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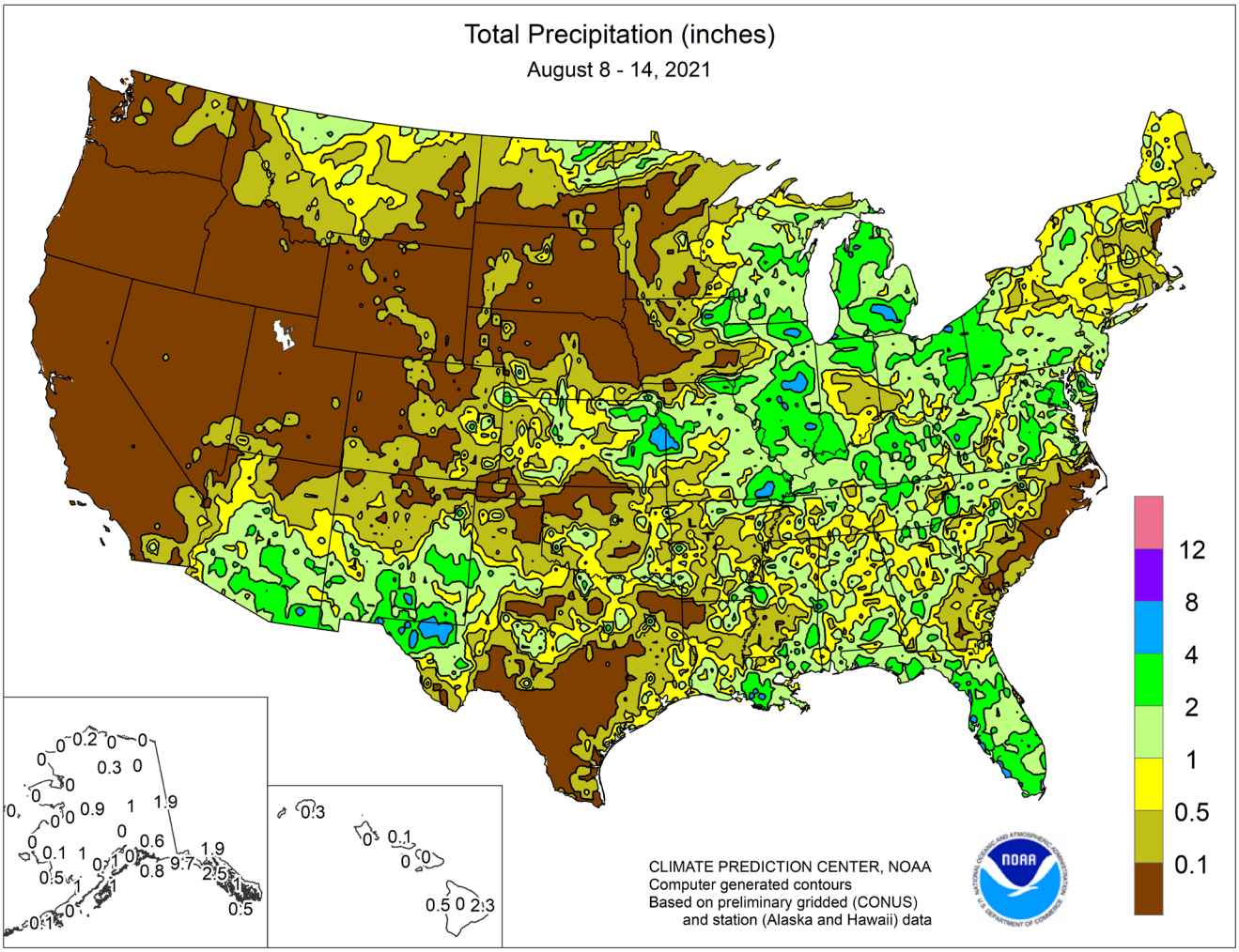
Weekly Weather and Crop Bulletin

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

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



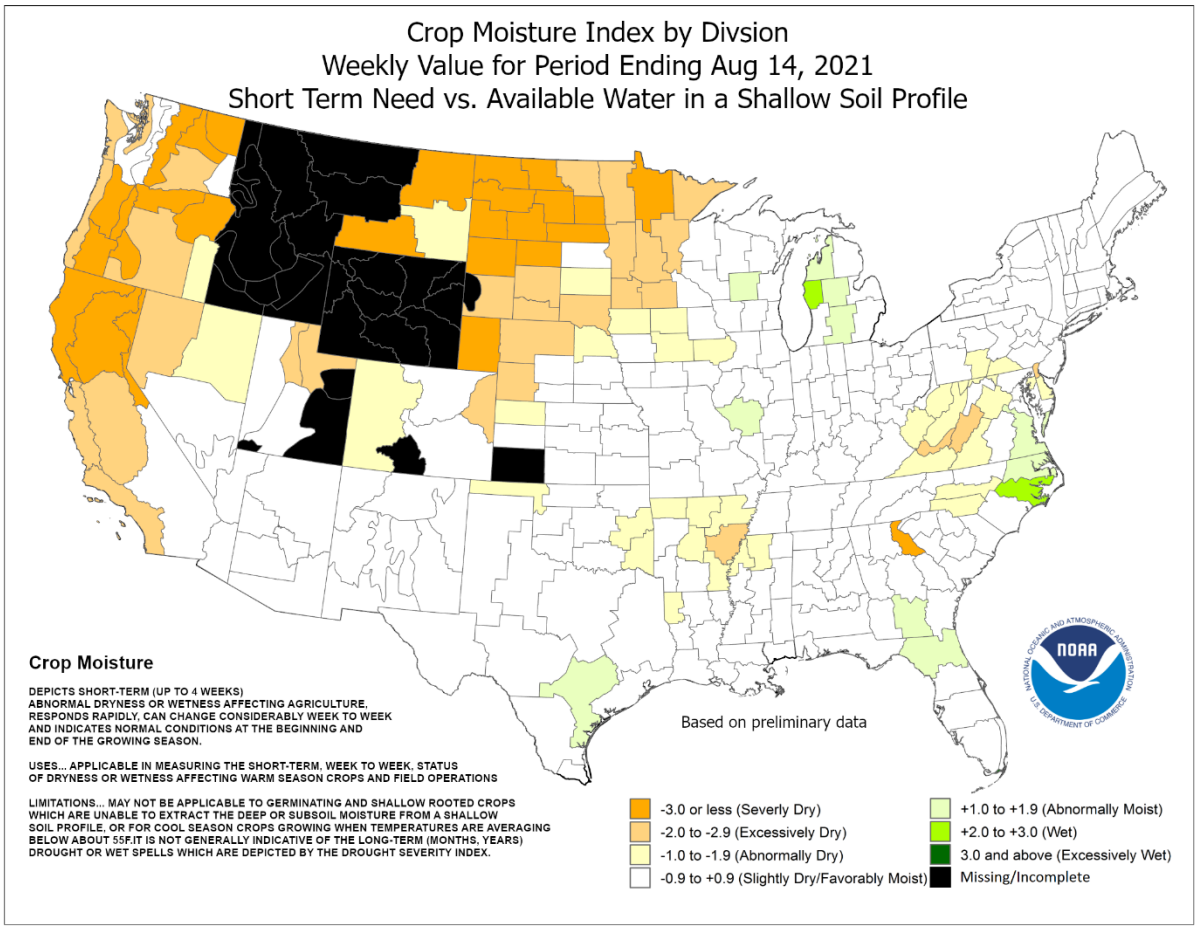
HIGHLIGHTS
August 8 – 14, 2021

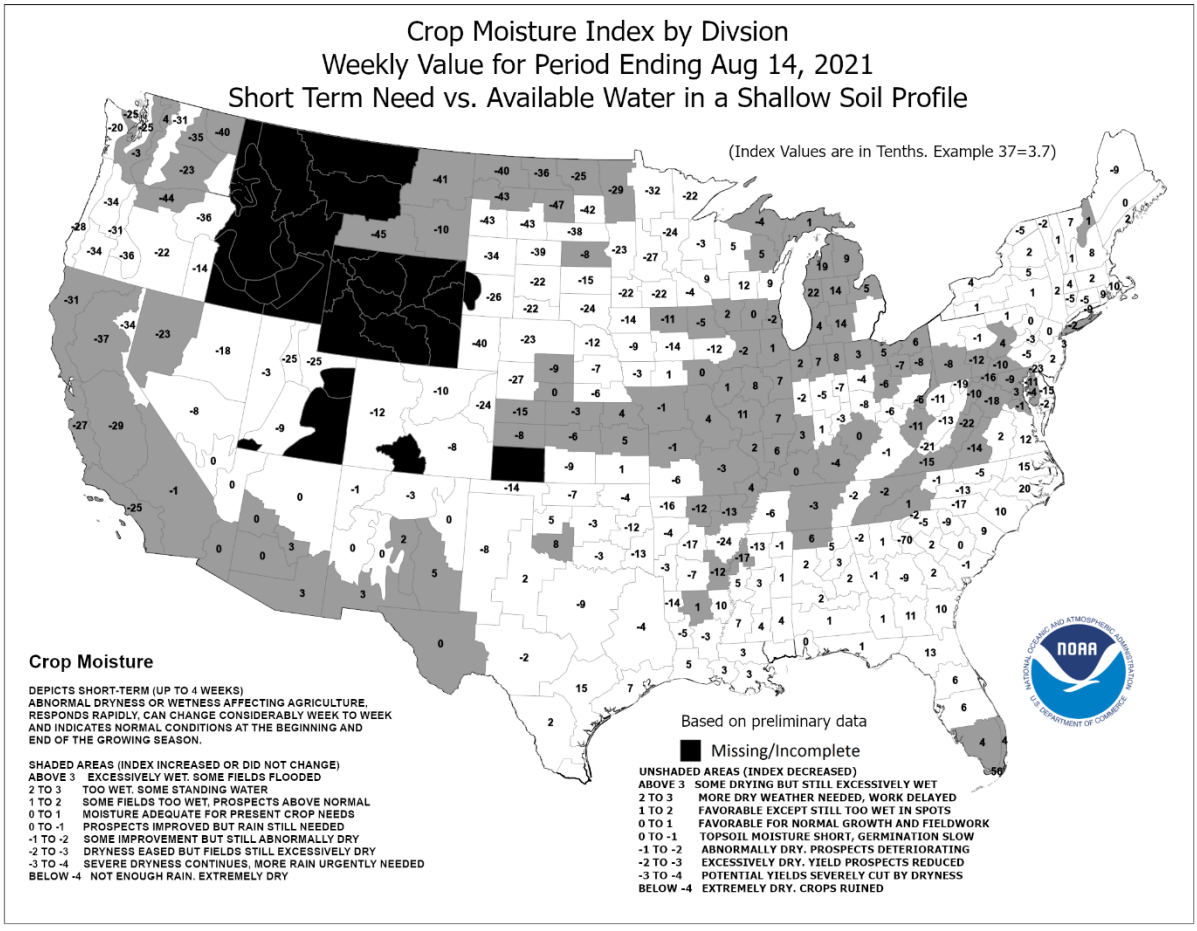
Highlights provided by USDA/WAOB

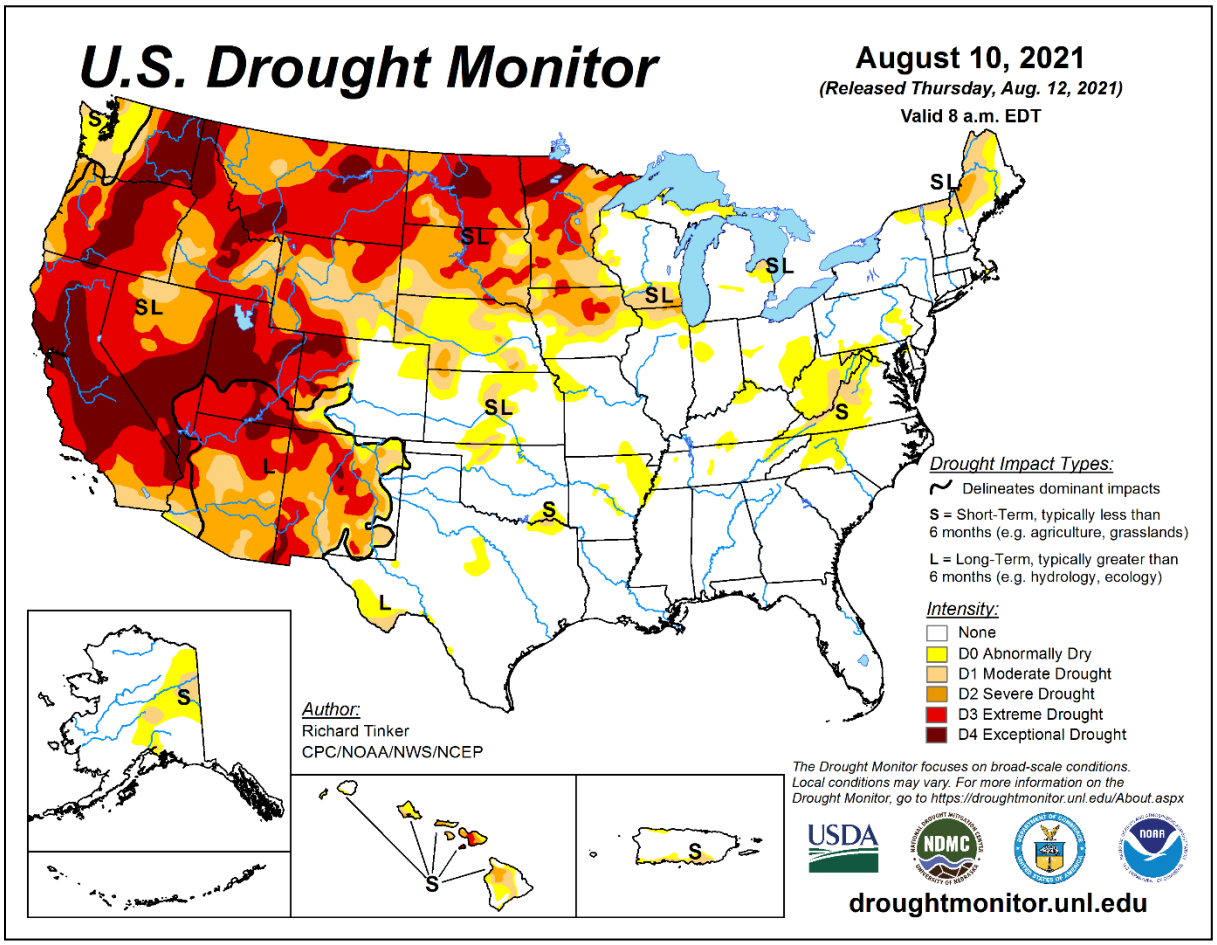
Scorching heat returned across the **Far West**, combining with ongoing drought to hamper wildfire containment efforts and maintain heavy irrigation demands. Heavy smoke blanketed **northern California** and much of the **Northwest**, resulting in substantial air-quality degradation. Meanwhile, monsoon-related showers temporarily withdrew but soon returned across the **Southwest**. Farther east, spotty showers and thunderstorms across the **central and southern Plains** contrasted with mostly dry weather farther north. Across the **northern Plains** and **Northwest**,

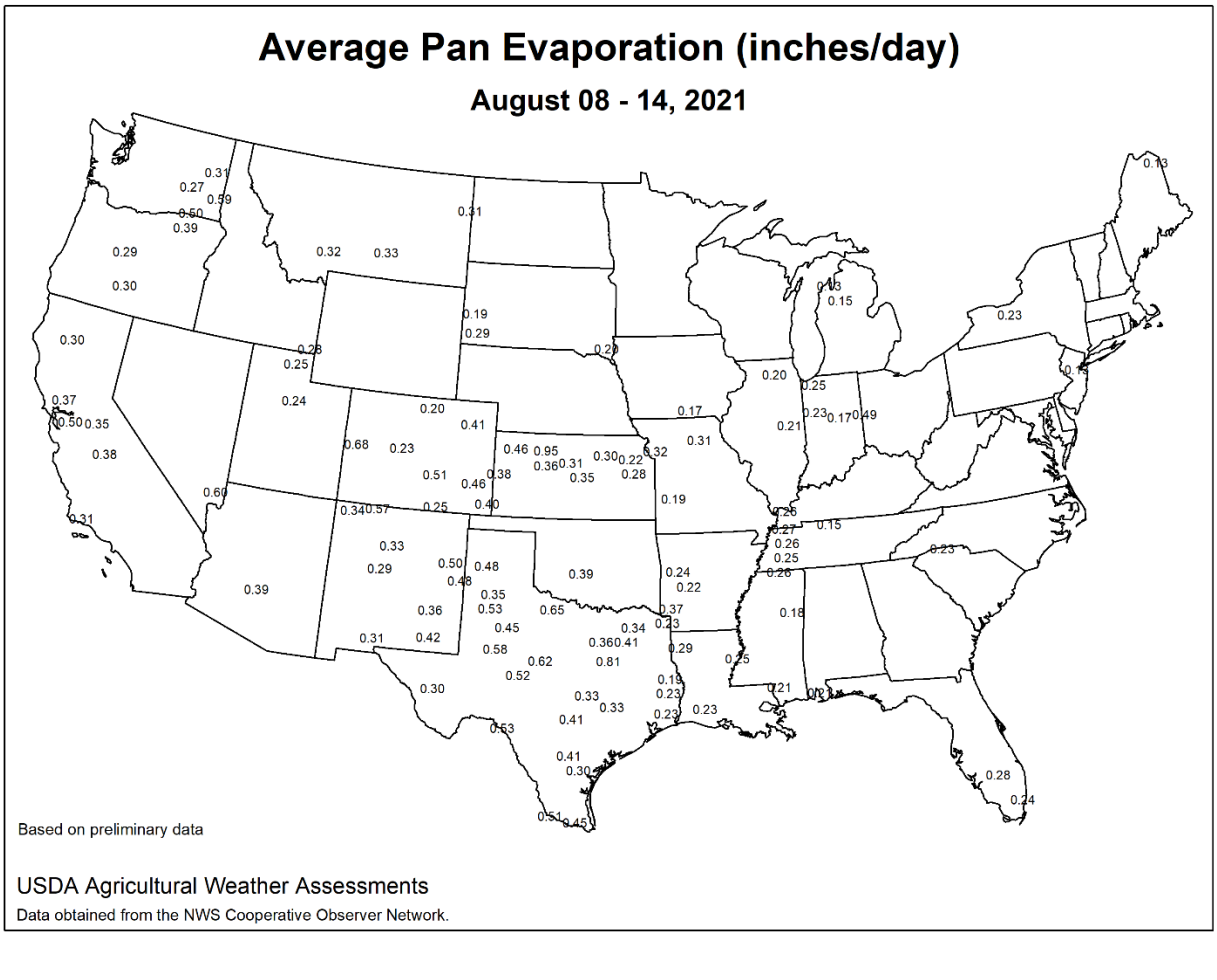
(Continued on page 5)

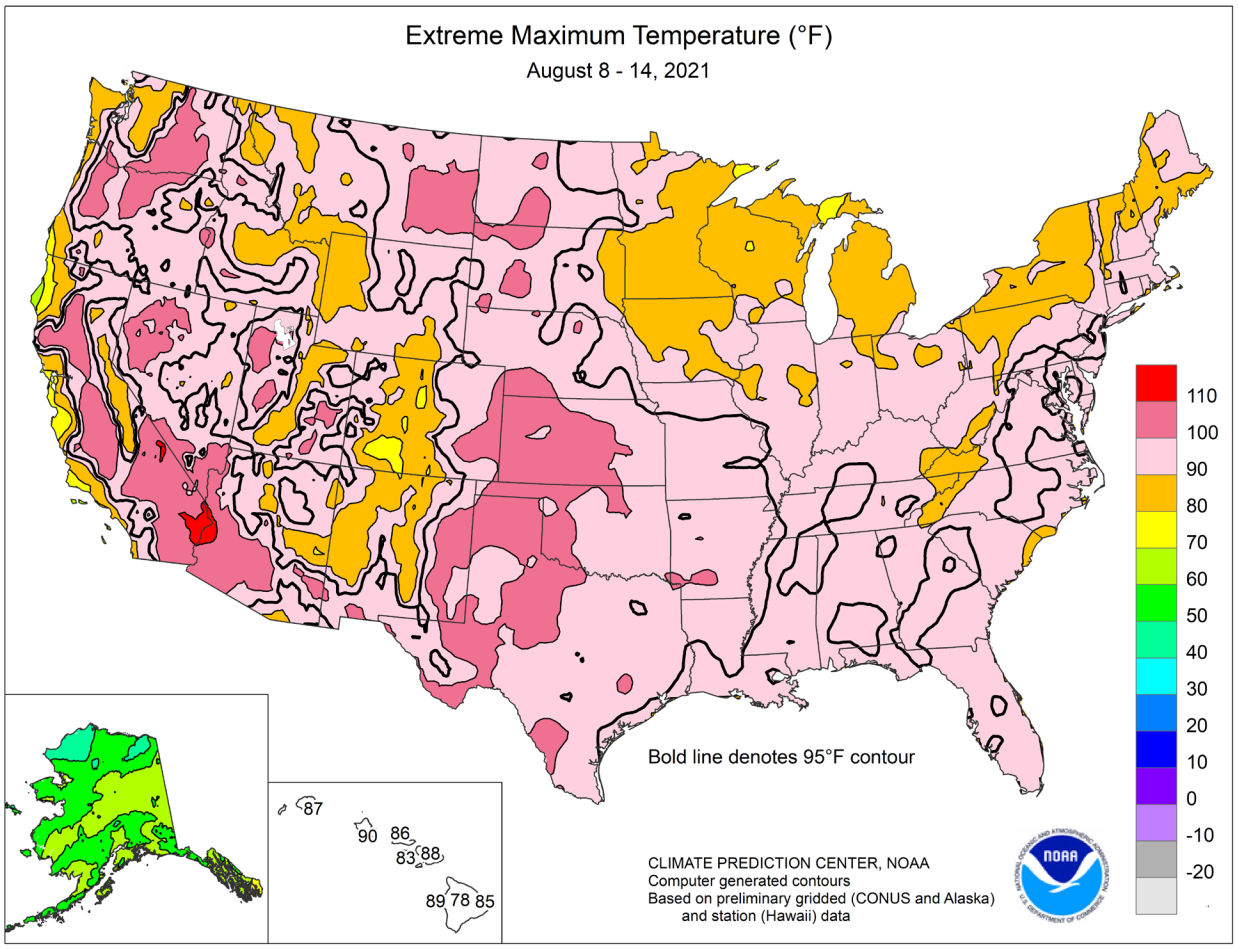
Contents

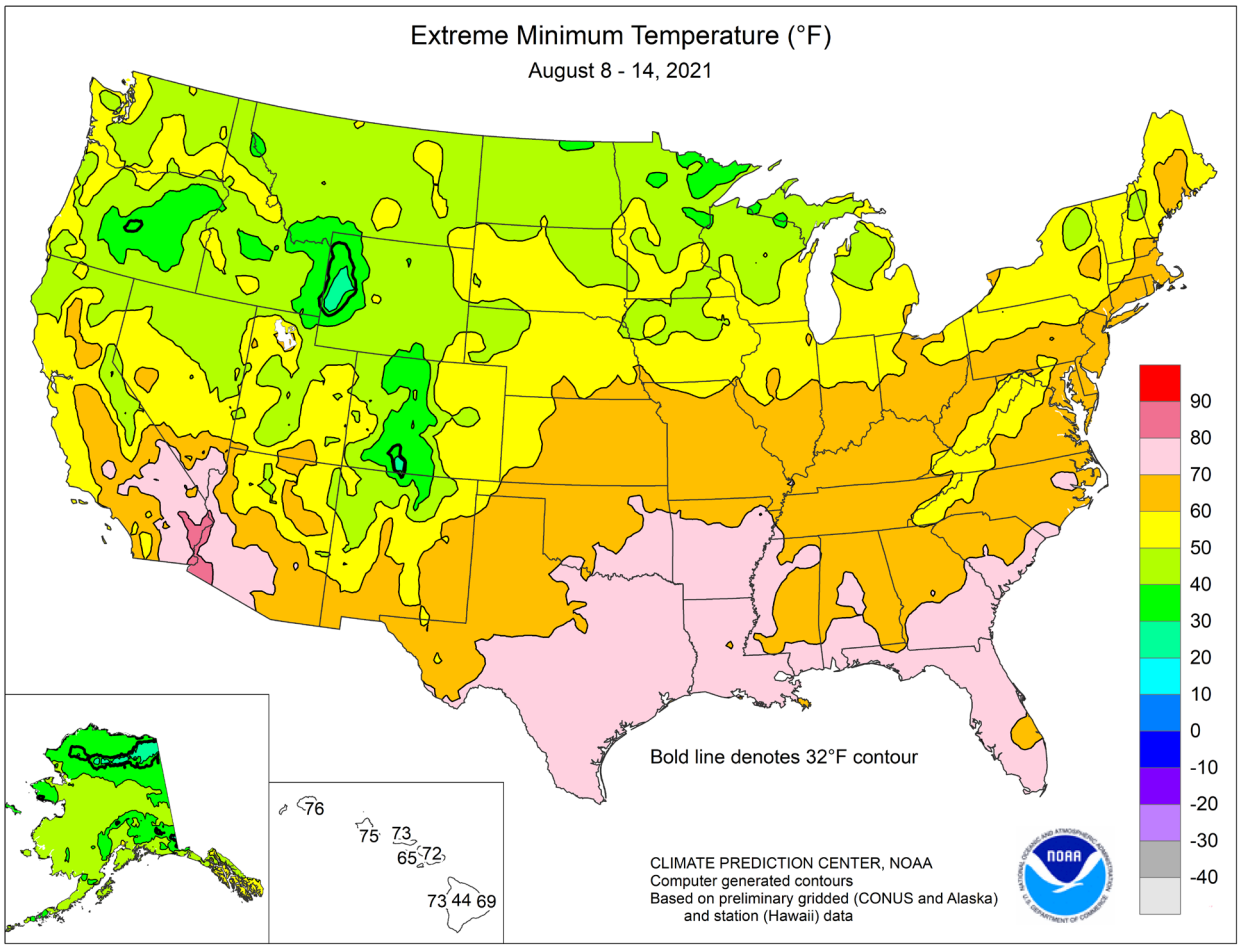

Crop Moisture Index by Divsion
Weekly Value for Period Ending Aug 14, 2021
Short Term Need vs. Available Water in a Shallow Soil Profile
Crop Moisture
DEPICTS SHORT-TERM (UP TO 4 WEEKS)
ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE.
RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK
AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND
END OF THE GROWING SEASON.
USES... APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS
OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS
LIMITATIONS... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS
WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A SHALLOW
SOIL PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING
BELOW ABOUT 55F.IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS)
DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.
Based on preliminary data
-3.0 or less (Severly Dry)
-2.0 to -2.9 (Excessively Dry)
-1.0 to -1.9 (Abnormally Dry)
-0.9 to +0.9 (Slightly Dry/Favorably Moist)
+1.0 to +1.9 (Abnormally Moist)
+2.0 to +3.0 (Wet)
3.0 and above (Excessively Wet)
Missing/Incomplete


Crop Moisture Index by Divsion
Weekly Value for Period Ending Aug 14, 2021
Short Term Need vs. Available Water in a Shallow Soil Profile
(Index Values are in Tenths. Example 37=3.7)
Crop Moisture
DEPICTS SHORT-TERM (UP TO 4 WEEKS)
ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE.
RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK
AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND
END OF THE GROWING SEASON.
SHADED AREAS (INDEX INCREASED OR DID NOT CHANGE)
ABOVE 3 EXCESSIVELY WET. SOME FIELDS FLOODED
2 TO 3 TOO WET. SOME STANDING WATER
1 TO 2 SOME FIELDS TOO WET, PROSPECTS ABOVE NORMAL
0 TO 1 MOISTURE ADEQUATE FOR PRESENT CROP NEEDS
0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2 SOME IMPROVEMENT BUT STILL ABNORMALLY DRY
-2 TO -3 DRYNESS EASED BUT FIELDS STILL EXCESSIVELY DRY
-3 TO -4 SEVERE DRYNESS CONTINUES, MORE RAIN URGENTLY NEEDED
BELOW -4 NOT ENOUGH RAIN. EXTREMELY DRY
Based on preliminary data
Missing/Incomplete
UNSHADED AREAS (INDEX DECREASED)
ABOVE 3 SOME DRYING BUT STILL EXCESSIVELY WET
2 TO 3 MORE DRY WEATHER NEEDED, WORK DELAYED
1 TO 2 FAVORABLE EXCEPT STILL TOO WET IN SPOTS
0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
0 TO -1 TOPSOIL MOISTURE SHORT, GERMINATION SLOW
-1 TO -2 ABNORMALLY DRY. PROSPECTS DETERIORATING
-2 TO -3 EXCESSIVELY DRY. YIELD PROSPECTS REDUCED
-3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DRYNESS
BELOW -4 EXTREMELY DRY. CROPS RUINED


U.S. Drought Monitor
August 10, 2021
(Released Thursday, Aug. 12, 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:
Richard Tinker
CPC/NOAA/NWS/NCEP
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

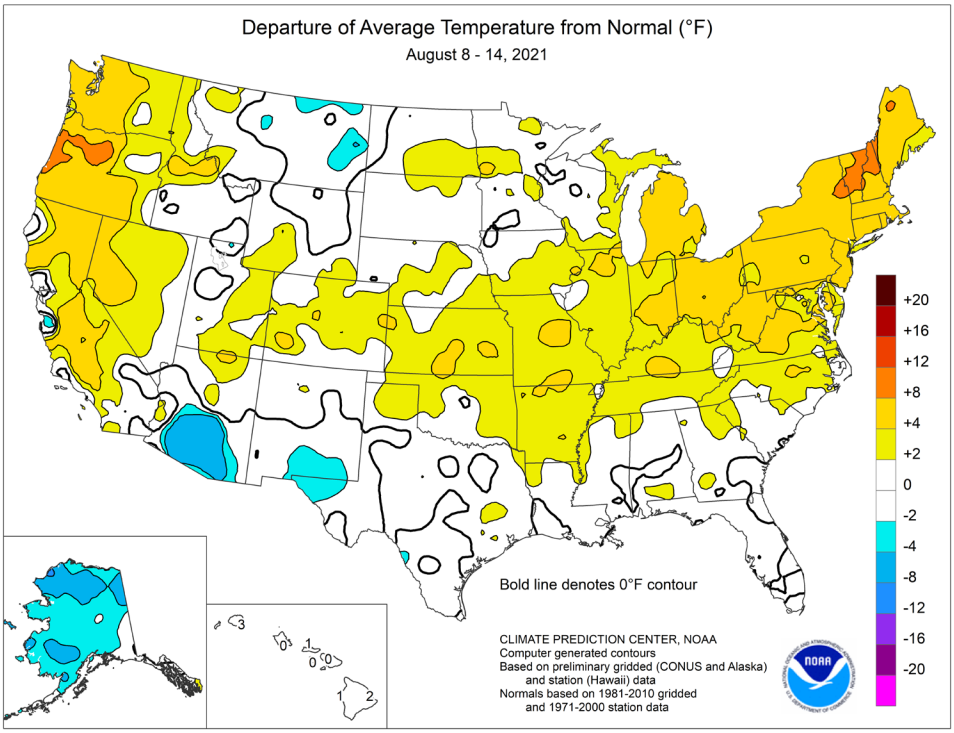

Average Pan Evaporation (inches/day)
August 08 - 14, 2021
Based on preliminary data
USDA Agricultural Weather Assessments
Data obtained from the NWS Cooperative Observer Network.


Extreme Maximum Temperature (°F)
August 8 - 14, 2021
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
87
90 86
83 88
89 78 85
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data


Extreme Minimum Temperature (°F)
August 8 - 14, 2021
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
76
75 73
65 72
73 44 69
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data

(Continued from front cover)

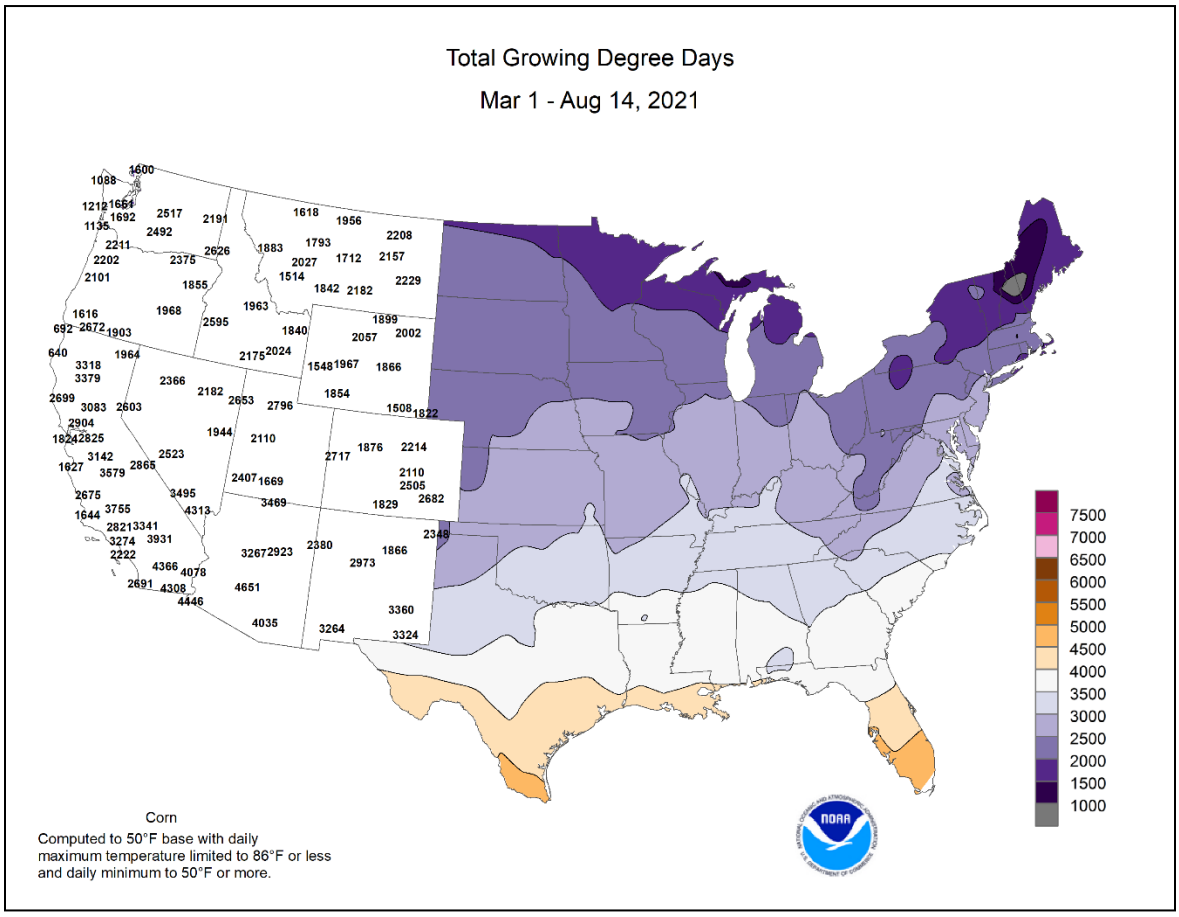
drought-damaged rangeland and pastures will be slow to recover, even when precipitation returns. Drought impacts on pastures and immature summer crops extended across the **northern Plains into the upper Midwest**, including much of **Iowa** and **Minnesota**. **East of the Mississippi River**, however, corn and soybeans benefited from mostly moderate temperatures and scattered to widespread showers and thunderstorms, although a few storms were accompanied by large hail and damaging winds. Elsewhere, hot, humid weather across the **South**—accompanied by scattered showers—promoted a rapid pace of crop growth, following earlier developmental delays related to cool, cloudy, rainy weather. In fact, near- or above-normal temperatures prevailed nationwide, except in the **Desert Southwest**. Weekly temperatures broadly averaged 5 to 10°F above normal in **northern California** and **Pacific Northwest**, aside from immediate coastal areas. Similar departures (5 to 10°F above normal were noted from the **lower Great Lakes region into the Northeast**.

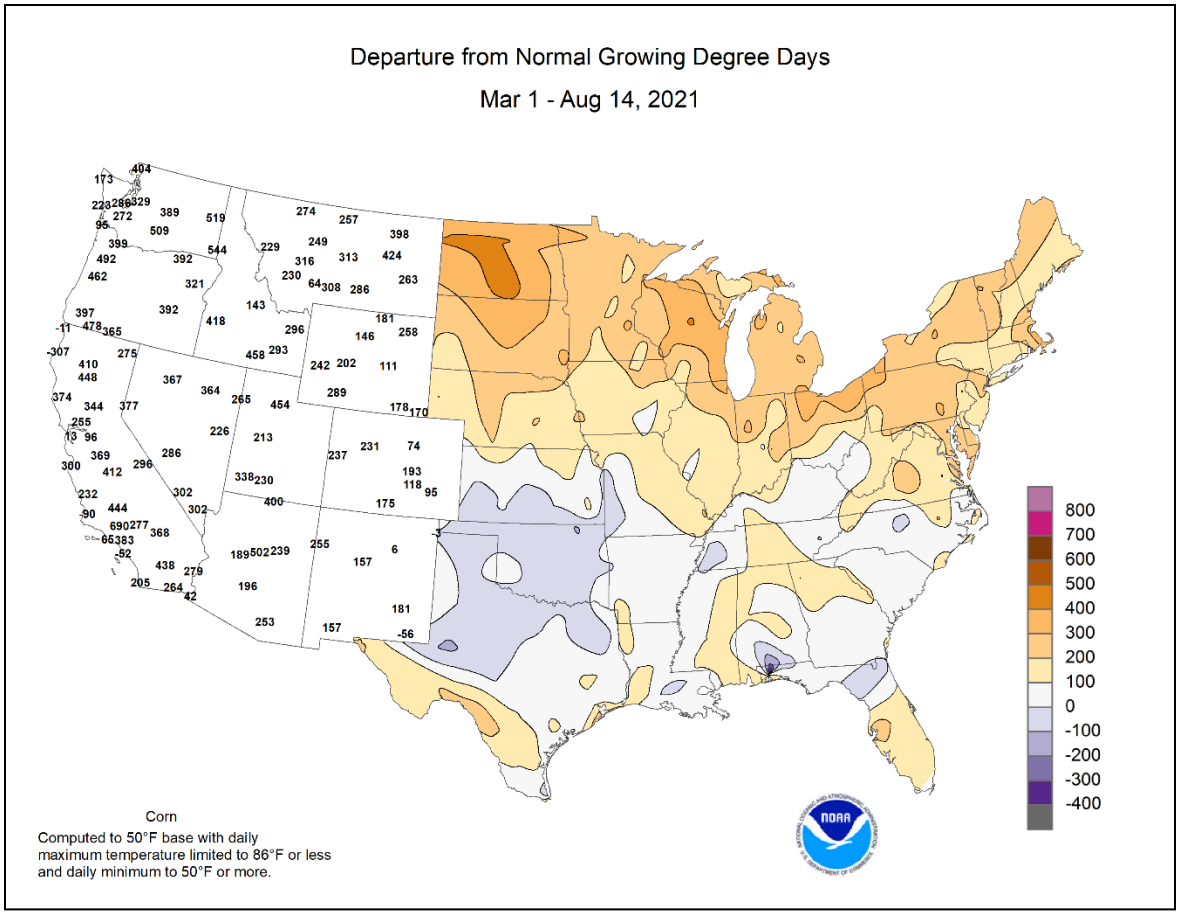


Early-week downpours soaked a few areas in the **Midwest**, with more than 3 inches falling on August 8 in **Green Bay, WI** (3.42 inches), and **Sisseton, SD** (3.26 inches). **La Crosse, WI**, received 7.36 inches on August 7-8, marking its wettest-ever 2-day period (previously, 7.27 inches on October 27-28, 1900). By August 9 in **Illinois**, daily-record totals included 2.52 inches in **Rockford** and 2.18 inches in **Springfield**. On August 10-11, strong thunderstorms in the **Great Lakes region** produced wind gusts to 60 mph in **Rockford, IL**, and 62 mph in **Michigan** locations such as **Detroit** and **Grand Rapids**. Meanwhile, a few showers dotted the **Northwest**, where **Ephrata, WA** (0.71 inch on August 8), noted its wettest day since May 18, 2020, when 1.11 inches fell. The same cold front responsible for the **Northwestern** showers also produced high winds; in **Wyoming**, gusts on August 8 were clocked to 69 mph in **Buffalo** and 58 mph in **Greybull**. Farther south, the latest surge of monsoon-related moisture contributed to a daily-record rainfall total of 1.38 inches (on August 10) in **Flagstaff, AZ**. Cloudiness and showers briefly overspread **southern California**, where record-setting totals for August 11 reached 0.23 inch in **San Diego** and 0.16 inch in **Thermal**. Late in the week, locally heavy showers peppered the **East**, where daily-record amounts for August 13 included 2.39 inches in **Jackson, TN**, and 1.57 inches in **Vero Beach, FL**. **Burlington, VT**, collected a daily-record amount (1.26 inches) for August 14.

Heat across the **central and southern Plains** slowly subsided. On August 9, however, daily-record highs in **Texas** soared to 105°F in **Borger** and 104°F in **Amarillo** and **Dalhart**. On the same date, record-setting highs in **Colorado** reached 98°F in **Denver** and 96°F in **Colorado Springs**. Mid- to late-week heat shifted into the **East** and **Northwest**. From August 11-13, **Virginia's Dulles Airport** tallied a trio of daily-record highs (99, 100, and 99°F). **Raleigh-Durham, NC** (100°F on August 13), also noted a triple-digit, daily-record high. Meanwhile in **Washington**, **Bellingham** (100°F on August 12) reported a triple-digit high for the first time on record. **Bellingham** had attained 99°F on June 28, 2021; prior to that, the station record had been 96°F on July 29, 2009. From August 12-15, four consecutive daily-record highs (101, 100, 98, and 101°F) were set in **Burns, OR**. Elsewhere in **Oregon**, **Portland** recorded 2 days of triple-digit heat (102 and 103°F, respectively, on August 11-12), to go along with 3 such days in June. **Portland's** 5 days of triple-digit heat this year tied the annual record previously set in 1941 and 1977. **Salem, OR**, and **Spokane, WA**, set records for number of 90-degree readings in a year—37 and 42 days, respectively, through August 16. Previous records, both set in 1958, had been 34 and 39 days. Heat extended into the **Great Basin**, where **Winnemucca, NV**, registered a trio of daily-record highs (103°F each day) from August 13-15. Late in the week, heat returned across the **northern High Plains**, resulting in a daily-record high (94°F on August 14) in **Cut Bank, MT**. Elsewhere in **Montana**, **Helena** noted 10 days of 90-degree heat during the first 16 days of August, boosting the year-to-date sum to 49 days. Previously, **Helena's** annual record of 44 days with 90-degree readings was set in 2001, with 47 such days.

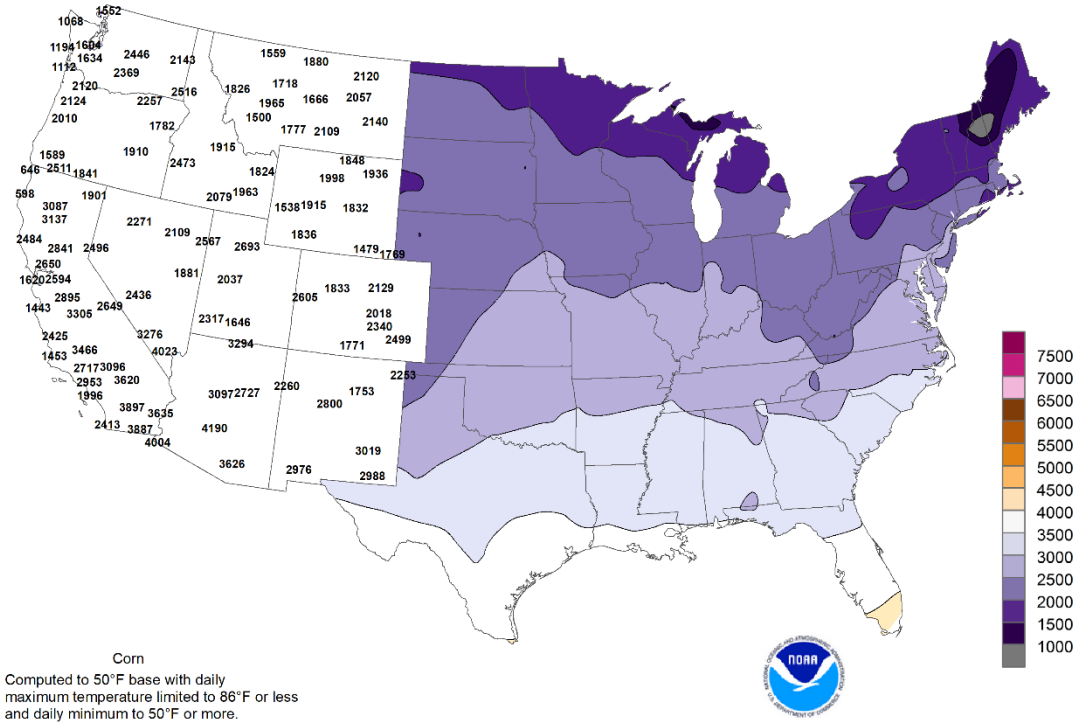
Cooler-than-normal conditions engulfed **northern and western Alaska**, while near-normal temperatures prevailed farther south and east. Daily-record lows were set in several **Alaskan** locations, including **Nome** (31°F on August 12) and **Cold Bay** (39°F on August 14). **Nome** last reported an August freeze on August 20, 2017. Meanwhile, precipitation soaked several parts of the state. **Anchorage** received measurable rain each day from August 8-12, totaling 2.01 inches, aided by a daily-record sum (1.25 inches) on the 8th. That marked the wettest day in **Anchorage** since September 29, 2015, when 1.56 inches fell. Farther south, **Hawaiian** showers were mostly limited to windward locations. During the first half of the month (August 1-15), rainfall at the state's major airport observation sites ranged from 0.02 inch (6 percent of normal) in **Honolulu, Oahu**, to 5.11 inches (93 percent) in **Hilo**, on the **Big Island**.


Total Growing Degree Days
Mar 1 - Aug 14, 2021
7500
7000
6500
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
Corn
Computed to 50°F base with daily maximum temperature limited to 86°F or less and daily minimum to 50°F or more.


Departure from Normal Growing Degree Days
Mar 1 - Aug 14, 2021
800
700
600
500
400
300
200
100
0
-100
-200
-300
-400
Corn
Computed to 50°F base with daily maximum temperature limited to 86°F or less and daily minimum to 50°F or more.

Total Growing Degree Days

Apr 1 - Aug 14, 2021

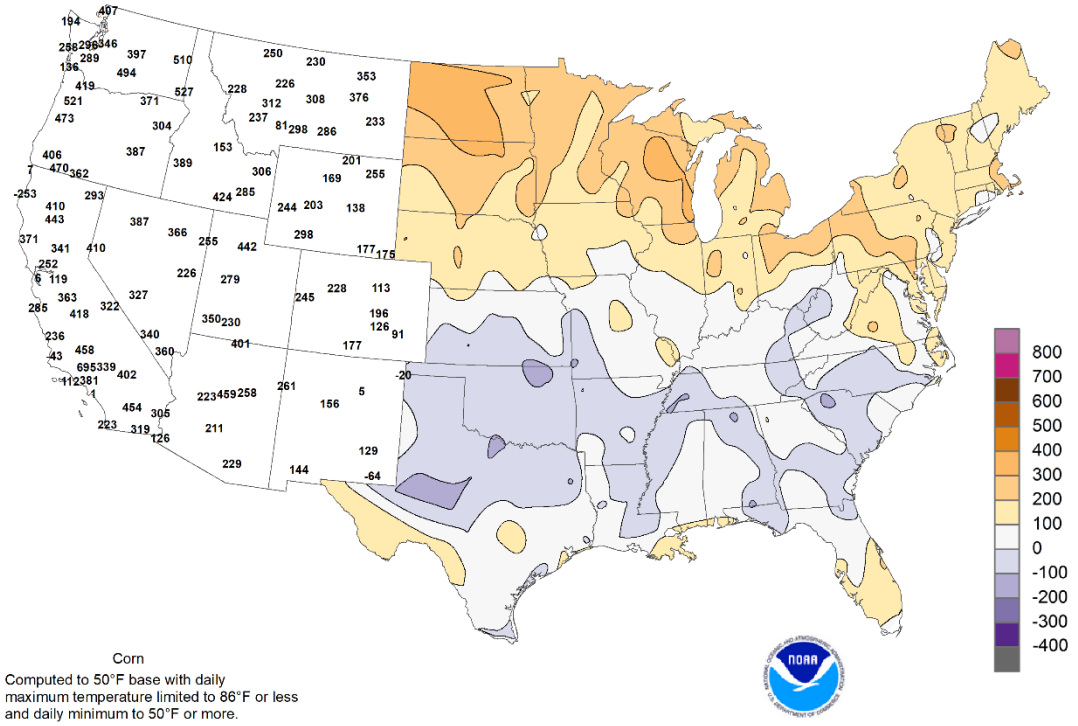


Corn

Computed to 50°F base with daily maximum temperature limited to 86°F or less and daily minimum to 50°F or more.

Departure from Normal Growing Degree Days

Apr 1 - Aug 14, 2021



Corn

Computed to 50°F base with daily maximum temperature limited to 86°F or less and daily minimum to 50°F or more.

July Crop Summary

Fieldwork

Fieldwork summary provided by USDA/NASS

Weather Highlights: July was warmer than average for most of the North and West. Parts of California, Nevada, the Pacific Northwest, northern Plains, and Rockies recorded temperatures 6°F or more above normal. In contrast, much of the South and East was cooler than normal. Large parts of the southern Great Plains and New England recorded temperatures 2°F or more below normal. Meanwhile, most of the central and northern Plains, Pacific Northwest, and northern Rockies were drier than normal. In contrast, most of the South and East received above-normal rainfall. More than twice the normal amount of precipitation fell in large parts of the Northeast, Southwest, and Texas.

Agricultural Summary: By July 4, ten percent of the corn had reached the silking stage, 1 percentage point ahead of last year but 4 points behind the 5-year average. By July 18, fifty-six percent of the corn had reached the silking stage, 1 percentage point ahead of last year and 4 points ahead of average. By July 18, eight percent of the corn was at or beyond the dough stage, equal to last year but 1 percentage point ahead of average. By August 1, ninety-one percent of the corn had reached the silking stage, equal to last year but 5 percentage points ahead of average. By August 1, thirty-eight percent of the corn was at or beyond the dough stage, 1 percentage point ahead of last year and 5 points ahead of average. As of August 1, sixty-two percent of the corn was rated good to excellent, 10 percentage points below the same time last year.

By July 4, twenty-nine percent of the soybeans had reached the blooming stage, equal to last year but 5 percentage points ahead of the 5-year average. Nationally, 3 percent of the soybeans had begun setting pods, 1 percentage point ahead of last year but equal to the average. By July 18, sixty-three percent of the nation's soybeans had reached the blooming stage, 1 percentage point ahead of last year and 6 points ahead of average. Nationally, 23 percent of the soybeans had begun setting pods, equal to last year but 2 percentage points ahead of average. By August 1, eighty-six percent of the soybeans had reached the blooming stage, 2 percentage points ahead of last year and 4 points ahead of average. Nationally, 58 percent of the soybeans had begun setting pods, 1 percentage point ahead of last year and 6 points ahead of average. On August 1, sixty percent of the soybeans were rated in good to excellent condition, 13 percentage points below the same time last year.

Forty-five percent of the 2021 winter wheat acreage had been harvested by July 4, nine percentage points behind last year and 8 points behind the 5-year average. As of July 4, forty-seven percent of the winter wheat was reported in good to excellent condition, 4 percentage points below the same time last year. Seventy-three percent of the winter wheat had been harvested by July 18, equal to last year but 1 percentage point behind average. Ninety-one percent of the winter wheat had been harvested by August 1, seven percentage points ahead of last year and 5 points ahead of average.

Forty-two percent of the cotton had reached the squaring stage by July 4, three percentage points behind last year and 4 points behind the 5-year average. By July 4, eleven percent of the cotton had begun setting bolls, 1 percentage point behind last year and 2 points behind average. Sixty-nine percent of the cotton had reached the squaring stage by July 18, three percentage points behind last year and 4 points behind average. By July 18, twenty-three percent of the nation's cotton had begun setting bolls, 3 percentage points behind last year and 7 points behind average. Eighty-two percent of the cotton had reached the squaring stage by August 1, eight percentage points behind both last year and the average. By August 1, fifty percent of the cotton had begun setting bolls, 2 percentage points behind last year and 3 points behind average. On August 1, sixty percent of the cotton acreage was rated in good to excellent condition, 15 percentage points above the same time last year.

By July 4, twenty-two percent of the nation's sorghum had reached the headed stage, 2 percentage points behind last year and 3 points behind the 5-year average. With progress limited to Texas, coloring advanced to 14 percent, one percentage point ahead of last year but equal to the average. By July 18, thirty-three percent of the nation's sorghum had reached the headed stage, equal to last year but 1 percentage point behind average. Seventeen percent of sorghum was at or beyond the coloring stage by July 18, one percentage point behind last year and 2 points behind average. By August 1, fifty-seven percent of the nation's sorghum had reached the headed stage, 4 percentage points ahead of last year and 3 points ahead of average. Twenty-two percent of the sorghum acreage was at or beyond the coloring stage by August 1, one percentage point behind last year and 3 points behind average. Sixty-two percent of the sorghum acreage was rated in good to excellent condition on August 1, seven percentage points above the same time last year.

By July 4, fourteen percent of the nation's rice had reached the headed stage, 4 percentage points behind the previous year and 3 points behind the 5-year average. By July 18, thirty percent of the rice had reached the headed stage, 1 percentage point behind the previous year and 6 points behind average. By August 1, fifty-nine percent of the rice had reached the headed stage, 2 percentage points ahead of the previous year but 6 points behind average. On August 1, seventy-two percent of the rice was rated in good to excellent condition, 4 percentage points below the same time last year.

Eighty-eight percent of the nation's oats had headed by July 4, five percentage points ahead of both last year and the 5-year average. Ninety-eight percent of the oats had headed by July 18, two percentage points ahead of both last year and the average. Eighteen percent of the oats had been harvested by July 18, one percentage point behind last year but equal to the average. Forty-eight percent of the oats had been harvested by August 1, one percentage point ahead of last year and 6 points ahead of average. On August 1, thirty-six percent of the nation's oats were rated in good to excellent condition, 26 percentage points below the same time last year.

Fifty-nine percent of the nation's barley had reached the headed stage by July 4, two percentage points ahead of last year but equal to the 5-year average. Ninety percent of the barley acreage had reached the headed stage by July 18, four percentage points ahead of last year but equal to the average. By August 1, barley producers had harvested 13 percent of the nation's crop, 9 percentage points ahead of last year and 5 points ahead of average. On August 1, twenty-one percent of the barley was rated in good to excellent condition, 60 percentage points below the same time last year.

By July 4, sixty-nine percent of the spring wheat had reached the headed stage, 10 percentage points ahead of the previous year and 7 points ahead of the 5-year average. By July 18, ninety-two percent of the spring wheat had reached the headed stage, 3 percentage points ahead of the previous year but equal to the average. By July 26, ninety-seven percent of the spring wheat had reached the headed stage, 1 percentage point ahead of the previous year but equal to the average. By August 1, seventeen percent of the nation's spring wheat had been harvested, 13 percentage points ahead of the previous year and 9 points ahead of average. On August 1, ten percent of the spring wheat was rated in good to excellent condition, 63 percentage points below the same time last year.

By July 4, forty-eight percent of the peanuts had reached the pegging stage, 1 percentage point behind the previous year and 3 points behind the 5-year average. By July 18, seventy-four percent of the peanuts were pegging, 1 percentage point behind the previous year but equal to the average. By August 1, eighty-eight percent of the peanuts were pegging, 1 percentage point behind both the previous year and the 5-year average. On August 1, seventy-three percent of the nation's peanuts were rated in good to excellent condition, unchanged from the same time last year.

National Weather Data for Selected Cities

Weather Data for the Week Ending August 14, 2021

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE ˚F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
																	TEMP. ˚F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE JUN 1	PCT. NORMAL SINCE JUN 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AK	ANCHORAGE	63	53	66	50	58	0	1.97	1.29	1.18	3.30	80	7.14	96	89	56	0	0	6	1
	BARROW	41	36	47	35	39	-1	0.25	0.01	0.17	2.01	108	2.94	109	88	76	0	0	5	0
	FAIRBANKS	63	52	69	49	58	0	0.99	0.56	0.58	4.05	90	8.01	118	88	57	0	0	5	1
	JUNEAU	61	54	63	52	57	0	3.73	2.55	1.80	13.54	134	41.74	140	92	75	0	0	7	2
	KODIAK	62	51	70	45	56	1	0.00	-0.95	0.00	10.68	83	43.73	98	85	55	0	0	0	0
	NOME	55	43	62	32	49	-2	0.12	-0.61	0.11	8.53	186	12.93	146	85	60	0	1	2	0
AL	BIRMINGHAM	91	73	93	70	82	1	3.05	2.15	2.02	20.19	181	48.00	136	91	53	7	0	3	2
	HUNTSVILLE	91	71	93	68	81	0	0.12	-0.68	0.04	16.00	159	42.17	122	96	59	6	0	4	0
	MOBILE	90	73	93	71	82	0	0.89	-0.78	0.38	23.19	138	52.01	119	98	57	5	0	5	0
	MONTGOMERY	94	73	97	70	83	2	0.08	-0.78	0.06	13.95	125	33.48	97	93	49	7	0	2	0
AR	FORT SMITH	95	75	99	74	85	2	0.00	-0.61	0.00	11.19	126	31.27	111	89	44	6	0	0	0
	LITTLE ROCK	95	75	98	72	85	2	0.00	-0.56	0.00	10.82	134	29.63	98	90	44	6	0	0	0
AZ	FLAGSTAFF	78	53	82	50	66	1	1.69	0.97	1.38	8.08	180	15.94	126	92	38	0	0	4	1
	PHOENIX	98	79	107	73	89	-5	0.93	0.69	0.70	2.80	179	3.63	74	73	35	7	0	3	1
	PRESCOTT	84	62	91	60	73	-1	0.72	0.08	0.34	3.02	79	5.68	67	86	41	1	0	5	0
	TUCSON	92	73	99	69	82	-3	3.02	2.45	2.11	9.21	254	10.23	149	84	41	6	0	4	2
CA	BAKERSFIELD	103	78	105	74	91	7	0.00	-0.01	0.00	0.00	0	1.97	43	38	16	7	0	0	0
	EUREKA	61	51	63	49	56	-3	0.00	-0.07	0.00	1.63	150	13.79	58	99	87	0	0	0	0
	FRESNO	104	74	106	71	89	7	0.00	0.00	0.00	0.00	0	5.11	64	49	16	7	0	0	0
	LOS ANGELES	75	64	78	62	70	0	0.00	-0.01	0.00	0.11	71	3.31	37	90	61	0	0	0	0
	REDDING	102	70	106	66	86	5	0.00	-0.05	0.00	0.01	1	9.19	44	58	15	7	0	0	0
	SACRAMENTO	96	62	100	60	79	4	0.00	-0.02	0.00	0.00	0	4.49	37	77	23	7	0	0	0
	SAN DIEGO	80	69	85	67	75	3	0.23	0.23	0.23	0.24	184	3.74	52	84	53	0	0	1	0
	SAN FRANCISCO	71	58	74	57	65	1	0.00	0.00	0.00	0.00	0	5.43	41	90	59	0	0	0	0
	STOCKTON	96	63	99	60	79	3	0.00	0.00	0.00	0.00	0	5.91	65	70	22	7	0	0	0
CO	ALAMOSA	86	44	88	37	65	2	0.00	-0.29	0.00	2.03	98	4.77	108	75	15	0	0	0	0
	CO SPRINGS	91	60	96	53	76	6	0.01	-0.85	0.01	5.44	77	13.00	106	64	15	6	0	1	0
	DENVER INTL	94	62	98	58	78	4	0.02	-0.42	0.02	1.27	25	10.63	99	54	17	5	0	1	0
	GRAND JUNCTION	97	62	99	56	79	3	0.00	-0.22	0.00	0.60	39	2.63	48	32	8	7	0	0	0
	PUEBLO	95	61	99	56	78	3	0.00	-0.59	0.00	6.33	138	13.50	146	70	19	6	0	0	0
CT	BRIDGEPORT	85	72	93	69	79	5	0.32	-0.57	0.29	10.40	116	26.40	98	89	62	2	0	2	0
	HARTFORD	89	69	95	61	79	6	0.72	-0.23	0.70	13.58	129	30.16	106	91	50	4	0	2	1
DC	WASHINGTON	94	73	96	68	83	5	3.24	2.57	2.47	13.36	150	29.25	118	88	44	7	0	4	2
DE	WILMINGTON	92	71	96	67	82	6	0.96	0.22	0.37	5.34	53	21.86	80	95	49	6	0	6	0
FL	DAYTONA BEACH	90	76	91	75	83	1	0.99	-0.41	0.50	18.26	127	28.49	96	94	62	5	0	2	1
	JACKSONVILLE	91	74	92	73	82	0	0.12	-1.31	0.10	19.91	126	35.46	113	99	60	6	0	2	0
	KEY WEST	89	80	91	77	85	0	1.56	0.41	0.43	11.73	118	17.36	84	85	61	4	0	7	0
	MIAMI	91	78	92	75	85	0	2.67	0.70	1.01	21.58	108	32.20	91	90	61	6	0	7	2
	ORLANDO	93	77	97	77	85	2	0.73	-0.97	0.59	16.43	90	27.76	84	93	54	7	0	4	1
	PENSACOLA	92	77	95	75	85	3	0.34	-1.26	0.16	22.42	129	51.29	123	93	58	6	0	3	0
	TALLAHASSEE	94	73	97	72	84	2	0.23	-1.58	0.13	11.06	59	28.05	69	96	49	7	0	4	0
	TAMPA	93	76	96	72	85	1	3.66	1.86	2.04	25.69	148	34.69	117	91	52	7	0	5	2
	WEST PALM BEACH	91	79	91	74	85	2	2.41	0.61	1.59	19.07	109	25.73	71	85	61	6	0	6	2
GA	ATHENS	95	71	97	68	83	3	1.46	0.65	1.38	12.39	119	30.91	104	91	46	7	0	3	1
	ATLANTA	91	72	94	69	81	1	0.52	-0.31	0.43	14.25	130	34.03	107	89	52	4	0	3	0
	AUGUSTA	94	71	96	70	83	2	1.56	0.53	1.51	16.94	151	36.90	128	96	48	7	0	3	1
	COLUMBUS	93	72	95	71	82	0	1.65	0.79	1.42	11.29	110	31.76	103	92	46	7	0	2	1
	MACON	95	71	97	70	83	2	0.57	-0.33	0.31	12.81	117	29.64	99	97	50	7	0	4	0
	SAVANNAH	91	74	92	73	83	1	0.02	-1.49	0.02	15.08	103	29.94	97	99	56	7	0	1	0
HI	HILO	85	72	85	69	78	2	2.28	0.02	0.98	16.61	72	85.64	114	88	62	0	0	6	2
	HONOLULU	89	76	90	75	82	0	0.01	-0.10	0.01	0.17	15	9.33	108	71	43	1	0	1	0
	KAHULUI	87	73	88	72	80	0	0.01	-0.11	0.01	0.88	87	14.05	133	85	54	0	0	1	0
	LIHUE	87	78	87	76	82	3	0.26	-0.27	0.13	3.10	68	22.07	108	82	60	0	0	5	0
IA	BURLINGTON	85	67	90	60	76	1	2.87	1.90	2.00	13.90	131	28.92	116	97	62	1	0	4	2
	CEDAR RAPIDS	87	64	92	52	75	4	0.02	-1.00	0.01	3.52	30	10.33	45	95	50	2	0	2	0
	DES MOINES	88	68	92	58	78	3	0.04	-0.91	0.04	8.31	73	16.32	66	89	48	4	0	1	0
	DUBUQUE	84	63	90	53	74	3	2.55	1.52	1.48	10.00	92	18.22	77	94	58	1	0	3	2
	SIOUX CITY	88	62	91	50	75	2	0.00	-0.73	0.00	3.43	39	12.97	69	92	38	3	0	0	0
	WATERLOO	88	64	92	48	76	4	0.62	-0.39	0.31	3.13	26	11.07	45	91	45	3	0	2	0
ID	BOISE	94	63	100	53	78	2	0.00	-0.06	0.00	1.45	121	7.10	95	52	15	5	0	0	0
	LEWISTON	95	66	102	59	81	5	0.00	-0.15	0.00	0.43	19	3.22	39	42	16	5	0	0	0
	POCATELLO	91	53	98	47	72	2	0.00	-0.13	0.00	0.15	8	5.06	65	55	14	5	0	0	0
IL	CHICAGO/O_HARE	86	69	93	62	78	5	1.13	-0.04	0.64	9.78	104	15.81	70	89	50	2	0	4	1
	MOLINE	88	68	95	55	78	4	0.06	-0.98	0.04	6.81	62	22.77	92	89	53	3	0	2	0
	PEORIA	87	69	92	62	78	4	1.44	0.73	0.83	10.35	118	28.58	123	91	61	3	0	5	1
	ROCKFORD	87	66	93	56	77	4	3.16	2.07	2.52	6.65	62	14.76	63	90	51	2	0	5	1
	SPRINGFIELD	87	69	90	60	78	3	2.99	2.28	2.18	12.61	127	30.68	128	95	63	1	0	3	2
IN	EVANSVILLE	90	72	93	67	81	3	2.81	2.13	2.20	9.11	101	27.15	92	93	55	5	0	3	2
	FORT WAYNE	84	66	90	58	75	3	1.68	0.85	1.13	13.21	130	26.53	106	95	64	1	0	4	1
	INDIANAPOLIS	88	71	94	67	79	5	0.13	-0.53	0.08	13.89	135	28.86	104	88	54	3	0	3	0
	SOUTH BEND	85	68	92	57	76	5	3.18	2.34	2.09	16.39	172	27.16	117	90	55	1	0	4	2
KS	CONCORDIA	92	70	98	63	81	3	0.78	0.04	0.32	5.95	62	16.19	82	87	45	5	0	4	0
	DODGE CITY	95	67	102	63	81	2	0.28	-0.39	0.16	3.97	52	13.10	86	89	34	5	0	2	0
	GOODLAND	95	62	101	57	79	4	0.00	-0.69	0.00	2.37	29	11.19	78	84	25	6	0	0	0
	TOPEKA	91	72	97	63	81	3	3.08	2.11	2.33	10.95	98	26.44	109	87	53	4	0	3	1

Based on 1981-2010 normals

***** Not Available**

Weather Data for the Week Ending August 14, 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 JUN 1	PCT. NORMAL SINCE JUN 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	96	72	103	67	84	3	0.07	-0.74	0.07	8.26	81	20.75	94	85	43	6	0	1	0
KY	LEXINGTON	86	69	91	66	78	2	2.58	1.83	0.92	14.24	133	35.66	119	95	63	2	0	5	3
	LOUISVILLE	91	76	96	72	83	4	1.04	0.24	0.86	10.26	106	31.19	105	84	51	5	0	3	1
	PADUCAH	90	72	93	69	81	3	1.00	0.37	0.85	10.90	110	33.83	108	90	56	5	0	3	1
LA	BATON ROUGE	91	72	94	69	82	-1	2.20	0.69	1.59	24.16	156	59.93	161	100	58	6	0	3	2
	LAKE CHARLES	92	76	94	75	84	1	0.58	-0.49	0.35	15.01	101	49.85	140	100	56	6	0	3	0
	NEW ORLEANS	93	78	96	76	85	2	1.57	0.24	1.50	21.34	127	62.59	152	89	55	7	0	4	1
	SHREVEPORT	96	77	97	75	87	3	0.00	-0.59	0.00	8.53	82	34.05	104	86	44	7	0	0	0
MA	BOSTON	87	72	96	67	79	6	1.18	0.40	1.15	15.02	172	31.09	115	87	56	4	0	3	1
	WORCESTER	83	68	90	65	76	6	0.43	-0.44	0.21	15.96	155	32.53	110	93	61	1	0	3	0
MD	BALTIMORE	94	72	98	65	83	7	0.77	0.05	0.42	8.35	92	24.68	95	90	48	6	0	5	0
ME	CARIBOU	82	64	92	57	73	8	0.90	0.06	0.80	7.44	80	20.12	88	88	54	1	0	3	1
	PORTLAND	81	65	90	62	73	4	0.00	-0.71	0.00	10.85	122	23.92	85	98	70	1	0	0	0
MI	ALPENA	84	64	89	50	74	7	1.12	0.42	0.66	9.18	131	16.91	100	95	52	0	0	4	1
	GRAND RAPIDS	83	67	87	55	75	4	1.65	0.83	1.13	15.14	166	22.91	101	98	48	0	0	5	1
	HOUGHTON LAKE	82	62	86	46	72	6	1.90	1.11	1.30	9.17	125	16.04	94	92	50	0	0	4	1
	LANSING	87	68	89	56	77	7	4.09	3.35	2.49	14.06	182	21.43	111	89	50	0	0	3	2
	MUSKEGON	84	67	88	56	75	5	3.63	2.85	1.41	14.00	218	21.31	114	93	49	0	0	4	3
	TRAVERSE CITY	85	64	89	52	74	6	2.67	1.91	1.60	13.03	169	18.83	98	91	49	0	0	4	1
MN	DULUTH	78	57	85	46	67	2	0.16	-0.67	0.16	5.07	52	13.41	72	90	45	0	0	1	0
	INT_L FALLS	79	53	92	38	66	2	0.22	-0.46	0.16	2.94	33	7.90	51	91	39	1	0	3	0
	MINNEAPOLIS	84	65	88	58	74	2	1.21	0.20	1.20	5.36	51	15.25	76	84	38	0	0	2	1
	ROCHESTER	81	59	86	51	70	0	0.82	-0.19	0.80	7.06	62	15.52	71	94	53	0	0	3	1
	ST. CLOUD	83	57	89	45	70	1	0.01	-0.82	0.01	3.78	41	12.82	73	90	34	0	0	1	0
MO	COLUMBIA	92	72	98	67	82	5	0.33	-0.67	0.27	16.89	156	36.86	135	90	49	4	0	2	0
	KANSAS CITY	92	71	98	63	82	4	2.84	2.00	1.89	12.59	110	29.09	115	87	53	4	0	4	2
	SAINT LOUIS	93	73	97	68	83	3	2.91	2.23	0.91	12.78	130	29.79	114	85	47	6	0	4	3
	SPRINGFIELD	91	72	96	70	82	3	0.23	-0.54	0.23	7.45	74	34.40	122	89	50	4	0	1	0
MS	JACKSON	93	73	94	69	83	1	0.00	-1.06	0.00	14.31	128	38.79	110	91	48	7	0	0	0
	MERIDIAN	91	71	93	68	81	0	1.21	0.29	1.21	18.80	163	49.43	133	98	53	6	0	1	1
	TUPELO	95	74	97	72	85	3	0.32	-0.48	0.32	24.08	238	52.98	152	92	47	7	0	1	0
MT	BILLINGS	89	57	97	53	73	0	0.09	-0.07	0.08	1.20	31	5.61	57	63	16	4	0	2	0
	BUTTE	82	45	89	37	64	1	0.39	0.07	0.39	1.36	32	4.27	46	81	19	0	0	1	0
	CUT BANK	81	52	94	47	67	1	1.05	0.80	0.78	1.76	40	4.01	49	78	29	1	0	2	1
	GLASGOW	88	58	99	55	73	1	0.09	-0.21	0.09	1.13	24	3.10	35	62	23	4	0	1	0
	GREAT FALLS	84	51	94	45	67	-1	0.36	0.02	0.33	1.15	24	7.87	75	77	24	2	0	2	0
	HAVRE	84	53	97	47	68	-1	0.30	0.05	0.28	0.98	22	5.04	61	85	29	3	0	2	0
	MISSOULA	87	53	97	47	70	1	0.35	0.08	0.24	1.60	44	6.54	69	81	23	4	0	2	0
NC	ASHEVILLE	88	64	90	61	76	2	1.64	0.63	1.37	13.11	119	34.96	119	99	48	1	0	2	1
	CHARLOTTE	94	70	96	64	82	4	1.44	0.51	1.22	10.17	109	26.83	102	92	42	7	0	3	1
	GREENSBORO	91	69	93	64	80	3	1.20	0.41	0.67	10.75	108	29.11	109	96	50	5	0	3	1
	HATTERAS	87	76	89	73	82	3	0.72	-0.74	0.72	19.89	166	41.88	126	94	71	0	0	1	1
	RALEIGH	96	72	100	65	84	5	0.55	-0.32	0.55	13.97	138	29.05	107	99	48	7	0	1	1
	WILMINGTON	91	74	94	71	83	3	0.02	-1.61	0.02	26.96	167	41.47	118	95	56	6	0	1	0
ND	BISMARCK	92	56	102	49	74	3	0.01	-0.54	0.01	3.15	44	5.58	44	79	27	4	0	1	0
	DICKINSON	89	53	100	46	71	1	0.00	-0.36	0.00	3.82	60	8.17	70	72	19	3	0	0	0
	FARGO	87	58	96	46	73	2	0.00	-0.51	0.00	4.14	53	6.84	47	80	27	3	0	0	0
	GRAND FORKS	85	55	93	45	70	2	1.79	1.13	1.73	4.68	59	8.55	62	87	33	1	0	3	1
	JAMESTOWN	89	55	96	48	72	2	0.00	-0.44	0.00	2.93	39	5.48	42	84	27	3	0	0	0
NE	GRAND ISLAND	89	65	96	57	77	2	0.51	-0.25	0.51	6.26	67	19.64	102	84	40	2	0	1	1
	LINCOLN	91	68	97	60	79	3	0.01	-0.76	0.01	7.13	77	18.19	92	89	42	4	0	1	0
	NORFOLK	90	62	95	54	76	2	0.00	-0.81	0.00	6.51	71	16.87	89	87	35	3	0	0	0
	NORTH PLATTE	93	59	100	56	76	3	0.04	-0.55	0.04	4.35	56	15.83	103	85	27	5	0	1	0
	OMAHA	90	67	94	57	78	3	0.01	-0.85	0.01	10.04	103	21.33	101	92	49	4	0	1	0
	SCOTTSBLUFF	92	56	98	52	74	1	0.00	-0.31	0.00	2.24	42	7.23	61	75	22	5	0	0	0
	VALENTINE	94	58	101	51	76	2	0.00	-0.56	0.00	4.07	51	13.25	87	76	23	6	0	0	0
NH	CONCORD	88	66	93	59	77	8	0.07	-0.65	0.03	13.93	156	25.34	103	94	55	3	0	3	0
NJ	ATLANTIC_CITY	89	72	95	65	80	5	1.11	0.11	1.04	12.14	138	30.85	118	97	56	4	0	2	1
	NEWARK	91	74	99	68	82	6	1.99	1.13	1.25	14.32	133	31.28	105	84	49	4	0	4	2
NM	ALBUQUERQUE	91	67	95	64	79	2	0.04	-0.36	0.04	2.04	68	3.59	64	60	22	4	0	1	0
NV	ELY	90	49	91	47	70	3	0.00	-0.22	0.00	1.39	77	4.53	71	47	10	5	0	0	0
	LAS VEGAS	104	83	105	80	93	2	0.00	-0.08	0.00	0.43	62	1.14	40	37	15	7	0	0	0
	RENO	96	64	99	59	80	6	0.00	-0.07	0.00	0.15	17	1.74	36	42	10	7	0	0	0
	WINNEMUCCA	98	53	102	45	75	4	0.00	-0.05	0.00	0.67	69	4.83	89	39	9	7	0	0	0
NY	ALBANY	85	65	89	57	75	4	0.73	-0.09	0.61	12.62	131	25.00	102	99	59	0	0	3	1
	BINGHAMTON	82	66	86	59	74	6	0.75	-0.01	0.69	13.13	137	29.59	122	94	61	0	0	2	1
	BUFFALO	85	69	92	61	77	7	2.43	1.68	1.85	11.85	141	19.36	83	86	53	1	0	3	1
	ROCHESTER	86	67	89	56	76	6	0.72	-0.08	0.28	9.85	119	18.84	91	94	53	0	0	4	0
	SYRACUSE	88	70	92	60	79	8	0.57	-0.23	0.27	14.39	166	25.09	111	84	52	3	0	5	0
OH	AKRON-CANTON	87	68	91	60	78	7	2.50	1.71	1.40	14.94	156	27.44	108	90	57	2	0	6	1
	CINCINNATI	88	71	93	67	80	4	0.41	-0.36	0.35	13.01	139	30.80	110	89	53	4	0	2	0
	CLEVELAND	87	69	91	62	78	5	3.96	3.17	1.76	16.08	190	26.71	113	88	57	1	0	5	3
	COLUMBUS	88	69	92	63	78	4	0.72	0.03	0.31	8.86	85	22.67	87	93	55	2	0	5	0
	DAYTON	88	71	93	64	79	6	0.41	-0.21	0.37	10.91	113	24.65	92	84	54	2	0	2	0
	MANSFIELD	87	69	90	59	78	8	2.15	1.13	1.37	11.41	102	26.06	91	91	54	2	0	4	1

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***** Not Available**

Weather Data for the Week Ending August 14, 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 JUN 1	PCT. NORMAL SINCE JUN 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	88	69	93	59	79	6	0.94	0.25	0.86	10.65	129	22.60	105	86	51	2	0	3	1
	YOUNGSTOWN	85	67	91	59	76	6	3.08	2.39	1.63	14.20	146	25.85	106	94	60	1	0	4	2
OK	OKLAHOMA CITY	93	74	95	70	83	0	0.50	-0.26	0.35	10.77	115	21.42	92	83	45	6	0	3	0
	TULSA	96	77	100	71	87	3	0.36	-0.26	0.35	12.24	131	27.45	106	83	46	7	0	2	0
OR	ASTORIA	71	55	86	53	63	2	0.01	-0.22	0.01	2.46	61	38.07	101	97	65	0	0	1	0
	BURNS	94	51	100	38	72	6	0.00	-0.09	0.00	0.55	39	5.64	81	59	11	5	0	0	0
	EUGENE	94	61	104	52	77	10	0.00	-0.11	0.00	1.60	70	14.40	56	78	28	5	0	0	0
	MEDFORD	98	67	104	57	82	8	0.00	-0.09	0.00	0.91	79	6.36	63	63	18	6	0	0	0
	PENDLETON	93	62	102	50	78	5	0.00	-0.09	0.00	0.33	21	4.25	53	50	18	5	0	0	0
	PORTLAND	93	66	103	59	80	10	0.00	-0.13	0.00	1.26	48	14.61	73	71	31	5	0	0	0
	SALEM	94	63	103	56	79	11	0.00	-0.09	0.00	1.72	78	19.03	87	71	28	5	0	0	0
PA	ALLENTOWN	89	67	94	62	78	6	0.94	0.09	0.82	8.14	73	22.21	79	92	51	4	0	3	1
	ERIE	85	70	92	61	78	6	1.95	1.17	0.59	12.05	136	23.84	100	85	55	1	0	5	1
	MIDDLETOWN	92	71	96	66	82	7	2.07	1.37	1.27	12.54	129	26.48	105	86	47	6	0	4	1
	PHILADELPHIA	92	73	96	66	82	5	1.00	0.20	0.51	10.74	114	27.09	104	91	49	6	0	3	1
	PITTSBURGH	86	67	90	63	76	4	2.79	1.98	0.80	9.91	101	22.94	92	95	56	2	0	5	4
	WILKES-BARRE	89	66	93	58	78	7	0.93	0.16	0.59	8.87	94	22.30	96	93	52	4	0	3	1
	WILLIAMSPORT	89	68	93	61	78	6	1.07	0.22	0.66	11.59	115	24.57	98	90	51	3	0	4	1
RI	PROVIDENCE	87	71	94	68	79	6	0.17	-0.63	0.14	12.30	143	29.18	102	96	61	4	0	3	0
SC	CHARLESTON	91	73	92	72	82	0	0.00	-1.51	0.00	17.79	117	33.86	107	98	57	6	0	0	0
	COLUMBIA	92	73	94	71	83	1	0.42	-0.80	0.42	11.10	87	29.52	101	94	52	7	0	1	0
	FLORENCE	92	74	93	69	83	3	0.19	-0.99	0.14	14.48	117	31.15	112	91	49	7	0	2	0
	GREENVILLE	92	69	94	63	80	1	0.94	-0.09	0.68	11.09	106	31.47	105	90	46	6	0	2	1
SD	ABERDEEN	90	55	95	44	73	3	0.00	-0.54	0.00	2.43	31	7.84	52	84	29	4	0	0	0
	HURON	89	58	96	46	74	1	0.00	-0.56	0.00	3.80	47	8.33	51	87	30	4	0	0	0
	RAPID CITY	91	56	98	53	73	1	0.01	-0.38	0.01	5.12	98	9.48	79	66	21	4	0	1	0
	SIOUX FALLS	85	63	89	55	74	3	0.20	-0.48	0.20	7.46	89	15.25	86	82	39	0	0	1	0
TN	BRISTOL	91	67	94	64	79	5	0.12	-0.71	0.11	9.35	90	28.12	101	94	44	4	0	2	0
	CHATTANOOGA	91	71	94	67	81	1	1.12	0.32	1.12	11.82	110	36.57	109	94	50	6	0	1	1
	KNOXVILLE	93	69	96	63	81	3	0.07	-0.71	0.04	5.20	49	25.89	80	96	43	7	0	3	0
	MEMPHIS	95	76	96	73	85	3	1.05	0.35	1.05	11.23	115	37.68	110	87	50	7	0	1	1
	NASHVILLE	94	73	97	70	83	4	0.35	-0.36	0.24	11.50	124	37.83	123	87	46	7	0	2	0
TX	ABILENE	99	75	102	70	87	3	0.00	-0.56	0.00	3.57	54	15.84	102	78	31	7	0	0	0
	AMARILLO	94	68	104	62	81	4	0.37	-0.32	0.35	4.18	56	12.67	91	85	32	5	0	2	0
	AUSTIN	99	77	99	76	88	2	0.00	-0.43	0.00	7.19	101	22.06	107	87	38	7	0	0	0
	BEAUMONT	92	76	94	74	84	0	0.02	-1.13	0.02	17.76	115	42.20	116	100	64	6	0	1	0
	BROWNSVILLE	97	79	97	78	88	2	0.00	-0.44	0.00	10.77	198	17.51	132	87	47	7	0	0	0
	CORPUS CHRISTI	93	77	95	75	85	0	0.00	-0.50	0.00	14.15	201	29.51	170	99	55	7	0	0	0
	DEL RIO	100	79	101	77	90	3	0.00	-0.44	0.00	4.77	97	10.71	90	77	34	7	0	0	0
	EL PASO	91	70	100	65	80	-1	1.60	1.11	1.26	8.87	251	10.00	181	74	37	5	0	5	1
	FORT WORTH	96	77	98	71	87	0	0.78	0.40	0.78	5.94	87	23.58	102	85	42	7	0	1	1
	GALVESTON	91	82	92	78	86	1	0.12	0.00	0.10	15.33	0	26.85	0	82	63	7	0	3	0
	HOUSTON	97	78	98	76	87	2	0.01	-0.74	0.01	12.41	111	31.60	107	89	45	7	0	1	0
	LUBBOCK	93	71	100	65	82	2	1.99	1.57	1.21	7.37	127	16.83	140	75	36	6	0	3	2
	MIDLAND	94	72	100	69	83	1	0.19	-0.17	0.18	7.84	179	13.24	152	81	33	6	0	2	0
	SAN ANGELO	99	74	101	71	86	3	0.00	-0.42	0.00	8.94	194	14.15	111	79	28	7	0	0	0
	SAN ANTONIO	96	77	96	75	86	0	0.00	-0.35	0.00	7.13	93	21.76	111	91	42	7	0	0	0
	VICTORIA	94	77	96	75	85	1	0.04	-0.48	0.04	19.18	197	46.13	183	93	53	7	0	1	0
	WACO	98	78	98	75	87	1	0.00	-0.44	0.00	7.45	123	20.66	98	87	42	7	0	0	0
	WICHITA FALLS	97	76	101	70	87	2	1.81	1.28	1.81	7.95	117	19.81	108	80	38	6	0	1	1
UT	SALT LAKE CITY	95	67	101	63	81	3	0.00	-0.13	0.00	1.15	60	7.53	74	43	12	6	0	0	0
VA	LYNCHBURG	95	69	98	61	82	8	0.05	-0.63	0.05	8.18	86	23.75	91	93	40	7	0	1	0
	NORFOLK	91	72	95	66	82	3	0.52	-0.75	0.52	11.36	94	28.16	97	97	56	5	0	1	1
	RICHMOND	92	72	95	67	82	4	1.14	0.13	0.95	14.28	134	30.34	110	96	55	6	0	4	1
	ROANOKE	94	71	96	66	82	6	0.67	-0.10	0.38	8.02	84	23.18	89	89	41	7	0	2	0
	WASH/DULLES	96	69	100	60	82	6	0.09	-0.72	0.05	6.80	73	20.22	77	95	41	7	0	3	0
VT	BURLINGTON	88	69	92	60	79	9	1.56	0.61	1.24	9.18	94	18.75	85	91	49	2	0	2	1
WA	OLYMPIA	87	56	96	47	71	7	0.00	-0.17	0.00	3.24	119	28.08	104	92	37	3	0	0	0
	QUILLAYUTE	76	56	86	52	66	6	0.00	-0.48	0.00	3.14	49	43.41	78	99	57	0	0	0	0
	SEATTLE-TACOMA	85	62	95	55	74	7	0.00	-0.19	0.00	1.98	76	19.78	99	81	35	3	0	0	0
	SPOKANE	89	61	98	50	75	5	0.04	-0.09	0.04	0.63	28	4.84	49	59	21	4	0	1	0
	YAKIMA	93	61	102	54	77	6	0.00	-0.07	0.00	0.20	19	2.73	57	64	20	5	0	0	0
WI	EAU CLAIRE	83	61	87	51	72	2	0.00	-1.05	0.00	7.49	74	13.92	70	92	44	0	0	0	0
	GREEN BAY	82	62	88	52	72	4	4.33	3.52	3.41	13.88	155	20.31	109	94	61	0	0	4	1
	LA CROSSE	87	64	91	55	76	3	2.10	1.09	1.76	18.37	172	27.57	127	92	49	2	0	3	1
	MADISON	85	63	91	51	74	4	1.17	0.18	0.80	8.30	77	15.27	68	92	50	1	0	3	1
	MILWAUKEE	85	66	91	61	76	5	0.75	-0.19	0.63	3.42	36	10.74	48	87	50	3	0	2	1
WV	BECKLEY	86	64	89	57	75	5	0.95	0.11	0.68	9.01	82	26.37	94	98	57	0	0	2	1
	CHARLESTON	90	68	93	63	79	4	2.06	1.19	0.98	8.56	77	23.98	82	99	53	4	0	5	2
	ELKINS	87	64	93	59	76	6	0.11	-0.80	0.04	7.84	67	22.47	73	93	42	3	0	5	0
	HUNTINGTON	90	70	93	66	80	4	1.11	0.25	0.80	15.57	153	32.51	115	92	57	4	0	4	1
WY	CASPER	90	50	96	44	70	-1	0.00	-0.21	0.00	4.33	123	9.86	112	75	15	4	0	0	0
	CHEYENNE	89	56	93	54	73	4	0.00	-0.51	0.00	3.29	59	9.00	77	60	17	5	0	0	0
	LANDER	91	55	95	49	73	2	0.03	-0.11	0.03	2.01	83	9.61	110	50	13	5	0	1	0
	SHERIDAN	91	51	99	45	71	0	0.00	-0.15	0.00	1.22	33	8.28	85	74	17	4	0	0	0

Based on 1981-2010 normals

***** Not Available**

National Agricultural Summary

August 9 – 15, 2021

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

More than twice the normal weekly amount of precipitation was recorded in large parts of the Great Lakes, mid-Atlantic, middle Mississippi Valley, central and southern Plains, and Southwest. In contrast, most of the northern Great Plains, Pacific Northwest, Rockies, southern Atlantic Coast, and South Texas were drier than normal. Meanwhile, most of the nation was warmer than normal for the week. Large parts of the Pacific Northwest and the Northeast recorded temperatures 6°F or more above normal. However, much of the northern Rockies, Southwest, and Texas were cooler than normal. Parts of southern Arizona recorded temperatures 6°F or more below normal.

Corn: By August 15, seventy-three percent of the corn acreage was at or beyond the dough stage, 1 percentage point behind last year but 5 points ahead of the 5-year average. Weekly advances of 10 percentage points or more were made in 16 of the 18 estimating states. By August 15, twenty-two percent of this year's corn acreage was denting, 1 percentage point ahead of last year but equal to the average. On August 15, sixty-two percent of the nation's corn was rated in good to excellent condition, 2 percentage points below the previous week and 7 points below the same time last year. In Iowa, 58 percent of the corn was rated in good to excellent condition.

Soybean: By August 15, ninety-four percent of the nation's soybean acreage had reached the blooming stage, 1 percentage point behind last year but equal to the 5-year average. Nationally, 81 percent of the soybeans had begun setting pods, 2 percentage points behind last year but 2 points ahead of average. On August 15, fifty-seven percent of the nation's soybeans were rated in good to excellent condition, 3 percentage points below the previous week and 15 points below the same time last year.

Cotton: Ninety-three percent of the nation's cotton acreage had reached the squaring stage by August 15, six percentage points behind both last year and the 5-year average. By August 15, seventy-five percent of the cotton had begun setting bolls, 4 percentage points behind last year and 7 points behind average. By August 15, ten percent of the nation's cotton had open bolls, 4 percentage points behind last year and 5 points behind average. On August 15, sixty-seven percent of the 2021 cotton crop was rated in good to excellent condition, 2 percentage points above the previous week and 22 points above the same time last year.

Sorghum: By August 15, eighty-two percent of the nation's sorghum had reached the headed stage, 1 percentage point ahead of last year and 3 points ahead of the 5-year average. Thirty-one percent of the sorghum was at or beyond the coloring stage by August 15, two percentage points behind last year and 5 points behind average. Sixty percent of the nation's sorghum was rated in good to excellent condition on August 15, three percentage points below the previous week but 3 points above the same time last year.

Rice: By August 15, eighty-six percent of the nation's rice acreage had reached the headed stage, 2 percentage points ahead of the previous year but 3 points behind the 5-year average. Nationally, 12 percent of the rice was harvested by August 15, one percentage point behind last year but equal to the average. On August 15, seventy-four percent of the nation's rice was rated in good to excellent condition, 1 percentage point below the previous week and 2 points below the same time last year.

Small Grains: Seventy-five percent of the nation's oat acreage had been harvested by August 15, two percentage points ahead of last year and 5 points ahead of the 5-year average. During the week, oat harvest advanced 15 percentage points or more in North Dakota, Pennsylvania, and. Wisconsin.

By August 15, producers had harvested 54 percent of the nation's barley crop, 23 percentage points ahead of last year and 10 points ahead of the 5-year average. Harvest progress was ahead of the 5-year average in all five estimating States. On August 15, twenty-three percent of the nation's barley was rated in good to excellent condition, 1 percentage point below the previous week and 54 points below the same time last year.

By August 15, fifty-eight percent of the nation's spring wheat had been harvested, 30 percentage points ahead of the previous year and 22 points ahead of the 5-year average. Harvest progress was ahead of average in all six estimating states. On August 15, eleven percent of the spring wheat was rated in good to excellent condition, unchanged from the previous week but 59 percentage points below the same time last year.

Other Crops: By August 15, ninety-five percent of the nation's peanuts had reached the pegging stage, 1 percentage point behind both the previous year and the 5-year average. On August 15, seventy-three percent of the peanut acreage was rated in good to excellent condition, 1 percentage point below the previous week and 2 points below the same time last year.

Crop Progress and Condition

Week Ending August 15, 2021

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

Corn Percent Dough

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
CO	52	32	49	39
IL	79	66	80	76
IN	69	52	76	66
IA	79	64	83	71
KS	79	62	74	76
KY	69	50	60	69
MI	56	41	59	44
MN	78	44	65	67
MO	81	68	82	83
NE	85	63	80	73
NC	91	89	93	94
ND	35	20	46	43
OH	62	51	68	57
PA	41	12	37	45
SD	71	44	69	61
TN	84	79	89	91
TX	87	83	86	87
WI	59	42	61	46
18 Sts	74	56	73	68

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

Corn Percent Dented

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
CO	11	10	12	5
IL	19	3	27	28
IN	14	3	17	21
IA	24	11	29	19
KS	38	12	25	36
KY	47	24	36	47
MI	6	0	5	5
MN	11	4	13	10
MO	44	4	29	45
NE	27	7	17	21
NC	71	61	74	79
ND	1	0	3	5
OH	6	1	19	11
PA	3	0	0	8
SD	7	1	12	9
TN	38	43	58	56
TX	74	65	72	72
WI	5	2	10	6
18 Sts	21	8	22	22

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

Corn Condition by Percent

	VP	P	F	G	EX
CO	3	12	29	41	15
IL	2	5	19	45	29
IN	2	5	21	58	14
IA	2	9	31	50	8
KS	4	10	24	52	10
KY	2	4	18	61	15
MI	1	3	20	57	19
MN	9	17	39	30	5
MO	2	5	26	54	13
NE	4	7	21	47	21
NC	0	4	16	63	17
ND	16	31	33	18	2
OH	0	3	16	59	22
PA	0	1	12	68	19
SD	13	26	37	23	1
TN	0	4	17	57	22
TX	3	6	29	45	17
WI	1	3	16	50	30
18 Sts	4	9	25	47	15
Prev Wk	3	8	25	49	15
Prev Yr	3	7	21	52	17

Soybeans Percent Blooming

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
AR	98	94	96	98
IL	96	93	96	95
IN	96	91	95	92
IA	97	97	98	95
KS	89	80	85	89
KY	83	82	85	82
LA	100	100	100	100
MI	99	96	100	91
MN	99	98	98	99
MS	97	94	97	97
MO	89	78	84	86
NE	100	97	100	97
NC	86	74	86	85
ND	96	92	95	97
OH	96	90	92	92
SD	95	92	96	95
TN	91	84	91	92
WI	96	94	97	92
18 Sts	95	91	94	94

These 18 States planted 96% of last year's soybean acreage.

Soybeans Percent Setting Pods

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
AR	91	83	88	92
IL	83	71	80	80
IN	79	66	79	74
IA	89	84	90	83
KS	72	49	60	66
KY	64	63	72	63
LA	99	86	92	98
MI	89	84	92	72
MN	96	84	91	90
MS	90	83	92	90
MO	67	48	58	62
NE	89	83	89	82
NC	60	46	64	61
ND	81	73	85	83
OH	82	72	80	74
SD	81	67	85	79
TN	71	62	74	77
WI	82	73	83	79
18 Sts	83	72	81	79

These 18 States planted 96% of last year's soybean acreage.

Soybean Condition by Percent

	VP	P	F	G	EX
AR	2	6	29	43	20
IL	3	4	22	42	29
IN	2	6	24	56	12
IA	2	9	31	49	9
KS	3	7	28	55	7
KY	2	5	22	60	11
LA	0	2	15	71	12
MI	1	3	21	59	16
MN	9	19	43	26	3
MS	1	3	17	67	12
MO	1	5	29	56	9
NE	2	6	20	53	19
NC	0	5	21	64	10
ND	16	36	34	13	1
OH	1	5	21	56	17
SD	11	28	39	21	1
TN	2	4	21	57	16
WI	2	4	17	54	23
18 Sts	4	11	28	45	12
Prev Wk	3	10	27	48	12
Prev Yr	2	5	21	56	16

Crop Progress and Condition

Week Ending August 15, 2021

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

Cotton Percent Squaring

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
AL	100	97	98	98
AZ	100	100	100	100
AR	100	100	100	100
CA	99	100	100	96
GA	100	97	98	99
KS	92	87	97	90
LA	100	100	100	100
MS	97	95	97	98
MO	86	100	100	96
NC	100	93	95	99
OK	99	87	99	98
SC	90	99	100	96
TN	97	93	95	99
TX	98	83	90	98
VA	100	97	98	99
15 Sts	99	88	93	99

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

Cotton Percent Setting Bolls

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
AL	92	75	84	91
AZ	99	99	100	94
AR	100	94	96	99
CA	88	80	98	76
GA	91	75	83	91
KS	54	65	79	48
LA	99	93	96	99
MS	83	79	86	89
MO	61	90	95	74
NC	77	73	79	86
OK	64	43	65	66
SC	74	79	90	82
TN	87	65	75	91
TX	75	55	68	79
VA	86	79	85	86
15 Sts	79	63	75	82

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

Cotton Percent Bolls Opening

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
AL	6	1	3	8
AZ	44	30	37	34
AR	14	8	11	9
CA	0	0	0	1
GA	6	1	4	9
KS	3	4	5	2
LA	34	21	32	30
MS	12	22	28	12
MO	0	0	0	7
NC	2	0	2	4
OK	10	0	0	4
SC	0	0	0	3
TN	0	0	3	5
TX	18	5	12	19
VA	1	1	2	1
15 Sts	14	5	10	15

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

Cotton Condition by Percent

	VP	P	F	G	EX
AL	0	4	18	61	17
AZ	1	4	13	51	31
AR	0	1	18	34	47
CA	0	0	20	75	5
GA	1	8	25	56	10
KS	0	11	38	43	8
LA	0	1	19	74	6
MS	3	3	19	59	16
MO	0	4	30	66	0
NC	3	9	22	60	6
OK	0	2	41	53	4
SC	0	0	23	66	11
TN	4	10	21	55	10
TX	1	4	31	45	19
VA	0	1	5	93	1
15 Sts	1	4	28	50	17
Prev Wk	1	6	28	48	17
Prev Yr	7	15	33	35	10

Peanuts Percent Pegging

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
AL	99	92	96	97
FL	97	95	98	98
GA	99	98	99	99
NC	92	95	96	97
OK	79	66	72	80
SC	98	96	98	95
TX	84	70	80	86
VA	95	89	96	96
8 Sts	96	92	95	96

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

Peanut Condition by Percent

	VP	P	F	G	EX
AL	0	1	23	52	24
FL	1	3	37	57	2
GA	1	2	20	62	15
NC	1	4	16	64	15
OK	0	0	20	80	0
SC	0	0	2	91	7
TX	0	1	48	39	12
VA	0	0	5	94	1
8 Sts	1	2	24	60	13
Prev Wk	1	2	23	62	12
Prev Yr	1	4	20	62	13

Spring Wheat Percent Harvested

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
ID	40	37	57	38
MN	29	76	92	38
MT	32	35	54	34
ND	17	24	48	31
SD	78	72	80	70
WA	33	57	62	38
6 Sts	28	38	58	36

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

Spring Wheat Condition by Percent

	VP	P	F	G	EX
ID	11	33	27	20	9
MN	14	26	44	16	0
MT	36	42	18	4	0
ND	27	34	27	11	1
SD	34	39	20	7	0
WA	46	47	7	0	0
6 Sts	28	35	26	10	1
Prev Wk	29	32	28	10	1
Prev Yr	2	4	24	58	12

Crop Progress and Condition

Week Ending August 15, 2021

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

Sorghum Percent Headed

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
CO	72	77	91	75
KS	77	59	75	73
NE	94	74	89	87
OK	69	46	71	70
SD	81	77	88	79
TX	91	88	91	88
6 Sts	81	69	82	79

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

Sorghum Percent Coloring

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
CO	4	3	9	10
KS	16	9	15	14
NE	13	9	18	20
OK	29	12	25	31
SD	13	3	6	18
TX	74	69	71	75
6 Sts	33	26	31	36

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

Sorghum Condition by Percent

	VP	P	F	G	EX
CO	3	4	19	56	18
KS	2	6	30	56	6
NE	3	10	28	46	13
OK	2	5	24	66	3
SD	10	27	48	15	0
TX	3	7	30	48	12
6 Sts	3	7	30	52	8
Prev Wk	2	7	28	54	9
Prev Yr	5	9	29	45	12

Rice Percent Headed

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
AR	82	67	84	90
CA	82	70	80	81
LA	97	94	96	97
MS	87	89	95	93
MO	67	60	84	81
TX	99	90	91	99
6 Sts	84	74	86	89

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

Rice Percent Harvested

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
AR	0	0	1	1
CA	0	0	0	0
LA	59	33	55	57
MS	1	0	1	1
MO	0	0	0	0
TX	52	25	38	51
6 Sts	13	7	12	12

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

Rice Condition by Percent

	VP	P	F	G	EX
AR	2	5	27	43	23
CA	0	0	10	80	10
LA	0	0	15	79	6
MS	1	3	12	72	12
MO	0	2	30	55	13
TX	2	1	30	48	19
6 Sts	1	3	22	58	16
Prev Wk	1	2	22	59	16
Prev Yr	1	3	20	59	17

Oats Percent Harvested

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
IA	97	86	93	95
MN	76	75	86	62
NE	98	94	95	95
ND	25	24	43	43
OH	96	94	97	94
PA	68	49	75	66
SD	92	81	88	83
TX	100	100	100	100
WI	70	39	54	60
9 Sts	73	64	75	70

These 9 States harvested 76% of last year's oat acreage.

Barley Percent Harvested

	Prev Year	Prev Week	Aug 15 2021	5-Yr Avg
ID	42	40	59	47
MN	66	82	92	60
MT	25	28	45	40
ND	23	28	57	44
WA	43	62	67	43
5 Sts	31	35	54	44

These 5 States harvested 81% of last year's barley acreage.

Barley Condition by Percent

	VP	P	F	G	EX
ID	5	14	22	44	15
MN	10	27	44	19	0
MT	39	28	22	11	0
ND	25	35	32	8	0
WA	28	38	34	0	0
5 Sts	25	26	26	19	4
Prev Wk	20	26	30	20	4
Prev Yr	1	3	19	59	18

Crop Progress and Condition

Week Ending August 15, 2021

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

Pasture and Range Condition by Percent
Week Ending Aug 15, 2021

	VP	P	F	G	EX		VP	P	F	G	EX
AL	1	2	10	77	10	NH	0	0	20	50	30
AZ	42	15	25	5	13	NJ	2	7	13	78	0
AR	4	13	37	40	6	NM	14	23	37	16	10
CA	30	25	25	20	0	NY	1	6	15	72	6
CO	9	19	30	22	20	NC	9	31	28	28	4
CT	0	0	55	25	20	ND	61	26	11	2	0
DE	1	28	40	25	6	OH	0	5	28	61	6
FL	0	2	16	45	37	OK	1	7	36	46	10
GA	2	6	26	54	12	OR	67	20	11	2	0
ID	28	40	20	12	0	PA	1	7	31	54	7
IL	2	7	22	46	23	RI	0	0	0	50	50
IN	3	8	37	45	7	SC	1	4	25	56	14
IA	8	20	39	29	4	SD	35	42	19	4	0
KS	5	13	33	46	3	TN	4	13	32	46	5
KY	2	6	26	51	15	TX	7	14	31	34	14
LA	0	6	31	60	3	UT	29	41	23	7	0
ME	0	0	75	25	0	VT	0	0	22	69	9
MD	16	24	30	19	11	VA	26	36	29	9	0
MA	0	0	0	52	48	WA	78	17	4	1	0
MI	1	5	32	52	10	WV	14	24	44	16	2
MN	42	35	16	3	4	WI	4	11	23	40	22
MS	3	7	36	45	9	WY	27	38	24	10	1
MO	0	3	28	63	6	48 Sts	23	21	27	22	7
MT	64	34	2	0	0						
NE	7	12	61	19	1	Prev Wk	22	21	27	22	8
NV	40	30	30	0	0	Prev Yr	13	22	33	28	4

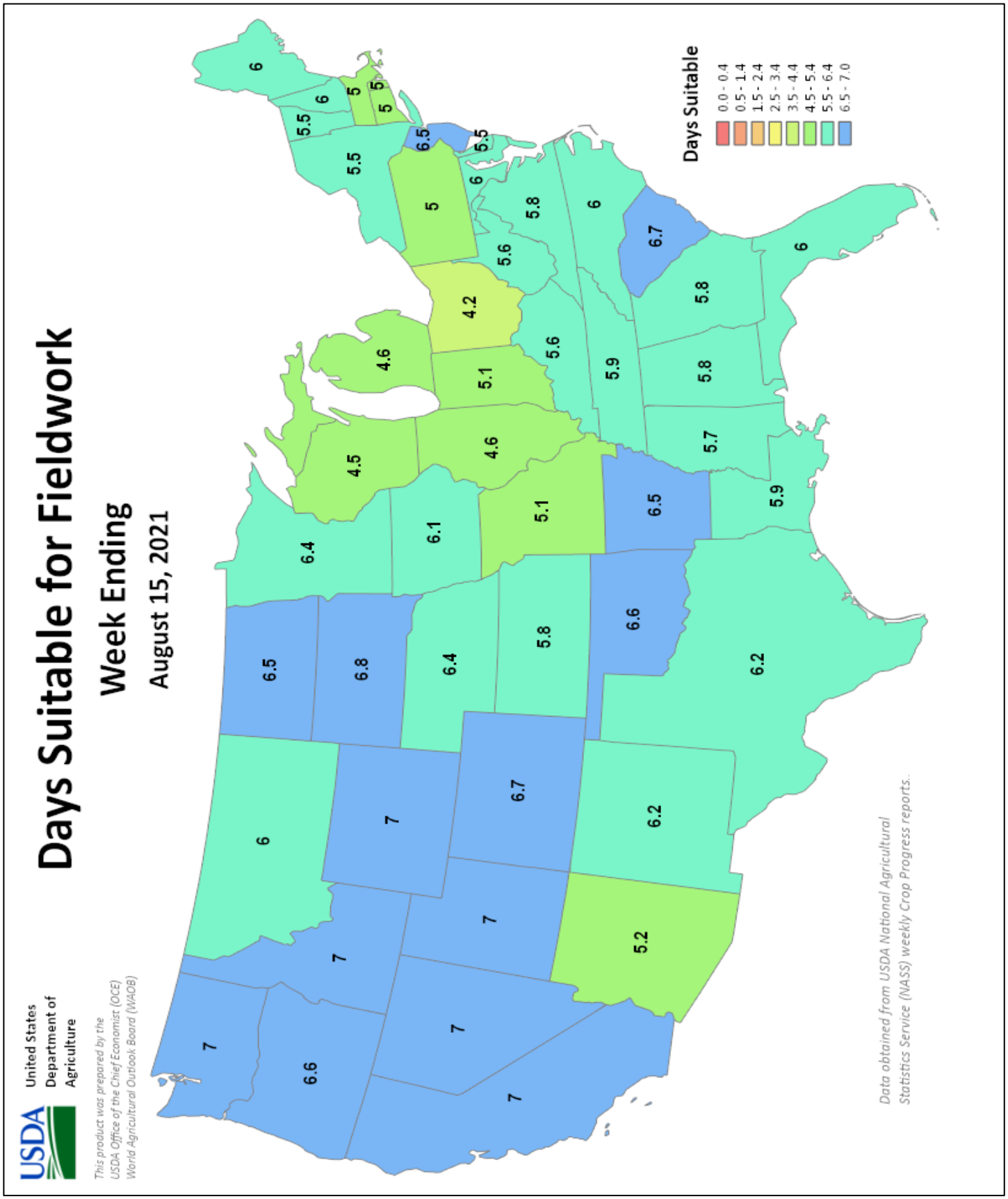
VP - Very Poor; P - Poor;
F - Fair;
G - Good; EX - Excellent

NA - Not Available
*** Revised**

Crop Progress and Condition

Week Ending August 15, 2021

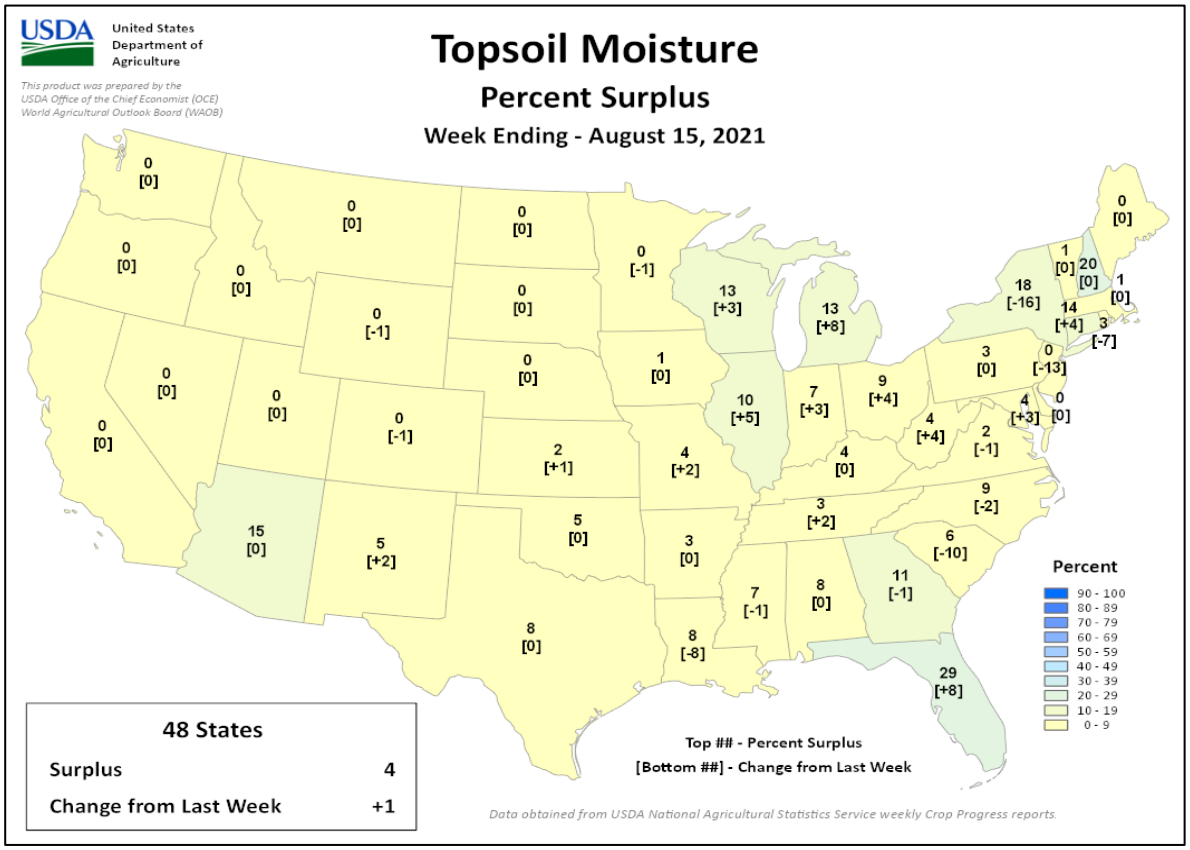
Weekly U.S. Progress and Condition Data provided by USDA/NASS

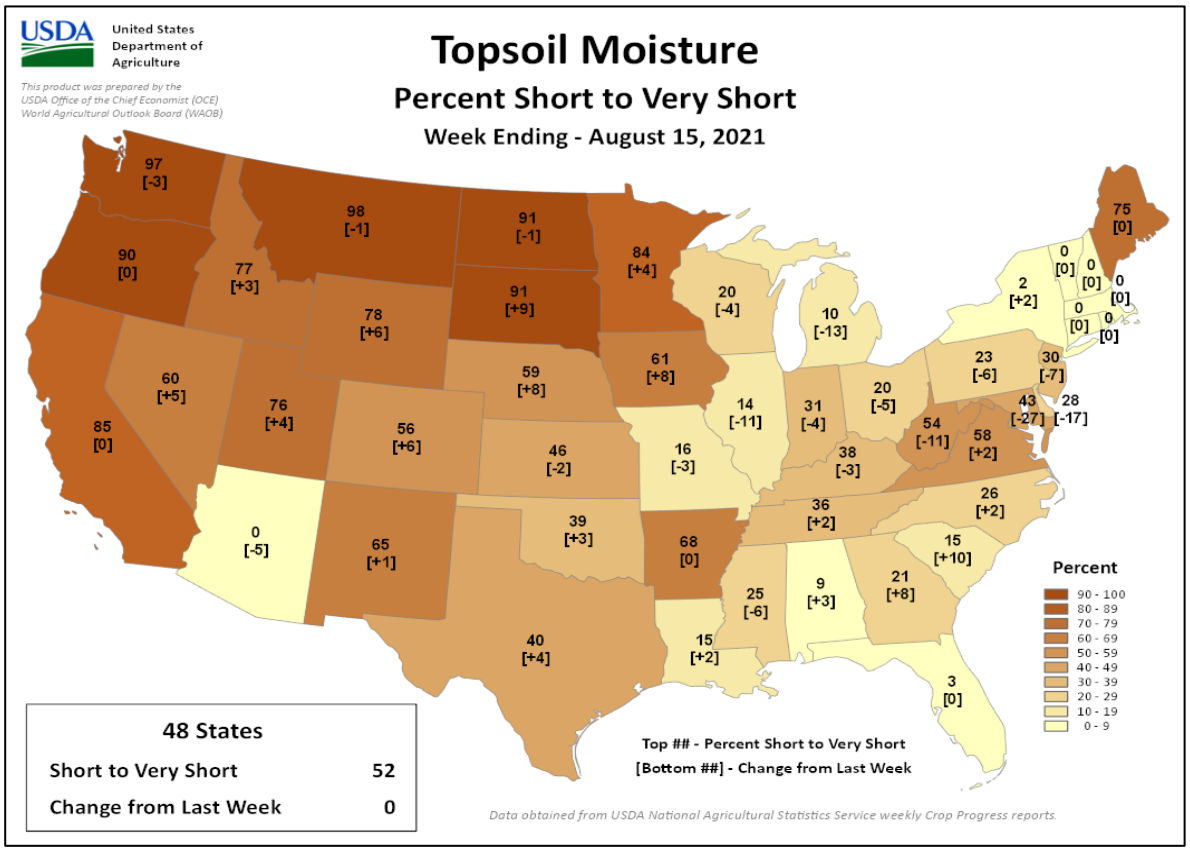


Crop Progress and Condition

Week Ending August 15, 2021

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

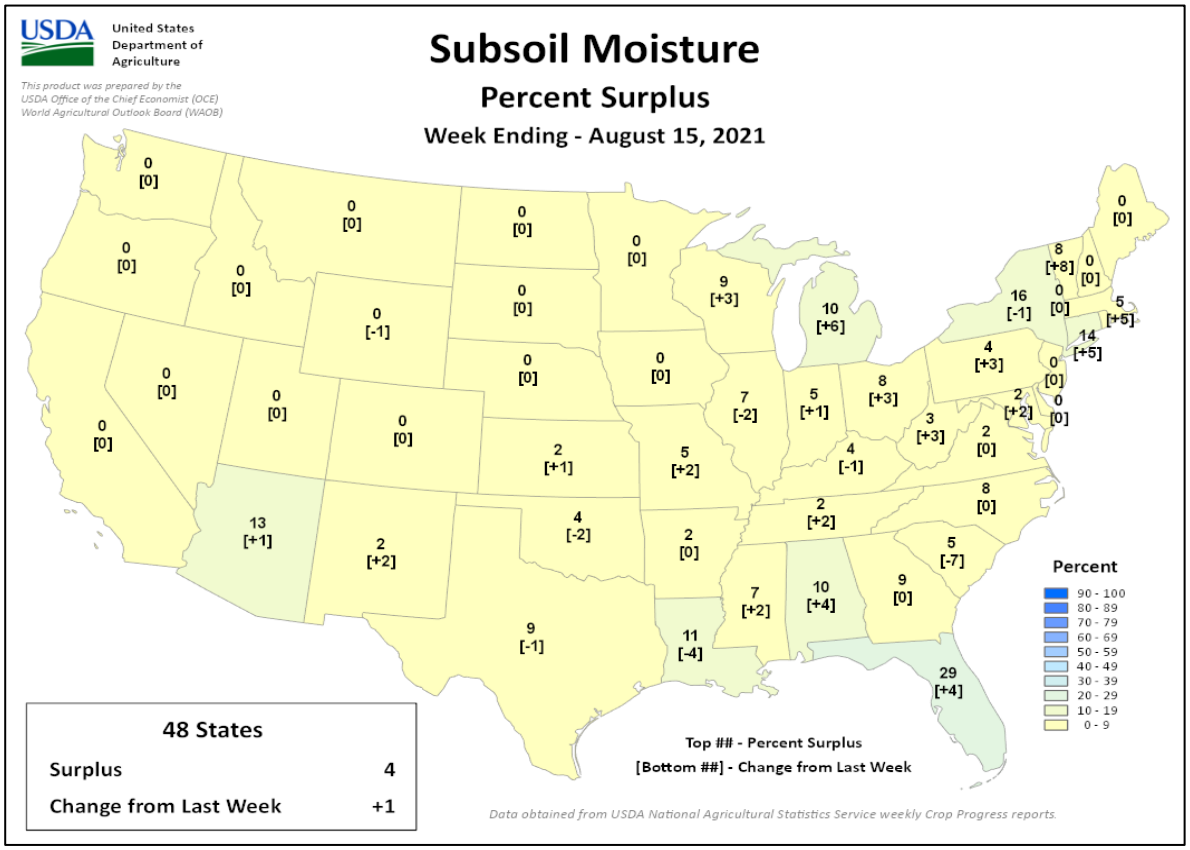


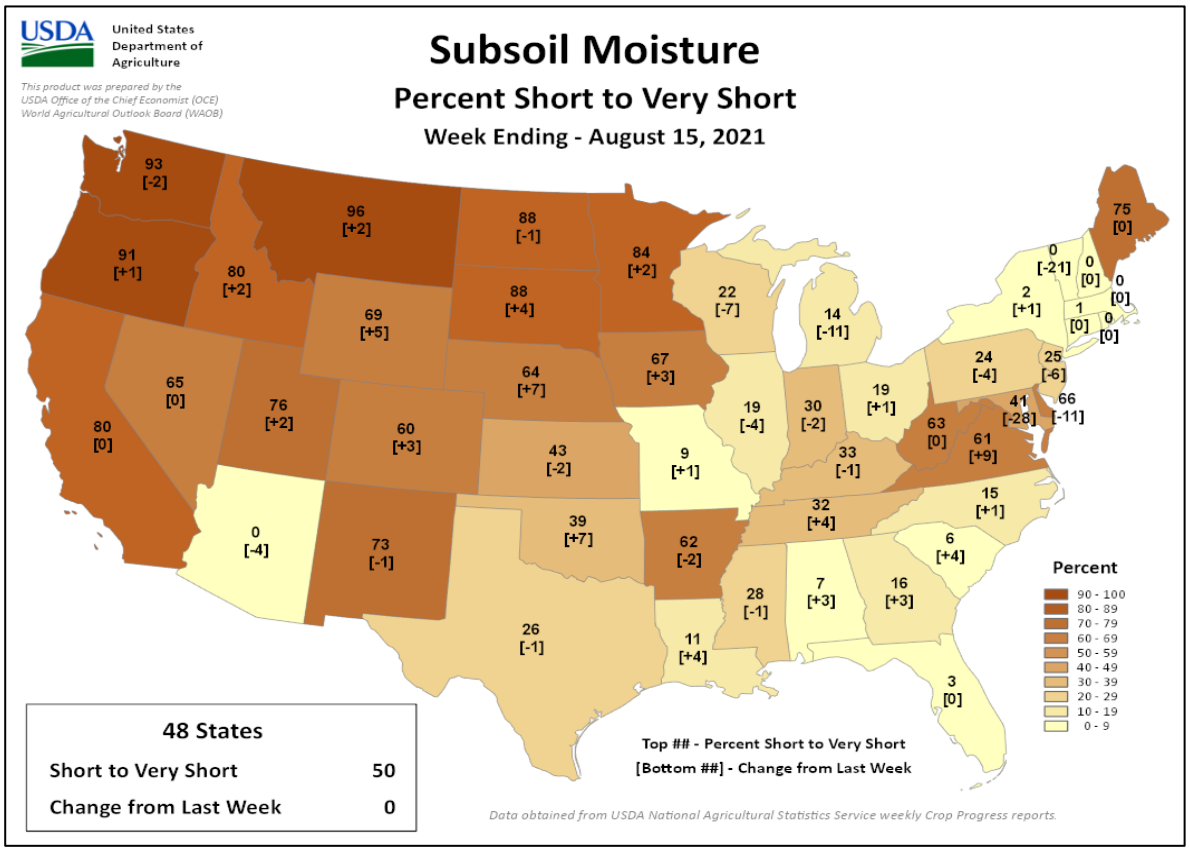


Crop Progress and Condition

Week Ending August 15, 2021

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





August 12 ENSO Diagnostic Discussion

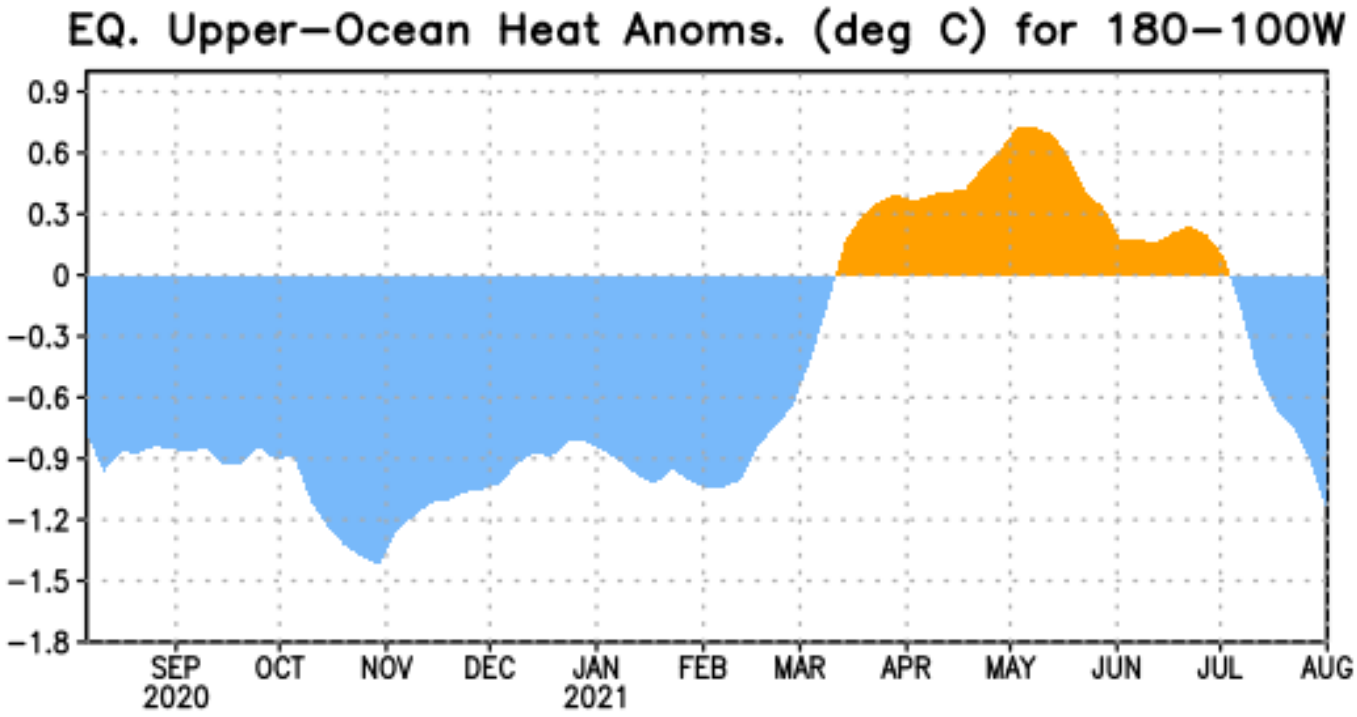


Figure 1: Area-averaged upper-ocean heat content anomaly (°C) in the equatorial Pacific (5°N-5°S, 180º-100ºW). The heat content anomaly is computed as the departure from the 1991-2020 base period pentad means.

ENSO Alert System Status: La Niña Watch

Synopsis: ENSO-neutral is favored for the remainder of summer (~60% chance in the July-September season), with La Niña possibly emerging during the August-October season and lasting through the 2021-22 winter (~70% chance during November-January).

Recently, sea surface temperatures (SSTs) were near-to-below average in the central and east-central equatorial Pacific, with above-average SSTs in the far eastern Pacific. In the last week, most Niño indices were slightly negative (-0.2ºC to -0.3ºC) except for the Niño-1+2 index, which was +0.7ºC. Subsurface temperatures cooled considerably in July, becoming quite negative (averaged from 180-100ºW; Fig. 1), reflecting the emergence of below-average subsurface temperatures east of the Date Line. Low-level wind anomalies were easterly over the east-central Pacific Ocean, while upper-level wind anomalies were westerly across the eastern Pacific. Tropical convection was suppressed over the western Pacific Ocean and enhanced over a small region near Indonesia. Given the surface conditions, the ocean-atmosphere system reflected ENSO-neutral.

Compared to last month, forecasts from the IRI/CPC plume are generally cooler in the Niño-3.4 SST region during the fall and winter 2021-22. Recent model runs from the NCEP CFSv2 and the North American Multi-Model Ensemble suggest the onset of a weak La Niña in the coming months, persisting through winter 2021-22. The forecaster consensus continues to favor these models, which is also supported by the noticeable decrease in the observed subsurface temperature anomalies this past month. In summary, ENSO-neutral is favored for the remainder of summer (~60% chance in the July-September season), with La Niña possibly emerging during the August-October season and lasting through the 2021-22 winter (~70% chance during November-January; click CPC/IRI consensus forecast for the chances in each 3-month period).

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 web site (El Niño/La Niña Current Conditions and Expert Discussions). Additional perspectives and analysis are also available in an ENSO blog. A probabilistic strength forecast is available here. The next ENSO Diagnostics Discussion is scheduled for **9 September 2021**. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: ncep.list.enso-update@noaa.gov.

International Weather and Crop Summary

August 8-14, 2021

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

HIGHLIGHTS

EUROPE: Cool, showery weather early in the week gave way to drier, warmer conditions by the end of the period, though heat and dryness continued to afflict filling summer crops in the lower Balkans.

WESTERN FSU: Warm weather accelerated summer crops toward maturity before a slow-moving Black Sea storm system produced moderate to locally excessive rainfall in southern crop areas.

EASTERN FSU: Recent incursions of hot weather spurred spring grains and summer crops toward maturity well ahead of normal in most locales.

MIDDLE EAST: Unseasonably heavy showers developed in northern Turkey, though most summer crop areas remained dry and somewhat cooler.

SOUTH ASIA: Unseasonable dryness in western India continued to exacerbate drought conditions and lower yield potential of cotton and oilseeds.

EASTERN ASIA: Heavy monsoon showers eased seasonal moisture deficits in southern China.

SOUTHEAST ASIA: Widespread showers maintained or improved moisture supplies for rice and other crops.

AUSTRALIA: Showers in the south and west continued to benefit wheat, barley, and canola.

ARGENTINA: Showers increased moisture for winter grains in key production areas of central Argentina.

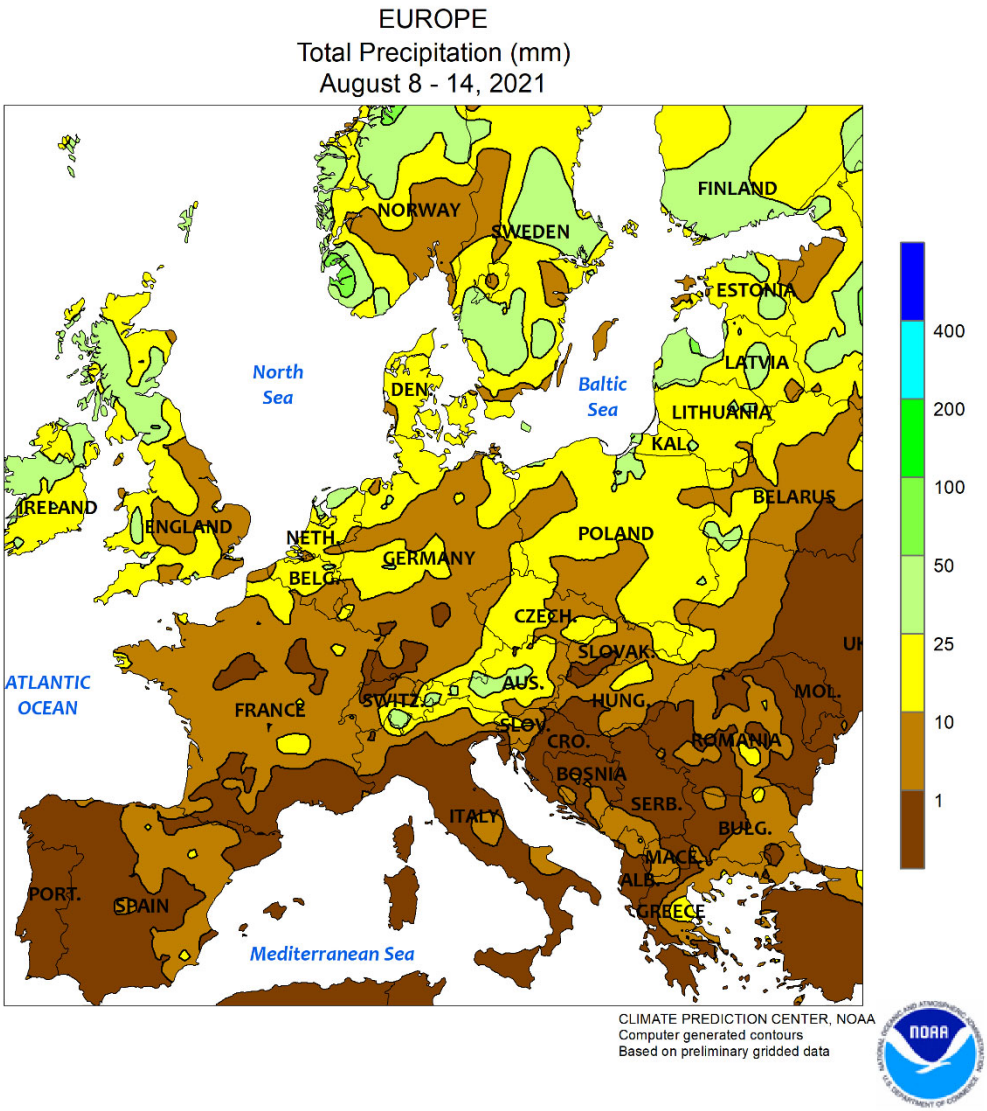
BRAZIL: Conditions favored summer crop harvesting, although moisture remained limited for wheat in southern production areas.

MEXICO: Showers maintained favorable summer crop prospects, while further helping to rebuild long-term moisture reserves.

CANADIAN PRAIRIES: Showers overspread southern and eastern farming areas, increasing local moisture reserves but coming too late for most drought-stressed spring and summer crops.

SOUTHEASTERN CANADA: Warm weather spurred rapid rates of development of summer crops and maturing winter wheat.

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



EUROPE

Cool, showery weather early in the period maintained good to excellent summer crop conditions in central and northern Europe, while heat and dryness lingered in the lower Balkans. Rainfall during the past week — most of which occurred during the first half of the monitoring period — totaled 2 to 40 mm from England and northern France eastward into Poland and the Baltic States. The majority of the continent's central and northern croplands have reported near- to much-above-normal rainfall (locally more than 200 percent of normal) over the past 60 days save for northwestern Poland. Consequently, the drier weather which followed the rain was favorable for summer crop development and seasonal fieldwork. Meanwhile, dryness continued to afflict the lower Danube River Valley, where 30-day rainfall has tallied a meager 25 percent of normal or less. Furthermore, temperatures as high as 38°C in the lower Danube River Valley maintained stress on filling summer crops, where yield prospects continued to decline due to the current spell of hot weather which began on or about July 25. Conversely, near- to below-normal temperatures across much of western Europe (up to 2°C below normal) maintained favorable growing conditions for reproductive to filling summer crops but slowed development up to one week behind average. The recent cool weather has been especially beneficial on the Iberian Peninsula, where short-term dryness in northern Spain (Castilla y Leon) has maintained high irrigation demands for corn; the bulk of this week's showers in Spain (2-15 mm) fell east of the primary corn areas.

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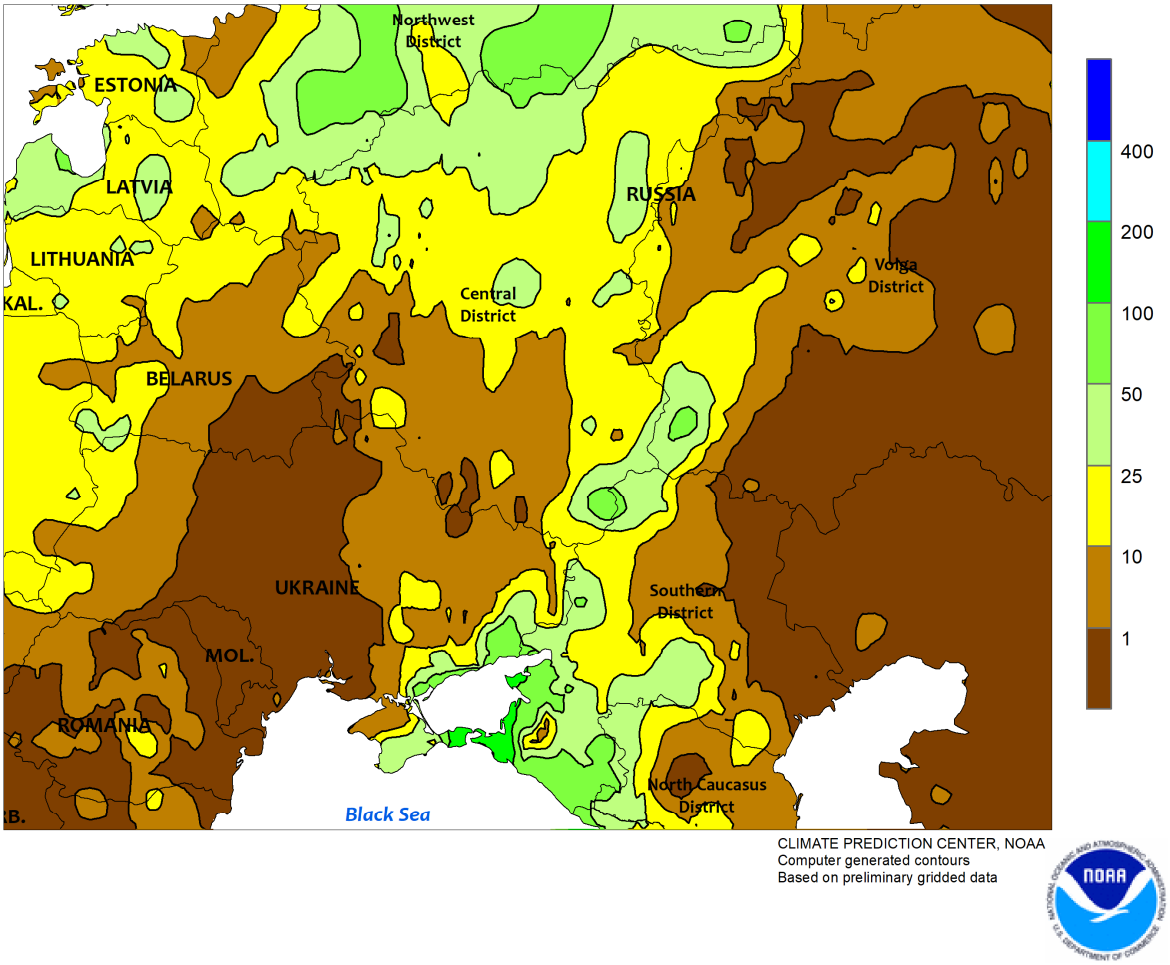
WESTERN FSU
Total Precipitation (mm)
August 8 - 14, 2021



WESTERN FSU

Warmer-than-normal conditions prevailed for much of the week before a slow-moving storm system brought moderate to very heavy rain to southwestern Russia. Warm weather was noted from central Ukraine into eastern Belarus (1-3°C above normal), while temperatures across eastern Ukraine and Russia averaged 2 to 8°C above normal. Summer crops in Russia were approaching maturity one to two weeks ahead of average due to persistent heat since June. However, a slow-moving disturbance over the Black Sea drifted northeastward during the latter half of the week, generating moderate to excessive rainfall (10-130 mm, locally more than 200 mm along the Black Sea Coast) in southwestern Russia. The rain improved soil moisture for upcoming winter wheat planting but was untimely for summer crops and likely caused local flooding. The same storm system was also responsible for scattered but beneficial showers in eastern Ukraine, with reported amounts ranging from 3 to 15 mm in eastern corn areas to more than 25 mm in the southeast; however, weather radar indicated locally higher totals were likely. Ukraine's corn, soybeans, and sunflowers have largely been spared incursions of 35-degree heat, with the most recent satellite-derived Vegetation Health Index indicating good to excellent crop conditions over much of the country.

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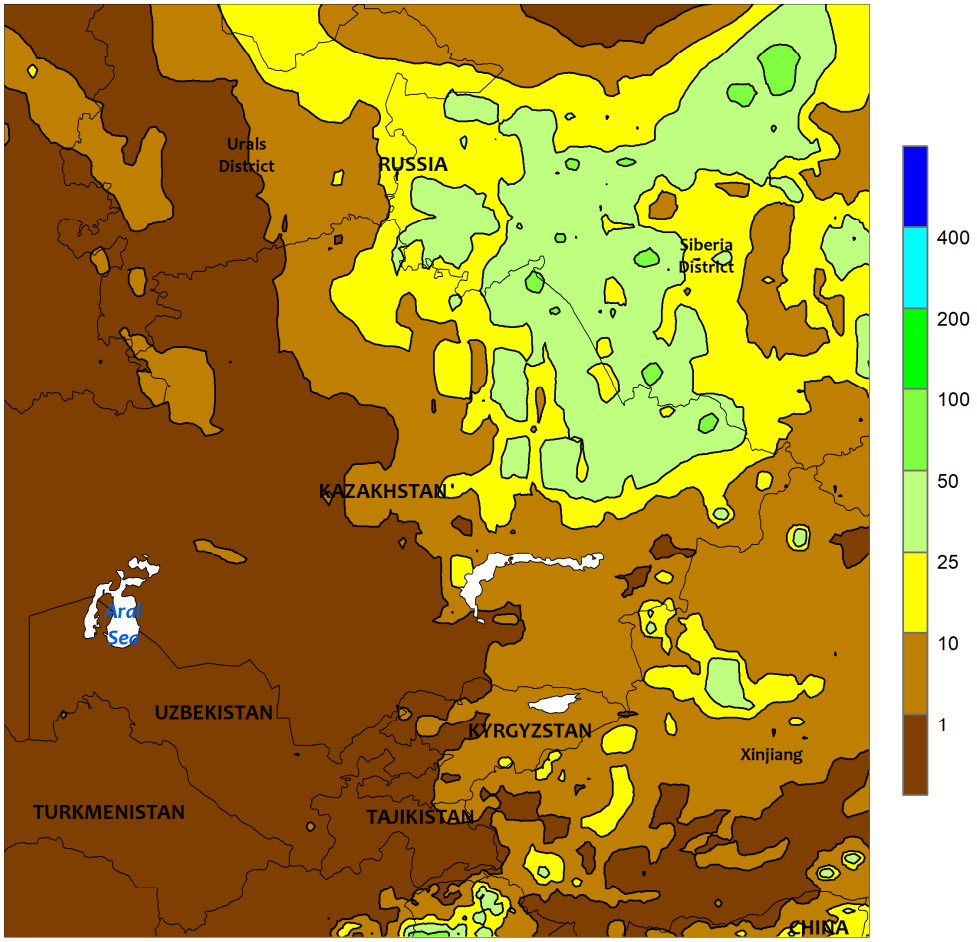
EASTERN FSU
Total Precipitation (mm)
August 8 - 14, 2021



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

EASTERN FSU

Despite a respite from recent heat, spring grains and summer crops approached or entered maturity well ahead of normal in many growing areas. Somewhat cooler weather returned to the spring grain belt, with near- to below-normal temperatures (up to 2°C below normal) reported in northern Kazakhstan and central Russia. However, heat encroached from the west, with daytime highs reaching into the middle and upper 30s (degrees C) in the southeastern Volga District. Spring wheat and barley were approaching or have reached maturity one to more than two weeks ahead of average across western and central growing areas, while spring wheat in Russia's Siberia District was still filling. Consequently, this week's rain (10-70 mm) further improved late-season prospects for Siberia's spring wheat. The latest satellite-derived Vegetation Health Index continued to depict poor crop vigor from this season's heat and drought in western and central spring grain areas, while conditions in the Siberia District remained good to excellent save for the district's western-most croplands. In the south, sunny skies and above-normal temperatures (1-3°C above normal) accelerated cotton toward maturity one to two weeks ahead of average (locally more).

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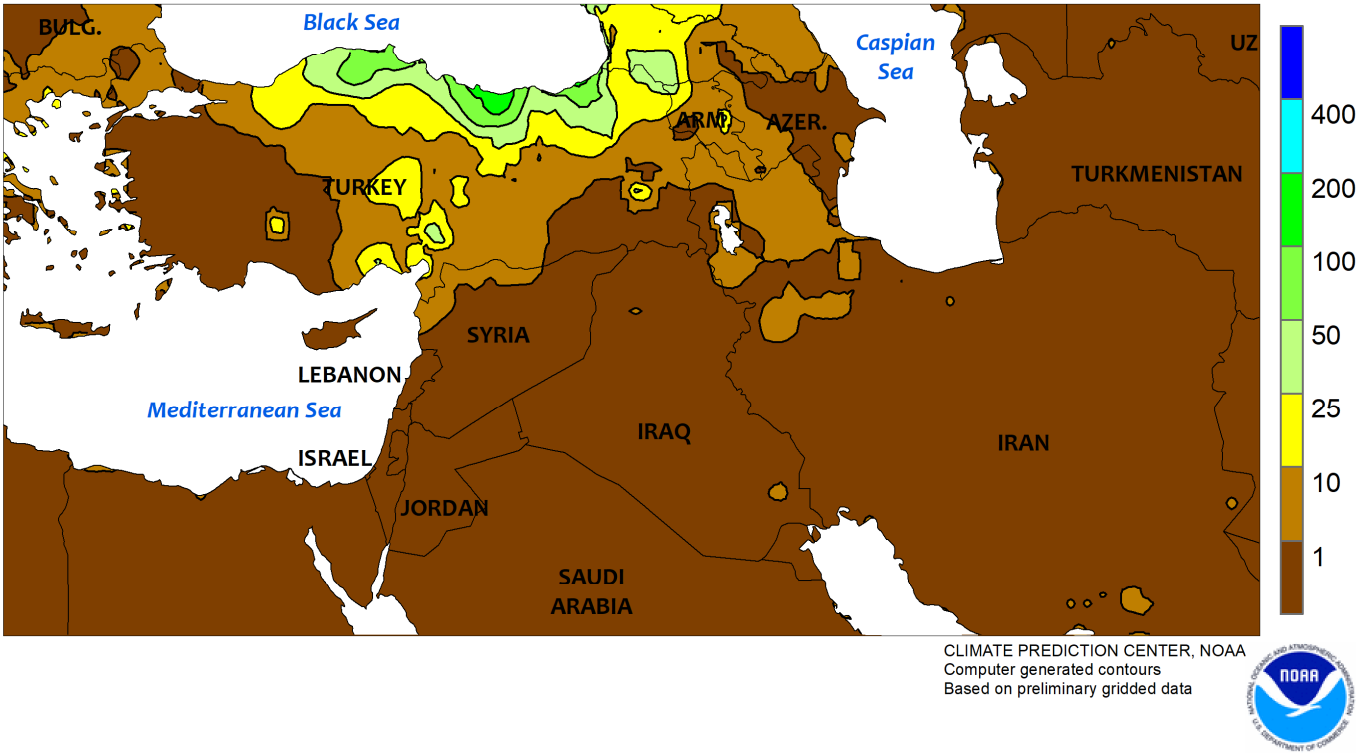
MIDDLE EAST
Total Precipitation (mm)
August 8 - 14, 2021



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

MIDDLE EAST

Despite unseasonably heavy showers in Turkey, primary summer crop areas were overall dry. A slow-moving storm over the Black Sea triggered scattered light to moderate showers in central Turkey (1-20 mm) but unseasonably heavy rain (25-200 mm) along the Black Sea Coast. The rain — which caused localized flooding in the north — largely fell outside primary summer crop areas, though some sunflowers are grown in northern Turkey. Otherwise, mostly dry albeit cooler weather promoted summer crop maturation and drydown. The latest satellite-derived Vegetation Health Index (VHI) depicted increasing crop stress across much of the country, though the VHI indicated locally good conditions in the heavily irrigated southeastern GAP Region.

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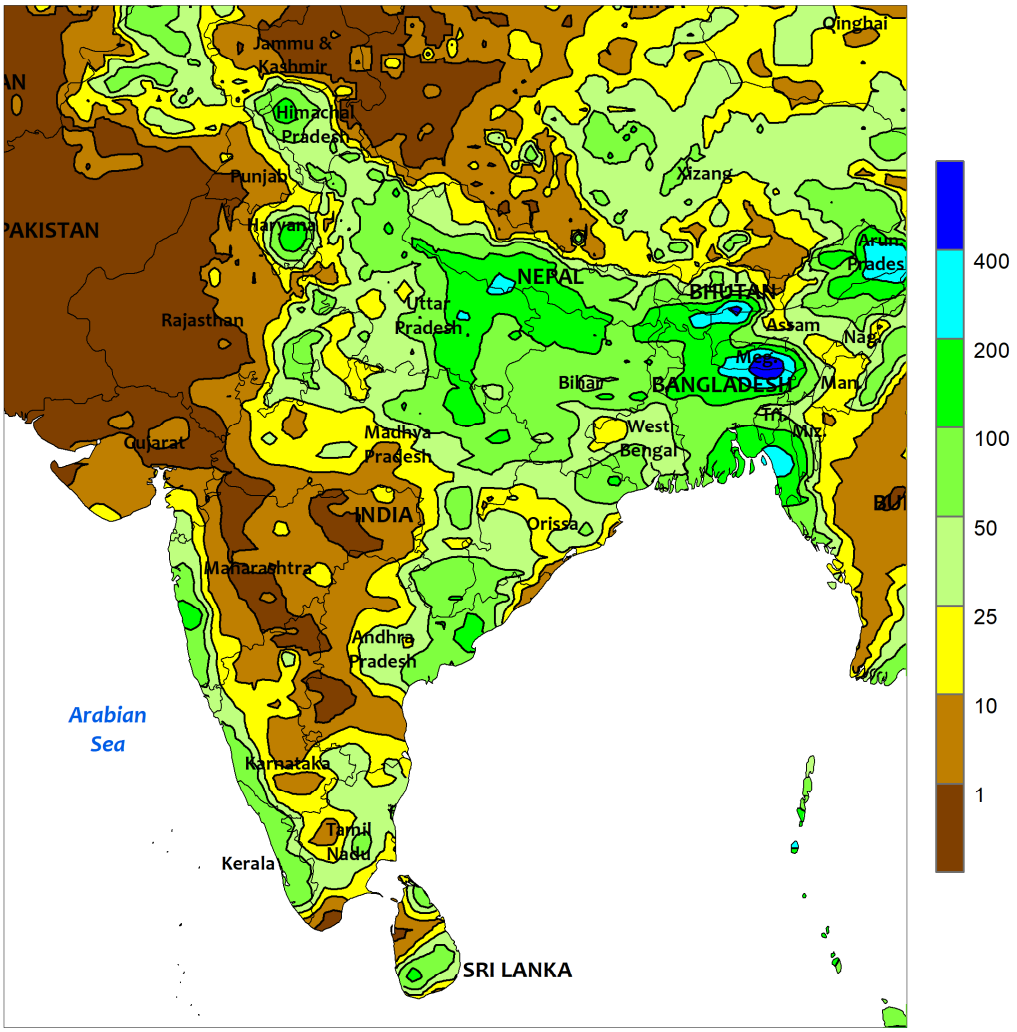
SOUTH ASIA
Total Precipitation (mm)
August 8 - 14, 2021



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

SOUTH ASIA

Unseasonably dry weather prevailed across much of western India and the southern interior with little, if any, rainfall recorded for the week. The dryness has been particularly pervasive in the west, where moderate to severe drought in eastern Gujarat and neighboring sections of Maharashtra has limited soil moisture for cotton and oilseeds. With planting nearly complete and the wet season ending in late September or early October, little time exists for moisture conditions to improve and stem potential yield reductions. The recent dry weather in the south is less of a concern for kharif crops following ample rainfall during the first half of the season. Meanwhile, showers (25-100 mm or more) throughout much of the east sustained good moisture supplies for rice, although there were parts of Odisha and the surrounding areas still experiencing moderate to severe seasonal drought. Additionally, localized heavy rainfall (up to 123 mm) in western Madhya Pradesh added to extreme wetness for soybeans. Elsewhere in the region, irrigation supplies in Pakistan remained favorable for cotton and rice, while continued wet weather in Bangladesh and Sri Lanka supported currently growing rice and moisture reserves for the next crop cycle.

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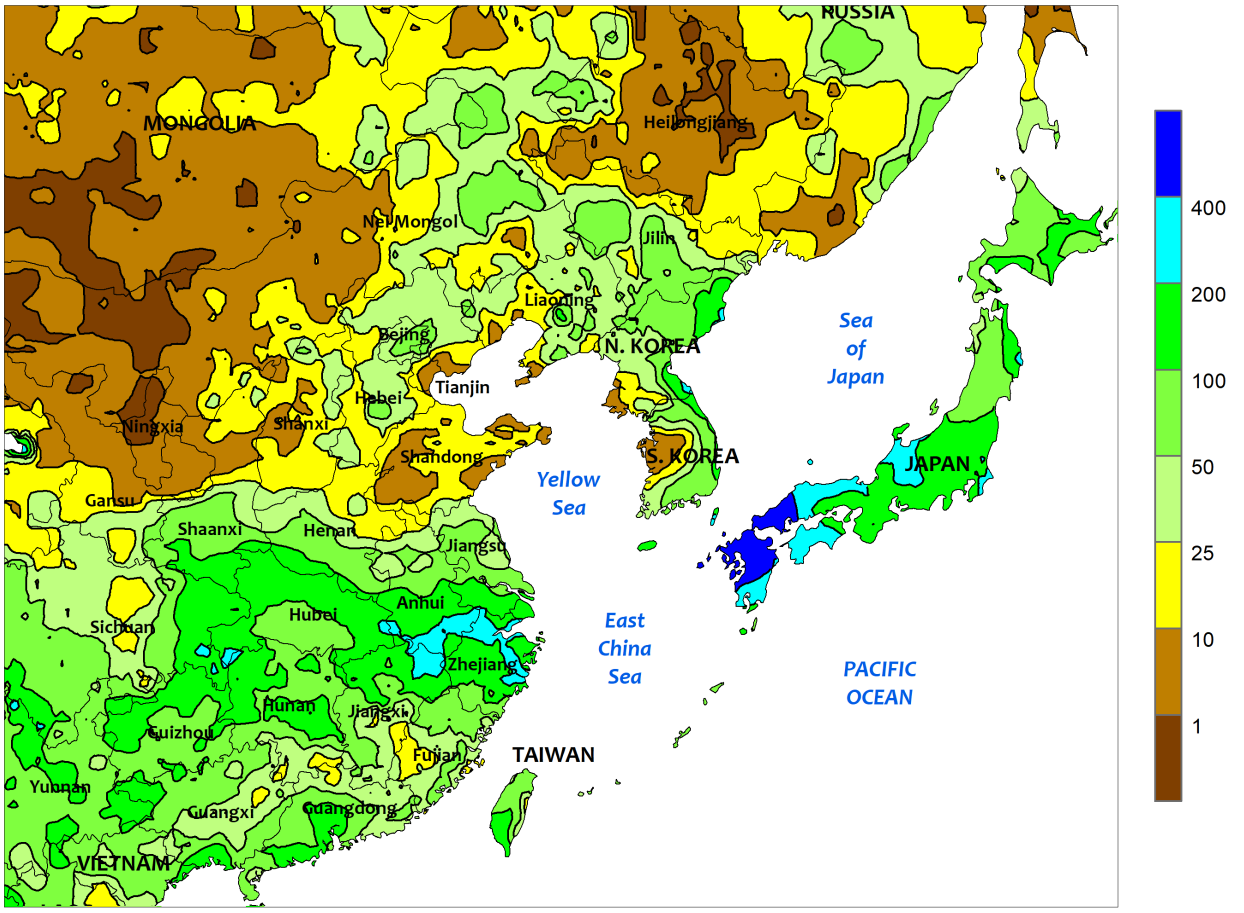
EASTERN ASIA
Total Precipitation (mm)
August 8 - 14, 2021



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

EASTERN ASIA

Waves of monsoon showers pushed through southern China during the week, bringing 50 to 250 mm to provinces south of the Yangtze River. The showers eased seasonal moisture deficits in key late-crop rice areas, while sustaining adequate to ample moisture supplies for single-crop rice and other summer crops within the Yangtze Valley. Some of the wet weather reached sections of the North China Plain (10-30 mm) and parts of the northeast (10-85 mm), benefiting corn, soybeans, and other summer crops in the latter stages of reproduction. However, the rainfall did little to ease drought conditions in eastern Heilongjiang, where seasonal rainfall totals remained about half of normal. Meanwhile, periodic stressful heat in western China gave way to more seasonable temperatures over the last two weeks, improving crop conditions for flowering to open-boll cotton. Elsewhere in the region, a pair of tropical cyclones (Lupit and Mirinae) deluged southern Japan with up to 530 mm of rain, causing localized flooding, while some of the moisture (50-150 mm) eased seasonal dryness in key northern rice areas (Hokkaido). In addition, showers also dented moisture deficits on parts of the Korean Peninsula.

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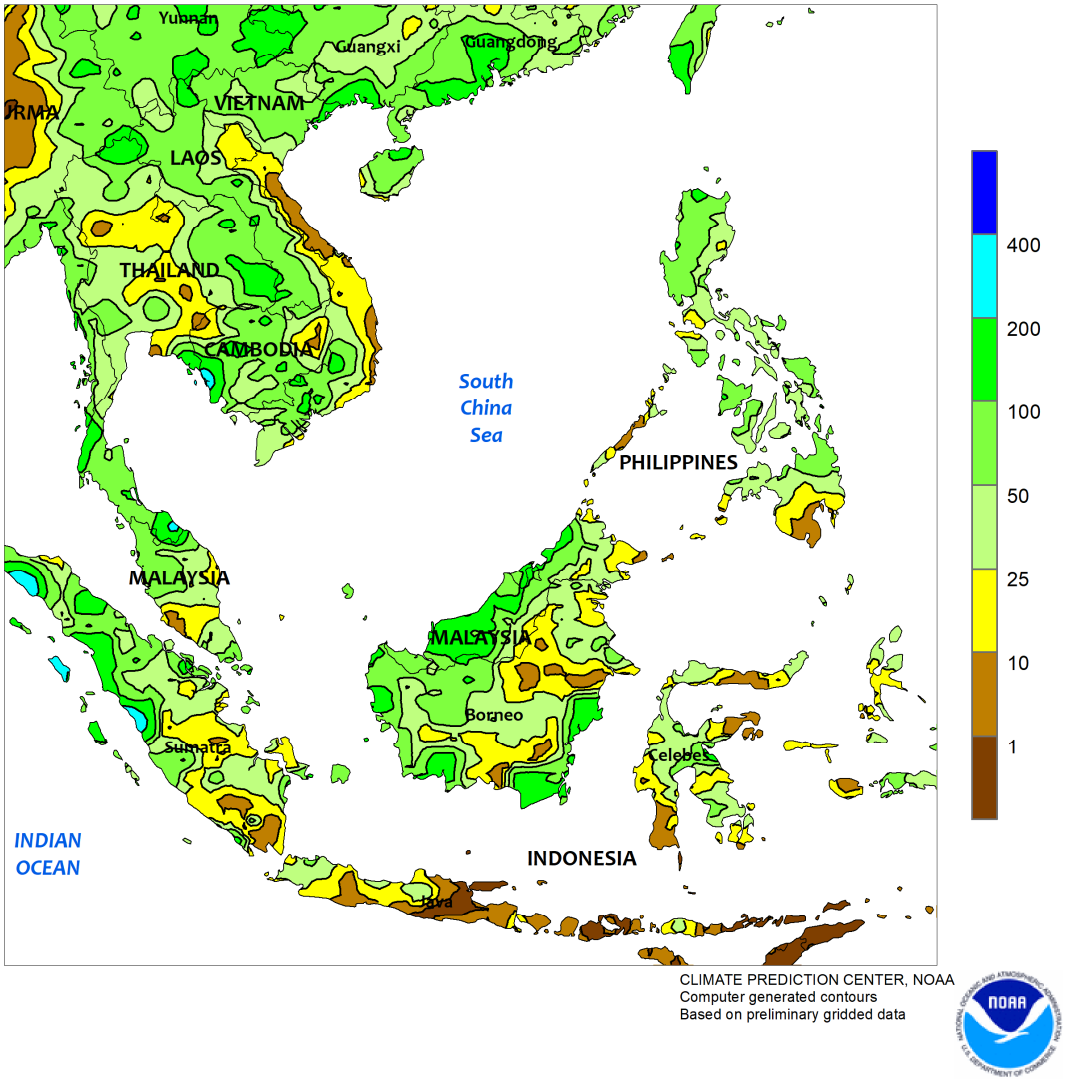
SOUTHEAST ASIA
Total Precipitation (mm)
August 8 - 14, 2021



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

SOUTHEAST ASIA

Monsoon showers returned to Thailand and the surrounding areas, with most locales recording 25 to 100 mm or more. However, some pockets of drier weather occurred in northern and central Thailand. Nevertheless, moisture conditions for rice since June 1 remained favorable in nearly all reaches. Similar rainfall totals were reported throughout the Philippines as well, easing dryness for rice and corn in central sections of the country (Visayas) and parts of the northeast (Cagayan Valley). Additionally, a return to more seasonable rainfall amounts in western Luzon eased the excessive wetness that had occurred over the preceding three weeks (1,100 mm). Elsewhere, showers returned to key oil palm areas of Indonesia and Malaysia, sustaining adequate to abundant soil moisture.

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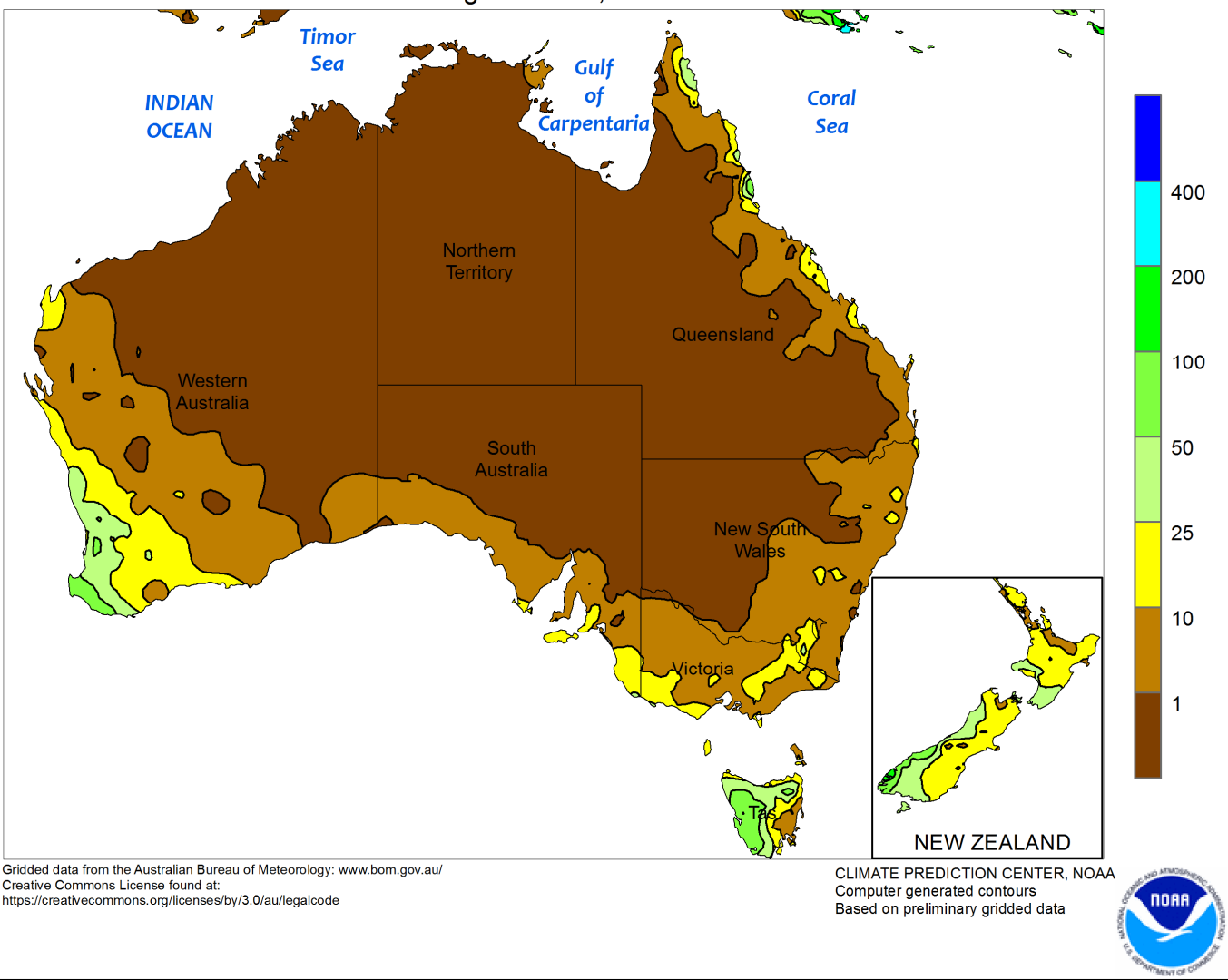

AUSTRALIA

In Western Australia, widespread showers (10-30 mm) maintained abundant soil moisture for wheat, barley, and canola, further promoting vegetative growth. Similarly, passing showers (5-15 mm) in southeastern Australia sustained moisture supplies for vegetative winter grains and oilseeds, while periods of sun spurred additional crop development. Farther north, mostly sunny skies and adequate to abundant soil moisture in southern Queensland and northern New South Wales benefited winter wheat. Crop conditions and yield prospects remained good to excellent throughout the wheat belt, as crops in far northern areas approach the reproductive stages of development. Temperatures averaged 1 to 2ºC above normal in southern and eastern Australia, with maximum temperatures ranging from the upper 10s (degrees C) in the south to the middle 20s in the north. In Western Australia, temperatures averaged near normal with maximum temperatures in the upper 10s and lower 20s.

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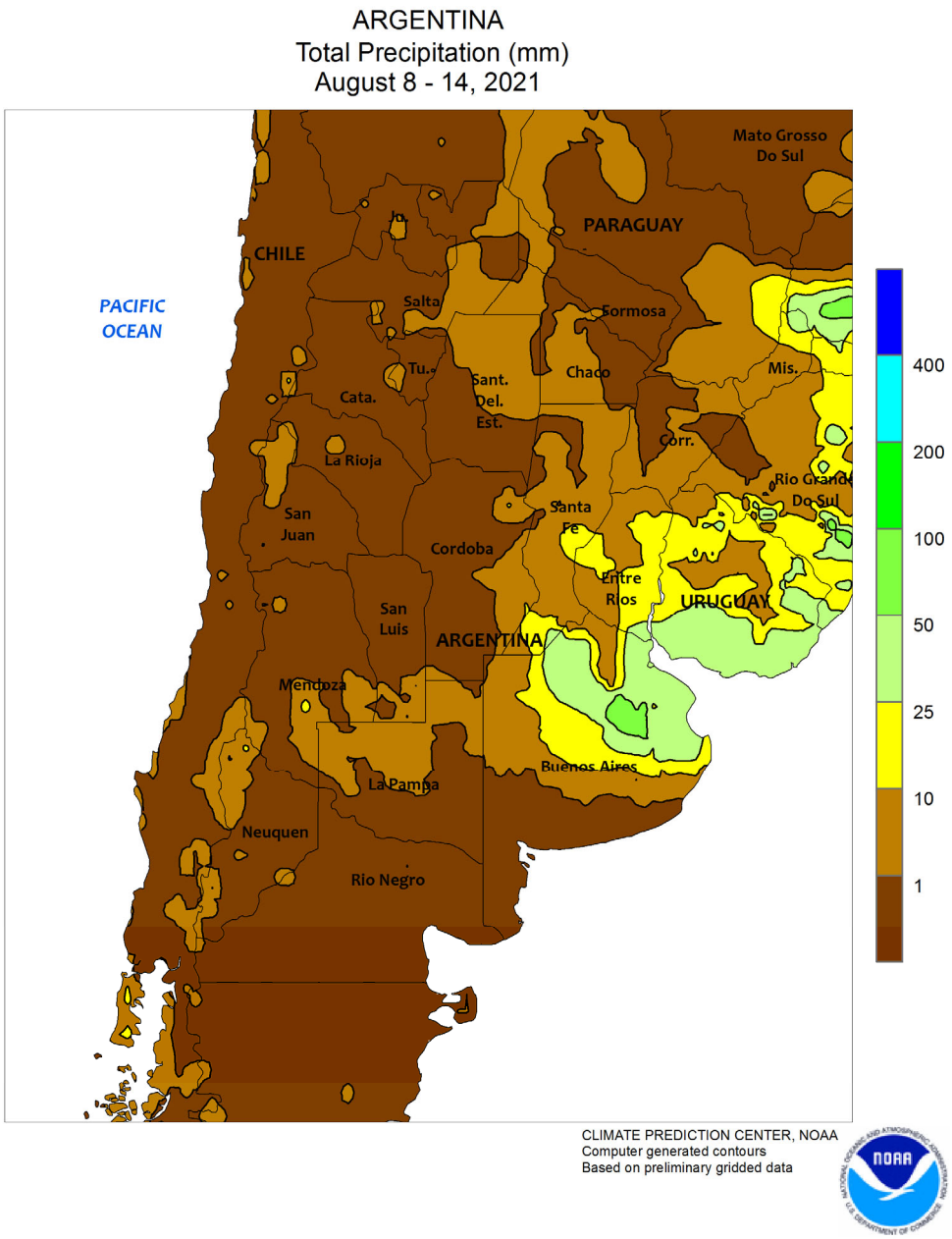
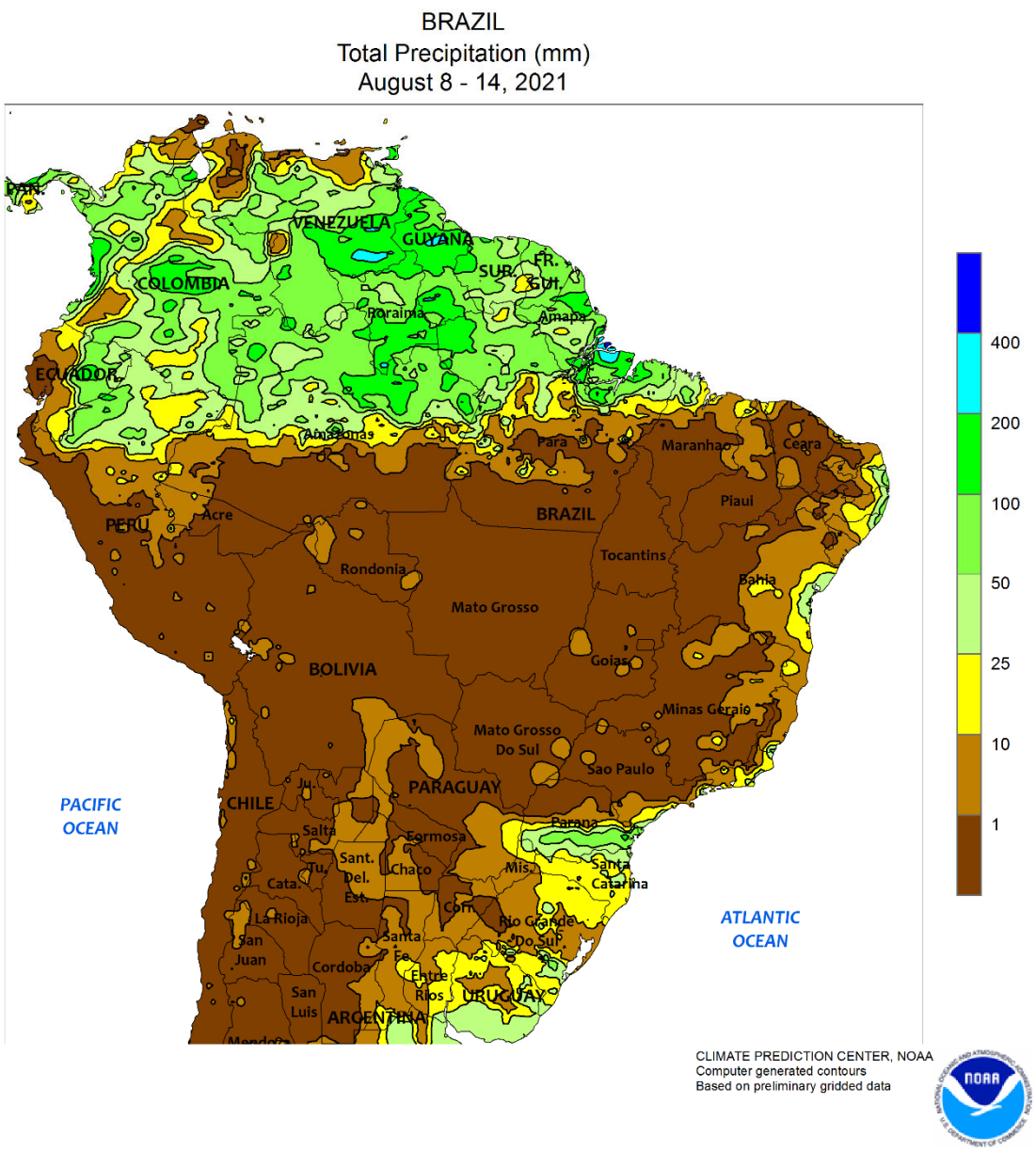


ARGENTINA

Showers increased moisture for winter grains in many high-yielding farming areas of central Argentina. Rainfall totaled 10 to 50 mm over much of central and northeastern Buenos Aires, Entre Rios, and southern Santa Fe; drier conditions prevailed elsewhere, however, including Buenos Aires' southern winter grain belt. Weekly temperatures averaged 1 to 4°C below normal, with much of southern Buenos Aires recording temperatures of -5°C or lower, slowing growth of vegetative wheat and barley. According to the government of Argentina, corn was 98 percent harvested as of August 12 as all major seasonal fieldwork (summer crop harvesting and winter grain planting) neared completion.

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



BRAZIL

Dry weather prevailed over much of Brazil, supporting crop harvesting, while southern wheat areas received only localized relief from dryness. Scattered showers produced generally light to moderate rainfall (10-25 mm, locally higher) from southern Parana southward as more wheat reached reproduction; northern Parana and environs remained dry. According to the government of Parana, 55 percent of Parana's wheat had reached flowering as of August 9; 22 percent of second-crop corn was harvested, with the bulk of the remaining crop maturing. Meanwhile, only 6 percent of the wheat crop in Rio Grande do Sul had reportedly reached flowering as of August 12. Near- to below-normal temperatures accompanied the light rain but nighttime lows stayed above freezing. Farther north, seasonable dryness aided fieldwork in Brazil's central and northeastern interior. According to the government of Mato Grosso, corn and cotton were 99 and 52 percent harvested, respectively, as of August 13.

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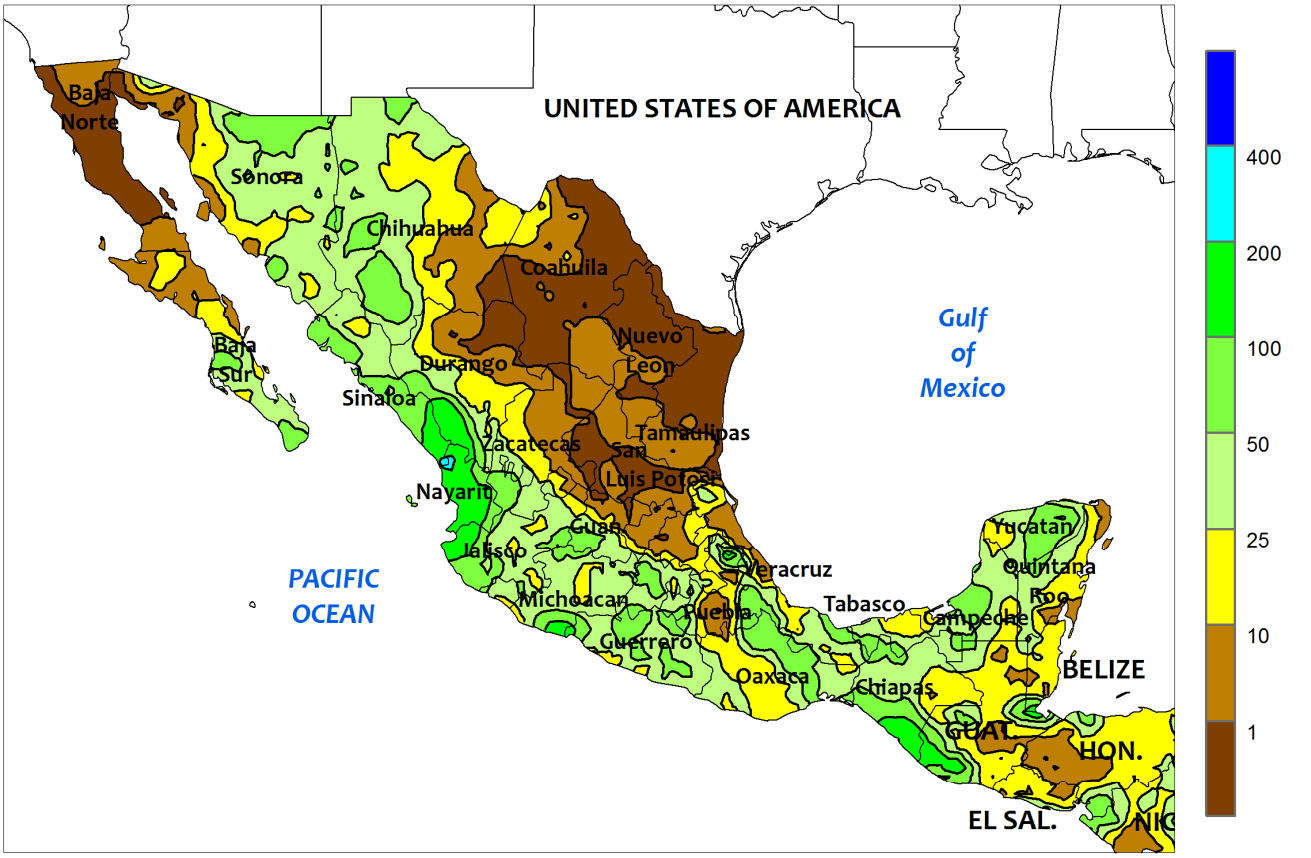
MEXICO
Total Precipitation (mm)
August 8 - 14, 2021



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

MEXICO

Showers intensified throughout much of the south and west, benefiting summer crops while further adding to the now increasing irrigation reserves in key reservoirs. Rainfall totaling 25 to 100 mm covered much of the south, including the southern plateau (Jalisco to Puebla) as well as agricultural areas in the southeast, including southern Veracruz, Tabasco, Campeche, and Chiapas. Similar amounts were recorded over northwestern watersheds, including previously dry locations in northern Chihuahua where moisture was welcome for developing cotton. Heavy rain (100-200 mm) fell along the western coast from southern Sinaloa and nearby sections of Durango to northwestern Jalisco, causing some localized flooding, independent of a land-falling tropical storm system. In contrast, dry weather dominated much of northeastern Mexico, including Veracruz's northern sugarcane areas, where summer warmth (daytime highs reaching the middle and upper 30s degrees C) maintained high levels of water needed for crops and livestock.

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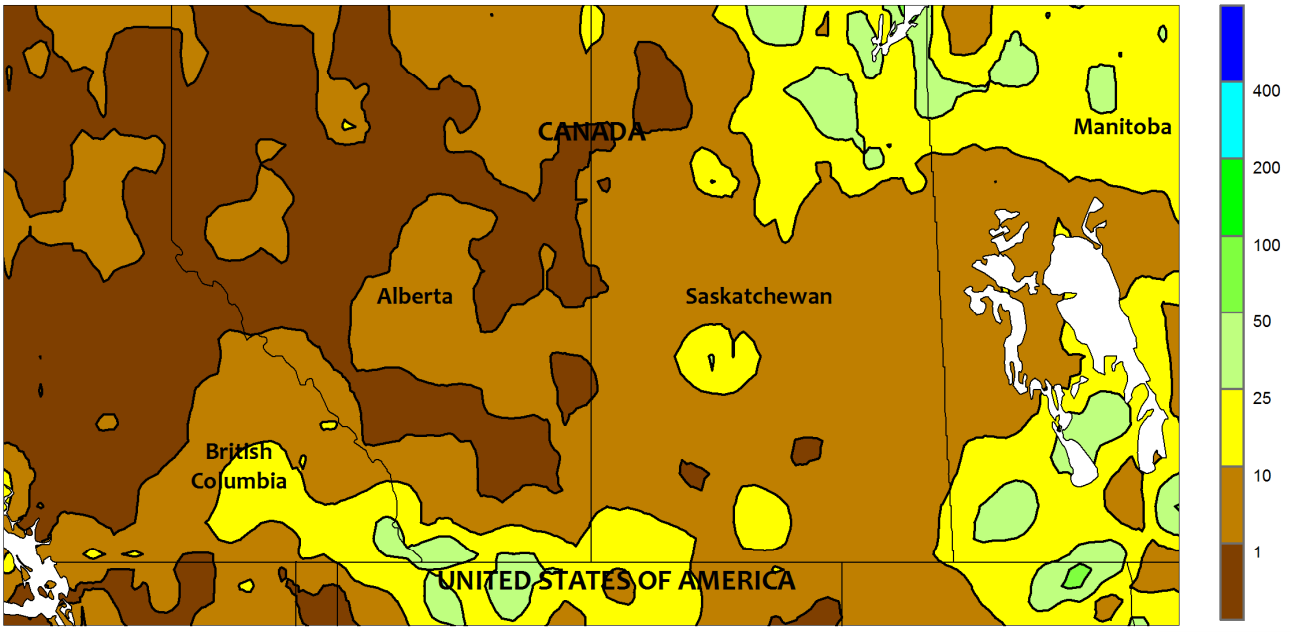
CANADIAN PRAIRIES
Total Precipitation (mm)
August 8 - 14, 2021



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

CANADIAN PRAIRIES

Light showers overspread southern and eastern sections of the Prairies, providing much-needed moisture but generally coming too late to reverse losses in yield potential. Rainfall totaled 5 to 25 mm from southern Alberta eastward, with locally higher amounts (reaching 50 mm) in southern Manitoba. Dry weather persisted elsewhere, including Alberta's central and northern production areas and neighboring locations in Saskatchewan. Weekly temperatures averaged 1 to 3°C above normal in the drier parts of Alberta and Saskatchewan and near normal elsewhere, with daytime highs spiking into the middle and upper 30s (degrees C) at weeks end at many locations. According to provincial crop reports issued during the second week of August, harvesting was advancing with generally below-average yields.

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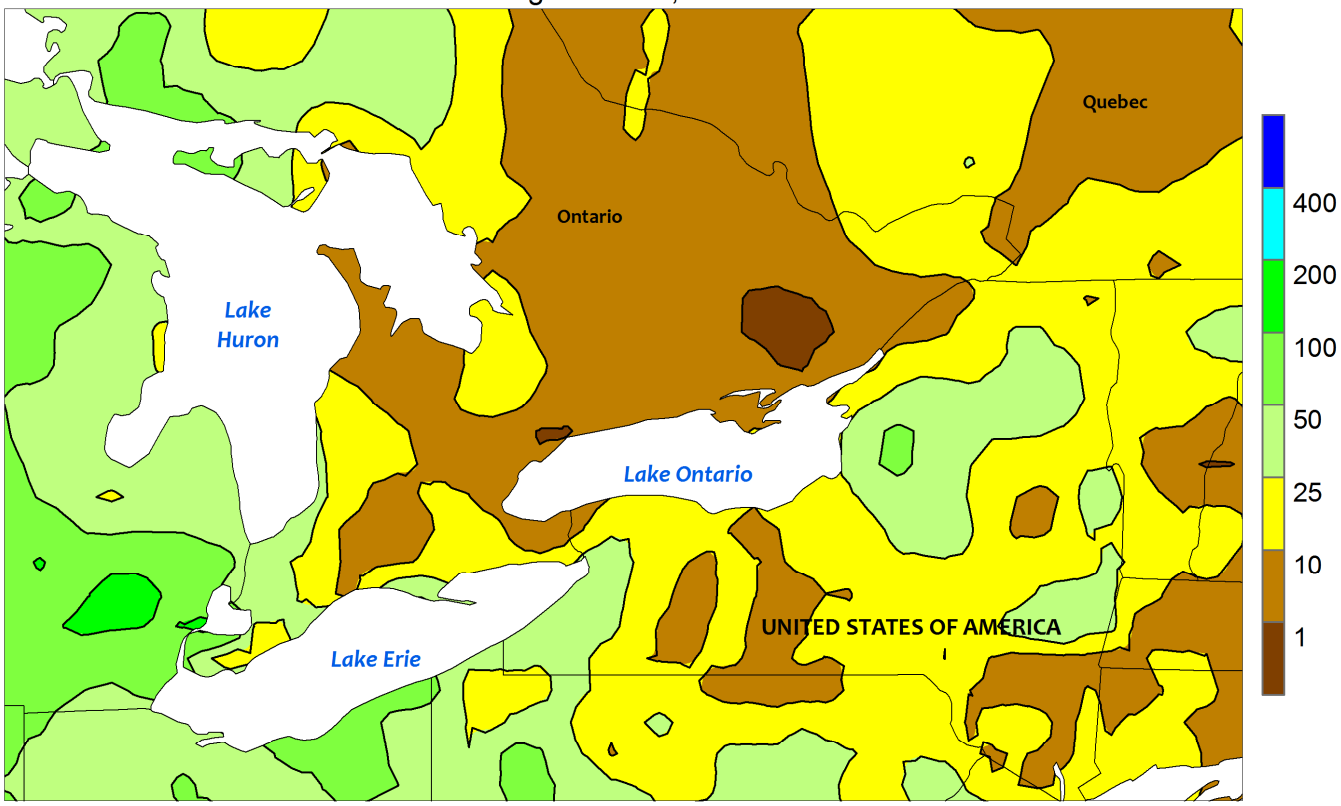
SOUTHEASTERN CANADA
Total Precipitation (mm)
August 8 - 14, 2021



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

SOUTHEASTERN CANADA

Unseasonable warmth promoted rapid development of summer crops, while hastening winter wheat toward maturity. Weekly average temperatures ranged from 2°C above normal in Ontario's southwestern farming areas to as much as 5°C above normal in southern Quebec, with most locations reporting daytime temperatures reaching the lower 30s (degrees C). Rainfall totaled 5 to 25 mm, with higher amounts concentrated to the north of Lake Erie and Lake Huron. Additional moisture will be needed in upcoming weeks upon the commencement of winter wheat planting for uniform germination and establishment, particularly in Quebec, where long-term dryness had dried topsoils.

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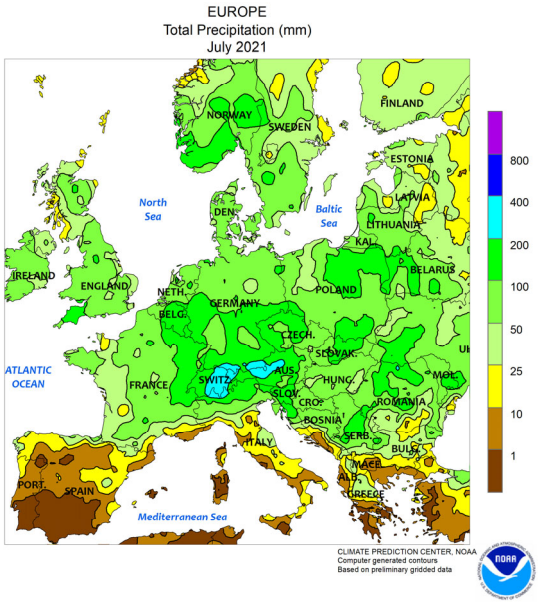
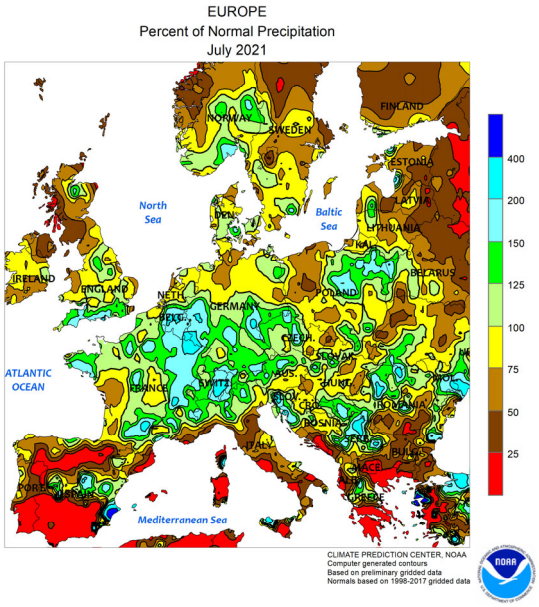
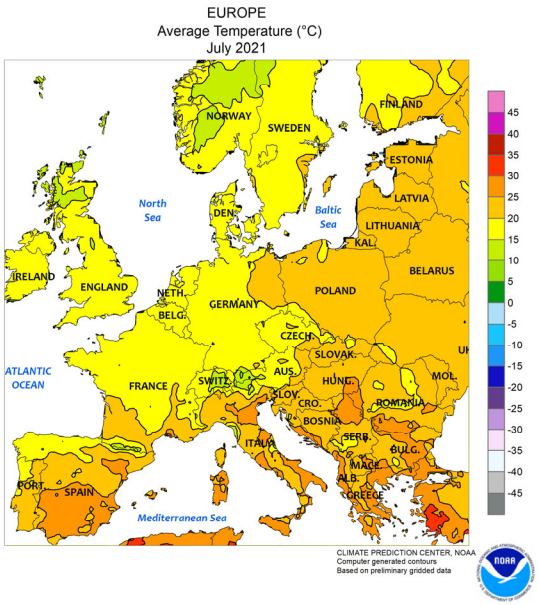
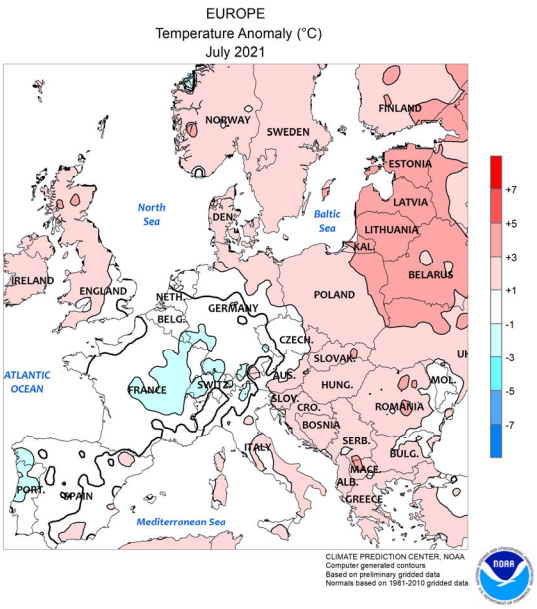
July International Temperature and Precipitation Maps









EUROPE

Wet weather across central and northern Europe contrasted with dry, hot conditions in southeastern growing areas during July. Moderate to heavy rainfall (50-200 mm, locally more than 250 percent of normal) was reported from southeastern England and central France eastward into northeastern Poland. The downpours in western Germany and eastern France caused numerous fatalities and significant damage to infrastructure but largely occurred outside of major growing areas. The overall wet weather pattern raised winter crop quality concerns and delayed drydown and harvesting, though moisture supplies for summer crops remained good to excellent. However, pockets of dryness (locally less than half of normal) were noted in northwestern Poland and northeastern Germany, though crop impacts were minor (if any). Conversely, dry weather prevailed across the Mediterranean Basin, with deficits most pronounced in northern Spain, central and southern Italy, Greece, and the lower Danube River Valley. While near-normal temperatures on the Iberian Peninsula helped mitigate the impacts of the dryness, above-normal temperatures (2-5°C above normal) and extreme heat (37-40°C) had adverse impacts on reproductive corn, soybeans, and sunflowers in southeastern Europe. Furthermore, the hot, dry conditions set the stage for increased wildfire activity in Greece during August.

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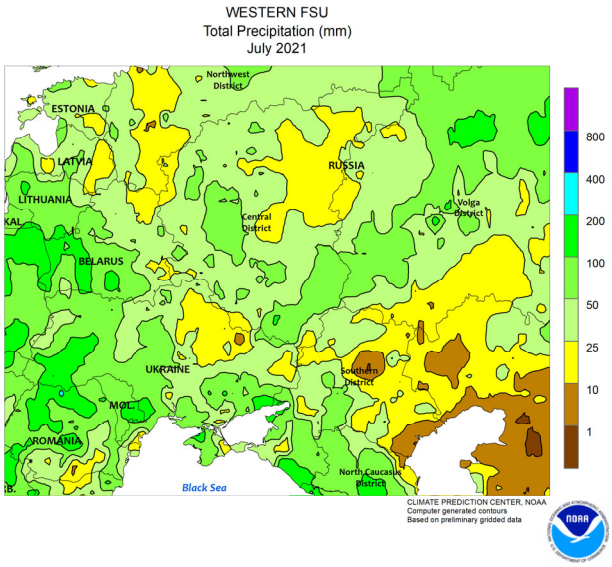

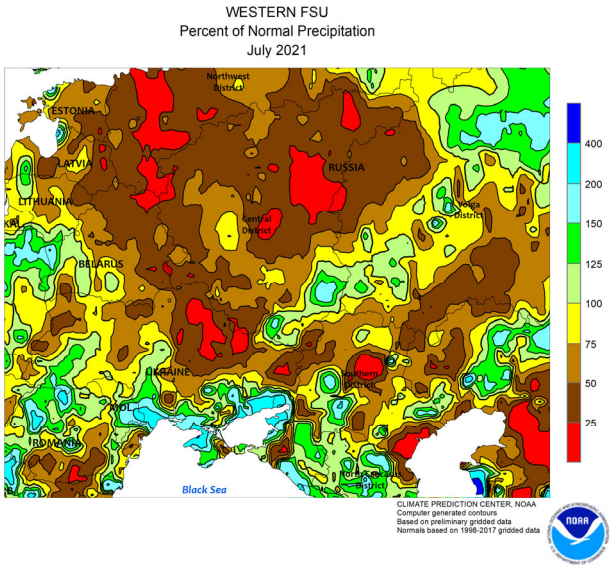

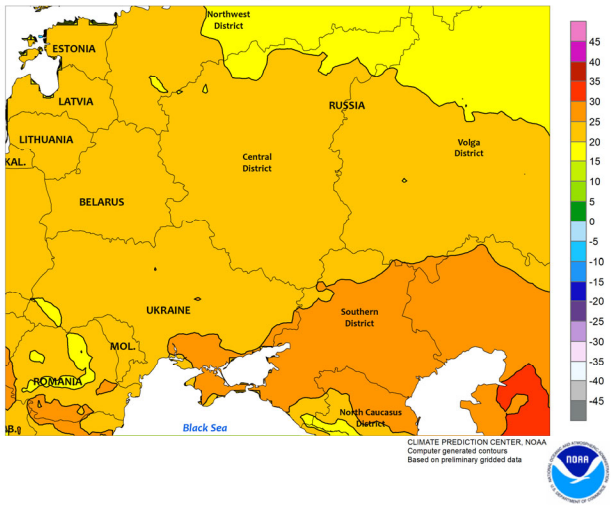

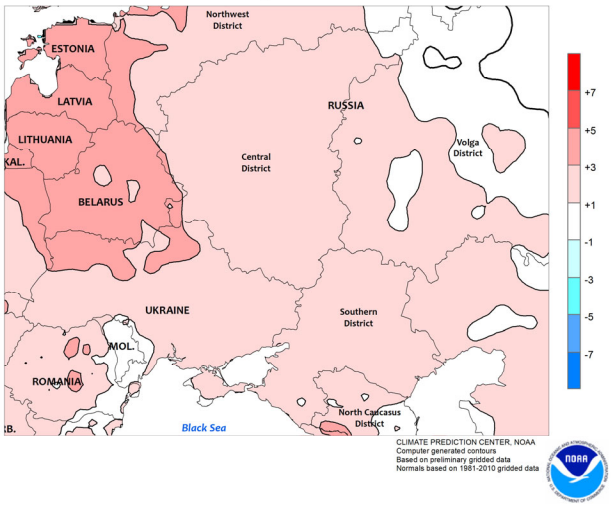

WESTERN FSU

Showery weather during July near the Black Sea Coast contrasted with sharply drier conditions farther north and east. Moderate to heavy rainfall (locally more than 100 mm, 100-300 percent of normal) was reported from Moldova eastward into southern Ukraine and southwestern Russia, with a second ribbon of near- to above-normal rainfall noted in western Russia from the south-central Central District northeastward into the central Volga District. The wet weather slowed the maturation and harvesting of winter wheat, barley, and rapeseed, though winter crop yield prospects remained favorable outside of the ice crusting issues reported out of western Russia. Conversely, dry weather (10-50 percent of normal) was observed from northeastern Ukraine into northwestern Russia as well as northern portions of Russia's Southern District, though rainfall amounts within these drier locales varied considerably. Most of these drier areas entered the summer with favorable soil moisture from good rains during the spring and first half of summer. Temperatures averaged 2 to 4°C above normal over the region, though northern Ukraine's key corn areas largely escaped damaging heat with highs remaining mostly below 35°C. In contrast, daytime highs routinely pushed into the upper 30s over southwestern Russia, increasing stress on reproductive to filling corn and sunflowers, especially in areas lacking soil moisture.

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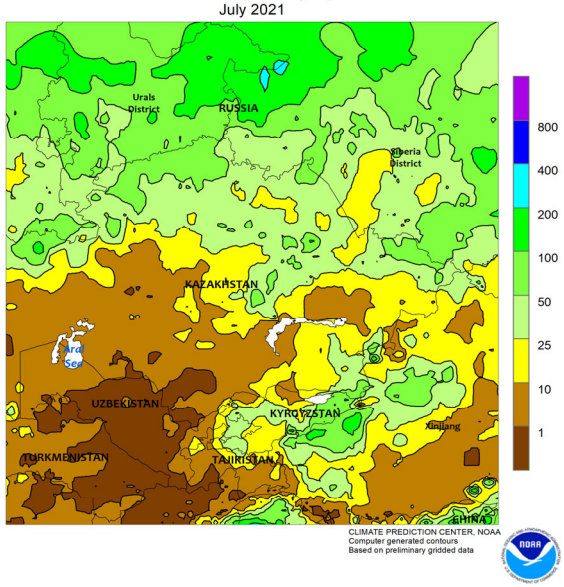

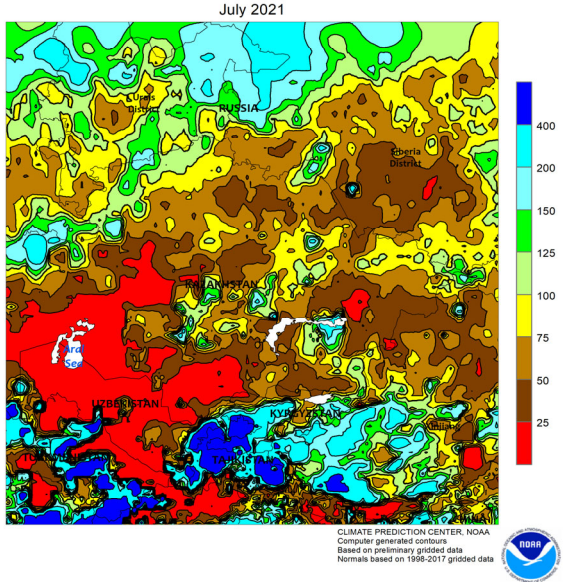

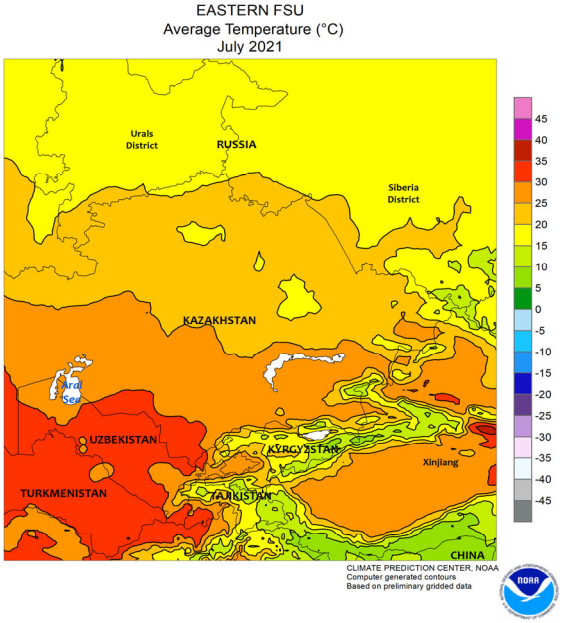

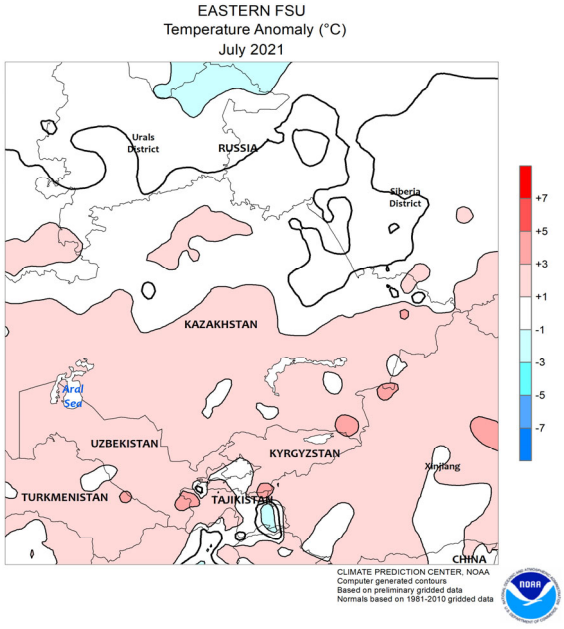

EASTERN FSU

Much-needed rain during July across central and western growing areas contrasted with short-term dryness farther east, while southern cotton areas dealt with incursions of extreme heat. The drought-afflicted spring grain belt of central Russia and northern Kazakhstan received sorely-needed rainfall (50-100 mm, locally more than 200 percent of normal), stabilizing wheat and barley yields after one of the driest starts of the region's growing season in recent memory. Even with July's rainfall, significant long-term deficits remained in northwestern Kazakhstan as well as the southern Urals and southeastern Volga Districts. Meanwhile, dry weather (25-60 percent of normal) settled over the Siberia District, reducing topsoil moisture for reproductive spring wheat, although long-term moisture supplies remained overall favorable. Temperatures averaged near normal in northern Kazakhstan and central Russia, though chilly conditions in the middle of the month largely offset scorching heat in early and late July. In particular, daytime highs approached or topped 40°C during the first week of July, with less-extreme heat (middle and upper 30s degrees C) noted at month's end. Similarly, the cotton belt (Uzbekistan and environs) wrestled with record-setting heat during the first week of the month, with highs reaching the middle and upper 40s (several peak readings of 48°C). A mid-month reprieve featured daytime highs in the lower to middle 30s (up to 5°C below normal), followed by a return of extreme heat (lower 40s) at months' end. Cotton is a heat tolerant crop, though readings of this magnitude can adversely impact flowering and cause boll shedding. To illustrate, 7-day average temperatures above 30°C are used to identify heat stress and potential yield loss; the July monthly-average temperature — a 31-day average — registered 31 to 34°C across most of the cotton belt save for the Fergana Valley in eastern Uzbekistan (28-30°C).

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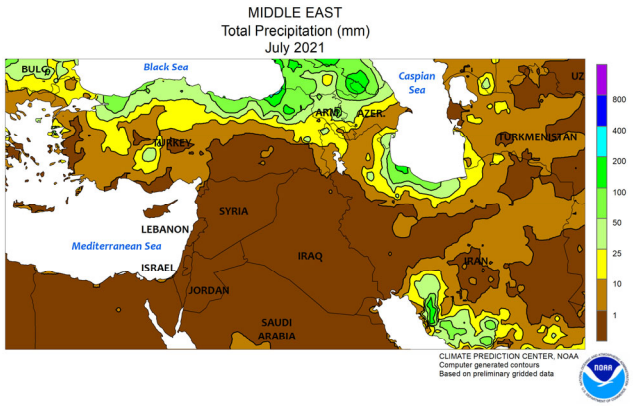

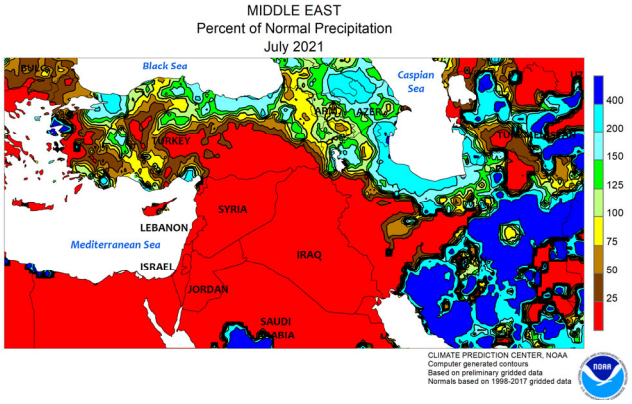

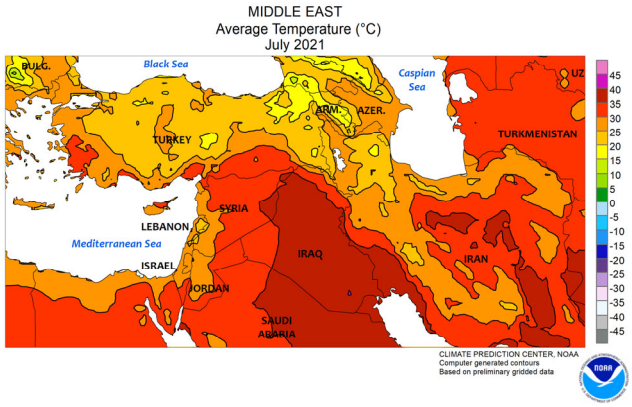

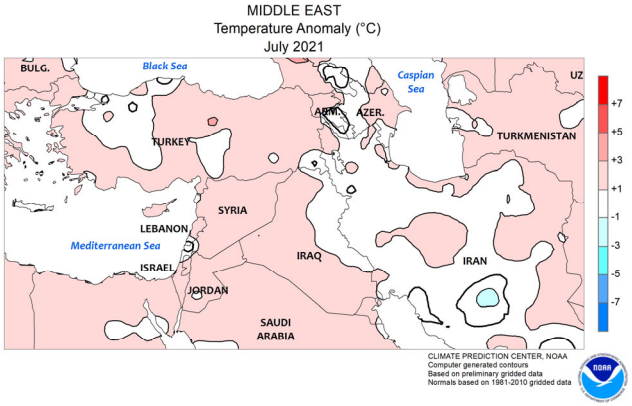

MIDDLE EAST

Hot, seasonably dry weather across Turkey during July heightened irrigation demands for reproductive to filling summer crops, though northern crop areas received rainfall. Monthly average temperature departures of 1 to 2°C above normal disguised sharp temperature swings, with incursions of extreme heat interspersed with cooler temperatures. July peak readings reached 40°C in Marmara (northwestern Turkey), 43°C in the western Aegean Region, and 45°C in the southeastern GAP Region. While summer crops are heavily irrigated, eastern watersheds wrestled with an early end to the water year; the wet season in the GAP Region runs from October through May, though this year rain began to falter in February before shutting off completely by the end of March. However, reservoirs reportedly still had favorable water supplies due in large part to above-normal precipitation during the 2019-20 wet season. In contrast, the region's northern-most crop areas near the Black Sea reported near- to above-normal rainfall, favoring corn and sunflower prospects. Meanwhile, unusual rains were noted at the beginning and end of the month in southwestern Iran (totaling 10-75 mm, locally more), though the impacts on regional agriculture were likely minimal (if any).

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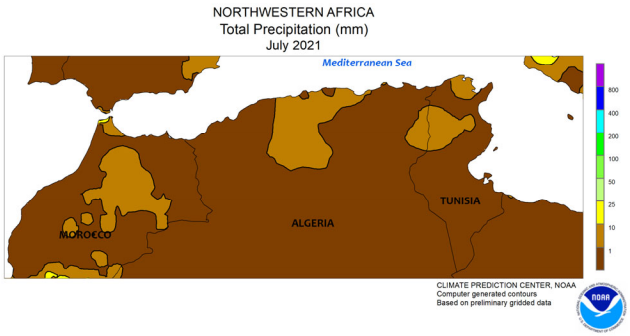
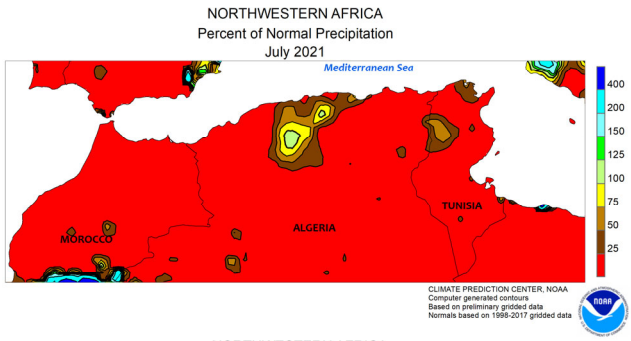
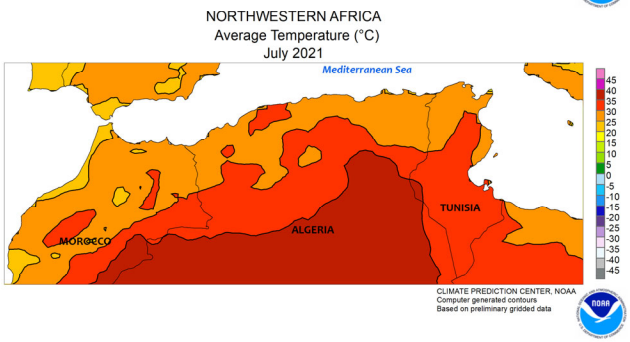
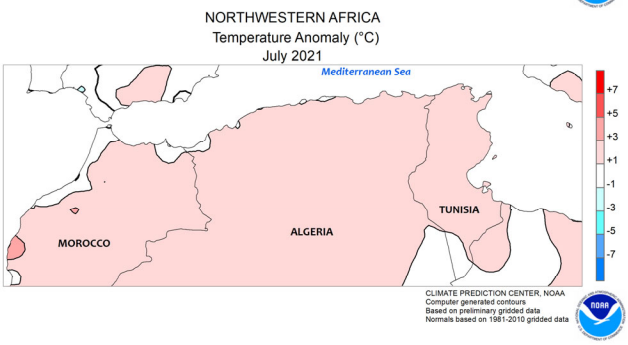


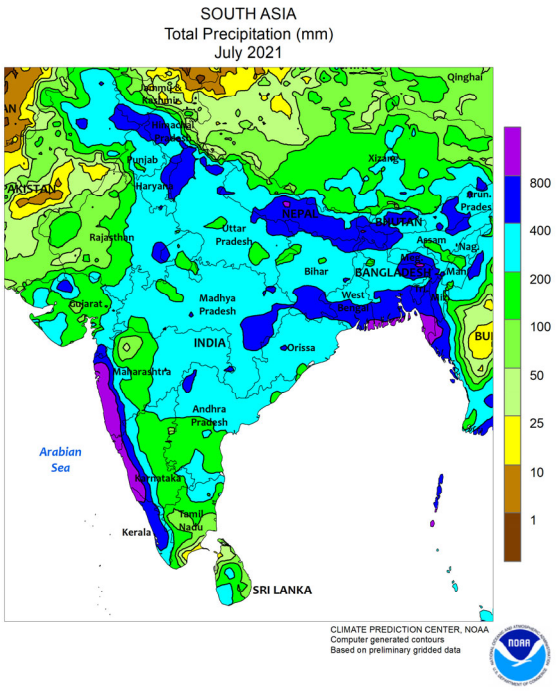


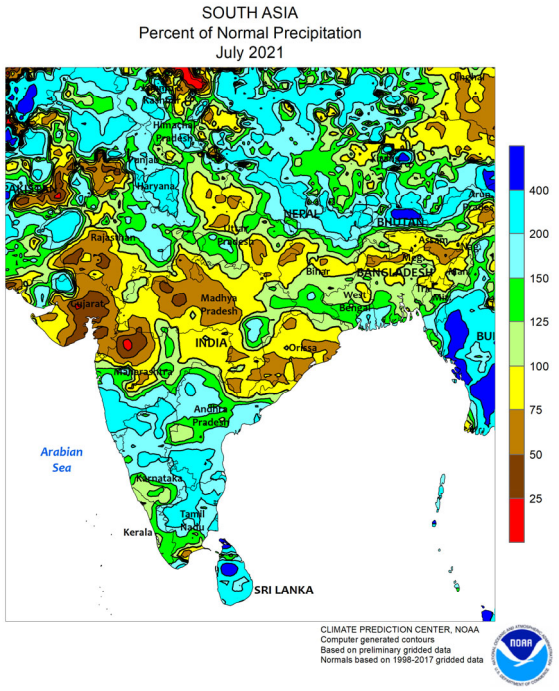


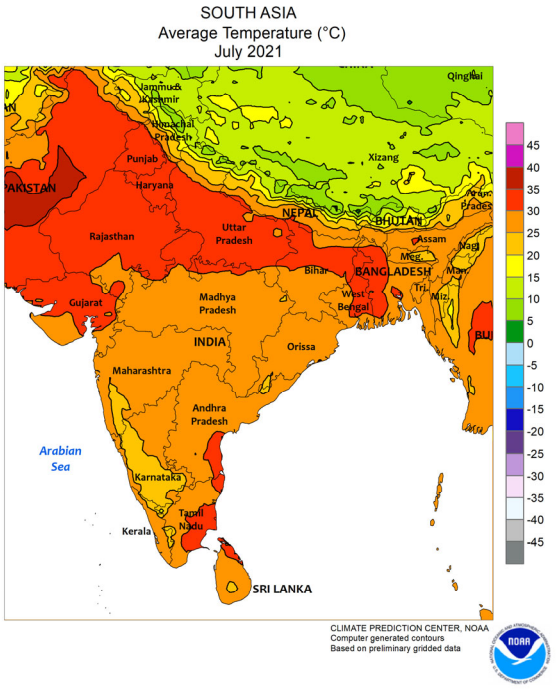


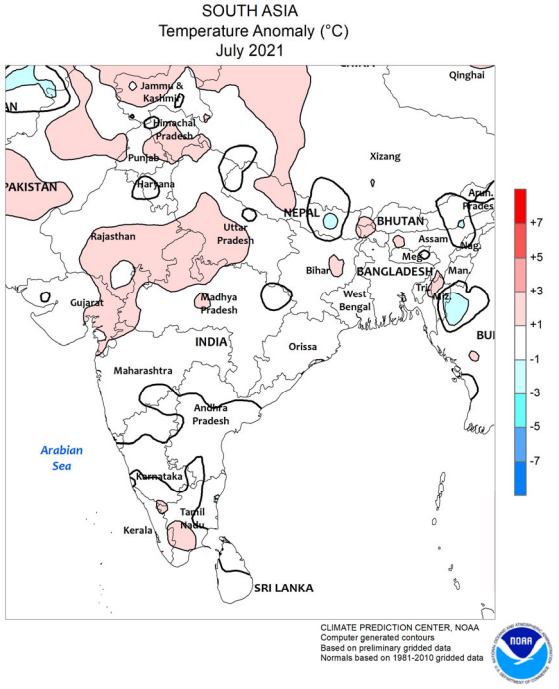
NORTHWESTERN AFRICA

During July, climatologically dry, hot weather prevailed across most of the region. Outside of a few spotty showers (mostly less than 10 mm), sunny skies and above-normal temperatures (1-3°C above normal) favored any late winter grain harvesting and other seasonal fieldwork. Little to no rainfall typically occurs during the summer months in Morocco, Algeria, and Tunisia, as agricultural activity wanes until the onset of seasonal rain in November.









SOUTH ASIA

A wedge of lighter-than-normal July rainfall extended from western India into eastern areas. Rainfall totals in the west (Gujarat and surrounding areas) were generally less than 150 mm (25-75 percent of normal), while eastern totals were between 150 and 400 mm (50-75 percent of normal). The most pronounced effects from the dryness were in western-most cotton and groundnut districts, limiting soil moisture and reducing the pace of sowing. In contrast, much of the north and south reported near- to above-normal rainfall (100-250 percent of normal), maintaining ample moisture supplies for kharif crops. In other areas, heavy showers in northern Pakistan pushed monthly totals above 150 mm (up to 250 percent of normal locally), increasing irrigation supplies for rice and cotton. Meanwhile, wet weather in Bangladesh and Sri Lanka supported the rice crops in the respective countries.

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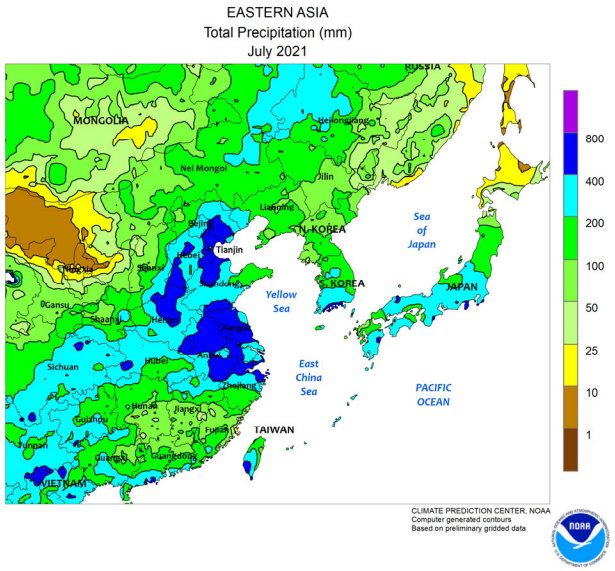

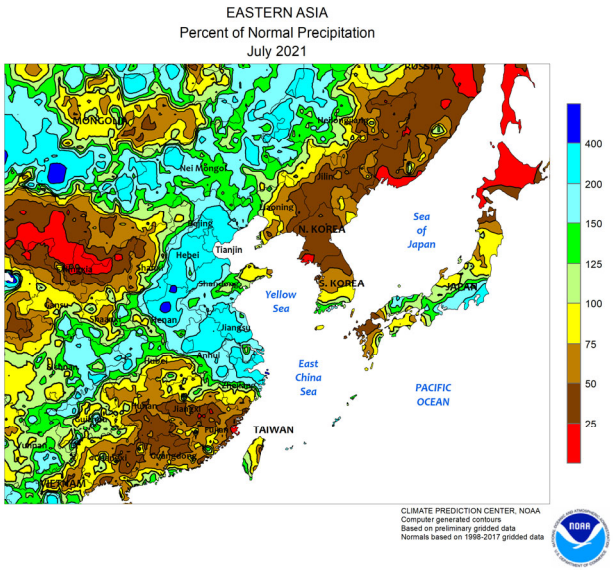

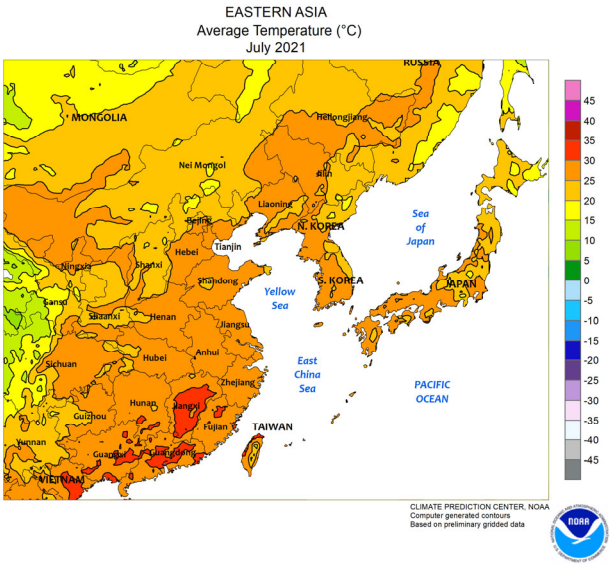

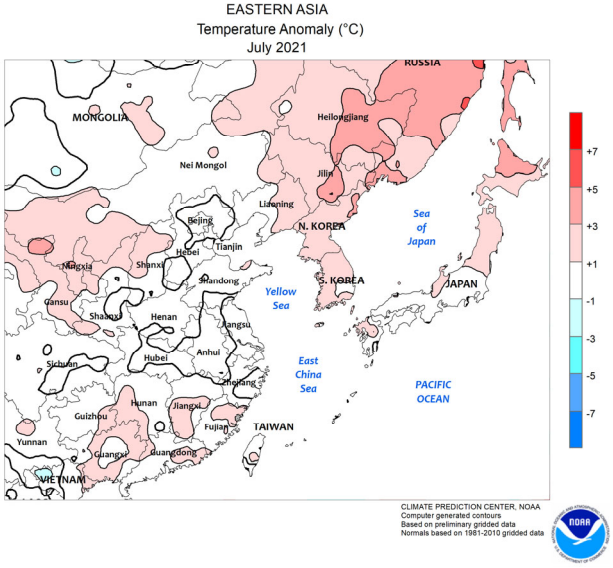

EASTERN ASIA

During July, unseasonable dryness and hotter-than-normal weather permeated parts of northeastern and southern China. Moderate to severe drought (25-50 percent of normal rainfall) and temperatures up to 4°C above normal plagued reproductive corn and soybeans in eastern prefectures of Heilongjiang, Jilin, and Liaoning, threatening to lower yields in these areas. Additionally, the adverse conditions extended onto the Korean Peninsula and into northern-most Japan (Hokkaido), increasing irrigation demands for rice. In southern China, the severity of drought was less, with only small pockets experiencing rainfall totals below 50 percent of normal. Nevertheless, the conditions were less than favorable for late-crop rice. Meanwhile in other parts of China, Typhoon In-Fa made landfall on the eastern coast late in the month and the remnants moved into the northeast. The dissipating storm added to already impressive monthly rainfall totals from the North China Plain (300 mm or more, locally up to 300 percent of normal) to western prefectures of Heilongjiang, Jilin, and Liaoning as well as adjacent prefectures of Inner Mongolia (150-300 mm, 125-250 percent of normal). The extensive moisture was welcome for reproductive summer crops in these key growing areas. Elsewhere, cotton conditions in western China (Xinjiang) wavered due to occasional incursions of stressful heat (daily average temperatures in excess of 30°C), remaining fair but below average.

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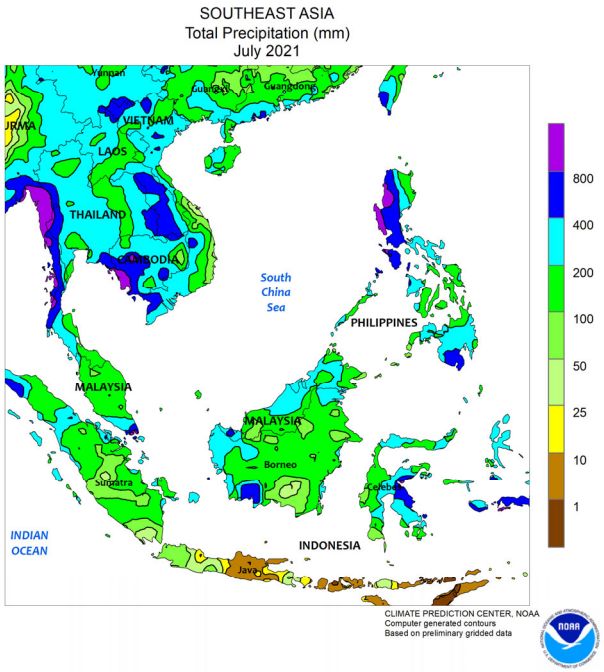

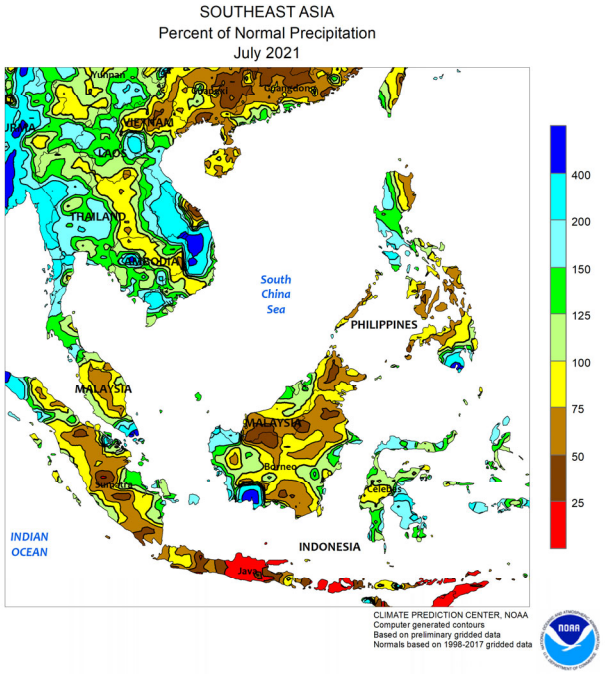

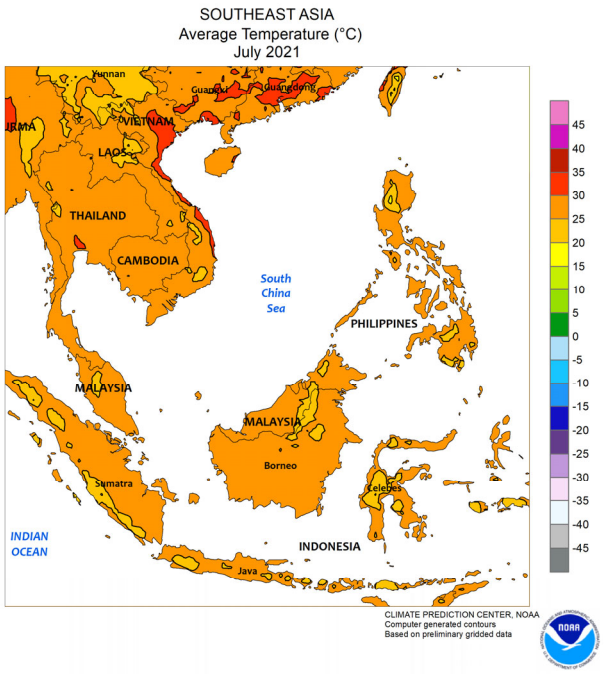

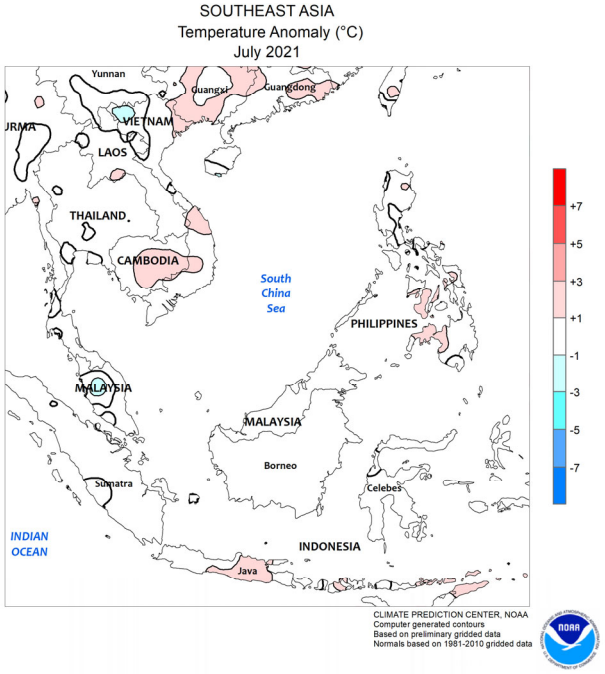

SOUTHEAST ASIA

Following a poor start to the wet season in northern sections of the region, July rainfall was near to above normal across most areas. In Thailand and environs, rainfall totals ranged between 150 to locally over 600 mm (100-250 percent of normal) with only small pockets of unseasonable dryness in northeastern Thailand and northern Cambodia. The wet weather helped reverse developing dryness and ease concerns for reduced rice prospects. Likewise in the Philippines, lighter-than-normal showers were limited to minor rice and corn areas in the Visayas and a small pocket in higher-producing sections of northeastern Luzon. Otherwise, crops in the remainder of the country received ample to locally excessive moisture. In fact, western Luzon recorded 880 mm of rain for the month, nearly twice the normal amount in the traditionally wet region. Meanwhile, below-average rainfall (40-75 percent of normal) in Malaysia and Indonesia reduced topsoil moisture for oil palm, but subsoil moisture remained adequate from heavier-than-normal showers in May and June.

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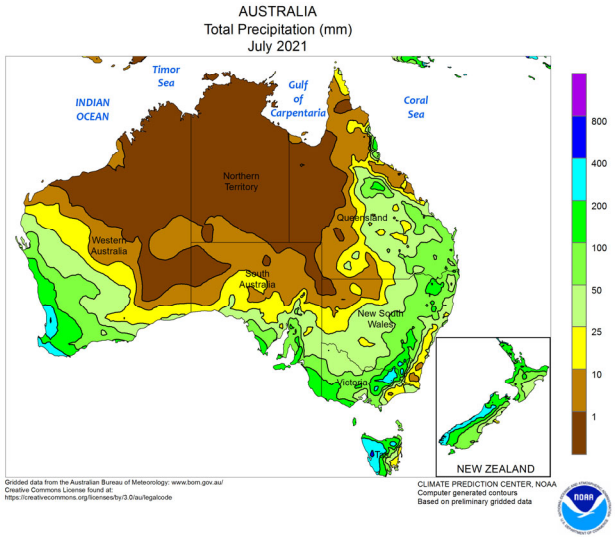
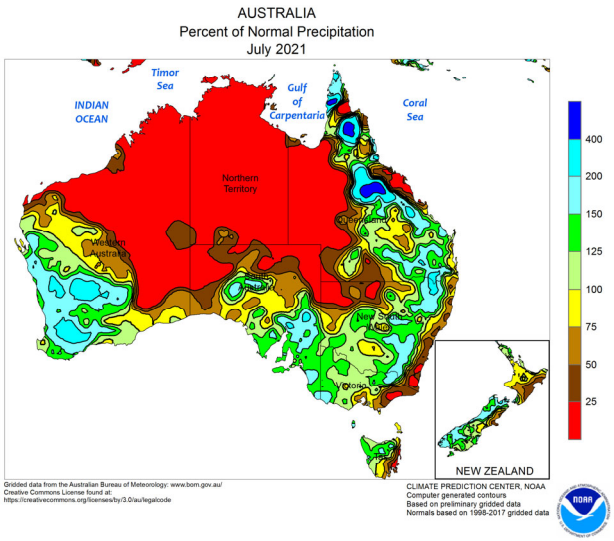
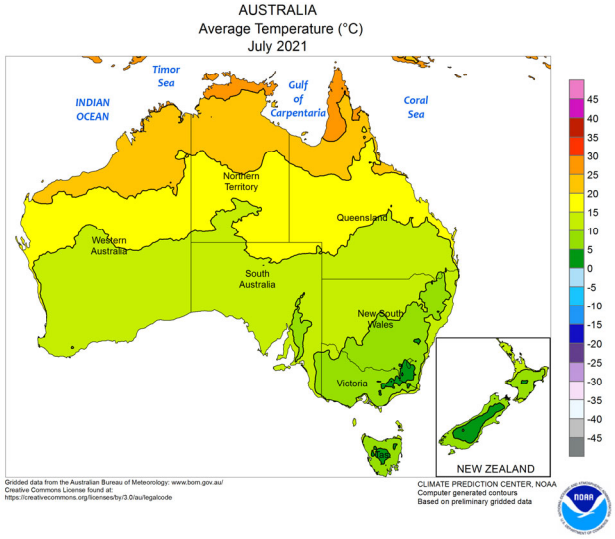
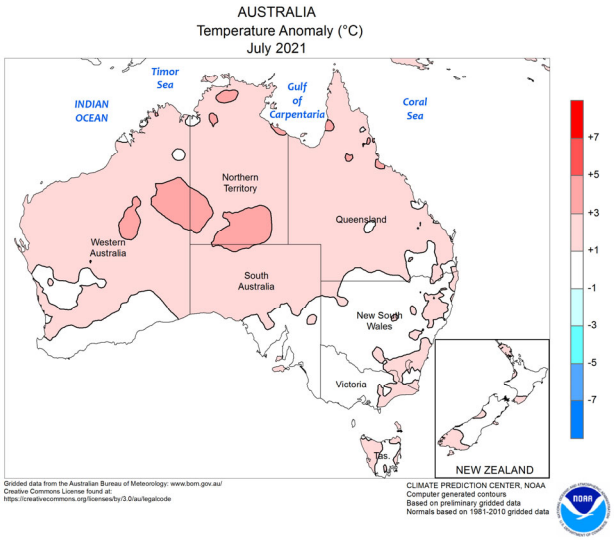


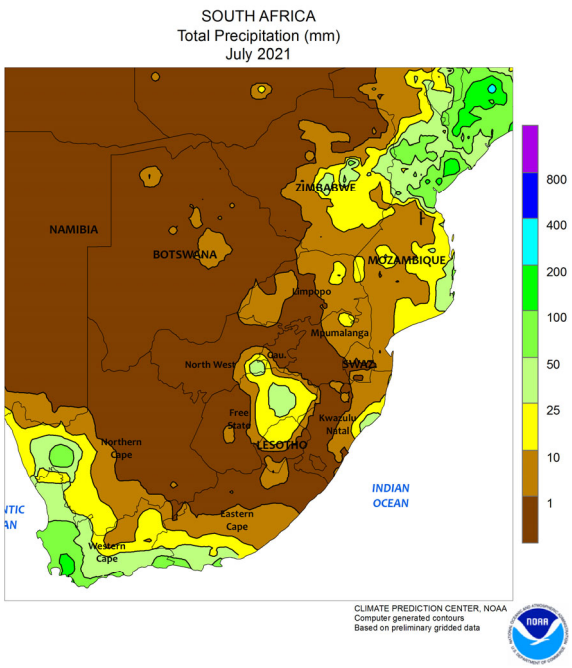


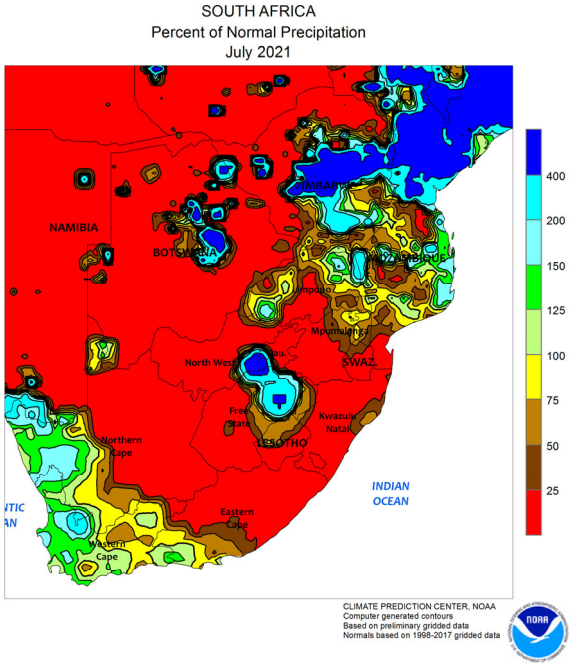


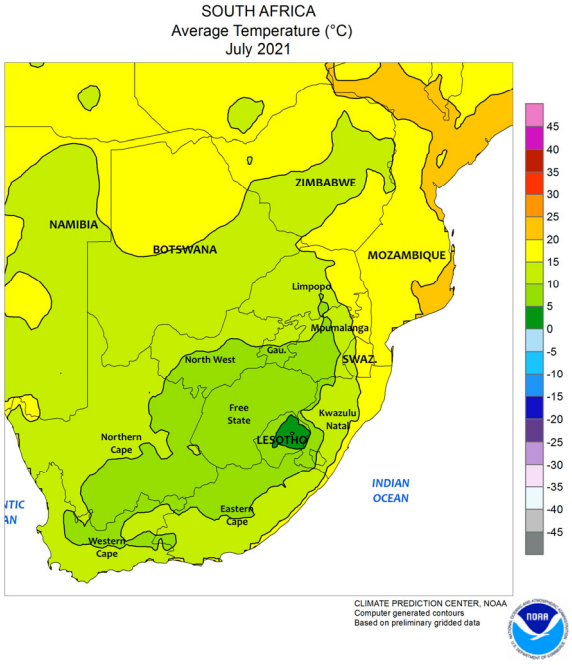


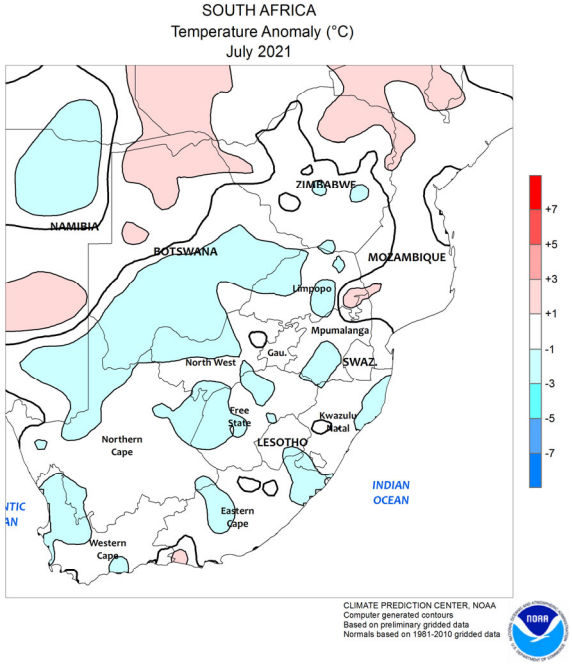
AUSTRALIA

During July, widespread, soaking rain fell throughout the wheat belt, sustaining good to excellent yield prospects for vegetative winter grains and oilseeds. The most abundant rain fell across Western Australia, where amounts in excess of 150 percent of normal helped maintain near ideal conditions for wheat, barley, and canola development. Frequent rain further benefited winter crops in southern and eastern Australia as well. Rainfall amounts exceeded 125 percent of normal across large portions of South Australia, southern Queensland, and eastern New South Wales, while somewhat lighter albeit still above normal rainfall was measured elsewhere in southeastern Australia. Significantly, the wet weather also benefited summer crops which will be planted later this year, further increasing reservoir levels and filling the soil moisture profile in advance of the upcoming growing season. Temperatures averaged within 1ºC of normal throughout the wheat belt, aiding winter grain and oilseed development.





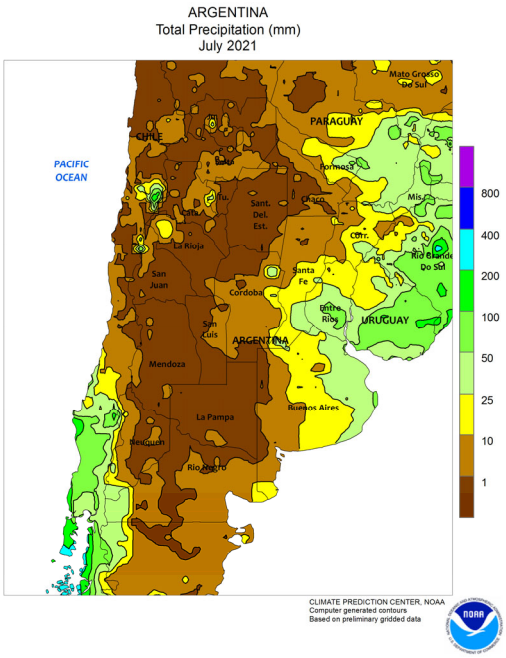


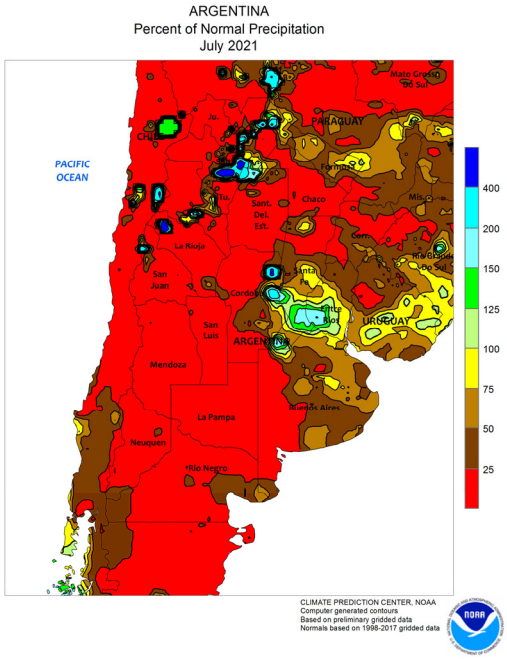


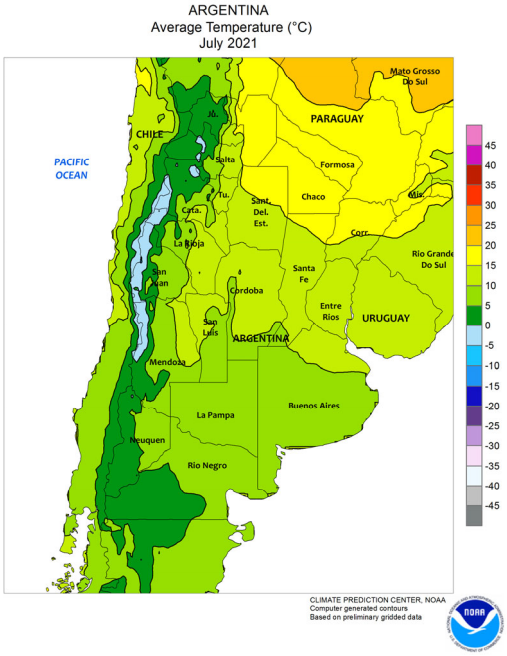
SOUTH AFRICA

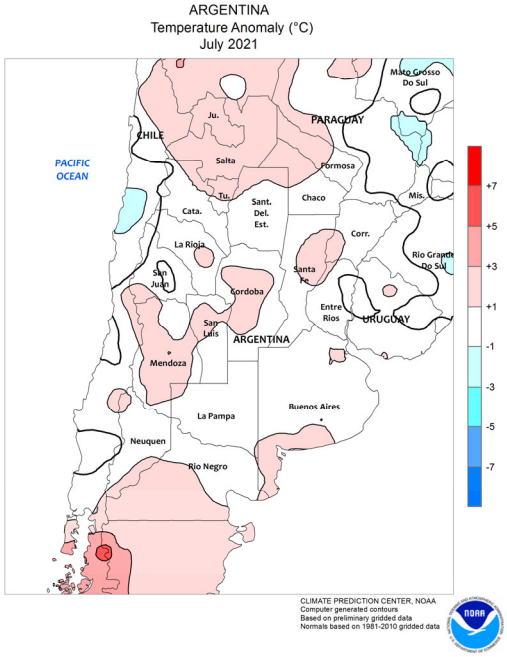
In July, frequent showers maintained favorable wheat prospects in key production areas of Western Cape, while also helping to recharge long-term moisture reserves over a large part of the region. Monthly rainfall accumulations of 25 to 100 mm were common along much of the southwestern coast, extending well into Northern and Eastern Cape Provinces as well. Elsewhere in the country, showers were generally widely scattered and light, supporting seasonal fieldwork including corn and sugarcane harvesting. Monthly temperatures averaged near to slightly below normal, with freezes common in nearly all non-coastal locations. Temperatures falling below -5°C aided drydown and harvesting of summer crops across the corn belt (North West and Free State eastward to Mpumalanga).

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



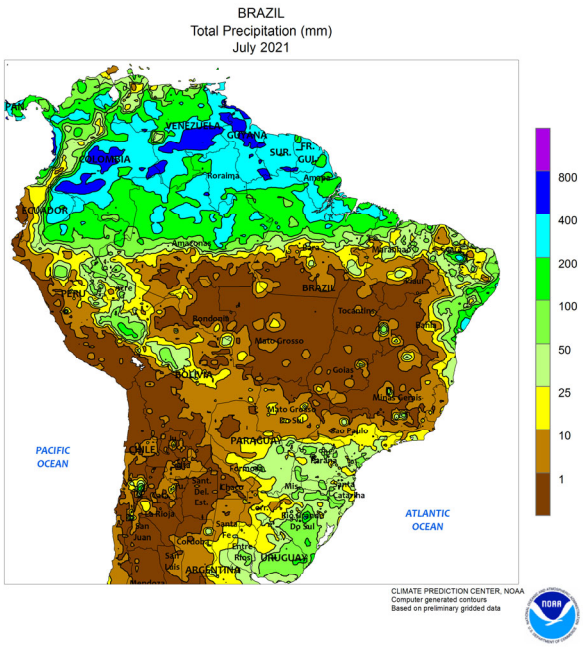


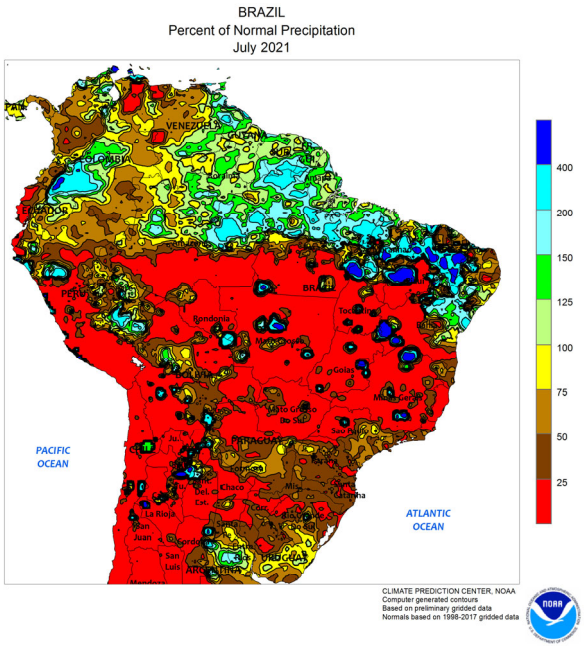


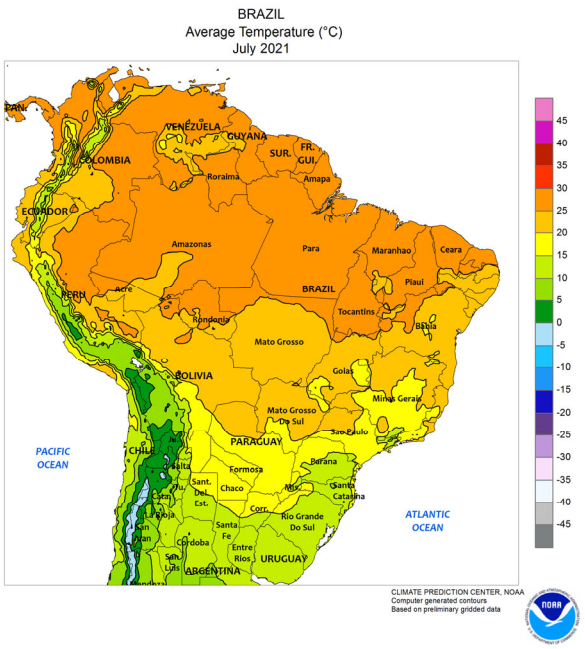


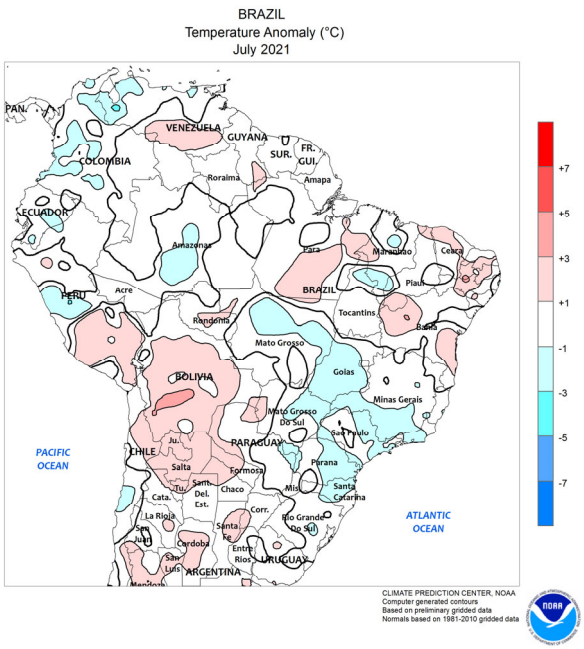
ARGENTINA

Mostly dry, occasionally warm weather supported fieldwork that included delayed summer crop harvests. Near complete dryness was reported in the climatologically drier western farming areas (La Pampa northward through Salta) and in northeastern cotton areas in and around Chaco. East-central Argentina (Buenos Aires, Entre Rios, and southern Santa Fe) experienced periodic showers (monthly rainfall accumulations of 10-50 mm), maintaining generally favorable levels of moisture for winter grain establishment but causing only temporary delays in late corn harvesting. July average temperatures were 1 to 2°C above normal although freezes were common, with temperatures dropping as low as -5°C as far north as Chaco; given the lateness in the season, however, little to no negative impact on agriculture was suspected.



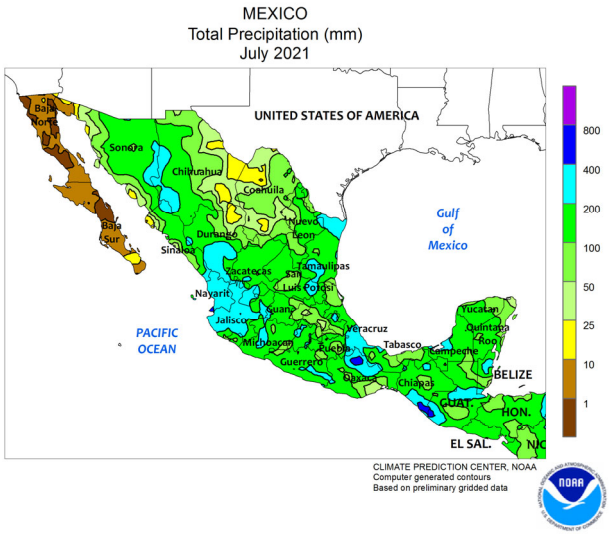


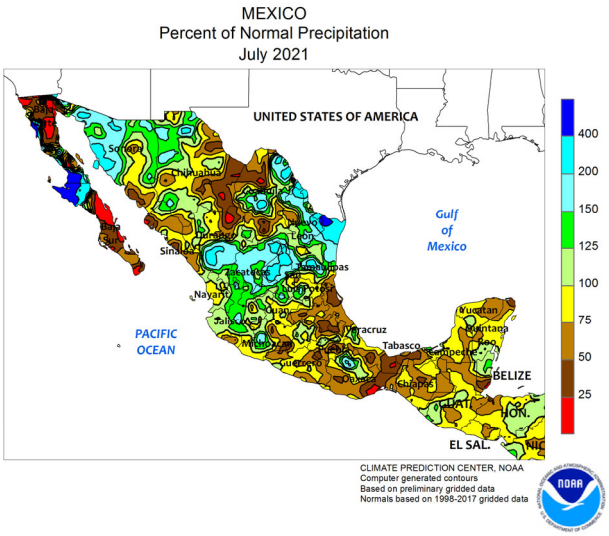


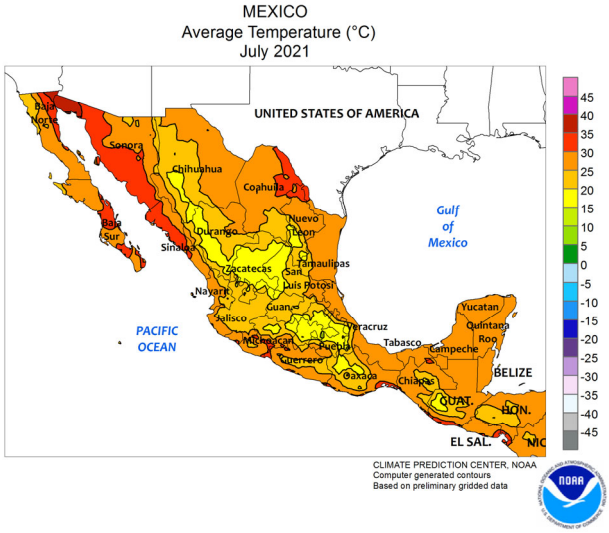


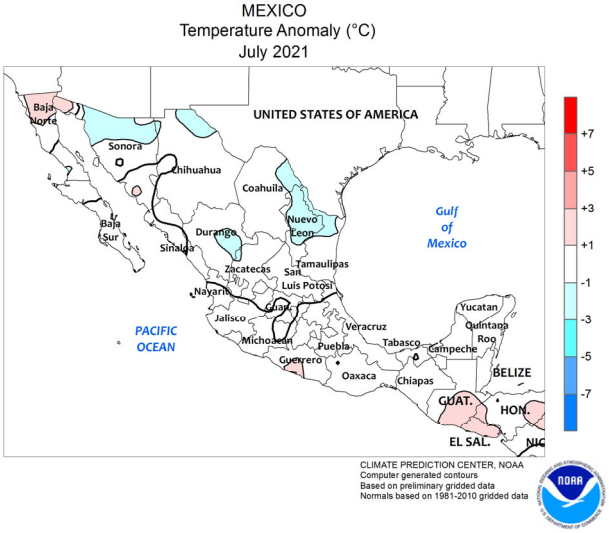
BRAZIL

Several July freezes reportedly caused varying degrees of damage to crops in southern Brazil. Both cold outbreaks occurred during the latter half of the month, when a relatively small portion of the corn and wheat crops were vulnerable to damage. However, the second freeze reached northeastward into southern Minas Gerais, prompting producers of coffee, citrus, and sugarcane to scout for damage; similarly, wheat was farther advanced in development in Parana and Rio Grande do Sul than during the earlier event. Scattered, generally light showers kept topsoils moist for wheat establishment, but amounts were well below normal, and additional moisture will be needed as more crops advance through reproduction. Meanwhile, dry, occasionally cool weather supported corn and cotton harvesting in central and northeastern Brazil. Patchy frost was possible in southern districts of Mato Grosso and Goias, although corn and cotton were likely maturing or already harvested.







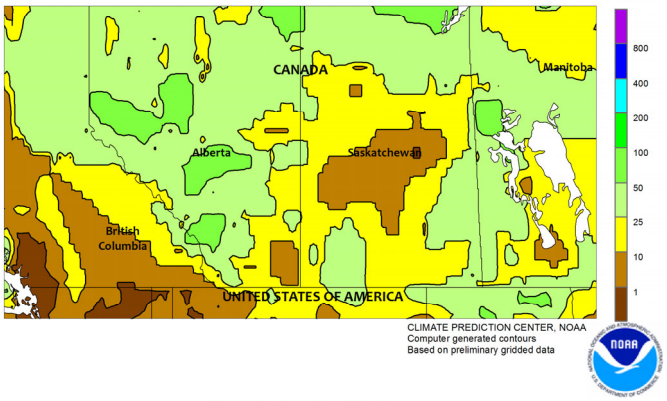


MEXICO

Frequent, occasionally heavy showers greatly increased moisture reserves across Mexico in July, maintaining generally favorable prospects for rain-fed summer crops and helping to replenish reservoirs. The rainfall also greatly reduced the coverage of drought: according to the Mexican Drought Monitor, the percentage of the country in drought (D1-D4) dropped from 43 percent on June 30 to 23 percent on July 31. Much of the rainfall in the west was attributed to the intensification of the region's monsoon as no tropical storm systems made landfall during the month. According to the government of Mexico, national reservoir capacity was at 48 percent on July 31, an increase of 13 points from the previous month. In the northwest (Sonora, Sinaloa, and Chihuahua), the amount rose from 14 to 29 percent.

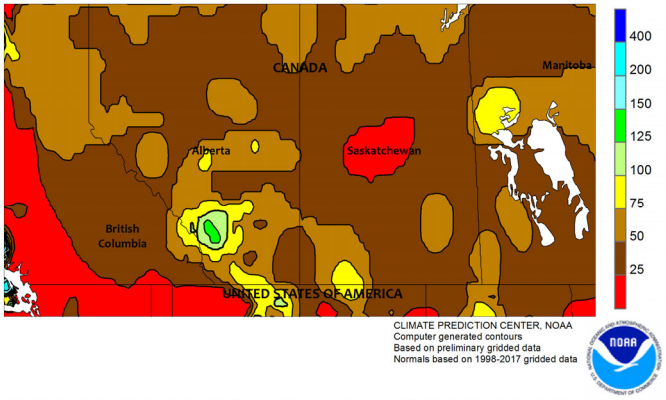
For additional information contact: mark.brusberg@usda.gov

CANADIAN PRAIRIES
Total Precipitation (mm)
July 2021



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

CANADIAN PRAIRIES
Percent of Normal Precipitation
July 2021

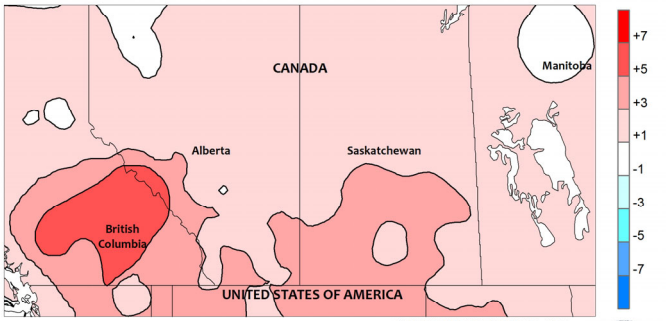


CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data
Normals based on 1998-2017 gridded data

CANADIAN PRAIRIES
Average Temperature (°C)
July 2021

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

CANADIAN PRAIRIES
Temperature Anomaly (°C)
July 2021



CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data
Normals based on 1981-2010 gridded data

CANADIAN PRAIRIES

Drought intensified throughout the region during July, increasing stress on spring crops and pastures and further lowering agricultural production potential. Showers were infrequent and widely scattered, with nearly all locations recording well below normal amounts (monthly accumulations ranging from 5 to 50 mm). Monthly temperatures averaging 1 to 3°C above normal, with daytime highs reaching the middle 30s (degrees C) or higher on several occasions, compounded the impacts of the dryness on crops and forage. According to the Canadian Drought Monitor, nearly 100 percent of Prairie agricultural land was in drought (D1-D4) as of July 31, and over 1.5 million head of cattle were in areas experiencing Severe Drought (D2) and lack of feed is forcing producers to reduce their herds.

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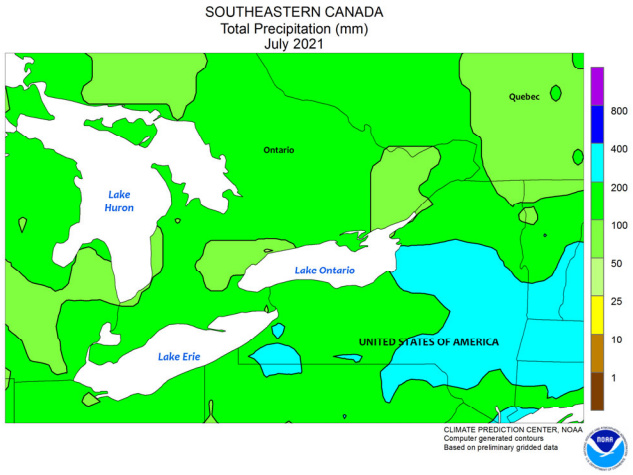

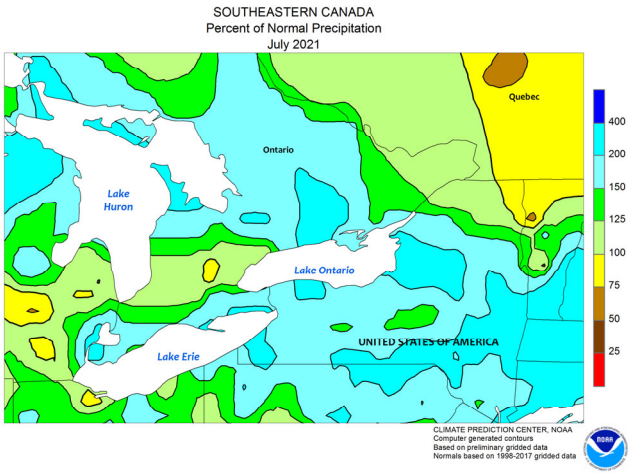

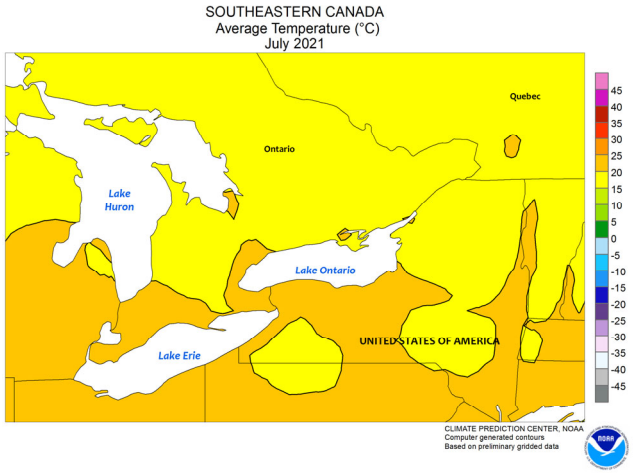

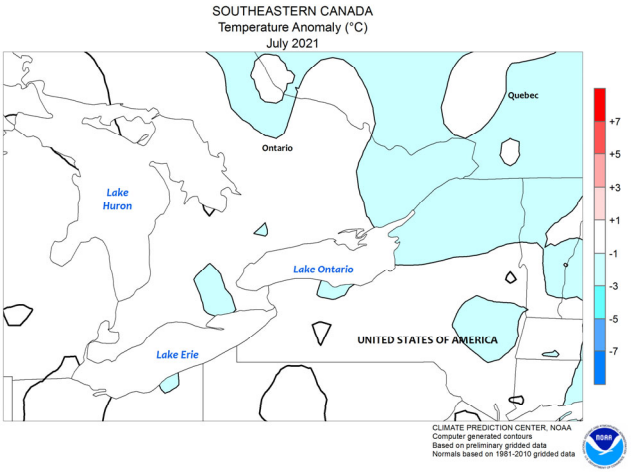

SOUTHEASTERN CANADA

Mild, showery weather prevailed during July, maintaining overall favorable conditions for summer crops and pastures. Nearly all agricultural districts in Ontario recorded near to above normal rainfall (monthly accumulations of 75 to 150 mm, locally higher); however, lower amounts were recorded in much of Quebec, continuing this season's trend of frequent but below normal rainfall. Monthly average temperatures ranged from near to as much as 2°C below normal, with the highest temperatures reaching the upper 20s and lower 30s (degrees C). According to the Canadian Drought Monitor, the level of drought was greatly diminished across the region as of July 31, though Moderate Drought (D1) lingered in the aforementioned dry locations in Quebec.

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U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on August 12, 2021. Forecasts refer to August 1

Corn production for grain is forecast at 14.8 billion bushels, up 4 percent from 2020. U.S. yields are expected to average 174.6 bushels per harvested acre, up 2.6 bushels from last year. Area harvested for grain is forecast at 84.5 million acres, unchanged from the June forecast, but up 2 percent from the previous year.

Soybean production for beans is forecast at 4.34 billion bushels, up 5 percent from 2020. U.S. yields are expected to average 50.0 bushels per harvested acre, down 0.2 bushel from 2020. Area harvested for beans in the U.S. is forecast at 86.7 million acres, unchanged from the previous forecast but up 5 percent from 2020.

All cotton production is forecast at 17.3 million 480-pound bales, up 18 percent from 2020. U.S. yields are expected to average 800 pounds per harvested acre, down 47 pounds from 2020. Upland cotton production is forecast at 16.9 million 480-pound bales, up 20 percent from 2020. Pima cotton production is forecast at 371,000 bales, down 32 percent from 2020. All cotton area harvested is forecast at 10.4 million acres, up 25 percent from 2020.

All wheat production for grain is forecast at 1.70 billion bushels, down 3 percent from the previous forecast and down 7 percent from 2020. U.S. yields are expected to average 44.5 bushels per harvested acre, down 1.3 bushel from the previous forecast and down 5.2 bushels from 2020. Area harvested for grain is forecast at 38.1 million acres, unchanged from the previous forecast, but up 4 percent from 2020.

Winter wheat production is forecast at 1.32 billion bushels, down 3 percent from the July 1 forecast but up 13 percent from 2020. The U.S. yield is forecast at 51.8 bushels per acre, down 1.8 bushels from last month but up 0.9 bushel from last year's average yield of 50.9 bushels per acre. Area expected to be harvested for grain or seed totals 25.4 million acres, unchanged from last month, but up 11 percent from last year.

Hard Red Winter production, at 777 million bushels, is down 3 percent from last month. Soft Red Winter, at 366 million bushels, is up 1 percent from the July forecast. White Winter, at 176 million bushels, is down 11 percent from last month. Of the White Winter production, 16.1 million bushels are Hard White and 160 million bushels are Soft White.

Durum wheat production is forecast at 34.7 million bushels, down 7 percent from the July 1 forecast and down 50 percent from 2020. Based on conditions as of August 1, U.S. yields are expected to average 24.0 bushels per harvested acre, down 1.8 bushels from last month and down 17.4 bushels from 2020. Area expected to be harvested for grain or seed totals 1.44 million acres, unchanged from last month, but down 13 percent from 2020.

Other spring wheat production for grain is forecast at 343 million bushels, down less than 1 percent from the July 1 forecast and down 41 percent from last year. U.S. yields are expected to average 30.6 bushels per harvested acre, down 0.1 bushel from last month and down 18.0 bushels from 2020. If realized, this would be the lowest U.S. yield since 2002. Area harvested for grain or seed is expected to total 11.2 million acres, unchanged from last month, but 7 percent below 2020. Of the total production, 305 million bushels are Hard Red Spring wheat, down 42 percent from 2020.

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