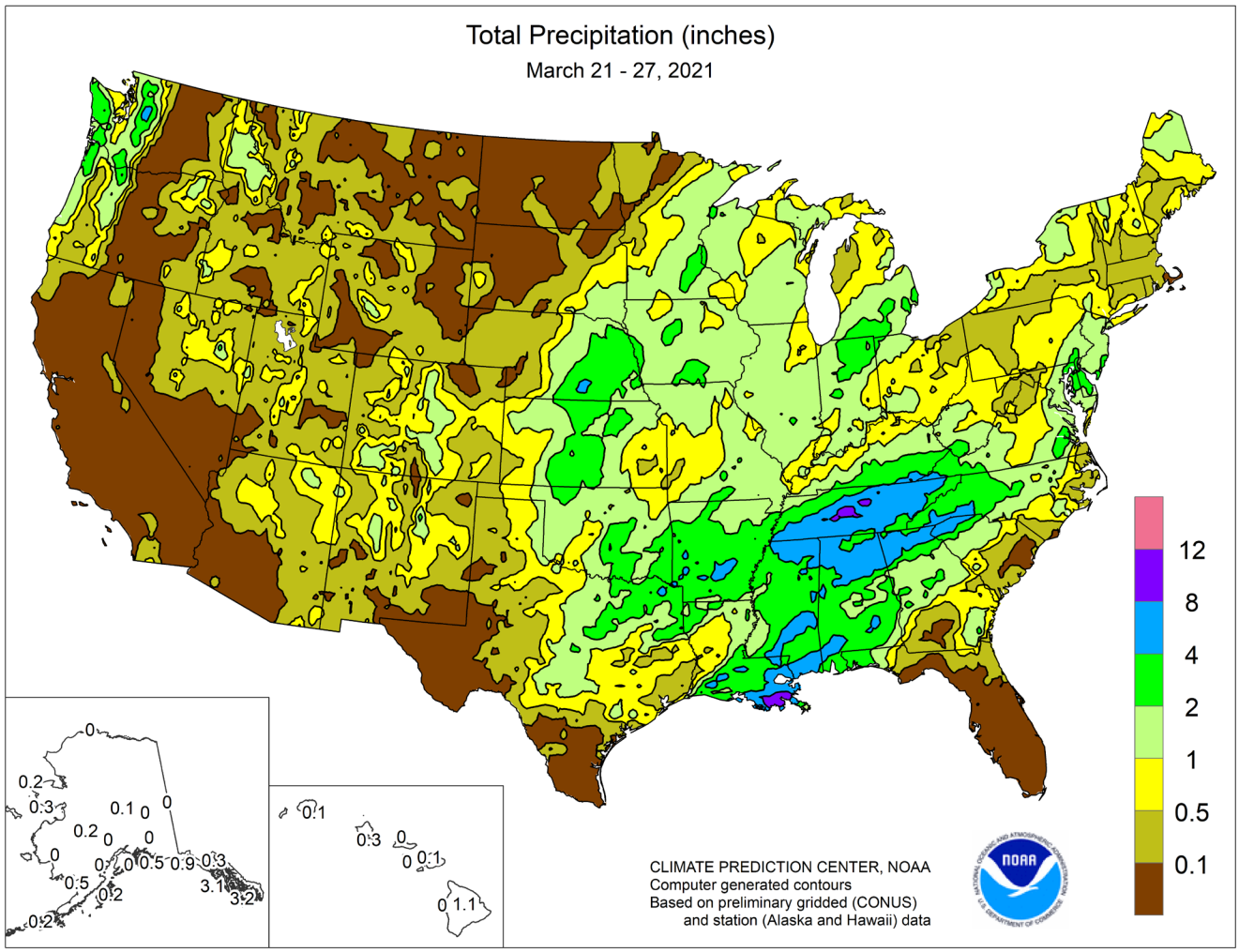
Volume 108, No. 13 www.usda.gov/oce/weather-drought-monitor March 30, 2021

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
March 21 – 27, 2021

Highlights provided by USDA/WAOB

Late-week flooding in **central Tennessee** and other areas of the **interior Southeast** capped a week of active weather. Earlier, on March 24-25, severe thunderstorms had swept across the **South**, spawning a few dozen tornadoes—and resulting in at least six tornado-related fatalities. Combined, the two **Southeastern** storm systems contributed to fieldwork delays and pockets of lowland flooding. However, most of the rain bypassed the **southern Atlantic region**, including **Florida's peninsula**. Similarly, precipitation dampened much of the **Corn Belt**,

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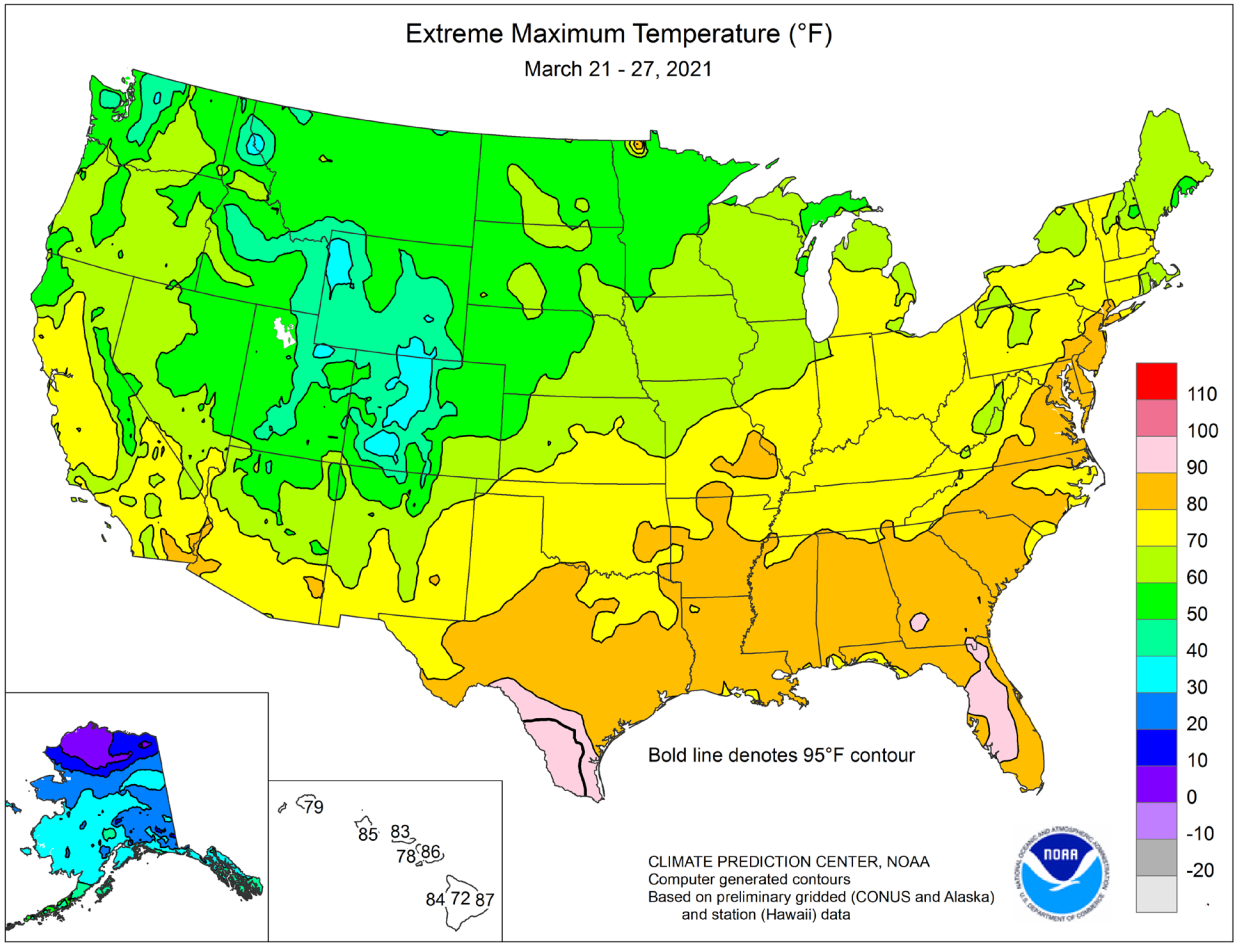
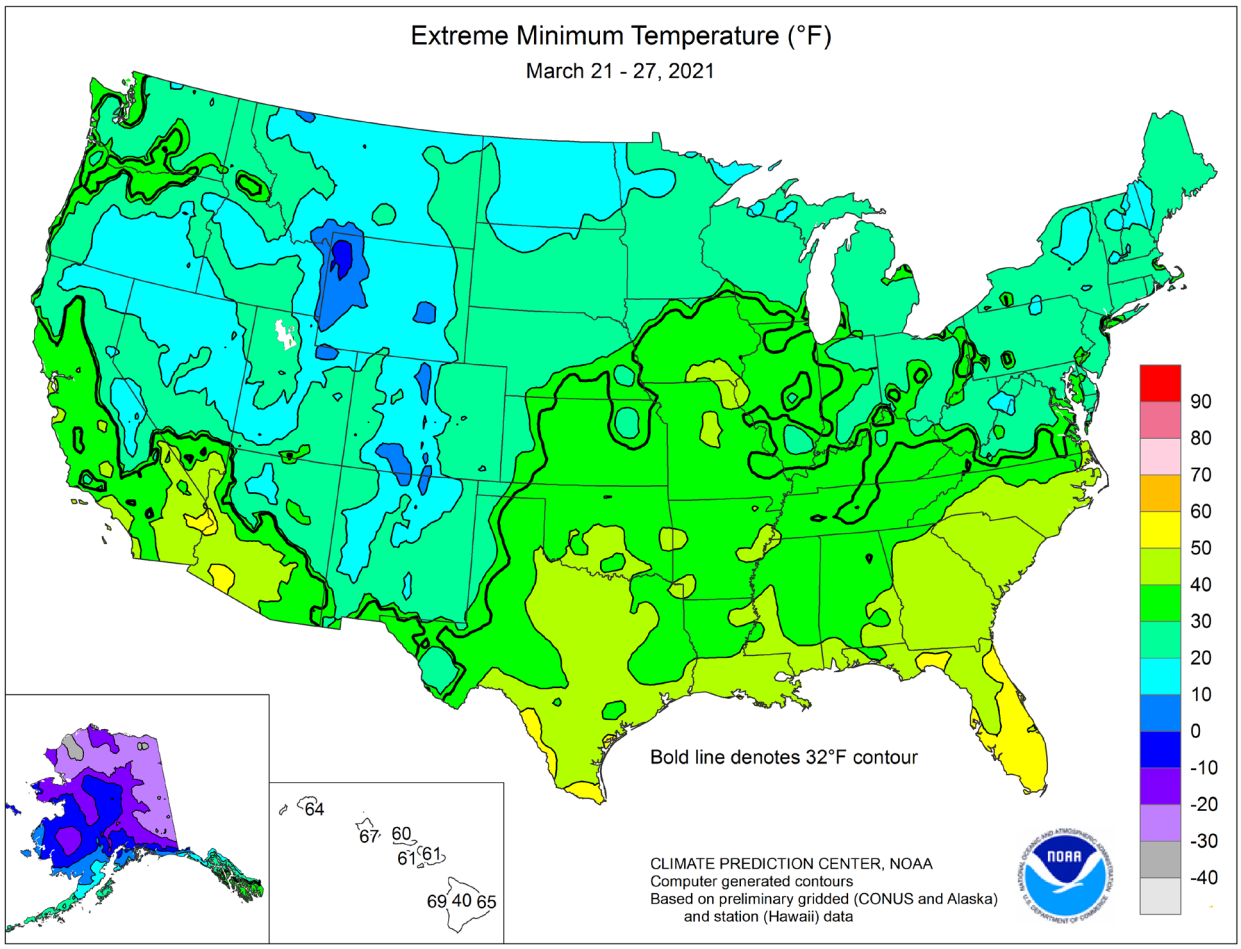
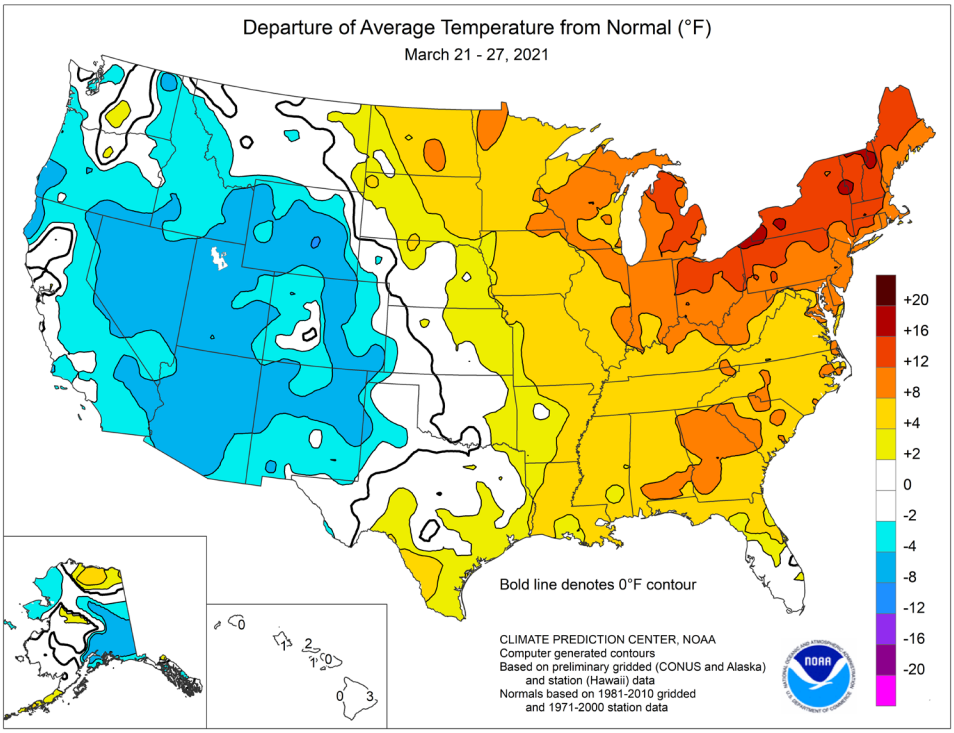
Contents


Extreme Maximum Temperature (°F)
March 21 - 27, 2021
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
79
85
83
78
86
84
72
87
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data


Extreme Minimum Temperature (°F)
March 21 - 27, 2021
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
64
67
60
61
61
69
40
65
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data

(Continued from front cover)

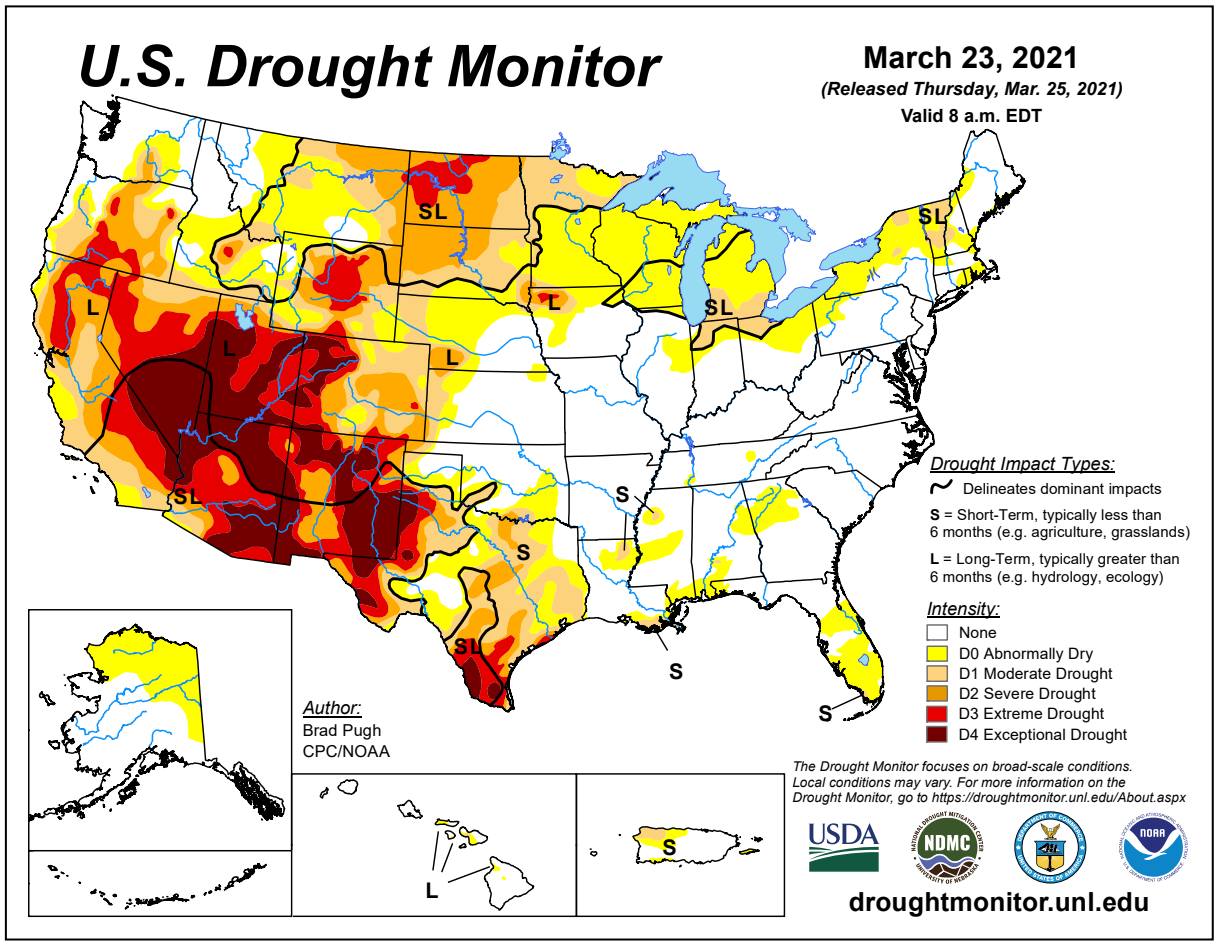
but did not reach into the **far upper Midwest**. On the **central Plains**, prospects for winter wheat, as well as rangeland and pasture growth, continued to generally improve amid early-spring wetness. However, drought intensified across portions of the **northern Plains** and **southern and western Texas**. Elsewhere, spotty rain and snow showers provided beneficial moisture in parts of the **West**—but did not appreciably change the region's water-supply outlook. In the **Sierra Nevada**, the traditional peak snowpack date of April 1 approached with water equivalency averaging 18 inches, less than two-thirds of normal. Cool weather in the **West** contrasted with expanding warmth across the **eastern half of the country**. Weekly temperatures averaged at least 5°F below normal across large sections of the **Great Basin**, **Intermountain West**, and **Southwest**, but were mostly 5 to 15°F above normal from the **Mississippi Valley eastward**. Warmth (locally more than 15°F above normal) in the **Northeast** replaced previously cold conditions.

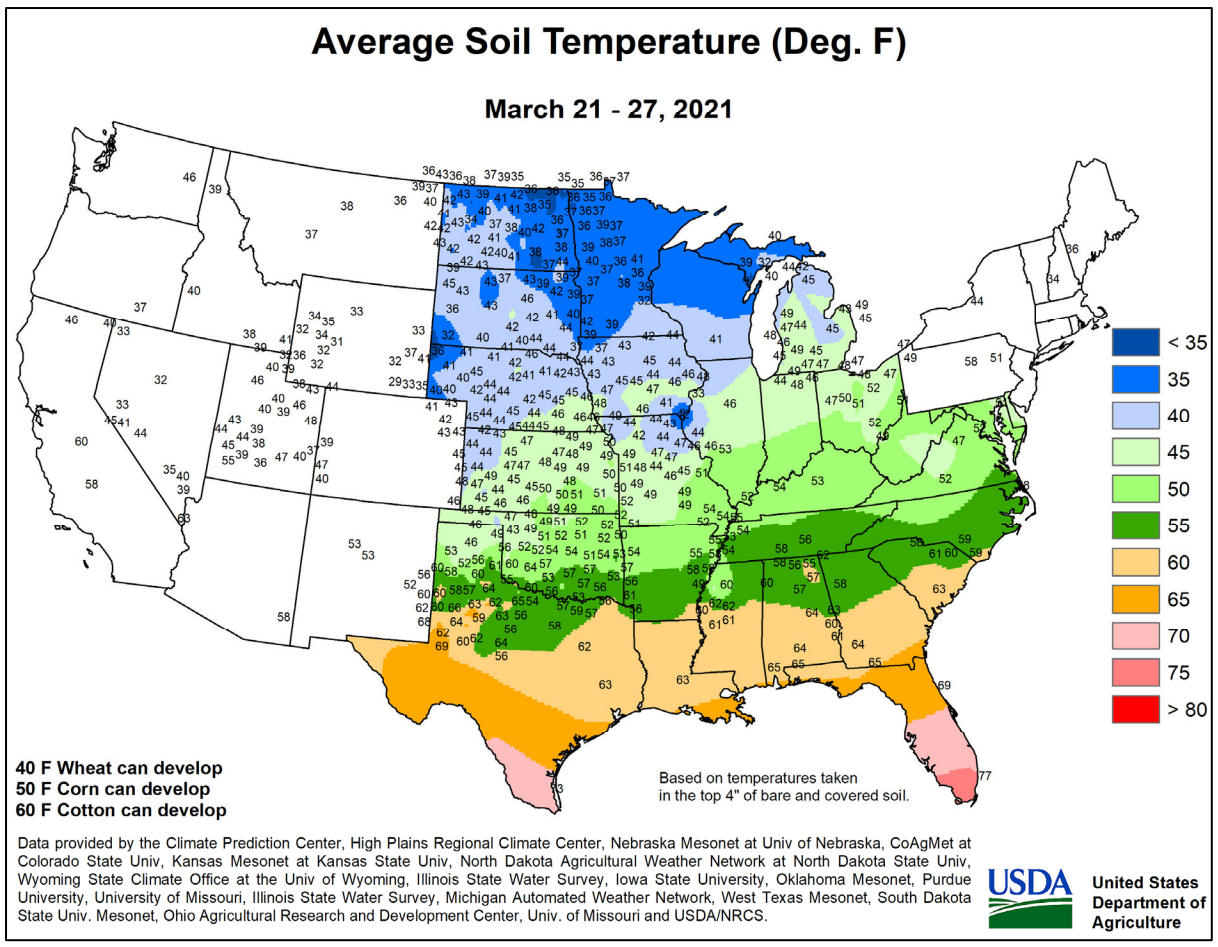


Early- to mid-week temperatures fell to daily-record levels in **Western** locations such as **Montague, CA** (20°F on March 21), and **Redmond, OR** (15°F on March 23). In **California**, daily-record lows for March 24 dipped to 30°F in **Paso Robles** and 34°F in **Stockton**. Meanwhile, warmth developed across the **Great Lakes region**, where **Pellston, MI**, posted consecutive daily-record highs (64 and 68°F, respectively) on March 22-23. Other record-setting highs for the 23rd included 74°F in **Grand Rapids, MI**, and 68°F in **Saint Johnsbury, VT**. Another daily-record high (69°F) occurred in **Saint Johnsbury** on March 25. Elsewhere in **Vermont**, record-setting highs for the 25th reached 73°F in **Burlington** and 70°F in **Montpelier**. Warmth persisted through mid-week in the **lower Great Lakes region**, resulting in daily-record highs for March 24 in **Youngstown, OH** (75°F), and **Buffalo, NY** (72°F). As the week progressed, warmth became prominent across the **South** and **East**. On March 25-26, consecutive daily-record highs were established in **Eastern** location such as **Islip, NY** (67 and 78°F), and **Daytona Beach, FL** (88 and 90°F). On March 26-27, **Charleston, SC**, logged a pair of daily records (86 and 87°F). Surging **Eastern** temperatures on March 26 led to daily-record highs in dozens of communities, including readings of 90°F in **Jacksonville, FL**, and **Savannah, GA**. Farther north near the **Atlantic Seaboard**, March 26 highs climbed to 86°F in **Richmond, VA**; 84°F in **Newark, NJ**; and 80°F in **Poughkeepsie, NY**. Summer-like temperatures lingered through week's end across the **Deep South**, where daily-record highs for March 27 rose to 90°F in **Tampa, FL**, and 88°F in **Jackson, MS**.

As the week began, gusty showers swept across portions of the **southern Atlantic Coast**. On March 21 in **Georgia**, **Saint Simons Island** clocked at wind gust to 47 mph, while **Savannah** collected a daily-record rainfall of 1.48 inches. The following day, heavy rain developed across the **nation's mid-section**, where daily-record totals included 1.90 inches in **Hastings, NE**, and 1.66 inches in **Wichita, KS**. The rain propelled **Goodland, KS**, to its wettest March on record (4.03 inches through the 27th), supplanting 3.60 inches in 1981. March precipitation records from 1987 were broken in **Nebraska** locations such as **Grand Island** (8.65 inches through the 27th), **Hastings** (8.16 inches), and **Kearney** (6.79 inches). By March 23, heavy showers erupted in the **central Gulf Coast region**. Daily-record totals in **Louisiana** for the 23rd reached 5.54 inches in **New Orleans** and 4.99 inches in **Lake Charles**. For **New Orleans**, it was the wettest March day since 1948, when 7.87 inches fell on the 5th. For **Lake Charles**, it was the wettest March day since 1934, when 5.50 inches fell on the 3rd. By mid-week, heavy showers swept into the **mid-Atlantic**, setting records for March 24 in **Atlantic City, NJ** (1.82 inches); **Wilmington, DE** (1.78 inches); and **Washington, DC** (1.69 inches). Rain quickly returned across the **South** on March 25, producing daily-record totals in **Asheville, NC** (3.64 inches); **Chattanooga, TN** (2.61 inches); and **Birmingham, AL** (2.47 inches). Elsewhere in **Alabama** on the 25th, a deadly, mid-afternoon tornado struck **Ohatchee** in **Calhoun County**, resulting in five fatalities. Hours later, around midnight, another tornado-related fatality occurred in **Newnan**, **Coweta County, GA**. Farther north, **Caribou, ME**, received precipitation totaling 1.49 inches, including 4.7 inches of snow, from March 26-28. Meanwhile, severe flooding struck **central Tennessee** and environs. With a 5.75-inch rainfall total on the 27th, **Nashville, TN**, experienced its wettest March day on record (previously, 4.66 inches on March 12, 1975). **Nashville's** March 27-28 total of 7.01 inches became the second-wettest 2-day period on record in that location, behind only 13.57 inches on May 1-2, 2010. In other parts of **Tennessee**, daily-record amounts for March 27 included 3.77 inches in **Memphis** and 3.68 inches in **Jackson**. By March 28, the **Harpeth River** near **Kingston Springs, TN**, crested 15.36 feet above flood stage, second only to the May 2010 high-water mark (26.00 feet above flood stage).

Highly variable temperatures prevailed across **Alaska**, except for ongoing warmth in the **Aleutians**. In fact, **Cold Bay** posted a daily-record high of 55°F on the 24th—the highest March temperature in that location since March 2, 1974. Meanwhile, **Fairbanks** received 4.0 inches of snow on March 23-24, boosting its snow depth to a season-high 28 inches. Snow also fell in **western Alaska**, where daily-record (liquid) totals included 0.25 inch (on March 23) in **Nome** and 0.38 inch (on March 24) in **Kotzebue**. Parts of **southeastern Alaska** also received significant precipitation; **Juneau** collected 9.1 inches of snow from March 21-25, while more than an inch of rain fell in **Ketchikan** on March 23 and 27. Farther south, warm weather accompanied scattered **Hawaiian** showers. On the **Big Island**, **Hilo** notched consecutive daily-record highs (87 and 86°F, respectively) on March 24-25. Prior to the warmest days, **Hilo** received 2.95 inches of rain (not a record for the date) on March 22. Through March 27, month-to-date totals at the state's major airport observation sites ranged from 4.21 inches (234 percent of normal) in **Honolulu, Oahu**, to 23.46 inches (202 percent) in **Hilo**.


U.S. Drought Monitor
March 23, 2021
(Released Thursday, Mar. 25, 2021)
Valid 8 a.m. EDT
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought
Author:
Brad Pugh
CPC/NOAA
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx
droughtmonitor.unl.edu


Average Soil Temperature (Deg. F)
March 21 - 27, 2021
< 35
35
40
45
50
55
60
65
70
75
> 80
40 F Wheat can develop
50 F Corn can develop
60 F Cotton can develop
Based on temperatures taken in the top 4" of bare and covered soil.
Data provided by the Climate Prediction Center, High Plains Regional Climate Center, Nebraska Mesonet at Univ of Nebraska, CoAgMet at Colorado State Univ, Kansas Mesonet at Kansas State Univ, North Dakota Agricultural Weather Network at North Dakota State Univ, Wyoming State Climate Office at the Univ of Wyoming, Illinois State Water Survey, Iowa State University, Oklahoma Mesonet, Purdue University, University of Missouri, Illinois State Water Survey, Michigan Automated Weather Network, West Texas Mesonet, South Dakota State Univ. Mesonet, Ohio Agricultural Research and Development Center, Univ. of Missouri and USDA/NRCS.
United States Department of Agriculture

National Weather Data for Selected Cities

Weather Data for the Week Ending March 27, 2021

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE ˚F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. ˚F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AK	ANCHORAGE	31	17	34	3	24	-5	0.24	0.12	0.22	0.96	181	2.54	126	81	50	0	7	2	0
	BARROW	-4	-16	1	-20	-10	0	0.01	-0.01	0.01	0.19	204	0.80	193	81	67	0	7	1	0
	FAIRBANKS	26	5	32	-16	15	0	0.23	0.17	0.16	0.68	262	2.05	159	83	49	0	7	3	0
	JUNEAU	37	31	40	26	34	-1	1.84	1.06	0.70	5.05	151	15.57	121	91	77	0	5	7	1
	KODIAK	40	30	48	26	35	2	0.22	-1.05	0.11	1.84	38	19.22	99	80	48	0	7	3	0
	NOME	17	-1	29	-12	8	-3	0.33	0.19	0.21	1.08	189	2.21	88	86	66	0	7	2	0
AL	BIRMINGHAM	74	56	83	39	65	8	2.64	1.47	2.47	7.87	171	14.73	105	84	48	0	0	2	1
	HUNTSVILLE	72	51	80	37	62	6	3.09	1.90	2.35	8.27	182	15.93	111	96	53	0	0	3	2
	MOBILE	76	58	82	41	67	6	2.63	1.23	2.05	4.30	80	9.32	57	99	56	0	0	3	2
	MONTGOMERY	77	58	86	42	68	8	2.74	1.40	1.25	5.93	113	11.11	73	87	52	0	0	4	2
AR	FORT SMITH	71	47	81	42	59	3	2.47	1.56	1.62	3.59	109	7.13	80	93	44	0	0	4	2
	LITTLE ROCK	72	47	82	39	59	3	2.30	1.22	1.28	4.15	102	11.65	103	94	44	0	0	3	2
AZ	FLAGSTAFF	43	25	51	20	34	-4	0.49	0.06	0.30	2.19	114	6.63	108	87	38	0	7	4	0
	PHOENIX	72	52	79	48	62	-5	0.00	-0.19	0.00	0.37	40	0.81	28	47	15	0	0	0	0
	PRESCOTT	52	31	61	28	41	-6	0.20	-0.03	0.16	0.64	64	2.55	72	79	27	0	6	2	0
	TUCSON	70	47	79	43	59	-3	0.02	-0.13	0.02	0.31	45	1.02	40	55	13	0	0	1	0
CA	BAKERSFIELD	69	46	79	43	57	-1	0.00	-0.25	0.00	0.74	68	1.79	51	66	23	0	0	0	0
	EUREKA	52	37	56	33	44	-6	0.14	-1.00	0.08	2.21	47	11.20	66	95	76	0	0	3	0
	FRESNO	69	45	76	42	57	-1	0.00	-0.41	0.00	1.32	72	4.97	82	75	26	0	0	0	0
	LOS ANGELES	64	49	70	47	57	-1	0.00	-0.30	0.00	1.31	77	3.20	42	80	34	0	0	0	0
	REDDING	70	45	78	40	57	3	0.00	-0.74	0.00	2.54	64	8.65	57	63	22	0	0	0	0
	SACRAMENTO	69	44	76	41	57	2	0.00	-0.50	0.00	1.06	42	4.46	46	77	23	0	0	0	0
	SAN DIEGO	65	52	72	48	59	-1	0.06	-0.28	0.02	1.47	89	3.36	57	77	48	0	0	3	0
	SAN FRANCISCO	66	48	77	45	57	2	0.00	-0.55	0.00	1.35	50	5.43	49	80	35	0	0	0	0
	STOCKTON	67	39	73	34	53	-2	0.00	-0.42	0.00	0.96	49	5.87	81	92	28	0	0	0	0
CO	ALAMOSA	47	20	54	11	34	-2	0.06	-0.07	0.04	0.24	52	0.74	69	87	27	0	7	2	0
	CO SPRINGS	47	28	53	21	38	-3	0.53	0.28	0.26	1.41	160	2.82	173	81	38	0	7	3	0
	DENVER INTL	47	29	52	27	38	-5	0.40	0.15	0.18	2.81	362	3.82	235	91	44	0	7	4	0
	GRAND JUNCTION	52	33	56	28	42	-4	0.12	-0.13	0.12	0.52	64	1.19	61	71	29	0	4	1	0
	PUEBLO	54	30	61	22	42	-2	0.16	-0.08	0.08	0.72	88	1.76	113	87	31	0	4	2	0
CT	BRIDGEPORT	60	39	79	28	50	8	0.66	-0.32	0.50	1.71	48	7.18	76	93	52	0	1	3	1
	HARTFORD	69	37	77	26	53	12	0.33	-0.55	0.15	1.30	41	6.98	75	89	27	0	3	3	0
DC	WASHINGTON	69	48	84	36	58	9	1.68	0.84	1.68	2.30	77	8.74	104	86	47	0	0	1	1
DE	WILMINGTON	67	42	84	27	55	9	1.79	0.83	1.78	2.98	88	9.26	102	89	46	0	2	2	1
FL	DAYTONA BEACH	78	61	90	52	70	4	0.08	-0.89	0.03	0.57	15	4.74	51	94	56	1	0	3	0
	JACKSONVILLE	78	56	90	48	67	4	0.16	-0.66	0.16	2.02	58	9.88	99	98	56	1	0	1	0
	KEY WEST	80	71	84	63	75	1	0.00	-0.37	0.00	0.05	2	1.45	27	83	63	0	0	0	0
	MIAMI	82	66	86	58	74	1	0.00	-0.71	0.00	1.87	73	5.26	82	88	52	0	0	0	0
	ORLANDO	82	59	91	52	71	3	0.03	-0.89	0.03	0.56	17	3.38	42	100	47	2	0	1	0
	PENSACOLA	76	62	82	48	69	7	2.38	1.11	2.10	4.28	84	9.98	67	93	69	0	0	4	1
	TALLAHASSEE	79	58	87	51	68	6	0.00	-1.15	0.00	1.19	22	11.50	79	95	54	0	0	0	0
	TAMPA	80	64	90	53	72	3	0.00	-0.68	0.00	0.68	25	5.22	68	85	53	1	0	0	0
	WEST PALM BEACH	83	65	87	56	74	3	0.00	-1.06	0.00	0.56	14	3.46	34	88	51	0	0	0	0
GA	ATHENS	76	55	85	46	66	9	0.84	-0.11	0.51	3.47	88	10.79	86	81	47	0	0	3	1
	ATLANTA	74	58	82	47	66	10	1.29	0.23	0.70	2.58	60	9.83	74	81	48	0	0	2	2
	AUGUSTA	79	55	89	46	67	9	2.46	1.60	2.03	3.96	107	15.21	132	92	48	0	0	4	1
	COLUMBUS	76	58	84	47	67	7	1.45	0.23	0.93	4.24	88	12.45	95	87	52	0	0	5	1
	MACON	78	56	85	47	67	8	1.30	0.32	1.18	4.95	123	12.48	98	89	52	0	0	4	1
	SAVANNAH	79	58	90	47	69	8	1.48	0.66	1.48	5.41	169	11.40	118	94	51	1	0	1	1
HI	HILO	82	67	87	65	75	3	3.56	0.44	1.79	25.22	216	53.87	176	87	55	0	0	5	2
	HONOLULU	82	70	85	67	76	1	0.31	-0.11	0.27	3.97	222	8.69	143	84	52	0	0	3	0
	KAHULUI	82	64	86	61	73	0	0.07	-0.49	0.07	8.17	386	12.44	181	100	58	0	0	1	0
	LIHUE	77	69	79	64	73	0	0.14	-0.94	0.11	11.69	287	17.06	156	89	61	0	0	3	0
IA	BURLINGTON	57	44	66	42	51	6	0.61	-0.03	0.42	2.60	108	4.33	82	90	61	0	0	3	0
	CEDAR RAPIDS	53	40	65	37	46	6	1.20	0.69	0.56	1.77	99	2.70	68	92	68	0	0	4	1
	DES MOINES	54	42	67	38	48	5	1.44	0.89	1.00	2.56	133	3.94	93	90	63	0	0	6	1
	DUBUQUE	53	40	64	36	46	7	1.03	0.42	0.55	1.81	89	3.65	78	93	65	0	0	5	1
	SIOUX CITY	53	32	63	27	43	3	1.74	1.22	1.02	3.62	219	5.39	183	92	57	0	4	5	2
	WATERLOO	54	40	66	36	47	7	1.06	0.54	0.63	1.98	114	4.04	112	90	66	0	0	5	1
ID	BOISE	52	32	62	27	42	-5	0.60	0.26	0.43	0.86	70	3.87	111	87	36	0	5	3	0
	LEWISTON	54	36	64	32	45	-2	0.28	0.02	0.10	0.37	36	2.54	87	85	43	0	1	5	0
	POCATELLO	46	29	54	24	37	-3	0.23	-0.04	0.06	1.25	113	3.20	103	88	41	0	7	4	0
IL	CHICAGO/O_HARE	59	41	68	35	50	10	0.43	-0.16	0.23	1.23	58	3.55	62	81	50	0	0	3	0
	MOLINE	58	42	68	37	50	8	1.03	0.37	0.52	2.51	102	5.66	101	85	61	0	0	3	1
	PEORIA	59	44	68	38	51	8	1.01	0.35	0.57	3.16	133	7.42	125	83	53	0	0	3	1
	ROCKFORD	59	41	67	31	50	9	0.89	0.31	0.80	1.48	75	4.24	89	82	51	0	1	4	1
	SPRINGFIELD	62	43	73	34	53	7	1.31	0.70	0.60	4.60	205	9.05	154	91	55	0	0	3	1
IN	EVANSVILLE	71	46	80	32	59	10	1.30	0.25	0.74	4.35	119	11.98	121	83	42	0	1	2	2
	FORT WAYNE	66	38	71	29	52	11	1.38	0.72	0.64	2.46	108	5.76	87	87	46	0	1	4	1
	INDIANAPOLIS	65	43	74	31	54	9	1.15	0.28	0.55	3.67	121	7.59	95	84	46	0	1	4	2
	SOUTH BEND	63	40	73	29	52	11	2.02	1.47	1.48	2.22	107	5.60	89	82	43	0	1	4	1
KS	CONCORDIA	58	41	68	36	49	4	1.36	0.84	0.92	2.80	167	3.93	127	88	53	0	0	5	1
	DODGE CITY	56	36	69	32	46	-1	1.77	1.36	0.80	3.99	298	4.37	167	95	55	0	2	3	2
	GOODLAND	51	31	56	28	41	-2	0.80	0.54	0.58	3.96	437	4.70	257	94	47	0	5	2	1
	TOPEKA	59	43	68	32	51	3	0.75	0.12	0.25	3.86	185	6.41	149	88	57	0	1	6	0

Based on 1981-2010 normals ***** Not Available**

Weather Data for the Week Ending March 27, 2021

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	60	42	72	33	51	2	1.86	1.20	1.66	4.85	212	7.74	179	88	56	0	0	2	1
KY	LEXINGTON	68	45	73	33	56	8	1.16	0.20	1.00	3.44	96	12.80	129	77	46	0	0	2	1
	LOUISVILLE	71	48	76	36	59	9	0.61	-0.39	0.59	3.33	92	12.98	129	79	42	0	0	2	1
	PADUCAH	71	47	78	33	59	8	0.63	-0.31	0.51	3.93	118	12.51	114	86	45	0	0	2	1
LA	BATON ROUGE	76	59	85	45	67	5	3.19	1.91	2.53	4.77	99	12.12	77	95	59	0	0	3	1
	LAKE CHARLES	78	59	84	45	69	5	3.57	2.73	3.50	4.18	132	8.98	75	96	56	0	0	4	1
	NEW ORLEANS	78	64	85	51	71	6	6.72	5.70	5.50	9.69	244	16.29	113	87	60	0	0	2	2
	SHREVEPORT	78	50	82	38	64	4	1.98	1.05	1.04	4.83	135	10.85	86	89	40	0	0	4	2
MA	BOSTON	60	41	70	35	50	10	0.14	-0.92	0.09	0.96	25	5.97	57	83	50	0	0	3	0
	WORCESTER	66	42	72	37	54	17	0.22	-0.83	0.09	1.15	31	6.62	64	85	30	0	0	3	0
MD	BALTIMORE	68	44	83	28	56	10	1.55	0.62	1.55	2.26	67	9.16	98	86	45	0	2	1	1
ME	CARIBOU	53	31	62	25	42	14	1.10	0.53	0.95	1.78	82	5.55	78	77	48	0	5	4	1
	PORTLAND	56	34	60	25	45	9	0.50	-0.54	0.48	1.23	33	6.04	58	95	48	0	3	2	0
MI	ALPENA	58	31	71	21	45	13	0.65	0.20	0.26	0.83	52	2.25	49	89	44	0	5	3	0
	GRAND RAPIDS	61	37	74	28	49	10	1.42	0.87	0.93	1.47	73	4.16	70	86	45	0	2	5	1
	HOUGHTON LAKE	57	34	67	24	46	13	0.54	0.09	0.20	0.91	58	2.78	64	81	39	0	2	4	0
	LANSING	63	38	73	28	50	12	1.31	0.80	0.72	1.40	81	4.33	89	83	42	0	1	4	1
	MUSKEGON	59	37	74	28	48	10	0.41	-0.11	0.15	0.50	25	3.71	64	81	40	0	3	5	0
	TRAVERSE CITY	58	37	70	26	47	14	0.11	-0.33	0.07	0.47	29	1.17	19	78	43	0	4	2	0
MN	DULUTH	41	31	59	25	36	7	1.49	1.12	0.66	2.57	200	3.67	118	91	63	0	4	5	1
	INT_L FALLS	46	25	57	20	35	8	0.35	0.09	0.23	0.35	42	1.04	51	87	40	0	6	3	0
	MINNEAPOLIS	53	36	63	28	45	8	1.76	1.27	0.95	2.80	172	4.18	125	92	52	0	2	3	2
	ROCHESTER	53	34	60	26	44	0	0.71	0.22	0.33	2.06	130	3.73	112	92	60	0	2	3	0
	ST. CLOUD	49	30	58	23	39	6	1.22	0.83	0.53	2.42	187	3.59	141	95	54	0	5	3	1
MO	COLUMBIA	63	45	77	41	54	7	1.02	0.34	0.67	5.74	234	9.94	150	83	52	0	0	2	1
	KANSAS CITY	60	45	69	35	52	5	0.62	0.04	0.24	3.41	171	6.41	141	89	59	0	0	6	0
	SAINT LOUIS	67	46	80	38	56	7	1.26	0.44	0.53	5.11	183	10.54	142	82	43	0	0	3	1
	SPRINGFIELD	64	45	78	36	54	6	0.73	-0.12	0.50	8.28	270	13.45	167	90	52	0	0	3	1
MS	JACKSON	77	55	88	40	66	7	1.42	0.27	0.81	4.88	112	10.65	75	85	47	0	0	3	2
	MERIDIAN	75	54	87	35	64	7	4.00	2.80	2.27	9.55	200	17.19	110	88	52	0	0	5	2
	TUPELO	76	53	83	36	64	8	2.76	1.72	2.10	6.07	143	14.66	107	90	47	0	0	3	2
MT	BILLINGS	49	30	56	22	39	-1	0.03	-0.25	0.03	0.67	74	1.96	104	86	34	0	5	1	0
	BUTTE	41	23	50	18	32	-2	0.06	-0.15	0.04	0.31	48	1.18	74	84	37	0	7	3	0
	CUT BANK	45	23	57	14	34	-1	0.04	-0.09	0.02	0.04	8	0.17	18	90	40	0	7	2	0
	GLASGOW	50	26	54	22	38	3	0.10	-0.02	0.10	0.13	34	0.32	29	77	34	0	7	1	0
	GREAT FALLS	46	27	61	20	37	0	0.13	-0.11	0.11	0.33	42	1.22	68	77	38	0	6	2	0
	HAVRE	48	25	58	19	37	0	0.07	-0.07	0.05	0.13	29	0.96	82	84	40	0	7	2	0
	MISSOULA	49	31	57	26	40	-2	0.03	-0.21	0.02	0.15	16	1.87	75	95	44	0	6	2	0
NC	ASHEVILLE	66	45	81	41	56	7	4.15	3.29	3.66	7.59	230	14.98	139	94	51	0	0	4	1
	CHARLOTTE	73	53	81	45	63	10	1.75	0.92	1.67	3.62	103	12.54	122	86	52	0	0	2	1
	GREENSBORO	69	49	81	39	59	7	1.78	0.96	1.21	3.70	115	13.06	142	90	47	0	0	4	1
	HATTERAS	66	54	76	50	60	7	1.16	0.05	0.60	3.15	76	17.20	128	99	76	0	0	4	1
	RALEIGH	71	51	79	41	61	7	0.91	0.01	0.91	1.06	29	12.12	117	92	62	0	0	1	1
	WILMINGTON	76	56	85	45	66	8	0.11	-0.80	0.06	1.10	29	11.33	102	92	58	0	0	3	0
ND	BISMARCK	54	26	62	16	40	7	0.06	-0.17	0.04	0.07	9	0.49	28	82	34	0	6	2	0
	DICKINSON	53	24	60	16	38	5	0.02	-0.18	0.02	0.02	3	0.02	1	81	28	0	7	1	0
	FARGO	52	24	56	18	38	6	0.03	-0.27	0.02	0.15	13	0.74	30	85	39	0	7	2	0
	GRAND FORKS	50	23	58	15	37	7	0.23	0.00	0.13	0.23	26	0.67	34	85	37	0	7	2	0
	JAMESTOWN	53	24	60	19	39	7	0.06	-0.16	0.04	0.08	11	0.46	28	79	32	0	6	2	0
NE	GRAND ISLAND	52	38	63	32	45	3	3.05	2.60	1.53	8.43	564	10.00	367	88	57	0	1	5	2
	LINCOLN	56	37	65	28	46	3	1.42	0.91	0.79	5.20	323	6.85	225	87	53	0	2	2	2
	NORFOLK	54	34	64	29	44	3	2.07	1.61	1.27	5.63	385	6.44	227	87	50	0	3	5	2
	NORTH PLATTE	53	33	60	26	43	2	0.19	-0.08	0.13	3.37	377	5.19	288	86	44	0	3	3	0
	OMAHA	54	40	67	33	47	4	1.52	1.00	1.03	4.54	273	6.74	206	93	62	0	0	3	1
	SCOTTSBLUFF	51	27	58	24	39	-1	0.27	0.02	0.27	1.71	200	2.70	141	93	69	0	7	1	0
	VALENTINE	54	33	61	25	43	5	0.40	0.12	0.18	2.41	268	3.56	209	83	36	0	3	3	0
NH	CONCORD	66	32	74	21	49	13	0.08	-0.72	0.06	0.49	17	4.97	61	89	30	0	4	2	0
NJ	ATLANTIC_CITY	65	42	83	25	54	9	1.82	0.83	1.82	3.58	97	12.06	124	96	51	0	2	1	1
	NEWARK	66	44	84	34	55	10	1.46	0.44	1.35	2.36	65	9.48	95	89	43	0	0	2	1
NM	ALBUQUERQUE	56	35	69	23	45	-5	0.08	-0.05	0.08	0.12	24	0.73	52	72	23	0	3	1	0
NV	ELY	41	21	55	14	31	-7	0.10	-0.13	0.06	1.35	159	2.39	102	89	44	0	7	4	0
	LAS VEGAS	66	51	72	49	59	-3	0.00	-0.07	0.00	0.60	143	0.70	39	39	14	0	0	0	0
	RENO	54	30	68	24	42	-5	0.03	-0.10	0.03	0.06	9	1.46	52	70	21	0	5	1	0
	WINNEMUCCA	51	24	64	16	38	-5	0.20	0.00	0.13	0.80	107	2.90	128	85	26	0	6	3	0
NY	ALBANY	64	35	75	25	49	11	0.47	-0.31	0.40	1.17	42	4.83	64	91	38	0	3	2	0
	BINGHAMTON	61	39	71	28	50	14	0.56	-0.16	0.55	1.56	61	5.99	82	81	36	0	1	2	1
	BUFFALO	65	42	72	30	53	17	0.00	-0.67	0.00	0.04	1	3.13	38	75	38	0	1	0	0
	ROCHESTER	65	38	73	27	52	15	0.63	0.04	0.37	0.76	35	4.17	64	80	37	0	2	2	0
	SYRACUSE	66	37	76	25	51	14	0.49	-0.22	0.30	0.94	37	5.41	76	77	32	0	2	3	0
OH	AKRON-CANTON	68	43	74	23	56	15	0.04	-0.67	0.03	1.40	55	5.28	71	70	33	0	1	2	0
	CINCINNATI	69	46	74	38	57	11	0.57	-0.43	0.45	2.05	60	8.99	98	75	41	0	0	3	0
	CLEVELAND	68	43	74	29	56	14	0.27	-0.44	0.18	0.71	28	3.64	48	73	33	0	1	2	0
	COLUMBUS	70	45	75	37	57	13	0.02	-0.73	0.02	1.70	66	6.17	82	77	33	0	0	1	0
	DAYTON	69	43	74	32	56	13	0.53	-0.28	0.49	2.70	96	7.16	92	68	36	0	1	2	0
	MANSFIELD	68	43	74	33	56	16	0.30	-0.53	0.18	1.40	49	5.30	65	74	37	0	0	2	0

Based on 1981-2010 normals ***** Not Available**

Weather Data for the Week Ending March 27, 2021

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	68	41	73	27	55	14	1.97	1.38	0.91	2.15	102	5.45	87	79	38	0	1	3	2
	YOUNGSTOWN	68	42	75	32	55	15	0.06	-0.65	0.04	1.02	40	4.43	61	68	30	0	1	2	0
OK	OKLAHOMA CITY	64	44	77	39	54	-1	0.85	0.13	0.70	1.08	41	3.30	58	88	44	0	0	3	1
	TULSA	66	46	79	41	56	2	1.67	0.91	0.96	3.27	116	6.36	100	89	50	0	0	4	1
OR	ASTORIA	50	38	52	35	44	-3	1.49	-0.13	0.59	4.31	65	32.53	135	94	65	0	0	4	1
	BURNS	52	22	66	18	37	-3	0.02	-0.21	0.02	0.20	21	3.62	113	86	30	0	7	1	0
	EUGENE	55	35	65	31	45	-3	0.22	-0.82	0.07	1.59	36	11.12	66	93	56	0	1	4	0
	MEDFORD	60	36	74	31	48	-2	0.16	-0.20	0.15	1.44	95	5.09	85	83	37	0	2	2	0
	PENDLETON	55	37	65	34	46	-1	0.12	-0.16	0.08	0.27	22	3.23	87	82	36	0	0	2	0
	PORTLAND	56	42	65	35	49	-1	0.44	-0.33	0.18	1.37	42	12.23	103	83	50	0	0	4	0
	SALEM	54	36	64	31	45	-3	0.24	-0.58	0.15	2.15	61	15.03	107	89	53	0	1	3	0
PA	ALLENTOWN	65	38	77	23	52	10	0.81	-0.01	0.80	1.99	68	8.37	97	87	43	0	3	2	1
	ERIE	67	45	76	30	56	17	0.44	-0.26	0.35	0.70	27	6.42	81	69	35	0	1	2	0
	MIDDLETOWN	66	41	77	27	53	9	0.62	-0.17	0.58	1.70	58	8.05	98	84	40	0	2	3	1
	PHILADELPHIA	67	44	83	33	56	10	1.56	0.63	1.55	2.57	78	8.96	100	91	47	0	0	2	1
	PITTSBURGH	68	41	73	29	55	12	0.09	-0.60	0.04	2.76	109	6.87	90	77	30	0	1	3	0
	WILKES-BARRE	68	42	75	27	55	15	0.46	-0.17	0.41	1.86	85	6.69	101	77	35	0	1	3	0
	WILLIAMSPORT	65	39	73	25	53	11	0.42	-0.31	0.34	1.58	62	6.79	90	87	37	0	3	3	0
RI	PROVIDENCE	63	39	68	30	51	9	0.21	-1.03	0.15	1.54	35	7.01	61	96	41	0	2	3	0
SC	CHARLESTON	79	57	87	46	68	8	0.24	-0.59	0.24	1.85	58	10.89	111	91	53	0	0	1	0
	COLUMBIA	76	55	87	45	65	8	0.25	-0.53	0.22	2.28	70	13.89	133	85	51	0	0	2	0
	FLORENCE	77	55	89	45	66	8	0.20	-0.51	0.19	1.39	48	13.77	153	84	49	0	0	2	0
	GREENVILLE	70	52	82	46	61	6	2.43	1.43	2.03	4.70	118	13.28	113	81	51	0	0	4	1
SD	ABERDEEN	55	27	61	21	41	7	0.01	-0.29	0.01	0.67	68	1.26	61	82	37	0	5	1	0
	HURON	53	31	62	23	42	5	0.90	0.51	0.57	1.62	134	2.34	101	94	49	0	4	4	1
	RAPID CITY	52	27	57	22	40	2	0.06	-0.17	0.04	0.89	109	1.49	91	83	32	0	7	2	0
	SIOUX FALLS	53	31	62	24	42	6	1.12	0.63	1.01	2.41	170	3.78	146	89	51	0	4	3	1
TN	BRISTOL	69	44	76	33	56	7	2.38	1.58	1.25	4.88	163	13.37	137	82	43	0	0	3	2
	CHATTANOOGA	72	51	81	38	62	7	3.11	1.98	2.59	9.67	221	17.80	126	91	45	0	0	3	1
	KNOXVILLE	70	47	77	35	59	6	2.85	1.83	1.56	6.85	181	13.74	110	90	50	0	0	3	2
	MEMPHIS	73	52	81	42	63	6	5.23	4.01	3.76	7.44	167	17.66	137	89	47	0	0	3	2
	NASHVILLE	71	50	77	33	60	8	6.98	6.03	5.37	9.05	253	16.24	144	84	44	0	0	2	2
TX	ABILENE	72	48	85	43	60	1	0.32	-0.07	0.24	1.24	81	2.81	71	76	32	0	0	3	0
	AMARILLO	60	36	71	32	48	-2	0.33	-0.03	0.30	1.24	102	2.20	88	84	37	0	2	2	0
	AUSTIN	78	55	87	48	67	3	0.78	0.14	0.47	1.07	44	3.64	54	87	37	0	0	3	0
	BEAUMONT	78	57	83	41	67	4	0.31	-0.49	0.28	1.83	59	7.38	62	99	53	0	0	4	0
	BROWNSVILLE	84	63	92	53	74	3	0.00	-0.34	0.00	0.06	5	1.16	33	90	48	1	0	0	0
	CORPUS CHRISTI	83	59	88	46	71	4	0.00	-0.44	0.00	0.17	10	1.91	36	96	47	0	0	0	0
	DEL RIO	87	56	94	45	71	5	0.16	-0.11	0.15	0.20	19	0.84	35	70	20	3	0	2	0
	EL PASO	69	47	79	40	58	-1	0.00	-0.06	0.00	0.00	0	0.72	60	39	14	0	0	0	0
	FORT WORTH	73	52	81	43	63	3	1.73	0.93	1.14	2.94	97	6.05	77	86	39	0	0	3	1
	GALVESTON	75	63	80	54	69	3	1.11	0.00	1.11	1.62	0	3.83	0	91	64	0	0	1	1
	HOUSTON	79	55	86	42	67	2	0.41	-0.38	0.38	1.35	45	5.46	57	91	43	0	0	3	0
	LUBBOCK	67	39	79	33	53	-1	1.11	0.83	1.11	2.29	238	3.53	147	74	32	0	0	1	1
	MIDLAND	75	42	81	32	58	1	0.03	-0.12	0.03	0.24	47	0.76	41	65	12	0	1	1	0
	SAN ANGELO	78	47	86	38	62	3	0.19	-0.16	0.19	0.48	36	2.01	55	77	24	0	0	1	0
	SAN ANTONIO	80	54	88	45	67	3	0.41	-0.13	0.39	0.55	27	2.85	51	90	36	0	0	2	0
	VICTORIA	81	53	86	39	67	2	0.03	-0.69	0.02	0.64	26	2.18	31	93	43	0	0	2	0
	WACO	75	48	80	44	61	1	0.64	0.00	0.44	1.03	37	3.69	49	90	45	0	0	2	0
	WICHITA FALLS	69	44	81	40	56	0	0.86	0.40	0.81	1.30	67	2.71	56	89	40	0	0	2	1
UT	SALT LAKE CITY	47	31	54	29	39	-6	0.65	0.21	0.26	1.52	99	4.05	100	90	41	0	7	5	0
VA	LYNCHBURG	69	43	82	28	56	8	0.54	-0.29	0.25	1.96	64	9.96	109	90	44	0	1	4	0
	NORFOLK	69	52	84	43	61	9	0.18	-0.65	0.12	1.16	36	11.09	114	92	59	0	0	2	0
	RICHMOND	71	46	86	32	58	7	1.14	0.18	1.03	2.87	81	11.43	123	93	45	0	1	3	1
	ROANOKE	66	43	79	29	55	5	0.91	0.09	0.33	2.01	67	10.43	119	90	44	0	2	5	0
	WASH/DULLES	68	41	81	26	55	8	0.59	-0.24	0.59	1.17	40	7.26	88	90	46	0	2	1	1
VT	BURLINGTON	65	37	73	25	51	16	0.41	-0.12	0.39	0.57	30	3.77	65	76	33	0	3	2	0
WA	OLYMPIA	52	37	58	28	45	-1	0.80	-0.35	0.39	2.35	50	21.56	121	95	59	0	1	3	0
	QUILLAYUTE	49	37	53	32	43	-2	2.92	0.55	1.66	8.26	86	34.78	100	99	73	0	1	5	2
	SEATTLE-TACOMA	52	41	54	38	47	-1	1.07	0.25	0.67	2.26	69	15.38	125	90	59	0	0	4	1
	SPOKANE	48	32	55	26	40	-3	0.27	-0.09	0.14	0.27	18	3.81	83	90	45	0	4	2	0
	YAKIMA	59	37	66	32	48	3	0.00	-0.12	0.00	0.07	12	2.43	96	65	28	0	1	0	0
WI	EAU CLAIRE	55	36	66	27	45	10	0.47	0.00	0.22	0.86	60	1.51	47	82	48	0	3	3	0
	GREEN BAY	51	35	63	28	43	9	0.61	0.16	0.35	1.17	74	2.60	67	86	60	0	4	3	0
	LA CROSSE	57	39	66	30	48	10	0.70	0.19	0.33	1.51	88	3.04	78	85	52	0	1	4	0
	MADISON	54	37	63	31	46	8	0.97	0.42	0.65	1.42	78	3.35	74	92	60	0	1	5	1
	MILWAUKEE	55	40	68	33	47	10	0.44	-0.13	0.35	0.79	41	3.95	74	81	56	0	0	5	0
WV	BECKLEY	64	43	72	36	54	9	0.98	0.15	0.59	2.92	94	11.54	133	84	40	0	0	3	1
	CHARLESTON	72	42	79	29	57	8	0.21	-0.64	0.19	2.04	59	8.95	93	86	33	0	2	2	0
	ELKINS	69	32	72	18	50	8	0.16	-0.76	0.08	0.95	27	7.53	77	84	24	0	3	3	0
	HUNTINGTON	70	45	78	30	58	9	0.38	-0.51	0.33	1.54	45	8.86	94	78	38	0	1	3	0
WY	CASPER	41	19	44	10	30	-7	0.43	0.21	0.27	2.76	390	4.07	226	93	52	0	7	4	0
	CHEYENNE	40	23	45	18	31	-6	0.06	-0.20	0.06	0.71	78	1.36	77	87	55	0	7	1	0
	LANDER	42	24	53	16	33	-5	0.81	0.50	0.53	2.64	268	2.89	143	89	45	0	7	3	1
	SHERIDAN	49	25	54	18	37	-1	0.35	0.10	0.17	1.42	169	3.40	175	89	39	0	7	4	0

Based on 1981-2010 normals ***** Not Available**

March State Agricultural Summaries

These summaries, issued weekly through the summer growing season, provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Crop Progress and Condition Reports published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service. The crop reports are available on the Internet through the NASS Home Page on the World Wide Web at http://www.nass.usda.gov.

ALABAMA: March temperatures were on par with or up to 7.9 degrees Fahrenheit warmer than historic averages. Total rainfall for the month ranged from 2.6 inches to 14.6 inches. According to the U.S. Drought Monitor, abnormally dry conditions affected 19.9 to 42.4 percent of the state throughout the month. Additionally, moderate drought conditions affected 0.4 to 7.9 percent of the state. Heavy rain was received during the latter half of March, improving drought conditions and pond levels, but also halting fieldwork and causing flooding in areas. Two of the storm systems that brought heavy rainfall also brought tornadic activity, resulting in damaged storage barns, poultry houses, and greenhouses; downed fences; and fallen trees. Producers began cleaning up debris and making structural repairs from the tornadic damage. Additionally, producers heavily impacted by Hurricane Sally last September continued to repair fields and damaged structures. Standing water somewhat reduced winter wheat condition, which was in good to very good condition prior to the rain. Fieldwork in the first half of the month included applying burndown, fertilizer, and lime; cultivating fields; and planting corn. Pastures were coming out of dormancy and greening up. Fescue especially looked good, and many farmers were able to stop feeding hay to cattle. Hay stocks remained adequate. Overall, cattle condition was good.

ALASKA: DATA NOT AVAILABLE

ARIZONA: This report for Arizona is for the week ending March 28, 2021. By the end of the week, 35 percent of Durum wheat has headed compared with 34 percent last year, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Durum wheat conditions were rated mostly good to excellent. Fifty-six percent of barley has headed compared with 52 percent last year. Barley conditions were rated mostly good to fair. Alfalfa conditions were rated mostly excellent to good depending on location last week, with harvesting taking place on over three-quarters of the alfalfa acreage across the state. For the entire state, pasture and range conditions were rated mostly very poor to poor. Abnormal to exceptional dryness in the entire state continues to affect pasture and range conditions, forage growth, and stock tanks. Some forage growth improvement was reported in the north central and northwestern part of the state. The northwestern and north central part of the state received the most precipitation last week, but it was still not enough to improve pasture and range conditions. The southwestern part of the state recorded the highest temperatures during the week.

ARKANSAS: The month of March had slightly above normal temperatures with above normal precipitation. Some field work was possible on higher ground, but rain kept farmers mostly out of the fields during the latter part of the month. Ranchers were busy with calving season and herd health. Row crop producers continued to haul grain to commercial elevators. Retailers have seed and chemical ready to go as weather allows farmers to move forward. The State average rainfall was 4.94 inches for the month of March with an average temperature of about 55 degrees.

CALIFORNIA: Topsoil moisture 10% very short, 20% short, and 70% adequate. Subsoil moisture 10% very short, 30% short and 60% adequate. Temperatures for the month averaged 50.7 degrees, 3.0 degrees below normal. Statewide average monthly precipitation was 1.28 inches. In the northern mountain region, grains were planted and began sprouting. Range and pasture condition improved due to rain and snow. In the Sacramento Valley, rice fields were prepared for planting. Green leaves covered orchard trees and some orchards were irrigated. In the San Joaquin Valley, winter wheat continued to mature well due to warmer weather. Most stone fruit trees have begun flowering and some fruit has set. Bee colonies remain in almond orchards and petal drop has started. Onion and lettuce continued to be harvested. In the San Joaquin Valley and southern California, strawberries ripened and were picked. Across the state, grains are being treated for weed control.

COLORADO: This report for Colorado is for the week ending March 28, 2021. Topsoil moisture 10% very short, 34% short, 55% adequate, 1% surplus. Subsoil moisture 28% very short, 44% short, 28% adequate. Barley planted 12%, 7% 2020, 4% avg. Winter wheat pastured 13%, 8% 2020, 12% avg; jointed 4%. Winter wheat condition 13% very poor, 19% poor, 40% fair, 25% good, 3% excellent. Cows calved 69%, 60% 2020, 54% avg. Ewes lambed 55%, 56% 2020, 45% avg. Livestock condition 4% very poor, 7% poor, 26% fair, 57% good, 6% excellent. Cattle death loss 5% heavy, 51% avg, 44% light. Sheep death loss 2% heavy, 81% avg, 17% light. Pasture and range condition 24% very poor, 29% poor, 36% fair, 11% good. Feed and concentrate supplies 16% very short, 26% short, 57% adequate, 1% surplus. Spring fieldwork continued last week amid scattered precipitation events. Northeastern and east central counties received isolated moisture that supported soil moisture supplies, but warmer temperatures and high winds were also noted. Producers continued preparing for spring planting. Calving and lambing progressed, supported by mild weather. Concerns remained for pasture and range condition if more moisture isn't received to promote grass production. Dry, windy conditions also prompted more concern for condition of winter wheat moving forward. In western counties, snow and rain were observed late in the week, but soil moisture supplies remained short to very short. According to the

latest U.S. Drought monitor report, western districts continued to experience mostly severe to exceptional drought conditions. The San Luis Valley experienced another dry week and barley planting continued. Dry conditions were notably concerning for barley germination and emergence. Mild weather supported producers calving and lambing and less disease stress was noted. In southeastern counties, more rain and isolated snowfall supported winter wheat and alfalfa, which continued to green-up. A county report noted irrigation canals started water in the area. As of March 26, 2021, snowpack in the state was 94 percent measured as percent of median snowfall. The Southwest and San Luis Valley were 89 and 111 percent, respectively.

DELAWARE: The state received excessive precipitation again in March. Soil moisture increased from last month. Temperatures seems to be up one day and down the next complicating planting activities. Activities reported by farmers included application of fertilizer, manure, or lime applications when weather conditions permitted. There were limited reports of pea planting.

FLORIDA: March temperatures were on average 2.2 degrees warmer than historical values. Total rainfall for the month ranged from trace amounts of rain in a few locations to 6.5 inches in Okaloosa County. At the end of the month, the state was 49 percent abnormally dry and 1 percent in moderate drought conditions compared with 20 percent abnormally dry at the beginning of the month. Lack of rainfall combined with warmer temperatures dried out some pastures late in the month. Cattle conditions remained mostly good throughout the month. Sugarcane harvest continued. A variety of fruits and vegetables were planted and marketed. Producers planted field corn and prepared land for peanut and cotton crops in the Panhandle and northern part of the state. As temperatures increased, Whiteflies and pest pressure were noted on vegetable crops in the southern part of the state. Citrus fruit harvested for the fresh market included white and red grapefruit, Valencia oranges, as well as Honey, Tango, and Royal tangerines. The non-Valencia season concluded. After running behind last season, Mandarin harvest started to slow down at the end of the month. Citrus grove activities included fertilizing, spraying, hedging, topping, irrigation, and taking care of young trees.

GEORGIA: March temperatures were on average 3.4 degrees warmer than historical values. Total rainfall for the month ranged from 1.3 inches in Macon County to 13.5 inches in Rabun County. According to the U.S. Drought Monitor, 21 percent of the state was in abnormally dry conditions compared to 1 percent at the beginning of the month. A dry start to the month allowed producers to get into fields and start planting activities for row crops. Frequent rain showers throughout the latter half of month saturated many fields in the state and reduced field activities. Small grains were progressing well as many producers sprayed for weeds and prepped for anticipated fungicide pressure due to wet conditions. Producers in the southern part of the state noted fields beginning to dry out allowing them to return to the fields and continue planting preparations. Corn planting began, but rain has limited progress in many areas. Pastures started to green up as a result of the warm and wet conditions of the month. Peaches and blueberries were in full bloom. Vegetable growers planted some fields while some held off due to potential freeze later in the coming week. Onion harvesting is expected to begin soon. In multiple counties, pecan trees began budding.

HAWAII: DATA NOT AVAILABLE

IDAHO: The statewide temperatures in Idaho for the month of March varied a few degrees above and below normal. In northern Idaho, pastures started to green up in the lower elevation areas. Winter wheat looked good. Most fields were still too wet for significant fieldwork and soil temperatures still cold for extensive planting. In contrast, somewhat dry conditions were reported across southwest Idaho rangelands. Crop producers and livestock owners hoped for timely spring precipitation. South central Idaho received a little rain and snow moisture the last week in March. Cereal planting started to pick up. Some potatoes and beets were planted. Alfalfa fields also started to green up. Voles looked to be a problem. Winter cereals look good. Winter calving and lambing went well with mild winter weather since January. March conditions were mixed in eastern Idaho. It was still winter in Bear Lake and Teton Counties with snow on the ground. In Power County, it was just dry enough for spring work to start. Concerns over water storage eased slightly with the late March precipitation.

ILLINOIS: For the week ending on March 28, 2021. Topsoil moisture 1% very short, 5% short, 65% adequate, 29% surplus. Subsoil moisture 1% very short, 8% short, 75% adequate, 16% surplus. Statewide, the average temperature in March was 45.4 degrees, 5.0 degrees above normal. Precipitation averaged 4.06 inches, 1.31 inches above normal.

INDIANA: Topsoil moisture for the month of January was 2% very short, 12% short, 63% adequate, and 23% surplus. Subsoil moisture for the month was 5% very short, 17% short, 62% adequate, and 16% surplus. Winter wheat condition was rated 1% very poor, 4% poor, 28% fair, 55% good, and 12% excellent. Statewide temperatures averaged 45.4 degrees, 5.4 degrees above normal for the month of March. Statewide average precipitation was 3.65 inches, 0.74 inches above normal. March began with unusually dry conditions, but heavy rainfall in the second half of the month led to above average precipitation overall. While the recent rainfall has led to conditions that are too wet for some field activities, other operations have reported that they have been able to begin spring fieldwork activities. Winter wheat conditions remained stable overall with some operations reporting that wheat is beginning to break dormancy. Both hay supplies and livestock were reported to be faring well overall. Other activities for the month included hauling grain to elevators and preparing equipment for planting season.

IOWA: Overall, the month of March has been fairly normal for the State. Much needed rainfall began at mid-month. Although much of the State needed precipitation,

producers are anxious to see the sun and warmer temperatures. Temperatures have begun to rise, helping green up pastures and cover crops. However, field work has been limited due to wet field conditions from persistent rain and snow/frost melting. As field conditions allow, dry fertilizer/anhydrous applications and manure hauling have begun. Farmers are also preparing equipment for planting. There were a few reports of oats being seeded in the northwest and south central portions of the State. Grain movement continued to be strong due to good prices and clear road conditions. Calving continues across Iowa with no major issues. Muddy feedlots are an issue for some cattle producers. Hay supplies remain adequate.

KANSAS: For the week ending March 28, 2021, days suitable for fieldwork were 2.2, topsoil moisture supplies rated 4% very short, 8% short, 72% adequate, 16% surplus. Subsoil moisture supplies rated 6% very short, 14% short, 71% adequate, 9% surplus. Winter wheat condition rated 4% very poor, 15% poor, 31% fair, 43% good, 7% excellent.

KENTUCKY: For the month of March, Kentucky saw above normal temperatures and precipitation. A dry stretch early in the month gave way to patches of heavy precipitation coupled with warm temperatures. There were some patches of severe weather and flooding in areas of the state. Temperatures for the period averaged 51 degrees across the State, which was 5 degrees warmer than normal. Precipitation (liq. equ.) for the period totaled 4.87 inches Statewide, which was 0.86 inches above normal and 121% of normal. The warm weather and precipitation has encouraged pasture growth and allowed farmers to retain their hay supplies. For the month of March, hay supplies 2% very short, 11% short, 79% adequate, 8% surplus. Livestock condition improved as spring weather has taken hold. Livestock conditions 1% very poor, 4% poor, 19% fair, 67% good, 9% excellent. Condition of winter wheat 1% poor, 9% fair, 73% good, 17% excellent.

LOUISIANA: The month of March had above average temperatures and average rainfall. Dry conditions early in the month allowed for increased fieldwork. Corn and rice planting continued with quick emergence. Soybean producers started preparing for planting. Pastures started to green. The crawfish catch increased with warmer temperatures. Sugarcane growth was favorable following the freeze last month. Rainfall late in the month saturated fields and slowed work. The average temperature for the month was about 62 degrees with an average rainfall of 5.06 inches.

MARYLAND: During the month of March rain fell in some parts of the state while others experienced dry conditions. Temperatures were slightly above average across the State. For the most part, cover crops look good, spring fertilizer application was hampered by wet condition existing on the ground, other farmers were able to spread first application of manure, lime, potash, and nitrogen where needed in preparation for planting activities. Few reports of peas planting were received. Pastures were greening up, and cool season weeds were starting the process of growing as well.

MICHIGAN: Topsoil moisture 4% very short, 13% short, 70% adequate and 13% surplus. Subsoil moisture 4% very short, 16% short, 72% adequate, and 8% surplus. Winter wheat condition rated 1% very poor, 2% poor, 23% fair, 63% good, and 11% excellent. Precipitation for the month of March averaged 1.59 inches throughout the State, 0.38 inches below normal. Temperature for the month averaged 36.3 degrees, 5.9 degrees above normal. The State experienced exceptionally warm temperatures throughout most of March. In contrast with February's excessively cold conditions, the mild spring-like weather was welcomed by producers. Cumulative precipitation showed a slight increase in March as most areas exhibited below average snowfall and rainfall. The warm conditions have made daily operations much more tolerable on most farms. Fruit growers continued to prune trees and maintain orchards. Weather conditions remained good for winter wheat with 74% of the crop rated in the good to excellent range. Other activities for the month included tending to livestock, hauling grain, and preparing equipment for spring. In a few rare cases tillage and planting operations have begun.

MINNESOTA: March was warmer than normal with mostly dry conditions reported throughout the State. Some much-needed moisture arrived later in the month, but soil moisture remained dry. The drier than normal conditions are a concern for producers. Snow cover has melted and frost depths have reduced. Grain movement was widespread. Feedstocks remained adequate. There were some difficulties calving in muddy areas. Overall, warmer temperatures improved livestock conditions. No livestock losses were reported. Farmers are readying equipment and supplies for planting when soil temperatures increase. Small grain planting may begin on sandy soil in the next two weeks. Potatoes could also be going in soon.

MISSISSIPPI: Conditions for most of the month of March have been conducive for fieldwork. Field preparations and planting have begun but are limited in some areas due to muddy conditions and excess moisture. Warm and moist conditions have allowed the growth of pasture grasses to begin. The state average rainfall was about 5 inches for the month of March with an average temperature of about 57 degrees. Overall, average temperatures for the state have been above normal for this time of year, and average rainfall has been greater than normal for March.

MISSOURI: For the week ending March 29, 2021. Topsoil moisture 1% short, 72% adequate, and 27% surplus. Subsoil moisture 2% short, 88% adequate, and 10% surplus. Winter wheat condition 2% very poor, 1% poor, 36% fair, 54% good, and 7% excellent. Statewide, precipitation averaged 5.73 inches for the month of March, 2.72 inches above average. Temperatures averaged 49.0 degrees, 4.7 degrees above normal.

MONTANA: This report for Montana is for the entire month of March 2021. Topsoil moisture 30% very short,

46% short, 23% adequate, 1% surplus. Subsoil moisture 27% very short, 44% short, 29% adequate. Winter wheat - condition 6% very poor, 10% poor, 30% fair, 48% good, 6% excellent. Winter wheat – wind damage 53% none, 21% light, 18% moderate, 8% heavy. Winter wheat – freeze and drought damage 65% none, 17% light, 15% moderate, 3% heavy. Winter wheat – protectiveness of snow cover 76% very poor, 17% poor, 5% fair, 2% good. Pasture and range - condition 28% very poor, 32% poor, 31% fair, 7% good, 2% excellent. Livestock grazing accessibility – 71% open, 9% difficult, 20% closed. Livestock receiving supplemental feed – cattle and calves 86% fed. Livestock receiving supplemental feed – sheep and lambs 89% fed. The month of March produced warmer winter conditions and minimal moisture across the state of Montana, according to the Mountain Regional Field Office of the National Agricultural Statistics Service, USDA. Reporters across the state noted very little moisture was received in March and high winds have continued to dry out soil. Temperatures were unseasonably warm throughout the month, as temperatures stayed higher than the historical highs and lows for several days. Low temperatures ranged from the high teens to low 50s, while high temperatures ranged from the high 30s to mid-60s. According to the U.S. Drought Monitor, approximately 80 percent of Montana is abnormally dry or in a current state of drought, with about 17 percent of the state in severe to exceptional drought.

NEBRASKA: For the week ending March 28, 2021, topsoil moisture supplies rated 5% very short, 14% short, 70% adequate, and 11% surplus. Subsoil moisture supplies rated 8% very short, 30% short, 58% adequate, and 4% surplus. Winter wheat condition rated 5% very poor, 12% poor, 45% fair, 36% good, and 2% excellent.

NEVADA: Topsoil moisture 5% short, 95% adequate. Subsoil moisture 10% very short, 90% adequate. Temperatures for the month averaged 40.7 degrees, 1.2 degrees below normal. Statewide average precipitation was 0.60 inch. Most alfalfa was still dormant, but some showed initial growth. Plant growth on rangelands started, but growth progressed slowly due to cool temperatures. In the northwest region, some areas had little or no growth from cheat grass, possibly due to a soil pathogen. The total affected area is unknown. Growth ranged from only a few young plants to almost 2 inches tall.

NEW ENGLAND: New England states have experienced a mild, relatively dry spring conditions this year. In the southeastern part of Massachusetts, most cranberry growers were not able to ice sand because of the dry conditions. This cultural practice needs to be completed every 3-4 years; thus, the concern is that the crop will be down as a result. According to a New Hampshire reporter, ground water conditions remain well below normal in the Connecticut River Valley. Below normal snowfall and lack of precipitation has continued to be a problem. Surface soils are sufficiently moist for now, but subsoil moisture is well below normal. Brooks and streams have remained below normal since last fall. One farm reported that the well for his farm was 8 feet below normal, leading to insufficient supplies to meet the needs of his livestock. Several farms around Grafton County are reporting similar issues. Snow cover has mostly melted, but there is still some frost in the ground, but much of that will dissipate within a couple of days. Further, maple sugar operations had a slow start for the season; however, the next few days will be below freezing in the morning with warming throughout the day. Vermont Spring conditions are moving forward nicely in Franklin County, Vermont. Frost is moving out of the ground quickly with very little flooding to date and some green grass showing up. If weather patterns continue as they are, we will have nice conditions for spring work ahead.

NEW JERSEY: The State experienced warmer temperatures for the month of March, which were around normal. Precipitation was slightly below normal at the start of the month, with more recent wet conditions towards the end of the month. The planting of herbs and vegetables was moving at an approximately normal rate. There has been some delay in a few areas with rains, but progress was about normal for this time of year.

NEW MEXICO: This report for New Mexico is for the month of March 2021, through March 28. Topsoil moisture 53% very short, 31% short, 14% adequate, 2% surplus. Subsoil moisture 59% very short, 34% short, 6% adequate, 1% surplus. Alfalfa hay condition 5% poor, 78% fair, 15% good, 2% excellent. Chile planted 8%, 2% last year. Onions planted 20%, 15% last year; emerged 10%, 5% last year. Winter wheat condition 64% very poor, 24% poor, 4% fair, 3% good, 5% excellent. Cows calved 40%, 30% last year. Cattle receiving supplemental feed 90%, 86% last year. Cattle condition 2% very poor, 17% poor, 42% fair, 31% good, 8% excellent. Ewes lambed 40%, 30% last year. Sheep receiving supplemental feed 89%, 74% last year. Sheep and lambs condition 25% very poor, 8% poor, 31% fair, 36% good. Hay and roughage supplies 38% very short, 34% short, 28% adequate. Stock water supplies 50% very short, 22% short, 27% adequate, 1% surplus. Precipitation received since March 1 has been below average for much of the State, although there were some pockets stretching from central New Mexico up to the northeastern corner of the State that accumulated above average moisture. The limited moisture totals continued to prohibit any meaningful improvement of soil moisture levels or winter wheat condition. The first alfalfa condition rating noted that 17 percent of the crop was in good to excellent condition, compared with 52 percent last year. Supplemental feeding rates remained distinctly higher than last year. Producers were busy planting the 2021 chile and onion crops ahead of last year's pace. Reports from Union County noted some pasture grass green up following recent moisture. Farmers in the area were busy watering corn and wheat fields, and preparing fields for spring crop planting. Roosevelt County comments indicated extreme dryness, while Mora County reports noted a good, wet snow last week. In Lea County, excessively strong winds damaged power lines in some rural areas, leaving people without power for 2-3 days. Statewide, 88 percent of the winter wheat crop was

reported in very poor to poor condition, compared with 65 percent at the end of February and 4 percent in March 2020. For the period of March 1 – March 28, converted monthly moisture totals – accounting for any precipitation received as snow – varied drastically around the State, ranging from approximately 6 inches in an extremely isolated area of northeastern Cibola County to merely a trace across much of southern New Mexico. According to the United States Drought Monitor for March 23, moderate drought or worse continued to plague virtually the entire State. Severe drought (D2) covered 19.5 percent of the State, and extreme drought (D3) remained entrenched across 26.8 percent. Exceptional drought (D4) stabilized somewhat, and now covered 64,901 square miles, or 53.4 percent of the State.

NEW YORK: The month of March was reported as having deep snow cover for most of the month in some counties as well as unseasonably warmer temperatures towards the latter half of the month. Most counties were reporting that drought conditions remained, and water levels were below normal. Some counties also reported potential developmental damage to crops from strong winds. Farmers have planted some spring grains, forage crop seedings, and vineyards were preparing to tie vines to fruiting wire.

NORTH CAROLINA: For the week ending March 28, 2021 - Subsoil moisture 1% short, 55% adequate, 44% surplus. Topsoil moisture 1% short, 49% adequate and 50% surplus. Barley condition 1% very poor, 22% poor, 53% fair, 22% good and 2% excellent. Hay and roughage supplies 6% short, 90% adequate, 4% surplus. Oats condition 4% poor, 39% fair, and 57% good. Winter wheat condition 5% very poor, 14% poor, 42% fair, 33% good, and 6% excellent. Pasture and range condition 1% very poor, 6% poor, 40% fair and 50% good and 3% excellent. Throughout March, it has been above average in both temperatures and rainfall. Four degrees above average for temperature and 3" above average for rainfall. One dry spell for almost two weeks in the first part of the month, followed by a wet spell later in the month. Pastures are greening up and growing nicely.

NORTH DAKOTA: For the week ending March 28, 2021, topsoil moisture supplies, 52% very short, 35% short, 13% adequate, 0% surplus. Subsoil moisture supplies, 46% very short, 35% short, 18% adequate, 1% surplus. Winter wheat condition, 11% very poor, 31% poor, 45% fair, 13% good, 0% excellent. Cattle and calf conditions, 2% very poor, 4% poor, 19% fair, 55% good, 20% excellent. Cattle and calf death loss, 1% heavy, 50% average, 49% light. Calving progress, 35% complete. Sheep and lamb conditions, 0% very poor, 3% poor, 15% fair, 57% good, 25% excellent. Sheep and lamb death loss, 1% heavy, 53% average, 46% light. Lambing progress, 57% complete. Shearing progress 73% complete. Hay and roughage supplies, 12% very short, 24% short, 58% adequate, 6% surplus. Stock water supplies, 28% very short, 33% short, 38% adequate, 1% surplus.

OHIO: Topsoil moisture for the month was 6% very short, 6% short, 66% adequate, and 22% surplus. Subsoil moisture for the month was 4% very short, 13% short, 68% adequate, and 15% surplus. Winter wheat condition was rated 1% very poor, 3% poor, 27% fair, 55% good, and 14% excellent. The statewide average temperature was 43.9 degrees, 5.0 degrees above normal. Precipitation averaged 2.75 inches statewide, 0.08 inch above normal for March. Some areas of the State experienced heavy rains, which caused ponding in areas where winter wheat was planted. During the month, farmers top dressed winter wheat, sprayed herbicides on cover crops, applied anhydrous, tiled fields, and seeded waterways.

OKLAHOMA: March started with temperatures in the 40's and has risen to stay in the 50's. Oats started jointing the second week of March and Canola started blooming the third week of March. Canola, Rye, and Oats are behind the five-year average, but wheat is progressing well. Livestock conditions is rated good to fair and pasture conditions is rated fair to good. The Drought Monitor shows less than one percent of the State is in exceptional drought.

OREGON: Moisture conditions through the state ranged from very wet to very dry. Temperatures were below normal to around normal. Benton and Lincoln Counties reported a good amount of sunny days with some rain for March. It was still too cold for crops, except winter wheat in Benton County. Pasture was in fair condition for introduced grasses, such as New Zealand Orchard Grass planted on high elevations. Much of the coastal pastures were underwater or in tidal zones and grazed in the late spring and summer months. Columbia, Multnomah, and Washington Counties reported plenty of moisture. More frosts were predicted. Vegetable planting was on hold until soil warmth and moisture get closer to optimum planting conditions. Nursery plants came through winter in good condition, field crops looked generally good, and pastures started to push through where they were not overgrazed. In Douglas, Jackson, and Josephine Counties, pears, apples, peaches and cherries were pushing buds. Plum crops were currently in full bloom. Blueberries were about ten days away from bloom. Wine grapes were still mostly dormant with a few varieties showing early buds. Tillamook and Clatsop Counties reported wet conditions for March, with grass growth progressing. Occasionally, some dairy herds were out on pasture. Soils were wet and saturated in some areas. North central Oregon reported an extremely dry winter with extremely dry topsoil. Pastures greened up. Cattle were calving with ideal conditions. Crops looked good for now, but needed more rain. Baker County reported wind gusts. Crook, Deschutes, and Jefferson Counties reported heading toward the worst water year ever for irrigators with the potential for large amounts of acres left fallowed. The warm winter in Ochoco Mountains meant snowmelt may end up in soil and not much runoff this spring. High winds did not help with moisture retention. Wheeler County reported it was extremely dry. Pastures were fine and cattle were calving, but the area needed spring rains. Lake County precipitation was below average, and there was concern about livestock producers receiving adequate irrigation. Malheur County reported good conditions for onion planting, but progress slowed due to a couple of storms. Adequate

irrigation was expected. Northeast Oregon's recent precipitation and nearly complete infiltration of snow melt increased available soil water in fields. Winter canola was doing well. Southwest Oregon reported soil moisture levels good to surplus in nearly all areas. Field crops were in good shape.

PENNSYLVANIA: The state experienced fairly mild March weather, with average rainfall and temperatures slightly above average. Cover crops, small grains, and hay were reportedly greening or otherwise growing nicely. Previously snow-covered fields have cleared and allowed for some plowing, lime and manure spreading, and herbicide application. Producers were also performing machine maintenance in preparation for the Spring season.

SOUTH CAROLINA: March temperatures were on par with or up to 7.2 degrees Fahrenheit warmer than historic averages. Total rainfall during the month ranged from 0.8 inch to 12.0 inches. According to the U.S. Drought Monitor, the State had no abnormally dry conditions throughout the month. The Upstate region received excess rain in March, while the rest of the State received sufficient rain levels. This rainfall pattern reversed the trend from the previous winter months, where all regions except the Upstate received excess rain. During March, most pasture and cropland were able to dry out to a workable level. To catch up on delayed row crop activities, field preparations began at a fever pace, with lime and fertilizer being spread, burndown and weed control being applied, land being cultivated, and the first corn acres being planted. Additionally, small grains received a much-needed topdressing of Nitrogen. Winter wheat was generally in good condition. Strawberry and vegetable crops remained behind schedule, despite the improved weather conditions in March. Relatively stable temperatures brought the beginning of a significant peach crop, with the early varieties beginning to set fruit. Cattle conditions was good, and winter grazing was fair to good. Summer pasture and hayfields started to green up from the warm temperatures and sunny days. Hay supplies were becoming short for some cattle producers.

SOUTH DAKOTA: For the week ending March 28, 2021, topsoil moisture supplies rated 22% very short, 44% short, 33% adequate, 0% surplus. Subsoil moisture supplies rated 20% very short, 55% short, 25% adequate, 0% surplus. Winter wheat condition rated 3% very poor, 18% poor, 48% fair, 31% good, and 0% excellent.

TENNESSEE: For the week ending March 28, Days suitable 2.9. Topsoil moisture 1% short, 52% adequate, 47% surplus. Subsoil moisture 1% short, 61% adequate, 38% surplus. Winter wheat condition 3% poor 25% fair, 60% good, 12% excellent. Pasture and Range condition 2% very poor, 13% poor, 39% fair, 40% good, 6% excellent. Cattle condition 1% very poor, 4% poor, 26% fair, 60% good, 9% excellent. Hay and roughage supplies 2% very short, 20% short, 71% adequate, 7% surplus. Tennessee experienced increase moisture and increased temperatures. Storms brought excessive rain. Localized flooding is present and causing concern. Delayed planting is expected. Hay and roughage supplies are mostly adequate. Winter wheat condition reported mostly good. Cattle condition is currently reported mostly good.

TEXAS: For the month of March, precipitation ranged from trace amounts to upwards of 10.0 inches. Small grains progressed due to increased moisture and warmer temperatures, but development varied across the state. Meanwhile, row crop producers all over Texas continued or began planting. Livestock condition continued poor to fair. Supplemental feeding continued statewide.

UTAH: This report for Utah is for the entire month of March, 2021. Topsoil moisture 4% very short, 22% short, 72% adequate, 2% surplus. Subsoil moisture 13% very short, 25% short, 60% adequate, 2% surplus. Pasture and range condition 19% very poor, 37% poor, 42% fair, 2% good. Winter wheat condition 6% very poor, 15% poor, 42% fair, 31% good, 6% excellent. Barley planted 4%. Hay and roughage supplies 8% very short, 25% short, 67% adequate. Stock water supplies 14% very short, 23% short, 63% adequate. Cattle and calves condition 4% poor, 27% fair, 65% good, 4% excellent. Sheep and lambs condition 6% poor, 38% fair, 54% good, 2% excellent. Livestock receiving supplemental feed for cattle 72%. Livestock receiving supplemental feed for sheep 44%. Cows calved 27%. Ewes lambed-farm flock 16%. Ewes lambed-range flock 8%. Isolated areas throughout the state received precipitation in March, but not enough to alleviate drought conditions. Spring planting was underway in Box Elder county and farmers sprayed and fertilized fall grains. Calving continued and branding and vaccinations were underway. In Beaver county, livestock were doing well. Fields were prepared for planting and treated for pests, though field work was slowed due to storms. As of March 29, 2021, snowpack in Utah was 81 percent measured as percent of median snowfall.

VIRGINIA: For the week ending March 28, 2021, Days suitable 4.7, Topsoil moisture is 1% short, 75% adequate and 24% surplus. Subsoil moisture is 2% short, 79% adequate and 19% surplus. Winter wheat condition 3% very poor, 14% poor, 44% fair, 34% good, 5% excellent. Barley condition 1% very poor, 17% poor, 42% fair, 37% good, 3% excellent. Livestock condition 1% very poor, 5% poor, 41% fair, 48% good, 5% excellent. Pasture and Range condition 4% very poor, 22% poor, 47% fair, 23% good, 4% excellent. Hay and roughage supplies 4% very short, 14% short, 77% adequate, 5% surplus. Percent of feed obtained from pastures 13%. Virginia experienced slightly above normal temperatures and normal precipitation in March. Some areas had dry spells which allowed fields to dry out and farmers began fertilization. Other areas had more precipitation leaving them with saturated and muddy fields. Pasture conditions are in adequate condition and farmers had an increase of feed obtained from pastures relieving the pressure on hay stocks. Primary activities for the month include pasture seeding, manure applications and fertilizer applications.

WASHINGTON: The Statewide temperatures in Washington for the month of March were slightly above

normal to below normal. In western Washington, the fields were too wet for fieldwork. Grass was putting on new growth. Winter crops were looking good, with the exception of where crops were drowned out from the winter ponded water. The temperatures were cool. Many operators with high tunnels planted crops and some of the spring vegetables were starting to show up. Some vegetable producers were able to do outdoor tilling. In Snohomish County, cane berries were mostly pruned and tied. In central Washington, apricot orchards were in full bloom. Peach orchards were showing pink buds and bloom had started for some varieties. Apple orchard trees were a half-inch green with some varieties showing buds at tight cluster. Buds on trees in pear orchards were at swollen bud stage and growers sprayed their blocks with oils and kaolin clay to discourage pear psylla. There was a fair amount of orchard tear-out still left to be disposed. Growers hilled asparagus blocks in anticipation of an early harvest. Vegetable fields had been tilled and were ready to plant. There was activity in the hop yards with workers tilling the groundcover, planting cover crops, rolling out irrigation lines, and stringing up the trellises. Winter wheat and alfalfa were presenting a vivid green color in an otherwise drab landscape. Vegetation along the irrigation canals was cleaned up and ready to receive water. Klickitat County and east central Washington had very dry conditions. Winter wheat was in mostly good condition, with a few areas that looked excellent and a few areas that looked poor. There was a significant amount of snow mold, but it was too early to know if the wheat will recover. In southeast Washington, snow showers were a weekly occurrence with some freezing temperatures. Spring work commenced. Columbia and Walla Walla Counties were dry and needed moisture.

WEST VIRGINIA: For the week ending March 28, Topsoil moisture 15% short, 76% adequate, and 9% surplus. Subsoil moisture 16% short, 81% adequate, and 3% surplus. Hay and roughage supplies 3% very short, 12% short, 80% adequate, and 5% surplus. Feed grain supplies 12% short, 86% adequate, and 2% surplus. Pasture condition 4% very poor, 4% poor, 43% fair, 45% good, and 4% excellent. Winter wheat condition 49% fair, 50% good, and 1% excellent. Cattle and calves condition 2% poor, 26% fair, 67% good, and 5% excellent. Calving was 61% complete, 57% last year. Sheep and lambs condition 1% poor, 8% fair, 88% good, and 3% excellent. Lambing was 66% complete, 65% last year. Weather conditions for the month were mostly warmer with periods of rain, and some flooding from heavy rains. Farming activities for the month included preparing fields for planting, repairing fences, calving and lambing.

WISCONSIN: Early March brought warm weather to Wisconsin with many locations setting record highs on the ninth or tenth. Eau Claire received the most precipitation at 1.56 inches, while Milwaukee received the least at 0.84 inch. Monthly temperatures were all above normal. Temperatures ranged from 8.4 degrees above normal in Eau Claire to 5.1 degrees above normal in Madison. Average highs ranged from 46.8 degrees in Green Bay to 52.6 degrees in La Crosse. Average lows ranged from 27.6 degrees in Eau Claire to 33.0 degrees in and Milwaukee. La Crosse received the most snow of the major cities with 4.0 inches, while Milwaukee received the least with 0.8 inch for the month. The snow cover is mostly gone in northern Wisconsin, and the frost is starting to come out of the ground. In the southern part of the state the snow and frost are entirely gone. Central Wisconsin has mixed conditions. Manure spreading has begun, though some fields are still too muddy.

WYOMING: This report for Wyoming is for the entire month of March 2021. Topsoil moisture 30% very short, 25% short, 42% adequate, 3% surplus. Subsoil moisture 35% very short, 26% short, 38% adequate, 1% surplus. Winter wheat condition 4% very poor, 14% poor, 70% fair, 11% good, 1% excellent. Barley planted 16%. Calving progress 30% cows calved. Sheep and lamb progress 18% ewes lambed, 26% sheep shorn. Hay and roughage supplies 23% very short, 22% short, 54% adequate, 1% surplus. Livestock condition 11% poor, 27% fair, 61% good, 1% excellent. Stock water supplies 18% very short, 23% short, 58% adequate, 1% surplus. Pasture and range condition 27% very poor, 35% poor, 28% fair, 9% good, 1% excellent. Cattle death loss 5% heavy, 89% average, 6% light. Sheep death loss 5% heavy, 91% average, 4% light. Despite a large snowstorm, the month of March brought little relief to Wyoming. Temperatures for the month were fairly mild for the majority of the State, remaining around average for this time of the year. Precipitation was scarce except for a winter storm in mid-March. Reports indicate the storm brought much needed moisture to the State, but a significant amount of spring precipitation is still desperately needed. Comments from Campbell County indicate some producers have already decided not to plant this spring because of the poor conditions. Comments from Albany, Sheridan and Platte counties indicated the March snowstorm was very hard on livestock, with numerous reports of significant livestock losses due to heavy snow and deep snow drifts. According to the United States Drought Monitor for March 25, 2021, 96.3 percent of the State is still experiencing drought conditions. Extreme drought conditions covered 19.3 percent of the State, compared to 24.8 percent last month. Severe drought was present across 27.4 percent of the State, a decrease of 11.4 percentage points from last month's percentage of 38.8 percent. Moderate drought was present across 24.4 percent of the State, a slight decrease from 27.7 percent last month. The amount of land rated as abnormally dry was 25.2 percent, compared to 6.5 percent last month.

International Weather and Crop Summary

March 21-27, 2021

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

HIGHLIGHTS

EUROPE: Chilly weather slowed winter crop development across central and southeastern growing areas, though warm conditions developed in northern-most croplands.

WESTERN FSU: Below-normal temperatures kept winter crops dormant to semi-dormant in the Black Sea Region, while widespread rain boosted soil moisture supplies for spring growth.

MIDDLE EAST: Moderate to heavy rain favored vegetative to reproductive wheat and barley across western and central growing areas.

NORTHWESTERN AFRICA: Additional timely showers in Algeria and Tunisia improved soil moisture for winter grains approaching or progressing through reproduction.

EASTERN ASIA: Unseasonably warm weather and periodic showers in eastern China advanced development of wheat and rapeseed.

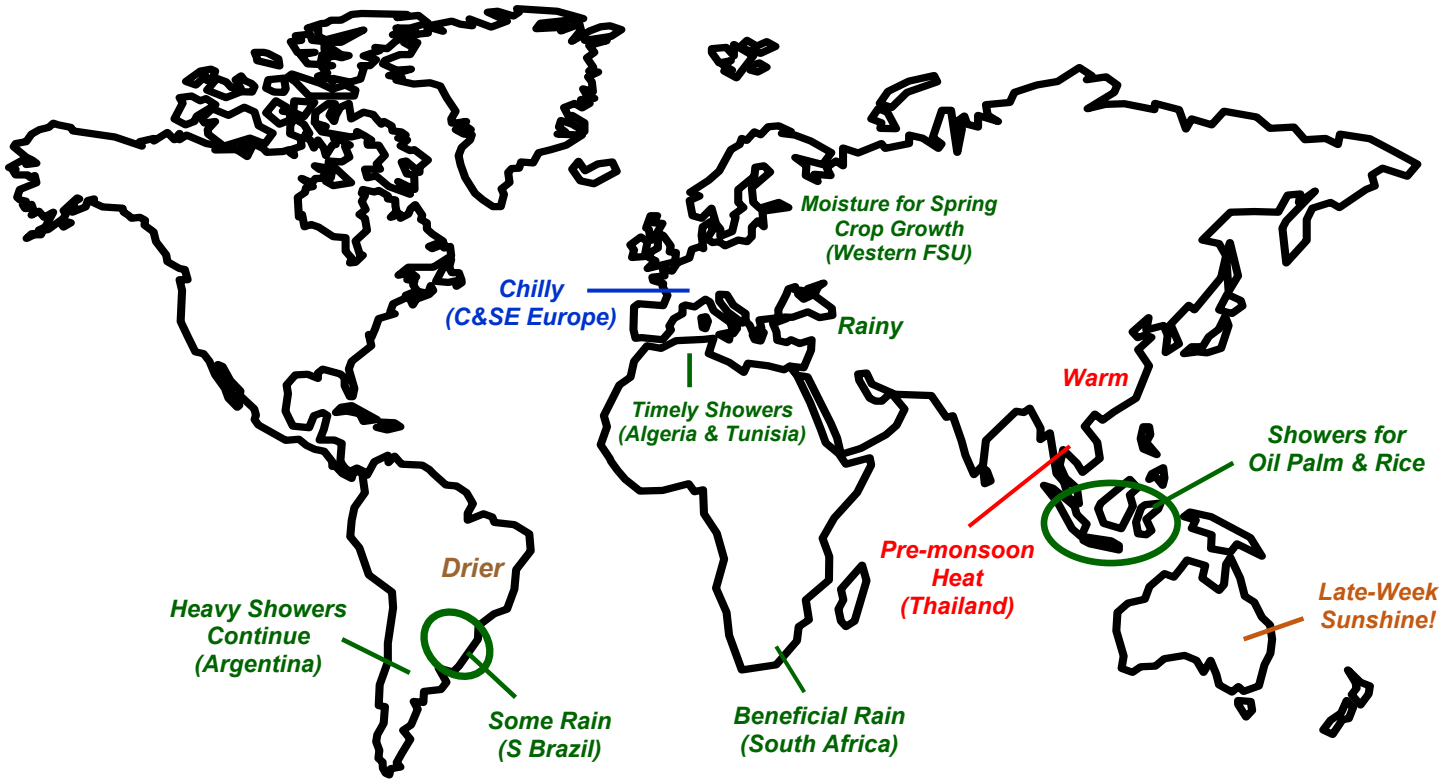
SOUTHEAST ASIA: More rainfall in Indonesia and Malaysia benefited oil palm and second-crop rice, while seasonal heat continued to build in Thailand and environs.

AUSTRALIA: In the east, heavy rain gave way to sunny skies, helping to dry excessively wet summer crops.

SOUTH AFRICA: Showers benefited corn and other immature summer crops throughout much of the region.

ARGENTINA: Moderate to heavy rain further improved prospects of late developing corn and soybeans.

BRAZIL: Showers benefited corn and soybeans in some western and southern locations, but dryness dominated large parts of central Brazil.



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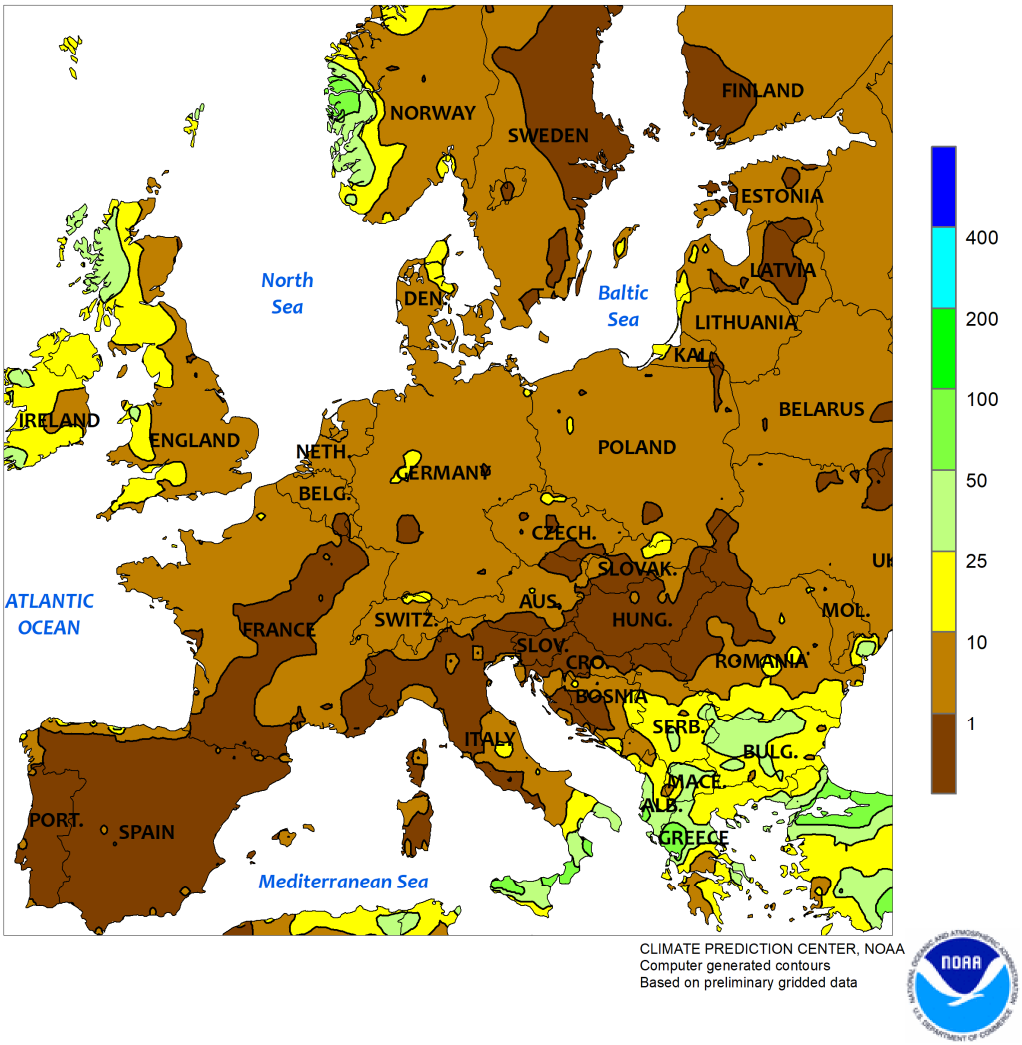
EUROPE
Total Precipitation (mm)
March 21 - 27, 2021



EUROPE

Chilly weather slowed winter crop development across central and southeastern Europe, though warm conditions developed in northern-most croplands. Temperatures averaged 1 to 3°C below normal from southern France eastward into the Balkans, with readings up to 6°C below normal noted across Greece and Bulgaria; consequently, winter crop development either slowed or halted during the past week in these growing areas. Conversely, temperatures during the monitoring period averaged 2 to 6°C above normal from England into Scandinavia, easing winter grains and oilseeds out of dormancy in western portions of the Baltic Sea Region where 7-day average temperatures exceeded 5°C. Precipitation during the period was mostly light (5 mm or less), though moderate to heavy rain (10-60 mm, locally more) was observed in western windward growing areas in the north as well as southeastern Europe. Moisture supplies remained overall favorable for spring growth following a wet winter across much of the continent.

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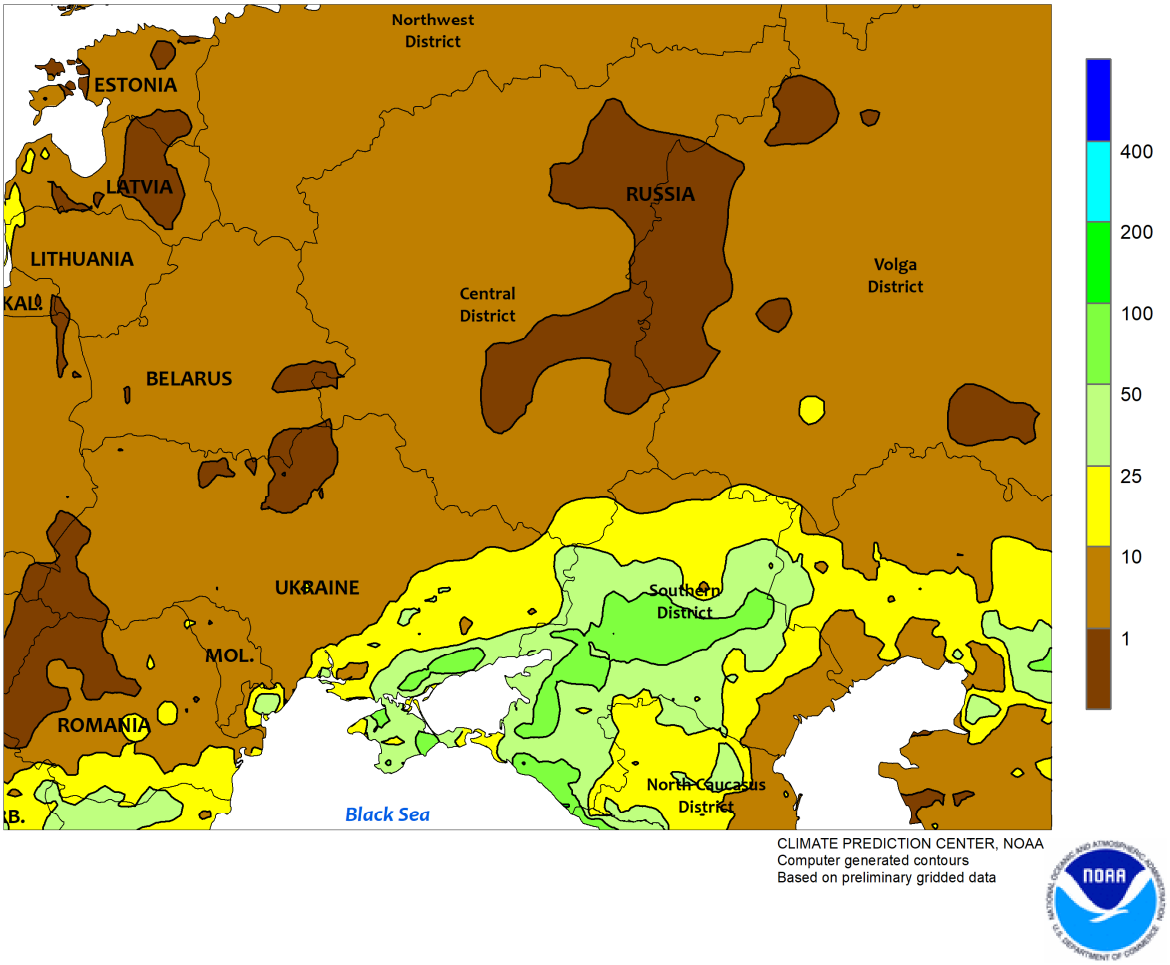
WESTERN FSU
Total Precipitation (mm)
March 21 - 27, 2021



WESTERN FSU

Cool, unsettled weather boosted moisture reserves for spring growth but kept winter crops mostly dormant. Unlike recent years' early spring green up, a recent and ongoing spell of cold weather has kept wheat, barley, and rapeseed dormant. In fact, much of Russia's Central and Volga Districts remained encased in a moderate to deep snowpack (5-25 cm). Temperatures during the past week averaged 1 to 4°C below normal across the Black Sea Region, with 7-day average temperatures less than 5°C indicating most winter crops have not yet broken dormancy; the long-term average greening date adjacent the Black Sea is in late March, while areas farther north typically break dormancy during the first half of April. Key winter wheat areas in southern and eastern Ukraine reported 5 to 25 mm of rain, while 10-65 mm was reported across Russia's Southern District. Overall, winter crop prospects have recovered from autumn drought due to a wet winter and first month of spring.

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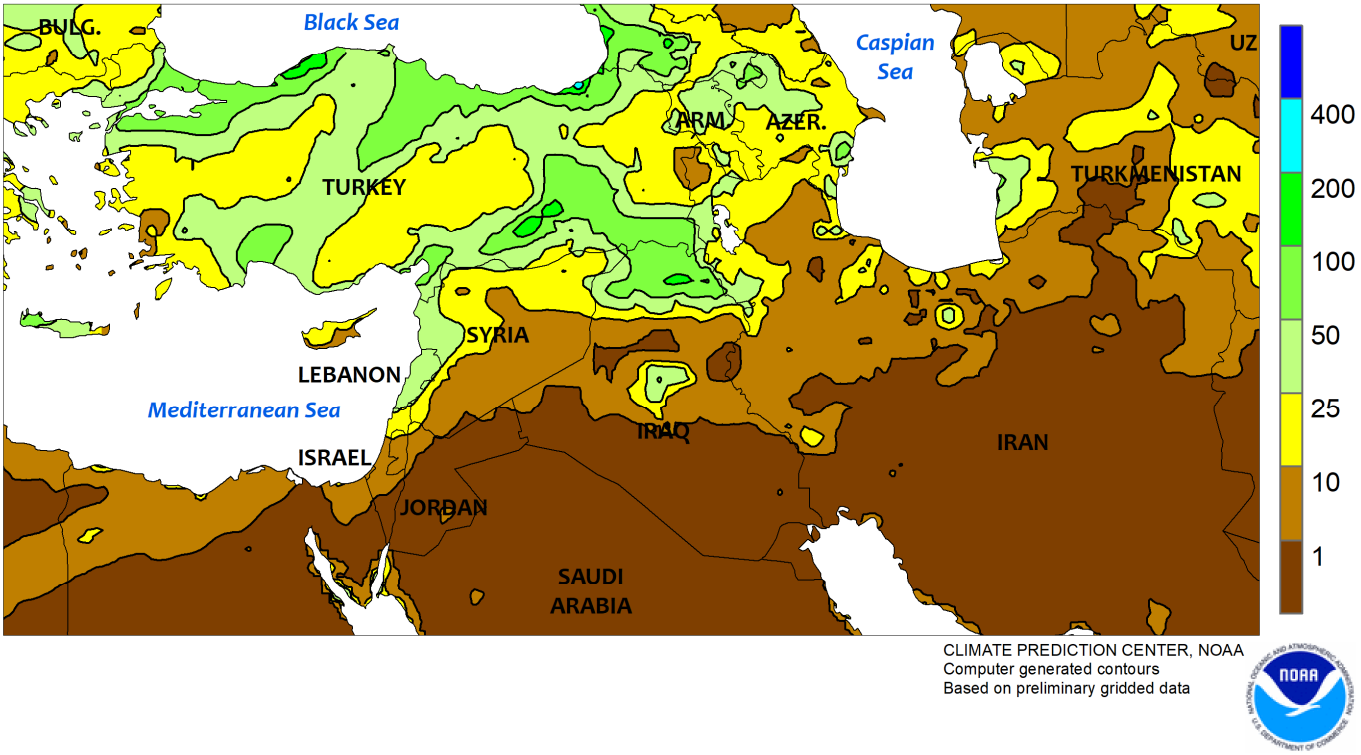
MIDDLE EAST
Total Precipitation (mm)
March 21 - 27, 2021



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

MIDDLE EAST

Rain expanded across western and central portions of the region, boosting moisture reserves for vegetative to reproductive winter grains. Continuing a trend which began in the second week of March, widespread soaking rainfall across Turkey (10-75 mm) further boosted soil moisture for greening (Anatolian Plateau) to vegetative (south and southeast) winter wheat and barley. However, unusually chilly conditions in Turkey (2-5°C below normal) slowed winter crop growth considerably. Unlike previous weeks, the wet weather (5-40 mm, locally more) encompassed crop areas from the eastern Mediterranean Coast eastward into northern portions of Syria, Iraq, and Iran. Meanwhile, dry weather prevailed in northeastern and southern Iran, though the latter befitted from a wet winter. Winter grains were vegetative across many of these central and eastern croplands but approaching or entering reproduction in the south. The latest satellite-derived Vegetation Health Index (VHI) showed improving — albeit still poor — conditions in Syria following this week's rain. In Turkey, the VHI signal likewise improved on the Anatolian Plateau, where autumn drought impacted winter grain establishment. Farther east, the latest VHI indicated good to excellent crop vigor from northern Iraq into southwestern Iran.

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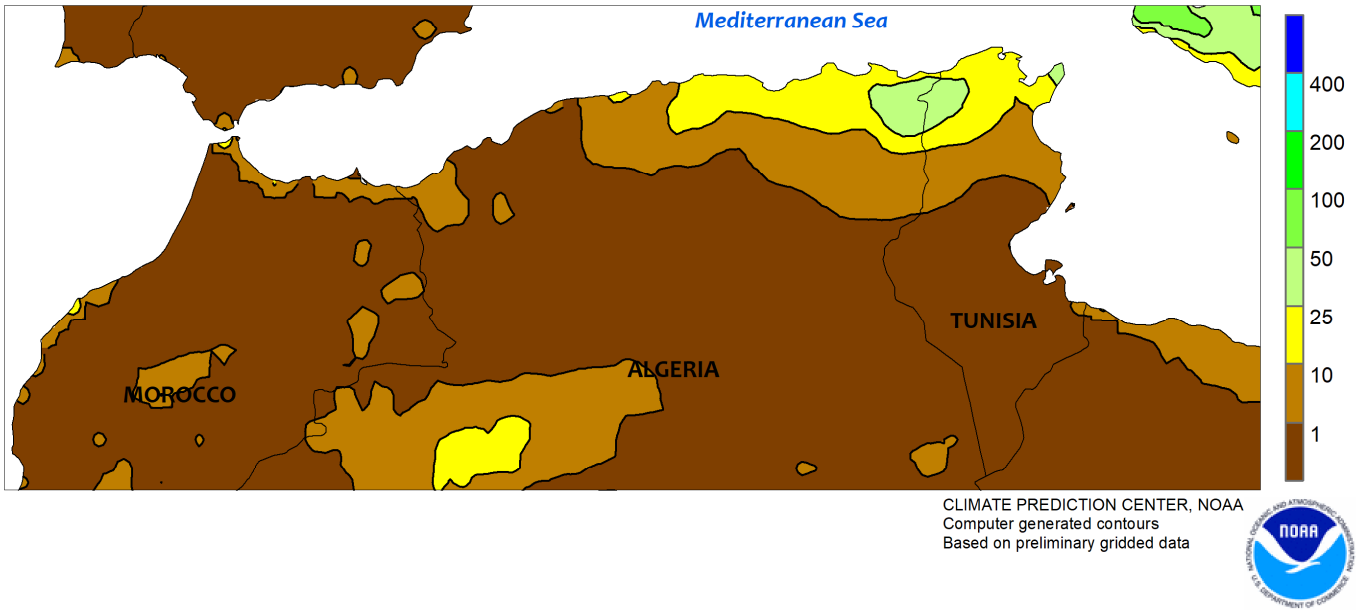
NORTHWESTERN AFRICA
Total Precipitation (mm)
March 21 - 27, 2021



NORTHWESTERN AFRICA

Sunny skies in Morocco contrasted with additional timely showers in eastern growing areas. After a very dry start to 2021 across the eastern half of the region, the wet weather which began in early March continued over the past week (8-35 mm, locally more). Winter wheat and barley were heading to flowering from central Algeria's Tell Region eastward into northern Tunisia, while crops were in the latter vegetative stages of development in cooler inland locales. Meanwhile, sunny skies and near-normal temperatures favored reproductive to filling wheat and barley in Morocco, though heat in southwestern portions of the country (31-34°C) may have stressed filling winter grains locally. The latest satellite-derived Vegetation Health Index (VHI) indicated Moroccan winter grain prospects remained much better than average and vastly improved over last year's drought-afflicted crops. Farther east, the VHI further improved in response to the recent uptick in shower activity, and vast stretches of farmland from Algeria into Tunisia are now better than last year and the long-term average.

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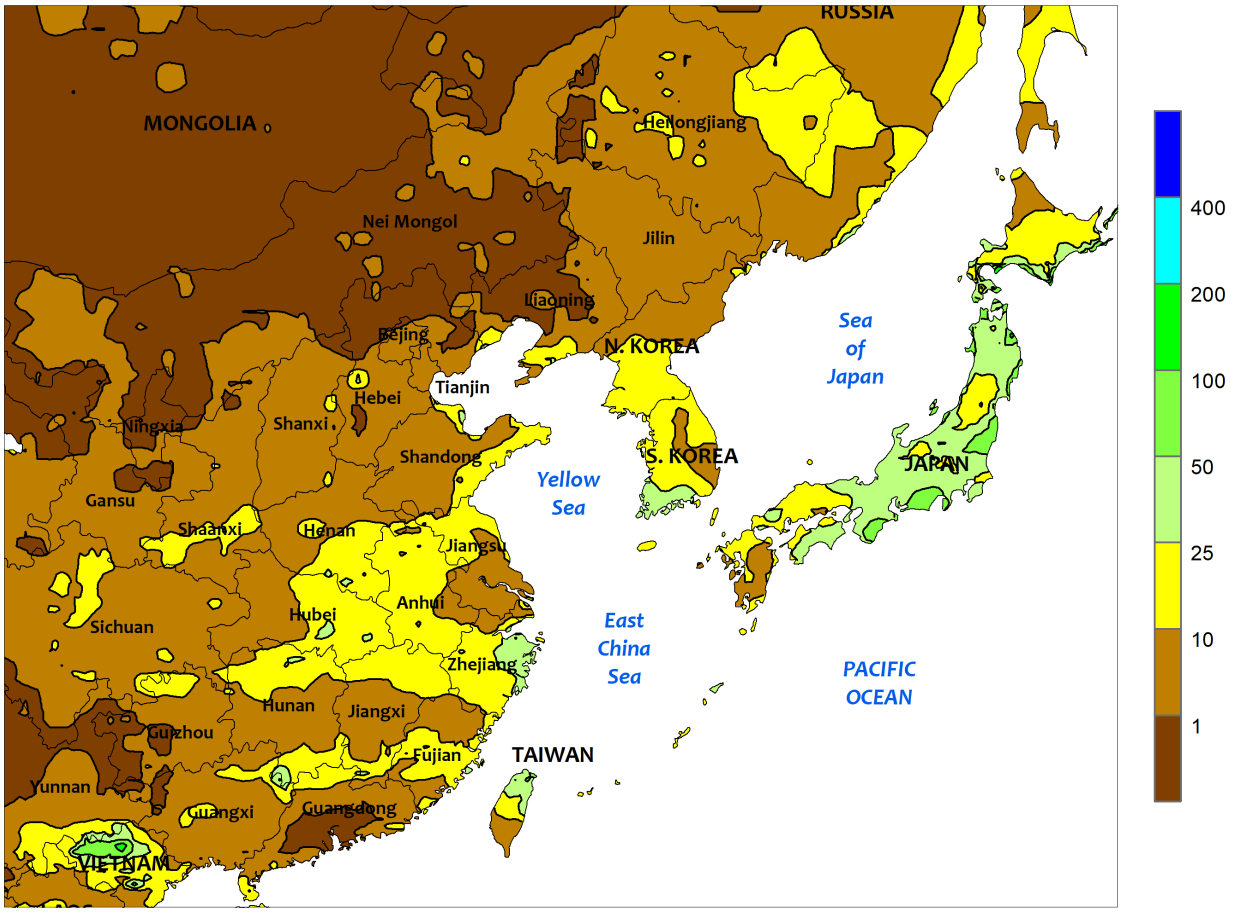
EASTERN ASIA
Total Precipitation (mm)
March 21 - 27, 2021



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

EASTERN ASIA

Warmer-than-normal spring weather across eastern China continued to advance development of wheat and rapeseed. Temperatures were as much as 5°C above normal in some locales and have been above normal for the better part of March. Additionally, light to moderate rainfall (1-25 mm) maintained favorable moisture conditions for crops. Farther south, unseasonable warmth (daytime temperatures in the upper 20s degrees C) along with adequate moisture promoted early-crop rice establishment.

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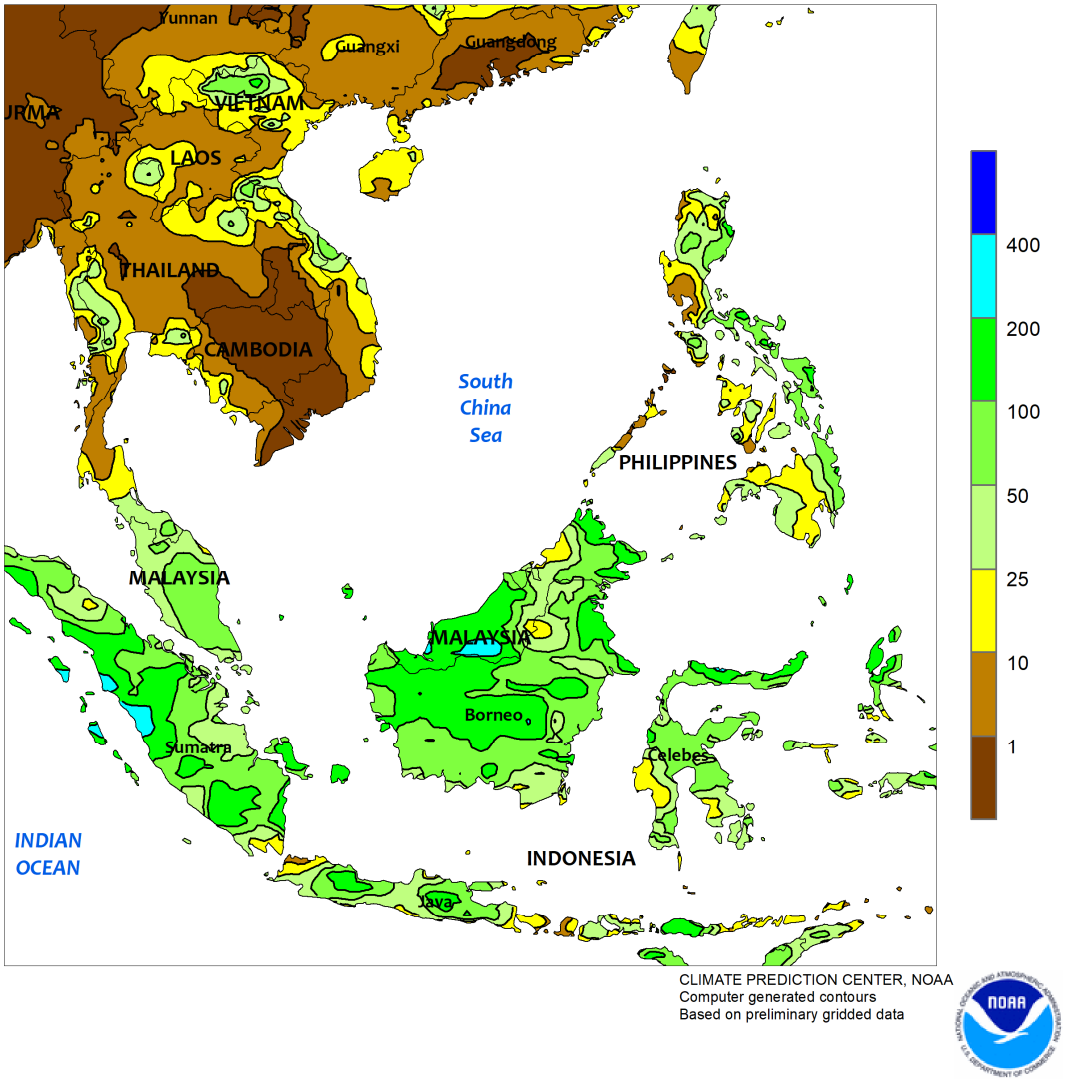
SOUTHEAST ASIA
Total Precipitation (mm)
March 21 - 27, 2021



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

SOUTHEAST ASIA

Showers remained focused in the southern-most portions of the region, with Malaysia and Indonesia recording 25 to 100 mm or more. The moisture benefited oil palm and second-crop rice in Indonesia while easing developing long-term (60-90 days) dryness for oil palm in western Malaysia. Similar rainfall totals were reported in the eastern Philippines, maintaining adequate to abundant moisture supplies for spring rice and corn. Meanwhile, seasonal heat continued to build in Thailand and environs, with the highest temperatures (over 40°C) occurring along the border between Thailand and Burma. Tropical showers typically make a slow progression from southern extents of the region northward in the coming weeks, with the wet season beginning in Thailand by early May.

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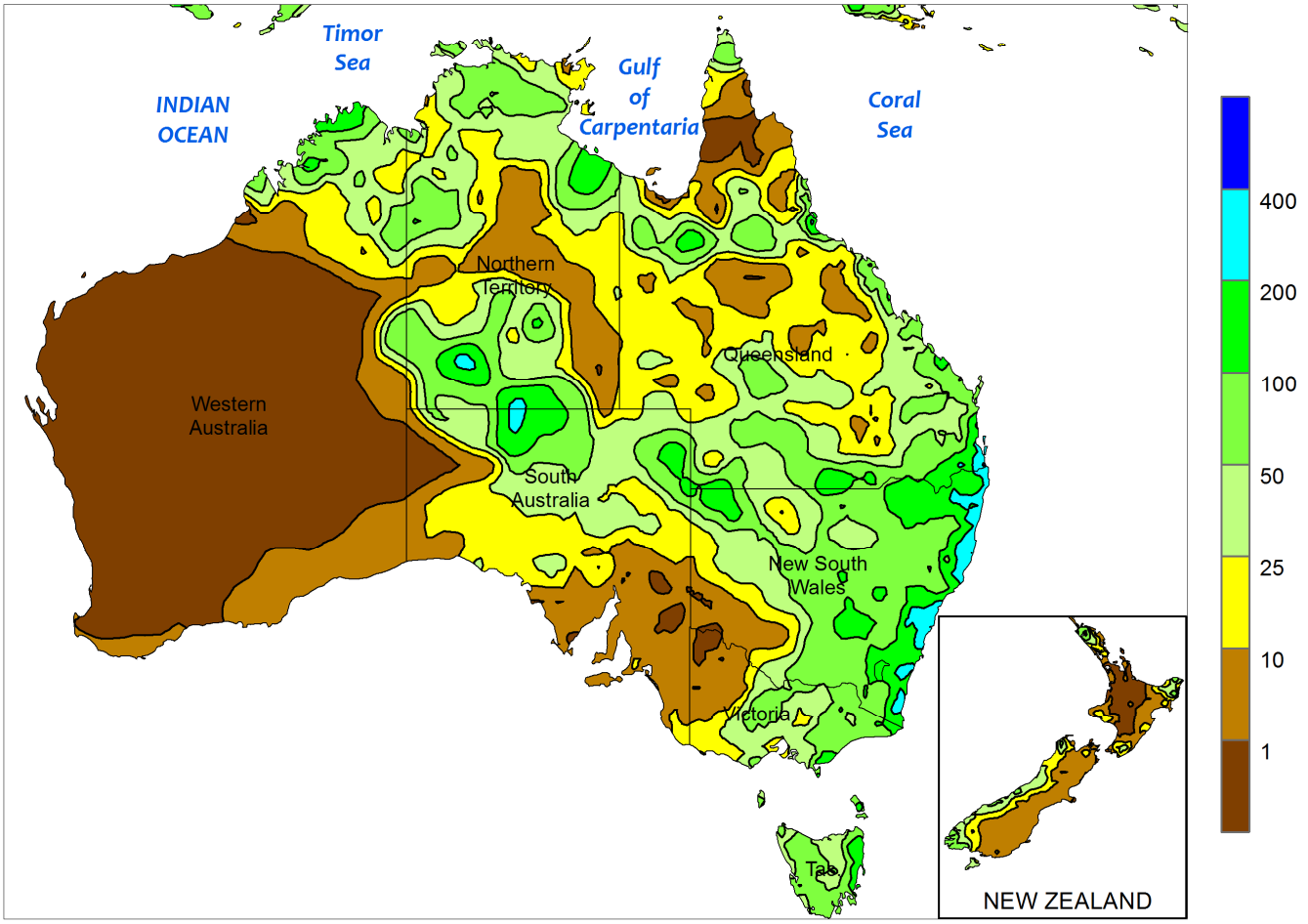
AUSTRALIA
Total Precipitation (mm)
March 21 - 27, 2021



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

AUSTRALIA

Early in the week, heavy rain (50-100 mm, locally near 150 mm) continued to fall across eastern Australia, causing local flooding and delaying summer crop harvesting in most locations. The excessively wet weather likely increased concerns about crop quality too, as cotton, sorghum, and other summer crops await harvest. During the second half of the week, much drier weather overspread eastern Australia. The sunny skies and relatively warm weather helped dry mature summer crops and saturated fields. The drier weather enabled floodwaters to recede and may have allowed fieldwork to resume in some areas as well, albeit slowly. Temperatures averaged near normal in southern Queensland and up to 2 degrees C below normal in New South Wales, with maximum temperatures generally in the middle to upper 20s (degrees C).

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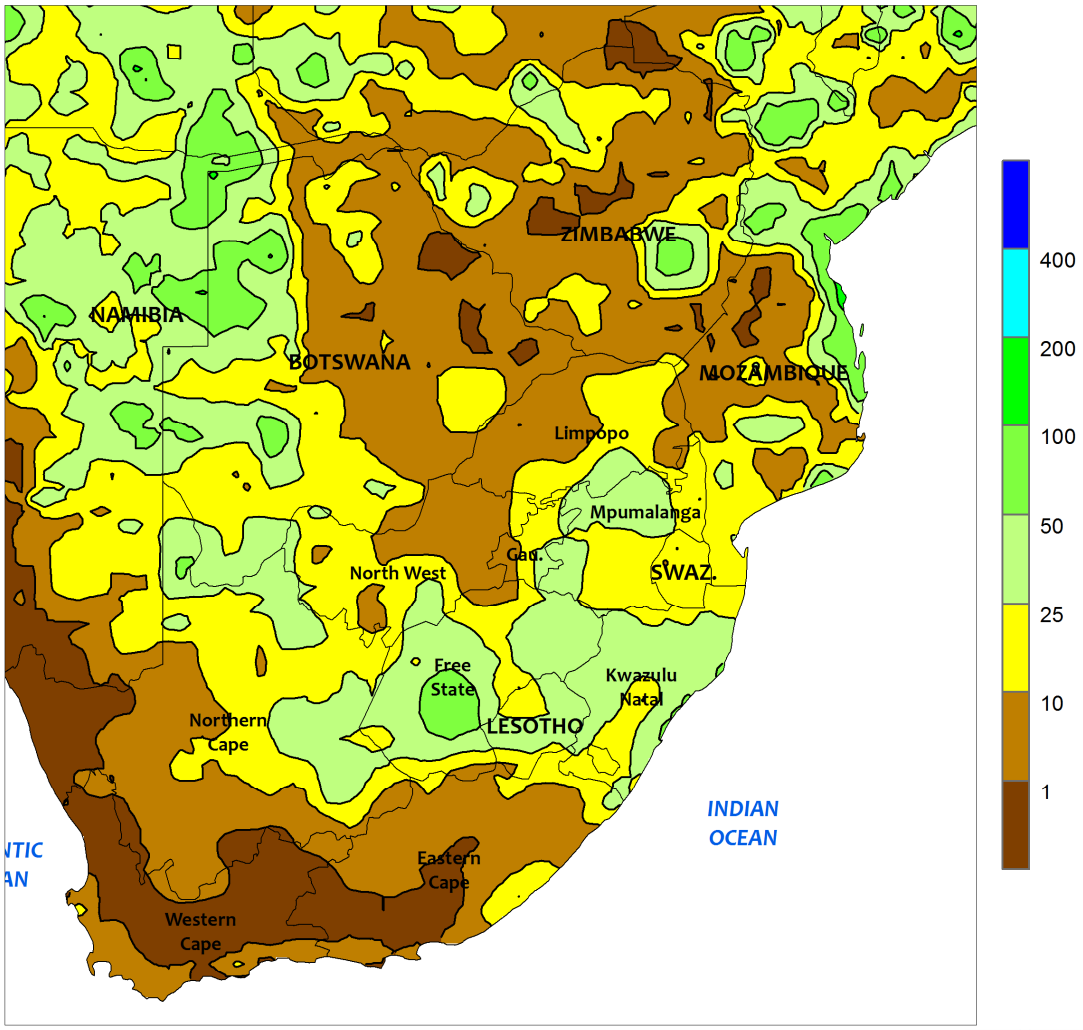
SOUTH AFRICA
Total Precipitation (mm)
March 21 - 27, 2021



SOUTH AFRICA

Showers overspread a broad area stretching from the corn belt to the southern coast, maintaining overall favorable conditions for late developing summer crops. Rainfall totaled 10 to 50 mm from North West and Limpopo southeastward through KwaZulu-Natal, although drier conditions prevailed closer to the northern border regions (eastern Botswana to southern Mozambique). Temperatures averaged near to below normal in the aforementioned areas, with highest daytime temperatures ranging from the middle 20s to lower 30s (degrees C). Nighttime lows dropped below 10°C in some of the higher-elevation farmlands but no freeze was recorded. The mild, showery weather extended westward into Northern Cape, increasing moisture reserves for corn, cotton, and other irrigated summer crops in the Orange River Valley. In contrast, warm (daytime highs reaching the middle and upper 30s), drier conditions favored maturation and harvesting of tree and vine crops in Western Cape.

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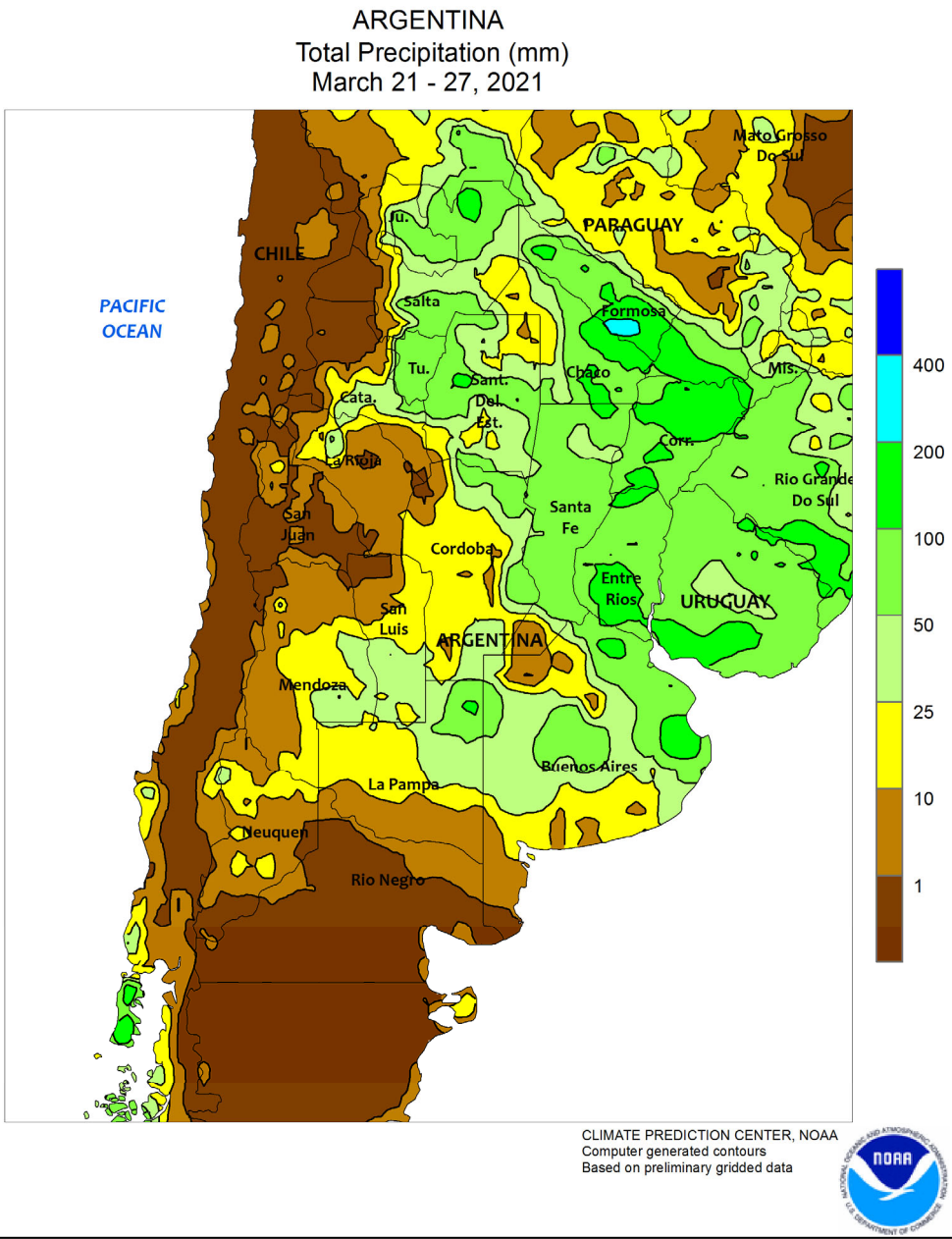

ARGENTINA

For a second week, widespread, locally heavy showers helped to replenish soil moisture levels for late summer crop development following an extended period of dryness. Nearly all of Argentina's major farming areas received at least 25 mm as much of the region stretching from La Pampa and Buenos Aires northward reported at least 50 mm. Although arriving too late to significantly improve yield prospects of early planted summer crops, the moisture was timely for later planted crops, particularly second-crop soybeans. Weekly temperatures averaged near to slightly below normal, although no freezes were recorded. Meanwhile, highs reaching the upper 20s and lower to middle 30s (degrees C) advanced development of grains, oilseeds, and cotton without stressing those crops still vulnerable to heat. According to the government of Argentina, sunflower harvesting was at 74 percent complete (versus 72 percent last year) as of March 25; corn harvesting reached 10 percent complete, lagging last year by 6 points.

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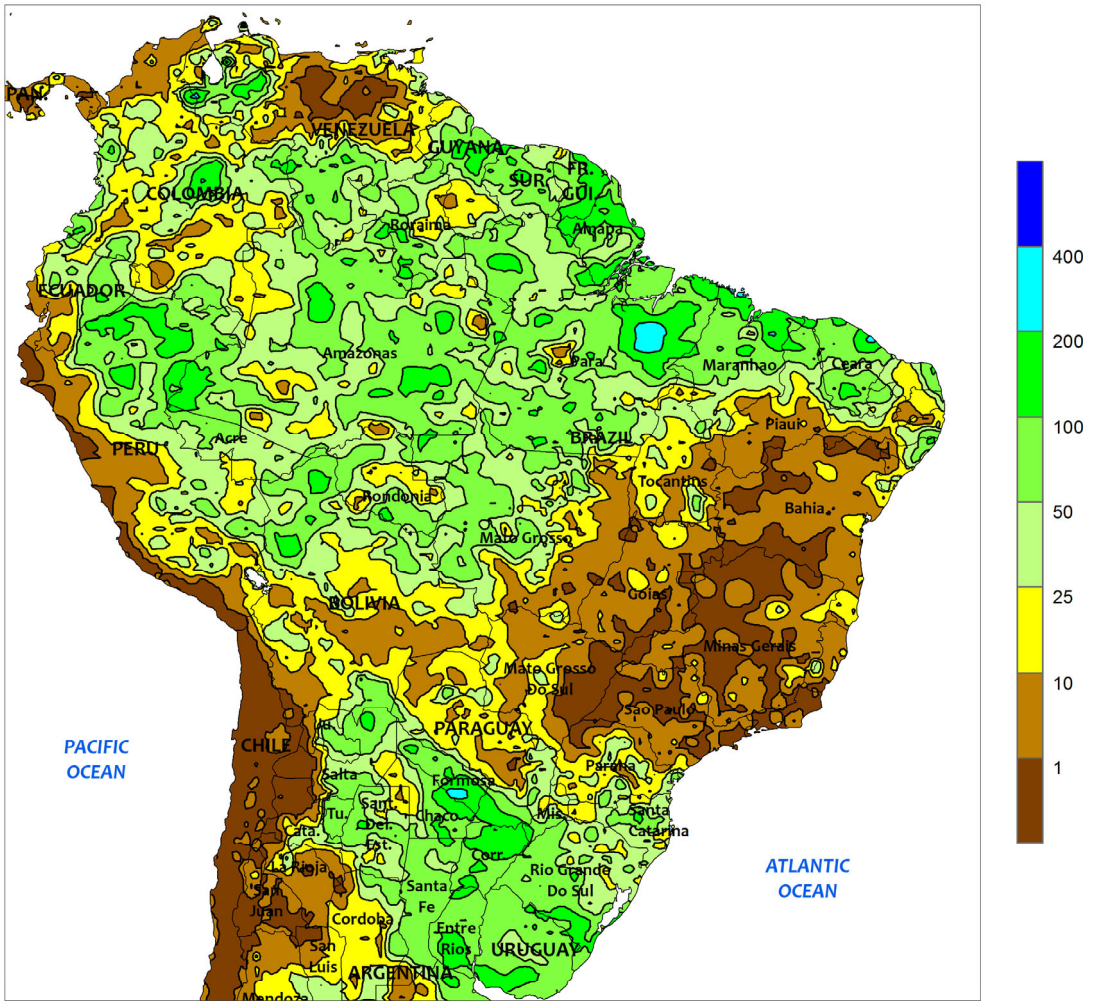
BRAZIL
Total Precipitation (mm)
March 21 - 27, 2021



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

BRAZIL

Beneficial rain fell in parts of central and southern Brazil, but dryness dominated other key farming areas, reducing the water available for summer crops still in need of moisture. In Mato Grosso, moderate to heavy rain (25-50 mm) fell in central and northwestern farming areas but near complete dryness was recorded in southeastern agricultural districts. Summer warmth (daytime highs reaching the upper 30s degrees C) accompanied the Mato Grosso dryness, further reducing moisture for emerging second-crop corn and vegetative cotton; according to government reports, corn planting and soybean harvesting were nearing completion at 99 and 97 percent, respectively, as of March 26. Similarly, scattered showers (5-25 mm) from Parana southward through Rio Grande do Sul slowed fieldwork but boosted moisture for late-planted soybeans. According to the government of Rio Grande do Sul, soybeans were still 45 percent flowering to filling on March 25, with 10 percent harvested; corn, traditionally planted earlier than soybeans, was 64 percent harvested. In Parana, first plantings of soybeans and corn were 75 and 74 percent harvested, respectively, as of March 22; second-crop corn was 88 percent planted. Similar to southeastern Mato Grosso, however, unseasonable dryness dominated most remaining farming areas from Mato Grosso do Sul and Sao Paulo to southern Piaui, where additional moisture was needed for crops including corn, cotton, and sugarcane. Without additional rainfall for the remainder of the rainy season – which typically ends in late April or early May – yield prospects could be negatively impacted in these drier locations.

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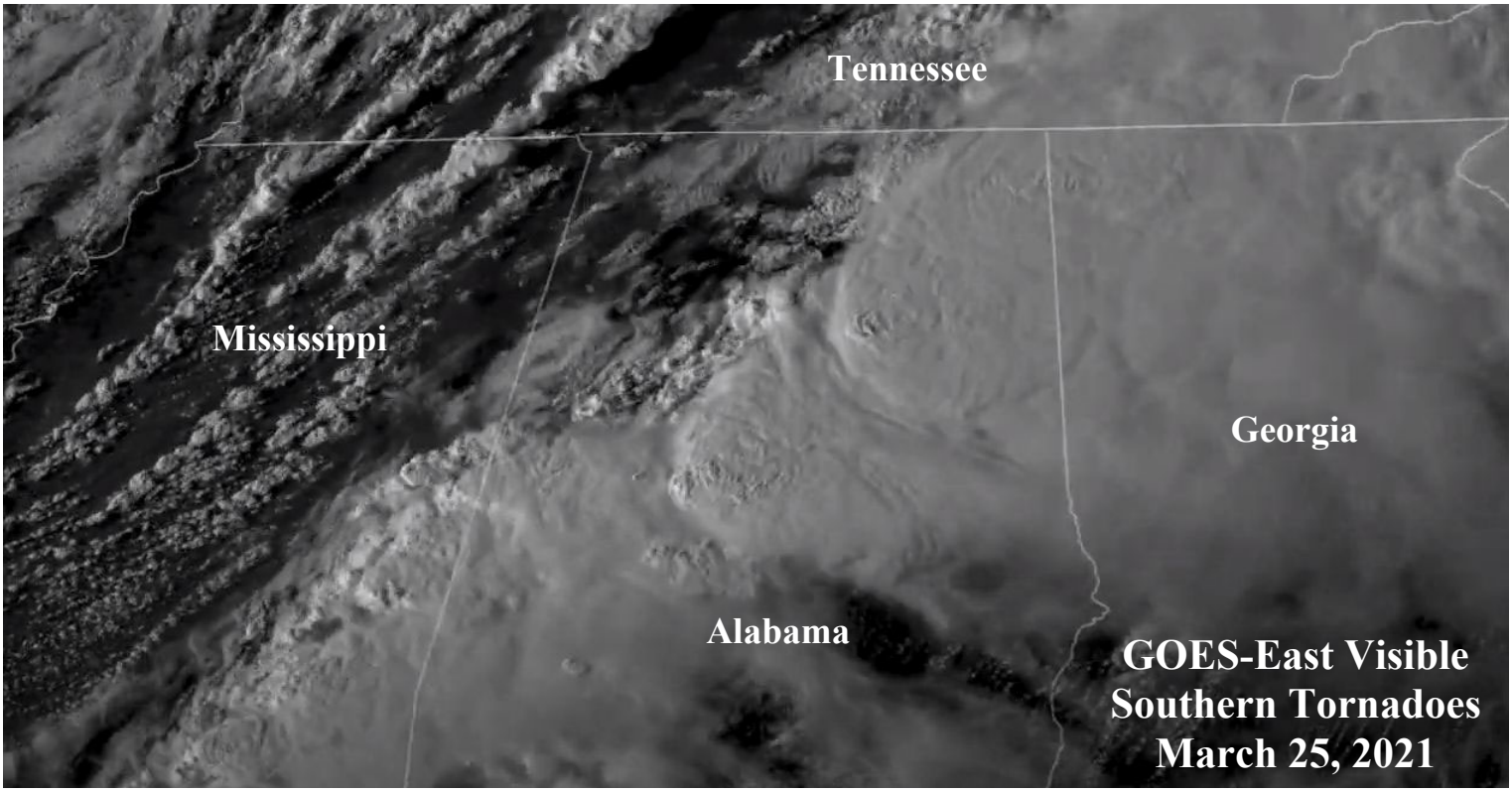

Dangerous thunderstorms, as many as three dozen bearing tornadoes, swept across the South during the afternoon, evening, and night of March 25-26. Five fatalities were reported in Calhoun County, AL, with the town of Ohatchee being struck particularly hard shortly before 3 pm CDT on the 25th. An additional tornado-related fatality occurred several hours later (around midnight EDT) in Georgia, where an EF4 twister—with winds estimated as high as 170 mph—ripped through Newnan and other communities in Heard, Coweta, and Fayette Counties.

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