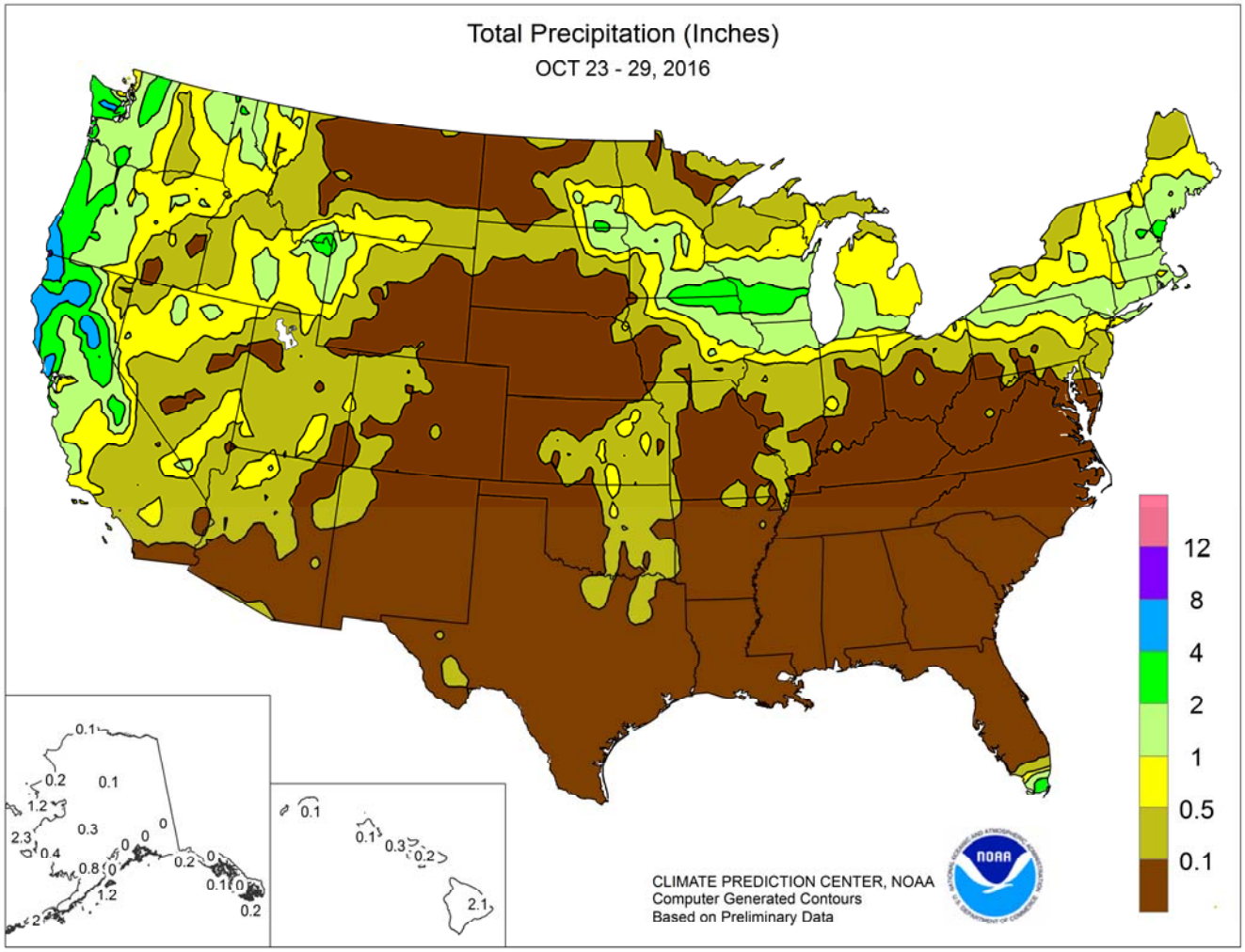
Volume 103, No. 44 http://www.usda.gov/oce/weather November 1, 2016

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

October 23 – 29, 2016

Highlights provided by USDA/WAOB

Across the **Plains** and **South**, warm, mostly dry weather promoted fieldwork but reduced soil moisture for fall-sown crops. In particular, intensifying drought across the **interior Southeast** caused further pasture deterioration and led to delays in some producers planting winter wheat and cover crops. In addition, very warm, breezy weather hampered winter wheat establishment on the **central and southern High Plains**. Farther north, however, locally heavy rain caused renewed fieldwork delays in the **upper**

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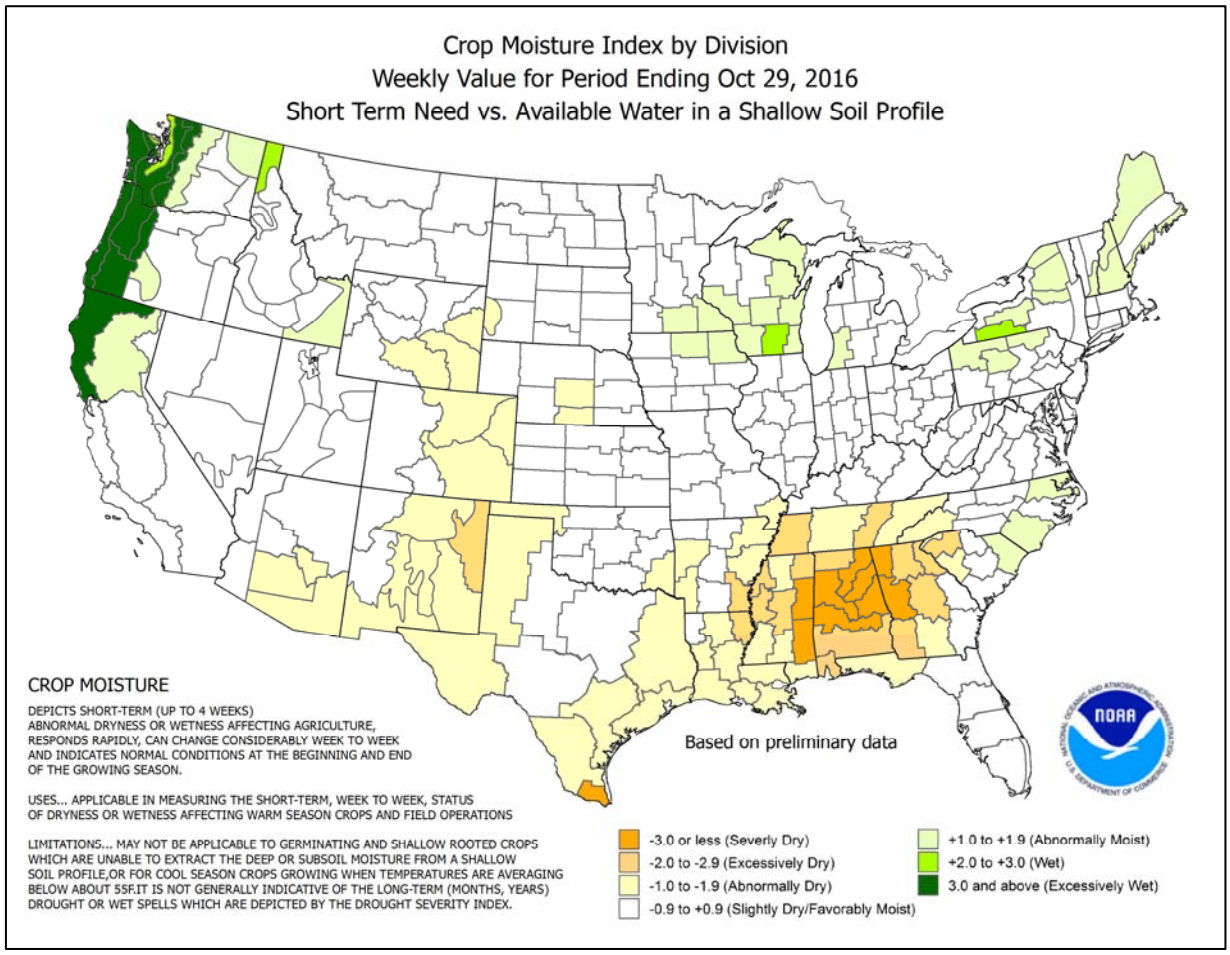
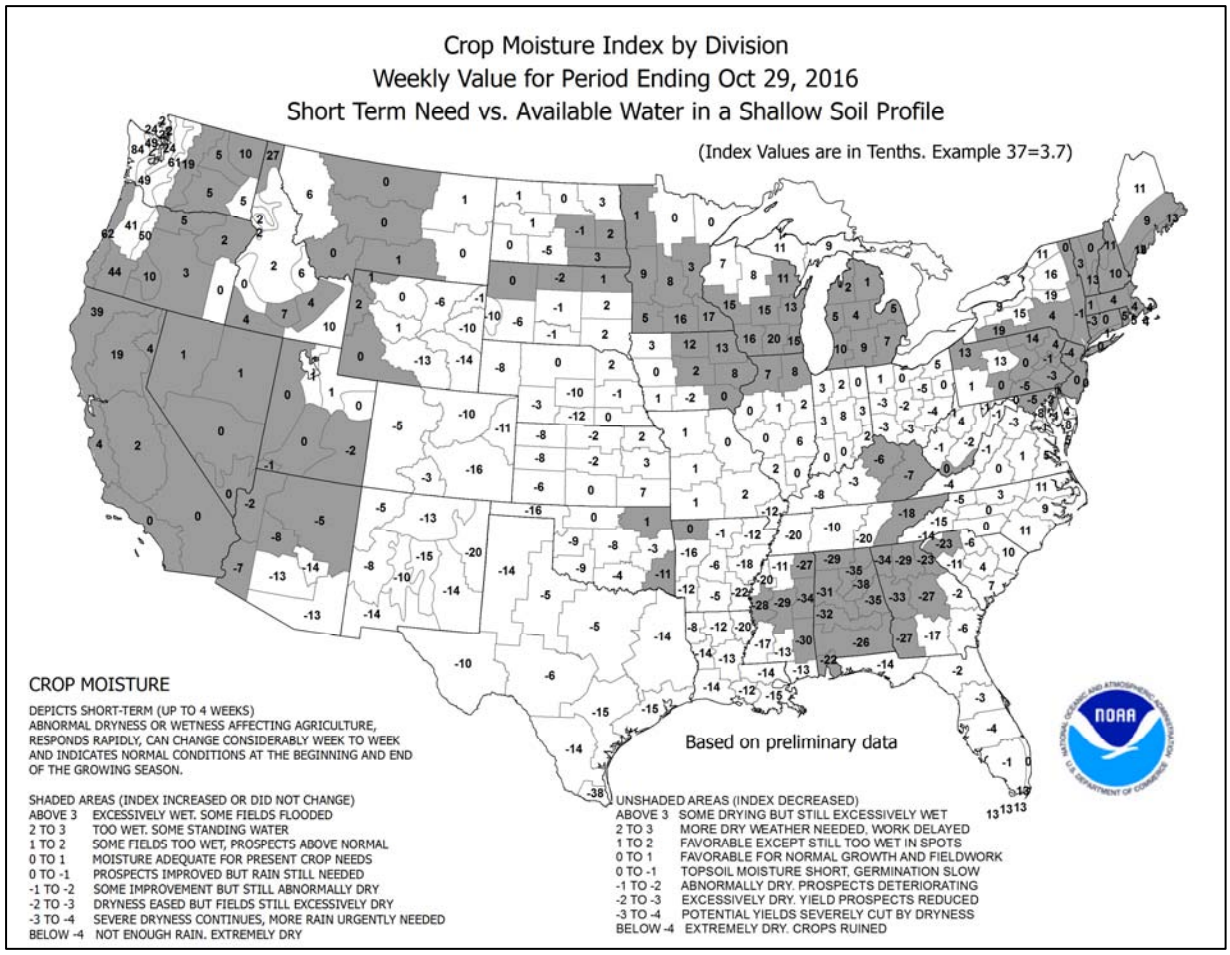
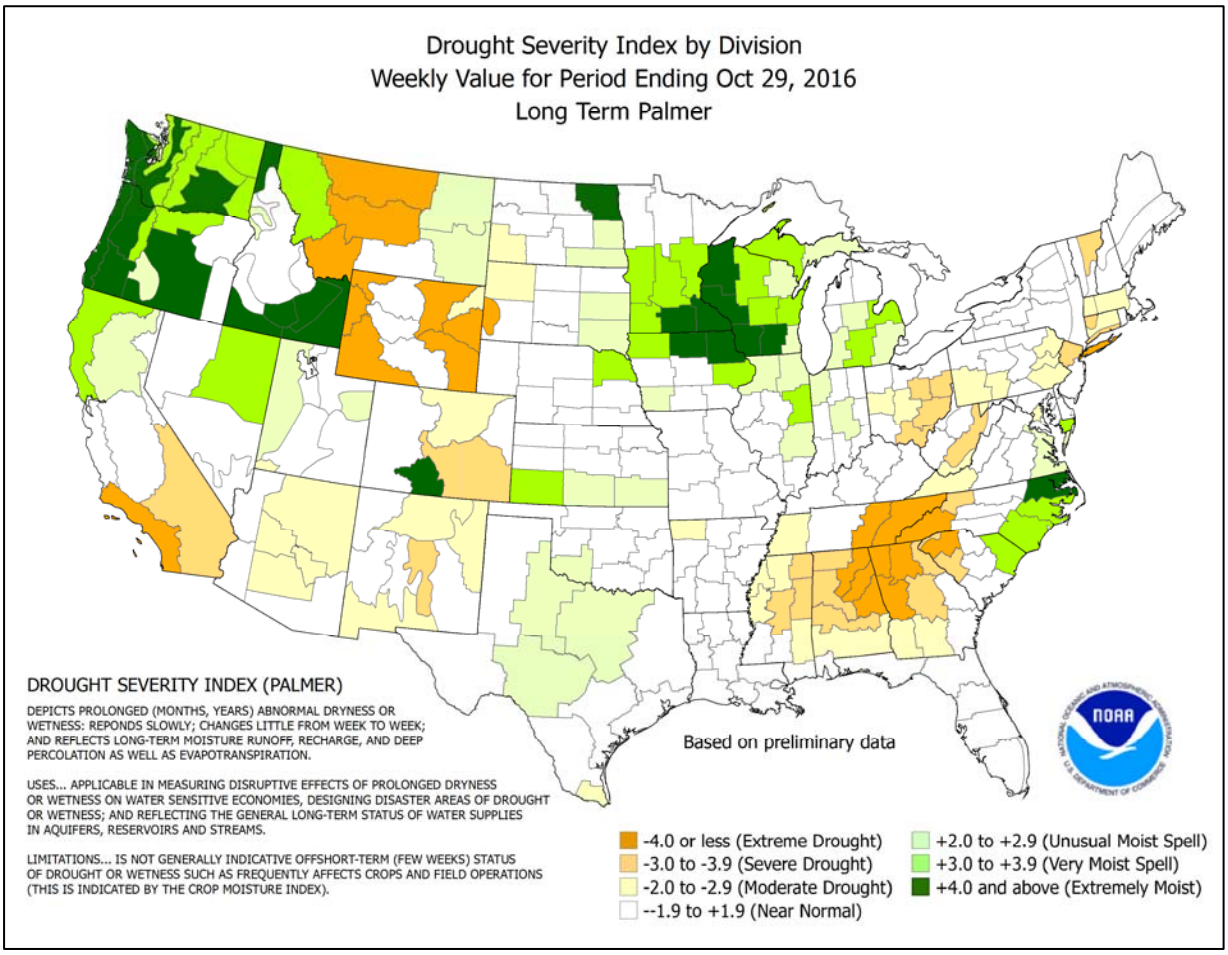
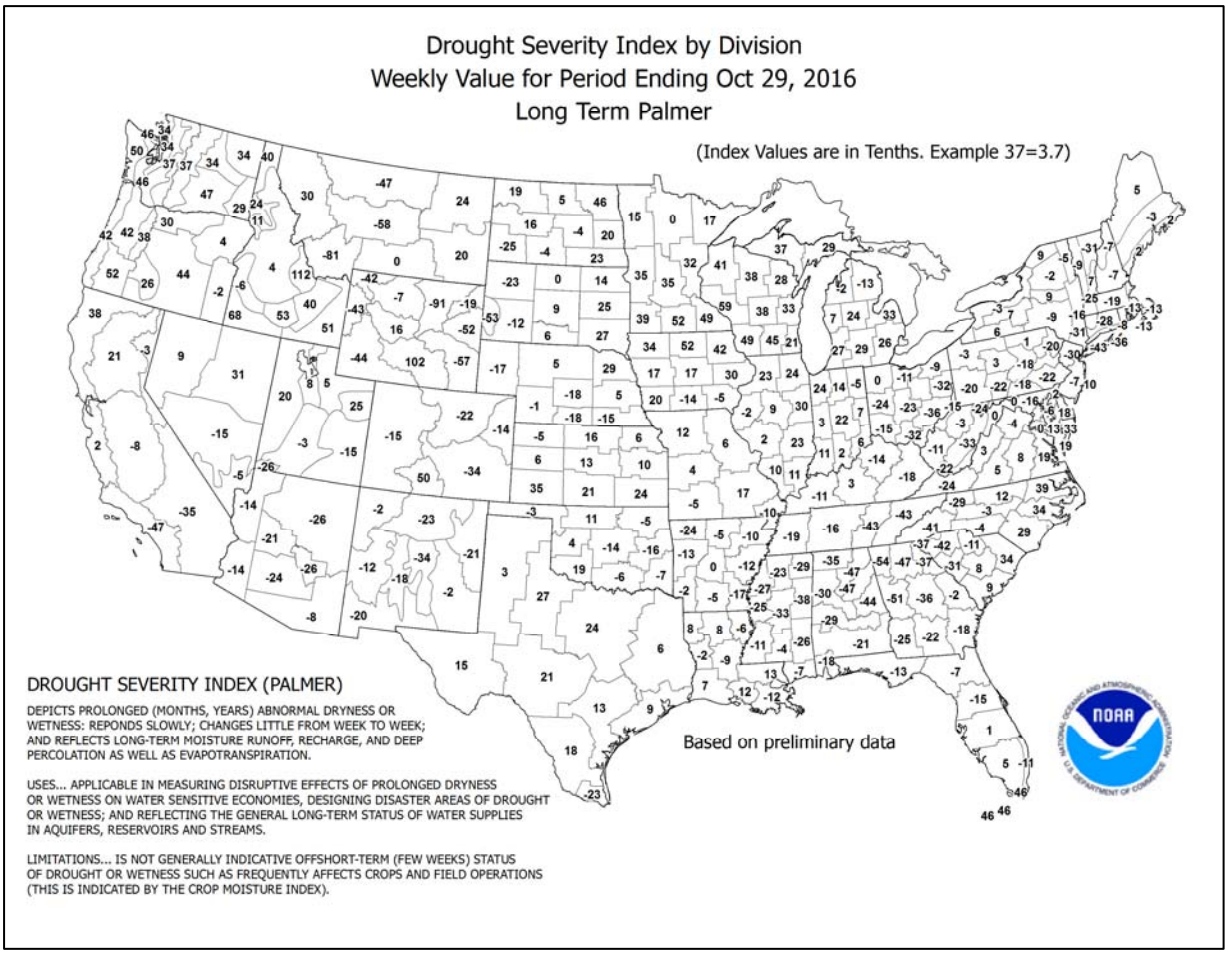

Crop Moisture Index by Division
Weekly Value for Period Ending Oct 29, 2016
Short Term Need vs. Available Water in a Shallow Soil Profile
CROP MOISTURE
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES 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
NOAA
-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)


Crop Moisture Index by Division
Weekly Value for Period Ending Oct 29, 2016
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 Oct 29, 2016
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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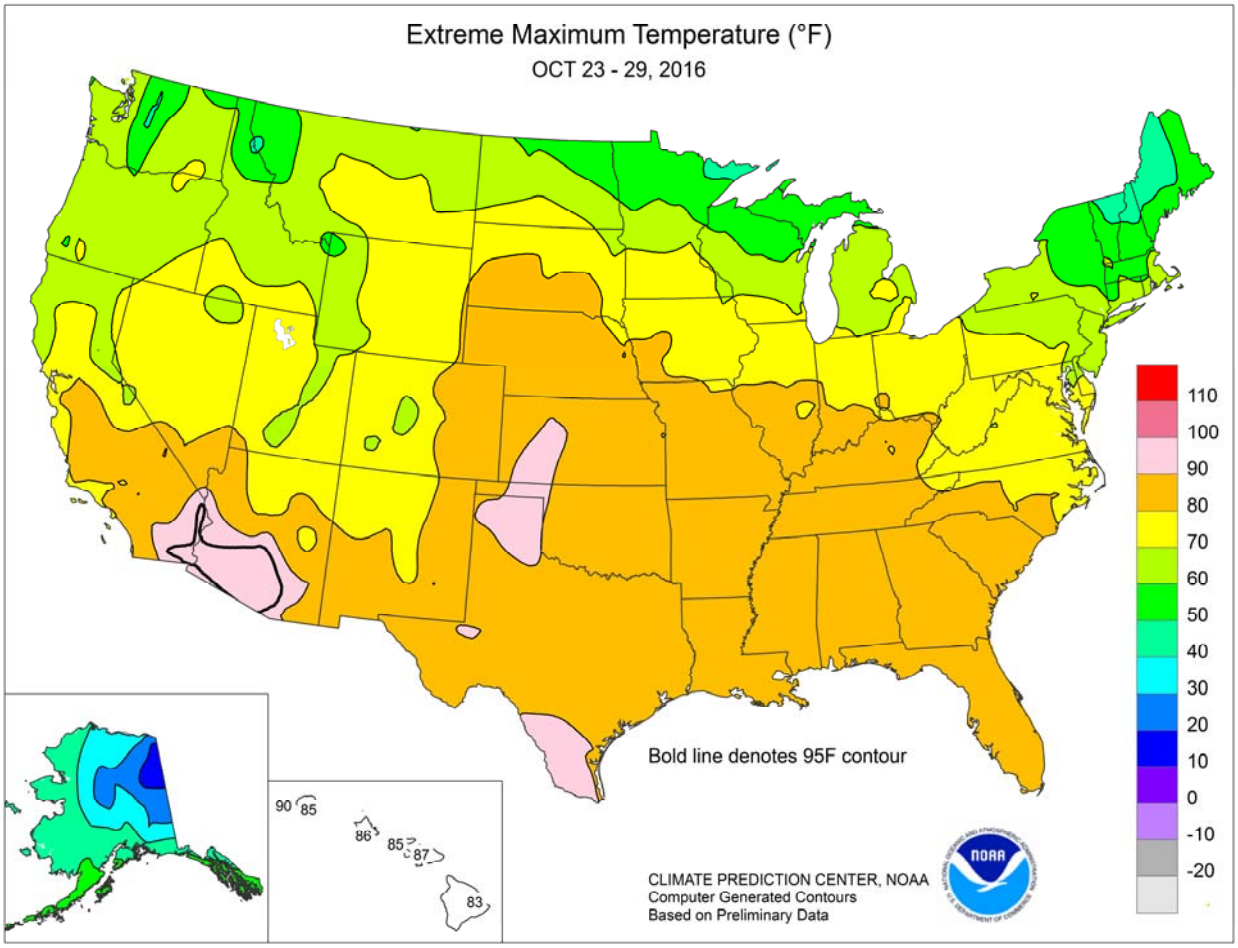
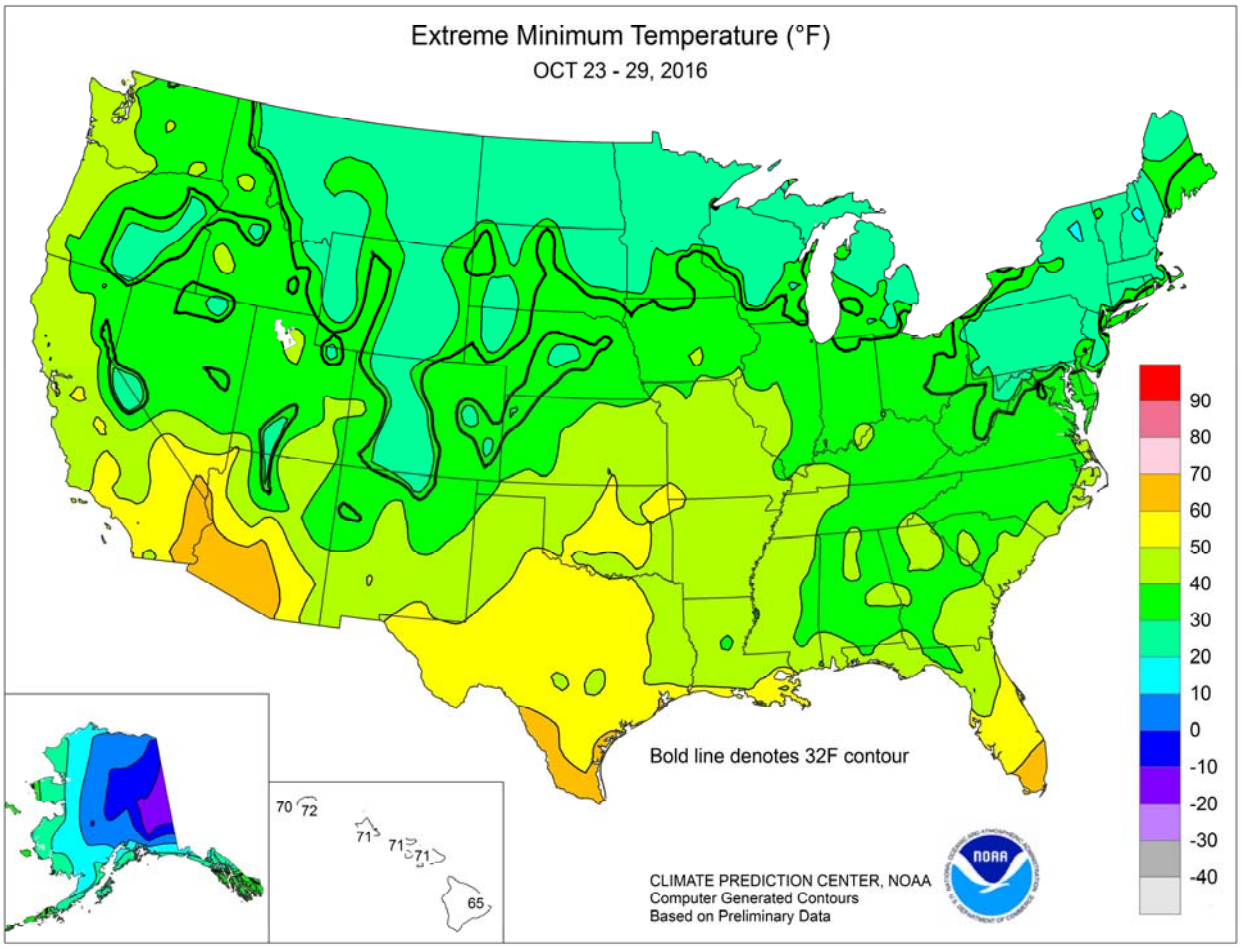
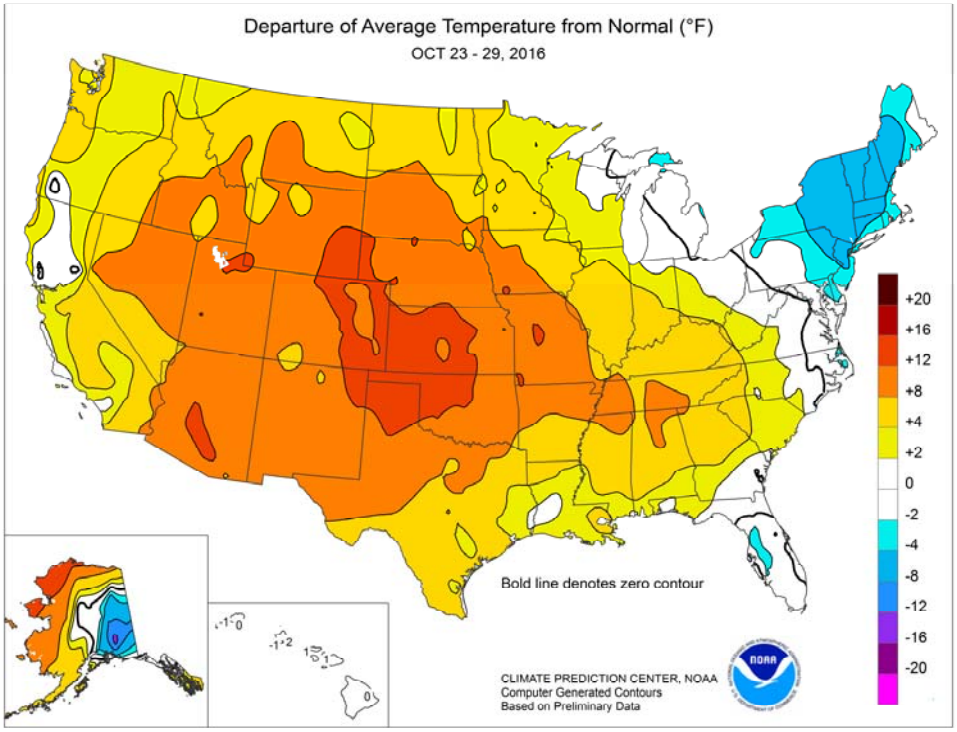

Extreme Maximum Temperature (°F)
OCT 23 - 29, 2016
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95F contour
90
85
86
85
87
83
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Extreme Minimum Temperature (°F)
OCT 23 - 29, 2016
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32F contour
70
72
71
71
71
65
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data

(Continued from front cover)

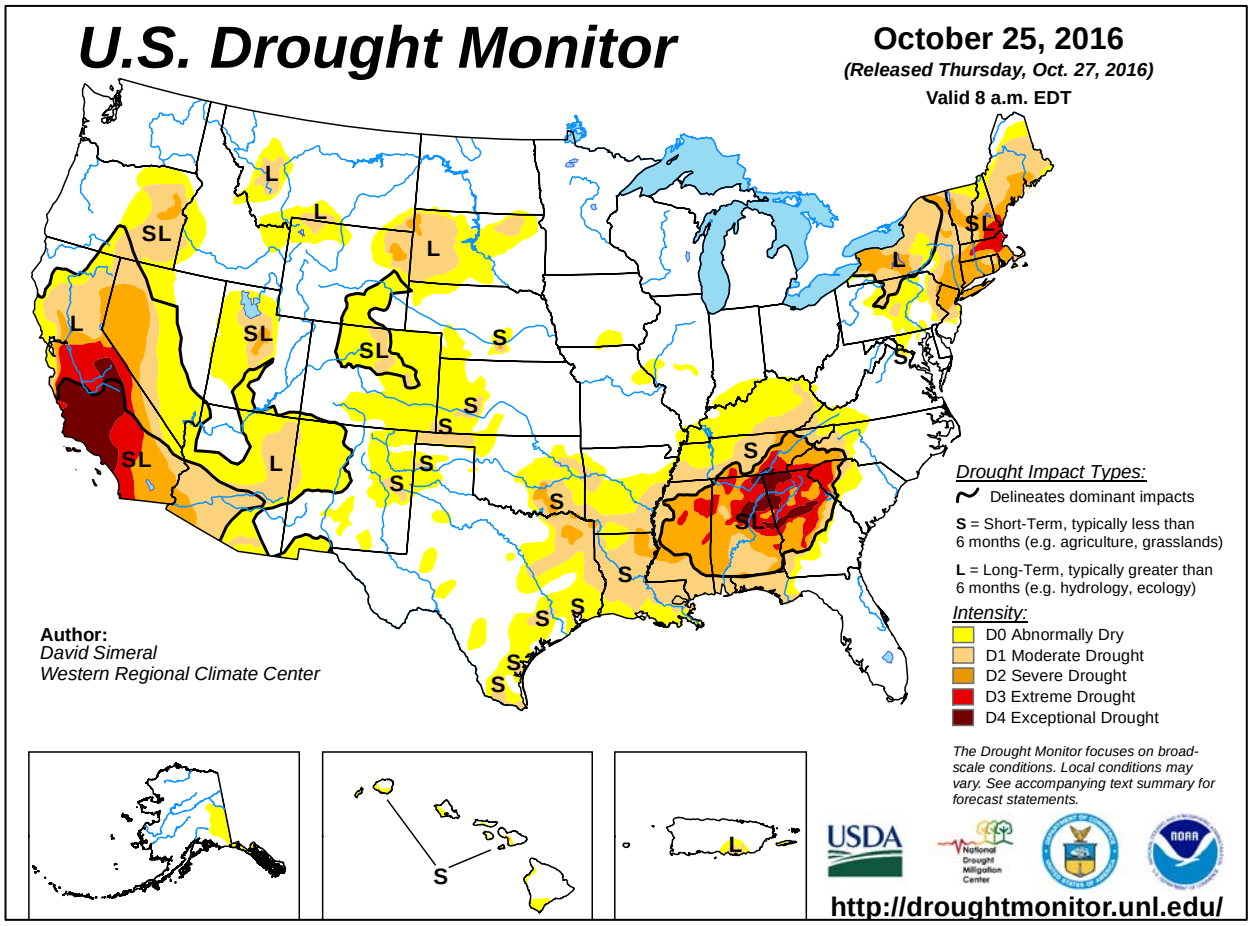
Midwest. Some of the heaviest rain, 2 inches or more, fell in the vicinity of the **Iowa-Minnesota-Wisconsin triple point**. Precipitation, including wet snow, also extended into the **Northeast**, helping to chip away at long-term drought. Elsewhere, unsettled weather dominated the **West**, with the heaviest precipitation occurring across the **northern half of California** and the **Pacific Northwest**. In fact, numerous locations along and northwest of a line from **northern California to Montana** have experienced their wettest October on record. In contrast, only scattered showers reached into **southern California** and the **Southwest**, leaving multi-year precipitation deficits intact. Weekly temperatures averaged 10 to 15°F above normal from the **Four Corners States to the central Plains**. Near- to above-normal temperatures also covered the remainder of the U.S., except for cooler-than-normal conditions (as much as 5°F below normal) in the **Northeast**.

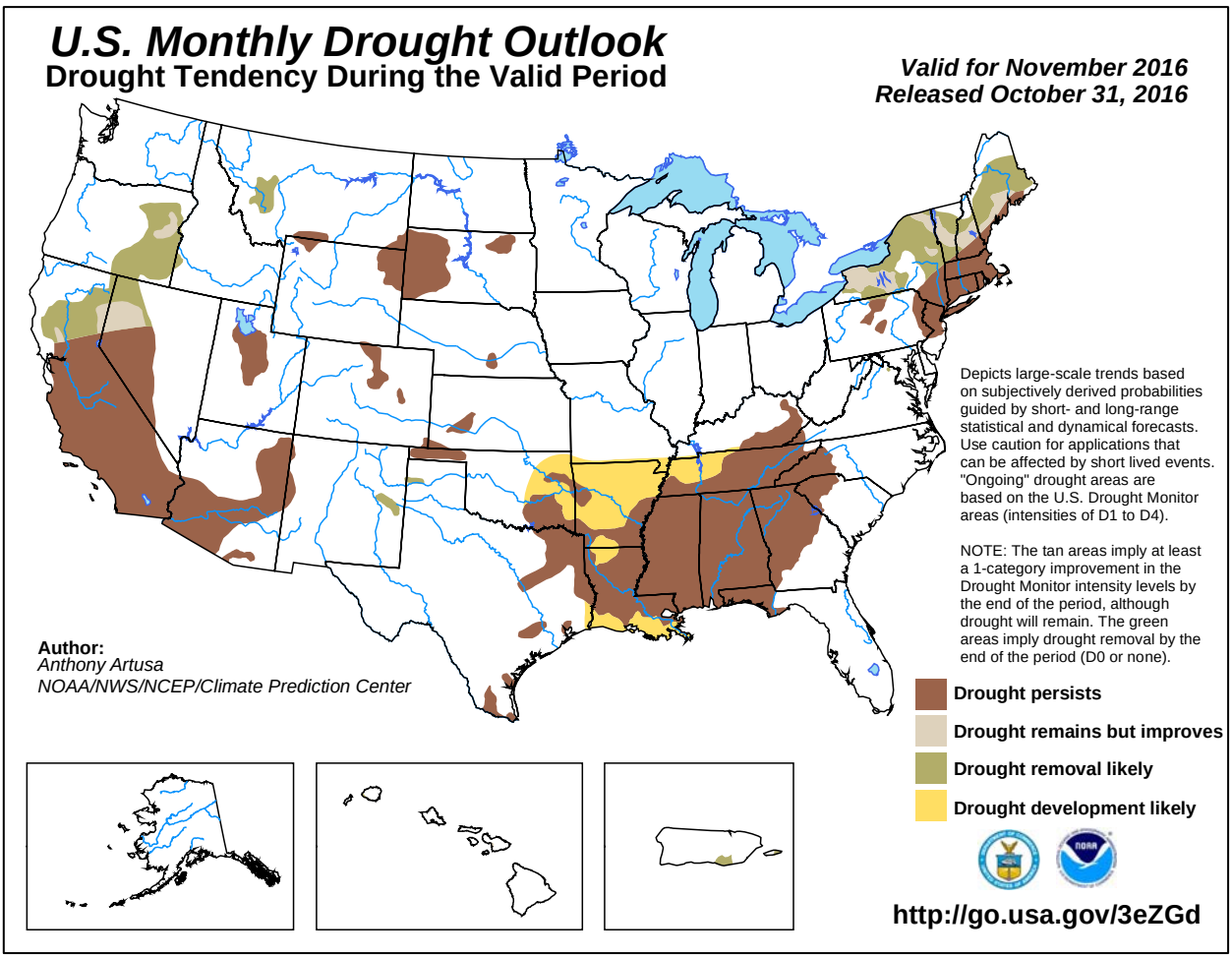


In many areas, warmth amplified as the week progressed. During the first half of the week, scattered **Southern** daily-record highs included 88°F (on October 25) in **Montgomery, AL**, and 87°F (on October 24) in **El Paso, TX**. **Phoenix, AZ**, noted its latest triple-digit heat on record on October 27, when the high reached 100°F. Previously, the latest observance of 100-degree heat in **Phoenix** had occurred on October 23, 2003. **Salt Lake City, UT**, posted consecutive daily-record highs (78 and 79°F, respectively) on October 27-28. On the same dates, **Denver, CO**, also collected consecutive daily-record highs (83 and 82°F, respectively). From October 27-29, **Dalhart, TX**, closed the week with a trio of daily-record highs (85, 88, and 91°F). On October 28, daily-record highs topped the 90-degree mark in locations such as **Dodge City, KS** (92°F), and **Guymon, OK** (91°F). Starting on October 28, the month ended with four consecutive daily-record highs in **Southeastern** locations such as **Meridian, MS** (89, 89, 91, and 91°F), and **Montgomery, AL** (88, 89, 89, and 90°F). Late-month, record-setting warmth also reached into the **Midwest**, where highs on October 29 rose to 86°F in **St. Louis, MO**, and 83°F in **Springfield, IL**, and **Evansville, IN**.

Early in the week, the season's most significant shower activity overspread the **Desert Southwest**. In **Barstow-Daggett, CA**, the fourth-longest spell on record without measurable rain ended at 175 days (May 1 – October 22), as rainfall totaled 0.32 inch on October 23. Meanwhile, several more rounds of precipitation overspread **northern California** and the **Northwest**, capping the wettest October on record in locations such as **Salem, OR** (11.25 inches; previously, 11.17 inches in 1947); **Spokane, WA** (6.23 inches; previously, 5.41 inches in 1947); and **Havre, MT** (3.52 inches; previously, 2.82 inches in 1914). **Salem** also set an October record with 27 days of measurable rain, breaking the record of 23 days set in 1947 and 1975. **Spokane** experienced its wettest month on record, surpassing 5.85 inches in November 1897. Farther east, heavy showers developed at mid-week across the **upper Midwest**. On October 25-26, **Rochester, MN** received consecutive daily-record totals (0.92 and 0.96 inch, respectively). Other record-setting amounts for October 26 included 2.34 inches in **Madison, WI**; 1.71 inches in **Waterloo, IA**; 1.60 inches in **Chicago, IL**; and 1.28 inches in **Muskegon, MI**. By October 27, showers again swept across **California**, leading to daily-record totals in **Eureka** (1.97 inches); **Paso Robles** (0.56 inch); and **Santa Maria** (0.53 inch). Elsewhere on the 27th, an early-season snowfall blanketed parts of the **Northeast**, where **Albany, NY**, received 1.7 inches and reported a high temperature of 36°F. In the **western U.S.**, late-week precipitation was enhanced by remnant moisture from former Hurricane Seymour. Record-setting rainfall amounts for October 28 reached 1.15 inches in **Winnemucca, NV**, and 0.86 inch in **Burley, ID**. In stark contrast, October ended without measurable rain in **Southeastern** locations such as **Vicksburg, MS**, and **Tuscaloosa, AL**. Measurable rain last fell on September 16 in **Vicksburg** and September 17 in **Tuscaloosa**.

Widespread precipitation accompanied mild conditions across **northern and western Alaska**, while cold, mostly dry weather prevailed farther south and east. **Western Alaskan** warmth peaked late in the week, when daily-record highs for October 28 climbed to 55°F in **Cold Bay** and 54°F in **King Salmon**. **Barrow** posted a daily-record high of 41°F on October 29. Meanwhile, October precipitation totaled just 0.02 inch (2 percent of normal) in **Fairbanks**, while monthly amounts were slightly less than one-third of normal in locations such as **Juneau** (2.59 inches), **Anchorage** (0.59 inch), and **McGrath** (0.38 inch). With a monthly precipitation total of 3.00 inches, 14 percent of normal, **Yakutat** experienced its driest October on record (previously, 6.68 inches in 1950). Farther south, October ended on a tranquil note across **Hawaii**, with showers mostly confined to windward locations. In fact, monthly precipitation totaled just 0.12 inch (7 percent of normal) in **Honolulu, Oahu**, and 0.45 inch (12 percent) in **Lihue, Kauai**. On the **Big Island**, however, **Hilo's** October rainfall climbed to 19.13 inches (196 percent of normal), with 3.30 inches falling during the last 4 days of the month.


U.S. Drought Monitor
October 25, 2016
(Released Thursday, Oct. 27, 2016)
Valid 8 a.m. EDT
Author:
David Simeral
Western Regional Climate 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.
USDA
http://droughtmonitor.unl.edu/


U.S. Monthly Drought Outlook
Drought Tendency During the Valid Period
Valid for November 2016
Released October 31, 2016
Author:
Anthony Artusa
NOAA/NWS/NCEP/Climate Prediction Center
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).
Drought persists
Drought remains but improves
Drought removal likely
Drought development likely
http://go.usa.gov/3eZGd

National Weather Data for Selected Cities

Weather Data for the Week Ending October 29, 2016

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 SEP 1	PCT. NORMAL SINCE SEP 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	84	54	87	42	69	9	0.00	-0.74	0.00	0.68	10	35.85	80	80	26	0	0	0	0
	HUNTSVILLE	84	51	88	42	67	9	0.00	-0.80	0.00	1.24	16	33.73	73	85	35	0	0	0	0
	MOBILE	83	53	86	43	68	3	0.00	-0.72	0.00	5.24	58	52.22	93	91	39	0	0	0	0
	MONTGOMERY	86	51	89	39	68	6	0.00	-0.53	0.00	2.36	36	35.54	79	82	27	0	0	0	0
AK	ANCHORAGE	35	21	41	15	28	-2	0.01	-0.37	0.01	2.79	58	14.58	106	86	69	0	7	1	0
	BARROW	31	17	41	13	24	15	0.08	0.02	0.08	1.00	98	4.67	123	86	72	0	7	1	0
	FAIRBANKS	26	2	33	-2	14	-2	0.00	-0.19	0.00	2.09	109	13.78	157	88	82	0	7	0	0
	JUNEAU	46	30	51	26	38	-1	0.06	-1.65	0.04	14.13	92	50.45	107	97	91	0	7	2	0
	KODIAK	49	35	51	29	42	4	1.22	-0.52	0.97	15.11	96	67.10	111	84	67	0	4	3	1
	NOME	40	34	44	30	37	12	1.21	0.91	0.50	3.99	101	14.26	101	91	86	0	2	6	1
AZ	FLAGSTAFF	67	37	70	33	52	8	0.31	-0.10	0.22	2.21	57	19.40	102	89	36	0	0	2	0
	PHOENIX	95	70	100	68	83	12	0.00	-0.17	0.00	0.52	36	4.57	70	44	28	7	0	0	0
	PRESCOTT	77	50	81	45	64	12	0.12	-0.13	0.12	3.03	94	13.79	83	80	27	0	0	1	0
	TUCSON	93	64	97	62	79	12	0.00	-0.22	0.00	1.70	66	10.30	99	51	26	6	0	0	0
AR	FORT SMITH	84	54	87	44	69	10	0.01	-0.92	0.01	2.19	31	28.84	82	88	35	0	0	1	0
	LITTLE ROCK	79	53	82	44	66	6	0.00	-1.04	0.00	3.22	43	49.17	123	100	45	0	0	0	0
CA	BAKERSFIELD	81	58	85	55	70	6	0.15	0.07	0.15	0.20	57	4.30	85	68	47	0	0	1	0
	FRESNO	78	57	85	53	67	6	0.62	0.44	0.51	0.63	81	9.71	112	73	53	0	0	3	1
	LOS ANGELES	74	61	81	59	68	2	0.05	-0.06	0.03	0.33	66	6.33	63	87	68	0	0	2	0
	REDDING	65	55	72	48	60	1	3.41	2.74	1.56	6.64	290	37.27	152	93	78	0	0	5	3
	SACRAMENTO	70	56	77	49	63	2	2.02	1.74	1.30	4.03	384	16.78	128	98	64	0	0	4	1
	SAN DIEGO	77	64	82	62	70	4	0.04	-0.10	0.04	0.36	71	5.37	65	82	57	0	0	1	0
	SAN FRANCISCO	69	59	72	51	64	5	0.94	0.59	0.46	2.02	202	14.46	100	83	70	0	0	5	0
	STOCKTON	73	55	81	49	64	3	1.11	0.86	0.88	2.13	220	14.25	142	92	74	0	0	4	1
CO	ALAMOSA	69	27	72	21	48	9	0.00	-0.14	0.00	0.30	20	7.65	120	72	31	0	6	0	0
	CO SPRINGS	76	46	81	40	61	16	0.00	-0.19	0.00	0.16	8	14.82	91	56	15	0	0	0	0
	DENVER INTL	77	44	83	35	61	15	0.00	-0.17	0.00	0.54	30	11.27	89	50	17	0	0	0	0
	GRAND JUNCTION	71	47	75	42	59	11	0.27	0.07	0.26	1.04	57	7.29	95	70	46	0	0	2	0
	PUEBLO	80	42	87	32	61	13	0.00	-0.16	0.00	0.05	4	10.37	92	51	23	0	1	0	0
CT	BRIDGEPORT	58	41	64	35	49	-3	1.91	1.10	1.91	6.08	94	30.84	85	68	48	0	0	1	1
	HARTFORD	53	36	62	29	45	-4	1.02	0.12	1.00	4.28	55	26.62	70	79	41	0	2	3	1
DC	WASHINGTON	66	46	75	41	56	1	0.03	-0.63	0.03	3.39	50	28.33	86	78	44	0	0	1	0
DE	WILMINGTON	62	39	67	30	50	-2	0.63	0.02	0.63	6.85	100	36.30	101	84	41	0	1	1	1
FL	DAYTONA BEACH	80	63	82	53	71	-1	0.00	-0.85	0.00	13.84	127	41.47	96	83	50	0	0	0	0
	JACKSONVILLE	80	54	82	44	67	0	0.00	-0.59	0.00	13.87	119	36.21	77	99	48	0	0	0	0
	KEY WEST	81	74	84	72	78	-1	1.03	0.14	1.02	9.80	103	35.14	104	85	68	0	0	2	1
	MIAMI	83	71	87	67	77	-1	2.82	1.58	1.04	14.88	104	61.88	118	78	56	0	0	4	3
	ORLANDO	83	62	85	54	73	0	0.00	-0.46	0.00	10.04	120	51.72	119	81	48	0	0	0	0
	PENSACOLA	80	62	83	56	71	5	0.00	-0.91	0.00	3.36	35	54.14	97	80	43	0	0	0	0
	TALLAHASSEE	84	52	87	40	68	2	0.00	-0.72	0.00	7.83	98	55.13	100	89	37	0	0	0	0
	TAMPA	83	64	86	54	74	0	0.00	-0.29	0.00	5.71	65	52.14	128	80	39	0	0	0	0
	WEST PALM BEACH	82	73	83	61	77	0	0.15	-1.03	0.15	12.13	92	46.31	89	68	53	0	0	1	0
GA	ATHENS	81	49	87	44	65	6	0.00	-0.79	0.00	1.25	19	32.21	80	86	35	0	0	0	0
	ATLANTA	80	55	85	44	68	8	0.00	-0.67	0.00	3.59	52	32.71	78	74	36	0	0	0	0
	AUGUSTA	82	47	88	37	65	5	0.00	-0.71	0.00	6.67	102	33.24	86	92	38	0	0	0	0
	COLUMBUS	82	52	86	43	67	4	0.00	-0.55	0.00	1.67	32	29.59	74	88	31	0	0	0	0
	MACON	84	47	88	36	65	4	0.00	-0.52	0.00	2.38	44	26.59	71	91	29	0	0	0	0
	SAVANNAH	81	53	84	42	67	3	0.00	-0.64	0.00	16.58	208	50.95	115	88	38	0	0	0	0
HI	HILO	81	68	83	65	75	0	2.11	-0.50	0.71	28.05	159	96.18	97	89	79	0	0	6	2
	HONOLULU	84	73	86	71	78	-2	0.05	-0.47	0.01	3.01	112	11.54	89	72	60	0	0	5	0
	KAHULUI	84	72	87	71	78	0	0.16	-0.15	0.08	1.86	151	11.67	87	78	68	0	0	4	0
	LIHUE	83	73	85	72	78	0	0.09	-0.93	0.05	1.09	17	11.82	40	78	69	0	0	4	0
ID	BOISE	68	50	76	44	59	10	0.28	0.10	0.11	1.12	81	6.09	65	76	53	0	0	5	0
	LEWISTON	59	46	65	40	53	5	0.56	0.33	0.20	2.62	163	12.25	119	91	81	0	0	4	0
	POCATELLO	65	40	70	31	53	9	1.37	1.15	0.55	5.05	294	12.30	120	94	59	0	1	4	2
IL	CHICAGO/O'HARE	61	43	73	36	52	3	1.60	0.95	1.60	5.03	88	32.00	105	90	65	0	0	1	1
	MOLINE	65	44	79	39	54	5	0.95	0.30	0.77	3.70	65	33.12	101	83	64	0	0	2	1
	PEORIA	66	47	79	43	57	7	0.74	0.15	0.38	8.49	151	33.50	110	94	60	0	0	2	0
	ROCKFORD	60	42	74	36	51	4	1.23	0.67	1.18	4.64	80	31.06	98	89	66	0	0	2	1
	SPRINGFIELD	69	48	83	41	59	7	0.22	-0.37	0.21	3.87	74	39.72	133	86	50	0	0	2	0
IN	EVANSVILLE	75	45	83	41	60	6	0.00	-0.68	0.00	4.50	82	42.96	119	85	47	0	0	0	0
	FORT WAYNE	61	42	78	34	52	3	0.28	-0.33	0.18	8.79	169	32.60	107	89	55	0	0	2	0
	INDIANAPOLIS	66	45	79	40	56	5	0.08	-0.59	0.08	6.66	125	41.67	123	88	54	0	0	1	0
	SOUTH BEND	58	41	71	30	50	1	0.52	-0.20	0.52	6.66	98	41.07	125	95	67	0	1	1	1
IA	BURLINGTON	67	47	79	41	57	6	0.28	-0.33	0.15	5.37	85	29.61	90	95	57	0	0	2	0
	CEDAR RAPIDS	62	44	75	37	53	5	0.20	-0.28	0.19	8.42	159	38.81	132	99	65	0	0	2	0
	DES MOINES	69	49	81	43	59	10	0.09	-0.49	0.09	6.42	116	31.75	102	86	60	0	0	1	0
	DUBUQUE	59	43	72	40	51	5	0.43	-0.12	0.29	7.02	120	36.18	116	93	74	0	0	2	0
	SIOUX CITY	67	45	78	33	56	10	0.57	0.16	0.57	4.38	103	28.73	121	90	63	0	0	1	1
	WATERLOO	62	41	75	32	51	5	0.69	0.14	0.38	8.39	161	37.02	125	92	68	0	1	2	0
KS	CONCORDIA	78	49	84	42	63	11	0.00	-0.36	0.00	3.00	72	29.21	112	90	50	0	0	0	0
	DODGE CITY	83	50	92	39	66	13	0.00	-0.30	0.00	0.40	13	22.41	110	86	26	1	0	0	0
	GOODLAND	78	43	86	29	61	13	0.00	-0.24	0.00	2.53	123	16.57	90	70	28	0	1	0	0
	TOPEKA	77	51	83	45	64	11	0.41	-0.21	0.41	9.12	141	42.01	133	87	59	0	0	1	0

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

Weather Data for the Week Ending October 29, 2016

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 SEP 1	PCT. NORMAL SINCE SEP 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	79	55	83	47	67	12	0.92	0.42	0.92	13.17	251	49.51	183	87	59	0	0	1	1
KY	JACKSON	73	47	82	40	60	6	0.00	-0.72	0.00	2.83	42	43.82	108	76	38	0	0	0	0
	LEXINGTON	72	43	82	37	58	5	0.00	-0.59	0.00	2.50	45	37.51	98	76	44	0	0	0	0
	LOUISVILLE	74	48	84	44	61	6	0.00	-0.64	0.00	2.93	53	36.60	100	78	37	0	0	0	0
	PADUCAH	77	48	85	41	62	7	0.03	-0.73	0.03	1.17	17	44.83	112	87	39	0	0	1	0
LA	BATON ROUGE	83	54	87	45	69	4	0.00	-0.87	0.00	3.09	37	77.31	147	97	36	0	0	0	0
	LAKE CHARLES	83	55	87	47	69	3	0.02	-0.80	0.02	3.71	39	60.62	127	97	46	0	0	1	0
	NEW ORLEANS	84	62	87	54	73	6	0.00	-0.70	0.00	4.68	56	60.09	112	84	43	0	0	0	0
	SHREVEPORT	83	54	87	46	69	6	0.00	-1.04	0.00	1.14	16	51.51	124	96	41	0	0	0	0
ME	CARIBOU	44	32	56	30	38	-2	0.46	-0.22	0.28	5.02	84	36.12	117	90	67	0	3	4	0
	PORTLAND	50	36	57	30	43	-2	2.84	1.79	2.21	9.17	125	32.70	90	80	58	0	3	3	1
MD	BALTIMORE	64	39	73	32	52	0	0.07	-0.58	0.07	5.14	74	36.23	103	82	46	0	1	1	0
MA	BOSTON	54	40	61	34	47	-4	1.26	0.37	0.77	6.63	96	26.90	78	76	50	0	0	2	1
	WORCESTER	48	34	54	29	41	-6	1.10	0.04	0.96	9.77	114	33.16	82	86	48	0	3	2	1
MI	ALPENA	51	33	62	26	42	0	0.42	-0.08	0.33	5.37	109	26.06	107	88	61	0	4	4	0
	GRAND RAPIDS	56	40	68	33	48	2	0.96	0.37	0.92	8.55	125	40.30	131	88	61	0	0	2	1
	HOUGHTON LAKE	52	31	61	25	41	-2	0.68	0.18	0.36	5.78	111	29.39	121	94	72	0	5	4	0
	LANSING	56	37	70	31	47	1	0.77	0.27	0.64	6.45	116	29.92	113	87	67	0	2	2	1
	MUSKEGON	57	39	68	32	48	2	1.29	0.64	1.29	9.69	160	34.84	130	90	68	0	2	1	1
	TRAVERSE CITY	54	38	65	32	46	1	0.62	-0.01	0.38	5.88	93	25.35	91	91	61	0	1	5	0
MN	DULUTH	49	37	53	31	43	3	0.13	-0.37	0.13	5.01	78	28.93	104	95	74	0	2	1	0
	INT'L FALLS	48	33	53	21	40	3	0.28	-0.11	0.12	4.77	98	25.31	116	93	70	0	3	4	0
	MINNEAPOLIS	55	43	72	36	49	5	0.96	0.47	0.55	8.92	194	35.23	134	80	68	0	0	3	1
	ROCHESTER	55	40	70	34	48	5	2.03	1.55	1.01	11.85	231	40.12	142	96	75	0	0	3	2
	ST. CLOUD	53	39	67	27	46	5	0.90	0.40	0.41	5.74	115	30.57	124	98	67	0	1	4	0
MS	JACKSON	85	51	88	43	68	7	0.00	-0.85	0.00	0.82	13	54.01	119	90	31	0	0	0	0
	MERIDIAN	86	49	89	39	67	6	0.00	-0.76	0.00	0.57	9	37.91	79	86	33	0	0	0	0
	TUPELO	84	51	89	42	68	10	0.00	-0.78	0.00	0.87	14	36.71	83	88	30	0	0	0	0
MO	COLUMBIA	74	52	83	45	63	11	0.04	-0.68	0.04	8.91	141	37.26	109	87	52	0	0	1	0
	KANSAS CITY	75	52	81	44	63	10	0.10	-0.49	0.10	7.52	96	46.95	138	81	51	0	0	1	0
	SAINT LOUIS	73	53	86	48	63	9	0.02	-0.63	0.02	8.05	148	36.52	114	75	52	0	0	1	0
	SPRINGFIELD	77	55	81	48	66	11	0.03	-0.72	0.03	7.69	96	33.31	90	85	61	0	0	1	0
MT	BILLINGS	63	42	71	35	52	8	0.41	0.18	0.28	5.09	204	12.84	97	82	48	0	0	2	0
	BUTTE	58	33	63	26	46	9	0.29	0.13	0.29	3.06	171	9.12	79	92	40	0	3	1	0
	CUT BANK	56	32	65	23	44	5	0.00	-0.08	0.00	1.71	109	9.97	85	93	47	0	3	0	0
	GLASGOW	55	35	62	27	45	4	0.00	-0.12	0.00	3.66	227	19.39	187	87	69	0	3	0	0
	GREAT FALLS	61	38	71	29	49	7	0.00	-0.19	0.00	3.66	178	12.96	96	86	43	0	2	0	0
	HAVRE	58	35	66	28	47	6	0.01	-0.09	0.01	4.63	295	18.12	174	94	75	0	2	1	0
	MISSOULA	54	37	57	29	46	5	0.35	0.18	0.17	3.26	182	11.48	99	99	83	0	2	4	0
NE	GRAND ISLAND	75	44	83	32	59	11	0.00	-0.31	0.00	2.65	70	22.05	93	85	43	0	1	0	0
	LINCOLN	75	45	83	35	60	11	0.01	-0.38	0.01	5.24	111	27.63	107	91	56	0	0	1	0
	NORFOLK	70	42	82	31	56	9	0.01	-0.35	0.01	4.40	115	29.27	120	89	55	0	1	1	0
	NORTH PLATTE	72	38	83	31	55	10	0.00	-0.25	0.00	2.48	102	21.64	118	87	41	0	1	0	0
	OMAHA	73	47	83	37	60	11	0.00	-0.44	0.00	6.10	117	32.42	119	82	64	0	0	0	0
	SCOTTSBLUFF	75	39	83	32	57	13	0.00	-0.19	0.00	1.65	77	14.96	101	75	37	0	1	0	0
	VALENTINE	71	41	83	33	56	12	0.02	-0.20	0.02	4.42	161	26.95	147	83	44	0	0	1	0
NV	ELY	64	42	72	31	53	11	0.10	-0.10	0.08	0.80	44	9.66	111	72	42	0	1	2	0
	LAS VEGAS	80	63	85	60	72	8	0.23	0.20	0.22	0.23	50	3.94	107	60	44	0	0	2	0
	RENO	69	47	76	39	58	9	0.59	0.50	0.55	2.33	299	7.58	133	70	49	0	0	2	1
	WINNEMUCCA	67	39	75	32	53	8	1.21	1.06	1.19	1.92	179	6.50	98	86	55	0	1	2	1
NH	CONCORD	50	34	59	25	42	-3	2.04	1.23	1.35	9.15	145	27.36	89	83	49	0	2	3	2
NJ	NEWARK	59	41	66	37	50	-3	0.65	-0.05	0.65	4.25	62	28.86	75	75	50	0	0	1	1
NM	ALBUQUERQUE	76	52	80	50	64	11	0.00	-0.21	0.00	1.78	90	5.14	62	53	23	0	0	0	0
NY	ALBANY	49	36	57	30	42	-4	0.88	0.14	0.79	4.97	80	28.41	89	82	50	0	2	3	1
	BINGHAMTON	46	31	64	28	39	-6	1.33	0.68	0.89	6.65	105	30.60	95	93	76	0	4	4	1
	BUFFALO	52	38	64	33	45	-3	0.68	-0.06	0.61	7.91	117	26.43	81	82	60	0	0	2	1
	ROCHESTER	51	38	67	33	44	-3	0.55	-0.01	0.44	5.45	93	23.09	82	79	61	0	0	3	0
	SYRACUSE	48	35	64	31	41	-6	0.67	-0.02	0.50	10.42	147	33.83	103	91	62	0	4	4	1
NC	ASHEVILLE	74	41	81	33	57	5	0.00	-0.76	0.00	1.10	17	29.55	75	87	36	0	0	0	0
	CHARLOTTE	76	44	81	37	60	1	0.00	-0.80	0.00	8.22	114	29.76	81	87	35	0	0	0	0
	GREENSBORO	73	46	80	38	60	5	0.00	-0.63	0.00	6.13	83	36.92	100	88	38	0	0	0	0
	HATTERAS	70	53	76	48	62	-1	0.02	-1.21	0.02	13.90	132	66.16	138	81	49	0	0	1	0
	RALEIGH	73	45	78	39	59	2	0.14	-0.49	0.14	11.71	162	48.44	132	89	45	0	0	1	0
	WILMINGTON	74	48	80	43	61	-1	0.00	-0.54	0.00	22.64	230	64.42	129	96	43	0	0	0	0
ND	BISMARCK	58	39	72	27	48	7	0.00	-0.24	0.00	1.46	53	20.00	128	94	69	0	2	0	0
	DICKINSON	57	34	69	28	46	5	0.00	-0.24	0.00	4.34	152	16.28	106	97	54	0	4	0	0
	FARGO	54	40	60	27	47	6	1.20	0.80	1.17	4.99	125	20.45	105	90	68	0	2	2	1
	GRAND FORKS	53	37	57	25	45	5	0.20	-0.15	0.20	5.24	149	24.26	135	90	67	0	2	1	0
	JAMESTOWN	53	36	66	25	44	4	0.72	0.46	0.71	5.06	167	23.89	139	98	69	0	2	2	1
	WILLISTON	56	36	67	30	46	7	0.00	-0.14	0.00	4.03	189	15.78	123	91	67	0	1	0	0
OH	AKRON-CANTON	59	41	76	33	50	2	0.33	-0.20	0.29	10.04	175	33.64	104	82	62	0	0	2	0
	CINCINNATI	68	45	79	41	57	5	0.00	-0.72	0.00	5.43	99	38.51	108	82	63	0	0	0	0
	CLEVELAND	60	45	75	42	53	4	0.27	-0.32	0.24	8.19	131	31.55	99	76	54	0	0	2	0
	COLUMBUS	63	41	79	35	52	1	0.04	-0.49	0.04	6.40	128	34.66	108	92	65	0	0	1	0
	DAYTON	63	43	78	35	54	4	0.05	-0.61	0.03	5.18	102	32.70	99	87	52	0	0	2	0
	MANSFIELD	60	40	76	34	50	2	0.05	-0.60	0.05	6.65	114	30.27	84	90	55	0	0	1	0

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

Weather Data for the Week Ending October 29, 2016

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 SEP 1	PCT. NORMAL SINCE SEP 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	57	39	72	32	48	0	0.83	0.29	0.81	6.51	131	29.82	108	97	69	0	1	2	1
	YOUNGSTOWN	57	38	73	29	48	0	0.55	0.07	0.53	10.04	163	38.54	121	87	63	0	1	2	1
OK	OKLAHOMA CITY	82	58	86	52	70	12	0.00	-0.68	0.00	5.08	68	24.99	79	93	48	0	0	0	0
	TULSA	81	59	85	51	70	11	0.39	-0.42	0.39	5.19	61	25.88	71	89	61	0	0	1	0
OR	ASTORIA	63	52	65	48	58	7	1.42	-0.21	0.78	17.18	230	58.03	128	86	70	0	0	7	1
	BURNS	59	36	64	29	48	7	0.28	0.11	0.11	1.17	107	5.56	69	86	68	0	3	3	0
	EUGENE	62	49	69	45	55	5	2.08	0.99	1.06	10.34	241	31.30	93	90	76	0	0	6	2
	MEDFORD	60	44	74	40	52	1	1.13	0.74	0.66	5.36	290	15.36	125	99	71	0	0	4	1
	PENDLETON	60	44	74	40	52	3	0.42	0.16	0.29	2.56	178	9.95	105	93	82	0	0	4	0
	PORTLAND	62	52	66	49	57	6	1.18	0.35	0.63	9.70	235	31.61	125	90	73	0	0	6	1
	SALEM	63	49	66	46	56	6	1.62	0.72	0.85	12.27	308	34.42	129	89	76	0	0	6	1
PA	ALLENTOWN	59	35	67	27	47	-2	0.61	-0.11	0.55	4.56	61	31.87	84	83	48	0	2	2	1
	ERIE	56	45	70	35	50	0	1.46	0.62	0.66	10.82	129	38.88	112	78	60	0	0	4	2
	MIDDLETOWN	59	40	71	33	50	-2	0.10	-0.54	0.10	5.15	83	35.92	107	90	43	0	0	1	0
	PHILADELPHIA	61	43	69	38	52	-2	0.48	-0.08	0.48	5.36	83	30.81	87	72	47	0	0	1	0
	PITTSBURGH	60	40	75	31	50	1	0.19	-0.30	0.16	6.76	129	29.89	94	94	57	0	1	2	0
	WILKES-BARRE	52	36	63	30	44	-4	1.10	0.47	0.74	5.31	80	26.98	85	91	50	0	3	3	1
	WILLIAMSPORT	56	37	64	30	47	-1	0.49	-0.20	0.45	6.26	91	30.28	87	85	50	0	1	4	0
RI	PROVIDENCE	56	39	63	32	47	-3	1.23	0.34	1.00	7.05	100	32.89	88	75	44	0	1	4	1
SC	BEAUFORT	79	53	83	44	66	1	0.00	-0.63	0.00	9.84	122	37.10	85	93	44	0	0	0	0
	CHARLESTON	79	53	84	43	66	3	0.00	-0.58	0.00	22.75	255	54.75	120	91	41	0	0	0	0
	COLUMBIA	79	48	84	38	64	4	0.00	-0.64	0.00	11.26	171	34.19	82	88	38	0	0	0	0
	GREENVILLE	78	48	84	42	63	6	0.00	-0.85	0.00	1.43	19	29.64	70	81	32	0	0	0	0
SD	ABERDEEN	60	39	75	24	50	8	1.14	0.81	0.95	3.04	92	17.10	90	89	68	0	2	2	1
	HURON	62	40	80	26	51	8	0.07	-0.24	0.04	2.26	69	18.21	93	95	62	0	2	2	0
	RAPID CITY	69	41	84	29	55	11	0.04	-0.25	0.04	1.30	56	12.27	79	75	36	0	1	1	0
	SIOUX FALLS	62	43	78	31	53	10	0.01	-0.40	0.01	10.63	244	28.48	126	91	65	0	1	1	0
TN	BRISTOL	73	40	79	33	56	4	0.02	-0.46	0.02	3.31	64	28.26	82	96	36	0	0	1	0
	CHATTANOOGA	82	50	86	40	66	9	0.00	-0.74	0.00	1.71	23	25.05	56	82	37	0	0	0	0
	KNOXVILLE	78	47	83	39	63	8	0.04	-0.55	0.04	1.60	29	32.42	82	81	32	0	0	1	0
	MEMPHIS	82	57	85	50	69	9	0.01	-0.80	0.01	1.89	30	51.69	121	82	40	0	0	1	0
	NASHVILLE	81	49	86	40	65	8	0.00	-0.66	0.00	2.30	37	33.90	87	81	30	0	0	0	0
TX	ABILENE	83	61	86	58	72	9	0.00	-0.57	0.00	5.99	106	33.10	157	78	53	0	0	0	0
	AMARILLO	84	52	91	45	68	14	0.00	-0.30	0.00	0.95	30	15.83	87	77	25	1	0	0	0
	AUSTIN	86	57	87	47	71	4	0.02	-0.84	0.01	3.44	52	48.32	171	90	56	0	0	2	0
	BEAUMONT	84	57	86	49	70	3	0.00	-0.96	0.00	4.41	42	61.93	125	98	43	0	0	0	0
	BROWNSVILLE	88	67	90	63	78	5	0.03	-0.62	0.02	3.06	34	16.73	68	90	53	1	0	2	0
	CORPUS CHRISTI	88	66	90	63	77	6	0.00	-0.70	0.00	3.98	45	29.26	102	89	50	1	0	0	0
	DEL RIO	84	63	86	59	74	6	0.01	-0.35	0.01	6.03	153	27.88	170	88	60	0	0	1	0
	EL PASO	86	57	88	50	72	11	0.00	-0.10	0.00	2.11	89	7.78	95	46	18	0	0	0	0
	FORT WORTH	85	63	88	57	74	10	0.00	-0.89	0.00	3.02	48	31.69	108	76	41	0	0	0	0
	GALVESTON	82	70	83	65	76	4	0.00	-0.67	0.00	3.48	38	44.17	121	88	59	0	0	0	0
	HOUSTON	85	59	87	51	72	5	0.00	-1.02	0.00	1.85	22	55.42	140	96	52	0	0	0	0
	LUBBOCK	84	54	88	48	69	12	0.00	-0.28	0.00	2.52	60	12.44	72	84	44	0	0	0	0
	MIDLAND	86	59	90	54	73	12	0.00	-0.28	0.00	2.41	60	12.75	95	75	41	1	0	0	0
	SAN ANGELO	84	58	88	56	71	9	0.00	-0.46	0.00	6.75	125	32.27	172	87	52	0	0	0	0
	SAN ANTONIO	83	63	85	54	73	5	0.00	-0.85	0.00	6.43	98	35.88	128	91	47	0	0	0	0
	VICTORIA	87	58	88	54	73	3	0.00	-0.81	0.00	2.56	28	32.14	92	99	48	0	0	0	0
	WACO	85	60	88	51	72	7	0.01	-0.74	0.01	0.94	15	32.93	119	91	53	0	0	1	0
	WICHITA FALLS	83	59	86	52	71	10	0.00	-0.61	0.00	12.16	198	34.54	137	88	53	0	0	0	0
UT	SALT LAKE CITY	74	52	79	44	63	14	0.10	-0.23	0.10	2.47	90	10.79	79	72	31	0	0	1	0
VT	BURLINGTON	46	37	52	32	42	-3	0.72	0.04	0.27	4.04	60	23.24	76	79	56	0	1	5	0
VA	LYNCHBURG	70	42	78	38	56	3	0.00	-0.69	0.00	5.11	73	38.82	106	83	40	0	0	0	0
	NORFOLK	69	49	76	45	59	1	0.01	-0.73	0.01	18.90	259	61.27	155	81	43	0	0	1	0
	RICHMOND	69	42	76	37	55	0	0.06	-0.69	0.06	15.43	211	48.85	130	83	43	0	0	1	0
	ROANOKE	72	45	82	40	59	5	0.00	-0.67	0.00	9.17	136	42.94	119	78	41	0	0	0	0
	WASH/DULLES	66	39	76	30	52	0	0.03	-0.71	0.03	3.15	45	31.14	89	78	45	0	1	1	0
WA	OLYMPIA	60	45	65	41	53	6	1.40	0.17	1.19	12.62	225	40.26	118	93	80	0	0	7	1
	QUILLAYUTE	58	49	60	45	53	5	3.37	0.67	0.96	22.71	177	80.90	113	90	82	0	0	7	3
	SEATTLE-TACOMA	62	50	67	49	56	6	1.73	0.82	1.20	10.17	234	33.90	135	82	63	0	0	6	1
	SPOKANE	53	42	65	35	48	5	1.11	0.81	0.44	5.15	316	13.95	116	93	72	0	0	4	0
	YAKIMA	59	44	64	39	52	7	0.96	0.83	0.48	2.64	330	8.53	149	81	68	0	0	4	0
WV	BECKLEY	66	41	73	33	53	3	0.03	-0.52	0.03	5.27	93	42.32	119	82	46	0	0	1	0
	CHARLESTON	68	41	79	36	55	3	0.02	-0.59	0.02	5.93	101	38.47	105	93	43	0	0	1	0
	ELKINS	64	37	74	30	51	4	0.00	-0.62	0.00	7.29	113	38.26	98	86	41	0	1	0	0
	HUNTINGTON	70	44	81	36	57	5	0.00	-0.64	0.00	4.07	77	40.24	114	83	42	0	0	0	0
WI	EAU CLAIRE	54	38	65	27	46	3	0.95	0.48	0.73	10.92	188	37.98	131	98	62	0	2	3	1
	GREEN BAY	55	39	63	30	47	3	1.26	0.78	0.99	6.95	137	28.57	113	98	70	0	1	2	1
	LA CROSSE	59	43	68	35	51	5	1.81	1.35	1.32	12.69	236	43.53	151	91	60	0	0	3	1
	MADISON	57	40	71	33	49	4	2.40	1.91	2.34	13.40	265	45.77	159	91	70	0	0	2	1
	MILWAUKEE	60	43	72	37	52	4	1.80	1.24	1.80	7.86	141	28.50	96	84	68	0	0	1	1
WY	CASPER	69	37	74	24	53	11	0.01	-0.21	0.01	1.70	84	15.09	131	74	37	0	2	1	0
	CHEYENNE	71	40	77	32	56	14	0.00	-0.11	0.00	1.09	52	15.75	110	63	27	0	1	0	0
	LANDER	67	39	75	34	53	11	0.01	-0.27	0.01	2.64	111	20.18	173	73	33	0	0	1	0
	SHERIDAN	64	37	73	29	51	10	0.67	0.40	0.51	5.18	193	16.88	129	88	48	0	2	2	1

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

National Agricultural Summary

October 24 – 30, 2016

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Weekly rainfall totals were within 3 inches of normal across most of the nation. A notable exception occurred on the Pacific Coast, where some areas in California and Oregon received more than 6 inches of precipitation during the week. Continuing the trend during the first 3 weeks of October, above-average temperatures dominated much of the U.S. Warm and relatively dry conditions on the central Great Plains led to rapid progress for fall fieldwork. The Northeast was the only region to record below-average weekly temperatures.

Corn: By October 30, producers had harvested three-quarters of this year's corn, 7 percentage points behind last year but equal to the 5-year average. Harvest progress advanced 20 percentage points during the week in Minnesota and 19 points in Iowa and Nebraska, but all three states remained behind their respective 5-year averages.

Soybeans: By week's end, 87 percent of the soybean crop was harvested, 4 percentage points behind last year but 2 points ahead of the 5-year average. The soybean harvest was nearly complete in Louisiana, Minnesota, North Dakota, and South Dakota.

Winter Wheat: Producers had seeded 86 percent of the 2017 winter wheat crop by October 30, slightly behind last year and 2 percentage points behind the 5-year average. Thirteen of the 18 estimating states were behind the 5-year average planting pace on October 30. Nationally, 70 percent of the crop had emerged by week's end, slightly ahead of both last year and the 5-year average. Overall, 58 percent of the winter wheat was reported in good to excellent condition, down slightly from last week but 9 percentage points above the same time last year. Winter wheat was rated 57 percent in the good to excellent categories in Kansas on October 30, twelve percentage points above the same time last year.

Cotton: Nationwide, 95 percent of the cotton had open bolls by week's end, 4 percentage points behind last year and slightly behind the 5-year average. By October 30, forty-six percent of the cotton crop was harvested, 2 percentage points behind both last year and the 5-year average. In Texas, cotton harvest was underway in parts of the Southern High Plains, Blacklands, and Northeast, while cotton ginning was in full swing in the Southern Low Plains and the Edwards Plateau. Overall, 49 percent of the cotton was reported in good to excellent condition, up slightly from last week and 2 percentage points better than at the same time last year.

Sorghum: Ninety-six percent of the sorghum was mature by week's end, 3 percentage points behind last year but slightly ahead of the 5-year average. Producers had harvested 76 percent of the nation's sorghum by October 30, slightly behind last year but 8 percentage points ahead of the 5-year average. Colorado, Illinois, Kansas, Nebraska, and South Dakota producers recorded double-digit harvest progress during the week.

Other Crops: By October 30, producers had harvested 77 percent of this year's peanut crop, 9 percentage points ahead of last year and 3 points ahead of the 5-year average. Twenty-four percent of the peanut crop was harvested during the week in North Carolina.

By October 30, sugarbeet producers had harvested 86 percent of this year's crop, 4 percentage points behind last year and slightly behind the 5-year average. Producers harvested 16 percent of the sugarbeet crop in Michigan during the week.

Sixty-two percent of the sunflower crop was harvested by week's end, 3 percentage points behind last year but 5 points ahead of the 5-year average. Seventy-three percent of the crop was harvested in South Dakota, 10 percentage points ahead of the 5-year average.

Crop Progress and Condition

Week Ending October 30, 2016

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

Corn Percent Harvested

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
CO	41	53	68	61
IL	95	83	91	85
IN	89	64	76	69
IA	82	52	71	76
KS	93	87	93	90
KY	93	94	97	89
MI	57	27	40	43
MN	88	55	75	79
MO	96	87	92	89
NE	70	50	69	70
NC	96	96	98	96
ND	78	39	52	67
OH	85	49	65	54
PA	68	50	66	56
SD	74	47	62	73
TN	97	98	99	95
TX	82	85	90	90
WI	57	38	52	53
18 Sts	82	61	75	75

These 18 States harvested 95% of last year's corn acreage.

Soybeans Percent Harvested

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
AR	88	85	92	79
IL	95	76	89	88
IN	95	71	83	81
IA	95	77	89	94
KS	80	53	75	77
KY	73	57	75	61
LA	98	97	99	98
MI	88	51	66	77
MN	100	95	97	98
MS	93	92	94	94
MO	76	57	73	68
NE	95	78	91	96
NC	33	24	38	24
ND	99	94	97	95
OH	95	79	88	75
SD	97	89	95	97
TN	74	75	86	62
WI	93	71	86	86
18 Sts	91	76	87	85

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

Sugarbeets Percent Harvested

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
ID	71	64	77	77
MI	67	34	50	54
MN	100	91	95	97
ND	100	96	99	98
4 Sts	90	78	86	87

These 4 States harvested 84% of last year's sugarbeet acreage.

Sunflowers Percent Harvested

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
CO	69	38	65	57
KS	51	38	50	51
ND	65	38	53	54
SD	66	56	73	63
4 Sts	65	46	62	57

These 4 States harvested 84% of last year's sunflower acreage.

Cotton Percent Bolls Opening

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
AL	95	99	100	96
AZ	100	100	100	100
AR	100	100	100	100
CA	98	99	100	99
GA	99	97	98	97
KS	83	83	91	90
LA	100	100	100	100
MS	100	100	100	100
MO	100	100	100	97
NC	100	97	99	98
OK	97	91	95	94
SC	99	95	96	96
TN	100	99	100	97
TX	95	90	93	93
VA	100	99	99	99
15 Sts	99	93	95	96

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

Cotton Percent Harvested

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
AL	63	61	68	51
AZ	39	33	45	36
AR	83	85	95	80
CA	68	36	48	65
GA	40	47	61	43
KS	18	8	13	17
LA	95	95	99	96
MS	86	81	90	84
MO	69	74	85	63
NC	42	20	38	41
OK	34	29	36	32
SC	36	19	30	43
TN	57	61	74	54
TX	39	28	30	39
VA	47	25	40	43
15 Sts	48	39	46	48

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

Cotton Condition by Percent

	VP	P	F	G	EX
AL	1	4	42	43	10
AZ	6	2	14	50	28
AR	6	4	15	45	30
CA	0	0	30	30	40
GA	4	14	31	42	9
KS	1	3	28	64	4
LA	1	12	36	45	6
MS	0	5	31	45	19
MO	5	14	52	26	3
NC	11	19	32	34	4
OK	0	1	30	62	7
SC	0	5	58	36	1
TN	1	2	18	58	21
TX	4	15	35	38	8
VA	0	4	38	58	0
15 Sts	4	13	34	40	9
Prev Wk	4	12	36	39	9
Prev Yr	3	12	38	39	8

Crop Progress and Condition

Week Ending October 30, 2016

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

Sorghum Percent Mature

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
AR	100	100	100	100
CO	95	95	98	96
IL	97	92	95	98
KS	98	95	98	95
LA	100	100	100	100
MO	100	100	100	99
NE	99	100	100	99
NM	92	63	70	69
OK	98	97	98	93
SD	93	99	100	97
TX	94	93	94	94
11 Sts	99	94	96	95

These 11 States planted 98% of last year's sorghum acreage.

Sorghum Percent Harvested

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
AR	100	100	100	100
CO	53	62	81	42
IL	90	61	74	80
KS	74	56	71	60
LA	100	100	100	100
MO	79	76	85	75
NE	66	67	81	70
NM	31	2	8	16
OK	77	63	69	66
SD	71	80	90	79
TX	82	78	80	78
11 Sts	77	67	76	68

These 11 States harvested 98% of last year's sorghum acreage.

Peanuts Percent Harvested

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
AL	74	86	91	73
FL	91	89	94	88
GA	68	70	80	75
NC	59	36	60	74
OK	67	50	59	59
SC	46	40	55	73
TX	53	45	57	63
VA	69	55	72	69
8 Sts	68	67	77	74

These 8 States harvested 97% of last year's peanut acreage.

Winter Wheat Percent Planted

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
AR	54	45	57	59
CA	44	31	33	38
CO	98	97	98	99
ID	97	87	91	98
IL	88	68	85	82
IN	91	71	83	85
KS	95	84	92	94
MI	94	73	88	90
MO	76	48	63	66
MT	98	89	91	95
NE	100	100	100	100
NC	29	15	33	29
OH	94	85	93	84
OK	89	83	88	92
OR	85	83	88	90
SD	99	99	100	98
TX	70	67	75	78
WA	97	90	91	97
18 Sts	87	79	86	88

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

Winter Wheat Percent Emerged

	Prev Year	Prev Week	Oct 30 2016	5-Yr Avg
AR	29	27	40	35
CA	14	3	12	16
CO	89	86	92	90
ID	76	76	79	75
IL	65	38	63	54
IN	73	42	62	59
KS	74	63	75	78
MI	76	52	67	70
MO	45	27	40	40
MT	89	78	82	76
NE	96	93	95	92
NC	11	5	13	11
OH	76	45	64	56
OK	74	64	76	75
OR	43	40	54	48
SD	93	82	89	73
TX	52	42	56	56
WA	75	70	74	78
18 Sts	69	60	70	69

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

Winter Wheat Condition by Percent

	VP	P	F	G	EX
AR	4	10	44	33	9
CA	0	0	5	15	80
CO	2	9	32	51	6
ID	0	0	26	50	24
IL	3	1	27	55	14
IN	1	3	23	57	16
KS	2	7	34	48	9
MI	1	4	18	61	16
MO	2	3	37	51	7
MT	0	2	23	47	28
NE	1	7	31	54	7
NC	1	15	36	48	0
OH	0	1	15	59	25
OK	2	7	36	46	9
OR	2	3	28	59	8
SD	1	6	32	55	6
TX	3	14	46	35	2
WA	0	1	10	73	16
18 Sts	2	7	33	48	10
Prev Wk	1	6	34	48	11
Prev Yr	2	10	39	40	9

Crop Progress and Condition

Week Ending October 30, 2016

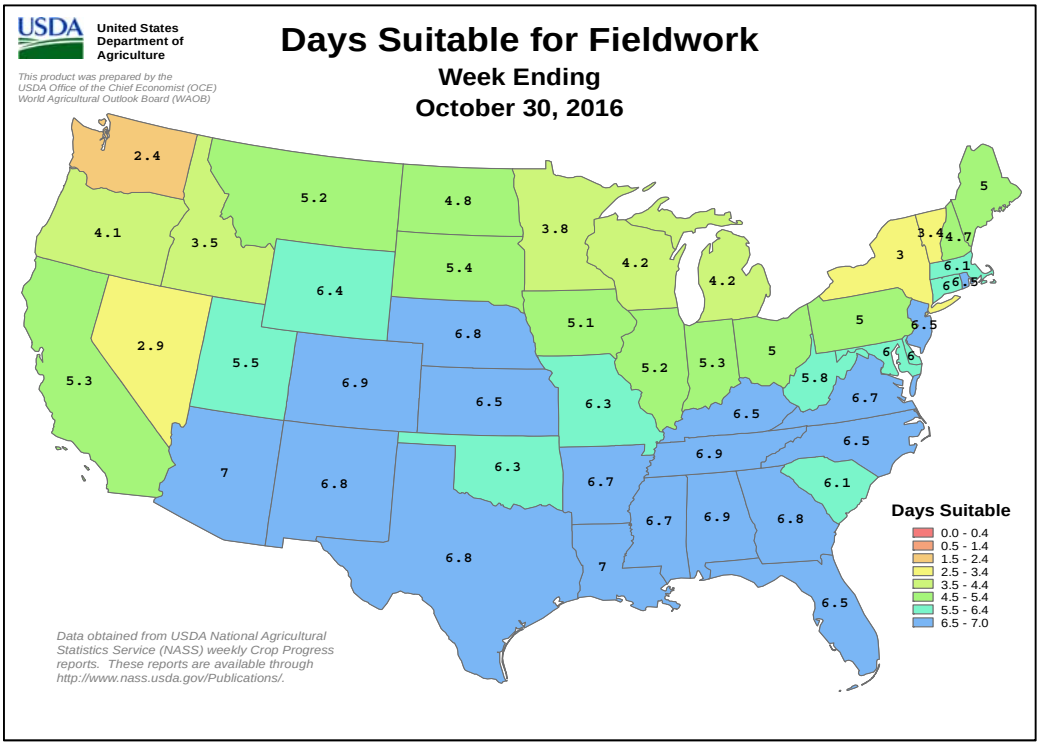
Weekly U.S. Progress and Condition Data provided by USDA/NASS

Pasture and Range Condition by Percent
Week Ending Oct 30, 2016

	VP	P	F	G	EX		VP	P	F	G	EX
AL	33	19	19	27	2	NH	20	25	52	3	0
AZ	10	12	33	36	9	NJ	0	7	43	44	6
AR	4	24	40	29	3	NM	4	20	44	26	6
CA	20	20	30	25	5	NY	4	15	41	33	7
CO	5	11	33	45	6	NC	8	26	34	28	4
CT	0	16	50	34	0	ND	5	13	30	48	4
DE	7	20	32	32	9	OH	7	16	33	39	5
FL	3	9	31	52	5	OK	3	13	38	41	5
GA	34	29	23	12	2	OR	23	22	21	28	6
ID	1	5	39	48	7	PA	10	20	39	28	3
IL	2	3	27	55	13	RI	0	32	55	13	0
IN	3	10	32	48	7	SC	7	24	27	41	1
IA	2	8	30	50	10	SD	9	18	37	34	2
KS	1	5	27	56	11	TN	36	29	24	10	1
KY	10	23	32	33	2	TX	4	13	40	37	6
LA	11	21	36	30	2	UT	3	15	41	37	4
ME	52	30	15	3	0	VT	0	44	56	0	0
MD	2	7	22	56	13	VA	12	19	33	33	3
MA	4	51	36	9	0	WA	3	19	29	45	4
MI	3	10	26	47	14	WV	5	16	39	35	5
MN	1	7	27	52	13	WI	3	5	25	47	20
MS	17	25	35	21	2	WY	14	15	30	37	4
MO	0	3	32	57	8	48 Sts	8	15	33	39	5
MT	13	19	34	29	5						
NE	5	11	28	50	6	Prev Wk	8	14	33	39	6
NV	15	15	35	35	0	Prev Yr	9	18	34	34	5

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

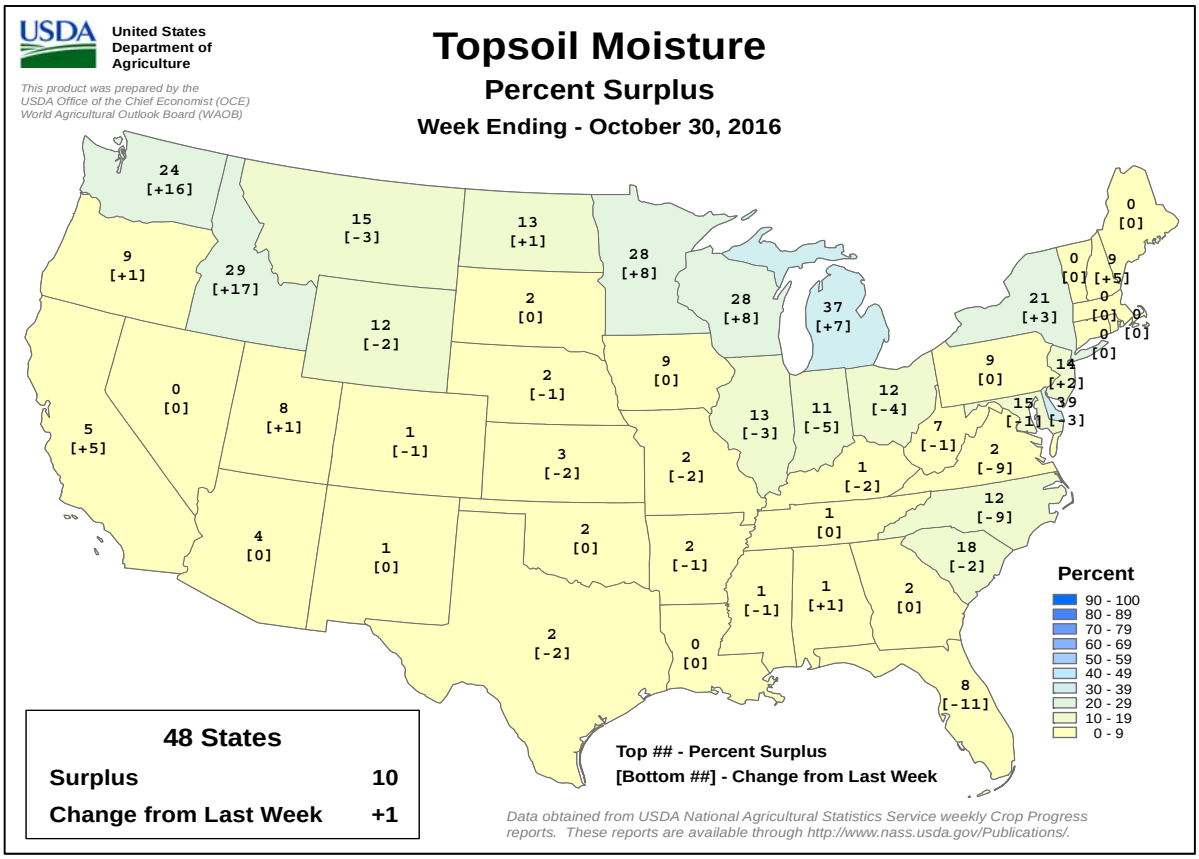
NA - Not Available
*** Revised**

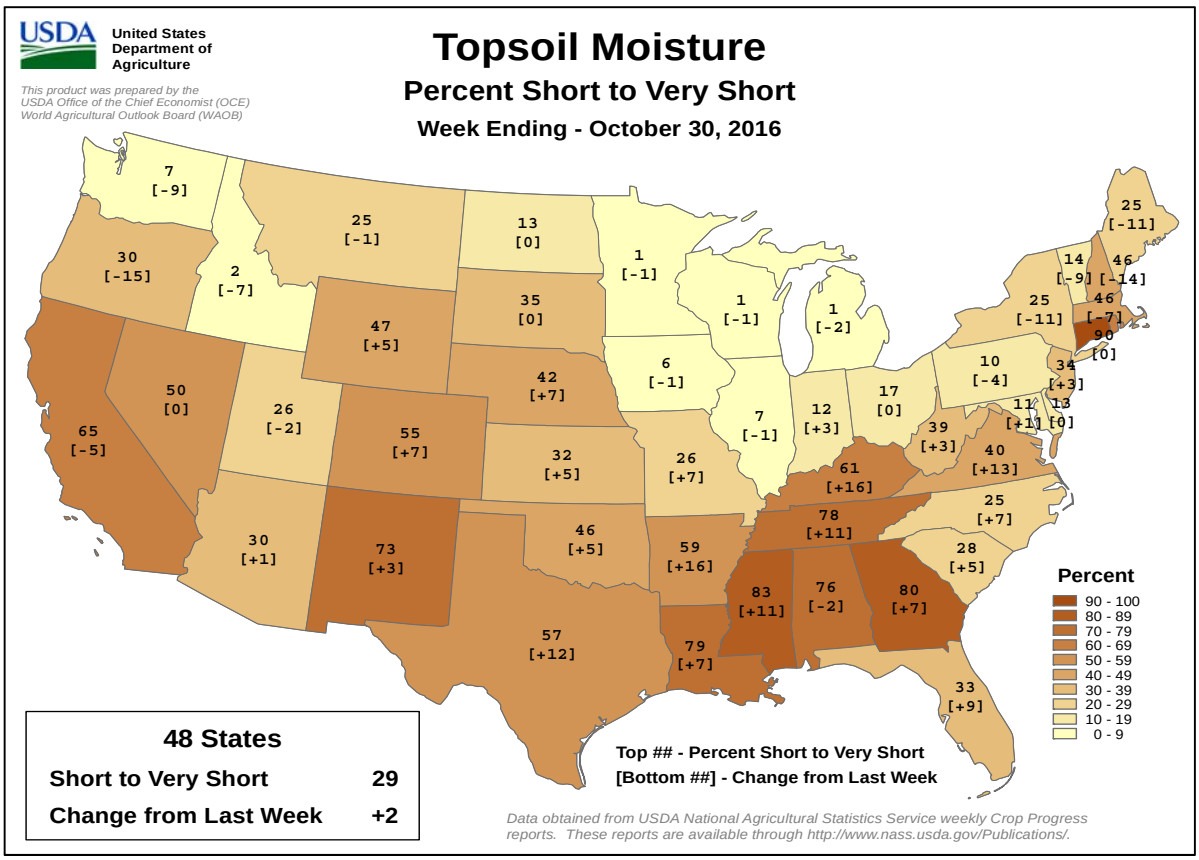


Crop Progress and Condition

Week Ending October 30, 2016

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

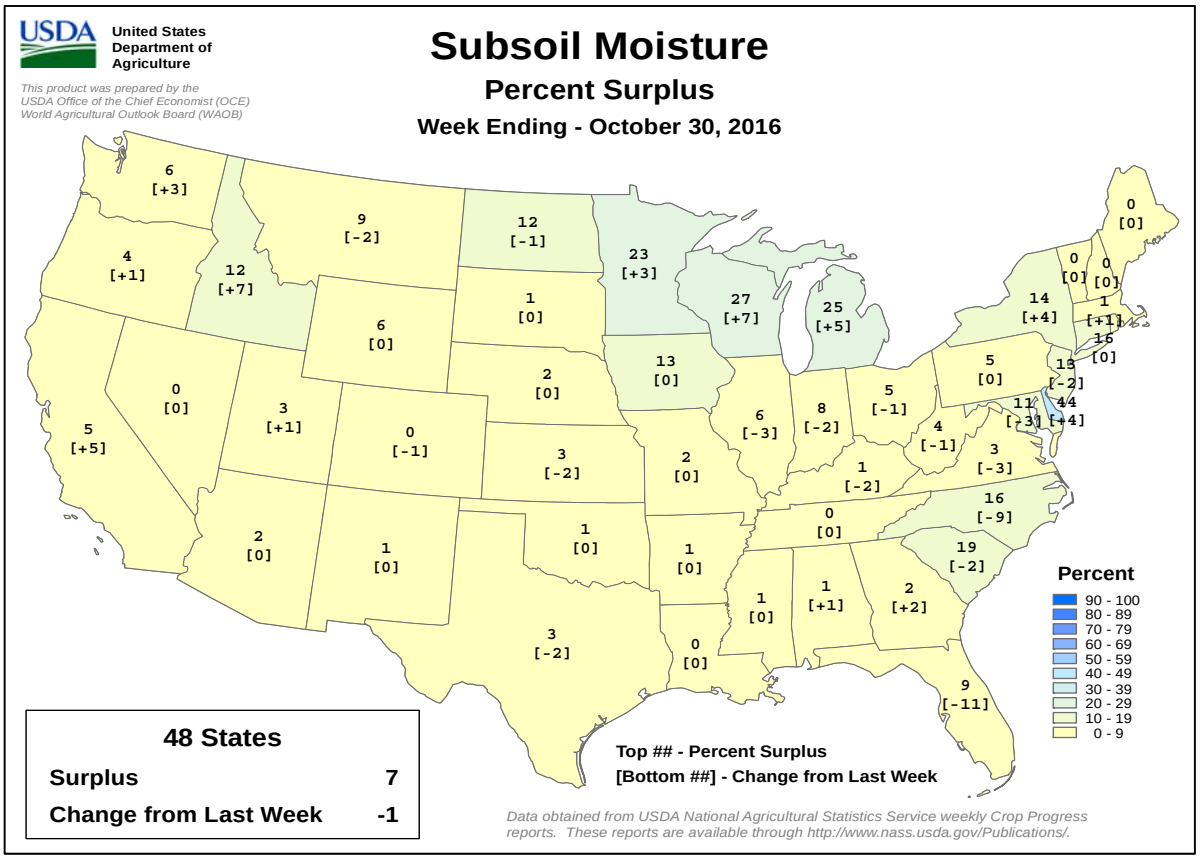


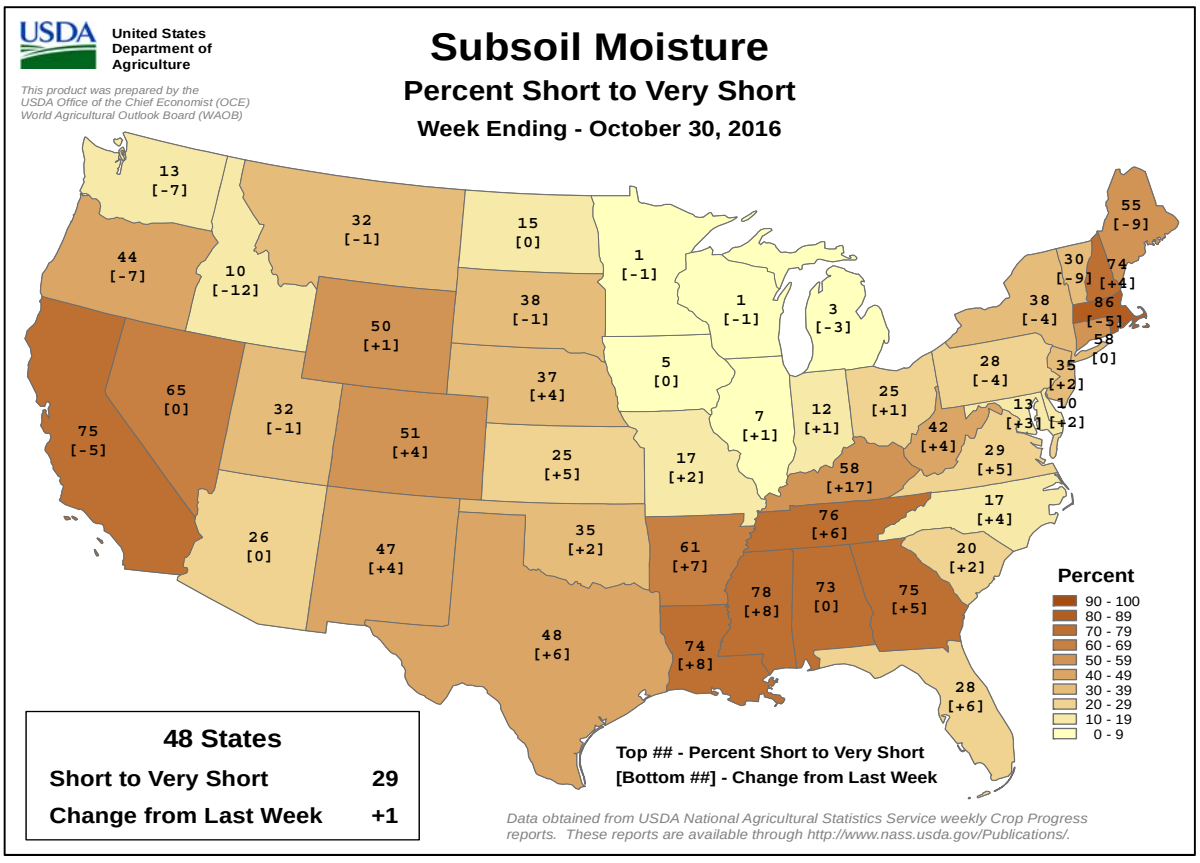


Crop Progress and Condition

Week Ending October 30, 2016

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





International Weather and Crop Summary

October 23-29, 2016

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

HIGHLIGHTS

EUROPE: Early-week rain improved soil moisture for winter crops in western Europe, while conditions remained overall good to excellent across the rest of the continent.

WESTERN FSU: Cold, dry weather ushered winter crops into dormancy but promoted late summer crop harvesting.

MIDDLE EAST: Dry weather maintained a rapid pace of winter grain planting but raised concerns over developing short-term drought.

NORTHWESTERN AFRICA: Hot, dry weather favored fieldwork, though soils remained devoid of moisture in Algeria.

SOUTH ASIA: The southwest monsoon completely withdrew from India, ushering in beneficially hotter, drier weather for maturing summer (kharif) crops.

EASTERN ASIA: Cool, showery weather benefited winter crops in eastern China.

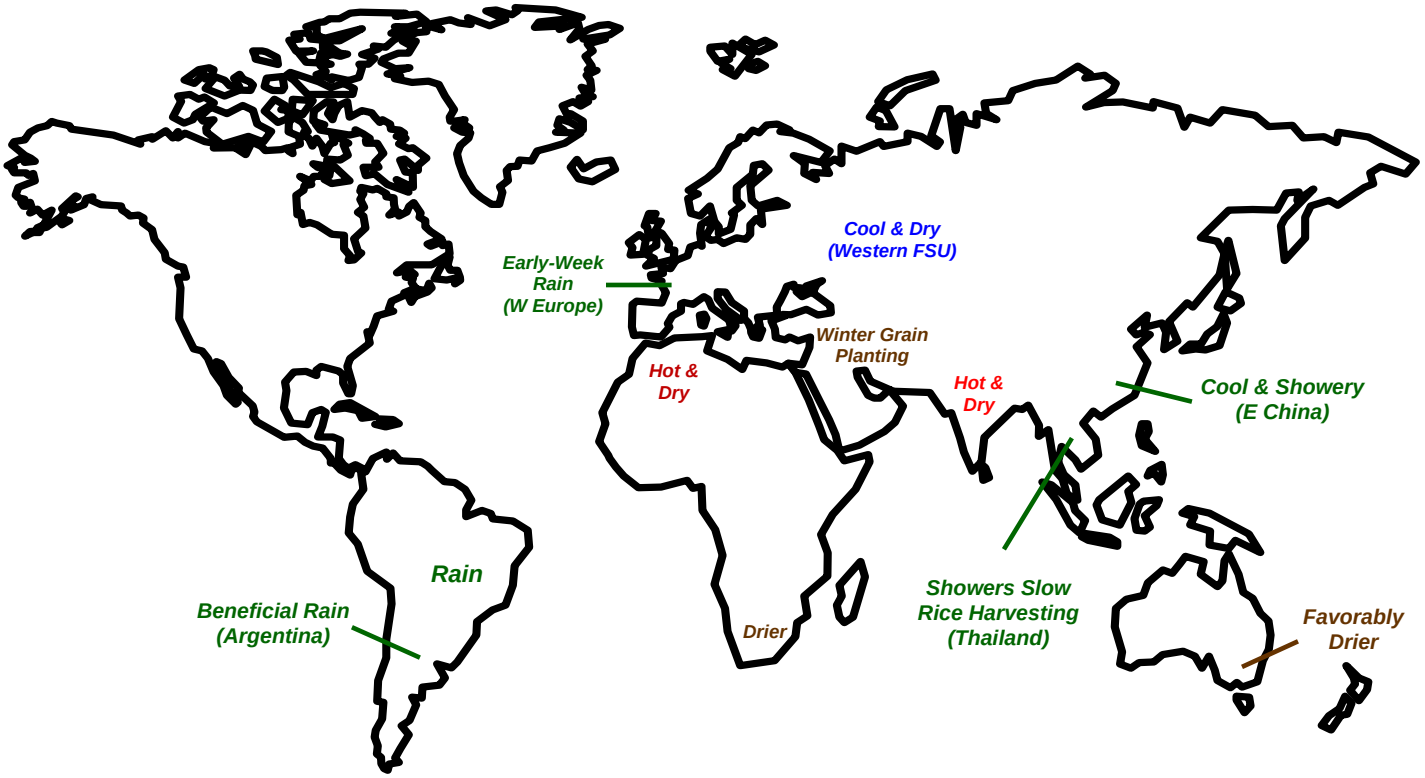
SOUTHEAST ASIA: Late-season showers continued to slow rice maturation in Thailand and the rest of Indochina, but further improved irrigation supplies going forward into the dry season.

AUSTRALIA: Mostly dry weather benefited filling and maturing wheat and other winter crops.

SOUTH AFRICA: Dry weather spurred planting of corn and other summer crops.

ARGENTINA: Widespread showers maintained generally favorable summer crop planting prospects.

BRAZIL: Rain maintained mostly favorable levels of moisture for southern summer crops, while portions of central Brazil received much-needed moisture.



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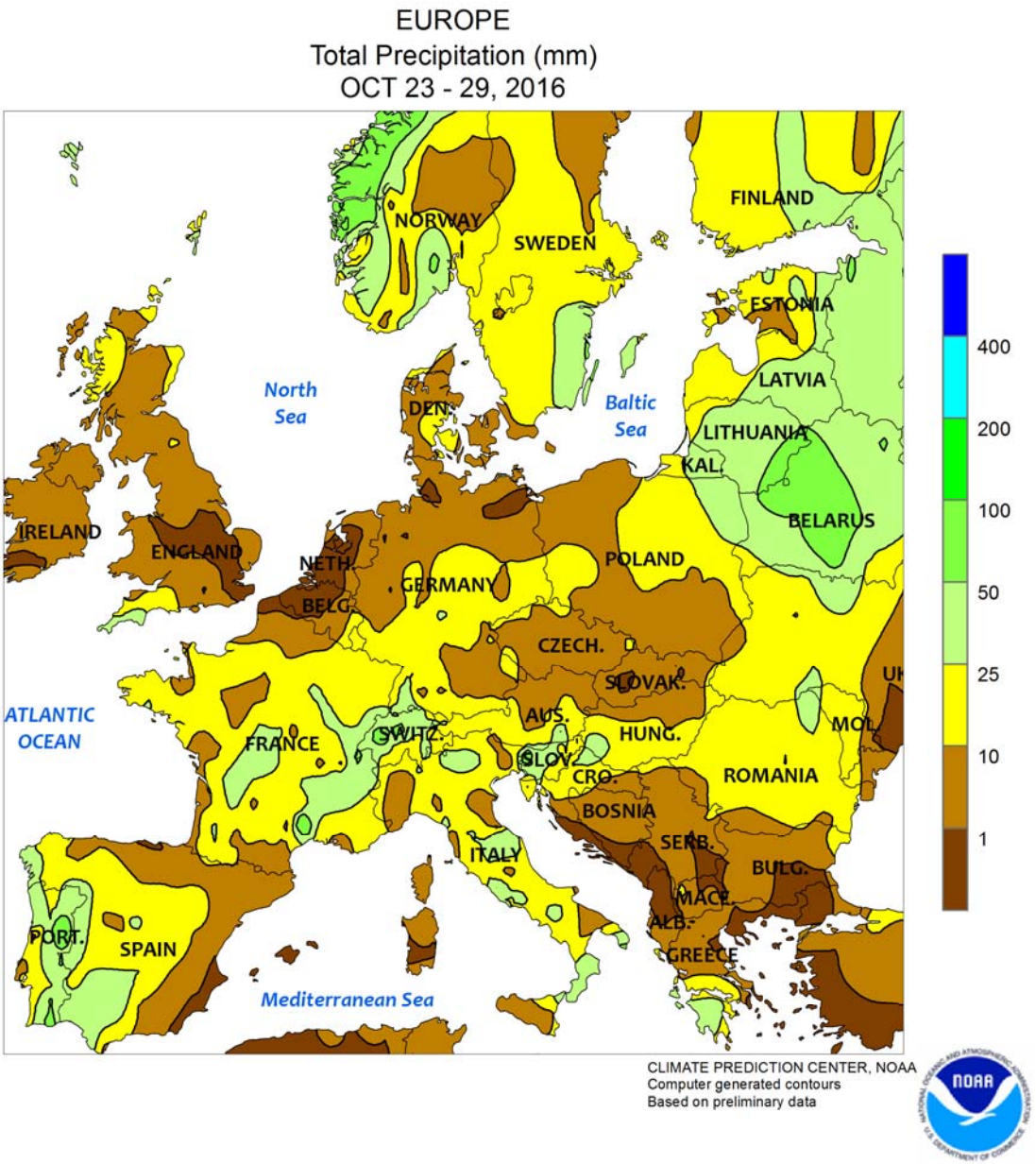

EUROPE

Early-week rain benefited winter crops in western Europe, while conditions remained overall good to excellent for fall establishment elsewhere. In Spain and Portugal, moderate to heavy showers (10-40 mm, locally more) early in the period boosted soil moisture for winter grain planting. The Iberian Peninsula's water year (October-September) has gotten off to a good start; cool-season rain is vital for non-irrigated winter grains and recharging reservoirs for irrigated summer crops. Much-needed rain (5-35 mm) also fell across France, improving soil moisture for winter wheat and rapeseed establishment. Nevertheless, pockets of pronounced short-term dryness (less than 60 percent of normal over the past 60 days) lingered over western and northeastern portions of the country. Light to moderate showers (2-20 mm) maintained favorable moisture supplies for winter crops from central Germany into most of eastern and southern Europe, with locally heavy rain (25-55 mm) reported in Italy. In contrast, dry weather from southeastern England into northern Germany and the Low Countries encouraged winter crop development and seasonal fieldwork. Temperatures for the week averaged from near normal over northern Europe to as much as 6°C above normal in the Mediterranean region. Consequently, winter crops remained vegetative across the continent.

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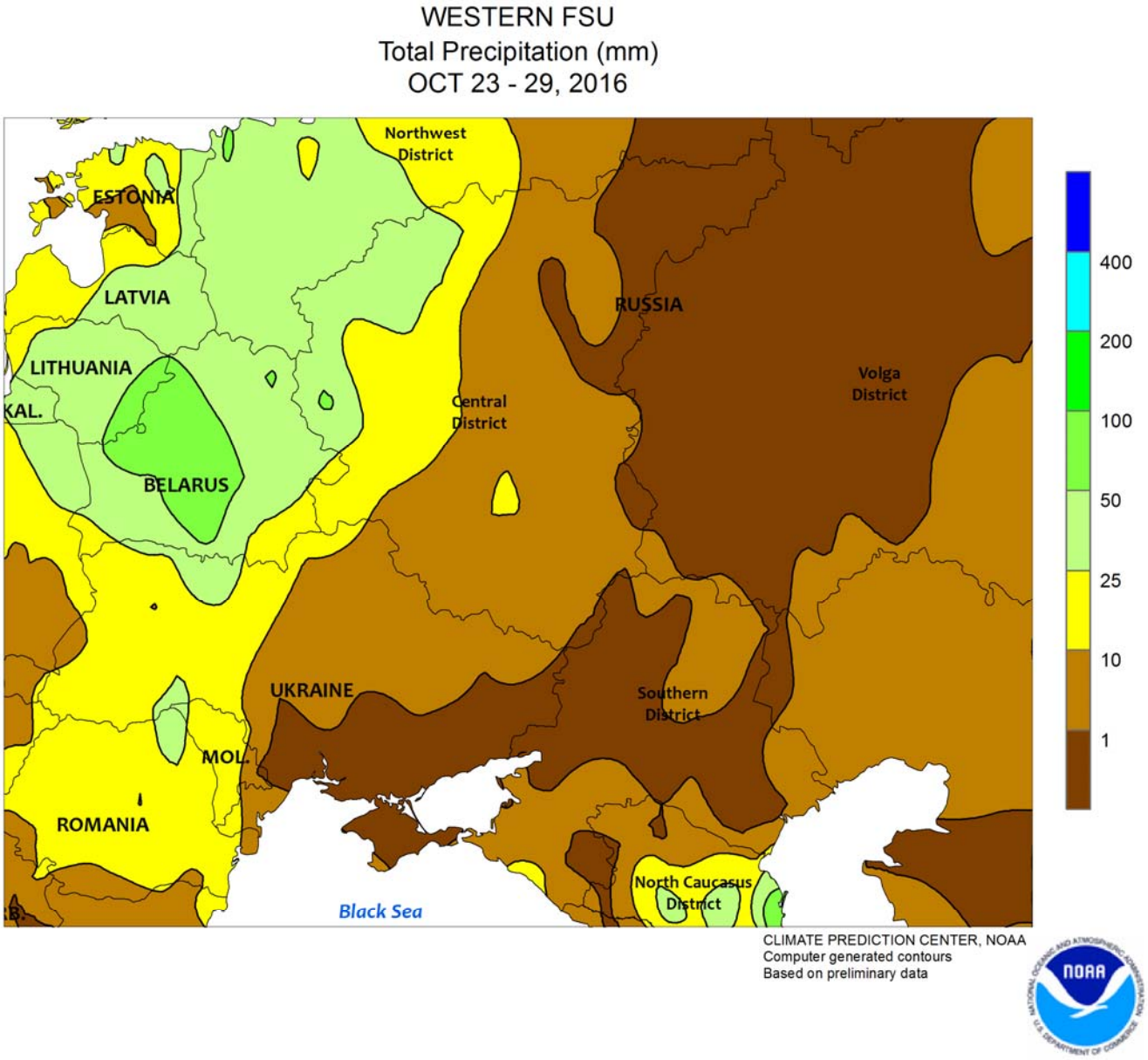

WESTERN FSU

The weather pattern remained stagnant, with cold, dry conditions in the east contrasting with moderate to heavy rain in western-most portions of the region. For the second consecutive week, moderate to heavy rain (10-60 mm) was reported from Moldova northward into western Belarus, maintaining adequate to abundant soil moisture for winter crop establishment. Elsewhere, dry weather facilitated seasonal fieldwork, including corn and sunflower harvesting in Ukraine. Temperatures for the week averaged 3 to 6°C below normal from central Ukraine into Russia, with hard freezes (-10 to -2°C) reported in all but the southern-most winter wheat areas. Winter wheat entered dormancy from central Ukraine into northern and central portions of Russia's Southern District (as far south as the Rostov Oblast), where 14-day average temperatures were below 5°C. Weekly average temperatures above 5°C were confined to the immediate Black Sea coastal areas, indicating wheat was not yet dormant.

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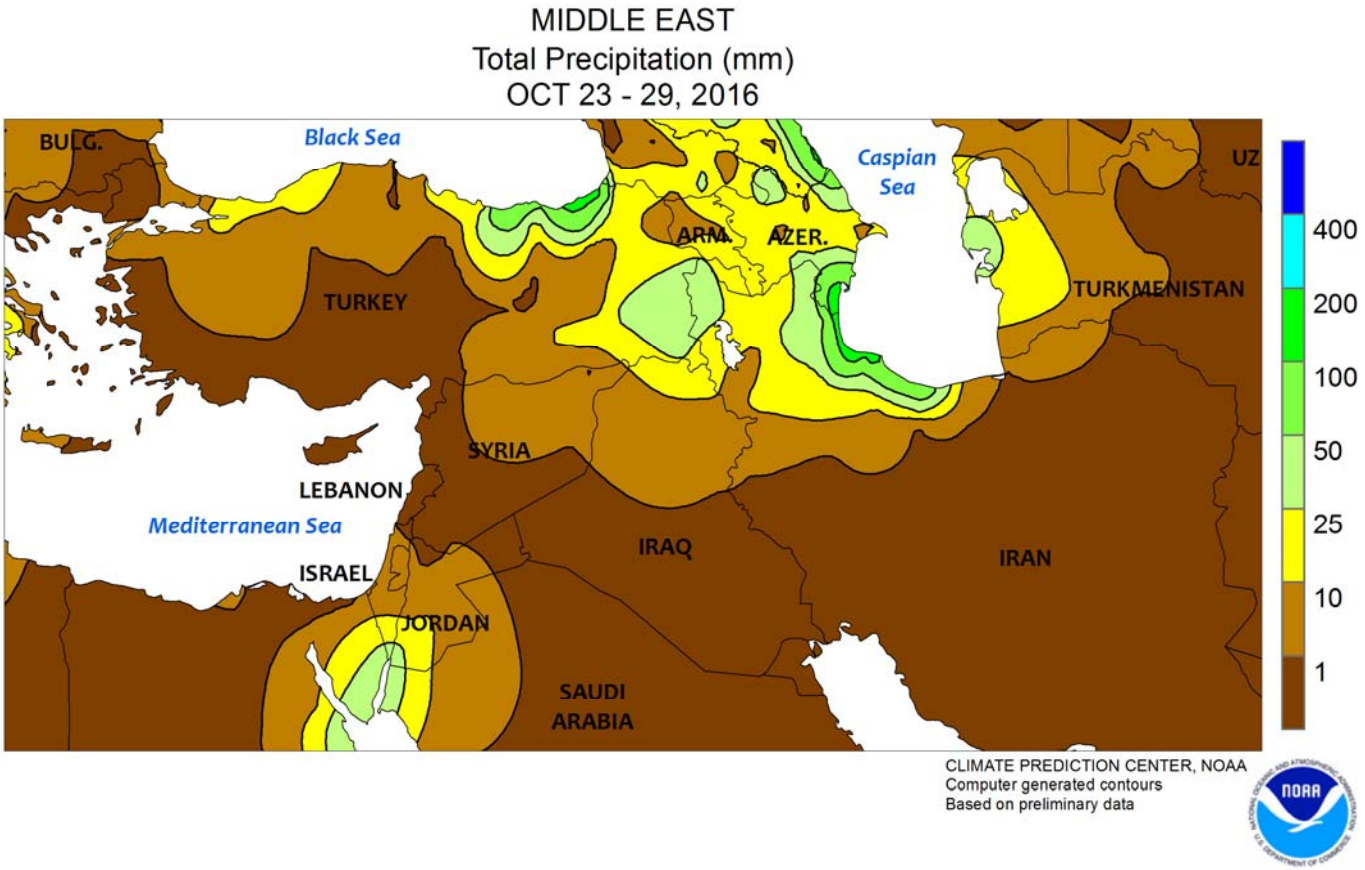

MIDDLE EAST

Mostly dry, mild weather continued, promoting seasonal fieldwork but reducing soil moisture for winter grain establishment. In Turkey, the cool wet-season rain typically begins in September and gains momentum in October; this year, there has been virtually no rain since the end of September, depleting topsoil moisture and raising concerns over developing autumn drought. The dryness extends south along the eastern Mediterranean Coast, and to a lesser extent, into winter grain areas of western Iran. However, beneficial rain (10-35 mm, locally more) was observed during the period over northwestern Iran, boosting moisture supplies for winter grain planting and establishment. Rain was lighter (less than 10 mm) albeit still beneficial for winter crops in northern Iraq, while Iraq's central and southern crop areas were dry.

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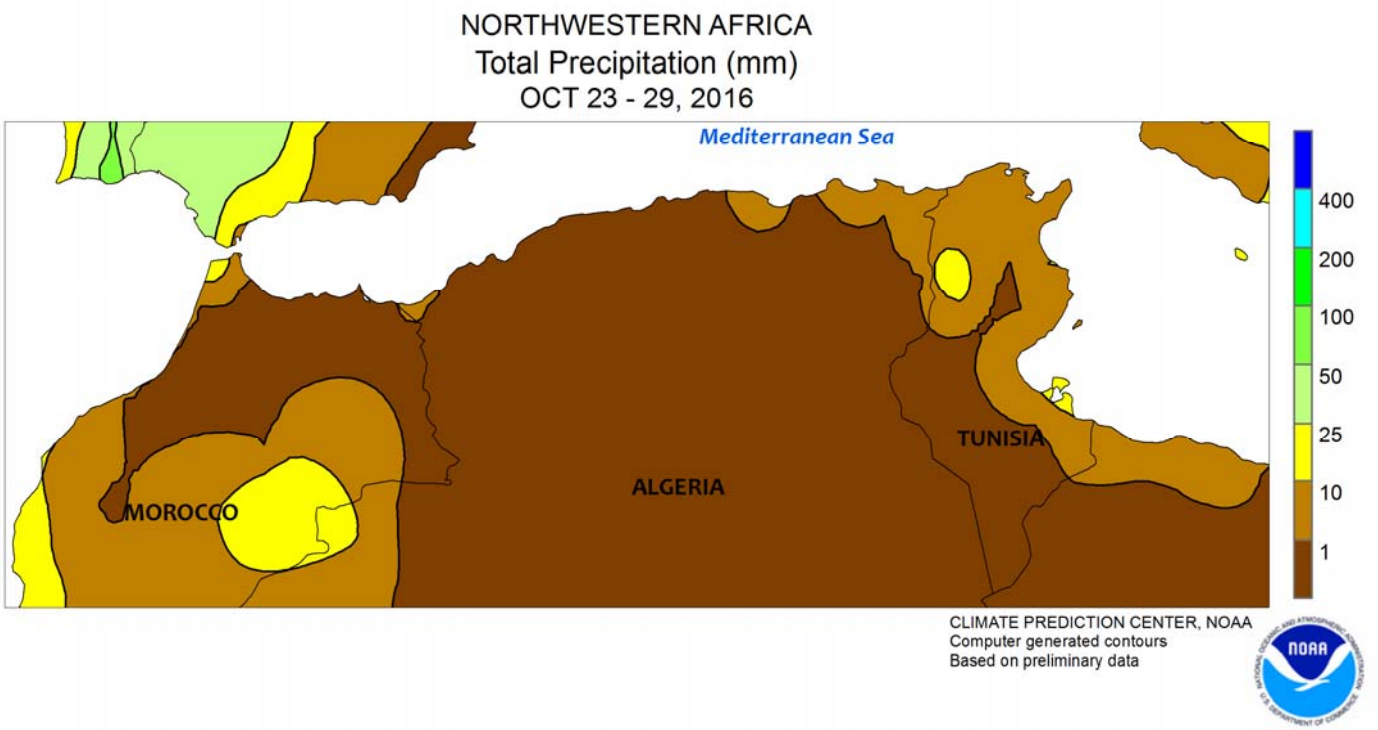

NORTHWESTERN AFRICA

Dry, hot weather promoted fieldwork but increased soil moisture losses, particularly in central portions of the region. Showers for the week were confined to southern Morocco (10-17 mm) and interior portions of Tunisia (4-22 mm), providing topsoil moisture in these locales for winter grain planting and establishment. Elsewhere, sunny skies and above-normal temperatures (3-8°C above normal) promoted early winter grain planting and other seasonal fieldwork. However, excessive heat (34-40 °C) and a lack of season-to-date rainfall (15 mm or less since September 1) in central and western Algeria have left soils devoid of moisture for winter grain planting; rain will be needed soon for proper wheat and barley establishment.

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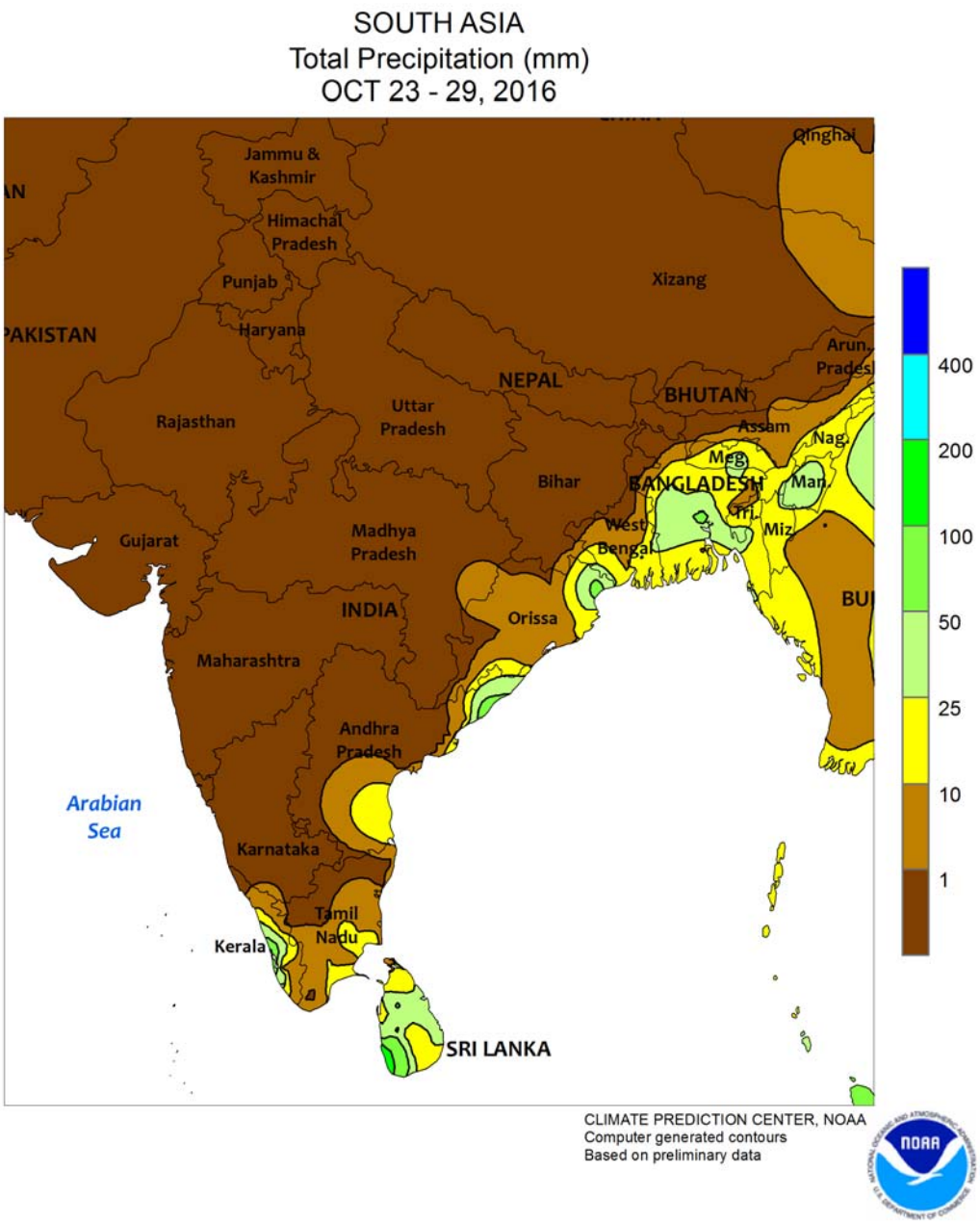

SOUTH ASIA

Seasonably hot, dry weather continued across India, aiding summer (kharif) crop maturation and harvesting. The Indian Meteorological Department (IMD) declared the summer monsoon fully withdrawn from the country as of October 28 (roughly on time and over 10 days later than last year). The onset of drier conditions benefited soybeans, in particular, after the crop received over 1,100 mm of rainfall during the season (over 300 mm more than usual). The current conditions also benefited cotton in Gujarat and Maharashtra, which received beneficial late-season moisture, allowing for boll development well into November. Showers (25-50 mm) in the region were typically confined to coastal areas in southern and eastern India as well as across Sri Lanka, Bangladesh, and far eastern Indian states. The showers in Sri Lanka boosted moisture supplies for winter (maha) rice (currently being cultivated).

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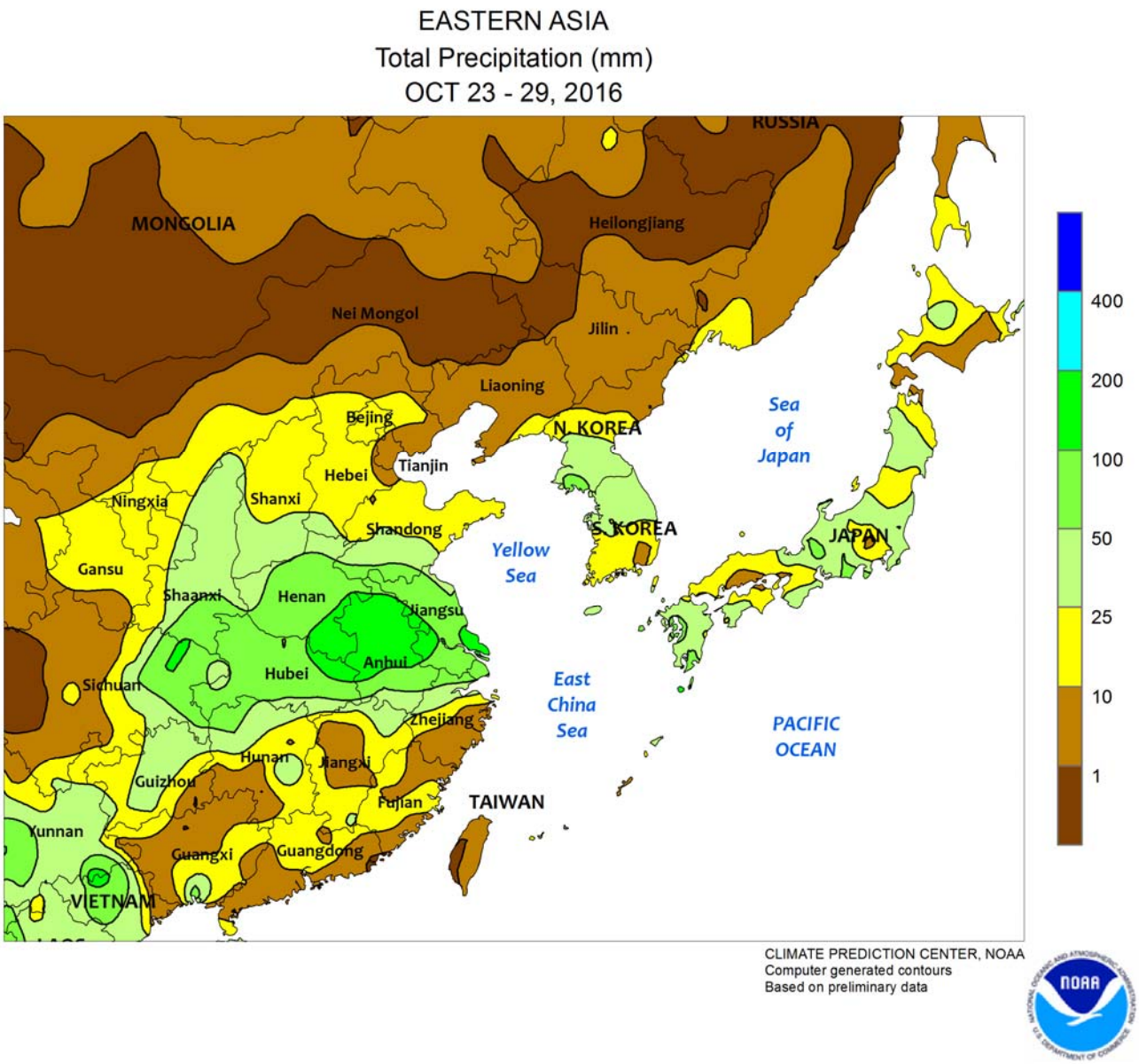

EASTERN ASIA

Showers overspread winter crop areas in eastern China, providing beneficial soil moisture for germination and establishment of wheat and rapeseed. Over 10 mm of rain was reported in northern portions of the North China Plain, while 25 to over 50 mm were reported across the Yangtze Valley and onto southern sections of the North China Plain. The highest totals (100-200 mm) were centered in Anhui and neighboring portions of Hubei and Henan to the west. Meanwhile, temperatures averaged up to 4°C below normal in areas receiving rainfall, with freezing temperatures creeping southward into far northern and western parts of the Yellow River Basin. The cool weather slowed development but improved overall crop conditions.

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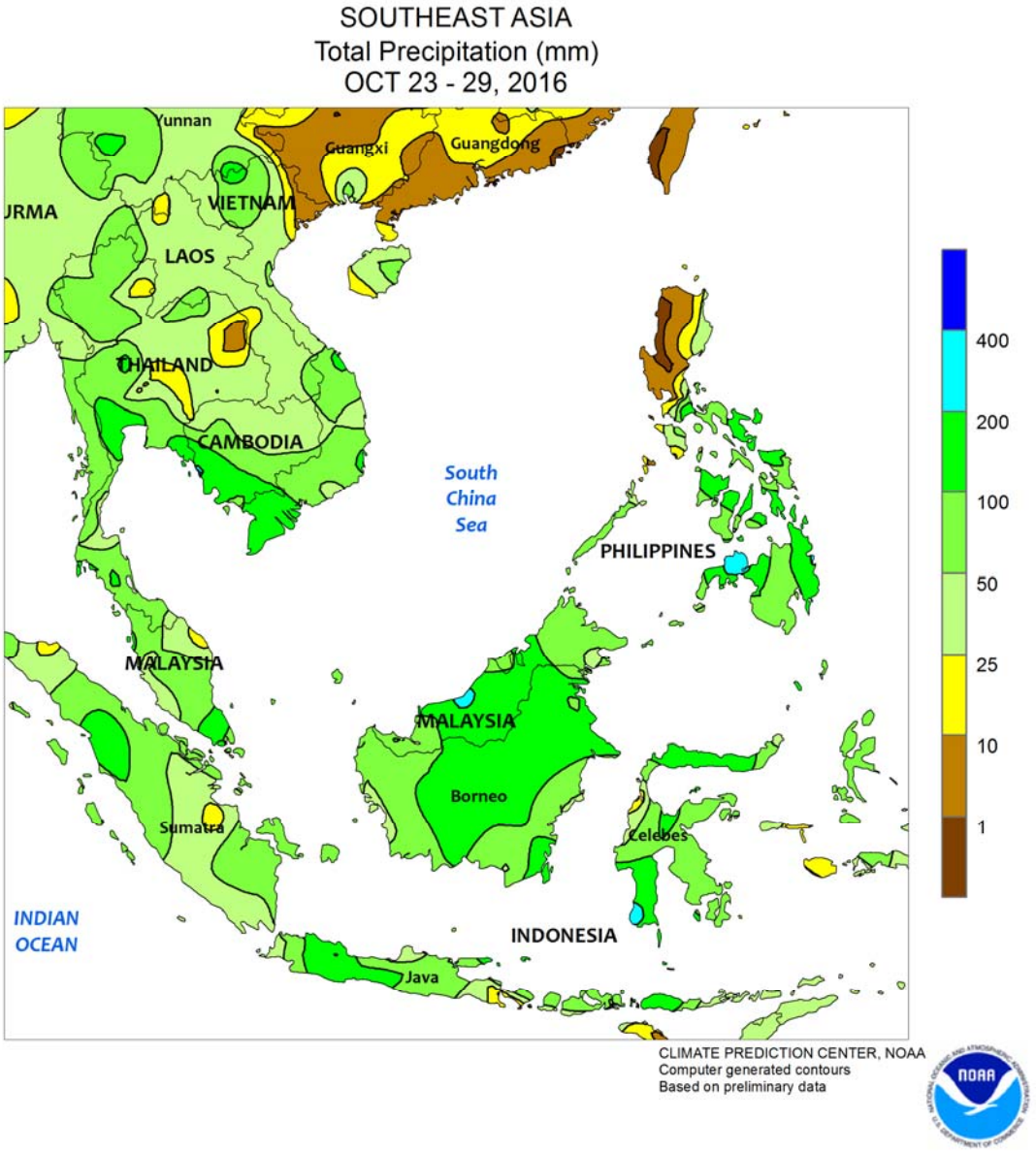

SOUTHEAST ASIA

Despite shifting winds in the region, widespread showers continued across Indochina, and in particular Thailand. The unusually heavy late-season showers (over 25 mm and as much as 150 mm) slowed wet-season rice maturation and the start of harvest activities but ensured plentiful irrigation water for dry-season rice planted in the coming months. Similarly, showers (25-100 mm) in Vietnam slowed rice harvesting in the Mekong and Red River Deltas as well as coffee harvesting in the Central Highlands. Meanwhile in the Philippines, showers began to shift to the east and south with amounts surpassing 200 mm in some areas. The increased wetness improved moisture conditions and irrigation supplies for winter rice and corn. In contrast, drier weather overspread western Luzon, easing excessive wetness brought on by typhoon activity during the last two weeks. In southern portions of the region, heavy showers (25-100 mm or more) continued to alleviate long-term moisture deficits for oil palm in Malaysia and Indonesia, while making fieldwork difficult for rice cultivation in Java, Indonesia.

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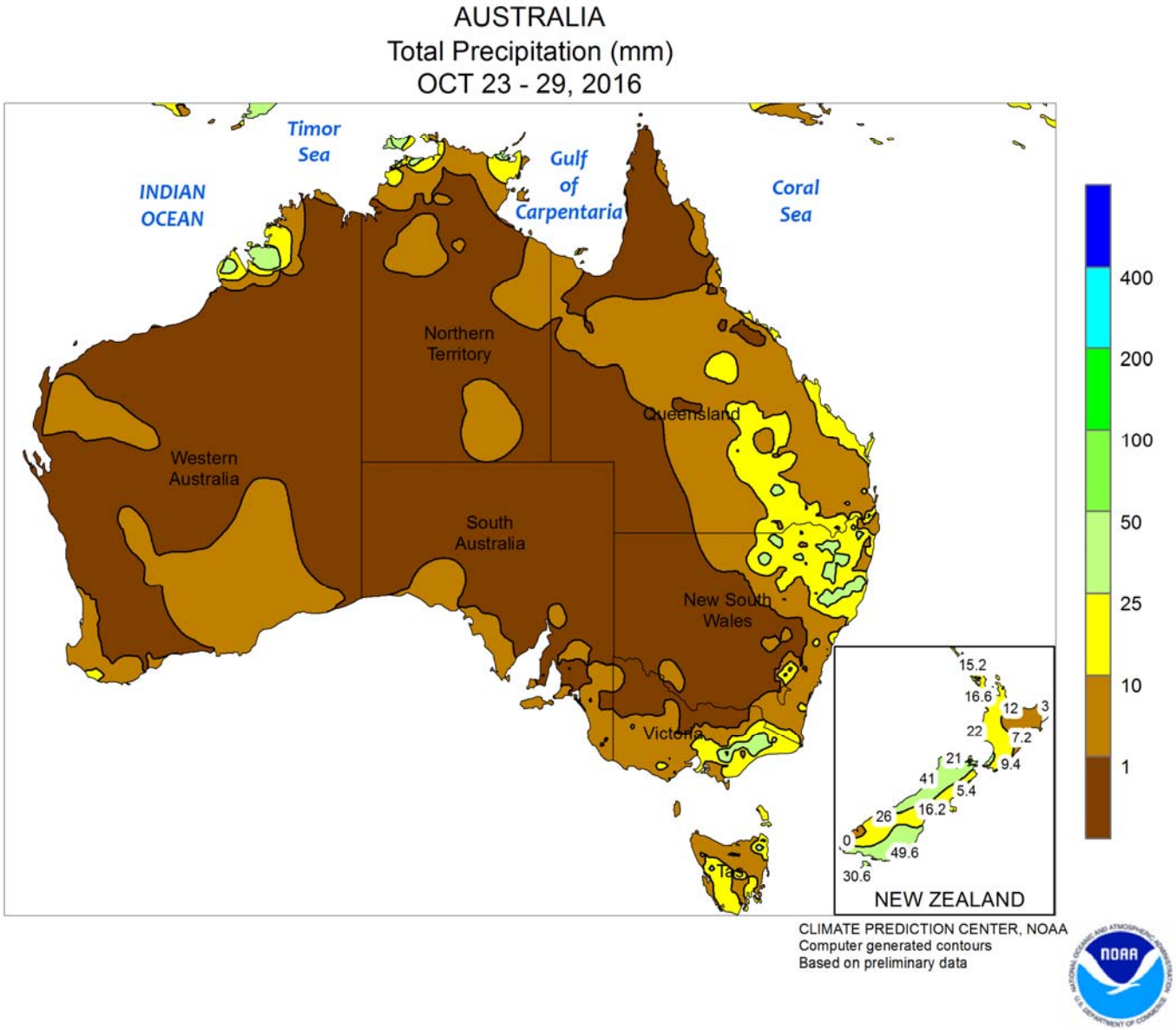

AUSTRALIA

In southern Queensland and northern New South Wales, scattered, generally light showers (1-10 mm, locally more) maintained adequate to abundant moisture supplies for emerging summer crops. Sizable pockets of dry weather favored winter wheat maturation and early harvesting and also promoted additional summer crop sowing. Farther south, mostly dry weather overspread southeastern Australia, favoring the latter stages of winter grain and oilseed development. Following nearly two months of well above-normal rainfall, the dry weather was very beneficial for wheat, barley, and canola as these crops rapidly approach maturation. Elsewhere in the wheat belt, mostly dry weather in Western Australia maintained good to excellent yield prospects for filling and maturing wheat and other winter crops. Temperatures averaged near normal throughout most of the wheat belt, although cooler-than-normal weather (temperatures averaging 1-3ºC below normal) was observed across southern Queensland and northeastern New South Wales.

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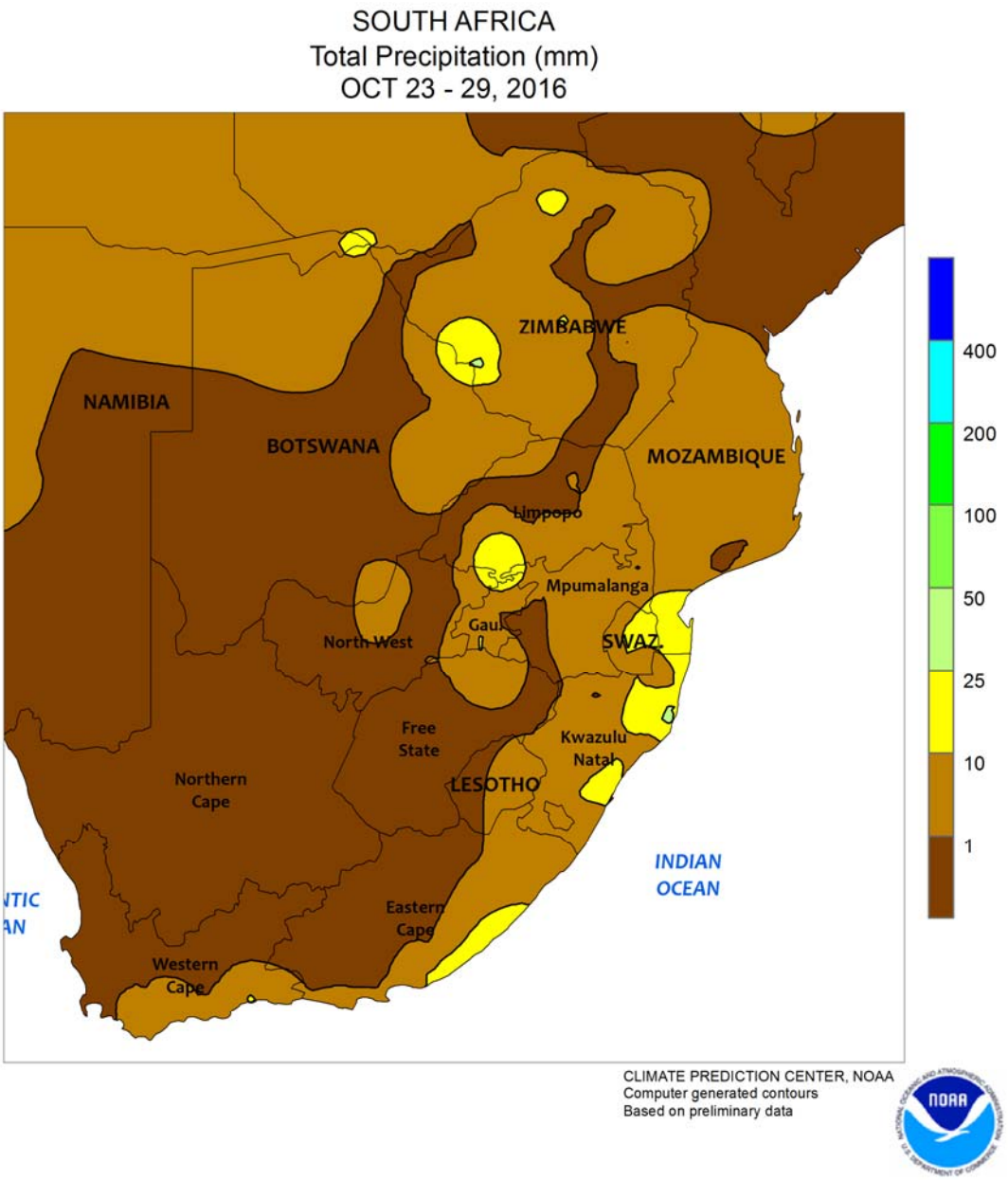

SOUTH AFRICA

Following last week's beneficial rainfall, drier conditions spurred planting of corn and other summer crops. Little to no rain fell across the corn belt (North West and Free State to Mpumalanga), with just a few isolated locations recording more than 10 mm of rainfall. Unseasonable warmth (weekly temperatures averaging 3-5°C above normal) accompanied the dryness, with daytime highs reaching the upper 30s (degrees C) in western and northern production areas. In the east (Mpumalanga and neighboring locations in Free State, Gauteng, and KwaZulu-Natal), highs were capped in the lower 30s. Warm, mostly dry weather also prevailed in sugarcane areas of KwaZulu-Natal and eastern Mpumalanga, as well as in the Cape Provinces. In Western Cape, conditions favored rapid wheat maturation.

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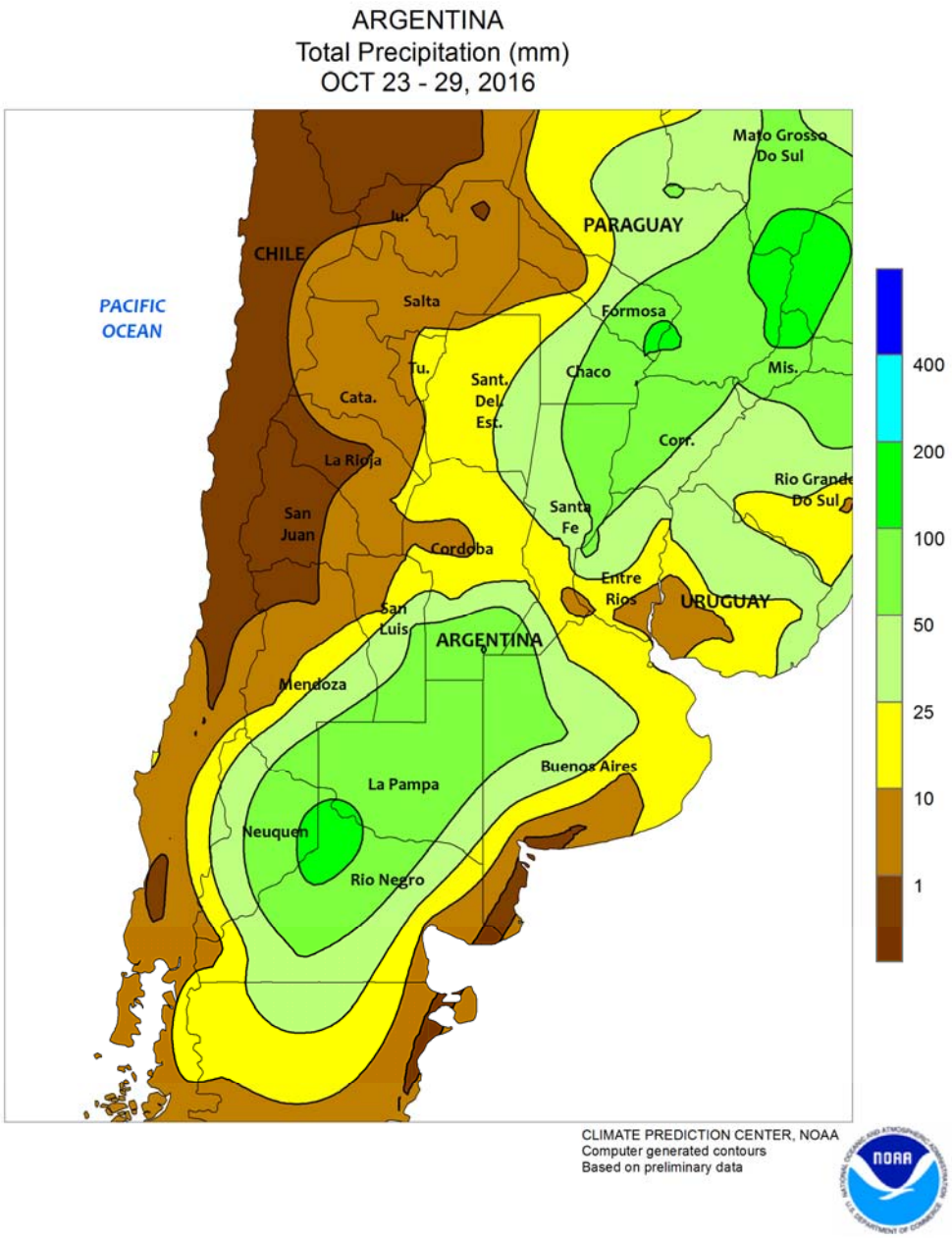

ARGENTINA

Widespread showers continued throughout the region, maintaining overall favorable prospects for summer crop plantings. Rainfall totaling more than 50 mm was concentrated over southwestern (western Buenos Aires, La Pampa, and southern Cordoba) and northeastern (eastern Chaco and Formosa and nearby locations in Santa Fe and Corrientes) production areas. Generally lighter rain favored fieldwork elsewhere, though additional moisture would be welcome in the northwest (including northern Cordoba) and in southern Buenos Aires, owing to previous periods of dryness. Although weekly average temperatures were near to below normal, daytime highs reached the middle and upper 30s (degrees C) in northern farming areas, speeding development of sunflowers and winter grains. Highs only reached the upper 20s in central Argentina, and frost was recorded in traditionally cooler locations of southern Buenos Aires. According to the government of Argentina, sunflowers were 49 percent planted as of October 27, 18 points ahead of last year's pace. Corn was 27 percent harvested versus 30 percent last year.

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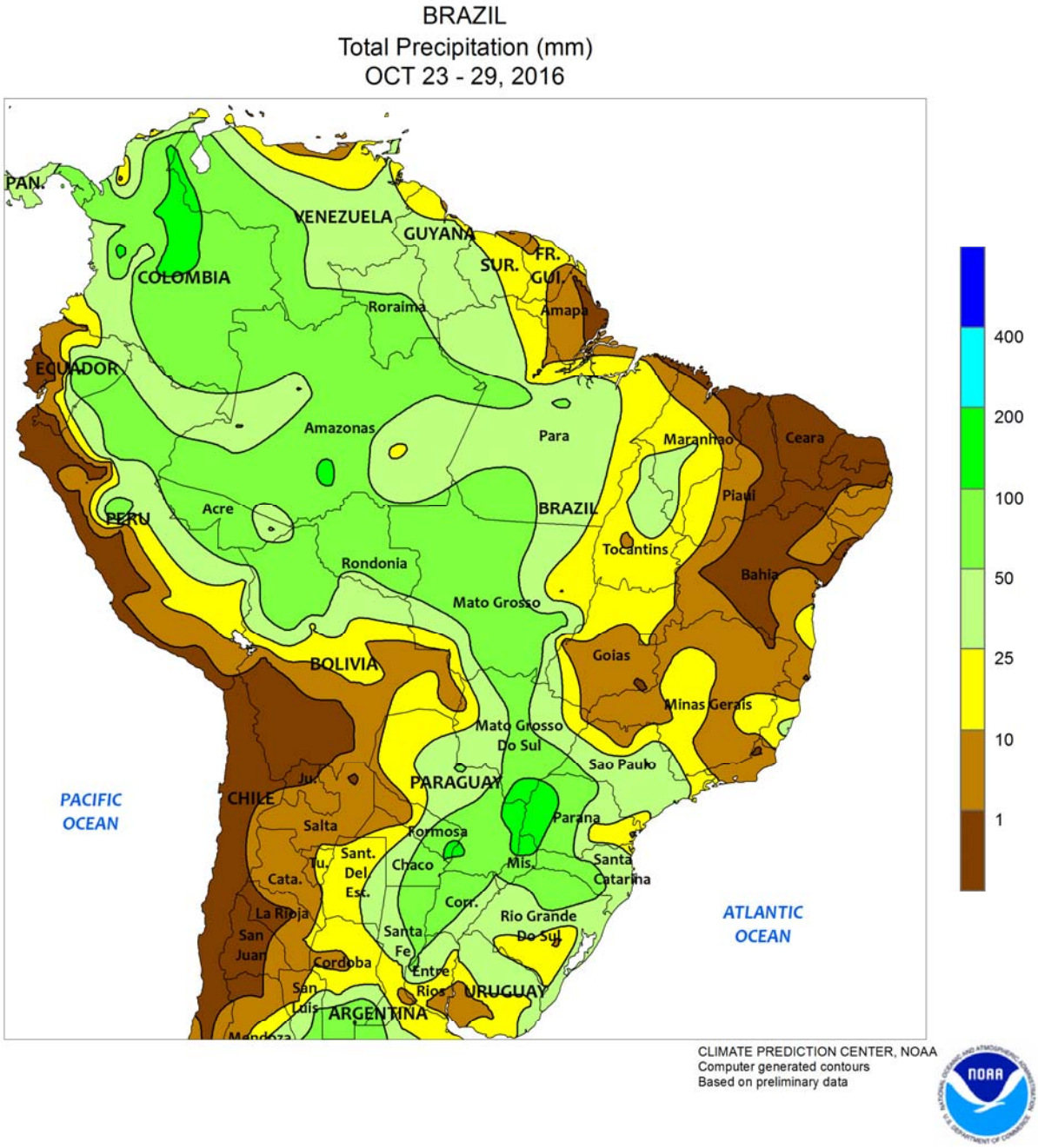

BRAZIL

Locally heavy rainfall maintained adequate to abundant levels of moisture for crops in southern Brazil. Rainfall totaled 25 to 100 mm in major summer crop areas stretching from Rio Grande do Sul to Sao Paulo and Mato Grosso do Sul. The heaviest rain (greater than 100 mm) was concentrated over western Parana and eastern Paraguay, disrupting fieldwork and keeping maturing wheat unfavorably wet. According to the government of Parana, wheat was 75 percent harvested as of October 24; first-crop corn and soybeans were 93 and 60 percent planted, respectively. The later-planted wheat crop in Rio Grande do Sul was reportedly 17 percent harvested, with corn planting reaching 74 percent as of October 27. Weekly average temperatures were near to below normal in the aforementioned areas, with daytime highs in the lower 30s fostering growth of summer crops in the absence of stressful heat. Farther north, beneficial rain (25-100 mm) helped to replenish topsoil moisture in Mato Grosso for germination of soybeans and cotton. Drier conditions continued, however, in Goias and in much of the northeastern interior (in and around Tocantins and western Bahia), where rainfall was needed for planting to become widespread. Weekly average temperatures were 1 to 3°C above normal in northeastern Brazil, (daytime highs reaching the upper 30s (degrees C) on multiple days), maintaining high evaporative losses.

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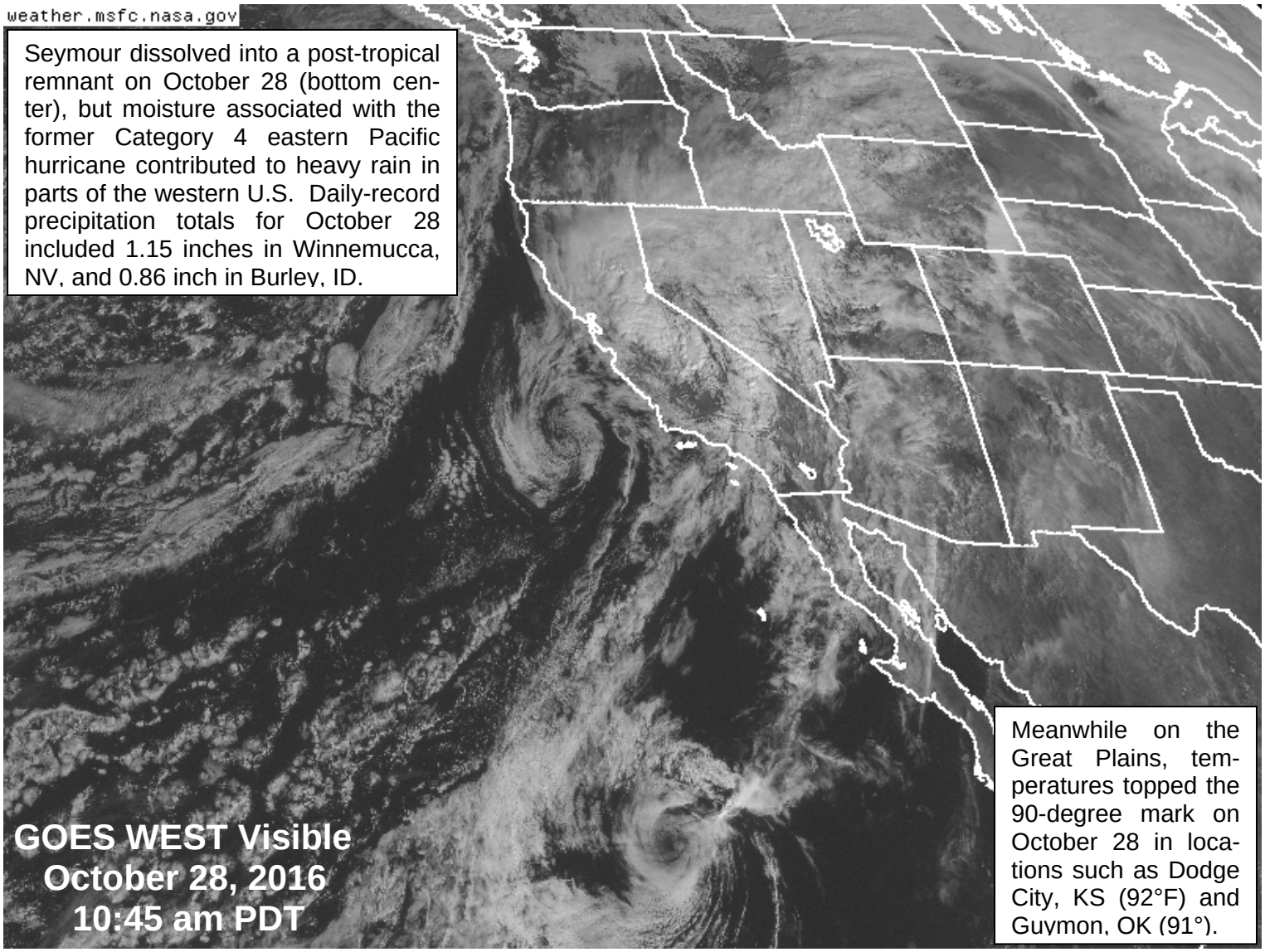

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Correspondence to the meteorologists should be directed to:
***Weekly Weather and Crop Bulletin*, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 4443B, Washington, DC 20250.**
Internet URL: **http://www.usda.gov/oce/weather**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

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