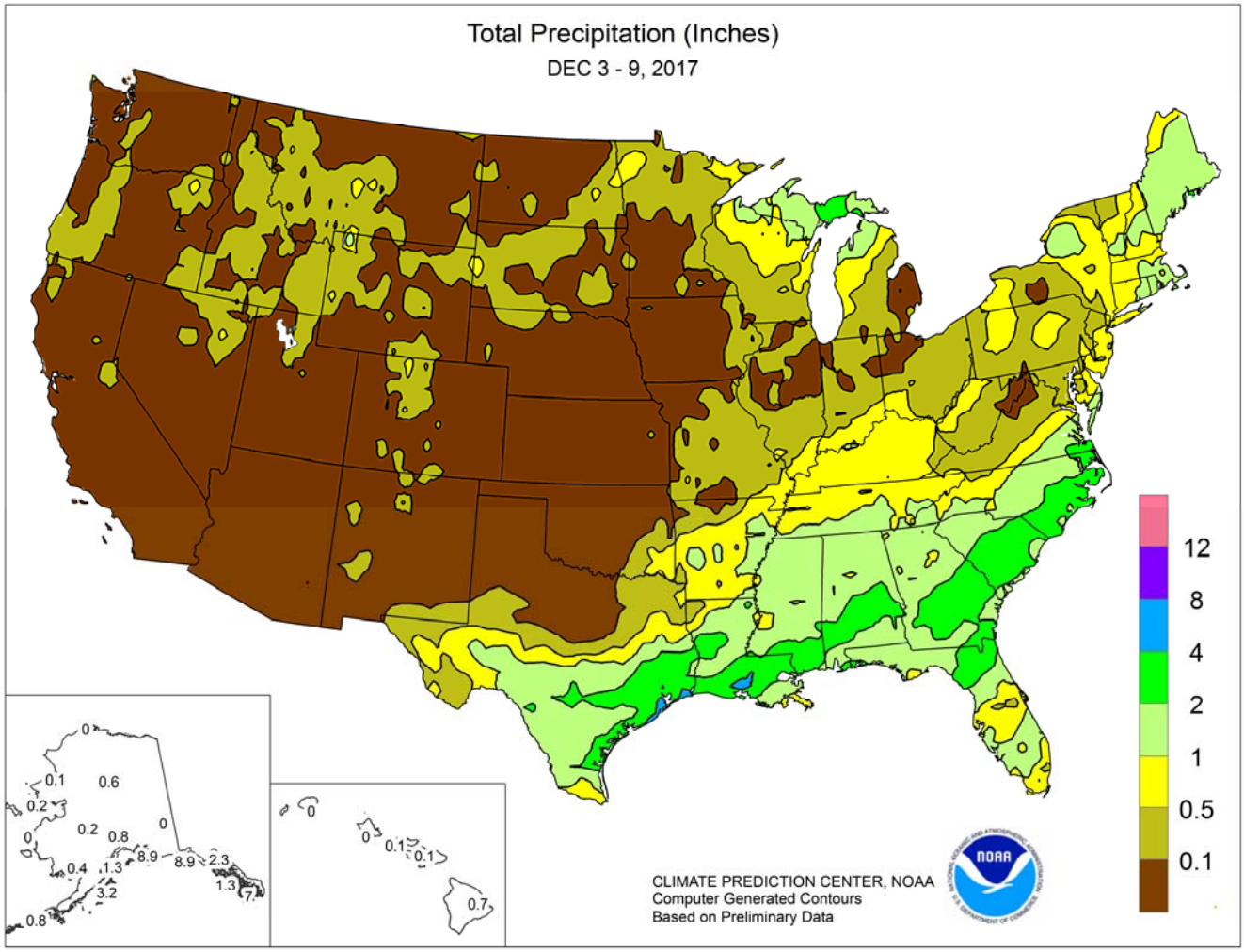
Volume 104, No. 50 http://www.usda.gov/oce/weather December 12, 2017

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

December 3 – 9, 2017

Highlights provided by USDA/WAOB

A sustained period of offshore (Santa Ana) winds fueled the spread of several wildfires across **coastal southern California**. The erratic and gusty winds were especially destructive in **Ventura and Santa Barbara Counties**, where the Thomas fire scorched more than 230,000 acres of vegetation and destroyed nearly 800 structures. Meanwhile, high pressure centered over **northern sections of the Great Basin and Intermountain West** led to poor air quality and cool, foggy conditions. Farther east, mostly dry, breezy weather accompanied generally mild weather

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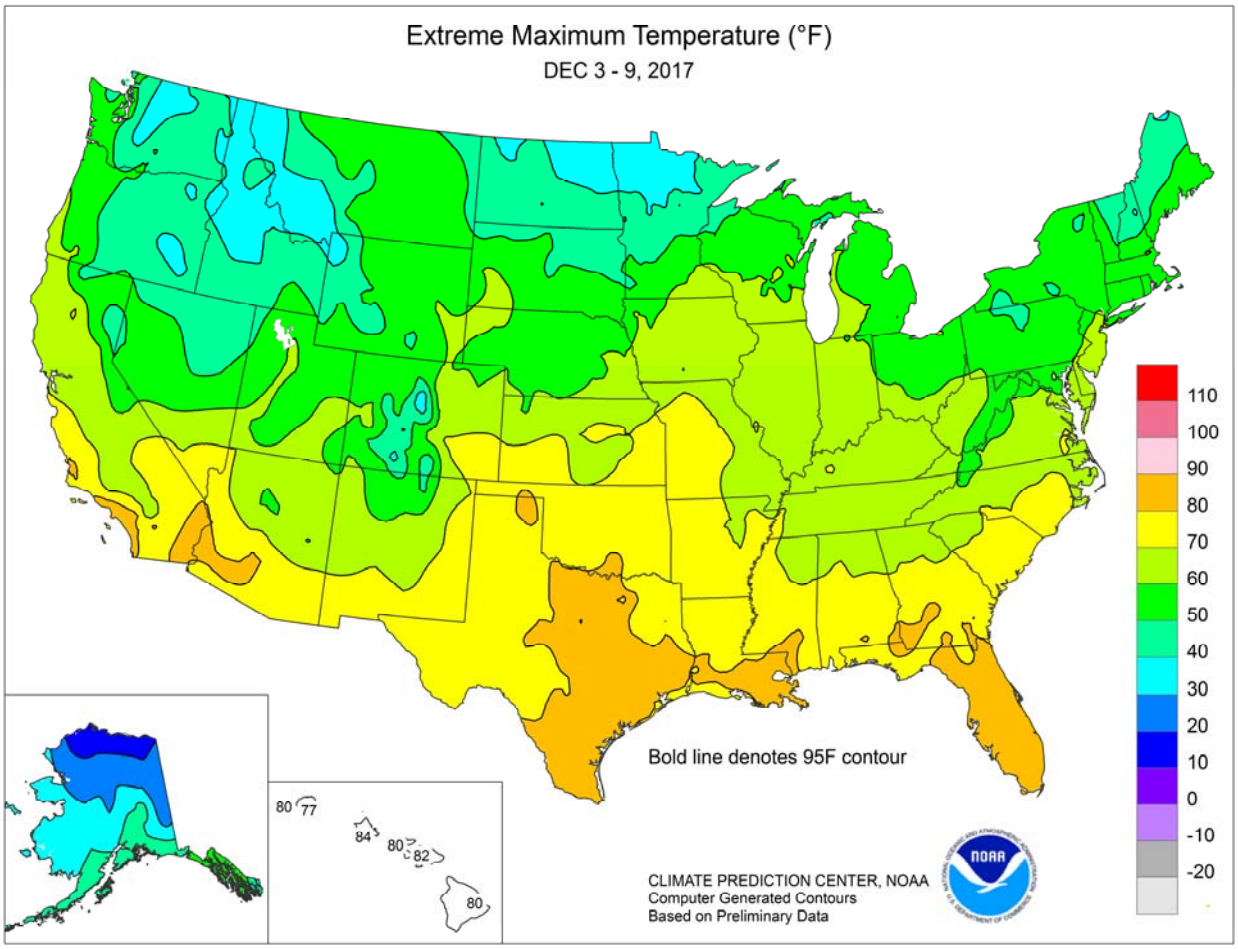
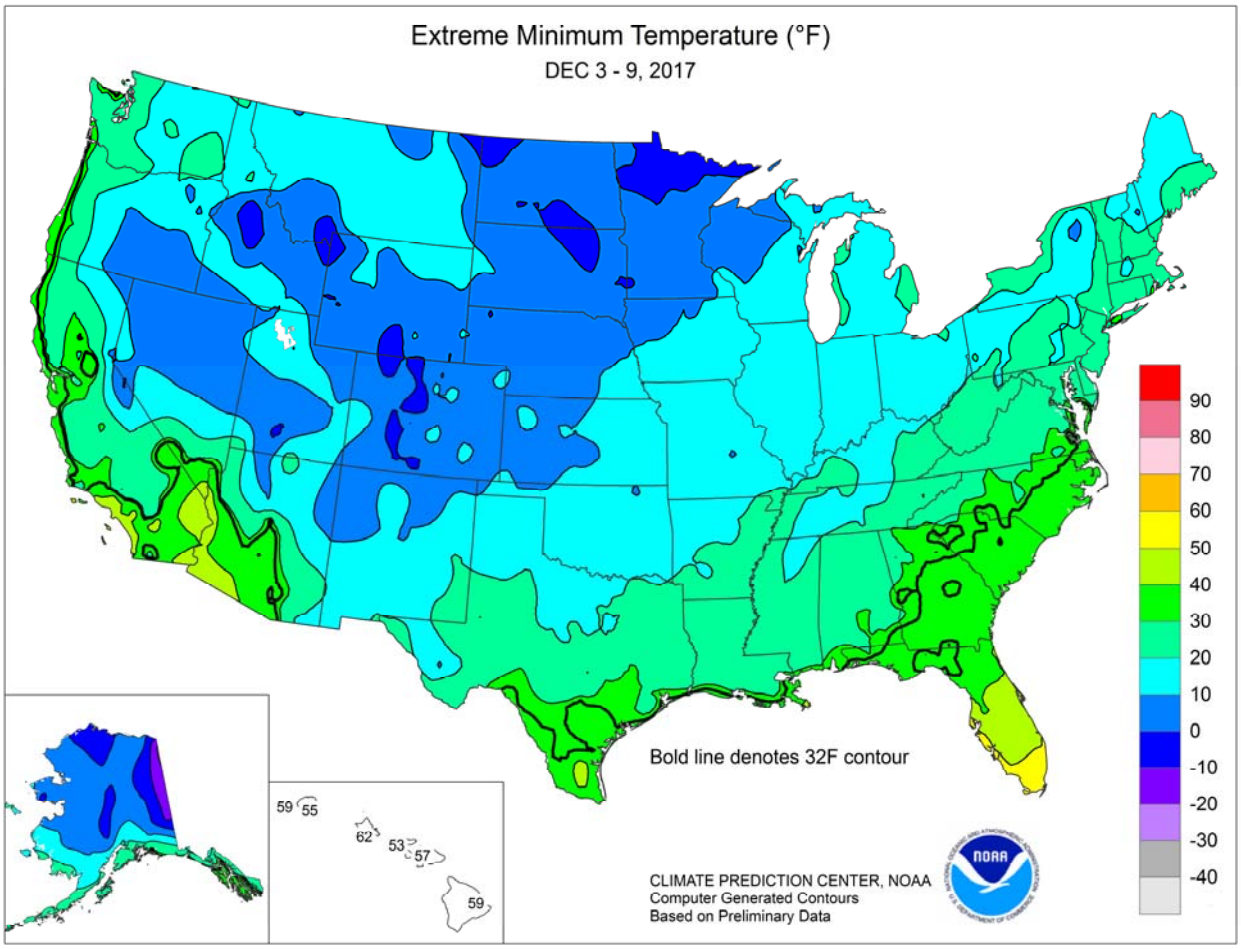
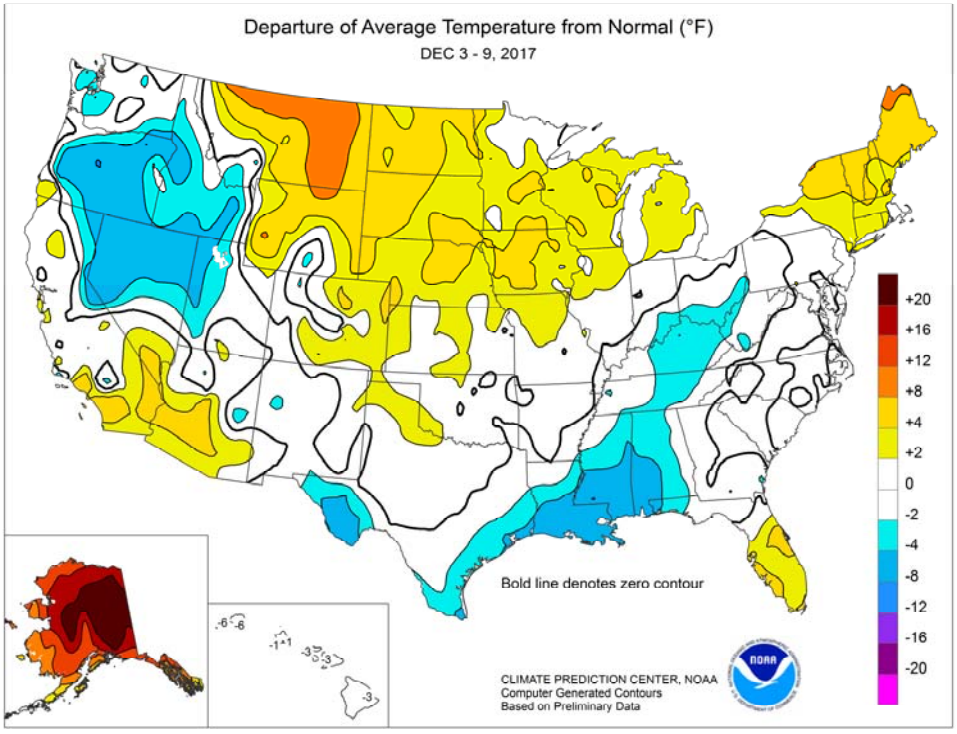
Contents


Extreme Maximum Temperature (°F)
DEC 3 - 9, 2017
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95F contour
80
77
84
80
82
80
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Extreme Minimum Temperature (°F)
DEC 3 - 9, 2017
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32F contour
59
55
62
53
57
59
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data

(Continued from front cover)

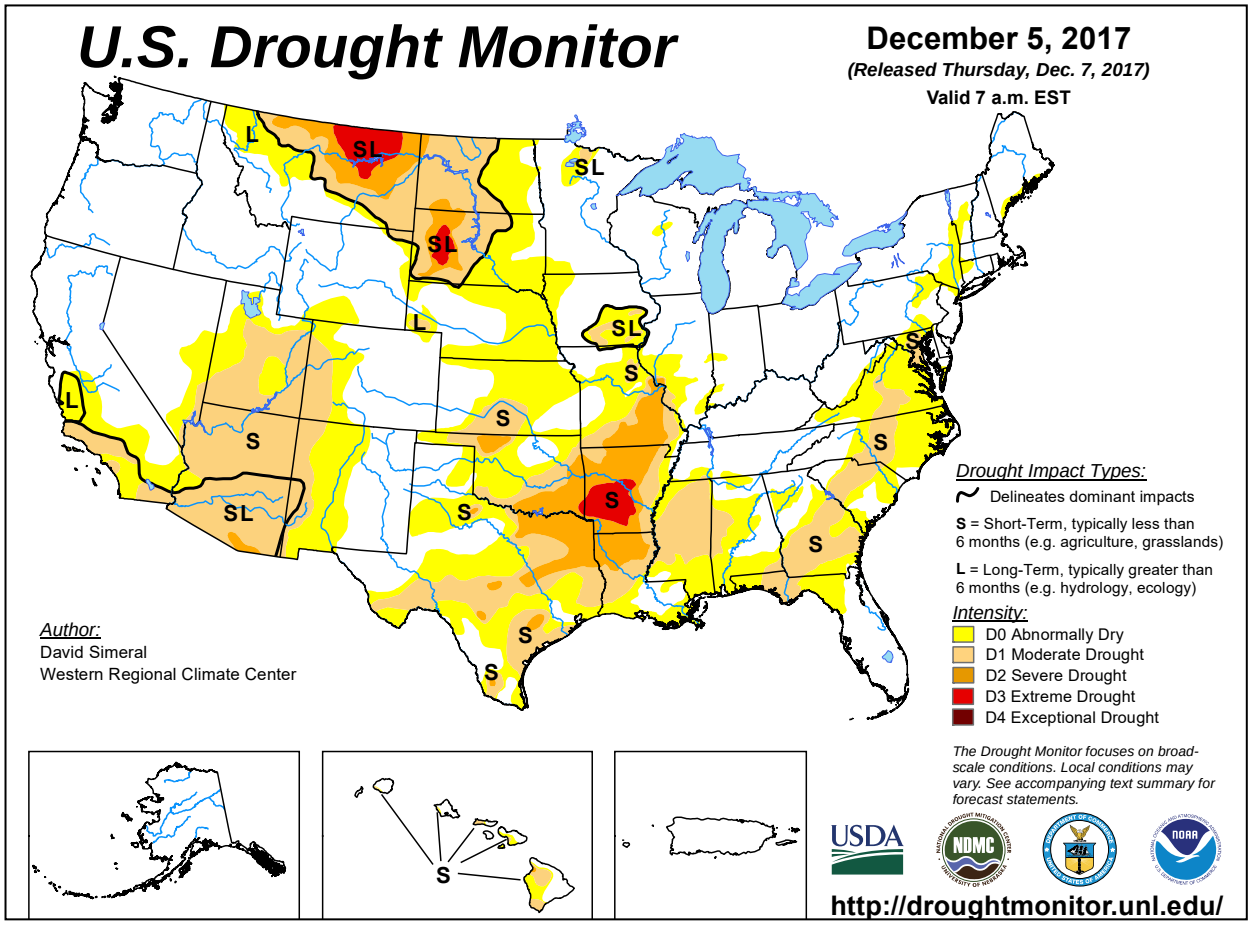
across the **Plains**. In fact, weekly temperatures averaged at least 10°F above normal across portions of the **northern High Plains**. In addition, the **Plains'** winter wheat continued to experience varying degrees of stress due to poor establishment and diminishing soil moisture. In the **mid-South**, light precipitation provided only temporary relief from an extremely dry autumn. In contrast, an early-season winter storm provided beneficial moisture across the **Deep South** and the **lower Southeast**. However, the late-week storm also produced rare and significant snow in parts of **southern Texas** and from near the **central Gulf Coast into the southern Mid-Atlantic region**, causing travel and electrical disruptions. At week's end, snow fell along the **middle and northern Atlantic Coast**. Elsewhere, **Midwestern** precipitation was mostly light, except for heavier snow showers downwind of the **Great Lakes**. **Midwestern** producers proceeded with any remaining harvest activities as fields dried out or as soils began to freeze.

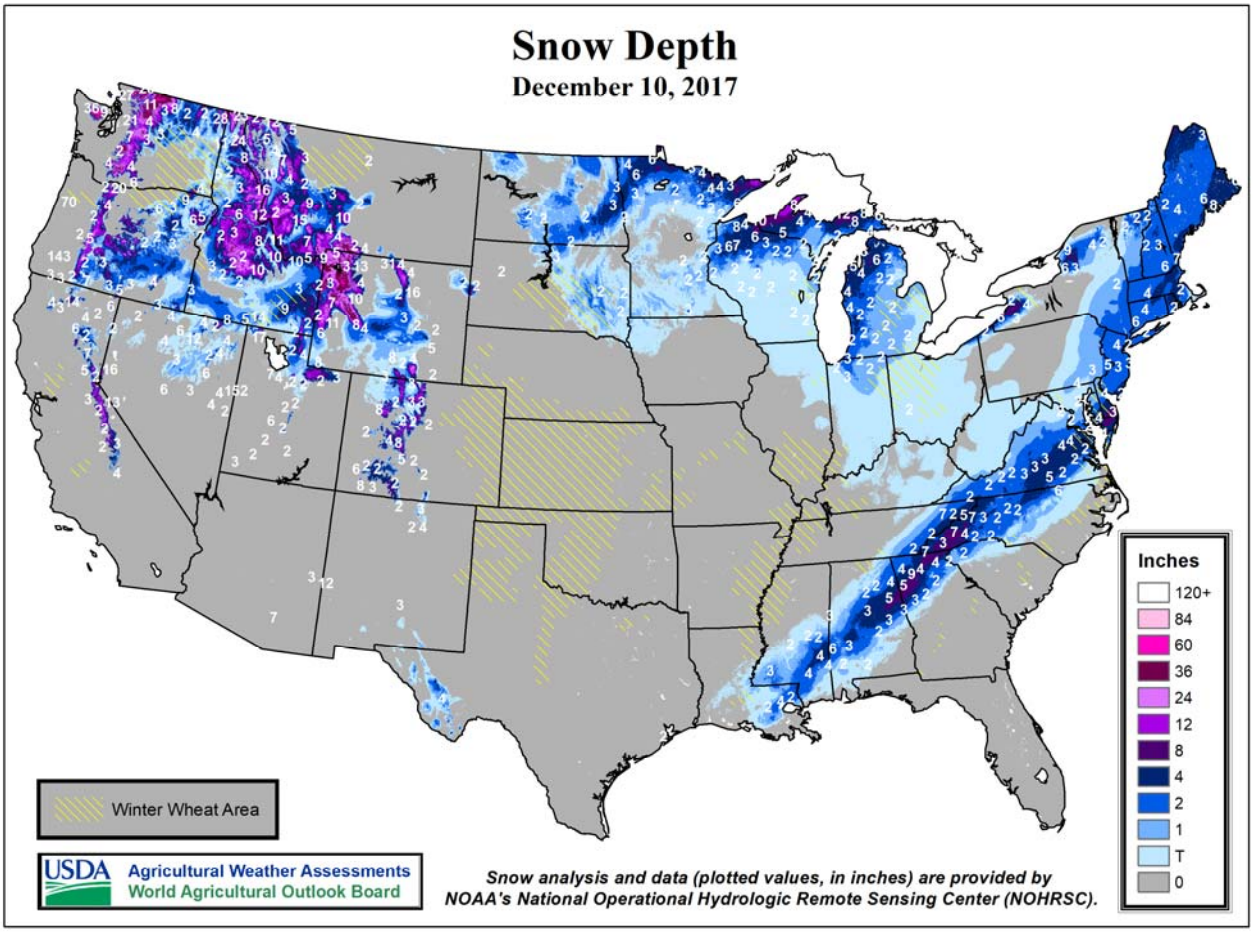


Early in the week, warmth continued across the **South** and briefly surged across the **Plains** and **Midwest**. Daily-record highs for December 3 soared to 79°F in **Dalhart, TX**, and 78°F in **Dodge City, KS**. December 4 was the warmest winter day on record in **Minnesota** locations such as **Rochester** (64°F) and **Minnesota City** (61°F). **Rochester's** highest winter reading had been 63°F, set on December 17, 1939, and February 17, 1981. **Minnesota City's** winter temperature had previously peaked at 60°F on December 3, 2012, and December 1 and 5, 1998. Elsewhere on the 4th, daily-record highs climbed to 80°F in **Shreveport, LA**; 78°F in **Tulsa, OK**; 72°F in **Kansas City, MO**; 69°F in **Des Moines, IA**; and 64°F in **Milwaukee, WI**. In **Texas**, record-setting highs for December 4 rose to 87°F in **Brownsville**, 85°F in **Austin**, and 84°F in **Dallas-Fort Worth**. Warmth lingered along the **central Gulf Coast** through December 5, when daily-record highs in **Louisiana** surged to 85°F in **New Orleans** and 84°F in **Lafayette**. In **Florida**, daily-record warmth occurred through December 8, when **Miami** attained 87°F and **Melbourne** achieved 86°F. At week's end, record-setting warmth replaced previously cool conditions in **southern California**, where highs on December 9 included 87°F in **Long Beach** and 86°F in **Los Angeles (LAX Airport)**. Days earlier, on December 5-6, **Santa Barbara, CA**, had posted consecutive daily-record lows (29 and 31°F, respectively). Farther east, a push of cold air resulted in several daily-record lows. **Brownsville, TX**, tied a daily record with a low of 34°F on December 8. The following day, record-setting lows for December 9 dipped to 19°F in **Vicksburg, MS**, and 29°F in **New Orleans, LA**.

Snow accompanied the cold weather into the **Deep South**. **Austin, TX**, received 1.3 inches of snow on December 7, just 3 days after reaching 85°F. No snow had ever previously fallen on December 7 in **Austin**, nor in **San Antonio, TX**, where 1.9 inches fell. December 8 featured daily-record snowfall totals in locations such as **Asheville, NC** (8.6 inches); **Jackson, MS** (5.1 inches); and **Birmingham, AL** (4.0 inches). **Asheville's** 2-day (December 8-9) storm total reached 9.8 inches. Five inches of snow fell on the 8th in **College Station, TX**, and **Meridian, MS**, while an inch officially blanketed **Mobile, AL**, and **Corpus Christi, TX**. In **Deep South Texas**, where measurable snow fell for the first time since December 25, 2004, accumulations included 1.0 inch in **Harlingen** and 0.3 inch in **Brownsville**. And, prior to 2004, **Brownsville** had not received measurable snow since February 14-15, 1895. By December 9, snow shifted into the **Atlantic Coast States**, where daily-record amounts reached 4.6 inches at **New York's LaGuardia Airport**; 4.1 inches in **Philadelphia, PA**; and 4.0 inches at **Virginia's Dulles Airport**. Farther south, daily-record rainfall totals for December 8 included 2.62 inches in **Florence, SC**, and 1.86 inches in **Augusta, GA**. Earlier, rainfall on December 5 in **Corpus Christi, TX**, had totaled 2.09 inches—a record for the date. Meanwhile, early-week precipitation across the **northern Intermountain West** resulted in a daily-record snowfall (4.8 inches on December 4) in **Casper, WY**. In Michigan, record-setting precipitation totals for December 4 included 1.27 inches in **Sault Sainte Marie** and 0.83 inch in **Marquette**. Elsewhere, periodic high winds blasted **coastal southern California**, where peak gusts during the morning of December 5 were clocked to 80 mph in **Fremont Canyon** and 79 mph in the **Malibu Hills at Decker Canyon**. Subsequently, **Boney Mountain, CA**, registered a gust to 85 mph on the evening of December 6, while **Fremont Canyon** nearly matched its earlier reading with a gust to 77 mph on the morning of the 7th.

Mild, wet weather dominated **Alaska**, where weekly temperatures across the mainland generally ranged from 10 to 25°F above normal. From December 5-8, **Juneau** posted four consecutive daily-record highs (46, 50, 51, and 54°F). December 7 was an especially warm day across **southeastern Alaska**, where highs soared to 58°F in **Sitka** and 57°F on **Annette Island**. Precipitation was particularly heavy across **southern Alaska**, where **Yakutat** measured 9.08 inches (194 percent of normal) from December 1-9. During the same 9-day period, **Valdez** reported 10.78 inches of precipitation and 33.5 inches of snow. **Thompson Pass**, near **Valdez**, received 40 inches of snow in a 12-hour period on December 6. Farther south, cool, mostly dry weather covered **Hawaii**. On the **Big Island**, **Hilo** collected 3.16 inches of rain during the first 2 days of the month, but had only 0.07 inch from December 3-9. At the state's other major airport observation sites, December 1-9 rainfall ranged from 0.08 inch (6 percent of normal) in **Lihue, Kauai**, to 0.30 inch (39 percent in **Honolulu, Oahu**. In addition, **Lihue** closed with week with four consecutive daily-record lows (57, 55, 59, and 58°F) from December 6-9.


U.S. Drought Monitor
December 5, 2017
(Released Thursday, Dec. 7, 2017)
Valid 7 a.m. EST
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
NDMC
NOAA
http://droughtmonitor.unl.edu/


Snow Depth
December 10, 2017
Inches
120+
84
60
36
24
12
8
4
2
1
T
0
Winter Wheat Area
USDA Agricultural Weather Assessments
World Agricultural Outlook Board
Snow analysis and data (plotted values, in inches) are provided by
NOAA's National Operational Hydrologic Remote Sensing Center (NOHRSC).

National Weather Data for Selected Cities

Weather Data for the Week Ending December 9, 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 DEC 1	PCT. NORMAL SINCE DEC 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	54	39	69	27	47	-1	0.99	-0.03	0.62	0.99	75	66.02	130	90	57	0	2	2	1
	HUNTSVILLE	54	36	69	25	45	-1	1.50	0.20	1.50	1.50	89	50.60	94	85	58	0	2	1	1
	MOBILE	59	44	79	30	51	-3	1.80	0.65	0.88	1.80	119	81.21	129	93	73	0	1	4	2
	MONTGOMERY	57	41	77	31	49	-2	1.94	0.73	0.91	1.94	124	69.59	135	89	63	0	1	4	2
AK	ANCHORAGE	38	29	44	26	33	15	0.13	-0.09	0.10	0.22	79	18.42	120	94	79	0	7	4	0
	BARROW	8	2	12	-3	5	13	0.04	0.04	0.02	0.95	9500	10.31	256	88	80	0	7	3	0
	FAIRBANKS	29	10	37	6	19	23	0.00	-0.14	0.00	0.00	0	12.72	130	94	89	0	7	0	0
	JUNEAU	47	40	54	33	43	13	2.35	1.18	1.01	2.40	160	63.93	117	91	77	0	0	5	2
	KODIAK	42	33	45	24	38	6	3.20	1.62	1.43	3.20	158	56.12	80	95	85	0	3	6	2
	NOME	25	14	30	-3	20	9	0.16	-0.09	0.06	0.43	134	16.86	106	96	82	0	7	5	0
AZ	FLAGSTAFF	45	23	55	14	34	2	0.00	-0.40	0.00	0.00	0	18.02	83	53	17	0	7	0	0
	PHOENIX	72	50	80	42	61	5	0.07	-0.10	0.07	0.07	32	4.78	63	48	25	0	0	1	0
	PRESCOTT	58	28	66	23	43	4	0.00	-0.28	0.00	0.00	0	12.37	68	53	14	0	5	0	0
	TUCSON	69	46	78	36	57	4	0.02	-0.16	0.02	0.02	9	10.30	91	40	25	0	0	1	0
AR	FORT SMITH	56	34	75	18	45	1	0.29	-0.67	0.29	0.29	23	45.97	110	74	35	0	4	1	0
	LITTLE ROCK	56	36	73	24	46	0	0.85	-0.39	0.64	0.85	52	40.41	84	85	41	0	3	2	1
CA	BAKERSFIELD	63	36	67	31	50	1	0.00	-0.14	0.00	0.00	0	5.34	91	64	48	0	1	0	0
	FRESNO	61	35	66	32	48	1	0.00	-0.25	0.00	0.00	0	13.17	129	84	61	0	1	0	0
	LOS ANGELES	76	51	86	45	63	4	0.00	-0.33	0.00	0.00	0	12.26	104	49	28	0	0	0	0
	REDDING	65	38	72	30	52	6	0.01	-0.93	0.01	0.08	7	33.99	113	57	43	0	2	1	0
	SACRAMENTO	61	36	65	31	49	1	0.03	-0.47	0.03	0.03	5	25.74	160	93	39	0	3	1	0
	SAN DIEGO	73	51	79	47	62	4	0.00	-0.22	0.00	0.00	0	7.85	81	57	42	0	0	0	0
	SAN FRANCISCO	62	46	66	42	54	3	0.03	-0.55	0.03	0.03	4	25.22	141	64	48	0	0	1	0
	STOCKTON	63	34	65	29	49	2	0.00	-0.39	0.00	0.00	0	16.55	132	83	60	0	3	0	0
CO	ALAMOSA	44	6	55	-3	25	4	0.00	-0.07	0.00	0.00	0	10.55	150	65	34	0	7	0	0
	CO SPRINGS	49	20	67	5	35	4	0.00	-0.06	0.00	0.00	0	18.43	108	58	17	0	7	0	0
	DENVER INTL	52	23	67	11	38	7	0.00	-0.06	0.00	0.00	0	11.49	86	56	17	0	5	0	0
	GRAND JUNCTION	46	18	60	11	32	1	0.00	-0.10	0.00	0.00	0	5.04	59	58	36	0	6	0	0
	PUEBLO	55	18	72	7	37	5	0.00	-0.08	0.00	0.00	0	15.98	132	54	23	0	6	0	0
CT	BRIDGEPORT	47	37	59	31	42	3	0.79	0.02	0.41	0.79	80	40.38	97	77	53	0	1	2	0
	HARTFORD	46	29	59	24	37	2	0.96	0.14	0.47	0.96	90	44.17	101	86	57	0	6	3	0
DC	WASHINGTON	52	38	60	31	45	2	0.28	-0.38	0.18	0.28	33	35.41	95	80	50	0	1	3	0
DE	WILMINGTON	50	33	62	28	41	1	0.52	-0.24	0.31	0.52	53	39.18	97	89	51	0	4	3	0
FL	DAYTONA BEACH	76	57	82	41	67	4	1.16	0.57	0.69	1.16	153	49.94	105	100	67	0	0	3	1
	JACKSONVILLE	67	50	82	37	59	2	2.18	1.63	1.33	2.18	307	69.87	139	96	71	0	0	4	2
	KEY WEST	81	73	82	65	77	4	0.01	-0.43	0.01	0.01	2	36.02	96	89	71	0	0	1	0
	MIAMI	83	68	87	57	76	5	0.56	0.02	0.52	0.56	80	83.02	146	91	62	0	0	2	1
	ORLANDO	79	58	84	45	68	3	0.34	-0.20	0.32	0.34	49	51.66	111	100	69	0	0	2	0
	PENSACOLA	62	47	78	33	54	-2	3.01	2.13	0.98	3.01	262	91.25	148	90	69	0	0	6	3
	TALLAHASSEE	63	46	79	29	55	-1	1.13	0.29	0.58	1.30	120	54.54	91	97	80	0	1	4	1
	TAMPA	79	62	83	47	70	5	0.75	0.23	0.57	0.75	114	47.51	110	91	61	0	0	2	1
	WEST PALM BEACH	82	65	86	49	73	3	0.63	-0.28	0.63	0.63	52	60.51	102	92	66	0	0	1	1
GA	ATHENS	56	40	67	29	48	1	0.95	0.15	0.61	0.95	92	54.06	120	98	74	0	1	4	1
	ATLANTA	56	42	70	30	49	1	1.67	0.78	0.96	1.67	144	49.77	105	92	66	0	1	4	1
	AUGUSTA	60	42	78	33	51	2	2.43	1.86	1.86	2.43	333	43.27	103	96	72	0	0	5	1
	COLUMBUS	60	45	77	34	53	2	1.91	0.91	0.82	1.92	149	50.36	111	93	55	0	0	5	2
	MACON	59	41	76	32	50	0	2.21	1.38	1.19	2.21	208	47.67	113	98	66	0	1	5	2
	SAVANNAH	62	46	77	34	54	0	1.92	1.41	0.82	1.92	295	55.00	116	98	78	0	0	4	2
HI	HILO	78	62	80	59	70	-3	0.68	-2.32	0.64	4.39	111	98.94	83	80	69	0	0	2	1
	HONOLULU	82	67	84	62	75	-1	0.00	-0.58	0.00	0.31	42	19.54	121	67	55	0	0	0	0
	KAHULUI	80	63	82	57	72	-2	0.09	-0.50	0.08	0.23	31	18.45	112	80	70	0	0	2	0
	LIHUE	75	61	77	55	68	-6	0.02	-1.03	0.02	0.07	5	22.46	62	90	80	0	0	1	0
ID	BOISE	36	25	42	20	30	-3	0.32	-0.01	0.32	0.32	76	14.53	129	86	70	0	6	1	0
	LEWISTON	36	26	43	21	31	-4	0.02	-0.22	0.01	0.02	6	13.90	116	93	84	0	6	2	0
	POCATELLO	30	16	51	9	23	-5	0.02	-0.22	0.01	0.14	45	16.47	140	87	76	0	7	2	0
IL	CHICAGO/O'HARE	43	26	65	18	35	3	0.20	-0.42	0.16	0.20	25	42.71	123	71	49	0	6	3	0
	MOLINE	44	23	67	15	34	3	0.00	-0.54	0.00	0.00	0	36.00	99	69	42	0	6	0	0
	PEORIA	43	25	65	14	34	2	0.06	-0.59	0.06	0.06	7	33.21	96	77	46	0	6	1	0
	ROCKFORD	42	23	62	15	32	3	0.02	-0.53	0.02	0.02	3	44.20	125	74	50	0	6	1	0
	SPRINGFIELD	47	25	67	13	36	2	0.05	-0.59	0.04	0.05	6	31.39	93	82	42	0	6	2	0
IN	EVANSVILLE	50	27	68	17	39	0	0.74	-0.20	0.74	0.74	61	43.12	103	81	57	0	6	1	1
	FORT WAYNE	45	25	61	15	35	2	0.16	-0.52	0.09	0.16	18	48.85	141	82	49	0	6	2	0
	INDIANAPOLIS	47	25	65	13	36	0	0.22	-0.55	0.20	0.22	22	47.55	122	80	47	0	6	2	0
	SOUTH BEND	43	24	61	13	33	0	0.59	-0.18	0.42	0.59	60	42.03	112	84	57	0	6	4	0
IA	BURLINGTON	44	24	67	15	34	2	0.00	-0.56	0.00	0.00	0	31.66	87	79	45	0	6	0	0
	CEDAR RAPIDS	41	19	65	12	30	2	0.12	-0.29	0.12	0.12	22	25.59	79	86	46	0	6	1	0
	DES MOINES	44	23	69	15	33	4	0.00	-0.35	0.00	0.00	0	29.84	88	69	52	0	7	0	0
	DUBUQUE	39	20	62	12	30	3	0.16	-0.30	0.16	0.16	27	35.46	103	75	55	0	6	1	0
	SIOUX CITY	40	18	58	8	29	3	0.01	-0.17	0.01	0.01	4	30.29	118	87	64	0	7	1	0
	WATERLOO	40	19	66	11	30	4	0.01	-0.31	0.01	0.01	2	29.48	91	76	51	0	7	1	0
KS	CONCORDIA	49	22	68	11	36	3	0.00	-0.22	0.00	0.00	0	36.33	130	74	46	0	7	0	0
	DODGE CITY	54	21	78	7	38	2	0.00	-0.17	0.00	0.00	0	26.87	123	69	27	0	6	0	0
	GOODLAND	50	19	63	8	35	3	0.00	-0.08	0.00	0.00	0	26.28	135	64	34	0	6	0	0
	TOPEKA	51	24	70	15	38	3	0.00	-0.39	0.00	0.00	0	38.29	110	72	46	0	7	0	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending December 9, 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 DEC 1	PCT. NORMAL SINCE DEC 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	52	26	66	14	39	2	0.00	-0.33	0.00	0.00	0	33.81	115	75	48	0	5	0	0
KY	JACKSON	48	30	69	23	39	-3	0.73	-0.31	0.69	0.73	54	48.98	105	82	47	0	5	2	1
	LEXINGTON	48	27	67	19	37	-3	0.72	-0.19	0.71	0.72	62	48.10	112	78	55	0	6	2	1
	LOUISVILLE	50	29	69	21	40	-1	0.97	0.08	0.93	0.97	84	42.77	102	77	44	0	4	2	1
	PADUCAH	52	31	69	19	41	1	0.69	-0.45	0.69	0.69	47	43.84	95	71	48	0	5	1	1
LA	BATON ROUGE	59	41	82	29	50	-4	3.26	2.10	1.29	3.26	219	65.05	110	96	66	0	1	5	3
	LAKE CHARLES	62	43	81	29	53	-2	2.24	1.21	0.95	2.24	168	72.72	135	97	70	0	2	4	2
	NEW ORLEANS	63	45	85	29	54	-3	1.78	0.54	0.84	1.78	111	69.05	114	97	68	0	1	4	2
	SHREVEPORT	61	40	80	23	51	0	0.27	-0.78	0.27	0.27	20	32.95	69	85	44	0	2	1	0
ME	CARIBOU	36	24	46	20	30	9	1.04	0.34	0.51	1.07	118	39.50	112	89	62	0	7	5	1
	PORTLAND	44	27	54	22	36	4	1.15	0.16	0.50	1.23	96	41.41	97	90	56	0	7	3	1
MD	BALTIMORE	50	32	61	27	41	1	0.40	-0.33	0.23	0.40	43	37.73	95	83	50	0	4	3	0
MA	BOSTON	47	34	59	31	40	1	1.21	0.36	0.67	1.30	119	42.26	106	82	51	0	2	3	1
	WORCESTER	42	28	56	24	35	2	1.50	0.65	0.86	1.54	140	43.94	95	83	54	0	6	3	2
MI	ALPENA	38	23	56	13	30	2	0.35	-0.06	0.13	0.35	66	39.84	147	93	67	0	7	6	0
	GRAND RAPIDS	42	27	61	19	34	3	0.33	-0.40	0.15	0.33	35	37.85	107	89	61	0	6	4	0
	HOUGHTON LAKE	37	23	54	19	30	2	0.52	0.10	0.44	0.52	96	36.90	136	84	72	0	6	4	0
	LANSING	42	26	60	19	34	3	0.20	-0.38	0.14	0.20	26	38.90	129	80	57	0	6	3	0
	MUSKEGON	42	29	61	24	35	3	0.70	0.04	0.39	0.70	81	34.48	111	78	56	0	6	4	0
	TRAVERSE CITY	39	26	60	22	33	3	0.77	0.19	0.65	0.77	104	38.34	122	88	58	0	6	6	1
MN	DULUTH	26	13	40	2	20	1	0.17	-0.13	0.11	0.17	43	36.25	119	83	70	0	7	3	0
	INT'L FALLS	24	11	40	-1	17	3	0.54	0.35	0.44	0.54	216	22.87	97	84	71	0	7	5	0
	MINNEAPOLIS	34	19	57	7	26	3	0.39	0.12	0.37	0.39	111	31.95	111	80	67	0	7	3	0
	ROCHESTER	35	17	64	7	26	4	0.07	-0.23	0.06	0.07	18	35.24	114	83	69	0	7	2	0
	ST. CLOUD	31	16	50	4	24	5	0.03	-0.15	0.03	0.03	13	30.38	114	86	63	0	7	1	0
MS	JACKSON	60	40	77	25	50	0	1.17	-0.04	0.80	1.17	75	59.22	114	83	52	0	2	3	1
	MERIDIAN	56	38	79	26	47	-4	1.67	0.45	0.61	1.67	106	59.48	108	95	68	0	1	5	2
	TUPELO	55	34	68	20	44	-2	1.71	0.33	1.71	1.71	97	43.10	84	79	52	0	2	1	1
MO	COLUMBIA	49	27	70	13	38	2	0.06	-0.63	0.06	0.06	7	37.76	98	76	44	0	5	1	0
	KANSAS CITY	49	24	72	12	36	1	0.00	-0.44	0.00	0.00	0	45.83	124	75	43	0	6	0	0
	SAINT LOUIS	49	31	70	18	40	2	0.16	-0.62	0.16	0.16	16	36.01	98	72	48	0	3	1	0
	SPRINGFIELD	51	28	72	11	40	1	0.05	-0.89	0.05	0.05	4	46.06	107	75	52	0	5	1	0
MT	BILLINGS	44	27	57	18	36	8	0.17	0.05	0.14	0.17	106	16.30	114	69	44	0	6	2	0
	BUTTE	31	10	36	2	20	0	0.03	-0.08	0.03	0.03	21	11.47	93	83	54	0	7	1	0
	CUT BANK	43	23	54	15	33	9	0.00	-0.06	0.00	0.00	0	8.55	70	70	33	0	7	0	0
	GLASGOW	42	20	56	10	31	12	0.03	-0.03	0.02	0.03	43	5.93	54	81	61	0	7	2	0
	GREAT FALLS	42	25	53	15	34	8	0.05	-0.06	0.04	0.05	36	13.68	95	66	41	0	5	2	0
	HAVRE	44	23	53	17	34	12	0.01	-0.07	0.01	0.01	9	6.88	62	66	49	0	7	1	0
	MISSOULA	31	23	40	15	27	2	0.05	-0.19	0.05	0.09	29	13.73	106	85	75	0	7	1	0
NE	GRAND ISLAND	44	21	58	8	33	4	0.00	-0.20	0.00	0.00	0	30.13	118	83	53	0	7	0	0
	LINCOLN	46	22	63	13	34	4	0.00	-0.24	0.00	0.00	0	36.65	132	71	50	0	7	0	0
	NORFOLK	42	20	58	7	31	4	0.00	-0.20	0.00	0.00	0	27.48	105	85	61	0	7	0	0
	NORTH PLATTE	46	14	58	3	30	2	0.00	-0.08	0.00	0.00	0	27.49	142	87	35	0	7	0	0
	OMAHA	45	23	63	11	34	5	0.01	-0.27	0.01	0.01	3	26.21	88	70	54	0	7	1	0
	SCOTTSBLUFF	47	20	59	10	34	6	0.00	-0.14	0.00	0.00	0	14.88	93	65	35	0	6	0	0
	VALENTINE	43	16	54	0	30	4	0.08	-0.01	0.06	0.08	67	19.58	101	78	55	0	7	2	0
NV	ELY	43	7	51	2	25	-3	0.00	-0.08	0.00	0.00	0	9.51	99	74	43	0	7	0	0
	LAS VEGAS	63	44	75	40	54	5	0.00	-0.06	0.00	0.00	0	2.38	57	25	15	0	0	0	0
	RENO	46	21	52	19	33	-2	0.02	-0.17	0.02	0.02	8	13.60	199	78	57	0	7	1	0
	WINNEMUCCA	43	10	51	5	27	-5	0.12	-0.05	0.12	0.12	57	8.23	106	83	62	0	7	1	0
NH	CONCORD	43	25	53	22	34	4	0.82	0.12	0.46	0.84	92	42.01	118	86	56	0	7	3	0
NJ	NEWARK	49	36	64	30	42	2	0.68	-0.15	0.37	0.68	63	46.52	106	75	51	0	4	2	0
NM	ALBUQUERQUE	49	29	63	19	39	1	0.00	-0.08	0.00	0.00	0	7.67	84	54	24	0	4	0	0
NY	ALBANY	43	26	53	20	35	3	0.61	-0.04	0.24	0.63	75	38.86	107	85	54	0	6	3	0
	BINGHAMTON	39	27	49	20	33	2	0.31	-0.45	0.31	0.31	32	47.20	129	80	55	0	6	1	0
	BUFFALO	41	29	53	23	35	2	0.81	-0.11	0.46	0.81	68	46.37	122	87	54	0	5	3	0
	ROCHESTER	43	29	54	25	36	3	0.18	-0.48	0.18	0.18	21	43.26	135	82	60	0	6	1	0
	SYRACUSE	42	29	54	22	36	3	0.23	-0.59	0.23	0.24	22	43.90	116	86	56	0	5	1	0
NC	ASHEVILLE	49	34	62	26	42	0	1.52	0.74	0.82	1.52	149	53.16	119	87	62	0	4	3	2
	CHARLOTTE	56	40	72	32	48	1	1.19	0.52	0.78	1.21	139	43.77	106	95	57	0	1	4	1
	GREENSBORO	53	36	65	30	44	0	1.14	0.47	0.75	1.14	131	42.41	104	94	51	0	2	4	1
	HATTERAS	60	50	70	40	55	2	3.06	2.13	0.88	3.07	256	56.31	104	96	72	0	0	5	3
	RALEIGH	55	37	69	31	46	0	1.92	1.28	1.40	1.92	231	45.19	111	93	66	0	2	4	1
	WILMINGTON	59	44	75	38	51	-1	2.22	1.39	1.23	2.22	209	60.98	112	98	71	0	0	6	1
ND	BISMARCK	38	16	51	3	27	8	0.13	0.04	0.08	0.13	108	14.91	90	79	63	0	7	3	0
	DICKINSON	36	13	46	2	25	4	0.01	-0.07	0.01	0.01	9	11.57	72	90	56	0	7	1	0
	FARGO	30	12	42	1	21	4	0.16	0.05	0.16	0.16	107	15.14	73	84	69	0	7	1	0
	GRAND FORKS	29	11	36	0	20	4	0.21	0.10	0.21	0.21	140	17.31	90	90	70	0	7	1	0
	JAMESTOWN	30	13	43	4	21	3	0.16	0.08	0.16	0.16	145	13.85	76	88	65	0	7	1	0
	WILLISTON	37	12	48	-2	24	7	0.13	0.00	0.13	0.13	76	11.94	87	83	64	0	7	1	0
OH	AKRON-CANTON	44	25	57	17	35	0	0.18	-0.55	0.16	0.18	19	46.75	128	73	50	0	6	2	0
	CINCINNATI	46	25	64	16	36	-2	0.62	-0.14	0.55	0.62	63	48.69	121	86	57	0	6	3	1
	CLEVELAND	45	26	59	20	36	1	0.23	-0.57	0.21	0.23	22	45.08	123	77	45	0	7	2	0
	COLUMBUS	45	26	60	20	35	-2	0.56	-0.17	0.43	0.56	59	48.43	133	83	55	0	6	3	0
	DAYTON	43	25	60	15	34	-1	0.36	-0.38	0.28	0.36	38	50.05	134	90	55	0	6	3	0
	MANSFIELD	42	25	57	16	34	1	0.53	-0.30	0.43	0.53	50	47.95	117	83	48	0	6	3	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending December 9, 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 DEC 1	PCT. NORMAL SINCE DEC 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	43	25	59	18	34	1	0.23	-0.43	0.14	0.23	27	38.14	121	78	57	0	7	3	0
	YOUNGSTOWN	43	24	54	19	34	0	0.18	-0.58	0.18	0.18	18	42.49	118	75	52	0	7	1	0
OK	OKLAHOMA CITY	55	28	76	13	41	-1	0.00	-0.41	0.00	0.00	0	32.98	96	75	32	0	5	0	0
	TULSA	56	32	78	17	44	1	0.00	-0.67	0.00	0.00	0	44.59	109	71	52	0	4	0	0
OR	ASTORIA	51	36	56	33	44	0	0.06	-2.46	0.05	0.93	29	77.22	129	82	70	0	0	2	0
	BURNS	33	8	37	3	21	-6	0.05	-0.23	0.05	0.15	43	10.96	114	89	81	0	7	1	0
	EUGENE	44	26	53	21	35	-6	0.17	-1.89	0.17	0.62	23	38.77	86	99	93	0	6	1	0
	MEDFORD	51	28	64	22	39	0	0.04	-0.68	0.04	0.20	22	17.54	107	96	58	0	6	1	0
	PENDLETON	37	27	44	21	32	-4	0.07	-0.28	0.07	0.07	16	15.33	131	92	82	0	6	1	0
	PORTLAND	48	35	52	26	42	0	0.07	-1.32	0.07	0.37	21	43.05	130	82	67	0	1	1	0
	SALEM	50	30	58	22	40	-1	0.07	-1.52	0.07	0.66	32	48.49	136	87	73	0	5	1	0
PA	ALLENTOWN	46	29	57	20	37	1	0.53	-0.27	0.31	0.53	51	50.23	117	79	57	0	6	2	0
	ERIE	42	27	56	20	35	-1	0.77	-0.16	0.46	0.77	64	49.75	124	71	57	0	6	3	0
	MIDDLETOWN	47	31	58	25	39	2	0.38	-0.43	0.30	0.38	36	43.72	114	85	50	0	6	2	0
	PHILADELPHIA	50	36	63	30	43	2	0.53	-0.21	0.37	0.53	55	41.16	104	74	49	0	2	2	0
	PITTSBURGH	45	28	59	21	37	1	0.37	-0.33	0.37	0.37	41	42.76	119	76	42	0	6	1	0
	WILKES-BARRE	43	30	54	22	37	2	0.54	-0.11	0.37	0.54	64	37.71	105	82	55	0	6	2	0
	WILLIAMSPORT	45	30	54	24	38	4	0.55	-0.21	0.55	0.55	55	46.02	116	76	51	0	5	1	1
RI	PROVIDENCE	48	32	60	29	40	3	1.24	0.29	0.51	1.28	104	47.71	110	89	56	0	5	3	1
SC	BEAUFORT	61	46	74	37	53	0	2.40	1.82	1.37	2.40	320	48.89	103	100	75	0	0	4	2
	CHARLESTON	59	44	76	36	52	-1	2.08	1.45	0.86	2.08	257	52.45	107	99	74	0	0	4	2
	COLUMBIA	60	41	75	33	51	2	2.10	1.46	1.63	2.10	256	46.29	101	96	68	0	0	4	1
	GREENVILLE	55	40	68	29	47	1	1.34	0.51	0.78	1.34	126	51.53	109	97	56	0	1	4	1
SD	ABERDEEN	32	12	48	-4	22	2	0.08	0.02	0.08	0.08	114	15.46	78	86	76	0	7	1	0
	HURON	36	15	50	0	25	2	0.11	0.02	0.06	0.11	92	21.82	106	90	68	0	7	3	0
	RAPID CITY	48	21	62	6	34	7	0.07	0.01	0.03	0.07	100	11.76	72	72	35	0	6	3	0
	SIOUX FALLS	35	17	55	3	26	4	0.07	-0.08	0.07	0.07	35	25.67	105	91	73	0	7	1	0
TN	BRISTOL	50	33	64	28	41	1	0.59	-0.19	0.42	0.59	58	43.45	112	97	54	0	5	3	0
	CHATTANOOGA	53	36	66	30	45	0	0.90	-0.23	0.86	0.90	61	56.04	109	84	49	0	2	2	1
	KNOXVILLE	51	34	66	29	43	-1	0.92	-0.10	0.84	0.92	70	50.02	111	97	57	0	2	3	1
	MEMPHIS	55	36	71	24	46	0	1.11	-0.35	1.08	1.11	59	45.22	89	81	43	0	3	2	1
	NASHVILLE	53	32	70	20	42	-1	0.48	-0.62	0.48	0.48	34	48.84	109	84	44	0	3	1	0
TX	ABILENE	58	37	78	20	47	0	0.00	-0.24	0.00	0.00	0	19.87	87	71	45	0	3	0	0
	AMARILLO	55	27	77	15	41	2	0.00	-0.08	0.00	0.00	0	26.48	138	62	22	0	5	0	0
	AUSTIN	62	42	85	28	52	-2	1.45	0.93	0.92	1.45	216	39.34	123	88	64	0	3	4	1
	BEAUMONT	61	44	80	30	53	-3	4.09	2.96	2.21	4.09	282	102.16	182	93	80	0	2	6	2
	BROWNSVILLE	69	51	87	34	60	-3	0.83	0.55	0.31	0.83	231	22.55	84	94	79	0	0	5	0
	CORPUS CHRISTI	66	47	84	32	57	-3	3.82	3.46	2.04	3.82	830	30.34	98	97	79	0	1	5	2
	DEL RIO	***	***	***	***	***	***	***	***	***	***	***	23.92	136	***	***	***	***	***	***
	EL PASO	56	37	74	24	47	0	0.32	0.17	0.19	0.32	168	9.73	110	74	42	0	3	2	0
	FORT WORTH	63	42	84	22	52	3	0.30	-0.23	0.28	0.30	44	32.32	98	60	34	0	2	2	0
	GALVESTON	61	48	77	34	55	-5	5.54	4.73	3.41	5.54	523	59.02	143	97	69	0	0	6	2
	HOUSTON	62	44	81	29	53	-3	1.82	0.97	0.58	1.82	165	77.80	172	96	79	0	2	5	2
	LUBBOCK	56	31	75	20	44	2	0.00	-0.14	0.00	0.00	0	21.95	121	66	36	0	4	0	0
	MIDLAND	59	38	79	28	49	2	0.36	0.23	0.34	0.36	212	17.74	124	79	45	0	3	2	0
	SAN ANGELO	60	38	81	27	49	1	0.42	0.23	0.30	0.42	168	17.77	88	80	52	0	3	2	0
	SAN ANTONIO	64	46	83	31	55	1	2.34	1.90	1.07	2.34	411	25.63	81	89	53	0	2	3	2
	VICTORIA	65	45	85	32	55	-2	1.65	1.10	0.65	1.65	232	46.86	122	92	74	0	1	5	1
	WACO	61	41	83	20	51	0	0.14	-0.49	0.08	0.14	18	31.79	101	81	56	0	2	2	0
	WICHITA FALLS	59	35	81	14	47	2	0.00	-0.36	0.00	0.00	0	24.61	89	62	38	0	2	0	0
UT	SALT LAKE CITY	42	25	65	22	34	1	0.07	-0.21	0.06	0.07	20	15.31	98	81	49	0	6	2	0
VT	BURLINGTON	43	31	55	24	37	8	0.26	-0.31	0.24	0.32	43	37.99	110	78	50	0	4	3	0
VA	LYNCHBURG	50	32	65	30	41	0	0.45	-0.27	0.22	0.45	49	32.66	80	90	52	0	4	3	0
	NORFOLK	55	41	68	33	48	1	2.39	1.78	1.33	2.39	303	49.15	113	98	69	0	0	4	2
	RICHMOND	53	36	65	32	44	0	1.01	0.37	0.65	1.01	122	37.92	91	90	62	0	3	4	1
	ROANOKE	52	34	64	30	43	1	0.15	-0.52	0.13	0.15	17	37.31	92	80	45	0	3	2	0
	WASH/DULLES	50	31	61	25	41	2	0.37	-0.33	0.24	0.37	41	40.26	102	86	53	0	5	3	0
WA	OLYMPIA	44	28	51	23	36	-3	0.03	-1.90	0.03	0.84	34	55.15	122	99	92	0	6	1	0
	QUILLAYUTE	51	29	56	27	40	-1	0.00	-3.47	0.00	2.39	53	100.96	110	93	81	0	6	0	0
	SEATTLE-TACOMA	47	34	52	29	40	-2	0.08	-1.30	0.08	1.11	62	43.53	131	97	82	0	2	1	0
	SPOKANE	35	23	38	20	29	0	0.08	-0.47	0.08	0.14	20	19.63	130	97	73	0	7	1	0
	YAKIMA	43	25	52	17	34	3	0.00	-0.30	0.00	0.00	0	10.30	142	85	73	0	7	0	0
WV	BECKLEY	44	28	59	23	36	-2	0.40	-0.29	0.38	0.40	45	41.53	105	78	54	0	6	2	0
	CHARLESTON	49	29	67	25	39	-2	0.41	-0.41	0.39	0.41	38	45.62	109	82	41	0	6	2	0
	ELKINS	44	26	59	21	35	-1	0.37	-0.44	0.35	0.37	36	43.93	101	79	49	0	6	2	0
	HUNTINGTON	48	28	67	24	38	-2	0.58	-0.19	0.57	0.58	59	45.55	114	79	41	0	6	2	1
WI	EAU CLAIRE	34	18	58	7	26	4	0.38	0.09	0.33	0.38	100	35.45	113	88	58	0	6	2	0
	GREEN BAY	38	23	61	13	31	5	0.45	0.06	0.36	0.45	87	31.20	110	87	58	0	6	5	0
	LA CROSSE	39	22	62	15	31	4	0.29	-0.06	0.24	0.29	62	39.35	125	82	52	0	6	3	0
	MADISON	39	22	61	16	30	3	0.50	0.05	0.47	0.50	85	39.05	122	76	54	0	6	2	0
	MILWAUKEE	42	26	64	18	34	3	0.16	-0.41	0.10	0.16	22	35.77	107	72	50	0	6	2	0
WY	CASPER	37	15	57	6	26	0	0.35	0.21	0.31	0.35	194	13.29	106	71	52	0	7	2	0
	CHEYENNE	43	22	61	13	32	3	0.00	-0.11	0.00	0.00	0	14.48	96	57	35	0	6	0	0
	LANDER	39	15	56	4	27	4	0.28	0.13	0.18	0.28	140	18.95	146	82	44	0	7	2	0
	SHERIDAN	47	21	58	16	34	10	0.02	-0.12	0.02	0.02	11	18.33	129	70	45	0	7	1	0

Based on 1971-2000 normals

***** Not Available**

November Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: Mild, dry weather dominated the country during November, favoring harvest efforts and other late-season fieldwork. By November 26, the U.S. corn harvest was 95 percent complete, just 3 percentage points behind the 5-year average—a fairly dramatic improvement from 54 percent harvested (18 points behind average) on October 29.

However, a couple of rounds of November rain slowed fieldwork in the eastern Corn Belt, leaving the corn harvest just 87 percent complete in Ohio and 84 percent complete in Michigan by November 26. Substantial corn also remained in the field at that time in Wisconsin (81 percent harvested), in part due to late crop maturation.

Elsewhere, significant precipitation was confined to northern California and the Northwest, aside from some late-month rain in parts of northern Florida. Northwestern storms were often accompanied by high freezing levels, limiting major snow accumulations to high-elevation sites.

A sharp boundary existed with respect to November precipitation in the Northwest and mostly dry weather in southern California and the Southwest. Substantially drier-than-normal weather also extended across the central and southern Plains, much of the Mississippi Valley, and large portions of the Gulf and Atlantic Coast States.

Across the central and southern Plains and the mid-South, warm, dry weather resulted in sharp reductions in soil moisture and increasing stress on rangeland, pastures, and winter wheat. In particular, soil moisture was rated at least one-half very short to short by November 26 in Oklahoma (75 percent), Texas (67 percent), New Mexico (56 percent), and Arkansas (54 percent). In the Southeast, Georgia's topsoil moisture was 58 percent very short to short.

The soil moisture loss was aggravated by warm weather, which resulted in record-setting temperatures in the Four Corners States and significantly above-normal temperatures from California to the central and southern Plains. Warmth in the western and central U.S. was especially impressive in the days before, during, and after Thanksgiving. Near- or slightly below-normal November temperatures were mostly limited to the nation's northern tier.

Historical Perspective: According to preliminary data provided by the National Centers for Environmental Information, the contiguous U.S. experienced its seventh-warmest, 19th-driest November during the 123-year period of record. The nation's November average temperature of 45.1°F was 3.4°F above the 20th century mean, while precipitation averaged 1.58 inches—71 percent of normal. In the last four decades, only November 1999, 2001, 2009, and 2016 were warmer, while 1999, 2007, and 2012 were drier.

It was the warmest November on record in the Four Corners States (UT, CO, AZ, NM), and among the ten warmest in California, Nevada, Oklahoma, Texas, and Wyoming. New York, with its 51st-coolest November, was the lowest ranking state (figure 1). Meanwhile, November precipitation values were among the five lowest on record in Alabama, Arkansas, Mississippi, and Oklahoma (figure 2). In contrast, Ohio reported its ninth-wettest November.

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

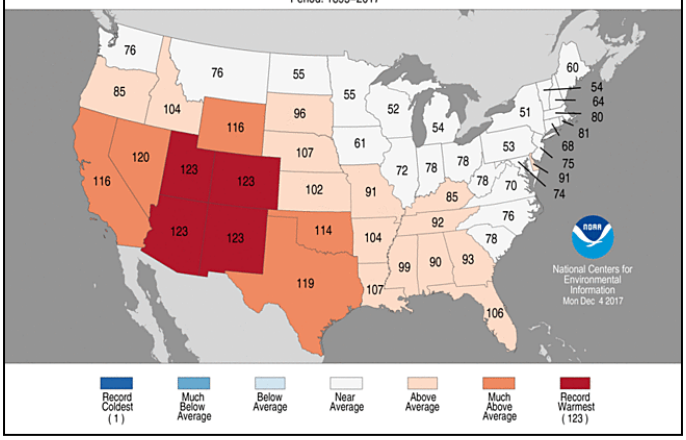
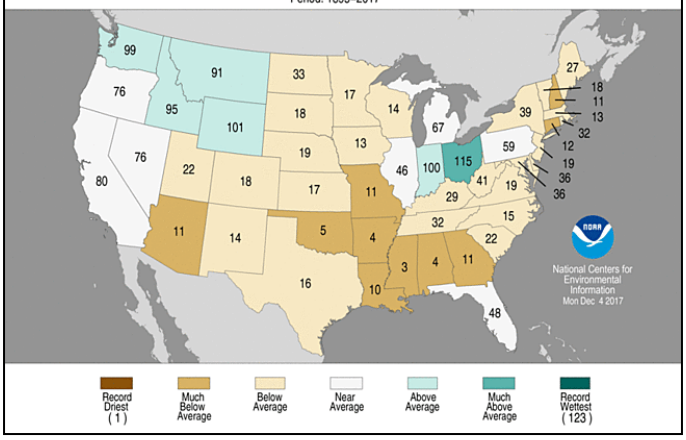


Figure 2 Statewide Precipitation Ranks
November 2017
Period: 1895–2017



Summary: Sudden, early-month warmth in the south-central U.S. followed a late-October cold snap. During the transition to warm weather, briefly heavy showers in the western and central Gulf Coast regions led to a daily-record rainfall amount (5.58 inches) for November 1 in Lafayette, LA. Shortly thereafter, November 2 became the warmest November day on record in Texas locations such as Dallas-Fort Worth (94°F) and Wichita Falls (90°F). Dallas-Fort Worth matched its new record with another high of 94°F on November 5. Neither location had ever attained a 90-degree reading in November; monthly record highs had been 89°F in Dallas-Fort Worth, achieved most recently on November 5, 2005, and 89°F in Wichita Falls, set on November 9, 1988. With a high of 92°F on November 2, Waco, TX, tied a monthly record previously set on November 4, 1948, and November 7, 1988. On November 3, daily-record highs soared to 88°F in Shreveport, LA, and 87°F in Augusta, GA. Wichita Falls again reached 90°F on November 4, while San Angelo, TX, tallied a trio of daily-record highs (92, 88, and 91°F) from

November 2-4. Elsewhere in Texas, record -setting highs for November 5 included 95°F in McAllen; 94°F in Corpus Christi; 92°F in Brownsville; and 91°F in San Antonio. McAllen topped the 90-degree mark on each of the first 7 days of November, with the temperature peaking on the 5th. And, Corpus Christi experienced its hottest November day since November 4, 1988, when the high reached 98°F.

In stark contrast, Great Falls, MT, notched a daily-record low of -9°F on November 4. Similarly, Livingston, MT, collected consecutive daily-record lows (-6 and -3°F, respectively) on November 6-7. Other record-setting lows in Montana for November 7 included -12°F in Bozeman and -10°F in Townsend. Prior to that frigid weather, Great Falls had received 11.1 inches of snow from November 1-3. Much (7.4 inches) of Great Falls' snow fell on the 1st, representing the snowiest 24-hour November period in that location since November 8-9, 2012, when 14.0 inches accumulated. Montana snowfall during the first 6 days of November totaled 14.5 inches in Bozeman and 12.1 inches in Billings. Unsettled weather also prevailed in the Northwest, where Spokane, WA, received 7.2 inches of snow from November 3-6. Seattle, WA, collected a daily-record snowfall (0.4 inch) for November 5. Snow also spread eastward across the nation's northern tier, resulting in daily-record totals in locations such as St. Cloud, MN (4.0 inches on November 3), and Rhinelander, WI (4.3 inches on November 4). On November 4, International Falls, MN, reported a daily-record precipitation total of 0.60 inch, in the form of 6.0 inches of snow. At the same time, a rare November severe weather outbreak struck the lower Great Lakes States. During the afternoon and evening of November 5, as many as two dozen tornadoes were reported from southern Illinois to northwestern Pennsylvania. One EF-2 tornado, with maximum winds estimated at 120 mph, struck the community of Celina in Mercer County, OH, resulting in eight injuries. Later, another EF-2 twister, with winds of more than 130 mph, cut a 39-mile path from near Eaton, Delaware County, IN, to just west of Celina, OH. Elsewhere in Ohio, daily-record rainfall totals for November 5 were set in Dayton (3.57 inches) and Columbus (1.72 inches). On November 6, daily-record amounts reached 2.04 inches in Parkersburg, WV, and 1.72 inches in Nashville, TN. Heavy rain lingered in Tennessee into November 7, when daily-record totals included 2.85 inches in Crossville and 1.76 inches in Nashville. The 2-day total in Nashville climbed to 3.48 inches.

Eventually, cold air took aim on the Midwest and Northeast. November 9-10 featured consecutive daily record lows (-13 and -14°F, respectively) in International Falls, MN. In Michigan, a trio of daily-record lows were set from November 9-11 in Pellston (16, -5, and 5°F) and Gaylord (14, 1, and 11°F). Similarly, three consecutive daily-record lows were established from November 10-12 at New York's JFK Airport (25, 24, and 29°F) and Trenton, NJ (23, 21, and 24°F). Daily records were tied or broken on November 10 in cities such as Madison, WI (9°F); Chicago, IL (18°F); and Detroit, MI (19°F). Subsequently, on November 11, daily records were tied or broken in Cleveland, OH (20°F); Baltimore, MD (21°F); and Washington, DC (26°F). Records were established on both November 10 and 11 in locations such as Pittsburgh, PA (20 and 17°F); Boston, MA (24 and 23°F); and New York's Central Park (25 and 24°F). In contrast, record-setting warmth continued or developed across the southwestern and south-central U.S. In Arizona, Tucson reported highs of 85°F or greater on 9 consecutive days from November 9-17. Tucson also achieved daily-record highs of 88 and 89°F, respectively, on November 13 and 16. Warmth briefly surged northward across the High Plains on November 16, when daily-record highs were set in Nebraska locations such as Chadron (78°F) and Scottsbluff (77°F). In Texas, record-setting highs for November 17 included 92°F in Childress; 89°F in Midland; and 88°F in San Angelo. Hobart, OK (92°F), and Roswell, NM (89°F), also registered daily-record highs for November 17. Houston, TX, posted consecutive daily-record highs (86 and 84°F, respectively) on November 17-18. Elsewhere in Texas, record-breaking highs for the 18th soared to 90°F in Corpus Christi and 88°F in Victoria and San Antonio.

At mid-month, high winds accompanied another round of wet weather in the Northwest. On November 13, wind gusts were clocked to 64 mph in Hoquiam, WA, and 57 mph in Astoria, OR. Meanwhile, locally heavy rain dampened southern Texas, where McAllen collected a daily-record sum (2.19 inches) for November 13. Wet weather also spread southward into northern California and eastward into the Great Lakes region. On November 15, Redding, CA, received 1.83 inches of rain, while daily-record totals in Michigan included 1.77 inches in Sault Sainte Marie and 1.46 inches in Alpena. Northwestern precipitation spread farther inland on November 16, when daily-record amounts reached 0.98 inch in Lake Yellowstone, WY; 0.81 inch in Reno, NV; and 0.64 inch in Pocatello, ID. With that rain, Reno secured its wettest calendar year on record; the 13.62-inch total through November was 214 percent of normal, surpassing 13.23 inches during all of 1983. On November 17, rain and high-elevation snow moved farther southeastward across the West, accompanied by more high winds. In Colorado, a wind gust to 102 mph was reported on November 17 at Monarch Pass, while Gothic received 11 inches of snow. Salt Lake City, UT, measured a daily-record rainfall (0.92 inch) for November 17. By the 18th, heavy rain erupted across the lower Great Lakes States, while thunderstorms spawned at least a half-dozen tornadoes in Kentucky and Tennessee. Record-setting rainfall totals for November 18 included 2.96 inches in Fort Wayne, IN; 1.99 inches in Detroit, MI; and 1.72 inches in Lincoln, IL. It was also Fort Wayne's wettest November day on record, eclipsing 2.53 inches on November 29, 2011.

As the month progressed, storms continued to arrive across the Northwest. On November 20 in western Montana, a wind gust to 93 mph was reported by an automated weather station in Glacier County, south-southwest of Browning, while a gust to 82 mph was clocked in Chouteau County, near Fort Benton. Farther west, Quillayute, WA, collected 3.69 inches of rain on November 19 and a daily-record rainfall total of 2.54 inches on November 21. Quillayute also received measurable rain each day from November 11-30, totaling 18.24 inches. Periods of rain in northern Florida led to daily-record totals in locations such as Jacksonville (1.68 inches on November 21) and Gainesville (2.53 inches on Thanksgiving Day, November 23). Meanwhile, cool air settled across the South and East, while warmth intensified in the West and began to spread eastward. By November 22, daily-record lows were noted in locations such as Joplin, MO (19°F), and Ponca City, OK (20°F). The following day, lows of 27°F in Alexandria, LA, and Stuttgart, AR, set records for November 23. The Western warm spell began on November 21-22 with consecutive daily-record highs in locations such as Medford, OR (70 and 72°F), and Bellingham, WA (60 and 68°F). Later, heat arrived in southern

California. With a high of 99°F on November 22, Camarillo achieved a monthly record high (previously, 98°F on November 5, 2012). Elsewhere in California on the 22nd, daily-record highs topped the 90-degree mark in locations such as Palm Springs (96°F), Santa Ana (96°F), Riverside (95°F), and San Diego (92°F). Thanksgiving Day, November 23, featured daily-record highs in dozens of locations, including Yuma, AZ (91°F); Las Vegas, NV (80°F); Pueblo, CO (76°F); Valentine, NE (76°F); Rapid City, SD (75°F); Sheridan, WY (74°F); and Glasgow, MT (73°F). In North Dakota locations such as Bismarck (74°F), Dickinson (70°F), and Williston (67°F), it was the warmest Thanksgiving Day on record. Previous records had been 62°F (on November 28, 2002) in Bismarck; 65°F (on November 26, 1998) in Dickinson; and 56°F (on November 28, 2002) in Williston. With a high of 67°F on November 23, Albuquerque, NM, tied a Thanksgiving Day record originally set on November 24, 1949. The parade of daily-record highs continued through November 24, when temperatures soared to 87°F in Salina, KS; 85°F in Childress, TX; 84°F in Roswell, NM; and 82°F in Ponca City, OK, and Pueblo, CO. Sioux City, IA, registered consecutive daily-record highs (63 and 68°F, respectively) on November 23-24. Elsewhere on the 24th, Yuma, AZ, notched a second consecutive daily-record high, reaching 90°F. By November 25, record-setting warmth temporarily retreated into the West, where daily-record highs included 91°F in Campo, CA; 88°F in Tucson, AZ; and 70°F in Cedar City, UT. In fact, both Tucson (89, 88, 88, 92, and 92°F from November 23-27) and Cedar City (69, 71, 73, 70, and 73°F from November 22-26) tallied five consecutive daily-record highs.

Late-November warmth continued to generate temperature records. With a high of 90°F on November 26, Yuma, AZ, experienced its latest-ever reading of 90°F or greater. Previously, Yuma had never reached 90°F after November 25—a record that had been set in 1950. Similarly, Valentine, NE, posted a high of 84°F on November 27. Previously, Valentine's latest 80-degree reading had occurred on November 16, 1941, with a high of 82°F. On November 26-27, consecutive daily-record highs were set in locations such as Tucson, AZ (92°F both days); Goodland, KS (77 and 82°F); Pueblo, CO (77 and 82°F); Salt Lake City, UT (69 and 67°F); and Helena, MT (66 and 61°F). Salt Lake City also completed its warmest November on record, with the average temperature of 47.8°F (7.8°F above normal), eclipsing the 2016 standard of 47.0°F. Record-setting warmth spread into the western Corn Belt on November 27, when daily-record highs climbed to 74°F in Kennebec, SD, and 72°F in Lincoln, NE. On November 28, Midwestern daily-record highs included 68°F in Lincoln, IL, and 66°F in Flint, MI.

The driest autumn on record came to a close on November 30 in parts of the southern U.S. September-November precipitation totaled just 0.43 inch (7 percent of normal) in Flagstaff, AZ, and 2.01 inches (16 percent) in Pine Bluff, AR—setting autumn records in both locations. In addition, records for November dryness were set in Southern locations such as New Orleans, LA (0.06 inch; previously, 0.21 inch in 1949), and Vichy-Rolla, MO (0.27 inch; previously, 0.28 inch in 1949). Meanwhile, late-November precipitation was generally confined to the Northwest, where daily-record totals in Idaho on the 27th reached 0.32 inches in Jerome and 0.24 inch in Burley. In the Sierra Nevada, where late-month precipitation included high-elevation snow, winds on November 26 were clocked to 126 mph on Peavine Peak in Washoe County, NV, and 116 mph at Alpine Meadows (summit) in Placer County, CA. In Montana, Great Falls, reported wind gusts to 40 mph or greater on 14 November days, twice the monthly normal and the most in November at that location since 1990. Great Falls' highest gust during the month was 59 mph on November 26.

Alaskan cold arrived from the east, relegating mild weather to northern and western parts of the state. Nevertheless, monthly temperatures in much of northern and western Alaska averaged at least 10°F above normal. Unusually wet, snowy weather accompanied the mild conditions, while drier-than-normal weather encompassed southern Alaska. The month began on a mild note in Barrow, with three consecutive daily-record highs (34, 32, and 36°F) from October 31 – November 2. Several days later in western Alaska, Nome received a daily-record snowfall of 6.9 inches on November 8. Fairbanks reported 4.9 inches of snow from November 7-11, followed by a daily-record sum (4.9 inches) on the 12th. Around mid-month, briefly heavy precipitation developed across southeastern Alaska. November 17 was the snowiest day in nearly 6 years in Juneau, where 10.2 inches fell. Previously, Juneau had not received more than 10 inches on a calendar day since November 23, 2011, when snowfall totaled 13.9 inches. Elsewhere in southeastern Alaska, 24-hour snowfall totals on November 17-18 included 15.0 inches in Hyder and 7.0 inches in Hoonah. Across the Alaskan mainland, Fairbanks received 5.6 inches of snow on November 12-13 and 4.0 inches on November 16-17. Nome's monthly snowfall totaled 22.2 inches, aided by a 5.3-inch sum on November 18. On St. Paul Island, the monthly precipitation of 7.77 inches (269 percent of normal) erased its November 1993 standard of 5.40 inches. November 23 became St. Paul Island's wettest day on record, with the 2.18-inch total easily surpassing the former mark of 1.93 inches on October 6, 1949. Elsewhere, November 19-25 snowfall totals included 8.8 inches in McGrath; 8.6 inches in Juneau; and 8.4 inches in Fairbanks. In Kotzebue, a series of storms boosted the snow depth from 12 to 40 inches between November 16 and 26. The bulk of Kotzebue's snow, 26.1 inches, from November 19-25. At the height of the storminess, on November 21, Kotzebue reported an easterly wind gust to 61 mph.

Late-month downpours in Hawaii highlighted an otherwise relatively tranquil month. On the Big Island, Hilo received 4.94 inches of rain on November 11. Elsewhere, 24-hour rainfall totals on November 11-12 topped 4 inches in several locations, including Oahu's Manoa Lyon Arboretum (4.51 inches). A period of cool weather followed, with Hilo posting lows of 62 and 61°F, respectively, on November 17-18—the first of which set a record for the date. From November 18-20, Lihue, Kauai, collected a trio of daily-record lows (62, 62, and 61°F). Hilo also posted a daily-record low (60°F) on November 20. About a week later, downpours arrived on the Big Island. In a 72-hour period from November 27-30, Big Island totals included 43.98 inches at Saddle Quarry; 24.17 inches in Glenwood; and 17.01 inches in Mountain View. Elsewhere on the Big Island, Hilo's daily-record total of 5.14 inches on November 30 contributed to a monthly sum of 20.53 inches (179 percent of normal). Several other windward locations, including Kauai's famously wet Mount Waialeale, also received heavy late-month rain. Mount Waialeale recorded 11.10 inches in a 24-hour period on November 29-30.

Fieldwork

Fieldwork summary provided by USDA/NASS

November's precipitation was higher than average around the Great Lakes, northern Rockies, and Pacific Northwest. The southern half of the nation experienced drier-than-average weather, especially in parts of Texas, the Delta States, and the Southern Atlantic States. Despite heavy precipitation in the western half of Montana, the northeastern part of the state remained in an extreme drought. Temperatures were fairly normal for most of the nation during November, with most regions being within 2°F of average. The Rockies were the exception, with nearly all of Arizona, Colorado, New Mexico, Utah, and parts of Wyoming averaging 6 to 8°F above normal. The lack of extreme weather allowed for good fieldwork conditions, helping producers complete row crop harvest.

Seventy percent of the 2017 corn crop was harvested by November 5, fourteen percentage points behind last year and 13 points behind the 5-year average. Eighty-three percent of the corn crop was harvested by November 12, nine percentage points behind last year and 8 points behind the 5-year average. Ninety-five percent of this year's corn crop was harvested by November 26, three percentage points behind both last year and the 5-year average. Dry conditions during November allowed corn producers to make good progress with harvest.

By November 5, sorghum harvest had advanced to 72 percent complete, 11 percentage points behind last year and 6 points behind the 5-year average. Eighty-three percent of this year's sorghum crop was harvested by November 12, six percentage points behind last year and 4 points behind the 5-year average. By November 26, ninety-five percent of this year's sorghum crop was harvested, slightly behind both last year and the 5-year average. Only two states, Arkansas and Louisiana, had completed harvest by November 26. At that time, Texas still had 4 percent of the crop remaining to be harvested.

By November 5, producers had sown 91 percent of the nation's 2018 winter wheat crop, slightly ahead of last year, but equal to the 5-year average. Nationwide, 75 percent of the winter wheat crop had emerged by November 5, three percentage points behind last year and 2 points behind the 5-year average. Ninety-five percent of the 2018 winter wheat crop was sown by November 12, slightly ahead of last year, but equal to the 5-year average. Nationally, emergence had advanced to 84 percent complete by November 12, slightly ahead of both last year and the 5-year average. By November 26, emergence was 92 percent complete, equal to both last year and the 5-year average. Fifty percent of the 2018 winter wheat crop was reported in good to excellent condition for the week ending November 26, compared with 58 percent rated in these two categories during the same week last year.

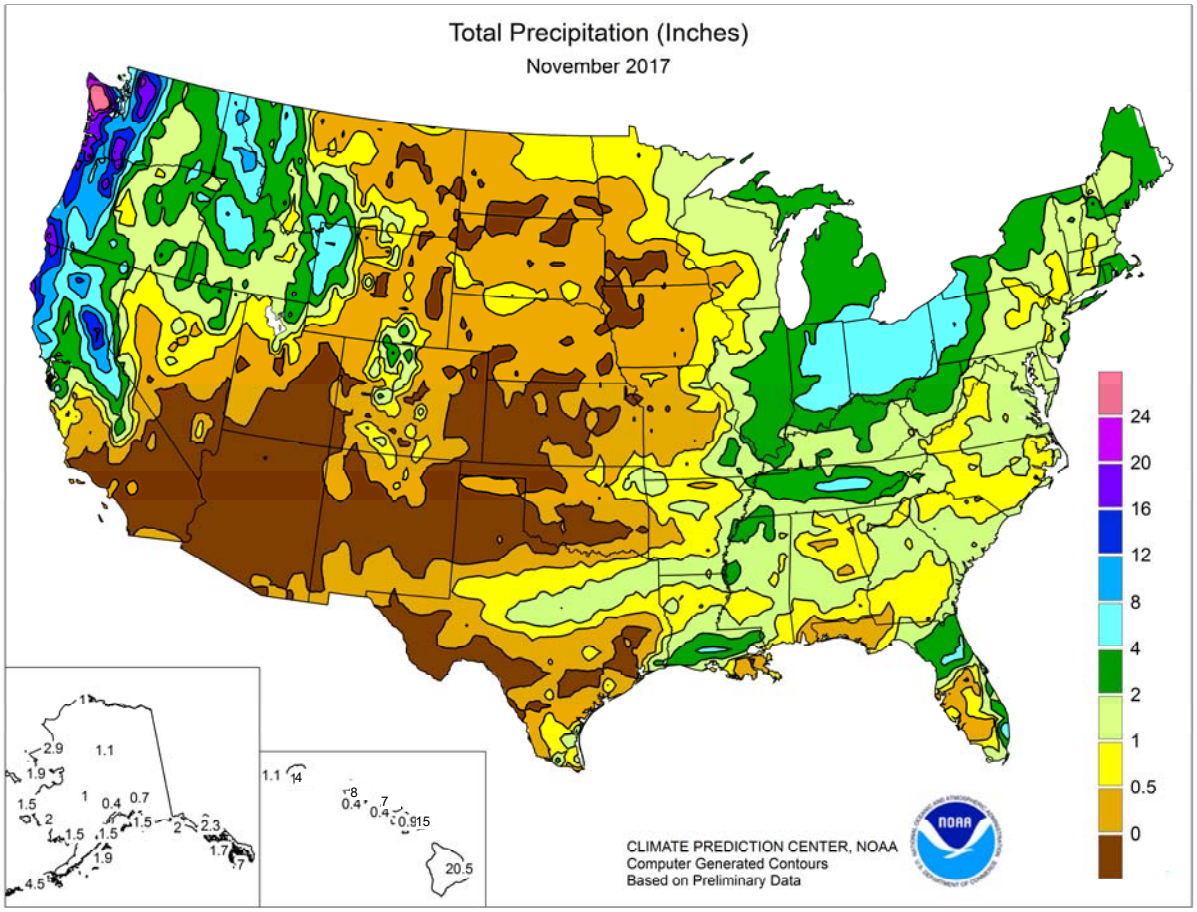
Ninety percent of the soybean crop was harvested by November 5, two percentage points behind last year and slightly behind the 5-year average. By November 12, ninety-three percent of the soybean crop was harvested, three percentage points behind last year and two points behind the 5-year average. Producers had harvested 96 percent of the soybean acreage by November 19, two percentage points behind the previous year and slightly behind the 5-year average.

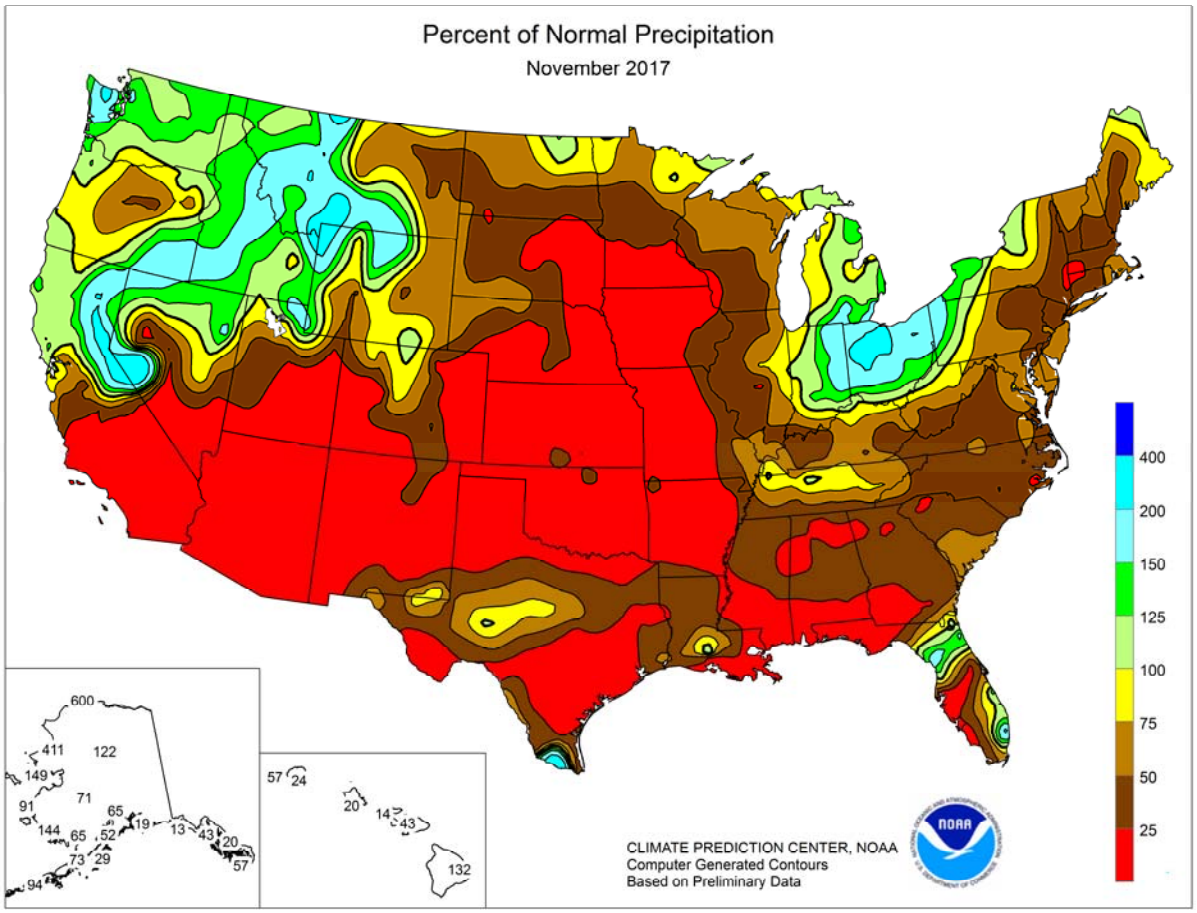
By November 5, eighty-two percent of the nation's peanut crop was harvested, three percentage points behind last year and slightly behind the 5-year average. Producers had harvested 95 percent of this year's peanut acreage by November 19, equal to both last year and the 5-year average. By November 19, only Florida had completed harvest, with all other estimating states 85 percent or more complete.

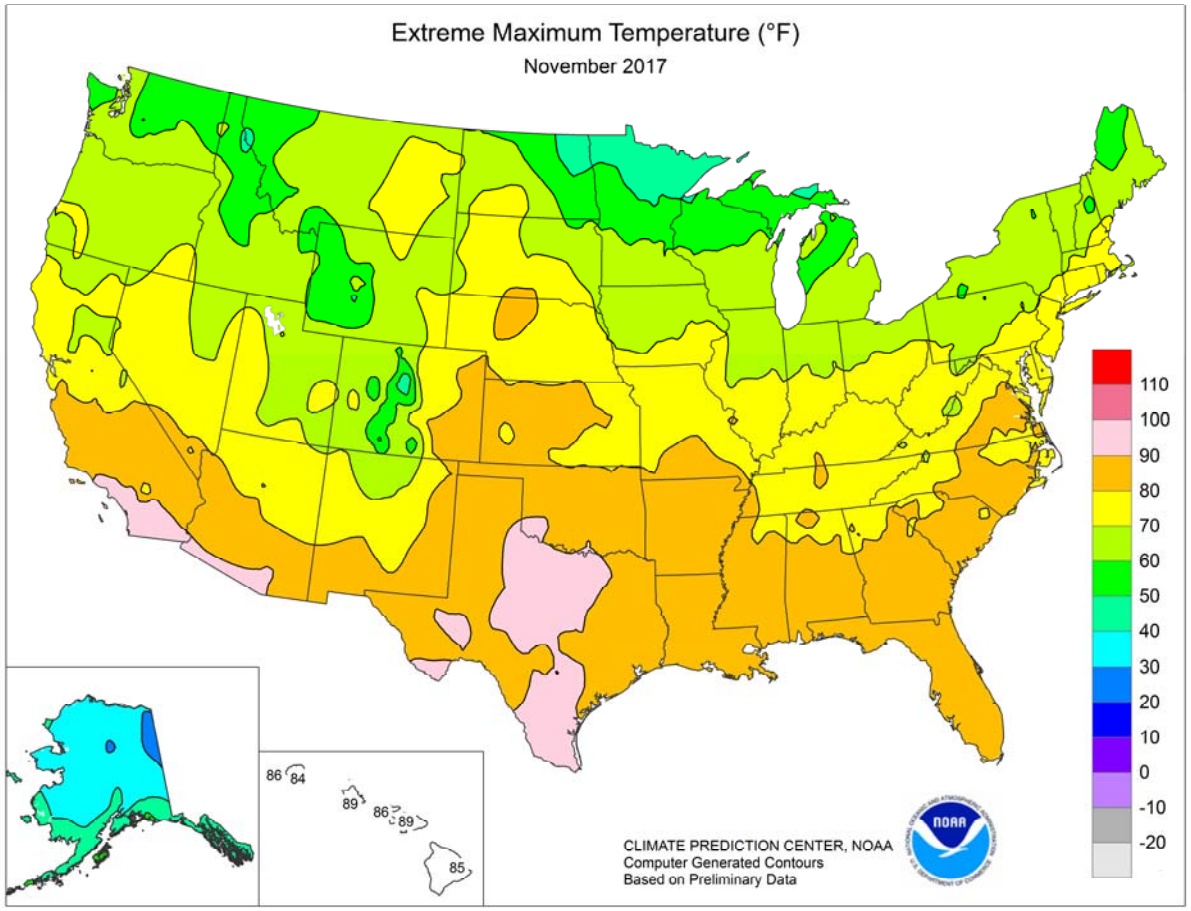
Bolls were opening across 96 percent of this year's cotton acreage by November 5, two percentage points behind both last year and the 5-year average. Nationally, harvest was 54 percent complete by November 5, slightly behind both last year and the 5-year average. Sixty-four percent of the cotton crop was harvested by November 12, four percentage points ahead of last year but equal to the 5-year average. Producers had harvested 79 percent of the cotton crop by November 26, three percentage points ahead of last year but slightly behind the 5-year average. Only Arkansas and Louisiana had fully completed cotton harvest by November 26.

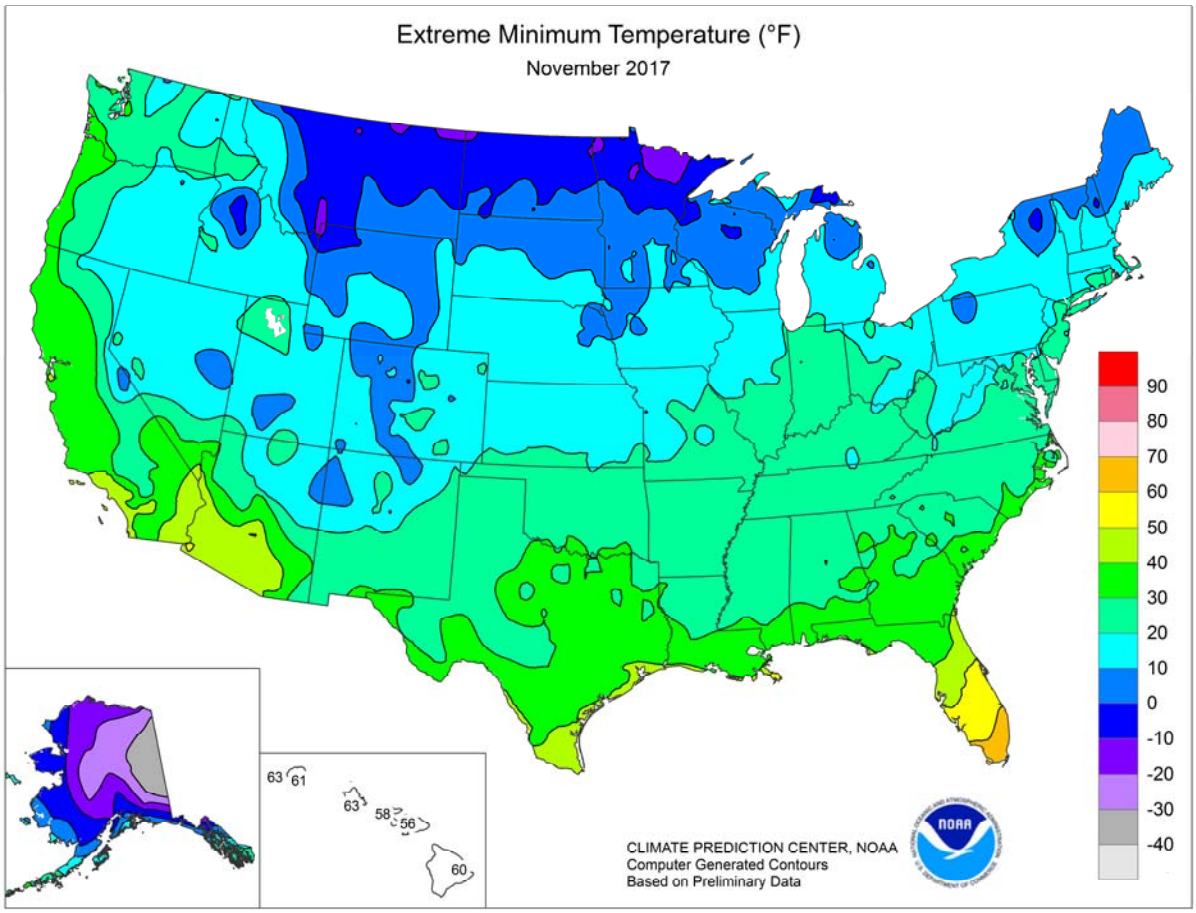
By November 5, sugarbeet producers had harvested 92 percent of this year's crop, 3 percentage points ahead of last year, but slightly behind the 5-year average. Producers in North Dakota were finished with their harvest by November 5, the first state to reach completion. By November 12, ninety-seven percent of the nation's crop was harvested, 4 percentage points ahead of the previous year, but equal to the 5-year average.

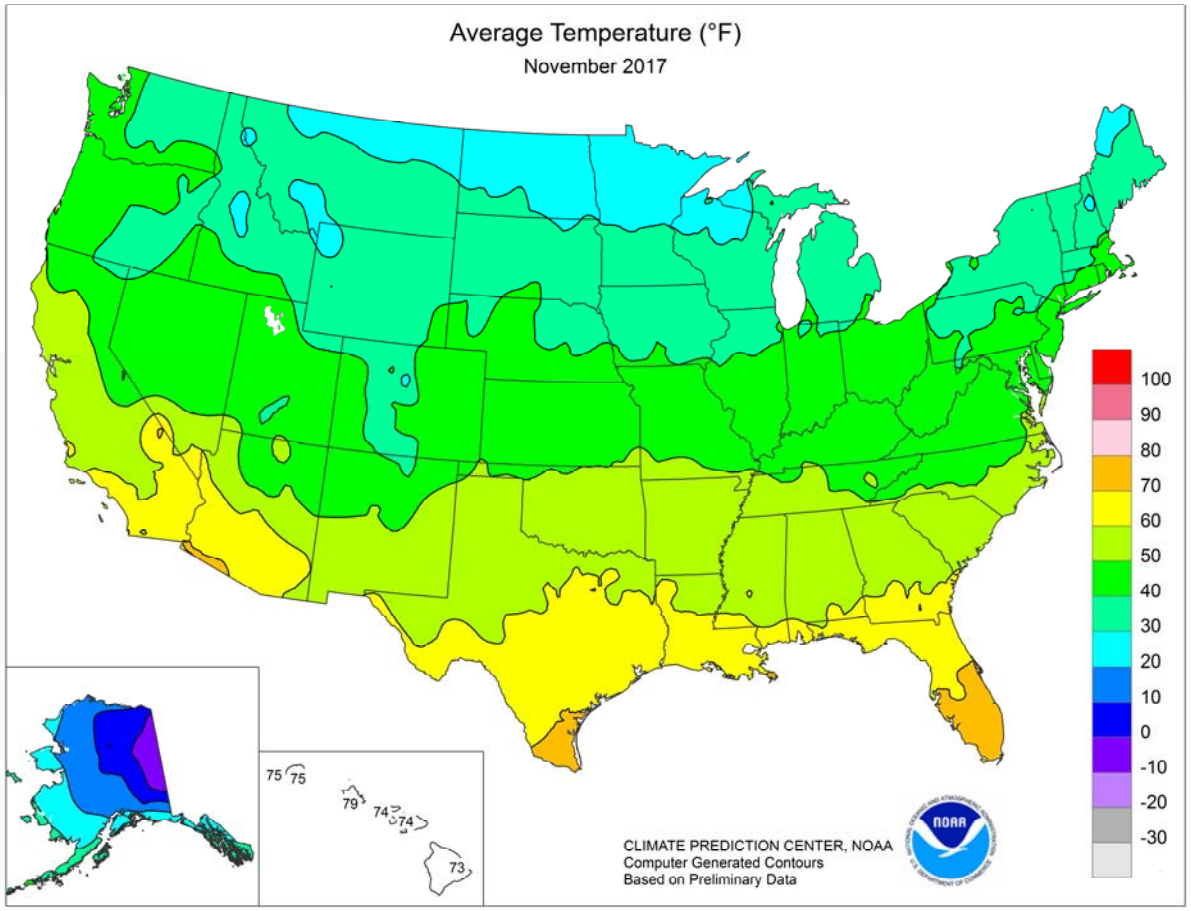
By November 5, seventy percent of this year's sunflower crop was harvested, 8 percentage points behind last year but 2 points ahead of the 5-year average. By November 12, eighty- one percent of this year's sunflower crop was harvested, 7 percentage points behind last year but 2 points ahead of the 5- year average. By November 26, ninety-three percent of this year's sunflower crop was harvested, four percentage points behind last year but equal to the 5-year average. No state had completed its harvest by November 26, but 10 percent or less remained to be harvested in all estimating states.

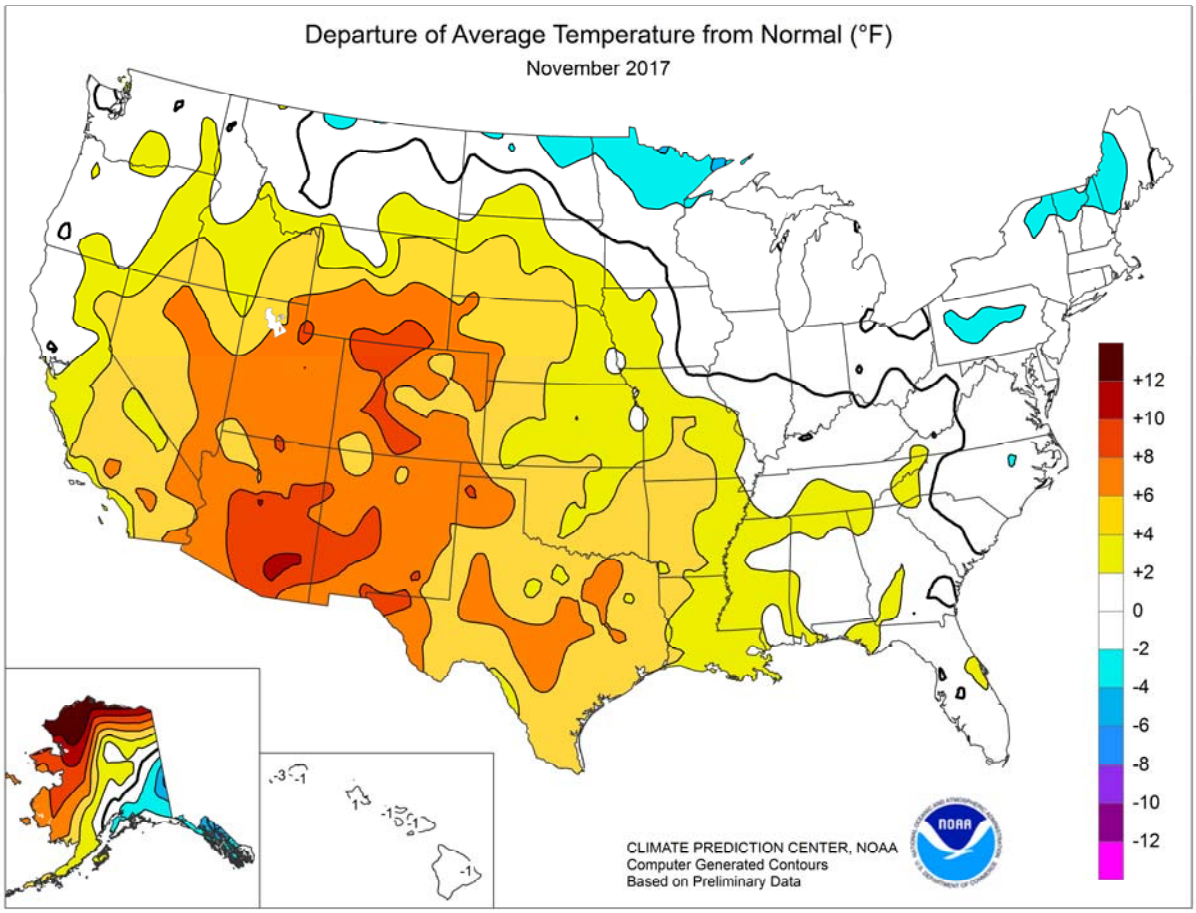

Total Precipitation (Inches)
November 2017
24
20
16
12
8
4
2
1
0.5
0
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA


Percent of Normal Precipitation
November 2017
400
200
150
125
100
75
50
25
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA


Extreme Maximum Temperature (°F)
November 2017
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
86
84
89
86
89
85
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Extreme Minimum Temperature (°F)
November 2017
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
63
61
63
58
56
60
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Average Temperature (°F)
November 2017
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
75
75
79
74
74
73
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA


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

National Weather Data for Selected Cities

November 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	56	3	1.44	-3.19	LEXINGTON	47	1	2.34	-1.10	COLUMBUS	44	0	4.67	1.48
HUNTSVILLE	54	3	0.89	-4.33	LONDON-CORBIN	48	1	2.00	-1.90	DAYTON	43	1	6.02	2.72
MOBILE	62	3	0.48	-4.93	LOUISVILLE	49	1	2.06	-1.74	MANSFIELD	41	1	6.31	2.55
MONTGOMERY	56	0	1.15	-3.38	PADUCAH	49	2	3.42	-1.11	TOLEDO	41	1	5.18	2.40
AK ANCHORAGE	21	-1	0.71	-0.38	LA BATON ROUGE	62	3	2.70	-2.06	YOUNGSTOWN	41	0	5.43	2.36
BARROW	15	16	0.97	0.81	LAKE CHARLES	64	4	2.41	-2.20	OK OKLAHOMA CITY	52	3	0.07	-2.04
COLD BAY	39	4	4.50	-0.29	NEW ORLEANS	65	4	0.06	-5.03	TULSA	54	4	0.64	-2.83
FAIRBANKS	5	3	1.36	0.68	SHREVEPORT	61	5	1.43	-3.25	OR ASTORIA	47	0	14.16	3.66
JUNEAU	27	-6	2.33	-3.10	ME BANGOR	36	-1	3.05	-0.64	BURNS	35	2	1.50	0.39
KING SALMON	27	4	1.13	-0.41	CARIBOU	31	0	3.67	0.55	EUGENE	45	0	7.46	-0.98
KODIAK	36	2	1.91	-4.72	PORTLAND	38	0	2.09	-2.63	MEDFORD	46	2	2.87	-0.06
NOME	24	7	1.90	0.62	MD BALTIMORE	46	0	2.15	-0.97	PENDLETON	43	2	1.56	-0.07
AZ FLAGSTAFF	44	7	0.01	-1.85	MA BOSTON	44	-1	1.80	-2.18	PORTLAND	47	1	6.44	0.83
PHOENIX	71	9	0.00	-0.73	WORCESTER	39	-1	1.79	-2.55	SALEM	48	3	6.57	0.18
TUCSON	69	10	0.09	-0.58	MI ALPENA	35	0	3.16	1.08	PA ALLENTOWN	43	1	1.55	-2.15
AR FORT SMITH	55	4	0.28	-4.52	DETROIT	40	-1	4.92	2.26	ERIE	42	-1	6.47	2.51
LITTLE ROCK	55	3	0.42	-5.31	FLINT	38	0	3.11	0.46	MIDDLETOWN	43	-1	2.26	-1.26
CA BAKERSFIELD	60	5	0.03	-0.56	GRAND RAPIDS	38	0	2.80	-0.55	PHILADELPHIA	47	0	1.30	-1.86
EUREKA	53	2	7.40	1.62	HOUGHTON LAKE	34	-1	2.49	0.35	PITTSBURGH	42	0	4.15	1.13
FRESNO	58	5	0.28	-0.82	LANSING	38	0	3.33	0.67	WILKES-BARRE	41	-1	1.07	-2.05
LOS ANGELES	65	3	0.10	-1.03	MUSKEGON	39	0	2.54	-0.69	WILLIAMSPORT	41	0	1.23	-2.39
REDDING	53	2	5.23	1.20	TRAVERSE CITY	37	0	2.49	-0.18	PR SAN JUAN	82	2	10.16	3.99
SACRAMENTO	55	2	2.13	-0.06	MN DULUTH	26	-2	1.31	-0.81	RI PROVIDENCE	44	0	2.94	-1.46
SAN DIEGO	65	3	0.02	-1.05	INT'L FALLS	23	-1	1.07	-0.29	SC CHARLESTON	58	0	1.60	-1.06
SAN FRANCISCO	58	3	2.77	0.28	MINNEAPOLIS	34	1	0.39	-1.55	COLUMBIA	56	1	1.28	-1.60
STOCKTON	56	3	0.79	-0.98	ROCHESTER	33	2	0.42	-1.59	FLORENCE	54	-1	0.70	-1.89
CO ALAMOSA	38	10	0.05	-0.43	ST. CLOUD	30	1	0.82	-0.72	GREENVILLE	53	2	0.73	-3.06
CO SPRINGS	46	10	0.15	-0.37	MS JACKSON	61	6	0.96	-4.08	MYRTLE BEACH	56	-1	1.41	-1.56
DENVER	45	8	0.29	-0.31	MERIDIAN	58	2	1.41	-3.54	SD ABERDEEN	30	1	0.11	-0.64
GRAND JUNCTION	45	7	0.01	-0.70	TUPELO	54	3	1.61	-3.40	HURON	34	3	0.08	-0.81
PUEBLO	46	8	0.31	-0.27	MO COLUMBIA	47	4	0.36	-3.11	RAPID CITY	38	5	0.14	-0.47
CT BRIDGEPORT	45	0	1.87	-1.78	JOPLIN	51	4	0.52	-3.54	SIOUX FALLS	36	5	0.03	-1.33
HARTFORD	40	-2	1.04	-3.02	KANSAS CITY	45	2	0.27	-2.03	TN BRISTOL	47	1	1.10	-1.98
DC WASHINGTON	50	1	2.00	-1.03	SPRINGFIELD	50	4	0.37	-4.09	CHATTANOOGA	53	3	1.65	-3.23
DE WILMINGTON	46	0	1.39	-1.80	ST JOSEPH	42	0	0.46	-1.70	JACKSON	52	2	2.77	-2.30
FL DAYTONA BEACH	69	2	1.64	-1.39	ST LOUIS	48	3	1.53	-2.18	KNOXVILLE	51	2	3.19	-0.79
FT LAUDERDALE	75	1	5.76	1.19	MT BILLINGS	36	2	1.35	0.60	MEMPHIS	55	3	1.81	-3.95
FT MYERS	74	2	0.39	-1.32	BUTTE	28	1	0.74	0.14	NASHVILLE	52	3	4.46	0.01
JACKSONVILLE	65	3	2.61	0.27	GLASGOW	29	1	0.17	-0.22	TX ABILENE	57	3	0.90	-0.40
KEY WEST	77	1	1.51	-1.13	GREAT FALLS	33	1	0.97	0.38	AMARILLO	53	8	0.00	-0.68
MELBOURNE	73	4	2.59	-0.53	HELENA	32	1	1.05	0.57	AUSTIN	64	4	0.42	-2.26
MIAMI	77	3	4.41	0.98	KALISPELL	34	3	1.55	0.10	BEAUMONT	65	4	2.80	-1.95
ORLANDO	70	1	0.17	-2.15	MILES CITY	33	1	0.25	-0.27	BROWNSVILLE	74	6	0.79	-0.96
PENSACOLA	64	3	0.09	-4.37	MISSOULA	34	2	1.61	0.65	COLLEGE STATION	66	6	0.58	-2.60
ST PETERSBURG	72	2	0.62	-1.42	NE GRAND ISLAND	41	5	0.51	-0.90	CORPUS CHRISTI	70	5	0.23	-1.51
TALLAHASSEE	62	2	0.52	-3.34	HASTINGS	41	4	0.08	-1.38	DALLAS/FT WORTH	62	7	0.81	-1.76
TAMPA	72	3	0.12	-1.50	LINCOLN	41	3	0.07	-1.51	DEL RIO	64	4	0.03	-0.93
WEST PALM BEACH	75	2	2.69	-2.86	MCCOOK	42	4	0.16	-0.93	EL PASO	61	8	0.28	-0.14
GA ATHENS	55	2	1.22	-2.49	NORFOLK	38	3	0.09	-1.35	GALVESTON	69	4	0.43	-3.21
ATLANTA	56	3	1.04	-3.06	NORTH PLATTE	40	5	0.07	-0.69	HOUSTON	67	6	0.50	-3.69
AUGUSTA	55	1	1.36	-1.32	OMAHA/EPPLEY	40	2	0.36	-1.46	LUBBOCK	55	7	0.03	-0.68
COLUMBUS	59	2	1.62	-2.35	SCOTTSBLUFF	42	8	0.52	-0.28	MIDLAND	59	7	0.40	-0.25
MACON	57	2	1.09	-2.13	VALENTINE	41	8	0.56	-0.16	SAN ANGELO	60	6	0.98	-0.12
SAVANNAH	60	1	1.29	-1.11	NV ELKO	41	6	1.26	0.21	SAN ANTONIO	66	6	0.52	-2.06
HI HILO	73	-1	20.53	4.95	ELY	41	8	0.36	-0.27	VICTORIA	67	4	0.48	-2.16
HONOLULU	79	1	0.45	-1.81	LAS VEGAS	63	8	0.00	-0.31	WACO	62	5	1.30	-1.31
KAHULUI	74	-2	0.94	-1.23	RENO	49	8	1.17	0.37	WICHITA FALLS	56	4	0.10	-1.58
LIHUE	75	-1	1.13	-3.57	WINNEMUCCA	44	7	0.95	0.15	UT SALT LAKE CITY	48	8	1.16	-0.24
ID BOISE	44	4	1.77	0.39	NH CONCORD	38	0	1.35	-2.22	VT BURLINGTON	37	0	1.68	-1.38
LEWISTON	43	3	1.76	0.55	NJ ATLANTIC CITY	47	1	2.42	-0.84	VA LYNCHBURG	46	-1	1.02	-2.16
POCATELLO	40	5	1.31	0.18	NEWARK	46	0	1.51	-2.37	NORFOLK	53	1	1.16	-1.82
IL CHICAGO/O'HARE	40	1	1.75	-1.26	NM ALBUQUERQUE	53	9	0.00	-0.62	RICHMOND	49	0	1.43	-1.63
MOLINE	39	0	0.97	-1.76	NY ALBANY	39	0	0.90	-2.38	ROANOKE	47	0	0.70	-2.51
PEORIA	41	1	1.58	-1.41	BINGHAMTON	37	-1	1.76	-1.56	WASH/DULLES	46	1	1.99	-1.32
ROCKFORD	37	0	1.03	-1.60	BUFFALO	40	0	5.09	1.17	WA OLYMPIA	44	2	12.28	4.15
SPRINGFIELD	44	2	0.84	-2.03	ROCHESTER	40	0	4.13	1.29	QUILLAYUTE	45	1	19.91	5.09
IN EVANSVILLE	47	1	1.70	-2.48	SYRACUSE	38	-2	3.65	-0.12	SEATTLE-TACOMA	47	2	8.63	2.73
FORT WAYNE	42	1	5.49	2.51	NC ASHEVILLE	50	4	1.59	-2.23	SPOKANE	38	3	2.88	0.64
INDIANAPOLIS	44	1	3.96	0.35	CHARLOTTE	52	0	0.94	-2.42	YAKIMA	41	4	1.25	0.20
SOUTH BEND	39	-1	3.40	0.01	GREENSBORO	49	0	0.95	-2.01	WV BECKLEY	45	2	1.37	-1.51
IA BURLINGTON	40	-1	0.98	-1.74	HATTERAS	58	0	2.19	-2.74	CHARLESTON	47	1	1.62	-2.04
CEDAR RAPIDS	37	0	0.58	-1.66	RALEIGH	50	-1	1.28	-1.69	ELKINS	43	2	2.70	-0.72
DES MOINES	40	2	0.25	-1.85	WILMINGTON	56	0	1.07	-2.19	HUNTINGTON	47	1	2.23	-1.09
DUBUQUE	35	-1	0.66	-1.83	ND BISMARCK	32	4	0.26	-0.44	WI EAU CLAIRE	31	-1	1.09	-0.83
SIOUX CITY	37	2	0.08	-1.32	DICKINSON	31	2	0.19	-0.40	GREEN BAY	35	1	1.14	-1.13
WATERLOO	35	0	0.44	-1.66	FARGO	28	1	0.36	-0.70	LA CROSSE	37	2	0.35	-1.75
KS CONCORDIA	44	3	0.14	-1.31	GRAND FORKS	24	-2	0.86	-0.13	MADISON	35	0	0.98	-1.33
DODGE CITY	46	4	0.01	-1.00	JAMESTOWN	27	0	0.26	-0.45	MILWAUKEE	39	1	1.37	-1.33
GOODLAND	43	6	0.03	-0.79	MINOT	27	0	0.41	-0.45	WAUSAU	31	-1	1.23	-0.97
HILL CITY	44	4	0.10	-0.64	WILLISTON	27	1	0.32	-0.33	WY CASPER	38	6	0.31	-0.51
TOPEKA	46	3	0.10	-2.21	OH AKRON-CANTON	42	1	6.34	3.30	CHEYENNE	42	9	0.44	-0.20
WICHITA	48	4	0.52	-1.30	CINCINNATI	45	0	4.06	0.60	LANDER	37	7	0.45	-0.54
KY JACKSON	49	1	1.30	-2.90	CLEVELAND	44	2	5.95	2.57	SHERIDAN	35	4	1.54	0.74

Based on 1971-2000 normals

*** Not Available

National Agricultural Summary

December 4 – 10, 2017

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Snow storms moved through the Eastern States late in the week, blanketing parts of the Deep South with several inches of snow before moving northward. Despite the snow, temperatures were fairly normal across the South for most of the week, with only southern Louisiana dipping more than 6°F below average. Warmer-than-average temperatures were reported across New England, Great Lakes, and Plains States. Highs in the upper 50s were recorded in eastern Montana and Wyoming, and average temperatures in parts of those states were 5 to 10°F above average. Wildfires moved through southwestern California, strengthened by dry conditions and strong winds.

California: Dry conditions prevailed throughout the state as a strong ridge of high pressure slowly moved eastward toward the Great Basin. Mild afternoons and chilly nights were experienced in most of northern California due to the persistent ridge. Elsewhere, the area of high pressure led to the development of strong Santa Ana winds, which brought very dry conditions and contributed to the expansion of the fires across parts of southwestern California. The cotton harvest neared completion. Producers continued to prepare fields for fall planting of wheat, barley, and oats. Silage corn grew well and harvesting was ongoing. Black-eyed beans were being harvested and processed. Fall and winter vegetables were being harvested and available at roadside stands. Head, leaf, and romaine lettuce for the fall season grew nicely, with many fields starting to be harvested. The apple harvest was nearing completion, while pruning continued in some stone fruit orchards. Old orchards were removed and prepared for replanting. The table grape harvest was almost finished and some vineyards were sprayed for weeds. The navel orange and other citrus harvests were ongoing. Young citrus trees were bagged to protect them from frost. Almond and pistachio harvests were complete, and walnut harvest was nearly complete. The extent of the impact of the southern California wildfires and Santa Ana winds on avocado and citrus orchards has yet to be quantified. Non-irrigated and foothill rangeland forage quality continued to improve, with northern and central locations reporting fair to poor conditions. Earlier rains and warm weather stimulated germination, and foothill range and non-irrigated fields were showing green. Supplemental feeding of cattle was ongoing. Sheep grazed idle cropland, stubble fields, and dormant alfalfa.

Florida: There were 5.7 days suitable for fieldwork in Florida. Precipitation estimates ranged from trace amounts of rain to 4.5 inches in Bradford County. Average mean temperatures ranged from 48.9°F in Santa Rosa County to 77.3°F in Miami Beach. The cotton harvest was nearly complete and the sugarcane harvest was ongoing in Glades, Hendry, and Palm Beach Counties. Strawberry volumes continued to increase in Hillsborough County, and growers continued harvests for cabbages, cucumbers, eggplants, green beans, and other vegetables. The citrus region experienced the lowest temperatures of the season over the weekend, with several areas dropping into the mid to upper 30s. All areas received some rain, but operations still ran irrigation on at least 1 or 2 days due to the low amounts of rainfall over the past several weeks. Grove activities were normal for this time of the year, with growers conducting light spraying, mowing, and harvesting. Harvest continued at a normal pace, with growers spot-picking red grapefruit and getting into orange blocks suitable for the fresh market. Harvesting for the fresh market also included early tangerines and tangelos. On the processed side, the large majority of the harvest was early oranges. Pastures were damaged by frost this week in Dixie, Jackson, Osceola, and Walton Counties. Pastures were reported to be dry and brown in color in Brevard and Indian River Counties. Cattle remained in mostly good condition throughout the state.

U.S. Crop Production Highlights

This information was released by USDA's Agricultural Statistics Board on December 12, 2017. Forecasts refer to December 1.

All cotton production is forecast at 21.4 million 480-pound bales, up less than 1 percent from November and up 25 percent from last year. Yield is expected to average 902 pounds per harvested acre, up 2 pounds from last month and up 35 pounds from last year. If realized, the cotton yield forecast for the nation will be the highest on record. Upland cotton production is forecast at 20.7 million 480-pound bales, up 25 percent from 2016. Pima cotton production, forecast at 727,000 bales, was carried forward from an earlier forecast.

The U.S. **all orange** forecast for the 2017-2018 season is 3.98 million tons, down 4 percent from last month and down 23 percent from the 2016-2017 final utilization. The Florida all orange forecast, at 46.0 million boxes (2.07 million tons), is down 8 percent from last month and down 33 percent from last season. Early, midseason, and Navel varieties in Florida are forecast at 19.0 million boxes (855,000 tons), down 10 percent from last month and down 42 percent from last season. The Florida Valencia orange forecast, at 27.0 million boxes (1.22 million tons), is down 7 percent from last month and down 24 percent from last season. California and Texas orange production forecasts were carried forward from the previous month.

International Weather and Crop Summary

December 3-9, 2017

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

HIGHLIGHTS

EUROPE: Winter crops were dormant over much of central and northern Europe, while drought persisted across portions of the Iberian Peninsula.

MIDDLE EAST: Scattered showers boosted moisture supplies for winter grain establishment in northern growing areas, while sunny weather promoted winter crop planting and emergence elsewhere.

NORTHWESTERN AFRICA: The return of dry weather renewed drought concerns in Morocco and western Algeria, while showers maintained good to excellent early-season winter grain prospects in eastern growing areas.

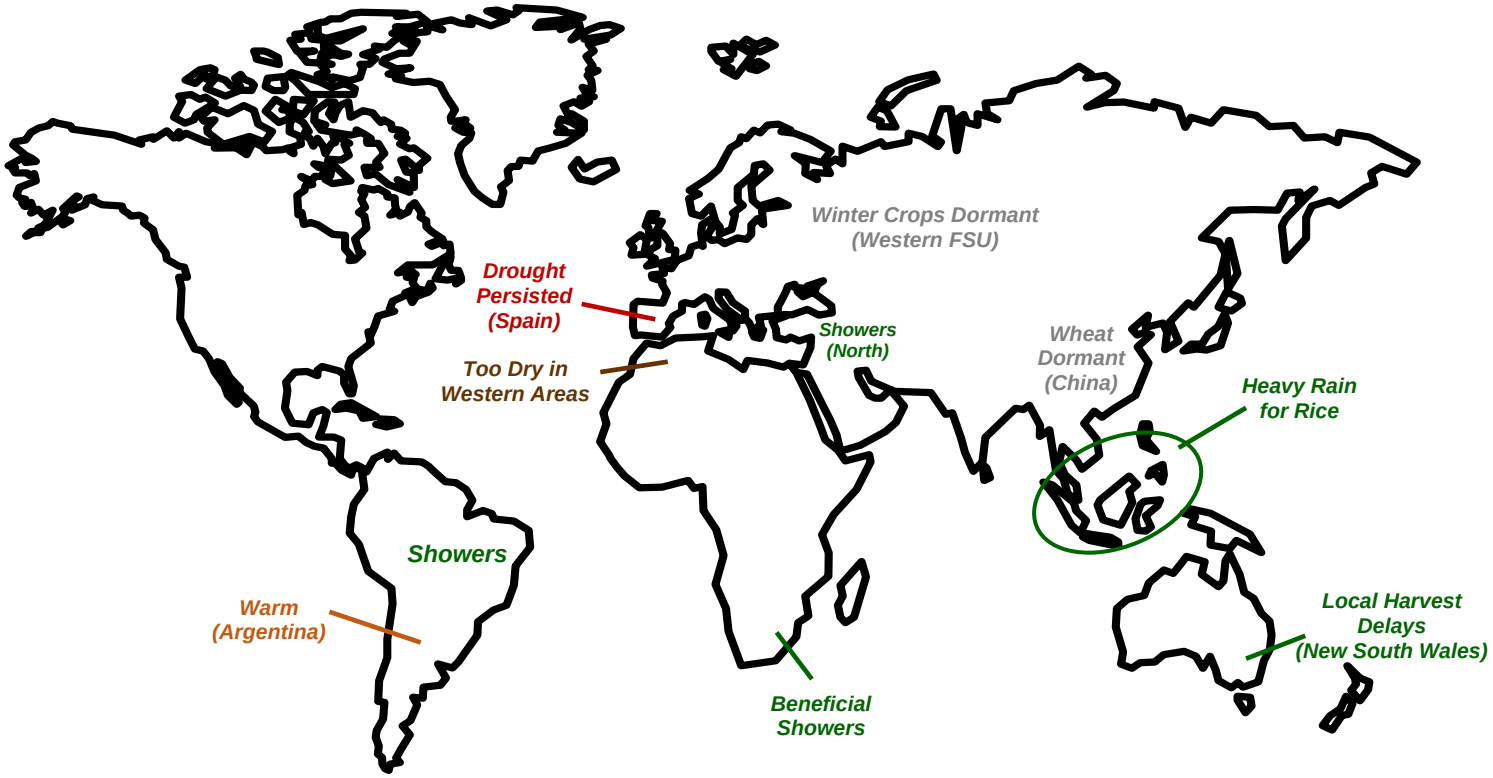
SOUTHEAST ASIA: Heavy showers across much of the region maintained favorable moisture conditions for rice and other crops.

AUSTRALIA: Rain further delayed winter crop harvesting in southern New South Wales, while mostly dry weather elsewhere in the south and east enabled harvesting to regain some momentum.

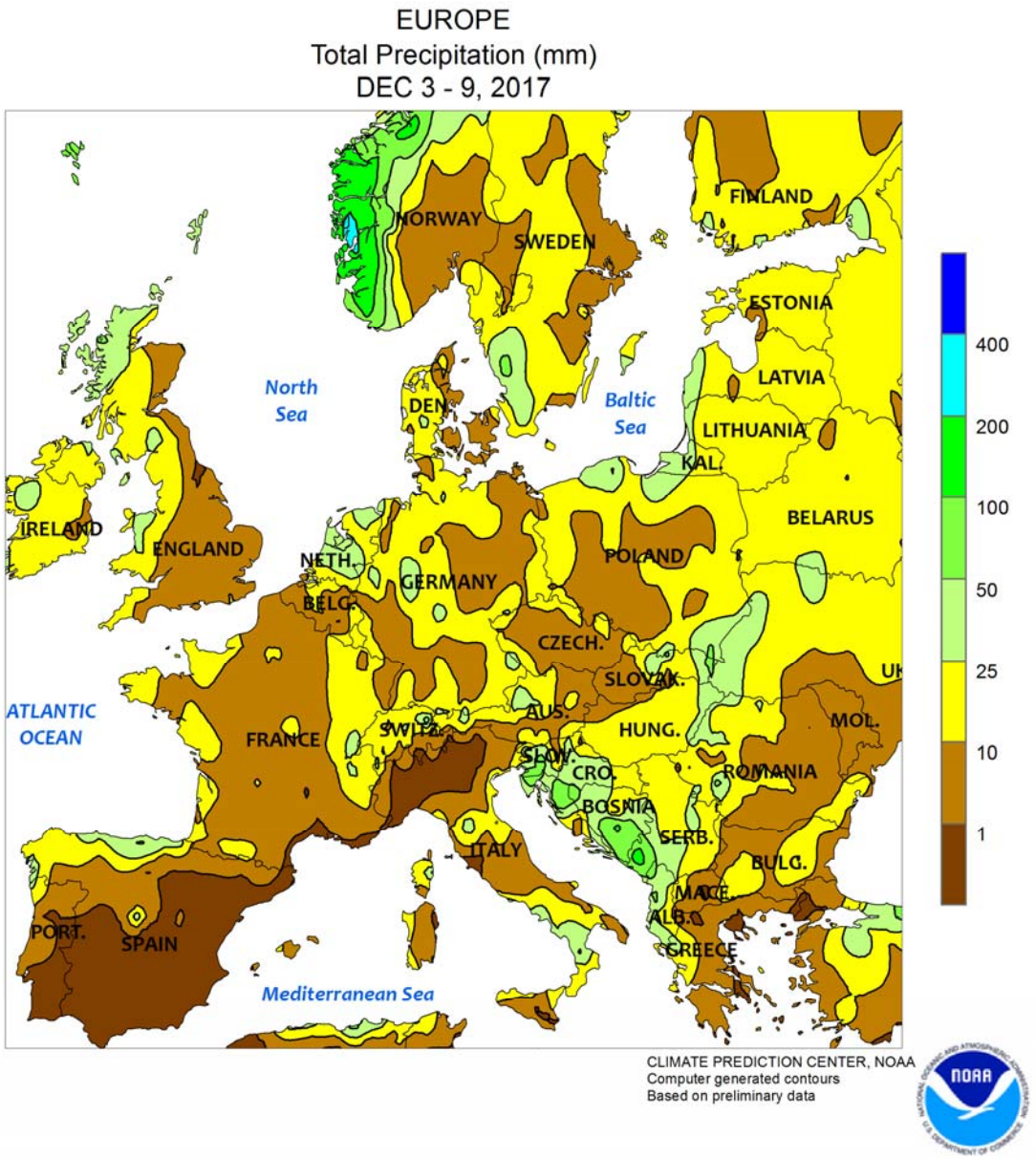
SOUTH AFRICA: Showers benefited corn and other rain-fed summer crops in key commercial production areas.

ARGENTINA: Warm weather accompanied light showers over high-yielding corn and soybean areas.

BRAZIL: Widespread, locally heavy rain maintained overall favorable conditions for corn, soybeans, and other summer crops.



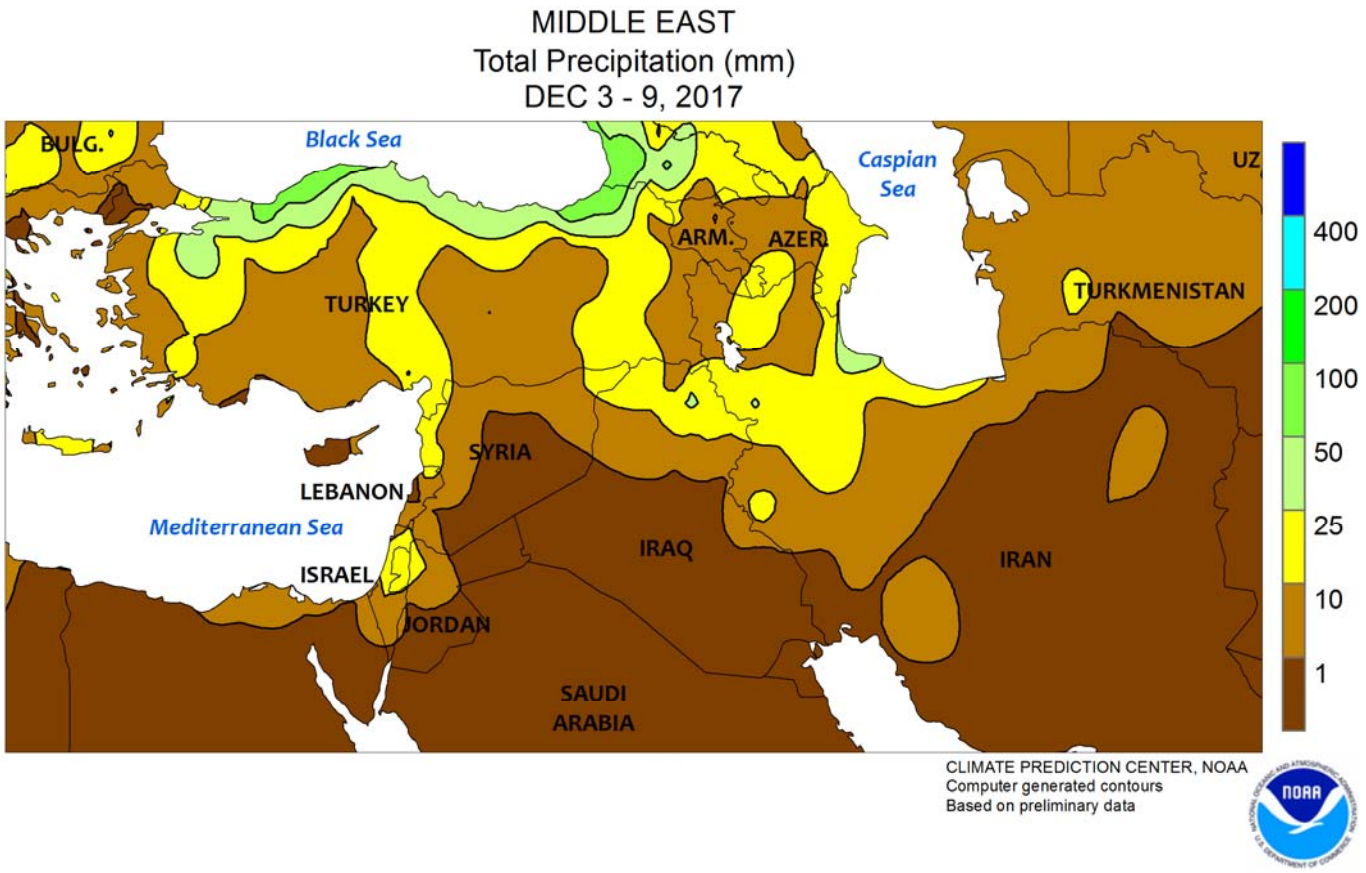
For additional information contact: mbrusberg@oce.usda.gov



EUROPE

Winter crops were dormant over much of central and northern Europe, while drought concerns lingered on the Iberian Peninsula. Despite warmer-than-normal weather (up to 3°C above normal) across northeastern Europe, 7-day average temperatures below 5°C for a second consecutive week indicated wheat and rapeseed were now dormant from England and France into eastern Europe. Winter crops entered dormancy in good shape due to favorable autumn moisture for establishment. However, excessive wetness (locally more than 200 percent of normal precipitation during the fall) across Poland and the southern Balkans impeded winter crop sowing efforts, and affected producers may need to switch to spring-sown varieties or summer crops once seasonally warmer weather returns. Meanwhile, dry weather lingered on the Iberian Peninsula, where autumn drought has limited soil moisture available for wheat and barley establishment. Drought is most prevalent in northern Spain (Castilla y León), where precipitation since September 1 has totaled a meager 33 percent of normal. Although recent cool weather has mitigated crop-water demands somewhat, hard freezes (-8 to -3°C) early in the period posed a risk to emerged winter grains.

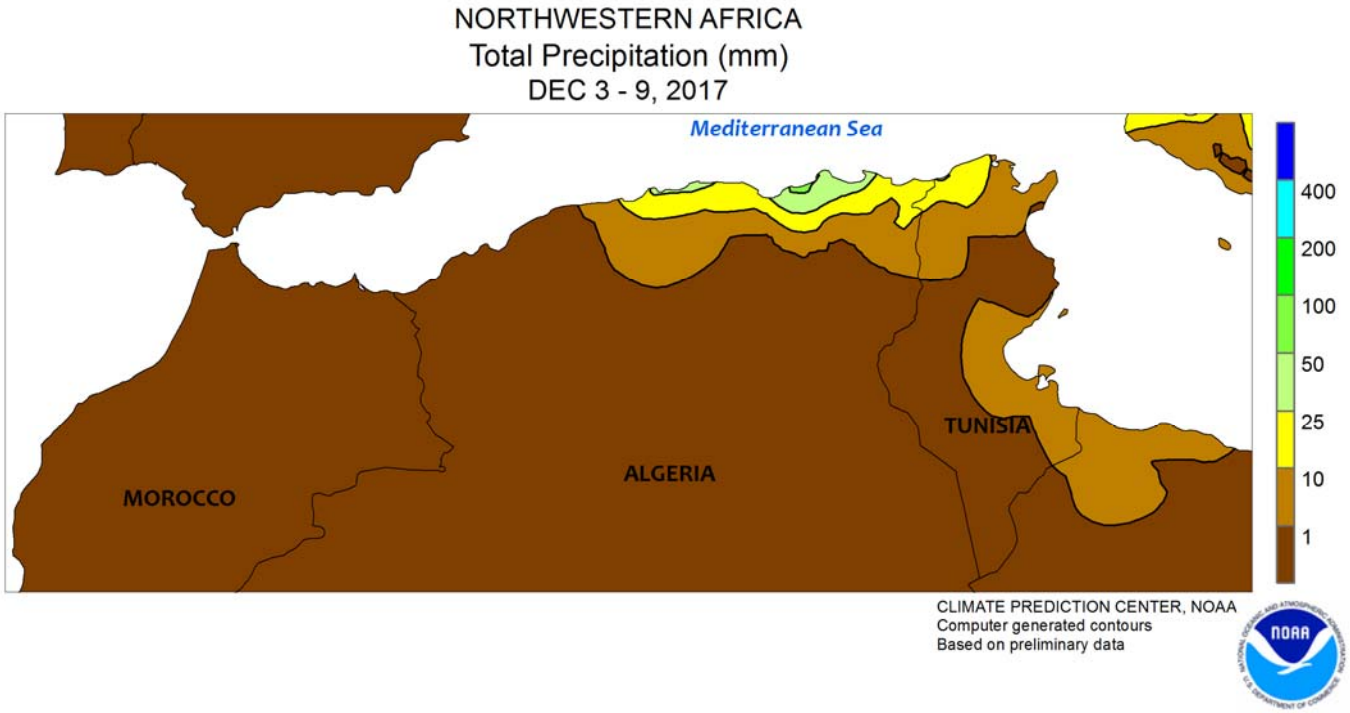
For additional information contact: mbrusberg@oce.usda.gov



MIDDLE EAST

Showers in northern growing areas contrasted with dry weather elsewhere. An early-week storm system and its attendant cold front produced rain and mountain snow from Turkey into northern Iraq and northwestern Iran. In central Turkey, the moisture (4-20 mm liquid equivalent) continued the country's recovery from autumn drought and further improved winter grain establishment prospects. Farther east, up to 30 mm of rain in northern Iraq provided much-needed moisture for winter crops, while central and southern portions of Iraq remained unfavorably dry (3 mm or less). Likewise, Iran's northwestern wheat and barley areas benefited from locally more than 20 mm of rain and snow, while southern and eastern growing areas remained dry. In particular, Iran's northeast rain-fed winter grain areas have seen a second consecutive year of autumn drought, with season-to-date rainfall (since September 1) totaling less than 20 percent of normal.

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



NORTHWESTERN AFRICA

Dry weather renewed drought concerns in Morocco and western Algeria, while showers maintained favorable moisture supplies in eastern growing areas. After last week's beneficial rain, dry albeit chilly weather (up to 4°C below normal) settled over the western half of the region. Even with last week's rain, the 2017-18 growing campaign is the driest over the past 30 years in northern Morocco, with regional-average precipitation totaling a meager 35 percent of normal since September 1. However, locally heavy showers were falling in Morocco as of December 11, and it is still early enough in the season for producers to sow wheat and barley and achieve good yields. Meanwhile, light to moderate rainfall (2-30 mm, locally more) from central Algeria into northern Tunisia maintained good to excellent prospects for vegetative winter crops.

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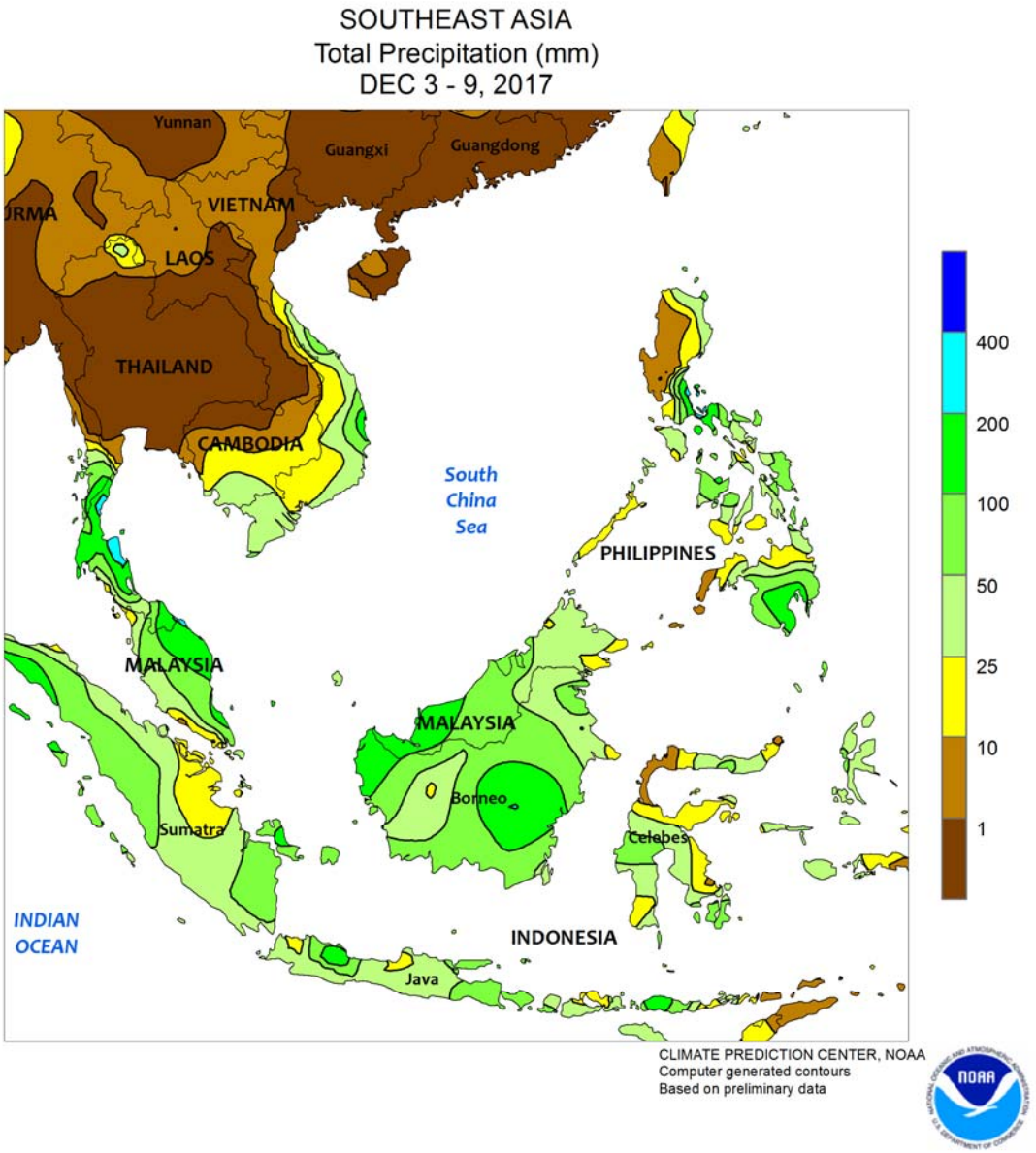
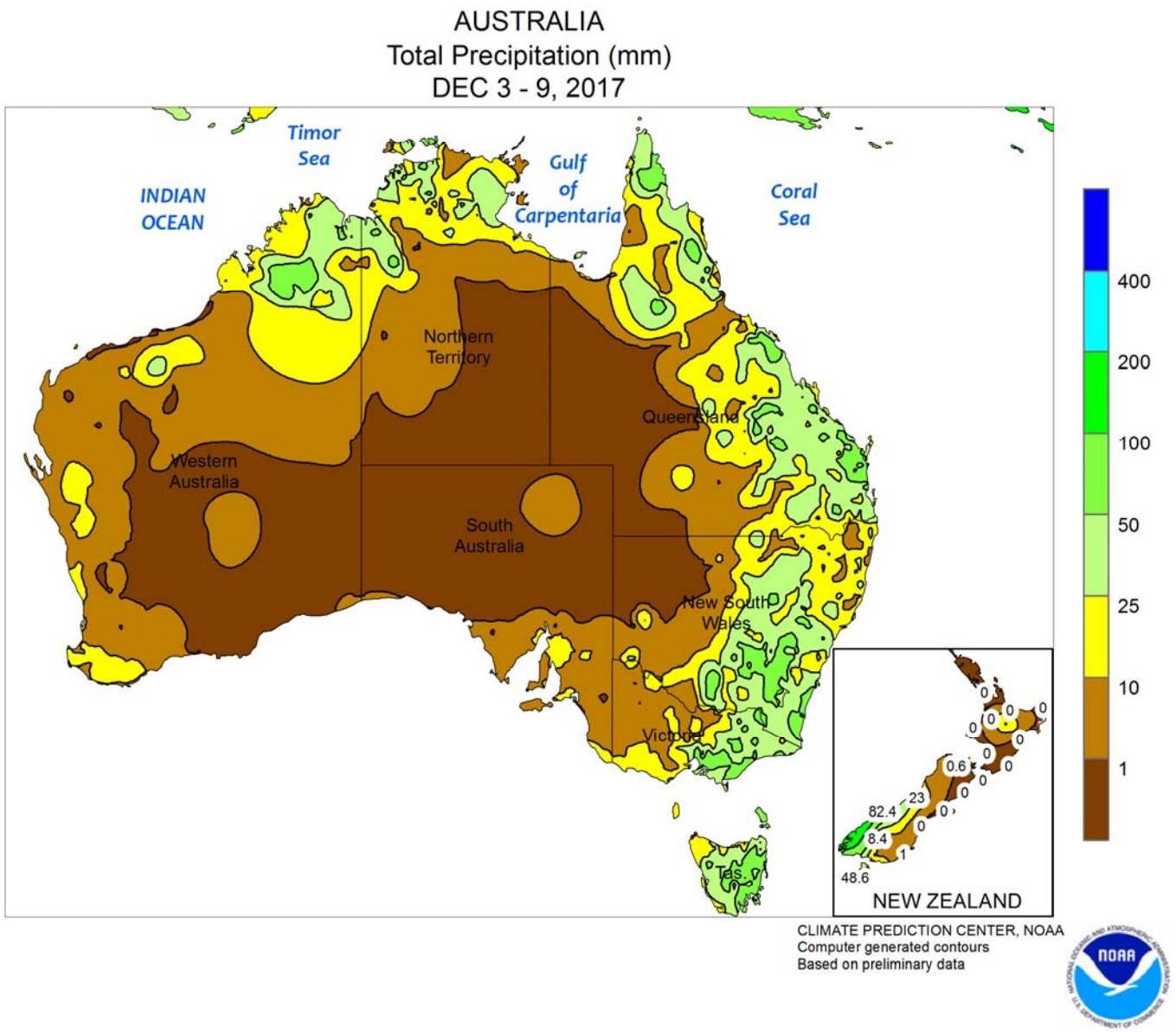


SOUTHEAST ASIA

Widespread, seasonally heavy showers continued across southern sections of the region and into the Philippines. In the Philippines, 25 to 100 mm (locally more) maintained favorable moisture conditions for winter rice and other crops, with few locations experiencing any significant seasonal (since November 1) deficits. Similarly, showers (25-100 mm or more) in Indonesia and Malaysia kept oil palm and rice well watered. In fact, seasonal rainfall (since November 1) in Java, Indonesia, was nearly 150 percent of normal. Meanwhile, localized flooding continued in oil palm areas of peninsular Thailand, where rainfall totals exceeded 150 mm. Heavy showers (25-100 mm) continued in central Vietnam, exacerbating severe wetness in a minor rice-producing portion of the country.

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

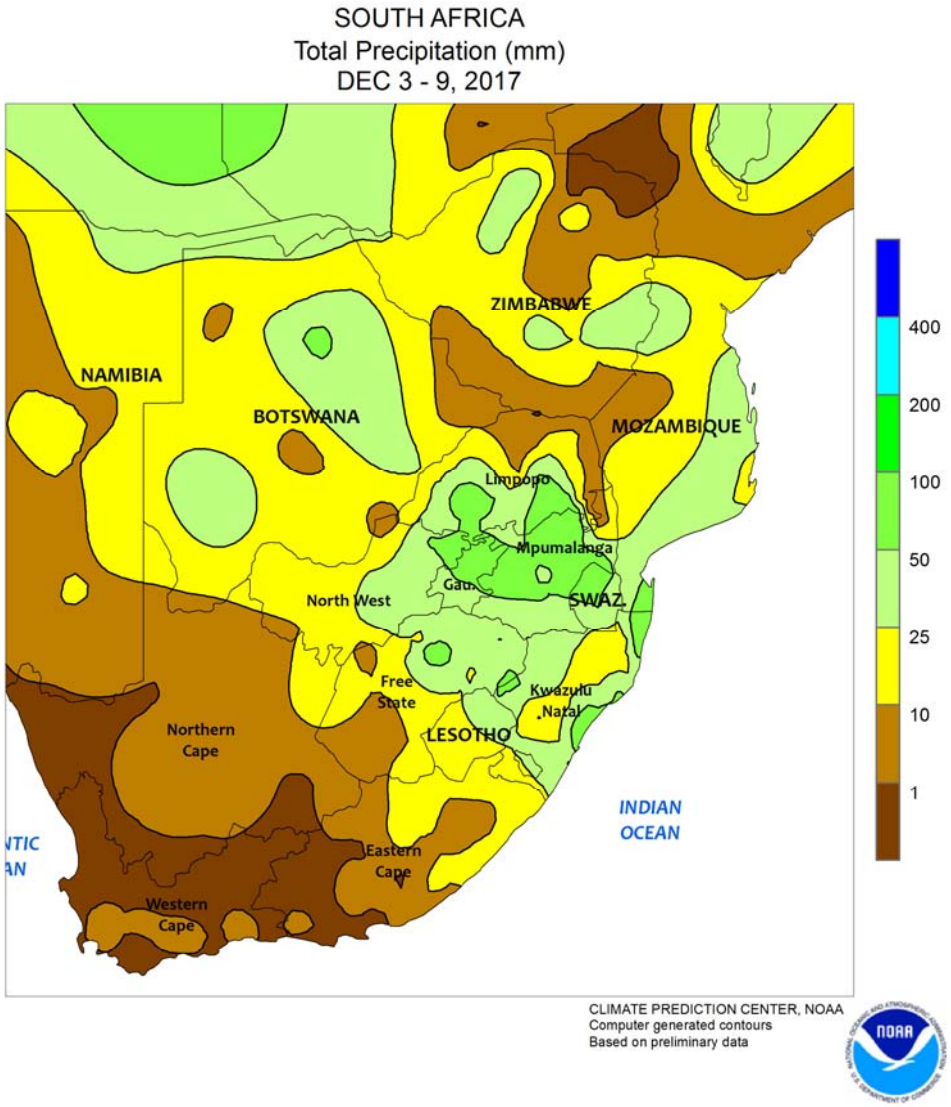


AUSTRALIA

In southern Queensland and southern New South Wales, widespread, soaking rain (10-25 mm, locally near 50 mm) continued to hinder fieldwork but promoted further development of vegetative summer crops. Winter wheat harvesting is nearly complete in southern Queensland, minimizing the rain's impact on mature crops. In southern New South Wales, however, winter crop harvesting is in full swing. The rain further hampered drydown and harvesting and reportedly caused additional reductions in local crop quality.

In the wake of last week's heavy rain, mostly dry weather overspread northern New South Wales, northern Victoria, and South Australia, enabling winter crop harvesting to regain some momentum. Harvesting advanced in Western Australia as well, where widely scattered showers (1-10 mm) likely caused few fieldwork delays. Temperatures in Western Australia averaged 1°C above normal. In southern and eastern Australia, temperatures averaged 1 to 4°C below normal, causing summer crops to grow at a slower pace than normal.

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



SOUTH AFRICA

Widespread, locally heavy showers maintained overall favorable conditions for summer crops in major commercial production areas. Rainfall totaled more than 25 mm across most of the corn belt (North West and Free State to Mpumalanga, with amounts exceeding 50 mm) in the more northerly production areas, including parts of Limpopo. Near- to below-normal temperatures accompanied the wet pattern, though daytime highs reached the middle 30s (degrees C) in outlying production areas before the onset of the heaviest rain. The mild, showery weather extended south and eastward into sugarcane areas of KwaZulu-Natal and Mpumalanga, helping to replenish moisture reserves. In contrast, dry weather continued to dominate the Cape Provinces aside from scattered showers (greater than 10 mm) in eastern sections of the Orange River Valley. Above-normal temperatures (daytime highs exceeding 40°C on several days) increased moisture demands of tree and vine crops in Western Cape.

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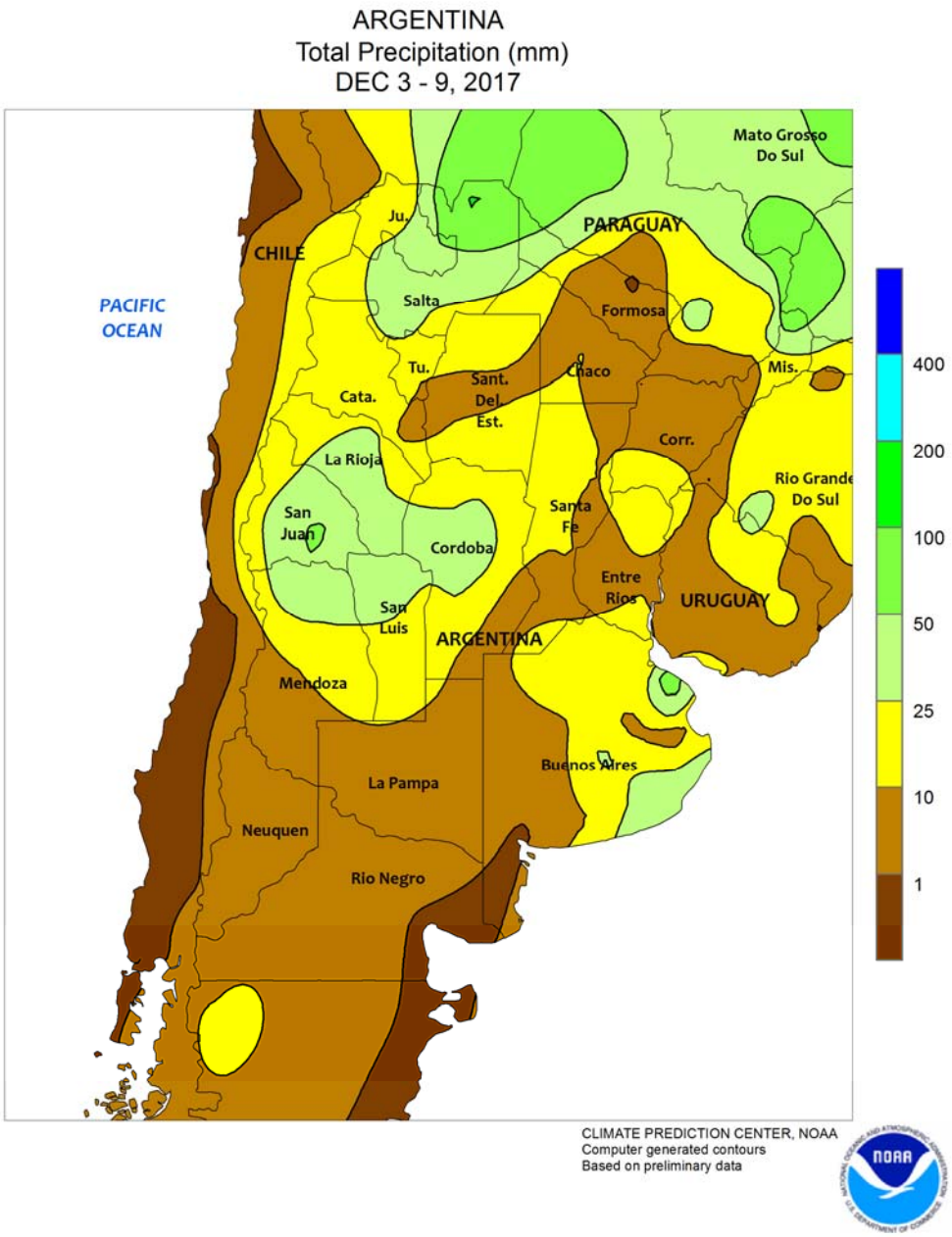

ARGENTINA

Summer warmth, accompanied by generally light scattered showers, sustained rapid growth rates of summer grains, oilseeds, and cotton. Rainfall totaled 15 mm or less in high-yielding corn and soybean areas of central Argentina (northern farming areas of La Pampa and Buenos Aires and neighboring locations in Cordoba, Santa Fe, and Entre Rios), where daytime highs reached the lower and middle 30s (degrees C) during the latter half of the week. Following several weeks of warmer- and drier-than-normal weather, the aforementioned area is in need of rain as early-planted corn and sunflowers approach reproduction. Warmth and dryness also persisted in the northeast, including cotton areas in and around Chaco, as light to moderate rain (5-25 mm or more) fell in western production areas (central Cordoba to Salta). Temperatures approached 40°C in the warmest sections of the north (northern Cordoba to Formosa). According to the government of Argentina, corn was 55 percent planted as of December 7, on par with last year's pace; soybeans were 56 percent planted, 5 points behind last year's pace. Sunflower planting was virtually complete at 98 percent. Additionally, wheat was 46 percent harvested versus 43 percent last year.

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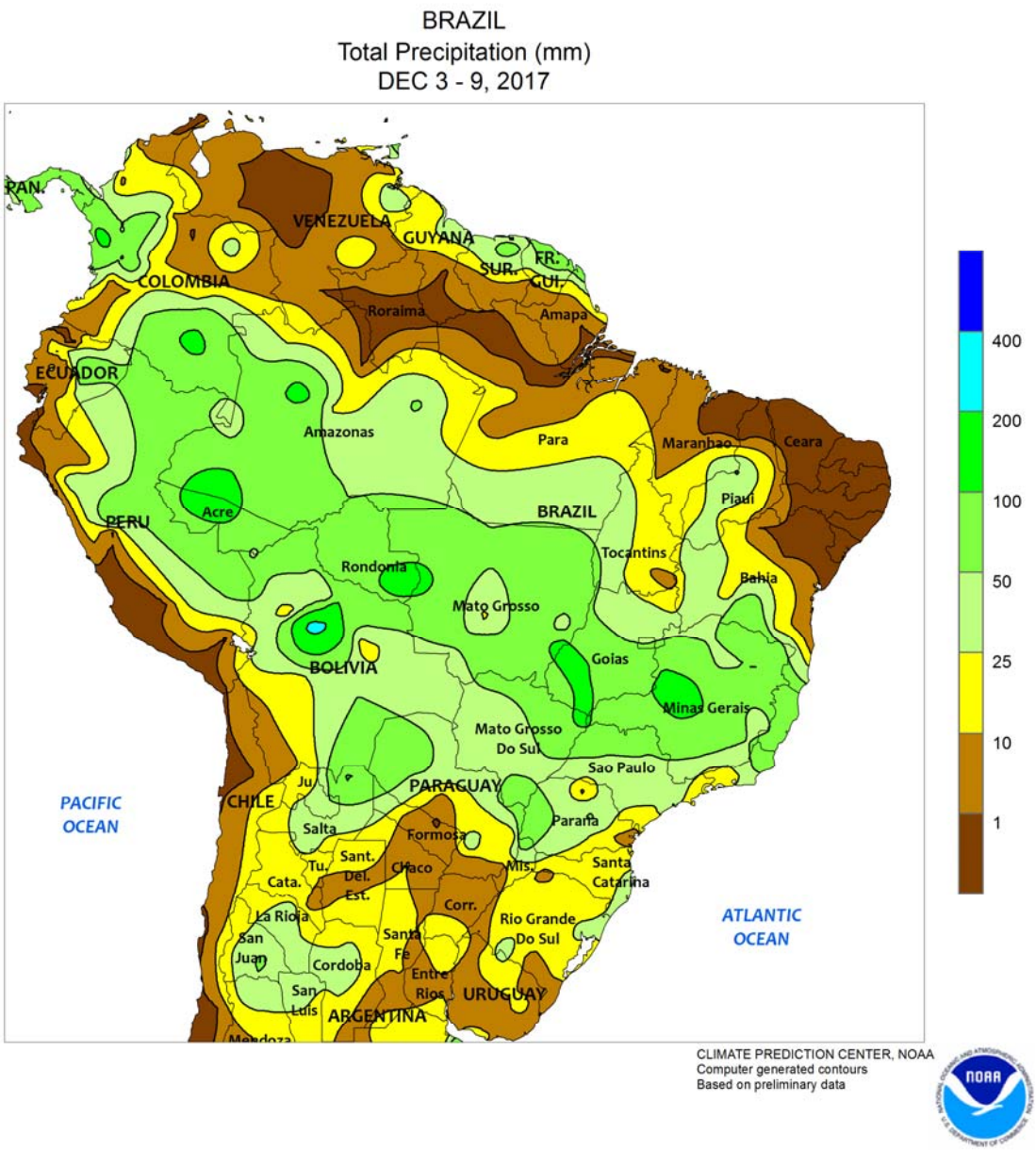

BRAZIL

Widespread, locally heavy showers continued throughout central Brazil, maintaining ample levels of moisture for soybeans and cotton. Rainfall totaled more than 50 mm across a broad area stretching from Mato Grosso eastward through Minas Gerais, including key production areas in northern Mato Grosso do Sul and southern Goias. Lighter rain (10-50 mm) fell in parts of the northeastern interior, including sections of Tocantins and Maranhao, where season-to-date rainfall has been below normal; summer heat (daytime highs in the upper 30s degrees C) exacerbated the impacts of the dryness on evaporative losses. Farther south, beneficial rain (25-100 mm) continued from Parana to southern Minas Gerais, favoring soybeans and first-crop corn, in addition to sugarcane and coffee. In contrast, drier weather (less than 25 mm) dominated Rio Grande do Sul. Periodic warmth (daytime highs reaching the lower and middle 30s) in southern farming areas fostered rapid development of soybeans and other crops growing with generally favorable levels of moisture. According to Parana's government, soybeans and first-crop corn were over 30 percent in reproductive and filling stages of development as of December 4. In Rio Grande do Sul, where crops are typically planted later following the wheat harvest, soybeans were reportedly 81 percent planted as of December 7.

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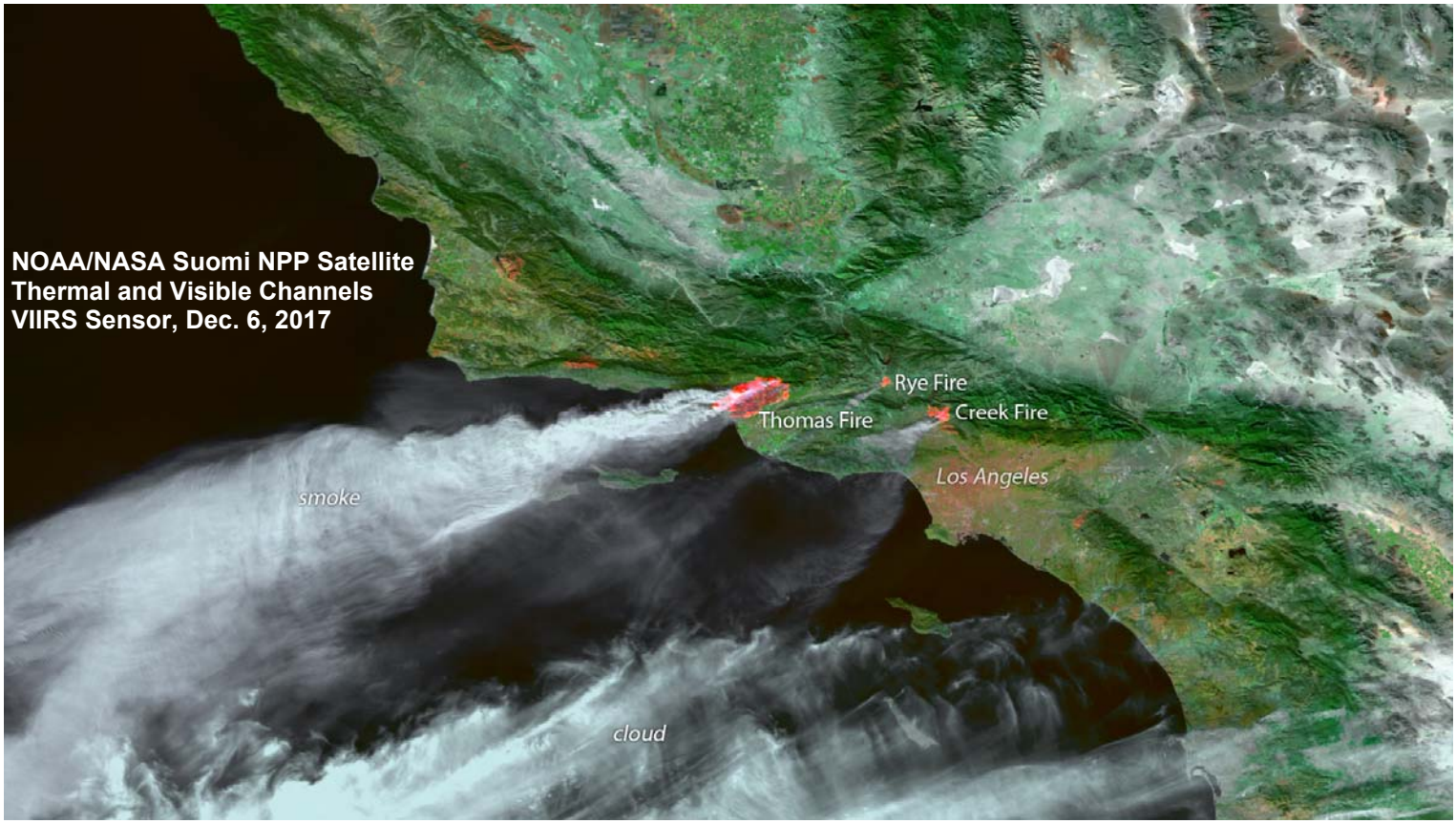

A half-dozen large wildfires flared across southern California, starting on December 4. A sustained offshore (Santa Ana) wind event hampered containment efforts, especially for the Thomas fire (see above), which started in Ventura County and later spread westward into Santa Barbara County. The Thomas fire, which by December 11 had charred more than 230,000 acres of vegetation, was fanned by gusty and erratic winds and sustained by heavy fuels (e.g. dead or dying trees) from long-term drought and light fuels (e.g. cured brush and grass) that had flourished due to last winter's rain. In the accompanying image, taken on December 6, three thermal and visible channels from the VIIRS sensor aboard the NOAA/NASA Suomi NPP satellite were combined to allow observers to distinguish "hot spots," or areas with actively burning fires.

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