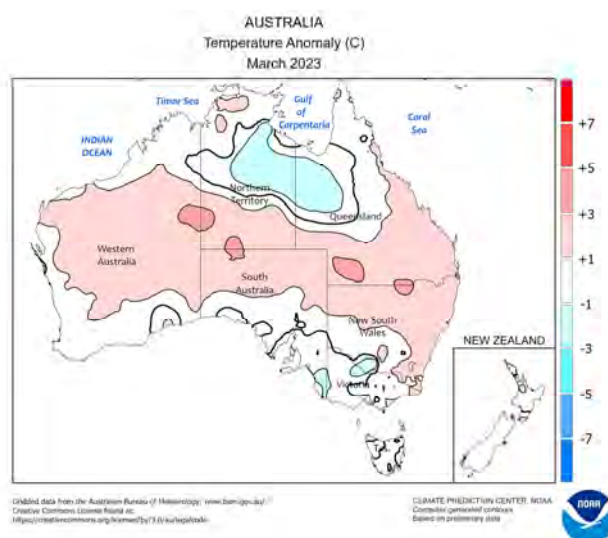
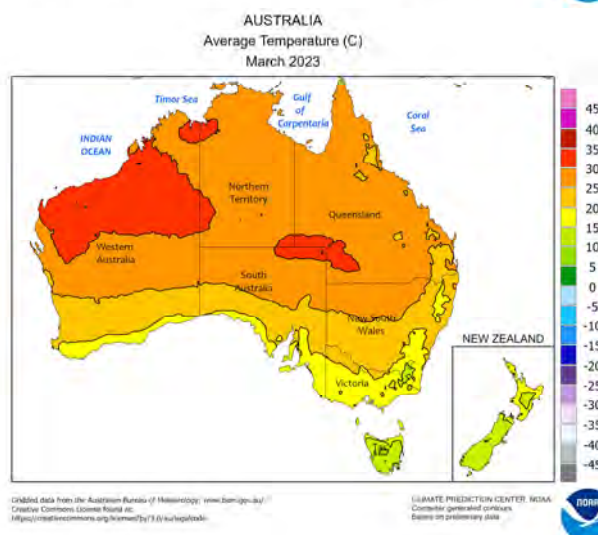
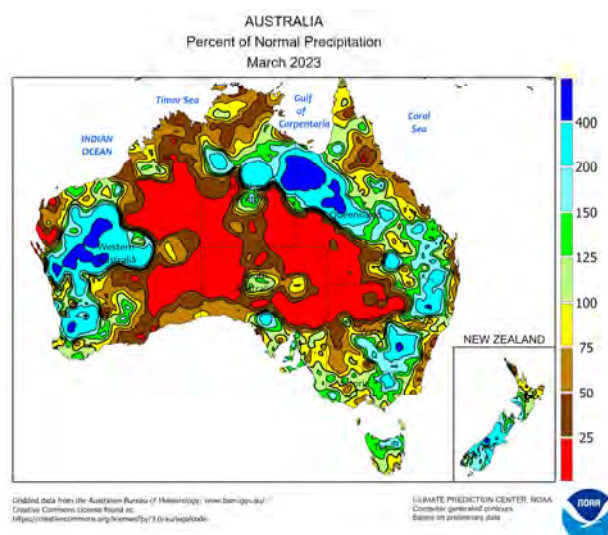
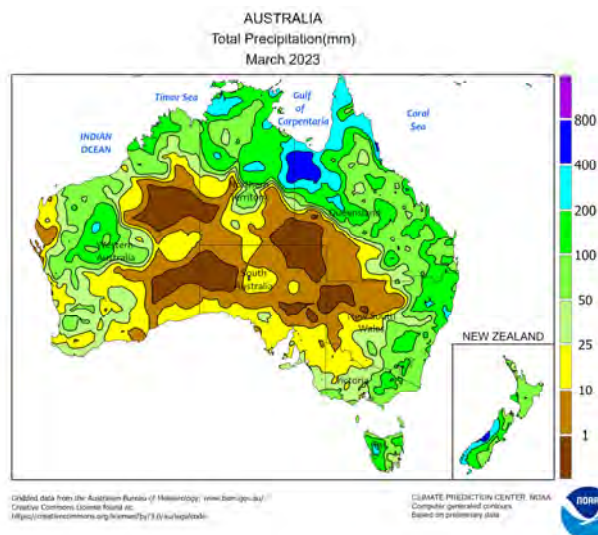
normal) occurred early in the month before consistent rainfall moved in and abated the spell of unusual heat. Unlike the southern provinces, much of the North China Plain received little if any moisture for the month (around 30 percent of normal), necessitating supplemental irrigation for vegetative wheat particularly during the early month heatwave. Meanwhile, preparations were underway in western China (Xinjiang) for the next cotton crop (planted in April), as mountain snowpack (supporting irrigation supplies) was reportedly above average and well above last year.



SOUTHEAST ASIA

Rainfall remained fully entrenched in southern sections of the region during March. Most of Indonesia and Malaysia recorded near- to above-normal rainfall, supporting oil palm and boosting irrigation supplies for the next cropping cycle of rice. Meanwhile, seasonably wet weather (over 100 mm) in the Philippines was confined to the southeast, limiting moisture for immature

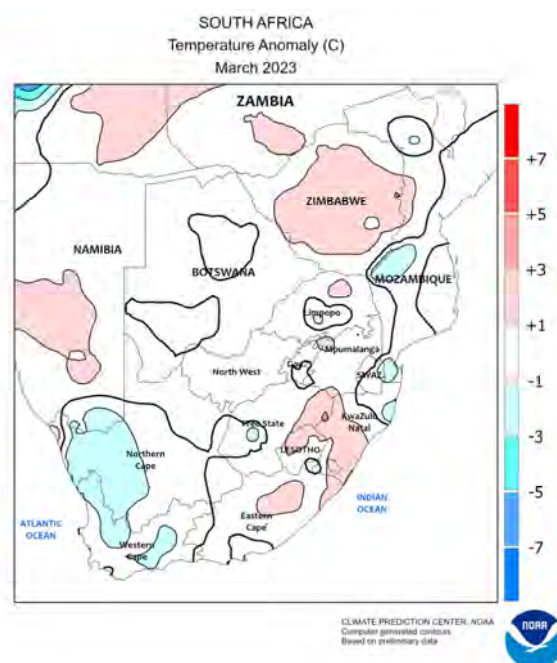
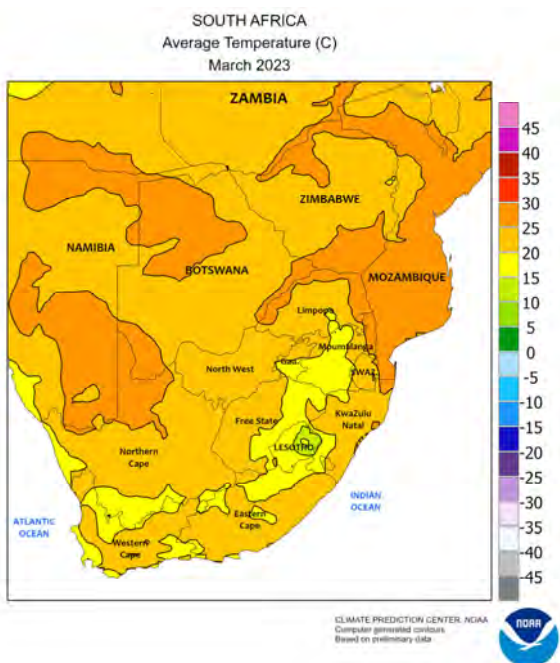
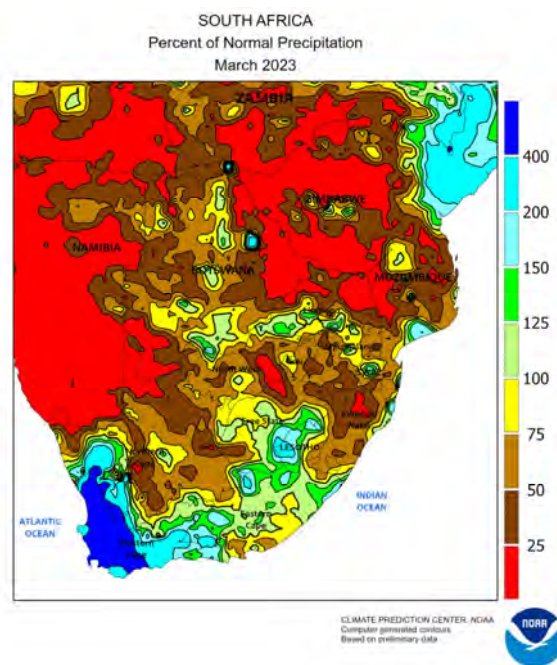
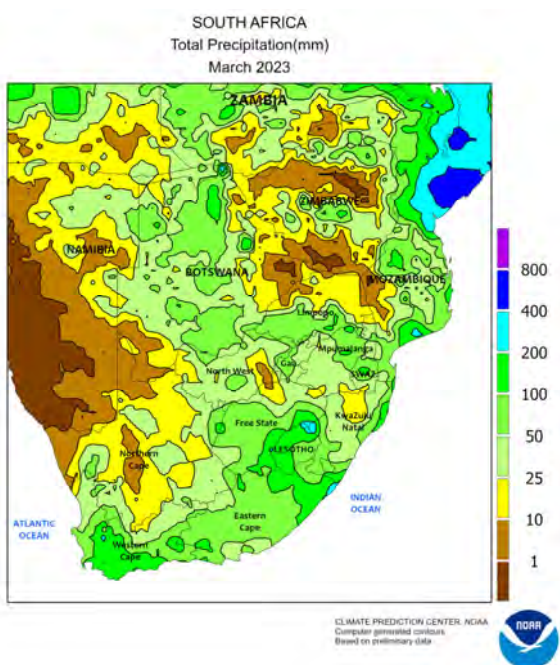
second-season rice and minor spring-grown crops. Elsewhere, rainfall was lighter than normal in Thailand and the rest of Indochina, though most seasonal rice is irrigated. Despite still being the dry season, rainfall typically increases significantly in March as producers prepare for the main growing season, but rainfall totals were well below 50 percent of normal.



AUSTRALIA

After a relatively dry summer throughout much of the wheat belt, rainfall returned to more normal levels during March. Moisture supplies had slowly but steadily declined in the preceding months, but near- to above-normal March rainfall provided a welcome boost in topsoil moisture. The rain was particularly welcome in major winter grain and oilseed producing areas,

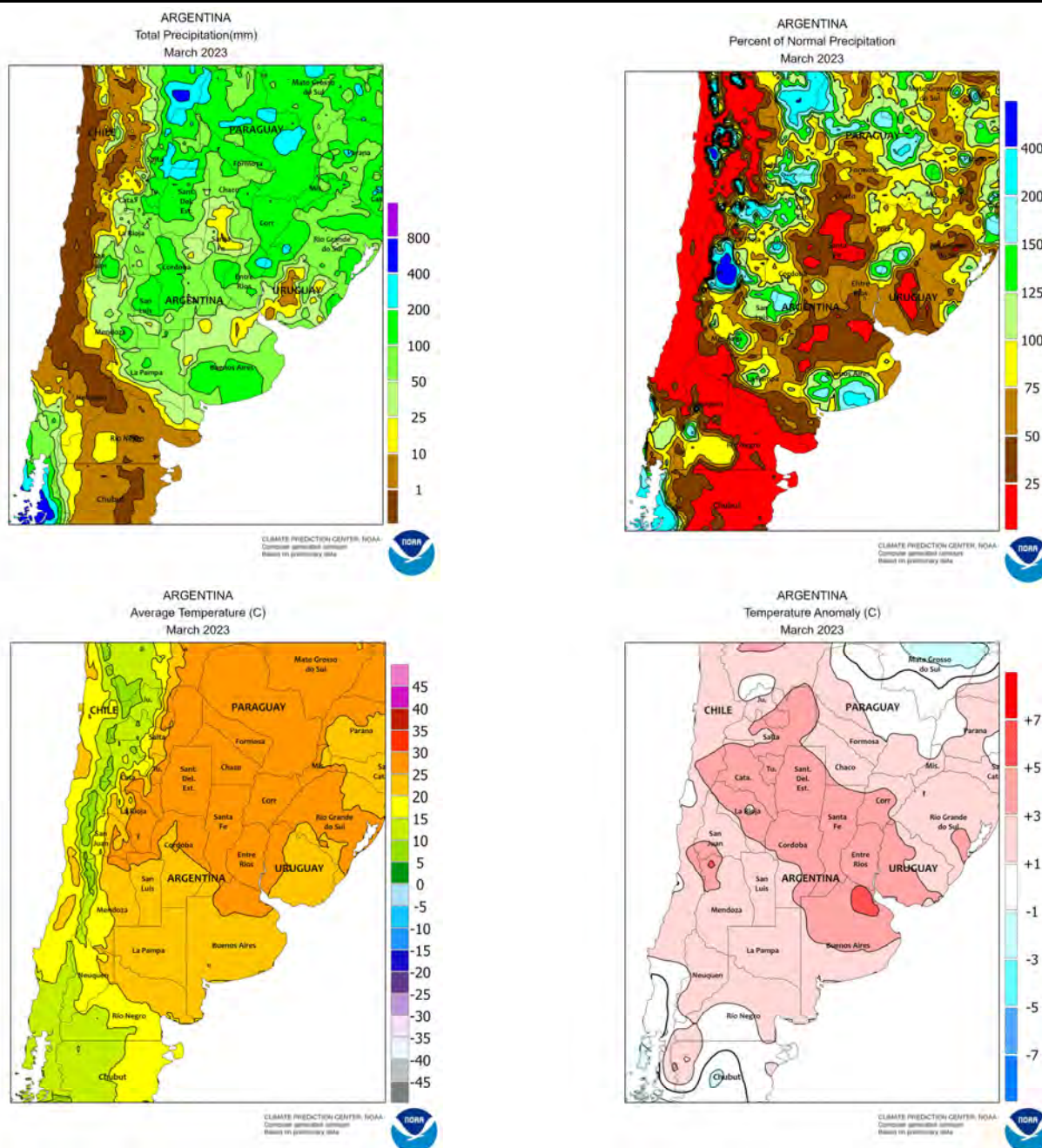
helping to boost soil moisture in advance of winter crop planting. Although rainfall averaged above normal in eastern Australia, stretches of dry weather allowed summer crop harvesting to proceed. Temperatures averaged 1 to 2°C above normal in northern New South Wales and southern Queensland, aiding summer crop maturation, drydown, and harvesting.



SOUTH AFRICA

In March, occasional showers maintained overall favorable conditions for filling summer crops in major eastern production areas, although amounts were below normal over much of the east and north. Near-normal rainfall was especially beneficial in western sections of the corn belt (North West and central Free State), where later-planted crops benefited from consistent rain. Monthly average

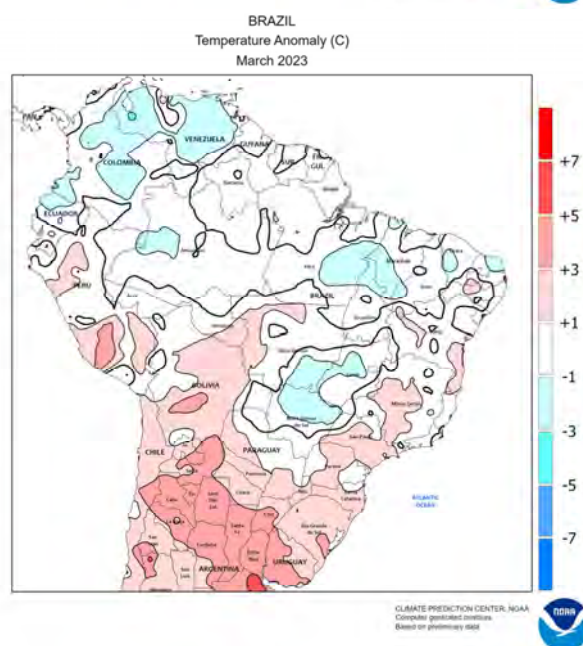
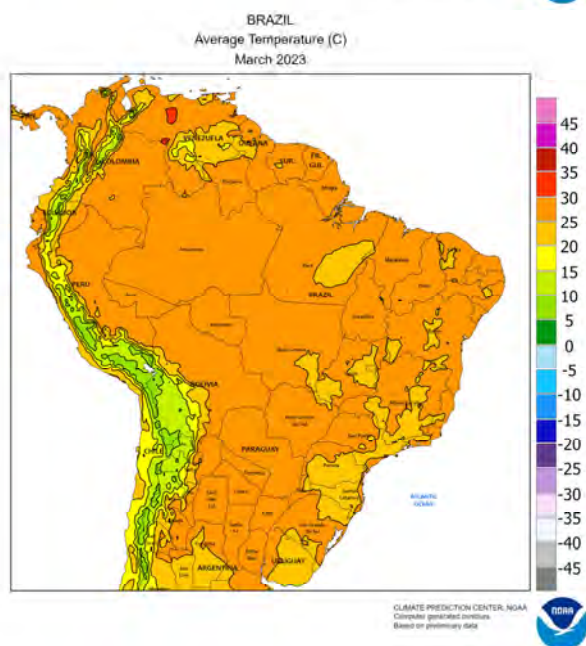
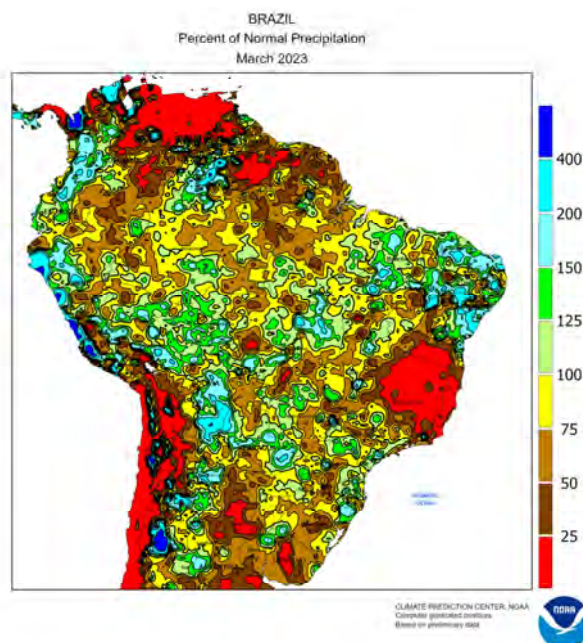
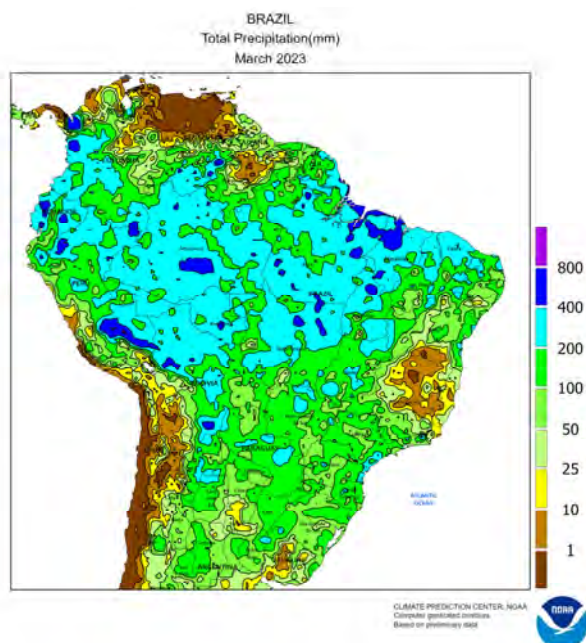
temperatures were near to slightly above normal in the aforementioned areas, with daytime highs reaching the middle 30s (degrees C) on several days during the first half of March. Farther west, rain maintained adequate to abundant levels of moisture for crops grown in the Cape Provinces, although periods of heavy rain were untimely for harvesting of late-maturing fruit crops in Western Cape.



ARGENTINA

Following several additional weeks of stressful heat and dryness, showers brought much-needed relief from drought to key farming areas in central Argentina during the latter half of March. While coming too late for most summer crops, the moisture benefited corn and soybeans sown toward the end of the planting season, and briefly lowered temperatures to more seasonable levels. Rainfall was more

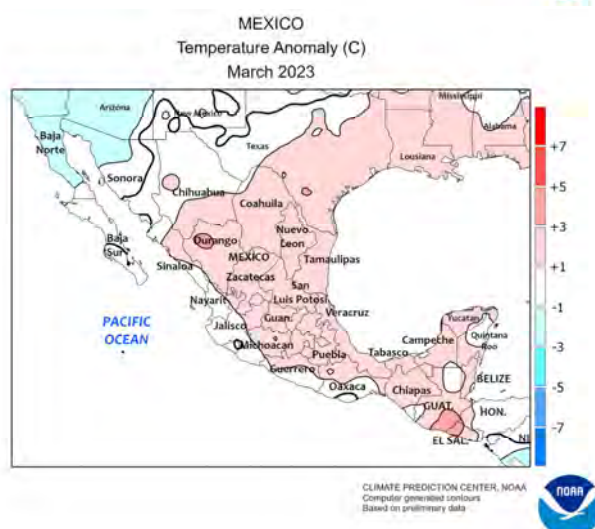
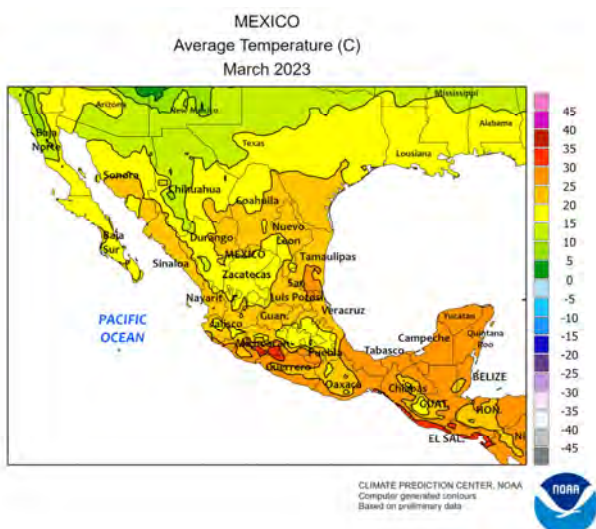
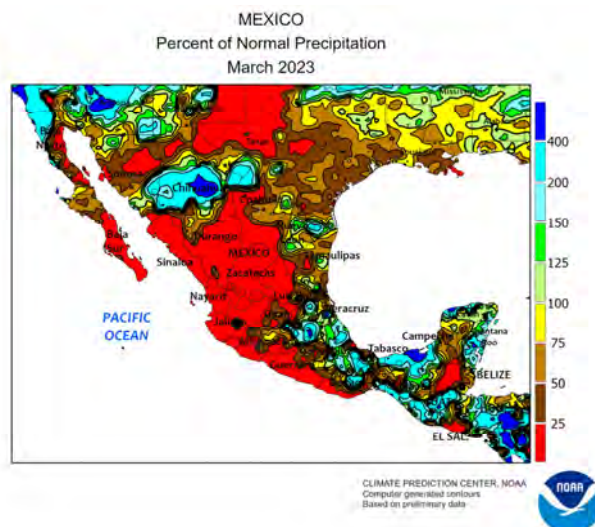
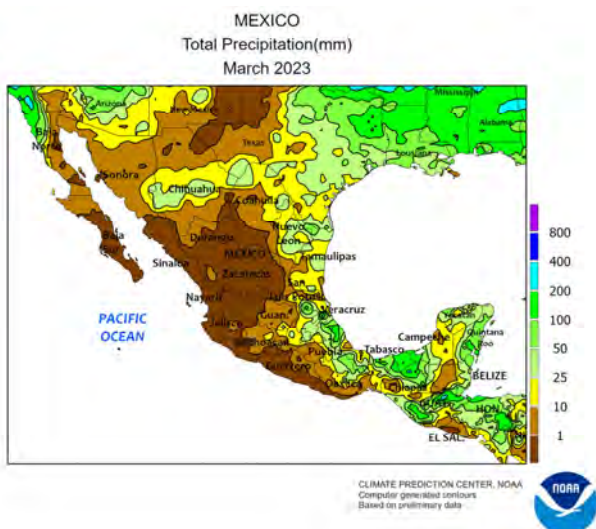
frequent in southern crop areas in southern Buenos Aires and in northwestern Argentina, but extended periods of dryness also impacted northeastern cotton areas (in and around eastern Córdoba). Temperatures averaged 1 to 4°C above normal during March in all major agricultural areas, owing mainly to the early-month heatwave (daytime highs commonly reaching the upper 30s and lower 40s degrees C).



BRAZIL

March rainfall maintained overall favorable summer crop prospects, although accumulations were below normal in many parts of the country. One of the wetter regions relative to normal was the northeastern interior, including western Bahia, which experienced previous periods of unseasonable dryness. Similarly, Paraná recorded near- to above-normal amounts as early-month

wetness contrasted with a dry spell during the latter half of March. Dry weather also developed at month's end in Mato Grosso, but moisture was sufficient for normal growth of immature corn and cotton. In contrast, drier- and warmer-than-normal conditions persisted in Rio Grande do Sul, further reducing yield prospects of corn and later-developing soybeans.



MEXICO

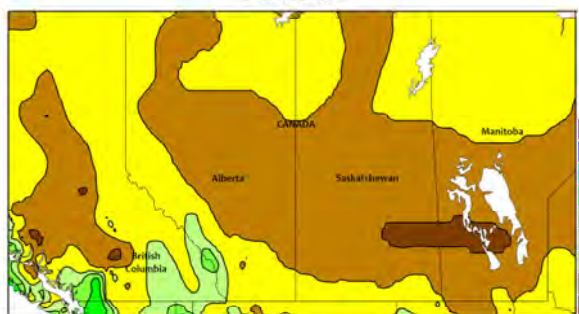
During March, seasonal dryness in western sections of Mexico contrasted with showery weather in the east. The heaviest rainfall was concentrated over Veracruz as well as sections of the southeast. The moisture in and around Veracruz was timely for early sugarcane development,

while farther west the moisture helped to condition fields for planting corn and other summer crops. Late-month showers in the northeast (notably Tamaulipas) benefited rain-fed winter sorghum. Meanwhile, warm, sunny weather promoted growth of winter grains in the northwest.

CANADIAN PRAIRIES

Total Precipitation(mm)

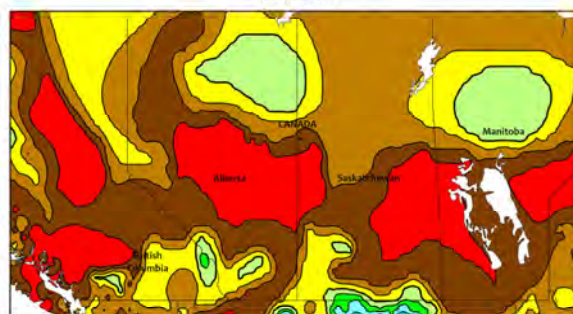
March 2023

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

CANADIAN PRAIRIES

Percent of Normal Precipitation

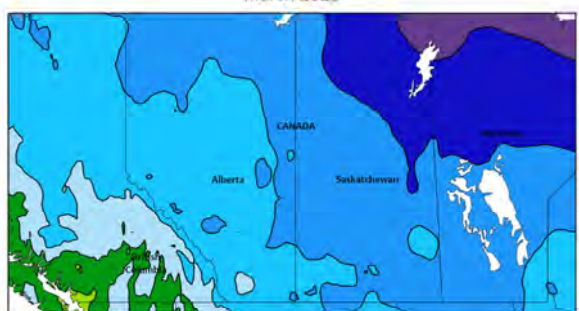
March 2023

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

CANADIAN PRAIRIES

Average Temperature (C)

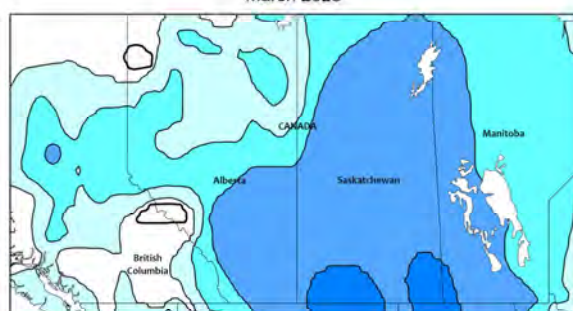
March 2023

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

CANADIAN PRAIRIES

Temperature Anomaly (C)

March 2023

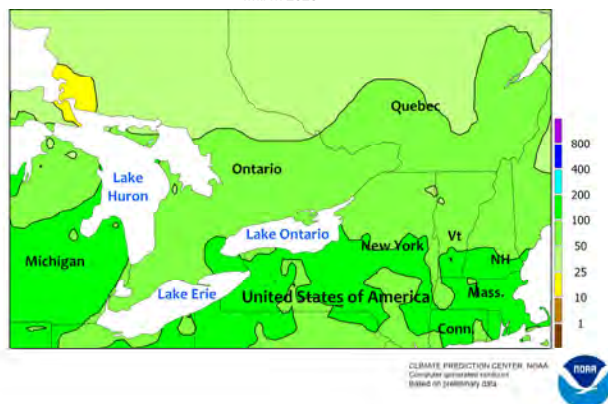
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

CANADIAN PRAIRIES

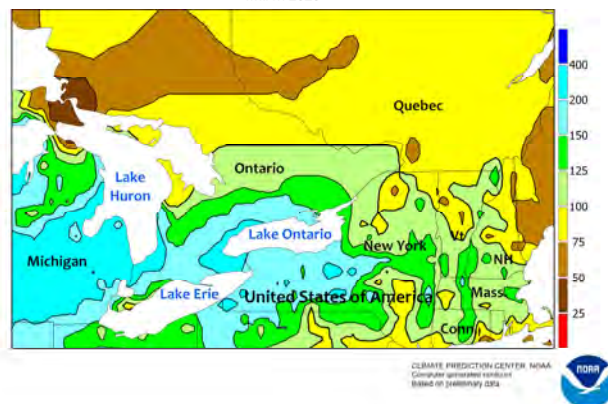
Cold March weather sustained a locally deep layer of snow across much of the region, including agricultural districts along the U.S. border. Monthly average temperatures were as much as 8°C below normal in Saskatchewan, with anomalies of -2°C or lower elsewhere in the Prairies. Despite the advent of seasonal warming, outbreaks of bitter cold (nighttime lows well below -20°C) were observed throughout the month.

Planting typically begins in April, and the combination of snow melt and spring rainfall will be critical for supporting early growth and establishment of spring grains and oilseeds in areas entering the planting season in drought. According to the Canadian Drought Monitor, 83 percent of Prairie farming areas ranged from Abnormal Dryness to Severe Drought (D0 to D2) as of March 31, despite local improvements.

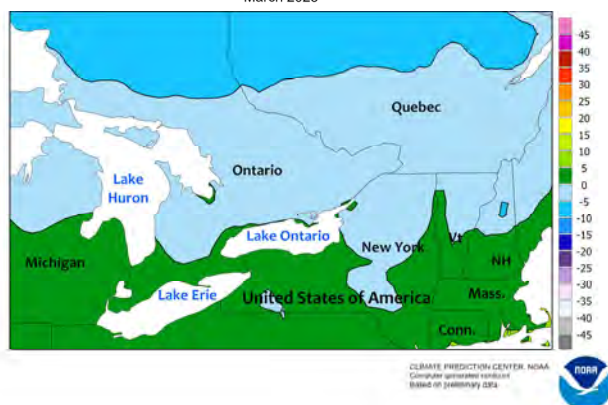
SOUTHEASTERN CANADA
Total Precipitation(mm)
March 2023



SOUTHEASTERN CANADA
Percent of Normal Precipitation
March 2023



SOUTHEASTERN CANADA
Average Temperature (C)
March 2023



SOUTHEASTERN CANADA
Temperature Anomaly (C)
March 2023

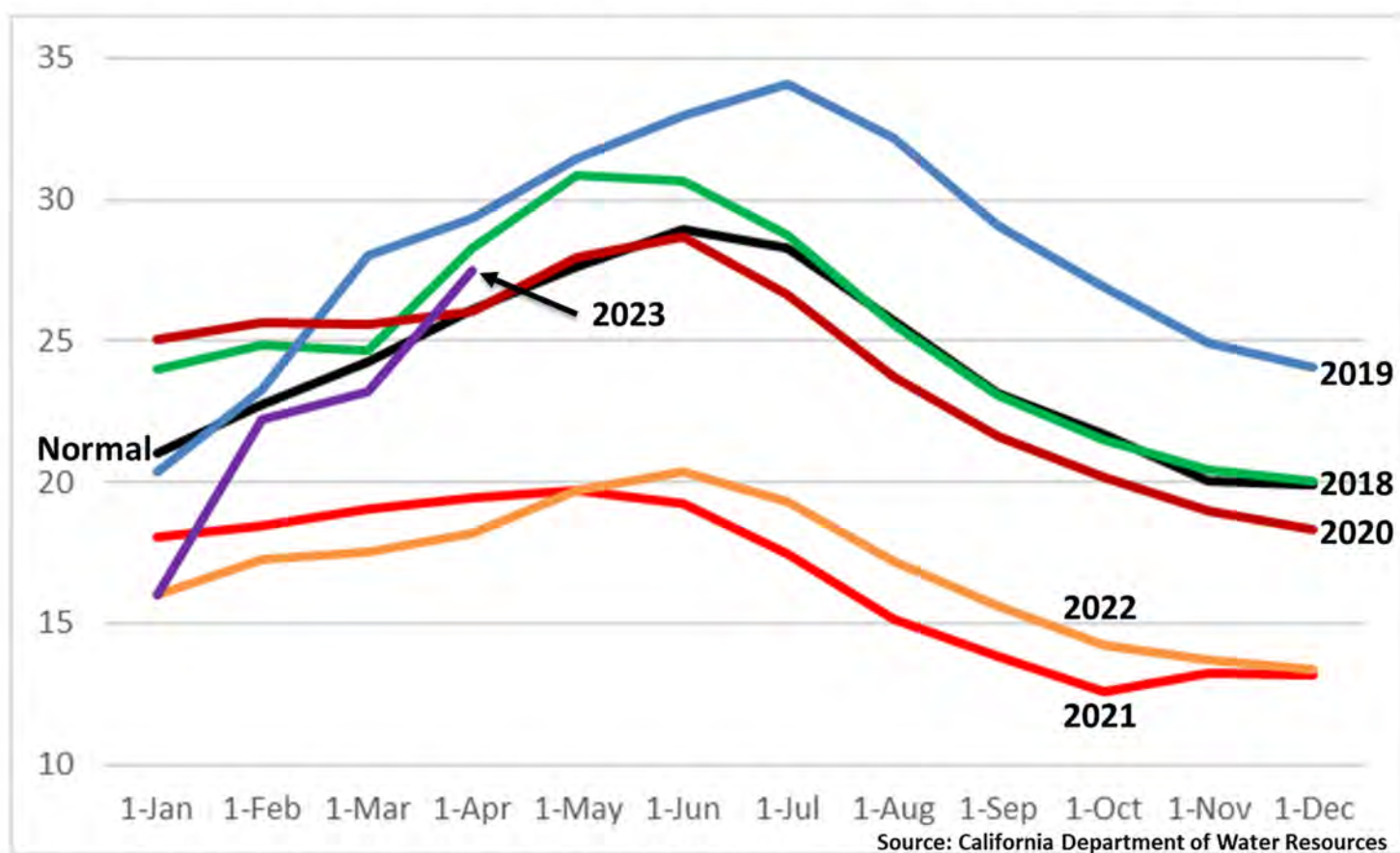


SOUTHEASTERN CANADA

Warm, showery weather prevailed across the region during March, favoring overwintering crops and pastures and allowing soil moisture to recharge ahead of summer crop planting. March average temperatures were as much as 2°C above normal regionwide; and in Ontario's southern farming areas, nighttime lows were generally below the threshold for winterkill on grains (-17°C) in all but the snow-protected northern-most farming areas. Similarly, crops in Quebec were

well protected by snow throughout the month. Near- to above-normal precipitation fell in all major agricultural districts, with the heaviest amounts relative to normal (locally more than 200 percent of normal) in drought-afflicted sections of southern Ontario. According to the Canadian Drought Monitor, 5 percent of the region's farmland was rated as Abnormally Dry (D0) or in Moderate Drought (D1) as of March 31 after this month's improvement in Ontario.

California Reservoir Storage, Million Acre-Feet, 2018-2023



Note: One acre-foot is equal to approximately 325,851 gallons, or the amount of water it takes to cover one acre to a depth of one foot.

The *Weekly Weather and Crop Bulletin* (ISSN 0043-1974) is jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the *Weekly Weather Chronicle*. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53rd Congress, 3rd Session. The contents may be redistributed freely with proper credit.

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