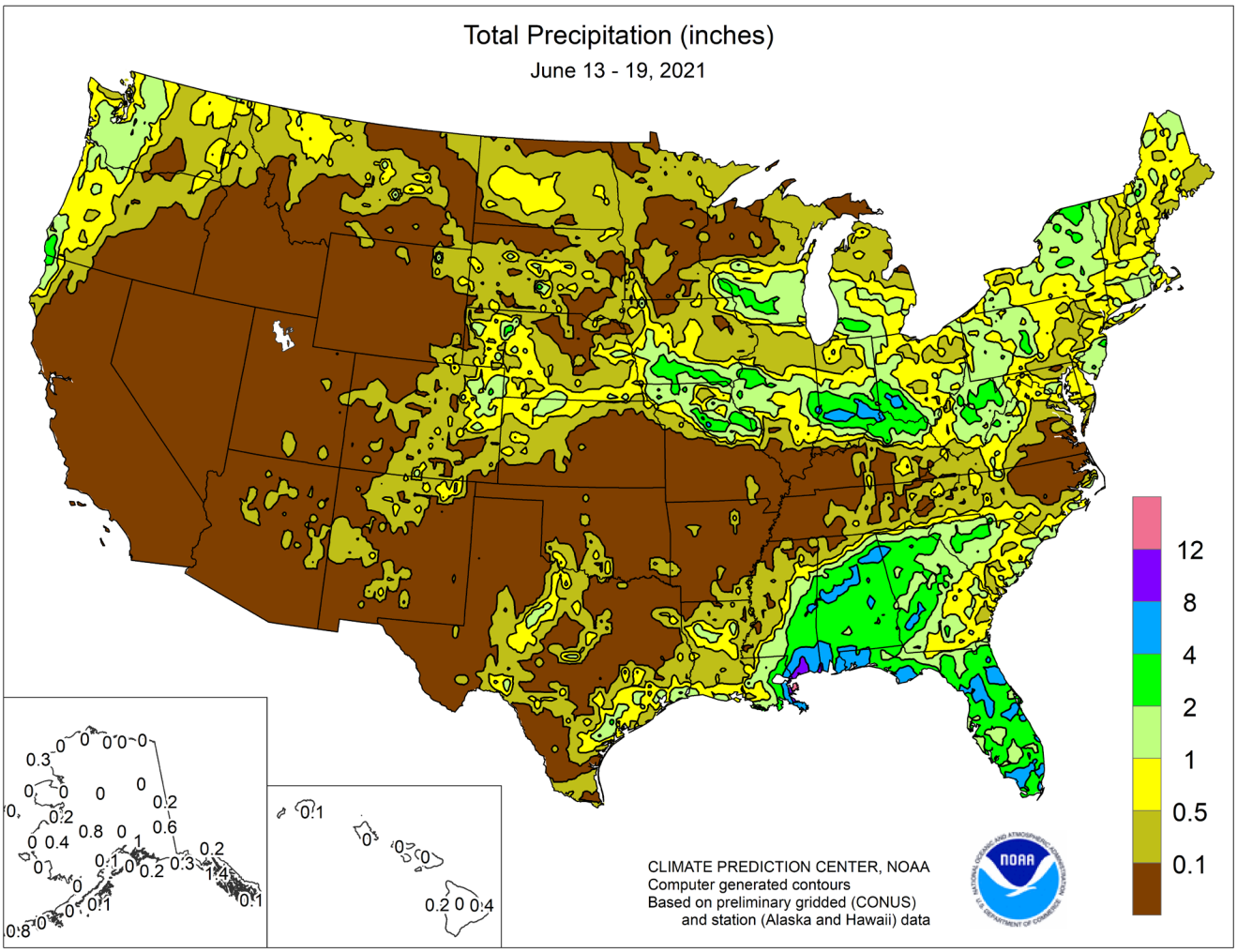
Volume 108, No. 25 www.usda.gov/oce/weather-drought-monitor June 22, 2021

WEEKLY WEATHER AND CROP BULLETIN

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

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



HIGHLIGHTS
June 13 – 19, 2021

Highlights provided by USDA/WAOB

Historic **Western** heat elevated weekly temperatures as much as 10 to 15°F above normal, primarily from the **Great Basin and Desert Southwest to portions of the northern and central High Plains**. Above-normal temperatures extended into the **western Corn Belt**, reaching as far east as the **middle and upper Mississippi Valley**. In contrast, cloudiness and showers suppressed temperatures (to near-normal levels) in the **Southeast**. Below-normal weekly temperatures were limited to the **middle Atlantic States**, where a spell of cool, dry weather

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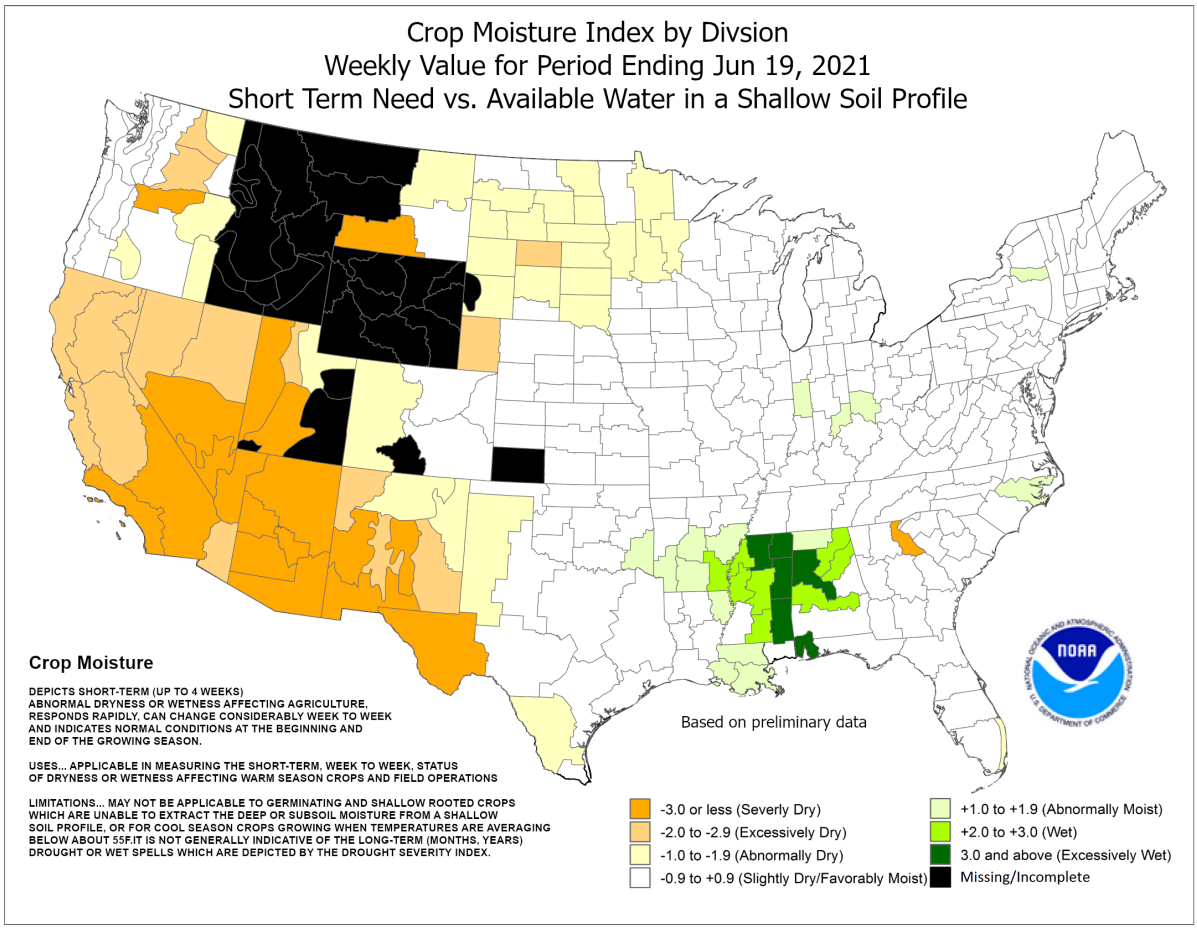
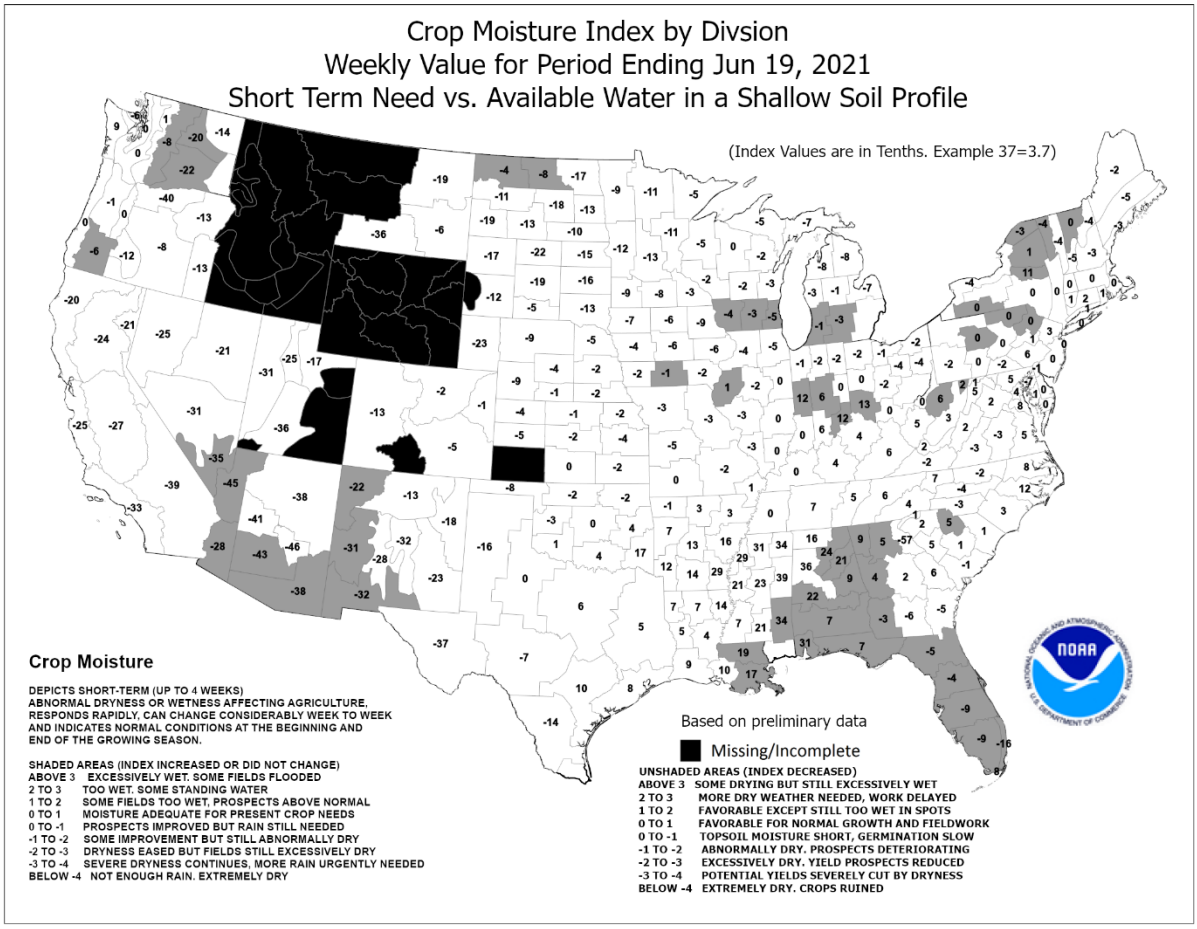
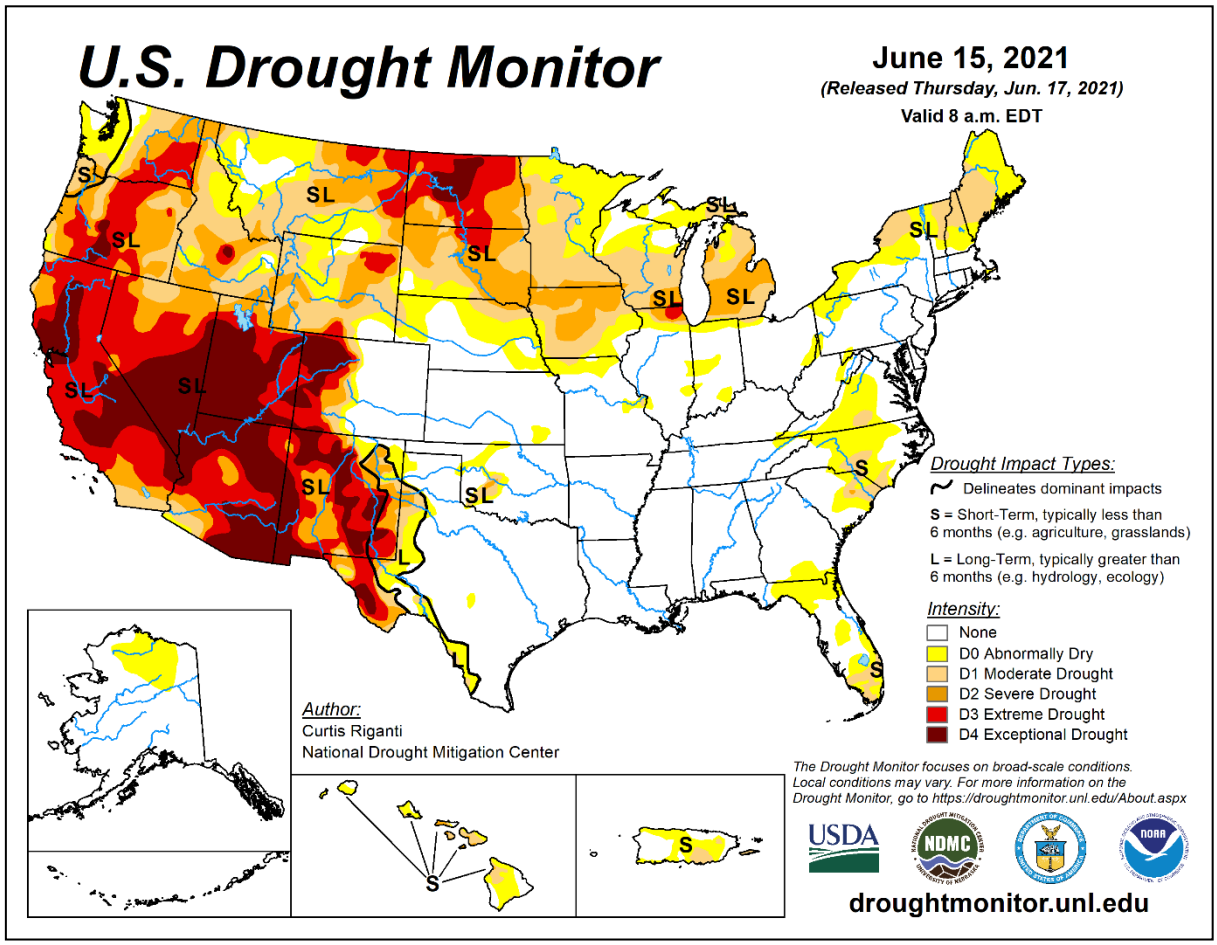
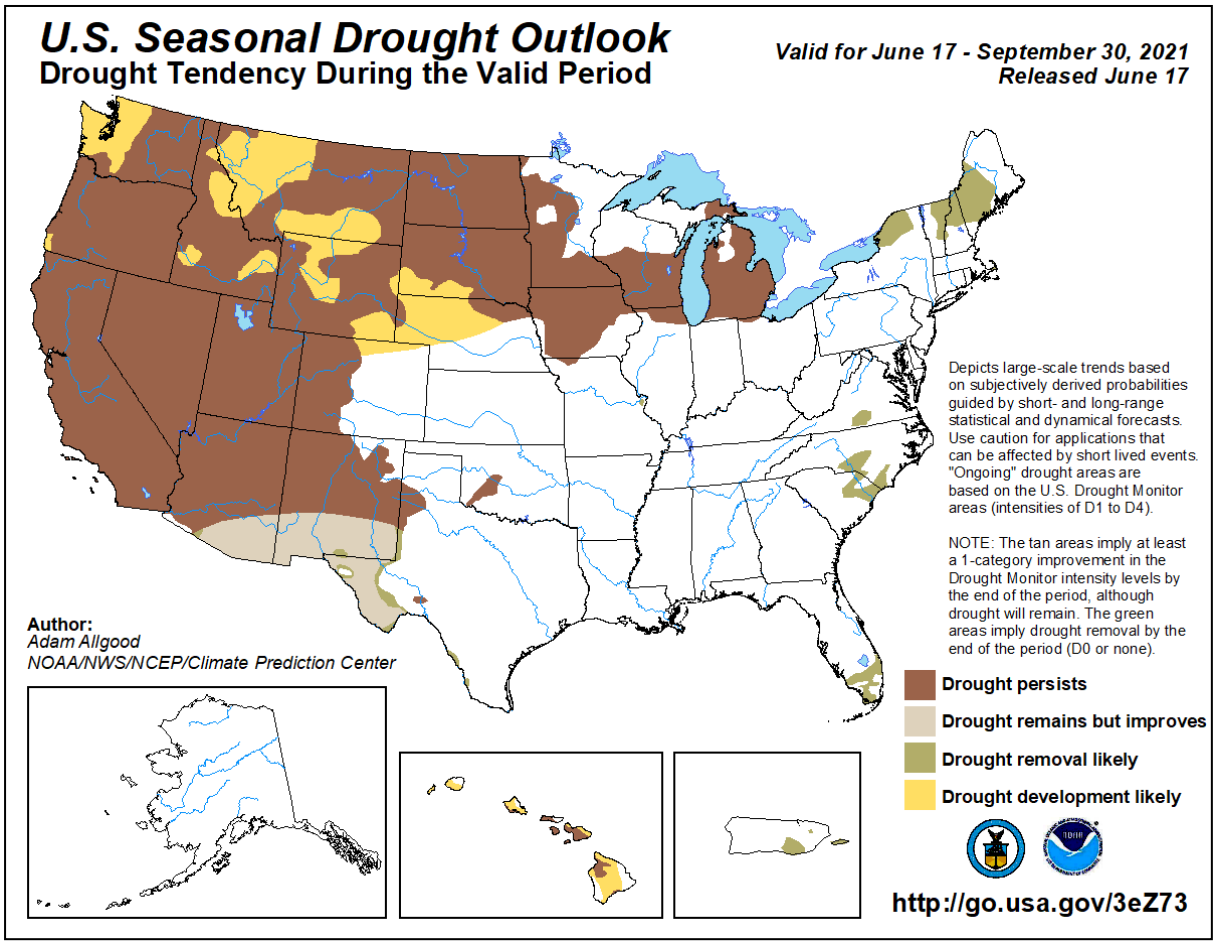
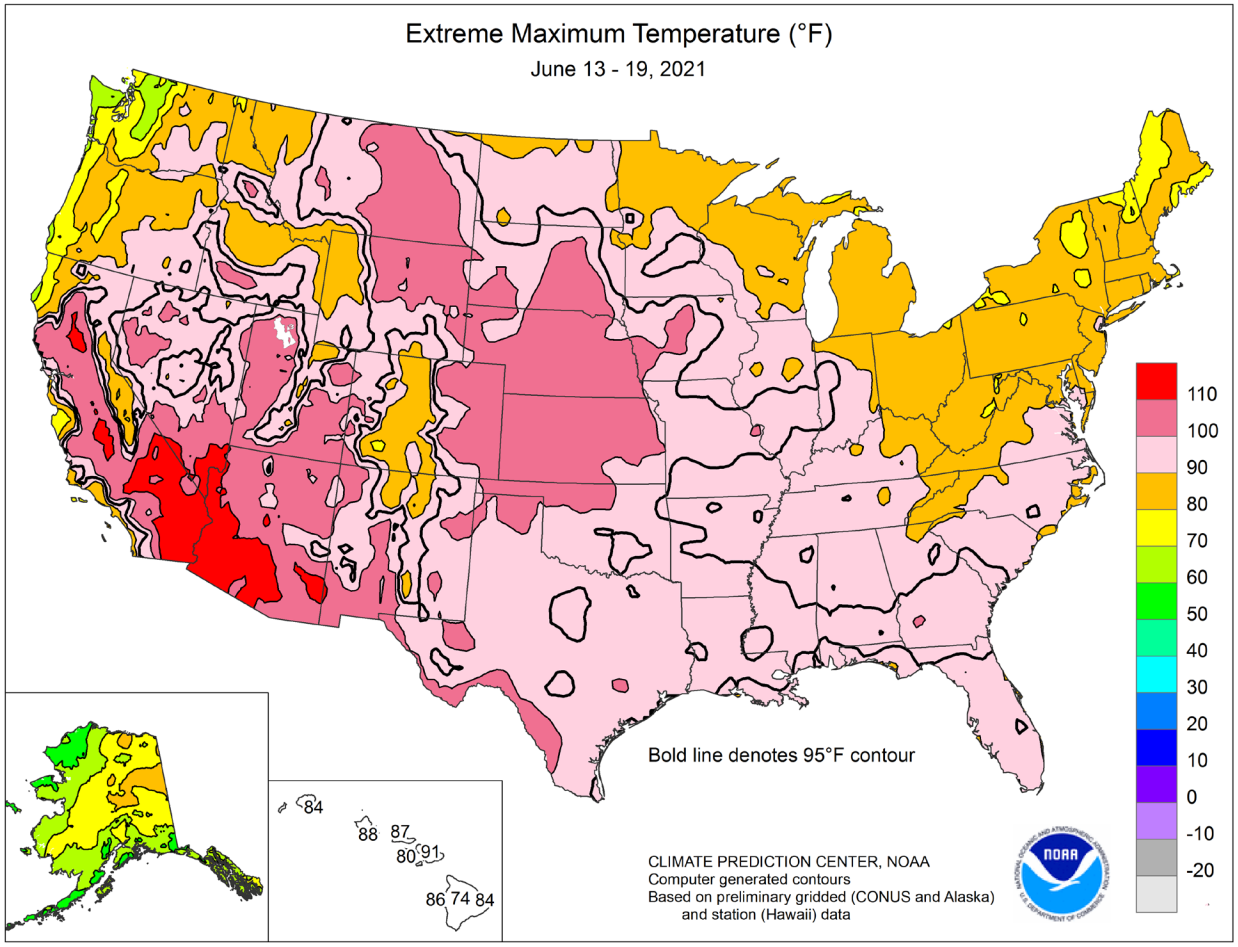
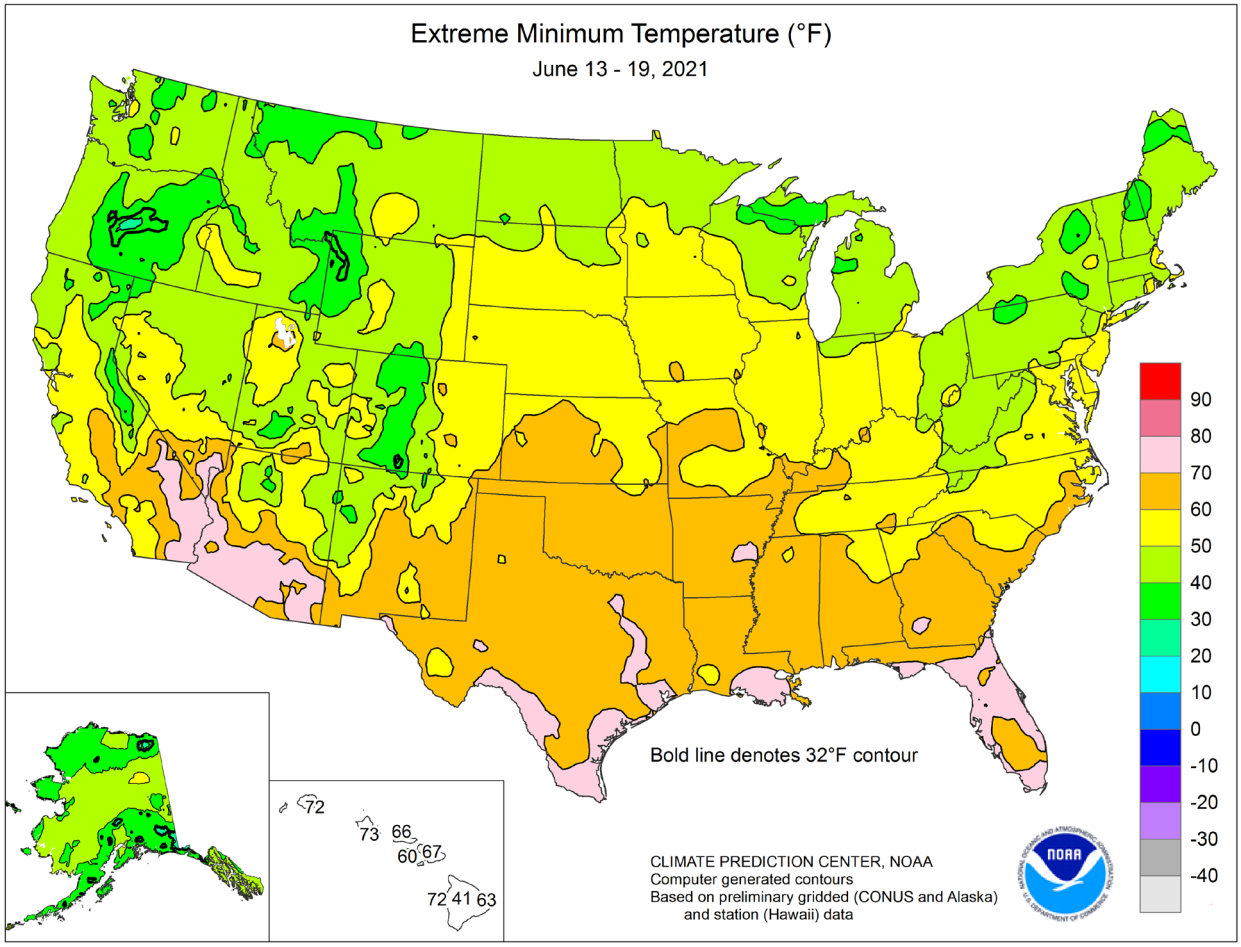

Crop Moisture Index by Divsion
Weekly Value for Period Ending Jun 19, 2021
Short Term Need vs. Available Water in a Shallow Soil Profile
Crop Moisture
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES 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
NOAA


Crop Moisture Index by Divsion
Weekly Value for Period Ending Jun 19, 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
NOAA

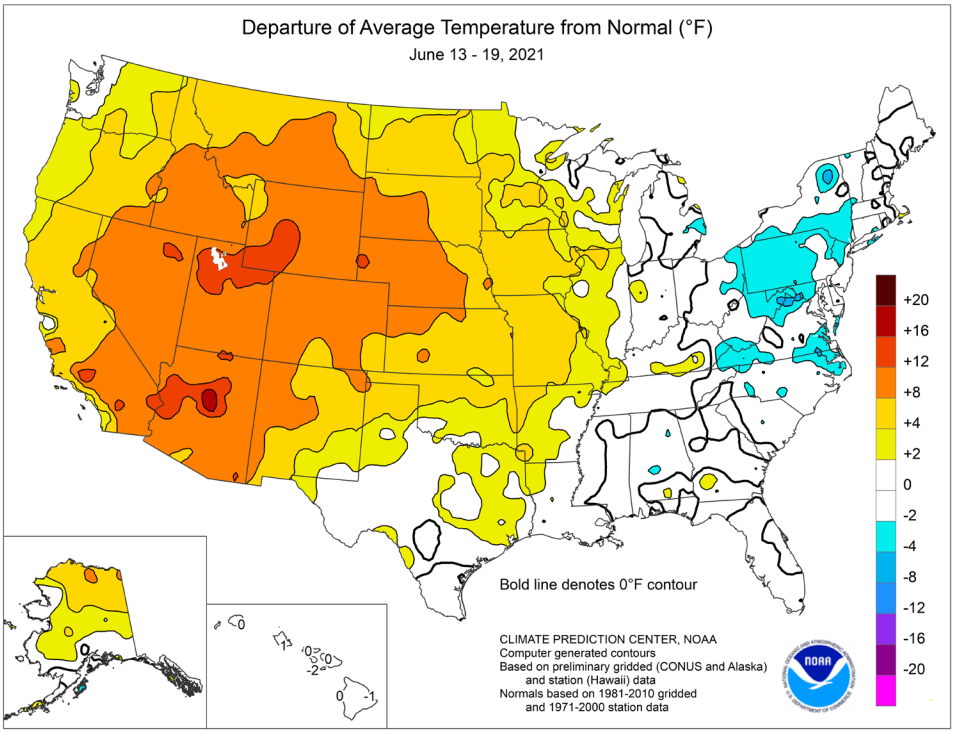

U.S. Drought Monitor
June 15, 2021
(Released Thursday, Jun. 17, 2021)
Valid 8 a.m. EDT
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
Intensity:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought
Author:
Curtis Riganti
National Drought Mitigation Center
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx
USDA
NDMC
NOAA
droughtmonitor.unl.edu


U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid for June 17 - September 30, 2021
Released June 17
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).
Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center
Drought persists
Drought remains but improves
Drought removal likely
Drought development likely
http://go.usa.gov/3eZ73


Extreme Maximum Temperature (°F)
June 13 - 19, 2021
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
84
88
87
80
91
86
74
84
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (°F)
June 13 - 19, 2021
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
72
73
66
60
67
72
41
63
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA

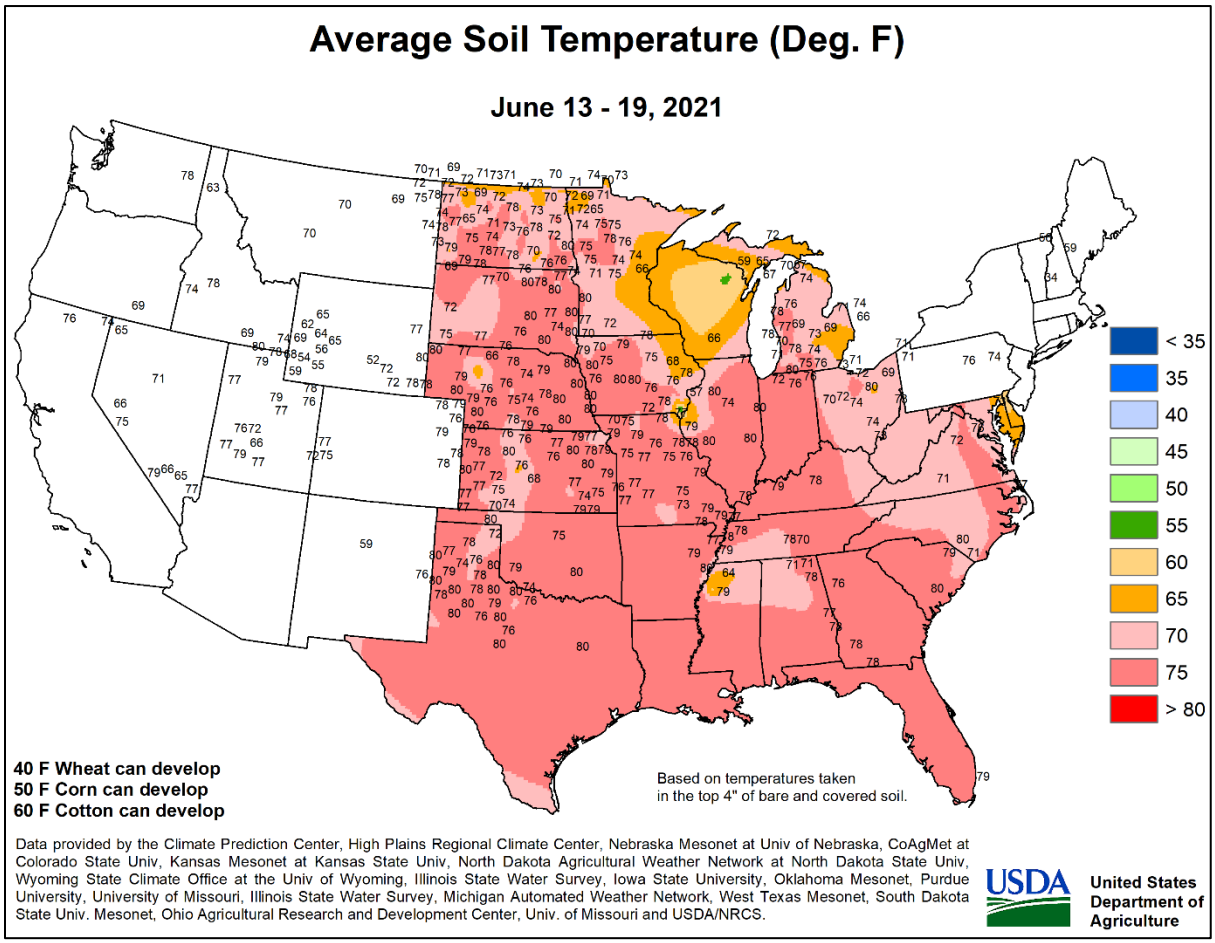
(Continued from front cover)
peaked around mid-week. In many of the **Western** drought areas, extreme, early-season heat boosted irrigation demands and further reduced soil moisture availability for rangeland, pastures, winter wheat, and spring-sown crops. Farther east, showers and thunderstorms delivered beneficial moisture in portions of the **southern and eastern Corn Belt**, while unfavorably dry conditions persisted across the **northern Plains** and **upper Midwest**. From the **upper Mississippi Valley westward**, high temperatures accompanied the mostly dry weather, further limiting soil moisture availability for crops rapidly approaching (or entering) reproduction. Meanwhile, mostly dry weather across the **southern half of the Plains** promoted fieldwork, including final planting efforts and previously delayed winter wheat harvesting. Late in the week, a disturbance crossing the **Gulf of Mexico** became Tropical Storm Claudette while arriving in **southeastern Louisiana**. Claudette delivered gusty winds and pockets of heavy rain, halting fieldwork but resulting in only minor impacts on summer crops such as cotton and peanuts. In fact, rainfall associated with Claudette improved soil moisture in some formerly dry **Southeastern** locations.

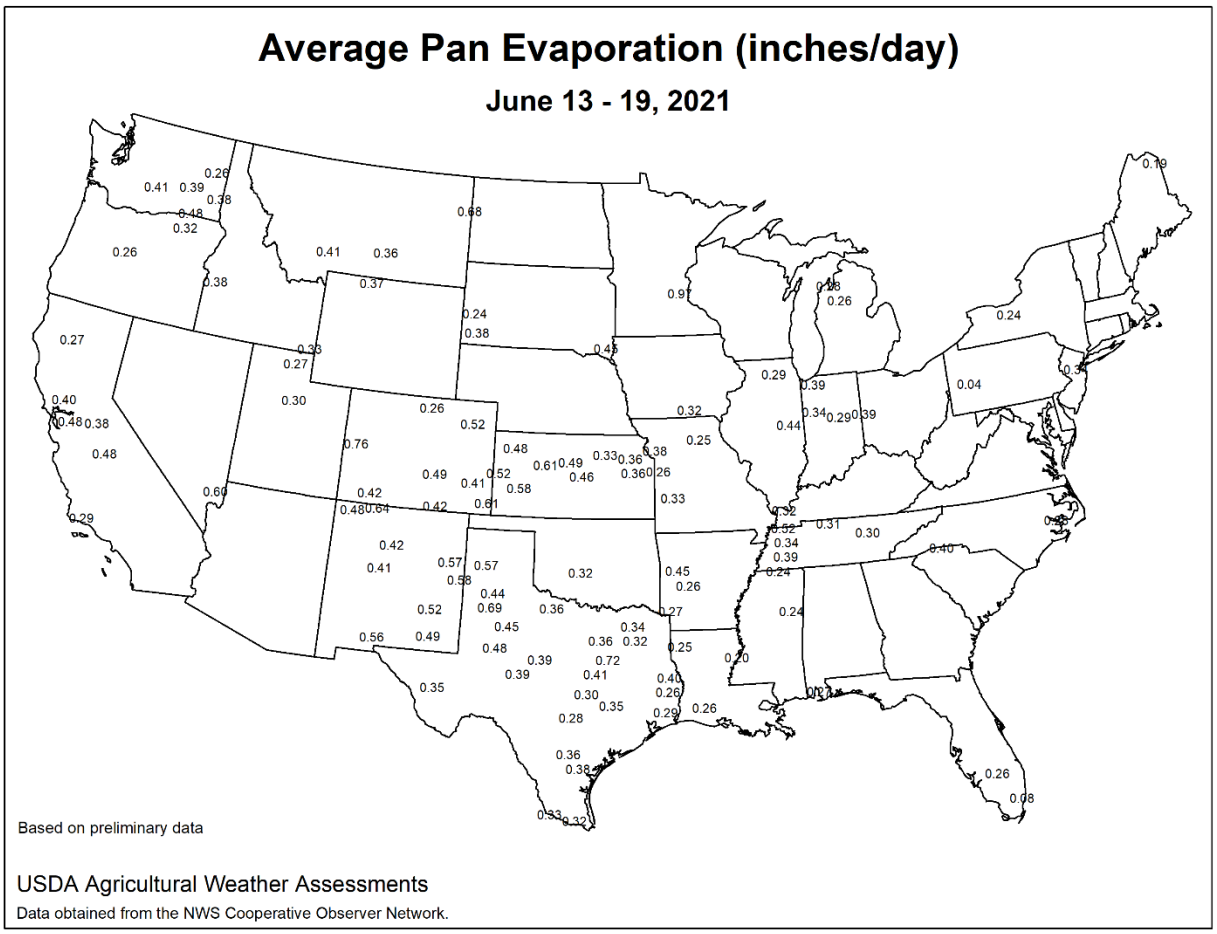


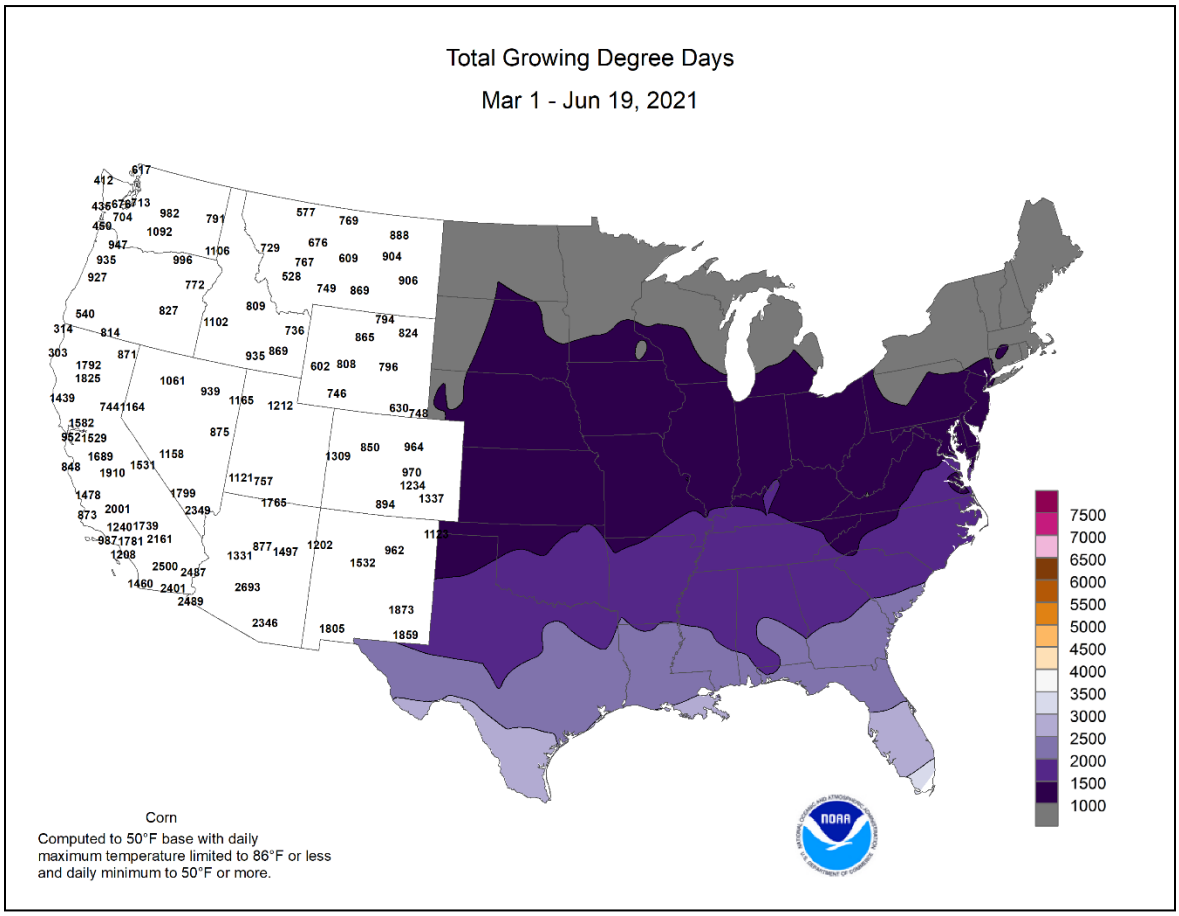
Scorching heat developed across **California**, the **Great Basin**, and the **Southwest**, breaking numerous June temperature records and setting or tying several all-time records. Among the communities experiencing their hottest weather on record were Palm Springs, CA (123°F on June 17), and **Salt Lake City, UT** (107°F on June 15). **Palm Springs** had previously attained 123°F on August 1, 1993, and June 28 and 29, 1995; **Salt Lake City** had reached 107°F on July 26, 1960, and July 13, 2002. In **Wyoming**, all-time-record highs were tied on June 15 in **Sheridan** (107°F) and **Laramie** (94°F). **Sheridan's** previous occurrences of 107°F had been July 14, 2002, and July 13, 2005. **Laramie** had reached 94°F on several occasions, most recently on July 22, 1982. On June 16, cities such as **Las Vegas, NV** (116°F), and **Grand Junction, CO** (105°F), were just 1°F of all-time high temperature records. In **Utah**, monthly records were tied or broken in **Provo** (105°F on June 15), **Tooele** (104°F on June 15), and **Cedar City** (102°F on June 16). With a high of 128°F on June 17, **Death Valley**, tied a monthly record previously set on June 30, 1994, and June 30, 2013. With a high of 100°F on June 16, **Colorado Springs, CO**, experienced its earliest triple-digit heat (previously, 101°F on June 21, 2016). Similarly, **Tucson, AZ**, noted its earliest 115-degree reading on record, with a high of 115°F on June 15 (previously, 115°F on June 19, 2016 and 2017). Tucson also registered daily-record highs each day from June 12-17, with readings of 110, 112, 112, 115, 114, and 112°F. Extreme heat extended into **California's Central Valley**, where **Redding** tallied a trio of highs of 110°F (from June 17-19). **Fresno, CA**, collected consecutive readings of 111°F—both records for the date—on June 18-19. Farther east, heat inching into the **Midwest** resulted in a handful of daily-record highs, including 106°F in **Mitchell, SD** (on June 16); 105°F (on June 17) in **Omaha, NE**; 102°F (on June 17) in **Mason City, IA**; and 99°F (on June 18) in **Springfield, IL**. The **central Plains** endured a brief period of extreme heat; on June 17, daily-record highs soared to 108°F in **Hill City, KS**, and **McCook, NE**. In contrast, **Parkersburg, WV**, tied a daily record on June 17 with a low of 47°F.

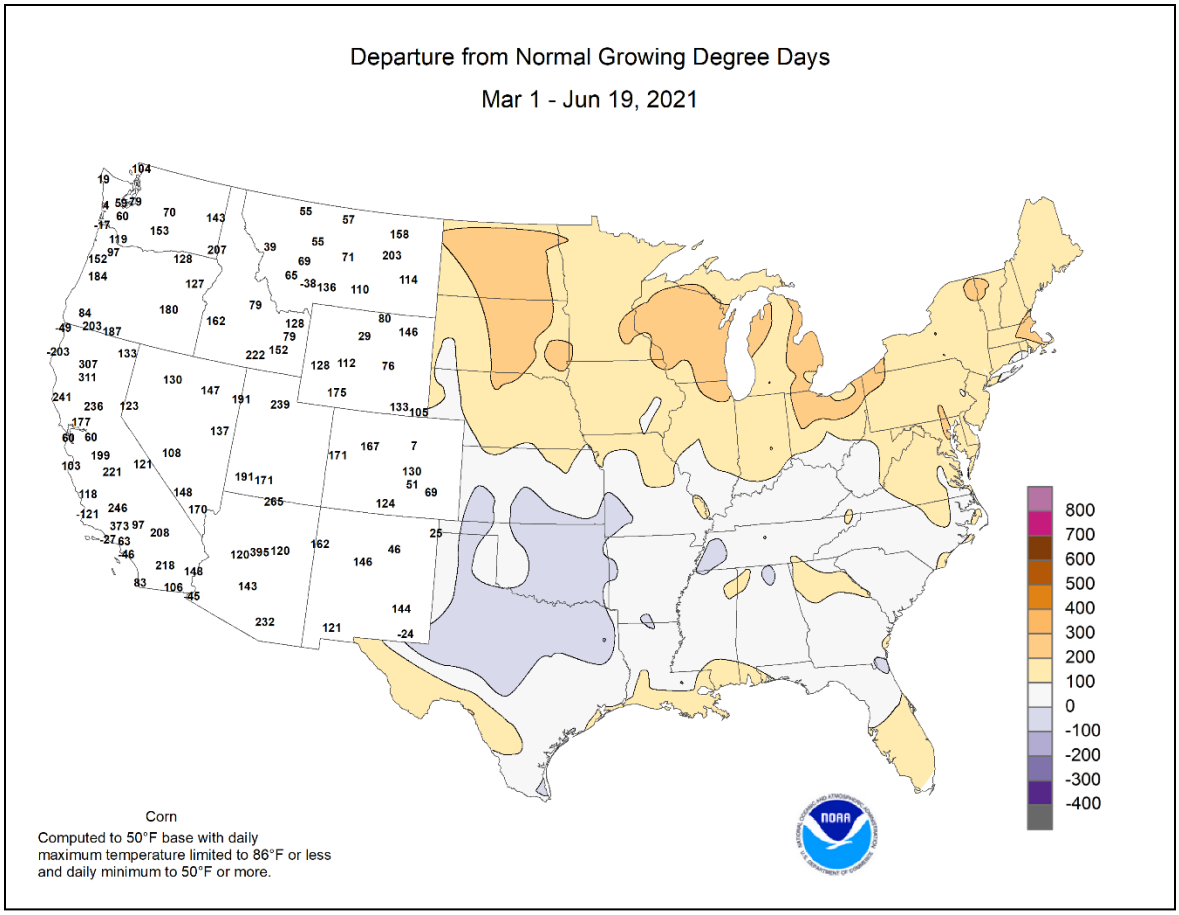
As the week began, rain fell in the **Pacific Northwest**. Daily-record totals for June 13 reached 1.94 inches in **Crescent City, CA**; 0.95 inch in **Olympia, WA**; and 0.78 inch in **Hillsboro, OR**. Elsewhere in **Oregon**, **North Bend** received a daily-record sum (1.29 inches) for June 14. Meanwhile, heavy showers dotted the **East** in advance of a surge of cool air. Daily-record totals reached 2.73 inches (on June 14) in **Melbourne, FL**, and 1.92 inches (on June 13) in **Morgantown, WV**. Meanwhile, a few showers and thunderstorms developed over the **Southwest**. In **California**, downtown **Los Angeles** received rainfall totaling 0.02 inch on June 17—tying a record for the date. In **Arizona**, however, the Telegraph Fire grew to more than 180,000 acres after jumping a containment line, becoming the sixth-large wildfire in modern state history. Farther east, humid, showery weather lingered across **Florida**, while a low-pressure system developed over the **Gulf of Mexico**. Daily-record rainfall totals in **Florida** included 2.82 inches (on June 18) in **Jacksonville** and 1.68 inches (on June 16) in **Vero Beach**. On June 19, while situated southwest of **New Orleans, LA**, the low-pressure system became Tropical Storm Claudette. Heavy showers (locally 4 to 12 inches) and a few severe thunderstorms occurred along and south of Claudette's track across the **Southeast**. On June 19, daily-record totals topped 4 inches in **Birmingham, AL** (4.36 inches); **Mobile, AL** (4.22 inches); and **Hattiesburg, MS** (4.17 inches). The most significant tornado associated with Claudette—an EF2 with estimated winds approaching 130 mph—cut a 22-mile path across **Escambia and Conecuh Counties, AL**, on the morning of June 19, injuring at least 20 people. On the same date, a thunderstorm wind gust to 81 mph was clocked in **Pensacola, FL**, accompanied by 3.99 inches of rain. Separately, a cold front crossing the **Ohio Valley** produced a June 18-19 rainfall total of 3.72 inches in **Cincinnati, OH**—the third-highest, 2-day total on record during June in that location.

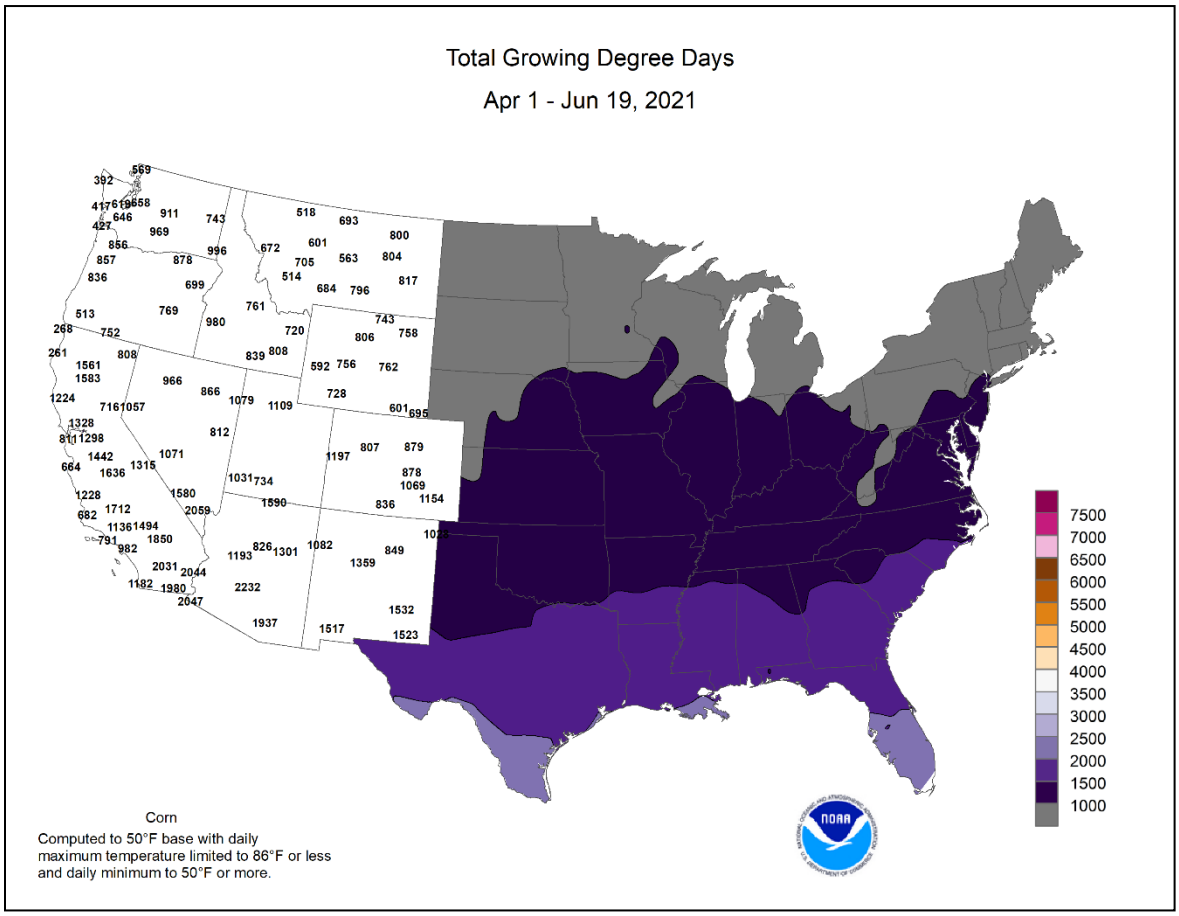
Warmth developed over much of **Alaska**, with weekly temperatures averaging at least 5°F above normal in many locations across the **northern half of the state**. However, lingering cool, dry air across **southwestern Alaska** contributed to a daily-record low (31°F on June 16) in **King Salmon**. Although precipitation fell in several parts of **Alaska**, higher totals were mostly confined to the **southeastern part of the state**. **Juneau** received 2.18 inches of rain on June 15-16, aided by a daily-record sum (1.46 inches) on the first day of the event. Farther south, **Hawaii** remained locked into a mostly dry weather pattern. At the state's major airport observation sites, June 1-19 rainfall ranged from a trace in **Kahului, Maui**, to 1.63 inches (35 percent of normal) in **Hilo**, on the **Big Island**. On June 15, **Hilo** posted a daily-record low of 63°F—the lowest June temperature in that location since June 24, 2014. In contrast, **Kahului, Maui**, tied a daily record with a high of 91°F on June 16. Measurable rain last fell in **Kahului** on May 20.

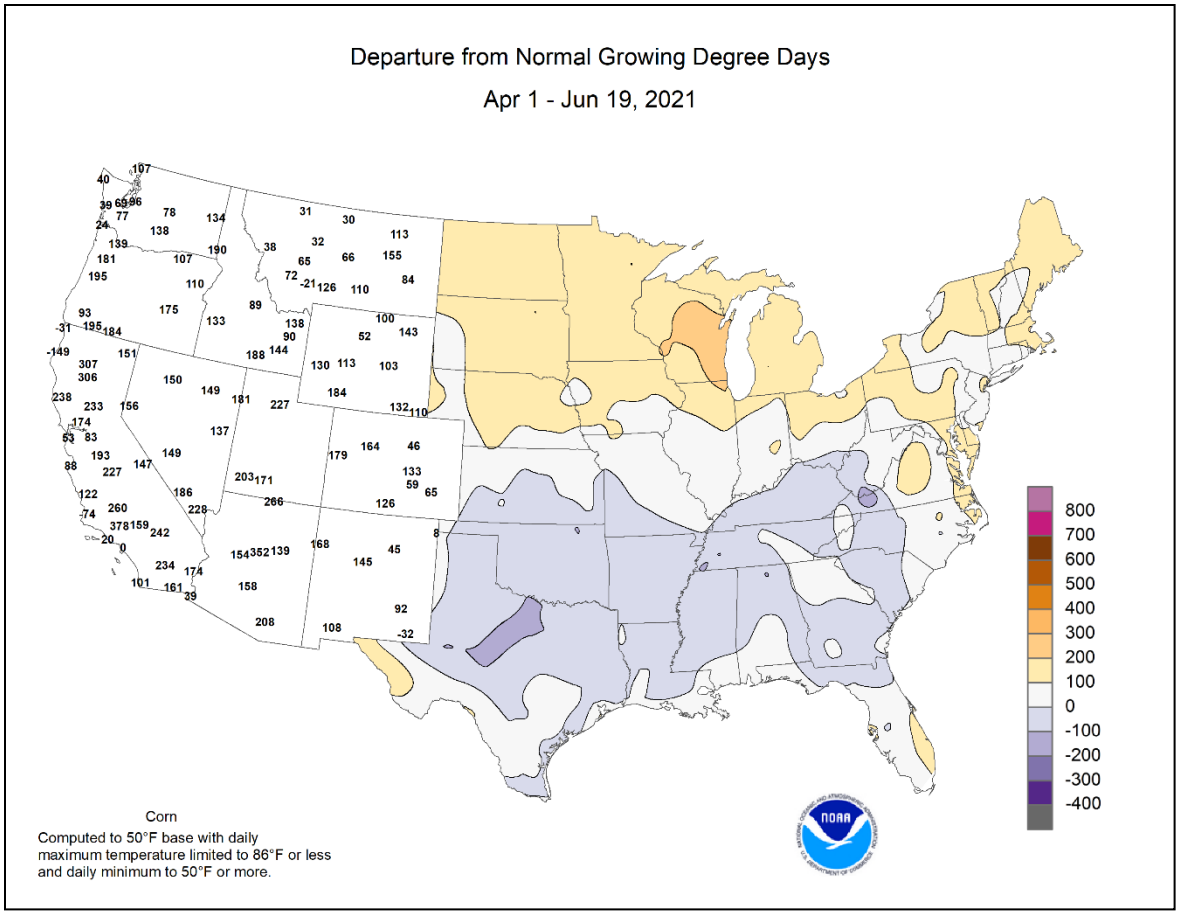

Average Soil Temperature (Deg. F)
June 13 - 19, 2021
< 35
35
40
45
50
55
60
65
70
75
> 80
40 F Wheat can develop
50 F Corn can develop
60 F Cotton can develop
Based on temperatures taken
in the top 4" of bare and covered soil.
Data provided by the Climate Prediction Center, High Plains Regional Climate Center, Nebraska Mesonet at Univ of Nebraska, CoAgMet at Colorado State Univ, Kansas Mesonet at Kansas State Univ, North Dakota Agricultural Weather Network at North Dakota State Univ, Wyoming State Climate Office at the Univ of Wyoming, Illinois State Water Survey, Iowa State University, Oklahoma Mesonet, Purdue University, University of Missouri, Illinois State Water Survey, Michigan Automated Weather Network, West Texas Mesonet, South Dakota State Univ. Mesonet, Ohio Agricultural Research and Development Center, Univ. of Missouri and USDA/NRCS.
USDA
United States Department of Agriculture


Average Pan Evaporation (inches/day)
June 13 - 19, 2021
Based on preliminary data
USDA Agricultural Weather Assessments
Data obtained from the NWS Cooperative Observer Network.


Total Growing Degree Days
Mar 1 - Jun 19, 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 - Jun 19, 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 - Jun 19, 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
Apr 1 - Jun 19, 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.

National Weather Data for Selected Cities

Weather Data for the Week Ending June 19, 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	65	51	69	45	58	3	0.08	-0.15	0.05	0.10	17	3.94	101	82	46	0	0	2	0
	BARROW	49	37	58	33	43	7	0.06	-0.02	0.03	0.13	66	1.06	103	87	67	0	0	2	0
	FAIRBANKS	78	54	84	49	66	5	0.62	0.28	0.47	1.06	135	5.02	164	85	36	0	0	4	0
	JUNEAU	67	48	73	43	57	3	2.22	1.49	1.44	4.66	231	32.85	152	89	50	0	0	3	2
	KODIAK	54	45	64	39	49	-1	1.54	0.13	0.54	3.23	82	36.28	102	93	75	0	0	4	2
	NOME	58	44	71	37	51	3	0.58	0.35	0.33	1.11	188	5.51	113	89	62	0	0	2	0
AL	BIRMINGHAM	89	66	94	62	77	-1	4.67	3.65	4.35	7.33	267	35.13	131	88	46	3	0	2	1
	HUNTSVILLE	89	66	93	60	77	-1	0.45	-0.54	0.42	4.63	171	30.79	113	99	46	3	0	2	0
	MOBILE	89	69	94	65	79	-1	4.81	3.40	3.50	7.58	207	36.40	119	97	55	5	0	4	2
	MONTGOMERY	91	68	96	62	80	0	1.50	0.59	0.80	5.90	256	25.43	99	90	46	5	0	3	2
AR	FORT SMITH	95	72	98	69	84	6	0.00	-1.00	0.00	1.86	65	21.94	99	90	40	7	0	0	0
	LITTLE ROCK	92	71	94	68	82	2	0.00	-0.82	0.00	7.11	299	25.93	106	87	44	6	0	0	0
AZ	FLAGSTAFF	91	51	94	37	71	11	0.01	-0.06	0.01	0.01	5	7.87	94	37	10	5	0	1	0
	PHOENIX	115	87	118	79	101	10	0.00	-0.01	0.00	0.00	0	0.82	24	19	7	7	0	0	0
	PRESCOTT	100	65	103	54	83	12	0.00	-0.10	0.00	0.00	0	2.66	55	29	8	7	0	0	0
	TUCSON	113	79	115	74	96	11	0.00	-0.04	0.00	0.00	0	1.02	30	20	5	7	0	0	0
CA	BAKERSFIELD	98	74	110	66	86	8	0.00	-0.02	0.00	0.00	0	1.97	44	46	20	6	0	0	0
	EUREKA	63	52	67	48	58	1	1.28	1.12	0.98	1.53	248	13.69	59	95	85	0	0	2	1
	FRESNO	100	71	110	65	85	8	0.00	-0.07	0.00	0.00	0	5.11	64	53	19	7	0	0	0
	LOS ANGELES	73	62	78	59	67	2	0.00	-0.02	0.00	0.00	0	3.20	36	91	62	0	0	0	0
	REDDING	100	68	110	57	84	8	0.00	-0.14	0.00	0.00	0	9.18	45	50	11	6	0	0	0
	SACRAMENTO	96	61	107	54	79	7	0.00	-0.05	0.00	0.00	0	4.49	37	77	13	5	0	0	0
	SAN DIEGO	75	65	87	63	70	3	0.00	-0.02	0.00	0.00	0	3.50	49	84	60	0	0	0	0
	SAN FRANCISCO	79	60	88	57	69	7	0.00	-0.02	0.00	0.00	0	5.43	41	76	40	0	0	0	0
	STOCKTON	95	60	107	56	78	5	0.00	-0.01	0.00	0.00	0	5.91	65	78	18	4	0	0	0
CO	ALAMOSA	89	46	94	42	67	7	0.42	0.31	0.42	0.71	241	3.46	131	82	14	5	0	1	0
	CO SPRINGS	93	61	100	57	77	11	0.01	-0.57	0.01	0.12	7	7.69	111	67	21	5	0	1	0
	DENVER INTL	96	63	101	58	80	12	0.00	-0.44	0.00	0.00	0	9.36	135	63	18	5	0	0	0
	GRAND JUNCTION	101	65	105	58	83	11	0.00	-0.11	0.00	0.00	0	2.03	47	22	6	7	0	0	0
	PUEBLO	98	63	103	60	81	10	0.00	-0.30	0.00	0.00	0	7.17	130	70	18	7	0	0	0
CT	BRIDGEPORT	79	59	85	53	69	0	0.93	0.09	0.65	1.17	46	17.17	84	84	42	0	0	2	1
	HARTFORD	80	56	88	47	68	-1	1.06	0.04	1.06	1.69	55	18.26	88	87	39	0	0	1	1
DC	WASHINGTON	84	65	89	59	75	-1	1.97	1.08	1.81	4.90	205	20.79	113	77	40	0	0	2	1
DE	WILMINGTON	82	61	89	52	72	-1	0.15	-0.73	0.15	1.15	47	17.67	90	87	44	0	0	1	0
FL	DAYTONA BEACH	89	72	91	71	80	0	0.83	-0.57	0.66	1.80	49	12.03	64	92	61	2	0	3	1
	JACKSONVILLE	90	70	95	70	80	0	4.18	2.53	2.82	4.77	123	20.31	104	98	55	3	0	4	2
	KEY WEST	87	79	88	74	83	0	0.64	-0.30	0.61	1.40	53	7.03	52	89	70	0	0	2	1
	MIAMI	89	76	94	73	83	0	1.76	-0.64	0.79	3.28	54	13.89	65	93	62	3	0	4	2
	ORLANDO	90	73	93	71	81	0	1.33	-0.55	0.93	1.72	35	13.05	67	95	54	4	0	4	1
	PENSACOLA	91	74	95	72	83	2	4.86	3.29	3.53	6.70	173	35.57	127	91	55	5	0	4	2
	TALLAHASSEE	92	72	96	69	82	1	1.42	-0.51	1.26	2.17	46	19.16	72	94	49	4	0	3	1
	TAMPA	89	77	92	73	83	1	3.96	2.28	1.90	6.11	165	15.11	95	85	59	3	0	4	3
	WEST PALM BEACH	89	75	91	73	82	1	2.61	0.57	1.46	4.94	93	11.60	48	92	61	3	0	5	2
GA	ATHENS	91	67	96	63	79	1	1.14	0.12	1.14	2.72	107	21.23	98	85	38	6	0	1	1
	ATLANTA	88	68	92	64	78	1	2.40	1.51	2.39	4.46	197	24.24	105	84	40	3	0	2	1
	AUGUSTA	91	66	97	63	79	0	0.64	-0.54	0.64	6.98	229	26.94	131	94	42	5	0	1	1
	COLUMBUS	90	69	96	65	80	0	1.17	0.33	1.15	2.85	128	23.32	102	84	44	5	0	2	1
	MACON	91	65	97	62	78	-1	1.69	0.75	1.69	3.31	135	20.15	94	96	45	6	0	1	1
	SAVANNAH	90	71	96	67	80	0	1.70	0.20	1.32	5.53	148	20.39	102	98	48	4	0	4	1
HI	HILO	82	67	84	63	75	-1	0.44	-1.28	0.35	1.54	35	70.56	125	86	56	0	0	3	0
	HONOLULU	87	74	88	73	81	1	0.04	-0.02	0.04	0.05	25	9.22	118	73	41	0	0	1	0
	KAHULUI	87	71	91	67	78	0	0.00	-0.05	0.00	0.00	0	13.17	136	79	49	1	0	0	0
	LIHUE	83	74	84	72	79	0	0.06	-0.33	0.05	0.66	65	19.63	116	82	62	0	0	2	0
IA	BURLINGTON	88	64	93	60	76	3	1.48	0.42	1.39	1.50	52	16.52	96	84	42	2	0	2	1
	CEDAR RAPIDS	89	61	93	55	75	5	0.05	-1.09	0.05	0.35	11	7.16	49	81	29	4	0	1	0
	DES MOINES	93	66	101	60	79	7	0.02	-1.14	0.02	0.03	1	8.04	49	76	27	7	0	1	0
	DUBUQUE	87	61	92	55	74	5	0.11	-0.92	0.11	0.11	3	8.34	53	77	32	3	0	1	0
	SIOUX CITY	91	62	97	54	77	6	0.00	-0.87	0.00	0.51	20	10.06	80	77	32	6	0	0	0
	WATERLOO	93	60	100	54	76	6	0.00	-1.15	0.00	0.00	0	7.94	51	79	24	4	0	0	0
ID	BOISE	92	62	97	55	77	9	0.00	-0.14	0.00	0.75	143	6.39	94	50	14	5	0	0	0
	LEWISTON	87	57	98	49	72	6	0.24	-0.04	0.24	0.41	46	3.20	46	66	23	3	0	1	0
	POCATELLO	93	55	100	43	74	12	0.00	-0.24	0.00	0.00	0	4.91	73	53	9	6	0	0	0
IL	CHICAGO/O_HARE	85	62	90	56	73	4	0.25	-0.54	0.21	1.76	79	7.79	51	77	32	2	0	2	0
	MOLINE	91	63	94	56	77	5	0.27	-0.74	0.26	0.44	15	16.41	98	81	31	5	0	2	0
	PEORIA	88	64	91	59	76	4	0.90	0.09	0.69	1.17	53	19.40	117	78	39	1	0	2	1
	ROCKFORD	90	61	94	56	76	6	0.20	-0.91	0.20	0.20	6	8.31	53	70	23	4	0	1	0
	SPRINGFIELD	91	64	99	59	77	4	1.14	0.07	1.11	1.20	41	19.27	113	84	37	4	0	2	1
IN	EVANSVILLE	89	66	93	60	77	2	0.00	-0.82	0.00	2.16	85	20.19	88	88	42	3	0	0	0
	FORT WAYNE	83	60	87	54	71	1	1.27	0.32	1.26	3.32	119	16.64	94	87	39	0	0	2	1
	INDIANAPOLIS	86	61	93	57	74	1	2.81	1.84	1.83	4.73	176	19.70	98	83	38	1	0	2	2
	SOUTH BEND	83	58	87	47	70	1	0.16	-0.73	0.12	1.28	51	12.05	74	84	37	0	0	2	0
KS	CONCORDIA	99	67	105	58	83	9	0.02	-0.90	0.02	0.02	0	10.26	81	73	27	7	0	1	0
	DODGE CITY	100	68	105	65	84	10	0.02	-0.70	0.02	0.05	2	9.19	95	80	26	7	0	1	0
	GOODLAND	96	64	104	57	80	10	0.35	-0.38	0.35	0.37	17	9.18	112	78	26	7	0	1	0
	TOPEKA	96	70	101	60	83	9	0.00	-1.31	0.00	0.77	22	16.26	97	81	35	7	0	0	0

Based on 1981-2010 normals

*** Not Available

Weather Data for the Week Ending June 19, 2021

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
	WICHITA	96	67	100	60	82	5	0.00	-1.24	0.00	0.91	26	13.40	87	83	32	6	0	0	0
KY	LEXINGTON	84	61	88	55	72	-1	0.44	-0.59	0.34	4.17	139	25.59	115	89	48	0	0	2	0
	LOUISVILLE	89	68	94	63	79	3	0.00	-0.84	0.00	4.22	168	25.15	112	72	38	3	0	0	0
	PADUCAH	91	68	93	64	80	4	0.00	-0.92	0.00	3.30	129	26.24	110	86	39	5	0	0	0
LA	BATON ROUGE	92	71	95	67	81	0	2.68	1.27	1.51	7.35	224	43.11	172	94	52	6	0	4	2
	LAKE CHARLES	95	73	97	71	84	3	0.89	-0.85	0.89	4.38	104	39.21	156	93	44	7	0	1	1
	NEW ORLEANS	92	76	97	73	84	2	2.03	-0.03	1.53	2.98	58	44.24	150	86	50	6	0	3	1
	SHREVEPORT	96	73	98	68	84	4	0.01	-1.39	0.01	2.64	75	28.16	109	83	39	7	0	1	0
MA	BOSTON	80	62	91	60	71	3	0.53	-0.37	0.52	1.39	53	17.46	84	77	40	1	0	2	1
	WORCESTER	75	56	83	52	66	1	0.69	-0.28	0.62	1.02	36	17.59	80	83	44	0	0	3	1
MD	BALTIMORE	84	63	89	54	73	0	0.71	-0.08	0.70	1.88	83	18.21	94	81	40	0	0	2	1
ME	CARIBOU	73	49	82	44	61	0	1.27	0.48	0.69	1.41	67	14.09	91	85	46	0	0	5	2
	PORTLAND	76	54	87	48	65	1	0.49	-0.39	0.32	0.60	23	13.67	62	91	42	0	0	3	0
MI	ALPENA	80	50	89	41	65	3	0.10	-0.49	0.10	0.57	35	8.31	72	92	30	0	0	1	0
	GRAND RAPIDS	81	58	86	50	69	1	1.06	0.17	0.67	1.53	63	9.30	58	87	38	0	0	3	1
	HOUGHTON LAKE	79	50	85	41	64	1	0.22	-0.54	0.22	2.91	144	9.77	83	91	32	0	0	1	0
	LANSING	81	56	86	47	69	1	0.42	-0.42	0.31	0.70	31	8.08	58	89	38	0	0	3	0
	MUSKEGON	80	57	84	45	69	2	1.27	0.69	1.09	1.76	105	9.07	65	80	34	0	0	2	1
	TRAVERSE CITY	80	52	91	45	66	2	0.31	-0.42	0.21	0.35	18	6.15	46	87	30	1	0	3	0
MN	DULUTH	78	52	83	47	65	5	0.12	-0.90	0.08	0.43	16	8.76	76	85	37	0	0	2	0
	INT_L FALLS	77	50	83	43	63	2	0.20	-0.75	0.12	1.21	51	6.17	69	89	38	0	0	2	0
	MINNEAPOLIS	88	63	97	61	76	7	0.00	-1.05	0.00	0.40	15	10.29	83	68	27	2	0	0	0
	ROCHESTER	85	59	91	56	72	0	0.05	-1.09	0.05	0.05	1	8.52	63	81	36	2	0	1	0
	ST. CLOUD	86	55	95	50	71	5	0.00	-1.06	0.00	0.27	10	9.31	85	85	27	1	0	0	0
MO	COLUMBIA	94	68	97	64	81	8	0.10	-0.95	0.10	0.22	7	20.19	104	78	34	7	0	1	0
	KANSAS CITY	94	69	98	48	82	8	0.06	-1.17	0.04	1.00	29	17.50	101	76	38	7	0	2	0
	SAINT LOUIS	94	70	101	66	82	6	0.36	-0.64	0.36	0.49	17	17.50	91	73	33	7	0	1	0
	SPRINGFIELD	91	68	94	59	80	6	0.00	-1.16	0.00	1.23	39	28.18	133	91	42	5	0	0	0
MS	JACKSON	92	68	97	63	80	1	0.24	-0.70	0.17	3.64	144	28.11	105	84	42	6	0	2	0
	MERIDIAN	90	67	96	62	78	0	3.47	2.46	2.35	7.98	291	38.60	136	91	49	4	0	3	2
	TUPELO	90	70	96	64	80	1	0.52	-0.52	0.52	11.39	396	40.29	146	89	44	5	0	1	1
MT	BILLINGS	93	59	104	56	76	12	0.00	-0.50	0.00	0.15	10	4.56	62	45	11	4	0	0	0
	BUTTE	84	43	93	37	63	8	0.00	-0.53	0.00	0.27	17	3.19	48	70	13	2	0	0	0
	CUT BANK	81	47	96	39	64	6	0.18	-0.44	0.18	0.28	15	2.53	45	72	23	1	0	1	0
	GLASGOW	89	58	102	50	74	9	0.00	-0.53	0.00	0.27	17	2.24	40	55	18	3	0	0	0
	GREAT FALLS	85	48	99	39	67	7	0.03	-0.52	0.03	0.19	10	6.91	91	70	19	2	0	1	0
	HAVRE	89	50	102	40	70	7	0.00	-0.51	0.00	0.11	7	4.17	79	74	17	3	0	0	0
	MISSOULA	84	49	93	44	67	6	0.00	-0.48	0.00	0.60	41	5.54	75	78	25	2	0	0	0
NC	ASHEVILLE	83	59	88	54	71	1	0.02	-1.12	0.02	4.54	155	26.39	125	93	41	0	0	1	0
	CHARLOTTE	88	65	93	57	76	1	0.00	-0.91	0.00	3.03	122	19.70	101	88	41	3	0	0	0
	GREENSBORO	85	63	89	58	74	-1	0.02	-0.84	0.02	3.17	133	21.52	113	83	39	0	0	1	0
	HATTERAS	84	70	86	65	77	1	1.80	0.82	1.24	4.31	175	26.30	111	90	59	0	0	3	1
	RALEIGH	86	63	92	56	75	-2	0.00	-0.80	0.00	5.02	227	20.10	104	91	42	2	0	0	0
	WILMINGTON	89	69	93	66	79	1	1.67	0.51	1.64	8.78	275	23.29	105	93	49	4	0	2	1
ND	BISMARCK	91	56	95	50	73	8	0.07	-0.69	0.07	0.80	39	3.22	42	79	21	4	0	1	0
	DICKINSON	84	51	88	45	67	5	0.04	-0.73	0.04	1.05	52	5.41	74	79	25	0	0	1	0
	FARGO	85	56	89	49	71	4	0.00	-0.94	0.00	2.17	88	4.87	52	74	28	0	0	0	0
	GRAND FORKS	85	52	92	45	69	4	0.02	-0.80	0.02	1.62	77	5.49	69	80	25	1	0	1	0
	JAMESTOWN	87	55	94	48	71	6	0.04	-0.67	0.04	1.44	73	3.99	52	72	24	1	0	1	0
NE	GRAND ISLAND	97	67	106	60	82	10	0.00	-0.99	0.00	0.00	0	13.39	104	76	27	6	0	0	0
	LINCOLN	95	67	103	56	81	8	0.04	-1.00	0.04	2.03	72	13.08	99	79	34	7	0	1	0
	NORFOLK	94	64	100	54	79	8	0.01	-0.97	0.01	1.07	38	11.42	91	73	29	6	0	1	0
	NORTH PLATTE	95	62	103	54	78	10	0.39	-0.39	0.27	0.39	17	11.87	121	82	34	6	0	2	0
	OMAHA	96	68	105	58	82	10	0.02	-0.93	0.02	0.77	27	12.07	85	80	30	7	0	1	0
	SCOTTSBLUFF	100	64	105	61	82	14	0.10	-0.59	0.10	0.10	5	5.09	60	75	17	7	0	1	0
	VALENTINE	95	64	102	56	79	12	0.00	-0.83	0.00	1.18	51	10.36	109	69	29	6	0	0	0
NH	CONCORD	78	51	87	42	65	-1	0.69	-0.17	0.46	1.05	42	12.45	69	92	38	0	0	2	0
NJ	ATLANTIC_CITY	81	59	88	52	70	-2	0.86	0.13	0.55	3.05	149	21.75	113	94	45	0	0	3	1
	NEWARK	83	62	93	57	73	0	0.21	-0.72	0.15	3.38	126	20.34	94	79	37	1	0	3	0
NM	ALBUQUERQUE	99	73	103	71	86	10	0.00	-0.15	0.00	0.13	39	1.68	57	32	9	7	0	0	0
NV	ELY	92	51	95	41	72	12	0.00	-0.14	0.00	0.02	3	3.15	62	32	8	6	0	0	0
	LAS VEGAS	111	86	115	76	99	12	0.00	-0.01	0.00	0.00	0	0.71	32	14	5	7	0	0	0
	RENO	94	59	101	54	77	9	0.00	-0.13	0.00	0.09	24	1.68	40	46	10	5	0	0	0
	WINNEMUCCA	97	54	101	47	75	11	0.00	-0.13	0.00	0.08	18	4.24	87	45	7	7	0	0	0
NY	ALBANY	74	53	82	46	64	-4	0.89	0.00	0.89	1.93	78	14.31	83	96	49	0	0	1	1
	BINGHAMTON	73	53	79	43	63	-2	0.33	-0.73	0.23	1.99	72	18.45	105	91	46	0	0	3	0
	BUFFALO	76	57	84	47	66	0	0.20	-0.69	0.17	1.02	42	8.54	49	87	42	0	0	3	0
	ROCHESTER	77	55	86	45	66	-1	0.87	0.07	0.42	1.29	62	10.28	71	91	37	0	0	4	0
	SYRACUSE	79	56	88	51	67	0	1.46	0.69	0.83	2.37	114	13.07	82	82	38	0	0	5	1
OH	AKRON-CANTON	79	59	85	50	69	1	0.17	-0.72	0.12	2.00	82	14.50	80	85	43	0	0	3	0
	CINCINNATI	85	62	90	57	74	1	3.69	2.74	2.67	6.37	233	24.16	113	82	43	2	0	2	2
	CLEVELAND	78	58	82	48	68	-2	0.46	-0.33	0.22	1.68	77	12.31	71	86	43	0	0	4	0
	COLUMBUS	84	59	91	51	72	0	0.20	-0.72	0.12	1.68	64	15.49	85	90	40	2	0	3	0
	DAYTON	84	62	89	57	73	2	1.74	0.77	1.35	4.07	151	17.80	90	76	38	0	0	2	1
	MANSFIELD	81	58	87	47	70	2	0.27	-0.87	0.19	1.01	32	15.66	76	87	43	0	0	4	0

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Weather Data for the Week Ending June 19, 2021

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
	TOLEDO	83	60	88	51	72	2	0.25	-0.59	0.24	1.65	71	13.59	87	82	34	0	0	2	0
	YOUNGSTOWN	77	54	84	43	65	-1	1.12	0.21	1.03	2.15	88	13.80	80	94	48	0	0	4	1
OK	OKLAHOMA CITY	93	67	94	64	80	2	0.01	-1.15	0.01	0.29	8	10.94	63	90	38	7	0	1	0
	TULSA	96	73	99	66	84	6	0.00	-1.06	0.00	0.69	21	15.90	80	85	38	7	0	0	0
OR	ASTORIA	65	53	69	48	59	2	0.58	-0.04	0.58	1.90	104	37.52	106	93	67	0	0	1	1
	BURNS	88	46	94	35	67	8	0.00	-0.17	0.00	0.07	12	5.16	84	71	12	3	0	0	0
	EUGENE	77	52	85	47	65	4	1.06	0.70	0.90	1.59	136	14.39	58	91	42	0	0	2	1
	MEDFORD	84	56	94	50	71	4	0.19	0.06	0.16	0.87	180	6.32	67	74	28	2	0	2	0
	PENDLETON	84	51	91	46	68	3	0.14	-0.11	0.14	0.27	34	4.18	58	79	23	2	0	1	0
	PORTLAND	77	57	84	50	67	3	0.90	0.50	0.76	1.22	96	14.58	78	84	43	0	0	3	1
	SALEM	78	54	85	50	66	5	0.98	0.59	0.71	1.70	144	19.01	91	84	41	0	0	3	1
PA	ALLENTOWN	78	55	83	48	67	-3	0.04	-0.97	0.04	2.31	84	16.37	84	89	49	0	0	1	0
	ERIE	77	59	84	47	68	1	0.54	-0.36	0.28	0.83	35	12.63	72	81	44	0	0	3	0
	MIDDLETOWN	82	62	88	55	72	1	0.13	-0.71	0.10	0.83	37	14.78	83	80	39	0	0	3	0
	PHILADELPHIA	82	63	90	58	73	-1	0.86	0.10	0.80	2.27	104	18.62	99	83	39	1	0	3	1
	PITTSBURGH	78	56	87	45	67	-2	0.95	-0.06	0.44	2.05	75	15.08	84	87	43	0	0	3	0
	WILKES-BARRE	79	55	88	45	67	-1	0.36	-0.61	0.28	1.47	55	14.90	90	89	41	0	0	2	0
	WILLIAMSPORT	81	55	84	46	68	-1	0.90	-0.06	0.62	1.79	71	14.77	85	87	40	0	0	2	1
RI	PROVIDENCE	80	58	90	53	69	1	0.72	-0.14	0.53	1.47	57	18.35	81	86	41	1	0	2	1
SC	CHARLESTON	89	69	94	66	79	0	1.54	0.17	1.18	5.57	166	21.65	110	97	51	3	0	4	1
	COLUMBIA	89	67	93	60	78	-1	0.31	-0.86	0.31	2.20	75	20.61	106	91	43	3	0	1	0
	FLORENCE	90	66	93	58	78	-1	0.36	-0.74	0.36	4.54	151	21.20	116	85	37	4	0	1	0
	GREENVILLE	87	64	91	59	76	-1	0.22	-0.64	0.14	1.69	75	22.07	102	86	38	3	0	2	0
SD	ABERDEEN	92	58	100	50	75	9	0.00	-0.90	0.00	0.44	19	5.85	61	69	21	5	0	0	0
	HURON	91	59	101	50	75	7	0.69	-0.26	0.66	0.83	31	5.36	50	79	27	4	0	2	1
	RAPID CITY	90	56	99	52	73	8	0.08	-0.50	0.08	2.02	112	6.38	74	75	29	1	0	1	0
	SIOUX FALLS	91	61	96	54	76	8	0.00	-0.93	0.00	0.40	15	8.19	69	69	27	6	0	0	0
TN	BRISTOL	85	58	90	51	72	0	0.03	-0.86	0.03	2.61	108	21.37	108	93	37	2	0	1	0
	CHATTANOOGA	90	67	95	62	78	1	0.66	-0.30	0.52	4.09	165	28.84	113	88	37	3	0	2	1
	KNOXVILLE	87	63	92	59	75	0	0.15	-0.70	0.15	1.91	82	22.60	94	93	36	2	0	1	0
	MEMPHIS	91	73	94	67	82	2	0.00	-0.81	0.00	4.14	174	30.59	114	79	41	6	0	0	0
	NASHVILLE	91	68	96	61	80	4	0.00	-0.99	0.00	1.98	72	28.30	117	79	38	4	0	0	0
TX	ABILENE	95	70	96	67	82	3	0.26	-0.59	0.26	0.83	32	13.10	114	85	36	7	0	1	0
	AMARILLO	94	65	97	62	80	5	0.14	-0.60	0.14	0.29	13	8.78	103	74	27	6	0	1	0
	AUSTIN	97	74	100	70	86	3	0.00	-1.05	0.00	2.62	85	17.50	105	80	34	7	0	0	0
	BEAUMONT	95	72	98	67	83	2	1.61	-0.18	1.61	7.03	165	31.48	125	99	50	7	0	1	1
	BROWNSVILLE	93	77	95	75	85	1	0.12	-0.46	0.12	0.80	52	7.54	80	86	48	7	0	1	0
	CORPUS CHRISTI	95	73	98	72	84	1	0.00	-0.76	0.00	2.08	102	17.44	141	98	46	7	0	0	0
	DEL RIO	101	77	103	74	89	5	0.01	-0.51	0.01	0.03	2	5.98	70	70	28	7	0	1	0
	EL PASO	101	74	104	72	87	5	0.00	-0.24	0.00	0.01	2	1.15	46	34	11	7	0	0	0
	FORT WORTH	97	76	99	71	87	5	0.00	-0.90	0.00	1.23	47	18.87	100	79	35	7	0	0	0
	GALVESTON	94	80	95	76	87	4	0.02	0.00	0.02	1.85	0	13.36	0	80	47	7	0	1	0
	HOUSTON	97	74	99	71	85	3	0.35	-1.13	0.35	5.65	151	24.83	112	86	43	7	0	1	0
	LUBBOCK	96	70	100	65	83	5	0.00	-0.71	0.00	1.00	49	10.46	126	68	22	7	0	0	0
	MIDLAND	94	70	97	68	82	2	0.00	-0.41	0.00	0.26	22	5.66	103	71	23	6	0	0	0
	SAN ANGELO	98	68	100	64	83	2	0.00	-0.61	0.00	1.83	98	7.04	71	88	28	7	0	0	0
	SAN ANTONIO	94	73	96	69	84	1	0.20	-0.78	0.20	1.81	67	16.44	112	85	43	7	0	1	0
	VICTORIA	95	73	98	71	84	2	0.87	-0.17	0.71	5.88	204	32.83	180	93	46	7	0	3	1
	WACO	96	71	98	65	83	2	0.00	-0.81	0.00	1.04	41	14.25	82	91	40	7	0	0	0
	WICHITA FALLS	96	69	96	67	83	3	0.12	-0.90	0.12	0.75	24	12.61	86	93	38	7	0	1	0
UT	SALT LAKE CITY	101	71	106	61	86	16	0.00	-0.23	0.00	0.00	0	6.38	70	35	9	7	0	0	0
VA	LYNCHBURG	86	61	90	53	73	1	0.12	-0.73	0.12	4.36	186	19.93	105	85	38	2	0	1	0
	NORFOLK	85	68	94	62	76	1	0.00	-1.03	0.00	3.34	122	20.14	102	84	45	1	0	0	0
	RICHMOND	86	63	93	55	74	-1	0.00	-0.92	0.00	3.36	132	19.43	100	89	39	2	0	0	0
	ROANOKE	85	62	90	53	73	0	0.83	-0.06	0.83	3.05	121	18.21	95	82	38	1	0	1	1
	WASH/DULLES	82	60	88	49	71	-1	1.13	0.19	1.02	2.81	107	16.23	83	88	43	0	0	3	1
VT	BURLINGTON	79	55	86	50	67	1	1.29	0.44	0.54	1.63	70	11.20	76	86	35	0	0	4	1
WA	OLYMPIA	73	49	80	45	61	2	1.98	1.56	0.99	3.24	256	28.08	109	99	55	0	0	3	2
	QUILLAYUTE	64	51	67	43	57	2	0.78	-0.02	0.50	2.59	105	42.86	83	100	69	0	0	3	0
	SEATTLE-TACOMA	71	55	79	52	63	2	0.95	0.58	0.89	1.90	169	19.70	106	87	52	0	0	2	1
	SPOKANE	81	55	89	46	68	6	0.36	0.07	0.36	0.43	47	4.65	54	72	24	0	0	1	0
	YAKIMA	85	55	93	42	70	6	0.15	-0.01	0.12	0.18	40	2.71	64	70	24	3	0	2	0
WI	EAU CLAIRE	87	57	92	53	72	5	0.18	-0.83	0.18	0.72	27	7.15	58	87	29	2	0	1	0
	GREEN BAY	83	56	91	47	69	4	0.35	-0.56	0.18	0.57	22	7.00	57	85	32	1	0	4	0
	LA CROSSE	89	62	95	58	76	6	1.60	0.56	1.48	1.60	58	10.79	78	86	28	3	0	2	1
	MADISON	85	58	91	50	72	4	1.52	0.44	1.44	1.63	56	8.60	58	87	31	1	0	3	1
	MILWAUKEE	82	61	93	55	71	5	0.07	-0.86	0.07	0.13	5	7.46	49	81	34	1	0	1	0
WV	BECKLEY	78	56	83	46	67	-1	1.00	0.10	0.98	3.91	155	21.27	108	95	46	0	0	3	1
	CHARLESTON	83	59	88	48	71	-2	0.20	-0.79	0.08	1.97	70	17.40	83	100	46	0	0	4	0
	ELKINS	77	53	83	42	65	-2	1.04	0.02	0.87	2.58	94	17.21	78	90	40	0	0	4	1
	HUNTINGTON	84	60	89	50	72	-1	0.96	0.07	0.54	4.31	166	21.25	103	93	48	0	0	3	1
WY	CASPER	95	51	101	46	73	11	0.00	-0.37	0.00	0.00	0	5.53	87	63	8	7	0	0	0
	CHEYENNE	89	58	95	55	73	11	0.19	-0.34	0.18	2.56	157	8.26	107	85	21	4	0	2	0
	LANDER	94	59	98	53	77	14	0.00	-0.30	0.00	0.00	0	7.60	104	40	8	7	0	0	0
	SHERIDAN	93	52	107	47	73	11	0.00	-0.52	0.00	0.02	1	7.09	93	71	17	4	0	0	0

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

Spring Weather Review

Weather summary provided by USDA/WAOB

Highlights: Producers across the northern and western U.S. faced several weather challenges, including ongoing drought and episodic cold snaps. Even into late May, frost and freezes across portions of the northern Plains and upper Midwest necessitated replanting of some spring-sown crops, including soybeans. Due to punishing drought and temperature extremes, a variety of commodities—including rangeland/pastures, spring wheat, and barley—started the growing season with the lowest spring crop conditions, per USDA/NASS, of the 21st century. By May 30, more than one-third (39 percent) of the U.S. rangeland and pastures; 20 percent of the spring wheat; and 13 percent of the barley were rated in very poor to poor condition.

Crops in other parts of the country fared better. Midwestern planting quickly advanced, with 95 percent of the U.S. corn and 84 percent of the soybeans sown by May 30; five-year averages for that date were 87 and 67 percent, respectively. Meanwhile, winter wheat across the central and southern Plains benefited from frequent spring precipitation, although early-season harvest efforts were slowed by delayed maturation and wet conditions. Farther north, winter wheat conditions faded amid drought; by May 30, nearly two-thirds (63 percent) of Oregon's crop was rated in very poor to poor condition. In contrast, spring wetness from the southern Plains to the Mississippi Delta hampered fieldwork, including hay cutting and late-season planting.

During the first 5 months of 2021, drought coverage remained nearly steady at 43 to 48 percent of the Lower 48 States, according to the *U.S. Drought Monitor*, down slightly from a December 2020 peak of 49.6 percent. Large-scale improvement in the drought situation was mostly limited to the central and southern Plains and the eastern slopes of the central Rockies. Meanwhile, the drought picture worsened in the West, particularly in the Pacific Coast States, as well as portions of the northern Plains and northern Corn Belt. Short-term dryness developed in portions of the Atlantic Coast States. In contrast, excessive wetness plagued the Mississippi Delta and portions of neighboring regions.

Following frigid February weather, a sudden end to widespread wintry conditions helped propel the country to a relatively warm spring. All states except Arkansas ended up on the "warm side" of the historical distribution. However, widespread spring temperatures averaging at least 2°F above normal were confined to the North—an area stretching from parts of the Dakotas to New England.

Outside the contiguous U.S., near- or below-normal spring temperatures in Alaska accompanied variable precipitation, while an extremely wet March in Hawaii was followed by the return of warm, mostly dry weather. Alaska experienced its coolest spring since 2013 and its wettest spring since 2004. Meanwhile, Hawaii endured widespread flooding during its wettest March since 2006. Subsequently, a lack of late-spring rainfall allowed short-term dryness or drought to quickly return across much of Hawaii.

Historical Perspective: According to preliminary data provided by the National Centers for Environmental Information, the contiguous U.S. experienced its 21st-warmest, 42nd-driest spring during the 127-year period of record. Across the Lower 48 States, the March-May average temperature of 52.6°F was 1.7°F above the 20th century mean, while precipitation averaged 7.53 inches (95 percent of normal). It was the nation's driest spring since 2006.

Spring warmth was most prominent in the North and West, while wetness was largely focused on an area stretching from the central and southern Plains into the lower Mississippi Valley. Top-ten rankings for spring warmth were confined to Michigan and four Atlantic Coast States from Delaware to Maine (figure 1). Meanwhile, state precipitation rankings ranged from the second-driest spring in Idaho, Oregon, and Washington to the fourth-wettest spring in Louisiana (figure 2). California and Michigan also experienced a top-ten ranking for spring dryness.

Figure 1 Statewide Average Temperature Ranks
March – May 2021
Period: 1895–2021

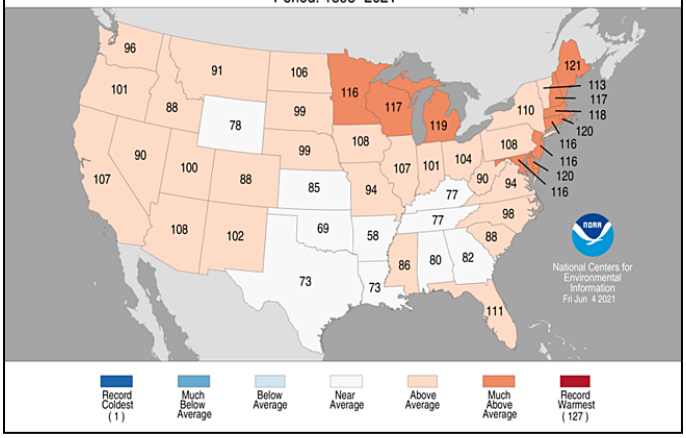
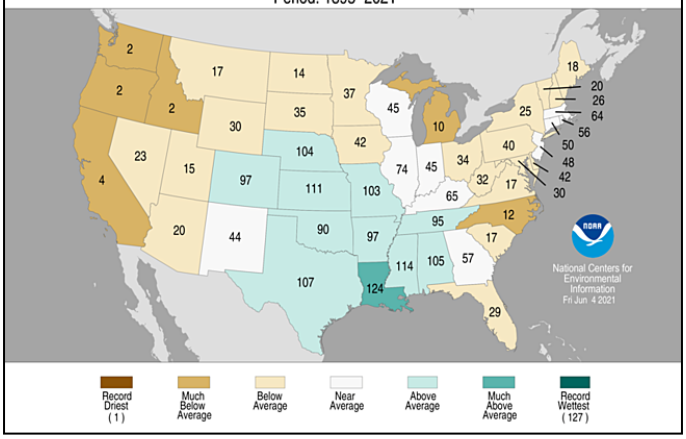


Figure 2 Statewide Precipitation Ranks
March – May 2021
Period: 1895–2021



March: The effects of February's cold wave faded amid nearly nationwide March warmth. In fact, consistently cooler-than-normal March weather was limited to areas west of the Rockies, where monthly temperatures averaged as much as 5°F below normal. In contrast, early-spring warmth dominated the central and eastern U.S., boosting monthly temperatures at least 5 to 10°F above normal across portions of the northern Plains and upper Midwest.

The weather pattern driving that temperature regime—a Western trough and Eastern ridge—helped to suppress the Pacific storm track southward, leading to limited precipitation across the Pacific Coast States. Indeed, much of the Far West experienced a disappointing end to the 2020-21 winter wet season, portending water-supply shortages in many areas for the upcoming growing season.

Farther east, however, the same storms were able to tap into abundant moisture while traveling northeastward across the nation's mid-section, leading to drought-easing rain and snow in central sections of the Rockies and Plains; multiple rounds of heavy rain and severe weather in the Southeast; and periodic Midwestern storminess. Precipitation mostly bypassed several areas, including the drought-affected northern Plains; southern and western Texas; and peninsular Florida. By late March, topsoil moisture was rated at least one-half very short to short in several states, including North Dakota (87 percent), New Mexico (84 percent), Montana (76 percent), South Dakota (66 percent), Florida (59 percent), Texas (55 percent), and Wyoming (55 percent).

Rangeland, pastures, and winter wheat across the central Plains and environs benefited from the boost in soil moisture; any flooding was limited by antecedent dryness and unfrozen soils, which allowed much of the rain and melting snow to soak in. By March 28, at least one-half of the winter wheat was rated in good to excellent condition in several Plains States, including Oklahoma (61 percent) and Kansas (50 percent). Wheat across the Midwest and mid-South was also generally faring well, with 70 percent of the Illinois crop rated good to excellent.

By late March, Southern planting was mostly progressing at a normal pace, or was ahead of schedule, except in a few areas where lowland flooding and wet soils inhibited fieldwork. By March 28, at least one-half of the intended corn acreage had been planted in Louisiana (74 percent) and Texas (50 percent). On the same date, Louisiana led the nation in rice planting (43 percent complete), followed by Texas (39 percent). In Arizona, 26 percent of the cotton had been planted by March 28, compared to the 5-year average of 18 percent.

During the 4 weeks ending March 30, drought coverage across the contiguous U.S. fell from 46.6 to 43.9 percent, on the strength of improving conditions in the Central States. However, worsening drought was noted in several areas, including the northern Plains and parts of Texas. In the 11-state Western region, drought coverage dipped from 79.9 to 75.2 percent, mainly due to improvement in the northern and central Rockies. In contrast, Southeastern flood events were particularly impressive in early March across Kentucky and late in the month in central Tennessee. Severe weather outbreaks, mainly on March 12-13, 16-18, 24-25, 27-28, and 30-31, spawned more than 175 tornadoes, according to preliminary reports—the highest March total since 225 twisters occurred in 2012.

April: Despite periodic April rain and snow showers, drought resolutely persisted across much of the western half of the country, with national coverage increasing from 44 to 48 percent during the 4-week period ending April 27, according to the *U.S. Drought Monitor*. During the same 4 weeks, drought coverage in the 11-state Western region increased from 75 to 84 percent. In addition, Western coverage of extreme to exceptional drought (D3 to D4) increased by nearly 4 percentage points during April to reach 43 percent.

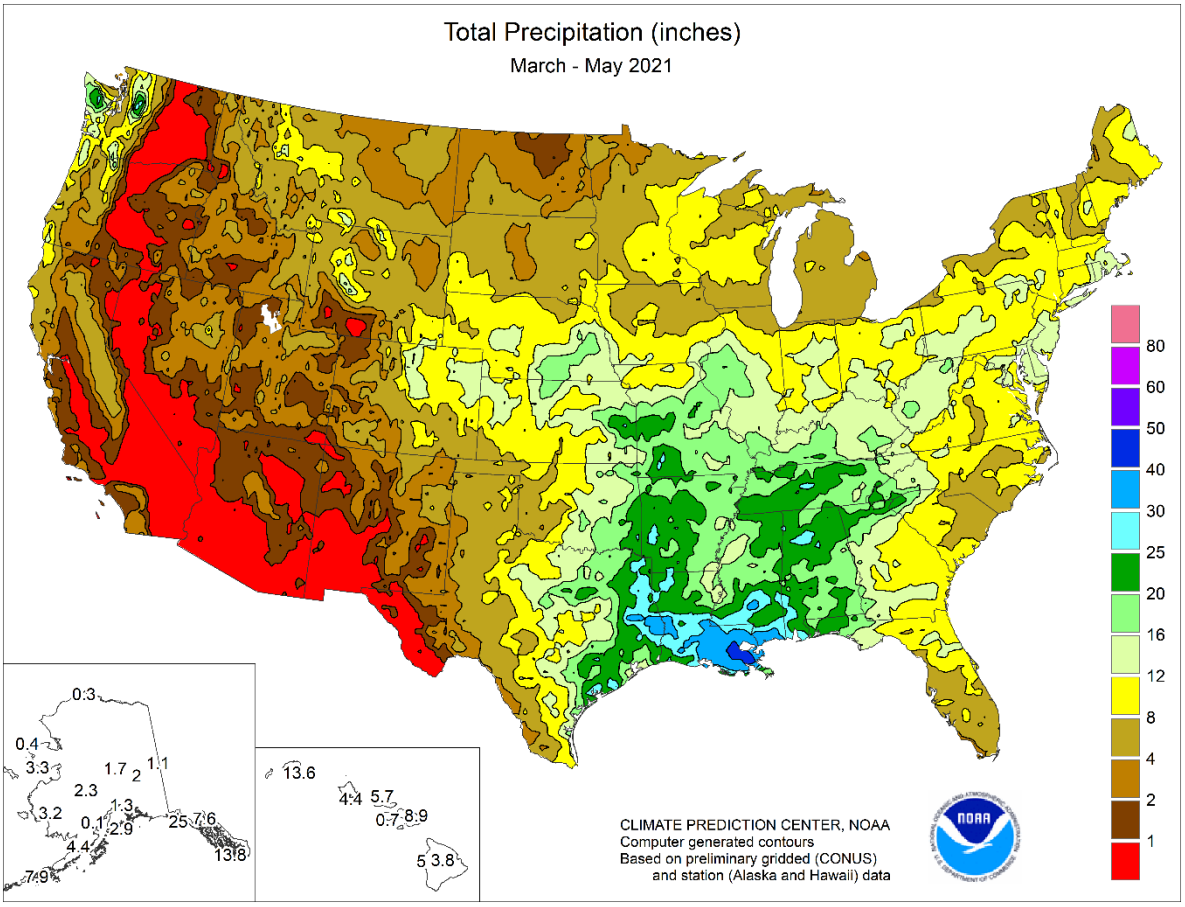
Across roughly the southern two-thirds of the West, a drought complication was premature melting of high-elevation snowpack, which disrupted the natural hydrological cycle and could potentially extend the wildfire season. By May 2, USDA/NASS reported that rangeland and pastures were rated at least 40 percent in very poor to poor condition in 12 of the 17 states from the Pacific Coast to the Great Plains, led by Arizona (87 percent very poor to poor). In contrast, pastures were rated at least 70 percent in good to excellent condition in 11 states from the Mississippi Valley eastward.

Meanwhile, a pair of April cold snaps threatened a variety of crops and commodities. In the Southeast, early-April freezes caused variable damage to fruits and ornamentals. Several weeks later, more expansive freezes across the Plains and Midwest, as well as parts of the mid-South and interior Southeast, potentially harmed some jointing to heading winter wheat. Other possible adverse freeze impacts from the late-April cold wave included blooming fruits and emerged summer crops.

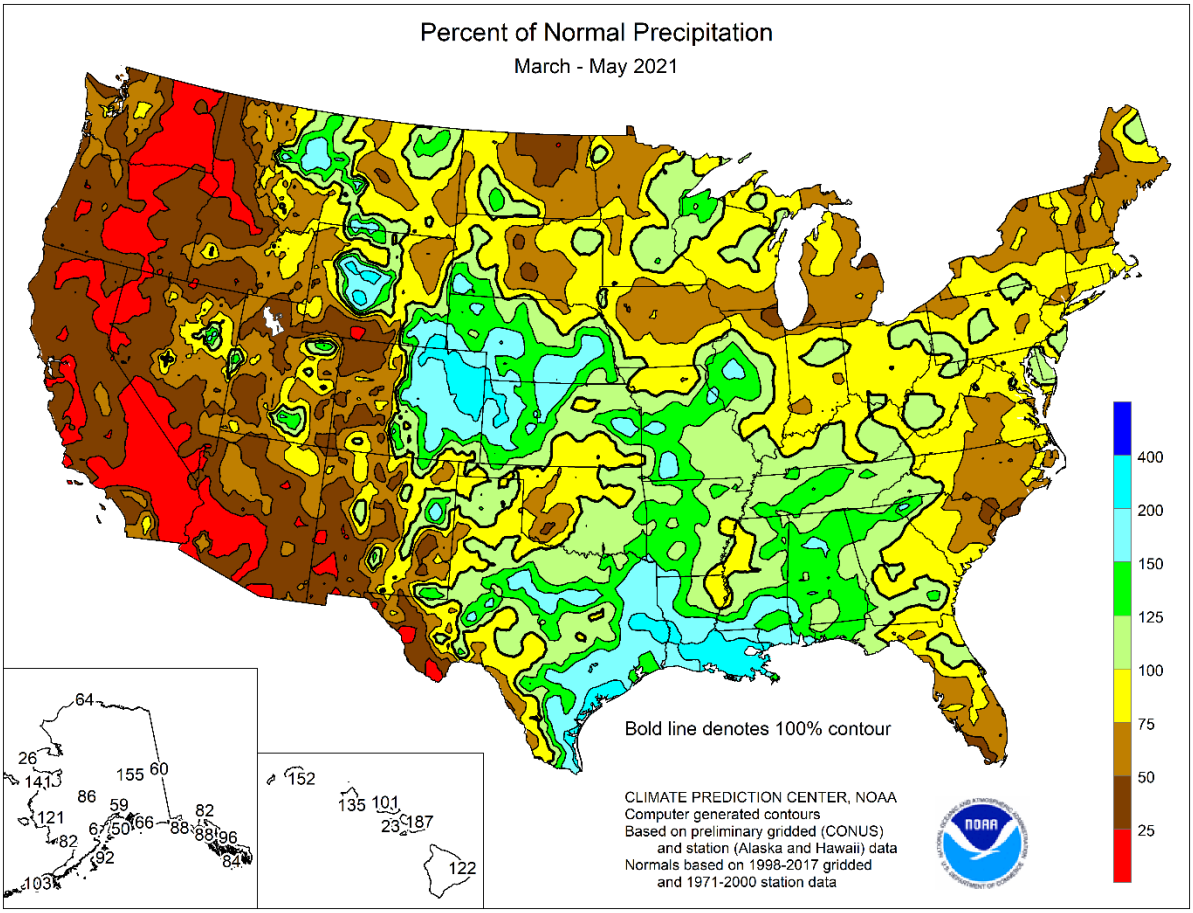
Despite early-April warmth across the nation's mid-section, subsequent cold weather helped to push monthly temperatures to near- or below-normal levels. Elsewhere, warmer-than-normal weather generally covered the Pacific Coast States, the Great Basin, and the Desert Southwest, as well as an area stretching from the Great Lakes region into the Northeast.

Elsewhere, pockets of April dryness covered the Midwest, southern High Plains, and the mid-Atlantic, while heavy precipitation was common across the Deep South, including the Gulf Coast region. Across the northern Plains, rain and snow showers were insufficient to significantly boost soil moisture, while cool weather and dry soils locally hampered crop emergence and early-season pasture growth.

May: A complete summary appeared in the *Weekly Weather and Crop Bulletin* dated June 8, 2021.



CPC gridded precipitation data supplemented with AHPS (water.weather.gov/precip/) for quality control purposes



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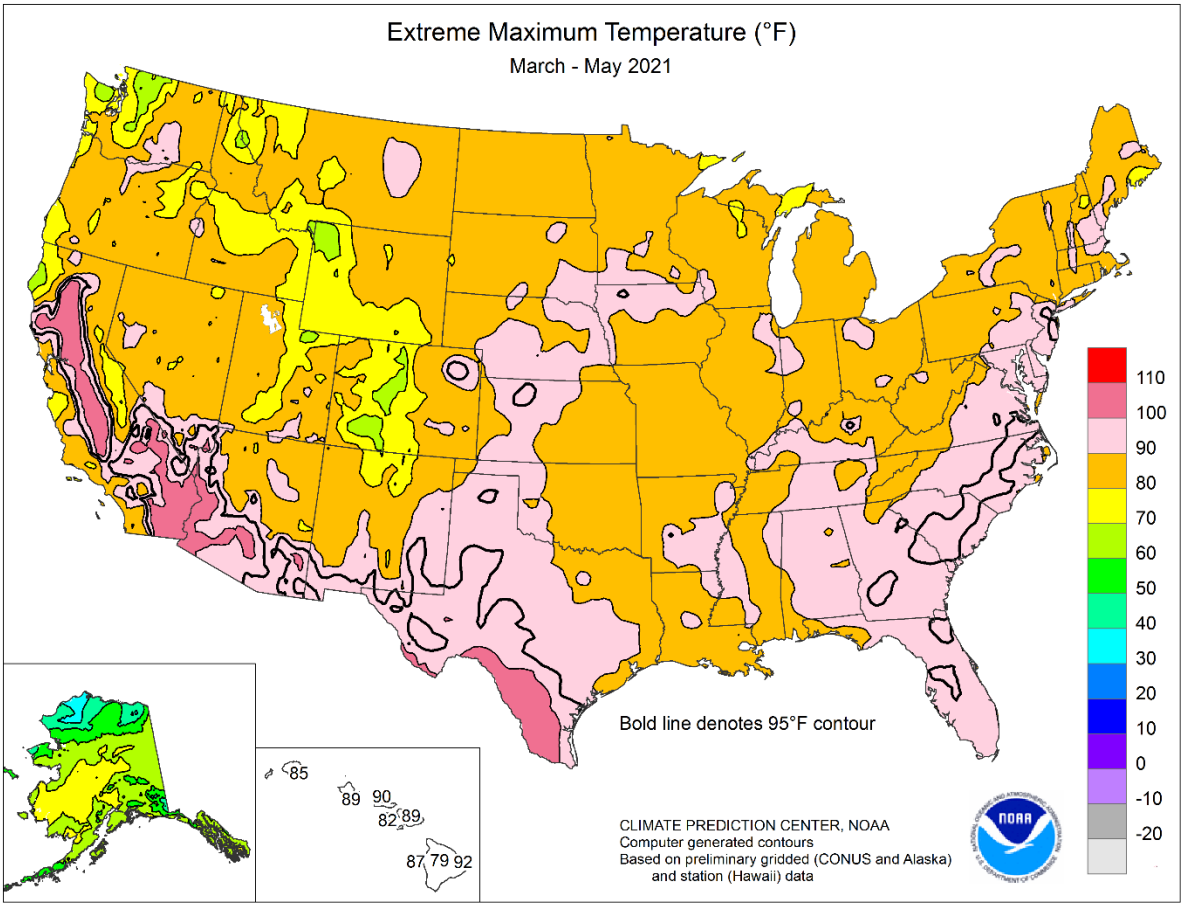
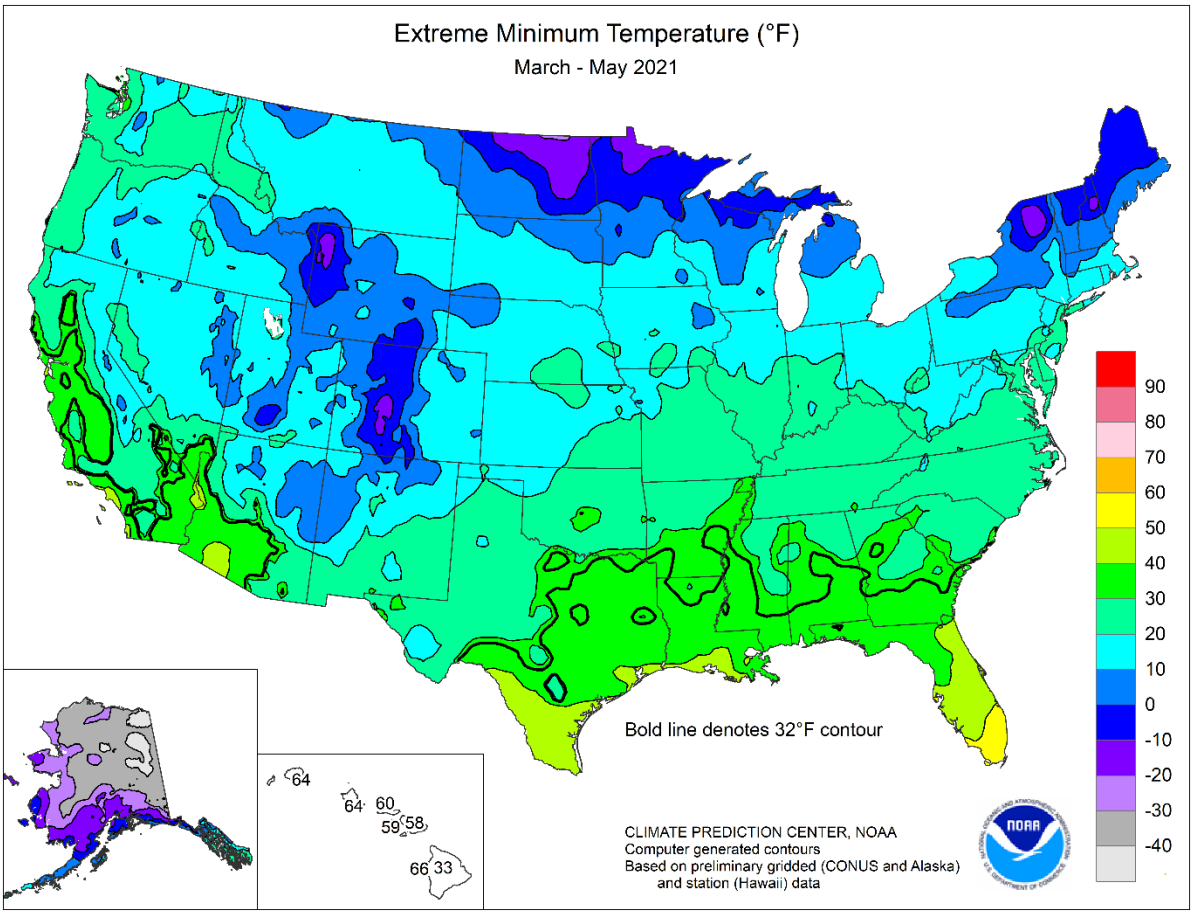
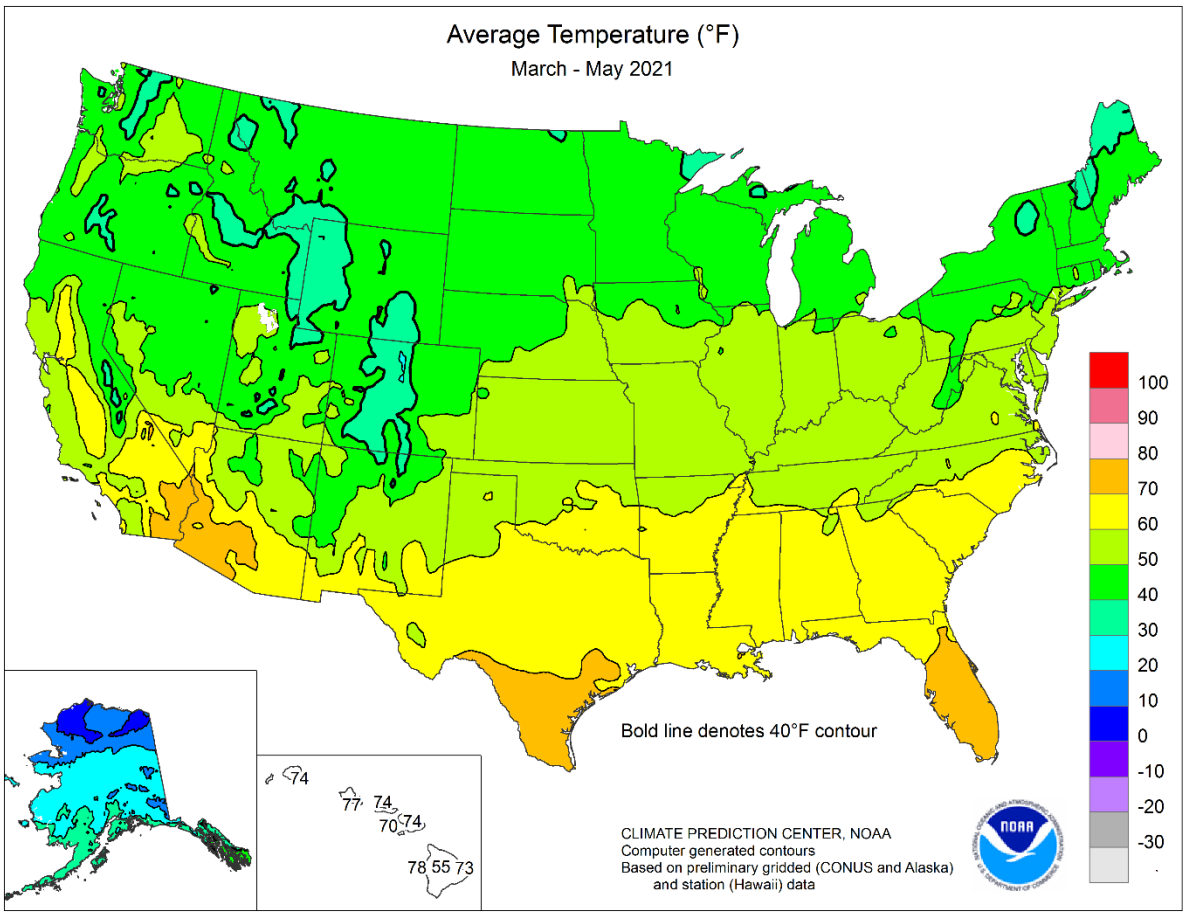
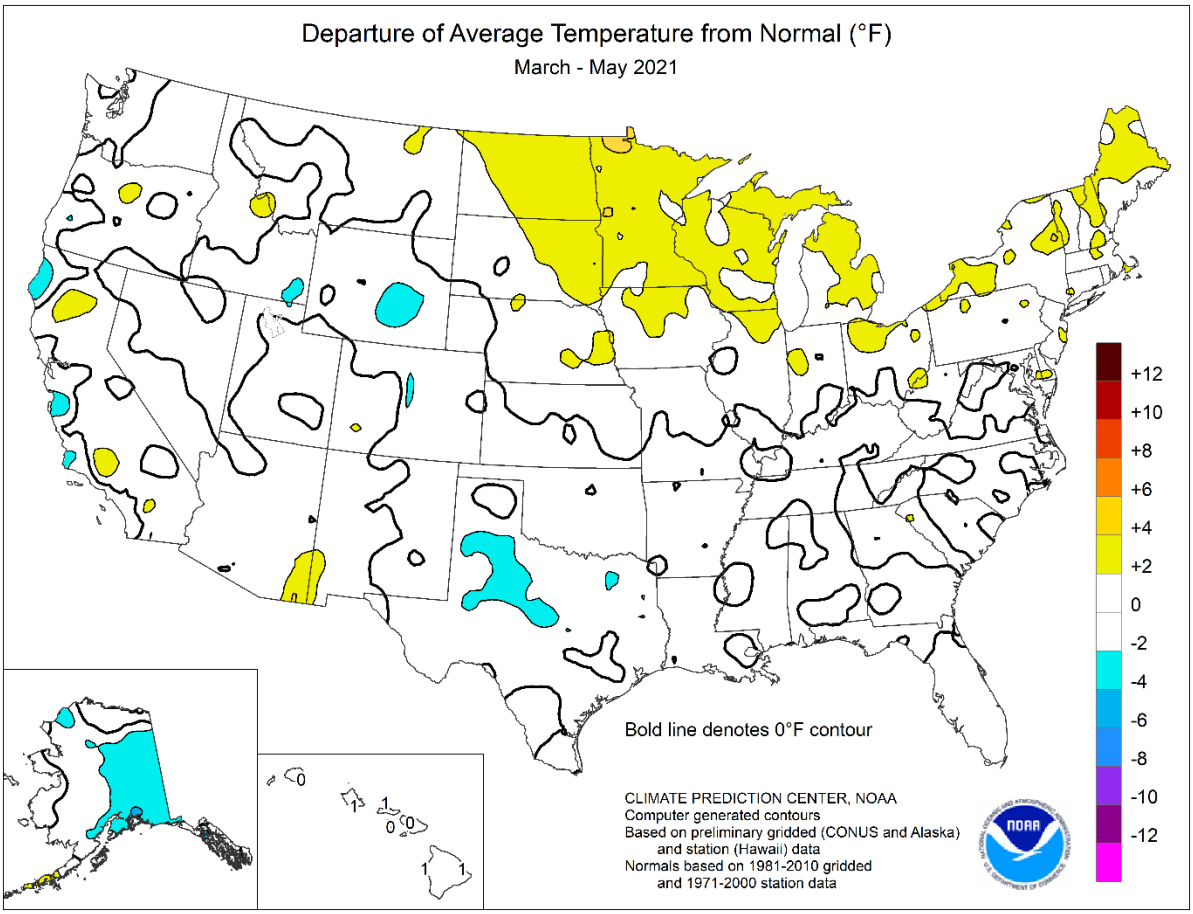

Extreme Maximum Temperature (°F)
March - May 2021
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
85
89 90
82 89
87 79 92
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data


Extreme Minimum Temperature (°F)
March - May 2021
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
64
64 60
59 58
66 33
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data


Average Temperature (°F)
March - May 2021
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
Bold line denotes 40°F contour
74
77 74
70 74
78 55 73
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data


Departure of Average Temperature from Normal (°F)
March - May 2021
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
Bold line denotes 0°F contour
0
1 1
0 0
1 1
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
Normals based on 1981-2010 gridded
and 1971-2000 station data

National Weather Data for Selected Cities

Spring 2021

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMP, °F		PRECIP.	
		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AK	ANCHORAGE	34	-3	2.26	0.44
	BARROW	6	-9	0.32	-0.19
	FAIRBANKS	29	-2	2.59	1.34
	JUNEAU	40	-1	17.67	7.61
	KODIAK	39	0	15.67	-1.30
	NOME	24	1	3.27	0.95
AL	BIRMINGHAM	64	1	20.94	6.31
	HUNTSVILLE	61	-1	18.50	3.83
	MOBILE	66	-1	23.79	7.70
	MONTGOMERY	66	2	14.36	0.89
AR	FORT SMITH	61	0	16.54	2.91
	LITTLE ROCK	61	-1	11.31	-3.42
AZ	FLAGSTAFF	44	0	3.41	-0.50
	PHOENIX	75	1	0.38	-1.05
	PRESCOTT	54	1	0.75	-1.34
	TUCSON	70	3	0.31	-1.05
CA	BAKERSFIELD	66	3	0.92	-1.05
	EUREKA	47	-5	3.17	-7.22
	FRESNO	65	2	1.46	-2.01
	LOS ANGELES	60	-1	1.31	-1.51
	REDDING	63	3	3.07	-5.59
	SACRAMENTO	62	2	1.08	-3.50
	SAN DIEGO	62	1	1.61	-1.13
	SAN FRANCISCO	57	0	1.35	-3.40
	STOCKTON	60	0	1.00	-2.70
CO	ALAMOSA	43	1	2.24	0.53
	CO SPRINGS	48	0	6.15	1.68
	DENVER INTL	47	-1	8.35	3.58
	GRAND JUNCTION	53	1	1.35	-1.44
	PUEBLO	51	0	6.13	2.23
CT	BRIDGEPORT	51	2	10.53	-1.46
	HARTFORD	50	1	10.89	-0.76
DC	WASHINGTON	58	2	9.44	-1.02
DE	WILMINGTON	54	1	10.24	-1.12
FL	DAYTONA BEACH	71	1	6.07	-3.48
	JACKSONVILLE	67	-1	7.68	-1.37
	KEY WEST	79	2	4.23	-2.87
	MIAMI	78	2	7.23	-4.22
	ORLANDO	73	1	8.50	-1.37
	PENSACOLA	69	2	23.18	8.84
	TALLAHASSEE	68	1	6.68	-5.77
	TAMPA	75	3	4.46	-2.68
	WEST PALM BEACH	77	3	3.76	-8.99
GA	ATHENS	63	1	11.19	0.64
	ATLANTA	64	2	12.54	0.71
	AUGUSTA	65	1	8.71	-0.94
	COLUMBUS	65	0	12.26	0.09
	MACON	64	0	9.30	-0.92
	SAVANNAH	67	0	8.87	-0.85
HI	HILO	73	1	40.37	7.29
	HONOLULU	77	1	4.44	1.16
	KAHULUI	74	0	8.90	4.13
	LIHUE	74	0	13.60	4.68
IA	BURLINGTON	53	0	13.29	1.88
	CEDAR RAPIDS	49	1	5.89	-3.40
	DES MOINES	53	2	6.63	-4.28
	DUBUQUE	49	2	6.39	-3.87
	SIOUX CITY	50	1	7.78	-0.88
	WATERLOO	50	2	5.88	-4.44
ID	BOISE	52	1	2.63	-1.38
	LEWISTON	54	2	0.61	-3.48
	POCATELLO	46	0	2.95	-0.93
IL	CHICAGO/O_HARE	52	3	3.72	-5.76
	MOLINE	52	2	12.81	2.06
	PEORIA	53	1	13.97	3.23
	ROCKFORD	52	3	5.35	-4.32
	SPRINGFIELD	54	1	13.62	3.26
IN	EVANSVILLE	57	1	10.40	-3.59
	FORT WAYNE	51	1	10.03	-0.43
	INDIANAPOLIS	53	1	11.04	-1.36
	SOUTH BEND	50	2	7.39	-2.03
KS	CONCORDIA	55	2	9.10	0.48
	DODGE CITY	54	0	8.76	2.52
	GOODLAND	49	0	8.07	2.90
	TOPEKA	56	1	12.93	1.99

STATES AND STATIONS		TEMP, °F		PRECIP.	
		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
	WICHITA	56	0	9.60	-0.23
KY	LEXINGTON	54	-1	12.06	-0.87
	LOUISVILLE	59	1	11.28	-2.20
	PADUCAH	59	1	14.35	0.72
LA	BATON ROUGE	68	-1	28.42	17.58
	LAKE CHARLES	70	1	30.03	17.88
	NEW ORLEANS	71	2	34.65	20.81
	SHREVEPORT	66	1	19.50	6.20
MA	BOSTON	51	3	11.06	-0.48
	WORCESTER	48	3	11.10	-1.41
MD	BALTIMORE	56	3	9.44	-1.61
ME	CARIBOU	41	2	8.91	0.47
	PORTLAND	45	2	8.26	-4.33
MI	ALPENA	44	3	6.31	-0.58
	GRAND RAPIDS	49	1	5.08	-4.59
	HOUGHTON LAKE	44	2	5.00	-2.02
	LANSING	49	2	4.45	-3.95
	MUSKEGON	48	2	4.10	-4.26
	TRAVERSE CITY	46	4	5.10	-2.09
MN	DULUTH	42	3	7.24	0.12
	INT_L FALLS	42	4	4.26	-1.09
	MINNEAPOLIS	49	3	8.51	0.60
	ROCHESTER	47	0	6.80	-1.92
	ST. CLOUD	45	2	7.87	0.81
MO	COLUMBIA	57	2	15.78	3.40
	KANSAS CITY	56	2	13.50	2.22
	SAINT LOUIS	58	1	11.57	-0.11
	SPRINGFIELD	56	0	21.78	8.73
MS	JACKSON	65	1	18.70	4.27
	MERIDIAN	64	1	22.99	8.26
	TUPELO	64	2	20.32	5.12
MT	BILLINGS	47	0	3.11	-1.81
	BUTTE	38	-1	2.05	-1.98
	CUT BANK	41	0	2.12	-1.15
	GLASGOW	46	2	1.78	-1.45
	GREAT FALLS	43	0	5.84	1.06
	HAVRE	44	1	3.23	0.08
	MISSOULA	45	-1	3.22	-1.03
NC	ASHEVILLE	56	1	14.46	3.71
	CHARLOTTE	61	2	7.75	-2.42
	GREENSBORO	59	0	8.99	-1.58
	HATTERAS	62	2	7.94	-4.01
	RALEIGH	59	-1	4.02	-6.25
	WILMINGTON	64	1	4.28	-7.25
ND	BISMARCK	46	3	2.01	-2.54
	DICKINSON	44	2	4.35	-0.15
	FARGO	45	2	2.11	-3.32
	GRAND FORKS	43	2	3.43	-1.29
	JAMESTOWN	44	3	2.18	-2.56
NE	GRAND ISLAND	53	2	11.81	3.07
	LINCOLN	54	2	9.40	0.45
	NORFOLK	51	2	9.55	1.22
	NORTH PLATTE	50	2	9.67	3.05
	OMAHA	54	2	9.09	-0.63
	SCOTTSBLUFF	47	0	4.00	-1.32
	VALENTINE	49	2	8.03	1.61
NH	CONCORD	47	2	6.93	-3.35
NJ	ATLANTIC_CITY	53	2	10.22	-0.95
	NEWARK	55	2	9.83	-2.66
NM	ALBUQUERQUE	58	1	0.94	-0.76
NV	ELY	43	0	2.09	-0.98
	LAS VEGAS	69	1	0.61	-0.17
	RENO	53	1	0.20	-1.57
	WINNEMUCCA	48	0	2.06	-0.85
NY	ALBANY	46	-1	8.72	-1.23
	BINGHAMTON	45	1	12.02	2.08
	BUFFALO	48	3	4.43	-4.86
	ROCHESTER	48	2	5.59	-2.47
	SYRACUSE	49	2	6.22	-3.07
OH	AKRON-CANTON	52	3	8.62	-2.16
	CINCINNATI	55	1	10.85	-1.95
	CLEVELAND	51	2	7.70	-2.32
	COLUMBUS	53	1	9.33	-1.23
	DAYTON	53	2	9.28	-2.81
	MANSFIELD	52	4	10.75	-1.36

STATES AND STATIONS		TEMP, °F		PRECIP.	
		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
	TOLEDO	52	3	8.65	-0.54
	YOUNGSTOWN	50	3	8.24	-1.79
OK	OKLAHOMA CITY	59	-2	8.43	-2.35
	TULSA	61	0	12.12	-0.84
OR	ASTORIA	48	-1	7.40	-8.56
	BURNS	45	1	1.68	-1.62
	EUGENE	52	1	3.27	-7.80
	MEDFORD	56	2	1.81	-2.61
	PENDLETON	52	1	0.95	-2.91
	PORTLAND	54	1	2.49	-6.34
	SALEM	53	1	4.43	-4.59
PA	ALLENTOWN	51	2	7.69	-3.35
	ERIE	50	4	6.07	-3.60
	MIDDLETOWN	55	3	7.60	-2.58
	PHILADELPHIA	55	2	9.96	-1.04
	PITTSBURGH	51	1	8.92	-1.05
	WILKES-BARRE	51	3	8.60	-0.76
	WILLIAMSPORT	51	2	7.77	-2.04
RI	PROVIDENCE	50	1	11.41	-1.52
SC	CHARLESTON	65	0	7.03	-2.54
	COLUMBIA	64	0	6.80	-2.49
	FLORENCE	64	0	4.29	-4.88
	GREENVILLE	60	0	11.79	0.20
SD	ABERDEEN	47	4	4.82	-1.29
	HURON	48	2	3.80	-3.07
	RAPID CITY	45	0	3.76	-2.21
	SIOUX FALLS	49	4	6.41	-1.73
TN	BRISTOL	56	1	10.28	-0.24
	CHATTANOOGA	62	2	16.62	3.51
	KNOXVILLE	59	0	13.80	0.89
	MEMPHIS	63	0	16.23	0.30
	NASHVILLE	60	2	19.13	5.51
TX	ABILENE	64	-1	10.69	4.15
	AMARILLO	56	0	7.53	2.41
	AUSTIN	70	0	12.30	3.02
	BEAUMONT	69	0	18.90	6.97
	BROWNSVILLE	76	1	5.64	0.21
	CORPUS CHRISTI	72	0	13.63	6.83
	DEL RIO	74	3	5.31	-0.27
	EL PASO	68	3	0.42	-0.65
	FORT WORTH	66	0	14.53	3.15
	GALVESTON	71	1	9.30	0.00
	HOUSTON	70	0	15.07	3.31
	LUBBOCK	60	-1	8.22	3.41
	MIDLAND	63	-1	4.89	1.89
	SAN ANGELO	65	-1	3.69	-2.07
	SAN ANTONIO	70	1	12.33	3.93
	VICTORIA	70	0	25.41	14.64
	WACO	66	-1	10.56	0.41
	WICHITA FALLS	62	-1	10.44	1.86
UT	SALT LAKE CITY	53	2	3.86	-1.88
VA	LYNCHBURG	57	2	7.58	-2.98
	NORFOLK	61	3	6.87	-3.54
	RICHMOND	58	1	7.51	-3.55
	ROANOKE	57	1	6.74	-4.09
	WASH/DULLES	55	1	7.33	-4.04
VT	BURLINGTON	47	3	6.37	-2.07
WA	OLYMPIA	49	0	5.64	-5.51
	QUILLAYUTE	47	0	13.75	-10.04
	SEATTLE-TACOMA	52	1	4.68	-3.64
	SPOKANE	49	2	0.68	-3.86
	YAKIMA	52	2	0.17	-1.60
WI	EAU CLAIRE	47	3	5.78	-2.13
	GREEN BAY	47	4	5.00	-2.38
	LA CROSSE	51	3	7.67	-1.17
	MADISON	48	2	5.04	-4.05
	MILWAUKEE	50	4	4.17	-5.02
WV	BECKLEY	52	1	8.74	-2.82
	CHARLESTON	55	0	8.52	-3.39
	ELKINS	50	1	8.05	-4.80
	HUNTINGTON	55	0	9.61	-2.40
WY	CASPER	41	-2	4.22	0.07
	CHEYENNE	42	-2	5.06	-0.14
	LANDER	43	-1	7.35	2.10
	SHERIDAN	44	0	5.09	0.15

Based on 1981-2010 normals

***** Not Available**

National Agricultural Summary

June 14 – 20, 2021

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Much of the nation remained drier than normal, while parts of the lower Mississippi Valley, Northeast, Ohio Valley, Pacific Northwest, and Southeast received at least twice the normal amount of weekly rainfall. Portions of the Gulf Coast in Louisiana and Mississippi received at least 6 inches of rain. Most of the central and western U.S. was hotter than normal. Large sections of California, the Great Plains, Rockies, and Southwest recorded weekly temperatures 9°F or more above normal. In contrast, most of the eastern one-third of the nation was cooler than normal. Parts of the mid-Atlantic observed temperatures 3°F or more below normal.

Corn: On June 20, sixty-five percent of the nation's corn acreage was rated in good to excellent condition, 3 percentage points below the previous week and 7 points below the same time last year. In Iowa, the largest corn-producing state, 56 percent of the corn was rated in good to excellent condition.

Soybean: Ninety-seven percent of the nation's soybean acreage was planted by June 20, one percentage point ahead of last year and 3 points ahead of the 5-year average. Ninety-one percent of the nation's soybeans had emerged by June 20, three percentage points ahead of last year and 6 points ahead of average. By June 20, five percent of the nation's soybeans had reached the blooming stage, equal to both last year and the average. Progress was most advanced in the lower Mississippi Valley, with 47 percent blooming in Louisiana, along with 35 percent in Mississippi and 30 percent in Arkansas. On June 20, sixty percent of the nation's soybean acreage was rated in good to excellent condition, 2 percentage points below the previous week and 10 points below the previous year.

Winter Wheat: By June 20, ninety-six percent of the nation's winter wheat was headed, 1 percentage point ahead of the previous year but equal to the 5-year average. Seventeen percent of the 2021 winter wheat acreage had been harvested by June 20, ten percentage points behind last year and 9 points behind average. On June 20, forty-nine percent of the 2021 winter wheat was reported in good to excellent condition, 1 percentage point above the previous week but 3 points below the same time last year. In Kansas, the largest winter wheat-producing state, 63 percent of the winter wheat was rated in good to excellent condition.

Cotton: Nationwide, 96 percent of the cotton was planted by June 20, one percentage point ahead of both the previous year and the 5-year average. Twenty-one percent of the nation's cotton had reached the squaring stage by June 20, four percentage points behind both last year and the average. By June 20, four percent of the nation's cotton had begun setting bolls, 1 percentage point behind last year but equal to the average. On June 20, fifty-two percent of the 2021 cotton acreage was rated in good to excellent condition, 7 percentage points above the previous week and 12 points above the same time last year.

Sorghum: Eighty-eight percent of the nation's sorghum was planted by June 20, one percentage point behind the previous year but 1 point ahead of the 5-year average. By June 20, sixteen percent of the nation's sorghum had reached the headed stage, 2 percentage points behind both last year and the average. Seventy-three percent of the nation's sorghum was rated in good to excellent condition on June 20, one percentage point below the previous week but 26 points above the same time last year.

Rice: By June 20, three percent of the nation's rice had reached the headed stage, 5 percentage points behind the previous year and 3 points behind the 5-year average. In Louisiana, 13 percent of the rice had reached the heading stage, 18 percentage points behind the previous year and 15 points behind average. On June 20, seventy-four percent of the nation's rice was rated in good to excellent condition, 2 percentage points above the previous week and 1 point above the same time last year.

Small Grains: Sixty-three percent of the nation's oats had headed by June 20, seven percentage points ahead of last year and 6 points ahead of the 5-year average. On June 20, thirty-nine percent of the nation's oat acreage was rated in good to excellent condition, 3 percentage points below the previous week and 26 points below the same time last year.

Nineteen percent of the nation's barley had reached the headed stage by June 20, one percentage point ahead of last year and 2 points ahead of the 5-year average. On June 20, thirty-nine percent of the barley acreage was rated in good to excellent condition, 6 percentage points below the previous week and 36 points below the same time last year.

By June 20, twenty-seven percent of the nation's spring wheat had reached the headed stage, 16 percentage points ahead of the previous year and 9 points ahead of the 5-year average. On June 20, twenty-seven percent of the spring wheat was rated in good to excellent condition, 10 percentage points below the previous week and 48 points below the same time last year.

Other Crops: Nationally, producers had planted 96 percent of the 2021 peanut acreage by June 20, two percentage points behind both the previous year and the 5-year average. By June 20, twenty-two percent of the peanuts had reached the pegging stage, 2 percentage points behind the previous year but equal to the average. In Georgia, 35 percent of the peanuts had reached the pegging stage, 2 percentage points behind the previous year but 4 points ahead of average. On June 20, sixty-nine percent of the nation's peanut acreage was rated in good to excellent condition, 4 percentage points above the previous week and 5 points above the same time last year.

Ninety-two percent of the nation's intended 2021 sunflower acreage was planted by June 20, five percentage points ahead of both last year and the 5-year average.

Crop Progress and Condition

Week Ending June 20, 2021

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

Soybeans Percent Planted

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AR	92	87	93	93
IL	97	95	96	93
IN	97	96	100	92
IA	99	99	100	98
KS	94	82	90	90
KY	84	82	87	84
LA	100	92	95	99
MI	99	99	100	89
MN	100	100	100	99
MS	97	95	97	97
MO	87	85	92	86
NE	100	100	100	98
NC	80	77	84	81
ND	94	97	100	98
OH	97	95	100	89
SD	100	97	100	95
TN	84	76	86	87
WI	99	99	100	95
18 Sts	96	94	97	94

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

Soybeans Percent Emerged

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AR	84	82	85	87
IL	91	91	94	86
IN	91	88	95	82
IA	96	93	96	91
KS	84	63	76	76
KY	71	64	72	68
LA	96	85	91	97
MI	91	95	98	79
MN	99	97	99	94
MS	94	92	94	92
MO	72	65	80	74
NE	96	91	95	93
NC	74	67	75	70
ND	76	83	93	89
OH	84	86	95	78
SD	93	94	97	85
TN	68	68	75	73
WI	92	92	97	85
18 Sts	88	86	91	85

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

Soybeans Percent Blooming

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AR	23	19	30	35
IL	2	NA	1	4
IN	1	NA	1	1
IA	1	1	7	1
KS	1	NA	2	1
KY	6	NA	1	2
LA	54	26	47	52
MI	0	NA	0	0
MN	1	NA	3	0
MS	38	25	35	40
MO	1	NA	1	1
NE	14	0	5	5
NC	1	NA	0	1
ND	0	NA	0	2
OH	1	NA	1	1
SD	2	NA	3	1
TN	2	NA	2	3
WI	0	0	2	0
18 Sts	5	NA	5	5

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

Soybean Condition by Percent

	VP	P	F	G	EX
AR	3	8	26	43	20
IL	1	3	30	55	11
IN	1	6	23	62	8
IA	2	7	34	50	7
KS	4	4	24	64	4
KY	1	1	16	71	11
LA	1	3	20	68	8
MI	1	5	37	49	8
MN	2	7	38	44	9
MS	0	5	25	53	17
MO	0	5	39	51	5
NE	1	2	14	64	19
NC	0	4	30	58	8
ND	12	23	42	22	1
OH	1	3	24	58	14
SD	3	11	53	32	1
TN	1	3	16	64	16
WI	2	7	29	51	11
18 Sts	2	7	31	51	9
Prev Wk	2	6	30	53	9
Prev Yr	1	4	25	58	12

Corn Condition by Percent

	VP	P	F	G	EX
CO	0	3	19	53	25
IL	1	3	32	53	11
IN	1	6	23	61	9
IA	2	6	36	50	6
KS	1	5	23	63	8
KY	0	1	13	69	17
MI	1	6	33	52	8
MN	2	7	41	43	7
MO	1	6	36	52	5
NE	1	1	15	60	23
NC	1	3	19	59	18
ND	5	15	41	38	1
OH	0	3	21	60	16
PA	0	3	17	62	18
SD	3	14	49	33	1
TN	1	3	15	58	23
TX	2	2	19	49	28
WI	2	5	24	55	14
18 Sts	1	5	29	54	11
Prev Wk	1	4	27	56	12
Prev Yr	1	4	23	57	15

Rice Percent Headed

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AR	0	0	0	0
CA	9	0	0	3
LA	31	1	13	28
MS	3	0	1	7
MO	0	0	0	0
TX	22	6	19	17
6 Sts	8	1	3	6

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

Rice Condition by Percent

	VP	P	F	G	EX
AR	2	6	23	46	23
CA	0	0	10	80	10
LA	0	1	29	69	1
MS	1	1	12	79	7
MO	0	3	29	51	17
TX	1	1	28	58	12
6 Sts	1	3	22	59	15
Prev Wk	1	3	24	59	13
Prev Yr	0	3	24	57	16

Crop Progress and Condition

Week Ending June 20, 2021

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

Cotton Percent Planted

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AL	99	98	98	98
AZ	100	100	100	100
AR	100	100	100	100
CA	100	100	100	100
GA	99	94	97	97
KS	99	96	96	90
LA	100	91	96	100
MS	97	93	96	98
MO	89	99	100	95
NC	95	97	100	97
OK	83	60	75	89
SC	93	95	98	97
TN	96	97	97	99
TX	94	88	96	93
VA	96	95	97	98
15 Sts	95	90	96	95

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

Cotton Percent Squaring

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AL	27	5	11	31
AZ	74	49	63	51
AR	44	3	12	60
CA	34	15	25	28
GA	37	20	35	34
KS	11	11	20	8
LA	42	22	35	49
MS	15	2	9	24
MO	3	17	47	27
NC	16	4	17	23
OK	4	0	0	10
SC	19	10	22	23
TN	16	19	26	29
TX	26	14	20	21
VA	26	14	20	30
15 Sts	25	13	21	25

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

Cotton Percent Setting Bolls

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AL	0	NA	0	0
AZ	15	5	16	12
AR	0	NA	0	2
CA	0	NA	0	0
GA	1	NA	1	1
KS	0	NA	0	0
LA	5	NA	0	4
MS	1	NA	0	1
MO	0	NA	1	0
NC	0	NA	0	0
OK	0	NA	0	0
SC	0	NA	0	0
TN	0	0	0	0
TX	10	NA	6	6
VA	0	NA	1	0
15 Sts	5	NA	4	4

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

Cotton Condition by Percent

	VP	P	F	G	EX
AL	0	0	7	70	23
AZ	0	2	16	71	11
AR	1	2	15	46	36
CA	0	0	15	85	0
GA	1	5	25	61	8
KS	1	3	48	45	3
LA	0	0	5	89	6
MS	2	6	36	46	10
MO	0	7	25	68	0
NC	1	3	28	59	9
OK	0	0	13	87	0
SC	2	3	17	65	13
TN	5	9	21	52	13
TX	1	6	58	28	7
VA	0	1	12	86	1
15 Sts	1	5	42	43	9
Prev Wk	1	8	46	37	8
Prev Yr	7	18	35	33	7

Sorghum Percent Planted

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
CO	84	70	89	86
KS	86	60	85	82
NE	100	87	97	96
OK	73	40	63	73
SD	96	94	96	93
TX	96	95	96	96
6 Sts	89	72	88	87

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

Sorghum Condition by Percent

	VP	P	F	G	EX
CO	0	0	42	49	9
KS	1	2	23	70	4
NE	0	0	18	64	18
OK	0	0	17	78	5
SD	5	17	67	10	1
TX	1	2	16	54	27
6 Sts	1	2	24	61	12
Prev Wk	0	2	24	64	10
Prev Yr	2	11	40	42	5

Sorghum Percent Headed

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
CO	0	0	0	0
KS	4	0	0	3
NE	2	1	1	2
OK	0	0	0	2
SD	0	3	4	1
TX	53	45	52	52
6 Sts	18	13	16	18

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

Sunflowers Percent Planted

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
CO	85	67	83	72
KS	76	56	78	73
ND	88	84	94	94
SD	87	79	92	83
4 Sts	87	79	92	87

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

Crop Progress and Condition

Week Ending June 20, 2021

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

Peanuts Percent Planted

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AL	98	95	97	96
FL	100	98	99	99
GA	100	96	98	99
NC	96	96	100	97
OK	79	78	90	92
SC	98	96	98	98
TX	89	66	85	93
VA	100	93	99	98
8 Sts	98	92	96	98

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

Peanuts Percent Pegging

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AL	11	1	7	20
FL	29	6	16	24
GA	37	11	35	31
NC	4	0	9	6
OK	6	1	4	4
SC	25	8	25	22
TX	0	0	1	3
VA	5	0	1	5
8 Sts	24	7	22	22

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

Peanut Condition by Percent

	VP	P	F	G	EX
AL	0	1	8	46	45
FL	2	3	30	65	0
GA	1	4	25	59	11
NC	0	2	21	66	11
OK	0	0	9	91	0
SC	1	1	12	80	6
TX	0	2	58	39	1
VA	0	0	14	85	1
8 Sts	1	3	27	57	12
Prev Wk	0	5	30	56	9
Prev Yr	2	8	26	59	5

Winter Wheat Percent Headed

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AR	100	100	100	100
CA	100	100	100	100
CO	96	92	97	97
ID	87	55	84	84
IL	100	99	100	100
IN	99	96	100	99
KS	100	98	99	99
MI	79	93	95	85
MO	100	99	100	100
MT	51	21	50	62
NE	94	93	98	96
NC	100	100	100	100
OH	100	97	100	99
OK	100	100	100	100
OR	98	100	100	99
SD	91	89	94	89
TX	100	100	100	100
WA	95	93	98	95
18 Sts	95	92	96	96

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

Winter Wheat Percent Harvested

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
AR	75	29	60	83
CA	52	25	40	47
CO	6	0	0	2
ID	0	0	0	0
IL	23	0	12	38
IN	12	1	12	16
KS	23	0	13	24
MI	0	0	0	0
MO	37	2	27	44
MT	0	0	0	0
NE	0	0	0	0
NC	50	24	44	60
OH	0	0	1	1
OK	79	10	50	66
OR	0	0	0	0
SD	0	0	0	0
TX	83	30	58	68
WA	0	0	0	0
18 Sts	27	4	17	26

These 18 States harvested 91% of last year's winter wheat acreage.

Winter Wheat Condition by Percent

	VP	P	F	G	EX
AR	10	12	29	37	12
CA	0	5	10	55	30
CO	4	9	27	46	14
ID	1	11	44	34	10
IL	1	1	11	60	27
IN	1	4	19	63	13
KS	3	9	25	52	11
MI	1	5	31	52	11
MO	0	10	39	45	6
MT	4	20	33	34	9
NE	2	8	31	50	9
NC	2	13	38	43	4
OH	0	2	22	56	20
OK	3	10	27	54	6
OR	43	27	19	10	1
SD	23	31	34	12	0
TX	10	22	44	20	4
WA	8	28	49	14	1
18 Sts	6	14	31	41	8
Prev Wk	6	14	32	40	8
Prev Yr	5	12	31	43	9

Barley Percent Headed

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
ID	41	13	29	31
MN	19	9	47	23
MT	5	1	8	6
ND	3	1	17	12
WA	71	38	65	48
5 Sts	18	6	19	17

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

Barley Condition by Percent

	VP	P	F	G	EX
ID	1	4	48	39	8
MN	4	18	39	36	3
MT	4	14	31	40	11
ND	20	30	34	16	0
WA	16	42	38	3	1
5 Sts	8	17	36	32	7
Prev Wk	5	14	36	38	7
Prev Yr	0	3	22	65	10

Crop Progress and Condition

Week Ending June 20, 2021

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

Oats Percent Headed

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
IA	67	56	74	69
MN	47	27	51	37
NE	82	70	83	77
ND	5	2	10	15
OH	71	45	76	63
PA	31	7	27	50
SD	49	54	74	53
TX	100	100	100	100
WI	37	41	60	35
9 Sts	56	50	63	57

These 9 States planted 72% of last year's oat acreage.

Oat Condition by Percent

	VP	P	F	G	EX
IA	2	6	38	48	6
MN	6	14	39	39	2
NE	2	5	35	51	7
ND	11	26	37	25	1
OH	0	2	25	69	4
PA	0	1	36	42	21
SD	8	26	44	22	0
TX	10	30	40	17	3
WI	1	4	21	57	17
9 Sts	6	18	37	34	5
Prev Wk	5	15	38	36	6
Prev Yr	2	6	27	55	10

Spring Wheat Percent Headed

	Prev Year	Prev Week	Jun 20 2021	5-Yr Avg
ID	29	8	22	27
MN	11	19	62	23
MT	4	1	14	6
ND	5	2	18	13
SD	41	45	64	46
WA	55	23	54	53
6 Sts	11	8	27	18

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

Spring Wheat Condition by Percent

	VP	P	F	G	EX
ID	0	14	59	18	9
MN	4	13	35	45	3
MT	4	14	39	40	3
ND	23	27	31	18	1
SD	14	25	56	5	0
WA	23	43	24	10	0
6 Sts	15	22	36	25	2
Prev Wk	9	18	36	34	3
Prev Yr	1	3	21	68	7

Pasture and Range Condition by Percent Week Ending Jun 20, 2021

	VP	P	F	G	EX		VP	P	F	G	EX
AL	1	3	8	83	5	NH	0	14	70	11	5
AZ	67	23	7	3	0	NJ	0	0	4	96	0
AR	1	9	32	45	13	NM	31	32	20	12	5
CA	20	25	35	20	0	NY	1	9	18	53	19
CO	0	16	32	35	17	NC	1	13	53	30	3
CT	0	0	50	50	0	ND	31	35	25	9	0
DE	1	4	34	46	15	OH	0	3	14	76	7
FL	2	8	31	46	13	OK	1	5	26	60	8
GA	2	9	31	51	7	OR	35	29	26	9	1
ID	5	15	49	31	0	PA	0	11	18	47	24
IL	2	4	27	43	24	RI	0	5	85	10	0
IN	2	6	24	58	10	SC	0	8	20	49	23
IA	7	18	38	34	3	SD	21	40	31	7	1
KS	1	6	29	56	8	TN	1	6	28	56	9
KY	1	3	18	57	21	TX	12	15	26	33	14
LA	0	12	34	52	2	UT	28	47	24	1	0
ME	0	0	39	61	0	VT	0	0	0	35	65
MD	7	7	22	57	7	VA	2	11	43	43	1
MA	0	10	80	10	0	WA	46	25	21	8	0
MI	6	19	41	32	2	WV	3	10	30	51	6
MN	11	23	49	17	0	WI	3	12	24	46	15
MS	1	5	27	59	8	WY	20	31	34	14	1
MO	0	3	29	60	8	48 Sts	18	21	29	26	6
MT	26	28	30	16	0						
NE	3	9	59	26	3	Prev Wk	16	20	29	28	7
NV	35	25	40	0	0	Prev Yr	9	16	32	38	5

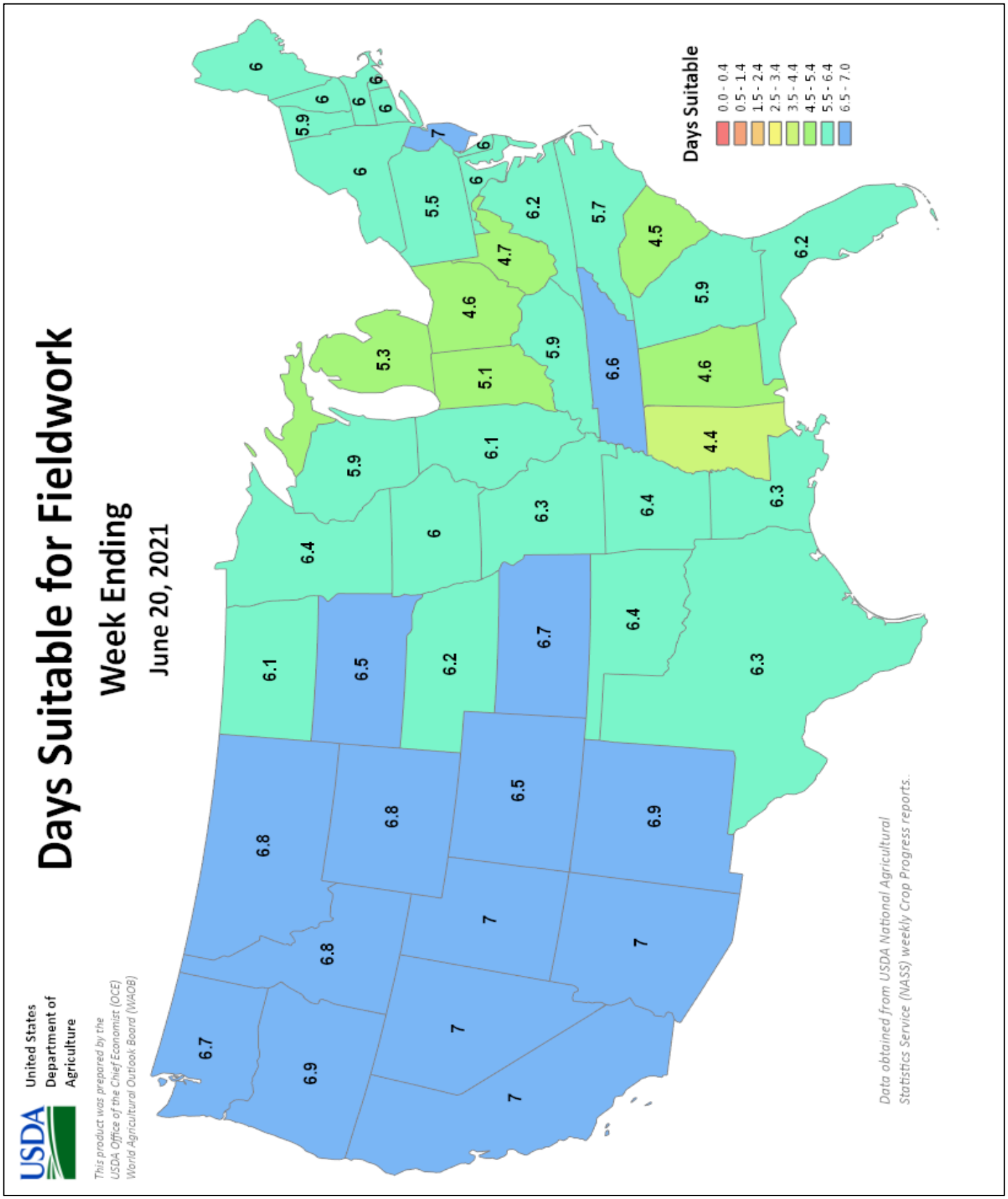
VP - Very Poor; P - Poor; F - Fair; G - Good; EX - Excellent

NA - Not Available; *Revised

Crop Progress and Condition

Week Ending June 20, 2021

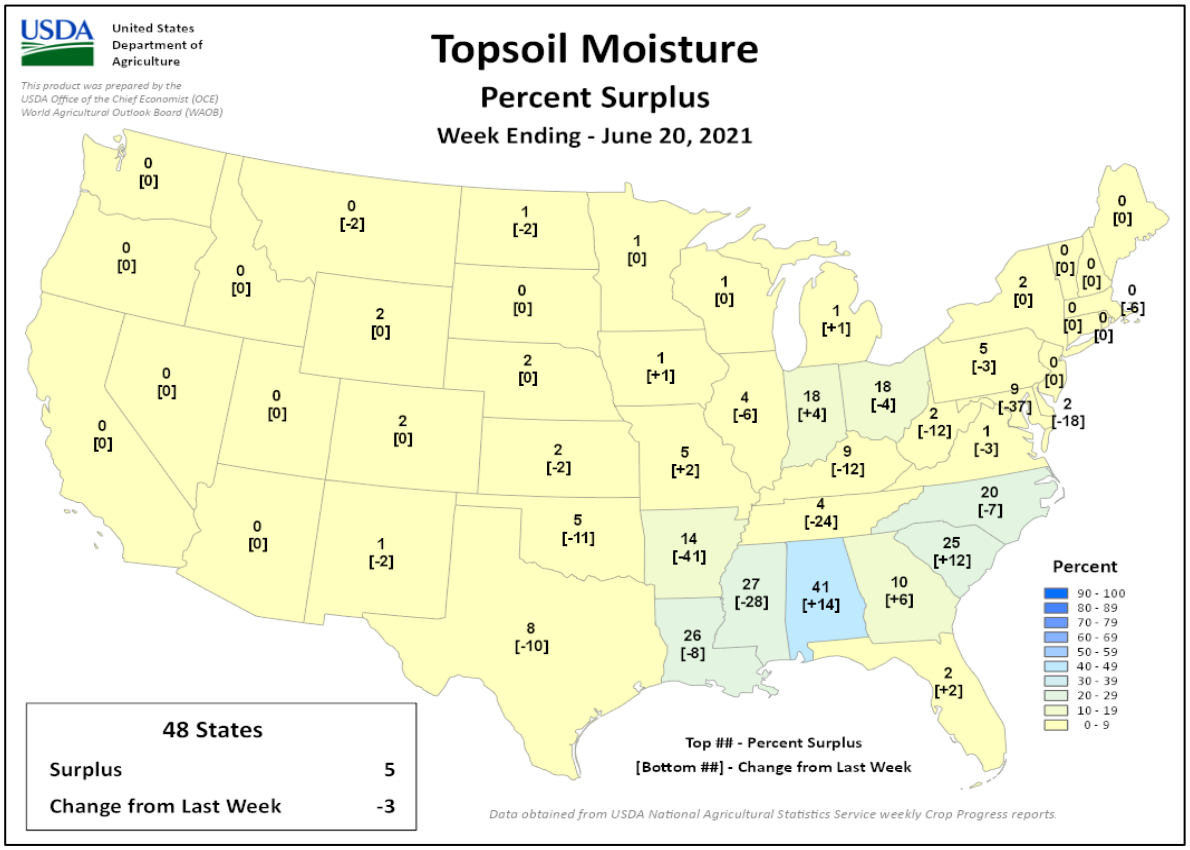
Weekly U.S. Progress and Condition Data provided by USDA/NASS

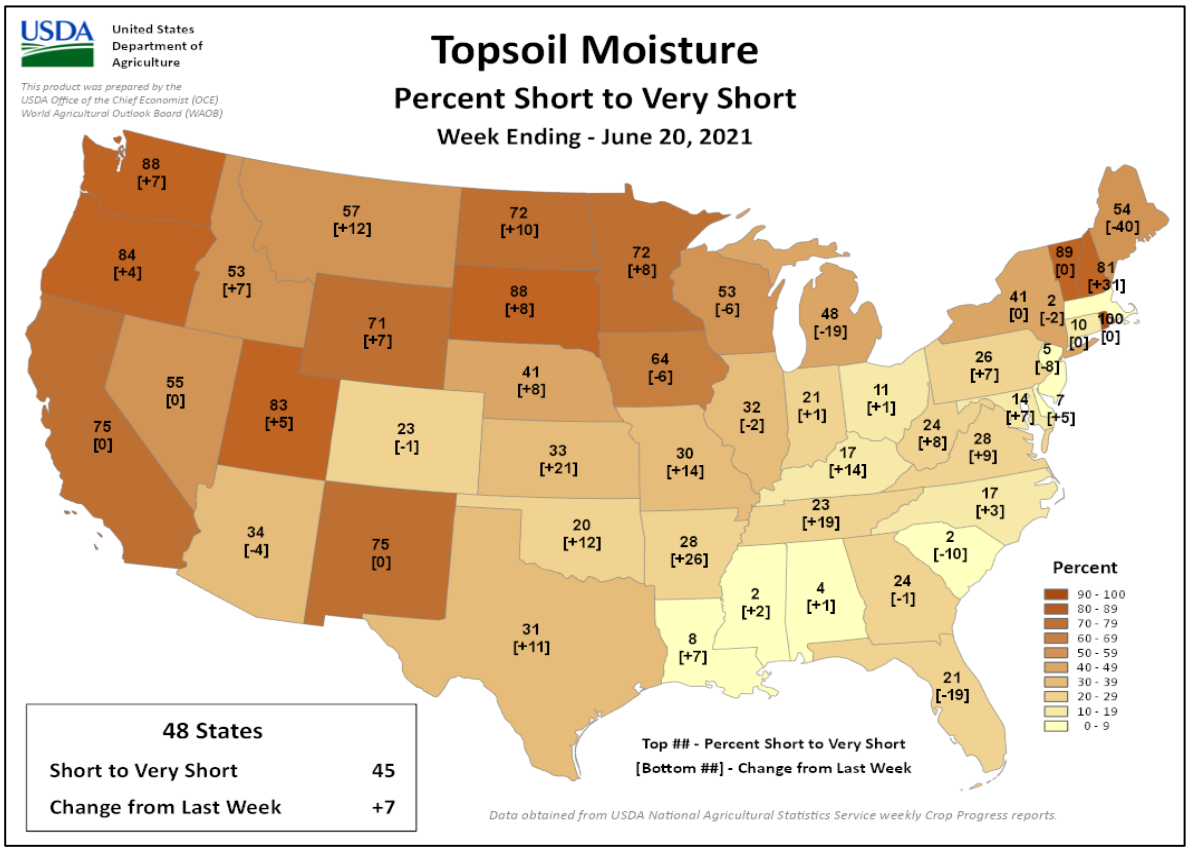


Crop Progress and Condition

Week Ending June 20, 2021

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

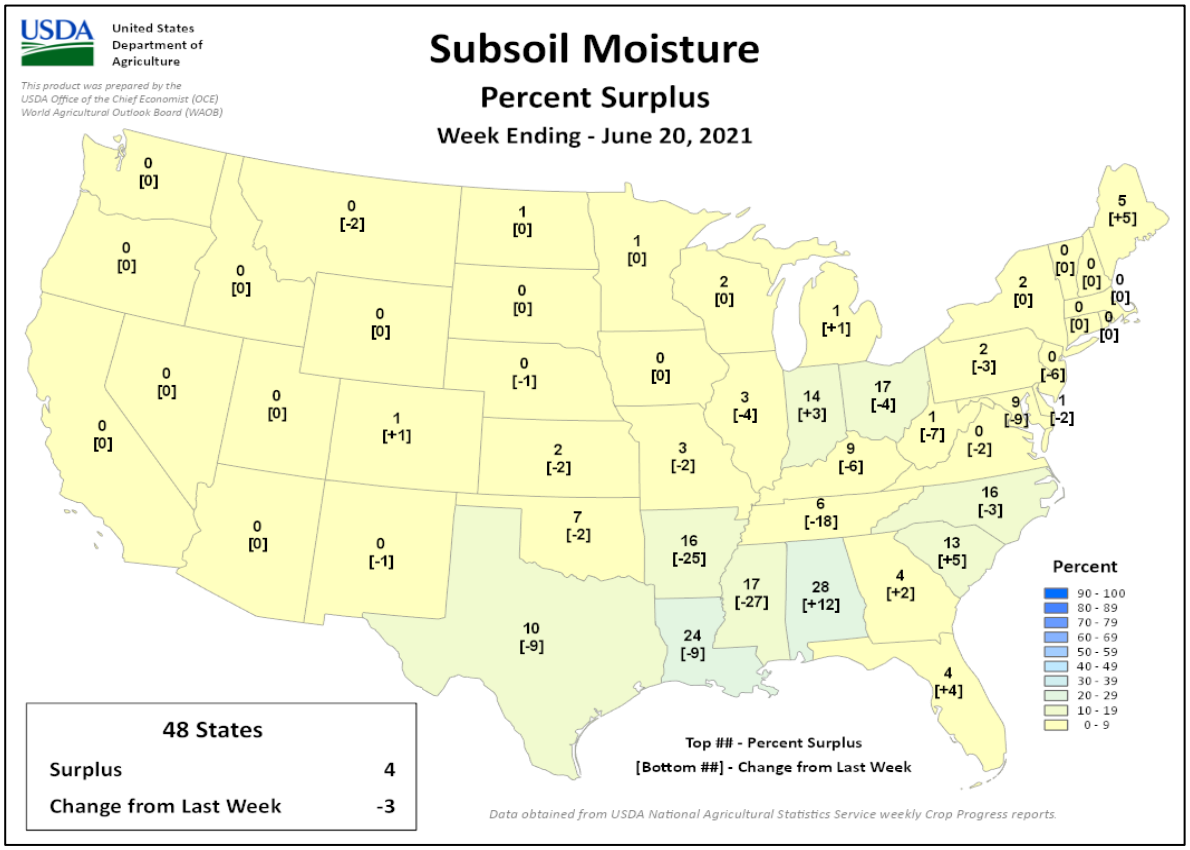


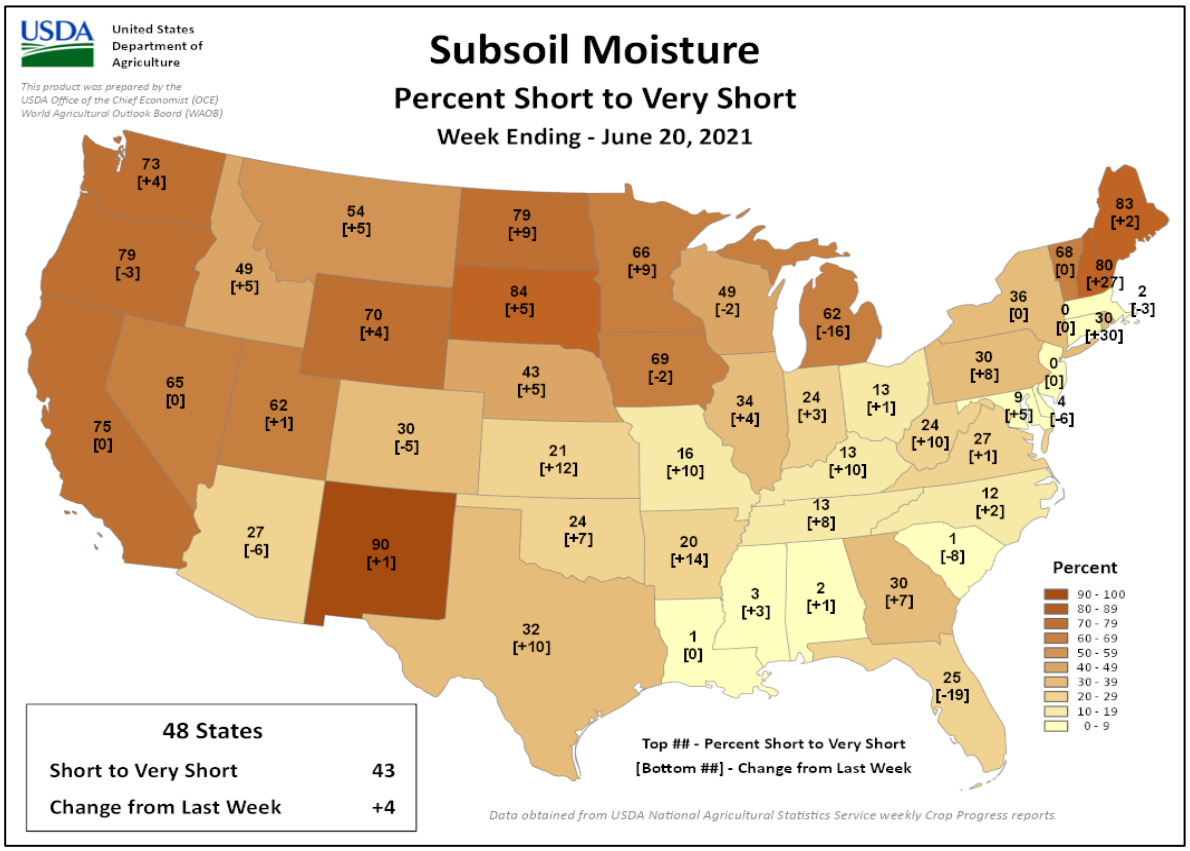


Crop Progress and Condition

Week Ending June 20, 2021

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





International Weather and Crop Summary

June 13-19, 2021

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

HIGHLIGHTS

EUROPE: Locally heavy rain in western and eastern crop areas contrasted with hot, dry conditions in central Europe.

WESTERN FSU: Moderate to heavy showers continued, maintaining adequate to excessive moisture supplies for reproductive to filling winter grains and oilseeds.

EASTERN FSU: Despite some much-needed showers, long-term drought continued to afflict spring grains in the north and maintain high irrigation demands for cotton in the south.

MIDDLE EAST: Widespread showers in Turkey further eased drought, though rain continued to bypass southern and southeastern portions of the country.

SOUTH ASIA: The rapid onset pace of the southwest monsoon brought widespread showers to most major crop areas in India.

EASTERN ASIA: Rainfall maintained or improved soil moisture for vegetative corn and soybeans in northeastern China.

SOUTHEAST ASIA: Wet weather in Thailand and environs further improved moisture supplies for rice, while drier weather prevailed in the Philippines..

AUSTRALIA: Welcome rain continued to fall across the southeast.

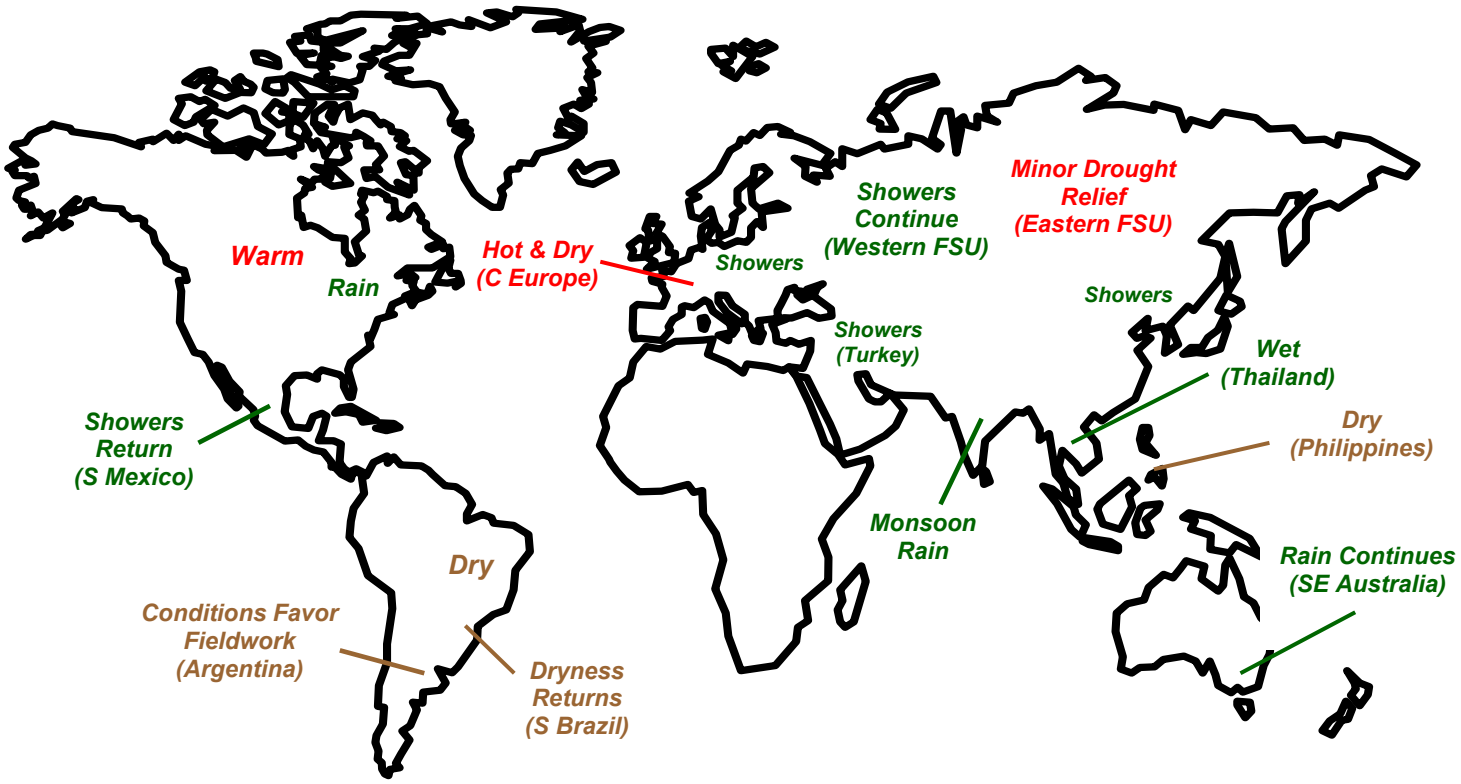
ARGENTINA: Dry weather supported seasonal fieldwork in nearly all major farming areas.

BRAZIL: Warmth and dryness promoted early corn and cotton harvesting, but moisture was limited for immature crops in the south.

MEXICO: Beneficial rain returned to the southern plateau corn belt.

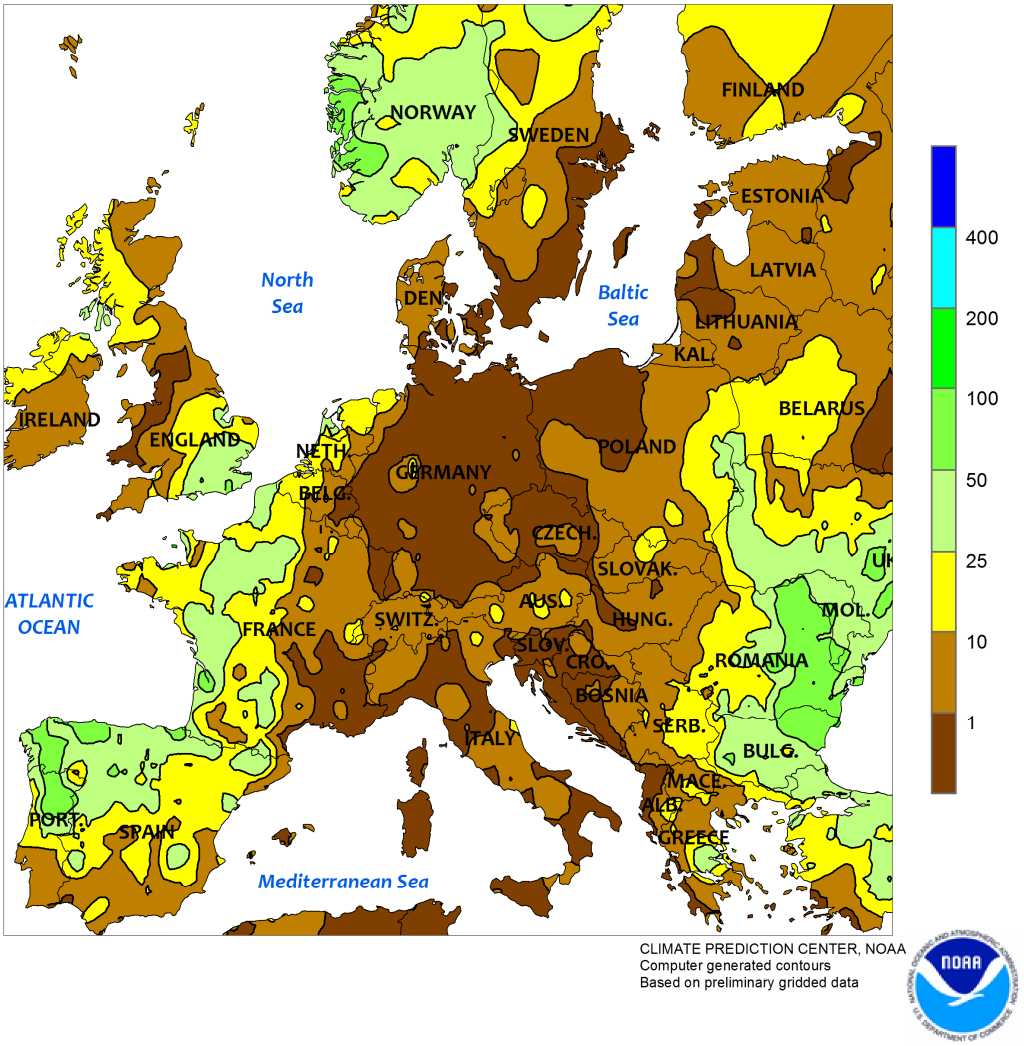
CANADIAN PRAIRIES: Unseasonable warmth promoted rapid growth of spring crops after last week's beneficial rain.

SOUTHEASTERN CANADA: Eastern farming areas received much-needed rainfall for summer crops and forage.



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

EUROPE
Total Precipitation (mm)
June 13 - 19, 2021



EUROPE

Locally heavy rain in western and eastern crop areas contrasted with hot, dry conditions in central portions of the continent. An area of high pressure maintained sunny skies and above-normal temperatures over Europe; temperatures averaged up to 8°C above normal, with daytime highs well into the middle 30s (degrees C). The hottest conditions were noted in eastern Germany, where peak daytime readings as high as 37°C accelerated winter grains and oilseeds toward maturity but were largely inconsequential for vegetative summer crops. The hot, dry conditions eased developmental delays brought on by a very cool spring and were generally favorable for winter crops, although short-term dryness (30-day rainfall less than 50 percent of normal) has developed from eastern Germany eastward into central Poland and southeastward into the northern Balkans. Farther west, a slow-moving storm system and its associated cold front produced widespread moderate to heavy showers (10-85 mm) over the western third of the continent, easing localized short-term dryness in Spain and improving moisture supplies for vegetative summer crops. Similarly, a westward-drifting disturbance triggered locally heavy showers (10-85 mm) in Romania and Bulgaria, maintaining excellent prospects for filling winter grains and oilseeds while sustaining favorable early-season conditions for vegetative summer crops.

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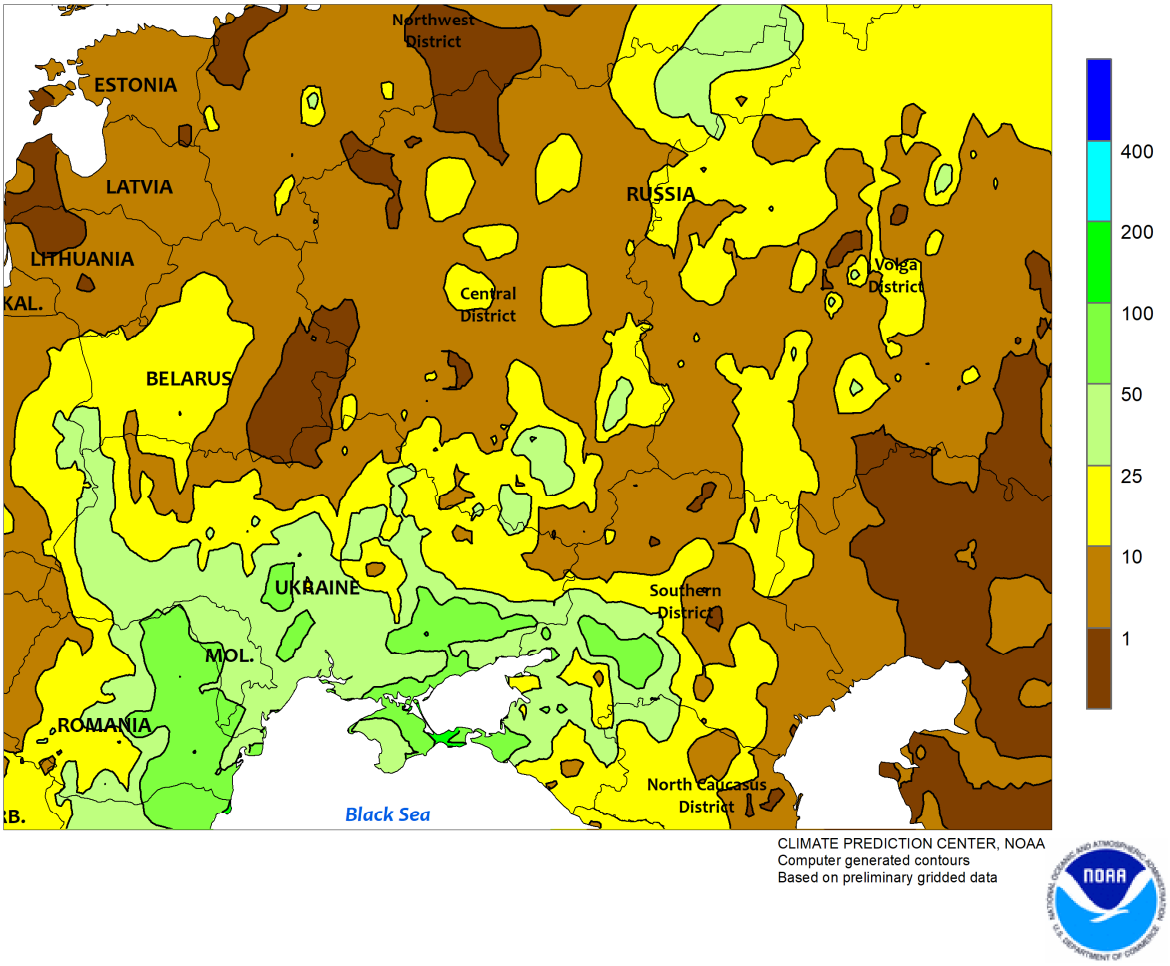
WESTERN FSU
Total Precipitation (mm)
June 13 - 19, 2021



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

WESTERN FSU

Widespread moderate to heavy rainfall maintained abundant moisture supplies for filling winter grains and oilseeds, though drier weather is needed as crops approach maturity. A sprawling slow-moving storm system produced another round of moderate to heavy showers and thunderstorms (10-75 mm, locally more) from Moldova and Ukraine into southern and western Russia. Prospects for winter wheat, barley, and rapeseed remained excellent, though drier weather is needed to maintain crop quality and limit disease potential. Rainfall since April 1 has been the highest of the past 30 years across many of the Black Sea Region's crop areas, with precipitation over the last 90 days approaching or topping 200 percent of normal from south-central Ukraine eastward into northern portions of Russia's Southern District. The ongoing wet weather has also maintained good early-season prospects for vegetative corn, soybeans, and sunflowers but slowed or inhibited seasonal fieldwork. Temperatures averaged near normal near the Black Sea, while warm conditions (2-4°C above normal) were reported away from the coast.

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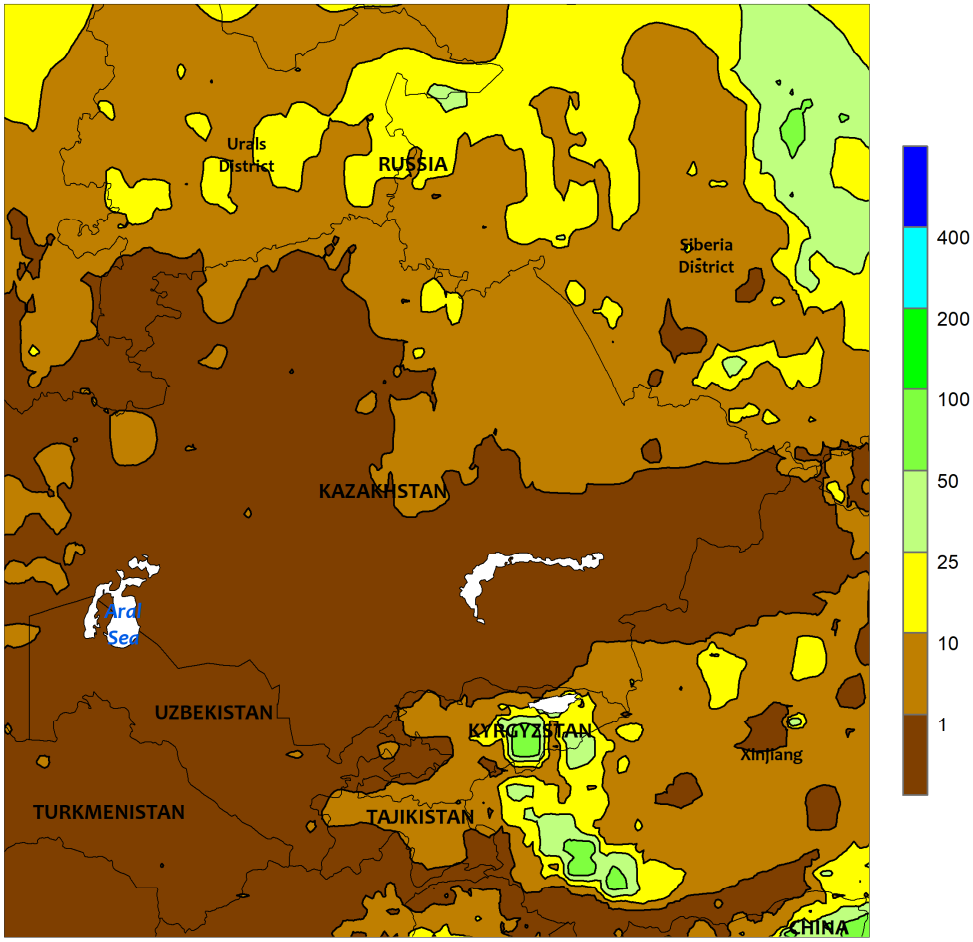
EASTERN FSU
Total Precipitation (mm)
June 13 - 19, 2021



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

EASTERN FSU

Despite some welcome showers, severe long-term drought maintained a firm grip over most of the region. Another cold front swept across the spring grain belt of northern Kazakhstan and central Russia, providing highly variable albeit still beneficial showers (1-20 mm). However, heavier and more consistent rainfall will be needed to reverse the severe drought that has gripped the north since spring, especially in Kazakhstan where the recent regional uptick in rainfall has been disappointing. As of June 20, precipitation since April 1 remained the lowest of the past 30 years in Russia's central Forest Region (southeastern Urals District into the western Siberia District), the Kostanay Region of northwestern Kazakhstan, as well as Kazakhstan's eastern provinces of Pavlodar and East Kazakhstan. Widespread soaking rain is needed soon to stave off potentially significant crop losses from this season's protracted severe drought. In the south, a welcome respite from recent scorching heat was timely for cotton, which was approaching or entering the flowering stage of development up to a week ahead of average. Long-term drought remained entrenched across the primary croplands of the cotton belt, though the rainy season has largely ended. However, late-season rains were observed in the watersheds of the Syr Darya River (Kyrgyzstan and environs), improving irrigation prospects for more northerly cotton growing areas.

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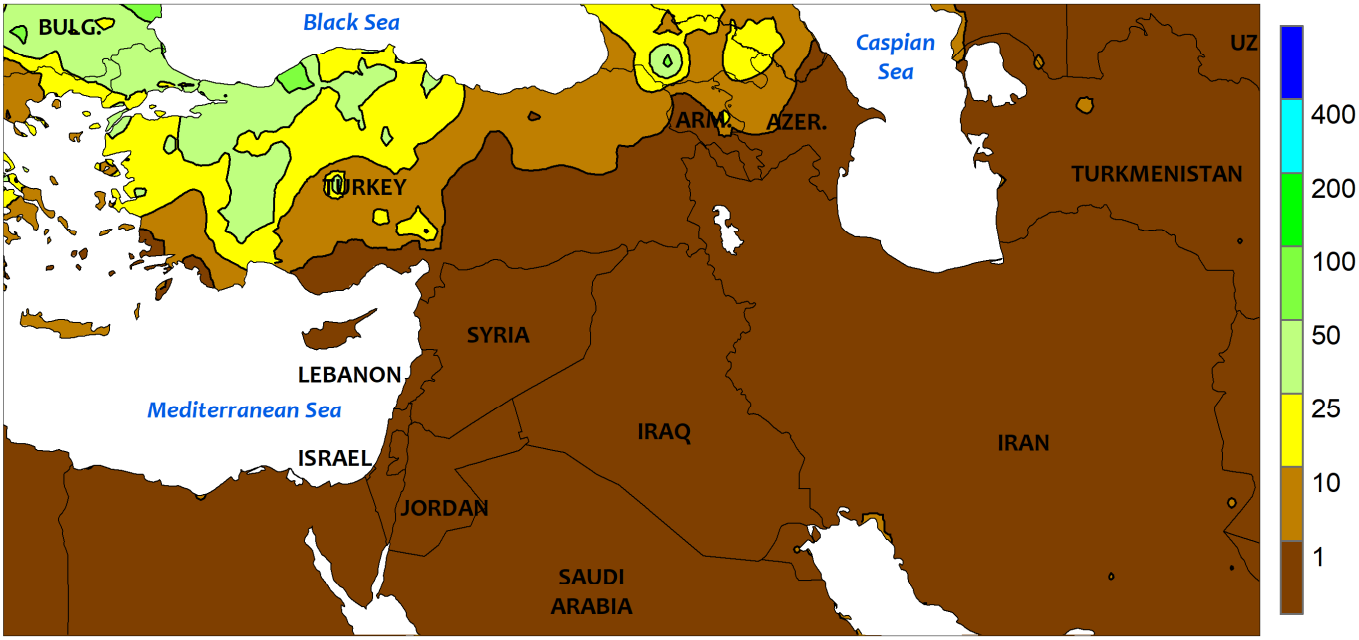
MIDDLE EAST
Total Precipitation (mm)
June 13 - 19, 2021



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

MIDDLE EAST

Cool, wet weather in western and northern Turkey contrasted with intensifying drought in southern and eastern portions of the country. Moderate to heavy showers and thunderstorms (10-70 mm) across western and northern Turkey favored vegetative sunflowers, corn, and cotton. Furthermore, temperatures up to 4°C below normal in these same locales maintained nearly ideal conditions for summer crop development. Conversely, sunny skies prevailed across southern and eastern portions of the country, maintaining drought and high irrigation requirements for vegetative corn and cotton. The GAP Region of southeastern Turkey has a distinct wet season (water year) which runs from October through May; the 2020-21 water year completely shut down by late March, with precipitation since April 1 totaling the lowest of the past 30 years from the Mediterranean Coast into eastern Turkey's Armenian Highlands. The latter are a vital water source for summer crop irrigation. Elsewhere, seasonably sunny skies and near- to above-normal temperatures (up to 5°C above normal in Iran) facilitated winter grain drydown and harvesting from Syria into central and southern Iran.

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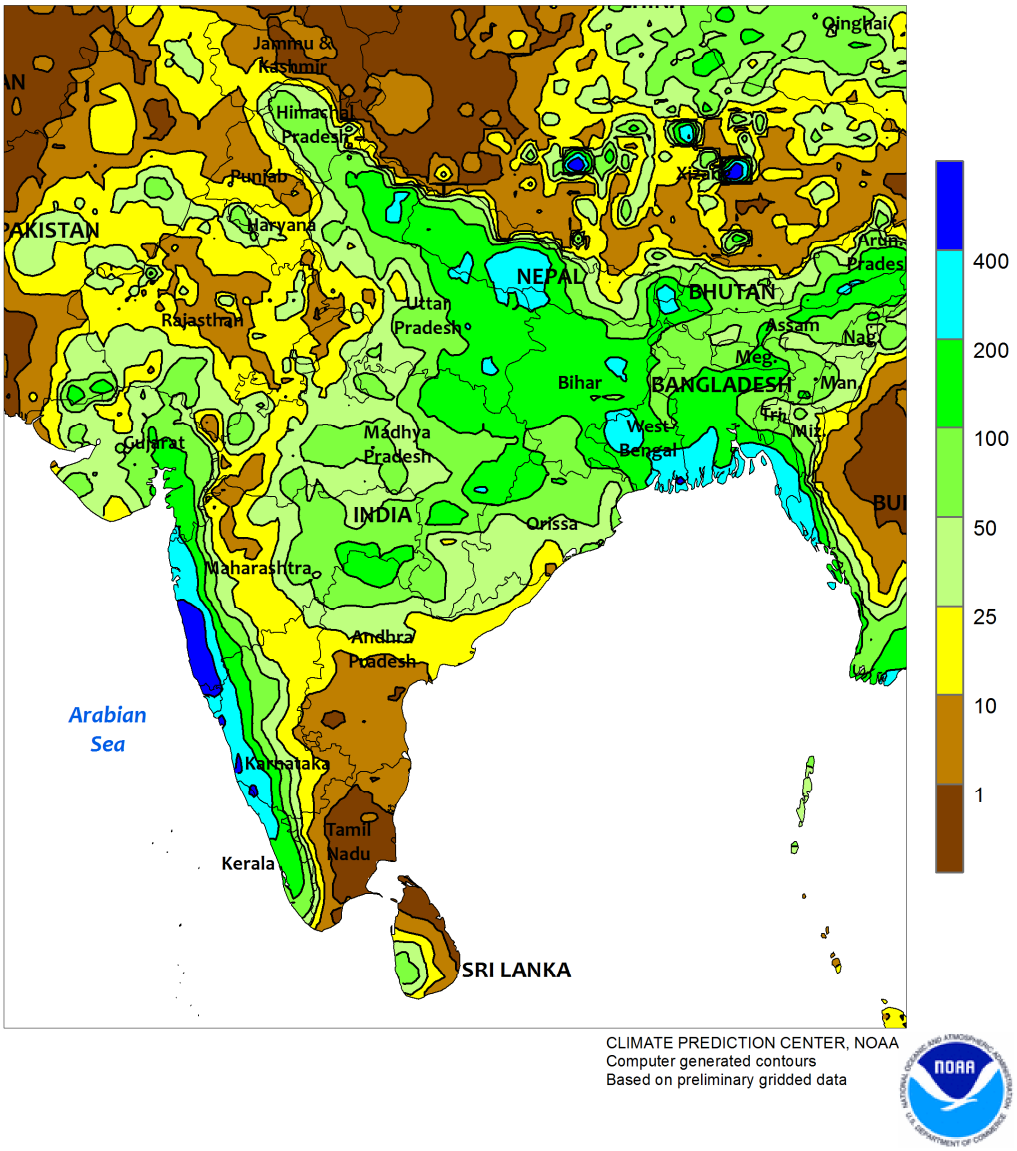
SOUTH ASIA
Total Precipitation (mm)
June 13 - 19, 2021



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

SOUTH ASIA

The southwest monsoon accelerated northward in India, bringing widespread showers to nearly all major crop areas. The only exceptions were northwestern India and the seasonally drier southeast. Typically, monsoon showers reach northern India by late June or early July but arrived 7 to 10 days earlier than normal. As such, key cotton and oilseed areas in western and central India as well as rice areas in the north and east received 25 to 100 mm (locally more). The early rainfall provided a boost to moisture supplies and encouraged growers to begin sowing ahead of schedule. Additionally, Bangladesh recorded heavy showers (50-200 mm or more), supporting summer (aman) rice, while light showers (10-25 mm) were reported in Pakistan ahead of the onset of the monsoon.

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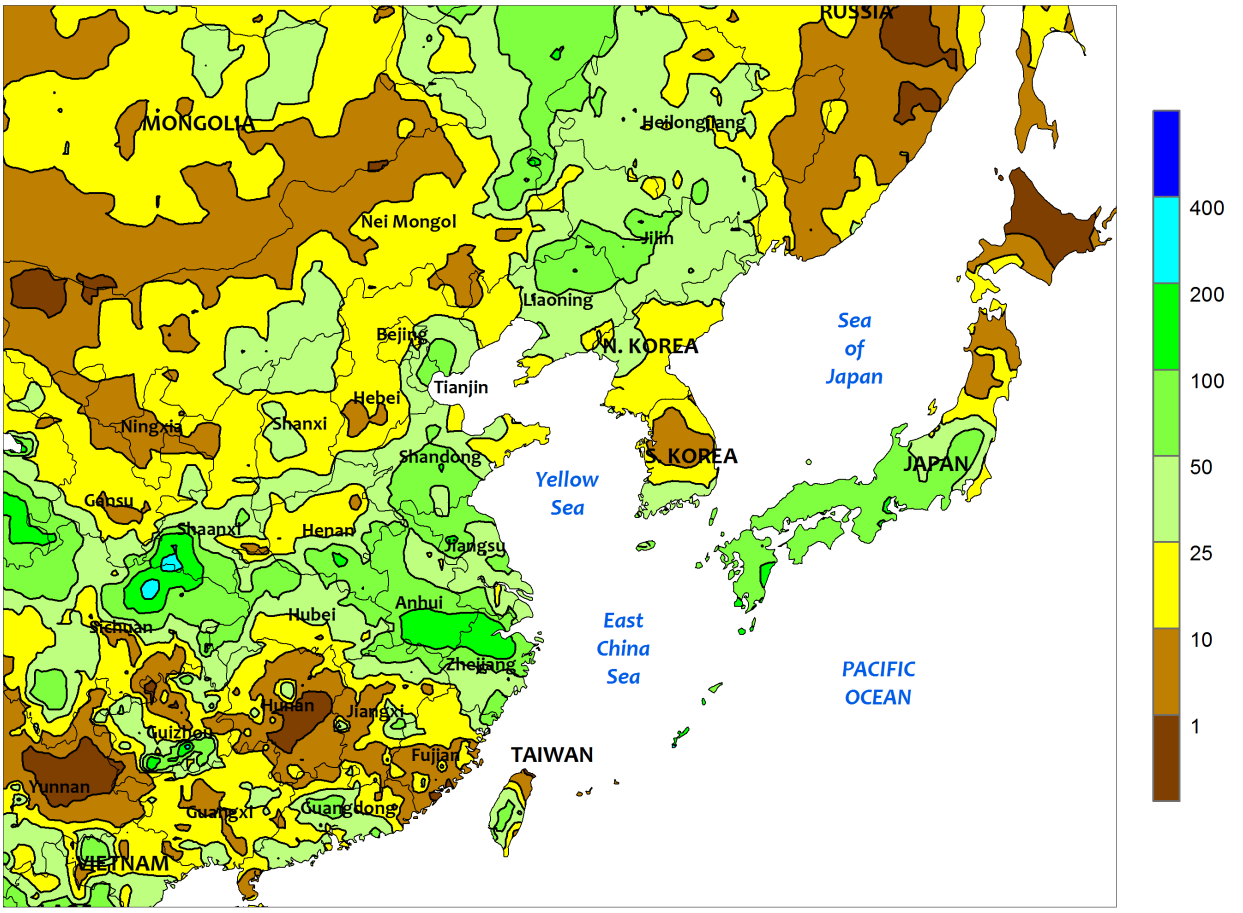
EASTERN ASIA
Total Precipitation (mm)
June 13 - 19, 2021



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

EASTERN ASIA

A relatively dry start to the week gave way to showers throughout northeastern and eastern China, boosting soil moisture for vegetative summer crops. In the northeast, 25 to locally almost 100 mm of rain aided corn and soybeans, particularly in the western prefectures. In particular, the moisture was welcome in neighboring sections of Inner Mongolia, where rainfall has been well below average for the start of the summer growing season. Showers (25-100 mm or more) were also prevalent on the North China Plain and northern portions of the Yangtze Valley. The wet weather slowed lingering wheat harvesting and was unfavorable for the remaining unharvested crop, however the moisture was welcome for summer crop development. In contrast to the wetness of the east and northeast, hot (7-day average temperatures over 30°C), dry weather occurred in the south and southeast. While the conditions favored ripening early-crop rice, the heat coupled with short-term dryness stressed vegetative summer crops and further reduced moisture supplies for the upcoming sowing of late-crop rice. Meanwhile, in western China, seasonably warm weather continued to promote good to excellent growing conditions for cotton. Elsewhere in the region, rainfall (25-100 mm) returned to the southern half of Japan, supporting rice, but lighter-than-normal showers (less than 25 mm) were reported on the Korean Peninsula.

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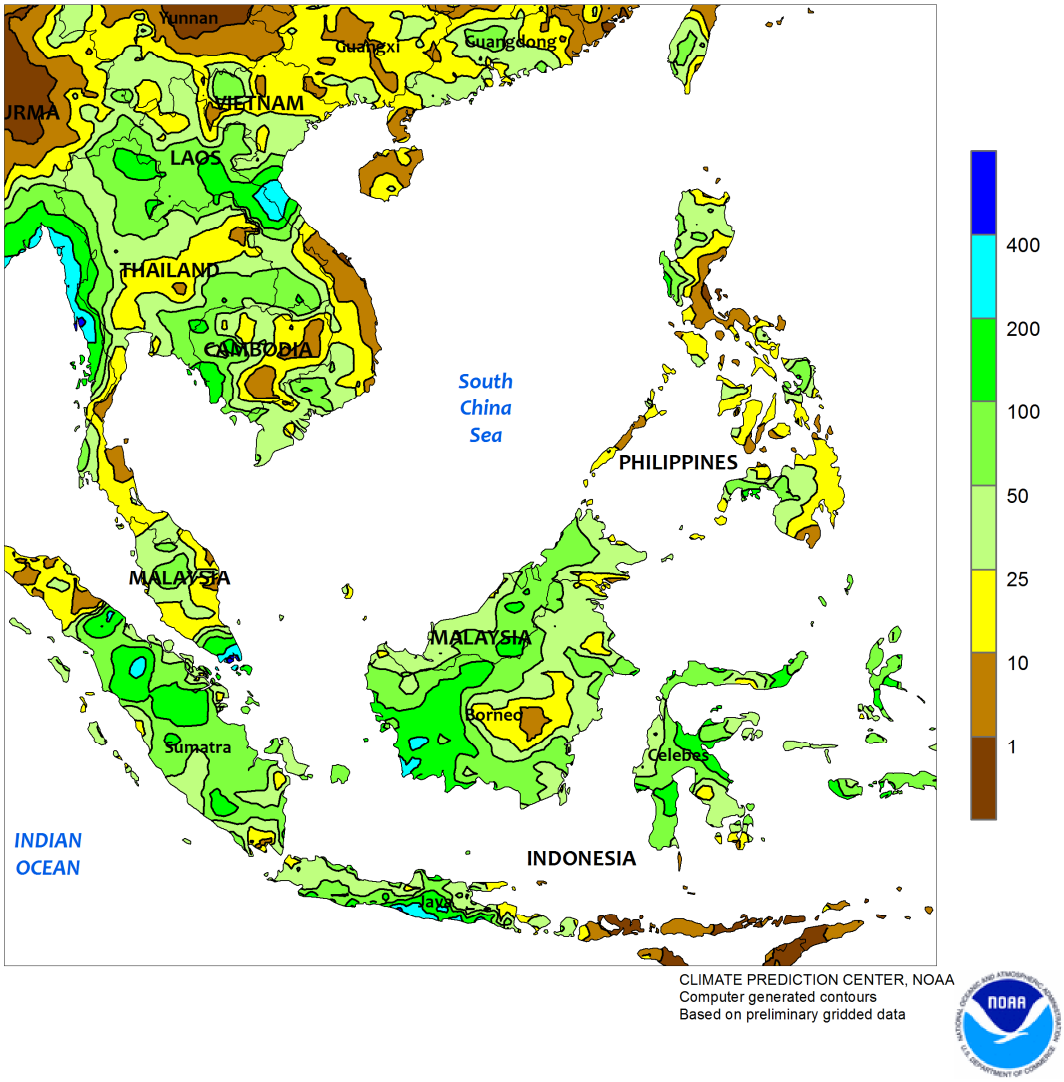
SOUTHEAST ASIA
Total Precipitation (mm)
June 13 - 19, 2021



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

SOUTHEAST ASIA

Monsoon showers prevailed across Thailand and environs, with rainfall totals bolstered by a weakening tropical cyclone (Koguma) moving across the north early in the period. Most areas recorded 25 to 100 mm of rain, improving moisture supplies for irrigated rice. Despite some pockets of dry weather for rainfed rice in portions of northeastern Thailand, short-term moisture conditions remained favorable. Meanwhile, showers were lighter than usual (less than 25 mm) across the Philippines, leaving most districts with below-average June rainfall thus far. Elsewhere, wet weather in oil palm areas of Malaysia and Indonesia sustained adequate to abundant soil moisture for trees and good yield prospects.

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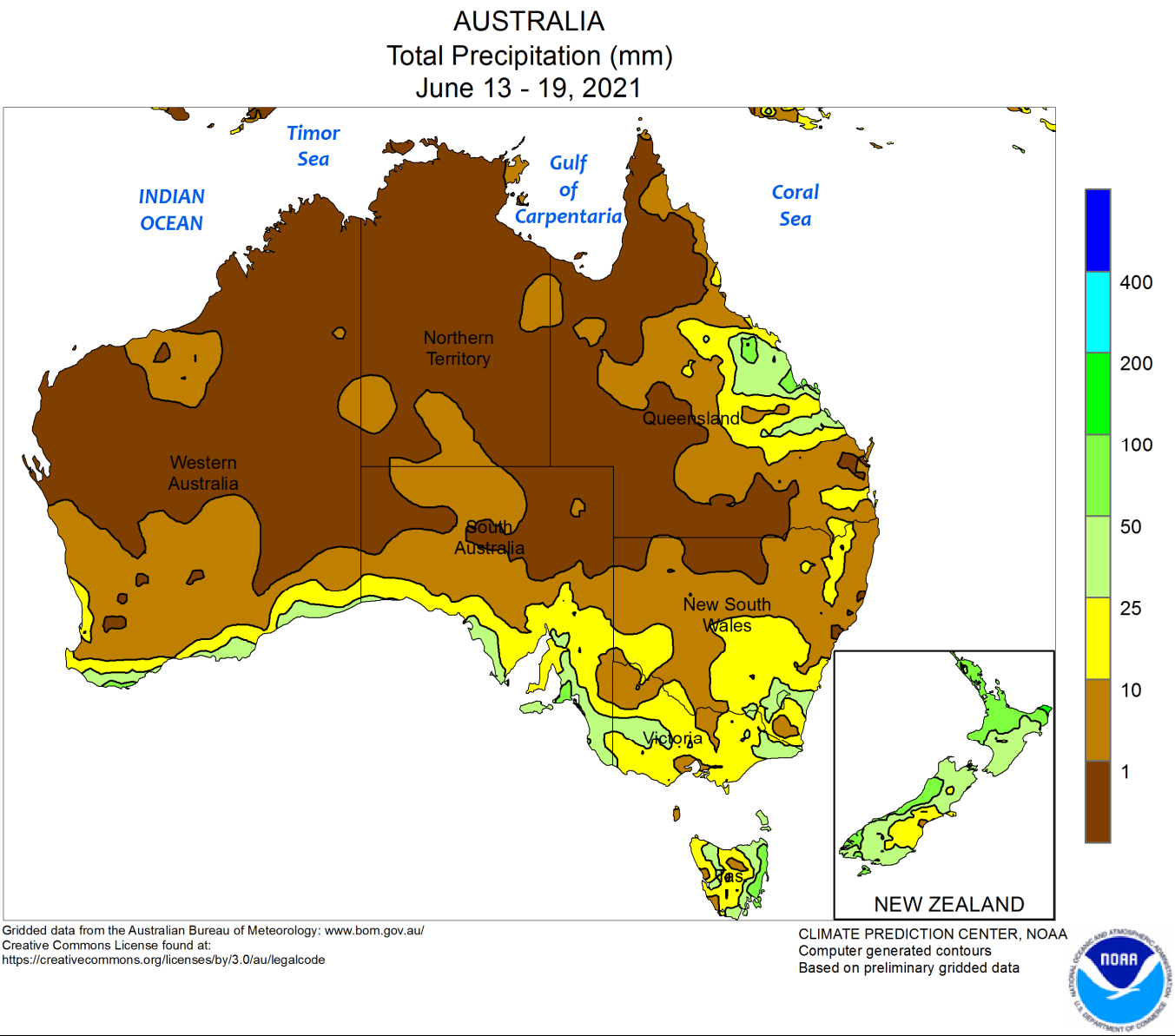

AUSTRALIA

Scattered showers (5-15 mm, locally more) in Western Australia, southern Queensland, and northern New South Wales continued to favor winter crop emergence and establishment and helped sustain good to excellent early-season yield prospects. Temperatures averaged 1 to 2ºC below normal in the west and near normal in the northeast. Elsewhere in the wheat belt, widespread showers (10-25 mm, locally more) continued to fall across most of South Australia, Victoria, and southern New South Wales, spurring winter crop development. As a result of rainfall during the past two weeks, precipitation since May 1 has averaged near to slightly above normal in South Australia and southern New South Wales, further filling the soil moisture profile for recently planted wheat, barley, and canola. A pocket of drier-than-normal weather persisted in northwestern Victoria, however, where rainfall averaged about 60% of normal during the same time period. More rain would be welcome in this latter region to help improve local crop prospects. Temperatures averaged 2 to 3ºC above normal in southeastern Australia, somewhat accelerating the pace of crop development.

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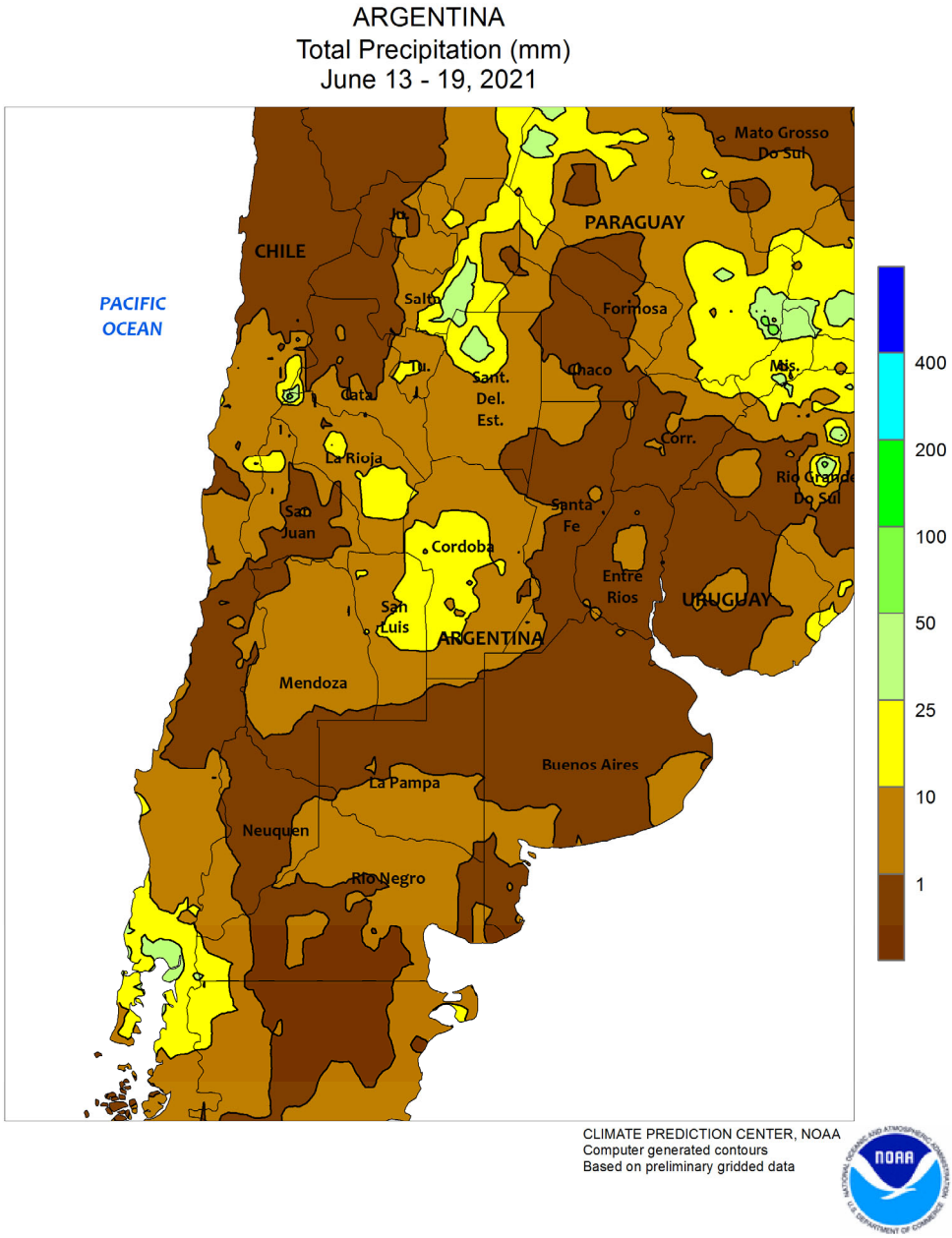

ARGENTINA

Dry weather continued throughout much of the region, favoring a continuation of seasonal fieldwork that included winter grain planting. Except for light to moderate showers (5-25 mm) concentrated over western Cordoba and in the vicinity of eastern Paraguay, little to no rain fell, with complete dryness over the lower Parana River Valley (northern Buenos Aires, Entre Rios, and eastern Santa Fe). Cold weather accompanied the dryness, with weekly temperatures averaging 1 to 3°C below normal and daytime highs ranging from the upper 10s (degrees C) in southern Buenos Aires to the upper 20s farther north. In addition, nighttime lows dropped below -2°C in La Pampa and Buenos Aires, further slowing growth of emerging winter grains. According to the government of Argentina, corn was 58 percent harvested as of June 17, lagging last year by 20 points, and cotton was 68 percent harvested (92 percent last year). In addition, wheat and barley were both 47 percent planted, respectively.

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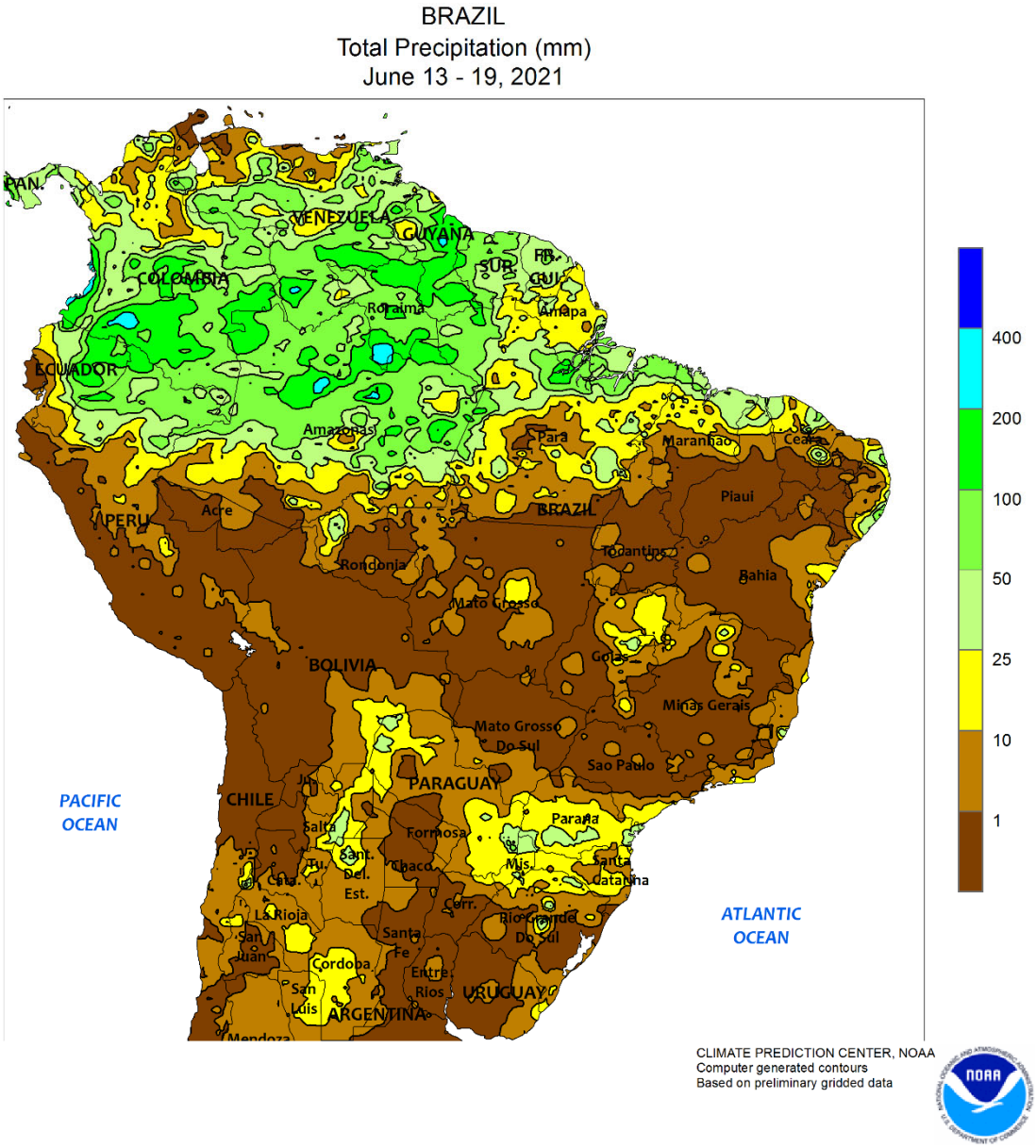
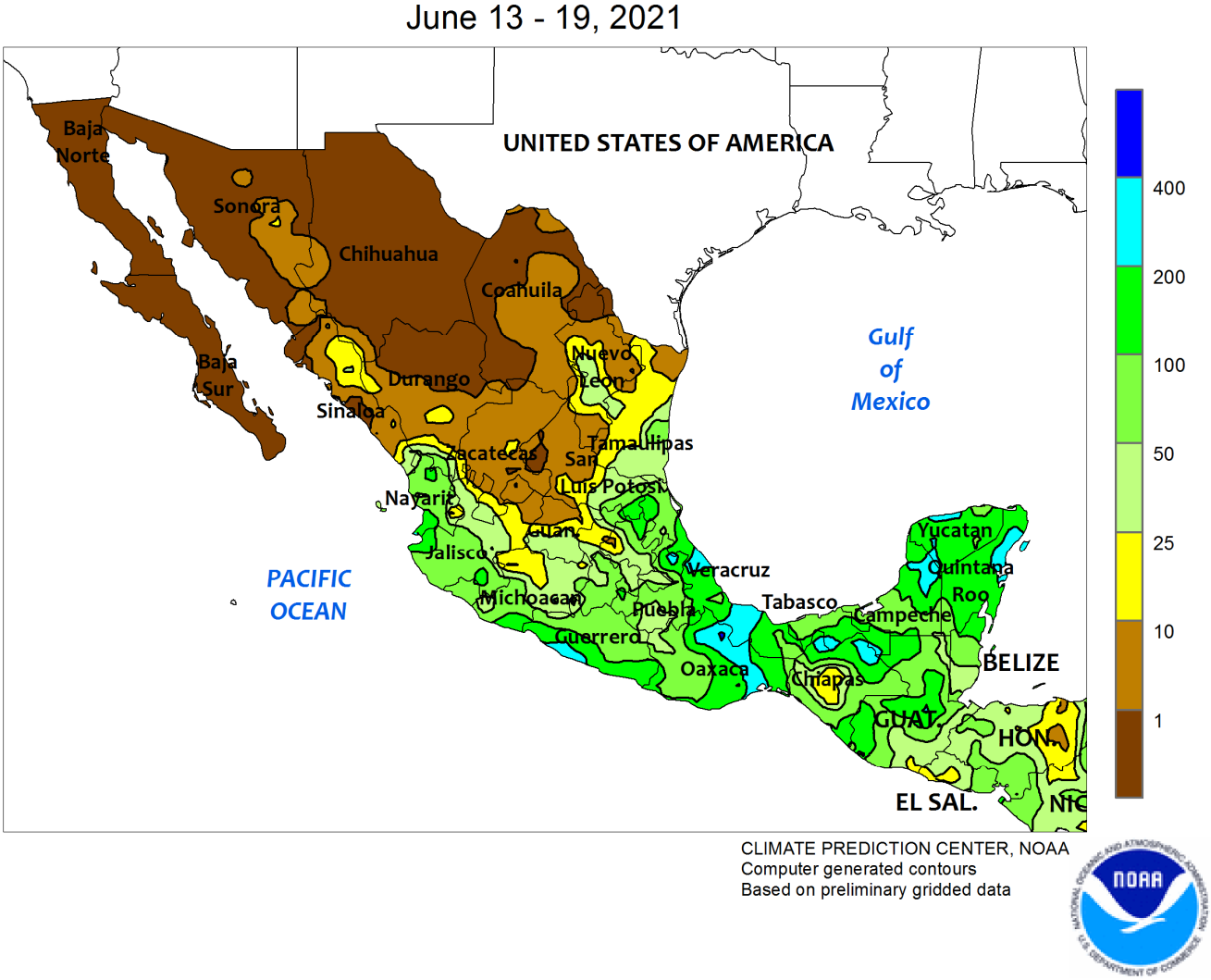


BRAZIL

Dry weather dominated nearly all major agricultural areas, with only localized relief from dryness in regions that typically receive rainfall in June. In the Center-West Region and northeastern interior (Mato Grosso and Mato Grosso do Sul northeastward into Piaui and environs), the dryness was seasonable and accompanied by near- to above-normal temperatures (daytime highs reaching the middle and upper 30s degrees C), fostering rapid maturation of late-planted second-season crops. According to the government of Mato Grosso, corn was 4 percent harvested as of June 19, compared with the 5-year average of 15 percent. Farther south, several climatologically wetter states also continued to experience dryness, limiting moisture for late-maturing summer crops and wheat. According to the government of Parana, which recorded varying amounts of rainfall (locally greater than 25 mm), 20 percent of second-crop corn was still in vegetative to reproductive stages of development, with most of the remainder filling to maturing; wheat was 85 percent planted. Unseasonably cool weather accompanied the southern dryness, but temperatures stayed above freezing, posing no threat to immature corn.

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

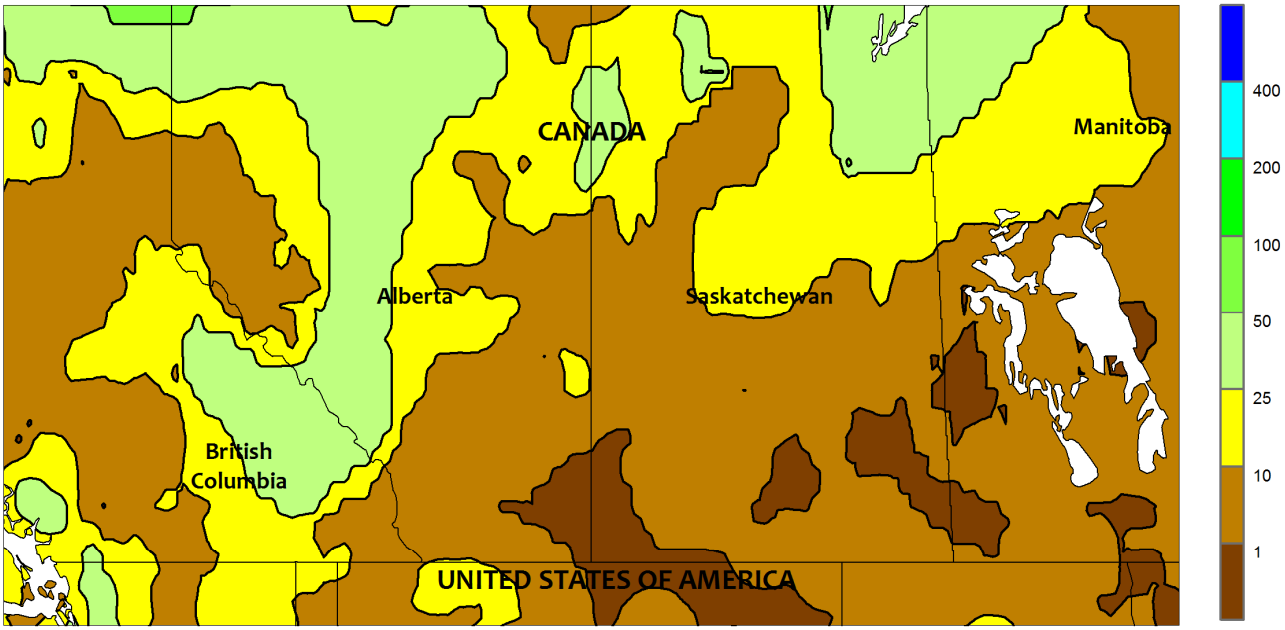


MEXICO

Showers returned to much of the southern plateau corn belt, providing timely moisture for emerging to vegetative summer crops. Some of the recorded moisture arrived in advance of Tropical Storm Dolores, which made landfall along the coast of Michoacán on June 19 with sustained winds of about 60 knots. Most locations from Jalisco to Puebla recorded 10 to 75 mm, with locally higher amounts embedded in those areas. The storm generated heavier rainfall (100-200 mm) in coastal areas of Michoacán and Guerrero, and the remnants of Dolores were producing locally heavy showers over Zacatecas and Durango on June 20 (*additional information will appear in next week's bulletin*). Elsewhere, heavy rain (locally greater than 200 mm) fell throughout the Southeast, extending northward through Veracruz. Showers also returned to the northeast (Coahuila to Tamaulipas), but were lighter (only locally reaching above 50 mm) and widely scattered. Showers were also sparse in the northwestern watersheds (notably Sinaloa and eastern Sonora), where unseasonable heat (highs reaching the middle 40s degrees C) stressed livestock and elevated moisture losses to evaporation.

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

CANADIAN PRAIRIES
Total Precipitation (mm)
June 13 - 19, 2021



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

CANADIAN PRAIRIES

Dry, occasionally hot weather overspread the southern and eastern Prairies, spurring rapid growth of spring grains and oilseeds while stressing some emerged crops. Rainfall totaled below 10 mm from southern Alberta to Manitoba, with higher amounts in Alberta's northwestern farming areas and at the northern edge of Saskatchewan's farmlands. Except for the Peace River Valley, where weekly average temperatures were within 1°C of normal, temperatures averaged 1 to 4°C above normal; the highest anomalies were concentrated in the southwest, where an early-week heat wave pushed daytime highs into the middle and upper 30s (degrees C). Although temperatures moderated during the latter parts of the week, with highs generally capped in the lower and middle 20s, additional rain will be needed soon across the Prairies as spring and summer crops approach reproductive stages of development.

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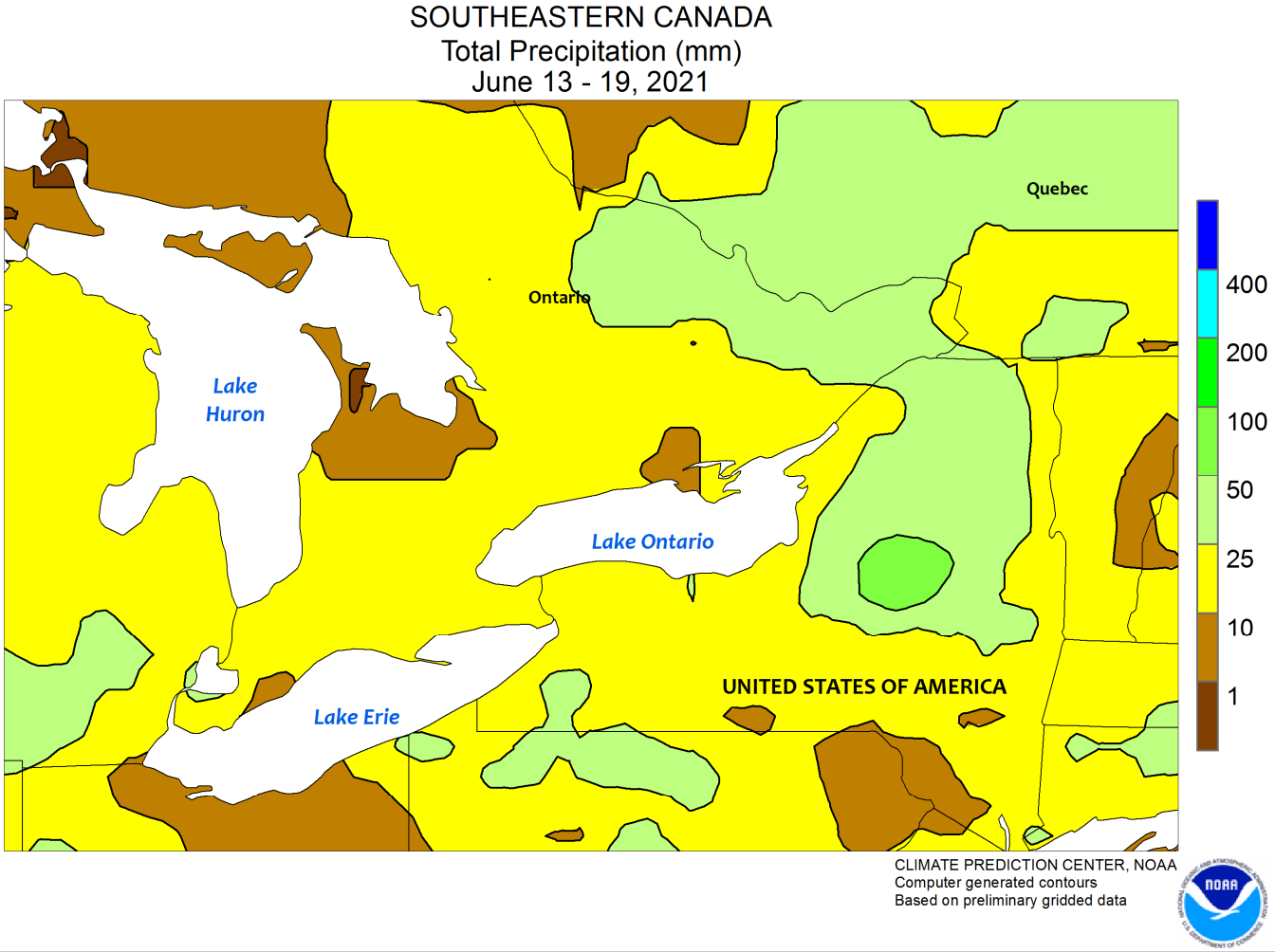

SOUTHEASTERN CANADA

Much-needed rain fell in eastern agricultural districts, but unfavorably dry conditions continued farther west. Rainfall totaled 10 to 50 mm in Quebec and Ontario's farming areas, with lighter amounts (locally below 10 mm) farther west, in farmlands between Lakes Erie, Ontario, and Huron. Weekly temperatures averaged within 1°C of normal across the region, with daytime highs reaching the upper 20s (degrees C) regionwide. While the mild, sunny weather in Ontario's western and central crop districts favored developing wheat and pastures, additional rain will be needed as corn, soybeans, and other crops advance toward reproduction.

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U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on June 10, 2021. Forecasts refer to June 1.

Winter wheat production is forecast at 1.31 billion bushels, up 2 percent from the May 1 forecast and up 12 percent from 2020. The U.S. yield is forecast at 53.2 bushels per acre, up 1.1 bushels from last month and up 2.3 bushels from last year's average yield of 50.9 bushels per acre (figure 1).

Hard Red Winter production, at 771 million bushels, is up 6 percent from last month. Soft Red Winter, at 335 million bushels, is up 1 percent from the May forecast. White Winter, at 202 million bushels, is down 8 percent from last month. Of the White Winter production, 15.4 million bushels are Hard White and 187 million bushels are Soft White.

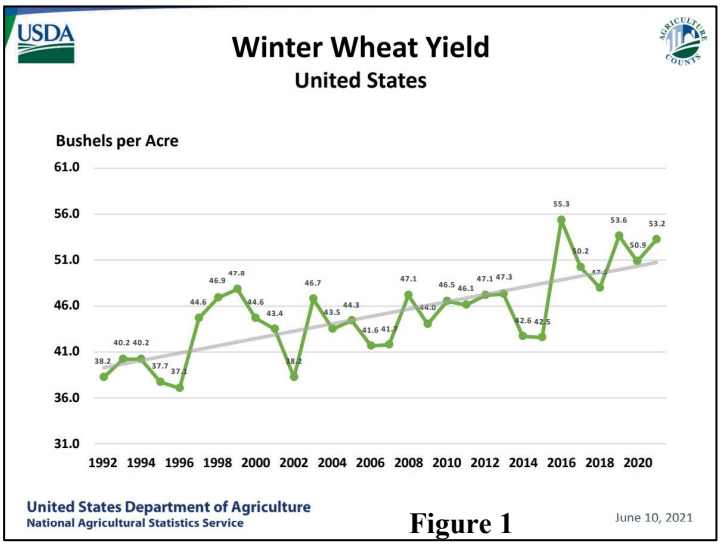

Figure 1

The **U.S. all orange** forecast for the 2020-2021 season is 4.50 million tons, up 1 percent the previous forecast but down 14 percent from the 2019-2020 final utilization.

The Florida all orange forecast, at 52.7 million boxes (2.37 million tons), is up 2 percent from the previous forecast but down 22 percent from last season. In Florida, early, midseason, and Navel varieties are forecast at 22.7 million boxes (1.02 million tons), unchanged from the previous forecast but down 23 percent from last season. The Florida Valencia orange forecast, at 30.0 million boxes (1.35 million tons), is up 3 percent from the previous forecast but down 21 percent from 2020. California and Texas orange production forecasts were carried forward from the previous forecast.

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