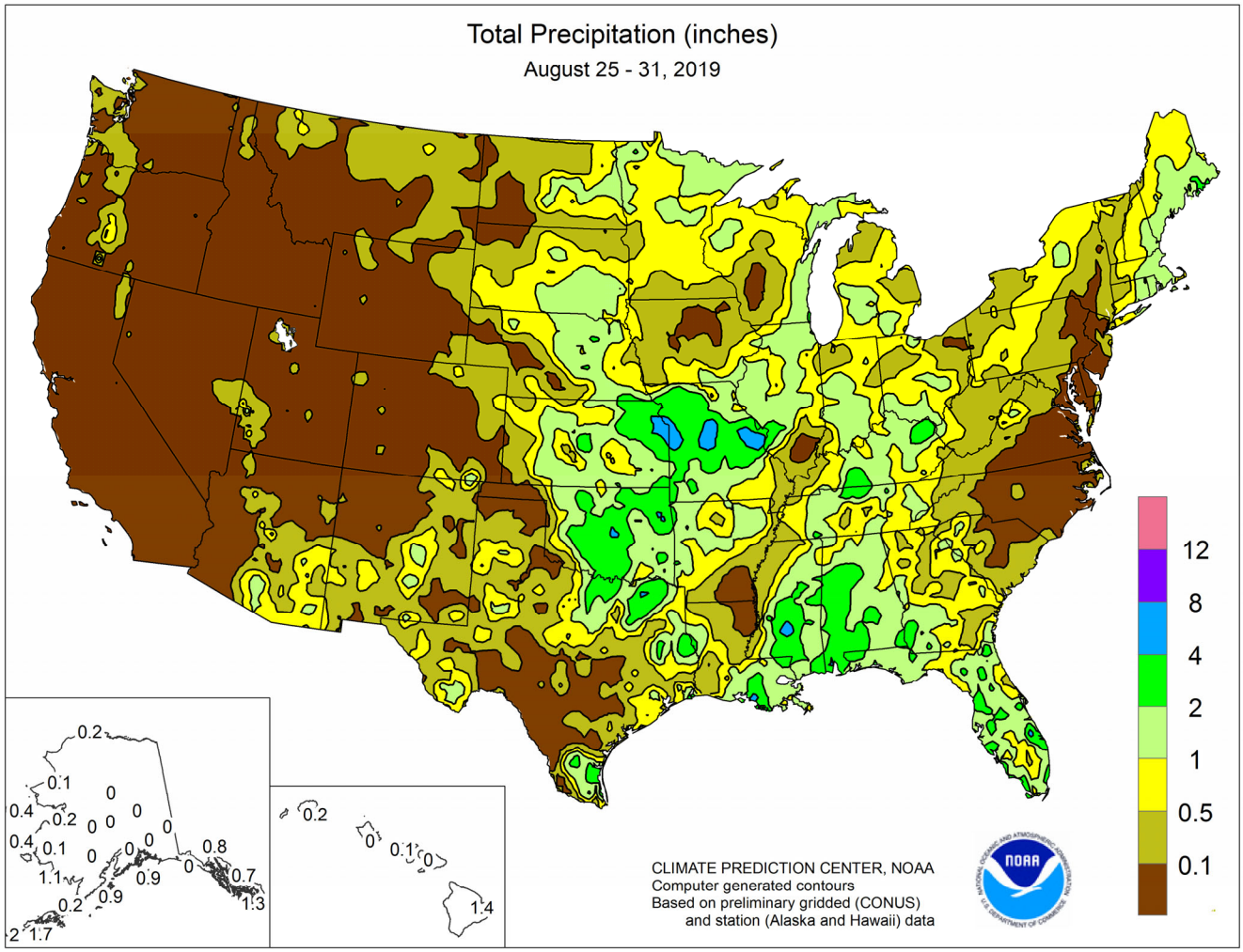
Volume 106, No. 36 http://www.usda.gov/oce/weather September 4, 2019

Weekly Weather and Crop Bulletin

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

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



HIGHLIGHTS
August 25 – 31, 2019

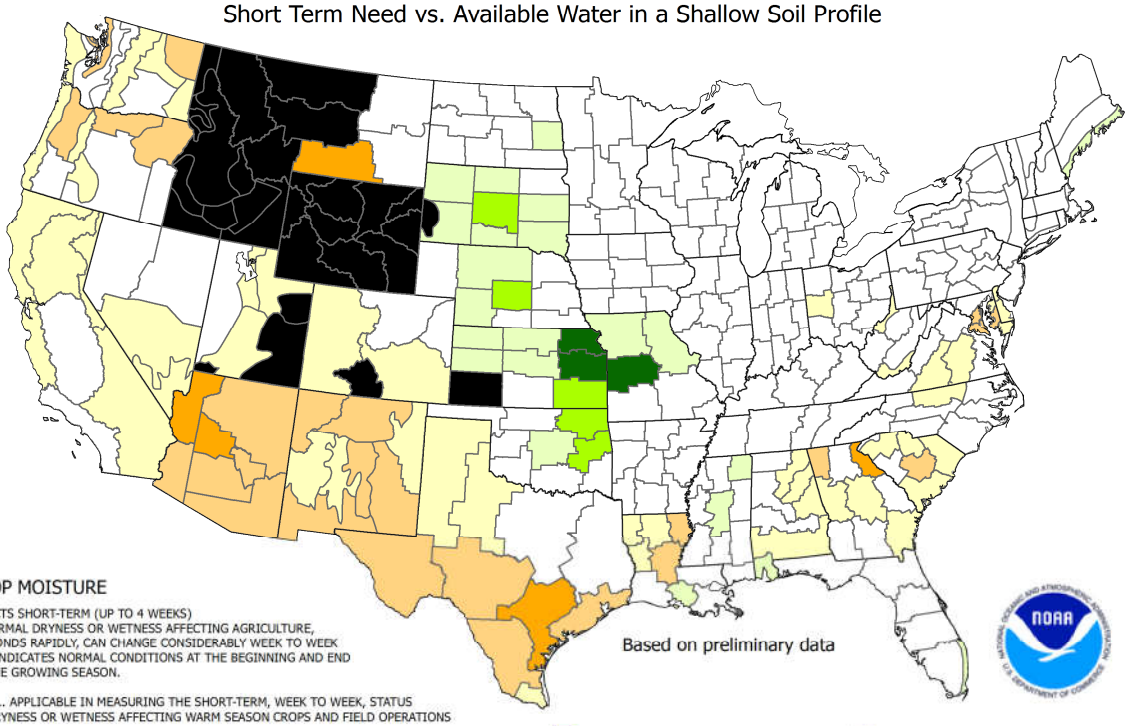
Highlights provided by USDA/WAOB

Dorian surprised U.S. territories in the **Caribbean**, suddenly becoming a Category 1 hurricane on August 28 while traversing the **U.S. Virgin Islands** of **St. Thomas** and **St. John** but unexpectedly sparing most of **Puerto Rico**. Later, Dorian moved perilously close to **Florida's east coast** during the Labor Day weekend while stalling and battering the **northern Bahamas** as a Category 5 storm. On the **U.S. mainland**, mostly dry weather in the **West** and the **Mid-Atlantic States** contrasted with locally heavy showers from the **eastern Plains into the**

(Continued on page 5)

Contents

Crop Moisture Index by Division
Weekly Value for Period Ending Aug 31, 2019
Short Term Need vs. Available Water in a Shallow Soil Profile



CROP MOISTURE

DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

USES... APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS

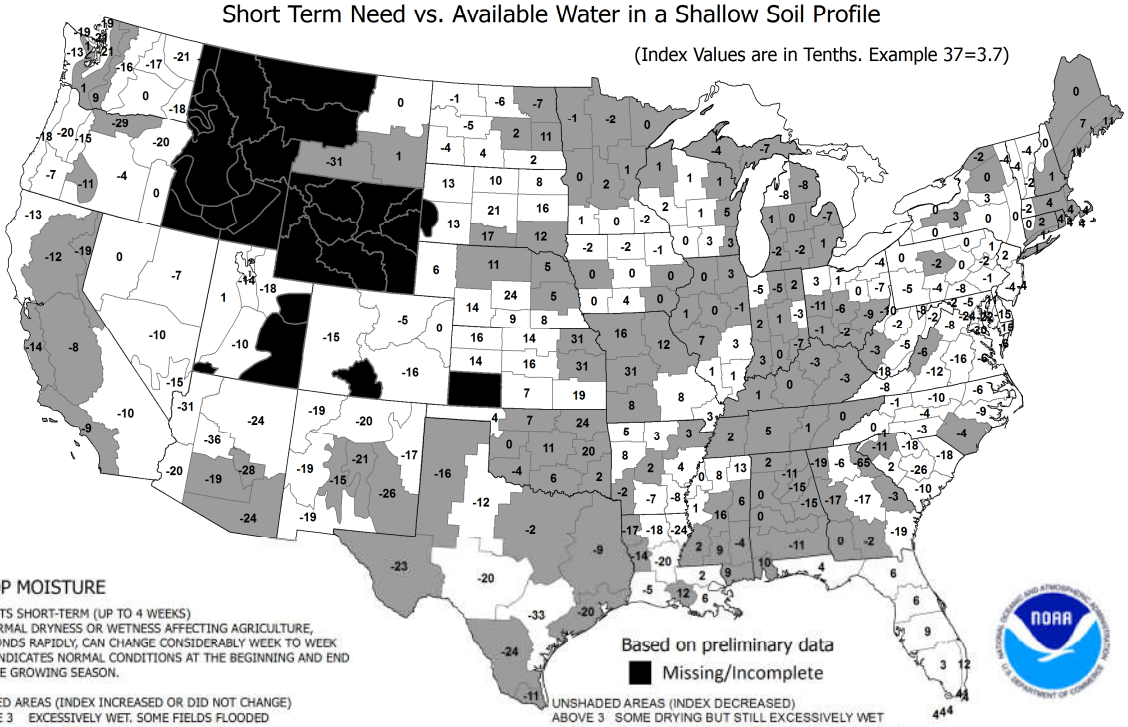
LIMITATIONS... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A SHALLOW SOIL PROFILE,OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55F.IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

Based on preliminary data

- -3.0 or less (Severly Dry)
- -2.0 to -2.9 (Excessively Dry)
- -1.0 to -1.9 (Abnormally Dry)
- -0.9 to +0.9 (Slightly Dry/Favorably Moist)
- +1.0 to +1.9 (Abnormally Moist)
- +2.0 to +3.0 (Wet)
- 3.0 and above (Excessively Wet)
- Missing/Incomplete

Crop Moisture Index by Division
Weekly Value for Period Ending Aug 31, 2019
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.

Based on preliminary data

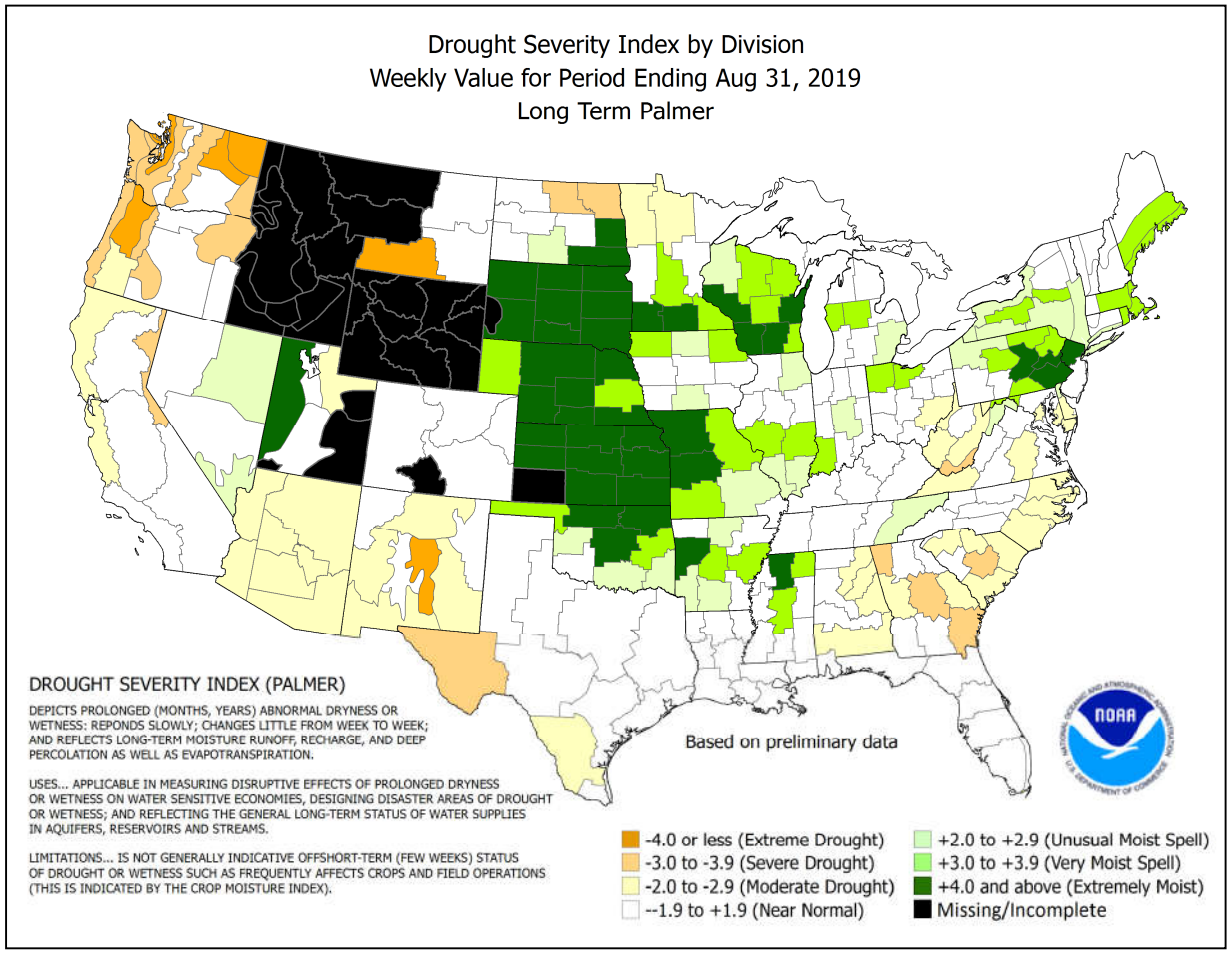
- Missing/Incomplete

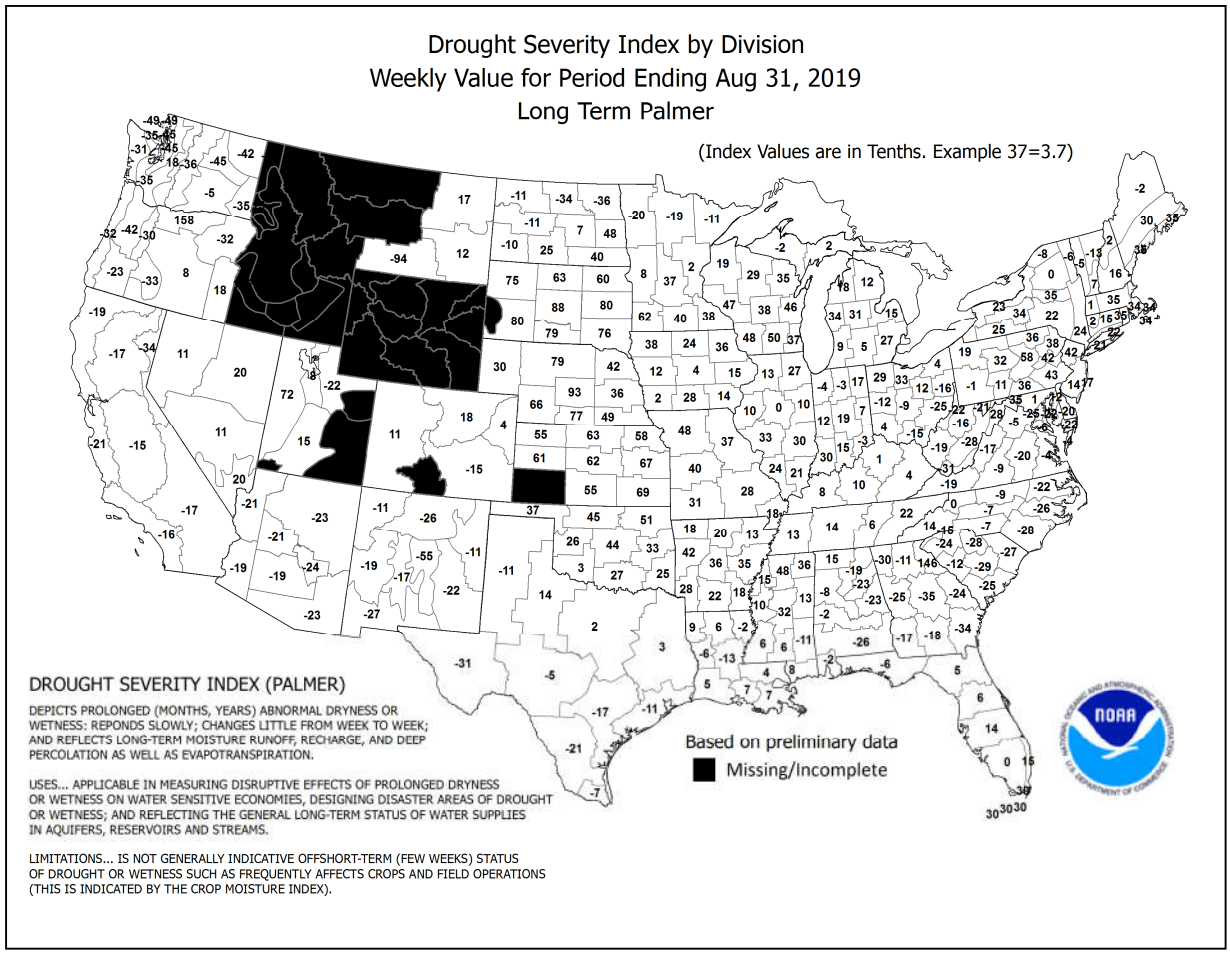
SHADED AREAS (INDEX INCREASED OR DID NOT CHANGE)

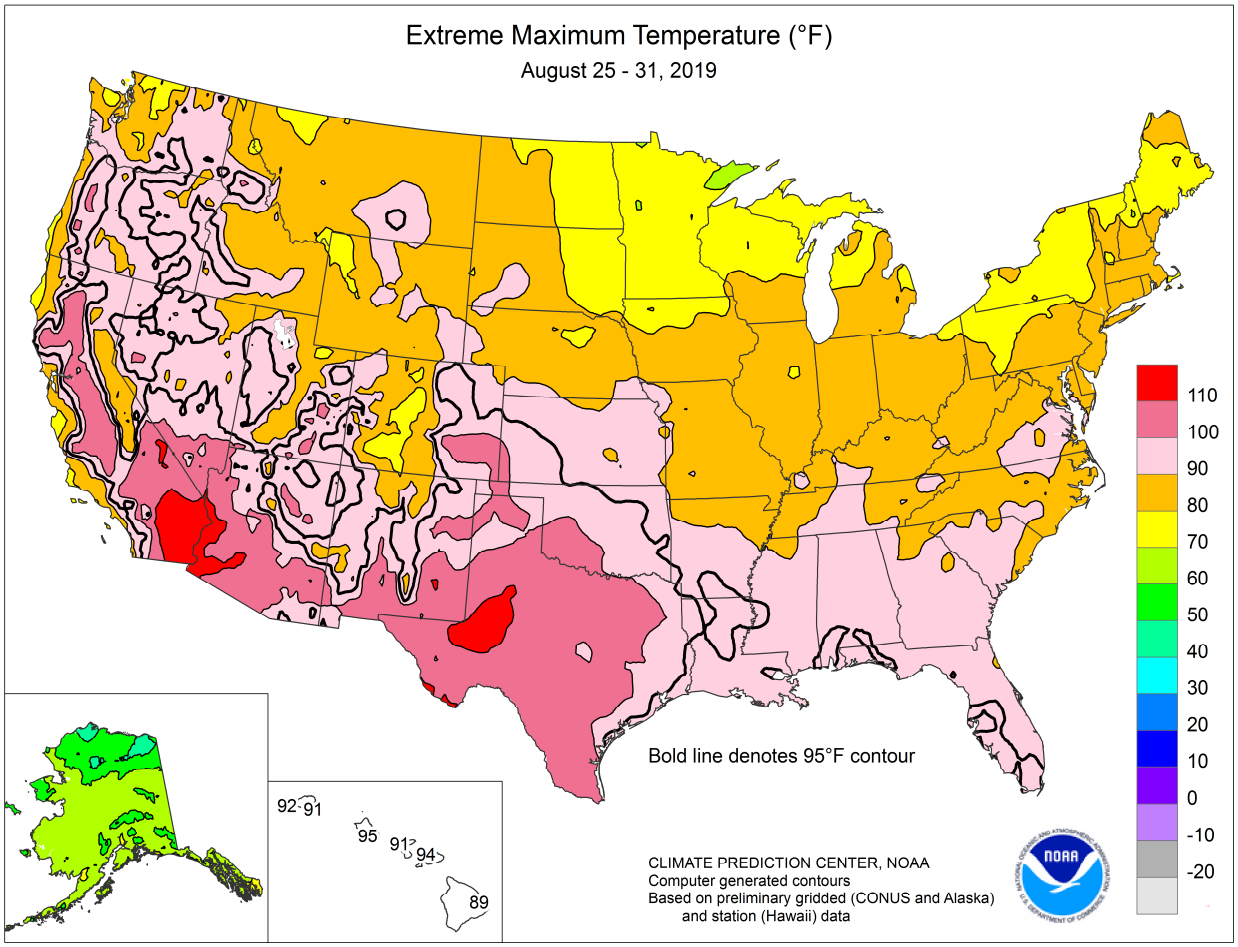
ABOVE 3	EXCESSIVELY WET. SOME FIELDS FLOODED
2 TO 3	TOO WET. SOME STANDING WATER
1 TO 2	SOME FIELDS TOO WET, PROSPECTS ABOVE NORMAL
0 TO 1	MOISTURE ADEQUATE FOR PRESENT CROP NEEDS
0 TO -1	PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2	SOME IMPROVEMENT BUT STILL ABNORMALLY DRY
-2 TO -3	DRYNESS EASED BUT FIELDS STILL EXCESSIVELY DRY
-3 TO -4	SEVERE DRYNESS CONTINUES, MORE RAIN URGENTLY NEEDED
BELOW -4	NOT ENOUGH RAIN. EXTREMELY DRY

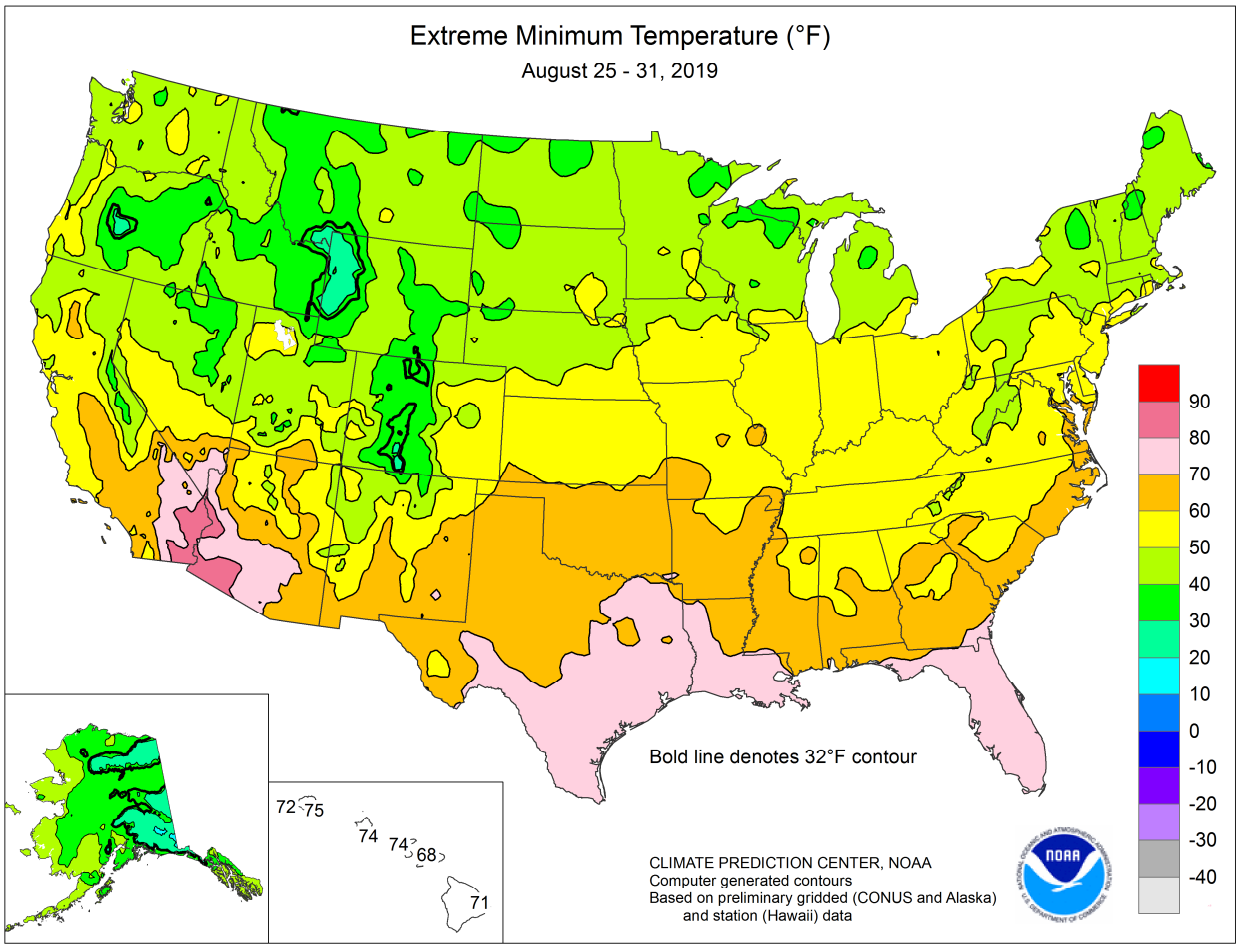
UNSHADED AREAS (INDEX DECREASED)

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


Drought Severity Index by Division
Weekly Value for Period Ending Aug 31, 2019
Long Term Palmer
DROUGHT SEVERITY INDEX (PALMER)
DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS: REPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.
USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS AND STREAMS.
LIMITATIONS... IS NOT GENERALLY INDICATIVE OFFSHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).
Based on preliminary data
-4.0 or less (Extreme Drought)
-3.0 to -3.9 (Severe Drought)
-2.0 to -2.9 (Moderate Drought)
--1.9 to +1.9 (Near Normal)
+2.0 to +2.9 (Unusual Moist Spell)
+3.0 to +3.9 (Very Moist Spell)
+4.0 and above (Extremely Moist)
Missing/Incomplete

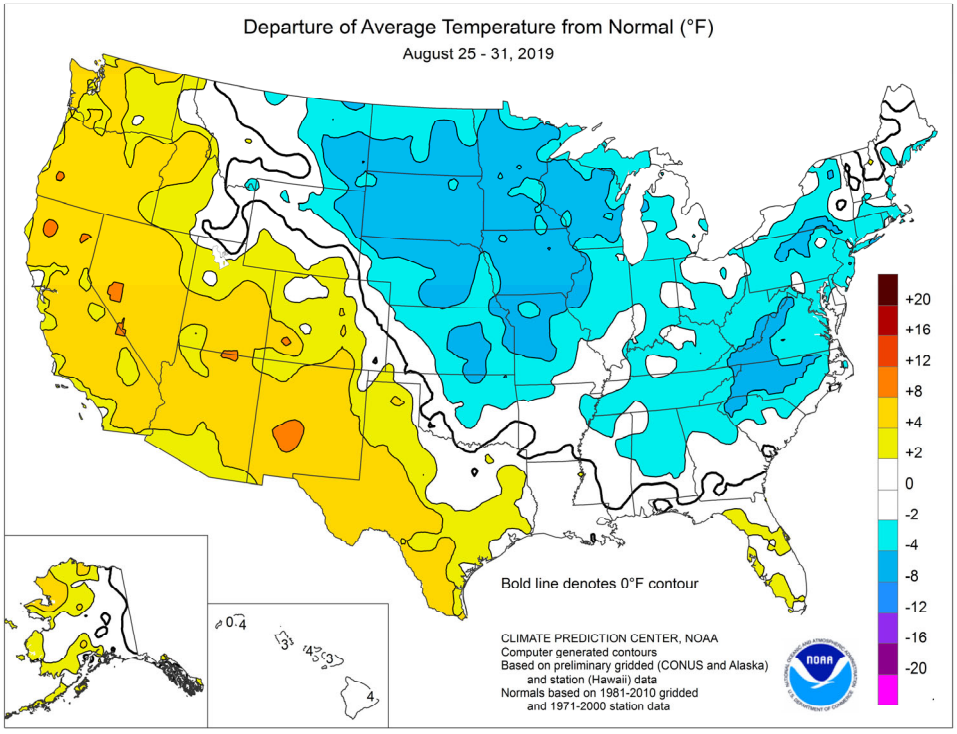

Drought Severity Index by Division
Weekly Value for Period Ending Aug 31, 2019
Long Term Palmer
(Index Values are in Tenths. Example 37=3.7)
DROUGHT SEVERITY INDEX (PALMER)
DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS: REPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.
USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS AND STREAMS.
LIMITATIONS... IS NOT GENERALLY INDICATIVE OFFSHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).
Based on preliminary data
Missing/Incomplete


Extreme Maximum Temperature (°F)
August 25 - 31, 2019
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
92
91
95
91
94
89
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data


Extreme Minimum Temperature (°F)
August 25 - 31, 2019
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
72
75
74
74
68
71
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data

(Continued from front cover)

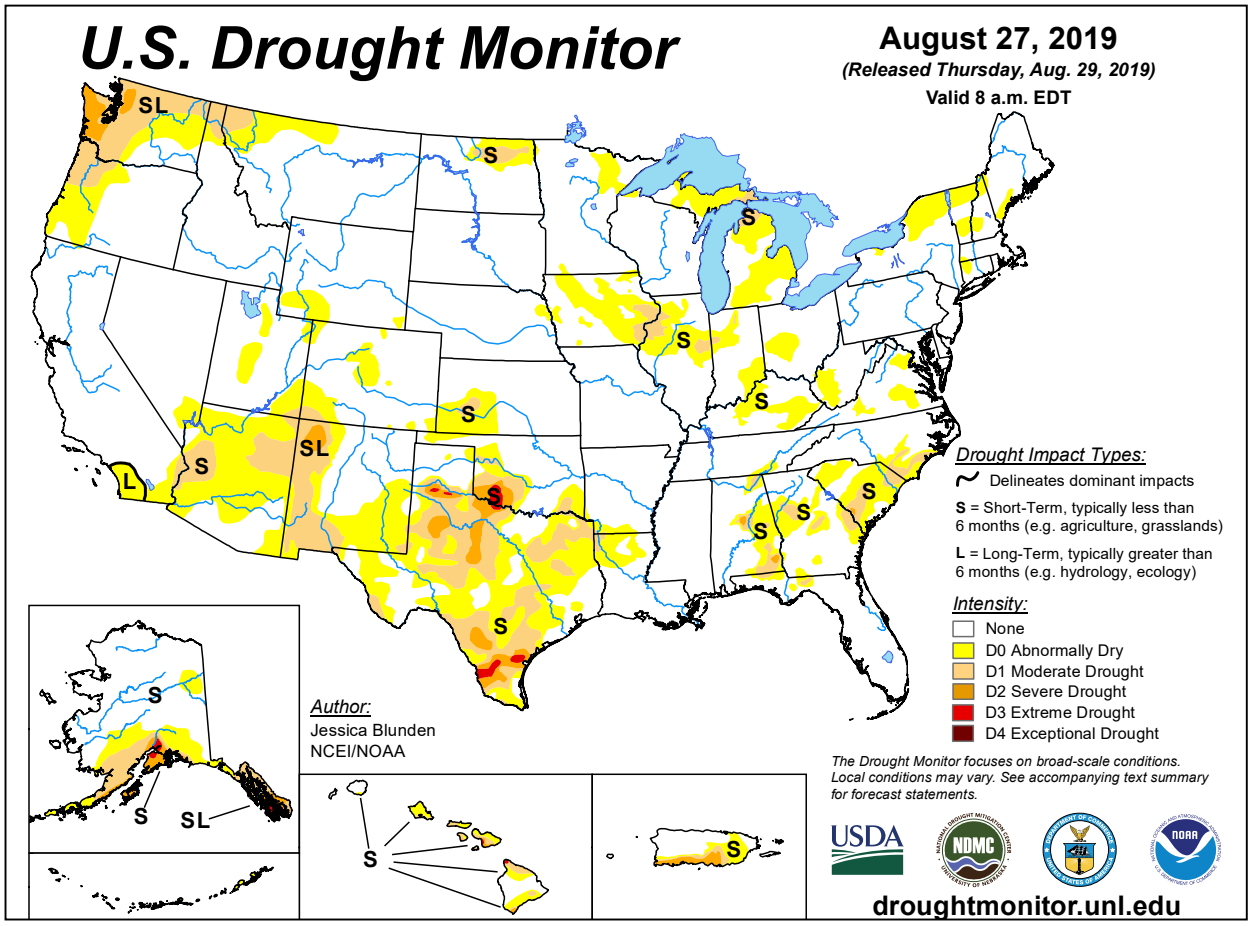
Southeast. Some of the heaviest rain, locally 4 inches or more, fell in **Missouri** and portions of neighboring states. On the **southern High Plains**, however, heat continued to aggravate the effects of short-term dryness, leading to additional stress on rangeland, pastures, and immature summer crops. **Southwestern** rangeland and pastures also suffered from heat and dryness, the byproduct of a sub-par monsoon season. In fact, hot weather—with temperatures averaging 5 to 10°F above normal—prevailed from the **Pacific Coast to the southern High Plains**. Hot, humid weather dominated **Florida's peninsula** during Hurricane Dorian's approach, but generally cooler-than-normal conditions covered the remainder of the **eastern U.S.** In addition, near- or below-normal temperatures blanketed the **Midwest** for the sixth week in a row, maintaining a slow pace of development for late-planted corn and soybeans. The coolest weather, relative to normal, affected the **upper Midwest**, where temperatures averaged at least 5°F in many locations.

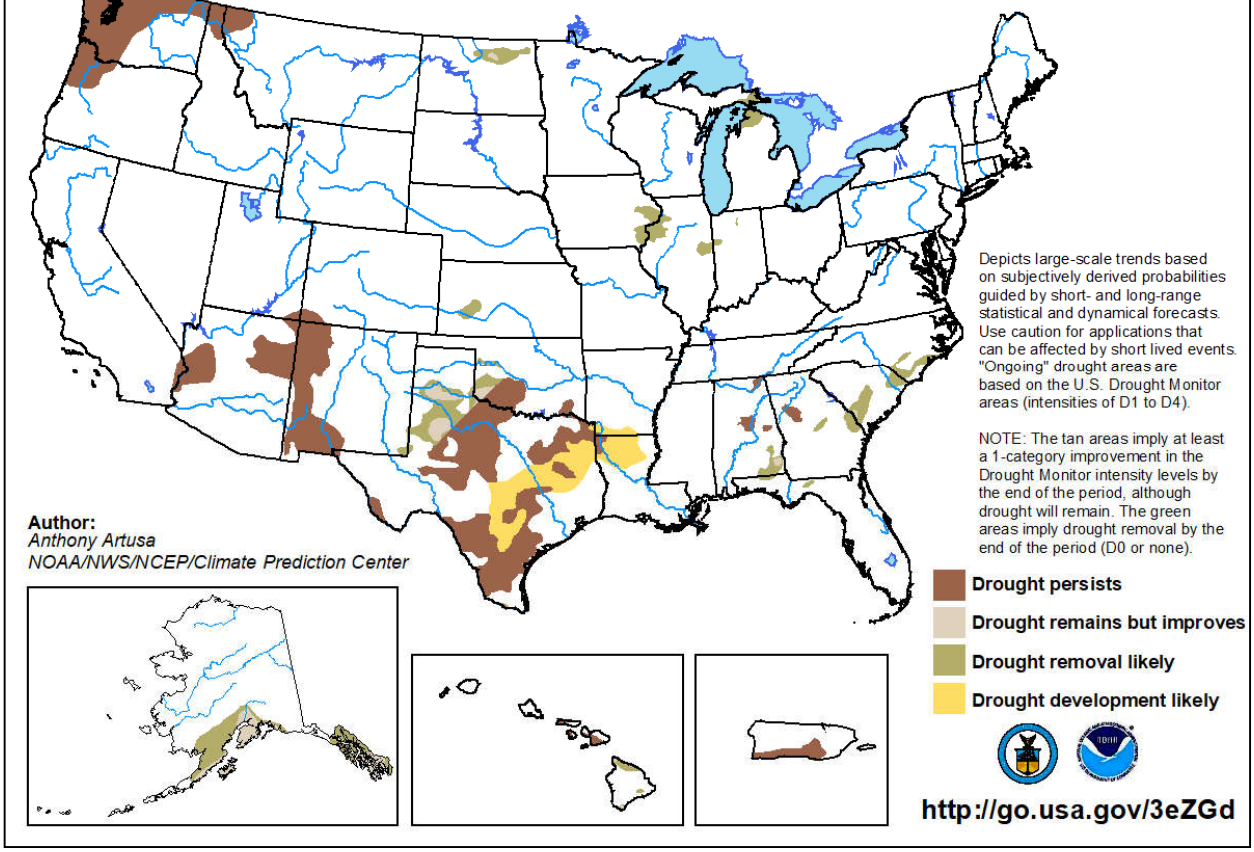


A handful of daily-record lows were set across **northern sections of the Plains and Rockies** in late August. In **western Montana**, for example, a daily-record low of 37°F was reported at the **Dillon Airport** on August 26. Later, **Rapid City, SD**, achieved a daily-record low (41°F) for August 28. Farther south, however, the week began in the midst of a scorching heat wave. Monthly records were set on consecutive days (August 25-26) in locations such as **Roswell, NM** (109 and 111°F, respectively), and **Midland, TX** (108 and 113°F). Previous August records had been 107°F in both **Roswell** and **Midland**. In fact, the only higher temperatures ever observed in **Midland** occurred in 1994, with highs of 116 and 114°F, respectively, on June 27-28. Elsewhere in **Texas**, monthly records were set or tied on August 26 with highs of 109°F in **Del Rio** and **Lubbock**. From August 2-31, **McAllen, TX**, noted highs above 100°F on 30 consecutive days. **McAllen** also reported daily-record highs of 105°F on August 25 and 28. By August 27, heat spread into the **Northwest**, where daily-record highs in **Oregon** soared to 103°F in **Roseburg** and 101°F in **Eugene**. By week's end, heat re-intensified across the **Intermountain West**. From August 31 – September 2, **Grand Junction, CO**, noted three consecutive daily-record highs (98, 100, and 98°F.

With more heavy rain falling across the **nation's mid-section**, the wettest August on record came to a close in locations such as **Grand Island, NE** (11.94 inches, or 383 percent of normal); **Fort Smith, AR** (11.70 inches, or 452 percent); and **Goodland, KS** (9.47 inches, or 351 percent). In **Grand Island**, the only wetter month was June 1967, when 13.96 inches fell. Across this region, heavy showers occurred mostly during the second half of the week. For example, daily-record totals included 1.87 inches (on August 29) in **Hill City, KS**, and 1.64 inches (on August 30) in **Columbia, MO**. From August 25-31, **Columbia's** rainfall totaled exactly 4 inches. Several other areas received locally heavy showers, with daily-record totals topping the 2-inch mark in **Montgomery, AL** (2.51 inches on August 25); **Bismarck, ND** (2.33 inches on August 25); and **Bowling Green, KY** (2.14 inches on August 27). In contrast, **Flagstaff, AZ**, remained on track to experience its driest monsoon season on record. From June 15 – August 31, **Flagstaff's** rainfall totaled just 1.13 inches (19 percent of normal).

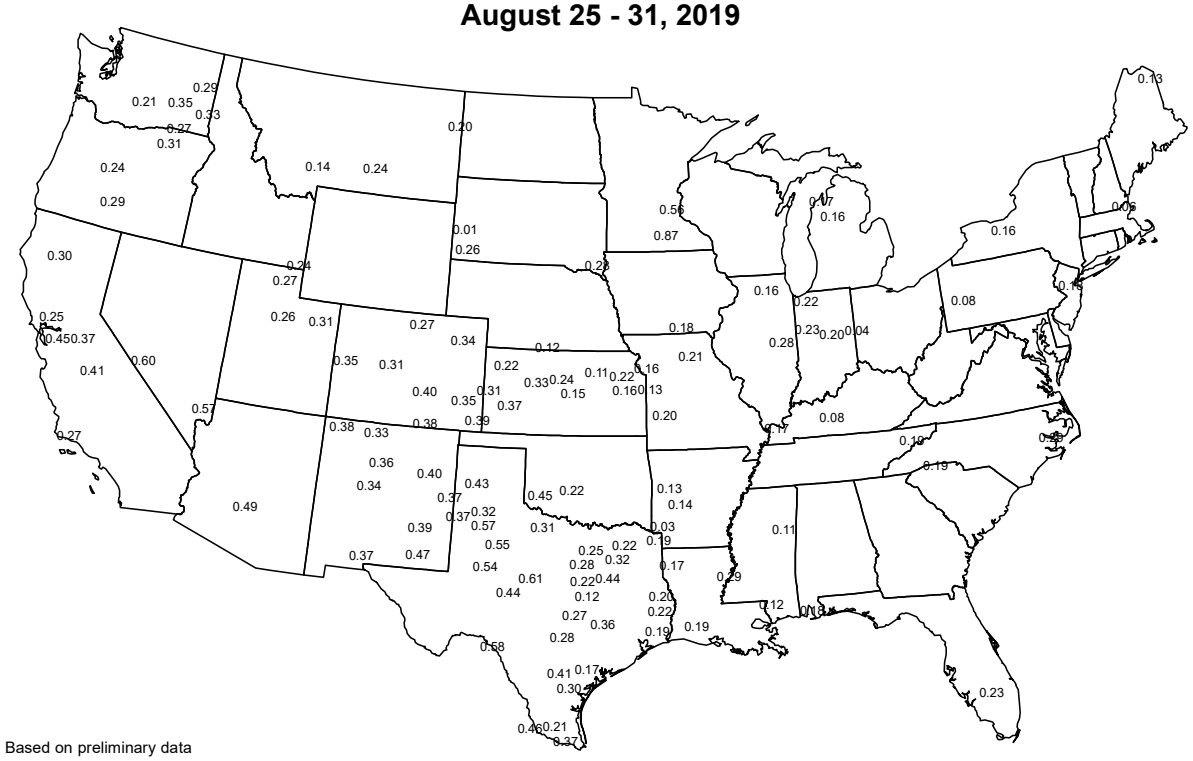
Mostly dry weather accompanied near- or above-normal temperatures in **Alaska**. In **south-central Alaska**, where drought continued, **Anchorage** completed its warmest, driest August on record, with an average temperature of 62.7°F (5.9°F above normal) and rainfall totaling just 0.04 inch (1 percent of normal). Drought also persisted in **southeastern Alaska**, where it was the driest August on record in locations such as **Sitka** (1.63 inches, or 24 percent of normal) and **Yakutat** (1.05 inches, or 7 percent). Farther south, record-setting heat continued in **Hawaii**. **Lihue, Kauai**, set or tied a daily record on each of the last 8 days of the month, with high temperatures peaking at 91°F on August 25 and 31. **Lihue's** previous August record high of 90°F had been most recently achieved on August 12, 2017. In addition, **Lihue** has never experienced a temperature greater than 91°F, and prior to this year had not reported a high of 91°F since October 9, 2012. Meanwhile, **Honolulu, Oahu**, set an August record and tied an all-time record with a high of 95°F on August 31. **Honolulu's** former August record of 93°F had been set most recently on August 12, 2015, while the only other observance of a high of 95°F had occurred on September 19, 1994. At the state's major airport observation sites, August rainfall ranged from 0.18 inch (32 percent of normal) in **Honolulu** to 9.40 inches (95 percent) in **Hilo**, on the **Big Island**.


U.S. Drought Monitor
August 27, 2019
(Released Thursday, Aug. 29, 2019)
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:
Jessica Blunden
NCEI/NOAA
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.
USDA
NDMC
NOAA
droughtmonitor.unl.edu


U.S. Monthly Drought Outlook
Drought Tendency During the Valid Period
Valid for September 2019
Released August 31, 2019
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).
Drought persists
Drought remains but improves
Drought removal likely
Drought development likely
Author:
Anthony Artusa
NOAA/NWS/NCEP/Climate Prediction Center
http://go.usa.gov/3eZGd

Average Pan Evaporation (inches/day)

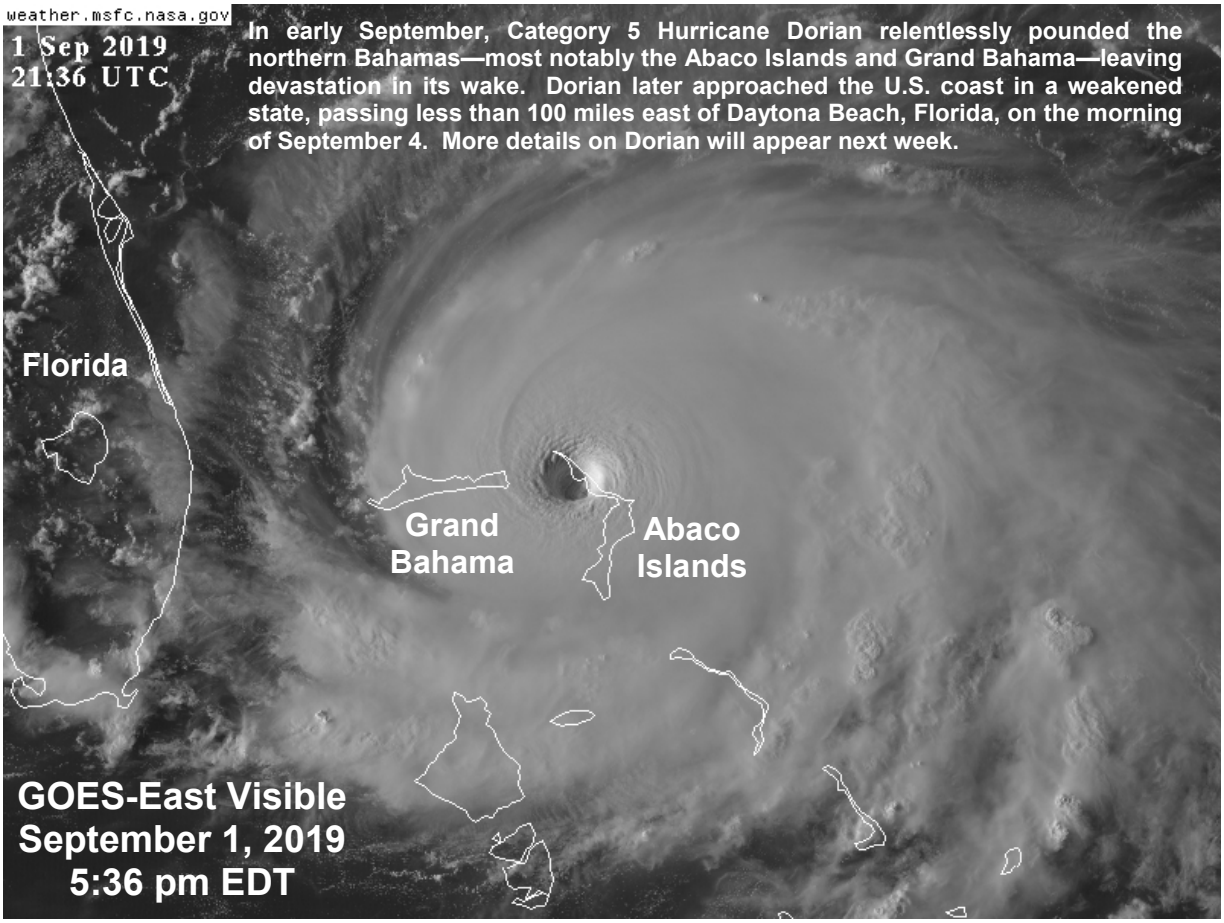
August 25 - 31, 2019



Based on preliminary data

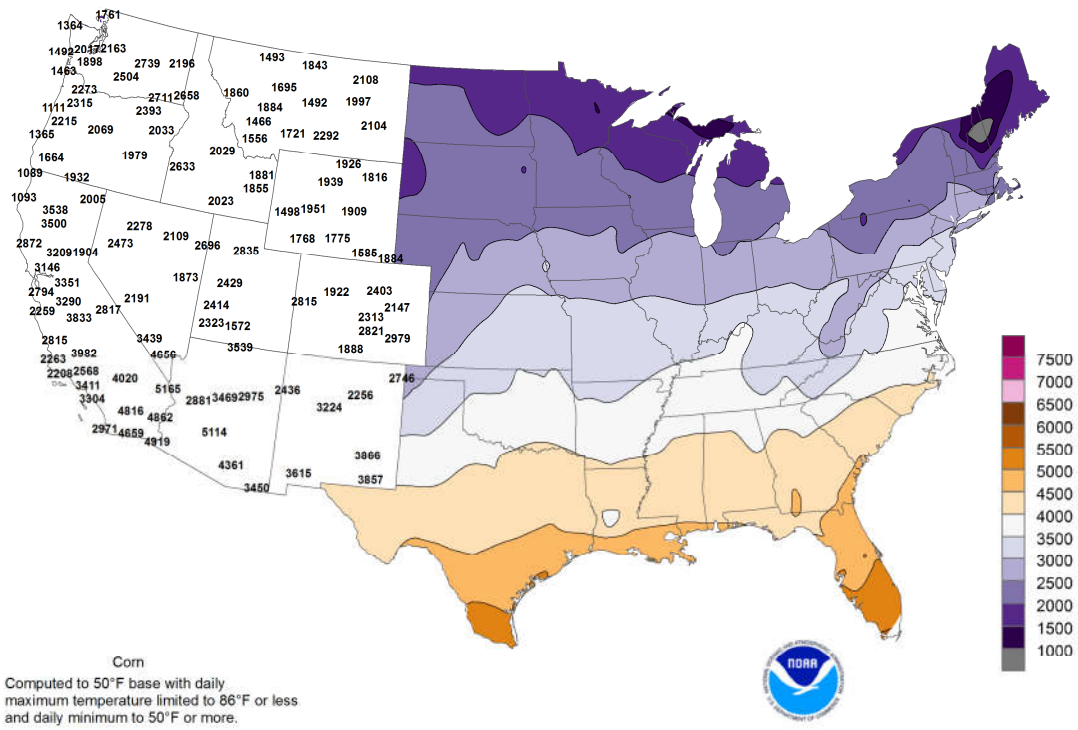
USDA Agricultural Weather Assessments

Data obtained from the NWS Cooperative Observer Network.



Total Growing Degree Days

Mar 1 - Aug 31, 2019

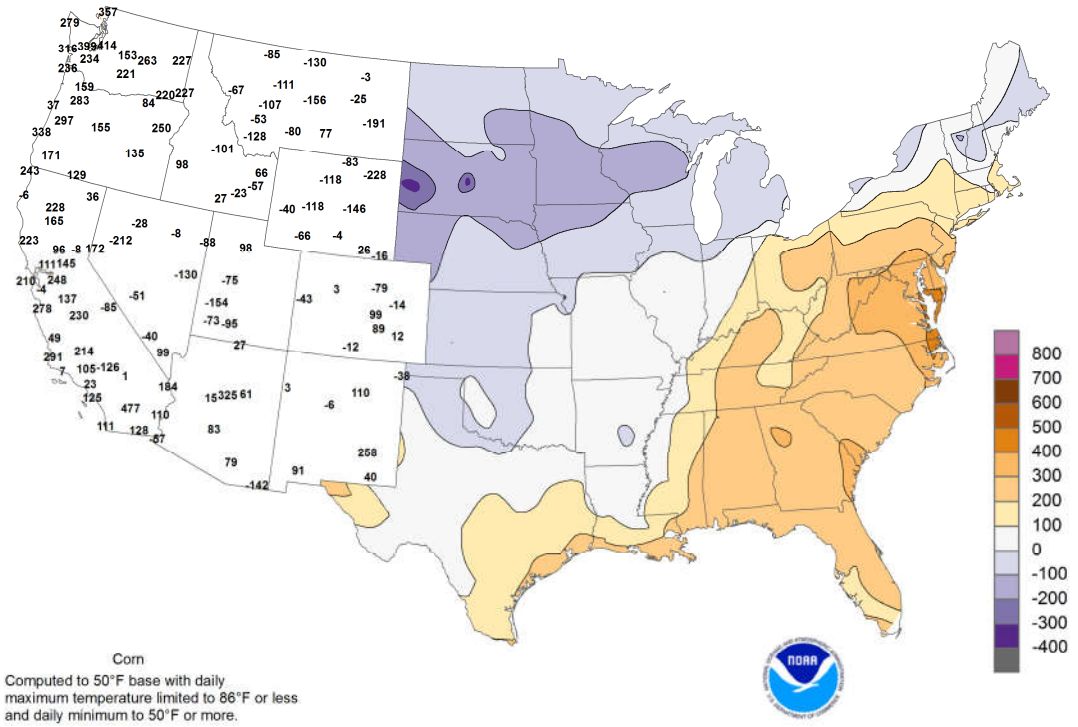


Corn

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

Departure from Normal Growing Degree Days

Mar 1 - Aug 31, 2019

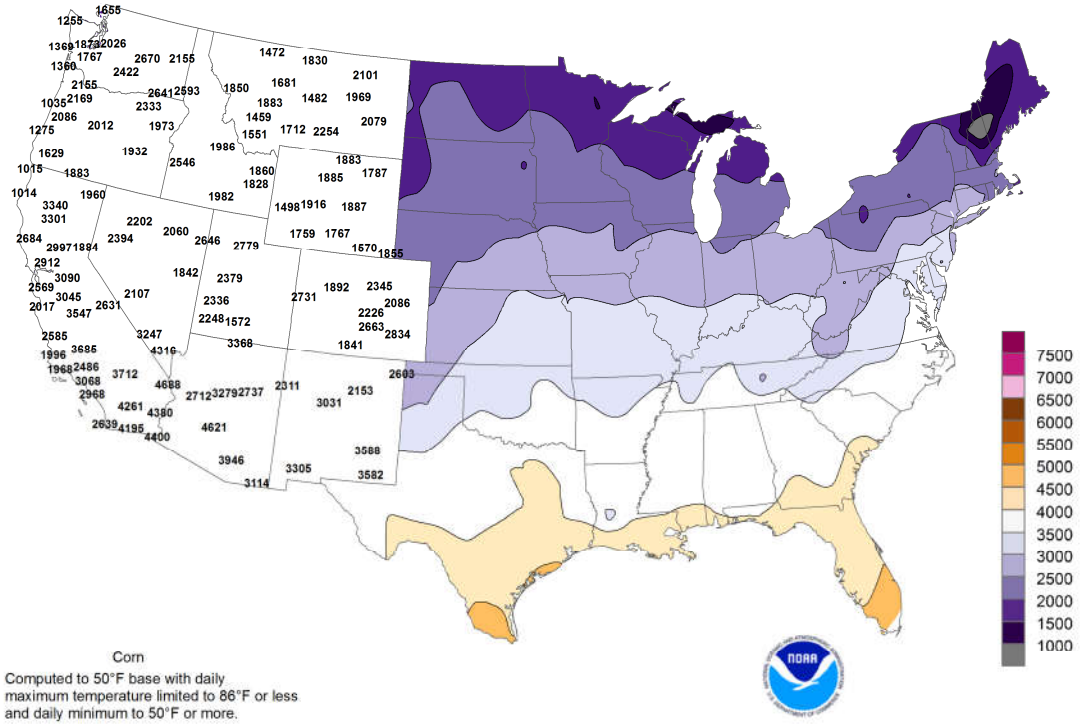


Corn

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

Total Growing Degree Days

Apr 1 - Aug 31, 2019

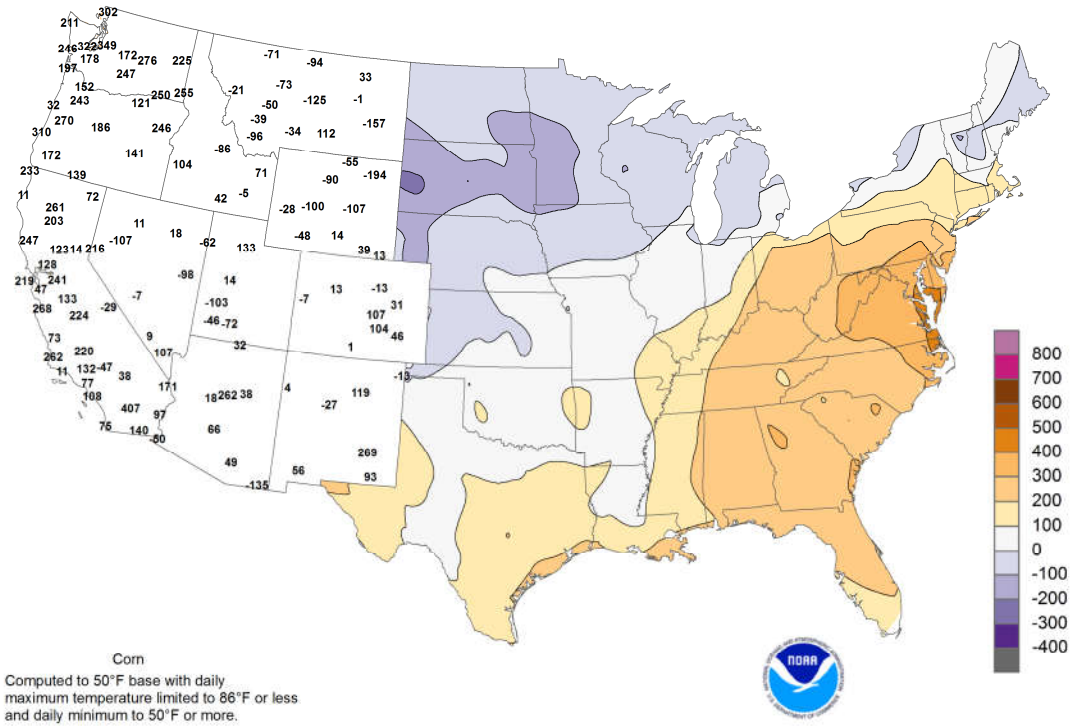


Corn

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

Departure from Normal Growing Degree Days

Apr 1 - Aug 31, 2019



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 August 31, 2019

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE ˚F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. ˚F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE JUN 1	PCT. NORMAL SINCE JUN 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	87	68	92	61	77	-2	2.95	2.20	1.57	12.33	100	36.52	97	91	52	3	0	3	2
	HUNTSVILLE	86	66	91	58	76	-2	0.80	0.03	0.68	10.11	85	45.04	116	97	59	1	0	3	1
	MOBILE	90	73	94	69	81	0	3.84	2.40	1.72	23.59	133	44.87	96	95	71	4	0	4	3
	MONTGOMERY	90	69	96	61	80	0	3.22	2.40	2.51	13.40	103	33.97	88	89	55	4	0	3	2
AK	ANCHORAGE	68	49	70	46	59	4	0.04	-0.67	0.03	0.90	16	5.93	66	83	70	0	0	2	0
	BARROW	43	38	45	37	40	3	0.15	-0.05	0.13	5.02	225	7.98	286	87	70	0	0	3	0
	FAIRBANKS	64	43	67	33	53	0	0.00	-0.35	0.00	8.02	165	11.50	167	84	72	0	0	0	0
	JUNEAU	63	45	70	40	54	0	2.32	1.00	0.98	10.51	82	28.21	89	95	82	0	0	3	2
	KODIAK	65	49	71	41	57	3	0.93	-0.29	0.93	6.94	50	35.37	79	84	74	0	0	1	1
	NOME	54	46	59	40	50	1	0.12	-0.62	0.09	10.07	154	17.21	169	96	84	0	0	3	0
AZ	FLAGSTAFF	86	51	89	49	69	6	0.11	-0.46	0.11	1.13	20	16.30	107	73	21	0	0	1	0
	PHOENIX	107	85	111	79	96	6	0.14	-0.03	0.14	0.41	20	3.43	67	50	28	7	0	1	0
	PRESCOTT	95	65	98	61	80	10	0.00	-0.64	0.00	1.44	22	10.24	77	63	18	7	0	0	0
	TUCSON	101	76	105	73	89	5	0.42	0.00	0.39	2.66	58	7.69	98	62	36	7	0	2	0
AR	FORT SMITH	89	70	95	68	80	0	1.28	0.65	0.57	23.18	231	49.75	177	98	65	3	0	3	2
	LITTLE ROCK	88	69	91	63	79	-1	0.61	-0.11	0.41	12.61	124	47.26	145	97	57	2	0	3	0
CA	BAKERSFIELD	99	75	102	69	87	7	0.00	-0.01	0.00	0.23	115	6.50	139	52	34	7	0	0	0
	FRESNO	101	72	105	66	87	8	0.00	0.00	0.00	0.00	0	9.52	121	51	35	7	0	0	0
	LOS ANGELES	81	69	85	68	75	4	0.00	-0.03	0.00	0.05	20	12.86	134	84	63	0	0	0	0
	REDDING	100	68	108	62	84	7	0.00	-0.06	0.00	1.01	105	32.09	145	60	32	7	0	0	0
	SACRAMENTO	95	64	101	60	79	5	0.00	-0.03	0.00	0.00	0	19.36	161	76	27	5	0	0	0
	SAN DIEGO	80	69	84	68	75	2	0.00	-0.03	0.00	0.01	5	8.42	109	87	67	0	0	0	0
	SAN FRANCISCO	77	59	84	55	68	4	0.00	-0.02	0.00	0.00	0	18.42	137	86	66	0	0	0	0
	STOCKTON	98	64	103	58	81	5	0.00	-0.02	0.00	0.00	0	12.48	137	59	35	7	0	0	0
CO	ALAMOSA	86	42	87	38	64	4	0.00	-0.25	0.00	1.57	58	6.25	128	75	25	0	0	0	0
	CO SPRINGS	87	57	96	53	72	6	0.00	-0.67	0.00	4.05	47	9.74	68	75	22	2	0	0	0
	DENVER INTL	89	58	97	51	74	6	0.00	-0.29	0.00	5.24	92	12.59	117	79	20	4	0	0	0
	GRAND JUNCTION	95	60	99	56	77	5	0.00	-0.17	0.00	1.03	54	6.87	117	31	17	7	0	0	0
	PUEBLO	92	60	102	55	76	5	0.00	-0.42	0.00	6.32	112	10.75	108	71	37	4	0	0	0
CT	BRIDGEPORT	78	61	85	57	69	-3	1.30	0.47	1.30	13.80	124	35.69	119	79	50	0	0	1	1
	HARTFORD	80	54	86	47	67	-3	0.31	-0.62	0.31	8.67	75	33.47	110	86	48	0	0	1	0
DC	WASHINGTON	84	66	91	64	75	-1	0.02	-0.75	0.02	12.75	125	30.77	117	79	47	1	0	1	0
DE	WILMINGTON	82	62	88	58	72	-2	0.00	-0.79	0.00	16.85	148	36.91	127	95	50	0	0	0	0
FL	DAYTONA BEACH	90	76	92	73	83	2	0.38	-1.16	0.17	24.49	144	35.83	110	95	63	3	0	3	0
	JACKSONVILLE	90	74	93	73	82	2	2.38	0.62	1.44	19.10	105	31.66	89	95	62	3	0	3	2
	KEY WEST	90	81	94	78	86	2	0.72	-0.65	0.48	8.08	61	18.85	77	80	65	3	0	5	0
	MIAMI	92	78	96	76	85	1	1.42	-0.79	0.71	38.48	168	51.70	135	87	56	7	0	4	1
	ORLANDO	92	76	94	73	84	1	1.38	-0.09	0.91	22.30	107	33.93	96	90	64	7	0	3	1
	PENSACOLA	91	75	95	72	83	1	1.85	0.36	1.46	24.72	116	39.63	86	94	65	6	0	4	1
	TALLAHASSEE	91	74	95	70	83	1	1.32	-0.16	1.14	18.07	82	30.37	65	96	72	6	0	2	1
	TAMPA	93	78	96	77	86	3	0.50	-1.31	0.28	30.67	157	47.11	147	87	58	7	0	3	0
	WEST PALM BEACH	90	77	93	76	84	1	1.18	-0.61	0.39	21.72	108	42.73	109	91	63	5	0	6	0
GA	ATHENS	85	65	92	60	75	-2	0.97	0.17	0.90	17.78	147	33.81	101	88	60	1	0	2	1
	ATLANTA	87	69	91	66	78	0	0.94	0.14	0.92	10.41	84	31.57	90	81	52	2	0	2	1
	AUGUSTA	89	68	92	60	78	0	0.17	-0.83	0.17	22.76	179	37.24	116	88	54	3	0	1	0
	COLUMBUS	89	71	96	64	80	-1	1.21	0.46	0.85	13.89	113	31.44	90	89	50	4	0	3	1
	MACON	89	68	93	60	79	0	0.26	-0.57	0.24	13.89	119	27.30	85	93	52	4	0	2	0
	SAVANNAH	89	72	93	67	81	1	1.72	0.10	1.50	19.13	102	29.80	82	95	68	3	0	3	1
HI	HILO	89	73	89	71	81	5	1.38	-0.85	0.92	23.44	84	57.97	71	79	64	0	0	5	1
	HONOLULU	92	78	95	74	85	3	0.00	-0.06	0.00	6.00	432	9.08	89	69	62	7	0	0	0
	KAHULUI	92	73	94	68	82	2	0.01	-0.08	0.01	0.48	38	9.76	81	77	67	7	0	1	0
	LIHUE	90	78	91	75	84	4	0.21	-0.20	0.10	9.53	163	17.99	78	81	71	4	0	6	0
ID	BOISE	91	59	97	52	75	3	0.00	-0.09	0.00	0.14	10	12.21	154	49	27	4	0	0	0
	LEWISTON	89	60	98	53	74	3	0.01	-0.16	0.01	1.34	51	9.28	107	54	33	4	0	1	0
	POCATELLO	87	48	93	39	68	2	0.00	-0.14	0.00	0.78	34	9.32	110	56	23	3	0	0	0
IL	CHICAGO/O'HARE	77	61	84	58	69	-1	1.51	0.45	1.40	10.62	90	31.84	128	78	53	0	0	2	1
	MOLINE	78	58	85	55	68	-3	0.65	-0.32	0.53	9.62	74	34.80	128	88	56	0	0	3	1
	PEORIA	78	61	82	58	69	-2	0.76	0.08	0.74	10.92	99	35.22	142	88	54	0	0	2	1
	ROCKFORD	78	58	85	53	68	-1	1.16	0.20	1.04	11.55	88	33.92	131	91	57	0	0	2	1
	SPRINGFIELD	79	61	83	55	70	-2	0.43	-0.31	0.39	11.99	112	35.10	142	94	59	0	0	2	0
IN	EVANSVILLE	83	65	88	57	74	-1	1.31	0.61	1.30	16.26	148	46.01	149	89	60	0	0	2	1
	FORT WAYNE	76	58	81	53	67	-2	1.47	0.68	1.13	10.41	93	29.26	115	93	58	0	0	2	1
	INDIANAPOLIS	79	62	83	56	71	-1	1.33	0.54	0.98	14.56	118	37.68	131	89	57	0	0	4	1
	SOUTH BEND	77	55	84	49	66	-3	0.26	-0.68	0.26	10.06	85	30.59	117	88	53	0	0	1	0
IA	BURLINGTON	77	60	83	57	68	-5	1.67	0.82	1.03	9.23	72	31.92	120	88	56	0	0	4	2
	CEDAR RAPIDS	74	55	83	52	64	-6	0.19	-0.77	0.12	11.47	90	29.86	123	98	60	0	0	2	0
	DES MOINES	77	60	88	54	69	-3	0.51	-0.47	0.49	16.42	124	34.47	135	83	58	0	0	3	0
	DUBUQUE	75	54	82	49	65	-3	0.10	-0.96	0.09	13.87	112	31.63	125	96	66	0	0	2	0
	SIOUX CITY	77	58	84	50	67	-3	0.72	0.11	0.39	10.87	111	25.25	129	91	61	0	0	3	0
	WATERLOO	76	55	84	51	66	-3	0.01	-0.88	0.01	13.66	104	29.71	121	87	56	0	0	1	0
KS	CONCORDIA	81	64	90	56	73	-2	0.67	0.03	0.49	14.26	125	29.35	135	91	69	1	0	4	0
	DODGE CITY	90	63	100	57	76	0	1.12	0.59	1.11	7.93	88	19.74	113	91	43	2	0	2	1
	GOODLAND	83	57	94	53	70	-1	0.73	0.32	0.73	13.19	141	21.00	128	95	73	1	0	1	1
	TOPEKA	81	62	93	55	72	-3	4.06	3.18	1.97	21.81	174	40.98	163	90	65	1	0	4	3

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending August 31, 2019

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 JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	85	65	92	61	75	-3	2.61	1.95	2.05	15.07	144	34.76	159	88	65	2	0	2	2
KY	JACKSON	83	62	89	56	72	-1	1.08	0.17	0.64	16.23	121	39.46	116	99	53	0	0	2	1
	LEXINGTON	85	64	92	57	75	1	1.04	0.28	0.96	13.15	100	36.52	112	83	54	1	0	2	1
	LOUISVILLE	85	66	90	60	75	-1	1.11	0.42	1.01	12.41	108	39.78	128	86	51	1	0	2	1
	PADUCAH	86	65	91	56	75	0	0.27	-0.40	0.25	17.27	145	55.81	167	89	57	1	0	2	0
LA	BATON ROUGE	91	74	95	72	83	2	1.23	-0.07	0.90	22.36	130	50.02	113	95	56	5	0	3	1
	LAKE CHARLES	93	77	95	74	85	3	0.28	-0.96	0.19	23.78	148	52.24	137	94	60	6	0	2	0
	NEW ORLEANS	93	77	95	74	85	3	1.11	-0.41	1.06	19.74	103	46.77	103	89	56	6	0	3	1
	SHREVEPORT	94	74	98	70	84	2	0.97	0.39	0.83	9.67	82	32.39	94	93	53	7	0	4	1
ME	CARIBOU	76	50	83	45	63	2	1.06	0.17	1.05	7.91	70	26.52	107	91	48	0	0	2	1
	PORTLAND	76	54	82	47	65	0	1.40	0.72	1.11	12.84	133	34.30	118	89	49	0	0	2	1
MD	BALTIMORE	83	62	91	58	73	0	0.00	-0.85	0.00	9.19	83	27.89	98	85	51	1	0	0	0
MA	BOSTON	78	62	87	57	70	-1	0.95	0.16	0.91	12.17	126	32.35	117	76	46	0	0	2	1
	WORCESTER	74	55	80	50	65	-1	1.57	0.66	1.56	11.99	97	35.24	110	92	49	0	0	2	1
MI	ALPENA	75	51	82	41	63	1	0.04	-0.72	0.04	7.43	81	23.63	122	89	41	0	0	1	0
	GRAND RAPIDS	76	56	82	49	66	-2	1.44	0.48	0.80	11.70	106	31.53	131	86	47	0	0	3	2
	HOUGHTON LAKE	73	50	78	38	62	-1	0.35	-0.53	0.16	9.27	99	24.77	129	88	50	0	0	3	0
	LANSING	77	56	82	48	66	-1	1.16	0.25	0.58	11.75	121	27.35	131	85	48	0	0	3	2
	MUSKEGON	77	56	81	48	67	0	0.78	-0.16	0.75	8.20	95	30.38	147	83	49	0	0	2	1
	TRAVERSE CITY	76	54	81	46	65	-1	0.15	-0.69	0.12	8.96	91	26.29	122	88	42	0	0	3	0
MN	DULUTH	71	52	74	46	61	0	0.95	-0.07	0.77	9.24	73	21.87	102	80	53	0	0	4	1
	INT'L FALLS	67	49	74	41	58	-3	1.78	1.04	1.04	11.99	114	20.91	124	91	58	0	0	5	2
	MINNEAPOLIS	74	58	76	53	66	-2	0.82	-0.06	0.80	16.49	133	33.90	156	80	51	0	0	3	1
	ROCHESTER	72	52	75	48	62	-3	0.41	-0.51	0.39	18.01	139	39.22	170	90	57	0	0	2	0
	ST. CLOUD	71	54	72	46	62	-3	0.60	-0.32	0.49	13.59	115	28.66	145	92	51	0	0	2	0
MS	JACKSON	91	70	94	64	80	0	3.12	2.37	2.91	13.39	110	42.64	110	91	52	5	0	2	1
	MERIDIAN	91	70	94	63	80	-1	1.00	0.33	0.43	12.55	98	45.40	110	91	61	5	0	3	0
	TUPELO	88	69	91	61	78	0	1.31	0.70	1.06	19.72	177	57.70	152	91	57	2	0	2	1
MO	COLUMBIA	80	63	90	58	72	-2	4.00	3.17	1.75	15.56	134	38.24	138	90	63	1	0	3	3
	KANSAS CITY	79	62	89	56	70	-5	4.67	3.84	1.52	18.77	151	43.31	166	98	64	0	0	4	4
	SAINT LOUIS	83	66	89	62	75	-1	2.66	2.01	0.94	16.71	157	43.07	163	85	57	0	0	5	2
	SPRINGFIELD	81	65	90	62	73	-3	1.21	0.26	0.50	12.84	107	40.12	138	90	70	1	0	3	1
MT	BILLINGS	83	56	95	52	70	2	0.03	-0.16	0.02	7.41	184	16.22	151	66	25	1	0	2	0
	BUTTE	78	41	86	36	59	0	0.00	-0.30	0.00	3.83	78	10.06	103	81	21	0	0	0	0
	CUT BANK	75	45	81	38	60	0	0.18	-0.21	0.14	5.11	89	10.00	99	85	30	0	0	2	0
	GLASGOW	77	53	87	48	65	-1	0.49	0.24	0.46	8.98	172	13.54	154	75	54	0	0	2	0
	GREAT FALLS	80	47	90	41	63	0	0.06	-0.30	0.04	4.27	80	13.80	120	93	24	1	0	2	0
	HAVRE	78	48	86	39	63	-2	0.12	-0.13	0.08	4.89	106	9.60	108	82	41	0	0	3	0
	MISSOULA	82	48	91	43	65	1	0.06	-0.21	0.06	2.54	64	10.35	106	75	41	1	0	1	0
NE	GRAND ISLAND	77	59	85	52	68	-3	1.91	1.22	1.43	20.58	207	36.41	183	89	68	0	0	3	1
	LINCOLN	80	61	90	51	70	-3	0.64	-0.10	0.30	11.26	108	26.53	126	86	64	1	0	3	0
	NORFOLK	76	56	82	47	66	-4	1.11	0.53	0.63	11.27	104	26.73	130	90	59	0	0	3	1
	NORTH PLATTE	79	56	86	48	68	-2	0.01	-0.36	0.01	15.81	186	28.67	180	92	58	0	0	1	0
	OMAHA	79	63	88	56	71	-1	0.33	-0.38	0.25	11.98	109	27.21	123	84	58	0	0	2	0
	SCOTTSBLUFF	84	54	94	51	69	1	0.02	-0.20	0.02	11.67	195	26.98	212	90	47	1	0	1	0
	VALENTINE	79	53	85	43	66	-3	0.90	0.51	0.47	14.78	172	30.52	195	87	50	0	0	2	0
NV	ELY	91	47	92	41	69	6	0.03	-0.16	0.03	0.72	33	12.07	175	49	18	6	0	1	0
	LAS VEGAS	108	84	110	82	96	9	0.00	-0.07	0.00	0.04	4	4.64	144	22	14	7	0	0	0
	RENO	96	62	99	57	79	11	0.00	-0.07	0.00	0.25	26	8.76	178	45	23	7	0	0	0
	WINNEMUCCA	95	51	101	41	73	6	0.00	-0.08	0.00	0.39	30	7.41	134	41	18	7	0	0	0
NH	CONCORD	79	50	84	44	65	-1	1.10	0.38	1.10	12.62	130	29.03	119	95	41	0	0	1	1
NJ	NEWARK	80	63	89	59	72	-2	0.02	-0.85	0.02	18.77	155	42.72	135	75	47	0	0	1	0
NM	ALBUQUERQUE	96	67	99	63	82	7	0.00	-0.35	0.00	2.42	66	5.87	93	46	17	7	0	0	0
NY	ALBANY	79	56	85	52	67	0	0.04	-0.79	0.04	13.76	126	30.08	117	84	44	0	0	1	0
	BINGHAMTON	70	53	76	50	62	-3	0.22	-0.58	0.22	12.07	113	30.19	118	90	61	0	0	1	0
	BUFFALO	76	59	79	53	67	0	0.24	-0.72	0.20	10.06	93	28.38	110	83	48	0	0	2	0
	ROCHESTER	78	56	83	51	67	0	0.30	-0.57	0.24	8.22	84	21.21	95	87	47	0	0	2	0
	SYRACUSE	76	56	78	52	66	-2	1.08	0.22	1.08	13.49	119	31.94	124	84	49	0	0	1	1
NC	ASHEVILLE	78	59	85	52	68	-3	0.11	-0.88	0.09	14.57	116	41.71	127	91	55	0	0	2	0
	CHARLOTTE	84	64	90	60	74	-4	0.03	-0.80	0.02	17.67	162	39.13	133	89	48	2	0	2	0
	GREENSBORO	82	63	88	60	72	-3	0.00	-0.83	0.00	17.82	153	38.08	129	94	53	0	0	0	0
	HATTERAS	86	72	89	65	79	1	0.01	-1.48	0.01	11.95	78	40.50	109	91	57	0	0	1	0
	RALEIGH	84	62	90	57	73	-3	0.05	-0.80	0.04	11.96	104	32.39	109	91	52	1	0	2	0
	WILMINGTON	86	68	90	66	77	-2	0.01	-1.65	0.01	14.68	72	26.07	65	95	51	1	0	1	0
ND	BISMARCK	74	52	83	45	63	-3	2.33	1.90	2.33	11.80	161	19.28	151	89	59	0	0	1	1
	DICKINSON	76	47	86	42	61	-5	0.04	-0.32	0.03	8.57	124	17.38	139	88	37	0	0	2	0
	FARGO	71	53	74	44	62	-4	1.73	1.18	1.23	12.96	145	22.97	149	91	57	0	0	3	1
	GRAND FORKS	72	53	77	44	62	-3	1.08	0.52	0.80	8.83	100	16.84	117	87	51	0	0	4	1
	JAMESTOWN	70	52	73	45	61	-5	1.45	1.00	1.45	13.07	152	21.27	150	95	58	0	0	1	1
	WILLISTON	78	50	87	42	64	-1	0.02	-0.28	0.02	8.86	145	13.03	122	83	45	0	0	1	0
OH	AKRON-CANTON	78	59	84	54	69	0	0.20	-0.61	0.18	16.91	151	35.78	135	86	53	0	0	2	0
	CINCINNATI	80	63	88	53	71	-2	1.46	0.65	0.84	16.40	137	44.30	147	85	62	0	0	2	2
	CLEVELAND	79	61	81	57	70	1	0.16	-0.75	0.14	13.93	125	32.33	126	86	49	0	0	2	0
	COLUMBUS	79	61	87	56	70	-2	1.37	0.60	0.76	13.56	109	35.85	132	85	56	0	0	2	2
	DAYTON	79	61	86	55	70	-1	0.82	0.07	0.72	10.74	94	35.20	126	84	54	0	0	2	1
	MANSFIELD	77	59	82	55	68	0	0.38	-0.66	0.24	18.14	136	38.63	128	95	54	0	0	2	0

Based on 1971-2000 normals ***** Not Available**

Weather Data for the Week Ending August 31, 2019

STATES AND STATIONS		TEMPERATURE ˚F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. ˚F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE JUN 1	PCT. NORMAL SINCE JUN 1	TOTAL, IN., SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	79	60	83	54	69	0	0.81	0.04	0.46	15.72	161	33.51	148	82	52	0	0	3	0
	YOUNGSTOWN	76	56	81	52	66	-1	0.22	-0.60	0.21	18.50	162	40.63	158	91	54	0	0	2	0
OK	OKLAHOMA CITY	86	68	96	66	77	-2	4.09	3.46	1.38	14.31	142	38.20	158	98	66	2	0	4	3
	TULSA	87	68	96	64	78	-2	1.73	0.95	0.89	16.91	161	44.07	159	94	75	2	0	3	2
OR	ASTORIA	75	54	91	47	65	4	0.04	-0.35	0.04	3.67	74	25.67	68	91	67	1	0	1	0
	BURNS	90	46	98	39	68	6	0.09	0.01	0.09	1.37	91	11.41	164	62	27	4	0	1	0
	EUGENE	89	56	100	53	73	7	0.09	-0.22	0.09	1.14	36	23.20	79	77	51	2	0	1	0
	MEDFORD	96	61	105	56	78	7	0.03	-0.12	0.03	0.89	59	14.74	141	65	22	7	0	1	0
	PENDLETON	88	57	96	49	73	3	0.01	-0.13	0.01	0.47	27	9.75	121	57	33	4	0	1	0
	PORTLAND	87	61	98	56	74	6	0.07	-0.21	0.06	2.48	77	15.41	73	75	55	2	0	2	0
	SALEM	88	57	100	53	72	6	0.17	-0.05	0.17	1.17	43	19.72	87	80	49	2	0	1	0
PA	ALLENTOWN	80	58	86	54	69	-1	0.07	-0.94	0.07	20.11	159	46.48	153	82	49	0	0	1	0
	ERIE	76	61	79	56	69	0	0.41	-0.68	0.41	12.26	104	28.87	109	77	52	0	0	1	0
	MIDDLETOWN	80	61	87	57	71	-2	0.00	-0.77	0.00	10.52	98	32.85	120	87	47	0	0	0	0
	PHILADELPHIA	82	64	88	61	73	-2	0.03	-0.81	0.03	16.63	145	37.81	131	77	48	0	0	1	0
	PITTSBURGH	77	59	83	53	68	-2	0.66	-0.11	0.52	15.80	138	36.75	139	85	45	0	0	3	1
	WILKES-BARRE	78	56	82	52	67	-2	0.13	-0.63	0.12	18.89	175	38.29	153	91	49	0	0	2	0
	WILLIAMSPORT	76	57	83	53	66	-3	0.36	-0.46	0.24	16.26	137	36.76	132	93	53	0	0	2	0
RI	PROVIDENCE	78	58	85	51	68	-2	0.86	-0.07	0.61	10.50	100	34.31	112	87	55	0	0	3	1
SC	CHARLESTON	87	70	90	66	79	-1	0.00	-1.64	0.00	22.19	117	29.90	82	91	57	2	0	0	0
	COLUMBIA	88	66	92	58	77	-2	0.04	-1.13	0.04	13.93	87	25.84	73	84	50	3	0	1	0
	FLORENCE	87	66	92	60	77	-2	0.02	-1.09	0.02	15.89	107	29.23	91	89	47	3	0	1	0
	GREENVILLE	82	63	89	60	73	-3	1.45	0.60	1.45	15.26	121	36.30	105	88	49	0	0	1	1
SD	ABERDEEN	74	54	79	43	64	-4	0.25	-0.25	0.20	11.28	128	22.12	141	88	55	0	0	2	0
	HURON	72	56	77	50	64	-5	1.27	0.86	0.99	18.35	224	33.03	204	90	57	0	0	3	1
	RAPID CITY	77	48	88	41	62	-7	0.42	0.12	0.41	12.37	191	29.63	225	86	38	0	0	2	0
	SIOUX FALLS	74	57	79	49	66	-2	0.82	0.13	0.52	12.50	133	30.56	167	87	58	0	0	4	1
TN	BRISTOL	82	59	91	54	70	-2	0.46	-0.18	0.23	15.13	136	41.54	141	95	49	1	0	3	0
	CHATTANOOGA	85	66	92	59	76	-1	0.75	-0.08	0.72	11.05	90	45.62	122	90	59	3	0	3	1
	KNOXVILLE	84	64	89	57	74	-2	2.47	1.90	1.21	16.03	138	48.23	142	93	50	0	0	4	2
	MEMPHIS	88	70	90	66	79	-1	1.23	0.56	0.63	21.53	187	52.24	143	90	54	1	0	2	2
	NASHVILLE	87	66	92	58	76	-1	1.04	0.28	0.75	17.59	158	47.61	146	89	49	2	0	2	1
TX	ABILENE	99	73	109	69	86	5	0.18	-0.48	0.18	4.64	63	18.98	123	79	46	7	0	1	0
	AMARILLO	91	67	99	65	79	4	0.55	-0.08	0.55	9.28	104	17.05	113	85	38	5	0	1	1
	AUSTIN	99	75	102	72	87	3	0.00	-0.52	0.00	6.97	86	26.15	121	85	47	7	0	0	0
	BEAUMONT	93	76	94	74	85	3	4.34	3.10	2.45	29.91	180	53.67	137	94	65	7	0	5	3
	BROWNSVILLE	99	80	101	78	90	6	0.02	-0.92	0.02	8.02	104	13.69	88	96	51	7	0	1	0
	CORPUS CHRISTI	97	78	99	76	87	4	0.12	-0.87	0.11	3.37	37	13.02	66	95	56	7	0	2	0
	DEL RIO	104	79	109	76	92	8	0.00	-0.35	0.00	7.85	132	13.26	106	70	44	7	0	0	0
	EL PASO	100	74	106	69	87	7	0.16	-0.23	0.10	2.04	50	2.74	47	58	23	7	0	2	0
	FORT WORTH	94	74	102	70	84	1	1.49	1.10	1.18	7.36	100	27.14	118	88	50	5	0	2	1
	GALVESTON	92	82	94	79	87	3	0.19	-0.98	0.16	10.81	92	27.93	102	86	62	7	0	4	0
	HOUSTON	96	76	98	74	86	3	1.96	0.99	1.50	12.10	98	29.23	94	90	55	7	0	3	1
	LUBBOCK	95	69	109	66	82	6	0.20	-0.38	0.20	8.71	117	15.61	120	80	45	5	0	1	0
	MIDLAND	101	73	113	68	87	8	0.28	-0.12	0.28	3.38	63	11.43	121	71	42	7	0	1	0
	SAN ANGELO	101	72	109	67	87	7	0.00	-0.56	0.00	4.86	86	14.49	109	77	44	7	0	0	0
	SAN ANTONIO	99	78	101	76	88	5	0.00	-0.63	0.00	5.96	67	15.29	71	85	37	7	0	0	0
	VICTORIA	97	77	100	74	87	3	0.17	-0.68	0.14	5.84	54	15.87	62	93	67	7	0	2	0
	WACO	96	75	100	72	85	1	0.02	-0.39	0.02	8.19	114	27.50	128	88	61	6	0	1	0
	WICHITA FALLS	95	71	108	67	83	1	1.04	0.40	0.83	6.06	79	21.07	110	96	61	5	0	2	1
UT	SALT LAKE CITY	93	66	97	59	79	6	0.00	-0.18	0.00	1.05	47	15.26	139	39	15	5	0	0	0
VT	BURLINGTON	79	56	82	51	68	2	0.34	-0.58	0.34	9.60	84	26.22	110	87	41	0	0	1	0
VA	LYNCHBURG	83	59	91	51	71	-2	0.10	-0.64	0.10	11.37	98	28.67	97	93	50	1	0	1	0
	NORFOLK	83	70	90	66	76	0	0.05	-0.95	0.05	16.89	123	35.63	111	87	58	1	0	1	0
	RICHMOND	86	63	93	59	75	0	0.04	-0.84	0.04	13.66	110	34.04	113	88	50	2	0	1	0
	ROANOKE	82	61	90	56	72	-1	0.16	-0.69	0.16	13.75	120	31.49	107	86	50	1	0	1	0
	WASH/DULLES	82	60	89	55	71	-2	0.28	-0.61	0.27	9.97	87	29.85	106	84	52	0	0	2	0
WA	OLYMPIA	79	53	91	45	66	4	0.12	-0.23	0.12	2.20	59	17.22	60	88	64	1	0	1	0
	QUILLAYUTE	75	54	90	45	64	5	0.10	-0.55	0.06	5.65	66	37.30	64	95	66	1	0	3	0
	SEATTLE-TACOMA	80	61	89	57	71	6	0.07	-0.22	0.06	3.26	99	17.22	83	74	59	0	0	2	0
	SPOKANE	83	57	92	53	70	4	0.02	-0.14	0.02	1.44	55	9.12	88	64	29	1	0	1	0
	YAKIMA	88	54	93	47	71	4	0.03	-0.05	0.03	0.89	74	6.78	138	72	38	3	0	1	0
WV	BECKLEY	77	56	87	51	67	-1	0.37	-0.32	0.16	12.37	102	35.61	120	87	56	0	0	3	0
	CHARLESTON	83	59	90	56	71	0	0.16	-0.70	0.11	11.43	88	34.02	110	94	47	1	0	2	0
	ELKINS	79	54	86	49	67	0	0.59	-0.35	0.54	18.03	132	38.70	119	89	52	0	0	3	1
	HUNTINGTON	82	61	88	55	71	-2	1.93	1.17	1.04	15.63	128	36.69	122	95	56	0	0	3	2
WI	EAU CLAIRE	73	52	77	46	63	-4	0.62	-0.48	0.50	12.20	95	30.56	132	93	46	0	0	3	1
	GREEN BAY	72	54	77	48	63	-2	1.06	0.18	0.68	13.77	129	29.70	147	91	56	0	0	3	1
	LA CROSSE	78	57	85	51	67	-2	0.22	-0.74	0.22	13.55	108	30.46	130	85	41	0	0	1	0
	MADISON	75	54	83	48	65	-2	0.36	-0.62	0.36	13.80	112	31.50	133	90	56	0	0	1	0
	MILWAUKEE	76	60	86	53	68	-1	1.69	0.75	1.67	11.12	100	28.93	120	79	55	0	0	2	1
WY	CASPER	86	45	92	39	66	0	0.00	-0.12	0.00	4.67	135	14.89	157	76	32	3	0	0	0
	CHEYENNE	82	53	91	50	68	4	0.00	-0.36	0.00	7.58	122	20.15	166	74	35	1	0	0	0
	LANDER	85	52	90	46	69	2	0.07	-0.05	0.07	2.19	86	15.57	167	59	17	1	0	1	0
	SHERIDAN	81	49	90	43	65	0	0.07	-0.13	0.04	5.28	134	16.13	154	84	34	1	0	2	0

Based on 1971-2000 normals ***** Not Available**

National Agricultural Summary

August 26 – September 1, 2019

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Rain fell most heavily in parts of Kansas, Kentucky, Mississippi, Missouri, and Texas, with some areas receiving 4 inches or more. Temperatures were more than 6°F above normal in parts of California, Nevada, Oregon, the southern Rocky Mountains, and the Southwest. In contrast, temperatures were 4°F or more below normal on the northern Plains.

Corn: By September 1, eighty-one percent of the corn acreage was at or beyond the dough stage, 14 percentage points behind last year and 12 points behind the 5-year average. At least 85 percent of the acreage in Iowa, Kansas, Missouri, Nebraska, North Carolina, Tennessee, and Texas was at or beyond the dough stage by week's end. By September 1, forty-one percent of this year's crop was denting, 32 percentage points behind last year and 22 points behind average. All of the estimating states, except Texas, were behind their respective average for denting progress. Six percent of the 2019 corn acreage had matured by September 1, fourteen percentage points behind last year and 7 points behind average. Overall, 58 percent of the nation's corn was rated in good to excellent condition, 1 percentage point above the previous week but 9 points below the same time last year.

Soybeans: By September 1, ninety-six percent of the nation's soybean acreage had reached the blooming stage, 4 percentage points behind both last year and the 5-year average. Nationally, 86 percent of the soybeans were setting pods, 12 percentage points behind last year and 10 points behind average. On September 1, fifty-five percent of the soybeans were rated in good to excellent condition, unchanged from the previous week but 11 percentage points below the same time last year.

Cotton: By September 1, ninety-seven percent of the nation's cotton had set bolls, 2 percentage points ahead of last year and 1 point ahead of the 5-year average. By September 1, thirty-six percent of the nation's cotton had open bolls, 8 percentage points ahead of last year and 9 points ahead of average. On September 1, forty-eight percent of the 2019 cotton acreage was rated in good to excellent condition, 5 percentage points above the previous week and 7 points above the same time last year.

Sorghum: By September 1, ninety-two percent of the nation's sorghum had reached the heading stage, 4 percentage points behind last year and 3 points behind the 5-year average. Fifty-two percent of sorghum was at or beyond the coloring stage by September 1, fifteen percentage points behind last year and 12 points behind average. Sorghum coloring advanced 10 percentage points or more in Colorado, Kansas, Oklahoma, and South Dakota during the week. By September 1, twenty-four percent of the nation's sorghum was mature, 6 percentage points behind last year and 9 points behind average. Seventy-six percent of the sorghum in Texas had matured by September 1, two percentage points ahead of both last year and the average. Twenty-one percent of the 2019 sorghum acreage was harvested by September 1, one percentage point behind both last year and the average. As of September 1, sixty-seven percent of the nation's sorghum was rated in good to excellent condition, 1 percentage point above the previous week and 15 points above the same time last year.

Rice: Nationally, 21 percent of the rice acreage was harvested by September 1, eight percentage points behind last year and 6 points behind the 5-year average. As of September 1, seventy percent of the rice was rated in good to excellent condition, 1 percentage point above the previous week but 5 points below the same time last year.

Small Grains: By September 1, eighty-four percent of the nation's oats had been harvested, 9 percentage points behind last year and 7 points behind the 5-year average. The oat harvest was complete or nearing completion in Iowa, Nebraska, Ohio, South Dakota, and Texas.

Seventy-two percent of the nation's barley acreage was harvested by September 1, eleven percentage points behind both last year and the 5-year average. During the week ending September 1, harvest progress advanced 16 percentage points or more in four of the five estimating states.

By September 1, fifty-five percent of the spring wheat acreage was harvested, 31 percentage points behind last year and 23 points behind the 5-year average. During the week, harvest progress advanced 18 percentage points or more in four of the six estimating states. On September 1, sixty-seven percent of the nation's spring wheat was rated in good to excellent condition, 2 percentage points below the previous week and 7 points below the same time last year.

Other Crops: On September 1, sixty-seven percent of the nation's peanut acreage was rated in good to excellent condition, 2 percentage points above the previous week but 8 points below the same time last year.

Crop Progress and Condition

Week Ending September 1, 2019

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

Corn Percent Dough

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
CO	92	56	72	85
IL	100	75	82	97
IN	96	59	70	93
IA	95	76	86	94
KS	95	84	90	94
KY	92	76	83	90
MI	83	45	57	82
MN	96	74	84	94
MO	100	84	89	98
NE	97	80	90	95
NC	99	97	98	99
ND	95	47	72	87
OH	92	52	63	89
PA	80	62	70	76
SD	97	56	76	92
TN	100	96	98	99
TX	97	94	96	96
WI	85	48	61	81
18 Sts	95	71	81	93

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

Corn Percent Dented

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
CO	42	10	22	44
IL	89	34	46	76
IN	72	17	26	63
IA	75	21	41	64
KS	80	51	65	72
KY	80	57	70	77
MI	49	9	14	40
MN	64	7	25	57
MO	91	43	61	84
NE	70	36	54	66
NC	93	90	93	94
ND	67	5	8	44
OH	64	9	16	53
PA	47	34	44	46
SD	71	7	18	53
TN	92	79	87	89
TX	90	86	89	82
WI	51	11	18	42
18 Sts	73	27	41	63

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

Corn Percent Mature

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
CO	2	NA	1	2
IL	32	NA	2	18
IN	21	NA	1	13
IA	14	NA	1	7
KS	34	7	16	26
KY	57	23	40	45
MI	6	NA	0	2
MN	5	NA	0	2
MO	46	NA	6	29
NE	8	0	1	7
NC	78	68	83	81
ND	10	NA	0	4
OH	12	NA	1	7
PA	1	NA	4	5
SD	12	NA	0	6
TN	44	21	42	42
TX	67	51	52	65
WI	7	NA	0	4
18 Sts	20	NA	6	13

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

Corn Condition by Percent

	VP	P	F	G	EX
CO	0	2	15	64	19
IL	4	15	35	40	6
IN	8	19	40	29	4
IA	3	8	27	51	11
KS	4	12	34	40	10
KY	3	7	23	51	16
MI	7	16	32	34	11
MN	3	9	33	45	10
MO	4	18	40	33	5
NE	1	5	17	56	21
NC	15	20	29	29	7
ND	1	5	20	64	10
OH	7	18	41	31	3
PA	1	7	20	56	16
SD	2	6	27	49	16
TN	0	1	13	60	26
TX	1	7	36	45	11
WI	3	9	22	47	19
18 Sts	3	10	29	47	11
Prev Wk	3	10	30	47	10
Prev Yr	4	8	21	46	21

Rice Percent Harvested

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
AR	18	3	11	17
CA	0	0	0	0
LA	83	66	75	80
MS	45	2	15	26
MO	1	0	0	3
TX	84	52	63	81
6 Sts	29	15	21	27

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

Rice Condition by Percent

	VP	P	F	G	EX
AR	2	6	31	41	20
CA	0	0	0	45	55
LA	1	4	30	58	7
MS	1	2	17	69	11
MO	3	6	37	38	16
TX	1	4	30	54	11
6 Sts	1	4	25	47	23
Prev Wk	1	5	25	48	21
Prev Yr	0	3	22	59	16

Spring Wheat Percent Harvested

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
ID	72	45	69	77
MN	97	45	65	81
MT	73	34	46	76
ND	86	34	52	73
SD	99	53	79	91
WA	86	47	61	90
6 Sts	86	38	55	78

These 6 States harvested 99% of last year's spring wheat acreage.

Spring Wheat Condition by Percent

	VP	P	F	G	EX
ID	8	5	26	55	6
MN	1	4	19	62	14
MT	2	10	28	50	10
ND	1	5	23	63	8
SD	2	3	33	52	10
WA	1	4	38	50	7
6 Sts	2	6	25	58	9
Prev Wk	1	5	25	60	9
Prev Yr	1	4	21	63	11

Crop Progress and Condition

Week Ending September 1, 2019

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

Soybeans Percent Blooming

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
AR	100	98	100	100
IL	100	93	95	100
IN	100	89	93	100
IA	100	96	98	100
KS	99	90	94	98
KY	98	87	91	95
LA	100	100	100	100
MI	100	90	95	100
MN	100	100	100	100
MS	100	98	100	100
MO	96	88	93	95
NE	100	97	98	100
NC	98	92	96	95
ND	100	98	99	100
OH	100	89	94	100
SD	100	93	96	100
TN	100	93	95	100
WI	100	88	92	100
18 Sts	100	94	96	100

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

Soybeans Percent Setting Pods

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
AR	99	91	95	98
IL	100	79	84	97
IN	99	65	76	97
IA	97	84	90	96
KS	92	73	83	89
KY	89	69	80	85
LA	100	100	100	99
MI	94	65	78	95
MN	100	94	97	98
MS	98	91	95	97
MO	92	65	74	86
NE	97	83	90	98
NC	82	73	86	83
ND	100	89	93	99
OH	99	70	82	98
SD	99	73	85	97
TN	97	83	89	94
WI	96	73	81	96
18 Sts	98	79	86	96

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

Soybean Condition by Percent

	VP	P	F	G	EX
AR	3	12	28	38	19
IL	4	13	37	39	7
IN	7	19	41	28	5
IA	3	8	29	51	9
KS	3	8	36	46	7
KY	2	7	26	54	11
LA	3	6	29	55	7
MI	4	14	37	37	8
MN	2	7	33	50	8
MS	1	4	27	52	16
MO	3	11	40	40	6
NE	1	4	16	64	15
NC	3	9	29	47	12
ND	3	6	27	57	7
OH	6	17	42	31	4
SD	2	7	32	46	13
TN	0	3	22	61	14
WI	1	5	24	47	23
18 Sts	3	10	32	46	9
Prev Wk	3	10	32	46	9
Prev Yr	3	8	23	49	17

Cotton Percent Setting Bolls

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
AL	97	97	99	99
AZ	100	100	100	99
AR	100	100	100	100
CA	67	92	95	89
GA	97	97	100	99
KS	94	69	81	78
LA	100	100	100	100
MS	99	92	95	98
MO	100	96	100	95
NC	94	96	98	97
OK	90	96	97	90
SC	94	99	100	97
TN	100	97	100	98
TX	95	85	96	94
VA	98	90	95	98
15 Sts	95	90	97	96

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

Cotton Percent Bolls Opening

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
AL	39	29	48	32
AZ	62	50	61	60
AR	50	18	42	32
CA	0	7	9	16
GA	24	30	42	34
KS	16	2	4	13
LA	77	33	53	69
MS	52	15	29	39
MO	51	13	20	23
NC	22	15	28	24
OK	17	10	15	14
SC	15	24	40	25
TN	48	8	13	26
TX	23	34	38	24
VA	24	11	23	19
15 Sts	28	28	36	27

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

Cotton Condition by Percent

	VP	P	F	G	EX
AL	2	9	27	47	15
AZ	0	6	24	51	19
AR	0	3	11	38	48
CA	0	0	65	30	5
GA	2	7	33	48	10
KS	6	15	38	37	4
LA	0	5	23	63	9
MS	1	3	38	43	15
MO	9	14	51	26	0
NC	7	15	22	44	12
OK	0	7	42	48	3
SC	0	7	42	49	2
TN	0	2	15	64	19
TX	1	20	42	31	6
VA	1	1	5	88	5
15 Sts	1	14	37	39	9
Prev Wk	2	15	40	35	8
Prev Yr	15	18	26	31	10

Crop Progress and Condition

Week Ending September 1, 2019

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

Sorghum Percent Headed

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
CO	94	89	93	91
KS	96	81	90	95
NE	100	94	97	100
OK	91	82	90	91
SD	95	90	95	96
TX	97	92	96	96
6 Sts	96	86	92	95

These 6 States planted 97% of last year's sorghum acreage.

Sorghum Percent Coloring

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
CO	57	7	19	44
KS	57	23	39	50
NE	73	21	27	67
OK	56	26	43	59
SD	51	25	38	55
TX	84	86	90	82
6 Sts	67	41	52	64

These 6 States planted 97% of last year's sorghum acreage.

Sorghum Percent Mature

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
CO	0	0	1	3
KS	6	0	1	5
NE	6	0	0	4
OK	21	9	15	21
SD	1	0	0	5
TX	74	73	76	74
6 Sts	30	22	24	33

These 6 States planted 97% of last year's sorghum acreage.

Sorghum Percent Harvested

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
CO	0	0	0	0
KS	1	0	0	0
NE	0	0	0	0
OK	3	0	1	3
SD	0	0	0	0
TX	65	69	72	57
6 Sts	22	20	21	22

These 6 States harvested 98% of last year's sorghum acreage.

Sorghum Condition by Percent

	VP	P	F	G	EX
CO	1	3	14	69	13
KS	2	7	29	53	9
NE	0	1	12	68	19
OK	0	2	31	65	2
SD	1	1	15	74	9
TX	1	5	29	40	25
6 Sts	1	5	27	53	14
Prev Wk	1	6	27	51	15
Prev Yr	5	12	31	43	9

Peanut Condition by Percent

	VP	P	F	G	EX
AL	0	8	43	43	6
FL	2	5	32	55	6
GA	1	6	26	55	12
NC	4	9	32	41	14
OK	0	0	14	75	11
SC	0	3	39	53	5
TX	0	0	14	75	11
VA	0	1	3	81	15
8 Sts	1	5	27	57	10
Prev Wk	1	6	28	54	11
Prev Yr	1	3	21	57	18

Oats Percent Harvested

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
IA	99	98	100	99
MN	94	76	88	91
NE	100	97	99	100
ND	90	40	58	81
OH	100	96	100	100
PA	87	77	84	87
SD	100	79	92	98
TX	100	100	100	100
WI	83	66	73	86
9 Sts	93	75	84	91

These 9 States harvested 65% of last year's oat acreage.

Barley Percent Harvested

	Prev Year	Prev Week	Sep 1 2019	5-Yr Avg
ID	84	62	83	82
MN	99	76	92	91
MT	71	51	68	82
ND	94	46	64	84
WA	88	48	59	90
5 Sts	83	54	72	83

These 5 States harvested 83% of last year's barley acreage.

Crop Progress and Condition

Week Ending September 1, 2019

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

Pasture and Range Condition by Percent
Week Ending Sep 1, 2019

	VP	P	F	G	EX		VP	P	F	G	EX
AL	3	14	36	41	6	NH	6	9	38	45	2
AZ	2	33	50	14	1	NJ	4	6	42	48	0
AR	1	4	28	54	13	NM	16	26	31	22	5
CA	20	30	5	45	0	NY	1	9	32	48	10
CO	3	5	18	66	8	NC	2	15	44	36	3
CT	0	0	100	0	0	ND	2	6	21	63	8
DE	6	27	34	23	10	OH	3	11	43	32	11
FL	1	8	15	53	23	OK	2	9	30	51	8
GA	5	14	40	37	4	OR	12	24	39	24	1
ID	1	12	34	42	11	PA	1	4	51	39	5
IL	5	14	35	40	6	RI	0	15	55	30	0
IN	8	23	39	27	3	SC	0	10	46	42	2
IA	4	13	38	41	4	SD	1	3	14	55	27
KS	1	6	25	58	10	TN	1	8	32	51	8
KY	6	18	35	37	4	TX	17	28	34	20	1
LA	0	6	37	52	5	UT	1	5	22	60	12
ME	0	0	0	30	70	VT	0	15	62	23	0
MD	1	13	56	30	0	VA	6	29	40	23	2
MA	0	10	30	60	0	WA	11	31	32	26	0
MI	6	26	31	31	6	WV	3	8	32	53	4
MN	1	7	26	58	8	WI	2	6	27	47	18
MS	0	6	35	47	12	WY	3	16	37	37	7
MO	1	4	25	56	14	48 Sts	5	13	29	44	9
MT	2	7	29	47	15						
NE	1	2	12	66	19	Prev Wk	5	13	30	43	9
NV	10	10	30	50	0	Prev Yr	10	18	30	36	6

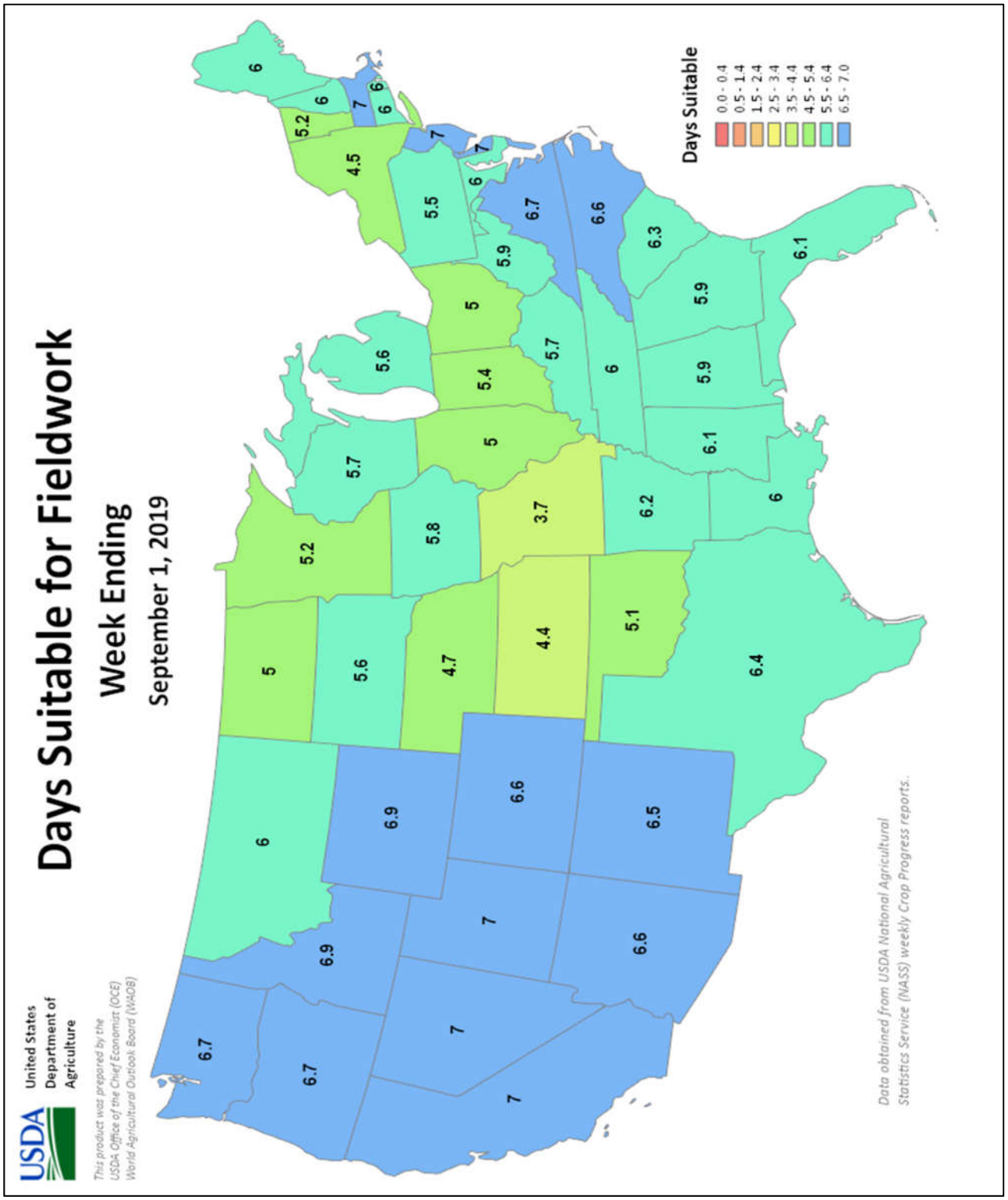
VP - Very Poor; **P - Poor;** **F - Fair;** **G - Good;** **EX - Excellent**

NA - Not Available; ***Revised**

Crop Progress and Condition

Week Ending September 1, 2019

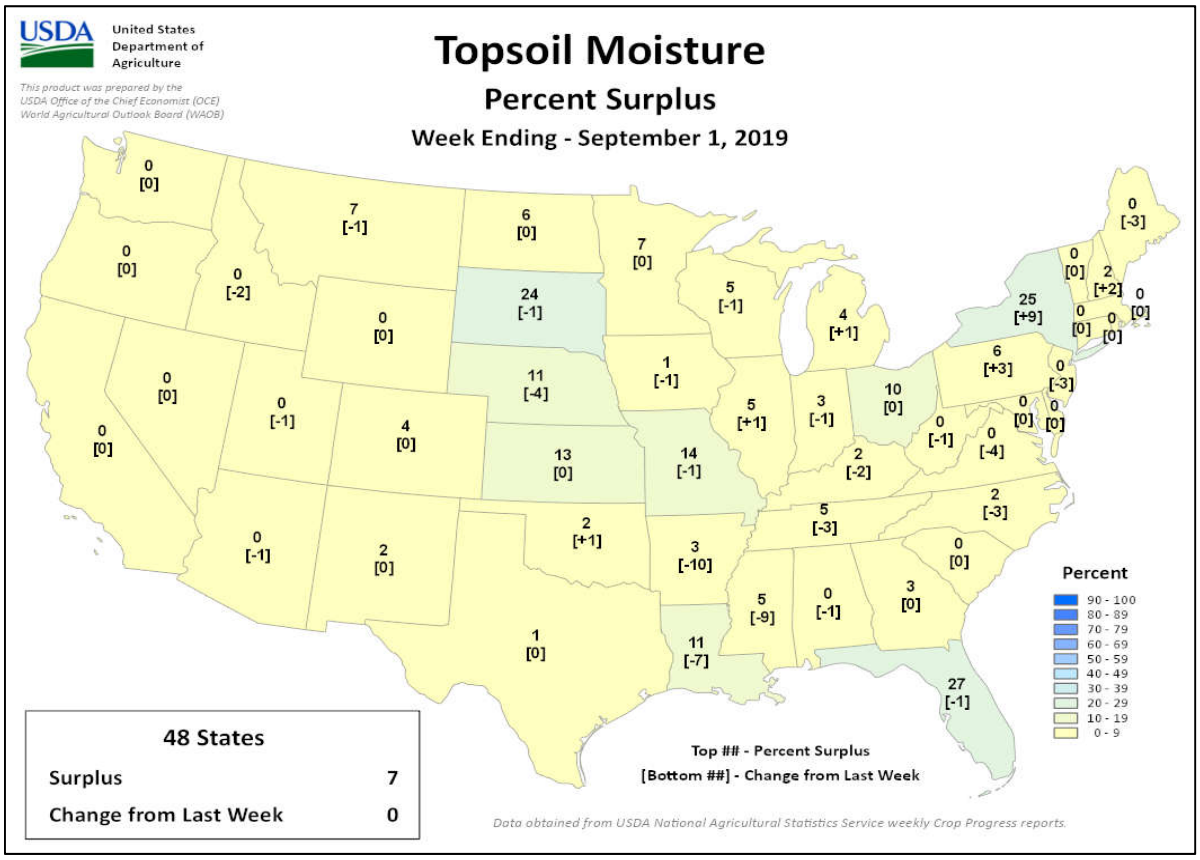
Weekly U.S. Progress and Condition Data provided by USDA/NASS

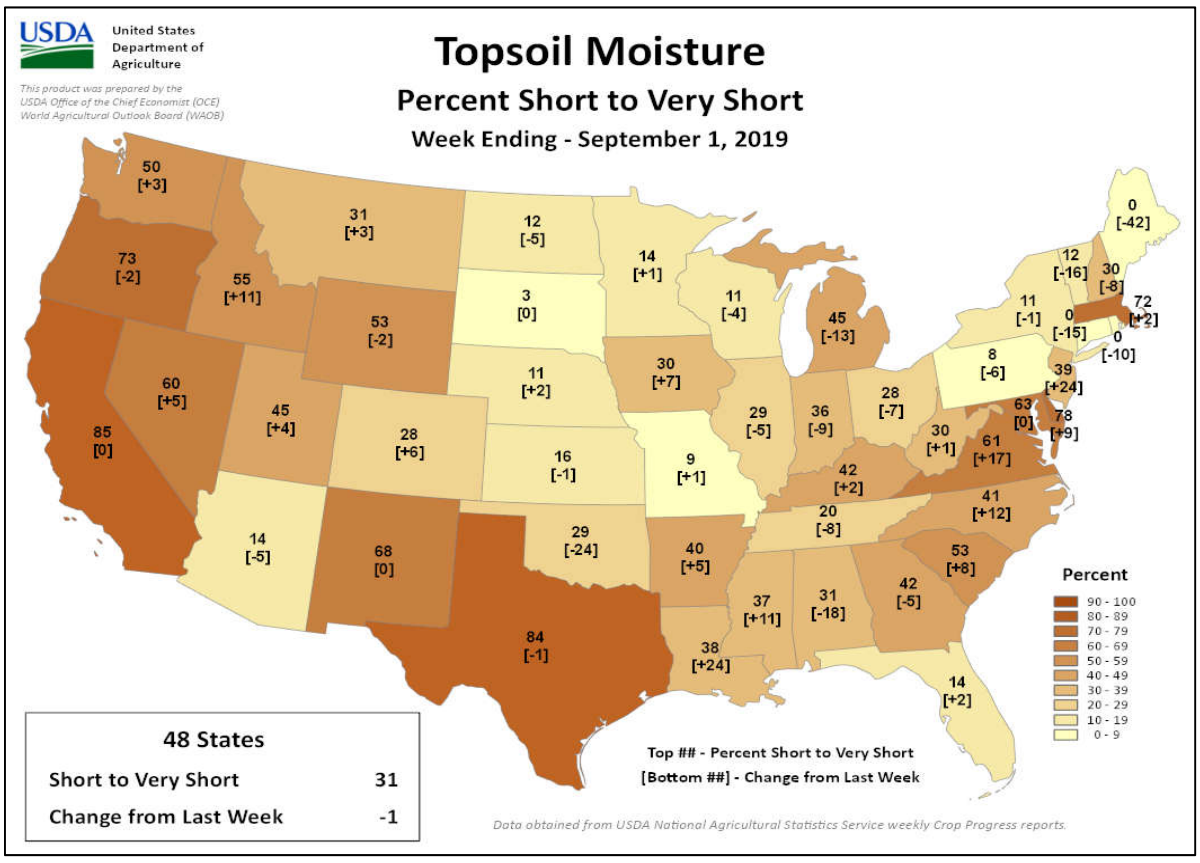


Crop Progress and Condition

Week Ending September 1, 2019

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

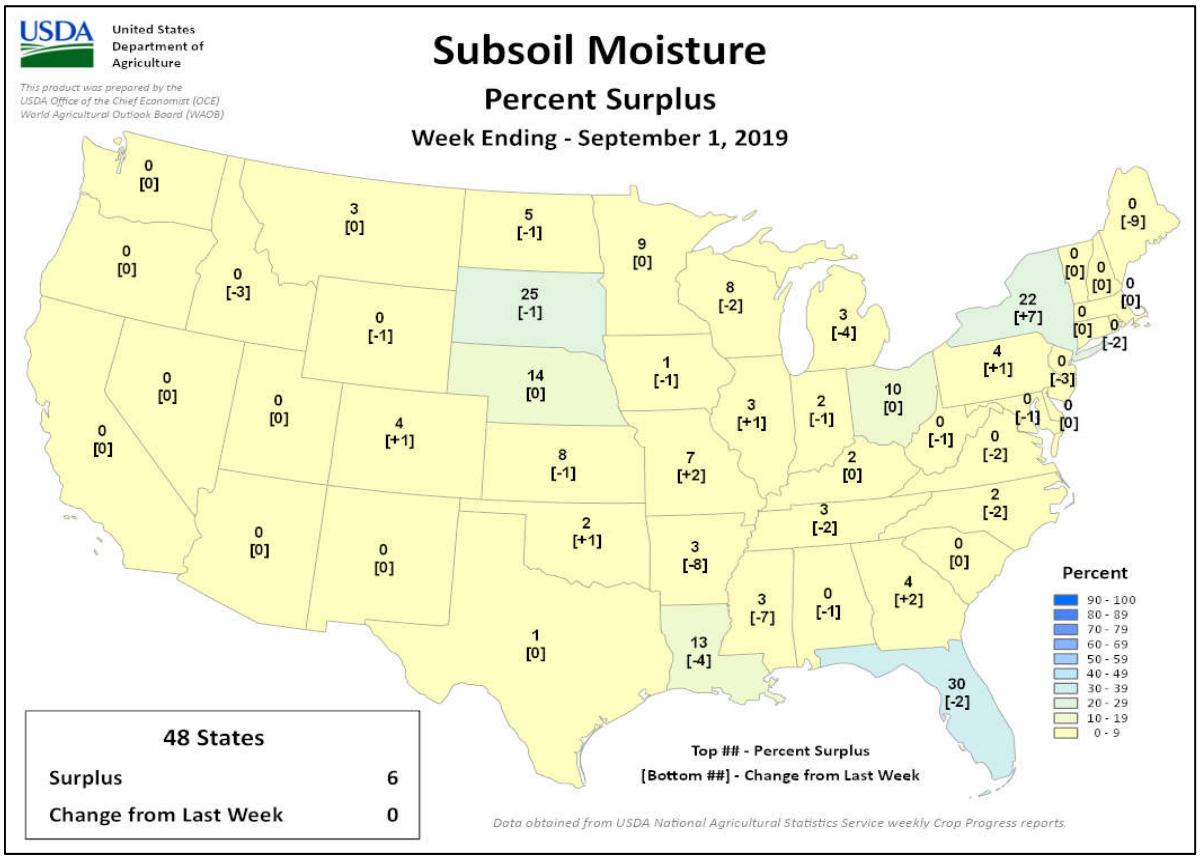


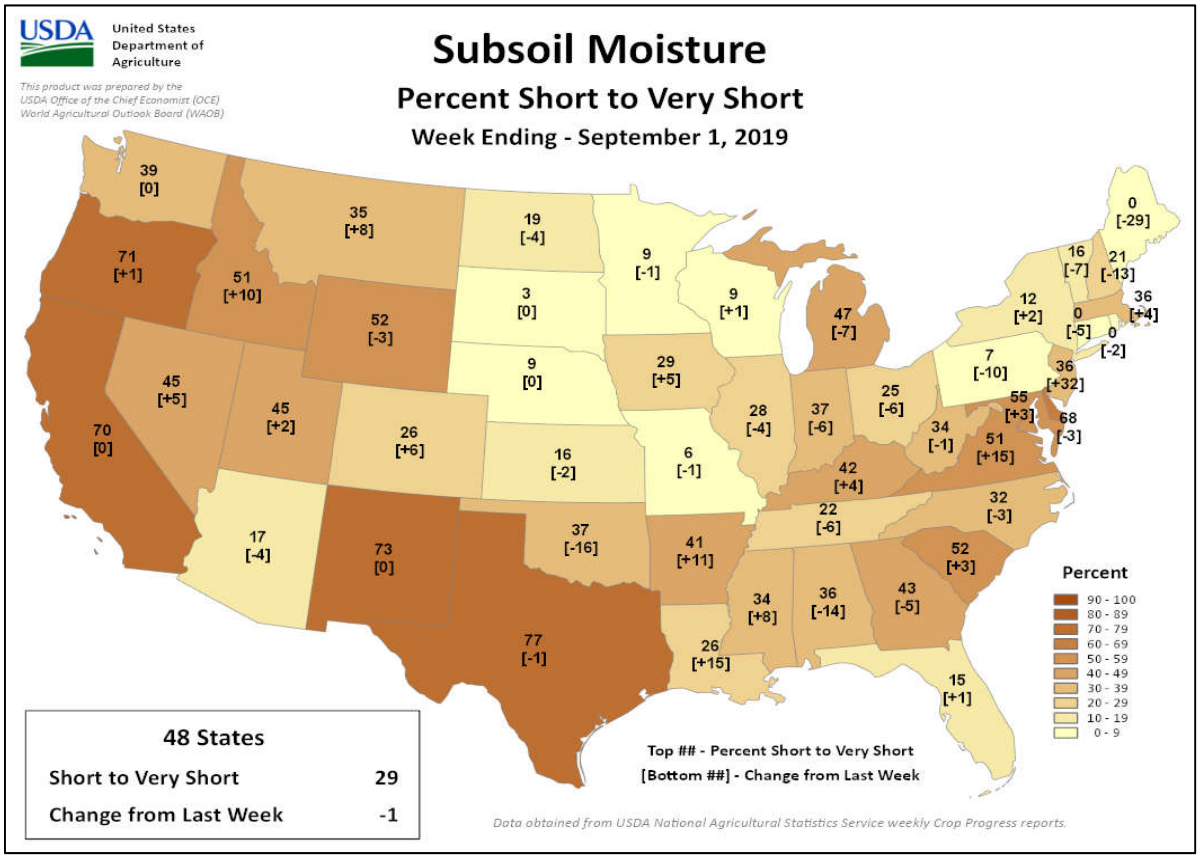


Crop Progress and Condition

Week Ending September 1, 2019

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





International Weather and Crop Summary

August 25-31, 2019

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

EUROPE: Despite some showers, mostly dry and very warm weather accelerated summer crop maturation and drydown but maintained localized drought concerns in northern Europe.

WESTERN FSU: Increasingly dry, warm weather accelerated summer crop maturation but trimmed yield prospects for later-developing corn and soybeans in parts of Ukraine.

EASTERN FSU: Cool, rainy weather was generally too late to benefit filling to maturing spring wheat, while seasonably sunny, hot weather accelerated cotton development in the south.

MIDDLE EAST: Sunny skies aided summer crop drydown and early harvesting in Turkey.

SOUTH ASIA: Widespread monsoon showers benefited kharif crops in India.

EAST ASIA: Ample rainfall continued in northeastern China, maintaining high yield potential for corn and other crops.

SOUTHEAST ASIA: Heavy rainfall from Tropical Cyclone Podul provided moisture for rice in the Philippines as well as Thailand and environs.

AUSTRALIA: Rain benefited wheat, barley, and canola in the west, while isolated showers in the east offered little drought relief.

ARGENTINA: Warm weather supported overwintering grains, but moisture will be needed soon as vegetative growth advances.

BRAZIL: Mostly dry weather favored harvesting of corn and cotton, as showers returned to southernmost wheat areas.

MEXICO: Seasonal rainfall remained lighter than normal over many agricultural regions.

CANADIAN PRAIRIES: Showers hampered spring crop harvesting in eastern farming areas.

August 2019

COUNTRY	CITY	TEMPERATURE (C)						PRECIP. (MM)	
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DEP NRM	TOT	DEP NRM
ALGERI	ALGER	34	22	40	16	28	2.9	1	-6
	BATNA	37	18	43	15	28	2.2	13	-4
ARGENT	IGUAZU	26	12	34	2	19	0.8	9	-108
	FORMOSA	25	12	34	4	19	0.5	45	-17
	CERES	21	8	33	-1	14	0.5	7	-11
	CORDOBA	21	4	34	-3	13	0	0	-11
	RIO CUARTO	19	5	31	-3	12	1.1	0	-18
	ROSARIO	18	6	29	-2	12	0.3	3	-35
	BUENOS AIRES	17	6	28	-3	12	0.3	16	-36
	SANTA ROSA	18	3	32	-6	10	0.7	3	-23
	TRES ARROYOS	15	4	25	-5	10	0.7	8	-33
AUSTRA	DARWIN	31	20	35	16	25	-0.8	0	-8
	BRISBANE	22	11	27	7	16	0.7	3	-34
	PERTH	20	8	30	2	14	0.7	116	-1
	CEDUNA	18	7	29	-1	13	0.1	10	-23
	ADELAIDE	15	8	21	2	11	-0.4	38	-13
	MELBOURNE	14	6	19	1	10	-0.2	39	-6
	WAGGA	14	2	20	-2	8	-1.3	7	-45
	CANBERRA	13	1	18	-5	7	-0.1	12	-37
AUSTRI	VIENNA	28	17	33	10	23	2.5	112	52
	INNSBRUCK	25	14	33	8	20	2.1	158	41
BAHAMA	NASSAU	33	26	35	21	29	1.3	301	53
BARBAD	BRIDGETOWN	31	25	32	23	28	0.3	82	-64
BELARU	MINSK	23	11	30	5	17	0.2	92	30
BERMUD	ST GEORGES	30	26	32	23	28	0.3	195	65
BOLIVI	LA PAZ	16	-4	19	-10	6	-0.4	1	-25
BRAZIL	FORTALEZA	31	24	33	23	27	0.1	10	0
	RECIFE	27	23	28	21	25	-1.1	122	-33
	CAMPO GRANDE	30	18	35	7	24	0.4	0	-28
	FRANCA	26	16	32	10	21	0.6	55	38
	RIO DE JANEIRO	26	18	33	13	22	-0.2	22	-24
	LONDRINA	28	14	35	6	21	2.5	0	-62
	SANTA MARIA	21	10	33	0	16	-0.2	92	-21
	TORRES	21	11	26	6	16	-2.8	19	-121
BULGAR	SOFIA	30	15	33	11	23	3.8	29	-15
BURKIN	OUAGADOUGOU	31	24	34	21	28	1.2	210	-31
CANADA	LETHBRIDGE	26	10	35	3	18	*****	25	******
	REGINA	24	9	34	2	16	*****	96	******
	WINNIPEG	25	15	33	10	20	*****	63	******
	TORONTO	26	16	30	12	21	1.5	43	-36
	MONTREAL	26	16	31	12	21	1.3	62	-31
	PRINCE ALBERT	22	7	29	2	15	-1.6	22	-38
	CALGARY	22	10	31	4	16	0.6	60	0
	VANCOUVER	23	14	26	10	19	1	26	-14
CANARY	LAS PALMAS	28	22	32	21	25	0.6	0	******
CHILE	SANTIAGO	20	4	29	-2	12	2.8	0	-58
CHINA	HARBIN	24	18	30	13	21	-0.3	178	70
	HAMI	36	20	41	15	28	3.5	0	-5
	BEIJING	30	21	34	16	26	0.7	66	-93
	TIENTSIN	31	21	35	18	26	-0.1	174	22
	LHASA	23	12	27	9	18	2.4	141	17
	KUNMING	26	18	29	14	22	2.2	123	-80
	CHENGCHOW	32	23	35	18	27	1.7	257	149
	YEHCHANG	34	24	40	19	29	1.5	67	-112
	HANKOW	36	26	39	19	31	2.1	15	-92
	CHUNGKING	36	27	40	23	31	2.8	103	-24
	CHIHKIANG	35	24	39	20	30	2.4	21	-85
	WU HU	34	25	37	19	29	1.1	71	-48
	SHANGHAI	32	26	36	18	29	0.9	366	221
	NANCHANG	36	28	38	24	32	3.1	45	-79
	TAIPEI	34	28	38	25	31	1.6	199	-112
	CANTON	34	25	37	24	29	0.7	475	258
	NANNING	34	25	37	24	29	0.9	223	15
COLOMB	BOGOTA	19	9	21	5	14	0.9	59	19
COTE D	ABIDJAN	28	24	30	22	26	1.5	20	-22
CUBA	CAMAGUEY	33	23	35	22	28	0.9	550	362
CYPRUS	LARNACA	34	23	36	21	29	1.3	1	******
CZECHR	PRAGUE	25	14	30	9	20	2.4	88	27
DENMAR	COPENHAGEN	23	15	30	11	19	2	38	-16
EGYPT	CAIRO	36	26	42	24	31	2.6	0	******

Based on Preliminary Reports

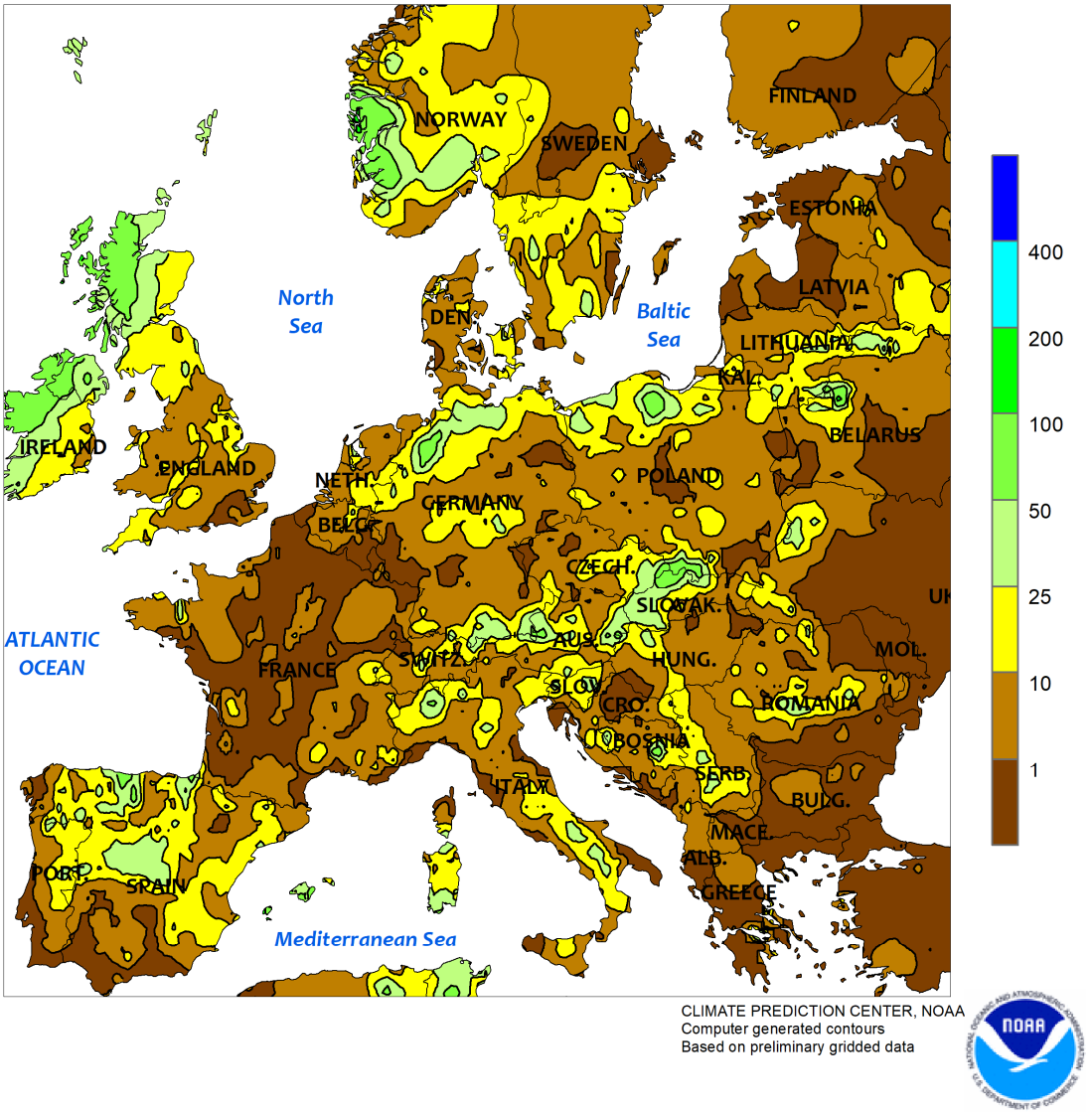
August 2019

COUNTRY	CITY	TEMPERATURE (C)						PRECIP. (MM)	
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DEP NRM	TOT	DEP NRM
	ASWAN	***	***	39	32	***	*****	*****	******
ESTONI	TALLINN	22	12	27	6	17	1.4	86	9
ETHIOP	ADDIS ABABA	20	13	26	12	***	*****	253	-11
F GUIA	CAYENNE	32	23	34	20	27	1.1	201	36
FIJI	NAUSORI	27	21	31	20	24	1.6	59	-83
FINLAN	HELSINKI	21	12	25	6	17	1.6	116	34
FRANCE	PARIS/ORLY	27	16	33	11	21	1.4	68	24
	STRASBOURG	28	15	33	11	21	2.3	67	9
	BOURGES	29	15	35	11	22	2.6	18	-33
	BORDEAUX	28	17	35	12	23	2.0	33	-26
	TOULOUSE	30	18	36	12	24	2.3	58	7
	MARSEILLE	32	20	35	16	26	2.2	9	-21
GABON	LIBREVILLE	28	***	29	24	***	*****	1	-6
GERMAN	HAMBURG	25	14	32	10	19	2.1	75	3
	BERLIN	27	16	34	12	22	3.0	56	-1
	DUSSELDORF	26	14	34	9	20	1.3	61	4
	LEIPZIG	27	15	33	11	21	3.4	33	-26
	DRESDEN	27	15	32	10	21	2.7	37	-35
	STUTTGART	26	14	33	9	20	1.5	82	19
	NURNBERG	26	14	31	9	20	1.5	81	22
	AUGSBURG	25	13	32	8	19	1.0	92	8
GREECE	THESSALONIKA	33	22	37	19	28	1.9	1	-23
	LARISSA	35	19	40	16	27	1.1	10	-9
	ATHENS	34	25	38	22	30	1.8	0	-4
GUADEL	RAIZET	32	25	33	23	28	0.4	101	-68
HONGKO	HONG KONG INT	33	27	36	24	30	1.4	480	99
HUNGAR	BUDAPEST	30	18	35	12	24	3.2	25	-21
ICELAN	REYKJAVIK	14	8	18	4	11	0.9	35	-33
INDIA	AMRITSAR	34	26	36	22	30	0.6	93	-99
	NEW DELHI	35	27	38	24	31	1.0	120	-121
	AHMEDABAD	32	26	35	24	29	0.3	312	63
	INDORE	28	23	30	22	25	-0.2	405	94
	CALCUTTA	33	27	36	24	30	0.4	446	137
	VERAVAL	30	27	32	26	28	0.6	140	-3
	BOMBAY	31	26	33	24	28	0.5	657	165
	POONA	28	22	32	19	25	0.3	212	88
	BEGAMPET	31	24	34	22	27	1.1	166	-22
	VISHAKHAPATNAM	31	24	34	-74	28	-1.4	255	118
	MADRAS	35	26	39	20	30	0.3	181	34
	MANGALORE	28	23	30	21	26	-0.2	######	931
INDONE	SERANG	33	22	34	20	28	0.5	1	-70
IRELAN	DUBLIN	20	12	22	8	16	0.5	93	25
ITALY	MILAN	31	20	34	15	26	2.5	11	-78
	VERONA	31	20	34	16	25	1.9	112	25
	VENICE	29	21	32	16	25	1.9	83	16
	GENOA	***	***	34	21	***	*****	*****	******
	ROME	31	20	34	16	25	1.1	2	-27
	NAPLES	33	23	35	21	28	3.1	0	-40
JAMAIC	KINGSTON	33	26	34	23	30	1.0	37	-41
JAPAN	SAPPORO	26	20	34	16	23	1.3	149	10
	NAGOYA	34	26	38	22	30	2.3	208	66
	TOKYO	33	25	36	21	29	2.0	113	-43
	YOKOHAMA	33	26	36	23	29	2.0	89	-74
	KYOTO	34	26	39	21	30	1.4	360	228
	OSAKA	34	27	38	22	30	1.5	237	132
KAZAKH	KUSTANAY	25	13	36	7	19	0.9	47	12
	TSELINOGRAD	27	14	38	6	21	1.9	27	-6
	KARAGANDA	27	13	36	6	20	1.7	23	-3
KENYA	NAIROBI	25	13	29	9	19	1.8	19	3
LIBYA	BENGHAZI	33	23	36	20	28	1.0	0	******
LITHUA	KAUNAS	24	13	29	6	18	1.8	73	9
LUXEMB	LUXEMBOURG	25	15	32	10	20	2.4	51	-14
MALAYS	KUALA LUMPUR	33	25	35	23	29	1.9	140	-6
MALI	BAMAKO	30	22	34	20	26	0.6	295	-7
MARSHA	MAJURO	30	27	32	25	28	1.0	317	19
MARTIN	LAMENTIN	32	25	34	24	28	1.5	189	-42
MAURIT	NOUAKCHOTT	32	25	40	23	28	0.3	15	-33
MEXICO	GUADALAJARA	28	18	29	16	23	1.9	230	18
	TLAXCALA	25	12	26	9	18	0.7	126	-34
	ORIZABA	27	17	30	14	22	2.3	268	-85

COUNTRY	CITY	TEMPERATURE (C)						PRECIP. (MM)	
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DEP NRM	TOT	DEP NRM
MOROCC	CASABLANCA	26	21	31	17	23	0.5	0	0
	MARRAKECH	39	22	46	17	31	2.7	0	-2
MOZAMB	MAPUTO	30	17	36	10	23	3	10	-4
N KORE	PYONGYANG	31	23	35	18	27	2.1	71	-125
NEW CA	NOUMEA	24	17	28	14	21	0.6	19	-46
NIGER	NIAMEY	33	25	37	22	29	1.1	125	-65
NORWAY	OSLO	20	12	26	7	16	1.7	89	8
NZEALA	AUCKLAND	15	9	20	3	12	*****	192	******
	WELLINGTON	13	8	17	1	11	*****	90	******
P RICO	SAN JUAN	32	26	34	24	29	1.1	119	-14
PAKIST	KARACHI	33	27	37	23	30	0.6	260	204
PERU	LIMA	18	15	20	14	16	-0.8	1	-2
PHILIP	MANILA	30	26	32	24	28	-0.1	587	165
PNEWGU	PORT MORESBY	28	23	31	21	26	0.1	289	264
POLAND	WARSAW	27	15	33	10	21	3.4	35	-21
	LODZ	27	14	33	5	20	2.3	39	-16
	KATOWICE	26	14	32	8	20	2.5	83	9
PORTUG	LISBON	29	18	35	16	24	1.6	5	0
ROMANI	BUCHAREST	32	15	35	10	24	1.8	31	-25
RUSSIA	ST.PETERSBURG	21	13	25	8	17	0.9	47	-26
	KAZAN	20	12	28	5	16	-0.7	131	68
	MOSCOW	21	12	29	7	17	0.2	67	-13
	YEKATERINBURG	20	12	29	6	16	0.8	90	22
	OMSK	24	12	34	6	18	1.6	41	-15
	BARNAUL	26	13	34	7	19	2.4	36	-18
	KHABAROVSK	23	16	29	11	19	-0.4	294	146
	VLADIVOSTOK	22	18	30	15	20	0.3	521	370
	VOLGOGRAD	29	15	37	7	22	0.2	15	-13
	ASTRAKHAN	30	17	39	10	24	0.2	8	-15
	ORENBURG	25	13	37	2	19	-1.2	33	5
S AFRI	JOHANNESBURG	23	10	25	6	16	3.7	0	-6
	DURBAN	24	15	32	13	20	1.6	2	-57
	CAPE TOWN	19	8	30	4	14	0.9	38	-34
S KORE	SEOUL	32	24	37	19	28	1.7	193	-180
SAMOA	PAGO PAGO	30	26	31	24	28	1.2	221	58
SENEGA	DAKAR	30	26	32	22	28	0.6	167	-49
SPAIN	VALLADOLID	31	15	35	10	23	1.5	18	3
	MADRID	34	18	38	14	26	1.4	44	31
	SEVILLE	36	21	40	17	28	0.8	0	******
SWITZE	ZURICH	24	15	32	11	20	1.8	124	4
	GENEVA	27	15	34	10	21	1.8	62	-5
SYRIA	DAMASCUS	38	20	41	15	29	2.5	0	******
TAHITI	PAPEETE	30	23	32	22	26	1.7	11	-40
TANZAN	DAR ES SALAAM	31	21	33	18	26	2.3	15	-13
THAILA	PHITSANULOK	32	25	34	24	29	0.1	293	39
	BANGKOK	34	27	37	24	30	1.1	99	-117
TOGO	TABLIGBO	32	23	35	22	27	2.2	24	-38
TRINID	PORT OF SPAIN	32	24	33	22	28	1.3	210	-25
TUNISI	TUNIS	35	25	42	21	30	2.4	24	17
TURKEY	ISTANBUL	30	23	34	17	26	2.2	34	20
	ANKARA	30	15	37	10	22	1.6	14	2
TURKME	ASHKHABAD	36	23	43	17	29	0.2	0	-1
UKINGD	ABERDEEN	19	11	24	6	15	0.9	66	5
	LONDON	25	14	33	10	20	1.2	34	-9
UKRAIN	KIEV	26	16	35	12	21	2.0	46	-12
	LVOV	26	14	32	8	20	2.9	103	31
	KIROVOGRAD	28	14	34	10	21	1.2	16	-37
	ODESSA	28	19	34	15	24	2.2	42	8
	KHARKOV	27	15	34	9	21	1.7	8	-67
UZBEKI	TASHKENT	35	20	42	15	27	1.6	0	-2
YUGOSL	BELGRADE	32	20	38	14	26	4.1	37	-25
ZAMBIA	LUSAKA	26	15	32	9	21	1.1	0	0
ZIMBAB	KADOMA	24	***	32	4	***	*****	2	1

Based on Preliminary Reports

EUROPE
Total Precipitation (mm)
August 25 - 31, 2019

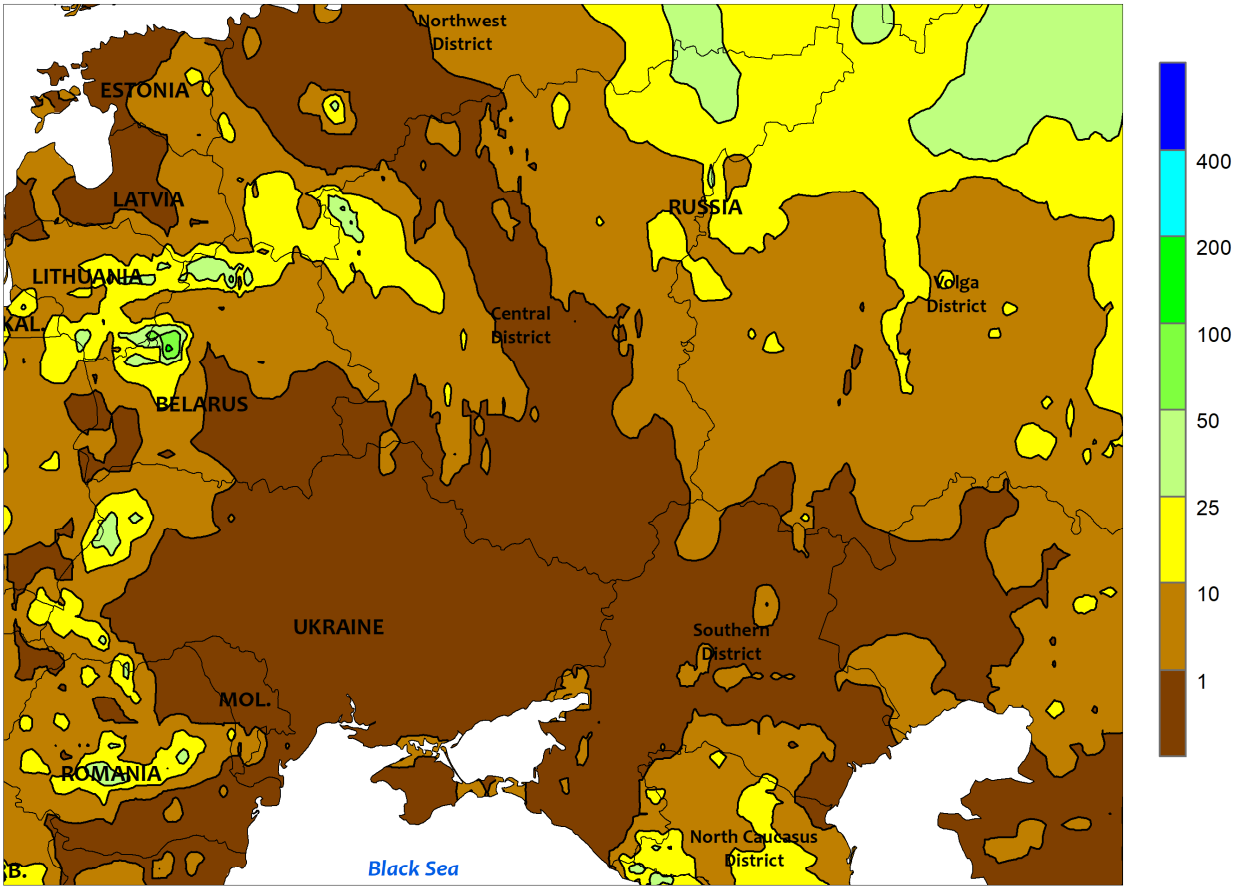


EUROPE

Despite some showers, generally dry and very warm weather accelerated summer crop maturation and drydown but maintained localized drought concerns. Late-summer heat (32-36°C) accelerated the maturation and drydown of corn, sunflowers, and soybeans over much of Europe. Scattered light to moderate showers (2-25 mm, locally more) were observed in central and northern-most growing areas, but some locales are in need of moisture for winter crop planting and establishment. In particular, summer drought (90-day rainfall locally less than 50 percent of normal) extended intermittently from central and northeastern France into western and central Poland. Moisture will be needed soon in these locales, especially for winter rapeseed which is typically sown first. Elsewhere, moderate to heavy rain (5-50 mm) over northern and eastern Spain contrasted with persistent drought in central and southern portions of the country. Conversely, moisture supplies remained favorable for early winter crop sowing in England due to a wet summer, though southeastern growing areas were mostly dry (less than 5 mm) during the past week.

For additional information contact: mbrusberg@oce.usda.gov

WESTERN FSU
Total Precipitation (mm)
August 25 - 31, 2019



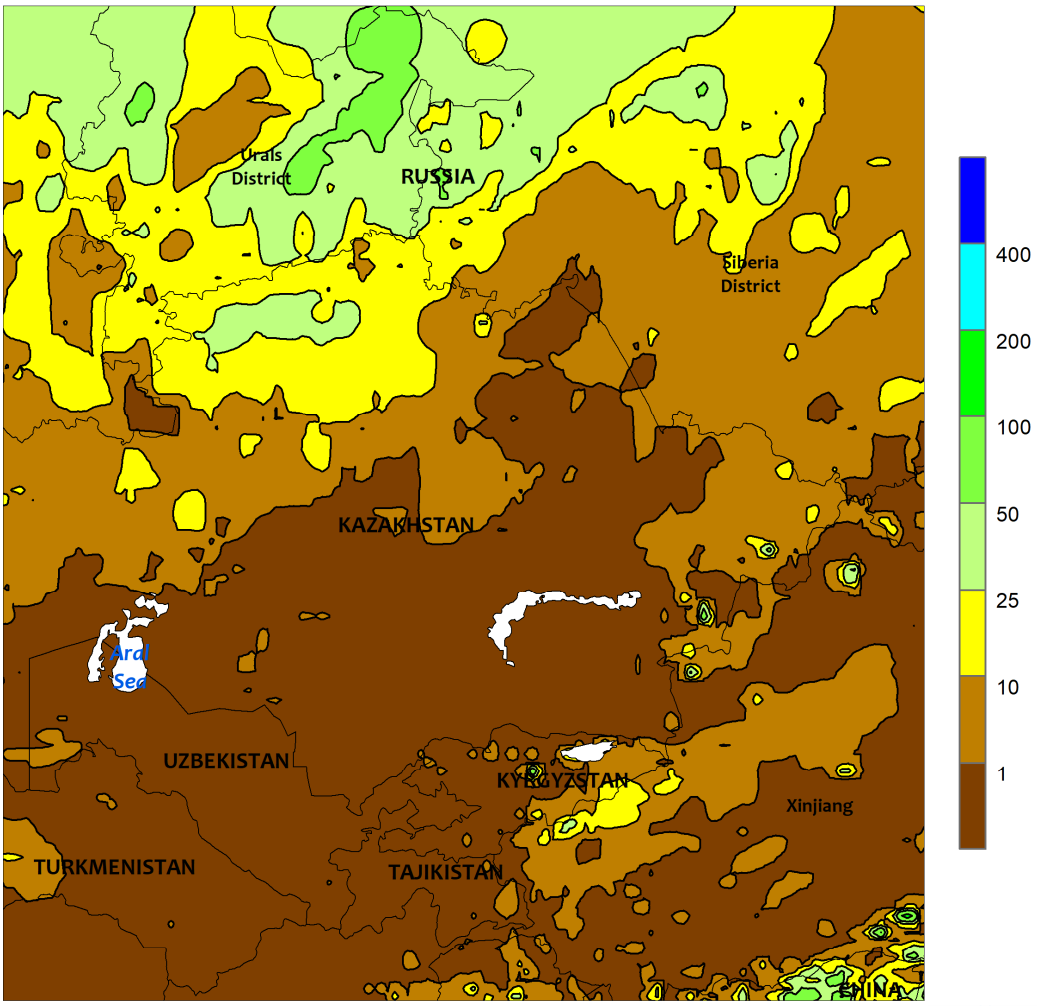
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

WESTERN FSU

Increasingly warm, dry weather accelerated summer crop maturation and drydown but amplified dryness concerns over northern and western Ukraine. After a mostly favorable summer growing season, developing short-term drought (60-day rainfall less than 50 percent of normal) in parts of northern and western Ukraine trimmed yield prospects for later-developing corn and soybeans. Conversely, near- to above-normal summer rainfall from southern and eastern Ukraine into western Russia maintained favorable conditions for filling to maturing sunflowers and corn, with harvesting likely to begin over the next several weeks. Temperatures averaged 2 to 5°C above normal over many of these same locales, though impacts of the late-summer heat (daytime readings as high as 35°C near the Black Sea Coast) were negligible with crops now well beyond the temperature-sensitive reproductive and early filling stages of development. The warm, dry weather also encouraged early winter wheat sowing, with the aforementioned drought concerns mostly north and west of primary wheat growing areas.

For additional information contact: mbrusberg@oce.usda.gov

EASTERN FSU
Total Precipitation (mm)
August 25 - 31, 2019



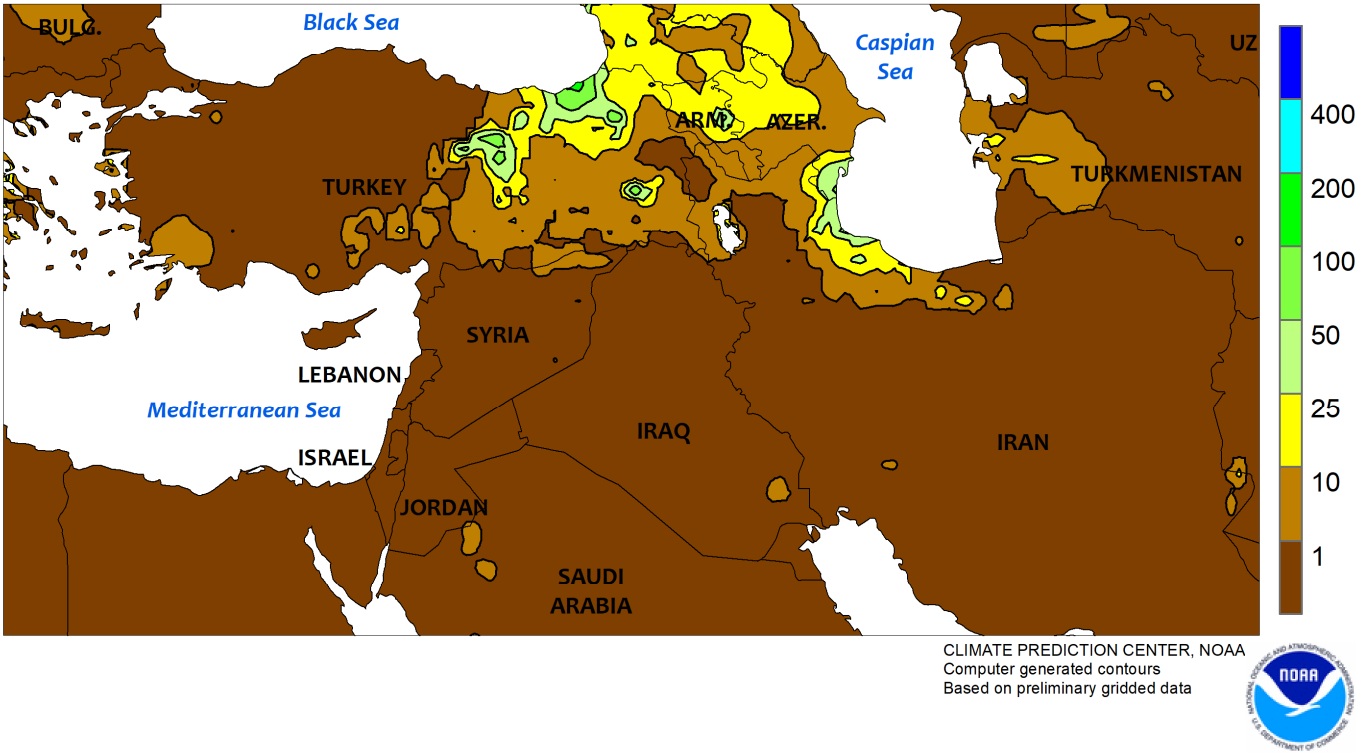
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

EASTERN FSU

A storm late in the week brought heavy rain (15-70 mm) to western and northern portions the region, though the moisture was too late to offer much benefit to filling spring grains. Prior to the storm's arrival, 60-day rainfall — encapsulating the key stages of development for spring wheat and barley — totaled less than 50 percent of normal (locally less than 25 percent) in the southeastern Volga District (Orangeburg), northwestern Kazakhstan (Kostanay), as well as western portions of Russia's Siberia District (Omsk, Novosibirsk, and Altai Krai). As a result, spring grain yield prospects are down versus last year in both Russia and Kazakhstan. Farther south, sunny skies and above-normal temperatures (up to 3°C above normal) accelerated cotton maturation in Uzbekistan and environs.

For additional information contact: mbrusberg@oce.usda.gov

MIDDLE EAST
Total Precipitation (mm)
August 25 - 31, 2019



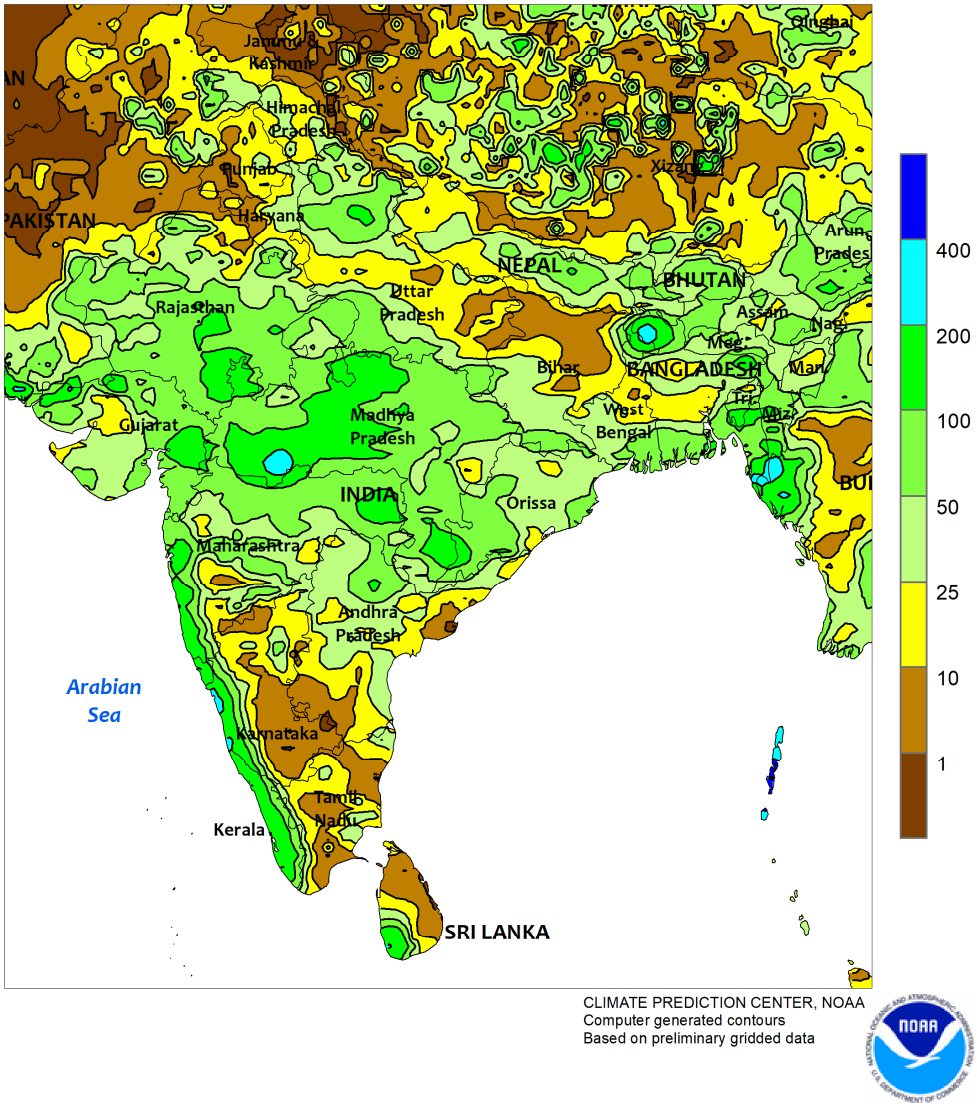
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

MIDDLE EAST

Seasonably dry, warm weather in Turkey promoted summer crop maturation and drydown. After locally heavy showers last week in northern Turkey, sunny skies were beneficial for corn and sunflower maturation and drydown. Elsewhere in Turkey, sunny, warm weather (up to 5°C above normal) favored seasonal fieldwork, including early cotton harvesting in western and southeastern Turkey. Winter grain sowing typically occurs in October in Turkey and Iran, and a bit later from Syria into Iraq.

For additional information contact: mbrusberg@oce.usda.gov

SOUTH ASIA
Total Precipitation (mm)
August 25 - 31, 2019

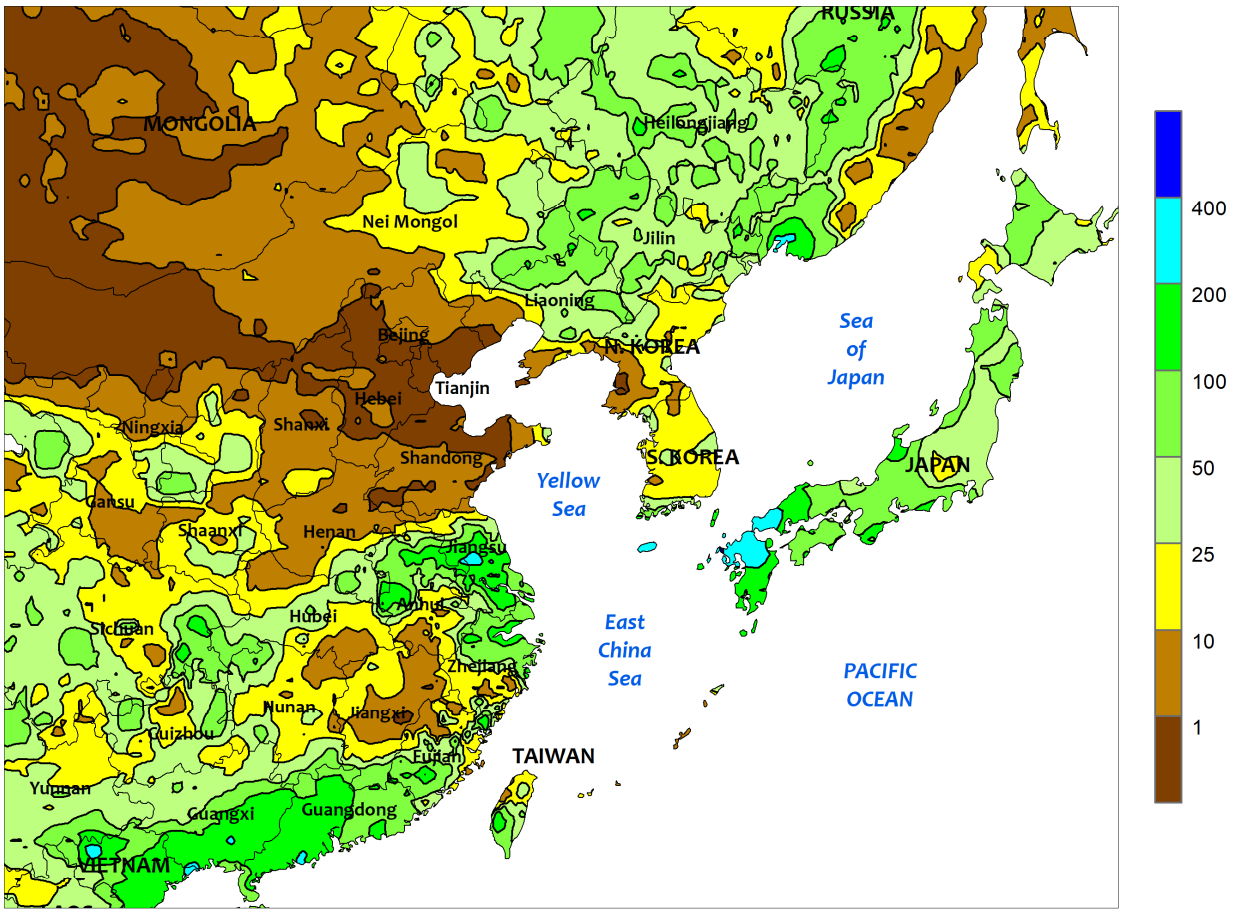


SOUTH ASIA

A broad swath of monsoon showers (25-200 mm) prevailed across central India, extending from eastern rice areas (Orissa and environs) to western cotton areas (Gujarat and environs). The highest rainfall totals (over 50 mm) were within the swath, maintaining abundant soil moisture for oilseeds, while the lesser amounts (below 50 mm) along the periphery boosted soil moisture and eased 60-day deficits for western-most cotton and eastern-most rice. Overall moisture conditions have improved greatly over the last few weeks, rebounding from a slow start to the monsoon and relatively poor July rainfall. In other areas, mostly sunny weather in northern India and Pakistan promoted development of irrigated cotton and rice (harvested in October), while drier weather in central Bangladesh eased excessive wetness.

For additional information contact: mbrusberg@oce.usda.gov

EASTERN ASIA
Total Precipitation (mm)
August 25 - 31, 2019



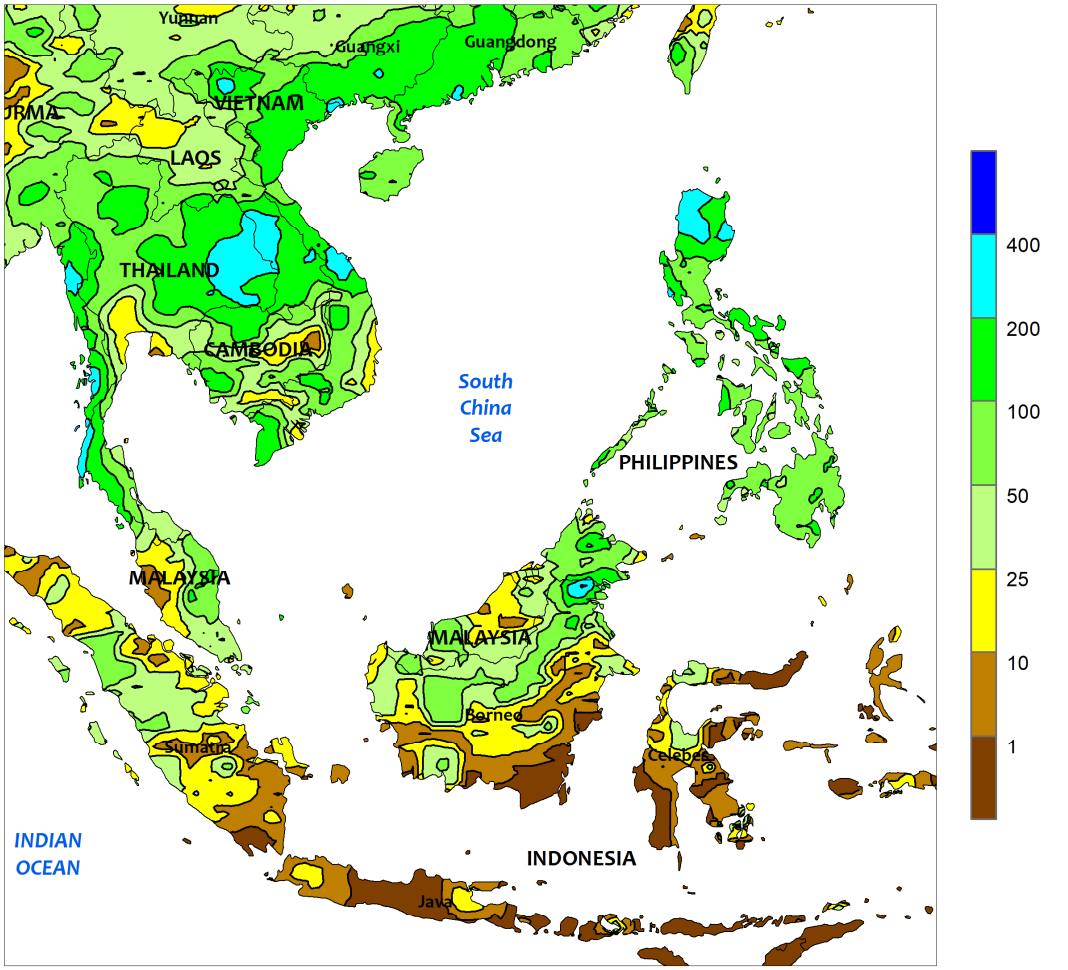
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

EASTERN ASIA

Widespread showers (25-50 mm, locally more) continued across northeastern China, maintaining excellent soil moisture for corn, soybeans, and rice in the latter stages of reproduction. In fact, most of the northeast has experienced above-average rainfall throughout the season, maintaining high yield potential for crops. Showers were also prevalent in southern China, as Tropical Cyclone Bailu moved ashore and produced in excess of 100 mm of rain for vegetative late-crop rice. Meanwhile, a narrow band of rain (25-100 mm) in the Yangtze Valley provided some drought relief, but due to the limited extent of the rainfall many prefectures did not benefit. Farther north, little, if any, rain occurred on the North China Plain exacerbating already severe drought in Henan and furthering irrigation requirements for reproductive summer crops. Elsewhere, downpours (over 200 mm) were reported in southern Japan, while the rest of the country received more seasonable amounts (25-100 mm). Showers were unseasonably light (less than 25 mm) across most of the Korean Peninsula, providing little relief from severe to extreme seasonal drought.

For additional information contact: mbrusberg@oce.usda.gov

SOUTHEAST ASIA
Total Precipitation (mm)
August 25 - 31, 2019

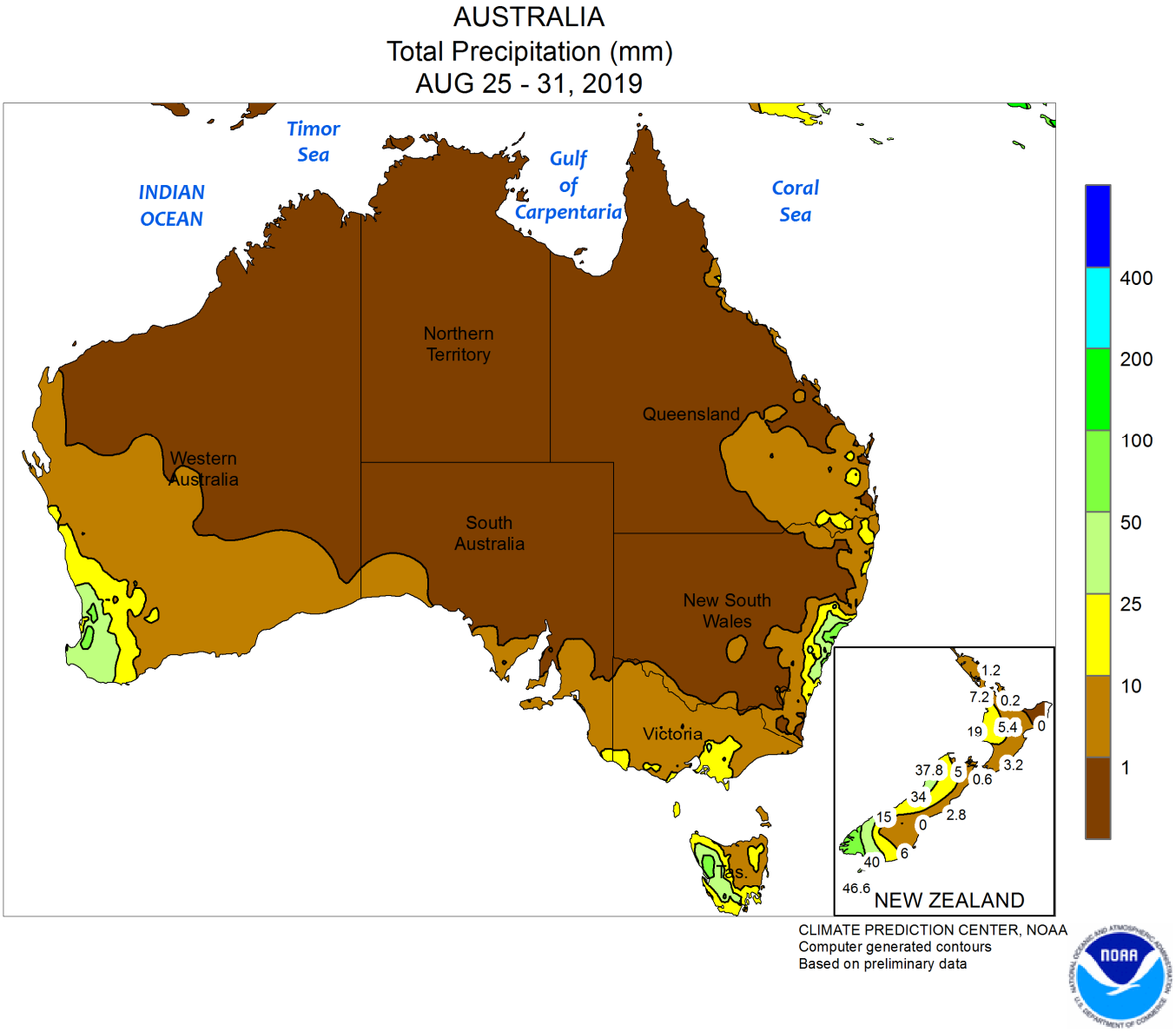


CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

SOUTHEAST ASIA

A tropical cyclone (Podul) crossed the northern Philippines mid-week before moving into central Vietnam by week's end. The storm produced heavy showers (over 100 mm) in the northern Philippines, bolstering irrigation supplies and maintaining generally favorable moisture conditions for rice and corn. Similar rainfall totals were observed along the path of the storm in Indochina, with some localized values in excess of 300 mm in northeastern Thailand and neighboring portions of Laos. The storm-related rain fully eradicated seasonal deficits in northeastern Thailand that have existed since the beginning of June. In addition, the recent moisture in Thailand and environs stabilized or improved rice prospects following a poor start to the wet season. In other parts of the region, showers (25-100 mm) in Malaysia and neighboring areas of Indonesia (Sumatra and Kalimantan) maintained mostly adequate soil moisture for oil palm, although annual rainfall totals (beginning October 1) in Malaysia remained around 15 percent below average.

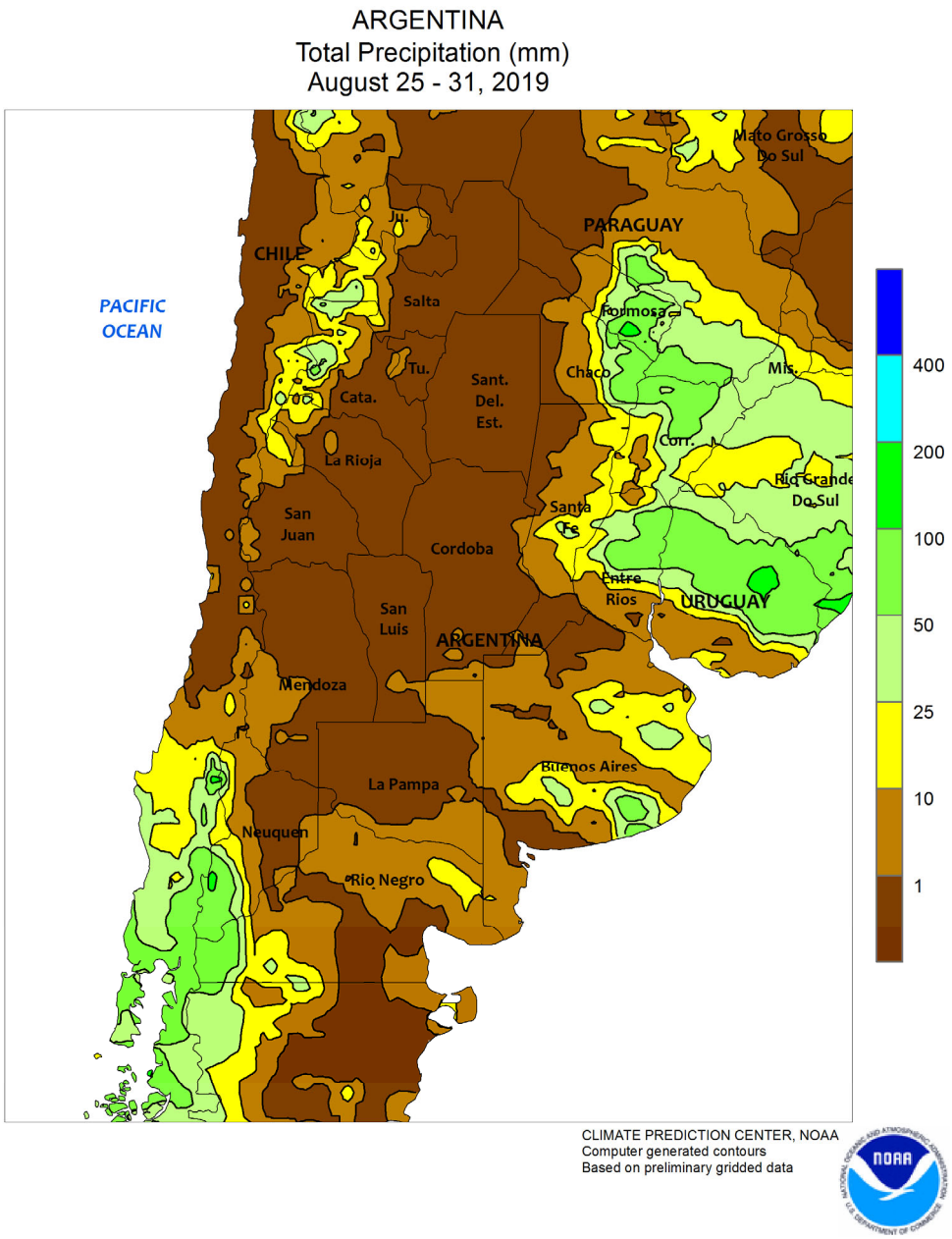
For additional information contact: mbrusberg@oce.usda.gov



AUSTRALIA

Widespread showers (generally 10-25 mm) in Western Australia maintained good yield prospects for winter grains and oilseeds, which are in or nearing the critical reproductive stages of development. In contrast, widely scattered, generally light showers (less than 5 mm most areas) in South Australia and northern Victoria provided little additional moisture for wheat, barley, and canola. During the past few weeks, soil moisture was adequate to support crop development in these states but rainfall trended below normal. More consistent and widespread rainfall is needed to maintain yield prospects, especially with crops approaching reproduction. Crop conditions are already poor throughout most of New South Wales and mostly dry weather during the last week offered no relief. Farther north, scattered showers (up to 15 mm) in southern Queensland helped moisten the topsoil in advance of summer crop planting, but the rain came too late to significantly improve wheat prospects. Much more rain is needed in both southern Queensland and New South Wales to end the long-term, severe drought gripping these states. Temperatures averaged near normal in the northeast (within 1°C of normal). Cooler-than-normal weather in the southeast (1-3°C below normal, minimum temperatures below freezing in some areas) helped reduce evaporative losses but may have caused local frost damage. In contrast, warmer-than-normal weather (1-3°C above normal) in the west accelerated crop development.

For additional information contact: mbrusberg@oce.usda.gov

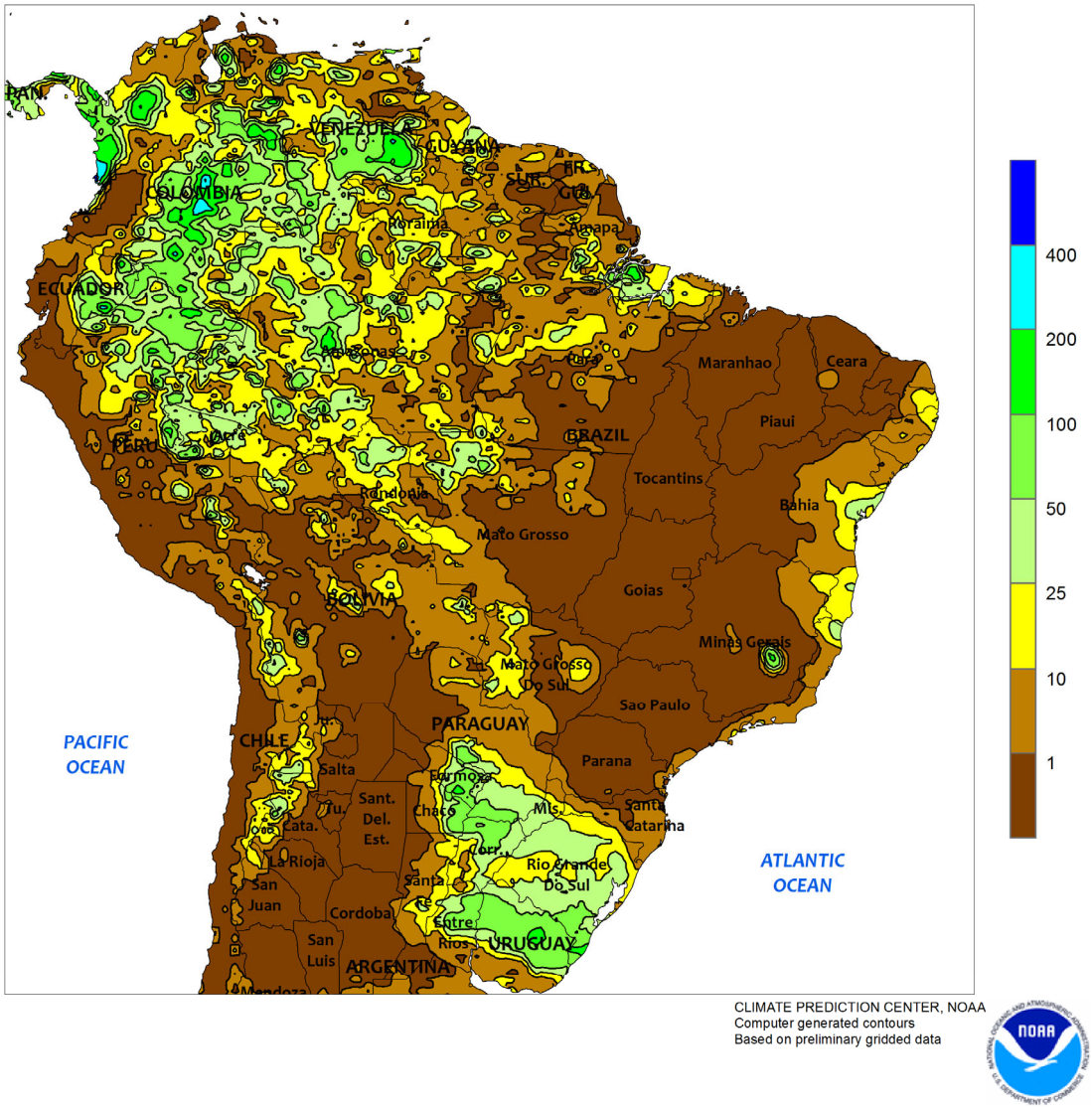


ARGENTINA

Unseasonably warm weather dominated the region, favoring overwintering grains but maintaining high evaporative losses in seasonably dry western farming areas. Weekly temperatures averaged 4 to 6°C above normal throughout nearly all agricultural areas, with highest daytime temperatures ranging from the middle and upper 20s (degrees C) in and around Buenos Aires to the upper 30s in the far north (including Santiago del Estero, Chaco, and Formosa). However, seasonably cooler weather returned at week's end, with nighttime lows dropping below freezing in the traditionally cooler southern wheat and barley areas. Locally heavy rain (10-50 mm or more) returned to the northeast — including eastern parts of Chaco and Formosa — but dry weather continued in the western half of the region as well as sections of the lower Parana River Valley (northern Buenos Aires and nearby locations in Santa Fe and Entre Rios). These areas will need more rain soon as seasonal warming advances development of winter grains. According to the government of Argentina, harvesting of the main summer-grown commodities (notably corn and cotton) was virtually complete as of August 29, though the northeastern rain may have disrupted any lingering harvesting of cotton.

For additional information contact: mbrusberg@oce.usda.gov

BRAZIL
Total Precipitation (mm)
August 25 - 31, 2019



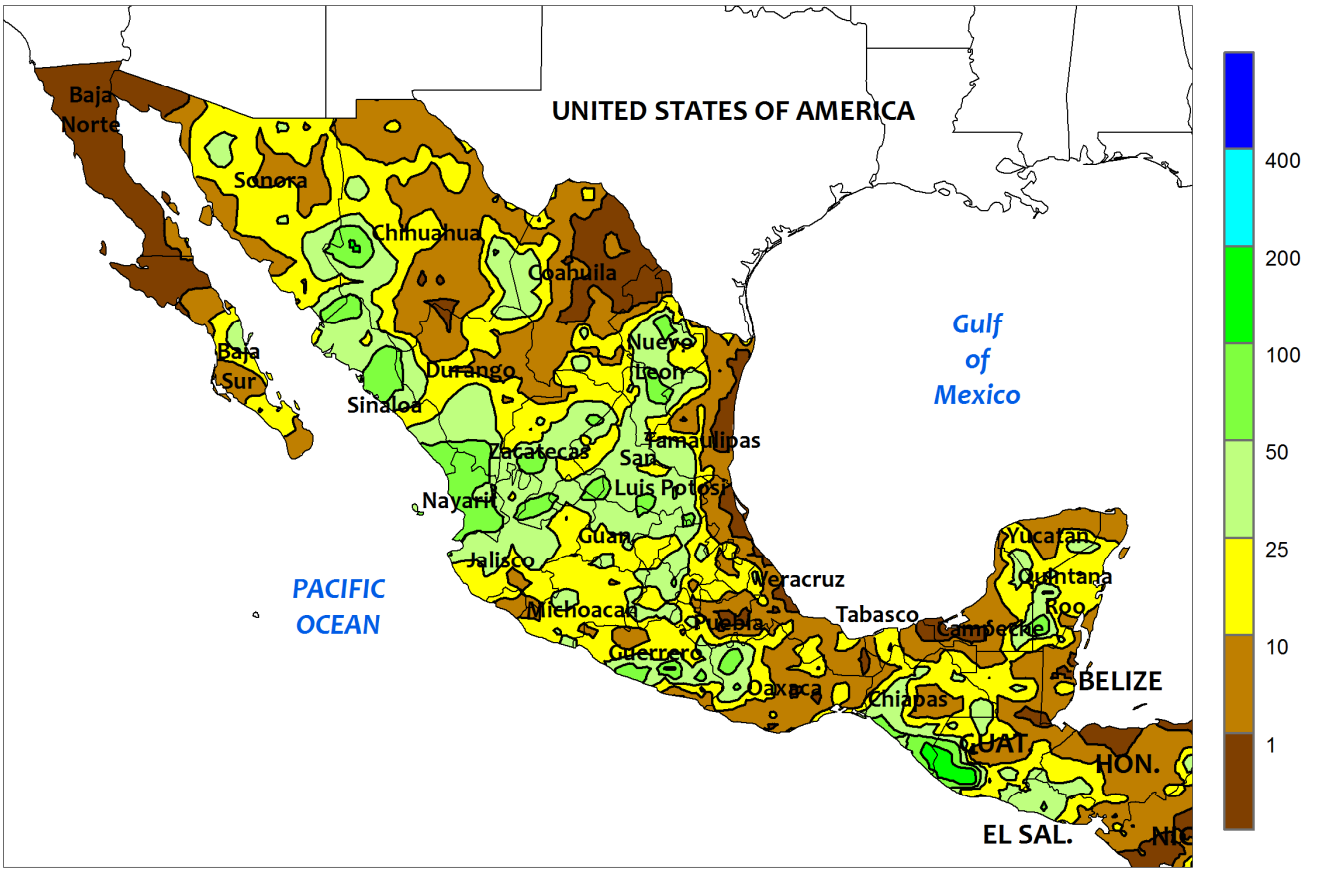
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

BRAZIL

Dry weather maintained an overall favorable pace of harvesting for corn and cotton in the main production areas of central and southern Brazil. No rain was recorded from Parana northward through Mato Grosso and the northeastern interior (Tocantins, western Bahia, and environs), with light seasonal showers (10-25 mm) limited to coffee, cocoa, and sugarcane areas along the northeast coast. According to the government of Mato Grosso, cotton was 90 percent harvested as of August 30, slightly ahead of the 5-year average (87 percent). In Parana, meanwhile, second-crop corn was reportedly 96 percent harvested as of August 26; additionally, more than 80 percent of wheat had reached flowering, with 3 percent harvested. In contrast to the northern dryness, moderate to heavy rain (greater than 25 mm) returned to Rio Grande do Sul; according to government reports, wheat had reached 27 percent flowering as of August 29, slightly behind the 5-year average (29 percent). Weekly temperatures averaged near to above normal in nearly all interior agricultural areas, staying well above freezing in the southeastern wheat and coffee areas.

For additional information contact: mbrusberg@oce.usda.gov

MEXICO
Total Precipitation (mm)
August 25 - 31, 2019



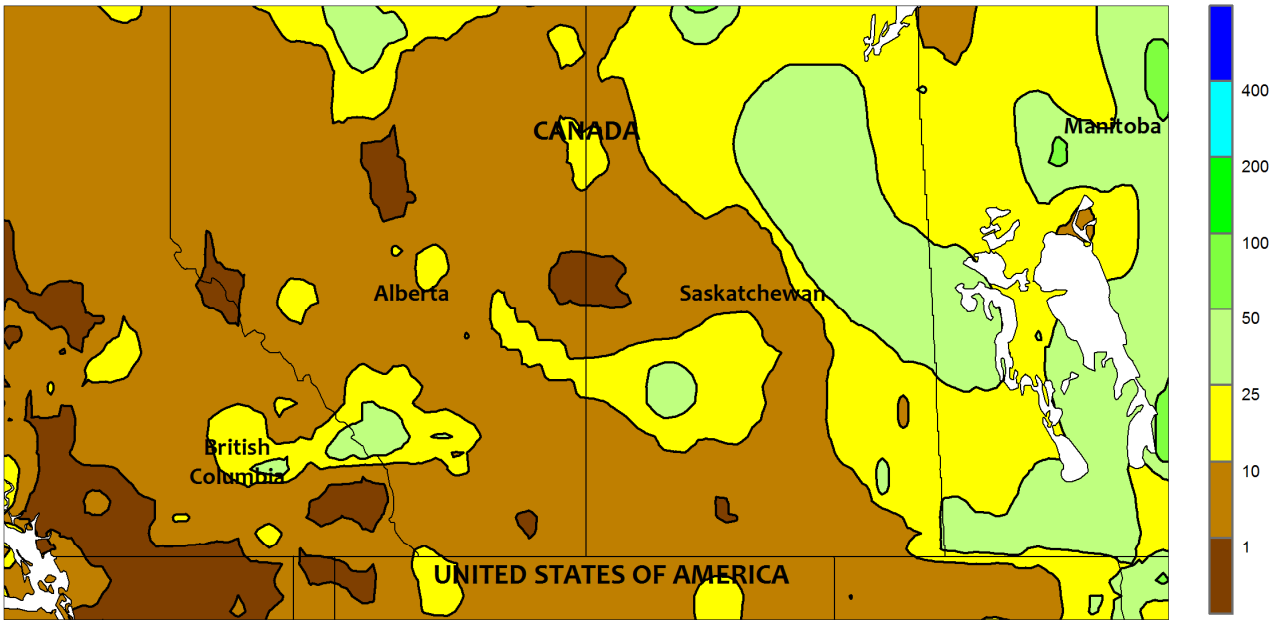
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

MEXICO

Seasonal showers continued to be lighter than normal in many agricultural areas, raising concern for rain-fed summer crops and future capacity for irrigation of winter-grown crops. Showers were generally patchy and light (5-25 mm) across key growing areas of the southern plateau (Jalisco to Puebla), though a few locales recorded locally heavier rain. Near- to above-normal temperatures (daytime highs reaching the upper 20s and lower 30s degrees C) accompanied the dryness, increasing crop moisture demands and exacerbating losses to evaporation. Similar conditions were recorded along the southern Pacific Coast (Michoacan to Oaxaca), where temperatures reached the middle 30s, and in drought-plagued agricultural areas along the Gulf Coast (Veracruz south and eastward), where little to no rain fell. Meanwhile, showers (5-50 mm) were widely scattered across the north, though heavier rainfall (greater than 25 mm) was concentrated over watersheds in Sinaloa and nearby areas of Sonora and Chihuahua. Daytime highs reaching the lower 40s in some northern locations, including the Rio Grande Valley, maintained high water requirements for livestock and irrigated crops. On September 4, Tropical Storm Fernand was making landfall on the coast of Tamaulipas, promising some relief from the heat and dryness (*additional information will appear in next week's Weather and Crop Bulletin*).

For additional information contact: mbrusberg@oce.usda.gov

CANADIAN PRAIRIES
Total Precipitation (mm)
August 25 - 31, 2019



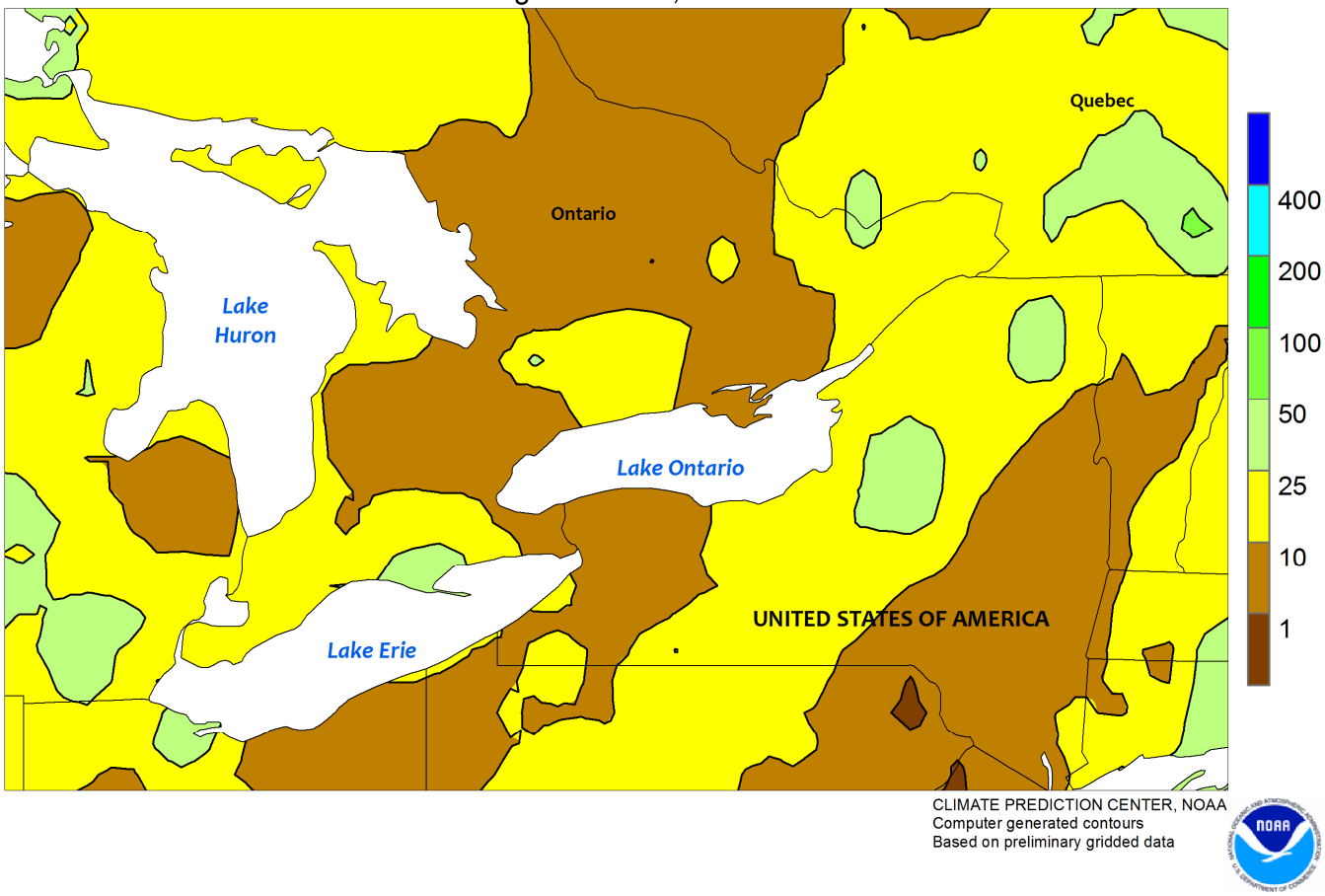
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded data

CANADIAN PRAIRIES

Showers slowed fieldwork in eastern sections of the Prairies, but drier conditions prevailed in much of the west. Rainfall totaled 10 to 25 mm or more in Manitoba and neighboring agricultural districts in Saskatchewan; aside from some pockets of rain farther west, mostly dry weather prevailed, with most locations recording less than 5 mm. With the exception of Alberta's southern farming areas, weekly temperatures continued to average below normal across the region, with nighttime lows dropping below 5°C in most locations. Daytime highs reached the upper 20s (degrees C) along the southern borders of Alberta and Saskatchewan, otherwise daytime highs were generally capped in the lower and middle 20s. According to the government of Saskatchewan, harvesting of all crops was 6 percent complete as of August 25, lagging the 5-year average pace by 10 points. Similarly, Manitoba reported lags in harvesting when compared with 2018; spring wheat was 45 percent harvested as of August 27, compared with 70 percent last year, and canola was 12 percent harvested, 33 points behind last year's pace.

For additional information contact: mbrusberg@oce.usda.gov

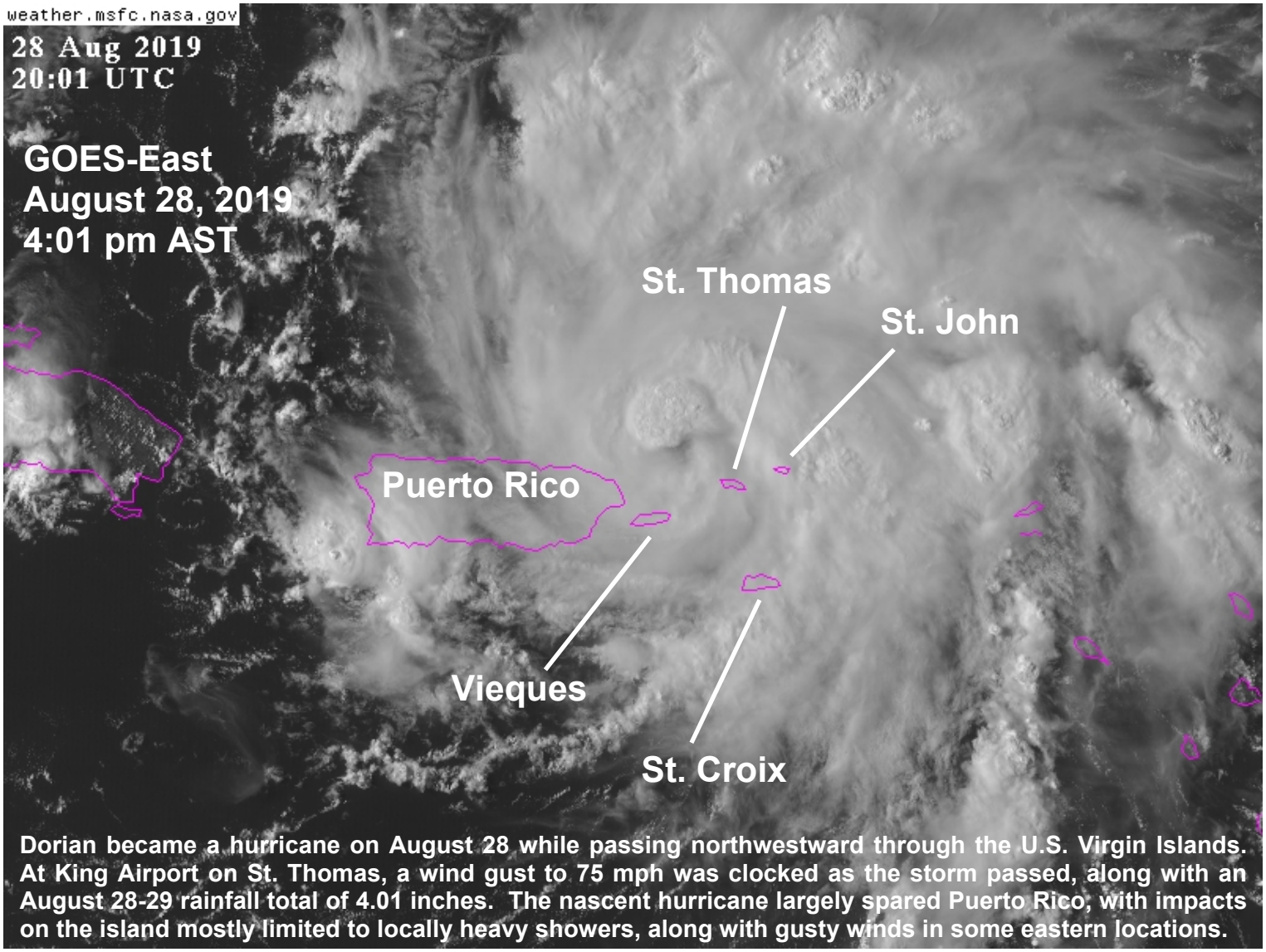
SOUTHEASTERN CANADA
Total Precipitation (mm)
August 25 - 31, 2019



SOUTHEASTERN CANADA

Warm, showery weather overspread the region, locally slowing seasonal fieldwork such as corn and soybean harvesting and preparations for planting winter wheat. However, nearly all locations recorded less than 25 mm, and farmlands north of Lake Ontario received less than 10 mm for a third week. Meanwhile, seasonably warm weather, with daytime highs reaching the middle and upper 20s (degrees C), favored late developing summer crops, although nighttime lows dropped below 10°C on several occasions. Reports from Ontario depict concerns that delays in soybean harvesting will translate to delays in planting winter wheat; the aforementioned dry locations in Ontario reach their optimal planting date within the next few weeks and although conditions currently favor summer crop harvesting, additional moisture would be welcome for winter crop germination.

For additional information contact: mbrusberg@oce.usda.gov



Dorian became a hurricane on August 28 while passing northwestward through the U.S. Virgin Islands. At King Airport on St. Thomas, a wind gust to 75 mph was clocked as the storm passed, along with an August 28-29 rainfall total of 4.01 inches. The nascent hurricane largely spared Puerto Rico, with impacts on the island mostly limited to locally heavy showers, along with gusty winds in some eastern locations.

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

Correspondence to the meteorologists should be directed to:
***Weekly Weather and Crop Bulletin*, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 4443B, Washington, DC 20250.**
Internet URL: **http://www.usda.gov/oce/weather**
E-mail address: ***brippey@oce.usda.gov***

The *Weekly Weather and Crop Bulletin* and archives are maintained on the following USDA Internet URL:
http://www.usda.gov/oce/weather/pubs/Weekly/Wwcb/index.htm