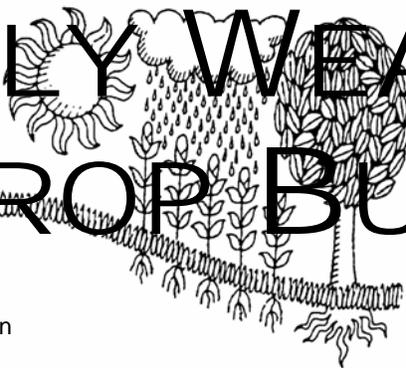
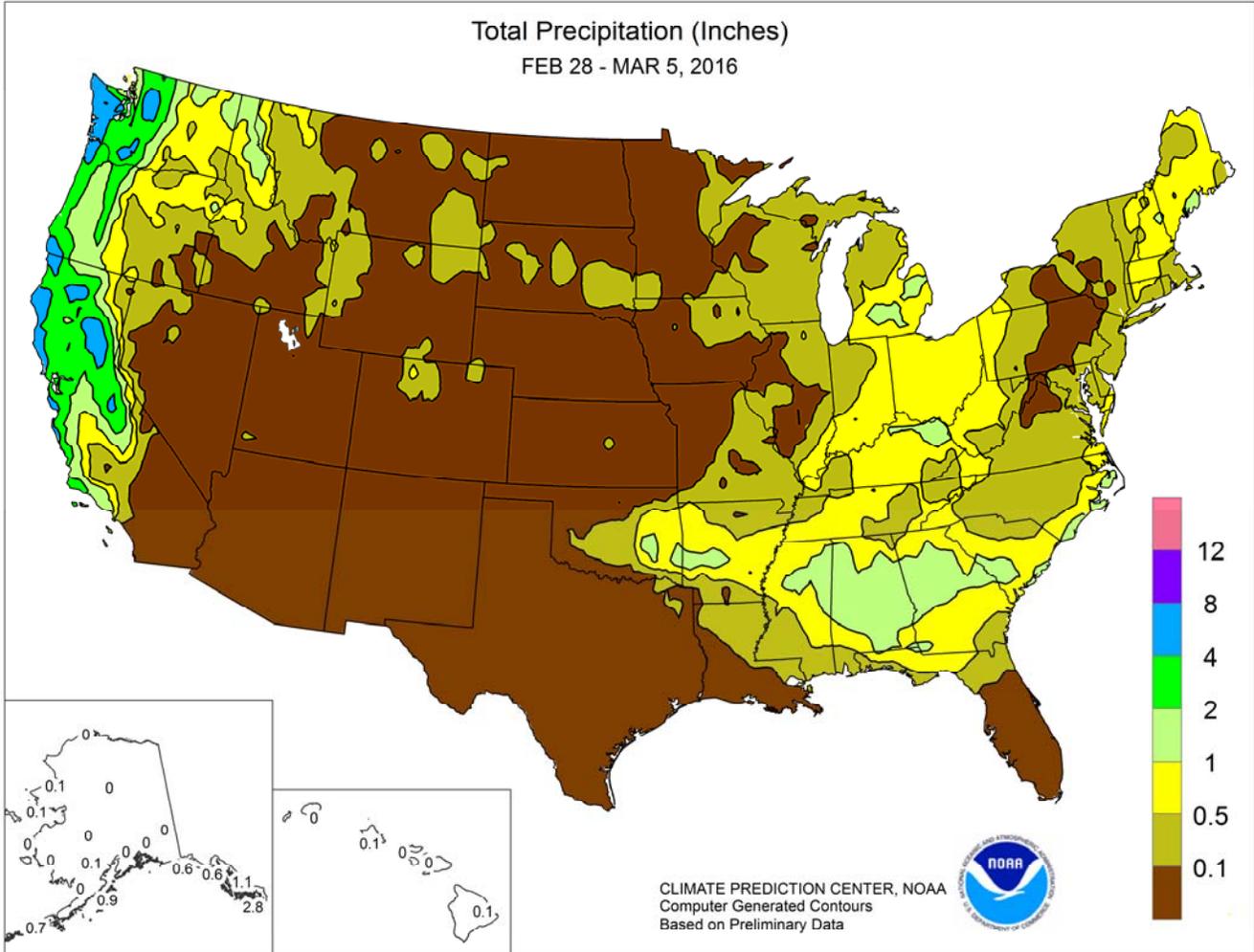


WEEKLY WEATHER AND CROP BULLETIN



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

February 28 – March 5, 2016

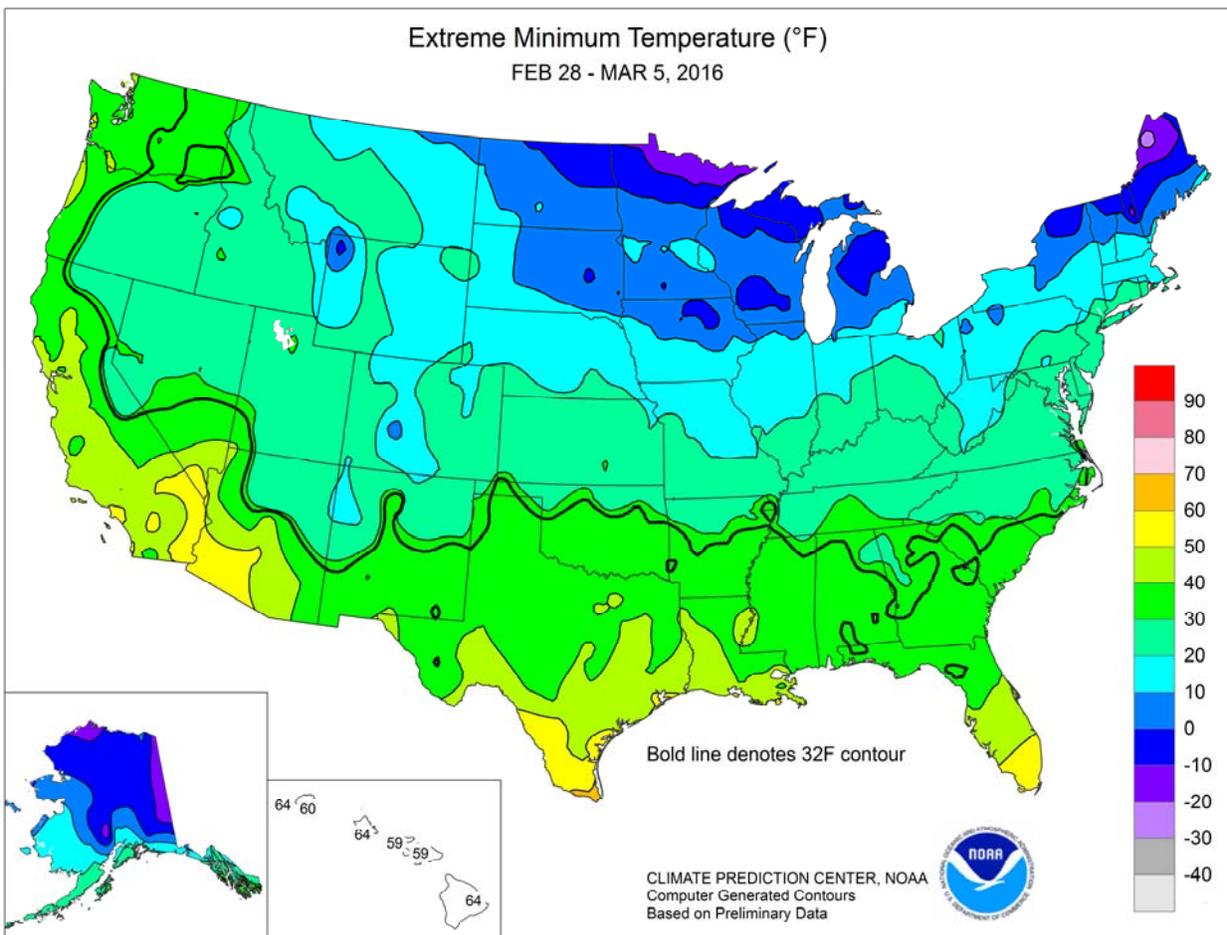
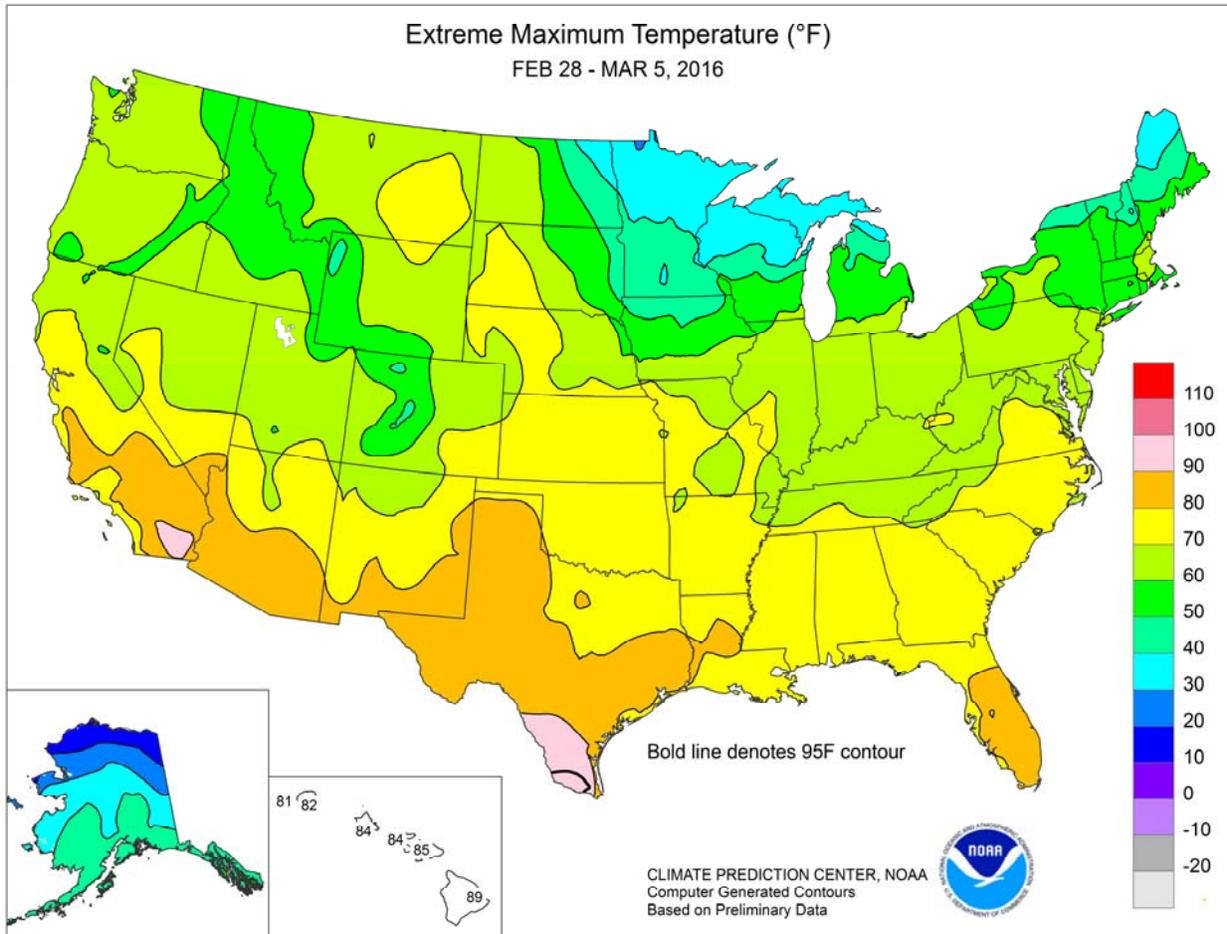
Highlights provided by USDA/WAOB

Following a mostly dry February, **northern and central California** received highly beneficial precipitation, starting on March 4. However, the initial round of precipitation fell mostly as rain, helping to boost reservoir levels but failing to add appreciable snowpack. By March 6, the average water content of the high-elevation **Sierra Nevada** snowpack stood at 21 inches, just over 80 percent of average for the date and virtually unchanged from February 1. Late-week precipitation also overspread the **Northwest**, but warm, mostly dry weather prevailed across

(Continued on page 3)

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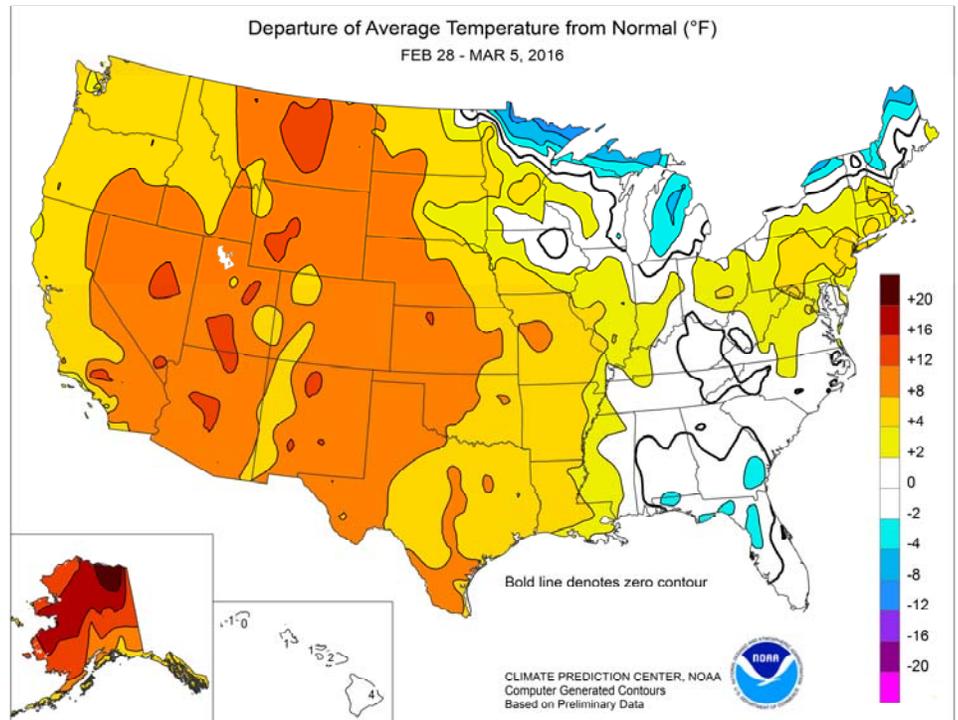


(Continued from front cover)

the **Plains** and **Southwest**. In **Oklahoma** and environs, dry, breezy conditions led to a rash of wildfires. In fact, spring-like warmth throughout the **western and central U.S.** spurred winter grain development and melted some high-elevation snowpack. Weekly temperatures averaged at least 10°F above normal in many locations from **southern California and the Great Basin to the High Plains**. In contrast, cool weather replaced early-to mid-week warmth across the **eastern U.S.** However, persistently and unusually cold weather was mostly limited to areas along the **Canadian border, from northern Minnesota to northern Maine**. Across the remainder of the country, several rounds of generally light precipitation affected portions of the **South, East, and Midwest**. Nevertheless, weekly rainfall totals topped 2 inches in parts of the **South**, particularly in an area centered on **Alabama and Georgia**. Farther north, some wet snow briefly blanketed the **Midwest and Northeast**.

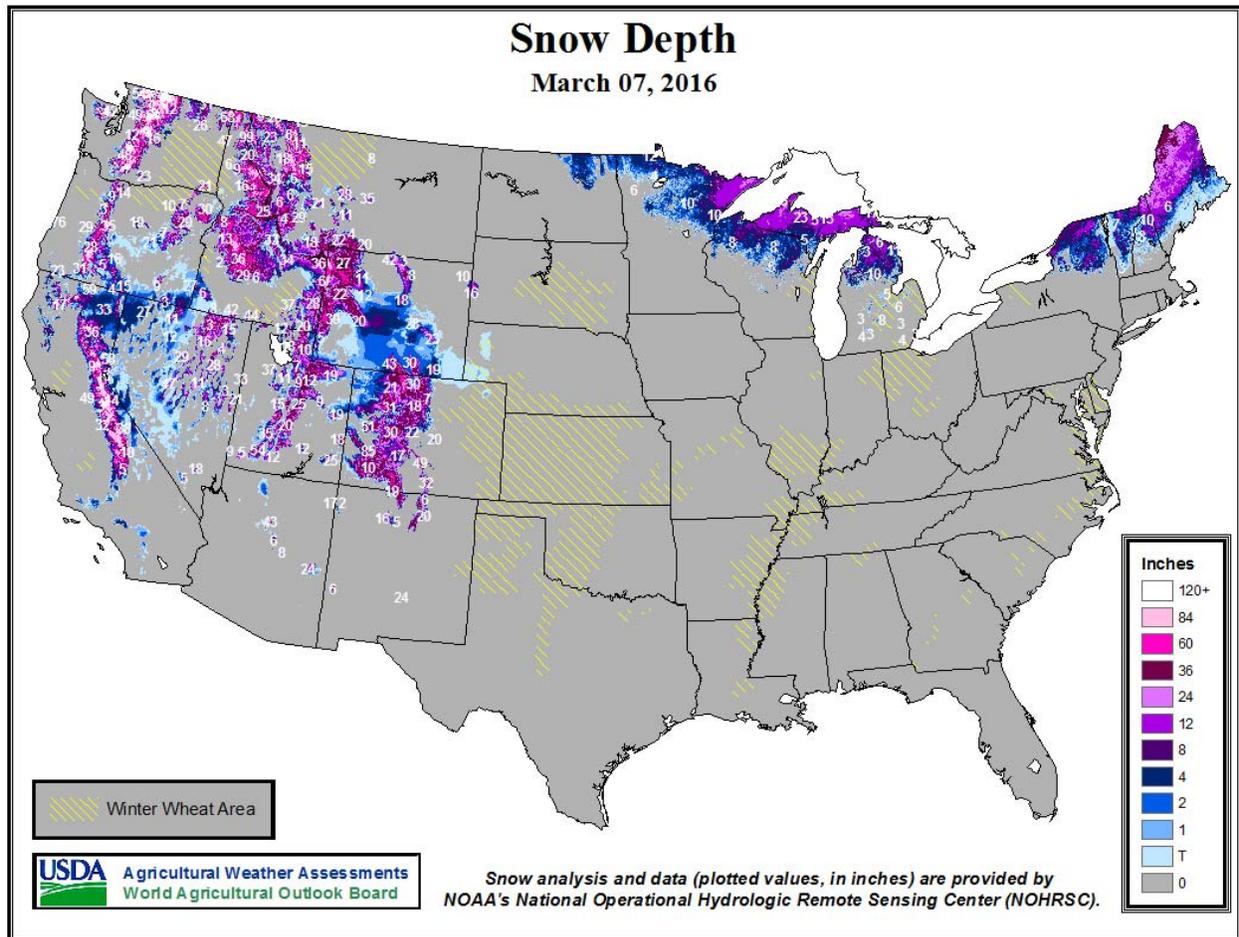
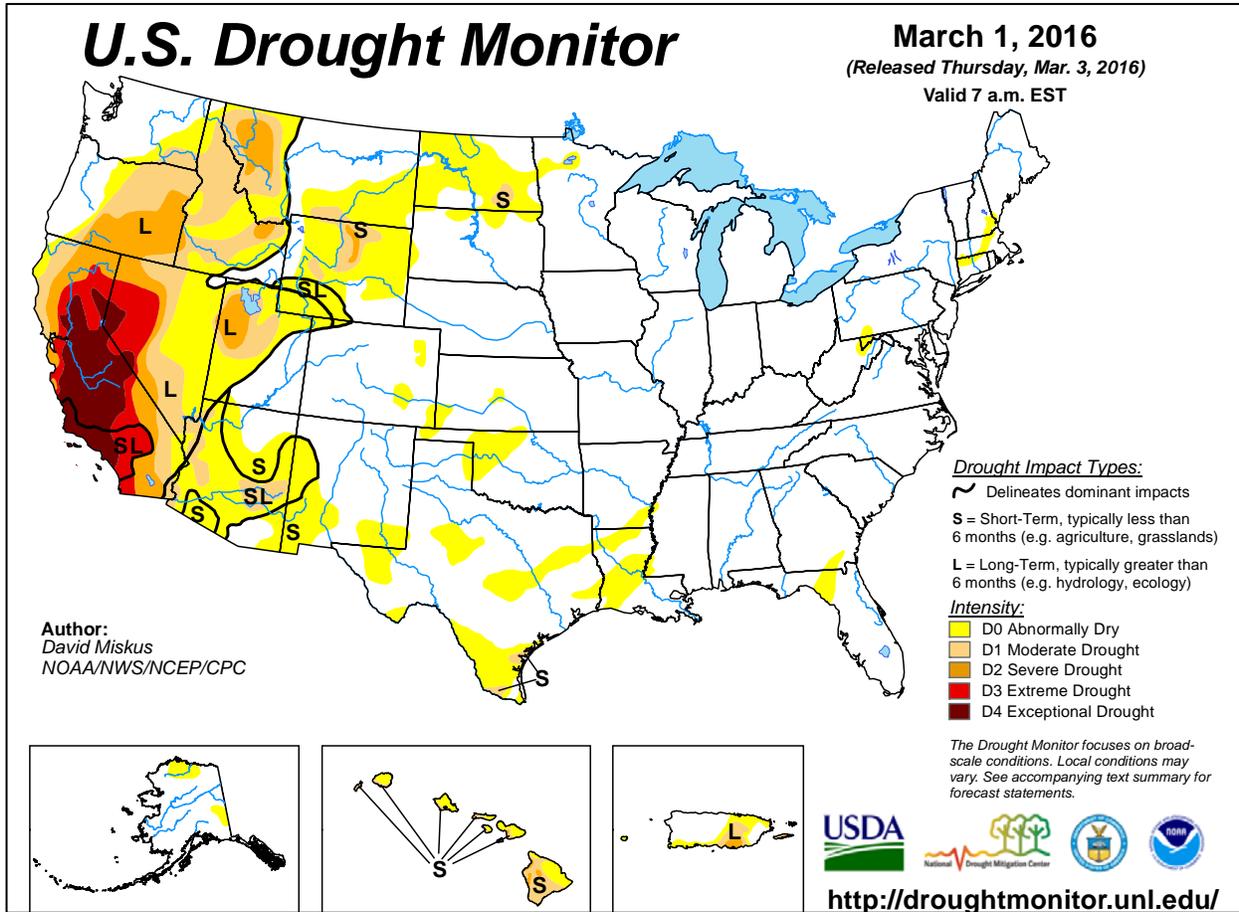
Early-week warmth resulted in numerous daily-record highs across the **Midwest and East**. On February 28, daily-record highs surged to 71°F in **Springfield, IL**, and 64°F in **Detroit, MI**. The following day, Leap Day records were broken in **Northeastern** locations such as **Boston, MA** (64°F), and **Portland, ME** (59°F). Meanwhile, warmth also prevailed in the **West**, where record-setting highs for February 29 included 90°F in **Woodland Hills, CA**, and 89°F in **Yuma, AZ**. Elsewhere in **Arizona**, **Phoenix** posted five consecutive daily-record highs (88, 89, 90, 91, and 88°F) from February 29 – March 4. Similarly, **Thermal, CA**, noted a trio of daily-record highs (90, 91, and 93°F) from February 29 – March 2. After mid-week, record-setting warmth arrived across the **nation's mid-section**. On March 3, daily-record highs climbed to 98°F in **McAllen, TX**, and 68°F in **Dunkirk, MT**. Warm conditions also dominated the **Intermountain West**, where **Salt Lake City, UT**, closed the week with consecutive daily-record highs (69 and 68°F, respectively) on March 4-5. In **Montana**, record-setting highs for March 5 soared to 74°F in **Miles City** and 71°F in **Billings**. Farther east, however, **Houghton Lake, MI**, collected a daily-record low (-7°F) on March 4.

In the **Midwest and Northeast**, early-week warmth yielded to colder weather and, in some cases, snow. During the transition, on February 29, wind gusts were clocked to 61 mph in **Wheeling, WV**, and 56 mph in **Pellston, MI**. February 29 also featured daily-record snowfall totals in **South Dakota** locations such as **Mitchell** (5.2 inches) and **Sioux Falls** (4.5 inches). In **Michigan**, daily-record snowfall totals for March 1 reached 7.4 inches in **Grand Rapids** and 7.2 inches in **Lansing** and **Alpena**. On March 2, **Caribou, ME**, reported a daily-record snowfall of 7.5 inches. A little more snow fell in the



Mid-Atlantic States on March 4, when daily-record amounts included 4.3 inches in **Atlantic City, NJ**, and 2.7 inches in **Wilmington, DE**. Farther west, high winds developed on March 2 across the **southern High Plains**, raising dust. A gust to 67 mph was recorded on March 2 in **Springfield, CO**. On the same date, **Guymon, OK**, clocked a gust to 52 mph and reported a minimum visibility of 2.5 miles in blowing dust. Similarly, **Borger, TX**, had a minimum visibility of 4 miles and a peak gust to 50 mph. Farther west, an initial surge of **Pacific** moisture reached **western Washington** on March 1, when record-setting rainfall totals included 2.17 inches in **Hoquiam** and 1.68 inches in **Olympia**. Significant precipitation finally returned to **California** on March 4-5. On the latter date, daily-record **California** rainfall totals reached 2.63 inches in **Ukiah** and 1.53 inches in **Sacramento**.

Alaska's amazing warm spell continued, with weekly temperatures averaging at least 10 to 25°F above normal at most mainland locations. Among the daily-record highs were readings of 35°F (on February 29) in **Bettles**, and 49°F (on March 5) in **Yakutat**. **Juneau** posted consecutive daily-record highs (46 and 48°F, respectively) on March 5-6. Most of **Alaska** received little or no precipitation; even the southern tier of the state turned mostly dry in early March. **Annette Island's** weekly rainfall reached 2.44 inches, but more than half (1.35 inches) of that total occurred on February 28. Meanwhile, **Fairbanks** completed its least snowy December-February period on record with just 2.5 inches of snow (previously, 4.9 inches in 1918-19), and driest winter with 0.13 inch (previously, 0.35 inch in 1935-36). Farther south, most of **Hawaii** remained locked into a warm, dry regime. On the **Big Island**, **Hilo** notched a daily record-tying high of 89°F on February 29. Through March 5, year-to-date rainfall at the state's major airport observation sites ranged from 0.45 inch (10 percent of normal) in **Honolulu, Oahu**, to 4.67 inches (22 percent) in **Hilo**.



National Weather Data for Selected Cities

Weather Data for the Week Ending March 5, 2016

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	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 MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN. SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F			
																90 AND ABOVE	82 AND BELOW	.01 INCH OF MORE	.50 INCH OF MORE
AL BIRMINGHAM	62	41	73	34	51	0	1.86	0.65	1.19	1.86	211	12.60	120	91	42	0	0	2	2
HUNTSVILLE	61	39	72	32	50	2	0.70	-0.76	0.46	0.70	66	10.66	92	79	47	0	1	2	0
MOBILE	71	44	76	35	57	0	0.11	-1.39	0.11	0.11	10	9.56	80	96	52	0	0	1	0
AK MONTGOMERY	68	41	76	34	54	0	1.60	0.11	1.13	1.60	150	12.27	106	87	39	0	0	2	1
ANCHORAGE	38	24	44	18	31	9	0.04	-0.13	0.04	0.04	33	0.57	37	76	58	0	7	1	0
BARROW	3	-6	9	-15	-1	15	0.00	0.00	0.00	0.00	0	2.28	950	89	79	0	7	0	0
FAIRBANKS	30	3	40	-5	16	13	0.00	-0.06	0.00	0.00	0	0.01	1	81	73	0	7	0	0
JUNEAU	45	29	48	23	37	6	0.59	-0.34	0.50	0.09	14	9.93	105	92	78	0	4	2	1
KODIAK	42	34	44	31	38	7	0.88	-0.34	0.54	0.32	37	23.58	160	91	75	0	2	7	1
NOME	29	18	33	6	24	17	0.05	-0.09	0.03	0.02	20	1.06	60	80	68	0	7	2	0
AZ FLAGSTAFF	63	26	65	25	45	11	0.00	-0.69	0.00	0.00	0	3.84	73	75	16	0	7	0	0
PHOENIX	87	58	91	57	73	13	0.00	-0.25	0.00	0.00	0	1.38	78	30	17	2	0	0	0
PRESCOTT	72	37	73	34	55	13	0.00	-0.52	0.00	0.00	0	1.48	39	55	11	0	0	0	0
TUCSON	86	52	89	49	69	12	0.00	-0.22	0.00	0.00	0	1.73	85	26	13	0	0	0	0
AR FORT SMITH	69	39	75	35	54	6	0.59	-0.21	0.58	0.59	102	2.74	49	83	28	0	0	2	1
LITTLE ROCK	67	42	75	35	55	6	0.93	0.01	0.55	0.93	139	6.62	87	90	39	0	0	2	1
CA BAKERSFIELD	74	51	81	49	63	7	0.00	-0.33	0.00	0.00	0	2.13	81	80	49	0	0	0	0
FRESNO	72	50	79	45	61	7	0.79	0.25	0.55	0.79	203	5.55	119	90	70	0	0	2	1
LOS ANGELES	66	55	67	53	61	3	0.02	-0.68	0.02	0.02	4	3.69	56	91	80	0	0	1	0
REDDING	66	48	70	41	57	6	0.58	-0.72	0.40	0.58	62	14.17	110	84	71	0	0	3	0
SACRAMENTO	69	50	73	45	60	7	1.87	1.10	1.32	1.87	346	8.13	103	92	55	0	0	2	2
SAN DIEGO	69	57	72	55	63	4	0.02	-0.50	0.02	0.02	5	3.28	70	87	67	0	0	1	0
SAN FRANCISCO	66	55	70	51	60	7	1.61	0.73	1.43	1.61	260	8.11	89	92	74	0	0	2	1
STOCKTON	71	49	76	43	60	7	0.78	0.20	0.42	0.78	190	6.17	111	94	73	0	0	3	0
CO ALAMOSA	59	18	64	14	39	11	0.00	-0.07	0.00	0.00	0	0.98	192	75	23	0	7	0	0
CO SPRINGS	60	32	66	25	46	11	0.00	-0.15	0.00	0.00	0	1.54	208	58	14	0	4	0	0
DENVER INTL	62	31	67	22	46	11	0.00	-0.17	0.00	0.00	0	0.98	166	51	17	0	3	0	0
GRAND JUNCTION	62	33	66	29	48	9	0.00	-0.18	0.00	0.00	0	1.39	113	58	30	0	3	0	0
PUEBLO	68	29	74	24	48	10	0.00	-0.13	0.00	0.00	0	0.85	125	57	28	0	5	0	0
CT BRIDGEPORT	47	31	58	24	39	4	0.41	-0.39	0.18	0.34	60	7.51	104	77	47	0	4	4	0
HARTFORD	46	26	58	19	36	3	0.56	-0.20	0.43	0.54	98	7.28	99	74	36	0	5	3	0
DC WASHINGTON	55	35	65	29	45	3	0.17	-0.60	0.08	0.17	30	6.67	104	79	40	0	3	4	0
DE WILMINGTON	53	30	64	24	41	3	0.28	-0.54	0.13	0.28	47	6.97	102	81	37	0	5	3	0
FL DAYTONA BEACH	74	50	81	41	62	0	0.01	-0.76	0.01	0.01	2	10.73	167	92	46	0	0	1	0
JACKSONVILLE	72	42	78	34	57	-2	0.16	-0.64	0.16	0.16	28	7.81	105	92	36	0	0	1	0
KEY WEST	78	66	82	62	72	0	0.00	-0.34	0.00	0.00	0	7.08	178	94	69	0	0	0	0
MIAMI	80	64	85	59	72	1	0.01	-0.46	0.01	0.01	3	10.45	244	83	51	0	0	1	0
ORLANDO	78	53	82	43	65	0	0.08	-0.62	0.08	0.08	16	7.43	140	83	39	0	0	1	0
PENSACOLA	70	51	74	43	60	2	0.00	-1.34	0.00	0.00	0	3.94	36	81	46	0	0	0	0
TALLAHASSEE	73	40	77	32	56	-2	0.60	-0.78	0.60	0.60	60	9.32	85	87	44	0	1	1	1
TAMPA	75	55	77	48	65	0	0.00	-0.69	0.00	0.00	0	8.73	161	84	41	0	0	0	0
WEST PALM BEACH	79	61	83	55	70	1	0.01	-0.60	0.01	0.01	2	12.55	186	84	53	0	0	1	0
GA ATHENS	64	38	74	32	51	1	1.14	-0.01	0.70	1.14	137	9.33	94	89	45	0	1	2	1
ATLANTA	62	41	72	35	52	1	1.64	0.40	1.16	1.64	184	14.18	134	81	50	0	0	2	1
AUGUSTA	66	37	76	29	51	-1	1.18	0.13	0.81	1.18	157	6.61	71	93	43	0	1	3	1
COLUMBUS	66	40	73	32	53	-1	1.18	-0.09	0.84	1.18	128	8.61	85	92	35	0	1	4	1
MACON	67	39	75	30	53	1	1.32	0.18	0.88	1.32	161	7.05	68	94	38	0	1	3	1
SAVANNAH	70	42	78	35	56	0	0.67	-0.03	0.51	0.67	134	7.08	96	87	46	0	0	2	1
HI HILO	85	66	89	64	75	3	0.10	-2.51	0.09	0.10	5	4.79	23	83	67	0	0	2	0
HONOLULU	81	67	84	64	74	0	0.10	-0.43	0.08	0.02	5	0.46	8	79	67	0	0	2	0
KAHULUI	84	64	85	59	74	2	0.00	-0.50	0.00	0.00	0	1.60	25	84	74	0	0	0	0
LIHUE	79	64	82	60	72	0	0.00	-0.80	0.00	0.00	0	1.20	14	78	67	0	0	0	0
ID BOISE	61	40	68	33	50	9	0.10	-0.18	0.10	0.10	50	1.60	59	75	46	0	0	1	0
LEWISTON	57	40	62	34	48	6	0.11	-0.11	0.06	0.10	63	1.69	75	75	59	0	0	4	0
POCATELLO	58	30	65	26	44	10	0.04	-0.25	0.04	0.04	19	1.33	56	80	48	0	6	1	0
IL CHICAGO/O'HARE	41	24	62	11	33	1	0.32	-0.11	0.10	0.24	77	2.31	63	85	59	0	6	4	0
MOLINE	47	25	66	14	36	3	0.09	-0.38	0.07	0.08	24	1.42	41	80	54	0	6	3	0
PEORIA	47	27	68	14	37	3	0.08	-0.44	0.06	0.07	18	1.48	42	84	49	0	5	3	0
ROCKFORD	42	23	62	11	32	2	0.21	-0.15	0.08	0.13	50	1.67	55	83	62	0	6	5	0
SPRINGFIELD	52	30	71	16	41	5	0.15	-0.44	0.12	0.15	35	2.12	55	86	48	0	4	2	0
IN EVANSVILLE	52	34	68	29	43	2	0.93	0.05	0.60	0.66	105	7.01	106	78	57	0	2	3	1
FORT WAYNE	42	28	66	18	35	3	0.67	0.15	0.27	0.49	129	3.53	81	87	61	0	5	6	0
INDIANAPOLIS	47	30	67	18	39	3	0.55	-0.14	0.39	0.46	92	4.17	77	85	52	0	5	3	0
SOUTH BEND	39	23	60	8	31	-1	0.67	0.16	0.37	0.58	157	3.70	80	90	68	0	6	4	0
IA BURLINGTON	46	27	65	14	37	3	0.03	-0.49	0.02	0.03	8	1.42	44	91	59	0	5	2	0
CEDAR RAPIDS	42	21	60	9	32	1	0.05	-0.28	0.02	0.05	21	0.69	29	96	66	0	6	3	0
DES MOINES	46	28	59	17	37	5	0.00	-0.33	0.00	0.00	0	1.81	74	78	56	0	6	0	0
DUBUQUE	39	21	57	5	30	1	0.23												

Weather Data for the Week Ending March 5, 2016

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	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 MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL IN. SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
KY WICHITA	68	33	73	30	51	10	0.00	-0.47	0.00	0.00	0	0.74	33	66	31	0	5	0	0
KY JACKSON	50	33	69	27	42	0	0.96	-0.06	0.49	0.86	118	10.45	131	85	52	0	4	5	0
KY LEXINGTON	50	32	67	26	41	0	0.61	-0.36	0.30	0.51	73	6.81	93	82	62	0	5	4	0
KY LOUISVILLE	51	35	69	28	43	1	0.59	-0.37	0.37	0.47	68	6.29	87	78	49	0	2	5	0
LA PADUCAH	55	34	69	25	45	2	0.63	-0.33	0.41	0.63	91	6.11	76	86	45	0	3	2	0
LA BATON ROUGE	74	49	79	36	62	5	0.04	-1.07	0.03	0.04	5	9.35	77	91	41	0	0	2	0
LA LAKE CHARLES	74	51	77	44	63	5	0.00	-0.71	0.00	0.00	0	5.17	55	95	46	0	0	0	0
LA NEW ORLEANS	74	52	79	42	63	4	0.03	-1.14	0.03	0.03	4	8.17	67	84	58	0	0	1	0
LA SHREVEPORT	75	47	79	42	61	6	0.12	-0.86	0.12	0.12	17	5.15	54	83	33	0	0	1	0
ME CARIBOU	25	3	35	-8	14	-4	0.97	0.45	0.80	0.81	219	6.18	114	76	47	0	7	4	1
ME PORTLAND	42	21	59	13	31	2	0.92	0.12	0.92	0.92	159	8.48	109	76	34	0	7	1	1
MD BALTIMORE	54	29	65	22	42	3	0.45	-0.41	0.28	0.45	73	9.52	134	73	42	0	5	3	0
MA BOSTON	46	30	64	21	38	3	0.38	-0.42	0.37	0.38	67	7.42	95	71	36	0	4	2	0
MA WORCESTER	42	24	57	16	33	3	0.62	-0.21	0.40	0.60	100	7.91	102	78	32	0	6	3	0
MI ALPENA	31	6	36	-5	19	-4	0.62	0.24	0.57	0.62	221	4.38	129	86	56	0	7	2	1
MI GRAND RAPIDS	36	18	57	6	27	-2	1.11	0.71	0.70	0.92	317	5.64	146	88	58	0	7	6	1
MI HOUGHTON LAKE	32	7	52	-8	19	-5	0.43	0.09	0.39	0.42	168	3.35	108	82	58	0	7	4	0
MI LANSING	35	17	56	5	26	-3	1.16	0.80	0.89	1.03	396	4.25	128	83	62	0	7	4	1
MI MUSKEGON	36	19	51	7	28	-1	0.47	0.08	0.28	0.39	139	4.59	113	74	60	0	7	4	0
MI TRAVERSE CITY	35	14	54	3	25	-1	0.09	-0.23	0.07	0.08	36	2.87	58	82	46	0	7	3	0
MN DULUTH	27	11	30	-2	19	-1	0.23	0.00	0.16	0.16	94	2.05	97	71	56	0	7	3	0
MN INT'L FALLS	24	-5	32	-17	9	-8	0.20	0.06	0.10	0.10	100	1.45	92	83	43	0	7	3	0
MN MINNEAPOLIS	36	23	43	13	29	3	0.08	-0.17	0.05	0.05	26	1.71	85	74	58	0	7	2	0
MN ROCHESTER	32	18	43	2	25	1	0.29	0.06	0.23	0.29	171	1.57	84	85	69	0	7	2	0
MN ST. CLOUD	35	19	42	10	27	5	0.10	-0.07	0.10	0.10	77	1.04	70	82	50	0	7	1	0
MS JACKSON	71	43	74	38	57	4	0.21	-0.92	0.17	0.21	26	11.80	107	91	42	0	0	2	0
MS MERIDIAN	68	39	75	33	54	0	0.59	-0.88	0.58	0.59	56	8.10	66	92	49	0	0	2	1
MS TUPELO	63	39	73	32	51	2	1.18	-0.20	0.71	1.18	118	8.35	77	86	54	0	1	2	1
MO COLUMBIA	58	32	70	18	45	6	0.12	-0.51	0.10	0.12	27	1.78	41	83	45	0	3	2	0
MO KANSAS CITY	61	31	71	21	46	7	0.00	-0.46	0.00	0.00	0	1.16	42	77	36	0	4	0	0
MO SAINT LOUIS	56	35	75	23	46	5	0.05	-0.64	0.05	0.05	10	1.65	34	75	57	0	2	1	0
MO SPRINGFIELD	64	33	70	24	48	6	0.18	-0.49	0.18	0.18	37	1.50	31	72	42	0	4	1	0
MT BILLINGS	59	33	71	25	46	12	0.00	-0.17	0.00	0.00	0	0.54	36	54	19	0	3	0	0
MT BUTTE	48	23	57	15	35	9	0.07	-0.07	0.04	0.03	30	0.51	46	88	36	0	7	3	0
MT CUT BANK	52	27	61	19	40	13	0.00	-0.08	0.00	0.00	0	0.48	66	80	32	0	6	0	0
MT GLASGOW	48	25	68	12	37	12	0.34	0.27	0.31	0.31	517	0.98	146	82	70	0	6	2	0
MT GREAT FALLS	56	27	66	20	41	11	0.00	-0.16	0.00	0.00	0	0.65	50	72	25	0	6	0	0
MT HAVRE	56	24	71	19	40	12	0.05	-0.07	0.05	0.00	0	0.46	50	87	52	0	7	1	0
MT MISSOULA	50	28	57	23	39	6	0.04	-0.15	0.03	0.04	29	1.14	58	83	61	0	7	2	0
NE GRAND ISLAND	57	27	70	19	42	9	0.02	-0.29	0.02	0.02	9	4.58	316	78	49	0	6	1	0
NE LINCOLN	57	24	67	17	40	7	0.00	-0.32	0.00	0.00	0	1.48	94	78	49	0	7	0	0
NE NORFOLK	50	23	64	18	37	5	0.00	-0.30	0.00	0.00	0	1.32	85	83	59	0	7	0	0
NE NORTH PLATTE	62	24	71	18	43	9	0.00	-0.20	0.00	0.00	0	1.14	109	84	22	0	7	0	0
NE OMAHA	52	25	62	19	39	6	0.00	-0.32	0.00	0.00	0	1.69	93	84	56	0	7	0	0
NE SCOTTSBLUFF	63	28	72	20	45	11	0.04	-0.14	0.04	0.00	0	0.77	62	65	36	0	6	1	0
NE VALENTINE	56	24	72	15	40	9	0.02	-0.16	0.01	0.02	15	0.69	76	82	49	0	7	2	0
NV ELY	59	32	62	28	45	12	0.00	-0.22	0.00	0.00	0	3.03	184	73	33	0	5	0	0
NV LAS VEGAS	80	57	82	54	68	13	0.00	-0.17	0.00	0.00	0	0.55	39	27	18	0	0	0	0
NV RENO	66	38	72	32	52	11	0.01	-0.23	0.01	0.01	6	2.13	93	58	35	0	1	1	0
NV WINNEMUCCA	64	31	68	26	48	9	0.01	-0.15	0.01	0.01	8	2.12	135	75	40	0	5	1	0
NH CONCORD	43	20	57	12	32	4	0.80	0.20	0.76	0.79	184	6.59	114	76	34	0	7	3	1
NJ NEWARK	51	33	62	26	42	4	0.27	-0.55	0.12	0.24	41	8.17	108	70	39	0	4	3	0
NM ALBUQUERQUE	71	38	74	34	54	9	0.00	-0.11	0.00	0.00	0	0.43	43	35	13	0	0	0	0
NY ALBANY	42	22	57	17	32	2	0.12	-0.46	0.08	0.08	19	5.39	106	67	34	0	7	2	0
NY BINGHAMTON	41	19	57	12	30	2	0.11	-0.50	0.06	0.08	19	5.80	106	78	53	0	7	3	0
NY BUFFALO	40	22	62	16	31	1	0.53	-0.06	0.33	0.34	79	5.65	94	80	54	0	6	3	0
NY ROCHESTER	39	22	62	16	31	2	0.08	-0.42	0.04	0.06	17	5.08	107	78	55	0	6	3	0
NY SYRACUSE	41	19	63	8	30	2	0.18	-0.37	0.14	0.14	35	6.88	134	80	47	0	6	2	0
NC ASHEVILLE	55	30	67	26	43	1	0.24	-0.77	0.18	0.24	33	9.22	107	82	43	0	4	3	0
NC CHARLOTTE	62	36	74	28	49	0	0.06	-0.92	0.04	0.06	9	6.84	83	81	33	0	3	2	0
NC GREENSBORO	61	33	72	28	47	2	0.25	-0.58	0.10	0.25	42	6.39	88	87	31	0	4	4	0
NC HATTERAS	60	43	69	35	51	2	2.82	1.79	2.11	2.82	381	13.83	131	89	57	0	0	3	1
NC RALEIGH	62	35	74	28	48	2	0.21	-0.72	0.10	0.21	31	6.63	81	81	41	0	2	3	0
NC WILMINGTON	63	40	75	34	51	0	1.16	0.20	0.79	1.16	168	13.23	149	89	41	0	0	3	1
ND BISMARCK	45	20	61	11	33	9	0.11	-0.03	0.08	0.09	90	0.72	68	80	58	0	7	3	0
ND DICKINSON	45	21	65	9	33	7	0.12	0.06	0.09	0.10	250	0.54	64	91	49	0	6	3	0
ND FARGO	34	17	41	3	25	4	0.02	-0.16	0.01	0.02	15	0.89	60	79	61	0	7	2	0
ND GRAND FORKS	31	15	38	-2	23	4	0.00	-0.14	0.00	0.00	0	0.75	55	80	56	0	7	0	0
ND JAMESTOWN	37	19	50	4	28	6	0.00	-0.14	0.00	0.00	0	0.20	16	85	57	0	7	0	0
ND WILLISTON	43	21	66	10	32	9	0.10	-0.01	0.06	0.06	75	1.19	118	86	72	0	7	2	0
OH AKRON-CANTON	44	26	63	20	35	2	0.70	0.06	0.30	0.55	120	5.15	98	81	60	0	5	6	0
OH CINCINNATI	47	31	66	24	39	0	0.80	0.02	0.37	0.59	105	7.07	113	84	64	0	5	5	0
OH CLEVELAND	44	25	64	19	34	1	0.72	0.14	0.38	0.64	156	5.25	101	88	58	0	6	6	0
OH COLUMBUS	47	29	65	22	38	1	0.58	0.01	0.29	0.50	122	4.94	96	75	56	0	5	5	0
OH DAYTON	44	30	64	23	37	2	0.81	0.21	0.43	0.66	150	5.47	103	95	61	0	5	5	0
OH MANSFIELD	42	27	62	19	35	3	0.88	0.30	0.54	0.75	179	5.53	106	92	58	0	6	5	1

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending March 5, 2016

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS					
	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 MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP	
																		01 INCH OR MORE	50 INCH OR MORE		
OK TOLEDO	40	25	65	16	32	0	0.67	0.20	0.30	0.58	171	3.58	86	86	70	0	6	5	0		
OK YOUNGSTOWN	45	24	62	13	35	3	0.73	0.17	0.23	0.60	146	5.80	121	81	62	0	6	6	0		
OK OKLAHOMA CITY	69	40	75	34	55	8	0.42	-0.17	0.40	0.02	5	1.48	45	84	26	0	0	2	0		
OR TULSA	70	39	77	34	55	8	0.35	-0.34	0.35	0.35	69	1.56	38	77	35	0	0	1	0		
OR ASTORIA	57	45	63	39	51	6	3.64	1.85	1.28	2.69	212	24.79	132	91	77	0	0	7	4		
OR BURNS	55	30	59	20	43	9	0.12	-0.18	0.11	0.12	55	1.84	73	84	60	0	6	2	0		
OR EUGENE	59	41	64	36	50	5	0.81	-0.63	0.31	0.66	64	10.47	70	89	69	0	0	6	0		
OR MEDFORD	62	40	71	32	51	5	0.49	0.02	0.42	0.49	148	5.74	117	89	50	0	1	4	0		
OR PENDLETON	61	39	66	33	50	8	0.29	0.01	0.24	0.29	145	2.68	93	72	49	0	0	2	0		
OR PORTLAND	58	46	62	42	52	7	1.45	0.52	0.44	1.18	179	12.38	125	88	71	0	0	6	0		
OR SALEM	59	44	64	38	51	6	1.40	0.29	0.48	1.17	150	11.95	102	89	68	0	0	6	0		
PA ALLENTOWN	51	28	64	22	40	6	0.10	-0.62	0.04	0.07	13	9.10	134	70	43	0	6	3	0		
PA ERIE	41	25	64	18	33	1	0.25	-0.34	0.21	0.25	58	5.32	102	79	62	0	6	4	0		
PA MIDDLETOWN	51	28	64	24	40	4	0.04	-0.70	0.02	0.04	8	9.97	158	78	35	0	6	2	0		
PA PHILADELPHIA	54	33	64	27	44	5	0.33	-0.43	0.26	0.32	58	6.88	101	65	37	0	4	4	0		
PA PITTSBURGH	48	28	65	18	38	3	0.46	-0.18	0.31	0.42	91	5.18	94	79	44	0	5	5	0		
PA WILKES-BARRE	47	26	61	18	36	3	0.04	-0.46	0.03	0.04	11	5.89	120	73	38	0	6	2	0		
PA WILLIAMSPORT	49	27	68	20	38	5	0.08	-0.55	0.04	0.04	9	6.45	109	69	41	0	5	3	0		
RI PROVIDENCE	47	29	62	21	38	4	0.29	-0.58	0.24	0.29	47	8.30	98	73	36	0	4	2	0		
SC BEAUFORT	68	42	76	37	55	1	0.75	0.04	0.67	0.75	147	6.73	88	91	39	0	0	2	1		
SC CHARLESTON	68	43	76	37	56	2	0.76	-0.05	0.54	0.76	131	9.11	118	87	36	0	0	2	1		
SC COLUMBIA	67	39	77	31	53	2	0.67	-0.31	0.36	0.67	94	7.35	80	80	37	0	1	3	0		
SC GREENVILLE	61	36	73	32	49	1	0.19	-1.03	0.10	0.19	22	8.45	89	84	37	0	2	2	0		
SD ABERDEEN	42	20	55	10	31	6	0.06	-0.12	0.03	0.03	23	0.64	59	76	62	0	7	2	0		
SD HURON	41	18	57	-3	29	2	0.32	0.09	0.23	0.01	6	0.86	70	89	63	0	7	3	0		
SD RAPID CITY	57	23	71	12	40	9	0.16	0.01	0.12	0.04	36	0.91	97	84	37	0	7	2	0		
SD SIOUX FALLS	37	17	48	-1	27	0	0.38	0.16	0.27	0.03	18	1.49	125	80	65	0	7	4	0		
TN BRISTOL	56	27	69	23	41	-1	0.38	-0.53	0.34	0.38	58	7.74	102	93	39	0	6	3	0		
TN CHATTANOOGA	60	37	72	31	48	1	0.49	-0.85	0.37	0.49	51	11.24	100	84	50	0	2	2	0		
TN KNOXVILLE	56	34	67	28	45	0	0.39	-0.74	0.35	0.39	48	9.25	98	83	48	0	3	2	0		
TN MEMPHIS	63	43	71	35	53	4	1.08	-0.09	0.83	1.08	130	8.94	95	81	43	0	0	2	1		
TN NASHVILLE	58	36	70	30	47	1	0.84	-0.23	0.56	0.84	109	7.56	90	78	42	0	2	2	1		
TX ABILENE	74	44	79	40	59	6	0.00	-0.30	0.00	0.00	0	0.72	31	68	39	0	0	0	0		
TX AMARILLO	72	38	82	33	55	11	0.00	-0.18	0.00	0.00	0	0.69	53	59	18	0	0	0	0		
TX AUSTIN	78	48	82	38	63	5	0.00	-0.55	0.00	0.00	0	2.18	51	82	52	0	0	0	0		
TX BEAUMONT	77	53	86	47	65	6	0.01	-0.73	0.01	0.01	2	5.97	62	96	44	0	0	1	0		
TX BROWNSVILLE	82	64	88	61	73	7	0.00	-0.17	0.00	0.00	0	1.88	71	98	62	0	0	0	0		
TX CORPUS CHRISTI	82	62	89	55	72	9	0.00	-0.43	0.00	0.00	0	2.29	61	88	55	0	0	0	0		
TX DEL RIO	81	54	87	46	67	7	0.00	-0.22	0.00	0.00	0	0.73	43	81	56	0	0	0	0		
TX EL PASO	81	46	84	44	63	9	0.00	-0.08	0.00	0.00	0	0.53	59	27	9	0	0	0	0		
TX FORT WORTH	74	48	78	41	61	7	0.00	-0.74	0.00	0.00	0	3.24	68	79	33	0	0	0	0		
TX GALVESTON	70	59	74	55	65	4	0.00	-0.56	0.00	0.00	0	3.96	56	97	64	0	0	0	0		
TX HOUSTON	76	52	84	44	64	5	0.00	-0.72	0.00	0.00	0	4.13	58	91	47	0	0	0	0		
TX LUBBOCK	74	40	85	39	57	10	0.00	-0.17	0.00	0.00	0	0.39	29	60	25	0	0	0	0		
TX MIDLAND	77	45	85	40	61	9	0.00	-0.13	0.00	0.00	0	0.48	40	62	31	0	0	0	0		
TX SAN ANGELO	78	42	83	34	60	7	0.00	-0.27	0.00	0.00	0	0.80	37	80	38	0	0	0	0		
TX SAN ANTONIO	79	56	86	46	67	9	0.00	-0.44	0.00	0.00	0	2.93	79	88	42	0	0	0	0		
TX VICTORIA	79	54	84	43	66	6	0.00	-0.50	0.00	0.00	0	4.94	102	99	61	0	0	0	0		
TX WACO	74	45	77	35	60	5	0.00	-0.65	0.00	0.00	0	2.46	51	87	51	0	0	0	0		
TX WICHITA FALLS	73	42	79	38	58	8	0.00	-0.48	0.00	0.00	0	1.70	56	73	34	0	0	0	0		
UT SALT LAKE CITY	63	39	69	32	51	12	0.00	-0.38	0.00	0.00	0	2.46	83	62	26	0	1	0	0		
VT BURLINGTON	34	13	50	5	23	-2	0.25	-0.16	0.21	0.25	83	4.60	110	74	43	0	7	2	0		
VA LYNCHBURG	56	28	70	21	42	1	0.66	-0.17	0.64	0.66	112	7.71	107	73	35	0	6	3	1		
VA NORFOLK	57	37	70	32	47	2	0.70	-0.18	0.57	0.70	111	11.55	146	72	39	0	1	3	1		
VA RICHMOND	57	30	70	23	44	1	0.25	-0.62	0.11	0.25	40	7.91	110	82	44	0	5	3	0		
VA ROANOKE	57	32	69	25	44	1	0.38	-0.44	0.23	0.38	64	8.60	125	73	40	0	5	3	0		
WA WASH/DULLES	54	30	66	22	42	3	0.12	-0.64	0.06	0.12	22	7.98	125	76	41	0	5	3	0		
WA OLYMPIA	55	41	64	34	48	6	3.28	1.95	1.58	2.77	295	17.72	121	95	85	0	0	7	2		
WA QUILLAYUTE	55	45	63	37	50	7	4.10	1.25	2.02	3.24	160	34.67	124	90	76	0	0	6	3		
WA SEATTLE-TACOMA	56	44	64	40	50	5	2.38	1.46	0.82	1.51	232	14.89	149	89	72	0	0	7	2		
WA SPOKANE	52	36	59	32	44	8	0.46	0.10	0.34	0.46	177	3.93	109	88	57	0	2	3	0		
WA YAKIMA	59	35	65	31	47	8	0.69	0.52	0.45	0.69	575	3.43	164	80	58	0	2	2	0		
WV BECKLEY	48	28	66	19	38	0	0.74	-0.06	0.31	0.67	116	6.60	97	81	59	0	5	4	0		
WV CHARLESTON	52	29	71	22	41	0	1.06	0.19	0.40	1.02	162	7.19	102	87	47	0	6	5	0		
WV ELKINS	50	23	65	15	36	1	0.71	-0.16	0.36	0.35	56	5.74	79	87	40	0	7	4	0		
WV HUNTINGTON	51	31	71	24	41	0	1.25	0.38	0.41	1.18	190	8.64	125	84	51	0	5	4	0		
WI EAU CLAIRE	34	21	39	9	27	2	0.09	-0.14	0.05	0.06	35	1.06	53	81	45	0	7	3	0		
WI GREEN BAY	33	17	41	6	25	-1	0.28	-0.02	0.11	0.23	105	2.43	100	87	56	0	7	4	0		
WI LA CROSSE	37	21	51	2	29	0	0.28	0.04	0.19	0.28	156	1.80	76	85	45	0	7	2	0		
WI MADISON	38	18	58	0	28	0	0.30	-0.04	0.18	0.28	117	2.19	79	84	59	0	7	3	0		
WI MILWAUKEE	38	21	61	11	30	0	0.26	-0.13	0.15	0.25	89	2.17	57	76	57	0	6	3	0		
WY CASPER	57	20	65	12	39	8	0.06	-0.12	0.06	0.00	0	1.46	108	65	29	0	7	1	0		
WY CHEYENNE	56	28	62	21	42	10	0.00	-0.16	0.00	0.00	0	1.12	111	63	25	0	6	0	0		
WY LANDER	57	28	64	22	43	12	0.00	-0.18	0.00	0.00	0	0.92	77	56	17	0	6	0	0		
WY SHERIDAN	60	25	74	20	43	12	0.01	-0.13	0.01	0.00	0	1.45	101	68	33	0	7	1	0		

Based on 1971-2000 normals

*** Not Available

February Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: For the second time in 3 months, warmth stretched nearly coast to coast, with only small sections of the southern Atlantic States experiencing cooler-than-normal weather. Unlike December, when unprecedented warmth covered areas from the Mississippi Valley to the East Coast, February's record-setting high temperatures were focused across the Plains.

As a result, winter wheat prematurely broke dormancy across the central and southern Plains, leaving the crop vulnerable to potential spring freeze events. On the northern Plains, where February temperatures averaged more than 10°F above normal in some locations, wheat lost some winter hardiness and was often buffeted by mild, breezy conditions. The Plains' most impressive warm spells peaked on February 18 and 27, with numerous monthly record highs established on both dates. During February, the portion of the winter wheat crop rated in good to excellent condition declined in Texas, from 49 to 40 percent, in part due to short-term dryness. Pockets of dryness also developed elsewhere across the southern half of the Plains. In contrast, early-month snowfall provided wheat with beneficial moisture across much of Nebraska, eastern Colorado, and northwestern Kansas.

Uncharacteristic of a strong, mature El Niño, February was disappointingly dry across much of the West. During February, the average water content of the high-elevation Sierra Nevada snowpack was nearly steady at 20 to 22 inches, with only minor storms affecting key watersheds. Since February is typically an important month for Sierra Nevada snowpack accumulation, the percent of historic average dropped from about 115 percent of average on February 1 to just 85 percent by month's end. Farther north, occasional precipitation benefited Northwestern winter grains.

Meanwhile, mild, occasionally stormy conditions prevailed across the Midwest, although a mid-month cold snap briefly resulted in some of the coldest weather of the season. Overwintering conditions remained mostly favorable for Midwestern wheat, with more than two-thirds of the crop rated in good to excellent condition at the end of February in Ohio (72 percent) and Indiana (67 percent).

Similarly, the mid-month cold spell interrupted an otherwise mild regime in the Northeast, while cool conditions were a little more persistent in the Southeast. An abundance of precipitation fell during February across most of the eastern one-third of the country, with some of the heaviest rain occurring in the coastal Carolinas. Severe weather outbreaks were noted across portions of the South and East on February 2-3, 15-16, and 23-24. From the Ohio Valley into the Northeastern and Mid-Atlantic States, some of the precipitation—especially around mid-month—fell as snow, sleet, or freezing rain.

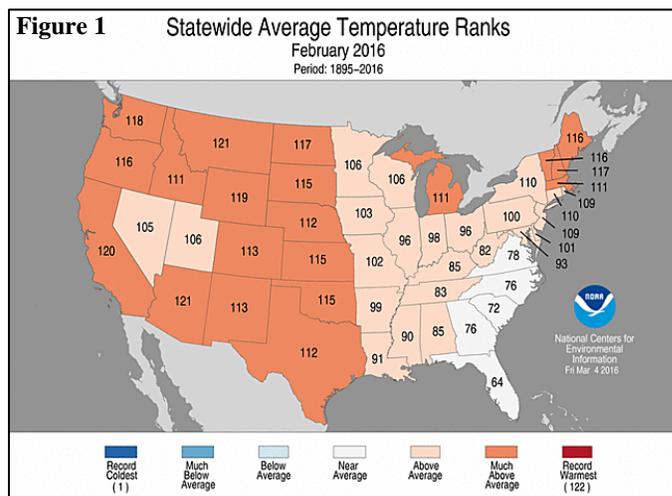
By February 29, only one-eighth (12.5 percent) of the country was covered by snow, compared to 60.2 percent at the end of February 2015. At the same time, just 14.3 percent of the nation was experiencing drought on March 1, according to the U.S. Drought Monitor, versus 34.8 percent on October 20, 2015. Drought

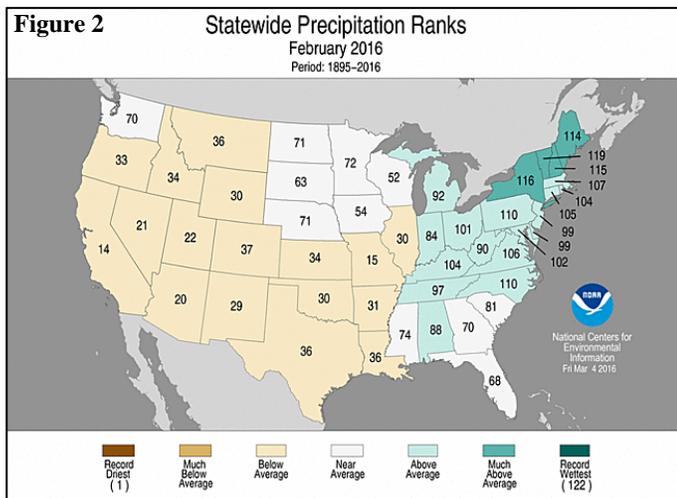
coverage across the contiguous U.S. has not been lower in more than 5 years, since October 2010.

Historical Perspective: According to preliminary information provided by the National Centers for Environmental Information, the contiguous U.S. experienced its seventh-warmest, 46th-driest February during the 122-year period of record. The nation's monthly average temperature of 39.5°F was 5.7°F above the 1901-2000 mean, while the average precipitation of 1.93 inches was 91 percent of normal. Overall, it was the nation's warmest February since 2000.

All states reported a February average temperature in the upper (warmer) half of the historical distribution. Florida, with its 59th-warmest February, was the "coolest" state. For a dozen states across the western and central U.S., as well as three states in New England, temperatures were among the ten highest respective February values on record (figure 1). In Montana, where the monthly average temperature of 33.6°F was 12.3°F above the 20th century mean, it was the second-warmest February behind 1991. Meanwhile, State precipitation rankings ranged from the 14th-driest February in California to top-ten values for February wetness in New Hampshire, New York, Maine, and Vermont (figure 2). California's monthly precipitation averaged 1.14 inches, just 30 percent of normal.

Summary: In early February, a significant winter storm emerged from the Southwest. Cedar City, UT, received 17.0 inches of snow on January 31 – February 1. As the storm moved eastward, high winds raked southern California and the Southwest. On February 1, wind gusts were clocked to 72 mph in Sandberg, CA, and 63 mph in Clovis, NM. Meanwhile in Nebraska, February 1-2 snowfall totaled 18.3 inches in Grand Island and 15.7 inches in Hastings. For Grand Island, it was the second-highest single-storm accumulation behind 21.6 inches on March 19-21, 2006. Most of the snow—17.0 inches in Grand Island and 14.3 inches in Hastings—fell on February 2, which became the second-snowiest calendar day, behind March 20, 2006, in both locations. Grand Island's 17.0 inches of snow translated to 1.64 inches of liquid, the second-highest calendar-day total in that location during February, behind only 1.91 inches on February 18, 1971. Daily-record snowfall amounts for February 1 reached 9.2 inches in Casper, WY; 7.9 inches in Colorado Springs, CO; and 7.3 inches





in North Platte, NE. From January 30 – February 2, snowfall reached 18.1 inches in Casper; 11.2 inches in Colorado Springs; and 12.0 inches in North Platte. Record-setting snowfall amounts for February 2 included 14.2 inches in Norfolk, NE; 12.4 inches in Sioux City, IA; 8.8 inches in Minneapolis, MN; 6.3 inches in Alpena, MI; and 5.8 inches in Appleton, WI. In Iowa, February 2 wind gusts accompanying the storm were clocked to 54 mph in Council Bluffs and 53 mph in Spencer. Farther east, daily-record precipitation amounts for February 2 totaled 1.75 inches in Evansville, IN, and 1.55 inches in Grand Rapids, MI. By February 3, rain shifted into the East, where record-setting daily amounts reached 2.15 inches in Asheville, NC, and 2.04 inches in Tallahassee, FL. February 4 became the fifth-wettest February day in Gainesville, FL, where 3.22 inches fell. It was also Gainesville’s rainiest February day since February 22, 1998, when 4.60 inches fell. Daily-record amounts for February 4 included 3.21 inches in Wilmington, NC; 2.83 inches in Jacksonville, FL; and 2.29 inches on St. Simons Island, GA. Snow fell along the northern Atlantic Coast, where daily-record totals for February 5 included 10.9 inches in Bangor, ME, and 9.8 inches in Islip, NY.

Early-month temperatures soared in advance of the Western storm. Warmth on February 1 resulted in daily-record highs in locations such as Laredo, TX (93°F); Providence, RI (66°F); and Rochester, NY (60°F). In contrast, three consecutive daily-record lows (3, -2, and -6°F) were established in Tonopah, NV, from February 1-3. Other Western records included -18°F (on February 3) in Ely, NV, and 37°F (on February 2) in Long Beach, CA. Farther east, however, consecutive daily-record highs (58 and 60°F, respectively) were established on February 2-3 in Ft. Wayne, IN. Daily-record highs topped the 80-degree mark in some Southeastern locations, including Savannah, GA (81°F on February 2), and Tampa, FL (84°F on February 3). Later, colder air overspread the eastern half of the U.S., while warmth returned to the North. Bellingham, WA, noted a daily-record high (60°F) on February 5. In North Dakota, Bismarck (54°F) and Minot (51°F) posted daily-record highs for February 6. High winds accompanied the Northern warmth. On February 5, wind gusts in Washington were clocked to 118 mph on Mt. Rainier at Camp Muir (elevation 10,100 feet) and 60 mph in Bellingham. Peak wind gusts on February 6 reached 66 mph in Hettinger, ND, and 64 mph in Havre, MT. By February 7, gusts were clocked to 62 mph in Bismarck, ND; 61 mph in Broken Bow, NE; and 60 mph in Huron, SD. Meanwhile, a storm skirted the coastal Carolinas with rain and high winds. On February 7 in North Carolina, a wind gust to 72 mph was reported on Cedar Island, while a daily-

record rainfall total of 1.83 inches occurred in Wilmington. The same storm grazed New England on February 8, resulting in several hours of blizzard conditions on Cape Cod and environs. On February 8, Boston, MA, received 6.4 inches of snow and reported a peak wind gust to 46 mph. Similarly, Providence, RI, noted 5.6 inches of snow and clocked a gust to 47 mph. Farther west, snow squalls downwind of the Great Lakes led to daily-record totals in locations such as Flint, MI (7.1 inches on February 9), and South Bend, IN (6.6 inches on February 10).

Meanwhile, warmth dominated the western U.S., resulting in dozens of daily-record highs. On February 7 in northern California, highs of 80°F set daily records in Redding and Red Bluff. Redding and Red Bluff also posted daily-record highs on February 8, with respective highs of 82 and 81°F. In Oregon, monthly record highs were tied on February 8 in North Bend (82°F) and Medford (79°F). North Bend had previously achieved 82°F on February 25, 1992. Similarly, Medford’s previous monthly record had been attained on February 25 and 26, 1992. With a high of 73°F on the 9th, Quillayute, WA, tied a monthly record originally set on February 26, 1992. Farther south, a monthly record of 95°F was tied on February 9 in Santa Ana, CA—previously reached on February 20, 1995. San Diego, CA, reached or exceeded the 80-degree mark on 6 consecutive days from February 7-12, including a daily-record high of 86°F on February 10. Eventually, warmth returned to the High Plains, where daily-record highs for February 10 soared to 76°F in Pueblo, CO, and 62°F in Livingston, MT. Meanwhile in Arizona, Yuma posted consecutive daily-record highs of 87°F on February 11-12. Later, another wave of warmth reached the High Plains, where Pueblo (76°F on February 13), notched its second daily-record high in 4 days. In stark contrast, frigid air engulfed the Northeast. Boston, MA, registered consecutive daily-record lows (-4 and -9°F, respectively) on February 13-14. The Valentine’s Day cold wave led to the lowest February temperatures on record in New York locations such as Watertown (-37°F; previously, -36°F on February 16, 2015) and Binghamton (-18°F; previously, -15°F on February 2, 1961, and February 17 and 18, 1979). Meanwhile, daily-record lows for February 14 dipped to -9°F in Elkins, WV, and -1°F in New York’s Central Park. The following day, February 15, severe thunderstorms sweeping across the Southeast spawned more than two dozen tornadoes, according to preliminary reports. Where the moisture interacted with lingering Arctic air, widespread snow, sleet, and freezing rain caused travel disruptions. Salisbury, MD, noted 4.0 inches of snow on February 15, while Youngstown, OH, netted 7.5 inches on February 15-16. On February 16, very heavy snow in upstate New York led to daily-record totals in locations such as Rochester (18.3 inches) and Buffalo (8.9 inches). Farther south, record-setting rainfall totals for February 15 included 2.26 inches in Vicksburg, MS; and 2.06 inches in Texarkana, AR; and 2.00 inches in London, KY. Record-setting precipitation amounts for February 16 reached 1.98 inches (including 3.1 inches of snow) in Syracuse, NY, and 1.65 inches (rain and freezing rain) in Williamsport, PA. Meanwhile, wet weather returned to the Northwest, including Washington, where daily-record amounts for February 15 totaled 3.34 inches in Quillayute and 1.64 inches in Bellingham. Windy weather accompanied Pacific storminess into the western U.S. By February 18, wind gusts were clocked to 72 mph in Buffalo, WY, and 68 mph in Telluride, CO. Windy weather later expanded eastward, especially across the northern half of the U.S. On February 19, gusts reached 76 mph in Mitchell, SD; 70 mph in Grand Rapids, MI; and 68 mph in Valentine, NE.

Meanwhile, record-setting warmth persisted in California. In fact, Sacramento noted readings of 70°F or greater on 10 consecutive days from February 7-16, including a trio of daily-record highs (76, 78, and 76°F) during the last 3 days of the warm spell. Elsewhere in California, Santa Ana posted another monthly record-tying high of 95°F on February 16. A day later, Phoenix, AZ (90°F on February 17), reported its earliest 90-degree reading—breaking the previous record set on February 24, 1904 and 1986, by a week. Historic, early-season warmth overtook the central and southern Plains on February 18, when monthly records were tied or broken in locations such as Garden City, KS (89°F); Pueblo, CO (81°F); and Valentine, NE (78°F). High temperatures on the 18th reached or exceeded the 90-degree mark in a few locations, including Greensburg, KS (92°F), and Gage, OK (90°F). Later, warm, windy weather made a northeastward push. Daily-record highs for February 19 surged to 60°F in Lansing, MI, and Bismarck, ND. For Lansing, it was the warmest February day since February 10, 2009, when the high also reached 60°F. February 20 featured dozens of daily-record highs, including 78°F in Joplin, MO; 76°F in Louisville, KY; and 72°F in Indianapolis, IN. Elsewhere, Lubbock, TX, notched a trio of daily-record highs (87, 85, and 85°F) from February 18-20, while St. Louis, MO, posted a pair of daily records (77 and 78°F) on February 19-20.

Heavy, late-month precipitation was mainly limited to the South and East, where daily-record rainfall totals for February 22 included 2.53 inches in El Dorado, AR; 1.96 inches in Montgomery, AL; and 1.86 inches in Charlotte, NC. The following day, beneficial precipitation in Texas led to record-setting totals for February 23 in locations such as Victoria (1.61 inches), Wichita Falls (1.00 inch), and Amarillo (0.39 inch, including 3.2 inches of snow). Farther east, a significant, late-winter tornado outbreak stretched from the central Gulf Coast into the middle and southern Atlantic States. On February 23, three tornado-related fatalities were reported—two in St. James Parish, LA, and one in Lamar County, MS. On February 24 in Virginia, tornadoes claimed four lives—three in Sussex County and one in Appomattox County. Elsewhere in the East, daily-record precipitation totals for February 24 reached 2.77 inches in Allentown, PA; 2.61 inches in Baltimore, MD; and 2.22 inches in Poughkeepsie, NY. Meanwhile in Michigan, record-setting snowfall totals for February 24 included 7.3 inches in Grand Rapids and 7.0 inches in Lansing. Adding snow from the following day, February 24-25 totals reached 11.2 inches in Grand Rapids and 10.4 inches in Lansing. Significant snow accumulations were noted as far south as northwestern and west-central Arkansas, where some 6- to 9-inch totals were reported in the highest elevations. High winds accompanied both the rain and snow. On February 24, peak gusts were clocked to 62 mph in Gary, IN, and 58 mph in Bridgeport, CT. Early on the 25th, a gust to 83 mph was reported at the Blue Hill Observatory near Milton, MA.

Another push of warmth emerged from the Southwest late in the month. In Arizona, daily-record highs for February 21 climbed to 86°F in Phoenix and 82°F in Tucson. Two days later, record-setting highs for February 23 in southern Texas reached 93°F in Harlingen and 92°F in Brownsville. Warmth briefly surged northward along the Atlantic Seaboard, where Bridgeport, CT, notched a daily-record high of 60°F on February 24. Record-setting highs for February 25 reached 63°F in Concord, NH, and 54°F in Houlton, ME. Later, cool air settled into the East, while

warmth rapidly expanded across the western and central U.S. By February 25, Northwestern daily-record highs rose to 72°F in Roseburg, OR, and 70°F in Quillayute, WA. At the height of the late-February warm spell, monthly record highs were broken on February 27 in locations such as Kennebec, SD (76°F; previously, 75°F on February 21, 2000); Bismarck, ND (73°F; previously, 69°F on February 29, 1932); and St. Cloud, MN (59°F; previously, 58°F on February 27, 1932). With a high of 73°F on the 27th, Sioux City, IA, experienced its warmest February day since 1896.

End-of-month warmth resulted in numerous daily-record highs across the Midwest and East. On February 28, daily-record highs surged to 71°F in Springfield, IL, and 64°F in Detroit, MI. The following day, Leap Day records were broken in Northeastern locations such as Boston, MA (64°F), and Portland, ME (59°F). Meanwhile, warmth also prevailed in the West, where record-setting highs for February 29 included 90°F in Woodland Hills, CA, and 89°F in Yuma, AZ. Elsewhere in Arizona, Phoenix posted five consecutive daily-record highs (88, 89, 90, 91, and 88°F) from February 29 – March 4. Similarly, Thermal, CA, noted a trio of daily-record highs (90, 91, and 93°F) from February 29 – March 2. In the Midwest and Northeast, late-month warmth yielded to colder weather and, in some cases, snow. During the transition, on February 29, wind gusts were clocked to 61 mph in Wheeling, WV, and 56 mph in Pellston, MI. February 29 also featured daily-record snowfall totals in South Dakota locations such as Mitchell (5.2 inches) and Sioux Falls (4.5 inches). In Michigan, daily-record snowfall totals for March 1 reached 7.4 inches in Grand Rapids and 7.2 inches in Lansing and Alpena.

Given the consistent February warmth in the western and central U.S., several monthly records were set. For example, it was the warmest February on record in Montana locations such as Cut Bank (average temperature of 36.8°F, or 12.6°F above normal) and Helena (37.9°F, or 10.2°F above normal). Similarly, it was the warmest February in parts of southern California, including Los Angeles' LAX Airport (63.0°F, or 5.9°F above normal) and Long Beach (63.4°F, or 5.8°F above normal). February records for the greatest number of 80-degree days were established in southern California locations such as Woodland Hills (20 days), Burbank (14 days), Long Beach (13 days), and Santa Barbara (7 days). And, February records for the greatest number of 50-degree days were tied in Montana locations such as Great Falls (16 days) and Helena (15 days). In addition to the warmth, Cut Bank, MT, received only a trace of snow—its lowest February total since 1926, when there was none. Elsewhere in Montana, February snowfall included 0.5 inch in Havre and 0.1 inch in Great Falls—the lowest February totals in both locations since 1931.

Alaska's "year without winter" continued through February, with mild, mostly dry weather dominating most interior locations. In contrast, very wet weather occurred in parts of southern Alaska, although snow was scarce in low-elevation communities. In King Salmon, the temperature rose above the freezing mark each day during the month except February 18, when the high reached 31°F. King Salmon also posted a daily-record high of 48°F on February 25. Meanwhile, no measurable snow fell during the month on Annette Island, where the last accumulation occurred on December 26. Juneau finally received snow (2.0 inches) on February 20, marking the first

accumulation in that location since December 29. Despite the lack of snow, Annette Island reported a February precipitation total of 15.54 inches (213 percent of normal). Elsewhere in southeastern Alaska, Ketchikan's monthly precipitation climbed to 24.88 inches, marking its wettest February since 1954. Both Annette Island (1.76 inches) and Ketchikan (5.96 inches) netted daily-record totals for February 25. Ketchikan also noted its warmest February on record, with a monthly average temperature of 38.7°F (previously, 37.3°F in 1963). Back on the mainland, Bettles collected a trio of daily-record highs (36, 35, and 32°F) from February 25-27. Other late-month, daily-record highs included 46°F (on February 25) in Anchorage and 43°F (on February 27) in McGrath. Finally, Fairbanks completed its least snowy December-February period on record with just 2.5 inches of snow (previously, 4.9 inches in 1918-19), and driest winter with 0.13 inch (previously, 0.35 inch in 1935-36). Fairbanks' seasonal snowfall and precipitation were both 8 percent of normal.

During February, El Niño-driven drought continued to develop, expand, and intensify across Hawaii. In fact, the entire winter was unusually dry in many Hawaiian locations. On Oahu, for example, Honolulu endured its driest winter on record, with a December-February rainfall total of 0.70 inch (9 percent of normal). With a winter total of 2.59 inches (21 percent of normal), Lihue, Kauai, experienced its driest December-February period since 1985-86, when 1.83 inches fell. On the Big Island, Hilo's dryness arrived in early 2016. As a result, Hilo's January-February rainfall totaled just 4.57 inches (24 percent of normal). In addition, periods of record-setting warmth accompanied Hawaii's dry weather pattern. On February 5, daily-record highs were tied in Kahului, Maui (87°F), and Lihue (84°F). A few days later, a brief cool spell resulted in a daily record-tying low of 56°F (on February 8) in Lihue. By February 13, however, daily-record highs included 90°F in Kahului and 87°F in Honolulu. Late-month warmth set a few more records, including consecutive daily-record highs (86 and 89°F, respectively) in Hilo on February 26-27.

Fieldwork

Fieldwork summary provided by USDA/NASS

Above-normal temperatures blanketed much of the U.S. during February. Temperatures in the northern Great Plains were much higher than normal, with most of Montana and North Dakota averaging at least 9°F above normal. Conversely, portions of the Great Basin and virtually all of Florida recorded below-average monthly temperatures. Meanwhile, precipitation was generally within 2 inches of normal across the nation. Some totals more than 2 inches above normal were reported along the Atlantic Coast, Tennessee Valley, and western Washington. Elsewhere, monthly precipitation in some areas near the U.S.-Mexican border totaled less than 2 percent of normal.

Winter wheat conditions declined over the previous month in some northern locations due to lack of protective snow cover. In Montana, the percent of the crop in the good to excellent categories dropped 19 percentage points during February, with 53 percent rated in these two categories on February 28. In North Dakota, winter wheat condition decreased 11 percentage points over the month to 54 percent good to excellent. Michigan winter wheat was rated 62 percent good to excellent at the end

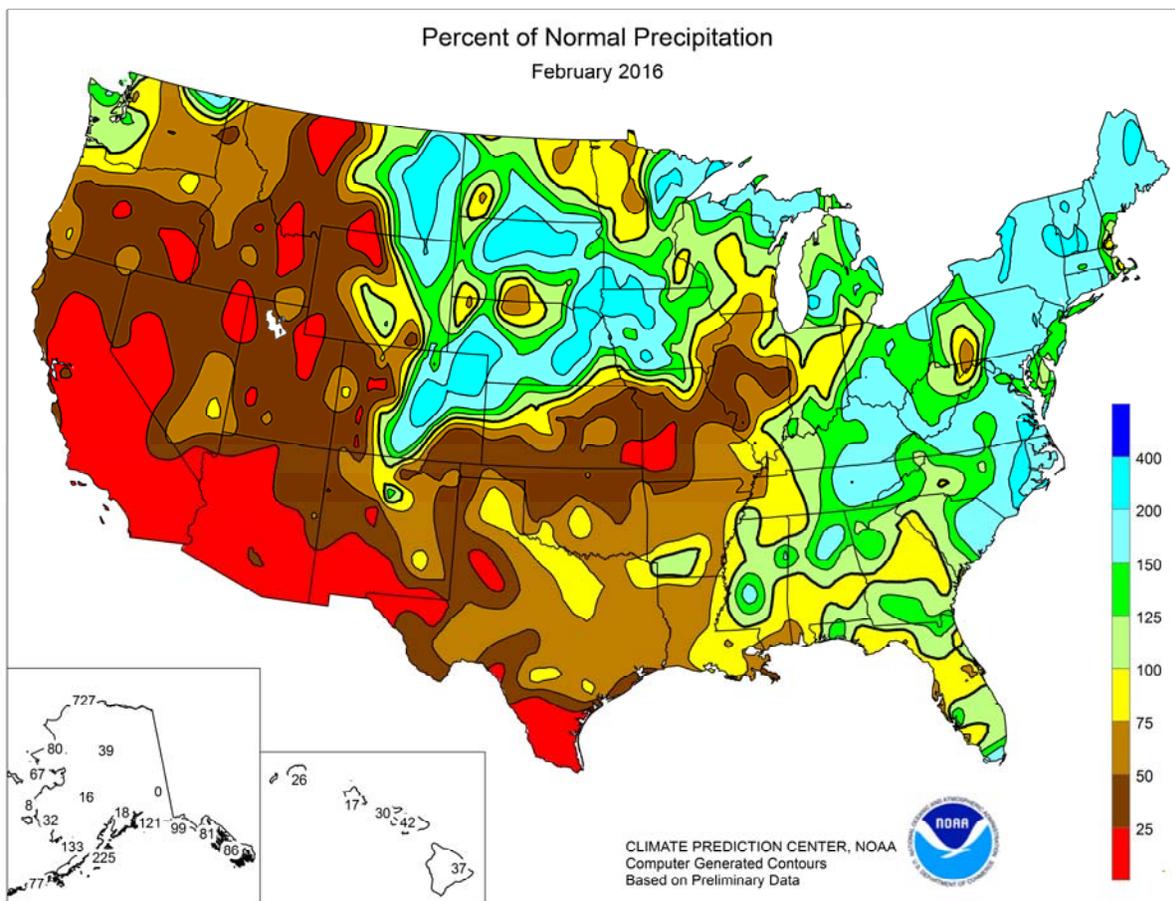
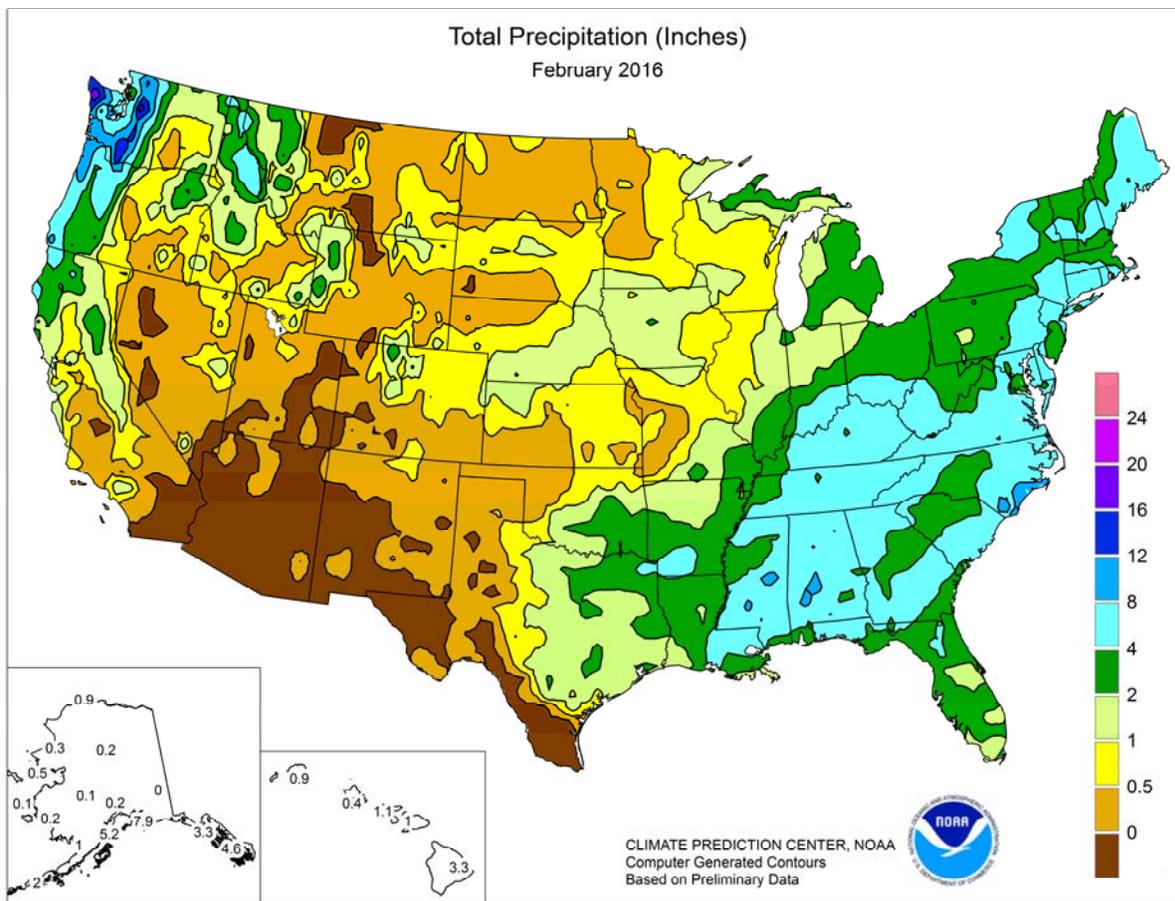
of the month, down 11 percentage points from January 31. Conversely, Kansas winter wheat condition was rated at 59 percent in the good to excellent categories as of February 28, up 4 percentage points from the end of January. Due to warmer weather, the South Dakota winter wheat condition increased 2 percentage points in the good to excellent categories to 69 percent by the end of the month.

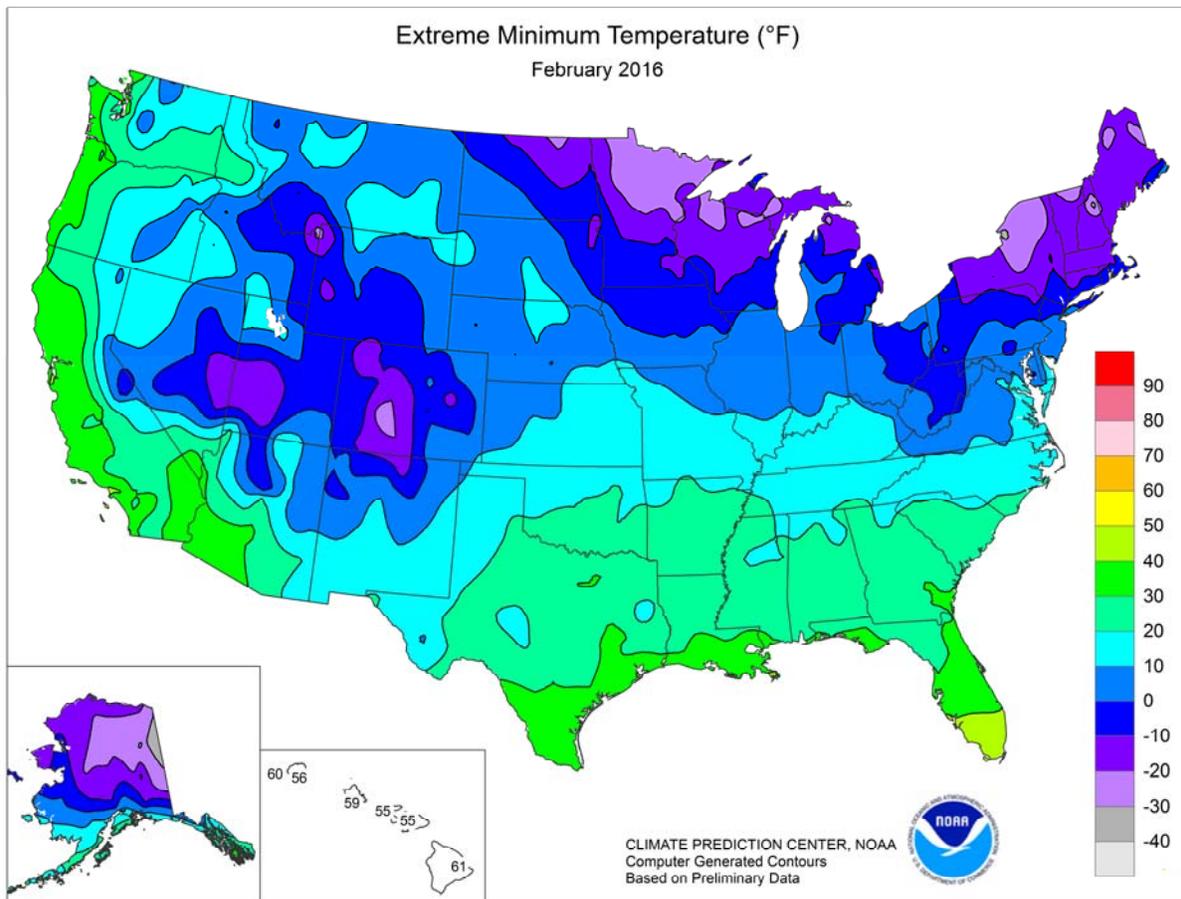
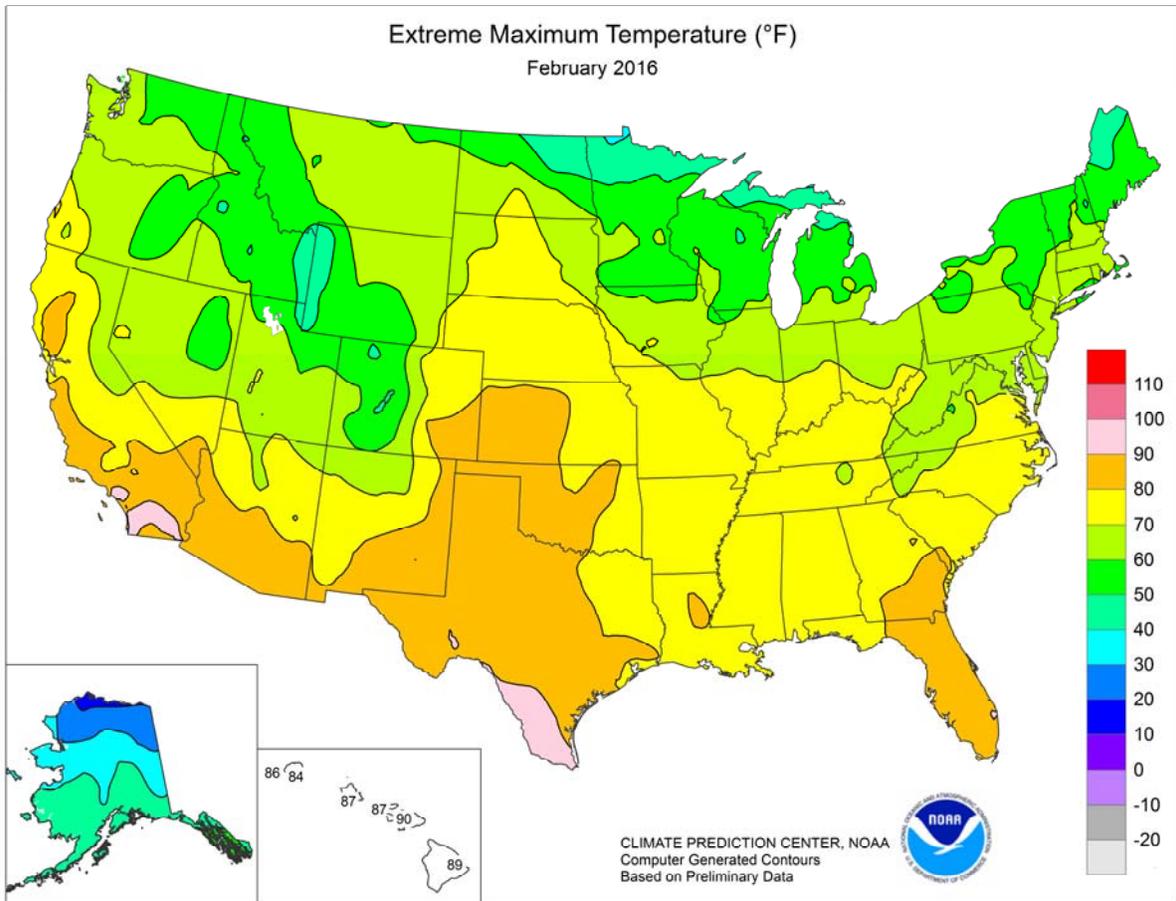
Temperatures across Arizona were mostly above normal for the month of February. During the last 2 weeks, the highest temperatures were in the lower 90s. Alfalfa conditions were mostly good to excellent, depending on location. Alfalfa harvesting was active on about two-thirds of the fields. Durum wheat and barley plantings were completed in February. Vegetable and citrus harvesting activities continued throughout February. Pasture conditions were mostly fair to good, while durum wheat conditions were mostly good.

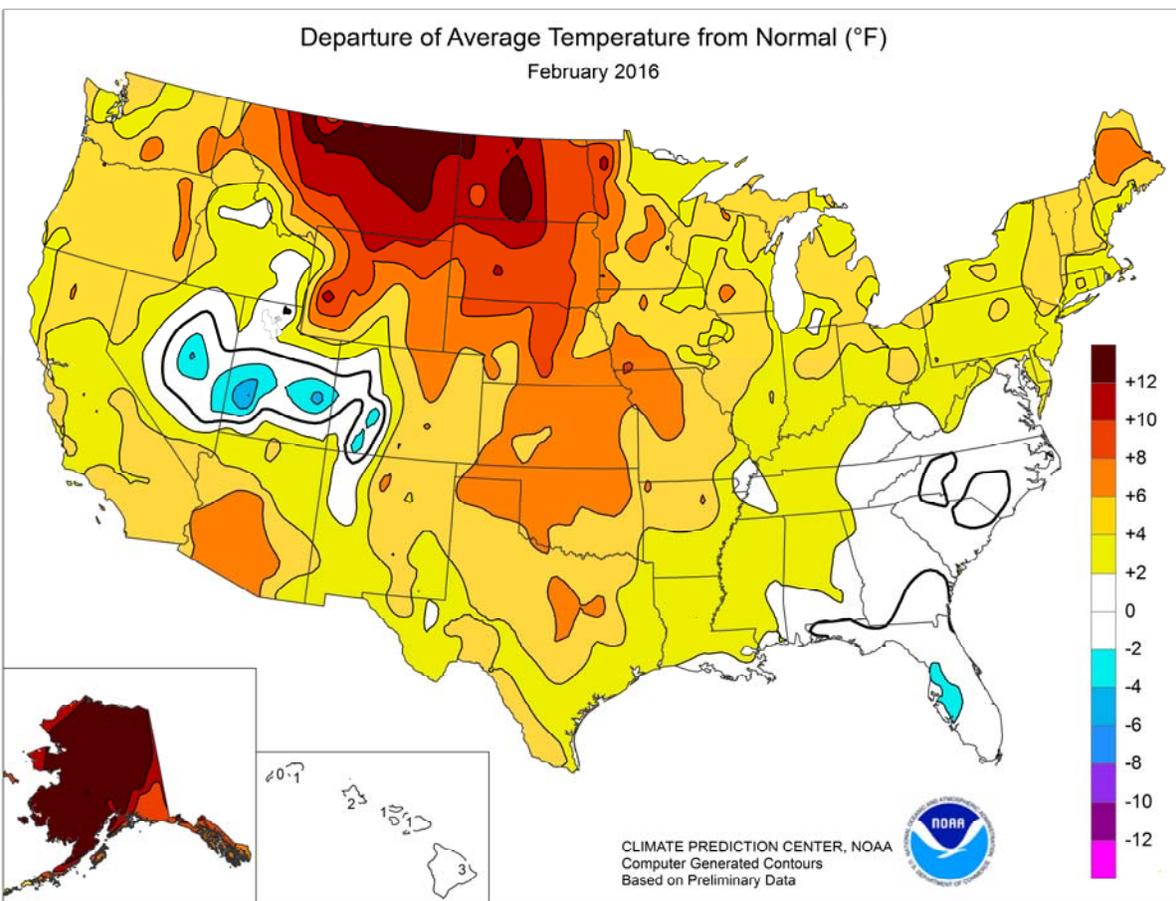
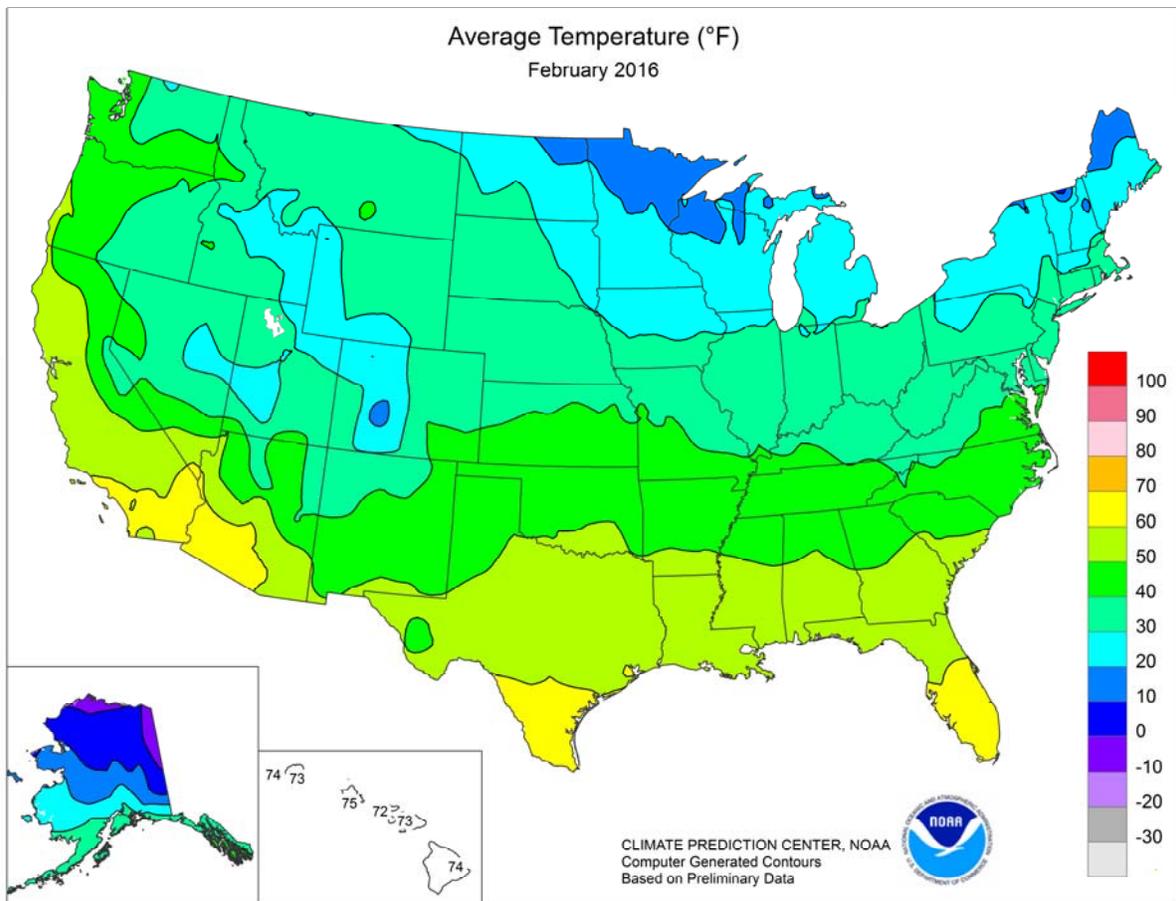
Warm, sunny weather assisted in drying California row crop fields so that groundwork and preparation could continue throughout the month. With dry conditions, some fields required spraying for weeds. Citrus packing houses continued to pick and pack a variety of citrus for domestic and export markets. Warm weather aided almond bloom progression, and most almond orchards were in full bloom by the end of the month. The application of bloom sprays continued through February. Bees were active in almond orchards during the month. Some hives were moved into stone fruit orchards as the early varieties started to bloom. Certified producers continued to grow winter vegetables and sell produce such as cabbage, cauliflower, broccoli, carrots, and Brussels sprouts at local markets. Valley and foothill non-irrigated pasture grasses and forbs capitalized on earlier precipitation and above-normal monthly temperatures to produce a flourish of new growth.

In Florida, fieldwork and soil preparation for spring planting continued in the Panhandle. Sugarcane harvest continued through February in Glades and Hendry Counties. By month's end, potato planting was complete. During vegetable harvest, some damage to crops was noted in southwestern counties due to cold, wet weather conditions, which reduced quality and volume. The lowest temperatures of the season were recorded across the citrus-growing area during February. Citrus processing plants ran at full capacity during the month. Early and midseason oranges were harvested and processed. Harvesting of Hamlin, Navel, and Pineapple oranges, as well as early tangerines, continued throughout the month. Valencia oranges, Honey tangerines, colored grapefruit, a small amount of white grapefruit, and midseason oranges were being harvested for fresh fruit. Some pastures were in poor condition due to standing water and frost. Ranchers were providing supplemental feed due to lack of forage crops.

Texas experienced moderate weather conditions for the month of February. Precipitation throughout the state was scarce, with the highest totals in eastern parts of the state (trace amounts to 3 inches or more). Hail fell in parts of the Edwards Plateau, North East, and South Texas. Winter wheat conditions were rated mostly fair to good during February. Cotton harvest concluded during the first half of the month. Pecan harvest was in its finishing stage. Pasture and range conditions were mostly fair to good. Cattle continued to be in good condition, as supplemental feeding remained active across much of the state.







National Weather Data for Selected Cities

February 2016

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	50	3	7.46	3.25	LEXINGTON	38	2	4.46	1.19	COLUMBUS	34	2	3.29	1.09
HUNTSVILLE	47	3	6.38	1.43	LONDON-CORBIN	39	0	6.00	2.28	DAYTON	33	3	3.32	1.03
MOBILE	55	2	3.16	-1.94	LOUISVILLE	40	2	4.81	1.56	MANSFIELD	31	4	3.36	1.19
MONTGOMERY	53	2	5.41	-0.04	PADUCAH	41	3	2.91	-1.02	TOLEDO	31	4	1.75	-0.13
AK ANCHORAGE	30	11	0.30	-0.44	LA BATON ROUGE	56	3	3.58	-1.52	YOUNGSTOWN	32	4	3.78	1.75
BARROW	-4	12	0.86	0.74	LAKE CHARLES	57	3	2.07	-1.21	OK OKLAHOMA CITY	49	7	1.35	-0.21
COLD BAY	34	6	2.00	-0.59	NEW ORLEANS	59	3	3.72	-1.75	TULSA	49	7	0.58	-1.37
FAIRBANKS	8	12	0.05	-0.31	SHREVEPORT	55	4	2.15	-2.06	OR ASTORIA	49	5	8.53	0.66
JUNEAU	38	9	3.26	-0.76	ME BANGOR	25	4	4.59	2.05	BURNS	31	1	0.24	-0.87
KING SALMON	35	19	0.96	0.24	CARIBOU	19	6	4.05	1.99	EUGENE	48	5	2.52	-3.83
KODIAK	36	6	12.88	7.16	PORTLAND	29	4	4.17	1.03	MEDFORD	48	4	1.03	-1.07
NOME	16	10	0.50	-0.25	MD BALTIMORE	37	2	5.70	2.68	PENDLETON	43	4	0.86	-0.36
AZ FLAGSTAFF	36	4	0.37	-2.19	MA BOSTON	35	4	4.17	0.87	PORTLAND	49	6	4.10	-0.08
PHOENIX	66	8	0.00	-0.77	WORCESTER	29	3	5.27	2.17	SALEM	49	6	2.91	-2.18
TUCSON	61	6	0.18	-0.70	MI ALPENA	22	3	2.63	1.28	PA ALLENTOWN	34	4	5.86	3.11
AR FORT SMITH	48	4	1.76	-0.83	DETROIT	31	4	2.02	0.14	ERIE	32	4	3.83	1.55
LITTLE ROCK	49	4	2.14	-1.19	FLINT	30	6	2.21	0.86	MIDDLETOWN	34	3	5.29	2.36
CA BAKERSFIELD	56	3	0.18	-1.03	GRAND RAPIDS	29	4	2.78	1.25	PHILADELPHIA	38	3	4.36	1.62
EUREKA	51	2	2.98	-2.53	HOUGHTON LAKE	24	4	1.36	0.11	PITTSBURGH	33	2	3.14	0.77
FRESNO	56	5	0.33	-1.79	LANSING	29	5	1.71	0.26	WILKES-BARRE	33	4	4.01	1.93
LOS ANGELES	63	5	0.73	-2.38	MUSKEGON	30	5	1.75	0.17	WILLIAMSPORT	34	5	4.36	1.75
REDDING	56	7	0.91	-4.58	TRAVERSE CITY	28	6	1.70	-0.09	PR SAN JUAN	79	2	3.88	1.58
SACRAMENTO	55	4	0.82	-2.72	MN DULUTH	17	2	0.83	0.00	RI PROVIDENCE	54	3	5.32	1.87
SAN DIEGO	64	5	0.05	-1.99	INT'L FALLS	13	2	0.78	0.14	SC CHARLESTON	32	1	4.89	1.81
SAN FRANCISCO	57	5	0.85	-3.16	MINNEAPOLIS	25	5	1.09	0.30	COLUMBIA	49	1	4.69	0.85
STOCKTON	55	4	0.48	-1.98	ROCHESTER	23	5	0.65	-0.10	FLORENCE	47	-1	5.33	2.31
CO ALAMOSA	29	7	0.40	0.19	ST. CLOUD	22	6	0.63	0.04	GREENVILLE	45	1	4.71	0.47
CO SPRINGS	37	5	1.00	0.65	MS JACKSON	53	4	8.22	3.72	MYRTLE BEACH	50	1	7.06	3.56
DENVER	38	7	0.48	0.25	MERIDIAN	51	1	4.25	-1.10	SD ABERDEEN	28	9	0.55	0.07
GRAND JUNCTION	33	-1	0.45	-0.05	TUPELO	48	3	3.33	-1.35	HURON	29	8	0.58	0.01
PUEBLO	41	6	0.35	0.09	MO COLUMBIA	39	5	0.75	-1.45	RAPID CITY	36	9	0.65	0.19
CT BRIDGEPORT	35	3	4.90	1.98	JOPLIN	44	5	0.37	-1.88	SIOUX FALLS	27	6	1.20	0.69
HARTFORD	32	3	4.87	1.91	KANSAS CITY	39	6	0.40	-0.91	TN BRISTOL	39	1	4.48	1.08
DC WASHINGTON	40	2	3.79	1.16	SPRINGFIELD	42	5	0.36	-1.92	CHATTANOOGA	46	3	7.07	2.22
DE WILMINGTON	37	3	4.42	1.61	ST JOSEPH	37	5	0.32	-0.81	JACKSON	44	1	3.58	-0.67
FL DAYTONA BEACH	60	0	3.66	0.92	ST LOUIS	40	5	0.80	-1.48	KNOXVILLE	42	0	7.12	3.11
FT LAUDERDALE	68	0	3.32	0.62	MT BILLINGS	41	11	0.09	-0.48	MEMPHIS	48	3	5.58	1.27
FT MYERS	64	-2	2.13	0.03	BUTTE	28	6	0.13	-0.34	NASHVILLE	44	3	4.46	0.77
JACKSONVILLE	56	0	4.82	1.67	GLASGOW	32	13	0.33	0.07	TX ABILENE	53	4	0.68	-0.45
KEY WEST	69	-2	3.72	2.21	GREAT FALLS	38	12	0.03	-0.48	AMARILLO	46	5	0.50	-0.05
MELBOURNE	62	0	2.03	-0.46	HELENA	38	12	0.16	-0.22	AUSTIN	56	1	1.14	-0.85
MIAMI	68	-1	2.85	0.78	KALISPELL	34	7	0.82	-0.33	BEAUMONT	59	3	1.97	-1.38
ORLANDO	61	-2	1.69	-0.66	MILES CITY	38	13	0.47	0.13	BROWNSVILLE	65	2	0.00	-1.18
PENSACOLA	58	3	4.71	0.03	MISSOULA	35	6	0.48	-0.29	COLLEGE STATION	58	3	1.32	-1.06
ST PETERSBURG	62	-1	1.66	-1.21	NE GRAND ISLAND	35	7	1.86	1.18	CORPUS CHRISTI	63	3	0.21	-1.63
TALLAHASSEE	55	0	4.44	-0.19	HASTINGS	35	5	1.57	0.90	DALLAS/FT WORTH	55	6	2.20	-0.17
TAMPA	62	-1	2.53	-0.14	LINCOLN	35	7	0.76	0.10	DEL RIO	60	4	0.07	-0.89
WEST PALM BEACH	66	-1	2.66	0.11	MCCOOK	37	5	0.99	0.35	EL PASO	53	2	0.07	-0.32
GA ATHENS	47	1	4.48	0.09	NORFOLK	33	7	1.58	0.82	GALVESTON	60	2	0.89	-1.72
ATLANTA	48	1	7.39	2.71	NORTH PLATTE	34	5	0.78	0.27	HOUSTON	59	4	1.95	-1.03
AUGUSTA	50	2	3.76	-0.35	OMAHA/EPPLEY	34	6	0.61	-0.19	LUBBOCK	48	5	0.09	-0.62
COLUMBUS	51	1	4.23	-0.25	SCOTTSBLUFF	37	7	0.56	-0.02	MIDLAND	53	4	0.30	-0.28
MACON	51	2	3.21	-1.34	VALENTINE	35	8	0.16	-0.32	SAN ANGELO	54	4	0.77	-0.41
SAVANNAH	54	1	3.28	0.36	NV ELKO	30	-1	0.31	-0.57	SAN ANTONIO	59	4	1.55	-0.20
HI HILO	74	3	3.28	-5.58	ELY	29	-1	0.55	-0.20	VICTORIA	60	3	1.79	-0.25
HONOLULU	75	2	0.40	-1.95	LAS VEGAS	58	6	0.09	-0.60	WACO	54	3	2.16	-0.27
KAHULUI	73	1	1.00	-1.36	RENO	44	6	0.42	-0.64	WICHITA FALLS	52	6	1.27	-0.30
LIHUE	73	1	0.85	-2.41	WINNEMUCCA	39	3	0.21	-0.41	UT SALT LAKE CITY	37	2	0.52	-0.81
ID BOISE	41	4	0.67	-0.47	NH CONCORD	28	5	4.39	2.03	VT BURLINGTON	26	6	3.14	1.47
LEWISTON	45	7	0.65	-0.30	NJ ATLANTIC CITY	38	4	4.51	1.66	VA LYNCHBURG	37	-1	4.52	1.42
POCATELLO	32	2	0.20	-0.81	NEWARK	37	3	4.04	1.08	NORFOLK	44	2	6.25	2.91
IL CHICAGO/O'HARE	30	3	1.23	-0.40	NM ALBUQUERQUE	46	5	0.05	-0.39	RICHMOND	40	0	4.35	1.37
MOLINE	32	5	0.89	-0.62	NY ALBANY	31	6	4.07	1.90	ROANOKE	38	-1	5.24	2.16
PEORIA	33	5	0.62	-1.05	BINGHAMTON	27	3	4.00	1.54	WASH/DULLES	37	2	3.79	1.02
ROCKFORD	30	5	0.65	-0.69	BUFFALO	29	3	3.47	1.05	WA OLYMPIA	45	5	6.67	0.50
SPRINGFIELD	35	4	1.24	-0.56	ROCHESTER	29	4	3.78	1.74	QUILLAYUTE	47	5	15.74	3.39
IN EVANSVILLE	40	4	4.34	1.24	SYRACUSE	27	3	4.81	2.69	SEATTLE-TACOMA	47	4	5.97	1.79
FORT WAYNE	32	5	1.43	-0.51	NC ASHEVILLE	40	1	5.69	1.86	SPOKANE	39	6	0.72	-0.79
INDIANAPOLIS	35	4	2.25	-0.16	CHARLOTTE	44	-1	4.50	0.95	YAKIMA	43	8	0.41	-0.39
SOUTH BEND	29	2	2.18	0.20	GREENSBORO	42	1	4.23	1.13	WV BECKLEY	34	0	3.87	0.91
IA BURLINGTON	32	4	0.84	-0.70	HATTERAS	49	2	8.24	4.30	CHARLESTON	38	1	4.63	1.44
CEDAR RAPIDS	29	4	0.93	-0.17	RALEIGH	44	1	4.67	1.20	ELKINS	33	1	3.31	0.11
DES MOINES	32	5	1.09	-0.10	WILMINGTON	49	0	7.62	3.96	HUNTINGTON	38	1	5.47	2.38
DUBUQUE	27	4	0.62	-0.80	ND BISMARCK	33	15	0.43	-0.08	WI EAU CLAIRE	22	3	0.94	0.14
SIoux CITY	31	6	1.11	0.49	DICKINSON	30	9	0.26	-0.17	GREEN BAY	24	4	1.15	0.14
WATERLOO	27	4	0.94	-0.11	FARGO	24	10	0.30	-0.29	LA CROSSE	26	3	1.30	0.31
KS CONCORDIA	39	7	0.51	-0.22	GRAND FORKS	22	9	0.26	-0.32	MADISON	27	4	0.85	-0.43
DODGE CITY	41	5	0.31	-0.35	JAMESTOWN	24	8	0.11	-0.41	MILWAUKEE	29	4	1.02	-0.63
GOODLAND	38	6	0.82	0.38	MINOT	29	12	0.37	-0.16	WAUSAU	23	4	0.68	-0.22
HILL CITY	39	7	0.61	0.01	WILLISTON	29	12	0.75	0.36	WY CASPER	32	5	0.47	-0.17
TOPEKA	41	8	0.37	-0.81	OH AKRON-CANTON	32	4	3.38	1.10	CHEYENNE	36	7	0.72	0.28
WICHITA	44	8	0.55	-0.47	CINCINNATI	36	2	5.24	2.49	LANDER	33	7	0.50	-0.04
KY JACKSON	39	1	6.27	2.59	CLEVELAND	32	4	3.22	0.93	SHERIDAN	37	10	0.89	0.32

National Agricultural Summary

February 29 – March 6, 2016

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

A majority of the nation, stretching from the Pacific Coast to the Mississippi Valley, recorded weekly temperatures averaging more than 3°F above normal. Temperatures were at least 12°F above average in parts of the High Plains and the Rocky Mountains. Conversely, weekly

temperatures in portions of Maine, Michigan, and Minnesota were more than 6°F below average. Precipitation was generally light across most of the nation, with only parts of the Pacific Northwest recording more than 3 inches of precipitation for the week.

California: Much of the state received precipitation at week's end. The heaviest rain fell across the central portion of the state, where most areas received in excess of 2.5 inches. Temperatures averaged 5 to 10°F above normal across most of the state. Late-week fieldwork came to a halt due to the wet weather. In Sutter County, field preparation continued and alfalfa was growing rapidly. Grain crops were responding to warm weather early in the week and rainfall towards the end of the week. Wheat and other forage continued to grow. Weed control was ongoing in orchards. Stonefruits were in full bloom and orchards continued to be treated with bloom sprays. Pruning continued in vineyards. Prunes continued to be packed for domestic and foreign sales. In San Joaquin County, cherry orchards were blossoming. In Fresno County, nectarine, peach, apricot, and plum orchards were pruned, fertilized, treated for weed control, and dormant sprays were applied. Early varieties of peach and nectarines started to bloom in the southern region of Fresno County. Asian pears, dried fruits (raisins, prunes, fig, and apricots), kiwifruit, persimmons, and pomegranates continued to be packed for shipment for foreign and domestic markets. In San Joaquin County, almond orchard pollination was almost complete. In Sutter County, walnuts continued to be packed for foreign and domestic sales. In Fresno County, almond buds began to push in some fields. Processing of stored almonds was ongoing and exporting continued. Growers continued to replace and replant new almond, walnut, and pistachio orchards. Wet weather halted vegetable crop fieldwork in Colusa and San Joaquin Counties at week's end. In Fresno County, asparagus and carrots were harvested. Processing tomato and fresh market tomato fields were bedded up, and growers continued to fumigate for various pests. The ground was fumigated and prepared for various early summer vegetable plantings. In Tulare County, broccoli, cabbage, cauliflower, Brussel sprouts, and carrots were harvested and sold at farmer's markets. In San Luis Obispo, rangeland continued to improve, and cattle were no longer requiring supplemental feed. In Sutter County, pasture and rangeland benefited from the combination of warm weather and rainfall. Some bee hives were relocated into stone fruit orchards, as early varieties started to bloom. In Fresno County, bee hives from local areas and out-of-state continued to be brought into the county in preparation for almond pollination. Sheep and cattle were observed grazing on rangelands and on the eastern slope of the Coast Range Mountains. Some ranchers let the sheep graze in small grain fields and older alfalfa fields.

Florida: There was an average of 6.2 days suitable for fieldwork, compared with 6.1 days last week. A dry week left soil moisture levels suitable in South Florida. Planting and harvesting activities returned to normal. Sugarcane harvest pace increased due to favorably drier conditions. Some watermelon fields were seeded in Dixie and Levy Counties. Leafy greens and cabbage were harvested in Flagler and Putnam Counties, while Irish potato planting activities finished. Drier conditions reduced disease pressure in many areas. Miami-Dade County crops harvested included green beans, yellow squash,

zucchini, sweet corn, tomato, eggplant, pepper, herbs, boniata, Malanga, avocado, and other tropical fruits. All vegetable fields were irrigated. Thirteen of eighteen monitored stations in the citrus region showed no rainfall, and only one had more than one-tenth of an inch. All processing plants transitioned from early-midseason oranges to the later variety Valencia oranges. Packinghouses were accepting Valencia oranges, Honey tangerines, tangelos, and grapefruit. Bloom was in various stages across the citrus region. Some trees that had bloomed early already had small fruit forming on the trees. Other groves had only a few white bloom petals on healthy trees. Caretakers were hedging and topping trees after harvest. Some growers were fertilizing and spraying. Irrigation was turned back on in areas that have received little rainfall over the past few weeks. Other grove activity included fertilizing and general grove maintenance. Lee County pastures dried out, giving cattle access to pastures. Additional available forage was due to drier and warmer conditions with longer daylight hours. Drier conditions placed less stress on young and newborn calves.

Oklahoma: The first week of March started with some rain but ended with warm, dry weather. Statewide precipitation averaged 0.30 inch, ranging from no rain in the Panhandle District to 0.91 inch in the East Central District. According to the Oklahoma Mesonet, fire danger remained a concern throughout most of the state. Topsoil and subsoil moisture conditions were rated mostly adequate to short. Rye grazed reached 72 percent, down slightly from the previous year and up 9 percentage points from normal. Oats grazed reached 27 percent, down 6 percentage points from the previous year and unchanged from normal. Rangeland and pastures were rated 80 percent fair to good. Livestock condition was rated at 88 percent fair to good.

Texas: The majority of the state experienced moderate temperatures, along with mostly dry, windy conditions. Topsoil moisture levels in most districts were impacted by high winds and the lack of precipitation. Winter wheat in parts of the Panhandle, the Cross Timbers, and the Blacklands continued to develop, and irrigated fields benefited from the additional moisture. Overall, small grain conditions were rated mostly fair to good. Corn planting began in parts of the Blacklands, while planting in other areas was delayed due to wet topsoil. In portions of the Upper Coast and the Lower Valley, sorghum planting continued. Fruit trees in the Cross Timbers and Northeast Texas started to bloom, while some growers continued to prune trees for the growing season. Field preparation and planting of vegetables progressed in East Texas. Harvest of sugarcane, citrus, onions, and vegetables continued in parts of the Lower Valley. Livestock in most areas of the state remained in good condition, as supplemental feeding continued in portions of the Cross Timbers, Northern Low Plains, and South Texas. Pastures in the Blacklands and Northeast Texas continued to improve due to recent rainfall. However, there were still signs of stress due to dry conditions in parts of the Trans-Pecos and South Central Texas.

International Weather and Crop Summary

February 28 - March 5, 2016

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

EUROPE: Wet weather prevailed over most of the continent, with cooler temperatures over central and western Europe contrasting with persistent spring-like warmth in the Balkans.

FSU-WESTERN: Abnormally warm conditions hastened winter wheat out of dormancy over much of southern Ukraine and Russia up to a month ahead of normal.

MIDDLE EAST: Rainy weather continued, while much-above-normal temperatures accelerated unseasonably early winter grain development.

NORTHWEST AFRICA: Lingering showers eased drought in Morocco, while rain maintained or improved mostly favorable crop prospects in Algeria and Tunisia.

SOUTHEAST ASIA: Late-season rainfall continued to benefit immature rice in Indonesia, but was likely too late to significantly improve prospects.

AUSTRALIA: Hot, mostly dry weather persisted in major summer crop producing areas, likely stressing some immature summer crops but favoring maturation of earlier-sown varieties.

SOUTH AFRICA: Isolated showers brought only limited drought relief to corn and other rain-fed summer crops.

ARGENTINA: Locally heavy rain maintained adequate to abundant levels of moisture for summer crops throughout much of central and northern Argentina.

BRAZIL: Rainfall returned to previously dry locations in northeastern Brazil, boosting moisture for soybeans and cotton.

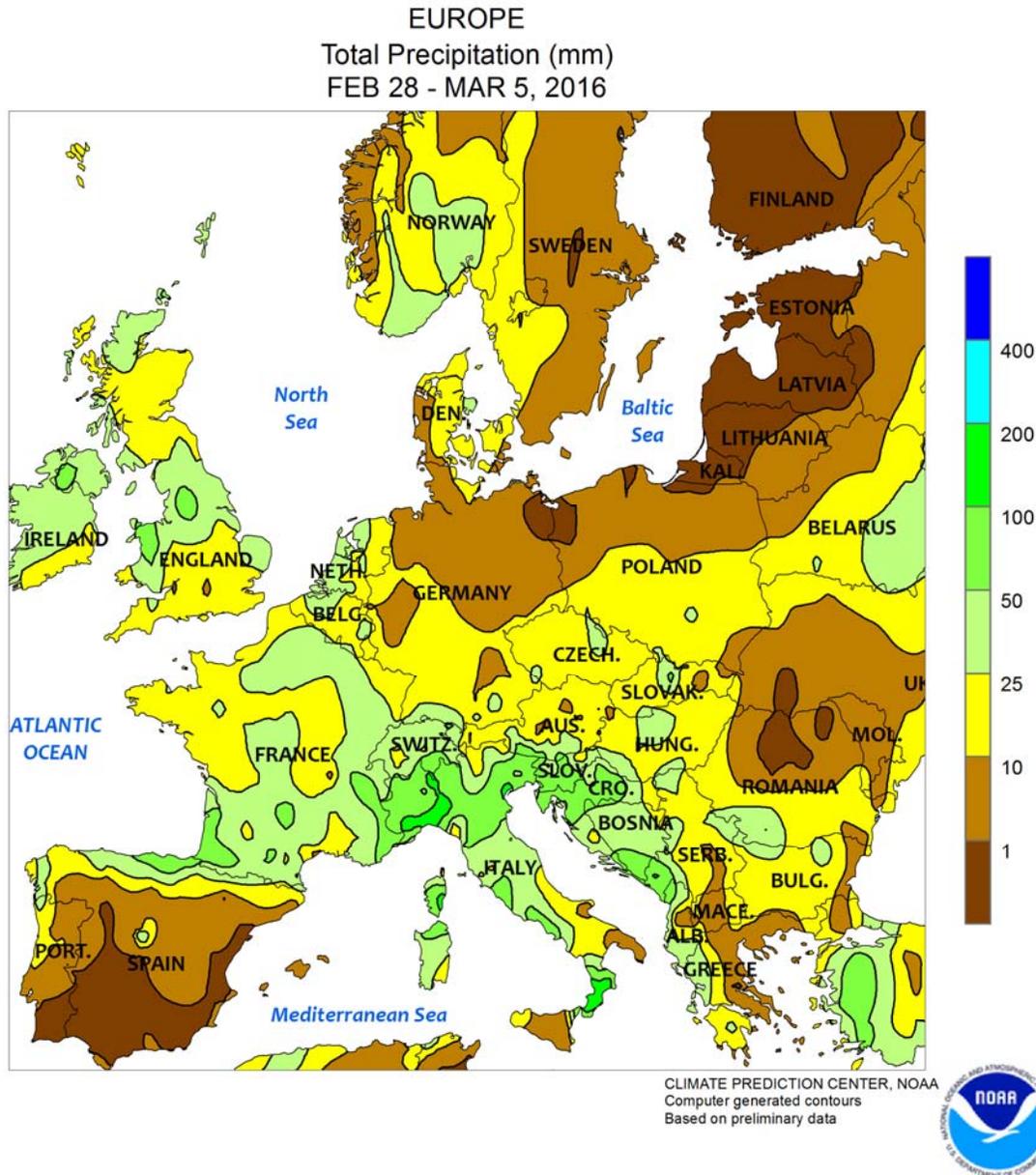
February 2016

COUNTRY	CITY	TEMPERATURE (C)					PRECIP. (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	DEP AVG	NRM TOT	DEP NRM	
ALGERI	ALGER	19	9	24	1	14	2.5	84	17
	BATNA	16	2	27	-4	9	2.6	19	-5
ARGENT	IGUAZU	32	22	35	19	27	1.7	316	114
	FORMOSA	34	25	37	21	29	2.3	269	139
	CERES	33	22	37	15	27	3.1	203	67
	CORDOBA	29	18	34	12	24	1.5	235	107
	RIO CUARTO	29	19	34	11	24	2.1	170	67
	ROSARIO	31	20	37	14	26	2.7	356	230
	BUENOS AIRES	31	19	38	11	25	2.8	123	24
	SANTA ROSA	30	17	35	8	23	1	181	102
	TRES ARROYOS	29	16	34	10	22	2	90	9
AUSTRALIA	DARWIN	33	26	34	23	29	1.3	169	-169
	BRISBANE	29	22	35	19	26	0.8	39	-132
	PERTH	33	17	43	7	25	0.1	1	-17
	CEDUNA	25	16	39	10	20	-1.5	0	-11
	ADELAIDE	27	17	36	13	22	-0.7	12	-28
	MELBOURNE	26	16	41	11	21	0.5	5	-39
	WAGGA	33	17	40	9	25	0.9	0	-40
	CANBERRA	29	13	38	8	21	1.1	12	-43
AUSTRI	VIENNA	10	4	21	-2	7	5.6	82	49
	INNSBRUCK	9	0	17	-4	5	3.7	69	26
BAHAMA	NASSAU	26	19	29	15	22	0.7	11	-31
BELARU	MINSK	3	-1	7	-5	1	5.9	51	17
BERMUD	ST GEORGES	21	17	23	12	19	0.4	142	31
BOLIVI	LA PAZ	15	5	18	2	10	1.4	136	34
BRAZIL	FORTALEZA	30	26	32	23	28	0	191	-23
	RECIFE	30	26	31	23	28	-1	33	-69
	CAMPO GRANDE	30	22	34	20	26	0.4	152	-16
	FRANCA	***	***	31	19	***	*****	*****	*****
	RIO DE JANEIRO	33	25	39	22	29	1.1	141	17
	LONDRINA	31	21	35	19	26	2	367	183
	SANTA MARIA	31	21	36	17	26	1.5	96	-35
	TORRES	29	22	34	17	25	-1.4	87	-66
BULGAR	SOFIA	12	4	22	-5	8	6.2	42	9
BURKIN	OUAGADOUGOU	36	19	41	15	28	-0.3	0	-1
CANADA	TORONTO	2	-7	16	-26	-2	3	47	5
	MONTREAL	-2	-11	8	-28	-6	2.1	114	55
	WINNIPEG	-7	-16	4	-28	-11	2.5	0	-13
	REGINA	0	-10	12	-19	-5	7	0	-12
	SASKATOON	-3	-13	4	-24	-8	4.9	0	-10
	LETHBRIDGE	***	***	***	***	***	*****	*****	*****
	CALGARY	7	-4	17	-11	1	7.2	2	-6
	VANCOUVER	10	4	14	-2	7	2.3	156	35
CANARY	LAS PALMAS	22	17	24	11	19	1	46	26
CHILE	SANTIAGO	31	14	35	11	23	2.8	0	-5
CHINA	HARBIN	-6	-17	7	-27	-12	0.9	3	-2
	HAMI	3	-11	16	-18	-4	-0.5	2	1
	LANCHOW	***	***	-1	***	***	*****	*****	*****
	BEIJING	7	-4	12	-9	1	1.5	8	3
	TIENTSIN	7	-4	12	-10	1	1.3	18	13
	LHASA	14	-1	21	-6	6	4.8	0	-1
	KUNMING	15	4	21	0	9	-0.9	6	-11
	CHENGCHOW	11	1	21	-9	6	2.9	22	10
	YEHCHANG	14	5	24	-2	9	2.2	9	-22
	HANKOW	14	2	22	-6	8	1.2	24	-35
	CHUNGKING	14	7	25	3	11	0.6	33	13
	CHIHKIANG	15	4	25	-3	9	2.6	40	-10
	WU HU	13	2	25	-5	8	2.5	28	-33
	SHANGHAI	12	3	21	-4	7	1.2	21	-40
	NANCHANG	14	6	26	-2	10	2.8	44	-57
	TAIPEI	18	13	30	6	16	-0.5	83	-120
	CANTON	17	10	27	3	13	-1.1	23	-46
	NANNING	18	9	31	2	13	-0.9	14	-29
COLOMB	BOGOTA	22	9	24	2	16	2.5	18	-22
COTE D	ABIDJAN	32	26	35	23	29	1.6	24	-17
CUBA	HAVANA	25	16	30	8	21	-0.9	0	-41
CYPRUS	LARNACA	20	9	26	5	15	3	15	-29
CZECH	PRAGUE	6	1	12	-5	3	3.8	31	11
DENMAR	COPENHAGEN	5	1	9	-6	3	2.1	52	28
EGYPT	CAIRO	24	14	32	8	19	3.5	1	-2

Based on Preliminary Reports

February 2016

COUNTRY	CITY	TEMPERATURE					PRECIP.			COUNTRY	CITY	TEMPERATURE					PRECIP.														
		AVG	AVG	HI	LO	DEP	NRM	TOT	DEP			AVG	AVG	HI	LO	DEP	NRM	TOT	DEP												
		MAX	MIN	MAX	MIN	AVG	(C)					MAX	MIN	MAX	MIN	AVG	(C)														
	ASWAN	28	13	36	6	20	2.8	0	0	MOZAMB	MAPUTO	32	24	44	21	28	1.6	36	-79	N KORE	PYONGYANG	4	-6	16	-13	-1	1.2	37	24		
ESTONI	TALLINN	2	-1	6	-7	1	4.9	86	50	NIGER	NIAMEY	36	20	41	14	28	0.6	0	-1	NORWAY	OSLO	1	-5	5	-14	-2	3.4	50	5		
ETHIOP	ADDIS ABABA	25	12	28	10	19	1.8	25	-12	NZEALA	AUCKLAND	26	18	28	14	22	*****	100	*****	P RICO	SAN JUAN	29	23	31	21	26	1.1	95	36		
F GUIA	CAYENNE	30	25	31	23	27	1.3	307	-12	PAKIST	KARACHI	31	15	37	13	23	2.4	0	-10	PERU	LIMA	29	23	32	22	26	2.9	3	3		
FIJI	NAUSORI	32	25	35	20	28	1.9	530	269	PHILIP	MANILA	31	24	33	22	27	-0.1	64	51	PNEWGU	PORT MORESBY	31	25	35	23	28	1.4	203	5		
FINLAN	HELSINKI	1	-2	4	-10	-1	5.3	64	31	POLAND	WARSAW	6	1	13	-6	4	4.7	64	42	LODZ	LODZ	6	1	13	-5	4	4.4	55	25		
FRANCE	PARIS/ORLY	9	3	14	-6	6	1.7	52	12	KATOWICE	KATOWICE	7	1	14	-6	4	4.3	91	56	PORTUG	LISBON	15	10	19	5	13	0.3	78	-6		
	STRASBOURG	9	3	15	-3	6	3.4	48	16	ROMANI	BUCHAREST	12	2	24	-7	7	6.2	20	-11	RUSSIA	ST.PETERSBURG	1	-2	5	-8	0	5.7	48	18		
	BOURGES	9	4	16	-3	6	1.8	102	46	KAZAN	KAZAN	-1	-5	5	-11	-3	7.9	60	28	MOSCOW	MOSCOW	1	-3	4	-8	-1	6.0	73	37		
	BORDEAUX	12	6	16	-4	9	1.9	154	80	YEKATERINBURG	YEKATERINBURG	-1	-7	7	-15	-4	7.9	6	-13	OMSK	OMSK	-4	-11	8	-21	-8	7.9	12	-4		
	TOULOUSE	12	5	19	-2	9	1.7	96	49	BARNAUL	BARNAUL	-5	-14	6	-24	-9	4.8	19	-2	KHABAROVSK	KHABAROVSK	-13	-22	-2	-29	-17	-1.3	14	3		
	MARSEILLE	14	6	19	0	10	2.2	59	16	VLADIVOSTOK	VLADIVOSTOK	-5	-12	3	-19	-8	1.0	22	6	VOLGOGRAD	VOLGOGRAD	3	-2	9	-14	0	7.0	27	4		
GABON	LIBREVILLE	31	26	32	23	28	1.0	216	-56	ASTRAKHAN	ASTRAKHAN	5	-1	11	-8	2	6.8	23	15	ORENBURG	ORENBURG	-2	-6	4	-17	-4	8.4	45	25		
GERMAN	HAMBURG	***	***	10	-1	***	*****	*****	*****	S AFRI	JOHANNESBURG	28	16	31	14	22	3.0	101	-8	BETHAL	BETHAL	28	15	32	12	22	2.3	65	-20		
	BERLIN	***	***	10	-1	***	*****	*****	*****	DURBAN	DURBAN	29	22	31	18	25	1.6	65	-67	CAPE TOWN	CAPE TOWN	28	17	34	13	22	1.6	3	-11		
	DUSSELDORF	***	***	13	-4	***	*****	*****	*****	S KORE	SEOUL	5	-4	14	-10	1	0.5	49	22	SAMOA	PAGO PAGO	33	27	43	25	30	2.2	162	-147		
	LEIPZIG	***	***	11	-3	***	*****	*****	*****	SENEGA	DAKAR	27	20	38	16	23	2.8	0	0	SPAIN	VALLADOLID	10	3	15	-4	6	0.1	33	0		
	DRESDEN	***	***	12	-3	***	*****	*****	*****	MADRID	MADRID	13	4	18	-5	8	1.1	31	7	SEVILLE	SEVILLE	18	9	23	1	13	0.9	27	-14		
	STUTT GART	***	***	16	0	***	*****	*****	*****	SWITZE	ZURICH	7	2	17	-3	5	3.2	91	23	GENEVA	GENEVA	8	2	17	-3	5	2.6	86	14		
	NURNBERG	***	***	13	-2	***	*****	*****	*****	SYRIA	DAMASCUS	19	4	26	-4	12	4.1	11	-13	TAHITI	PAPEETE	31	25	33	23	28	0.9	606	390		
	AUGSBURG	7	1	16	-4	4	4.0	34	-5	TANZAN	DAR ES SALAAM	32	26	34	22	29	1.0	63	5	THAILA	PHITSANULOK	33	20	37	10	27	-0.9	0	-10		
GREECE	THESSALONIKA	15	7	18	0	11	4.3	31	-8	BANGKOK	BANGKOK	33	24	35	16	29	0.4	0	-18	TOGO	LOME	32	27	36	24	30	1.8	1	-31		
	LARISSA	17	5	25	-4	11	4.3	13	-25	TRINID	PORT OF SPAIN	32	23	34	21	28	2.1	30	-6	TUNISI	TUNIS	19	10	22	4	15	2.7	41	-17		
	ATHENS	18	11	24	4	15	4.2	32	-3	TURKEY	ISTANBUL	13	8	20	0	11	4.9	61	3	ANKARA	ANKARA	12	0	21	-9	6	6.0	27	-5		
GUADEL	RAIZET	29	22	30	19	26	1.1	65	-2	TURKME	ASHKHBAD	13	3	26	-4	8	3.7	27	-2	UKINGD	ABERDEEN	6	0	11	-3	3	-0.4	34	-20		
HONGKO	HONG KONG INT	18	13	28	9	16	-0.9	30	-13	LONDON	LONDON	9	3	15	-3	6	1.0	43	7	UKRAIN	KIEV	5	0	12	-5	2	5.5	60	22		
HUNGAR	BUDAPEST	10	3	17	-3	6	4.7	90	65	LVOV	LVOV	7	0	15	-7	4	5.8	41	-1	KIROVOGRAD	KIROVOGRAD	5	-1	12	-9	2	5.3	26	1		
ICELAN	REYKJAVIK	***	***	1	0	***	*****	*****	*****	ODESSA	ODESSA	7	2	19	-3	5	4.9	20	-15	KHARKOV	KHARKOV	4	-2	10	-9	1	5.7	28	-6		
INDIA	AMRITSAR	23	6	28	2	15	0.8	7	-27	UZBEKI	TASHKENT	15	3	27	-5	9	6.3	1	-55	VENEZU	CARACAS	29	23	31	21	26	1.1	0	-12		
	NEW DELHI	26	11	31	7	19	1.7	1	-20	YUGOSL	BELGRADE	13	6	21	-1	10	6.3	38	0	ZAMBIA	LUSAKA	27	20	34	18	***	*****	48	-141		
	AHMEDABAD	32	15	37	10	24	1.1	0	*****	ZIMBAB	KADOMA	31	18	38	14	24	1.1	83	-79												
	INDORE	30	14	35	10	22	1.6	0	-4																						
	CALCUTTA	31	20	36	15	25	2.8	110	84																						
	VERAVAL	32	19	38	16	25	2.5	0	-1																						
	BOMBAY	31	18	33	14	25	0.0	0	*****																						
	POONA	34	15	37	9	24	2.1	0	-2																						
	BEGAMPET	35	21	39	17	28	2.7	0	-9																						
	VISHAKHAPATNAM	30	24	32	21	27	0.8	1	-12																						
	MADRAS	33	22	34	20	27	0.9	0	-15																						
	MANGALORE	34	23	37	20	28	0.8	0	-3																						
INDONE	SERANG	32	25	33	24	28	1.0	305	81																						
IRELAN	DUBLIN	8	2	12	-6	5	-0.8	59	8																						
ITALY	MILAN	10	4	17	-2	7	2.4	167	118																						
	VENICE	10	5	15	1	8	3.1	410	366																						
	GENOA	13	9	16	5	11	1.6	195	149																						
	ROME	16	8	19	-2	12	2.9	134	68																						
	NAPLES	17	10	24	1	13	4.2	42	-44																						
JAMAIC	KINGSTON	31	23	32	22	27	1.0	11	-13																						
JAPAN	SAPPORO	1	-5	8	-11	-2	1.2	112	16																						
	NAGOYA	12	3	24	-2	7	2.4	66	0																						
	TOKYO	12	4	23	0	8	1.7	58	-2																						
	YOKOHAMA	12	5	22	2	8	1.9	103	33																						
	KYOTO	11	3	22	-2	7	1.8	100	18																						
	OSAKA	11	4	20																											

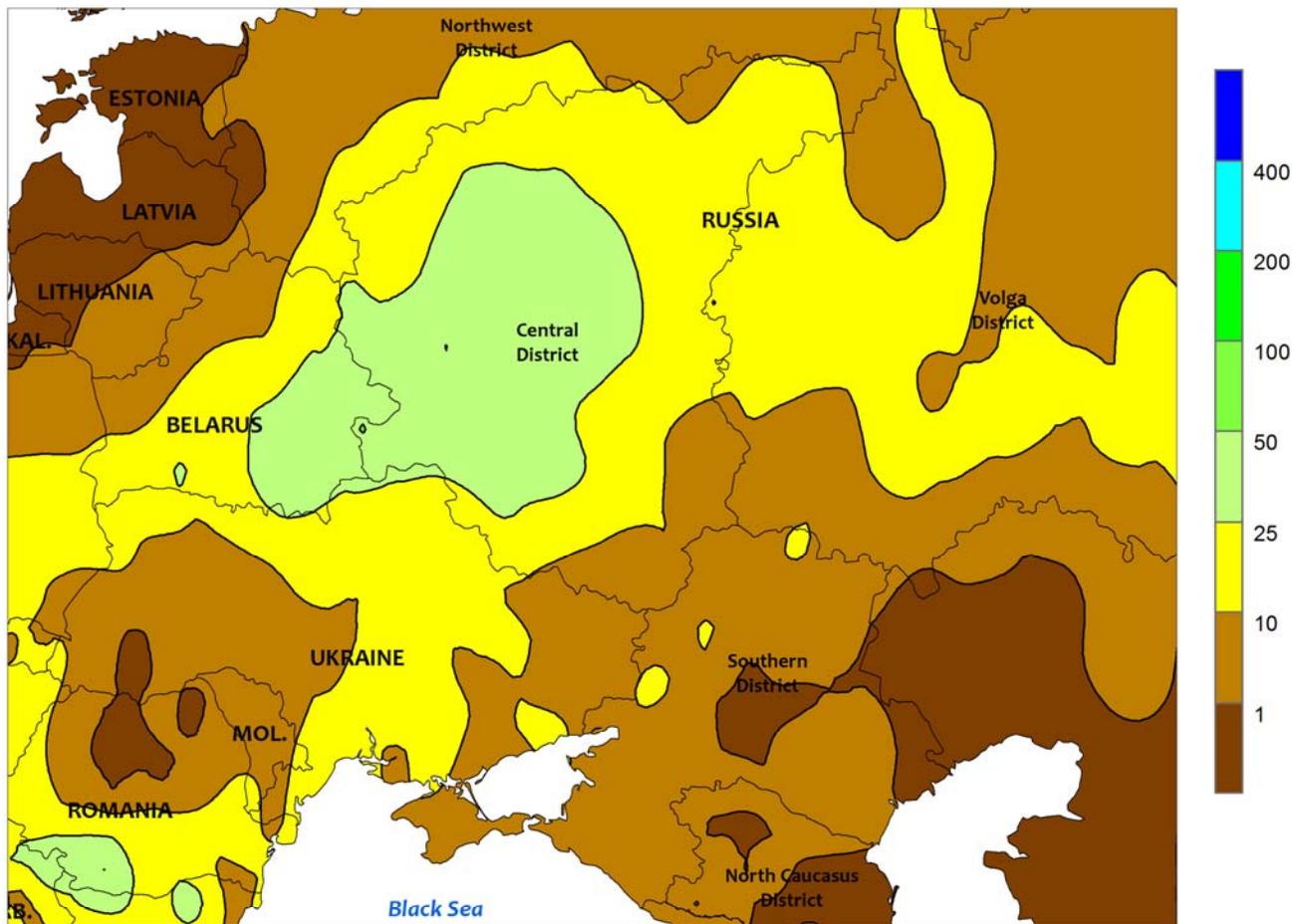


EUROPE

Unsettled weather prevailed, with much-above-normal temperatures over southeastern Europe contrasting with cooler conditions elsewhere. Widespread rain and wet snow (5-50 mm liquid equivalent) in northern wheat and rapeseed areas sustained adequate to abundant soil moisture for still-dormant winter crops in the United Kingdom, Germany, and Poland as well as greening grains and oilseeds in France. In Italy, heavy downpours (50-160 mm) in northern portions of the country eradicated lingering long-term deficits, while widespread moderate to heavy showers (25-80 mm) across the peninsula boosted soil moisture for vegetative winter grains following a drier-than-normal winter. Farther west, the return of sunny weather in Spain promoted fieldwork and wheat development. Temperatures over most of the

aforementioned areas averaged 1 to 2°C below normal, slowing crop growth in the south and west and keeping wheat and rapeseed dormant in the typically colder northern growing areas. Freezes were noted in northwestern Spain (as low as -4°C), though winter wheat was not yet in the vulnerable heading stage of development. Moderate to heavy rain (10-50 mm) across the Danube River Valley maintained favorable moisture reserves for wheat and rapeseed. However, persistent spring-like warmth (up to 7°C above normal) in the Balkans sustained an unusually rapid pace of crop development. While the above-normal temperatures have not been detrimental to current crop prospects, wheat and rapeseed are now especially vulnerable to any potential spring freezes.

WESTERN FSU
Total Precipitation (mm)
FEB 28 - MAR 5, 2016



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

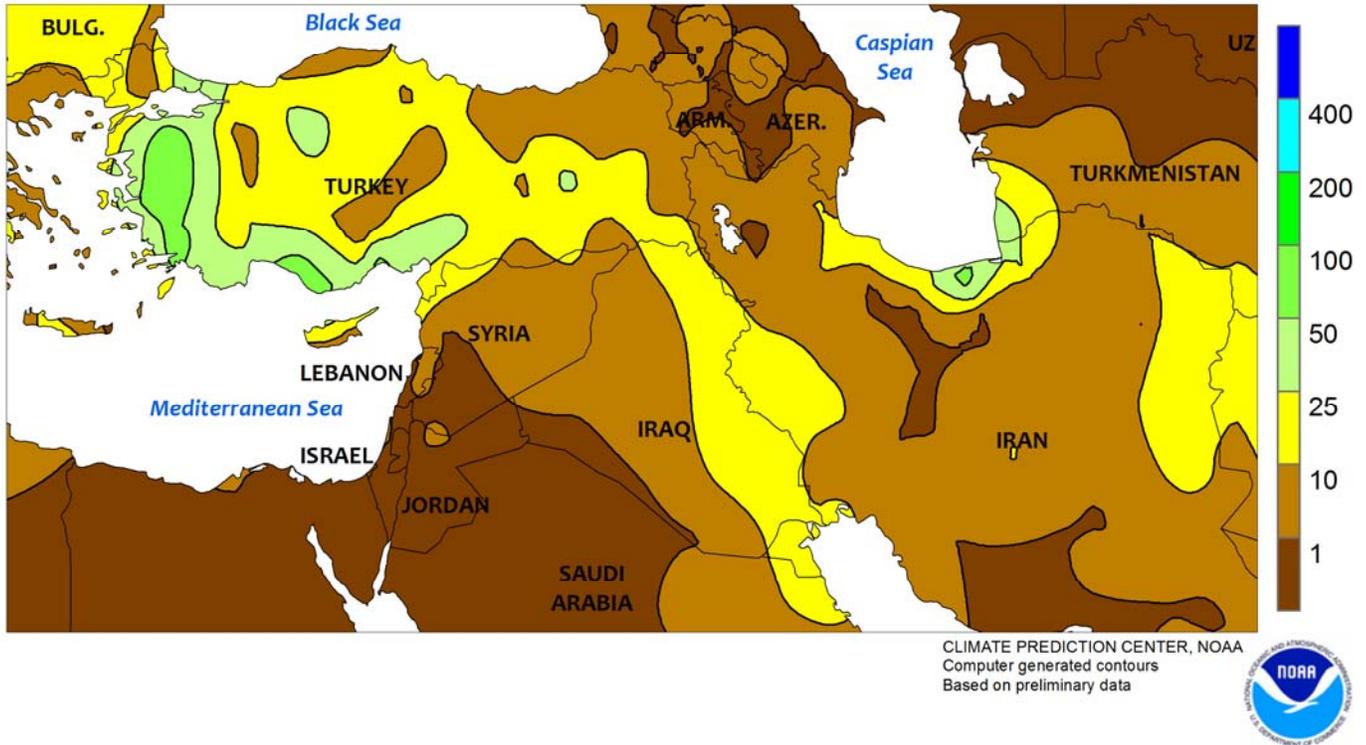


WESTERN FSU

Unsettled, unseasonably warm weather prevailed, accelerating wheat out of dormancy and keeping most crop areas uncharacteristically devoid of snow cover. Moderate to heavy rain and wet snow (10-50 mm liquid equivalent) were observed from central Ukraine north into Belarus and northern Russia, sustaining abundant moisture reserves for spring growth. Precipitation was lighter in eastern Ukraine and southern Russia, where 1 to 13 mm was reported; however, soil moisture supplies remained abundant for winter wheat following a wet winter. Temperatures averaged up to 11°C above normal, with daytime highs above freezing (3-10°C) in

the north and as high as 25°C along the Black Sea Coast. Consequently, winter wheat broke dormancy from southern and eastern Ukraine into central portions of Russia’s Southern District, and continued to develop well ahead of normal in Krasnodar Krai (located in southern-most portions of the Southern District). Furthermore, snow cover was confined to the Volga and northern Central District. While the recent spring-like warmth has not been detrimental to winter wheat, the early development and lack of protective snow cover have left crops particularly vulnerable to potential incursions of late-winter or early-spring bitter cold.

MIDDLE EAST
 Total Precipitation (mm)
 FEB 28 - MAR 5, 2016

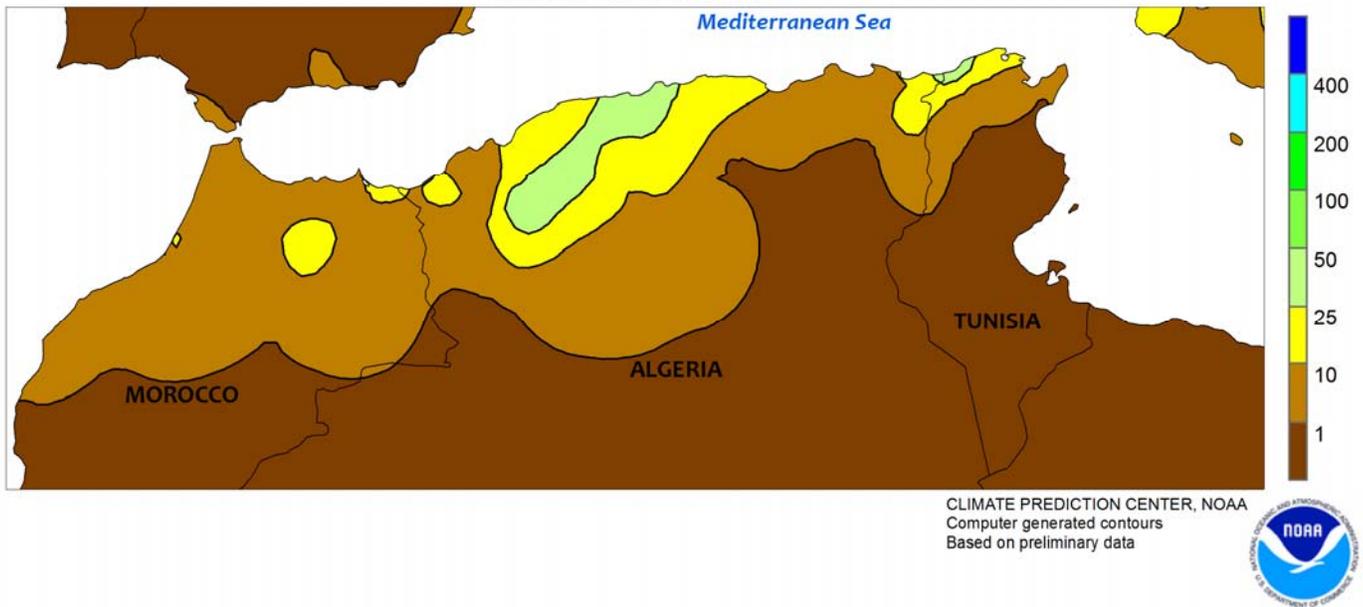


MIDDLE EAST

Abnormally warm, wet weather continued, promoting unseasonably early winter crop development. In Turkey, rain and mountain snow (10-80 mm liquid equivalent, locally more) sustained adequate to abundant moisture supplies for crop development on the Anatolian Plateau and eased short-term dryness across the southern third of the country. Farther east, widespread showers (up to 20 mm) over Iraq's winter crop areas continued the excellent winter grain growing season. Unsettled weather (2-24 mm) also prevailed in western Iran, where autumn and winter

precipitation was well above normal. Showers (5-20 mm) returned to northeastern Iran, sustaining favorable winter crop prospects here as well. Temperatures over the Middle East averaged 5 to 10°C above normal, accelerating the growth of winter grains up to a month ahead of normal. While the unseasonable warmth has not been detrimental to winter wheat and barley prospects, the unusually early development coupled with a lack of snow cover has left crops more vulnerable than normal to any potential incursions of late-season bitter cold.

NORTHWESTERN AFRICA
Total Precipitation (mm)
FEB 28 - MAR 5, 2016

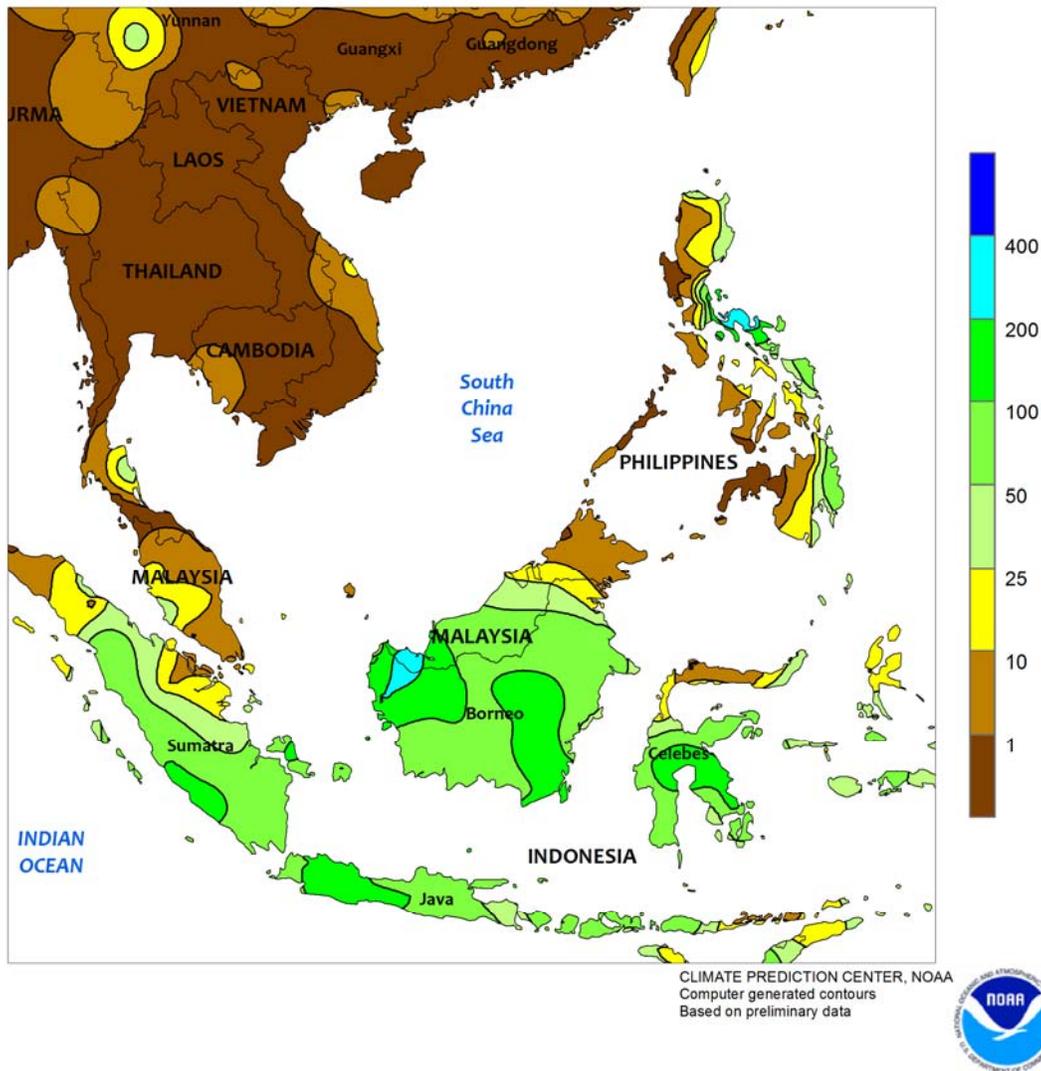


NORTHWESTERN AFRICA

Showers eased drought in western growing areas, while locally heavy rainfall sustained favorable growing conditions over the eastern half of the region. Widespread albeit mostly light showers (3-10 mm) improved topsoil moisture for drought-afflicted winter grains in Morocco. However, even with the much-needed rainfall since mid-February, winter

grain yield prospects have likely suffered irreversible losses due to the duration and severity of this season's extreme drought. Farther east, widespread rainfall (8-30 mm) improved yield prospects for winter crops in Algeria. In Tunisia, vegetative wheat and barley benefited from another round of moderate to heavy showers (5-40 mm).

SOUTHEAST ASIA
Total Precipitation (mm)
FEB 28 - MAR 5, 2016

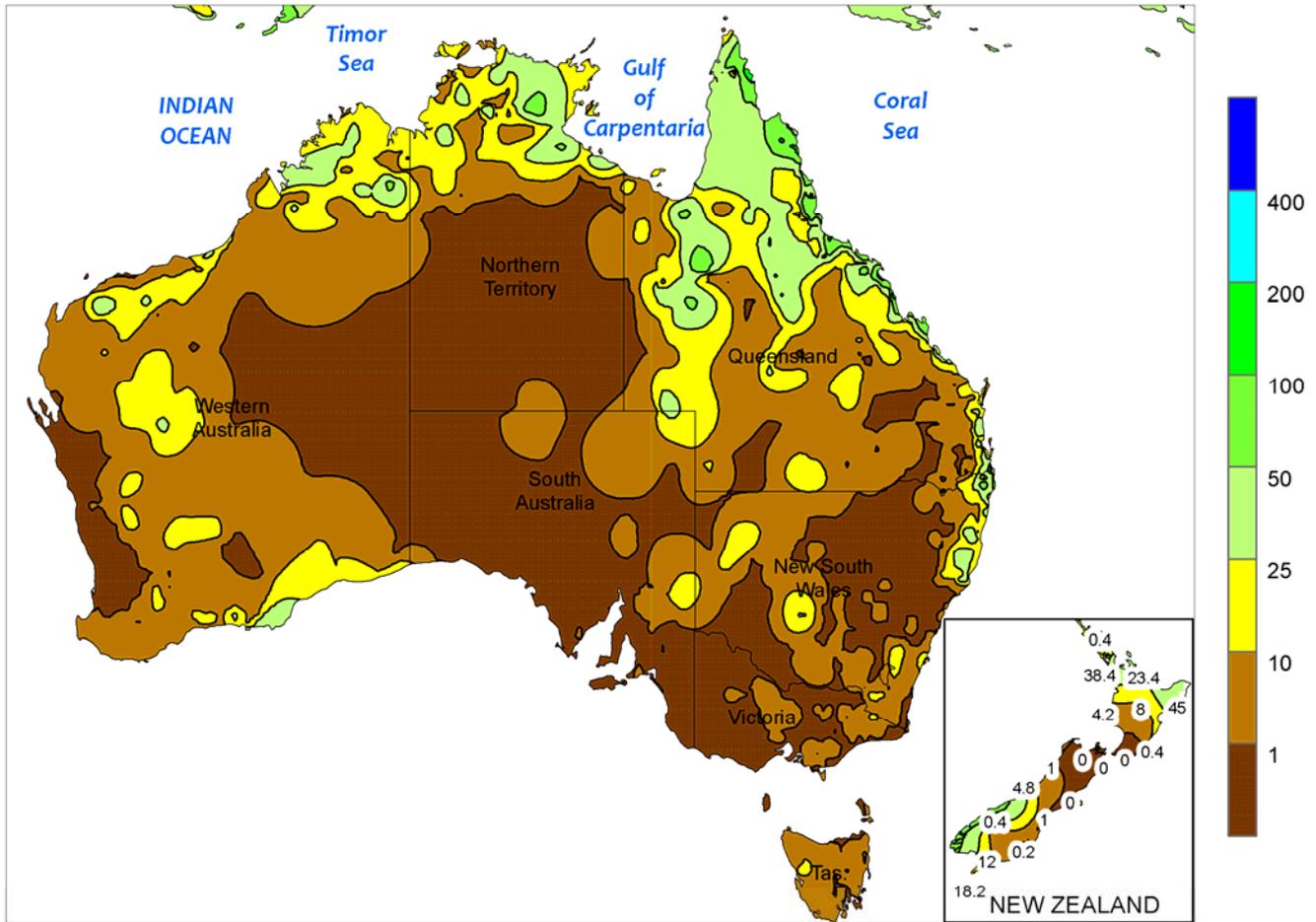


SOUTHEAST ASIA

Heavy late-season showers (50-100 mm or more) continued across Indonesia, maintaining excellent short-term soil moisture and improving water supplies for rice and oil palm. However, the rainfall likely came too late to aid rice planted in the early part of the growing season, which is typically ripening at this point. Favorable rainfall (50-100 mm, locally more) also continued for oil palm in adjoining areas of Malaysia (Sarawak), with little if any rainfall occurring in the

seasonably drier regions (Peninsular Malaysia and Sabah). Meanwhile in the Philippines, over 300 mm of rain was reported in southern Luzon, with 50 to 100 mm more typical elsewhere. Since January 1, rainfall has been at or above normal for corn and rice in Luzon, but trending below to well below normal in the eastern Visayas and Mindanao. In Indochina, dry-season rice was likely ripening at this point, but irrigation supplies remained tight for spring rice cultivation.

AUSTRALIA
Total Precipitation (mm)
FEB 28 - MAR 5, 2016



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

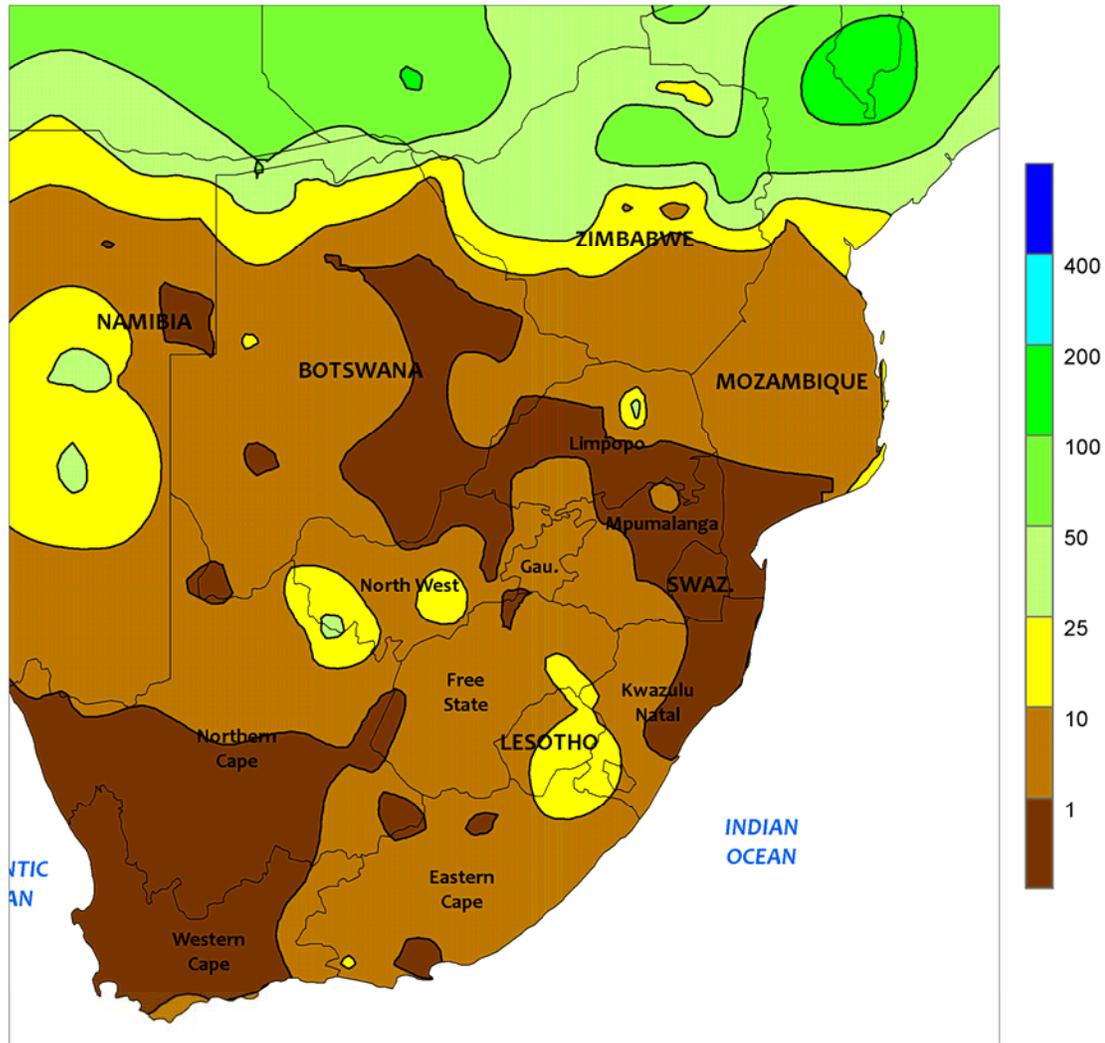


AUSTRALIA

Hot, mostly dry weather persisted in major summer crop producing areas of southern Queensland and northern New South Wales. The heat and dryness likely stressed some immature summer crops. The greatest likelihood for stress was in western growing areas, where temperatures averaged 2 to 4°C above normal and maximum temperatures were in the upper 30s degrees C. Elsewhere

in major cotton and sorghum producing areas, temperatures averaged 1 to 2°C above normal with maximum temperatures in the lower to middle 30s degrees C. Although later-sown summer crops are still immature, earlier-planted crops are rapidly approaching maturation. The hot, dry weather benefited this latter group of crops, favoring drydown and early harvesting.

SOUTH AFRICA
 Total Precipitation (mm)
 FEB 28 - MAR 5, 2016



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

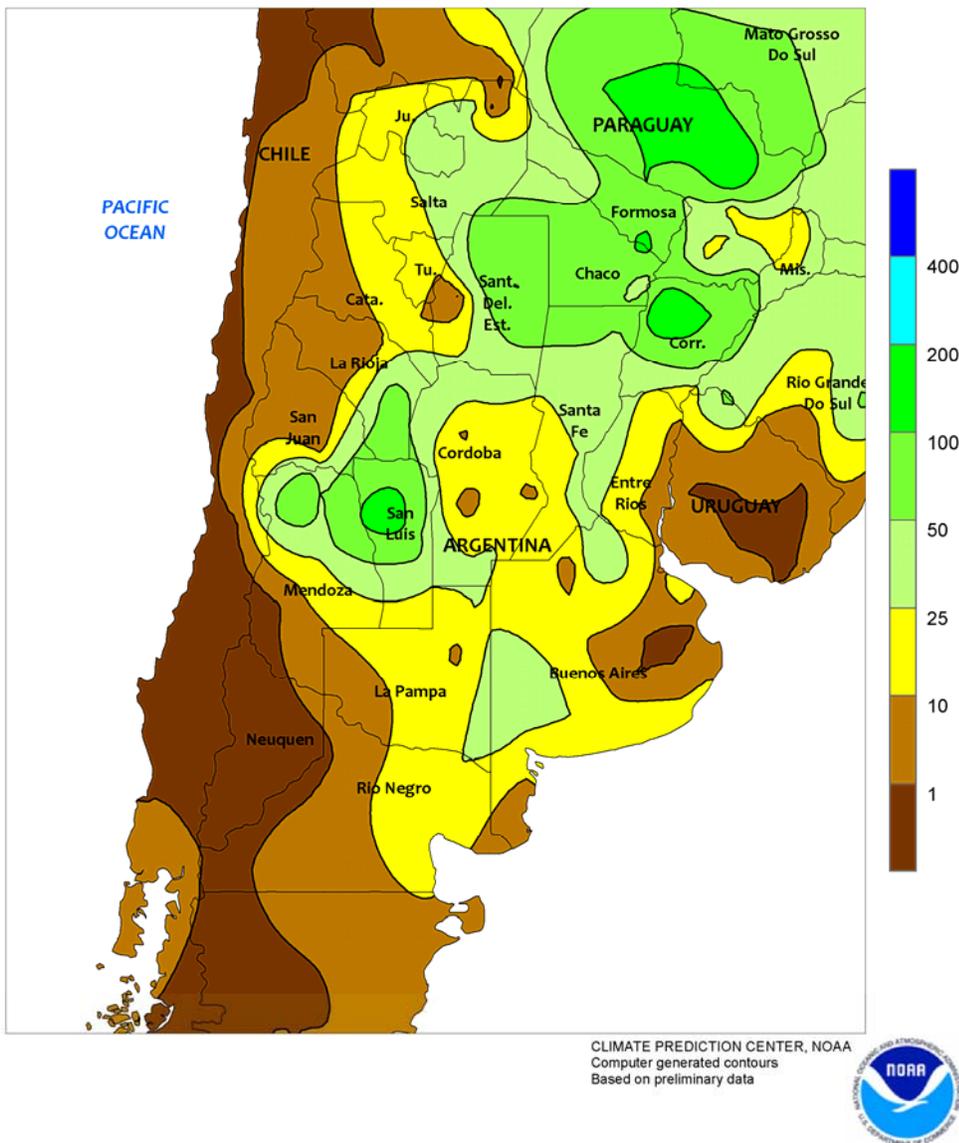


SOUTH AFRICA

Mostly dry, unseasonably warm weather sustained unfavorable crop prospects across much of the region. Virtually no rain fell over large sections of the central and eastern corn belt (central Free State to Mpumalanga). Daytime highs again reached the middle 30s (degrees C) in traditionally warmer western and northern production areas, elevating the potential for stress on late-planted corn that may be entering reproduction. The dryness extended south and eastward into sugarcane areas of KwaZulu-Natal and eastern Mpumalanga; high temperatures approached 40°C in the irrigated farmlands of Mpumalanga and northern KwaZulu-Natal but were generally confined to the lower and middle 30s in rain-fed

production areas farther south. Isolated showers (locally greater than 10 mm) in outlying production areas of North West and Free State were insufficient to significantly improve crop prospects. In general, weekly average temperatures were 1 to 3°C above normal in major commercial production areas of the east, maintaining this season’s trend of unfavorable warmth. Meanwhile, much warmer-than-normal weather (weekly temperatures averaging 3 to 7°C above normal, with daytime highs reaching the upper 30s and lower 40s) dominated the Cape Provinces, promoting rapid development of irrigated corn and cotton in the Orange River Valley and favoring the final stages of fruit harvesting in Western Cape.

ARGENTINA
Total Precipitation (mm)
FEB 28 - MAR 5, 2016

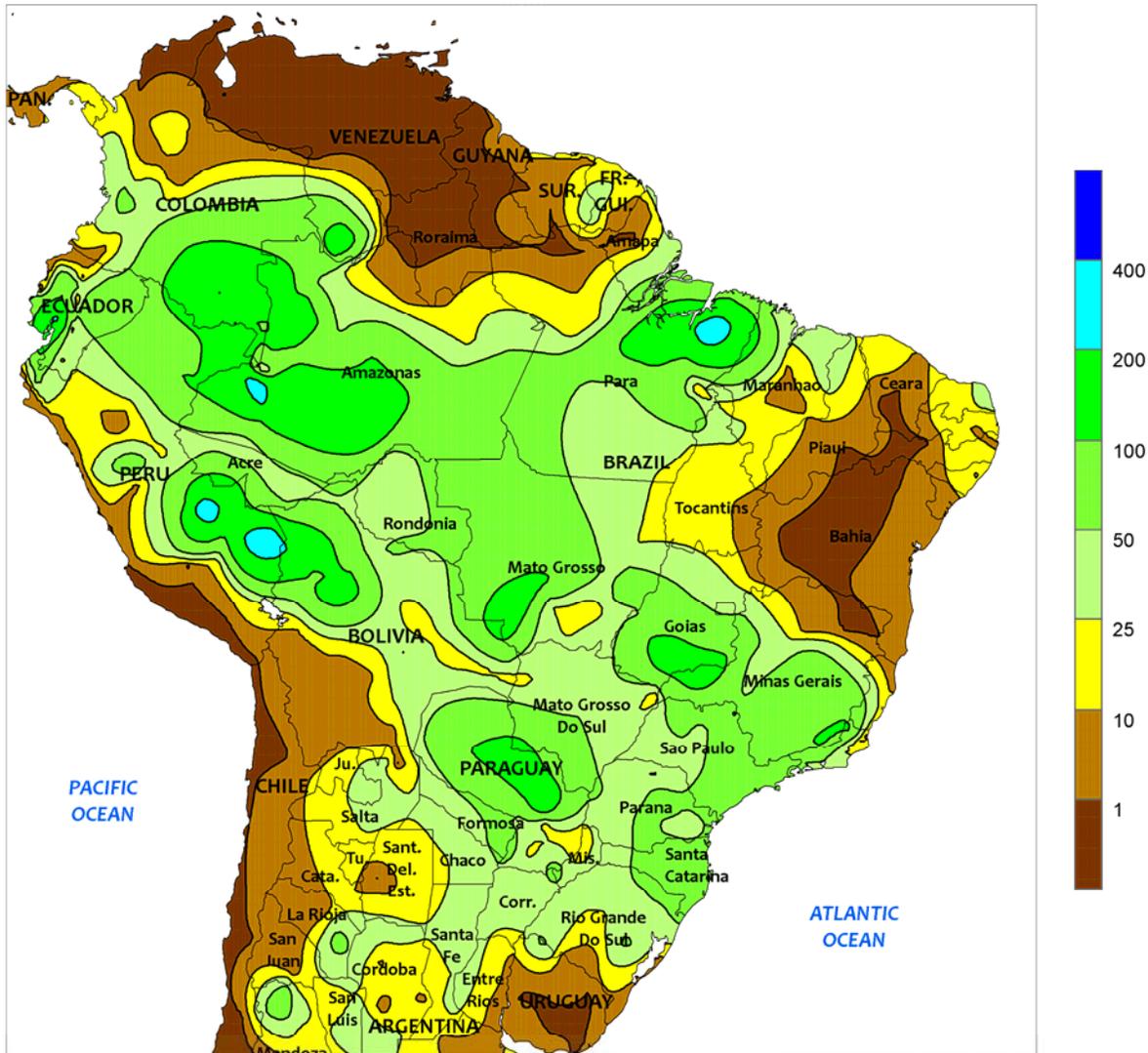


ARGENTINA

Widespread showers maintained overall favorable levels of moisture for summer crops in key production areas of central and northern Argentina, though amounts were lower than those recorded in recent weeks. Rainfall totaled 10 to 25 mm across much of the region, with amounts in excess of 50 mm confined to eastern Formosa. Drier conditions persisted in Buenos Aires and La Pampa, with large areas failing to record at least 10 mm. While traditionally lower yielding than some of the more northerly farming areas of central Argentina, these areas have been trending dry for much of the growing season, possibly contributing to lower-than-usual yield expectations. Weekly average temperatures were about 1°C above normal in central

Argentina and near to slightly below normal in the wetter northern farming areas. Daily highs generally ranged from the middle 20s (degrees C) in southeastern Buenos Aires to the lower and middle 30s in the traditionally hotter locations in and around Santiago del Estero. As in recent weeks, nighttime lows fell below 10°C in La Pampa and Buenos Aires on several days, causing some minor delays in development of immature corn and soybeans. According to Argentina’s Ministry of Agriculture, sunflowers were 35 percent harvested as of March 3, 4 points ahead of last season. Harvesting was underway in Buenos Aires (6 percent versus 4 percent last year), Argentina’s largest producer of sunseed, aided by the recent dryness.

BRAZIL
Total Precipitation (mm)
FEB 28 - MAR 5, 2016



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

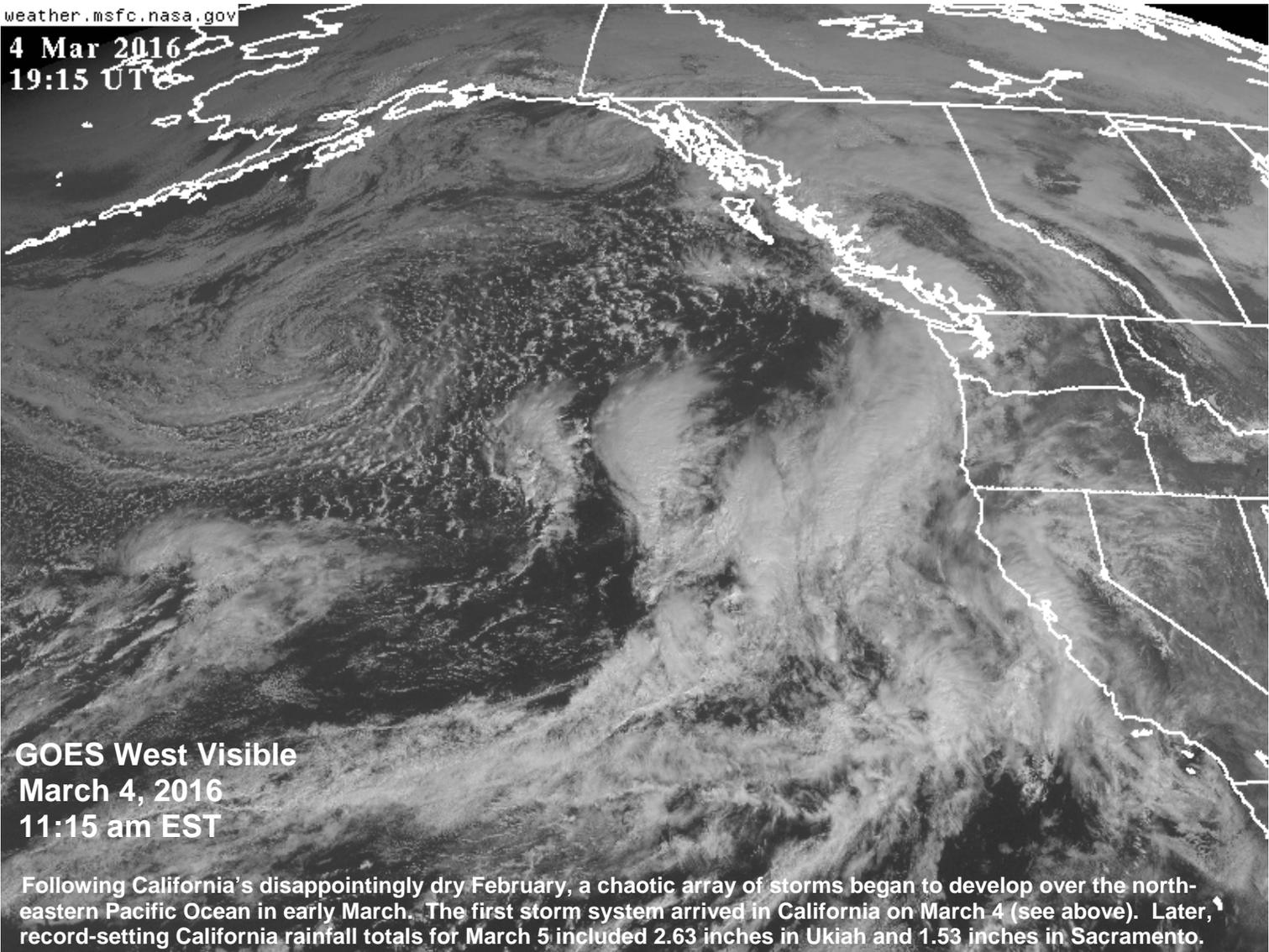


BRAZIL

Widespread, locally heavy showers maintained overall favorable conditions for immature summer crops in key production areas of southern and central Brazil. The heaviest rainfall (greater than 100 mm) was concentrated over southern Goiás, northern São Paulo, and southwestern Minas Gerais, with amounts of 25 to 50 mm common from Mato Grosso southward through Rio Grande do Sul. Reports emanating from Brazil depict a generally favorable pace to soybean planting in the aforementioned areas in spite of the continuation of seasonal rainfall, and topsoil moisture levels should be favorable in most major growing areas for germination and establishment of second-crop corn. Daytime highs reached the upper 30s (degrees C) in southeastern Mato Grosso, otherwise daytime highs generally stayed in the upper 20s to lower 30s range. In

contrast to the overall favorable levels of moisture in central and southern Brazil, drier-than-normal conditions (rainfall totaling below 25 mm, with large areas receiving less than 10 mm) prevailed for much of the week in the northeastern interior (western Bahia, Tocantins, and southwestern farming areas of Maranhão and Piauí), limiting moisture for development of cotton and later-planted soybeans. Daytime highs reaching the upper 30s exacerbated the effects of the dryness on immature summer crops, though conditions favored harvesting and maturation of early-maturing soybeans. At week's end, rain was returning to the region, giving a late-season boost to immature summer row crops while improving moisture levels for the relatively small second crop (additional information will appear in next week's Weekly Weather and Crop Bulletin).

4 Mar 2016
19:15 UTC



GOES West Visible
March 4, 2016
11:15 am EST

Following California's disappointingly dry February, a chaotic array of storms began to develop over the north-eastern Pacific Ocean in early March. The first storm system arrived in California on March 4 (see above). Later, record-setting California rainfall totals for March 5 included 2.63 inches in Ukiah and 1.53 inches in Sacramento.

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