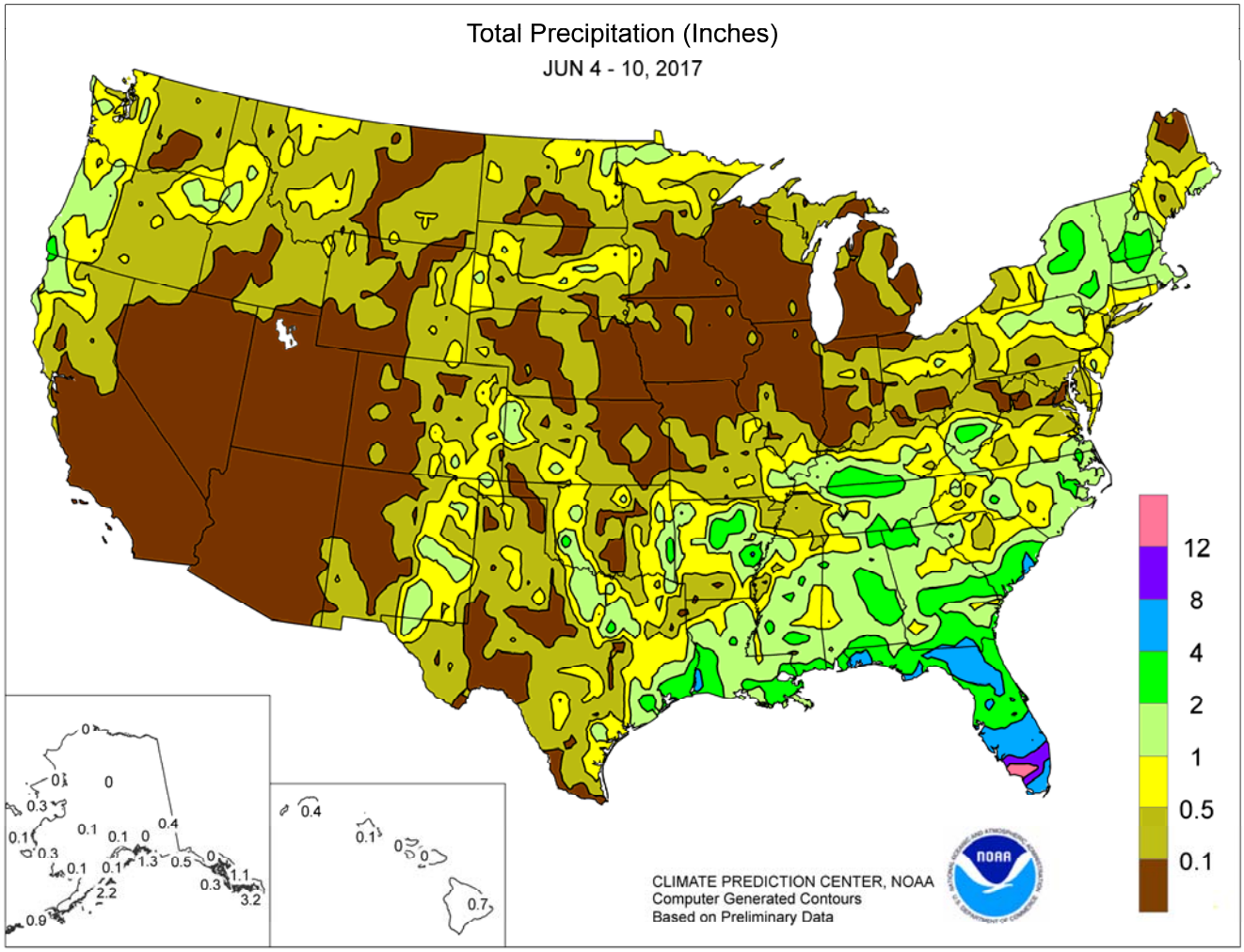
Volume 104, No. 24 http://www.usda.gov/oce/weather June 13, 2017

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 4 – 10, 2017

Highlights provided by USDA/WAOB

Mostly dry weather persisted through a second consecutive week in the heart of the **Midwest**, favoring winter wheat maturation but sharply reducing topsoil moisture availability for corn and soybean development. In addition, late-week heat spread across the **western Corn Belt**. Meanwhile, late-week showers and thunderstorms provided only local relief to heat- and drought-stressed rangeland, pastures, winter wheat, and spring-sown crops on the **northern Plains**. Farther south, however, widespread **Southeastern** showers slowed fieldwork—

(Continued on page 5)

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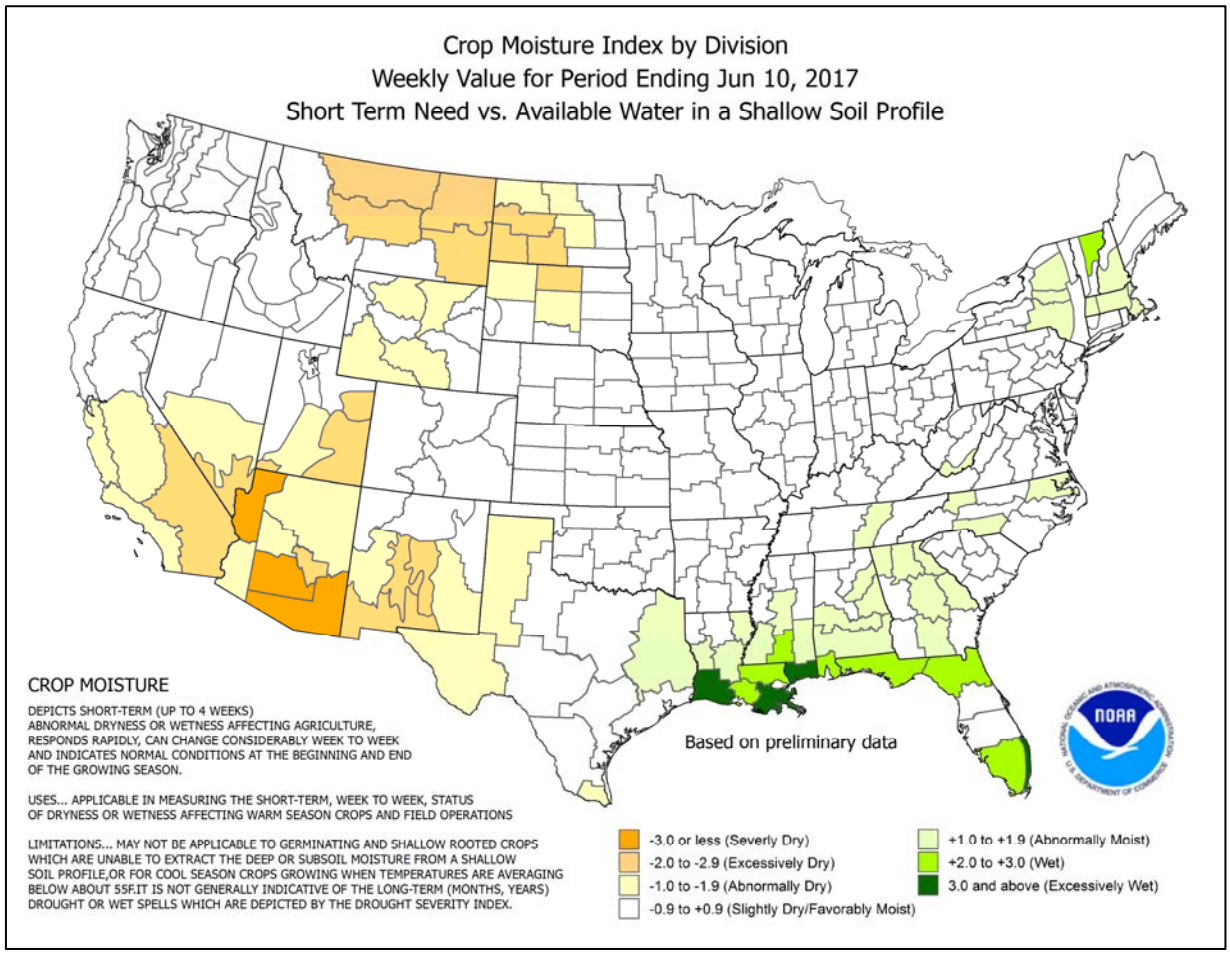
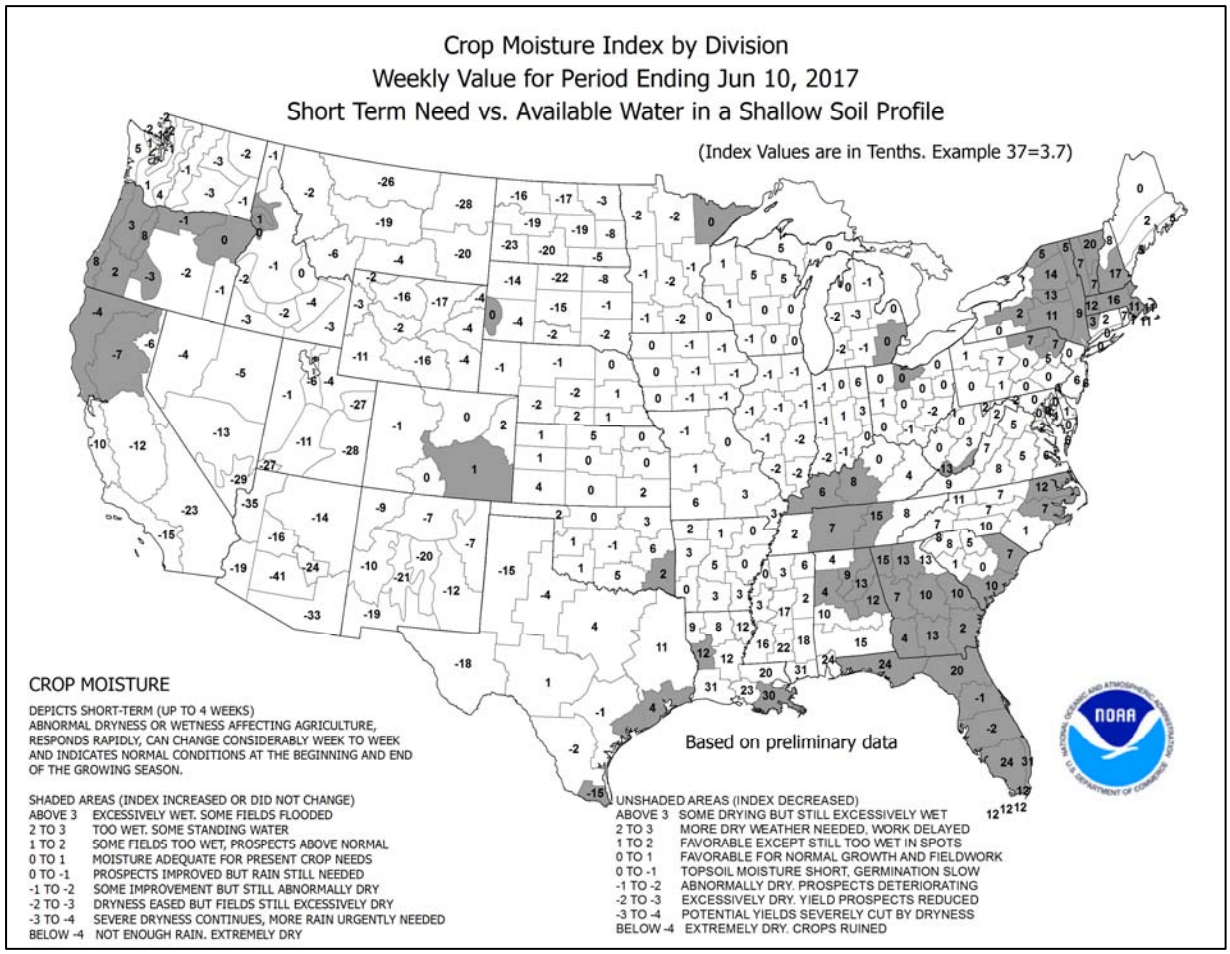
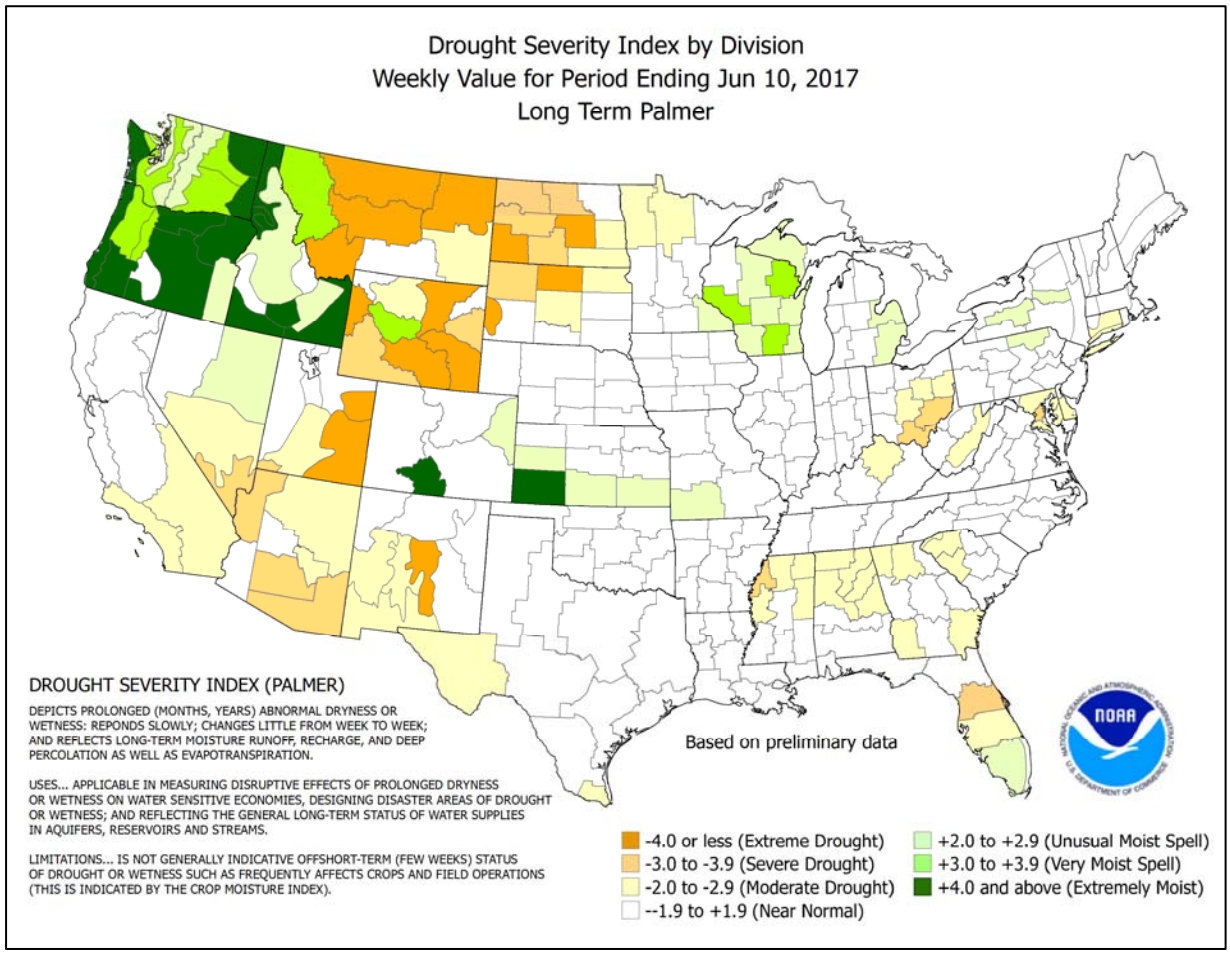
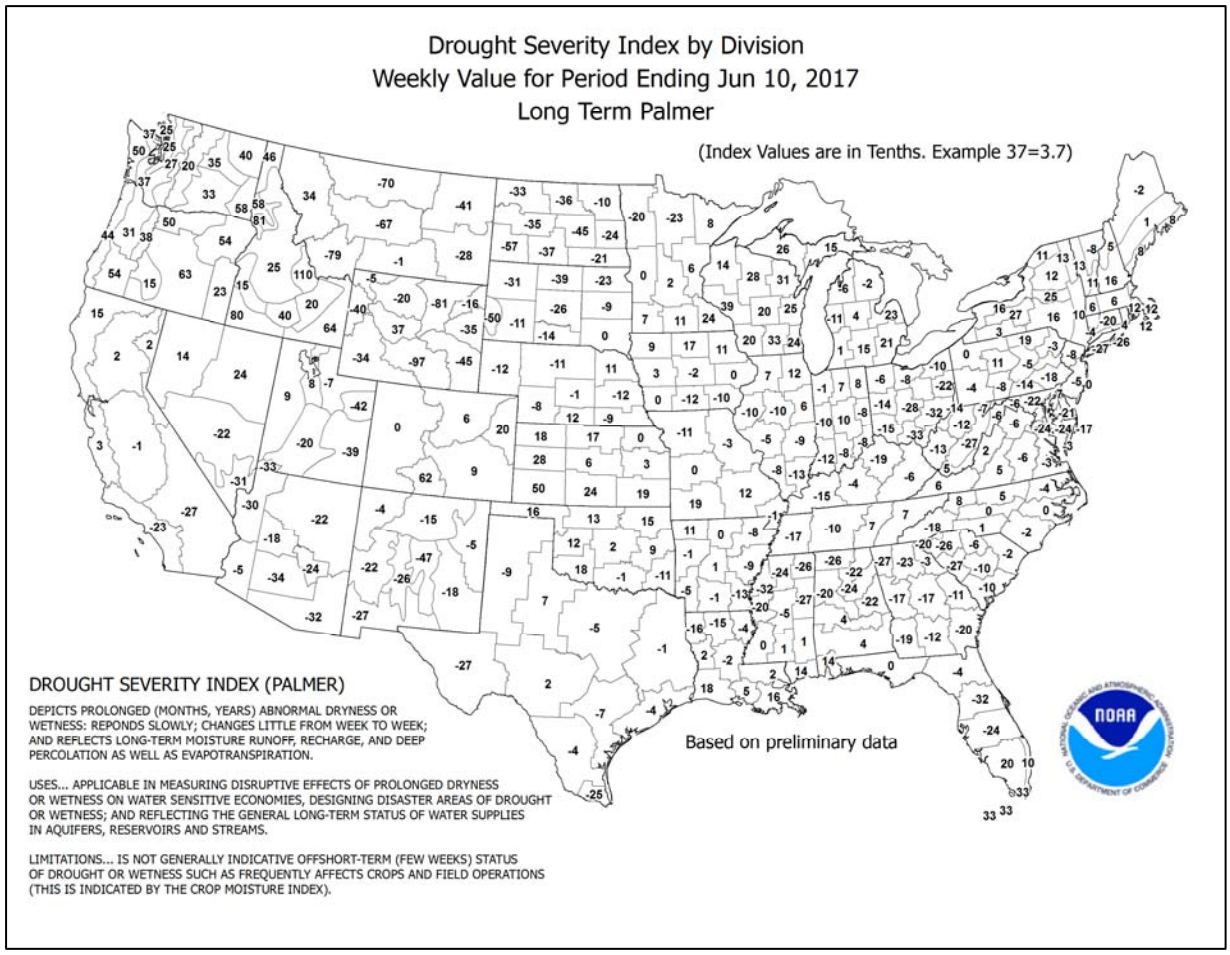

Crop Moisture Index by Division
Weekly Value for Period Ending Jun 10, 2017
Short Term Need vs. Available Water in a Shallow Soil Profile
CROP MOISTURE
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES 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)
NOAA


Crop Moisture Index by Division
Weekly Value for Period Ending Jun 10, 2017
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
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
Based on preliminary data
NOAA


Drought Severity Index by Division
Weekly Value for Period Ending Jun 10, 2017
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
NOAA
-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)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Long Term Palmer
(Index Values are in Tenths. Example 37=3.7)
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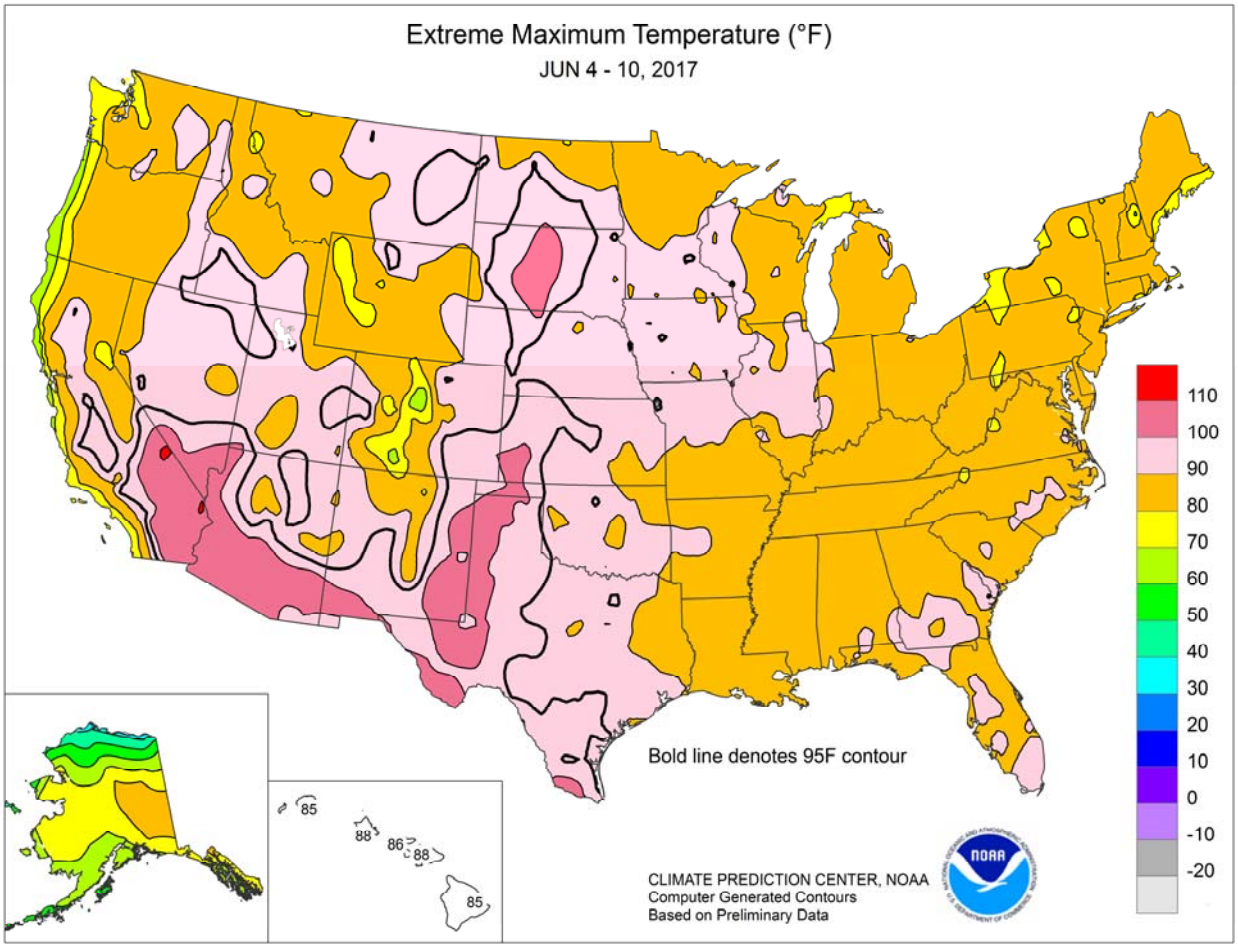
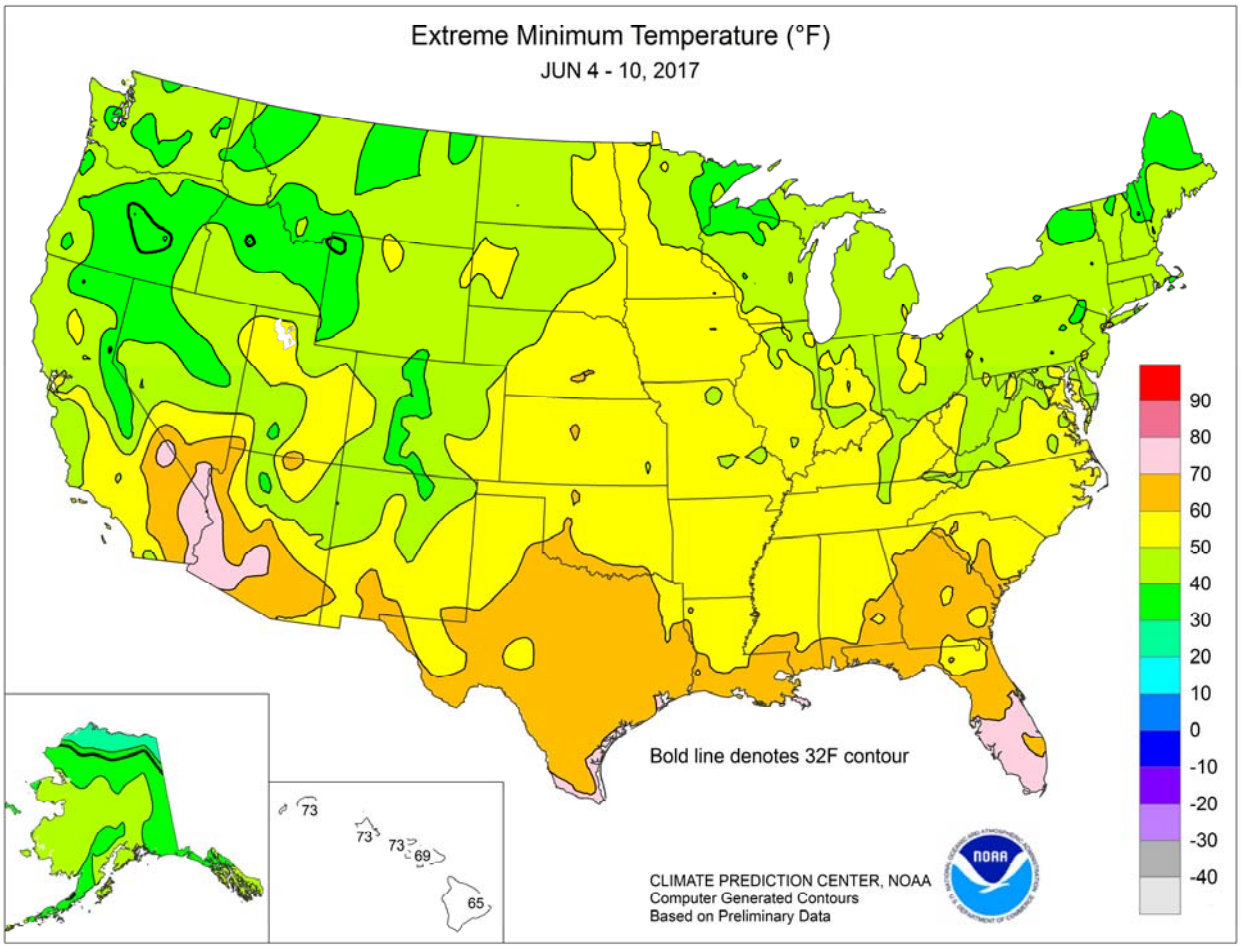
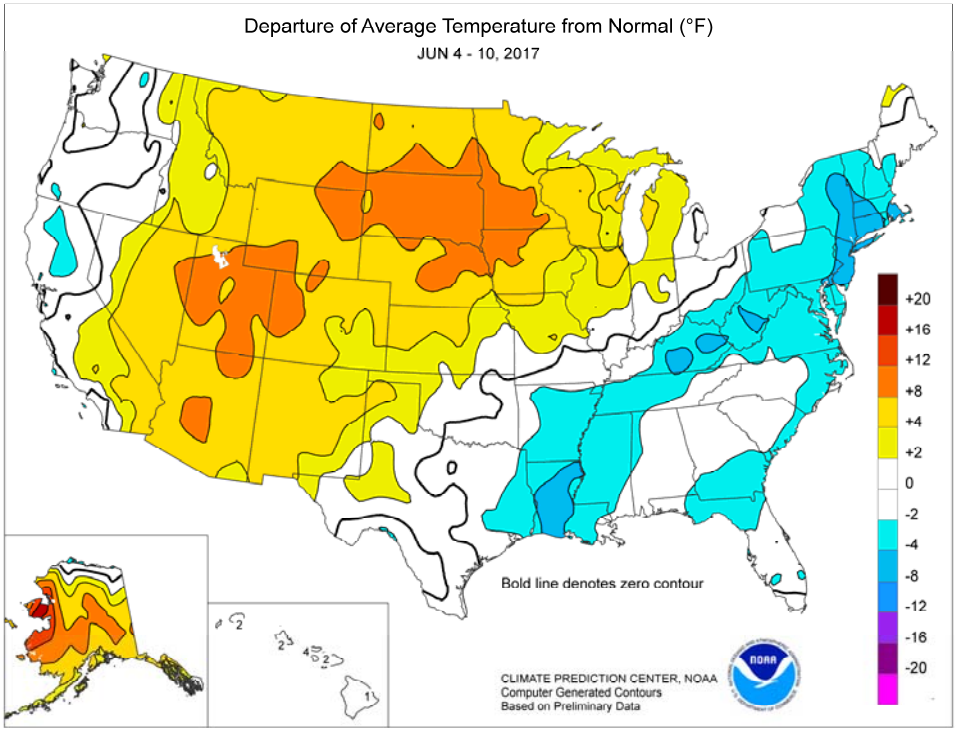
Based on preliminary data
NOAA


Extreme Maximum Temperature (°F)
JUN 4 - 10, 2017
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
85
88
86
88
85
Bold line denotes 95F contour
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA


Extreme Minimum Temperature (°F)
JUN 4 - 10, 2017
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
73
73
73
69
65
Bold line denotes 32F contour
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA

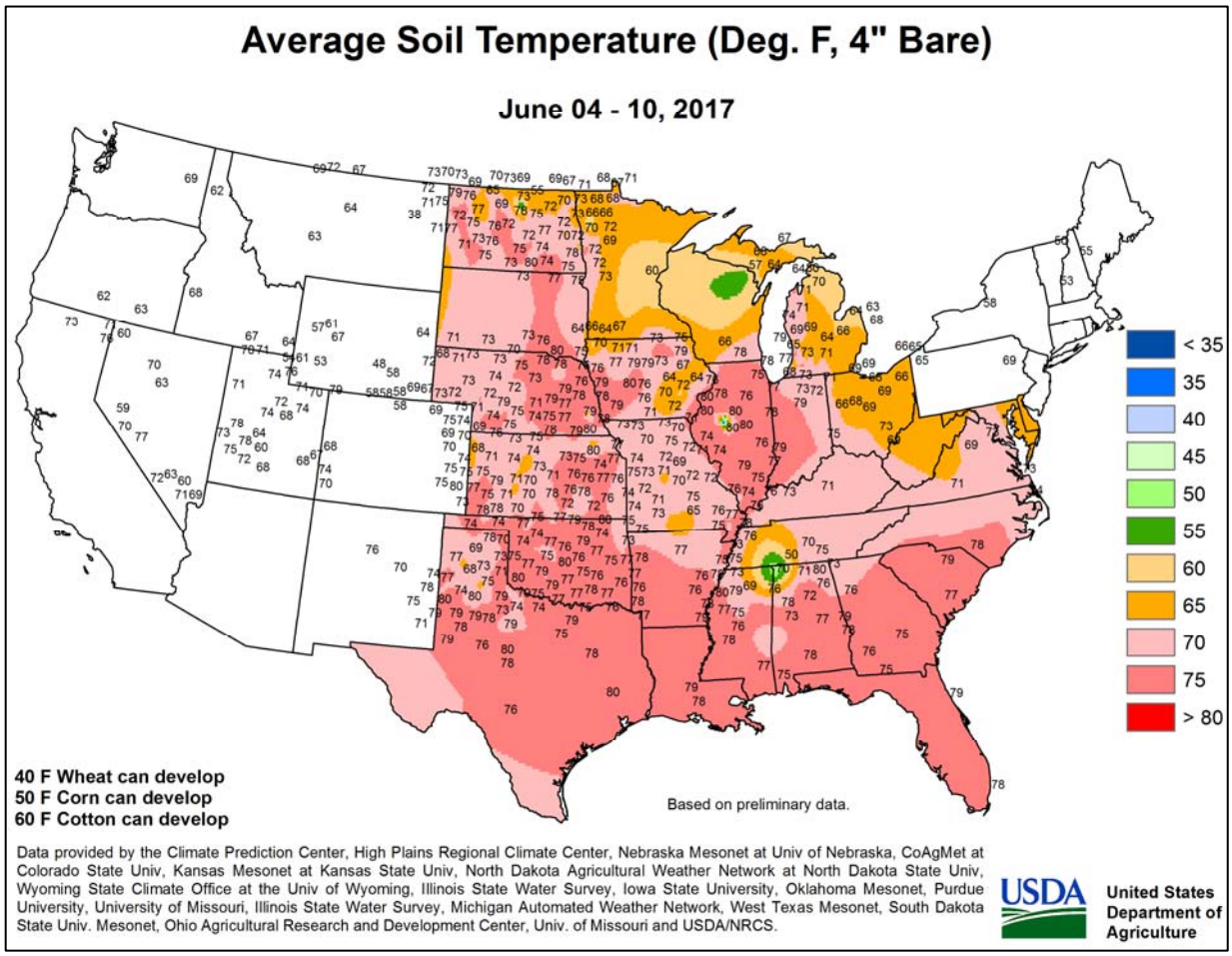
(Continued from front cover)
including winter wheat harvesting—but nearly eliminated any remaining drought areas. The heaviest rain (locally 4 to 8 inches or more) fell across parts of **Florida** and **southernmost Georgia**. In contrast, seasonably dry weather covered the **Southwest**, accompanied by consistently hot conditions. Weekly temperatures averaged as much as 5 to 10°F above normal from the **Southwest and Intermountain West to the northern Plains and upper Midwest**. As heat shifted eastward, late-week temperatures topped 100°F on the **Plains** as far north as the **Dakotas**. Elsewhere, scattered showers were noted in the **Northwest**, as well as **central and southern sections of the Rockies and Plains**. On the **central and southern Plains**, the hit-or-miss showers generally caused only minor winter wheat harvest delays.

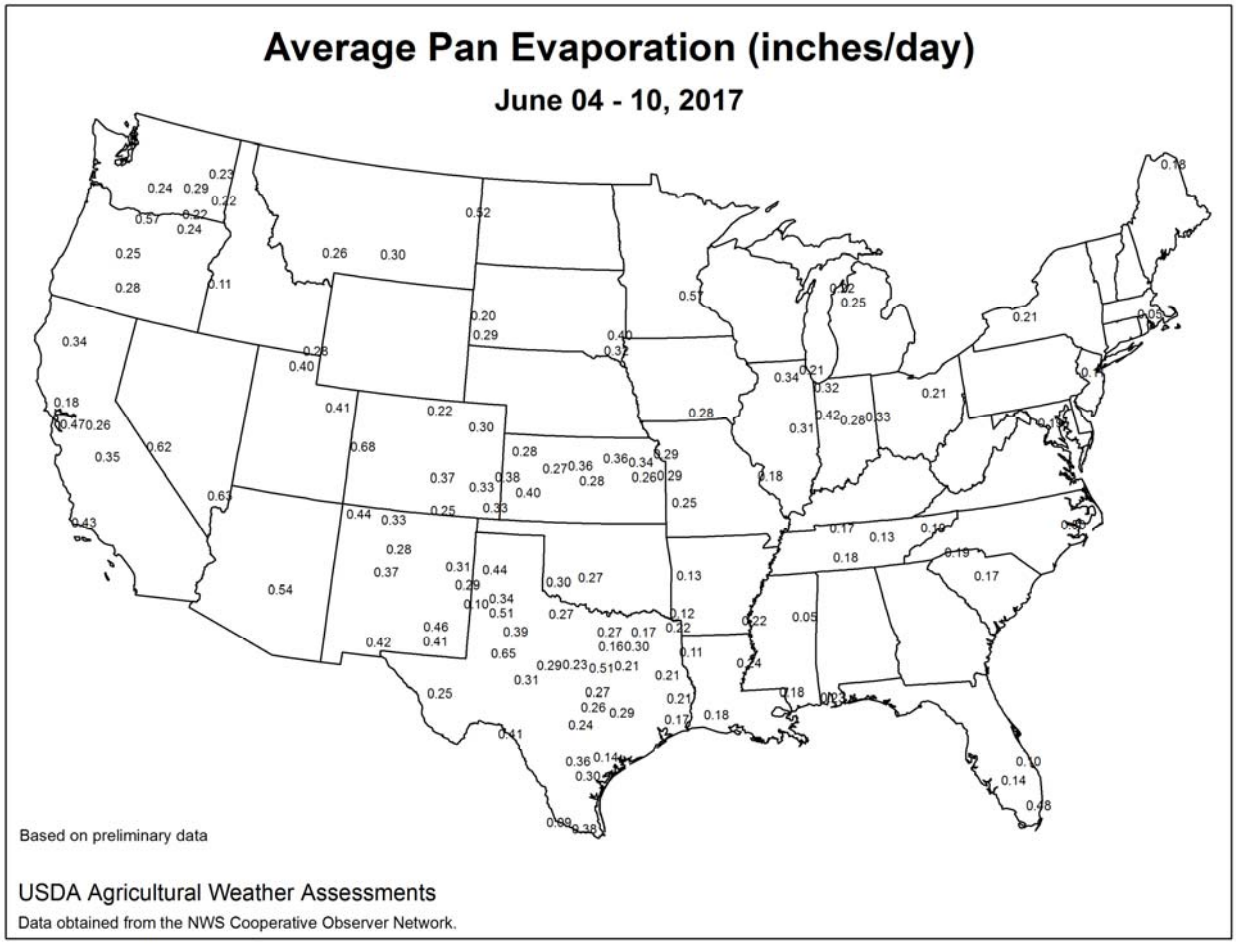


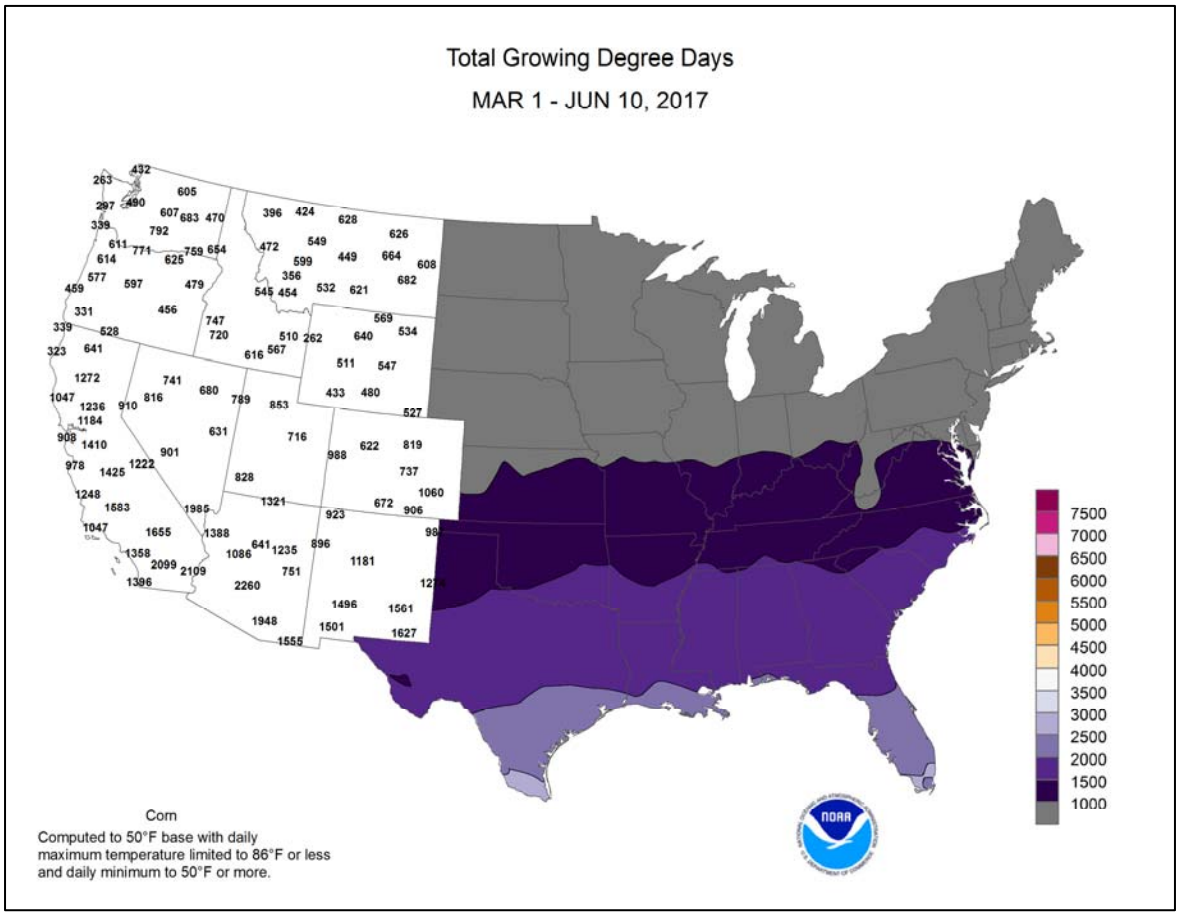
Daily-record rainfall totals topped 4 inches at various times during the week at several locations in **Florida**. Some of **Florida's** heaviest rain fell on June 6, when daily-record amounts reached 4.78 inches in **Fort Lauderdale**; 4.52 inches in **Pensacola**; and 4.18 inches in **West Palm Beach**. The following day, record-setting totals in **Florida** included 4.45 inches in **Gainesville** and 4.39 inches in **Key West**. For **Gainesville**, it was the sixth-wettest June day, well below the Tropical Storm Debby-induced record of 6.95 inches set on June 24, 2012. Outside of **Florida**, daily-record totals included 3.95 inches (on June 5) in **Batesville, AR**, and 3.15 inches (on June 4) in **Beaumont-Port Arthur, TX**. Farther north, a slow-moving storm system resulted in a record-setting rainfall total for June 6 in **Concord, NH**, where 1.98 inches fell. Later, mid- to late-week showers in the **Northwest** contributed to several daily-record amounts, including 1.43 inches (on June 8) in **Meacham, OR**, and 0.29 inch (on June 10) in **Redmond, OR**. In contrast, not a single drop of rain fell during the first 10 days of June in **Midwestern** locations such as **Des Moines, IA**; **Quincy, IL**; and **Kirksville, MO**.

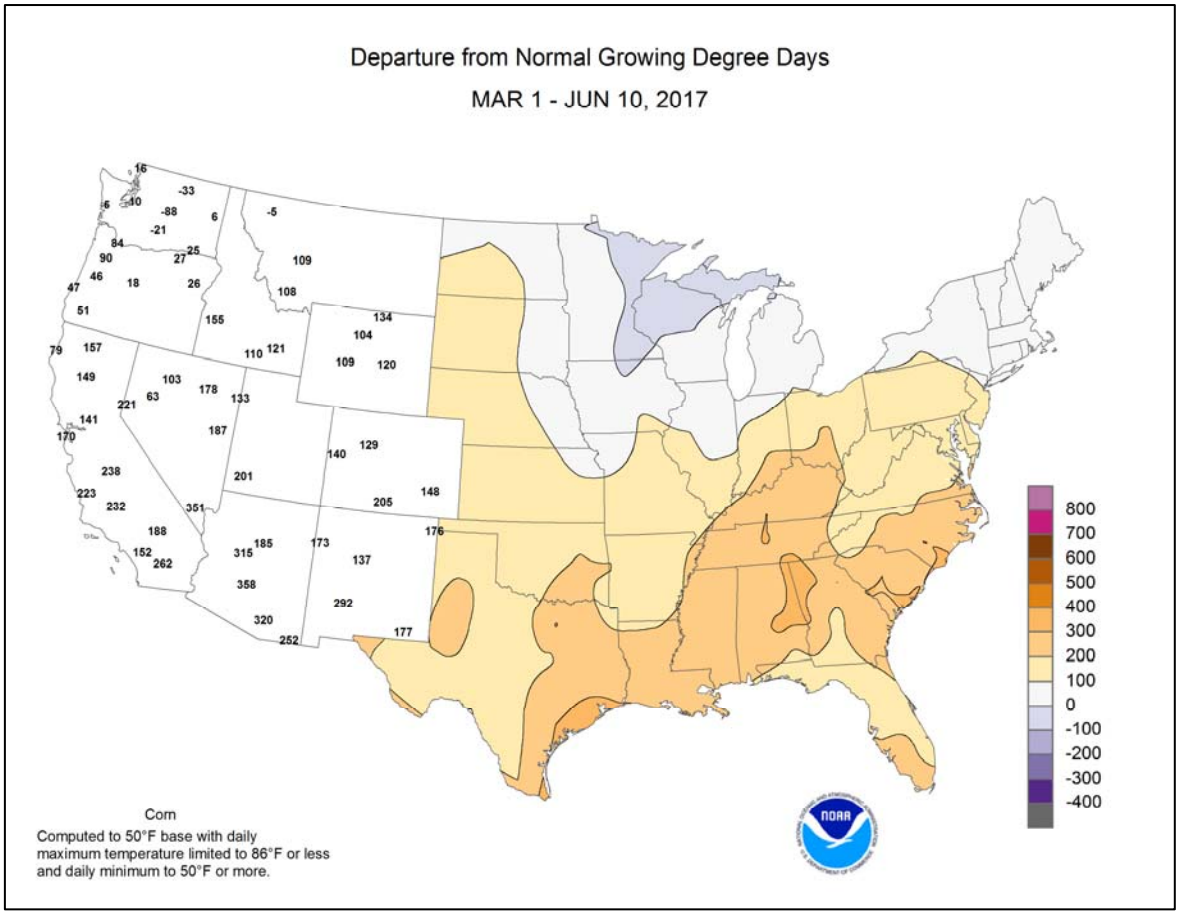
Building heat across the **western and central U.S.** led to several daily-record highs. In **Utah**, record-setting highs for June 4 reached 97°F in **Wendover** and 95°F in **Tooele**. On June 5 in **Texas**, **McAllen** posted a daily-record high of 106°F. **Brownsville, TX**, tallied a trio of daily-record highs (98, 97, and 97°F) from June 5-7. Meanwhile, chilly air associated with a **Northeastern** storm system kept the temperature from rising above the 50-degree mark on June 6 in locations such as **Worcester, MA** (high of 49°F), and **Concord, NH** (50°F). Heat surged, however, across the **northern Intermountain West** and the **northern Plains**. **Idaho Falls, ID**, notched consecutive daily-record highs (92 and 90°F, respectively) on June 7-8. By June 9, triple-digit, daily-record highs reached locations such as **Mobridge, SD** (103°F); **Valentine, NE** (102°F); and **Bismarck, ND** (101°F). On June 10, heat expanded to the **southern High Plains** and the **upper Midwest**, resulting in daily-record highs in **Roswell, NM** (106°F), and **La Crosse, WI** (96°F). Conversely, cooler weather in the **Northwest** led to a daily-record low (29°F on June 10) in **Burns, OR**.

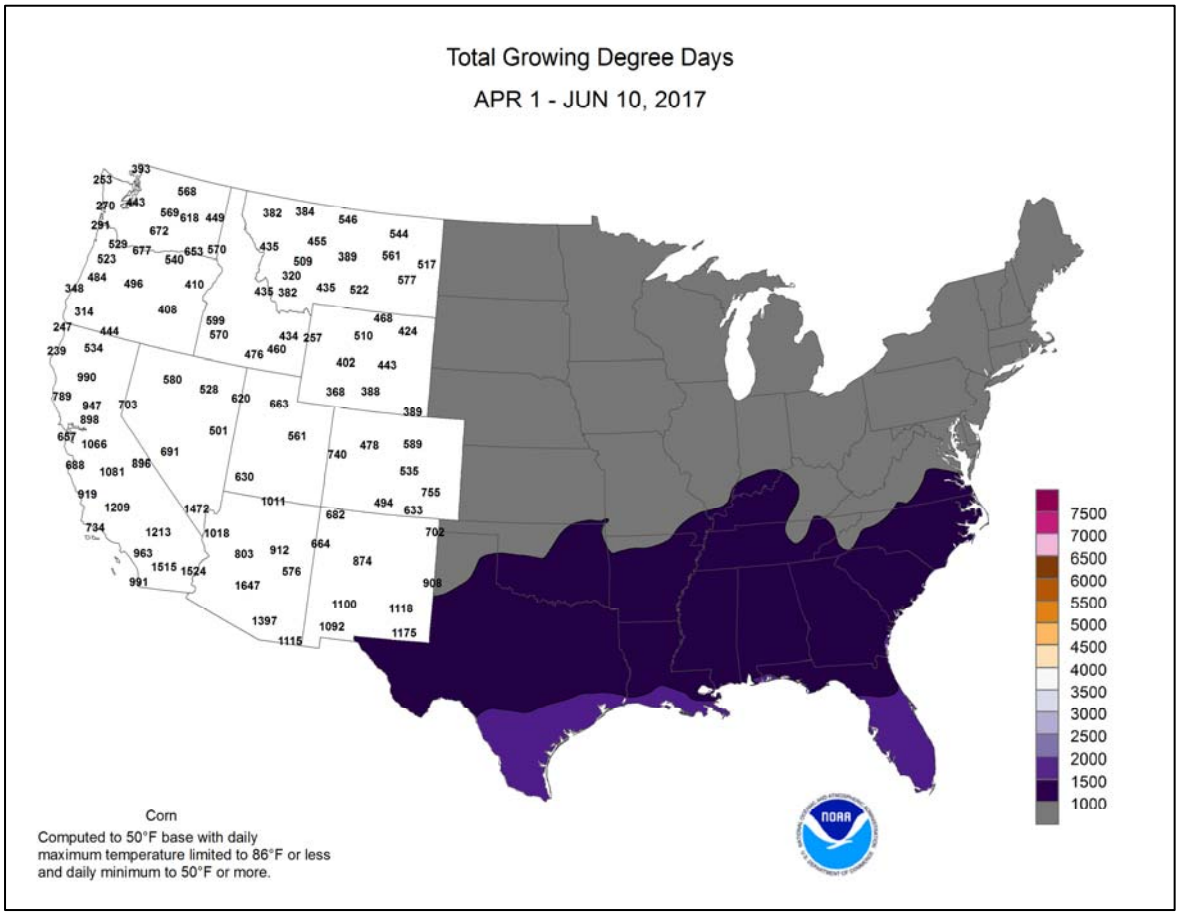
In **Alaska**, very warm, dry weather preceded a rash of lightning-laced thundershowers, leading to the ignition of more than a dozen large wildfires. The fires, most of which were burning in **southwestern Alaska**, were dampened by beneficial showers at week's end. By June 11, new **Alaskan** wildfires had collectively charred more than 67,000 acres. Meanwhile, weekly temperatures averaged at least 5 to 10°F above normal across much of **mainland Alaska**, except across the state's northern tier. Temperatures averaged more than 15°F above normal in a few western locations. On June 8-9, **Delta Junction** collected consecutive daily-record highs (84 and 88°F, respectively). Other daily-record highs included 76°F (on June 8) in **Nome** and 90°F (on June 9) in **Fairbanks**. The last time **Fairbanks** had attained the 90-degree mark was June 26, 2013, when the high reached 92°F. Relief in the form of cooler weather and rain arrived in much of **Alaska** by Sunday, June 11, when **Fairbanks** measured a daily-record rainfall of 1.03 inches. Farther south, warm, mostly dry weather continued across **Hawaii**. During the first 10 days of June, month-to-date rainfall the state's major airport observation sites ranged from 0.02 inch (33 percent of normal) in **Kahului, Maui**, to 0.91 inch (42 percent) at **Hilo**, on the **Big Island**. However, windward showers increased toward week's end, especially on **Kauai**, where famously wet **Mount Waialeale** netted 8.55 inches of rain in a 48-hour period from June 9-11.

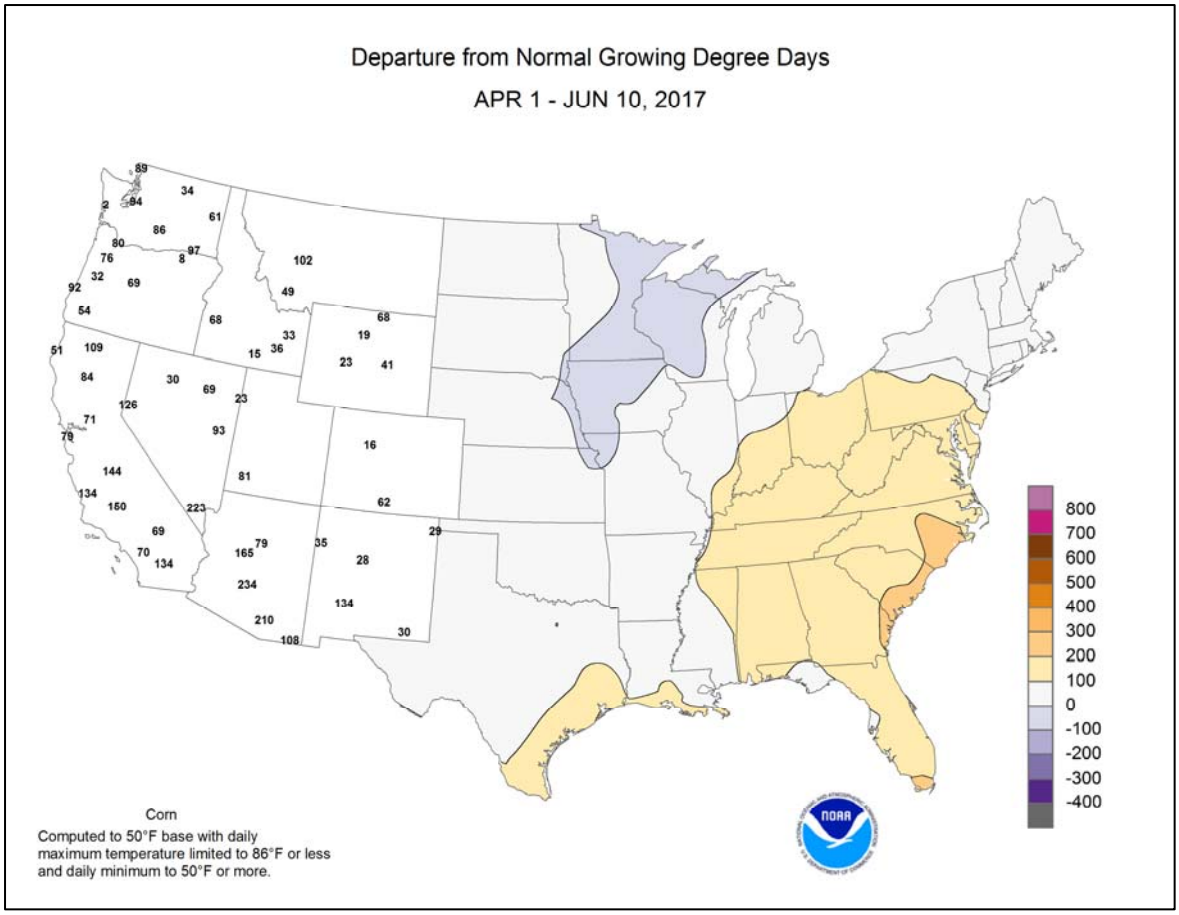

Average Soil Temperature (Deg. F, 4" Bare)
June 04 - 10, 2017
< 35
35
40
45
50
55
60
65
70
75
> 80
40 F Wheat can develop
50 F Corn can develop
60 F Cotton can develop
Based on preliminary data.
Data provided by the Climate Prediction Center, High Plains Regional Climate Center, Nebraska Mesonet at Univ 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 04 - 10, 2017
Based on preliminary data
USDA Agricultural Weather Assessments
Data obtained from the NWS Cooperative Observer Network.


Total Growing Degree Days
MAR 1 - JUN 10, 2017
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 10, 2017
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 10, 2017
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 10, 2017
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 10, 2017

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
AL	BIRMINGHAM	83	66	87	58	74	0	2.08	1.23	1.32	2.38	190	30.04	113	94	52	0	0	3	2
	HUNTSVILLE	85	65	89	56	75	1	1.05	0.02	0.63	1.05	70	23.78	84	90	54	0	0	3	1
	MOBILE	87	68	88	62	78	0	1.76	0.57	1.14	2.53	146	34.52	112	90	57	0	0	4	1
	MONTGOMERY	87	69	90	62	78	1	2.00	1.17	0.82	2.97	247	36.89	139	84	49	1	0	4	2
AK	ANCHORAGE	62	50	66	46	56	4	0.22	0.02	0.14	0.23	79	5.05	141	86	69	0	0	3	0
	BARROW	32	24	36	22	28	-3	0.00	-0.03	0.00	0.00	0	3.30	550	94	81	0	7	0	0
	FAIRBANKS	79	58	90	47	68	11	0.00	-0.26	0.00	0.00	0	3.04	129	56	40	1	0	0	0
	JUNEAU	63	48	73	36	55	3	0.12	-0.65	0.08	0.14	13	22.31	112	93	73	0	0	3	0
	KODIAK	52	46	56	45	49	2	2.23	0.89	0.94	2.23	116	22.95	70	96	83	0	0	6	2
	NOME	71	53	76	48	62	17	0.29	0.09	0.28	0.29	100	2.85	72	58	39	0	0	2	0
AZ	FLAGSTAFF	81	45	83	38	63	6	0.00	-0.04	0.00	0.00	0	9.64	101	50	14	0	0	0	0
	PHOENIX	106	81	107	78	93	7	0.00	0.00	0.00	0.00	0	2.41	78	21	12	7	0	0	0
	PRESCOTT	89	57	92	53	73	9	0.00	-0.01	0.00	0.00	0	4.90	72	43	11	4	0	0	0
	TUCSON	104	73	107	71	89	8	0.00	0.00	0.00	0.00	0	1.60	50	24	13	7	0	0	0
AR	FORT SMITH	86	65	93	59	75	0	2.29	1.18	1.72	2.74	170	24.81	126	85	45	1	0	2	2
	LITTLE ROCK	83	63	89	57	73	-3	0.67	-0.29	0.51	1.05	76	26.87	113	96	52	0	0	2	1
CA	BAKERSFIELD	92	65	99	61	79	4	0.00	-0.04	0.00	0.00	0	4.79	105	48	29	5	0	0	0
	FRESNO	90	61	97	56	76	3	0.00	-0.07	0.00	0.00	0	12.64	163	53	31	4	0	0	0
	LOS ANGELES	69	60	71	58	65	0	0.00	-0.03	0.00	0.00	0	12.07	128	93	81	0	0	0	0
	REDDING	85	59	96	50	72	0	0.57	0.31	0.31	0.57	143	28.28	131	72	41	3	0	2	0
	SACRAMENTO	82	54	93	50	68	-1	0.10	0.04	0.10	0.10	100	23.64	200	87	34	2	0	1	0
	SAN DIEGO	68	62	73	61	65	-1	0.00	-0.03	0.00	0.00	0	7.73	102	88	76	0	0	0	0
	SAN FRANCISCO	68	54	74	51	61	1	0.05	0.02	0.05	0.05	83	21.97	165	81	60	0	0	1	0
	STOCKTON	86	56	94	50	71	0	0.03	-0.01	0.03	0.03	50	15.62	174	75	43	3	0	1	0
CO	ALAMOSA	81	44	85	38	63	6	0.00	-0.13	0.00	0.15	79	4.40	187	80	28	0	0	0	0
	CO SPRINGS	83	53	94	48	68	7	0.03	-0.54	0.03	0.09	11	6.21	95	79	26	2	0	1	0
	DENVER INTL	86	54	94	47	70	8	0.01	-0.46	0.01	0.02	3	6.33	109	74	27	2	0	1	0
	GRAND JUNCTION	95	62	97	60	79	11	0.00	-0.12	0.00	0.03	16	2.86	69	34	15	7	0	0	0
	PUEBLO	87	53	97	51	70	3	0.77	0.47	0.77	1.46	332	10.52	222	82	43	2	0	1	1
CT	BRIDGEPORT	71	54	85	50	63	-2	0.23	-0.62	0.21	0.26	21	20.09	100	81	57	0	0	2	0
	HARTFORD	73	49	86	44	61	-5	1.15	0.20	0.62	1.19	87	19.46	96	89	60	0	0	3	1
DC	WASHINGTON	80	62	87	56	71	-1	0.00	-0.77	0.00	0.00	0	14.79	86	86	46	0	0	0	0
DE	WILMINGTON	76	55	87	50	66	-3	0.50	-0.33	0.43	0.50	42	17.68	93	95	53	0	0	2	0
FL	DAYTONA BEACH	84	72	88	70	78	0	2.78	1.56	1.18	3.20	189	11.43	66	99	72	0	0	5	3
	JACKSONVILLE	83	67	89	60	75	-3	1.93	0.85	0.98	3.34	221	19.19	102	99	72	0	0	4	2
	KEY WEST	86	79	89	72	83	0	4.94	3.82	4.39	4.94	313	13.99	110	88	75	0	0	3	1
	MIAMI	88	75	92	72	82	0	5.25	3.25	1.92	10.64	381	24.12	133	89	72	1	0	6	3
	ORLANDO	85	71	90	68	78	-2	2.63	1.15	1.04	3.09	151	9.52	58	100	80	1	0	6	3
	PENSACOLA	85	73	89	71	79	0	1.14	-0.16	0.59	1.46	80	29.94	113	85	61	0	0	3	1
	TALLAHASSEE	85	67	90	60	76	-3	3.53	2.03	2.02	3.69	175	23.49	87	97	76	1	0	4	3
	TAMPA	85	75	89	72	80	-1	2.47	1.38	1.50	2.97	198	8.94	64	90	71	0	0	5	1
	WEST PALM BEACH	84	72	91	67	78	-2	7.40	5.69	3.32	7.87	329	19.28	90	92	73	1	0	6	4
GA	ATHENS	84	65	88	60	74	0	1.02	0.11	0.61	1.02	78	26.13	116	95	64	0	0	2	1
	ATLANTA	82	68	86	65	75	0	2.30	1.54	1.07	2.30	209	25.38	107	89	59	0	0	4	2
	AUGUSTA	87	66	91	59	77	1	0.48	-0.46	0.36	0.48	36	20.42	99	89	54	3	0	3	0
	COLUMBUS	85	69	89	64	77	0	0.26	-0.47	0.11	0.34	32	25.91	110	90	52	0	0	4	0
	MACON	84	66	89	60	75	-1	1.95	1.21	1.23	2.31	222	26.04	121	93	55	0	0	4	1
	SAVANNAH	87	67	96	62	77	0	0.85	-0.32	0.46	1.12	69	24.87	130	89	56	3	0	4	0
HI	HILO	84	68	85	65	76	1	0.65	-0.81	0.24	0.91	44	35.57	64	88	74	0	0	5	0
	HONOLULU	87	75	88	73	81	2	0.10	-0.01	0.10	0.10	63	13.58	151	71	62	0	0	1	0
	KAHULUI	87	72	88	69	79	2	0.02	-0.02	0.02	0.02	33	14.65	134	83	68	0	0	1	0
	LIHUE	83	74	85	73	79	2	0.39	-0.07	0.29	0.41	59	14.97	83	84	73	0	0	4	0
ID	BOISE	81	55	97	49	68	4	0.00	-0.20	0.00	0.03	10	9.82	145	68	35	1	0	0	0
	LEWISTON	76	52	96	46	64	1	0.45	0.14	0.23	0.48	107	10.23	157	84	50	1	0	4	0
	POCATELLO	82	47	94	40	64	5	0.22	-0.04	0.22	0.22	56	10.13	153	78	44	3	0	1	0
IL	CHICAGO/O'HARE	83	60	92	53	71	6	0.06	-0.77	0.06	0.06	5	18.17	127	67	38	2	0	1	0
	MOLINE	87	58	92	50	72	3	0.00	-1.09	0.00	0.00	0	14.76	94	68	32	2	0	0	0
	PEORIA	85	59	91	52	72	4	0.00	-0.87	0.00	0.01	1	18.50	123	75	32	2	0	0	0
	ROCKFORD	84	57	90	50	71	5	0.08	-0.99	0.05	0.89	59	19.74	138	72	40	2	0	2	0
	SPRINGFIELD	87	61	95	52	74	4	0.00	-0.91	0.00	0.00	0	16.92	111	78	29	2	0	0	0
IN	EVANSVILLE	84	60	86	52	72	0	0.06	-0.94	0.05	0.06	4	20.38	96	77	42	0	0	2	0
	FORT WAYNE	82	58	90	49	70	3	0.42	-0.51	0.27	0.42	32	24.87	161	76	34	1	0	2	0
	INDIANAPOLIS	81	59	88	53	70	1	0.02	-0.94	0.02	0.02	1	24.29	138	75	36	0	0	1	0
	SOUTH BEND	81	55	87	48	68	2	0.17	-0.75	0.12	0.17	13	19.40	125	78	44	0	0	2	0
IA	BURLINGTON	86	60	91	54	73	4	0.01	-1.01	0.01	0.01	1	14.16	93	81	31	2	0	1	0
	CEDAR RAPIDS	85	58	91	52	71	3	0.02	-0.99	0.02	0.02	1	12.40	96	83	33	2	0	1	0
	DES MOINES	88	62	94	54	75	6	0.00	-1.07	0.00	0.00	0	14.97	109	66	35	3	0	0	0
	DUBUQUE	82	57	87	51	69	3	0.00	-0.99	0.00	0.00	0	13.71	96	69	40	0	0	0	0
	SIOUX CITY	92	61	94	54	76	8	0.00	-0.87	0.00	0.00	0	10.47	96	74	33	6	0	0	0
	WATERLOO	87	56	92	49	72	5	0.02	-1.09	0.02	0.02	1	13.04	101	74	42	3	0	1	0
KS	CONCORDIA	87	62	93	55	75	5	0.04	-0.91	0.04	0.48	35	18.86	160	91	47	2	0	1	0
	DODGE CITY	85	61	93	58	73	2	1.90	1.16	1.10	2.27	214	21.00	223	94	50	2	0	3	2
	GOODLAND	85	58	94	54	72	6	1.59	0.79	1.35	1.82	157	14.21	173	92	50	1	0	3	1
	TOPEKA	86	62	93	57	74	3	0.02	-1.19	0.02	0.31	18	15.46	107	90	49	2	0	1	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending June 10, 2017

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	86	64	91	58	75	3	0.20	-0.86	0.20	0.81	53	19.65	153	83	53	2	0	1	0
KY	JACKSON	77	57	85	53	67	-2	1.35	0.22	1.35	1.35	83	24.77	112	93	56	0	0	1	1
	LEXINGTON	79	56	87	50	67	-3	0.72	-0.36	0.72	0.72	46	20.16	96	83	48	0	0	1	1
	LOUISVILLE	82	61	88	56	72	0	0.29	-0.63	0.29	0.29	22	19.43	92	83	42	0	0	1	0
	PADUCAH	83	61	85	54	72	0	1.24	0.27	1.02	1.24	90	23.58	104	83	52	0	0	2	1
LA	BATON ROUGE	86	67	89	60	76	-2	1.07	-0.10	0.66	3.12	187	34.77	120	95	49	0	0	2	1
	LAKE CHARLES	86	69	90	65	77	-2	2.30	0.83	2.19	3.44	163	29.57	122	95	58	1	0	3	1
	NEW ORLEANS	85	71	87	65	78	-2	3.69	2.28	2.05	4.41	226	30.31	108	87	62	0	0	3	2
	SHREVEPORT	85	66	89	60	76	-2	0.90	-0.31	0.87	0.93	54	18.37	75	91	55	0	0	2	1
ME	CARIBOU	73	47	87	40	60	2	0.03	-0.73	0.03	0.14	13	16.71	114	83	36	0	0	1	0
	PORTLAND	68	49	76	44	58	-2	0.93	0.16	0.74	1.05	95	25.09	122	90	53	0	0	4	1
MD	BALTIMORE	78	55	89	48	67	-2	0.14	-0.68	0.14	0.14	12	17.27	93	90	52	0	0	1	0
MA	BOSTON	68	53	85	47	60	-5	1.61	0.87	0.75	1.78	168	22.60	119	91	61	0	0	4	2
	WORCESTER	67	51	80	45	59	-3	1.68	0.72	0.98	1.68	123	22.68	108	84	51	0	0	5	2
MI	ALPENA	76	48	92	42	62	3	0.08	-0.50	0.05	0.45	54	16.32	148	98	49	1	0	2	0
	GRAND RAPIDS	82	54	89	49	68	3	0.25	-0.54	0.24	0.25	23	16.86	120	90	36	0	0	2	0
	HOUGHTON LAKE	79	48	85	42	64	4	0.07	-0.62	0.03	0.29	30	16.20	151	89	41	0	0	3	0
	LANSING	82	54	90	49	68	4	0.13	-0.66	0.12	0.13	12	17.59	143	76	46	1	0	2	0
	MUSKEGON	79	54	85	48	67	5	0.42	-0.23	0.42	0.42	45	14.90	115	81	44	0	0	1	0
	TRAVERSE CITY	78	52	89	48	65	4	0.06	-0.61	0.06	0.57	61	14.57	115	92	41	0	0	1	0
MN	DULUTH	78	48	88	40	63	6	1.22	0.32	1.22	1.22	97	12.45	125	85	49	0	0	1	1
	INT'L FALLS	79	50	81	43	64	5	1.05	0.19	0.41	1.09	91	7.71	102	90	42	0	0	4	0
	MINNEAPOLIS	87	65	96	58	76	10	0.02	-0.95	0.02	0.02	1	11.56	109	60	33	2	0	1	0
	ROCHESTER	85	59	94	52	72	9	0.00	-0.86	0.00	0.06	5	15.82	140	73	35	1	0	0	0
	ST. CLOUD	85	53	92	45	69	6	0.10	-0.93	0.10	0.10	7	10.40	111	95	32	1	0	1	0
MS	JACKSON	84	64	87	58	74	-3	2.33	1.49	1.70	2.84	233	34.33	123	95	54	0	0	3	1
	MERIDIAN	86	65	89	58	76	-1	0.80	-0.04	0.44	1.45	119	30.09	101	94	57	0	0	3	0
	TUPELO	82	64	87	57	73	-2	1.77	0.54	0.93	6.08	340	27.84	97	88	53	0	0	3	1
MO	COLUMBIA	84	61	91	56	72	2	0.86	-0.12	0.86	0.86	61	21.06	120	83	40	1	0	1	1
	KANSAS CITY	85	62	93	56	74	3	0.00	-1.08	0.00	0.03	2	16.30	107	80	43	1	0	0	0
	SAINT LOUIS	86	66	92	57	76	3	0.25	-0.61	0.25	0.25	20	23.14	136	65	41	1	0	1	0
	SPRINGFIELD	82	60	86	54	71	0	0.25	-0.90	0.25	0.33	20	29.03	155	86	50	0	0	1	0
MT	BILLINGS	83	55	93	48	69	7	0.17	-0.32	0.17	0.39	54	9.32	125	72	26	2	0	1	0
	BUTTE	74	44	87	35	59	6	0.25	-0.27	0.15	0.37	49	5.70	101	85	26	0	0	3	0
	CUT BANK	74	46	86	41	60	5	1.02	0.39	0.45	1.02	113	5.89	112	85	33	0	0	3	0
	GLASGOW	84	55	94	46	69	7	0.00	-0.50	0.00	0.01	1	2.62	62	63	28	2	0	0	0
	GREAT FALLS	76	50	91	43	63	6	0.45	-0.15	0.45	0.70	80	8.12	116	77	34	1	0	1	0
	HAVRE	82	49	96	39	66	6	0.20	-0.27	0.08	0.22	33	2.75	56	76	34	2	0	3	0
	MISSOULA	75	49	90	42	62	4	0.59	0.13	0.32	0.74	112	8.81	136	87	49	1	0	5	0
NE	GRAND ISLAND	89	64	94	60	76	8	0.43	-0.51	0.43	0.43	32	10.68	95	85	43	4	0	1	0
	LINCOLN	90	63	95	57	77	8	0.00	-0.88	0.00	0.00	0	13.11	110	77	38	4	0	0	0
	NORFOLK	89	62	92	57	76	9	0.00	-0.99	0.00	0.00	0	11.61	103	74	38	3	0	0	0
	NORTH PLATTE	88	58	92	50	73	8	0.00	-0.75	0.00	0.01	1	10.34	121	91	39	3	0	0	0
	OMAHA	91	64	95	59	77	8	0.00	-0.95	0.00	0.01	1	11.52	92	71	35	4	0	0	0
	SCOTTSBLUFF	87	56	95	46	71	7	0.00	-0.63	0.00	0.00	0	8.78	114	78	37	2	0	0	0
	VALENTINE	89	57	102	46	73	8	0.16	-0.53	0.16	0.16	16	10.60	132	79	41	4	0	1	0
NV	ELY	85	43	87	37	64	8	0.00	-0.21	0.00	0.00	0	6.18	123	47	18	0	0	0	0
	LAS VEGAS	101	78	105	73	89	7	0.00	0.00	0.00	0.00	0	1.59	70	18	10	7	0	0	0
	RENO	81	53	92	48	67	5	0.01	-0.12	0.01	0.01	5	11.16	270	46	22	1	0	1	0
	WINNEMUCCA	82	45	95	39	64	3	0.00	-0.20	0.00	0.00	0	5.24	116	59	22	2	0	0	0
NH	CONCORD	72	48	85	41	60	-2	2.61	1.89	1.96	2.61	256	21.96	139	93	52	0	0	5	2
NJ	NEWARK	74	54	88	52	64	-5	0.20	-0.59	0.10	0.23	20	22.76	110	73	56	0	0	3	0
NM	ALBUQUERQUE	92	64	95	61	78	6	0.00	-0.14	0.00	0.00	0	2.61	92	48	13	6	0	0	0
NY	ALBANY	72	51	84	45	62	-2	1.84	0.96	1.49	1.84	146	20.75	130	86	51	0	0	3	1
	BINGHAMTON	69	49	79	44	59	-2	2.49	1.65	1.41	2.49	209	26.93	166	90	60	0	0	5	2
	BUFFALO	71	53	77	49	62	-1	0.27	-0.62	0.14	0.28	22	22.55	139	87	58	0	0	3	0
	ROCHESTER	72	53	83	49	63	0	0.92	0.16	0.69	0.92	87	20.90	154	81	60	0	0	3	1
	SYRACUSE	71	51	83	45	61	-2	1.76	0.98	0.73	1.76	161	23.59	151	91	57	0	0	4	2
NC	ASHEVILLE	78	59	84	55	69	2	0.53	-0.55	0.37	0.53	34	23.55	107	84	50	0	0	3	0
	CHARLOTTE	83	65	87	58	74	0	1.98	1.16	1.02	1.98	166	22.90	116	84	51	0	0	2	2
	GREENSBORO	81	60	87	55	71	0	1.24	0.46	1.24	1.24	110	22.26	117	93	53	0	0	1	1
	HATTERAS	79	67	86	63	73	1	1.10	0.17	0.44	1.10	81	27.27	117	88	65	0	0	4	0
	RALEIGH	83	60	90	53	71	-1	1.92	1.13	1.54	1.92	168	23.79	124	92	55	1	0	2	1
	WILMINGTON	82	64	87	54	73	-2	0.93	-0.16	0.41	0.93	60	21.42	101	99	61	0	0	5	0
ND	BISMARCK	88	54	101	43	71	9	0.00	-0.57	0.00	0.00	0	4.53	72	75	35	3	0	0	0
	DICKINSON	84	51	92	43	67	6	0.23	-0.49	0.12	0.23	23	3.93	60	77	23	3	0	4	0
	FARGO	87	59	91	53	73	9	0.14	-0.67	0.11	0.16	14	4.97	65	77	32	2	0	2	0
	GRAND FORKS	84	57	91	55	71	8	0.33	-0.33	0.18	0.46	49	5.01	77	91	38	1	0	4	0
	JAMESTOWN	84	56	95	52	70	7	0.19	-0.45	0.19	0.26	29	4.37	67	85	32	1	0	1	0
	WILLISTON	88	53	96	42	70	9	0.28	-0.23	0.23	0.28	39	3.75	70	77	32	3	0	3	0
OH	AKRON-CANTON	75	55	85	49	65	0	0.53	-0.28	0.47	0.53	45	26.64	162	79	55	0	0	2	0
	CINCINNATI	79	57	87	50	68	-1	0.06	-1.03	0.06	0.06	4	23.46	119	79	49	0	0	1	0
	CLEVELAND	76	58	89	50	67	2	0.17	-0.70	0.07	0.17	14	23.62	149	80	51	0	0	4	0
	COLUMBUS	79	57	89	52	68	-1	0.99	0.11	0.71	0.99	79	21.67	135	82	50	0	0	2	1
	DAYTON	79	56	86	48	67	-1	0.12	-0.86	0.08	0.12	9	22.36	126	84	40	0	0	3	0
	MANSFIELD	75	55	85	49	65	1	0.56	-0.49	0.54	0.56	38	21.71	119	92	50	0	0	3	1

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending June 10, 2017

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	80	55	88	47	67	1	0.03	-0.83	0.03	0.03	2	17.89	128	81	45	0	0	1	0
	YOUNGSTOWN	73	53	84	45	63	0	0.20	-0.61	0.19	0.20	17	21.50	140	86	56	0	0	2	0
OK	OKLAHOMA CITY	86	64	93	54	75	1	0.08	-1.16	0.08	0.11	6	14.68	92	87	44	1	0	1	0
	TULSA	87	64	92	53	75	0	0.01	-1.27	0.01	0.05	3	23.97	126	91	55	2	0	1	0
OR	ASTORIA	62	47	68	41	54	-1	0.78	0.13	0.35	0.99	105	48.12	141	89	69	0	0	4	0
	BURNS	72	38	85	29	55	0	0.02	-0.17	0.01	0.02	7	8.25	144	81	39	0	2	2	0
	EUGENE	68	47	82	38	57	-1	1.24	0.80	0.62	1.24	191	25.31	95	97	67	0	0	3	1
	MEDFORD	74	53	88	47	64	1	0.37	0.18	0.21	0.37	128	12.94	140	77	38	0	0	2	0
	PENDLETON	73	49	85	40	61	-2	0.92	0.70	0.78	0.95	297	10.09	153	83	50	0	0	4	1
	PORTLAND	72	53	86	48	62	1	0.50	0.06	0.29	0.51	80	28.69	154	80	58	0	0	3	0
	SALEM	71	50	83	44	60	1	0.57	0.19	0.35	0.60	107	33.16	161	85	58	0	0	3	0
PA	ALLENTOWN	74	52	87	46	63	-3	1.19	0.24	1.08	1.42	103	19.00	99	86	51	0	0	2	1
	ERIE	71	55	83	47	63	-2	0.97	0.01	0.61	0.97	72	21.96	137	86	66	0	0	4	1
	MIDDLETOWN	77	57	86	52	67	-1	0.12	-0.81	0.11	0.12	9	16.56	93	92	48	0	0	2	0
	PHILADELPHIA	76	57	88	53	67	-3	0.25	-0.48	0.23	0.26	25	18.21	98	78	54	0	0	2	0
	PITTSBURGH	74	55	84	49	65	-1	0.43	-0.51	0.27	0.43	32	20.44	125	92	54	0	0	2	0
	WILKES-BARRE	73	50	84	45	62	-3	1.36	0.49	0.60	1.40	114	20.03	130	94	52	0	0	5	1
	WILLIAMSPORT	75	53	87	46	64	-1	0.95	-0.01	0.49	1.04	77	20.36	118	89	54	0	0	4	0
RI	PROVIDENCE	70	52	84	47	61	-4	0.82	0.02	0.30	1.04	91	26.06	123	92	68	0	0	5	0
SC	BEAUFORT	85	67	91	62	76	-1	1.80	0.59	0.92	1.99	119	18.79	101	100	61	1	0	4	2
	CHARLESTON	83	66	90	59	75	-1	2.32	1.05	1.27	2.70	153	17.86	92	92	59	1	0	4	2
	COLUMBIA	87	68	92	62	77	1	0.18	-0.86	0.18	0.26	18	24.54	119	82	48	3	0	1	0
	GREENVILLE	82	63	86	60	73	1	0.81	-0.15	0.41	0.84	60	26.21	112	91	53	0	0	3	0
SD	ABERDEEN	91	55	97	44	73	9	0.07	-0.72	0.07	0.07	6	3.95	50	72	28	3	0	1	0
	HURON	91	56	94	46	74	9	0.05	-0.69	0.05	0.05	5	5.74	63	82	25	6	0	1	0
	RAPID CITY	88	54	99	49	71	10	0.04	-0.68	0.02	0.04	4	4.97	65	74	28	3	0	2	0
	SIOUX FALLS	90	61	93	53	76	12	0.00	-0.83	0.00	0.00	0	8.83	88	76	42	3	0	0	0
TN	BRISTOL	79	55	86	49	67	-1	1.10	0.20	0.63	1.10	85	24.70	126	99	51	0	0	2	1
	CHATTANOOGA	83	64	87	58	74	1	1.28	0.40	0.75	1.28	101	30.13	115	85	56	0	0	2	2
	KNOXVILLE	80	60	85	56	70	-1	1.42	0.49	1.32	1.44	107	26.17	110	87	52	0	0	2	1
	MEMPHIS	84	66	90	59	75	-1	1.86	0.89	1.35	1.87	135	20.71	78	87	52	1	0	2	2
	NASHVILLE	81	61	87	53	71	-2	0.66	-0.37	0.37	0.66	44	20.92	91	92	53	0	0	3	0
TX	ABILENE	88	65	92	62	77	-1	0.00	-0.80	0.00	1.11	98	8.98	98	91	54	2	0	0	0
	AMARILLO	89	59	99	54	74	2	0.33	-0.45	0.33	0.35	32	8.50	117	90	31	3	0	1	0
	AUSTIN	92	69	95	66	80	1	0.84	-0.27	0.83	1.92	119	16.70	110	89	55	7	0	2	1
	BEAUMONT	86	68	91	63	77	-3	3.76	2.21	3.13	4.16	189	21.72	88	90	61	1	0	4	1
	BROWNSVILLE	95	75	98	71	85	3	0.00	-0.67	0.00	0.00	0	5.86	66	88	49	7	0	0	0
	CORPUS CHRISTI	92	70	93	66	81	0	0.18	-0.73	0.17	0.86	66	14.12	117	96	62	7	0	2	0
	DEL RIO	94	69	95	66	82	0	0.01	-0.51	0.01	1.74	232	12.83	177	89	44	7	0	1	0
	EL PASO	98	71	101	65	84	4	0.16	0.03	0.16	0.16	89	1.53	81	44	15	7	0	1	0
	FORT WORTH	89	70	95	66	79	0	0.84	-0.14	0.75	3.77	262	15.62	91	87	51	3	0	2	1
	GALVESTON	85	75	89	74	80	-1	1.85	0.91	1.77	3.45	257	14.33	84	87	61	0	0	3	1
	HOUSTON	88	70	93	67	79	-1	2.75	1.38	1.67	3.22	166	21.45	104	90	59	1	0	3	2
	LUBBOCK	92	63	100	59	78	3	0.28	-0.41	0.20	0.35	36	5.84	89	79	39	6	0	2	0
	MIDLAND	94	68	101	63	81	3	0.00	-0.39	0.00	0.40	71	6.12	133	73	37	6	0	0	0
	SAN ANGELO	95	65	98	59	80	3	0.04	-0.67	0.04	0.21	20	6.69	77	78	36	7	0	1	0
	SAN ANTONIO	92	70	95	68	81	1	0.21	-0.97	0.15	0.29	17	13.35	93	83	44	6	0	3	0
	VICTORIA	92	71	94	68	81	0	0.14	-1.12	0.11	0.30	17	19.88	120	90	52	7	0	2	0
	WACO	89	68	93	65	79	0	0.39	-0.45	0.34	1.09	88	20.40	132	93	61	4	0	2	0
	WICHITA FALLS	87	66	92	61	76	-1	0.68	-0.32	0.68	1.75	122	12.06	93	90	56	2	0	1	1
UT	SALT LAKE CITY	91	65	98	54	78	12	0.00	-0.26	0.00	0.13	33	11.13	122	46	17	4	0	0	0
VT	BURLINGTON	73	52	83	46	62	-1	1.16	0.42	1.04	1.27	120	17.95	133	94	49	0	0	2	1
VA	LYNCHBURG	78	55	86	51	66	-3	0.26	-0.59	0.26	0.26	21	19.35	100	93	51	0	0	1	0
	NORFOLK	80	62	91	55	71	-1	0.91	0.08	0.90	0.91	86	22.73	116	85	52	2	0	2	1
	RICHMOND	80	58	89	53	69	-2	0.09	-0.72	0.09	0.09	8	18.62	98	88	56	0	0	1	0
	ROANOKE	78	56	88	51	67	-2	1.11	0.24	0.76	1.11	88	22.13	115	82	57	0	0	3	1
	WASH/DULLES	78	55	87	50	67	-1	0.05	-0.95	0.05	0.05	3	19.13	105	82	50	0	0	1	0
WA	OLYMPIA	71	46	85	38	58	1	0.65	0.21	0.33	0.72	114	33.67	132	95	60	0	0	2	0
	QUILLAYUTE	63	44	74	41	53	0	1.06	0.10	0.76	1.45	104	64.05	125	97	68	0	0	3	1
	SEATTLE-TACOMA	71	52	84	48	61	2	0.39	0.03	0.34	0.46	90	27.32	152	79	53	0	0	2	0
	SPOKANE	76	51	94	45	63	4	0.06	-0.25	0.06	0.06	13	13.32	162	75	34	1	0	1	0
	YAKIMA	80	48	92	39	64	3	0.10	-0.04	0.10	0.17	85	7.59	194	72	38	1	0	1	0
WV	BECKLEY	72	51	81	46	62	-3	3.12	2.23	3.04	3.12	244	23.58	125	87	53	0	0	3	1
	CHARLESTON	77	55	87	52	66	-2	1.75	0.82	1.75	1.75	131	22.48	117	95	51	0	0	1	1
	ELKINS	72	50	83	47	61	-2	0.08	-1.00	0.06	0.11	7	20.80	102	88	58	0	0	3	0
	HUNTINGTON	78	56	86	52	67	-2	0.47	-0.46	0.47	0.47	35	20.48	107	91	51	0	0	1	0
WI	EAU CLAIRE	84	55	94	44	70	6	0.01	-0.97	0.01	0.49	35	14.97	128	88	28	1	0	1	0
	GREEN BAY	80	55	88	49	68	5	0.19	-0.56	0.19	0.68	65	13.78	130	97	42	0	0	1	0
	LA CROSSE	88	60	96	53	74	7	0.00	-0.85	0.00	0.03	3	17.71	146	81	28	2	0	0	0
	MADISON	81	56	87	49	69	5	0.00	-0.88	0.00	0.01	1	16.67	132	75	45	0	0	0	0
	MILWAUKEE	79	57	90	51	68	5	0.32	-0.43	0.32	0.58	55	18.37	131	75	51	1	0	1	0
WY	CASPER	84	48	89	43	66	7	0.03	-0.36	0.03	0.07	12	7.87	119	80	30	0	0	1	0
	CHEYENNE	79	51	85	45	65	7	0.31	-0.20	0.31	0.41	55	9.04	135	79	37	0	0	1	0
	LANDER	81	52	87	47	67	7	0.03	-0.30	0.03	0.03	6	12.62	174	67	25	0	0	1	0
	SHERIDAN	83	50	94	47	67	9	0.09	-0.43	0.08	0.09	12	12.66	174	83	41	2	0	2	0

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

May Weather Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: Abundant rainfall across the central Plains, as well as the Midwest, South, and East, periodically slowed fieldwork but kept pastures and summer crops well-watered. However, early-May river rises in the wake of late-April downpours led to extensive lowland flooding across the mid-South and lower Midwest, resulting in some submerged acreage and poor crop establishment. By June 4, at least one-tenth of the corn was rated in very poor to poor condition in Indiana (17 percent), Illinois (11 percent), and Ohio (10 percent). Similarly, 14 percent of Arkansas' rice crop was rated very poor to poor on June 4, a residual effect of earlier flooding.

In stark contrast, mostly dry weather on the northern Plains—accompanied by late-month heat—led to worsening crop and pasture conditions. By June 4, more than one-third of the rangeland and pastures were rated in very poor to poor condition in South Dakota (40 percent) and North Dakota (35 percent). On the same date, nearly one-third (32 percent) of South Dakota's spring wheat was rated very poor to poor. And, during the 2-week period from May 21 – June 4, the portion of South Dakota's winter wheat rated very poor to poor surged from 11 to 38 percent. Prior to the arrival of hot weather across the northern Plains, generally cool conditions were accompanied by several episodes of patchy frost and sub-freezing temperatures.

Despite a late-May increase in shower activity, significant drought persisted through month's end across southern Georgia and much of Florida. (Much more rain fell across the lower Southeast in early June, significantly reducing drought coverage and intensity.) By May 30, Florida was experiencing the nation's only extreme drought (D3), according to the U.S. Drought Monitor. And, the lightning-sparked West Mims fire, near the Florida-Georgia line mostly in the Okefenokee National Wildlife Refuge, burned more than 150,000 acres of timber, brush, and grass.

Elsewhere, warm, mostly dry weather in California and the Northwest favored fieldwork and crop development that had been previously delayed by cool, damp conditions. Nevertheless, only 30 percent of California's rice crop had emerged by June 4, compared to the 5-year average of 79 percent. Northwestern warmth accelerated the snow-melt rate and elevated river levels, although substantial snow remained on the ground by month's end across higher peaks of the Sierra Nevada, Cascades, and northern Rockies. The California Department of Water Resources noted that the remaining Sierra Nevada snowpack still contained an average of 17 inches of liquid by May 31, down from a seasonal peak of 48 inches.

Historical Perspective: According to preliminary information provided by the National Centers for Environmental Information, the contiguous U.S. experienced its 55th-warmest, 25th-wettest May during the 123-year period of record. The nation's average temperature of 60.6°F was 0.4°F above the 1901-2000 mean, while precipitation averaged 3.31 inches (114 percent of normal).

May warmth was most prominent across the West and along the southern Atlantic Coast, while generally cool conditions affected portions of the nation's mid-section. State temperature rankings ranged from the 17th-coolest May in Louisiana to the 16th-warmest May in Florida (figure 1). Meanwhile, May wetness across the central Plains and most areas from the Mississippi Valley eastward contrasted with drier-than-normal weather across the northern Plains and parts of the West. State precipitation rankings ranged from the 15th-driest May in North Dakota to the second-wettest May in Virginia (figure 2). Precipitation also ranked among the ten highest May values on record in Louisiana and every Atlantic Coast State from Delaware to New Hampshire, except Connecticut.

Figure 1 Statewide Average Temperature Ranks
May 2017
Period: 1895–2017

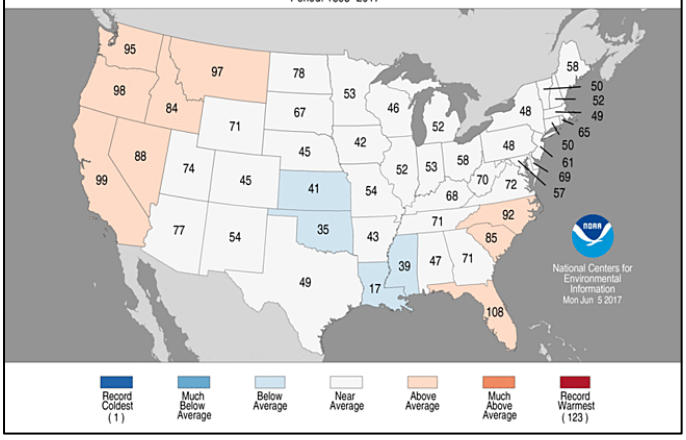
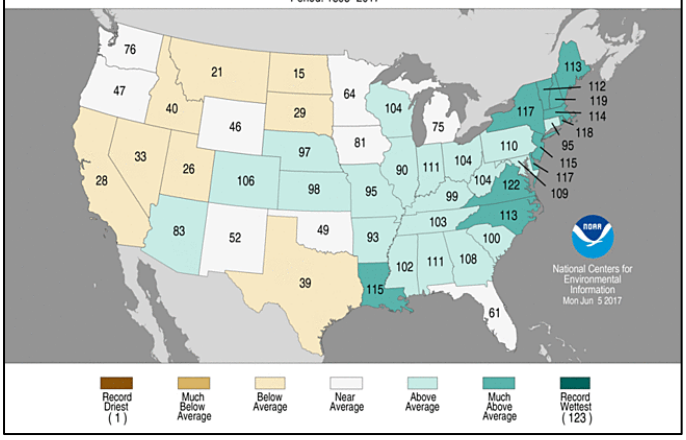


Figure 2 Statewide Precipitation Ranks
May 2017
Period: 1895–2017



Summary: Effects from a late-April blizzard on the central High Plains lingered into early May. Agricultural impacts ranged from flattened winter wheat to livestock mortality. At the same time, carryover flooding from late-April downpours lasted into early May, aggravated in some areas by ongoing showers. The flooding, which gradually moved from creeks and tributaries to larger rivers, submerged tens of thousands of acres of rice in Arkansas and a variety of other summer crops from the northern Mississippi Delta into the middle Mississippi and lower Ohio Valleys. In Missouri, the Current River crested 17.20 feet above flood stage (on April 30) in Van Buren and 20.13 feet above flood stage (on May 1) in Doniphan. Those crests surpassed March 1904 high-water marks by 8.20 and 6.33 feet, respectively.

Elsewhere in Missouri, the Gasconade River crested in early May at record-setting levels in locations such as Jerome (18.93 feet above flood stage) and Rich Fountain (17.45 feet above flood stage)—2 to 3 feet above the high-water marks established on December 30, 2015. Similarly, the Meramec River near Eureka, MO, crested 27.11 feet above flood stage on May 2, less than an inch above the record crest set on December 30, 2015. And, the Black River at Pocahontas, AR, crested at 11.95 feet above flood stage on May 2, toppling the April 2011 high-water mark by 0.48 foot.

Elsewhere, early-May showers swept into the East—while locally heavy rain shifted away from flooded areas toward the Gulf Coast. In the upper Midwest, lingering snow (from the High Plains' storm) on May 1 in South Dakota totaled 2.2 inches in Sioux Falls and 1.6 inches in Watertown. Meanwhile in New York, record-setting rainfall totals for May 1 reached 1.86 inches in Massena and 1.53 inches in Watertown. Later, drenching rains returned to parts of the South. In Louisiana, record-setting rainfall totals for May 3 climbed to 6.41 inches in Lafayette; 5.49 inches in Lake Charles, and 4.93 inches in New Iberia. A brief return of heavy rain across the mid-South led to daily-record totals for May 3 in Hot Springs, AR (2.90 inches), and Vichy-Rolla, MO (2.47 inches). Vichy-Rolla measured 14.24 inches of rain during the 5-week period from April 2 – May 6, while West Plains, MO, collected 20.82 inches. On May 4, daily-record amounts totaled 2.43 inches in Tallahassee, FL, and 2.35 inches in Fort Wayne, IN. By May 5, daily-record totals topped 3 inches in locations such as Newark, NJ (3.05 inches), and New York's Central Park (3.02 inches), and surpassed 2 inches in Providence, RI (2.29 inches), and Martinsburg, WV (2.01 inches). Showers eventually overspread parts of the West, where daily-record amounts included 0.61 inch (on May 5) in Lewiston, ID, and 0.57 inch (on May 6) in Reno, NV.

In advance of the Western showers, early-May heat covered the West. By May 3, highs soared to daily-record levels in California locations such as King City (98°F), Stockton (96°F), and Sacramento (95°F). The following day in California, record-setting highs for May 4 soared to 104°F in Bakersfield and 101°F in Hanford. On May 4-5, Thermal, CA, posted consecutive daily-record highs (105 and 107°F, respectively). On May 5, heat made an eastward push, resulting in record-setting highs in Phoenix, AZ (108°F), and Havre, MT (91°F). By May 6, daily-record highs of 89°F in Williston, ND, and 88°F in Rapid City, SD, contrasted with daily-record lows of 41°F in Tuscaloosa, AL, and 44°F in Hattiesburg, MS. Freezes struck portions of the Great Lakes region from May 7-9, leading producers to monitor fruit crops for signs of injury. Daily-record lows for May 8 included 28°F in South Bend, IN, and 30°F in Cincinnati, OH. The following day, record-setting lows for May 9 dipped to 30°F in Wheeling, WV, and 36°F in Baltimore, MD. In contrast, warmth quickly returned to the Deep South. The temperature in Vero Beach, FL, rebounded from a daily-record low of 50°F on May 7 to a daily-record high of 93°F on May 13. Other daily-record highs in Florida included 96°F (on May 11) in Jacksonville and 95°F (on May 12) in Melbourne. In neighboring Georgia, daily-record highs soared to 96°F (on May 11) on St. Simons Island and 95°F (on May 10) in Savannah. Heat extended westward into southern Texas, where record-setting highs for May 12 climbed to 104°F in McAllen and 98°F in Brownsville. In contrast, Lancaster, CA, posted consecutive daily-record lows (37 and 36°F, respectively) on May 7-8. Later, daily-record lows on May 13 fell to 20°F in Baker City, OR, and 41°F in Redding, CA.

The Western cool spell was accompanied by the passage of a "cut-off" storm—largely separated from the steering influence of the jet stream. On May 7, Palomar Mountain, CA, was blanketed by a 6-inch snowfall. Elsewhere in southern California, daily-record rainfall totals for the 7th included 0.90 inch in El Cajon; 0.84 inch in Chula Vista; and 0.83 inch in Escondido. The storm later produced out-of-season precipitation in Arizona, where record-setting totals for May 9 included 0.40 inch in Prescott and 0.29 inch in Winslow. Yuma, AZ, netted rainfall totaling 0.14 inch from May 8-10, representing its first measurable precipitation since March 22. Farther east, the Mississippi River crest (10.18 feet above flood stage) passed Thebes, IL, on May 6. This marked the ninth-highest water level on record in Thebes, with higher crests occurring in 1844, 1973, 1993, 1995, 2002, 2011, 2013, and early 2016. Eventually, heavy rain returned to areas from the central Plains into the mid-South and lower Midwest. Daily-record rainfall totals for May 11 included 1.90 inches in Medicine Lodge, KS, and 1.33 inches in Batesville, AR. From May 8-11, rainfall in Goodland, KS, totaled 2.78 inches. Heavy rain later swept into the middle and northern Atlantic States, where record-breaking totals for May 13 reached 1.79 inches in Philadelphia, PA, and Newark, NJ. Mount Washington, NH, New England's highest peak, received 33.3 inches of snow from May 13-15. Elsewhere, mid-month showers in the Northwest resulted in daily-record amounts in locations such as Astoria, OR (1.35 inches on May 12); North Bend, OR (1.11 inches on May 13); and Hoquiam, WA (0.86 inch on May 11).

For a brief period in mid-May, soaking rainfall brought renewed fieldwork delays to much of the Midwest. Some of the heaviest rain, 2 to 4 inches or more, fell in upper Midwestern States that had planted one-quarter to one-half of their corn and soybeans from May 8-14. In the lower Midwest, several days of warm, dry weather provided a brief fieldwork window. On May 15-16 in Minnesota, 24-hour rainfall totals reached 4.94 inches near Altura (Winona County) and 3.43 inches near Elgin (Olmsted County). Amid a Texas-to-Wisconsin severe weather outbreak on May 16, a tornado near Chetek (Barron County), WI, resulted in one fatality—the first tornado-related death in that state since August 19, 2011. On May 17, another round of strong Midwestern thunderstorms brought heavy rain and high winds, including a peak gust to 70 mph in Waterloo, IA. Daily-record rainfall totals for May 17 included 2.18 inches in Rhinelander, WI; 1.98 inches in Valentine, NE; and 1.81 inches in Minneapolis-St. Paul, MN. Meanwhile, heavy rain and snow developed across the northern and central Rockies and northern Intermountain West. Record-setting precipitation totals for May 17 included 2.40 inches in Livingston, MT, and 1.96 inches in Buffalo, WY. Wisdom, MT, received 9.0 inches of snow in a 24-hour period on May 16-17. On May 18-19, Cheyenne, WY, was blanketed with 14.3 inches of snow, while totals ranged from 1 to 3 feet at several locations in the central Rockies. Later, heavy precipitation gradually shifted eastward. Record-setting totals for May 19 reached 2.00 inches in Columbia, MO, and 1.96 inches in Quincy, IL. Eventually, torrential rain developed in parts of Alabama, where daily-record amounts for May 20 totaled 8.15 inches in Montgomery; 4.37 inches in Mobile; and 2.65 inches in Birmingham. For Montgomery, it was the wettest May day on record (previously, 5.23 inches on May 9, 1978), and the wettest day during any time of year since September 26, 1953, when 8.72 inches fell.

Cool weather dominated the West in mid-May. Pocatello, ID, posted a daily-record low (27°F) on May 14, followed by consecutive records (29 and 22°F, respectively) on May 17-18.

Other Western daily-record lows included 22°F (on May 14) in Klamath Falls, OR; 29°F (on May 15) in Goldendale, WA; and 36°F (on May 19) in Kingman, AZ. On May 17-18, Montague, CA, registered consecutive daily-record lows (29 and 30°F, respectively). Later, cool air settled across the Plains, resulting in record-setting lows for May 20 in Texas locations such as Dalhart (34°F) and Amarillo (38°F). In Kansas, Garden City notched consecutive daily-record lows (38 and 37°F, respectively) on May 20-21. Farther east, a surge of warmth across the Midwest led to record-setting highs for May 15 in Iowa communities such as Ottumwa and Des Moines (both 91°F). From May 16-18, Tampa, FL, tallied a trio of daily-record highs (96, 98, and 97°F). Tampa also tied its May record of 98°F, originally set on May 26, 1975, and came within 1°F of its all-time record of 99°F, established on June 5, 1985. A much broader area of the eastern U.S. also experienced record-setting warmth, mainly from May 17-19. On the 18th, monthly record highs were tied at New York's LaGuardia Airport (97°F) and Burlington, VT (93°F). In Maine, daily-record highs for May 18 soared to 91°F in Houlton and 90°F in Caribou. It was Houlton's first 90-degree reading since August 8, 2015, and Caribou's first since July 2, 2014. Consecutive daily-record highs occurred on May 17-18 in New England locations such as Boston, MA (92 and 95°F), and Hartford, CT (94 and 96°F). Farther west, warmth arrived in coastal California, where consecutive daily-record highs occurred on May 19-20 in Los Angeles/LAX (81 and 87°F) and Chula Vista (84 and 88°F).

Western heat peaked a few days later, when Thermal, CA, posted consecutive daily-record highs (110 and 109°F, respectively) on May 23-24. Elsewhere in California, May 22-23 featured consecutive daily-record highs in locations such as Redding (102 and 101°F) and Modesto (100 and 101°F). Other triple-digit, daily-record highs in California on the 23rd included 102°F in Hanford and 100°F in downtown Sacramento. In contrast, cool air settled across the nation's mid-section. Laramie, WY, collected a daily-record low of 26°F on May 22. Two days later, record-setting lows for May 24 dipped to 30°F in Nebraska locations such as Sidney and North Platte. Other daily-record lows on the 24th dipped to 35°F in Garden City, KS, and 40°F in Dalhart, TX. However, heat quickly returned across the southern Plains, where San Angelo, TX, followed a daily-record low (46°F) on May 24 with a daily-record high (104°F) on May 26. On May 25, daily-record highs in Texas soared to 106°F in Childress and 102°F in Lubbock.

Multiple disturbances in late May led to several rounds of wet weather, especially across the South and East. On May 21, daily-record rainfall totals climbed to 4.08 inches in Laredo, TX; 2.42 inches in Athens, GA; and 2.24 inches in Asheville, NC. Daily-record totals topped 2 inches in many other locations, including Savannah, GA (6.61 inches on May 22); Greensboro, NC (2.26 inches on May 23); Hattiesburg, MS (2.18 inches on May 23); and Gainesville, FL (2.02 inches on May 24). The barrage of showers continued in subsequent days, with daily-record amounts reaching 2.39 inches (on May 27) in Lake Charles, LA; 2.29 inches (on May 25) in Philadelphia, PA; and 1.56 inches (on May 27) in Springfield, MO. Farther north, mostly dry but sometimes windy weather prevailed on the northern Plains. In Havre, MT, May 24 was the second-windiest day on record, with an average wind speed of 28.8 mph. Havre's windiest day on record was May 4, 2010, with an average speed of 33.0 mph. Elsewhere in Montana, daily winds on the 24th averaged 31.2 mph (highest daily value in May since 2002) in Cut Bank and 27.5 mph (highest in May since 1989) in Great Falls.

Toward month's end, hot weather prevailed across the Deep South. On May 28, McAllen, TX, posted a daily-record high of 101°F. In Florida, Miami (98°F on the 28th) experienced its hottest-ever day in May, topping by 2°F the record most recently attained on May 11, 2008. By May 29, hot weather quickly began to overspread the West, where Walla Walla, WA, collected a daily-record high of 97°F. Melbourne, FL, measured a daily-record high of 96°F on the 30th, helping to cap its warmest May on record. Melbourne's monthly average temperature of 79.1°F edged the May 1995 standard of 79.0°F. Key West, FL, posted lows of 83°F on 4 consecutive days from May 30 to June 2—and set a May record in the process. Previously, Key West had never recorded a May minimum temperature higher than 82°F. Meanwhile, late-month showers were for the most part disorganized, aside from periods of heavy rain in the western and central Gulf Coast States. On May 28, daily-record rainfall totals included 3.12 inches in Shreveport, LA; 2.45 inches in North Little Rock, AR; and 2.26 inches in Vicksburg, MS. Two days later, another round of showers resulted in a daily-record total (2.55 inches) in New Iberia, LA. Farther north, West Plains, MO, received minimal late-month rainfall, but easily set a spring precipitation record with 30.78 inches (225 percent of normal). Previously, the March-May precipitation record in West Plains had been 28.39 inches in 2011. In contrast, spring precipitation totaled just 1.01 inches (22 percent of normal) in Hettinger, ND. Elsewhere in the Dakotas, March-May precipitation ranged from 25 to 40 percent of normal in locations such as Minot, ND (1.23 inches); Bismarck, ND (1.73 inches); and Mobridge, SD (1.77 inches).

Cool weather late in the month across Alaska tempered earlier warmth, leading to near- or slightly above-normal May temperatures. Meanwhile, Alaskan monthly precipitation was above normal in many locations, but mostly below normal across the southern tier of the state. Around mid-month, daily-record highs included 69°F (on May 16) in Bettles and 54°F (on May 12) in Kotzebue. Bettles attained 71°F—not a record for the date—on May 17. Of the rain that fell in southeastern Alaska, much of it fell after mid-month. For example, Sitka reported consecutive daily-record totals (1.09 and 1.79 inches, respectively) on May 20-21. Yakutat netted a daily-record sum of 3.25 inches on May 21. From May 20-22, 48-hour rainfall totals reached 3.90 inches in Pelican and 3.43 inches in Haines. Later, a trace of snow was reported in McGrath on May 25 and in Fairbanks on May 26. Barrow's monthly snowfall totaled 10.3 inches, aided by a daily-record sum (4.2 inches) on May 25. Barrow also set a May precipitation record (0.94 inch), surpassing its 2014 standard of 0.90 inch. Elsewhere, Kodiak posted a daily-record low of 32°F on May 26—the first freeze in that location since April 28. Prior to the return of Alaskan warmth in early June, Anchorage achieved a daily-record low of 36°F on May 30.

Following late-April downpours, mostly dry weather returned to Hawaii in early May. For example, Kahului, Maui, received 5.98 inches during the last 2 days of April, but registered a May rainfall total of just 0.08 inch (11 percent of normal). Periods of record-setting warmth accompanied the dry weather. On the Big Island, Hilo notched a daily record-tying high of 85°F on May 1. Honolulu, Oahu, collected a daily-record high of 88°F on May 3. And, Lihue, Kauai, posted daily-record highs (86, 84, and 84°F, respectively) on May 2, 4, and 5. Lihue added another daily-record high (84°F) on May 19. Lihue's monthly average temperature of 77.9°F was 2.1°F above normal and represented the highest May value in that location since 2005. Locally heavy

showers returned late in the month, especially on Kauai, where 24-hour rainfall totals on May 24-25 topped 6 inches in locations such as Kilohana and Mount Waialeale.

Fieldwork

Fieldwork summary provided by USDA/NASS

Much of the U.S. recorded below-average May temperatures, with the only major exceptions being in parts of the West and Southeast. Portions of the Great Plains and Mississippi Valley averaged more than 2°F below normal. Wet weather in early May hampered spring fieldwork across much of the eastern U.S. Numerous locations in the upper Ohio Valley, Delta, and Mid-Atlantic recorded at least 8 inches of precipitation for the month. The western half of the nation was relatively dry during May. In late May, dry conditions prevailed across the West and Corn Belt, allowing for fieldwork but adversely impacting some crops on the northern Plains.

As May began, corn planting progress was well ahead of historical averages in most of the eastern Corn Belt States, but progress lagged normal in the northern Corn Belt. By April 30, producers had planted 34 percent of this year's corn, 9 percentage points behind last year but equal to the 5-year average. By April 30, nine percent of the nation's corn was emerged, 3 percentage points behind last year but slightly ahead of the 5-year average. By May 14, seventy-one percent of this year's corn was planted, 2 percentage points behind last year but slightly ahead of the 5-year average. Mid-month planting progress was ahead of normal across most of the western Corn Belt, but Indiana, Michigan, and Ohio were at least 6 percentage points behind their respective 5-year averages. Thirty-one percent of the nation's corn had emerged by May 14, ten percentage points behind last year and 5 points behind the 5-year average. Planting of the 2017 corn crop was 96 percent complete across the U.S. by June 4, slightly behind both last year and the 5-year average. By June 4, eighty-six percent of the corn crop had emerged, 2 percentage points behind last year and slightly behind the 5-year average. By June 4, at least 90 percent of the corn had emerged in Illinois, Iowa, Minnesota, Missouri, Nebraska, North Carolina, South Dakota, and Tennessee. Overall, 68 percent of the corn was reported in good to excellent condition on June 4, seven percentage points below the same time last year.

Sorghum planting advanced to 27 percent complete by April 30, four percentage points ahead of last year and slightly ahead of the 5-year average. Rainfall slowed planting progress in the lower Mississippi Valley at the end of April. Producers had planted 32 percent of this year's sorghum by May 14, slightly behind last year and 3 percentage points behind the 5-year average. By mid-month, sorghum planting progress was behind the 5-year average in most estimating states, including Kansas, the nation's leading sorghum-producing state. Producers had planted 55 percent of this year's sorghum by June 4, slightly behind last year and 5 percentage points behind the 5-year average. In Kansas, producers maximized the 5 days suitable for fieldwork to plant 14 percent of their crop during the week ending June 4, bringing the overall state total to 25 percent planted—14 percentage points behind the 5-year average.

Oat seeding advanced to 67 percent complete by April 30, ten percentage points behind last year and 3 points behind the 5-year average. Nationally, 47 percent of the oat crop had emerged by April 30, seven percentage points behind last year and 3 points behind the 5-year average. Producers had planted 95 percent of this year's oat crop by May 21, two percentage points behind last year but 2 points ahead of the 5-year average. By May 21, eighty-three percent of the nation's oats had emerged, 6 percentage points behind last year but 2 points ahead of the 5-year average. Twenty-six percent of this year's oat crop was at or beyond the heading stage by May 21, slightly ahead of last year but 2 percentage points behind the 5-year average. Heading was complete in Texas at that time, but was just starting in the other estimating states. Nationwide, 96 percent of the oat crop had emerged by June 4, two percentage points behind last year but 2 points ahead of the 5-year average. By June 4, thirty-five percent of the oat crop was at or beyond the heading stage, 2 percentage points behind last year and 3 points behind the 5-year average. During the week ending June 4, weather conditions promoted a rapid crop development pace in several states, with double-digit heading progress reported in Iowa, Nebraska, and South Dakota. In Texas, harvest was 78 percent complete and well ahead of the normal pace. Overall, 62 percent of the oat crop was reported in good to excellent condition on June 4, up slightly from May 7 but 9 percentage points lower than at the same time last year.

Barley producers had seeded 32 percent of the nation's crop by April 30, twenty-three percentage points behind last year and 21 points behind the 5-year average. All estimating states remained well behind their 5-year average planting pace at the start of May. By April 30, emergence was evident in 14 percent of the nation's barley acreage, 13 percentage points behind last year and 7 points behind the 5-year average. By May 14, seventy-eight percent of the barley crop was seeded, 10 percentage points behind last year and slightly behind the 5-year average. By May 14, forty-two percent of the barley had emerged, 23 percentage points behind last year and 8 points behind the 5-year average. Emergence remained behind normal in all estimating states. Nationwide, 99 percent of the barley crop was sown by June 4, slightly behind last year but 3 percentage points ahead of the 5-year average. Eighty-four percent of the barley had emerged by June 4, eight percentage points behind last year and 3 points behind the 5-year average. Overall, 69 percent of the barley was reported in good to excellent condition on June 4, down slightly from May 28 and 9 percentage points lower than at the same time last year.

By April 30, heading of the winter wheat crop had advanced to 42 percent complete, 2 percentage points ahead of last year and 8 points ahead of the 5-year average. Heading advanced to 50 percent complete by May 7, five percentage points behind last year but 4 points ahead of the 5-year average. By May 14, sixty-three percent of the winter wheat was at or beyond the heading stage, 3 percentage points behind last year but 6 points ahead of the 5-year average. Heading was complete or nearly complete by mid-May in Arkansas, California, Missouri, North Carolina, and Oklahoma. Heading of this year's winter wheat advanced to 80 percent complete by May 28, three percentage points behind last year but 3 points ahead of the 5-year average. In Nebraska, 86 percent of the acreage was headed by the week ending May 28, thirty-one percentage points ahead of the 5-year average. Heading of this year's winter wheat advanced to 87 percent complete by June 4, three percentage points behind last year but 2 points ahead of the 5-year average. By June 4, producers had harvested 10 percent of this year's winter wheat, 8 percentage

points ahead of last year and 3 points ahead of the 5-year average. In Texas, winter wheat harvest was in full swing by June 4—and 58 percent complete—35 percentage points ahead of the 5-year average. Overall, 49 percent of the winter wheat was reported in good to excellent condition on June 4, down 5 percentage points from the beginning of the month and 13 points lower than at the same time last year.

Thirty-one percent of the spring wheat was seeded by April 30, twenty-one percentage points behind last year and 15 points behind the 5-year average. At the end of April, planting progress was behind the 5-year average in all estimating states except South Dakota. By April 30, nine percent of the spring wheat crop was emerged, 11 percentage points behind last year and 8 points behind the 5-year average. Nationally, 78 percent of the spring wheat was seeded by May 14, nine percentage points behind last year but 5 points ahead of the 5-year average. By May 14, forty percent of the spring wheat had emerged, 17 percentage points behind last year and 4 points behind the 5-year average. Ninety-six percent of the nation's spring wheat was seeded by May 28, two percentage points behind last year but 5 points ahead of the 5-year average. The nation's spring wheat was 90 percent emerged by June 4, five percentage points behind last year but 5 points ahead of the 5-year average. Overall, 55 percent of the spring wheat was reported in good to excellent condition on June 4, twenty-four percentage points below the same time last year. With dry conditions in the Dakotas, both states saw double-digit decreases in the good to excellent categories during the week ending June 4.

By April 30, seventy-three percent of the rice crop was seeded, 2 percentage points ahead of last year and 15 points ahead of the 5-year average. Nationally, emergence advanced to 58 percent complete on April 30, five percentage points ahead of last year and 17 points ahead of the 5-year average. Nationally, 83 percent of the rice was seeded by May 14, three percentage points behind last year but 2 points ahead of the 5-year average. By May 14, seventy-three percent of the nation's rice had emerged, 2 percentage points behind last year but 8 points ahead of the 5-year average. By mid-month, emergence was ahead of normal in the lower Mississippi Valley. Planting of the 2017 rice crop was 97 percent complete by May 28, equal to last year but slightly ahead of the 5-year average. Seeding was at least 90 percent complete in all estimating states. By May 28, eighty-four percent of the rice was emerged, two percentage points behind both last year and the 5-year average. Eighty-seven percent of the rice was emerged by June 4, six percentage points behind last year and 5 points behind the 5-year average. Overall, 66 percent of the rice was reported in good to excellent condition on June 4, slightly below the same time last year.

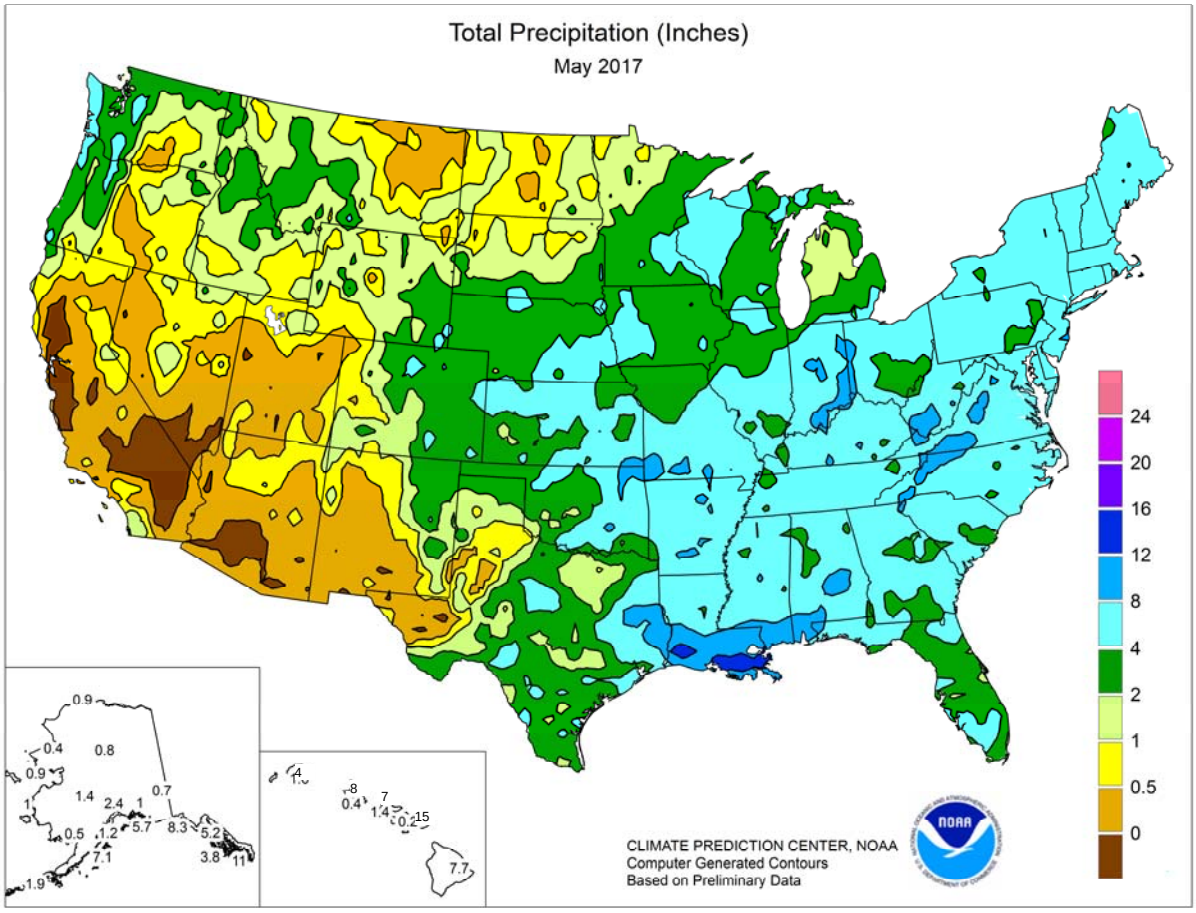
Planting of the 2017 soybean crop advanced to 10 percent complete by April 30, three percentage points ahead of both last year and the 5-year average. By May 7, fourteen percent of the soybeans were planted, 7 percentage points behind last year and 3 points behind the 5-year average. At the start of the month, rainfall slowed planting progress in several regions, especially in the eastern Corn Belt. By May 14, producers had planted 32 percent of the soybean crop, 2 percentage points behind last year but equal to the 5-year average. Favorable planting conditions allowed weekly planting progress to advance 43 percentage points in Minnesota and 31 points in Iowa during the second week of May. Eight percent of the soybean crop had emerged by May 14, slightly behind both last year and the 5-year average. By May 28, sixty-seven percent of the nation's soybean crop was planted, 4 percentage points behind last year and slightly behind the 5-year average. The planting pace remained slow in the eastern Corn Belt, with progress 17 percentage points behind the 5-year average in both Indiana and Ohio. Nationally, 37 percent of the soybean crop was emerged by May 28, five percentage points behind last year and 3 points behind the 5-year average. By June 4, eighty-three percent of the nation's soybean crop was planted, slightly ahead of last year and 4 percentage points ahead of the 5-year average. Ideal conditions in the central Corn Belt aided soybean planting progress, with Illinois and Wisconsin progressing 23 and 28 percentage points, respectively, during the week ending June 4.

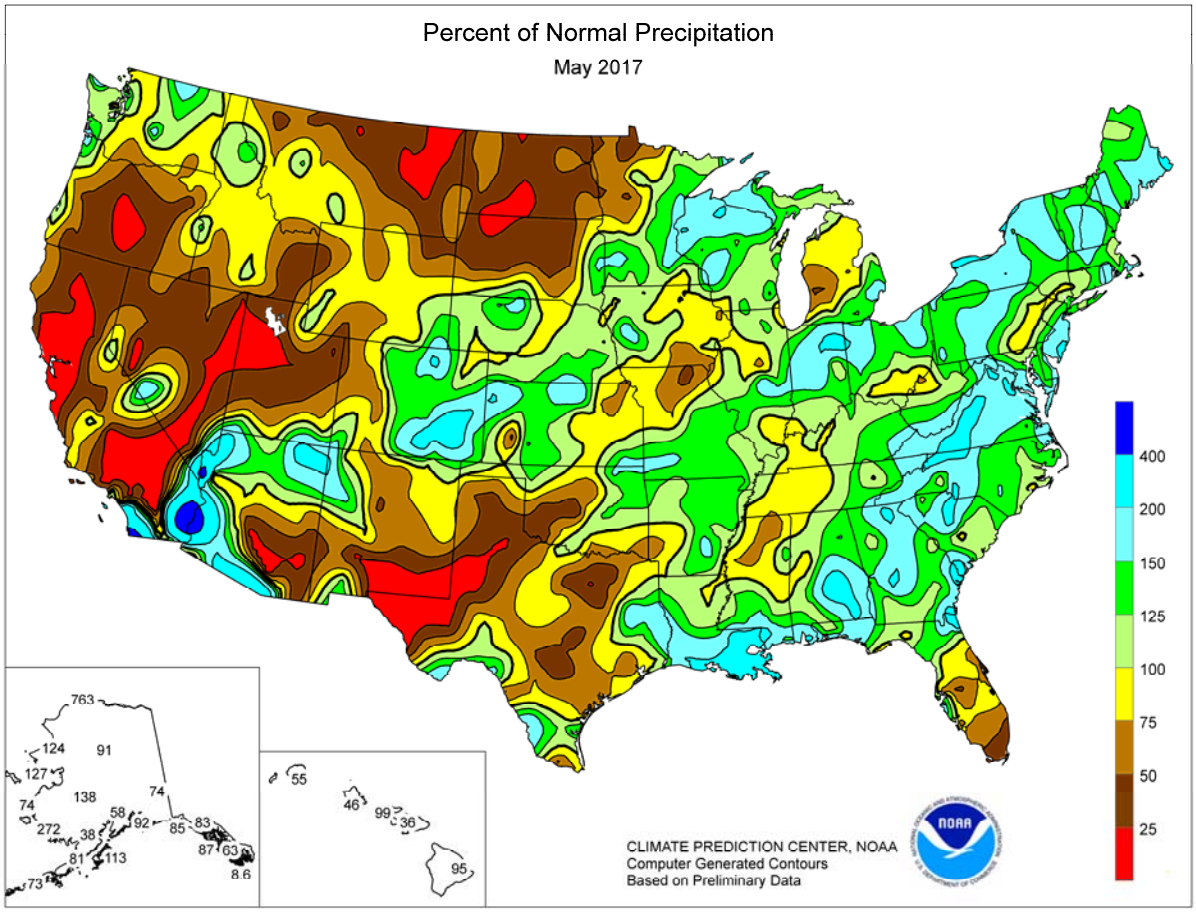
Nationally, peanut producers had planted 12 percent of this year's crop by April 30, slightly ahead of last year and 2 percentage points ahead of the 5-year average. By May 21, peanut producers had planted 67 percent of this year's crop, 6 percentage points ahead of last year and 8 points ahead of the 5-year average. Favorable planting conditions led to weekly planting progress of 20 percentage points or more in all estimating states during the week ending May 21. Peanut planting advanced to 91 percent complete by June 4, two percentage points ahead of both last year and the 5-year average. Overall, 72 percent of the peanut crop was reported in good to excellent condition on June 4, compared with 68 percent at the same time last year.

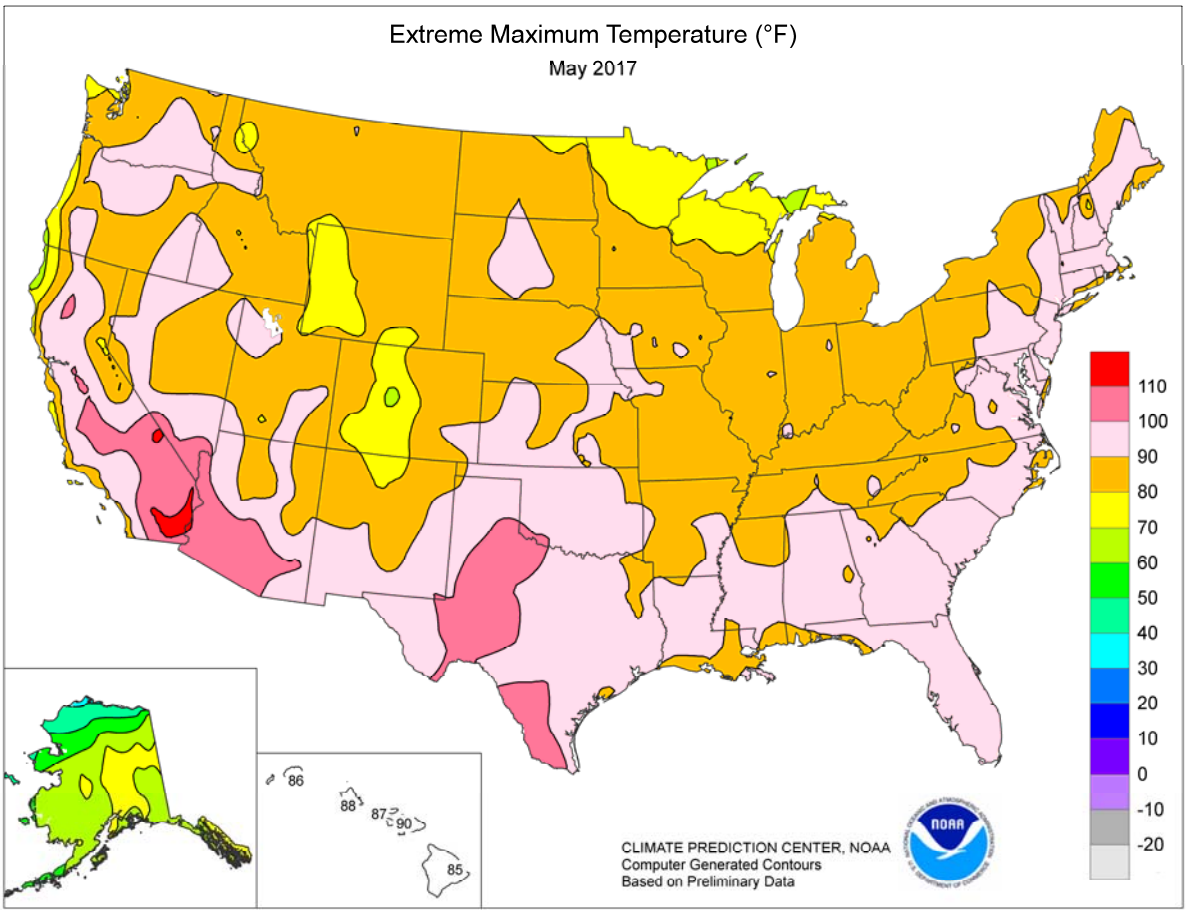
By May 21, twenty percent of this year's sunflower crop was planted, 5 percentage points behind last year but 6 points ahead of the 5-year average. By May 21, North Dakota producers had planted 31 percent of the crop, 7 percentage points ahead of the 5-year average. By May 28, sunflower producers had planted 41 percent of this year's crop, slightly behind last year but 12 percentage points ahead of the 5-year average. Sunflower producers had planted 61 percent of 2017 crop by June 4, two percentage points ahead of last year and 17 points ahead of the 5-year average.

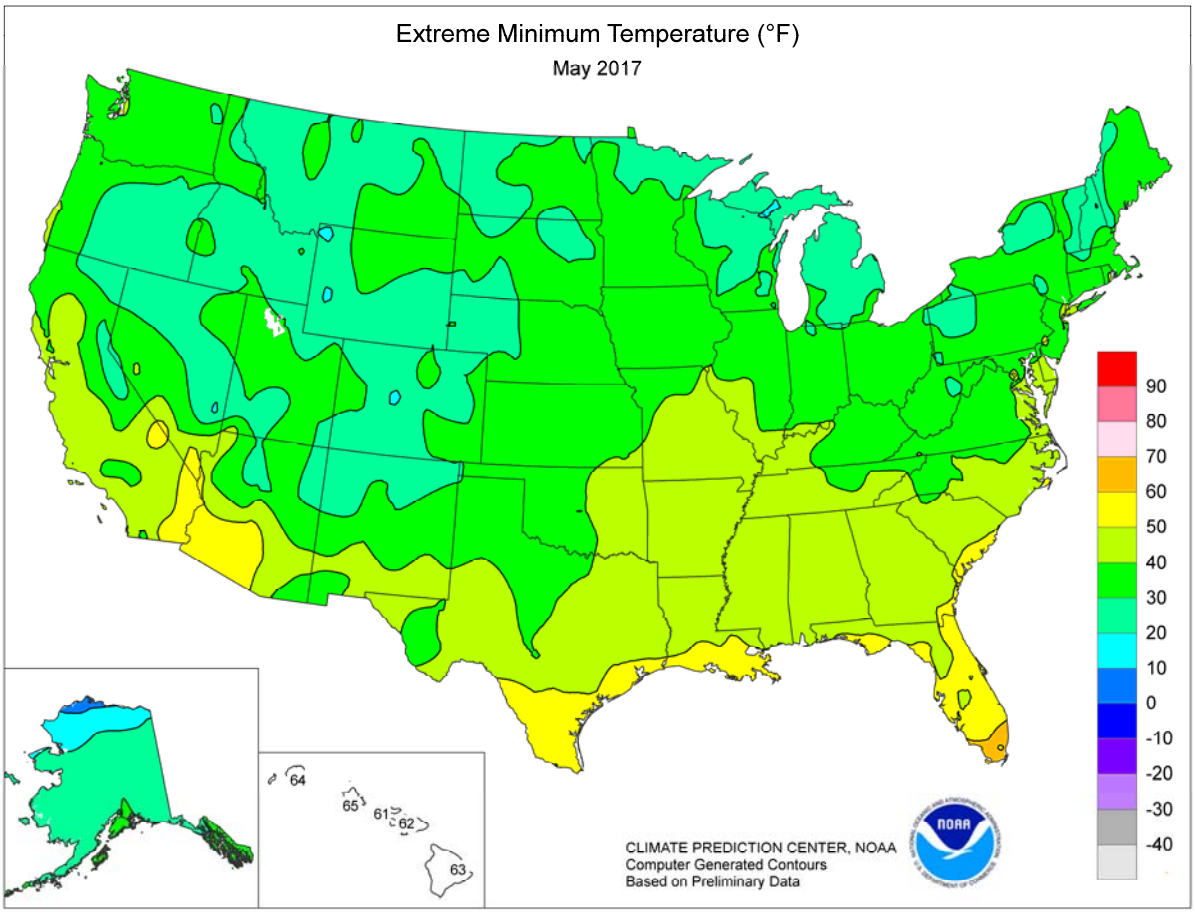
Nationally, cotton producers had planted 14 percent of the crop by April 30, slightly behind last year and 3 percentage points behind the 5-year average. Nationally, 33 percent of the cotton was planted by May 14, five percentage points behind last year and 4 points behind the 5-year average. During the week ending May 14, drier conditions in the lower Mississippi Valley and Southeast facilitated rapid planting, which advanced at least 24 percentage points in Alabama, Arkansas, Missouri, and Tennessee. By June 4, eighty percent of the cotton was planted, 7 percentage points ahead of last year but equal to the 5-year average. Nationally, 11 percent of the cotton was squaring by June 4, four percentage points ahead of both last year and the 5-year average. Overall, 61 percent of the cotton was reported in good to excellent condition on June 4, fourteen percentage points better than at the same time last year.

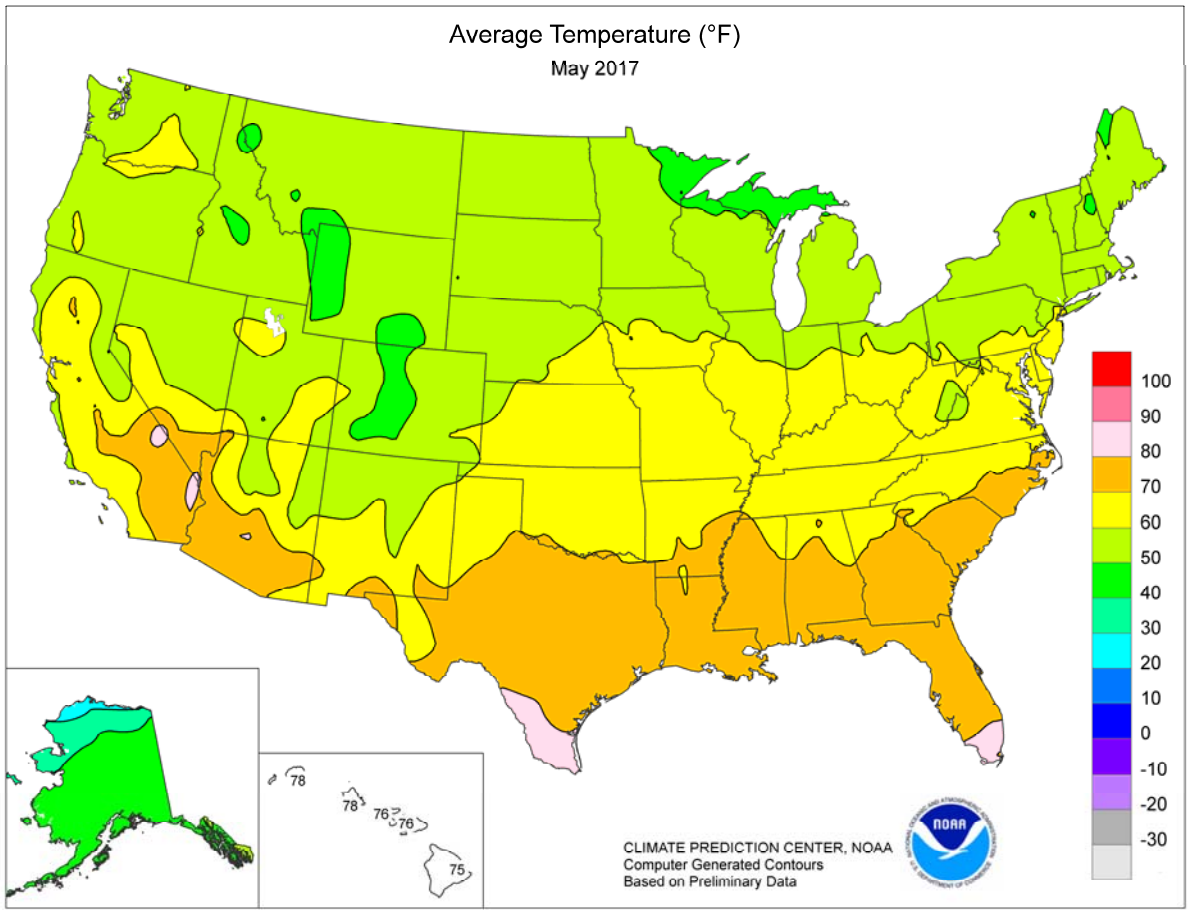
By April 30, sugarbeet producers had planted 48 percent of the ntion's crop, 29 percentage points behind last year and 12 points behind the 5-year average. Nationally, sugarbeet producers had planted 96 percent of the crop by May 14, slightly behind last year but 15 percentage points ahead of the 5-year average.

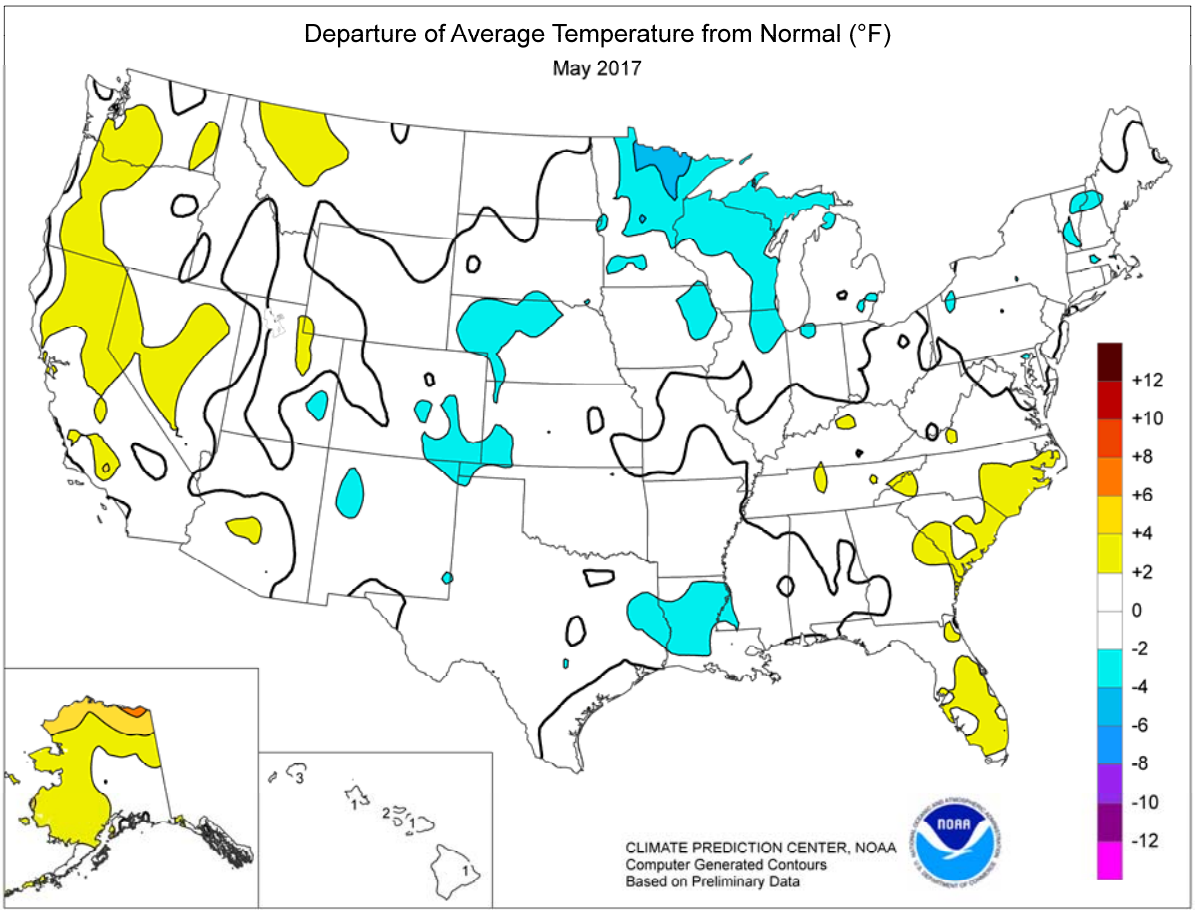

Total Precipitation (Inches)
May 2017
24
20
16
12
8
4
2
1
0.5
0
0.9
0.4
0.8
0.9
1.4
2.4
1
0.7
1
0.5
1.2
5.7
8.3
5.2
7.1
3.8
11
1.9
0.4
1.4
0.2
15
7.7
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA


Percent of Normal Precipitation
May 2017
400
200
150
125
100
75
50
25
763
124
91
127
138
74
74
58
92
85
83
272
38
87
63
81
113
73
8.6
55
46
99
36
95
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA


Extreme Maximum Temperature (°F)
May 2017
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
86
88
87
90
85
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Extreme Minimum Temperature (°F)
May 2017
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
64
65
61
62
63
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Average Temperature (°F)
May 2017
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
78
78
76
76
75
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Departure of Average Temperature from Normal (°F)
May 2017
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
3
1
2
1
1
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data

National Weather Data for Selected Cities

May 2017

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	71	2	6.67	1.84	LEXINGTON	65	1	5.64	0.86	COLUMBUS	63	0	5.24	1.36
HUNTSVILLE	70	1	5.97	0.73	LONDON-CORBIN	65	1	7.01	2.32	DAYTON	61	0	6.50	2.33
MOBILE	73	-1	10.88	4.78	LOUISVILLE	68	2	4.73	-0.15	MANSFIELD	59	1	5.53	1.11
MONTGOMERY	73	1	12.74	8.60	PADUCAH	68	1	4.94	0.19	TOLEDO	58	-2	4.98	1.84
AK ANCHORAGE	48	1	1.05	0.36	LA BATON ROUGE	73	-1	9.08	3.74	YOUNGSTOWN	58	0	4.54	1.09
BARROW	25	5	0.90	0.78	LAKE CHARLES	74	-1	12.23	6.17	OK OKLAHOMA CITY	67	-1	1.10	-4.34
COLD BAY	42	2	1.94	-0.71	NEW ORLEANS	74	-2	9.93	5.31	TULSA	69	0	7.12	1.01
FAIRBANKS	50	1	0.58	-0.02	SHREVEPORT	72	-1	7.60	2.35	OR ASTORIA	54	1	5.89	2.61
JUNEAU	50	2	5.19	1.71	ME BANGOR	53	-2	6.36	2.96	BURNS	51	0	0.36	-0.69
KING SALMON	46	2	1.09	-0.26	CARIBOU	53	1	4.37	1.10	EUGENE	57	2	1.22	-1.44
KODIAK	46	2	7.14	0.83	PORTLAND	53	-1	5.94	2.12	MEDFORD	64	6	0.58	-0.63
NOME	39	2	0.94	0.20	MD BALTIMORE	62	-1	5.64	1.75	PENDLETON	58	0	0.94	-0.28
AZ FLAGSTAFF	51	0	0.79	-0.01	MA BOSTON	56	-2	3.45	0.21	PORTLAND	60	3	1.92	-0.46
PHOENIX	82	3	0.01	-0.15	WORCESTER	54	-2	5.89	1.54	SALEM	59	3	1.64	-0.49
TUCSON	77	3	0.02	-0.22	MI ALPENA	52	0	2.14	-0.47	PA ALLENTOWN	60	0	4.21	-0.26
AR FORT SMITH	70	1	6.45	1.16	DETROIT	59	-1	4.39	1.34	ERIE	57	-1	5.10	1.76
LITTLE ROCK	69	-1	6.82	1.77	FLINT	56	-1	2.48	-0.26	MIDDLETOWN	62	0	3.93	-0.33
CA BAKERSFIELD	73	3	0.06	-0.18	GRAND RAPIDS	58	0	1.50	-1.85	PHILADELPHIA	63	-1	6.33	2.45
EUREKA	51	-3	1.31	-0.31	HOUGHTON LAKE	53	-1	2.53	-0.04	PITTSBURGH	60	0	5.15	1.35
FRESNO	71	2	0.12	-0.27	LANSING	58	1	2.49	-0.22	WILKES-BARRE	59	-1	3.66	-0.03
LOS ANGELES	63	0	0.13	-0.11	MUSKEGON	56	0	1.50	-1.45	WILLIAMSPORT	60	0	6.17	2.38
REDDING	71	5	0.25	-1.41	TRAVERSE CITY	53	-2	2.20	-0.10	PR SAN JUAN	82	1	4.55	-0.74
SACRAMENTO	67	2	0.05	-0.48	MN DULUTH	50	-2	4.11	1.16	RI PROVIDENCE	58	-1	6.89	3.23
SAN DIEGO	65	0	0.92	0.72	INT'L FALLS	49	-4	1.61	-0.94	SC CHARLESTON	74	2	3.74	0.07
SAN FRANCISCO	61	2	0.00	-0.38	MINNEAPOLIS	58	-1	4.80	1.56	COLUMBIA	74	2	7.15	3.98
STOCKTON	69	2	0.07	-0.43	ROCHESTER	56	-1	3.07	-0.46	FLORENCE	72	1	3.69	0.38
CO ALAMOSA	50	0	1.24	0.54	ST. CLOUD	55	-2	4.44	1.47	GREENVILLE	69	2	5.00	0.41
CO SPRINGS	56	1	3.15	0.76	MS JACKSON	71	0	6.30	1.44	MYRTLE BEACH	73	3	4.00	1.01
DENVER	56	1	3.66	0.94	MERIDIAN	72	0	3.37	-1.50	SD ABERDEEN	57	-1	0.65	-2.04
GRAND JUNCTION	61	1	0.66	-0.32	TUPELO	70	1	3.69	-2.11	HURON	58	0	1.34	-1.66
PUEBLO	59	-1	3.00	1.51	MO COLUMBIA	65	1	6.71	1.84	RAPID CITY	56	1	1.16	-1.80
CT BRIDGEPORT	60	1	5.49	1.46	JOPLIN	67	1	8.00	2.93	SIOUX FALLS	58	0	3.23	-0.16
HARTFORD	58	-2	4.59	0.20	KANSAS CITY	64	0	5.37	-0.02	TN BRISTOL	65	2	7.78	3.46
DC WASHINGTON	65	-1	5.55	1.73	SPRINGFIELD	65	0	7.42	2.85	CHATTANOOGA	70	2	5.87	1.59
DE WILMINGTON	62	0	5.86	1.71	ST JOSEPH	64	-1	3.85	-1.10	JACKSON	69	0	4.37	-1.27
FL DAYTONA BEACH	76	1	1.93	-1.33	ST LOUIS	69	2	6.00	1.89	KNOXVILLE	68	2	4.85	0.17
FT LAUDERDALE	81	3	2.82	-3.51	MT BILLINGS	58	2	1.61	-0.87	MEMPHIS	71	0	4.21	-0.94
FT MYERS	81	2	1.15	-2.27	BUTTE	49	1	1.59	-0.43	NASHVILLE	69	2	3.94	-1.13
JACKSONVILLE	75	2	8.64	5.16	GLASGOW	57	1	0.58	-1.14	TX ABILENE	71	-2	2.73	-0.10
KEY WEST	82	1	1.19	-2.29	GREAT FALLS	55	4	2.01	-0.52	AMARILLO	64	-1	1.15	-1.35
MELBOURNE	79	3	2.81	-1.13	HELENA	56	3	1.39	-0.39	AUSTIN	76	1	2.99	-2.04
MIAMI	82	2	2.69	-2.83	KALISPELL	54	3	0.81	-1.23	BEAUMONT	75	-1	5.57	-0.26
ORLANDO	77	0	3.36	-0.38	MILES CITY	58	1	0.43	-1.76	BROWNSVILLE	82	3	1.85	-0.63
PENSACOLA	76	1	7.08	2.68	MISSOULA	55	2	1.39	-0.56	COLLEGE STATION	75	0	4.91	-0.14
ST PETERSBURG	80	2	2.76	-0.04	NE GRAND ISLAND	60	-1	5.28	1.21	CORPUS CHRISTI	78	0	3.22	-0.26
TALLAHASSEE	74	0	5.51	0.56	HASTINGS	61	-1	6.42	1.83	DALLAS/FT WORTH	75	2	0.70	-4.45
TAMPA	81	3	1.48	-1.37	LINCOLN	63	1	6.29	2.06	DEL RIO	77	-1	3.97	1.66
WEST PALM BEACH	79	1	2.61	-2.78	MCCOOK	60	0	3.55	0.29	EL PASO	75	1	0.03	-0.35
GA ATHENS	70	1	6.24	2.38	NORFOLK	59	-1	4.33	0.41	GALVESTON	79	2	3.98	0.28
ATLANTA	71	1	4.60	0.65	NORTH PLATTE	56	-2	3.30	-0.04	HOUSTON	76	0	2.41	-2.74
AUGUSTA	74	3	3.34	0.27	OMAHA/EPPLEY	63	1	4.60	0.16	LUBBOCK	70	1	0.58	-1.73
COLUMBUS	73	1	5.37	1.75	SCOTTSBLUFF	56	-1	3.45	0.75	MIDLAND	74	1	0.89	-0.90
MACON	72	1	6.07	3.09	VALENTINE	57	-1	5.41	2.21	SAN ANGELO	74	1	2.06	-1.03
SAVANNAH	76	3	11.54	7.93	NV ELKO	56	3	0.57	-0.51	SAN ANTONIO	76	0	1.76	-2.96
HI HILO	75	1	7.67	-0.40	ELY	51	1	0.28	-1.01	VICTORIA	77	0	3.06	-2.06
HONOLULU	78	1	0.36	-0.42	LAS VEGAS	78	3	0.08	-0.16	WACO	74	0	2.80	-1.66
KAHULUI	76	0	0.24	-0.42	RENO	62	6	0.61	-0.01	WICHITA FALLS	71	0	4.56	0.64
LIHUE	78	3	1.58	-1.29	WINNEMUCCA	56	1	0.44	-0.62	UT SALT LAKE CITY	63	4	0.61	-1.48
ID BOISE	60	1	0.74	-0.53	NH CONCORD	55	-1	5.91	2.58	VT BURLINGTON	57	1	4.91	1.59
LEWISTON	60	2	1.49	-0.07	NJ ATLANTIC CITY	61	1	7.52	4.14	VA LYNCHBURG	64	1	7.88	3.77
POCATELLO	54	1	0.56	-0.95	NEWARK	61	-2	7.24	2.78	NORFOLK	68	2	8.56	4.82
IL CHICAGO/O'HARE	58	-1	3.28	-0.10	NM ALBUQUERQUE	65	0	0.24	-0.36	RICHMOND	66	1	7.57	3.62
MOLINE	61	-1	3.23	-1.02	NY ALBANY	57	-1	5.98	2.33	ROANOKE	65	1	8.14	3.90
PEORIA	62	0	3.62	-0.55	BINGHAMTON	54	-2	6.97	3.42	WASH/DULLES	62	0	8.49	4.27
ROCKFORD	58	-2	4.90	0.88	BUFFALO	56	-1	6.35	3.00	WA OLYMPIA	56	3	3.07	0.80
SPRINGFIELD	65	1	4.07	0.01	ROCHESTER	57	0	5.29	2.47	QUILLAYUTE	52	1	5.15	-0.36
IN EVANSVILLE	68	2	3.99	-1.02	SYRACUSE	56	-1	6.46	3.07	SEATTLE-TACOMA	58	2	2.28	0.51
FORT WAYNE	60	0	9.22	5.47	NC ASHEVILLE	65	3	7.03	2.62	SPOKANE	57	3	1.31	-0.29
INDIANAPOLIS	62	-1	8.51	4.16	CHARLOTTE	70	1	5.76	2.10	YAKIMA	61	5	0.55	0.04
SOUTH BEND	57	-3	4.92	1.42	GREENSBORO	67	1	7.12	3.17	WV BECKLEY	60	0	6.70	2.31
IA BURLINGTON	62	-1	3.32	-1.08	HATTERAS	72	4	6.55	2.63	CHARLESTON	64	2	5.46	1.16
CEDAR RAPIDS	59	-2	3.66	-0.19	RALEIGH	69	2	5.64	1.85	ELKINS	59	1	4.36	-0.41
DES MOINES	63	1	4.83	0.58	WILMINGTON	73	3	5.19	0.79	HUNTINGTON	65	1	5.50	1.09
DUBUQUE	57	-2	2.77	-1.35	ND BISMARCK	57	1	0.25	-1.97	WI EAU CLAIRE	56	-2	4.36	0.67
SIOUX CITY	60	-1	3.44	-0.31	DICKINSON	54	-1	1.21	-1.07	GREEN BAY	55	-1	2.97	0.22
WATERLOO	58	-2	3.52	-0.63	FARGO	57	0	1.14	-1.47	LA CROSSE	59	-2	7.20	3.82
KS CONCORDIA	62	-1	8.00	3.80	GRAND FORKS	56	-1	1.11	-1.10	MADISON	56	-2	3.83	0.58
DODGE CITY	62	-2	4.62	1.62	JAMESTOWN	55	-2	0.89	-1.32	MILWAUKEE	55	-1	3.83	0.77
GOODLAND	59	0	7.66	4.20	MINOT	57	1	0.63	-1.68	WAUSAU	54	-3	3.88	0.34
HILL CITY	62	0	4.48	0.78	WILLISTON	58	3	0.98	-0.90	WY CASPER	52	0	2.25	-0.13
TOPEKA	65	1	3.69	-1.17	OH AKRON-CANTON	60	1	7.50	3.54	CHEYENNE	51	0	3.89	1.41
WICHITA	66	1	4.44	0.28	CINCINNATI	63	-1	6.21	1.62	LANDER	53	0	2.20	-0.18
KY JACKSON	65	1	7.41	2.25	CLEVELAND	60	2	6.09	2.59	SHERIDAN	53	0	2.24	-0.17

Based on 1971-2000 normals

***** Not Available**

National Agricultural Summary

June 5 – 11, 2017

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Above-normal temperatures prevailed across areas from the Southwest to the upper Midwest, with most of the northern Great Plains more than 6°F above normal during the week. Conversely, temperatures were generally below normal in locations east of the southern Plains into the Northeast, with temperatures more than 4°F below normal in locations scattered throughout the Delta, Ohio Valley, and Atlantic Coast States. Precipitation was scarce throughout most of the Corn Belt and Southwest, providing opportunities for fieldwork. Meanwhile, the Southeast received above-normal rainfall, further reducing drought coverage in Florida.

Corn: By June 11, corn emerged had advanced to 94 percent complete, slightly behind last year but equal to the 5-year average. More than 90 percent of the crop was emerged in 11 of the 18 estimating states. Overall, 67 percent of the corn crop was reported in good to excellent condition, down slightly from last week and 8 percentage points below the same time last year. Respondents in Colorado, Kentucky, Pennsylvania, and Tennessee reported more than 80 percent of the corn acreage in good to excellent condition.

Soybeans: By week's end, planting progress advanced to 92 percent complete for the 2017 soybean crop, slightly ahead of last year and 5 percentage points ahead of the 5-year average. Nationally, 77 percent of the soybean crop was emerged by week's end, equal to last year but 4 percentage points ahead of the 5-year average. As of June 11, Indiana and Michigan were both 12 percentage points behind their respective 5-year averages for emergence. Overall, 66 percent of the soybean crop was reported in good to excellent condition, 8 percentage points lower than at the same time last year. In 11 of the 18 estimating states, soybeans in the good to excellent categories were below the same time last year.

Winter Wheat: By week's end, 92 percent of the winter wheat was at or beyond the heading stage, 3 percentage points behind last year but slightly ahead of the 5-year average. Heading progress was behind normal in the Soft White Wheat growing region. In Idaho, winter wheat was 28 percent headed by June 11, thirty percentage points behind the 5-year average. The nation's harvest progress, at 17 percent complete, was 7 percentage points ahead of last year and 2 percentage points ahead of the 5-year average. At least 20 percent of the winter wheat was harvested during the week in Arkansas, Illinois, North Carolina, and Oklahoma. Overall, 50 percent of the winter wheat was reported in good to excellent condition, up slightly from last week but 11 percentage points lower than at the same time last year.

Cotton: By June 11, ninety-two percent of the nation's cotton was planted, 5 percentage points ahead of last year and 2 points ahead of the 5-year average. Planting was complete in Arizona, Arkansas, California, Louisiana, and Missouri. Cotton squaring advanced to 15 percent complete by June 11, three percentage points ahead of both last year and the 5-year average. Overall, 66 percent of the cotton was reported in good to excellent condition, up 5 percentage points from last week and 13 points above the same time last year. In Texas, 62 percent of the cotton was rated in the good to excellent categories on June 11.

Sorghum: Seventy-one percent of the nation's sorghum was planted by week's end, 2 percentage points behind both last year and the 5-year average. Kansas producers planted 27 percent of their crop during the week. This brought planting in Kansas to 52 percent complete by week's end, 8 percentage points behind the 5-year average. Sixteen percent of the nation's sorghum was headed by June 11, two percentage points ahead of last year and 3 points ahead of the 5-year average. Overall, 67 percent of the sorghum was reported in good to excellent condition, 4 percentage points lower than at the same time last year.

Rice: Ninety-four percent of the rice crop had emerged by June 11, four percentage points behind last year and 3 points behind the 5-year average. Eighteen percent of Louisiana's rice was headed by week's end, 9 percentage points ahead of the 5-year average. Overall, 68 percent of the rice crop was reported in good to excellent condition, up 2 percentage points from last week but equal to the percentage rated in these two categories at the same time last year.

Small Grains: By week's end, 44 percent of the oat crop was at or beyond the heading stage, 6 percentage points behind last year and 4 points behind the 5-year average. Favorable weather conditions promoted a rapid crop development pace in many states, with double-digit heading progress in Iowa, Nebraska, Ohio, Pennsylvania, and South Dakota. Overall, 57 percent of the oat crop was reported in good to excellent condition, down 5 percentage points from last week and 13 points lower than at the same time last year.

Nationwide, 91 percent of the barley had emerged by June 11, four percentage points behind last year and 2 percentage points behind the 5-year average. Overall, 72 percent of the barley was reported in good to excellent condition, up 3 percentage points from last week but 6 points below the same time last year.

Ninety-five percent of the nation's spring wheat was emerged by week's end, 4 percentage points behind last year but 3 points ahead of the 5-year average. Overall, 45 percent of the spring wheat was reported in good to excellent condition, down 10 percentage points from last week and 34 points below the same time last year. On the northern Plains, crop conditions were negatively impacted by ongoing dry weather.

Other Crops: By June 11, ninety-five percent of the peanuts were planted, equal to both last year and the 5-year average. Overall, 76 percent of the peanut crop was reported in good to excellent condition, up 4 percentage points from last week and 6 points above the same time last year.

Sunflower producers had planted 80 percent of this year's crop by week's end, 4 percentage points ahead of last year and 17 points ahead of the 5-year average. In North Dakota, 96 percent of the sunflowers were planted and 51 percent of the crop was emerged.

Crop Progress and Condition

Week Ending June 11, 2017

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

Soybeans Percent Planted

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AR	92	85	91	83
IL	89	85	93	88
IN	90	75	90	92
IA	97	91	98	90
KS	70	59	80	72
KY	64	60	73	68
LA	97	96	98	95
MI	94	75	88	95
MN	100	94	99	92
MS	95	92	95	93
MO	82	71	85	70
NE	96	91	97	96
NC	66	57	68	63
ND	99	94	98	91
OH	93	74	90	94
SD	92	92	99	93
TN	73	62	74	69
WI	98	73	89	88
18 Sts	91	83	92	87

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

Soybeans Percent Emerged

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AR	86	78	84	75
IL	76	62	78	77
IN	73	47	68	80
IA	89	62	85	79
KS	38	39	60	52
KY	39	38	51	50
LA	93	93	96	89
MI	74	46	68	80
MN	94	68	87	80
MS	89	89	92	86
MO	62	51	65	55
NE	81	62	86	84
NC	54	42	57	50
ND	87	57	84	68
OH	76	52	71	80
SD	77	62	89	76
TN	58	45	59	52
WI	86	34	63	71
18 Sts	77	58	77	73

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

Soybean Condition by Percent

	VP	P	F	G	EX
AR	1	4	26	51	18
IL	2	9	23	57	9
IN	2	10	37	44	7
IA	1	3	23	64	9
KS	0	2	38	57	3
KY	1	4	18	68	9
LA	0	4	20	60	16
MI	0	4	26	60	10
MN	0	1	21	67	11
MS	0	5	30	47	18
MO	1	5	33	53	8
NE	0	2	24	67	7
NC	0	5	20	73	2
ND	3	8	33	52	4
OH	1	4	38	45	12
SD	2	13	42	40	3
TN	1	2	15	65	17
WI	0	3	21	64	12
18 Sts	1	5	28	57	9
Prev Wk	NA	NA	NA	NA	NA
Prev Yr	1	3	22	62	12

Corn Percent Emerged

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
CO	94	80	89	91
IL	96	90	96	97
IN	89	74	86	94
IA	99	90	96	96
KS	95	76	88	94
KY	87	83	92	92
MI	89	66	83	93
MN	100	92	98	94
MO	100	94	98	94
NE	98	91	98	97
NC	98	96	99	99
ND	96	86	94	86
OH	90	79	88	93
PA	86	68	80	84
SD	93	90	98	94
TN	99	95	97	98
TX	93	89	96	95
WI	95	68	84	86
18 Sts	95	86	94	94

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

Corn Condition by Percent

	VP	P	F	G	EX
CO	0	1	6	84	9
IL	3	11	28	50	8
IN	5	15	36	39	5
IA	1	3	19	64	13
KS	2	5	28	57	8
KY	1	2	12	69	16
MI	0	4	27	57	12
MN	0	2	20	66	12
MO	2	7	32	50	9
NE	0	2	20	67	11
NC	1	4	20	62	13
ND	2	8	32	54	4
OH	2	7	41	43	7
PA	0	1	15	69	15
SD	3	15	37	42	3
TN	1	2	14	54	29
TX	0	4	20	63	13
WI	1	5	24	58	12
18 Sts	2	6	25	57	10
Prev Wk	1	5	26	58	10
Prev Yr	1	3	21	60	15

Rice Percent Emerged

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AR	100	99	100	98
CA	93	50	65	89
LA	100	100	100	100
MS	99	97	98	96
MO	100	91	94	97
TX	100	100	100	97
6 Sts	98	91	94	97

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

Rice Condition by Percent

	VP	P	F	G	EX
AR	4	8	27	42	19
CA	0	0	10	80	10
LA	1	5	21	57	16
MS	0	0	40	54	6
MO	1	9	26	40	24
TX	0	0	35	55	10
6 Sts	2	5	25	52	16
Prev Wk	2	7	25	53	13
Prev Yr	2	6	24	53	15

Crop Progress and Condition

Week Ending June 11, 2017

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

Cotton Percent Planted

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AL	93	94	97	95
AZ	100	98	100	100
AR	100	99	100	99
CA	99	90	100	99
GA	92	87	94	93
KS	53	63	81	73
LA	99	100	100	99
MS	96	90	94	97
MO	100	95	100	99
NC	94	86	94	96
OK	74	71	86	71
SC	92	90	95	93
TN	99	97	98	96
TX	83	73	89	87
VA	83	85	92	96
15 Sts	87	80	92	90

These 15 States planted 98% of last year's cotton acreage.

Cotton Percent Squaring

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AL	16	4	9	16
AZ	39	28	35	31
AR	30	20	32	26
CA	14	0	10	28
GA	18	7	17	14
KS	1	0	0	0
LA	12	21	36	23
MS	15	7	12	13
MO	14	0	0	11
NC	2	2	11	5
OK	2	0	8	4
SC	4	1	11	7
TN	13	10	18	9
TX	10	13	14	10
VA	15	2	12	10
15 Sts	12	11	15	12

These 15 States planted 98% of last year's cotton acreage.

Cotton Condition by Percent

	VP	P	F	G	EX
AL	0	2	27	67	4
AZ	0	0	3	73	24
AR	0	4	17	53	26
CA	0	0	5	10	85
GA	1	5	24	56	14
KS	0	0	11	88	1
LA	0	3	39	51	7
MS	0	6	27	45	22
MO	2	15	36	41	6
NC	1	4	27	63	5
OK	0	7	21	71	1
SC	0	0	12	57	31
TN	2	4	11	68	15
TX	1	3	34	52	10
VA	0	0	10	90	0
15 Sts	1	4	29	54	12
Prev Wk	0	6	33	53	8
Prev Yr	1	8	38	45	8

Sorghum Percent Planted

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AR	98	99	100	99
CO	61	33	47	60
IL	46	60	73	69
KS	59	25	52	60
LA	100	99	100	100
MO	85	63	80	74
NE	96	71	90	89
NM	64	32	40	51
OK	66	53	67	64
SD	90	49	87	76
TX	86	92	95	88
11 Sts	73	55	71	73

These 11 States planted 99% of last year's sorghum acreage.

Sorghum Percent Headed

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AR	4	0	1	4
CO	0	NA	0	0
IL	0	NA	0	0
KS	1	NA	0	0
LA	27	6	20	22
MO	3	NA	0	1
NE	0	NA	0	0
NM	0	NA	0	0
OK	0	NA	0	0
SD	1	NA	0	0
TX	37	44	49	42
11 Sts	14	NA	16	13

These 11 States planted 99% of last year's sorghum acreage.

Sorghum Condition by Percent

	VP	P	F	G	EX
AR	1	3	35	54	7
CO	0	1	21	73	5
IL	12	7	32	41	8
KS	0	1	30	68	1
LA	0	3	30	62	5
MO	0	4	39	56	1
NE	0	0	28	61	11
NM	5	10	60	15	10
OK	0	1	13	84	2
SD	9	24	53	14	0
TX	0	1	34	55	10
11 Sts	0	2	31	62	5
Prev Wk	NA	NA	NA	NA	NA
Prev Yr	1	3	25	64	7

Crop Progress and Condition

Week Ending June 11, 2017

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

Winter Wheat Percent Headed

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AR	100	100	100	100
CA	100	100	100	100
CO	95	92	96	89
ID	76	25	28	58
IL	100	100	100	98
IN	98	96	99	96
KS	100	99	100	99
MI	85	59	77	88
MO	100	100	100	99
MT	62	18	39	33
NE	89	96	99	87
NC	100	100	100	100
OH	99	97	99	97
OK	100	100	100	100
OR	96	74	91	93
SD	88	78	94	63
TX	100	100	100	99
WA	96	49	73	84
18 Sts	95	87	92	91

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

Winter Wheat Percent Harvested

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AR	39	28	66	38
CA	47	0	1	39
CO	0	0	0	0
ID	0	0	0	0
IL	1	1	24	11
IN	1	1	9	6
KS	4	0	4	13
MI	0	0	0	0
MO	19	2	21	18
MT	0	0	0	0
NE	0	0	0	1
NC	19	18	38	23
OH	0	0	0	0
OK	30	25	52	39
OR	0	0	0	0
SD	0	0	0	0
TX	32	58	72	38
WA	0	0	0	0
18 Sts	10	10	17	15

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

Winter Wheat Condition by Percent

	VP	P	F	G	EX
AR	3	7	20	62	8
CA	0	0	0	80	20
CO	7	13	32	33	15
ID	0	6	22	55	17
IL	8	7	21	47	17
IN	2	5	28	50	15
KS	9	15	31	39	6
MI	2	9	22	54	13
MO	1	6	25	58	10
MT	4	9	42	33	12
NE	3	10	36	43	8
NC	2	9	27	53	9
OH	0	1	16	65	18
OK	2	6	45	44	3
OR	2	4	12	57	25
SD	18	28	33	21	0
TX	1	14	49	33	3
WA	1	1	12	65	21
18 Sts	5	11	34	42	8
Prev Wk	4	11	36	42	7
Prev Yr	2	7	30	49	12

Oats Percent Headed

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
IA	57	26	44	48
MN	21	7	11	17
NE	57	62	76	50
ND	7	3	8	4
OH	48	18	33	39
PA	65	6	20	38
SD	43	17	41	33
TX	100	100	100	99
WI	24	1	7	20
9 Sts	50	35	44	48

These 9 States planted 66% of last year's oat acreage.

Oat Condition by Percent

	VP	P	F	G	EX
IA	0	1	22	62	15
MN	0	2	17	66	15
NE	0	1	27	68	4
ND	9	16	47	27	1
OH	1	3	28	58	10
PA	0	2	13	84	1
SD	11	23	33	30	3
TX	4	15	34	40	7
WI	0	2	20	61	17
9 Sts	4	10	29	49	8
Prev Wk	2	8	28	53	9
Prev Yr	1	4	25	60	10

Barley Percent Emerged

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
ID	93	88	97	99
MN	100	97	98	92
MT	95	76	86	96
ND	97	90	94	85
WA	95	83	86	99
5 Sts	95	84	91	93

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

Barley Condition by Percent

	VP	P	F	G	EX
ID	0	1	11	61	27
MN	0	1	10	66	23
MT	3	4	22	62	9
ND	7	8	30	49	6
WA	0	2	15	83	0
5 Sts	3	4	21	60	12
Prev Wk	2	5	24	57	12
Prev Yr	0	1	21	60	18

Crop Progress and Condition

Week Ending June 11, 2017

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

Peanuts Percent Planted

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
AL	93	87	89	90
FL	96	93	94	93
GA	96	93	97	96
NC	91	80	90	97
OK	89	83	92	91
SC	95	92	94	96
TX	95	91	95	93
VA	81	86	92	95
8 Sts	95	91	95	95

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

Peanut Condition by Percent

	VP	P	F	G	EX
AL	0	4	35	59	2
FL	0	1	27	64	8
GA	0	5	20	58	17
NC	0	1	11	84	4
OK	0	0	5	90	5
SC	0	0	6	66	28
TX	0	1	22	71	6
VA	0	0	10	90	0
8 Sts	0	3	21	64	12
Prev Wk	0	3	25	62	10
Prev Yr	0	1	29	59	11

Sunflowers Percent Planted

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
CO	44	12	29	41
KS	47	19	34	48
ND	91	81	96	76
SD	65	48	72	53
4 Sts	76	61	80	63

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

Spring Wheat Percent Emerged

	Prev Year	Prev Week	Jun 11 2017	5-Yr Avg
ID	99	80	84	100
MN	100	100	100	95
MT	97	78	83	92
ND	99	92	98	87
SD	100	100	100	98
WA	100	87	95	100
6 Sts	99	90	95	92

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

Spring Wheat Condition by Percent

	VP	P	F	G	EX
ID	2	3	22	56	17
MN	0	0	7	71	22
MT	11	20	46	16	7
ND	6	11	40	39	4
SD	21	36	30	12	1
WA	0	1	24	74	1
6 Sts	7	13	35	38	7
Prev Wk	3	8	34	48	7
Prev Yr	0	2	19	67	12

Pasture and Range Condition by Percent Week Ending Jun 11, 2017

	VP	P	F	G	EX			VP	P	F	G	EX
AL	0	13	22	62	3		NH	0	0	13	56	31
AZ	1	22	27	39	11		NJ	2	5	16	75	2
AR	0	5	27	48	20		NM	8	27	38	23	4
CA	10	10	10	35	35		NY	0	1	23	52	24
CO	0	1	14	68	17		NC	1	2	26	66	5
CT	0	0	100	0	0		ND	22	31	29	17	1
DE	2	5	37	51	5		OH	1	3	18	68	10
FL	3	13	43	39	2		OK	1	3	27	55	14
GA	3	13	30	47	7		OR	1	2	21	49	27
ID	0	2	11	63	24		PA	0	5	20	47	28
IL	1	5	29	51	14		RI	0	0	0	65	35
IN	1	7	26	55	11		SC	0	0	19	79	2
IA	1	3	25	58	13		SD	21	24	29	24	2
KS	0	2	17	64	17		TN	1	5	28	52	14
KY	1	2	18	66	13		TX	2	7	33	46	12
LA	1	5	30	50	14		UT	0	1	24	55	20
ME	0	0	3	59	38		VT	17	6	14	51	12
MD	1	5	18	56	20		VA	1	7	21	57	14
MA	0	0	1	80	19		WA	0	1	7	71	21
MI	0	6	24	53	17		WV	1	6	22	58	13
MN	1	3	21	62	13		WI	0	2	18	54	26
MS	2	5	26	54	13		WY	2	10	18	57	13
MO	0	2	26	64	8		48 Sts	3	8	25	51	13
MT	9	13	28	31	19							
NE	0	1	20	71	8		Prev Wk	3	8	25	51	13
NV	0	0	20	20	60		Prev Yr	2	6	26	53	13

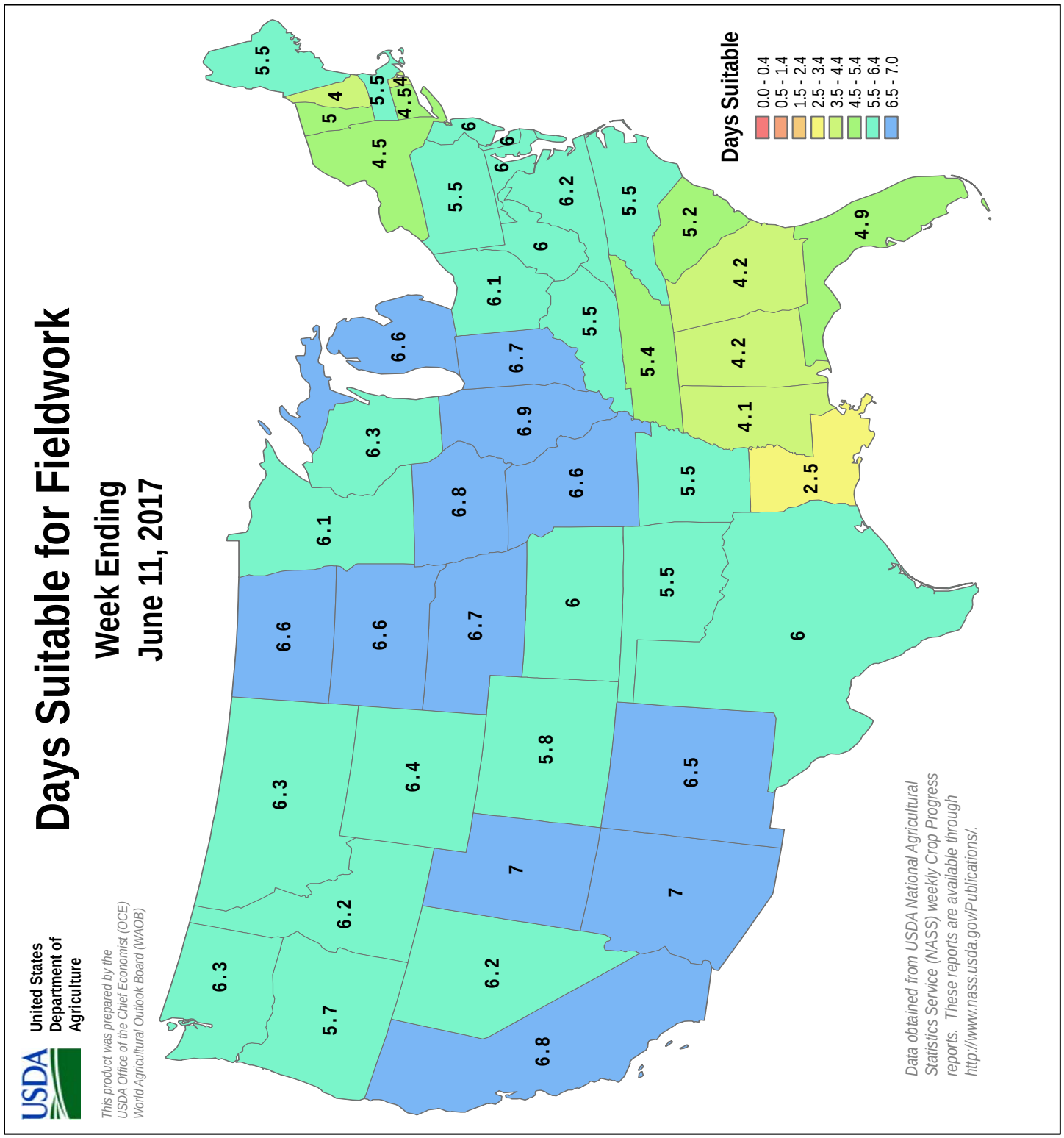
VP - Very Poor; P - Poor; F - Fair; G - Good; EX - Excellent

NA - Not Available; *Revised

Crop Progress and Condition

Week Ending June 11, 2017

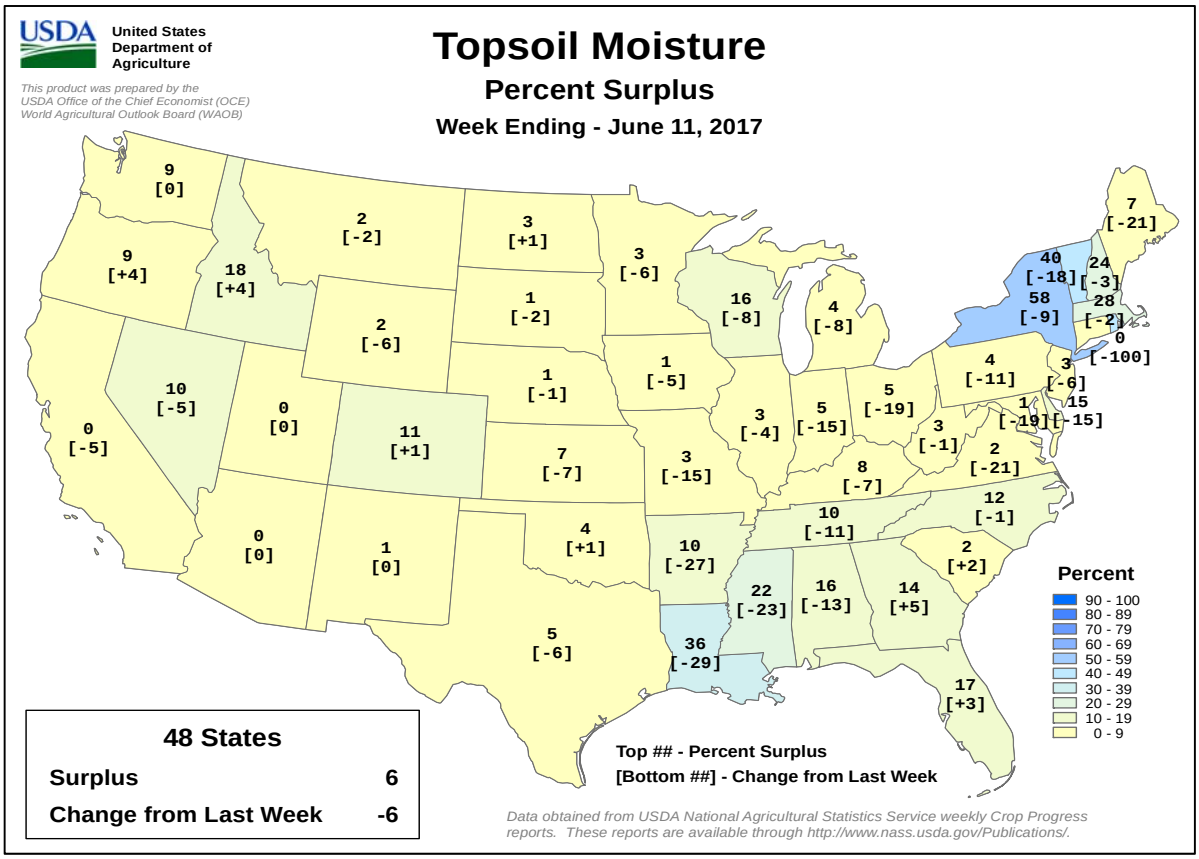
Weekly U.S. Progress and Condition Data provided by USDA/NASS

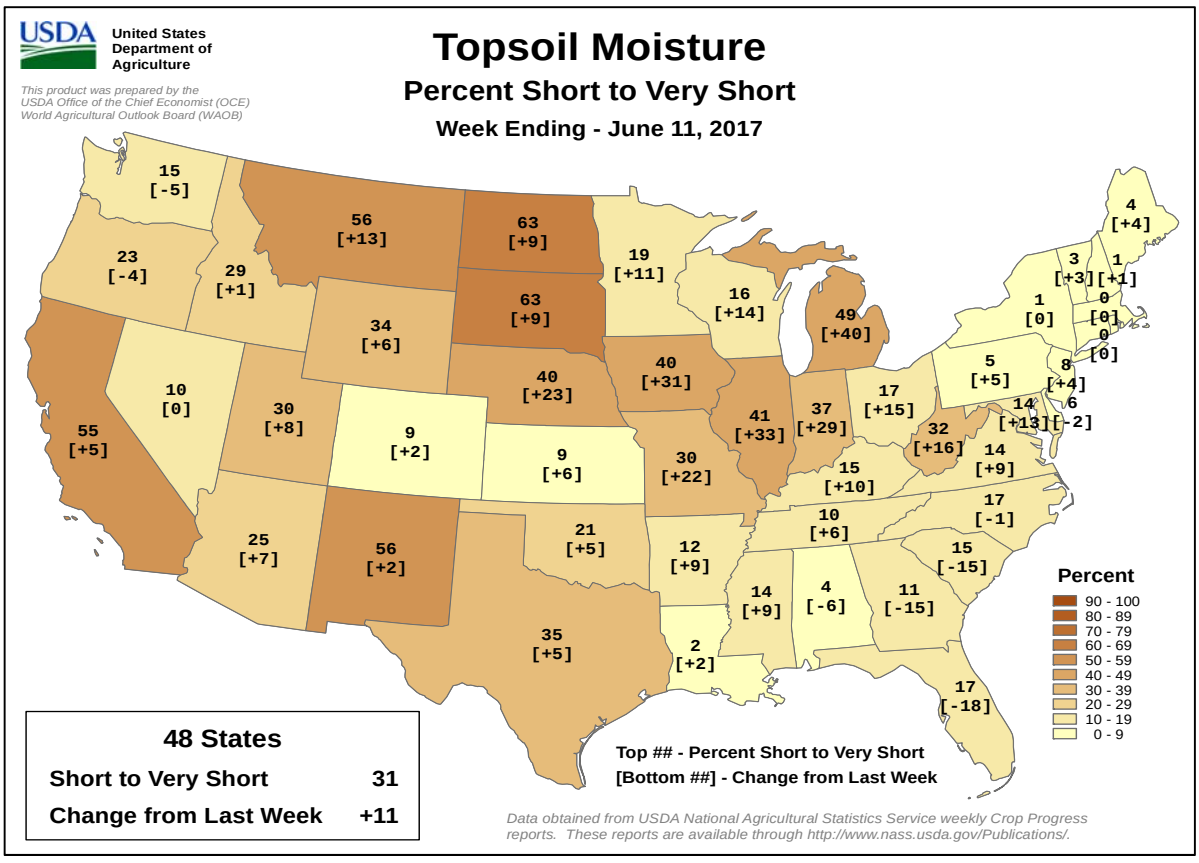


Crop Progress and Condition

Week Ending June 11, 2017

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

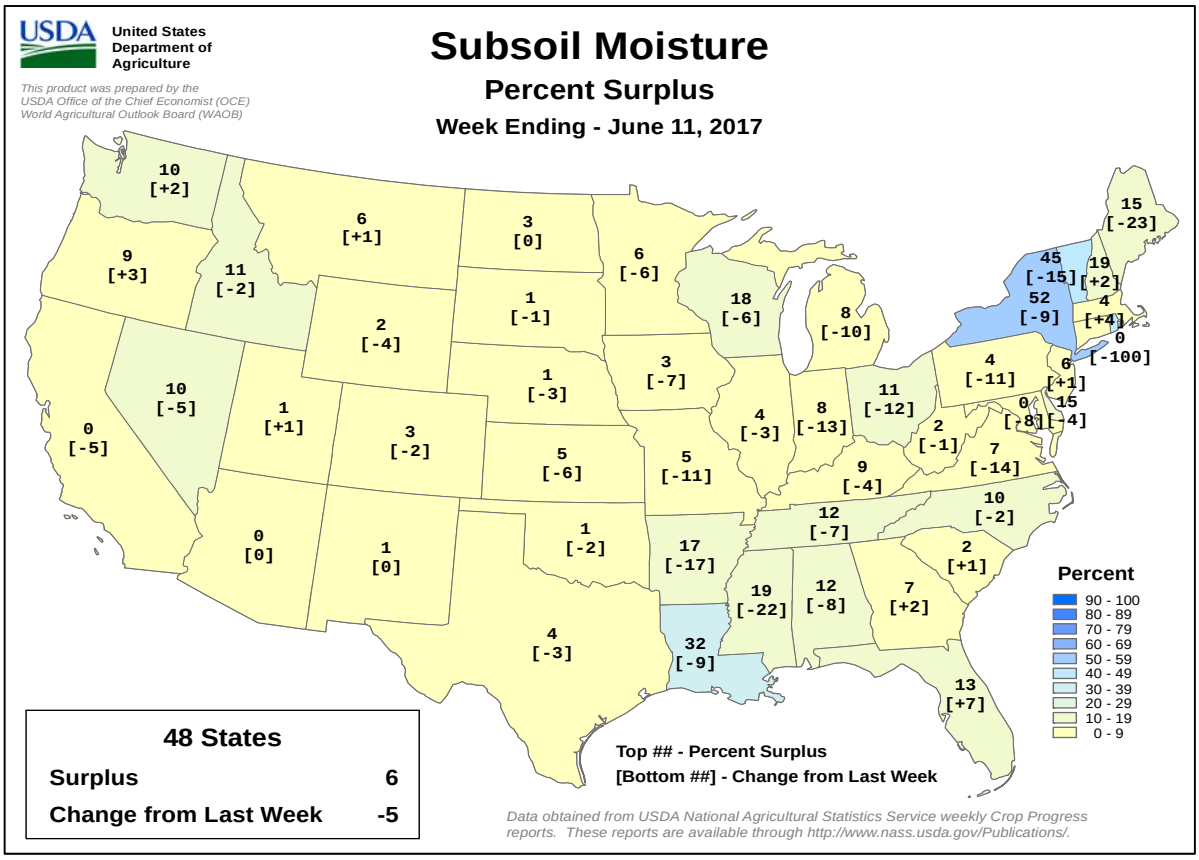


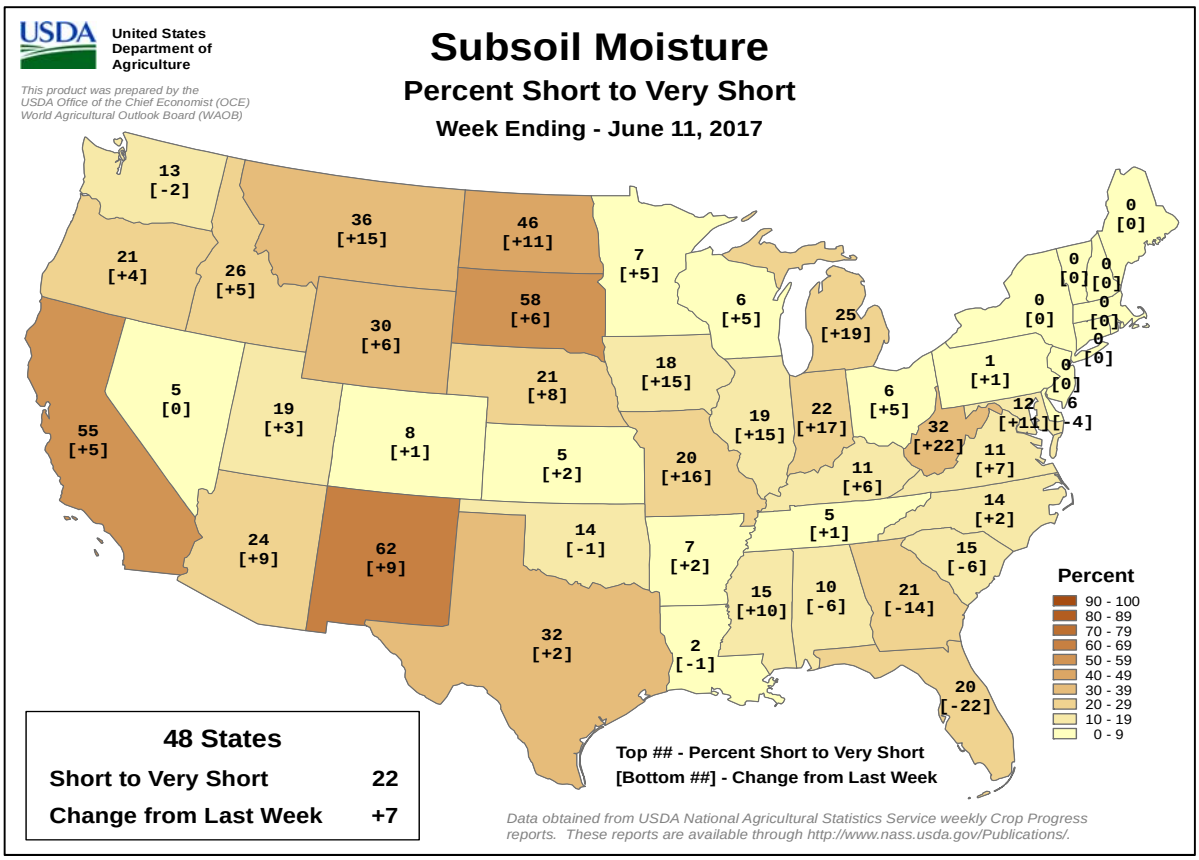


Crop Progress and Condition

Week Ending June 11, 2017

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





June 8 ENSO Update

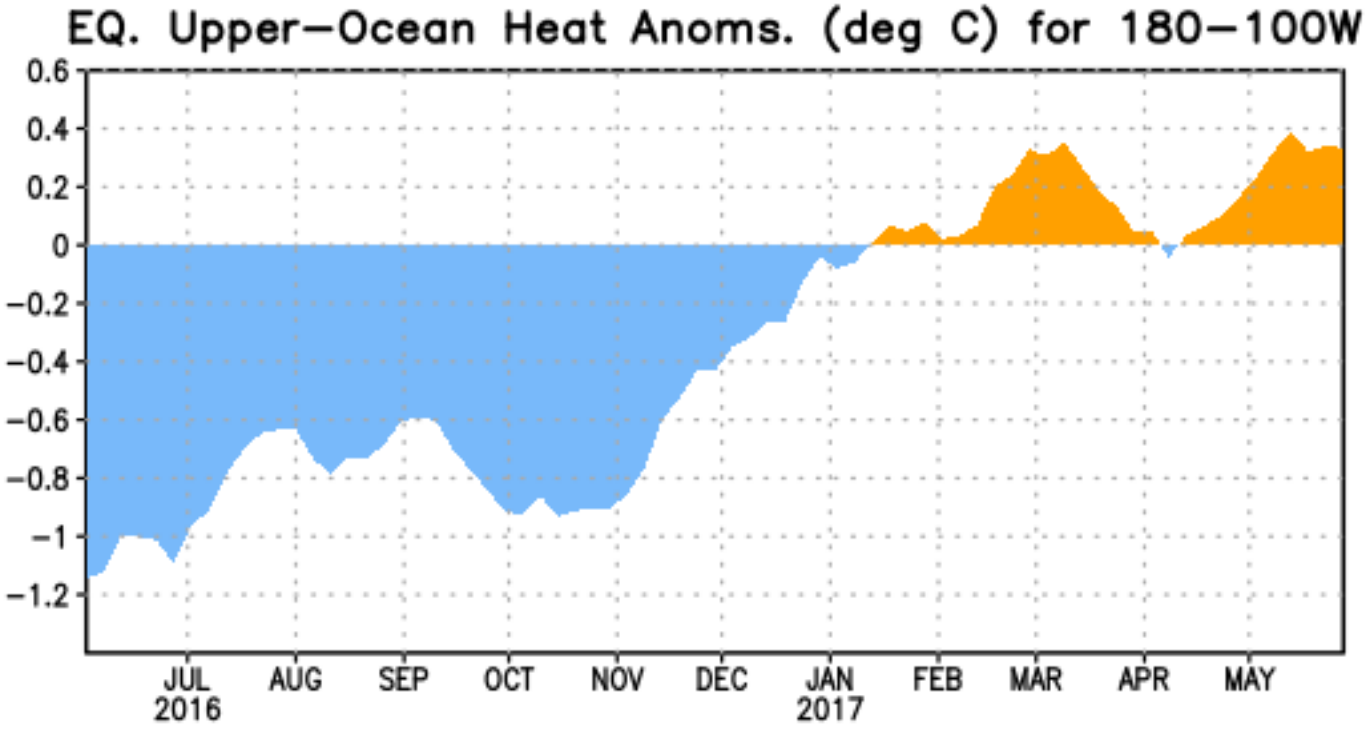


Figure 1: Area-averaged upper-ocean heat content anomaly (°C) in the equatorial Pacific (5°N-5°S, 180º-100ºW). The heat content anomaly is computed as the departure from the 1981-2010 base period pentad means.

ENSO Alert System Status: Not Active

Synopsis: ENSO-neutral is favored (50 to ~55% chance) through the Northern Hemisphere fall 2017.

During May, ENSO-neutral continued, though sea surface temperatures (SSTs) were above average in the east-central Pacific Ocean. The latest weekly Niño index values were near +0.5°C in most of the Niño regions, except for the easternmost Niño-1+2, which was at +0.2°C. The upper-ocean heat content anomaly increased during May (Fig. 1), reflecting the expansion of above-average sub-surface temperatures across the central and eastern Pacific in association with a downwelling oceanic Kelvin wave. While ocean temperatures were elevated, the atmosphere was close to average. Atmospheric convection anomalies were weak over the central tropical Pacific and Maritime Continent, while the lower-level and upper-level winds were near average over most of the tropical Pacific. Both the Southern Oscillation Index (SOI) and Equatorial SOI were also near zero. Overall, the ocean and atmosphere system remains consistent with ENSO-neutral.

Many models predict the onset of El Niño (3-month average Niño-3.4 index at or greater than 0.5°C) during the Northern Hemisphere summer. However, the NCEP CFSv2 and most of the models from the latest runs of the North American Multi-Model Ensemble (NMME) are now favoring the continuation of ENSO-neutral. These predictions, combined with the near-average atmospheric conditions over the Pacific, have resulted in slightly more confidence for the persistence of ENSO-neutral (50 to ~55% chance). However, chances for El Niño remain elevated (35-50%) relative to the long-term average into the fall. In summary, ENSO-neutral is favored (50 to ~55% chance) through the Northern Hemisphere fall 2017 (click CPC/IRI consensus forecast for the chance of each outcome for each 3-month period).

This discussion is a consolidated effort of the National Oceanic and Atmospheric Administration (NOAA), NOAA's National Weather Service, and their funded institutions. Oceanic and atmospheric conditions are updated weekly on the Climate Prediction Center web site (El Niño/La Niña Current Conditions and Expert Discussions). Forecasts are also updated monthly in the Forecast Forum of CPC's Climate Diagnostics Bulletin. Additional perspectives and analysis are also available in an ENSO blog. The next ENSO Diagnostics Discussion is scheduled for **13 July 2017**. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: ncep.list.enso-update@noaa.gov.

International Weather and Crop Summary

June 4-10, 2017

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

HIGHLIGHTS

EUROPE: Widespread rain and near-normal temperatures maintained good growing conditions over much of the continent, though drought and heat adversely impacted summer crops in central and southern Spain.

WESTERN FSU: Additional beneficial rain over Russia contrasted with intensifying drought in central Ukraine.

EASTERN FSU: Showers boosted moisture supplies for spring wheat emergence in the north, while mostly sunny, warm weather promoted cotton development in southern portions of the region.

MIDDLE EAST: Late-season showers in Turkey further improved conditions for filling winter grains and maintained supplemental moisture for irrigated summer crops.

SOUTH ASIA: Monsoon showers moved northward into key cotton and oilseed areas of western and central India.

EAST ASIA: Widespread showers benefited summer crops in China but raised quality concerns for mature wheat, while unfavorable dryness continued in parts of the northeast.

SOUTHEAST ASIA: Monsoon showers kept recently-sown rice and other summer crops well watered in Thailand and the Philippines.

AUSTRALIA: Unfavorably dry weather further reduced the amount of topsoil moisture available to recently-sown winter grains and oilseeds.

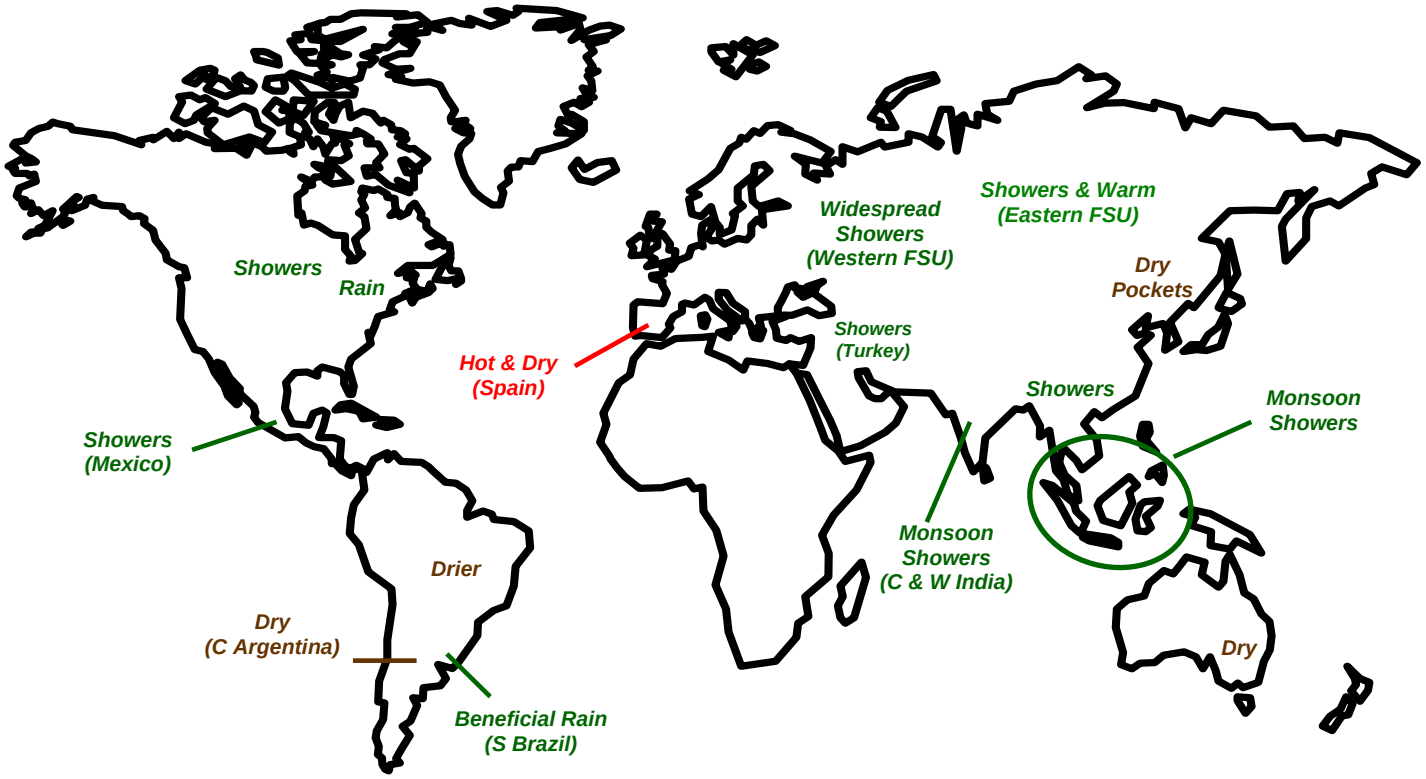
ARGENTINA: Dry weather supported corn and soybean harvesting in most major production areas.

BRAZIL: Beneficial rain continued in southern corn areas, but favorably drier weather prevailed for coffee harvesting.

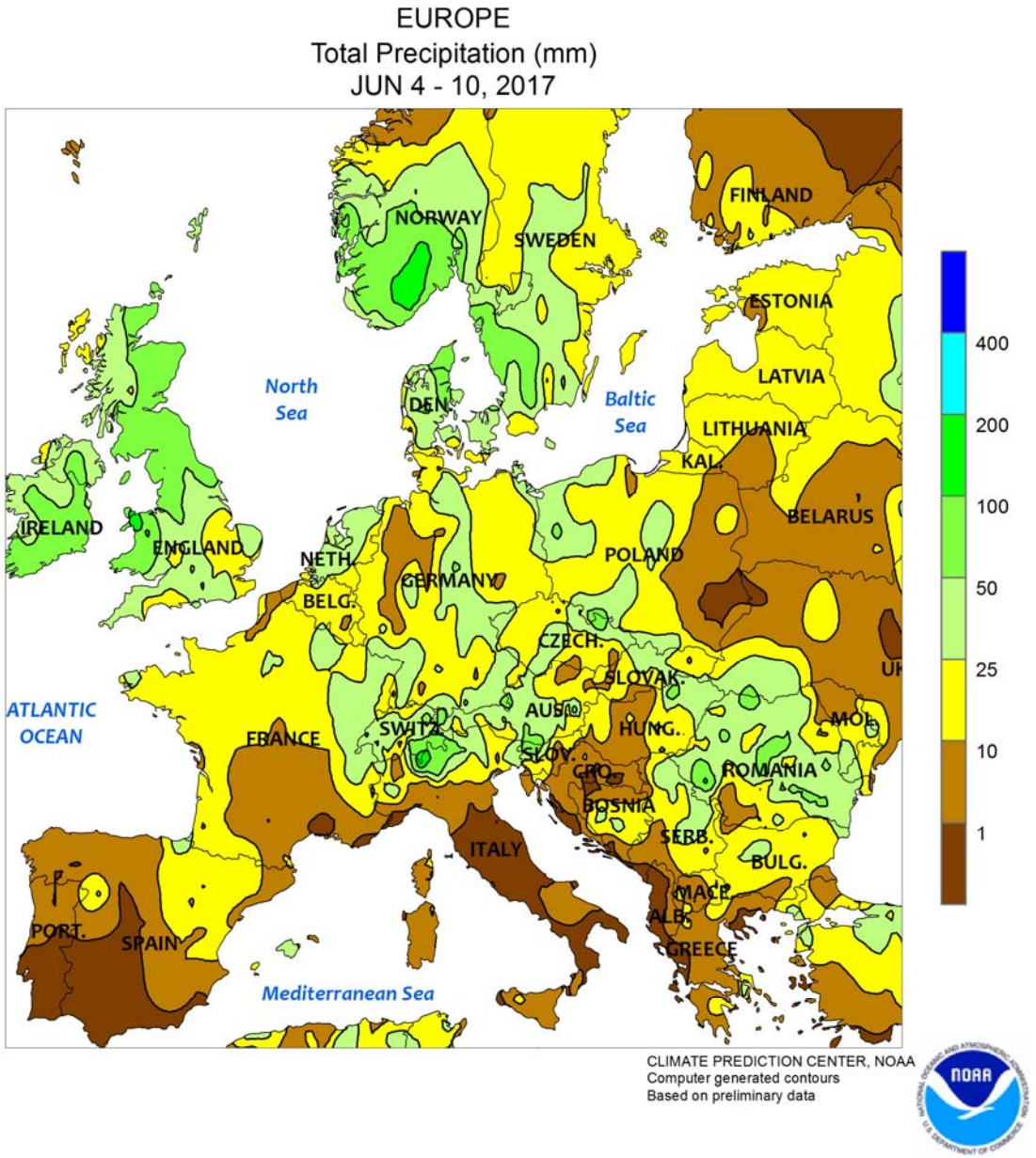
MEXICO: Showers intensified across the southern plateau corn belt.

CANADIAN PRAIRIES: Wet weather hampered the final stages of spring grain and oilseed planting.

SOUTHEASTERN CANADA: Rain continued to delay fieldwork in Ontario and Quebec.



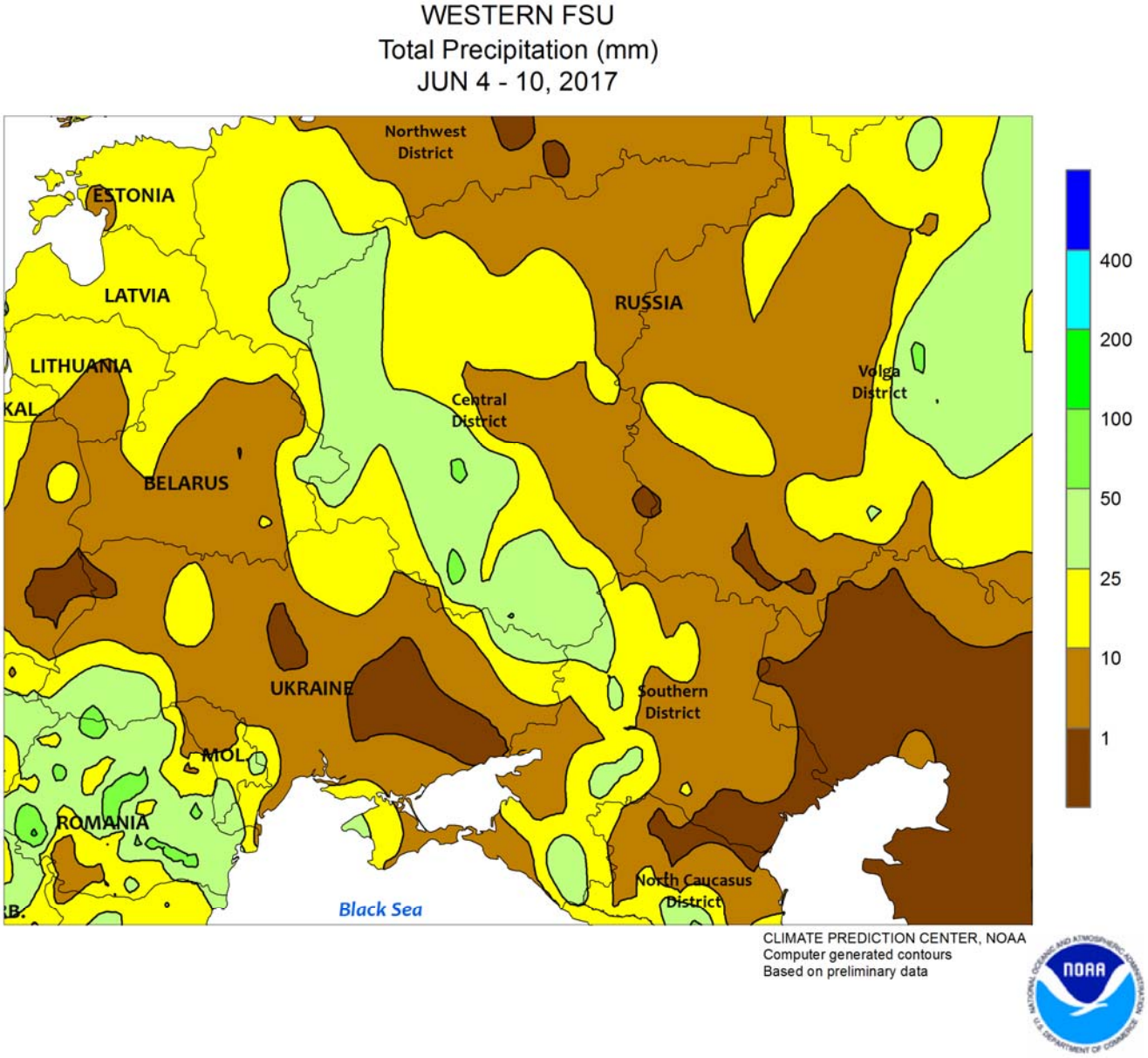
For additional information contact: mbrusberg@oce.usda.gov



EUROPE

Widespread showers and near-normal temperatures promoted crop development, though locally dry conditions lingered in southwestern Europe. Rainfall during the period was widespread, with totals averaging 10 to 50 mm over most of Europe's primary growing areas. The rain was beneficial for later-filling winter grains and oilseeds in the north as well as vegetative small grains and summer crops from western France into the Balkans. However, pockets of heavier rain (50-100 mm) hampered winter crop drydown and harvesting, most notably from western Poland into the northern and eastern Balkans. Despite the region-wide wet weather pattern, dryness and drought persisted in central and southern Spain, with excessive heat (35-39°C) exacerbating evapotranspiration rates on vegetative corn, sunflowers, and cotton. However, light to moderate showers (2-28 mm) in northern Spain (Castilla y León) provided localized relief from spring drought which cut winter wheat and barley yields and impacted corn planting and establishment.

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

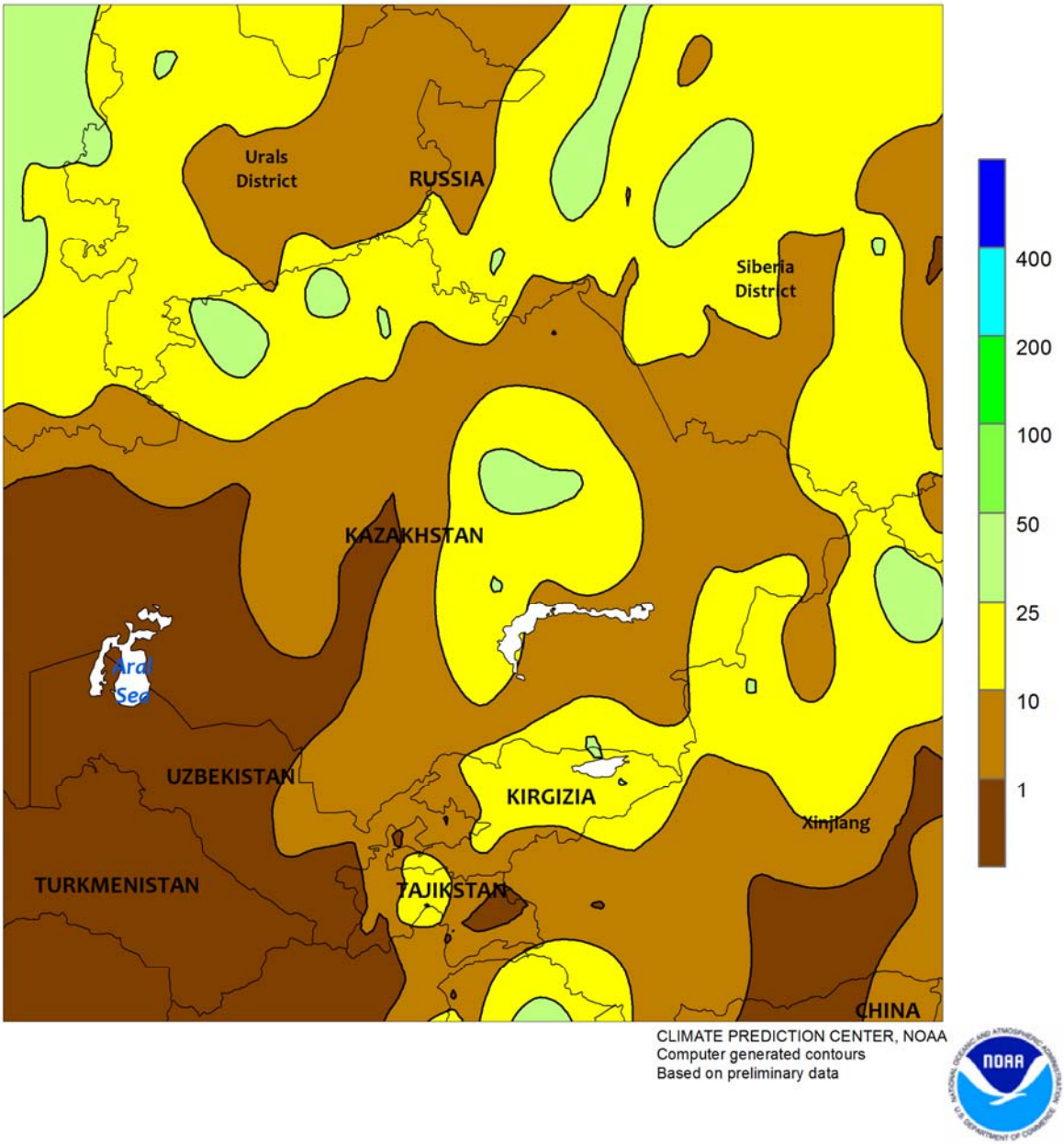


WESTERN FSU

Good to excellent growing conditions in Russia contrasted with intensifying drought in central Ukraine. Over western and southern Russia's primary growing areas, widespread rain (5-50 mm, locally more) maintained adequate to abundant soil moisture for reproductive (north) to filling (south) winter wheat as well as vegetative small grains, corn, and sunflowers. In Ukraine, rain was also reported in crop areas bordering Russia, Belarus, and the immediate Black Sea Coast, benefiting vegetative corn and soybeans (north and west) as well as sunflowers (east). However, dryness and drought continued to adversely impact filling winter wheat and vegetative summer crops from west-central Ukraine into primary corn and soybean areas in north-central portions of the country (centered on Kiev, Cherkassy, and Poltava), with 90-day rainfall totaling 25 to 60 percent of normal in these areas. Latest satellite-derived vegetation health data depicted a sharp gradient between severe crop stress in the aforementioned areas of north-central Ukraine and good to excellent vegetation health from the Black Sea Coast into eastern Ukraine.

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

EASTERN FSU
Total Precipitation (mm)
JUN 4 - 10, 2017



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

EASTERN FSU

Persistent wet weather across the north contrasted with sunny, warm conditions in western and central cotton areas in southern portions of the region. A slow-moving storm system and its attendant cold front produced widespread moderate to heavy rain (10-40 mm) over northern Kazakhstan and neighboring portions of central Russia, maintaining excellent early-season moisture supplies for spring wheat establishment. Rain was lighter (less than 10 mm) in the southwestern Siberia District and southern Urals District, but nevertheless still beneficial for vegetative spring grains. Meanwhile, mostly dry, hot weather (35-40°C) in western and central Uzbekistan promoted the development of irrigated cotton, while showers (2-25 mm) in eastern Uzbekistan and environs provided supplemental moisture for cotton establishment.

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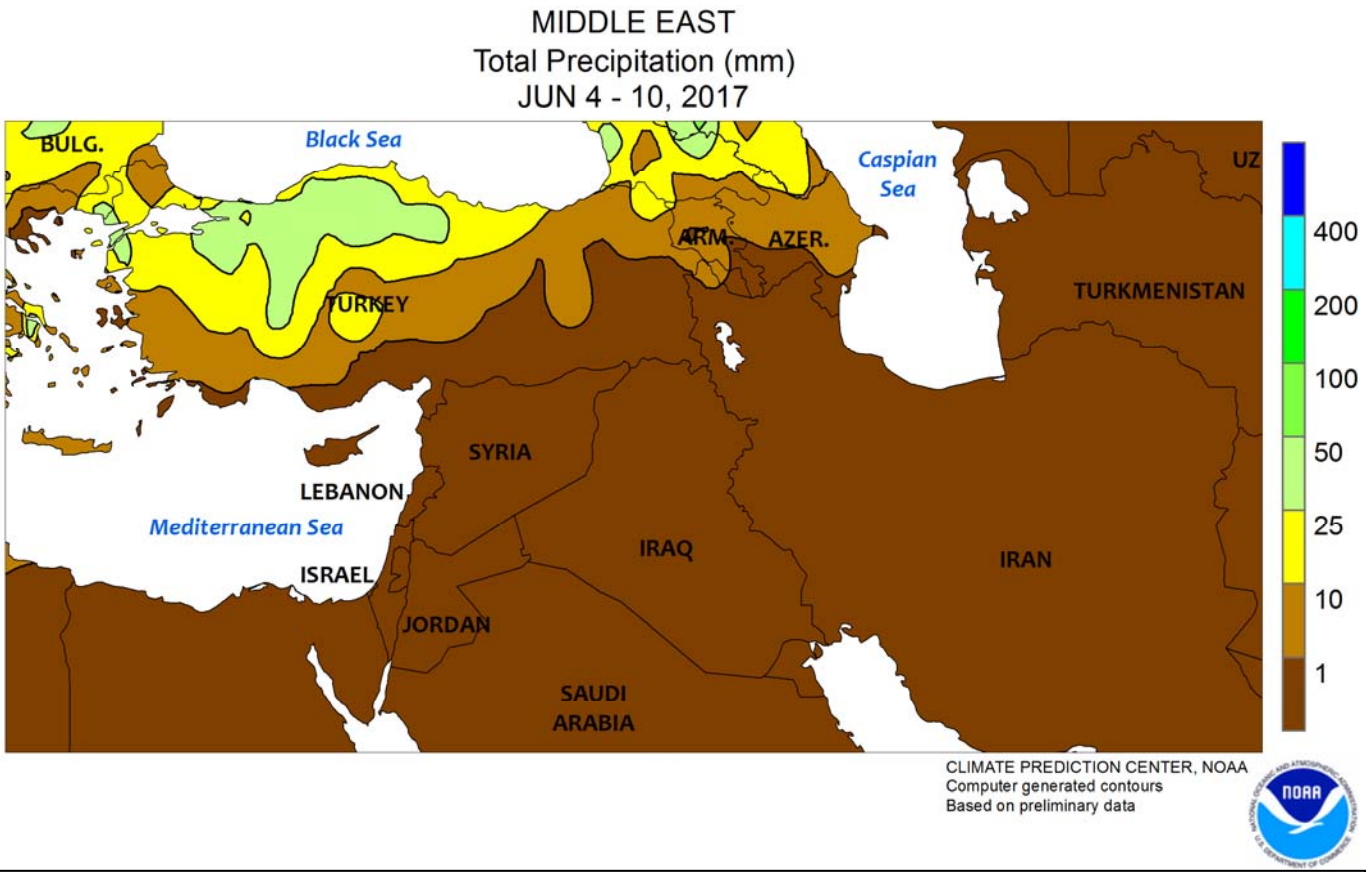

MIDDLE EAST

Additional late-spring rainfall further benefited winter grains in the north, while sunny, seasonably hot conditions prevailed in central and southern portions of the region. During the 7-day period, rainfall totaled 10 to 40 mm across much of central and northern Turkey. The rain gave an additional boost to filling winter wheat on the Anatolian Plateau, where yield prospects continued to improve due to timely moisture during the reproductive and early grain-fill stages of development. The rain was also favorable for emerging to vegetative cotton and sunflowers grown in the north and west. Elsewhere, sunny weather with seasonal heat favored winter wheat harvesting in the south and accelerated winter grains toward maturity in central and northern Iran.

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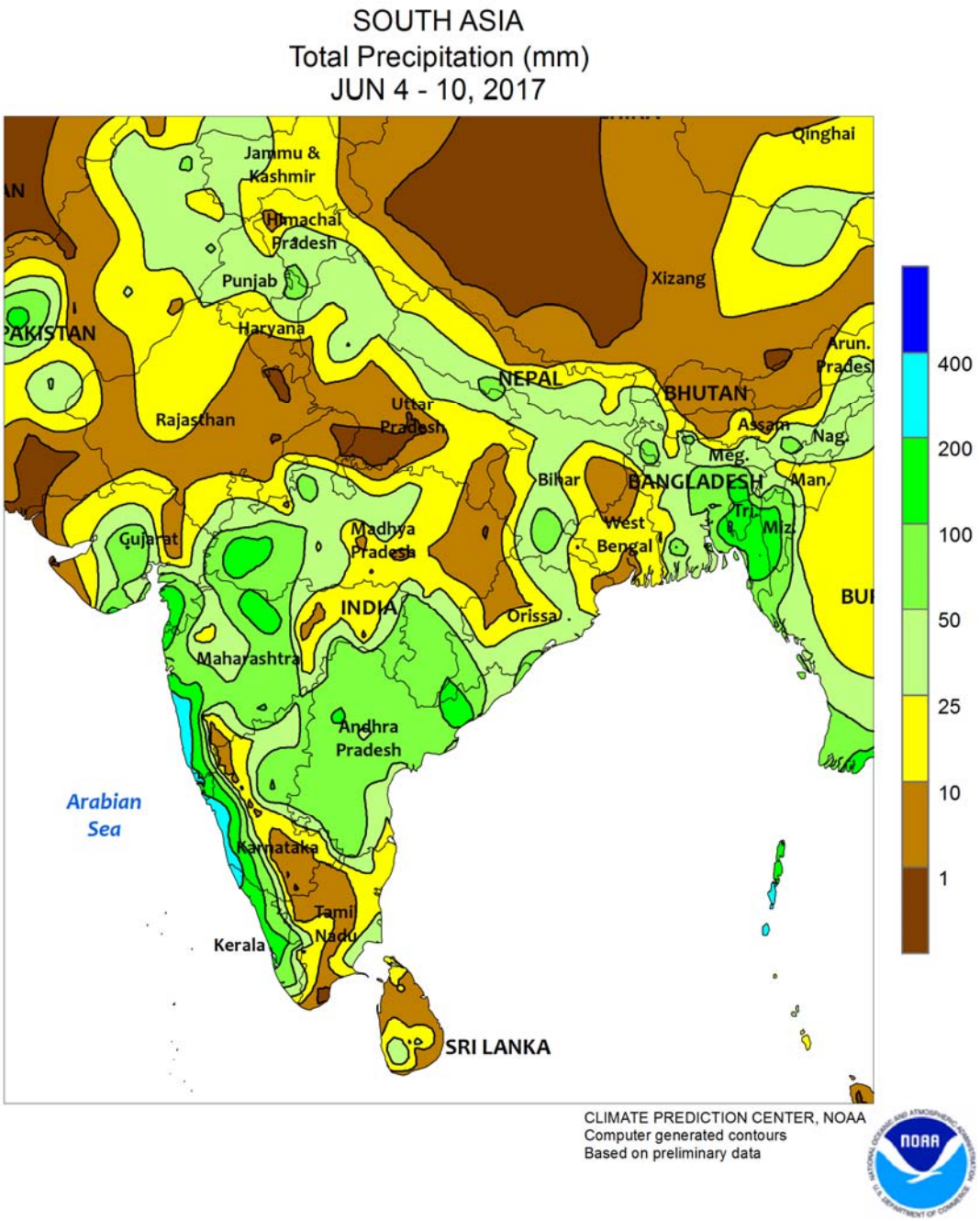
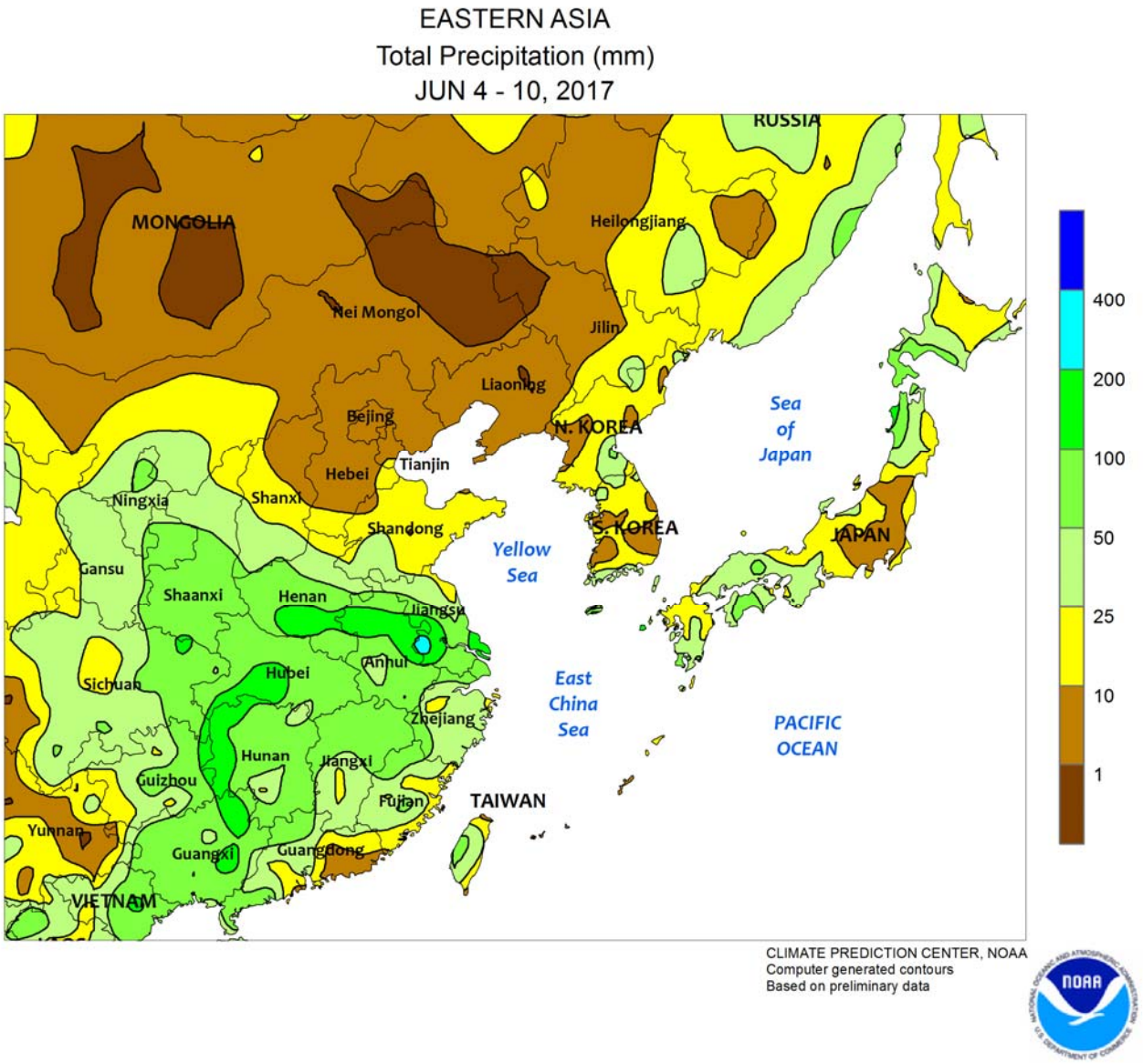


SOUTH ASIA

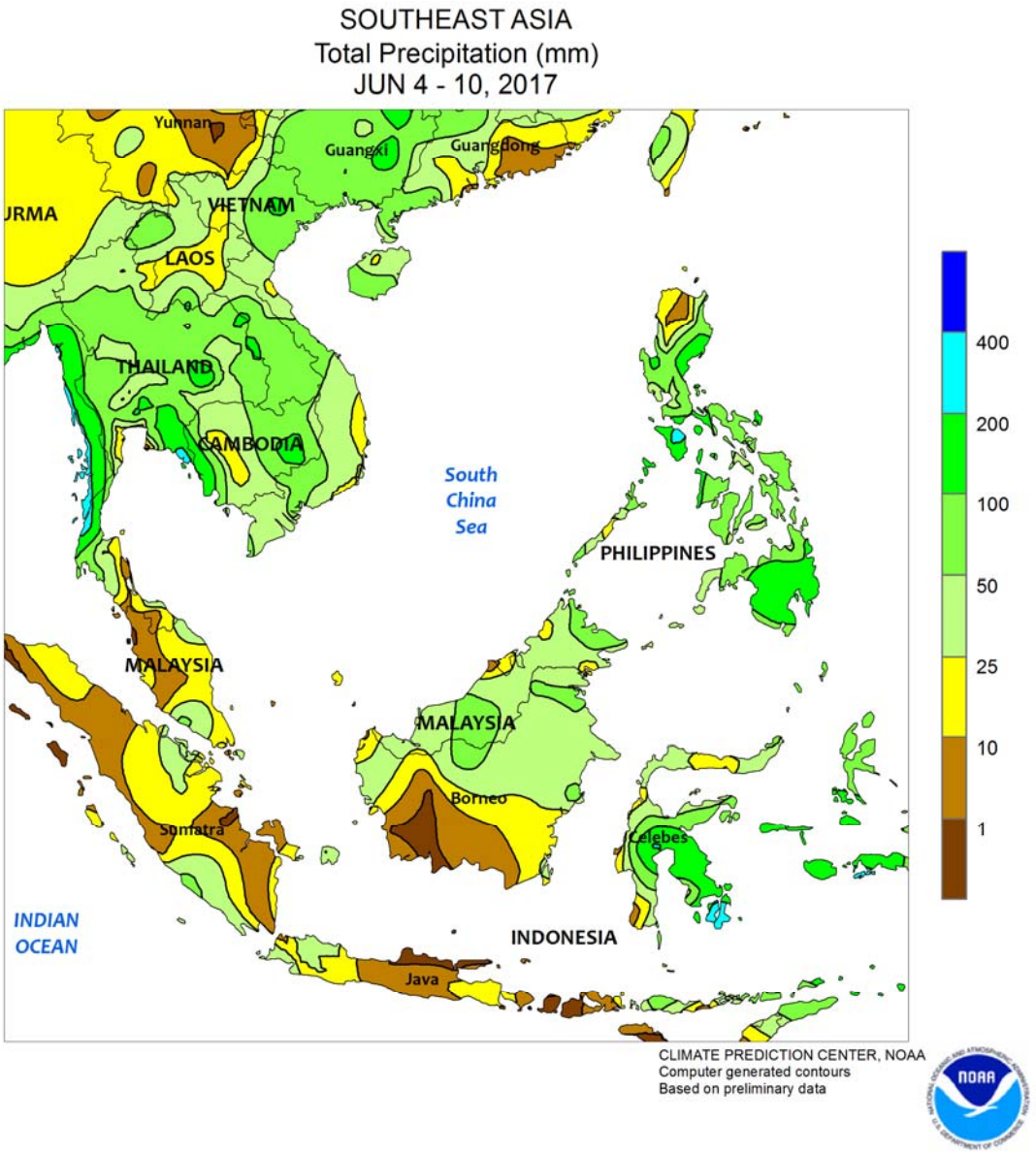
The monsoon surged northward into central India (relatively on schedule based on estimates from the Indian Meteorological Department). Monsoon showers reached Gujarat, Madhya Pradesh, and Orissa, bringing 10 to over 50 mm of rain and encouraging cotton and oilseed sowing. The highest rainfall totals remained in the traditionally wetter areas along the western coast, where amounts surpassed 200 mm. The remainder of India received more scattered pre-monsoon showers, with some northern cotton and rice areas receiving upwards of 50 mm. Meanwhile in other parts of the region, monsoon showers (50-100, locally over 200 mm) in Bangladesh maintained excessively wet conditions for rice, while seasonable rainfall (10-50 mm or more) benefited recently-sown rice and cotton in Pakistan. Somewhat drier weather in rice areas of southwestern Sri Lanka eased recent flooding.

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



EASTERN ASIA

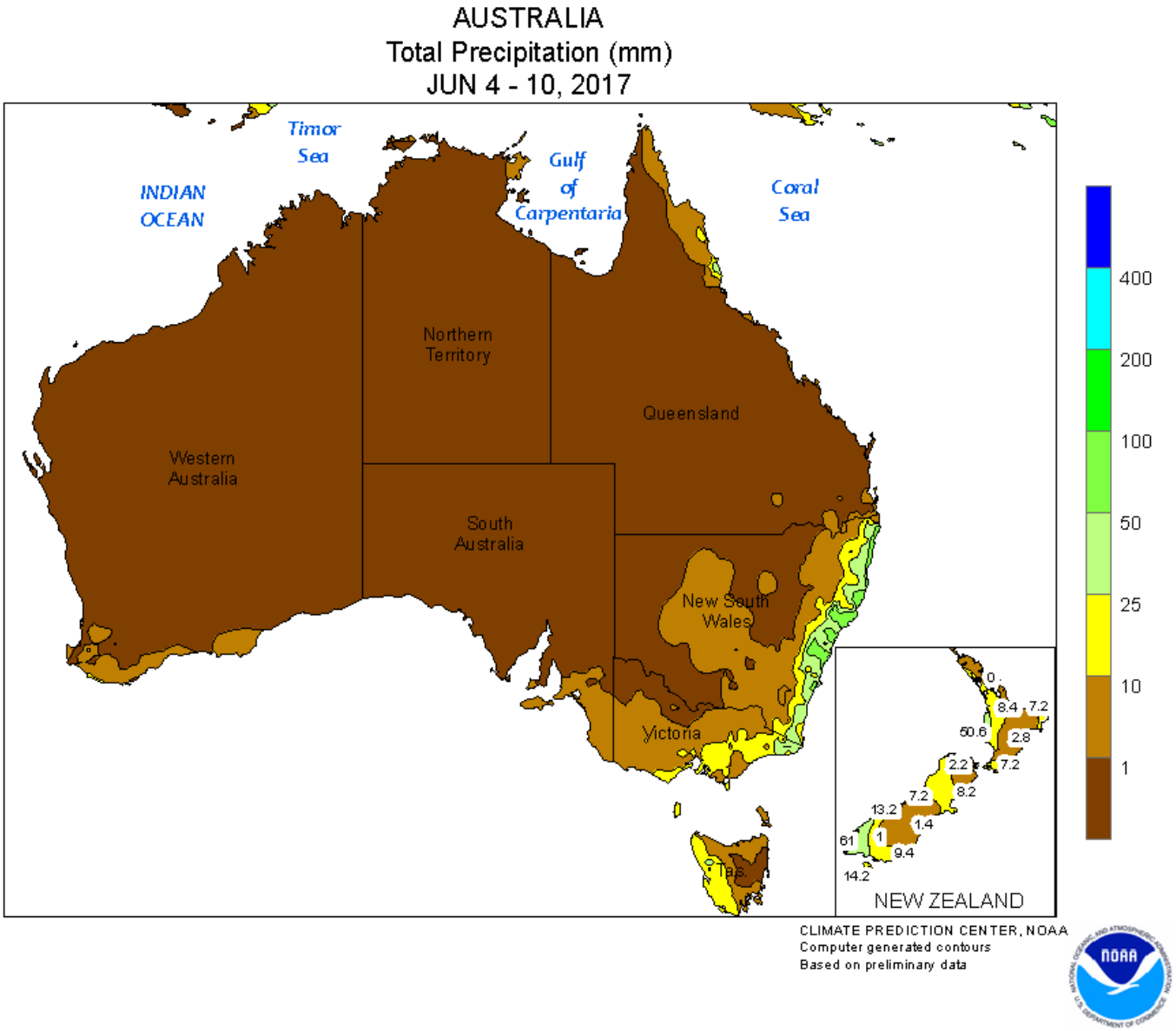
Showers covered much of eastern and southern China, extending from the North China Plain to the southern coast. Most areas received over 50 mm (locally over 100 mm), with lesser amounts along the periphery. The wet weather boosted soil moisture and water supplies for rice and other summer crops, although many of the far southern and southeastern provinces still maintained rainfall deficits since May 1. The showers were less welcome on the North China Plain where wheat harvesting was underway. Rainfall totals for the first 10 days of June were above normal and above last year's amounts as well; wheat yields declined last year as a result of wetness. In contrast to the showery weather in the east and south, mostly dry weather prevailed across large portions of northeastern China. With the exception of eastern-most districts, much of the northeast has been unfavorably dry over the last three weeks, raising concerns about corn and soybean development. Elsewhere in the region, showers brought 10 to 25 mm to rice on the Korean Peninsula and central Japan, with higher amounts (25-50 mm or more) in far northern and southern sections of Japan.



SOUTHEAST ASIA

Widespread monsoon showers (25-100 mm) covered much of Thailand and the rest of Indochina. In Thailand, rainfall totals since May 1 were above normal and in the Central Plain region, the highest on record. The favorable start to the summer rainy season has ensured good sowing and establishment moisture for rice across Indochina. Similarly in the Philippines, most regions received over 50 mm of rain, maintaining totals since May 1 that are the highest in five years. Farther south, drier weather (less than 25 mm of rain) encompassed western oil palm areas of Malaysia and Indonesia (most eastern areas received 25 mm or more). Despite the decrease in rainfall, 90-day totals remained near to above normal in western Indonesia. However, the below-normal rainfall exacerbated relatively low totals over the last 90 days in western Malaysia.

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



AUSTRALIA

Unfavorably dry weather covered most of the wheat belt, further reducing the amount of topsoil moisture available to recently-sown winter grains and oilseeds. Since May 1, the dryness has been most pronounced in Western Australia, South Australia, northern New South Wales, and southern Queensland. During the past 6 weeks, rainfall has averaged roughly 25 to 60 percent of normal in these regions, hampering early-season wheat, barley, and canola development. During the same time period, rainfall has averaged much closer to normal in Victoria and southern New South Wales. However, relatively dry weather during the past two weeks has reduced topsoil moisture in these latter areas as well. More rain is needed throughout the wheat belt to promote winter crop germination, emergence, and establishment, and to subsequently improve early-season yield prospects. Temperatures in the wheat belt averaged 1 to 2ºC below normal in southern and eastern Australia, and 1ºC above normal in western Australia.

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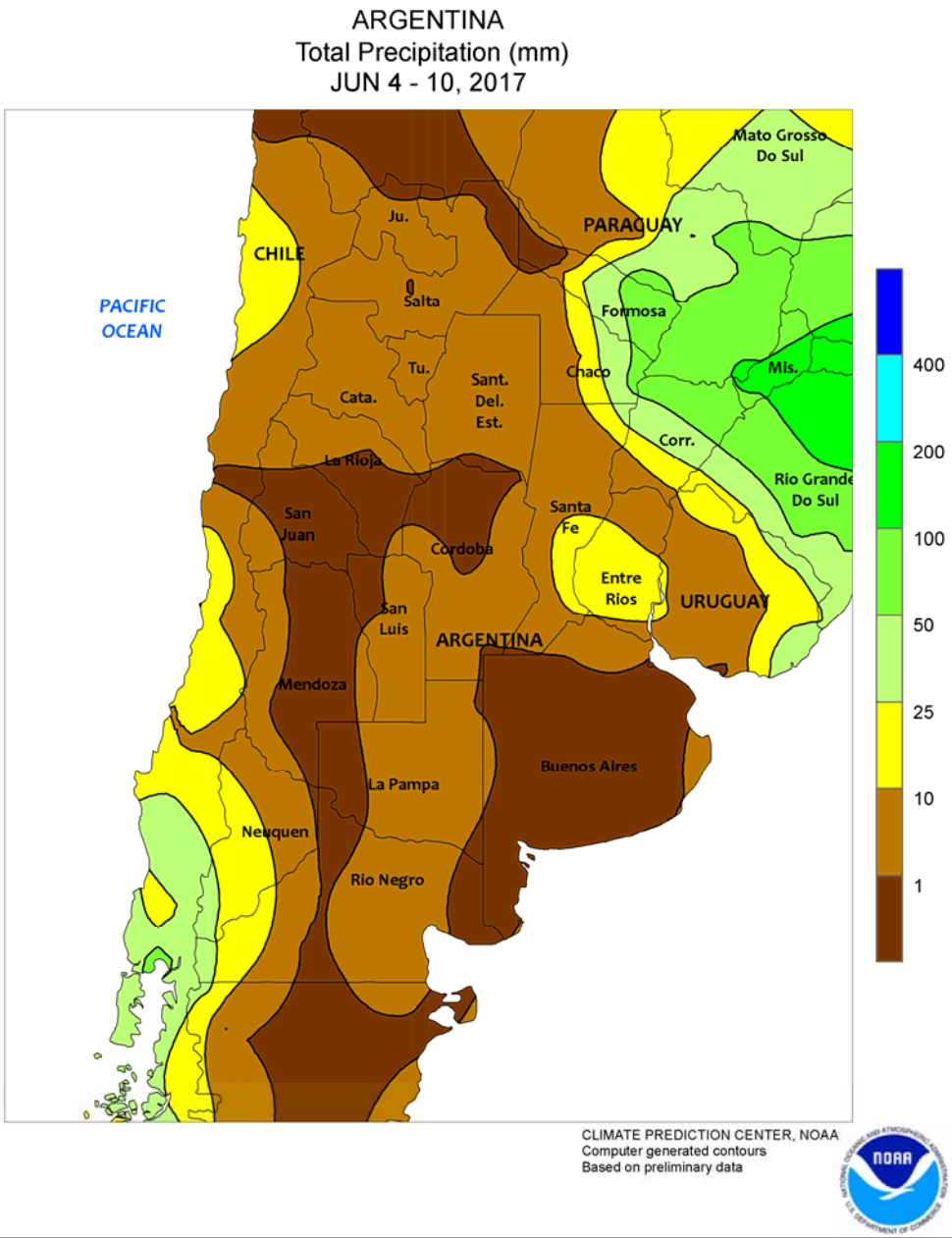
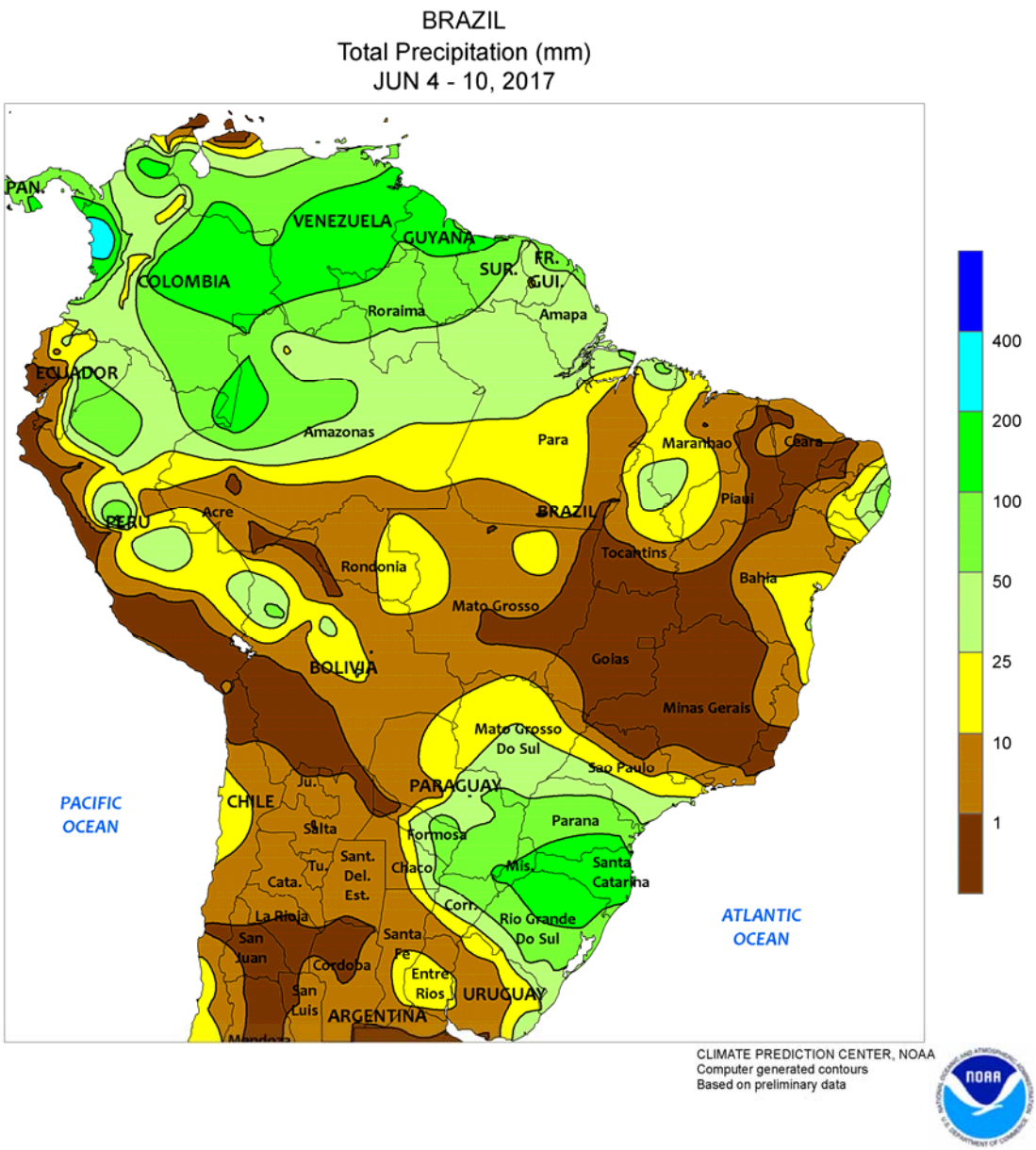


ARGENTINA

Mostly dry, seasonably mild weather aided drydown and harvesting of corn and soybeans across key production areas of central Argentina. Little to no rain fell in La Pampa, Buenos Aires, and northward from Cordoba to Jujuy. Moderate showers (rainfall totaling more than 10 mm) returned to Entre Rios and neighboring locations in southern Santa Fe, and locally heavy showers (25-100 mm) lingered over northeastern cotton areas (eastern sections of Formosa, Chaco, and Santa Fe). Weekly temperatures averaged within 1°C of normal in La Pampa and Buenos Aires and up to 3°C below normal in the north, with daytime highs generally peaking in the lower and middle 20s (degrees C). Nighttime lows fell below freezing in traditionally cooler southern and western farming areas, again stretching northward through Salta. According to the government of Argentina, corn and soybeans were 50 and 89 percent harvested, respectively, as of June 8, ahead of last year's pace for both crops. In addition, wheat planting advanced to 18 percent, comparable to last year's pace.

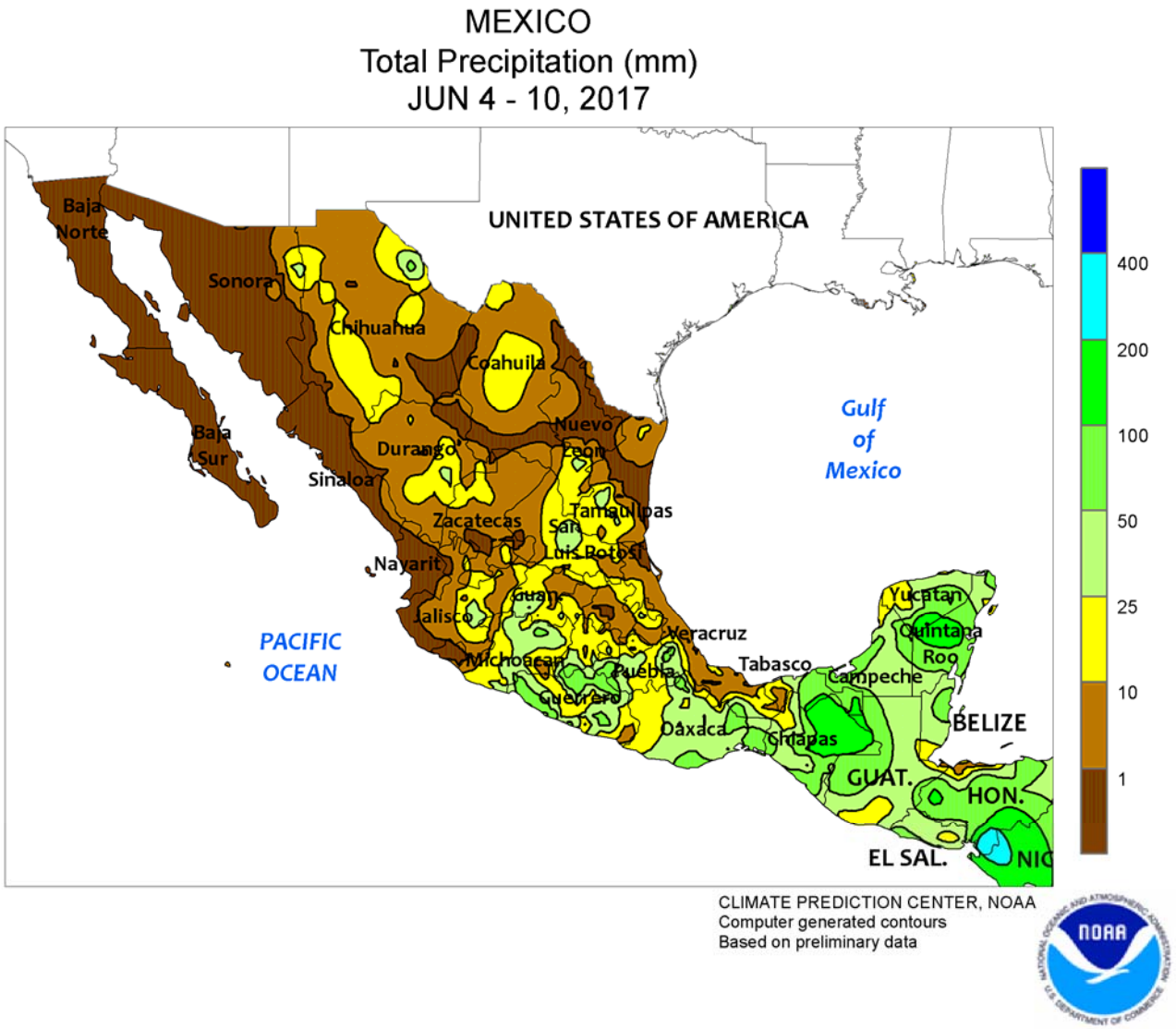
For additional information contact: mbrusberg@oce.usda.gov



BRAZIL

Warmth and dryness continued throughout much of central Brazil, spurring rapid development of immature row crops and favoring seasonal fieldwork. Little to no rain fell from central Mato Grosso southeastward through western Bahia and Minas Gerais. Daytime highs reaching the lower and middle 30s (degrees C) in the aforementioned area fostered rapid growth of second-crop corn and cotton in the Center-West and northeastern interior regions, while in Minas Gerais, conditions favored maturation and harvesting of coffee. Similarly, warm, mostly dry weather supported sugarcane harvesting in northern sections of Sao Paulo, but rain (10-45 mm) returned to southern sections of the state. In fact, the pattern of unseasonable wetness continued over much of southern Brazil, with heaviest rainfall (greater than 100 mm) again concentrated over Santa Catarina and northern Rio Grande do Sul. According to a report issued by the government of Rio Grande do Sul, only 8 percent of that state's wheat had been planted as of June 8 versus an average of about 35 percent.

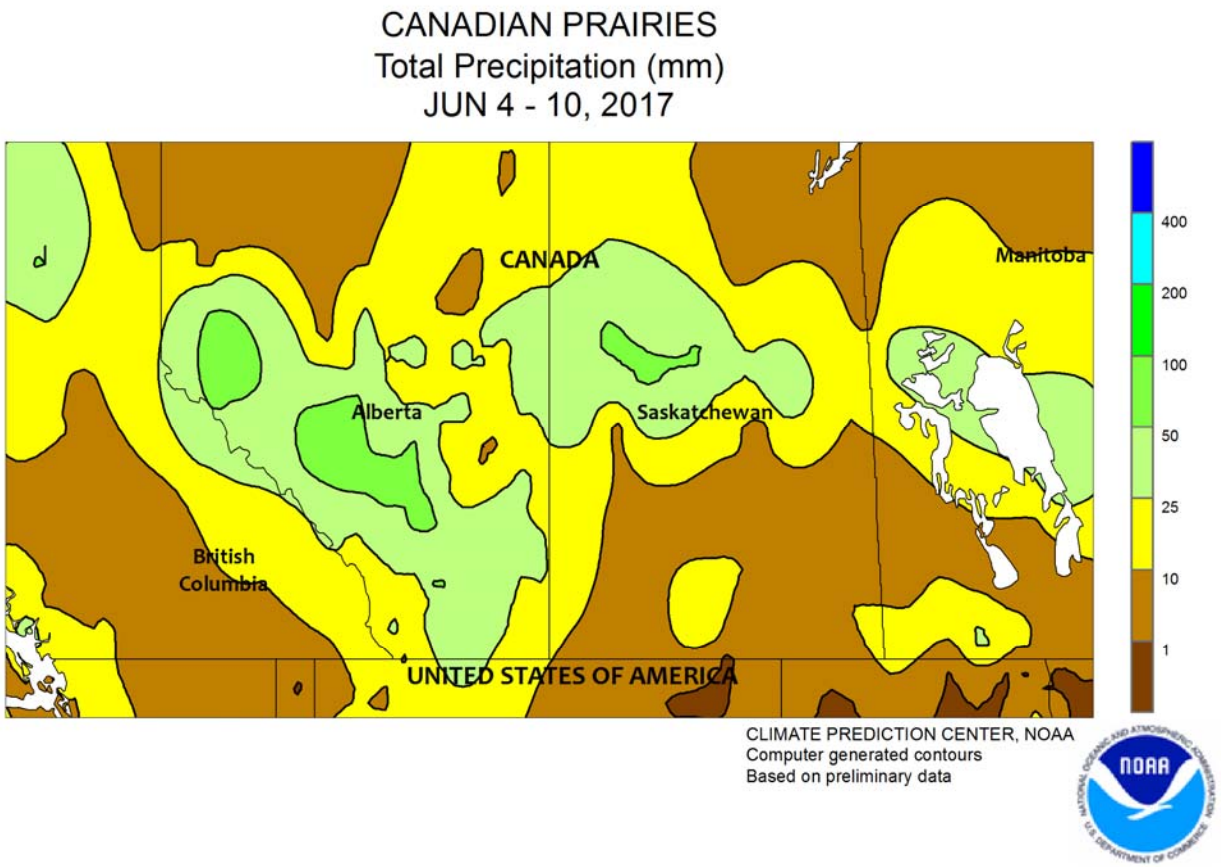
For additional information contact: mbrusberg@oce.usda.gov



MEXICO

Showers intensified over the western half of the southern plateau, providing timely moisture for germination of corn and other rain-fed summer crops. Rainfall totaled 10 to 50 mm — locally higher — over eastern Jalisco and Michoacan, providing those locations the first significant moisture thus far in the season. Rainfall diminished from the previous week in the more easterly corn production areas, with 10 to 25 mm recorded in and around Puebla. Farther east, mostly dry weather prevailed in Veracruz, but locally heavy rain (greater than 50 mm) increased reservoir levels in Oaxaca, Chiapas, and Tabasco. As of June 12, a tropical depression had formed in the Gulf of Tehuantepec, promising to bring additional rain to coastal crop areas (additional information will appear in next week's Weekly Weather and Crop Bulletin). In northern Mexico, scattered showers (locally in excess of 10 mm) lingered in northeastern watersheds, following last week's heavier rainfall. Meanwhile, seasonal showers (greater than 10 mm) developed over Durango and southern Chihuahua, a precursor of heavier monsoon showers that dominate the region's weather during the summer months.

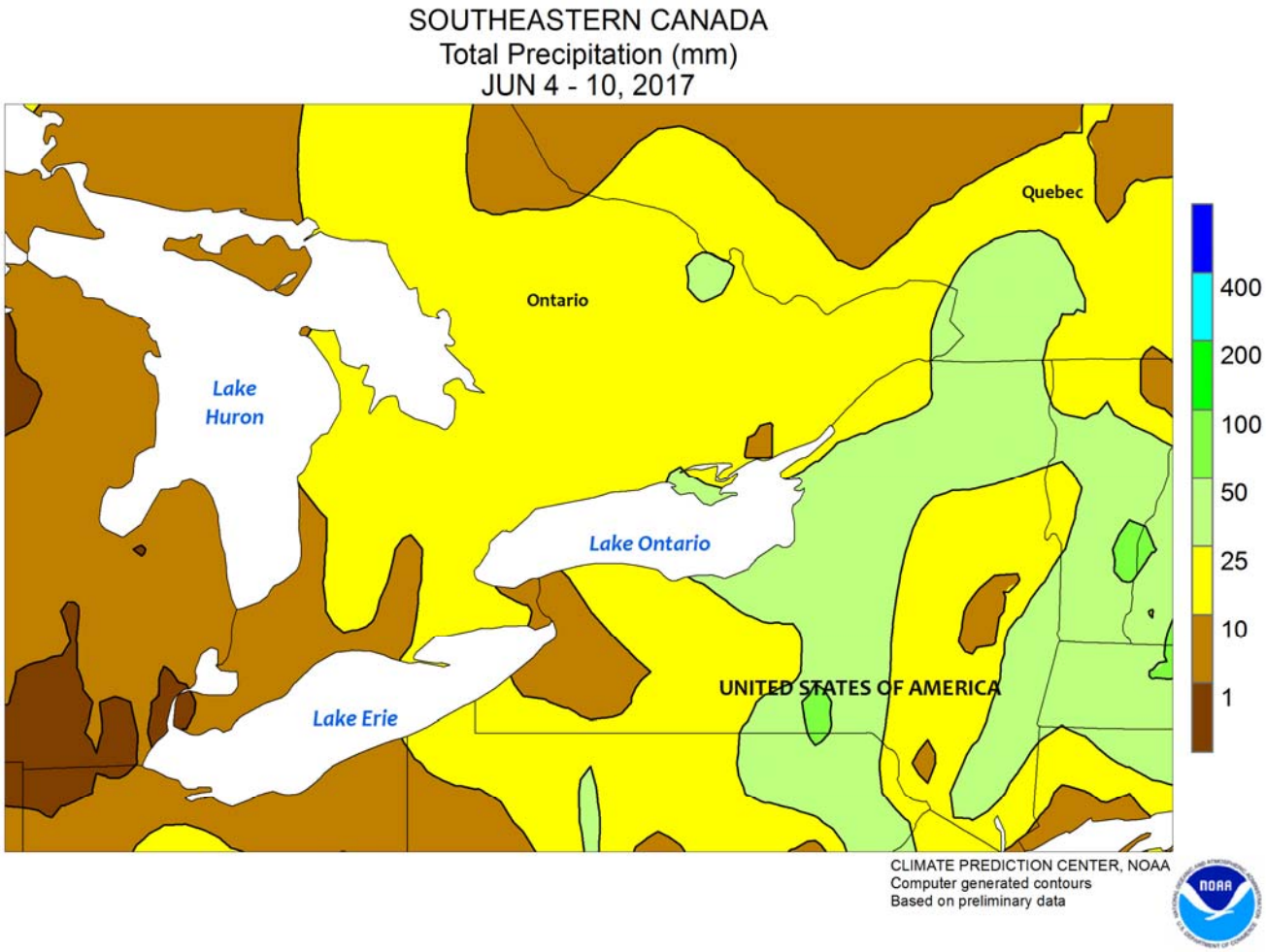
For additional information contact: mbrusberg@oce.usda.gov



CANADIAN PRAIRIES

Unseasonable wetness returned to western and northern farming areas, bringing the final stages of spring grain and oilseed planting to a standstill in some locations. Rainfall totaling 25 to 50 mm covered large sections of Alberta, though pockets of dryness lingered in the Peace River Valley. Similar amounts were recorded in northern-most farming areas of Saskatchewan and Manitoba. Elsewhere, late-week showers were generally scattered and light (5-25 mm) in the southeastern Prairies, bringing some relief to emerging spring crops from earlier periods of warmth (daytime highs reaching the lower 30s degrees C) and dryness. As a result of the early-week warmth, weekly temperatures averaged 2 to 5°C above normal throughout the region. Nighttime lows fell below 5°C at some locations but no widespread freeze was recorded.

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



SOUTHEASTERN CANADA

Rainy weather continued, extending the already delayed fieldwork in some localized areas. Rainfall totaled 5 to 35 mm across Ontario, with higher amounts in Quebec (10-60 mm). The rainfall provided near to above normal amounts of moisture for agriculture but compounded an already wet start to summer and continued to disrupt crop planting and treatments for diseases and pests. Near-to slightly above-normal temperatures were coupled with wet weather, as daytime highs reached the middle-to-upper 20s (degrees C) for much of the week. Overnight lows continued to drop into the single digits, with isolated areas in Quebec falling below 5°C. According to field reports, issued June 8, cool and wet weather created ideal conditions for fusarium head blight development, and necessary fungicides were being applied (eastern Ontario). Corn planting has been completed, but its delayed planting created a pest problem in some fields, as they are feeding in some fields. Soybean planting was approximately 80 percent complete, with crop growth stages ranging from the hook stage to the unifoliate growth stage.

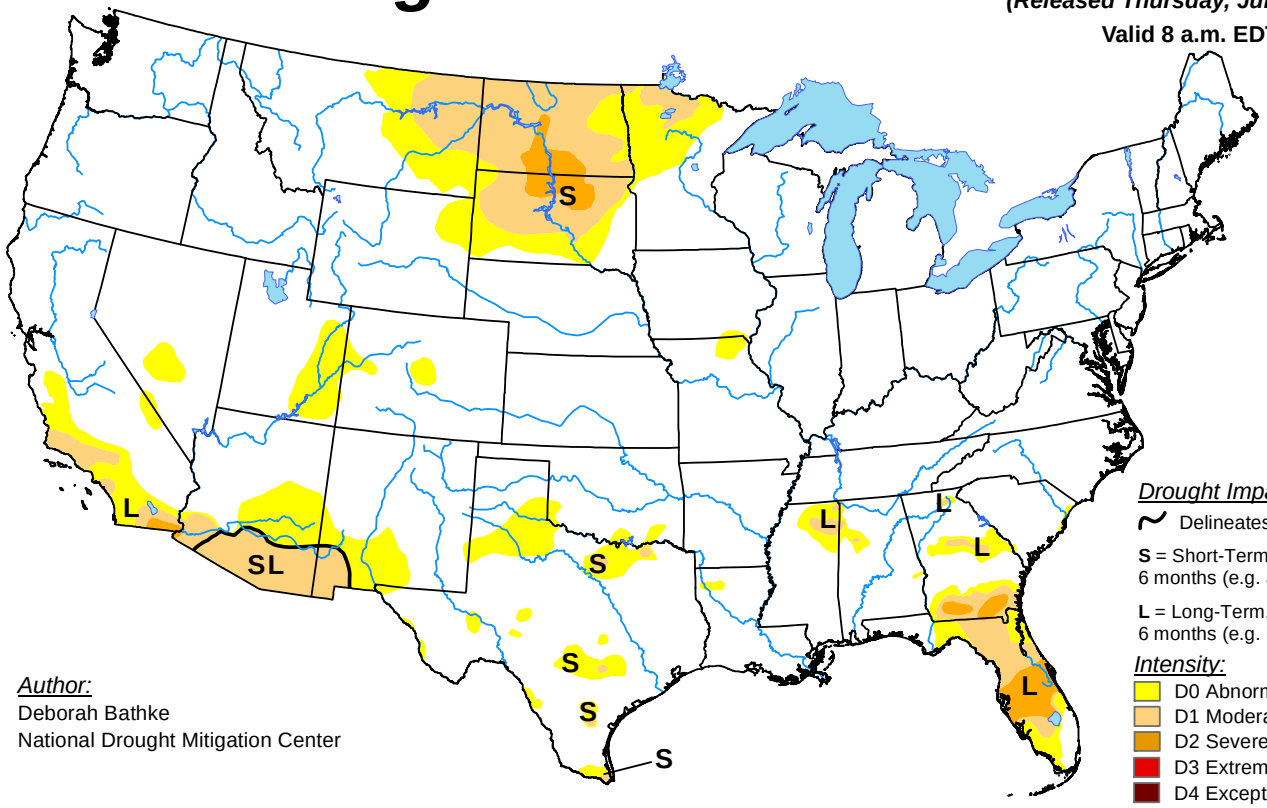
For additional information contact: mbrusberg@oce.usda.gov

U.S. Drought Monitor

June 6, 2017

(Released Thursday, Jun. 8, 2017)

Valid 8 a.m. EDT



Author:
Deborah Bathke
National Drought Mitigation Center

Drought Impact Types:

~ Delineates dominant impacts

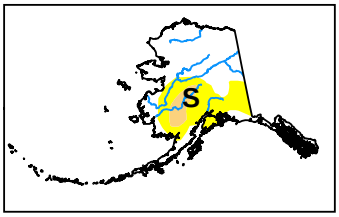
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

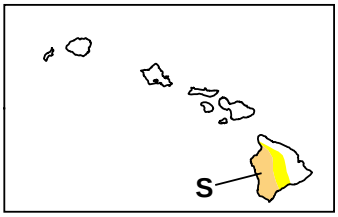
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

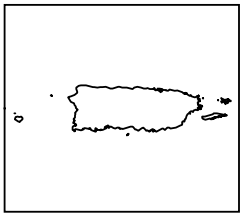
Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.







http://droughtmonitor.unl.edu/

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