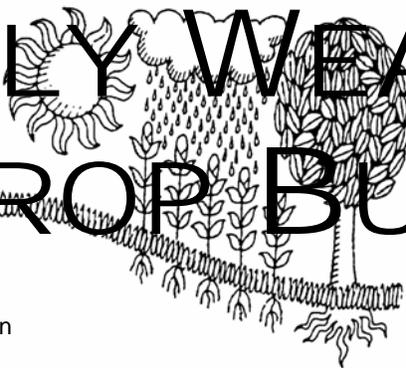
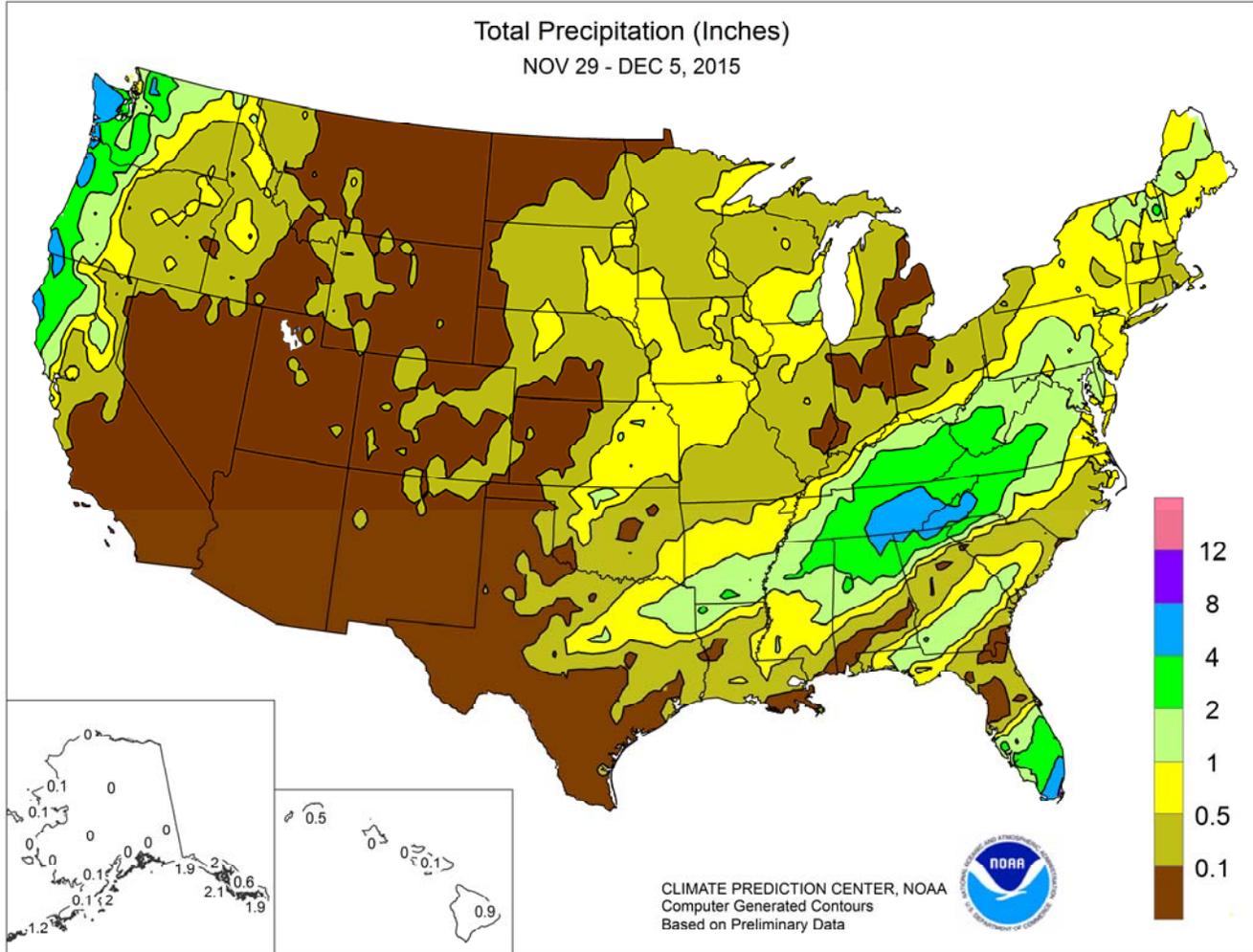


WEEKLY WEATHER AND CROP BULLETIN



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

November 29 – December 5, 2015

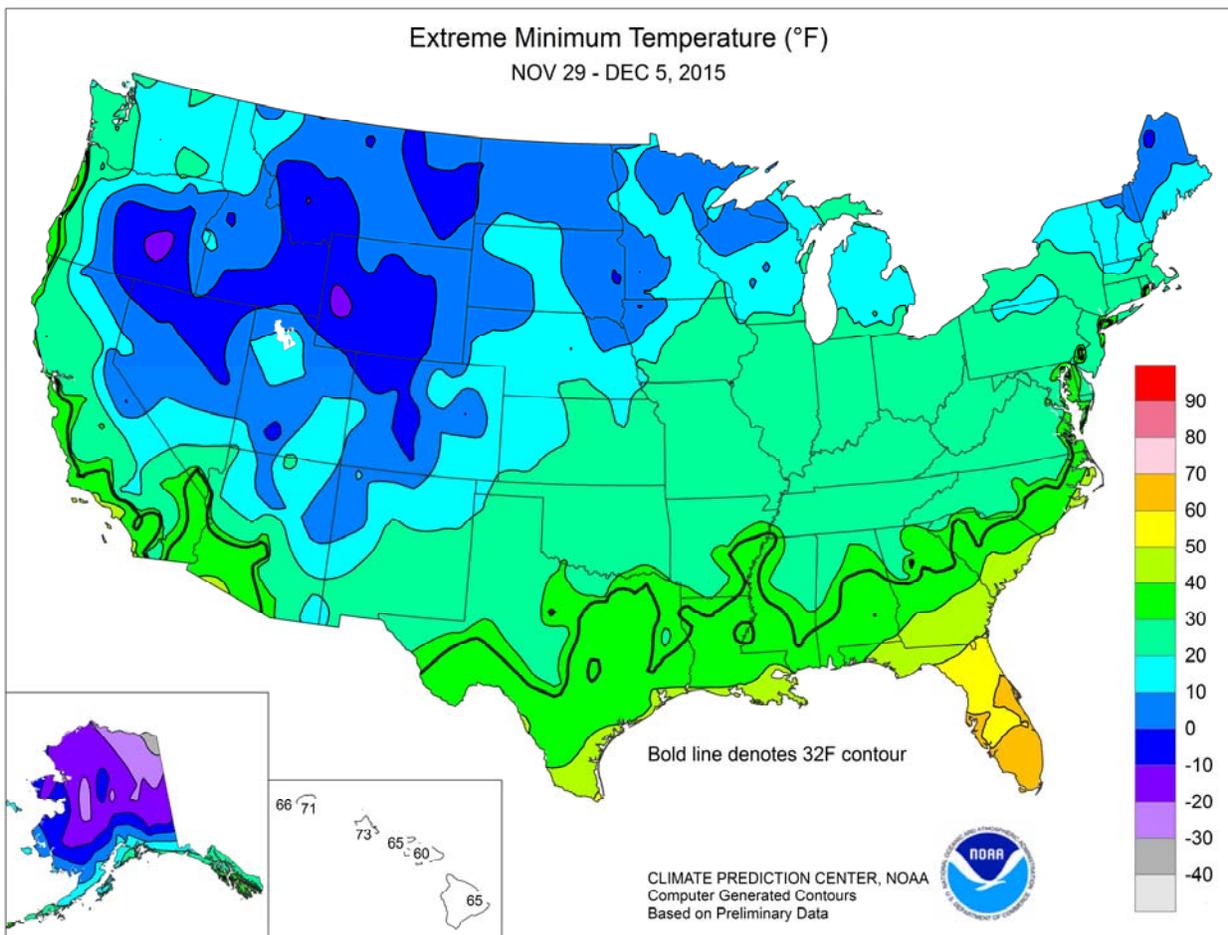
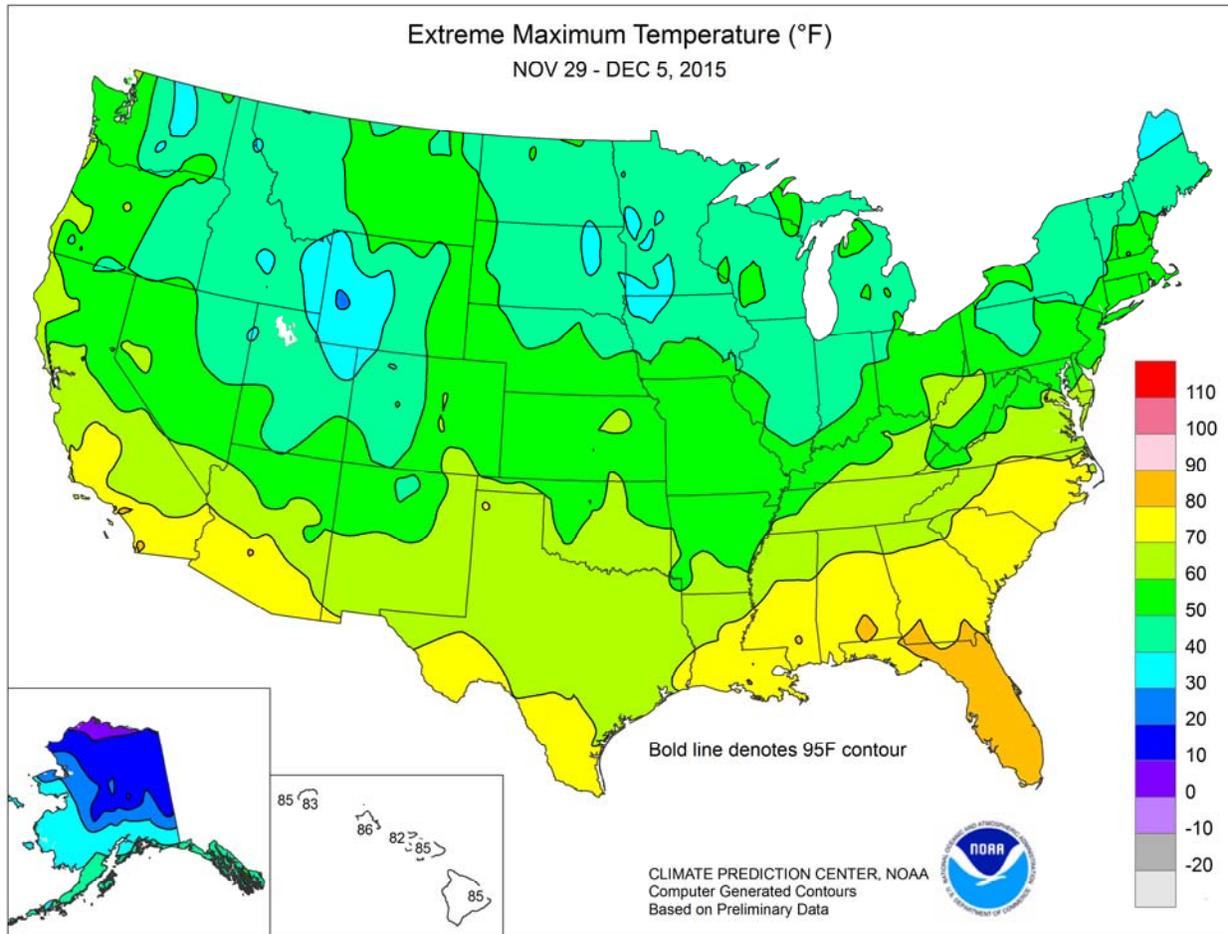
Highlights provided by USDA/WAOB

An early-week storm blanketed the **upper Midwest** with heavy snow and produced significant rain across the **interior Southwest**. On November 30 – December 1, widespread snowfall totals of 4 to 10 inches or more were reported in the **northwestern Corn Belt**. During the same period, rainfall totaled at least 2 to 4 inches in a broad area centered on the **southern Appalachians**. In the **southern Atlantic States**, enough rain fell at midweek to cause renewed fieldwork delays, following extensive harvest disruptions in October and November. Heavy showers

(Continued on page 3)

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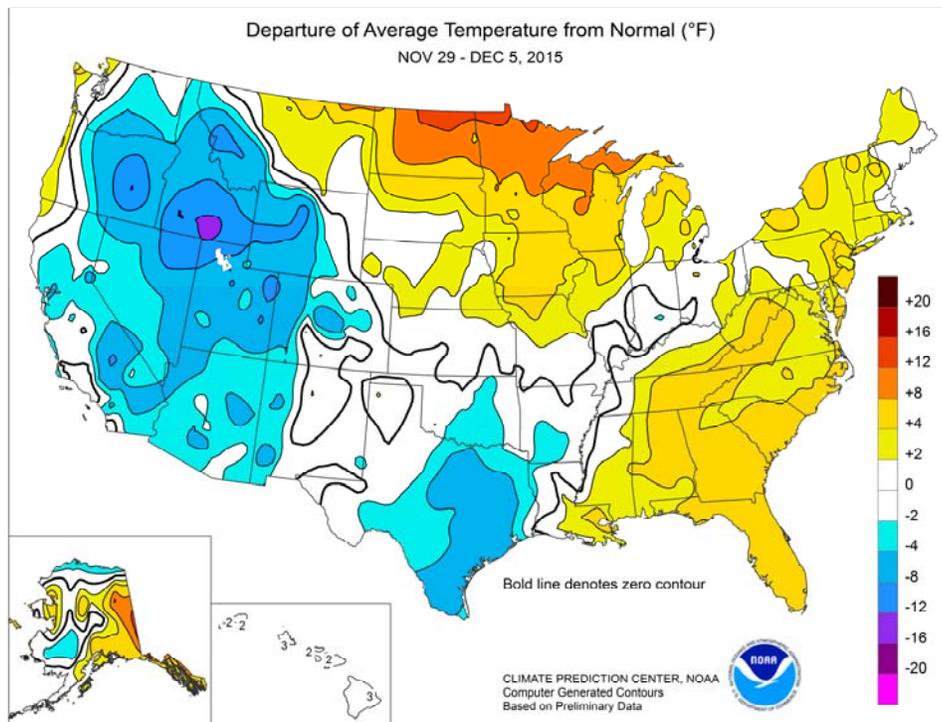


(Continued from front cover)

lingered through week's end in **southern Florida**. In contrast, dry weather prevailed for much of the week from **southern California to the High Plains**. During the second half of the week, dry weather accompanied a warming trend throughout the **Plains**, melting most of the remaining snow cover. On the **southern High Plains**, producers were able to return to cotton harvesting and other late-season fieldwork. Elsewhere, stormy weather returned to the **Northwest**, especially along the **northern Pacific Coast**. Nevertheless, inland sections of the **Northwest** received beneficial moisture for winter grains, while showers spread as far south as **northern California**. Despite a late-week warming trend, temperatures averaged 10 to 15°F below normal in parts of the **northern Intermountain West**. In addition, early-week freezes were noted in parts of **California's Central Valley** and the **Desert Southwest**, briefly necessitating protective measures for some temperature-sensitive crops. In contrast, mild weather covered much of the **northern and eastern U.S.** The warmest weather, relative to normal, occurred in the **northern sections of Minnesota and North Dakota**, where weekly temperatures averaged more than 10°F above normal.

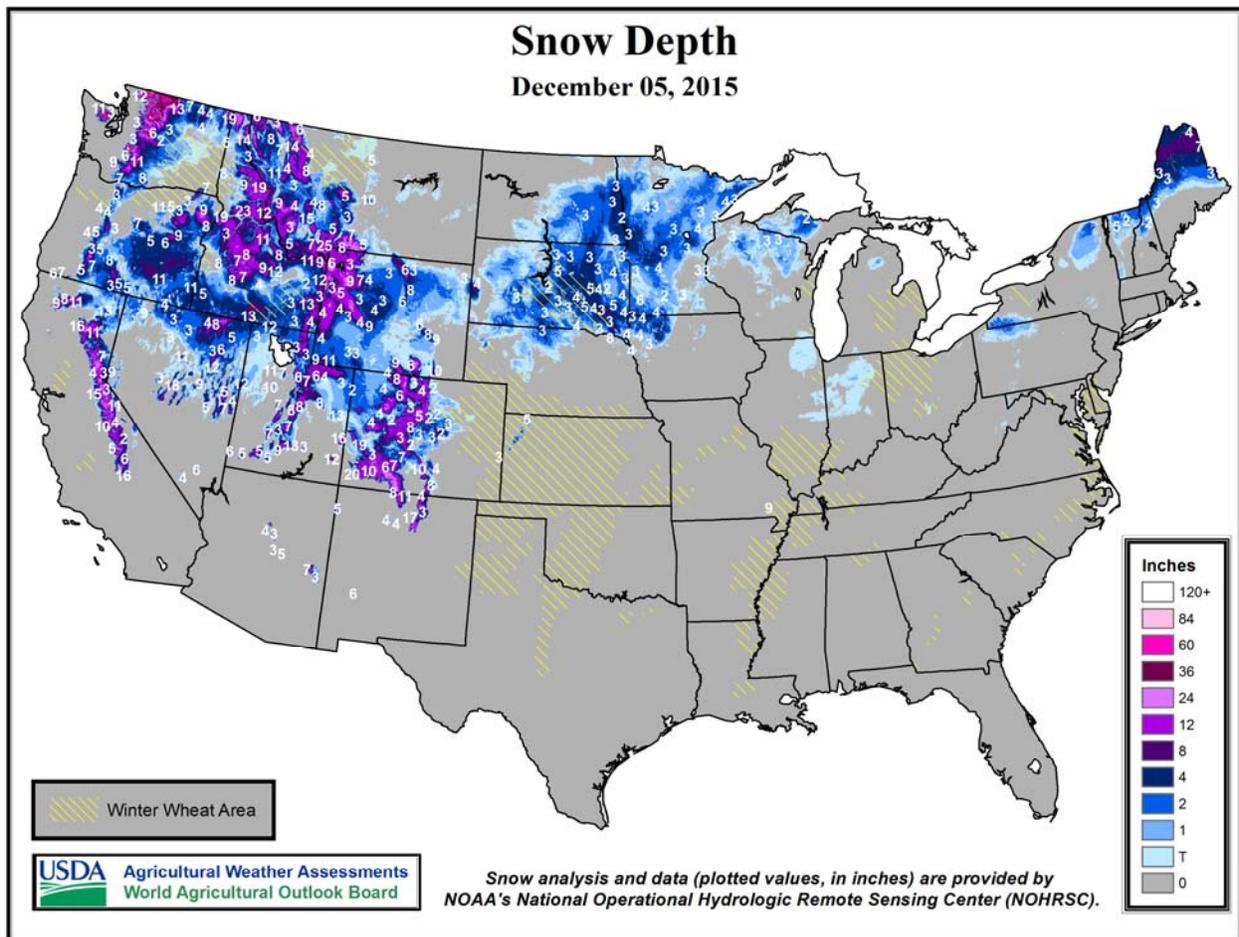
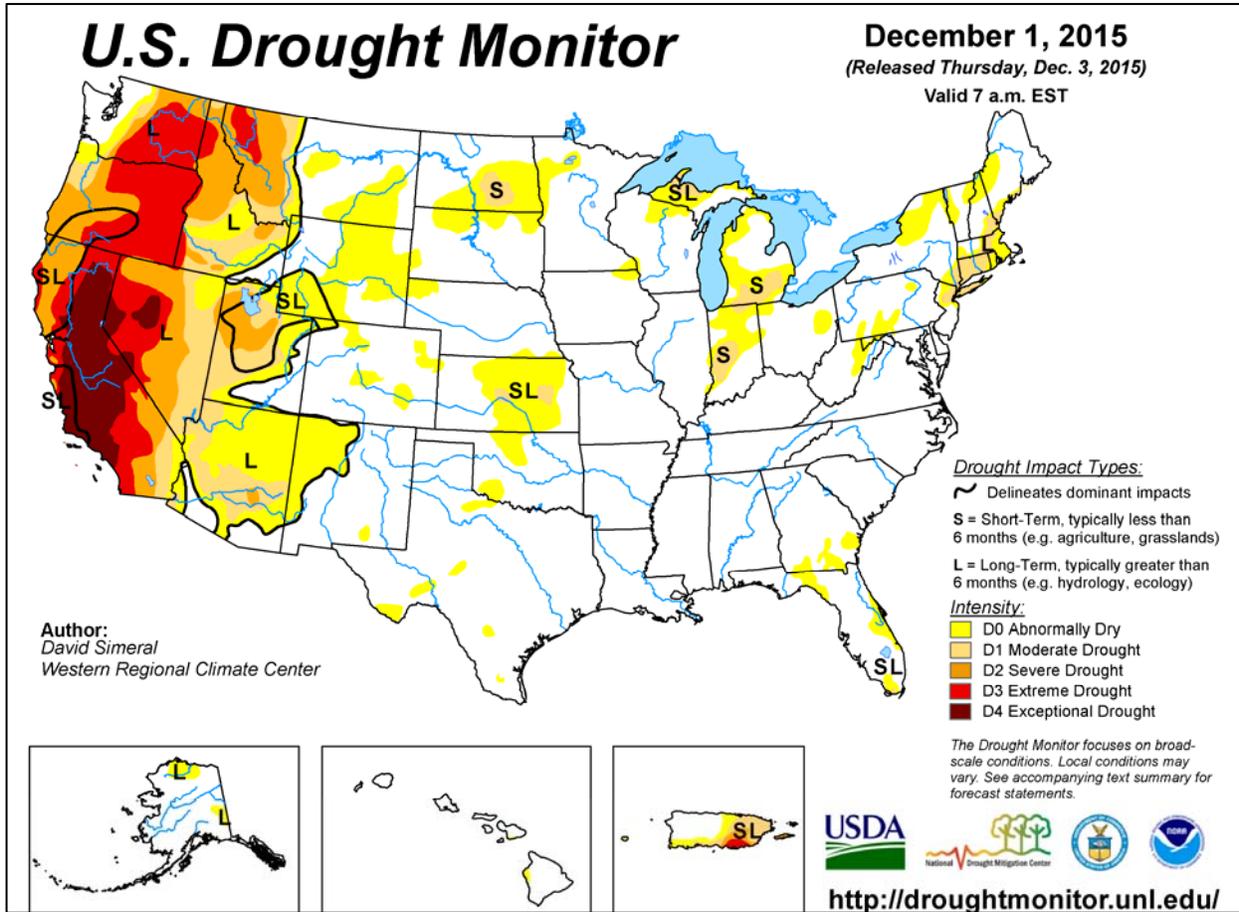
As the calendar turned to December, a significant snow storm unfolded across the **upper Midwest**. November 30 – December 1 snowfall reached 10.4 inches in **Huron, SD**; 9.8 inches in **Sioux City, IA**; 6.3 inches in **St. Cloud, MN**; 5.1 inches in **Grand Forks, ND**; and 5.0 inches in **Norfolk, NE**. In **South Dakota**, record-setting snowfall totals for November 30 included 8.7 inches in **Sioux Falls** and 7.2 inches in **Mitchell**. Heavy rain fell farther south. Record-setting rainfall totals for November 29 included 2.54 inches in **Crossville, TN**; 1.58 inches in **Huntsville, AL**; and 1.44 inches in **Longview, TX**. **Chattanooga, TN**, received 5.13 inches of rain from November 29 – December 2, including a daily-record total (2.32 inches) on the 1st. The wettest November on record drew to a close in locations such as **Apalachicola, FL** (14.38 inches, or 409 percent of normal); **Vichy-Rolla, MO** (10.11 inches, or 261 percent); and **Dallas-Ft. Worth, TX** (9.86 inches, or 364 percent). In addition, **Dallas-Ft. Worth's** January-November precipitation total of 58.78 inches (175 percent of normal) easily surpassed its 1991 annual record of 53.54 inches. During the second half of the week, significant precipitation was confined to **southern Florida** and the **Northwest**. **Omak, WA**, received precipitation totaling 1.76 inches during the first 5 days of the month, aided by daily-record amounts (0.98 and 0.65 inch, respectively) on December 3 and 5. (**Omak's** normal December precipitation is 2.54 inches.) Windy weather accompanied the **Northwestern** storminess, with **Oregon** gusts on December 3 clocked to 73 mph on **Cape Blanco** and 58 mph in **Klamath Falls**. Meanwhile in **southern Florida**, **Miami Executive Airport** received 13.27 inches of rain during the first 5 days of December, including 3.33 inches on the 4th and 8.82 inches on the 5th. **Miami, FL**, experienced its fifth-wettest December day on the 4th, when 3.73 inches fell. Farther north, **Buffalo, NY**, continued to await its first measurable snowfall, breaking a record originally set on December 3, 1899.

Very cold conditions lingered across the **interior Northwest** into early December. From November 26-30, the month ended with five



consecutive daily-record lows (13, 13, 9, 8, and 10°F, respectively) in **Montague, CA**. Similarly, in **Redmond, OR**, there were five daily-record lows in a row (-4, -4, -5, -7, and 0°F, respectively) from November 27 – December 1. November ended with five sub-zero readings in a row in locations such as **Burns, OR** (-9, -15, -15, -15, and -14°F), and **Big Piney, WY** (-19, -22, -16, -16, and -10°F). **Big Piney's** stretch of sub-zero readings eventually reached 8 days, through December 3. In **California's Central Valley**, consecutive daily-record lows were noted on November 28-29 in **Stockton** (28 and 25°F) and **Sacramento** (27°F both days). In contrast, warmth spread across the **South**, where daily-record highs included 80°F (on November 30) in **Montgomery, AL**, and 80°F (on December 2) in **Wilmington, NC**. In **Florida**, record-setting highs for December 2 reached 86°F in **Melbourne**, and 84°F in **Daytona Beach**. Mild air also arrived in the **Northwest**, where **Bellingham, WA**, notched consecutive daily-record highs (60 and 62°F, respectively) on December 2-3. By week's end, warmth returned to the **nation's mid-section**, resulting in daily-record highs in locations such as **Dalhart, TX** (71°F on December 5), and **International Falls, MN** (45°F on December 4).

Mostly dry weather returned to **Alaska**, except for some precipitation across the state's southern tier. **Alaskan** temperatures fell from the previous week, but remained above normal in eastern and southeastern areas. In fact, **Annette Island** posted consecutive daily-record highs (50°F both days) on December 5-6. **Annette Island** also received 2.36 inches of rain during the first 6 days of December. Meanwhile in **Fairbanks**, the season-to-date (July 1 – November 30) snowfall climbed to 50.1 inches, surpassing the 2014-15 seasonal total of 43.8 inches. Measurable snow, totaling 25.4 inches, fell on 20 of the first 25 November days in **Fairbanks**, but dry weather prevailed from November 26-30. Farther south, **Hawaii** experienced warm, mostly dry weather. Showers were slightly heavier across **Kauai**, where famously wet **Mt. Waialeale** received 3.94 inches in a 72-hour period from November 30 – December 3. During the first 5 days of December, rainfall at the state's major airport observation sites ranged from 0.01 inch (2 percent of normal) in **Kahului, Maui**, to 0.34 inch (17 percent) in **Hilo**, on the **Big Island**.



National Weather Data for Selected Cities

Weather Data for the Week Ending December 5, 2015

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 DEC 1	PCT. NORMAL SINCE DEC 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 OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	63	48	74	31	55	6	2.38	1.32	2.16	2.35	313	52.74	105	91	52	0	1	4	1	
HUNTSVILLE	60	43	66	30	52	5	3.67	2.35	1.57	1.51	161	55.39	105	84	64	0	2	4	3	
MOBILE	68	49	77	36	59	4	0.00	-1.24	0.00	0.00	0	68.99	110	93	62	0	0	0	0	
AK MONTGOMERY	69	47	80	34	58	6	0.20	-1.04	0.20	0.20	23	42.74	84	87	51	0	0	1	0	
ANCHORAGE	27	19	33	13	23	4	0.06	-0.16	0.03	0.06	38	18.74	124	94	86	0	7	2	0	
BARROW	-6	-15	4	-20	-10	-3	0.00	-0.01	0.00	0.00	0	5.69	141	87	78	0	7	0	0	
FAIRBANKS	7	-10	13	-21	-2	1	0.00	-0.14	0.00	0.00	0	14.31	148	82	76	0	7	0	0	
JUNEAU	39	33	46	25	36	5	2.15	0.99	1.26	0.37	45	82.91	154	94	88	0	3	4	2	
KODIAK	39	30	43	20	34	2	1.98	0.44	1.37	1.44	130	71.87	104	95	83	0	3	5	2	
NOME	19	3	33	-12	11	-1	0.06	-0.19	0.05	0.00	0	16.14	103	90	80	0	7	2	0	
AZ FLAGSTAFF	46	12	55	5	29	-3	0.00	-0.41	0.00	0.00	0	26.21	123	76	20	0	7	0	0	
PHOENIX	69	42	77	38	55	-2	0.00	-0.17	0.00	0.00	0	6.93	93	48	25	0	0	0	0	
PRESCOTT	56	22	62	18	39	-1	0.00	-0.28	0.00	0.00	0	17.73	98	62	12	0	7	0	0	
TUCSON	70	36	80	30	53	-1	0.00	-0.16	0.00	0.00	0	12.94	115	44	22	0	3	0	0	
AR FORT SMITH	54	36	60	29	45	0	0.84	-0.18	0.76	0.00	0	63.13	153	86	53	0	2	2	1	
LITTLE ROCK	53	38	59	32	46	-1	1.04	-0.26	0.62	0.00	0	53.84	114	93	59	0	1	2	1	
CA BAKERSFIELD	63	37	73	32	50	0	0.00	-0.14	0.00	0.00	0	3.41	59	75	58	0	1	0	0	
FRESNO	60	37	69	32	48	0	0.01	-0.24	0.01	0.01	6	6.02	60	86	69	0	1	1	0	
LOS ANGELES	72	50	83	45	61	2	0.00	-0.31	0.00	0.00	0	4.89	42	45	25	0	0	0	0	
REDDING	56	35	62	22	46	-1	0.76	-0.18	0.73	0.76	113	9.78	33	82	72	0	3	2	1	
SACRAMENTO	57	35	62	27	46	-3	0.40	-0.12	0.40	0.40	108	7.18	45	89	46	0	3	1	0	
SAN DIEGO	71	50	77	47	60	1	0.00	-0.23	0.00	0.00	0	9.00	94	67	35	0	0	0	0	
SAN FRANCISCO	56	43	59	37	49	-2	0.20	-0.38	0.20	0.20	49	5.27	30	79	65	0	0	1	0	
STOCKTON	58	33	63	25	46	-2	0.22	-0.18	0.22	0.22	79	5.25	43	90	70	0	3	1	0	
CO ALAMOSA	42	7	52	-1	24	2	0.00	-0.08	0.00	0.00	0	9.19	132	77	37	0	7	0	0	
CO SPRINGS	44	19	57	8	32	1	0.08	0.02	0.05	0.02	50	25.03	147	77	31	0	7	3	0	
DENVER INTL	42	21	59	16	32	0	0.15	0.08	0.10	0.00	0	17.59	132	73	42	0	7	2	0	
GRAND JUNCTION	38	18	46	13	28	-4	0.12	0.01	0.12	0.00	0	12.53	147	88	64	0	7	1	0	
PUEBLO	46	22	58	12	34	1	0.02	-0.06	0.02	0.00	0	16.27	135	79	49	0	7	1	0	
CT BRIDGEPORT	51	36	54	32	44	4	0.73	-0.05	0.46	0.73	130	30.83	75	81	59	0	1	2	0	
HARTFORD	45	31	53	25	38	2	0.58	-0.27	0.35	0.58	97	35.54	82	84	59	0	4	2	0	
DC WASHINGTON	53	41	59	33	47	3	1.47	0.79	0.82	1.04	217	41.23	112	90	64	0	0	4	1	
DE WILMINGTON	52	38	58	29	45	4	1.42	0.65	1.03	1.25	227	44.77	112	92	62	0	1	4	1	
FL DAYTONA BEACH	77	64	84	61	71	7	0.19	-0.41	0.10	0.15	35	43.50	93	98	66	0	0	4	0	
JACKSONVILLE	73	55	81	52	64	6	0.00	-0.55	0.00	0.00	0	43.97	88	93	64	0	0	0	0	
KEY WEST	79	72	82	69	76	2	1.70	1.24	1.24	1.70	515	33.35	90	97	73	0	0	3	1	
MIAMI	80	70	84	66	75	3	8.78	8.21	3.56	8.48	2120	60.72	107	98	78	0	0	6	3	
ORLANDO	78	63	82	60	71	6	0.21	-0.34	0.12	0.20	51	53.56	115	95	69	0	0	5	0	
PENSACOLA	68	54	75	41	61	4	0.00	-0.93	0.00	0.00	0	67.33	110	87	62	0	0	0	0	
TALLAHASSEE	74	53	81	50	64	7	0.85	-0.01	0.85	0.85	139	50.00	84	85	61	0	0	1	1	
TAMPA	81	65	84	61	73	7	0.02	-0.48	0.01	0.02	6	63.01	147	92	63	0	0	2	0	
GA WEST PALM BEACH	80	70	82	62	75	5	4.98	3.95	2.22	4.98	701	48.25	82	93	74	0	0	5	3	
ATHENS	62	44	73	31	53	4	0.06	-0.75	0.06	0.06	11	52.86	118	90	61	0	1	1	0	
ATLANTA	63	48	73	37	56	7	0.15	-0.79	0.15	0.15	23	56.02	119	76	55	0	0	1	0	
AUGUSTA	66	45	77	33	56	6	0.50	-0.06	0.50	0.50	125	40.94	98	92	59	0	0	1	1	
COLUMBUS	66	49	75	41	57	4	0.14	-0.88	0.14	0.14	19	45.94	102	84	48	0	0	1	0	
MACON	67	45	76	33	56	5	0.48	-0.34	0.48	0.48	81	38.06	91	94	51	0	0	1	0	
SAVANNAH	71	52	77	45	62	7	0.37	-0.13	0.37	0.37	106	44.61	95	84	55	0	0	1	0	
HI HILO	84	67	85	65	76	3	0.94	-2.34	0.38	0.34	15	128.98	109	88	80	0	0	5	0	
HONOLULU	85	74	86	73	80	4	0.04	-0.52	0.04	0.04	10	20.88	132	75	63	0	0	1	0	
KAHULUI	84	68	85	60	76	1	0.06	-0.51	0.04	0.01	2	28.44	176	78	70	0	0	3	0	
LIHUE	81	72	83	71	77	3	0.48	-0.59	0.16	0.31	41	28.60	80	86	70	0	0	6	0	
ID BOISE	31	21	48	10	26	-8	0.13	-0.20	0.13	0.13	54	9.38	85	84	71	0	6	1	0	
LEWISTON	39	26	49	18	33	-3	0.03	-0.22	0.03	0.03	17	8.49	72	88	68	0	6	1	0	
POCATELLO	31	6	42	-3	19	-10	0.00	-0.25	0.00	0.00	0	10.37	89	89	75	0	7	0	0	
IL CHICAGO/O'HARE	42	32	47	25	37	4	0.65	0.00	0.26	0.39	85	35.37	103	92	73	0	5	3	0	
MOLINE	42	29	50	23	35	3	0.44	-0.12	0.31	0.00	0	40.35	111	84	73	0	6	2	0	
PEORIA	44	31	49	26	38	4	0.69	0.01	0.47	0.22	46	43.89	129	87	64	0	4	3	0	
ROCKFORD	41	30	48	22	35	4	0.71	0.14	0.54	0.17	41	35.57	102	90	75	0	5	3	1	
SPRINGFIELD	45	31	50	25	38	2	0.38	-0.28	0.32	0.06	13	37.62	112	93	65	0	4	3	0	
IN EVANSVILLE	49	34	52	26	41	0	0.11	-0.87	0.04	0.05	7	46.77	113	90	71	0	3	4	0	
FORT WAYNE	43	30	49	26	36	1	0.07	-0.62	0.05	0.07	14	42.31	123	92	70	0	7	3	0	
INDIANAPOLIS	41	31	50	24	36	-1	0.19	-0.62	0.15	0.19	33	42.74	111	92	74	0	5	2	0	
SOUTH BEND	41	29	48	24	35	1	0.15	-0.63	0.08	0.15	27	32.34	87	95	76	0	7	2	0	
IA BURLINGTON	43	29	50	1	36	2	0.58	-0.01	0.37	0.03	7	37.76	104	93	71	0	4	3	0	
CEDAR RAPIDS	41	28	49	24	35	5	0.40	-0.05	0.34	0.03	10	38.12	118	99	73	0	6	4	0	
DES MOINES	43	30	52	24	37	6	0.66	0.29	0.37	0.04	15	39.22	117	84	66	0	6	3	0	
DUBUQUE	39	27	47	21	33	4	0.62	0.12	0.58	0.04	11	35.05	103	94	78	0	7	3	1	
SIoux CITY	36	21	43	4	29	1	0.68	0.48	0.63	0.05	36	32.33	127	84	76	0	6	2	1	
WATERLOO	41	27	49	21	34	6	0.58	0.22	0.49	0.06	24	33.11	103	90	71	0	6	3	0	
KS CONCORDIA	45	29	58	22	37	2	0.25	0.01	0.19	0.00	0	26.68	96	86	62	0	6	2	0	
DODGE CITY	46	27	57	21	36	-1	0.04	-0.13	0.03	0.00	0	25.89	119	86	54	0	6	2	0	
GOODLAND	45	23	55	19	34	2	0.06	-0.04	0.06	0.00	0	20.36	105	78	50	0	7	1	0	
TOPEKA	47	29	58	22	38	2	1.31	0.89	0.68	0.00	0	46.68	135	88	63	0	5	2	2	

Based on 1971-2000 normals

Weather Data for the Week Ending December 5, 2015

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 DEC 1	PCT. NORMAL SINCE DEC 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
WICHITA	49	29	59	23	39	1	0.52	0.18	0.51	0.00	0	39.69	136	86	66	0	6	2	1
KY JACKSON	54	37	62	28	45	2	2.87	1.82	1.27	1.59	212	54.25	118	89	62	0	3	4	3
LEXINGTON	52	34	61	24	43	2	1.64	0.73	0.72	0.70	108	53.37	126	92	74	0	3	3	2
LOUISVILLE	50	36	55	28	43	0	1.02	0.10	0.61	0.38	58	56.30	136	93	60	0	3	4	1
PADUCAH	51	34	58	24	42	0	0.52	-0.64	0.42	0.02	2	51.76	113	92	59	0	3	3	0
LA BATON ROUGE	68	51	80	36	60	5	0.43	-0.73	0.33	0.39	47	71.65	122	91	54	0	0	3	0
LAKE CHARLES	67	49	78	37	58	2	0.34	-0.72	0.29	0.32	42	61.91	116	92	58	0	0	3	0
NEW ORLEANS	69	56	79	46	63	5	0.12	-1.16	0.10	0.12	13	65.02	108	78	61	0	0	2	0
SHREVEPORT	58	42	63	33	50	-2	1.83	0.77	1.62	0.00	0	62.35	131	92	58	0	0	2	1
ME CARIBOU	31	18	37	6	25	2	1.10	0.38	0.73	1.10	216	32.40	93	90	74	0	7	4	1
PORTLAND	43	26	51	19	34	1	0.52	-0.50	0.26	0.52	72	39.00	92	92	65	0	5	3	0
MD BALTIMORE	52	38	57	27	45	4	1.37	0.63	0.79	0.99	187	46.30	118	93	66	0	2	4	1
MA BOSTON	47	35	53	28	41	1	0.46	-0.41	0.32	0.46	75	30.99	79	84	59	0	3	2	0
WORCESTER	44	29	50	22	36	2	0.50	-0.38	0.33	0.50	81	36.19	79	91	59	0	5	2	0
MI ALPENA	42	25	50	15	34	5	0.10	-0.32	0.06	0.08	27	20.36	76	94	68	0	6	4	0
GRAND RAPIDS	44	29	50	19	37	4	0.12	-0.65	0.10	0.12	22	29.90	86	94	68	0	5	2	0
HOUGHTON LAKE	41	24	49	15	33	4	0.16	-0.27	0.07	0.09	29	24.66	91	94	74	0	7	3	0
LANSING	44	27	50	18	36	4	0.10	-0.51	0.08	0.10	23	31.91	107	89	70	0	7	2	0
MUSKOGON	44	30	47	18	37	4	0.53	-0.17	0.46	0.53	108	32.01	104	83	67	0	5	2	0
TRaverse CITY	44	29	52	20	37	5	0.26	-0.32	0.15	0.16	39	26.88	86	91	60	0	6	3	0
MN DULUTH	37	25	42	12	31	10	1.02	0.67	0.96	0.99	413	29.60	98	89	74	0	6	3	1
INT'L FALLS	39	20	45	6	29	13	0.19	-0.03	0.19	0.19	127	24.05	103	90	64	0	5	1	0
MINNEAPOLIS	38	26	47	19	32	7	0.50	0.20	0.41	0.09	43	33.91	118	88	73	0	6	2	0
ROCHESTER	36	25	44	19	31	7	0.45	0.11	0.42	0.03	13	32.44	106	92	76	0	6	2	0
ST. CLOUD	35	21	40	11	28	7	0.50	0.30	0.37	0.13	93	32.23	121	96	72	0	6	3	0
MS JACKSON	65	45	77	33	55	4	0.63	-0.60	0.39	0.45	52	53.84	105	88	58	0	0	4	0
MERIDIAN	65	46	78	30	56	4	1.26	0.02	1.18	1.26	143	54.39	100	93	64	0	1	2	1
TUPELO	59	39	64	27	49	2	2.30	0.93	1.06	0.40	41	63.79	126	89	66	0	3	3	2
MO COLUMBIA	47	33	57	29	40	3	0.42	-0.32	0.23	0.00	0	43.10	112	92	61	0	4	2	0
KANSAS CITY	46	29	55	21	38	2	0.72	0.24	0.37	0.00	0	43.35	118	88	60	0	6	2	0
SAINT LOUIS	49	34	54	29	42	3	0.22	-0.61	0.12	0.01	2	49.54	136	82	61	0	3	3	0
SPRINGFIELD	49	32	57	25	41	1	0.19	-0.82	0.13	0.00	0	48.33	114	87	66	0	4	2	0
MT BILLINGS	41	23	56	6	32	3	0.00	-0.13	0.00	0.00	0	12.38	87	68	44	0	5	0	0
BUTTE	26	-1	42	-12	12	-9	0.03	-0.08	0.03	0.03	38	11.26	91	92	59	0	7	1	0
CUT BANK	43	22	48	6	32	8	0.00	-0.07	0.00	0.00	0	8.81	72	75	43	0	7	0	0
GLASGOW	38	12	49	2	25	4	0.00	-0.06	0.00	0.00	0	12.34	113	85	72	0	7	0	0
GREAT FALLS	38	23	49	6	30	3	0.00	-0.11	0.00	0.00	0	14.63	102	74	49	0	6	0	0
HAVRE	38	12	50	-2	25	2	0.00	-0.08	0.00	0.00	0	11.65	106	85	69	0	7	0	0
MISSOULA	25	7	41	-4	16	-11	0.01	-0.22	0.01	0.01	6	8.69	68	93	81	0	7	1	0
NE GRAND ISLAND	40	26	55	18	33	3	0.12	-0.11	0.10	0.01	6	24.12	95	83	77	0	6	3	0
LINCOLN	43	26	56	19	35	4	0.34	0.07	0.31	0.00	0	36.75	133	88	67	0	6	2	0
NORFOLK	38	23	46	8	30	2	0.42	0.19	0.37	0.03	19	25.60	98	88	72	0	6	3	0
NORTH PLATTE	40	22	52	13	31	2	0.28	0.18	0.19	0.09	129	20.65	107	87	56	0	7	2	0
OMAHA	42	29	53	21	36	5	0.52	0.20	0.48	0.03	14	39.47	134	88	71	0	6	3	0
SCOTTSBLUFF	45	20	57	11	32	3	0.00	-0.15	0.00	0.00	0	22.93	144	75	45	0	7	0	0
VALENTINE	35	19	44	11	27	0	0.50	0.39	0.40	0.10	143	26.16	136	86	70	0	7	2	0
NV ELY	41	8	49	-2	25	-4	0.00	-0.08	0.00	0.00	0	8.64	91	76	52	0	7	0	0
LAS VEGAS	57	36	62	32	47	-3	0.00	-0.06	0.00	0.00	0	4.48	108	40	25	0	2	0	0
RENO	48	24	62	16	36	0	0.00	-0.19	0.00	0.00	0	7.75	115	75	61	0	7	0	0
WINNEMUCCA	45	13	58	0	29	-4	0.00	-0.17	0.00	0.00	0	8.93	117	79	52	0	6	0	0
NH CONCORD	42	26	54	17	34	2	0.20	-0.54	0.15	0.20	38	33.74	96	92	60	0	5	3	0
NJ NEWARK	52	39	56	31	46	5	0.52	-0.35	0.35	0.51	84	35.17	81	81	57	0	1	3	0
NM ALBUQUERQUE	52	28	58	22	40	1	0.00	-0.08	0.00	0.00	0	10.50	116	55	19	0	5	0	0
NY ALBANY	45	31	50	22	38	4	0.61	-0.07	0.47	0.61	127	35.59	99	82	61	0	4	2	0
BINGHAMTON	41	30	47	19	35	3	1.00	0.22	0.71	1.00	182	40.10	111	92	77	0	3	3	1
BUFFALO	45	33	53	27	39	4	0.13	-0.80	0.11	0.13	19	34.28	92	86	64	0	3	3	0
ROCHESTER	46	34	54	28	40	5	0.58	-0.08	0.39	0.58	123	34.54	109	83	69	0	3	3	0
SYRACUSE	44	32	49	21	38	4	1.33	0.47	0.85	1.33	218	38.56	103	92	70	0	3	3	1
NC ASHEVILLE	55	38	63	25	47	4	3.29	2.47	0.93	1.78	307	47.36	107	89	63	0	3	4	4
CHARLOTTE	59	41	71	27	50	2	1.76	1.07	1.45	0.14	29	41.43	101	86	57	0	2	4	1
GREENSBORO	57	40	71	29	48	3	1.50	0.81	0.50	0.58	118	42.41	105	90	58	0	2	4	1
HATTERAS	64	54	70	49	59	5	0.56	-0.40	0.41	0.48	71	65.06	121	94	71	0	0	3	0
RALEIGH	60	41	74	29	51	4	0.95	0.30	0.68	0.04	9	51.08	126	91	62	0	2	3	1
WILMINGTON	68	48	80	39	58	5	0.18	-0.65	0.11	0.18	31	67.03	124	92	56	0	0	2	0
ND BISMARCK	41	17	49	4	29	8	0.32	0.21	0.16	0.16	229	16.99	103	91	65	0	7	2	0
DICKINSON	41	19	49	5	30	7	0.01	-0.07	0.01	0.01	17	11.48	71	83	53	0	7	1	0
FARGO	37	20	41	12	28	9	0.39	0.27	0.25	0.14	175	20.83	101	85	70	0	7	2	0
GRAND FORKS	37	13	45	5	25	7	0.32	0.19	0.26	0.26	289	20.50	107	90	66	0	7	2	0
JAMESTOWN	36	19	41	9	27	7	0.14	0.05	0.13	0.01	17	22.25	123	90	65	0	7	2	0
WILLISTON	38	10	47	0	24	6	0.00	-0.14	0.00	0.00	0	11.50	84	87	66	0	7	0	0
OH AKRON-CANTON	46	31	58	25	38	2	0.15	-0.59	0.11	0.15	28	37.66	105	87	74	0	5	3	0
CINCINNATI	46	32	56	21	39	-1	0.61	-0.17	0.40	0.41	75	43.23	108	95	78	0	3	4	0
CLEVELAND	45	31	57	27	38	2	0.22	-0.60	0.11	0.22	37	38.04	105	89	73	0	4	3	0
COLUMBUS	45	33	59	27	39	0	0.24	-0.52	0.24	0.24	44	40.34	112	95	79	0	3	1	0
DAYTON	44	30	52	23	37	0	0.05	-0.71	0.03	0.05	9	36.77	99	98	80	0	4	2	0
MANSFIELD	44	30	56	27	37	2	0.11	-0.75	0.06	0.11	18	37.46	92	98	76	0	6	2	0

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending December 5, 2015

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 DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL IN., SINCE JAN 01	PCT. NORMAL SINCE JAN 01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	PRECIP		
																		.01 INCH OR MORE	.50 INCH OR MORE	
OK TOLEDO	43	27	50	24	35	0	0.05	-0.61	0.05	0.05	11	33.59	108	96	76	0	7	1	0	
OK YOUNGSTOWN	43	30	57	21	37	2	0.26	-0.51	0.11	0.26	47	40.52	114	92	77	0	5	3	0	
OK OKLAHOMA CITY	52	31	61	25	41	-2	0.14	-0.29	0.11	0.00	0	51.96	152	94	59	0	6	2	0	
OR TULSA	52	32	59	26	42	-2	0.13	-0.59	0.07	0.00	0	53.39	132	91	66	0	4	2	0	
OR ASTORIA	54	41	63	30	47	3	3.59	1.01	1.15	3.56	195	56.81	97	86	73	0	2	6	3	
OR BURNS	27	4	40	-15	15	-13	0.28	0.00	0.25	0.28	140	7.13	75	84	75	0	7	3	0	
OR EUGENE	50	34	59	17	42	0	1.51	-0.60	0.43	1.50	100	20.15	46	89	82	0	3	6	0	
OR MEDFORD	53	31	61	19	42	2	0.59	-0.15	0.30	0.59	113	10.33	65	91	49	0	3	4	0	
OR PENDLETON	35	24	52	19	30	-7	0.14	-0.22	0.13	0.14	54	7.94	69	90	81	0	7	2	0	
OR PORTLAND	44	35	52	24	40	-2	1.90	0.49	0.63	1.90	190	27.03	84	90	73	0	2	5	1	
OR SALEM	48	33	59	20	40	-2	2.65	1.03	1.01	2.62	228	28.03	81	89	78	0	2	6	3	
PA ALLENTOWN	50	33	53	25	41	4	1.03	0.20	0.61	1.01	171	37.30	88	84	62	0	4	3	1	
PA ERIE	45	32	54	23	38	0	0.65	-0.29	0.48	0.65	97	34.12	86	80	65	0	3	3	0	
PA MIDDLETOWN	47	35	51	27	41	2	1.12	0.28	0.69	1.01	171	38.76	102	92	66	0	3	4	1	
PA PHILADELPHIA	53	41	60	36	47	5	1.00	0.24	0.69	0.85	157	42.72	109	81	59	0	0	4	1	
PA PITTSBURGH	46	33	57	24	40	3	0.38	-0.34	0.23	0.37	73	37.92	107	89	67	0	3	3	0	
PA WILKES-BARRE	48	33	53	22	41	4	0.58	-0.11	0.42	0.57	119	29.22	82	88	62	0	3	3	0	
PA WILLIAMSPORT	47	32	51	22	40	4	1.13	0.32	0.56	1.10	193	38.27	98	83	64	0	4	4	2	
RI PROVIDENCE	51	33	59	28	42	3	0.28	-0.70	0.25	0.28	41	36.28	84	89	58	0	4	2	0	
SC BEAUFORT	70	51	76	46	60	6	0.30	-0.27	0.30	0.30	73	49.04	104	89	60	0	0	1	0	
SC CHARLESTON	72	51	80	44	61	7	0.30	-0.33	0.30	0.30	67	72.05	148	86	56	0	0	1	0	
SC COLUMBIA	65	48	76	31	57	6	0.33	-0.30	0.33	0.33	73	57.46	127	85	56	0	1	1	0	
SC GREENVILLE	58	42	71	33	50	3	1.42	0.59	0.48	0.49	83	53.21	113	90	62	0	0	4	0	
SD ABERDEEN	35	17	39	3	26	4	0.59	0.52	0.35	0.24	600	20.80	105	88	72	0	7	2	0	
SD HURON	34	18	39	4	26	2	0.51	0.41	0.42	0.09	129	24.41	119	92	71	0	7	2	0	
SD RAPID CITY	40	19	51	8	29	1	0.21	0.15	0.10	0.07	175	24.68	152	84	55	0	7	3	0	
SD SIOUX FALLS	35	18	41	2	26	2	0.71	0.52	0.65	0.06	46	31.72	131	88	76	0	6	2	1	
TN BRISTOL	57	38	62	22	48	7	2.55	1.75	0.96	1.33	233	40.64	106	97	60	0	3	4	3	
TN CHATTANOOGA	59	45	64	30	52	6	5.13	3.95	2.36	2.77	334	59.14	117	90	68	0	1	4	3	
TN KNOXVILLE	57	43	62	28	50	5	5.17	4.15	1.74	2.38	326	46.20	104	91	66	0	2	4	4	
TN MEMPHIS	55	40	61	33	48	1	1.52	0.02	1.07	0.07	7	47.95	96	85	58	0	0	3	1	
TN NASHVILLE	58	40	64	28	49	4	3.13	2.01	1.84	0.66	83	46.54	105	87	57	0	2	3	3	
TX ABILENE	57	35	65	33	46	-3	1.15	0.93	1.15	0.00	0	38.19	169	93	66	0	0	1	1	
TX AMARILLO	54	28	66	23	41	1	0.00	-0.08	0.00	0.00	0	33.85	177	85	38	0	6	0	0	
TX AUSTIN	60	39	68	30	49	-6	0.04	-0.48	0.04	0.00	0	58.74	186	92	61	0	2	1	0	
TX BEAUMONT	66	48	74	39	57	0	0.28	-0.85	0.20	0.22	27	70.19	127	95	58	0	0	3	0	
TX BROWNSVILLE	69	55	78	52	62	-2	0.08	-0.22	0.06	0.06	29	47.17	177	85	62	0	0	2	0	
TX CORPUS CHRISTI	60	46	68	42	53	-8	0.07	-0.28	0.03	0.02	8	44.15	144	95	76	0	0	3	0	
TX DEL RIO	64	43	70	36	53	-2	0.02	-0.15	0.02	0.00	0	27.48	156	88	58	0	0	1	0	
TX EL PASO	62	34	67	27	48	0	0.00	-0.13	0.00	0.00	0	11.02	126	66	24	0	2	0	0	
TX FORT WORTH	55	39	61	35	47	-3	0.88	0.37	0.87	0.00	0	58.75	181	87	54	0	0	2	1	
TX GALVESTON	60	51	65	47	56	-5	0.33	-0.51	0.18	0.30	50	58.35	143	93	72	0	0	4	0	
TX HOUSTON	60	44	66	37	52	-5	0.09	-0.78	0.07	0.02	3	64.85	145	94	68	0	0	2	0	
TX LUBBOCK	57	29	61	24	43	0	0.03	-0.11	0.02	0.00	0	27.89	154	92	53	0	6	2	0	
TX MIDLAND	58	35	63	31	47	-1	0.23	0.11	0.23	0.00	0	21.41	150	89	60	0	2	1	0	
TX SAN ANGELO	59	34	66	28	47	-2	0.64	0.45	0.39	0.00	0	24.54	122	91	59	0	3	2	0	
TX SAN ANTONIO	62	42	70	38	52	-3	0.02	-0.43	0.02	0.00	0	42.72	137	86	50	0	0	1	0	
TX VICTORIA	61	43	68	37	52	-6	0.09	-0.46	0.04	0.04	10	52.13	137	98	71	0	0	3	0	
TX WACO	56	36	61	32	46	-6	0.67	0.06	0.54	0.00	0	50.12	162	94	67	0	2	2	1	
TX WICHITA FALLS	55	32	64	28	44	-3	0.84	0.50	0.83	0.00	0	44.75	163	92	59	0	3	2	1	
UT SALT LAKE CITY	39	21	48	19	30	-4	0.00	-0.28	0.00	0.00	0	13.91	90	82	51	0	7	0	0	
VT BURLINGTON	42	28	49	19	35	4	1.43	0.82	0.83	1.42	330	35.43	103	87	66	0	5	4	1	
VA LYNCHBURG	53	35	65	22	44	2	2.29	1.57	0.99	1.53	300	41.86	103	91	67	0	3	4	3	
VA NORFOLK	58	48	66	38	53	5	0.78	0.15	0.65	0.10	23	46.37	107	86	67	0	0	4	1	
VA RICHMOND	55	39	62	30	47	2	0.76	0.10	0.45	0.50	106	43.78	106	92	69	0	2	4	0	
VA ROANOKE	53	37	65	27	45	2	2.27	1.57	0.89	1.46	292	51.44	128	93	71	0	3	4	3	
WA WASH/DULLES	50	37	57	26	44	3	1.28	0.56	0.56	0.77	151	36.40	93	90	66	0	2	4	1	
WA OLYMPIA	47	33	56	19	40	0	1.90	-0.08	0.63	1.89	134	44.91	101	94	86	0	3	6	2	
WA QUILLAYUTE	53	39	57	21	46	4	3.64	0.11	1.47	3.61	143	81.20	90	89	79	0	2	6	3	
WA SEATTLE-TACOMA	48	38	60	25	43	1	1.78	0.36	0.60	1.76	174	35.38	109	88	70	0	2	6	2	
WA SPOKANE	33	24	45	17	29	-1	0.23	-0.33	0.14	0.23	58	9.88	67	96	78	0	6	3	0	
WA YAKIMA	32	23	37	12	28	-4	0.45	0.17	0.24	0.44	220	5.93	84	83	78	0	7	4	0	
WV BECKLEY	52	35	58	21	43	4	1.70	1.01	0.79	1.38	282	45.96	118	88	71	0	3	4	2	
WV CHARLESTON	53	37	61	25	45	3	2.38	1.53	1.12	1.96	327	44.91	109	95	64	0	3	4	2	
WV ELKINS	52	35	59	21	43	6	1.69	0.87	0.81	1.46	247	44.92	104	91	64	0	3	5	2	
WV HUNTINGTON	51	35	60	23	43	2	2.80	2.02	1.77	2.25	409	45.15	114	99	69	0	3	4	1	
WI EAU CLAIRE	41	22	50	10	31	7	0.26	-0.07	0.13	0.13	57	38.72	124	89	58	0	7	2	0	
WI GREEN BAY	41	29	45	18	35	8	0.42	-0.01	0.33	0.33	110	27.52	98	93	73	0	6	2	0	
WI LA CROSSE	41	28	49	18	35	7	0.46	0.07	0.39	0.07	25	29.63	94	89	59	0	6	2	0	
WI MADISON	40	29	49	17	35	6	0.70	0.22	0.54	0.16	47	36.62	116	92	78	0	5	3	1	
WI MILWAUKEE	42	31	50	22	37	5	0.73	0.14	0.49	0.24	57	29.27	89	91	76	0	4	3	0	
WY CASPER	33	17	48	-4	25	-2	0.02	-0.13	0.02	0.00	0	12.23	98	66	56	0	7	1	0	
WY CHEYENNE	39	18	59	2	28	-1	0.00	-0.12	0.00	0.00	0	16.97	113	64	42	0	7	0	0	
WY LANDER	25	5	37	-2	15	-9	0.00	-0.17	0.00	0.00	0	14.67	113	87	65	0	7	0	0	
WY SHERIDAN	42	13	51	5	28	3	0.03	-0.11	0.03	0.00	0	15.67	111	77	58	0	7	1	0	

Based on 1971-2000 normals

*** Not Available

November Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: November will be remembered for its variety of strong weather systems, which resulted in Northwestern wind damage (November 17-18); Midwestern snow (November 20-21 and 30); Southern flooding (November 26-29); and a pair of late-season tornado outbreaks (November 11 and 16-18). Other highlights included general warmth across the central and eastern U.S.; a late-month cold snap in the West and ice storm on the southern High Plains; and drought eradication in the Pacific Northwest. Some other sections of the West did not fare as well; for example, parts of California received beneficial rain and snow, but not enough to start filling drought-depleted reservoirs or dent 4-year precipitation deficits.

Most of the Northwestern precipitation fell from the Pacific Coast to the Cascades, as well as the northern Rockies, largely bypassing “rain-shadowed” sections of the Northwest. As a result, the Northwest led the nation by November 29 in winter wheat rated in very poor to poor condition: 17 percent in Washington and 15 percent in Oregon. Complicating the picture, a late-November cold wave sent winter wheat into dormancy in northern production areas. By month’s end, only 79 percent of the wheat had emerged in Oregon, along with 87 percent of Washington’s crop.

Farther east, abundant November precipitation across the Plains and Midwest lowered the portion of the U.S. wheat rated very poor to poor, from 14 to 9 percent, between October 25 and November 29. During the same 5-week span, U.S. wheat rated good to excellent rose from 47 to 55 percent. However, wet weather also halted late-season fieldwork, including the Texas cotton harvest. When rain and freezing rain arrived across the southern Plains on Thanksgiving (November 26), the Texas cotton harvest was 75 percent complete. Farther north, most Midwestern fieldwork was finished when conditions deteriorated; for example, U.S. corn was 96 percent cut by November 15, while the U.S. soybean harvest was 95 percent complete by November 8.

However, wet weather across the Southeast led to a variety of fieldwork disruptions, including winter wheat planting and cotton, peanut, and soybean harvesting. Some of the most significant delays existed in the Carolinas, parts of which had already been hit hard by October flooding. By November 29 in South Carolina, only 55 percent of the intended winter wheat acreage had been planted, compared to the 5-year average of 73 percent. On the same date, South Carolina’s harvest progress had reached only 51 percent for soybeans; 64 percent for cotton; and 74 percent for peanuts.

Elsewhere, generally cool conditions in the western U.S. contrasted with late-season warmth in the central and eastern

U.S. In fact, record-setting November warmth prevailed at numerous locations in the Atlantic Coast States, including Tallahassee, Florida, and New York City. Monthly temperatures averaged at least 8°F above normal in portions of the southern Atlantic States and the upper Great Lakes region.

Summary: As November began, persistent Southeastern warmth resulted in several monthly record highs. In Florida, Jacksonville posted a monthly record high of 89°F on November 1, followed by another high of 89°F on November 3. Similarly, Tallahassee, FL, logged monthly record highs of 89°F on November 2 and 4. Elsewhere in Florida, monthly record highs included 92°F (on November 4) in Naples; 92°F (on November 4) in Tampa; 91°F (on November 3) in Gainesville; and 90°F (on November 2) in Daytona Beach. Meanwhile, warm weather also lingered across the West. On November 1, daily-record highs reached 91°F in Barstow-Daggett, CA, and 81°F in Pueblo, CO. The following day, record-setting highs for November 2 included 86°F in Las Vegas, NV, and 73°F in Salt Lake City, UT. Warmth also reached the western Corn Belt, where record-breaking highs for November 2 climbed to 81°F in Lincoln, NE, and 79°F in Des Moines, IA. In Kansas, daily-record highs for November 3 rose to 81°F in Hill City and Garden City. With a November 1-5 average temperature of 57.6°F (14.8°F above normal), La Crosse, WI, experienced its warmest 5-day period in November since November 1-5, 2008. Later, dozens of daily-record highs were set in the Great Lakes and Northeastern States, as well as the South. From November 3-5, Detroit, MI (76, 77, and 74°F), and Mansfield, OH (76, 77, and 76°F) registered a trio of daily-record highs. Similarly, Rochester, NY, achieved three consecutive daily record highs (78, 75, and 72°F) from November 4-6. On November 6-7, there were consecutive daily-record highs in Portland, ME (67 and 65°F); New York’s LaGuardia Airport (75 and 72°F); and New Bern, NC (82 and 84°F). Similarly, consecutive daily-record highs occurred on November 5-6 in Louisiana locations such as Lafayette (86 and 89°F) and New Iberia (86 and 88°F). In contrast, November 7 featured daily-record lows in Cedar City, UT (16°F), and Bishop, CA (20°F). On November 4, Bishop had reported its fourth-latest first freeze on record; the station record for the latest first freeze remains November 9, 1988.

With a low of 28°F, Chicago, IL, reported its first freeze of the autumn on November 8—nearly 4 weeks later than the October 13 average. It was Chicago’s latest first freeze since November 10, 2011. Similarly, Lubbock, TX, reported its first freeze of the season with a low of 31°F on November 12, ending its longest growing season since 1963 at 241 days (March 16 – November 11). Meanwhile, cool air expanded across the West. On November 11, for example, Ely, NV, posted a daily-record low of 2°F. Other Western daily records included 20°F (on November 12) in Douglas, AZ, and 26°F (on November 11) in Campo, CA. In contrast, record-setting warmth lingered across Florida, where daily-record highs included 91°F (on November 9) in Orlando; 90°F (on

November 8) in Lakeland; and 90°F (on November 10) in West Palm Beach. Later, warmth returned to areas from the Pacific Northwest to the northern Plains. Wenatchee, WA, logged a daily-record high of 67°F on November 13. The following day, record-setting highs in South Dakota for November 14 reached 70°F in Mobridge and 68°F in Aberdeen.

Similar to October, heavy rain fell in the Southeast as the month began. On November 1, Columbus, GA, received a daily-record sum of 1.87 inches. The following day, record-setting totals for November 2 reached 3.28 inches in Greenville-Spartanburg, SC, and 3.08 inches in Charlotte, NC. Columbus collected another daily-record amount (2.37 inches) on November 2, boosting its 2-day total to 4.24 inches. Downpours lingered along the southern Atlantic coast through November 3, when Charleston, SC, measured a daily-record sum of 3.48 inches. Meanwhile, an early-season storm arrived in the West. Totals for November 2 were the highest on record for that date in locations such as Reno, NV (1.04 inches); Merced, CA (1.04 inches); and Paso Robles, CA (0.38 inch). In Jerome, ID, precipitation totaled 1.67 inches from November 1-3. Daily-record snowfall totals were set in several Western locations, including Flagstaff, AZ (9.9 inches on November 4), and Elko, NV (4.0 inches on November 3). By November 5, heavy showers and locally severe thunderstorms developed across the nation's mid-section and returned to the South; daily-record amounts for that date reached 2.52 inches in Longview, TX, and 1.13 inches in Dubuque, IA. The following day, record-breaking totals for November 6 included 3.64 inches in Jackson, MS; 3.45 inches in New Iberia, LA; and 1.80 inches in Cincinnati, OH. New Iberia collected another daily-record sum (2.99 inches) on November 7, lifting its 2-day total to 6.44 inches. Other daily-record amounts for November 7 reached 3.30 inches in Anniston, AL; 3.08 inches in Beaumont-Port Arthur, TX; and 2.95 inches in Alexandria, LA. In Florida, record-setting amounts for November 8 totaled 7.31 inches in Apalachicola; 2.55 inches in Tallahassee; and 2.35 inches in Jacksonville. Apalachicola netted another record-setting rainfall (2.66 inches) on November 9, boosting its 2-day total to 9.97 inches. Elsewhere, November 8-9 rainfall reached 4.31 inches in Tallahassee and 4.09 inches on St. Simons Island GA. Farther north, daily-record precipitation amounts for November 10 climbed to 1.88 inches in Georgetown, DE, and 1.65 inches in Binghamton, NY.

Meanwhile, stormy weather arrived in the West, where daily-record totals for November 9 included 0.59 inch in Pullman, WA; 0.47 inch in Ely, NV; and 0.40 inch in Missoula, MT. Ely's precipitation fell in the form of 12.3 inches of snow. By November 11, strong thunderstorms—including several tornadoes—erupted across southern Iowa and environs. Snow fell on the central High Plains, where Goodland, KS, received 2.7 inches of snow on November 11, along with a wind gust to 49 mph. Record-setting precipitation amounts for November 11 included 1.65 inches in Sioux City, IA, and 1.38 inches in Eau Claire, WI. On the same day, wind gusts were clocked to 70 mph in Peoria, IL; 65 mph in Burlington, IA; and 62 mph in Lee's Summit, MO. By November 12, high winds swept into

the Great Lakes States, resulting in gusts to 57 mph in Buffalo, NY, and 53 mph in Toledo, OH. By mid-November, significant precipitation was mostly limited to the Pacific Northwest and the southern tip of Florida. Daily-record amounts for November 14 totaled 3.37 inches in Miami, FL, and 2.78 inches in Astoria, OR. November 8-14 rainfall totaled 6.79 inches in Quillayute, WA, aided by a daily-record sum of 4.09 inches on the 12th.

Less than a week later, a similar storm resulted in another late-season tornado outbreak and wind-driven snow. From western Kansas to the northern panhandle of Texas, as many as four dozen tornadoes on November 16 preceded a transition to wind and snow. Smaller tornado outbreaks were noted in Mississippi on November 17 and Georgia and western Florida on November 18. At the same time, heavy rain soaked parts of the South and Midwest. Daily-record rainfall totals for November 17 included 5.11 inches in Vichy-Rolla, MO; 4.23 inches in Columbia, MO; 3.63 inches in Batesville, AR; 3.53 inches in Monroe, LA; and 2.13 inches in Moline, IL. On November 18, daily-record amounts topped 3 inches in locations such as Huntsville, AL (3.87 inches), and Hattiesburg, MS (3.74 inches). In North Carolina on November 19, daily-record amounts climbed to 8.40 inches in Beaufort and 3.16 inches on Cape Hatteras. Farther west, Goodland, KS, received 4.0 inches of snow on November 17, accompanied by a northerly wind gust to 53 mph. Denver, CO, also netted 4.0 inches of snow (on November 16-17), along with a wind gust to 57 mph. Elsewhere, widespread rain and snow showers dotted the West, with the heaviest precipitation falling in western sections of Oregon and Washington. High winds raked the Northwest on November 17-18, downing trees and causing power outages. In Washington, peak gusts on the 17th were clocked to 71 mph in Spokane and 69 mph in Pullman. In the Washington Cascades, the Northwest Avalanche Center recorded wind gusts to 119 mph at White Pass, elevation 5,970 feet, and 107 mph at Crystal Mountain, elevation 6,870 feet. In Montana, daily-record winds gusts for November 17 included 76 mph in Cut Bank and 61 mph in Great Falls. With a daily average wind speed of 31.4 mph on November 17, Great Falls experienced its windiest day since January 29, 1974. Farther east, peak gusts for November 18 were clocked to 75 mph in Chadron, NE; 74 mph in Buffalo, WY; and 71 mph in Hettinger, ND.

With colder air arriving in the western U.S., Great Falls, MT, reported its first reading below the 20-degree mark (17°F on November 18) since March 4. The 258-day stretch marked Great Falls' longest such streak since 1910, when there were 264 consecutive days (February 26 – November 16) with temperatures remaining at 20°F or higher. Elsewhere in the West, Ramona, CA, notched a daily-record low (28°F) on November 17. Farther east, however, warmth lingered. In southern Texas, Brownsville posted a daily-record high (91°F) on November 17. The following day in Florida, record-setting highs for November 18 reached 89°F in Tampa and Sarasota-Bradenton. Meanwhile in Ohio, daily-record highs for the 18th included 71°F in Cleveland and 70°F in Akron-Canton. A few days later, record-setting warmth returned to coastal

southern California, where record-setting highs for November 21 soared to 91°F in Santa Ana and 90°F in Long Beach. In contrast, cold weather in the wake of an early-season snow storm led to daily-record lows for November 21 in Big Piney, WY (-10°F); Waterloo, IA (-5°F); and Challis, ID (-3°F). Farther east, frigid weather prevailed in the wake of Midwestern snowfall. November 22 featured daily-record lows in Moline, IL (1°F, with an 8-inch snow cover), and Dubuque, IA (2°F, with a 9-inch cover). Cold air also settled across Texas, where record-setting lows for November 22 included 21°F in San Angelo and 31°F in Del Rio.

The snow storm had struck on November 20-21, resulting in the greatest November accumulation in Chicago, IL, since 1895. Chicago's 2-day snowfall reached 11.2 inches, compared to 12.0 inches on November 25-26, 1895. The only other times Chicago experienced a November storm total in excess of 8 inches were November 6-7, 1951, when 9.3 inches fell, and November 26-27, 1975, when snowfall totaled 8.6 inches. Elsewhere in Illinois, Rockford netted 8.8 inches on November 20-21, marking its second-greatest November snow storm behind 9.5 inches on November 6-7, 1951. Farther west, storm-total snowfall topped the 10-inch mark in Iowa locations such as Waterloo (12.7 inches) and Dubuque (11.7 inches). Meanwhile, downpours soaked parts of Florida, including Daytona Beach, where 4.69 inches fell on November 21. Later, another round of precipitation spread from the Pacific Northwest to the northern High Plains, where Great Falls, MT, netted a daily-record snowfall (3.9 inches) for November 24. November 22-28 snowfall totaled 15.6 inches in Lander, WY, aided by a daily-record sum of 9.5 inches on the 25th. In Oregon, 24-hour snowfall on November 24-25 totaled 10 inches in Mitchell and 6 inches in Madras. By November 26, Thanksgiving Day, heavy precipitation erupted from the southern Plains into the Corn Belt. It was the wettest Thanksgiving Day on record in several locations, including Wichita, KS (2.17 inches); Rockford, IL (1.51 inches); and Madison, WI (1.19 inches). On the Plains, Thanksgiving Day snowfall included 4.2 inches in Pueblo, CO, and 3.2 inches in Grand Island, NE. Meanwhile, several freezing rain accumulations of at least one-half inch were reported on the southern High Plains, especially in El Reno, OK. Farther east, November 26-29 rainfall in northeastern Texas climbed to 10.59 inches in McKinney and 8.03 inches in Dallas-Ft. Worth. During the same 4-day period, totals included 6.75 inches in Mt. Ida, AR, and 5.08 inches in McAlester, OK. The Trinity River at Dallas, TX, surged 11.08 feet above flood stage on November 28—just 0.9 foot below the level achieved earlier this year on May 29. On November 29, crests were the highest since December 18, 2001, in gauge locations such as the Sulphur River near Talco, TX (10.34 feet above flood stage), and the Little River near Idabel, OK (3.43 feet above flood stage).

Meanwhile, Western warmth briefly lingered in advance of an approaching storm. In southern California, daily-record highs for November 22 reached 90°F in Camarillo and 88°F in Long Beach. Farther inland, Bakersfield, CA, posted a daily-record high (82°F) for November 23. Warmth also

returned to the nation's mid-section, where daily-record highs for November 25 climbed to 78°F in Dalhart, TX, and 56°F in Muskegon, MI. In the eastern U.S., daily-record highs included 67°F (on November 26) in Zanesville, OH, and 67°F (on November 27) in Hartford, CT. In stark contrast, very cold air overspread the West, starting on Thanksgiving Day. From November 26-30, the month ended with five consecutive daily-record lows (13, 13, 9, 8, and 10°F, respectively) in Montague, CA. November ended with five sub-zero readings in a row in locations such as Burns, OR (-9, -15, -15, -15, and -14°F), and Big Piney, WY (-19, -22, -16, -16, and -10°F). In California's Central Valley, consecutive daily-record lows were noted on November 28-29 in Stockton (28 and 25°F) and Sacramento (27°F both days).

As the calendar turned from November to December, a significant snow storm unfolded across the upper Midwest. November 30 – December 1 snowfall reached 10.4 inches in Huron, SD; 9.8 inches in Sioux City, IA; 6.3 inches in St. Cloud, MN; 5.1 inches in Grand Forks, ND; and 5.0 inches in Norfolk, NE. In South Dakota, record-setting snowfall totals for November 30 included 8.7 inches in Sioux Falls and 7.2 inches in Mitchell. Heavy rain fell farther south. Record-setting rainfall totals for November 29 included 2.54 inches in Crossville, TN; 1.58 inches in Huntsville, AL; and 1.44 inches in Longview, TX. Chattanooga, TN, received 5.13 inches of rain from November 29 – December 2, including a daily-record total (2.32 inches) on the 1st. The wettest November on record drew to a close in locations such as Apalachicola, FL (14.38 inches, or 409 percent of normal); Vichy-Rolla, MO (10.11 inches, or 261 percent); Charlotte, NC (10.04 inches, or 320 percent); and Dallas-Ft. Worth, TX (9.86 inches, or 364 percent). In addition, Dallas-Ft. Worth's January-November precipitation total of 58.78 inches (175 percent of normal) easily surpassed its 1991 annual record of 53.54 inches. Charleston, SC, experienced its wettest November on record (8.30 inches, or 342 percent of normal), following its wettest October (18.91 inches, or 504 percent).

November warmth in the Midwest pushed monthly temperatures at least 5°F above normal in many locations. In La Crosse, where the monthly average temperature of 43.1°F was 7.2°F above normal, it was the third-warmest November behind 47.5°F in 2001 and 43.2°F in 1931. Farther east, it was the warmest November on record in parts of the northern Mid-Atlantic region (e.g. New York City and Newark, NJ), as well as numerous Florida communities. Monthly readings averaged more than 7 to 9°F above normal in Florida locations such as Tallahassee and Vero Beach, breaking records originally set in 1986.

Highly variable conditions prevailed during November across Alaska, although the dominant pattern included mild, wet weather. Warmth was especially notable early in the month, when daily-record highs were broken in locations such as St. Paul Island (46°F on November 1 and 2) and Kotzebue (37°F on November 2). Widespread precipitation accompanied the early-month warmth. For example, November 1-7 snowfall totaled 6.7 inches in McGrath and 6.4 inches in Fairbanks.

Later, daily-record snowfall totals were set in locations such as King Salmon (3.4 inches on November 9) and Cold Bay (1.5 inches on November 10). McGrath received another 7.1 inches of snow from November 8-14. Around mid-month, suddenly colder air engulfed Alaska. By November 18, daily-record lows were reported in locations such as Kotzebue (-23°F) and Anchorage (-8°F). Anchorage later received 9.8 inches of snow from November 19-21. Other Alaskan snowfall totals from November 19-21 included 11.7 inches in McGrath and 4.9 inches in Kotzebue. Much of McGrath's snow, 7.3 inches, fell on November 19. In southern Alaska, November 15-19 snowfall reached 16.5 inches in Yakutat and 15.5 inches in Juneau. The bulk of Juneau's snow, 10.0 inches, fell on November 18. At lower elevations, southeastern Alaska's precipitation changed to heavy rain. During a 24-hour period on November 20-21, rainfall totaled 7.08 inches at the Snettisham Power Station and 5.63 inches in Pelican. Toward month's end, mild weather returned to Alaska, accompanied by a continuation of widespread precipitation. Daily-record highs were established in several locations, including Anchorage (45°F on November 24 and 25). From November 22-25, precipitation totaled 1.81 inches (along with 5.6 inches of snow) in King Salmon and 1.74 inches (15.8 inches of snow) in McGrath. On November 23, McGrath reported daily record for precipitation (1.47 inches) and snowfall (10.8 inches). For November, McGrath's precipitation was 4.14 inches (293 percent of normal), while snowfall totaled 44.3 inches (230 percent). King Salmon received a daily-record amount on November 24, when the 1.37-inch total included 3.4 inches of snow. In Fairbanks, the season-to-date (July 1 – November 30) snowfall climbed to 50.1 inches, surpassing the 2014-15 seasonal total of 43.8 inches. Measurable snow, totaling 25.4 inches, fell on 20 of the first 25 November days in Fairbanks, but dry weather prevailed from November 26-30.

Warm weather continued across Hawaii during November, accompanied by unexpectedly wet conditions. At the state's major airport observation sites, November rainfall ranged from 128 percent of normal in Lihue, Kauai, to 201 percent at Kahului, Maui. Actual totals ranged from 4.16 inches in Honolulu, Oahu, to 22.81 inches in Hilo, on the Big Island. The week of November 8-14 was particularly wet across windward sections of the Big Island, where rainfall totaled 30.41 inches at Saddle Quarry; 14.31 inches in Mountain View; 12.30 inches in Glenwood; and 8.12 inches in Hilo. Later, Kahului netted a daily-record rainfall (1.25 inches) on November 19. The following day, totals on November 20 reached 4.29 inches (not a record for the date) in Lihue and 1.74 inches in Honolulu. Hilo received 7.02 inches on November 18-19. Finally, another round of rain led to daily-record rainfall totals in several locations, including Kahului (1.72 inches on November 24), and Honolulu (0.84 inch on November 23). Meanwhile, oceanic warmth continued to fuel warm Hawaiian weather. Kahului notched a daily-record high of 93°F on November 1, while Hilo collected daily-record highs of 88°F on November 1 and 3. Honolulu also achieved a daily-record high (90°F) on November 3. About a week later, daily record-tying highs for November

11 included 86°F in Hilo and 84°F in Lihue. Daily records were tied in Lihue with highs of 85°F on November 19 and 21. Finally, Hilo posted consecutive daily-record highs of 87°F on November 22-23.

Fieldwork

Fieldwork summary provided by USDA/NASS

November temperatures were above normal in areas east of the Rocky Mountains, with most of the upper Midwest and Florida averaging more than 6°F above normal. Conversely, areas from the Pacific Coast to the Intermountain Region experienced temperatures more than 2°F below normal. Most of nation was within 3 inches of monthly normal precipitation values. Portions of the Northeast, Southwest, and Dakotas received less than 50 percent of average precipitation. In contrast, most of the south-central U.S. and southern Atlantic States received more than 200 percent of the normal November precipitation.

With warmer-than-normal conditions covering the Midwest, the nation's corn harvest progress remained ahead of the 5-year average through harvest completion in mid-November. Nationally, corn producers had harvested 85 percent of this year's crop by November 1, twenty-three percentage points ahead of last year and 6 points ahead of the 5-year average. In Nebraska, farmers harvested 12 percent of their corn for grain during the week ending November 8, advancing to 87 percent complete—11 percentage points ahead of last year. By November 15, ninety-six percent of the nation's corn was harvested, 8 percentage points ahead of last year and 2 points ahead of the 5-year average. The largest gains in corn harvest progress were observed in Colorado, Michigan, and Wisconsin, where farmers harvested 14, 10, and 11 percent of their crop, respectively, during the week ending November 15.

Soybean producers nationwide had harvested 92 percent of this year's crop by November 1, eleven percentage points ahead of last year and 4 points ahead of the 5-year average. By November 8, producers had harvested 95 percent of this year's soybean crop, 6 percentage points ahead of last year and 2 points ahead of the 5-year average. With the exception of North Carolina, where a large portion of the soybean crop is grown following winter wheat, harvest was complete or nearing completion in all major estimating states by November 8.

Cotton producers nationwide had harvested half of this year's crop by November 1, slightly ahead of last year but 4 percentage points behind the 5-year average. Rainy conditions slowed the cotton harvest in Texas, where only 3 percent of the state's crop was harvested during the week of November 1. Overall, 47 percent of the nation's cotton crop was rated in good to excellent condition at the beginning of November, slightly below the same time last year. Producers had harvested 64 percent of the nation's cotton crop by November 15, four percentage points behind last year and 10

points behind the 5-year average. The greatest advances in cotton harvest progress that week were noted in Arizona, Arkansas, Kansas, Missouri, Oklahoma, Tennessee, and Virginia, where farmers made double-digit gains. Nationally, producers had harvested 80 percent of the cotton crop by November 29, three percentage points behind last year and 8 points behind the 5-year average. Texas farmers harvested 15 percent of the cotton crop during the last full week of November, bringing the overall total to 75 percent harvested.

Seventy-nine percent of the nation's sorghum crop was harvested by the beginning of November, 15 percentage points ahead of last year and 7 percentage points ahead of the 5-year average. Nationally, 91 percent of the sorghum crop was harvested by November 15, nine percentage points ahead of last year and 2 points ahead of the 5-year average. Mild, dry weather in Colorado and New Mexico promoted a rapid harvest pace during the week ending November 15. By November 22, the sorghum harvest was more than 90 percent complete in all estimating States except New Mexico. Nationally, 98 percent of the sorghum crop was harvested by November 29, seven percentage points ahead of last year and slightly ahead of the 5-year average.

By November 1, producers had seeded 88 percent of the 2016 winter wheat crop, slightly behind last year and 2 percentage points behind the 5-year average. Nationally, 72 percent of the crop was emerged by November 1, four percentage points behind last year and slightly behind the 5-year average. The crop was 95 percent emerged in South Dakota at the beginning of the month, 20 percentage points ahead of the 5-year average. Ninety-six percent of the nation's 2016 winter wheat crop was sown by November 22, three percentage points behind last year and 4 points behind the 5-year average. Winter wheat planted advanced 12 percentage points or more that week in Arkansas, California, and North Carolina. By November 22, ninety percent of the nation's winter wheat had emerged, slightly behind last year but equal to the 5-year average. By the end of the month, ninety-three percent of the nation's winter wheat was emerged, slightly behind last year but equal to the 5-year average. Emergence was complete in Colorado, Illinois, Indiana, Michigan, Nebraska, Ohio, and South Dakota. Overall, 55 percent of the winter wheat crop was reported in good to excellent condition, 3 percentage points below the same time last year. As of November 29, states in the Northern Plains and Great Lakes region generally had better condition ratings, such as Montana at 73 percent good to excellent, than the South, like Arkansas at 40 percent good to excellent.

By November 1, producers had dug and combined 72 percent of the nation's peanut crop, 5 percentage points behind last year and 7 points behind the 5-year average. By November 15, producers harvested 82 percent of this year's peanut crop, 11 percentage points behind last year and 12 points behind the 5-year average. Wet conditions allowed only minimal gains in the Alabama and Florida peanut harvest during that week. By mid-November, all estimating states were behind the harvest progress of the same time last year. Peanut producers had harvested 93 percent of the nation's crop by

November 29, seven percentage points behind last year and 6 points behind the 5-year average. On that date, the peanut harvest was at least 90 percent complete in all estimating states except for South Carolina.

Ninety-one percent of this year's sugarbeet crop had been dug by November 1, two percentage points behind last year but slightly ahead of the 5-year average. Nationally, 96 percent of this year's sugarbeet crop had been dug by November 8, slightly behind both last year and the 5-year average. In Michigan, warmer conditions during the first part of the month brought a halt to sugarbeet harvest for pile storage, but harvest resumed on November 7 after temperatures fell and the rain ceased.

Sunflower producers had harvested 69 percent of this year's crop by November 1, twenty-two percentage points ahead of last year and 10 points ahead of the 5-year average. By November 15, sunflower producers harvested 88 percent of this year's crop, 9 percentage points ahead of last year and 4 points ahead of the 5-year average. Above-normal temperatures and mostly dry conditions supported sunflower harvesting activities in Kansas, where farmers harvested 15 percent of their crop during the week ending November 15. Nationally, 95 percent of the sunflower crop was harvested by November 22, ten percentage points ahead of last year and 4 points ahead of the 5-year average.

Selected U.S. November Records

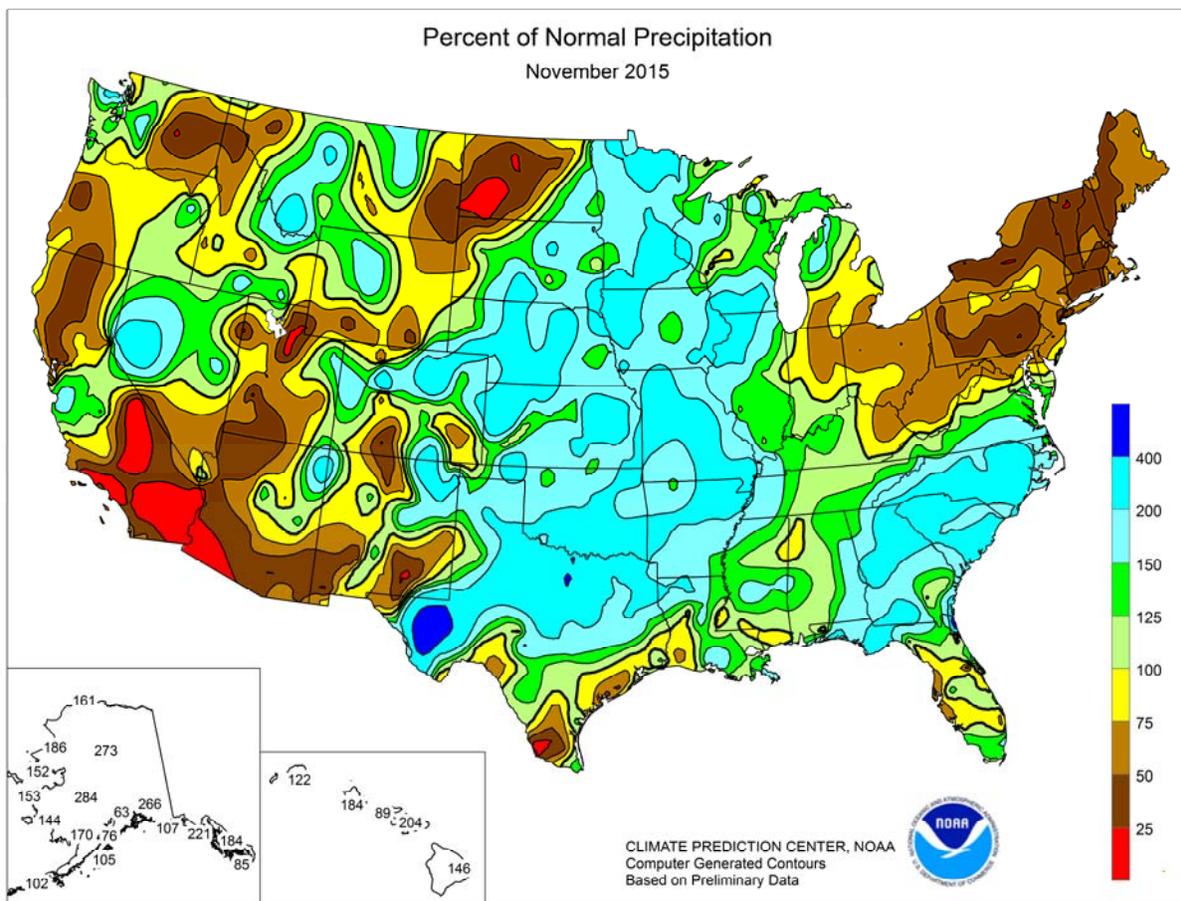
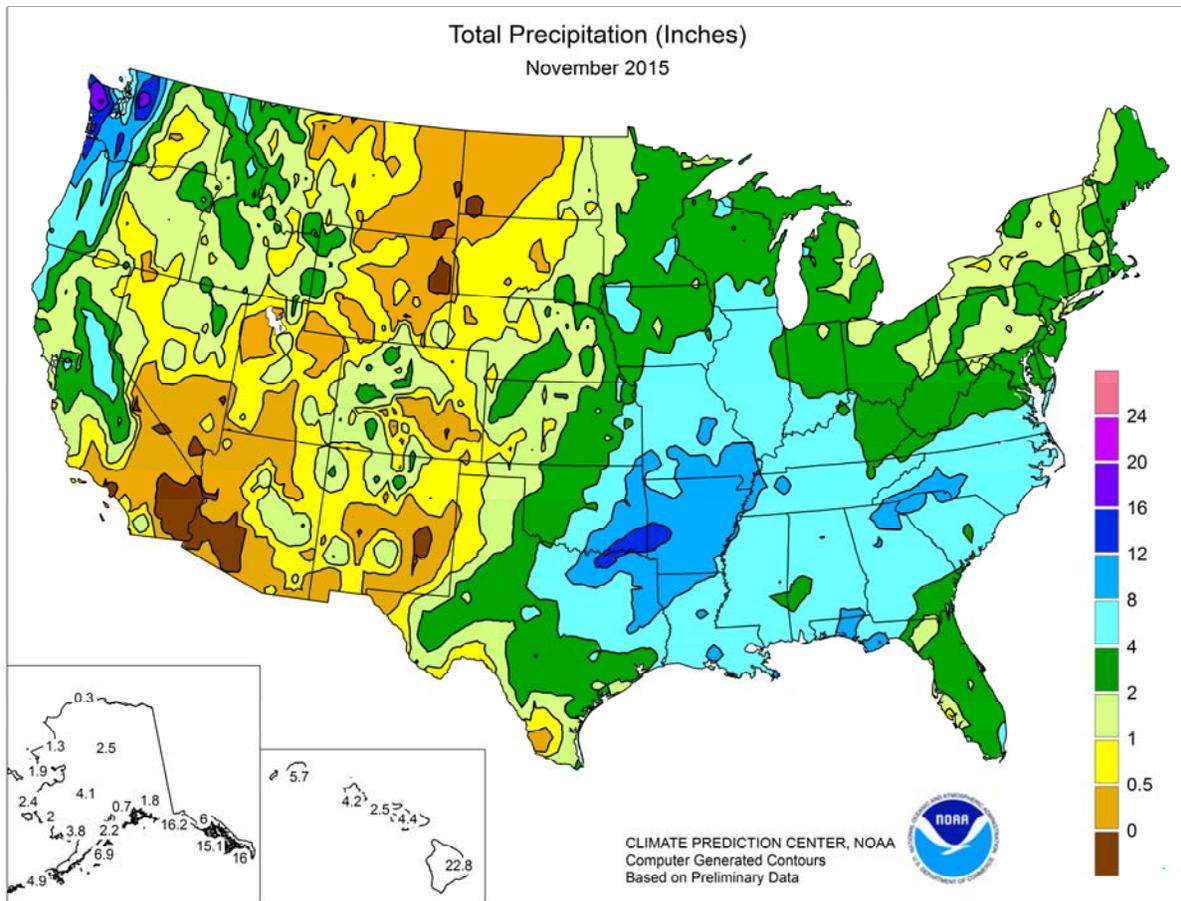
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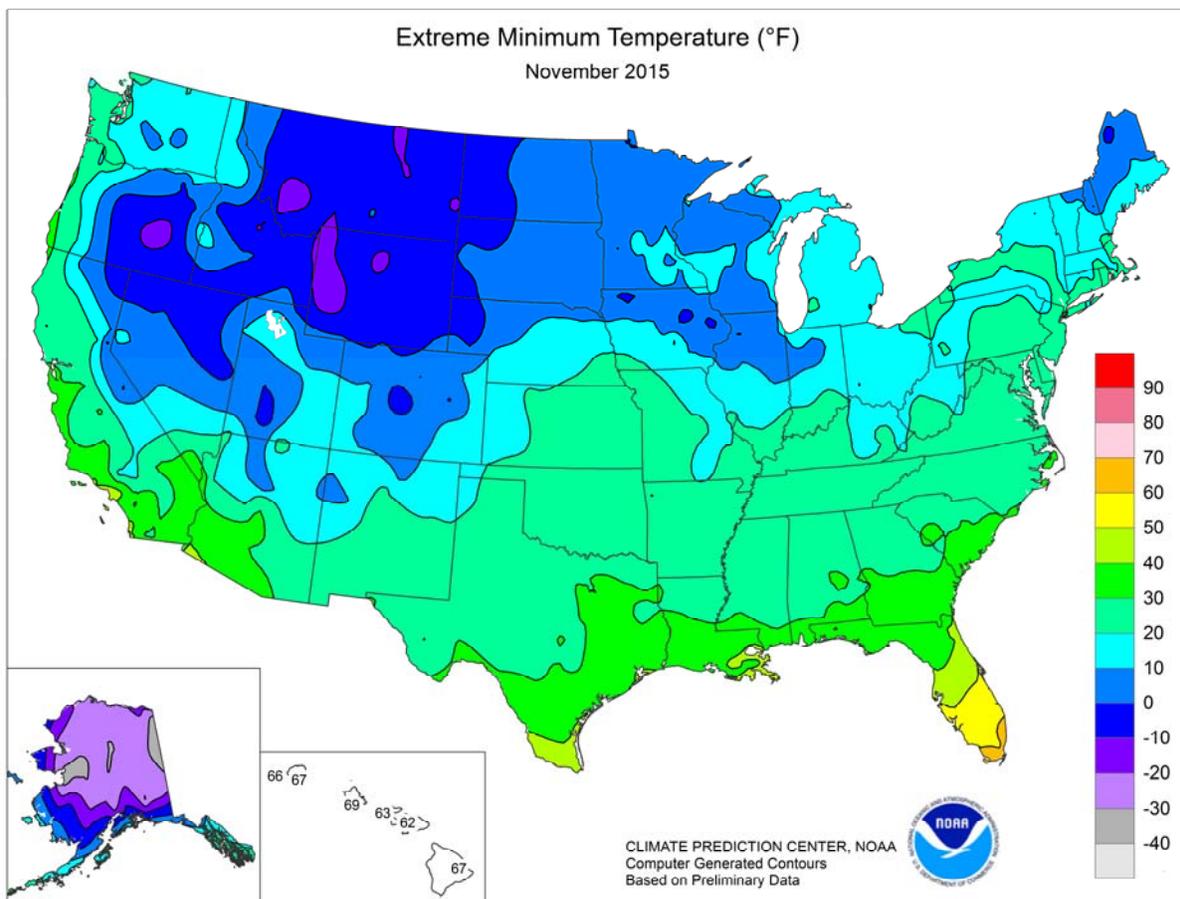
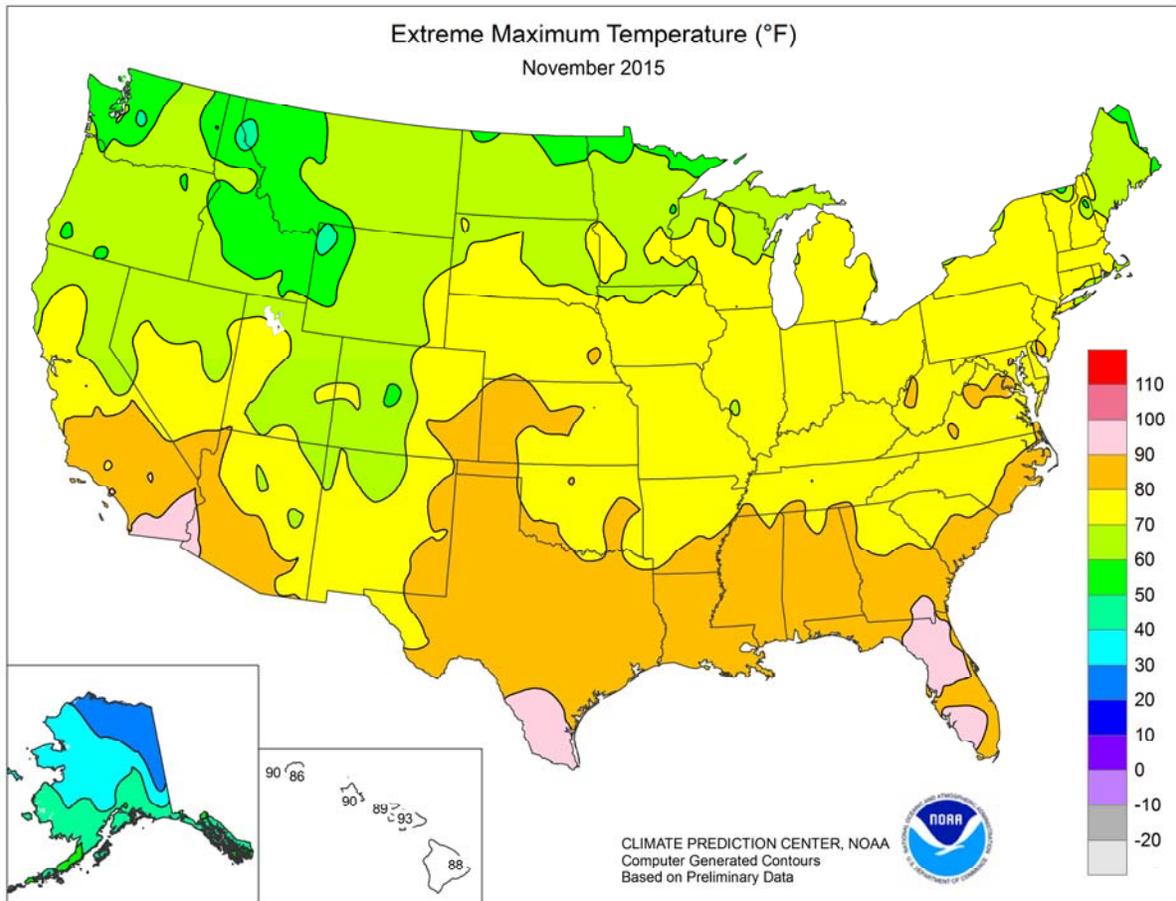
Record-High November Average Temperature (°F)

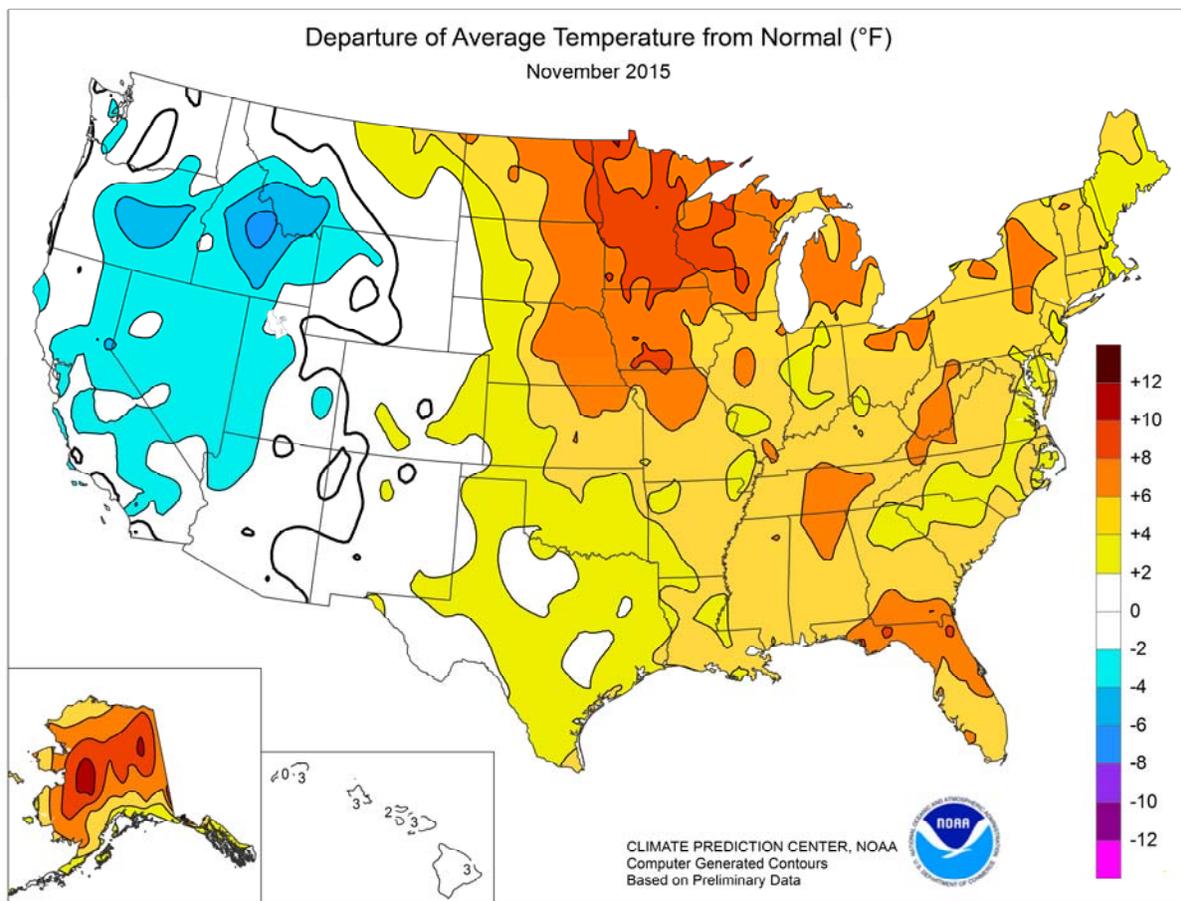
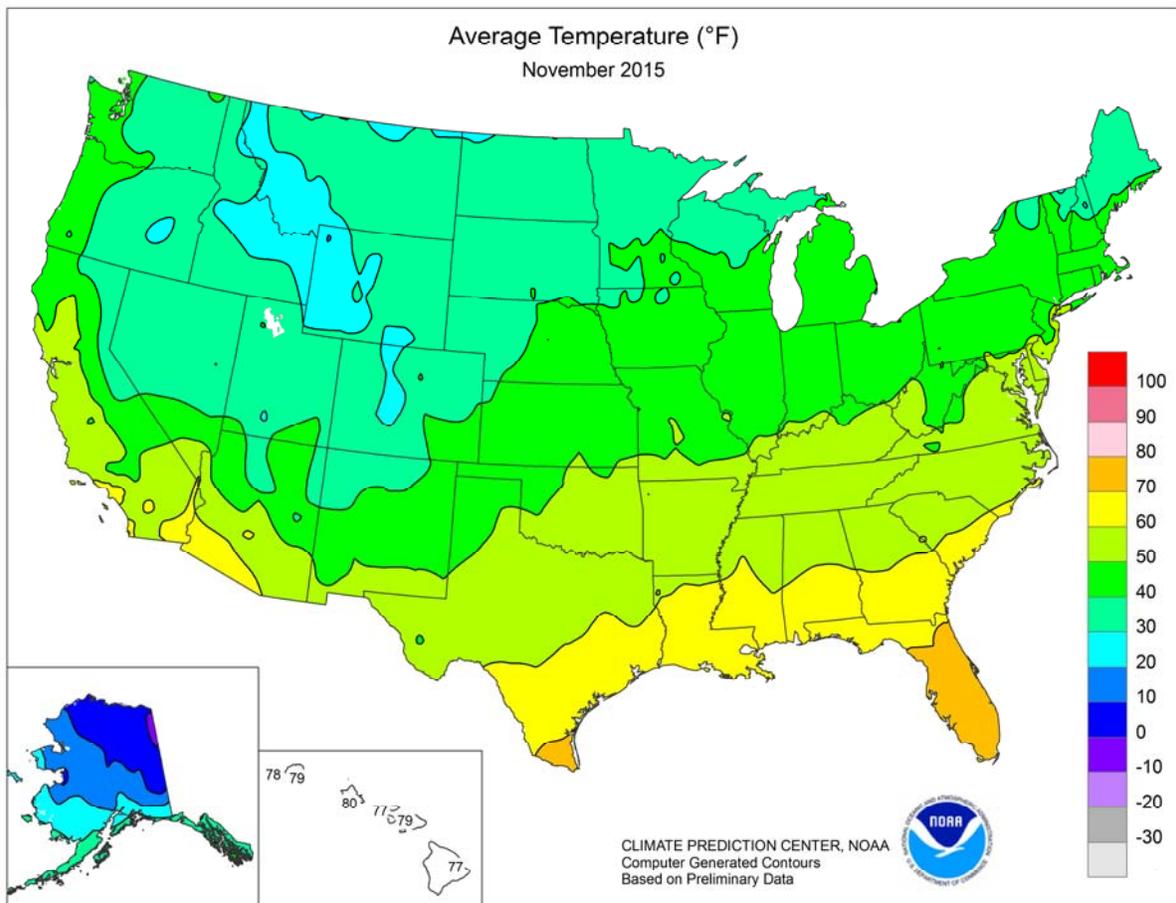
<u>Location</u>	<u>Avg.</u>	<u>Dep.</u>	<u>Previous Record</u>
Ft. Lauderdale, FL	78.9	+3.4	78.8 in 1986
Naples, FL	78.4	+6.3	77.8 in 1986
Vero Beach, FL	77.5	+7.3	76.8 in 1986
Melbourne, FL	76.1	+7.1	76.1 in 1986
Daytona Beach, FL	73.4	+6.8	72.5 in 1986
Tallahassee, FL	69.2	+9.0	66.9 in 1986
N.Y. Central Park	52.8	+5.1	52.7 in 2001
Newark, NJ	52.0	+5.2	52.0 in 1994
Islip, NY	49.8	+4.7	49.8 in 2011

Record-High November Precipitation (Inches)

<u>Location</u>	<u>Total</u>	<u>Normal</u>	<u>Previous Record</u>
Apalachicola, FL	14.38	5.16	9.00 in 1947
Vichy-Rolla, MO	10.11	3.87	9.06 in 1972
Charlotte, NC	10.04	3.14	8.68 in 1995
Dallas-Ft. Worth, TX	9.86	2.71	7.94 in 1918
Charleston, SC	8.30	2.43	7.35 in 1972
Asheville, NC	7.82	3.65	7.76 in 1979







National Weather Data for Selected Cities

November 2015

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	60	7	4.54	-0.09	LEXINGTON	50	4	3.23	-0.21	COLUMBUS	48	4	2.36	-0.83
HUNTSVILLE	59	8	7.97	2.75	LONDON-CORBIN	51	4	3.61	-0.29	DAYTON	47	5	2.44	-0.86
MOBILE	64	5	5.35	-0.06	LOUISVILLE	53	5	5.47	1.67	MANSFIELD	47	7	2.22	-1.54
MONTGOMERY	62	6	5.23	0.70	PADUCAH	53	6	7.83	3.30	TOLEDO	45	5	1.75	-1.03
AK ANCHORAGE	23	1	1.69	0.60	LA BATON ROUGE	63	4	6.53	1.77	YOUNGSTOWN	47	6	1.86	-1.21
BARROW	3	4	0.26	0.10	LAKE CHARLES	65	5	2.68	-1.93	OK OKLAHOMA CITY	52	3	4.57	2.46
COLD BAY	35	0	4.87	0.08	NEW ORLEANS	67	6	6.25	1.16	TULSA	53	3	7.21	3.74
FAIRBANKS	10	8	1.78	1.10	SHREVEPORT	61	5	10.34	5.66	OR ASTORIA	47	0	14.80	4.30
JUNEAU	36	3	12.02	6.59	ME BANGOR	39	2	2.26	-1.43	BURNS	28	-5	1.23	0.12
KING SALMON	30	7	4.84	3.30	CARIBOU	35	4	2.16	-0.96	EUGENE	44	-1	2.79	-5.65
KODIAK	37	3	6.93	0.30	PORTLAND	42	4	2.30	-2.42	MEDFORD	44	0	1.57	-1.36
NOME	22	5	1.95	0.67	MD BALTIMORE	51	5	2.42	-0.70	PENDLETON	38	-3	1.17	-0.46
AZ FLAGSTAFF	35	-2	2.83	0.97	MA BOSTON	48	3	2.07	-1.91	PORTLAND	46	0	4.48	-1.13
PHOENIX	62	0	0.25	-0.48	WORCESTER	44	4	1.76	-2.58	SALEM	45	0	4.64	-1.75
TUCSON	59	0	0.16	-0.51	MI ALPENA	42	7	2.11	0.03	PA ALLENTOWN	48	6	1.04	-2.66
AR FORT SMITH	55	4	9.43	4.63	DETROIT	46	5	2.06	-0.60	ERIE	48	5	2.38	-1.58
LITTLE ROCK	56	4	11.06	5.33	FLINT	46	8	2.22	-0.43	MIDDLETOWN	49	5	0.89	-2.63
CA BAKERSFIELD	54	-1	0.61	0.02	GRAND RAPIDS	46	8	2.61	-0.74	PHILADELPHIA	53	6	1.89	-1.27
EUREKA	48	-3	4.88	-0.90	HOUGHTON LAKE	40	5	2.44	0.30	PITTSBURGH	48	6	1.38	-1.64
FRESNO	52	-1	1.74	0.64	LANSING	44	6	1.93	-0.73	WILKES-BARRE	48	6	1.34	-1.78
LOS ANGELES	62	0	0.06	-1.07	MUSKEGON	46	7	3.22	-0.01	WILLIAMSPORT	47	6	2.17	-1.45
REDDING	51	0	1.38	-2.65	TRAVERSE CITY	44	7	3.37	0.70	PR SAN JUAN	81	1	8.72	2.55
SACRAMENTO	51	-2	1.57	-0.62	MN DULUTH	37	9	2.75	0.63	RI PROVIDENCE	48	4	2.62	-1.78
SAN DIEGO	63	1	1.54	0.47	INT'L FALLS	33	9	3.33	1.97	SC CHARLESTON	63	5	8.30	5.64
SAN FRANCISCO	55	0	1.42	-1.07	MINNEAPOLIS	41	8	4.52	2.58	COLUMBIA	59	4	5.47	2.59
STOCKTON	52	-1	1.91	0.14	ROCHESTER	39	8	3.08	1.07	FLORENCE	59	4	4.40	1.81
CO ALAMOSA	31	3	0.44	-0.04	ST. CLOUD	38	9	3.10	1.56	GREENVILLE	55	4	9.13	5.34
CO SPRINGS	39	3	0.48	-0.04	MS JACKSON	61	6	8.99	3.95	MYRTLE BEACH	62	5	8.24	5.27
DENVER	38	1	2.13	1.53	MERIDIAN	60	4	7.02	2.07	SD ABERDEEN	37	8	1.21	0.46
GRAND JUNCTION	38	0	1.44	0.73	TUPELO	58	7	6.33	1.32	HURON	39	8	1.44	0.55
PUEBLO	42	4	0.57	-0.01	MO COLUMBIA	50	7	8.43	4.96	RAPID CITY	35	2	0.47	-0.14
CT BRIDGEPORT	49	4	1.23	-2.42	JOPLIN	51	4	8.10	4.04	SIOUX FALLS	38	7	3.89	2.53
HARTFORD	46	4	2.20	-1.86	KANSAS CITY	48	5	4.42	2.12	TN BRISTOL	51	5	3.70	0.62
DC WASHINGTON	53	4	2.09	-0.94	SPRINGFIELD	50	4	7.23	2.77	CHATTANOOGA	56	6	6.71	1.83
DE WILMINGTON	51	5	2.25	-0.94	ST JOSEPH	47	5	4.10	1.94	JACKSON	55	5	9.35	4.28
FL DAYTONA BEACH	73	6	5.55	2.52	ST LOUIS	52	7	6.48	2.77	KNOXVILLE	54	5	6.21	2.23
FT LAUDERDALE	79	5	4.88	0.31	MT BILLINGS	35	1	0.48	-0.27	MEMPHIS	56	6	10.16	4.40
FT MYERS	77	5	1.96	0.25	BUTTE	22	-5	1.20	0.60	NASHVILLE	58	7	4.84	0.39
JACKSONVILLE	68	6	3.92	1.58	GLASGOW	32	4	0.60	0.21	TX ABILENE	55	1	3.77	2.47
KEY WEST	80	4	2.08	-0.56	GREAT FALLS	32	0	1.55	0.96	AMARILLO	48	3	1.50	0.82
MELBOURNE	76	7	2.61	-0.51	HELENA	31	0	0.83	0.35	AUSTIN	61	1	1.70	-0.98
MIAMI	78	4	7.55	4.12	KALISPELL	31	0	0.48	-0.97	BEAUMONT	66	5	6.62	1.87
ORLANDO	75	6	2.82	0.50	MILES CITY	33	1	0.23	-0.29	BROWNSVILLE	74	6	2.54	0.79
PENSACOLA	66	5	7.21	2.75	MISSOULA	29	-3	1.13	0.17	COLLEGE STATION	62	2	5.03	1.85
ST PETERSBURG	75	5	0.62	-1.42	NE GRAND ISLAND	43	7	2.84	1.43	CORPUS CHRISTI	67	2	2.42	0.68
TALLAHASSEE	69	9	8.33	4.47	HASTINGS	44	7	2.03	0.57	DALLAS/FT WORTH	59	4	9.85	7.28
TAMPA	76	7	0.95	-0.67	LINCOLN	45	7	1.98	0.40	DEL RIO	62	2	0.56	-0.40
WEST PALM BEACH	78	5	3.06	-2.49	MCCOOK	41	3	2.79	1.70	EL PASO	55	2	0.28	-0.14
GA ATHENS	56	3	9.30	5.59	NORFOLK	43	8	2.47	1.03	GALVESTON	67	2	5.55	1.91
ATLANTA	58	5	7.98	3.88	NORTH PLATTE	38	3	0.67	-0.09	HOUSTON	63	2	3.80	-0.39
AUGUSTA	58	4	5.41	2.73	OMAHA/EPPLEY	45	7	2.47	0.65	LUBBOCK	50	2	0.81	0.10
COLUMBUS	61	4	9.43	5.46	SCOTTSBLUFF	36	2	0.86	0.06	MIDLAND	55	3	1.61	0.96
MACON	59	4	6.89	3.67	VALENTINE	37	4	1.74	1.02	SAN ANGELO	57	3	1.39	0.29
SAVANNAH	64	5	3.42	1.02	NV ELKO	31	-4	1.42	0.37	SAN ANTONIO	63	3	2.58	0.00
HI HILO	77	3	22.81	7.23	ELY	30	-3	1.09	0.46	VICTORIA	65	2	2.25	-0.39
HONOLULU	80	2	4.16	1.90	LAS VEGAS	55	0	0.24	-0.07	WACO	58	1	6.43	3.82
KAHULUI	79	3	4.42	2.25	RENO	39	-2	2.09	1.29	WICHITA FALLS	54	2	5.19	3.51
LIHUE	79	3	5.72	1.02	WINNEMUCCA	35	-2	1.32	0.52	UT SALT LAKE CITY	40	0	0.41	-0.99
ID BOISE	37	-3	1.71	0.33	NH CONCORD	42	4	1.90	-1.67	VT BURLINGTON	43	6	1.21	-1.85
LEWISTON	40	0	0.95	-0.26	NJ ATLANTIC CITY	51	5	3.66	0.40	VA LYNCHBURG	51	4	4.39	1.21
POCATELLO	32	-3	1.29	0.16	NEWARK	52	6	1.30	-2.58	NORFOLK	57	5	4.62	1.64
IL CHICAGO/O'HARE	45	6	4.48	1.47	NM ALBUQUERQUE	46	2	0.58	-0.04	RICHMOND	53	4	3.91	0.85
MOLINE	44	5	5.84	3.11	NY ALBANY	45	6	1.75	-1.53	ROANOKE	52	5	4.00	0.79
PEORIA	48	8	6.17	3.18	BINGHAMTON	44	6	2.64	-0.68	WASH/DULLES	50	5	2.06	-1.25
ROCKFORD	43	6	5.55	2.92	BUFFALO	46	6	1.40	-2.52	WA OLYMPIA	41	-1	11.82	3.69
SPRINGFIELD	49	7	4.01	1.14	ROCHESTER	46	6	0.97	-1.87	QUILLAYUTE	44	0	14.96	0.14
IN EVANSVILLE	51	5	5.12	0.94	SYRACUSE	46	6	0.89	-2.88	SEATTLE-TACOMA	44	-1	8.37	2.47
FORT WAYNE	45	4	2.13	-0.85	NC ASHEVILLE	51	5	7.82	4.00	SPOKANE	35	0	0.77	-1.47
INDIANAPOLIS	48	5	2.86	-0.75	CHARLOTTE	54	2	10.04	6.68	YAKIMA	39	2	0.64	-0.41
SOUTH BEND	44	4	2.38	-1.01	GREENSBORO	54	5	6.79	3.83	WV BECKLEY	49	6	1.99	-0.89
IA BURLINGTON	46	5	5.98	3.26	HATTERAS	62	4	7.96	3.03	CHARLESTON	52	6	1.85	-1.81
CEDAR RAPIDS	42	5	3.93	1.69	RALEIGH	55	4	7.14	4.17	ELKINS	47	6	1.88	-1.54
DES MOINES	46	8	3.36	1.26	WILMINGTON	60	4	6.65	3.39	HUNTINGTON	51	5	1.52	-1.80
DUBUQUE	41	5	5.38	2.89	ND BISMARCK	33	5	0.21	-0.49	WI EAU CLAIRE	40	8	2.81	0.89
SIoux CITY	41	6	4.55	3.15	DICKINSON	32	3	0.03	-0.56	GREEN BAY	42	8	2.49	0.22
WATERLOO	41	6	3.56	1.46	FARGO	36	9	1.33	0.27	LA CROSSE	43	8	1.93	-0.17
KS CONCORDIA	47	6	2.17	0.72	GRAND FORKS	34	8	1.40	0.41	MADISON	42	7	4.75	2.44
DODGE CITY	45	3	1.97	0.96	JAMESTOWN	34	7	1.02	0.31	MILWAUKEE	44	6	4.92	2.22
GOODLAND	40	3	0.89	0.07	MINOT	33	6	0.13	-0.73	WAUSAU	39	7	2.33	0.13
HILL CITY	44	4	1.29	0.55	WILLISTON	31	5	0.36	-0.29	WY CASPER	33	1	0.70	-0.12
TOPEKA	49	6	5.11	2.80	OH AKRON-CANTON	48	7	1.76	-1.28	CHEYENNE	34	1	1.11	0.47
WICHITA	50	6	4.17	2.35	CINCINNATI	49	4	4.25	0.79	LANDER	31	1	1.20	0.21
KY JACKSON	53	5	2.41	-1.79	CLEVELAND	48	6	2.31	-1.07	SHERIDAN	32	1	0.69	-0.11

National Agricultural Summary

November 30 – December 6, 2015

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Temperatures were above normal across most of the U.S. This was especially true in the northern Midwest, where temperatures averaged as much as 12°F above normal. Exceptions included the Rocky Mountains and the southern Great Plains, where

temperatures were below normal. Most locations across the nation received near-normal precipitation. However, some locations in the Tennessee Valley and Pacific Northwest received more than 5 inches of precipitation.

Arizona: The cotton harvest was 85 percent complete, ahead of last year (79 percent) and the 5-year average at 75 percent. Harvesting occurred on more than two-thirds of the state's alfalfa acreage. Alfalfa conditions continued to be mostly good to excellent, depending on location. Rangeland conditions varied widely, but were rated mostly good to fair. Central Arizona shipped broccoli, cabbage (green and red), cantaloupes, cilantro, kale greens, lemons, and parsley. Western Arizona growers shipped anise, arugula, Bok Choy, broccoli, cabbage, cauliflower, celery, Chinese cabbage, cilantro, endive, escarole, frisee, kale greens, varieties of lettuce (Boston, red leaf, and romaine), parsley, radicchio, and spinach. Forage conditions were limited throughout the state, as soil moisture was declining. All weather stations recorded no precipitation.

California: Cotton fields were shredded and disced to comply with the cotton plow down regulations. Recent rains have encouraged the emergence of winter grains and silage crops, and they were growing well. Harvested fields were undergoing preparations for winter grain and forage crops. This included spreading manure, discing, preparing berms, and planting. Growers were shaping beds and adding soil amendments. Weed control and herbicides were applied as needed. Fallow fields were cultivated for weed control. The harvest season of grapes for juice, raisins, and wine was completed. Table grape vineyards were covered with plastic to protect against rain. Some grape vineyards were irrigated, treated for weed control, and fumigated in preparation for replanting. Some growers applied soil amendments and planted cover crops. Stone fruit orchards were undergoing their final pruning, and received applications of weed control to prepare for the dormant season. Aged apricot, nectarine, peach, and plum trees were removed and replaced with new trees. Apple orchards were cleaned. Persimmon harvest continued. Pomegranate harvest ended. Asian pears, kiwi, pomegranate, persimmon, plums, table grapes, and raisins were packed and exported. Harvest of almond and walnut orchards ended. Nut orchards were pruned, irrigated, and treated to prepare for their dormant season. Orchards with aged almond trees were removed and replaced with new trees. There was very little field activity for vegetable growers in Monterey County due to the rainy, cold weather. Only a few Brassica and celery fields were left to harvest. In Tulare County, winter vegetable field preparation and planting were underway. The winter vegetables benefited from the recent rain, with some early plantings nearing harvest. Bee hives from other states were conveyed and placed in local bee yards in preparation for the almond bloom, while local hives received

supplemental feeding to sustain the hives until spring bloom. The eastern slope of the Coast Range Mountains benefited from the recent sporadic rains. A slight layer of green was visible on a few slopes as forage began to grow. However, conditions were not adequate for grazing, and ranchers continued to leave cattle and sheep to graze in fields of alfalfa, wheat, small grains, fallow, and retired farmland areas.

Florida: Temperatures ranged from 35 (Jay in Santa Rosa County) to 88°F (Sebring in Highlands County). There was an average of 6.0 days suitable for fieldwork, down slightly from the previous week. Harvesting of crops in the Panhandle and northern Florida improved, with little to no rain received. Jackson County cotton harvesting was 80 percent complete. In Walton County, farmers were defoliating cotton again and not harvesting yet. Peanut harvesting was 98 percent complete, behind last year and the 5-year average. Soybean harvest was complete in Walton County. Farmers in Gilchrist County were planting rye, while Orange and Seminole County farmers were planting more rye than usual. Strawberries were being already picked in Bradford County. In South Florida, a cold front with rain and wind battered sensitive vegetable crops. Vegetable growers began planting spring crops and were harvesting cantaloupe, eggplant, herbs, peppers, squash, tomatoes, watermelon, and specialty items. Miami-Dade County received large amounts of rain, resulting in several fields flooding. For citrus, rainfall was the heaviest in the Indian River District and southern areas. Owners and grove managers were still harvesting fresh citrus for the holiday season and for fundraising programs. Many were spot picking red grapefruit and tangerines in order to get larger sizes. A couple of processing plants were opening and accepting early-season oranges. Activities in citrus groves included mowing, the application of herbicides, and fertilizing. Canals and ditches were full in most areas to be used for irrigation. In Holmes County, cattle started grazing winter pastures and a majority of the herds had started calving. Statewide, the cattle condition was mostly good, while pasture condition was fair to good.

Wyoming: Cold weather and above-normal moisture conditions dominated the state. The number of days suitable for fieldwork was 3.2. Eastern Wyoming reported cool, windy conditions with very little snow. Western Wyoming reported that winter was here, with frozen ground and temperatures below zero every night. Stock water supplies across Wyoming were rated 1 percent very short, 14 percent short, and 85 percent adequate.

International Weather and Crop Summary

November 29 - December 5, 2015

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

EUROPE: Increasingly warm weather prevailed, with beneficial rain in central and northern Europe contrasting with short-term dryness in southern growing areas.

FSU-WESTERN: Another round of rain and snow eliminated the vestiges of autumn drought from central Ukraine into western Russia, while rainy, warm conditions promoted winter wheat development in southern Russia.

MIDDLE EAST: Warm weather kept winter grains from going dormant, while rain returned to central and northern growing areas.

NORTHWEST AFRICA: Increasing dryness in Morocco contrasted with favorable growing conditions in eastern Algeria and northern Tunisia.

EAST ASIA: More seasonable conditions returned to winter crop areas of China, following last week's arctic outbreak.

SOUTHEAST ASIA: More rainfall is needed in Java, Indonesia, to bolster water supplies for rice.

AUSTRALIA: Rain benefited summer crops in the northeast but slowed winter grain harvesting in the west.

SOUTH AFRICA: Showers returned to eastern sections of the corn belt but moisture remained limited for rain-fed summer crops elsewhere.

ARGENTINA: Warm, mostly dry weather spurred corn and soybean development in key production areas of central Argentina.

BRAZIL: Widespread rain continued, though drier, occasionally hot weather occurred in the northeastern interior.

November 2015

COUNTRY	CITY	TEMPERATURE (C)						PRECIP. (MM)	
		AVG MAX	AVG MIN	HI MAX	LO MIN	DEP AVG	DEP NRM	TOT	DEP NRM
ALGERI	ALGER	22	10	28	4	16	0.8	85	4
	BATNA	18	4	23	-1	11	0.3	17	0
ARGENT	IGUAZU	28	19	36	12	24	-0.3	346	209
	FORMOSA	30	20	38	14	25	0.7	225	56
	CERES	28	16	34	10	22	-0.3	177	75
	CORDOBA	26	13	32	5	19	-1.3	115	6
	RIO CUARTO	25	13	31	7	19	-0.8	193	60
	ROSARIO	26	15	32	10	21	0.3	96	-14
	BUENOS AIRES	25	14	30	5	19	0.4	202	109
	SANTA ROSA	27	12	32	6	19	-0.2	72	-24
	TRES ARROYOS	25	11	32	1	18	1.5	48	-37
AUSTRA	DARWIN	34	26	36	23	30	0.7	146	12
	BRISBANE	26	20	29	16	23	0.8	96	-11
	PERTH	29	15	39	9	22	2.6	16	-10
	CEDUNA	27	14	43	5	21	1.6	0	-20
	ADELAIDE	25	15	38	9	20	1.4	1	-20
	MELBOURNE	23	12	35	6	17	1.6	38	-12
	WAGGA	28	13	37	7	20	2.3	91	50
	CANBERRA	25	11	36	1	18	2.5	65	-1
AUSTRI	VIENNA	12	4	21	-6	8	3.9	30	-16
	INNSBRUCK	12	1	22	-6	6	3.3	25	-41
BAHAMA	NASSAU	30	23	32	20	26	2	61	-7
BARBAD	BRIDGETOWN	***	***	30	28	***	*****	*****	*****
BELARU	MINSK	6	2	12	-6	4	3.5	82	33
BERMUD	ST GEORGES	24	21	27	17	22	0.6	68	-23
BOLIVI	LA PAZ	16	3	22	-1	10	0.2	47	-6
BRAZIL	FORTALEZA	30	26	31	25	28	-0.4	2	-23
	RECIFE	30	25	31	24	28	-0.9	4	-24
	CAMPO GRANDE	30	22	35	18	26	0.1	83	-68
	FRANCA	***	***	32	17	***	*****	*****	*****
	RIO DE JANEIRO	29	23	37	21	26	1.3	134	35
	LONDRINA	29	20	35	17	25	1.7	420	251
	SANTA MARIA	26	17	32	12	21	-0.7	165	42
	TORRES	24	18	29	14	21	-2	107	-34
BULGAR	SOFIA	15	4	21	-2	9	4.6	62	19
BURKIN	OUAGADOUGOU	37	20	38	17	28	0.6	0	-3
CANADA	TORONTO	11	2	21	-7	7	3.4	35	-34
	MONTREAL	9	0	20	-10	4	2.7	55	-37
	WINNIPEG	3	-4	13	-16	-1	4.2	0	-22
	REGINA	3	-7	14	-18	-2	3.5	0	-13
	SASKATOON	1	-7	10	-23	-3	3.2	0	-13
	LETHBRIDGE	***	***	***	***	***	*****	*****	*****
	CALGARY	5	-6	14	-18	-1	1.9	13	1
	VANCOUVER	9	2	13	-5	5	-1	171	-9
CANARY	LAS PALMAS	25	20	28	17	23	1.9	5	-12
CHILE	SANTIAGO	25	11	32	6	18	0.6	7	2
CHINA	HARBIN	-1	-9	15	-20	-5	0.2	6	-4
	HAMI	9	-2	16	-7	3	3.2	2	0
	LANCHOW	***	***	13	13	***	*****	*****	*****
	BEIJING	7	1	20	-9	4	-0.7	30	23
	TIENTSIN	7	2	20	-10	4	-1.6	38	29
	LHASA	15	-1	18	-4	7	3	0	-1
	KUNMING	20	9	23	5	14	2.2	26	-16
	CHENGCHOW	10	5	20	-6	7	-0.9	79	57
	YEHCHANG	12	9	19	0	10	-2.1	74	28
	HANKOW	14	8	26	-2	11	-1	110	61
	CHUNGKING	19	15	23	10	17	2.4	20	-29
	CHIHKIANG	15	11	29	4	13	0.3	58	4
	WU HU	15	10	29	-4	12	0.4	149	91
	SHANGHAI	17	12	26	-2	14	0.9	109	56
	NANCHANG	17	12	28	4	14	1	290	234
	TAIPEI	26	22	32	14	24	2.4	22	-51
	CANTON	26	18	31	9	22	2.1	44	10
	NANNING	24	18	31	10	21	2	98	58
COLOMB	BOGOTA	20	10	23	7	15	1.7	123	36
COTE D	ABIDJAN	30	25	32	23	28	0	262	130
CUBA	HAVANA	30	21	32	16	26	1.6	0	-86
CYPRUS	LARNACA	24	14	26	10	19	2.3	0	-53
CZECHR	PRAGUE	10	4	18	-3	7	4.1	45	16
DENMAR	COPENHAGEN	9	6	16	-2	8	2.8	145	101

Based on Preliminary Reports

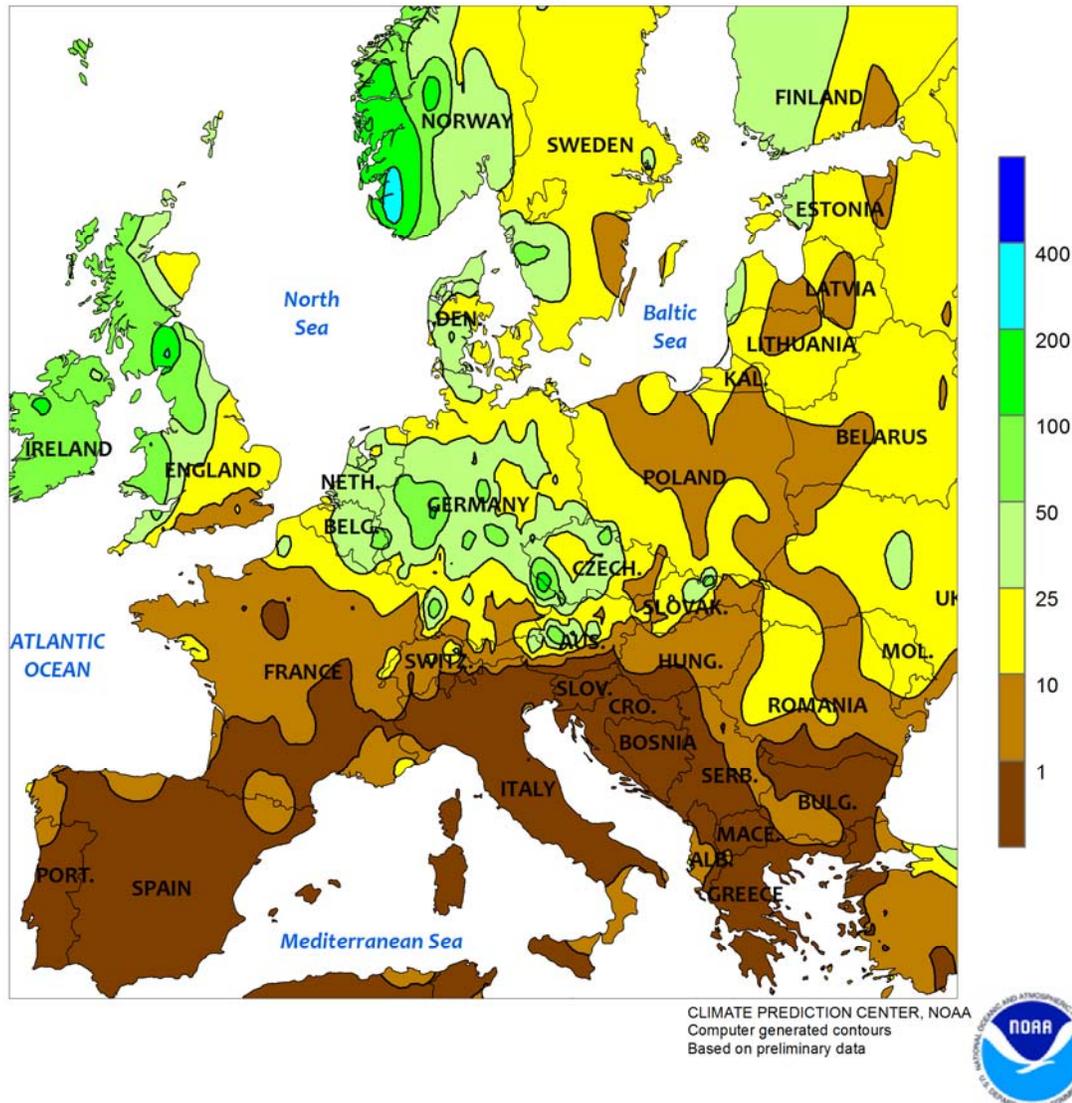
November 2015

COUNTRY	CITY	TEMPERATURE (C)					PRECIP. (MM)			COUNTRY	CITY	TEMPERATURE (C)					PRECIP. (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	DEP AVG	NRM	TOT	DEP NRM			AVG MAX	AVG MIN	HI MAX	LO MIN	DEP AVG	NRM	TOT	DEP NRM
EGYPT	CAIRO	25	16	29	14	21	1.6	1	-4		MARRAKECH	25	10	31	5	17	1	10	-14
	ASWAN	30	17	34	14	23	1.9	0	0	MOZAMB	MAPUTO	29	21	40	16	25	0.7	46	-28
ESTONI	TALLINN	6	3	14	-3	5	4.0	58	-11	N KORE	PYONGYANG	11	4	19	-9	7	2.7	52	11
ETHIOP	ADDIS ABABA	24	12	26	7	18	2.6	3	-5	NEW CA	NOUMEA	***	***	29	18	***	***	***	***
F GUIA	CAYENNE	32	23	33	21	28	1.3	69	-85	NIGER	NIAMEY	37	22	39	19	29	1.4	0	-1
FIJI	NAUSORI	29	23	31	18	26	0.6	76	-168	NORWAY	OSLO	4	-1	15	-10	2	2.3	84	-4
FINLAN	HELSINKI	6	3	13	-6	5	4.4	44	-27	NZEALA	AUCKLAND	20	13	26	7	16	***	81	***
FRANCE	PARIS/ORLY	14	8	22	0	11	3.6	51	3		WELLINGTON	17	11	22	5	14	***	37	***
	STRASBOURG	13	6	22	-4	9	3.9	51	3	P RICO	SAN JUAN	30	24	32	22	27	0.9	211	54
	BOURGES	***	***	18	-5	***	***	***	***	PAKIST	KARACHI	33	19	36	14	26	1.9	0	***
	BORDEAUX	17	9	27	-2	13	3.9	47	-57	PERU	LIMA	23	18	24	17	20	1.1	4	3
	TOULOUSE	15	8	23	-3	12	3.1	41	-9	PHILIP	MANILA	33	25	35	25	29	1.4	42	-100
	MARSEILLE	17	8	22	-1	13	2.3	25	-25	PNEWGU	PORT MORESBY	31	26	34	24	28	1.2	0	-53
GABON	LIBREVILLE	29	25	30	21	27	0.9	411	-112	POLAND	WARSAW	8	3	16	-6	5	2.5	49	13
GERMAN	HAMBURG	10	6	17	0	8	3.1	125	55		LODZ	8	3	16	-3	6	2.7	51	11
	BERLIN	11	6	18	-2	8	3.7	66	22		KATOWICE	10	2	16	-5	6	2.8	75	26
	DUSSELDORF	13	8	19	1	10	3.3	72	10	PORTUG	LISBON	19	13	24	7	16	2.1	35	-67
	LEIPZIG	11	6	20	-2	9	4.1	53	17	ROMANI	BUCHAREST	14	2	21	-4	8	3.5	109	69
	DRESDEN	11	6	17	-3	8	3.8	83	39	RUSSIA	ST.PETERSBURG	4	2	10	-2	3	3.0	67	14
	STUTTGAERT	12	4	21	-6	8	4.0	74	28		KAZAN	0	-3	10	-10	-1	2.5	77	30
	NURNBERG	11	4	19	-5	8	3.8	88	44		MOSCOW	3	-1	11	-9	1	2.5	47	-10
	AUGSBURG	11	3	19	-6	7	3.4	79	27		YEKATERINBURG	-5	-9	4	-23	-7	-1.3	30	1
GREECE	THESSALONIKA	19	9	24	3	14	3.1	37	-21		OMSK	-7	-11	3	-27	-9	-1.3	40	11
	LARISSA	20	6	26	0	13	2.5	19	-52		BARNAUL	-4	-10	7	-24	-7	-0.6	22	-7
	ATHENS	21	14	25	9	18	2.6	22	-46		KHABAROVSK	-3	-11	14	-22	-7	0.9	14	-10
GUADEL	RAIZET	30	23	32	20	27	0.6	138	-58		VLADIVOSTOK	0	-5	14	-14	-2	-1.3	12	-14
HONGKO	HONG KONG INT	28	23	31	15	25	3.7	9	-27		VOLGOGRAD	6	1	17	-9	3	3.8	41	10
HUNGAR	BUDAPEST	12	3	20	-5	8	3.1	20	-28		ASTRAKHAN	8	2	15	-6	5	2.2	16	-1
ICELAN	REYKJAVIK	***	***	6	-4	***	***	***	***		ORENBURG	0	-4	5	-16	-2	1.7	47	12
INDIA	AMRITSAR	27	11	29	7	19	1.0	7	0	S AFRI	JOHANNESBURG	27	13	34	4	20	2.1	69	-48
	NEW DELHI	29	15	32	11	22	1.2	1	-7		BETHAL	***	***	35	5	***	***	***	***
	AHMEDABAD	34	19	36	13	26	1.7	0	-10		DURBAN	25	18	31	14	21	-0.2	57	-54
	INDORE	31	17	34	14	24	2.0	1	-14		CAPE TOWN	25	14	34	10	19	0.9	27	9
	CALCUTTA	31	20	33	17	26	1.3	0	-37	S KORE	SEOUL	13	6	21	-7	10	2.1	110	47
	VERAVAL	35	23	37	18	29	2.5	0	-26	SAMOA	PAGO PAGO	31	26	32	24	28	1.0	542	258
	BOMBAY	35	22	37	18	29	1.2	2	-4	SENEGA	DAKAR	31	25	34	23	28	1.9	0	-3
	POONA	32	17	34	13	24	1.9	109	82	SPAIN	VALLADOLID	14	5	24	-2	10	1.8	49	1
	BEGAMPET	32	20	33	17	26	2.5	1	-28		MADRID	18	6	23	-2	12	2.1	29	-22
	VISHAKHAPATNAM	30	23	31	19	27	0.6	126	25		SEVILLE	22	11	27	4	16	1.1	44	-53
	MADRAS	30	23	33	21	26	0.0	1230	875	SWITZE	ZURICH	11	5	20	-4	8	4.1	63	-26
	MANGALORE	33	24	35	21	28	0.4	100	34		GENEVA	12	4	20	-4	8	2.4	37	-48
INDONE	SERANG	34	24	35	24	29	1.3	60	-90	SYRIA	DAMASCUS	21	7	25	0	14	2.0	13	-10
IRELAN	DUBLIN	12	6	17	-2	9	1.8	125	61	TAHITI	PAPEETE	30	24	32	21	27	0.9	90	-41
ITALY	MILAN	14	5	21	-3	9	2.1	3	-74	TANZAN	DAR ES SALAAM	32	25	33	22	28	2.0	128	12
	VENICE	12	6	19	-1	9	1.3	25	-45	THAILA	PHITSANULOK	35	24	36	22	29	2.5	92	59
	GENOA	17	13	21	5	15	2.5	27	-75		BANGKOK	34	26	37	24	30	2.8	35	-14
	ROME	18	9	23	1	14	1.1	8	-88	TOGO	LOME	31	26	33	23	29	1.3	0	-22
	NAPLES	19	10	25	4	15	2.0	0	-139	TRINID	PORT OF SPAIN	33	24	34	22	28	1.7	181	-17
JAMAIC	KINGSTON	32	25	34	22	29	1.1	10	-80	TUNISI	TUNIS	21	14	27	8	18	1.8	47	-17
JAPAN	SAPPORO	8	3	19	-7	6	1.0	141	39	TURKEY	ISTANBUL	17	12	21	6	15	3.2	41	-41
	NAGOYA	18	11	24	5	15	2.8	141	61		ANKARA	15	0	20	-7	7	2.4	31	-10
	TOKYO	18	11	24	4	14	1.3	145	53	TURKME	ASHKHABAD	15	6	25	0	10	0.4	30	10
	YOKOHAMA	18	12	24	6	15	1.8	139	40	UKINGD	ABERDEEN	10	4	16	-1	7	1.4	61	-22
	KYOTO	18	12	25	4	15	2.3	182	119		LONDON	13	9	18	-1	11	3.0	48	-3
	OSAKA	19	13	25	6	16	2.3	118	54	UKRAIN	KIEV	7	3	14	-5	5	3.4	72	24
KAZAKH	KUSTANAY	-3	-8	2	-25	-6	0.6	32	9		LVOV	8	2	16	-5	5	2.8	90	45
	TSELINOGRAD	-3	-9	5	-27	-6	0.5	40	14		KIROVOGRAD	8	2	16	-6	5	3.7	49	15
	KARAGANDA	-2	-7	4	-23	-5	0.7	47	20		ODESSA	11	6	19	0	8	3.1	40	-3
KENYA	NAIROBI	25	16	28	13	21	1.2	223	108		KHARKOV	7	2	15	-7	4	3.4	65	22
LITHUA	KAUNAS	7	3	13	-4	5	3.0	96	49	UZBEKI	TASHKENT	12	5	20	0	9	0.3	56	8
LUXEMB	LUXEMBOURG	10	6	18	-2	8	3.5	67	-11	VENEZU	CARACAS	30	25	33	23	27	0.6	2	-56
MALAYS	KUALA LUMPUR	33	24	35	23	29	1.9	450	161	YUGOSL	BELGRADE	14	6	24	1	10	3.2	62	9
MALI	BAMAKO	34	18	36	13	26	-1.1	0	-5	ZAMBIA	LUSAKA	30	20	37	12	25	0.1	1	-91
MARSHA	MAJURO	30	28	32	26	29	1.4	134	-186	ZIMBAB	KADOMA	32	18	38	11	25	-0.4	28	-59
MARTIN	LAMENTIN	30	25	31	23	27	1.4	314	113										
MAURIT	NOUAKCHOTT	35	23	42	15	29	3.3	0	-3										
MEXICO	GUADALAJARA	26	16	30	13	21	3.6	0	-13										
	TLAXCALA	24	11	27	7	18	2.8	4	-14										
	ORIZABA	24	17	28	14	20	2.6	246	170										
MOROCC	CASABLANCA	22	13	24	8	17	1.2	32	-21										

Based on Preliminary Reports

EUROPE

Total Precipitation (mm)
NOV 29 - DEC 5, 2015

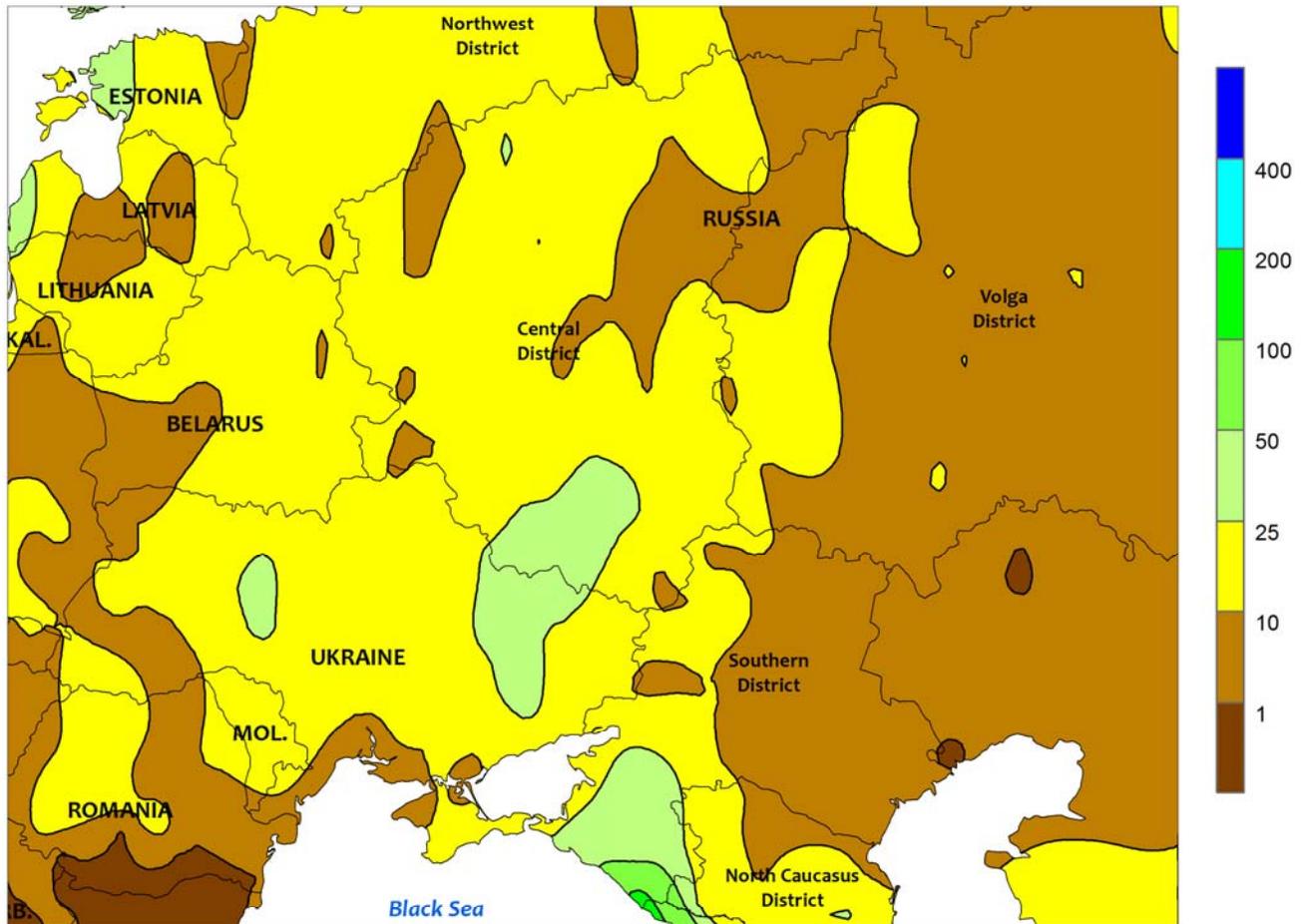


EUROPE

Increasingly warm weather prevailed, with short-term dryness across the Mediterranean contrasting with additional rain farther north. An early-week disturbance produced widespread rain (10-75 mm, locally more) from the United Kingdom and northeastern France into Poland and the northern Balkans. Soil moisture remained adequate to abundant for winter grains and oilseeds over much of central and northern Europe, though temperatures averaging 4 to 6°C above normal reduced winter crop cold hardiness. Winter grains and oilseeds went dormant at the end of November across Germany and Poland, but were

still adding vegetative growth in northern France. In the Balkans, winter wheat typically goes dormant by the end of November, but was still actively growing due to the recent abnormal warmth. Meanwhile, sunny skies promoted a rapid pace of winter grain planting across Spain and Italy. However, increasingly dry conditions have been noted in these areas, with rainfall totaling less than 25 percent of normal over the past 30 days. Rain will be needed soon across northern Italy and the Iberian Peninsula to ensure adequate soil moisture for winter grain establishment.

WESTERN FSU
 Total Precipitation (mm)
 NOV 29 - DEC 5, 2015



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

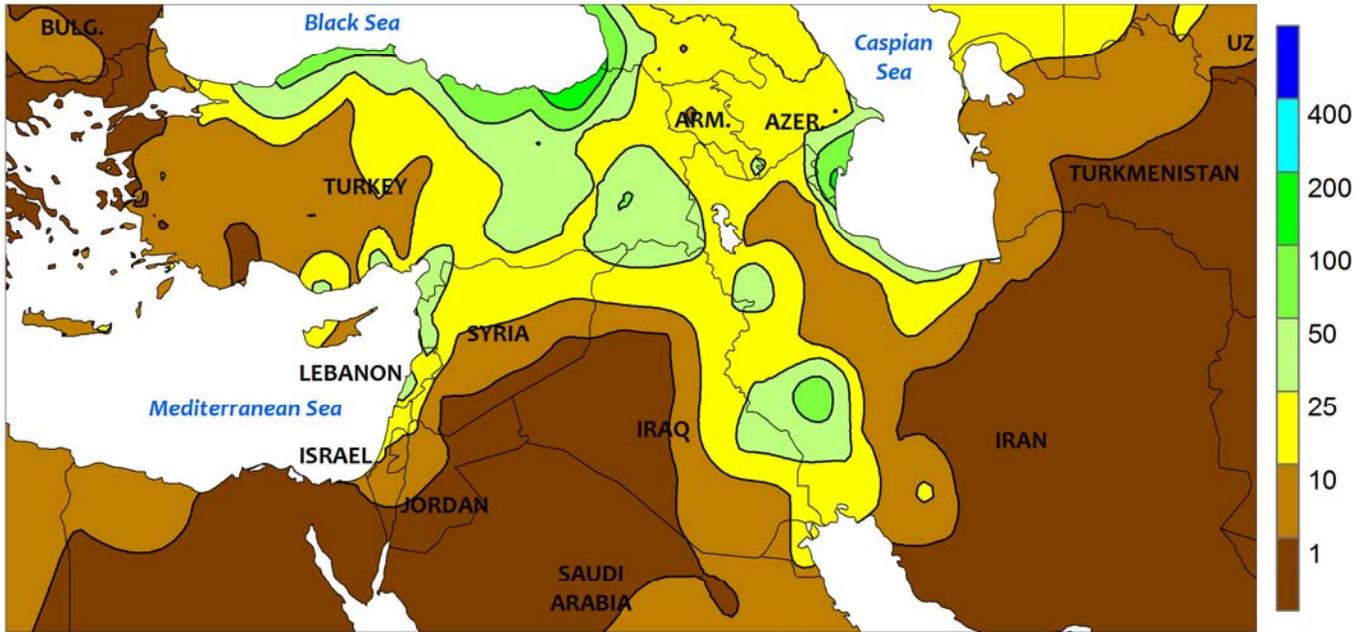


WESTERN FSU

Rain and snow eliminated the vestiges of autumn drought in Ukraine and west-central Russia, while warm, rainy weather favored winter wheat development in southern Russia. A pair of disturbances produced moderate to heavy rain and snow (10-45 mm liquid equivalent) from central Ukraine into Russia's Central District. Due to the recent month-long spell of wet weather, most of the region's lingering 90-day deficits have been eradicated. The precipitation provided additional moisture for late winter wheat establishment in the still-vegetative southern growing areas. However, even with warmer-than-normal weather for the week (2-5°C above normal), weekly average temperatures below 5°C (the

threshold for dormancy) encompassed northeastern Ukraine and the northern and central Southern District. In addition, a shallow to moderate snow cover (2-15 cm) was on the ground from northern Ukraine into Russia's Volga District, though increasing warmth began to erode the snow by week's end. Consequently, the late-autumn rainfall may not have been in time to ensure proper winter wheat establishment in the aforementioned drought areas, leaving crops particularly vulnerable to the region's often harsh winter weather. Meanwhile, winter wheat in southern Russia developed favorably with renewed shower activity (10-45 mm) and temperatures up to 4°C above normal.

MIDDLE EAST
Total Precipitation (mm)
NOV 29 - DEC 5, 2015



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

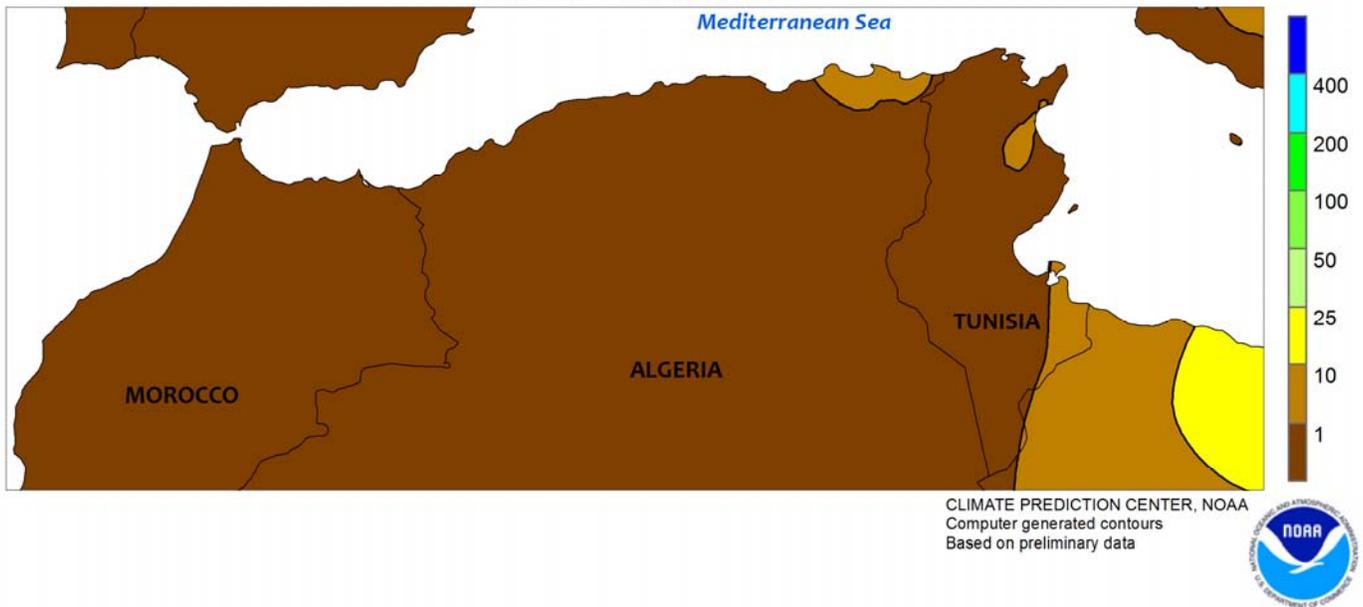


MIDDLE EAST

Rain shifted into central portions of the region, while near-to above-normal temperatures prevailed throughout. A storm system drifted east, producing widespread rain and mountain snow (5-50 mm liquid equivalent, locally more) from eastern Turkey and the Mediterranean Coast into Iraq and western Iran. Consequently, soil moisture across central portions of the region remained adequate to abundant for wheat and barley establishment, though producers have likely struggled to get crops completely sown. Drier weather (less than 5 mm) returned to central

and western Turkey after last week's beneficial showers; additional rain would be welcomed for winter grain establishment following an unusually dry November. The same holds true for winter crop areas of northeastern Iran, where a favorably wet start to the autumn was followed by protracted November dryness, and more rain will be needed to ensure uniform wheat establishment headed into the winter months. Near-normal temperatures in Turkey eased winter crops toward dormancy, while readings up to 4°C above normal in northern Iran kept winter crops vegetative.

NORTHWESTERN AFRICA
Total Precipitation (mm)
NOV 29 - DEC 5, 2015

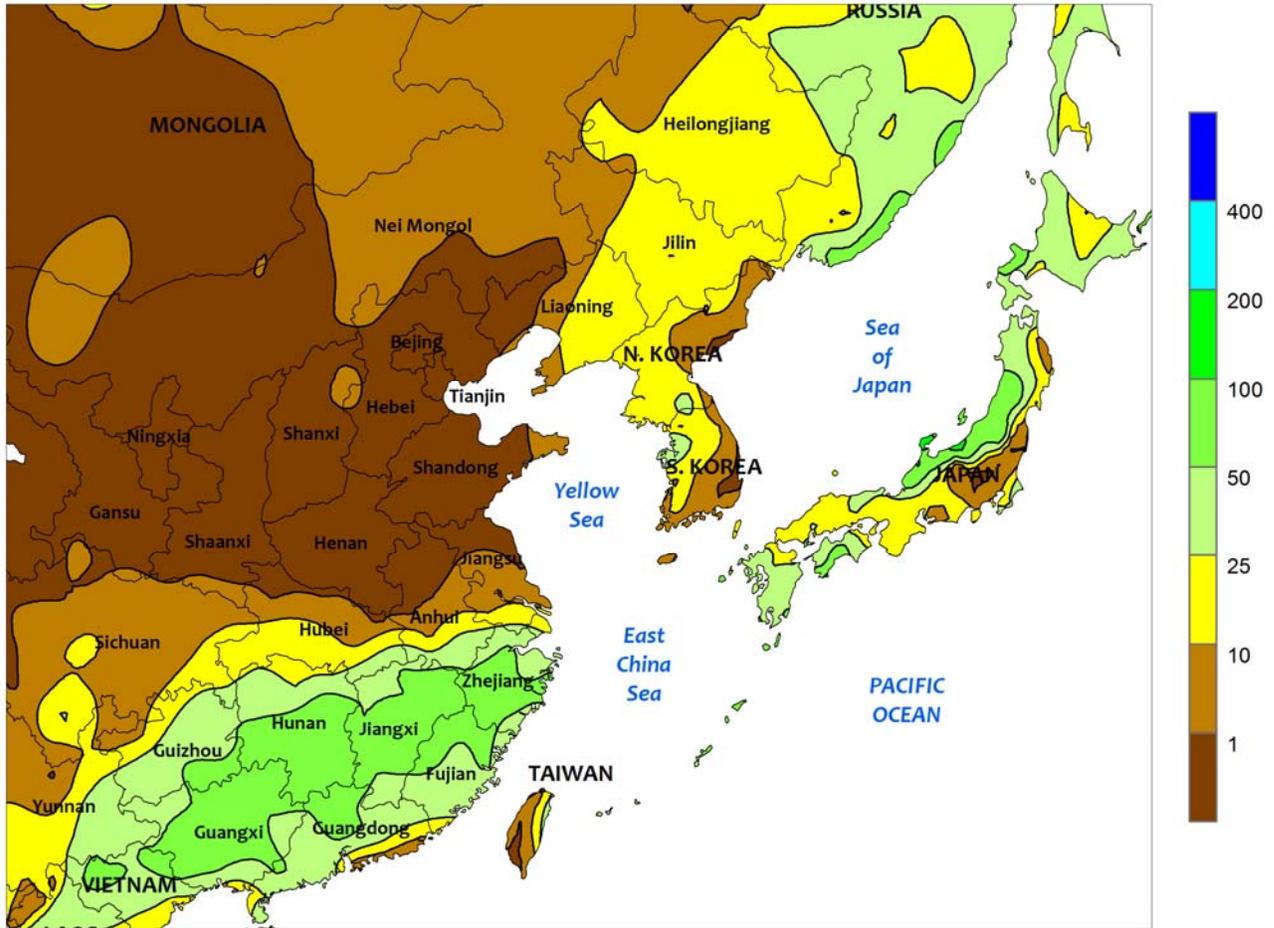


NORTHWESTERN AFRICA

Sunny skies favored crop development in central and eastern growing areas but further reduced soil moisture in the west. From central Algeria into northern Tunisia, the dry weather favored winter grain development following last week's soaking rainfall. In contrast, protracted short-term dryness (little if any rain during the period, 25 mm or less since

October 21) persisted in Morocco, further reducing topsoil moisture for winter grain establishment after a favorable wet start to the winter growing season (October-May). Across northern Morocco, 2015 marked the driest autumn since 2001, though periods of dryness and drought are more frequent in the country's lesser southern growing regions.

EASTERN ASIA
Total Precipitation (mm)
NOV 29 - DEC 5, 2015



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

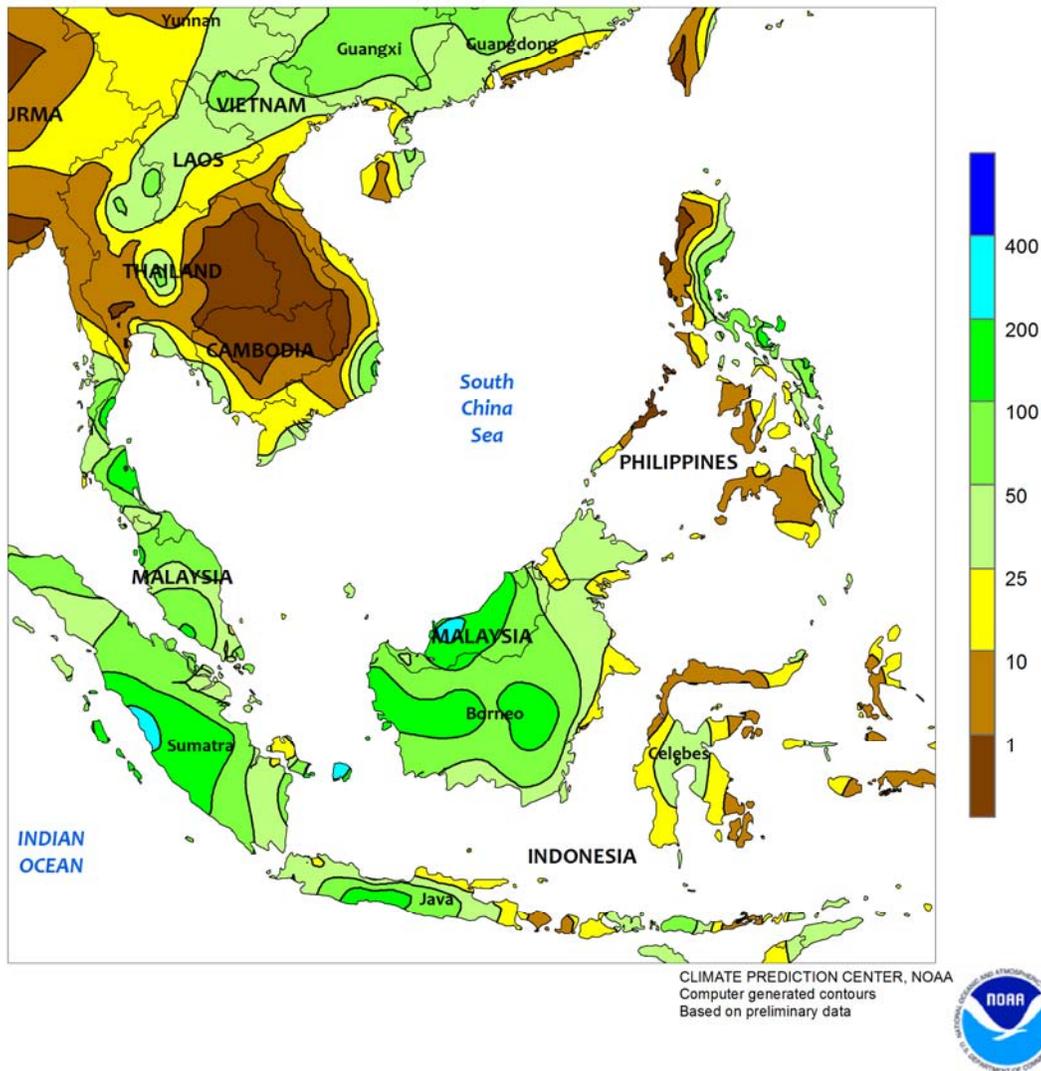


EASTERN ASIA

Frigid weather gave way to conditions that were closer to normal across winter crop areas of China. Temperatures in the heart of the North China Plain were 1 to 2°C below normal compared to nearly 10°C below normal the week before. In addition, more seasonably dry weather overspread the North China Plain, while periodic showers during the week brought upwards of 10 mm to rapeseed in

the Yangtze Valley and over 50 mm to rapeseed and other winter crops farther south. The snow that occurred on the North China Plain and into the Yangtze Valley during the arctic outbreak melted almost entirely with the somewhat warmer weather. The snow, along with above-normal rainfall, provided good moisture reserves for the now dormant wheat and rapeseed.

SOUTHEAST ASIA
Total Precipitation (mm)
NOV 29 - DEC 5, 2015

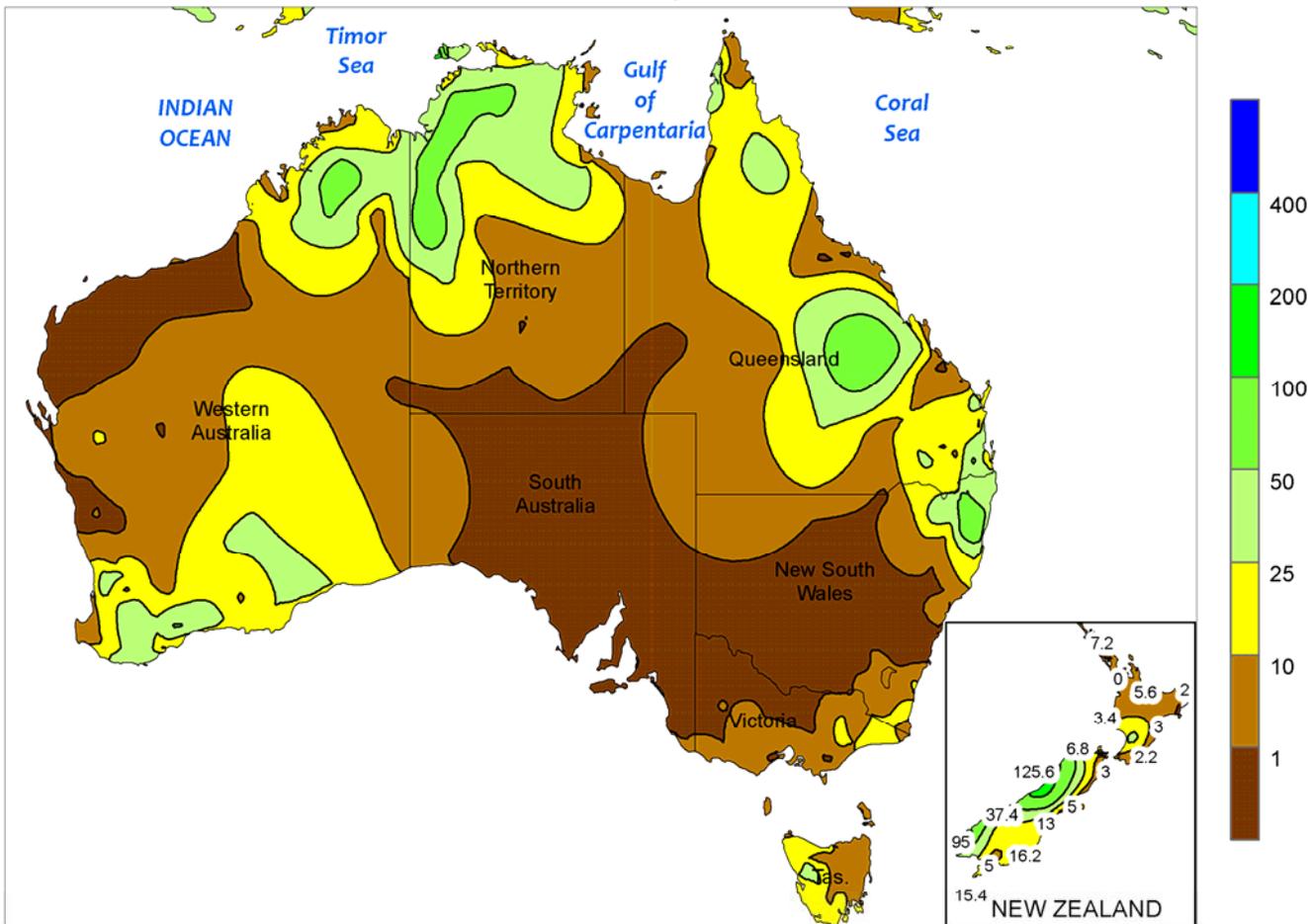


SOUTHEAST ASIA

Rainfall eased somewhat in western Java, Indonesia, where totals since November 1 have been on par with the long-term average. However, rainfall totals since the start of the water year (beginning August 1) continued to be well below normal. In other parts of Java, pre-monsoon showers (less than 25 mm) continued to encourage rice transplanting, but consistent, heavy rain indicative of the start of the rainy season had yet to materialize. In central Java, the start of the rainy season is nearly a month behind schedule, with both short- and long-term rainfall deficits mounting for rice. In eastern Java, the rainy season doesn't typically begin until early December and

is of yet only a few days behind schedule. Meanwhile in oil palm areas of Indonesia and Malaysia, consistent seasonal rainfall (50-100 or more) has improved soil moisture for trees, although some longer-term deficits still existed. Farther north, rain has been unseasonably light (less than 100 mm) in the eastern and southern Philippines, creating mounting seasonal water supply deficits for winter rice and corn. Elsewhere in the region, unseasonal showers (10-50 mm) across portions of Thailand provided a boost to water supplies for rice, although reservoirs remained perilously low, while showers in southern Vietnam aided winter-spring rice establishment.

AUSTRALIA
Total Precipitation (mm)
NOV 29 - DEC 5, 2015



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

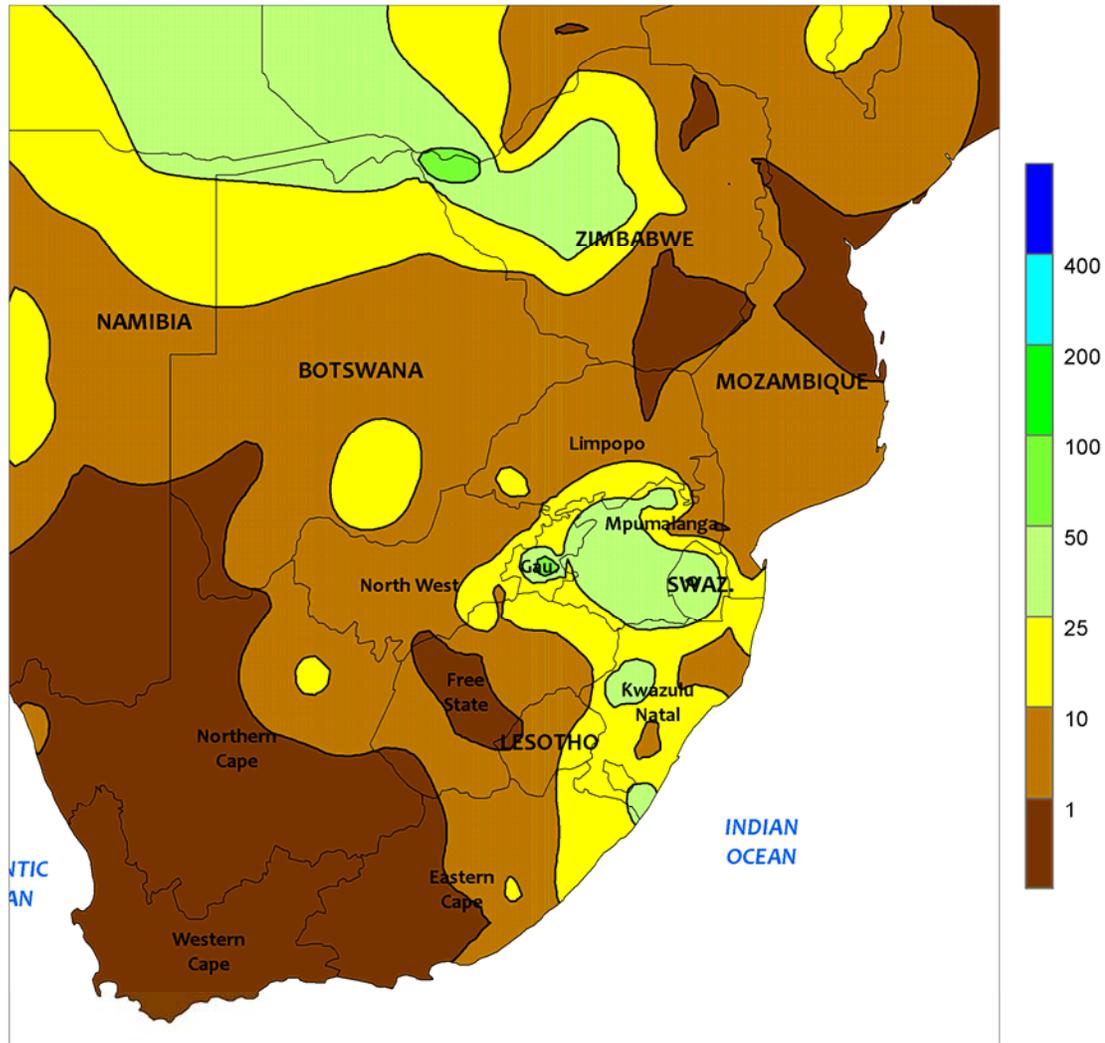


AUSTRALIA

Soaking rains (10-50 mm) in Western Australia slowed winter grain harvesting and reportedly raised concerns about crop quality. In contrast, dry, seasonably warm weather persisted in southeastern Australia, favoring wheat, barley, and canola harvesting but increasing the irrigation demands of vegetative summer crops. Farther north, widespread showers (10-50 mm)

in northeastern New South Wales and southern Queensland further benefited summer crops, easing irrigation requirements for cotton while boosting topsoil moisture for recently-sown sorghum. Temperatures in the wheat belt averaged near to slightly above normal (up to 1°C above normal), with maximum temperatures generally in the upper 20s to middle 30s degrees C.

SOUTH AFRICA
 Total Precipitation (mm)
 NOV 29 - DEC 5, 2015



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

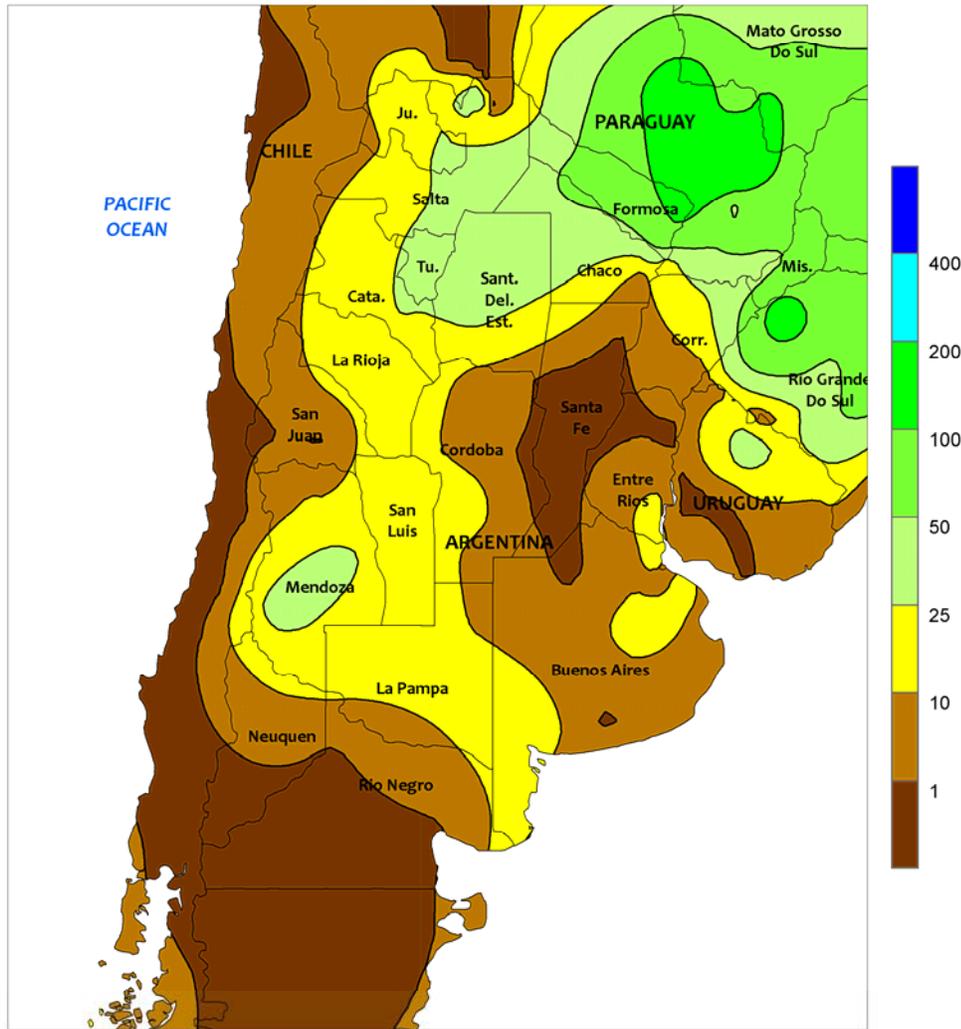


SOUTH AFRICA

Lingering showers helped to stabilize emerging summer crops in eastern sections of the corn belt, but moisture remained limited in other farming areas. Rainfall totaling 10 to more than 25 mm overspread Mpumalanga, Gauteng, and neighboring locations in North West and Free State; similar amounts extended southward into KwaZulu-Natal. In spite of the lingering rain, unseasonable warmth (weekly average temperatures 2-4°C above normal, with daytime highs reaching the middle and upper 30s degrees C) sustained high evaporative losses, maintaining limited levels of topsoil moisture for normal development of rain-

fed summer crops. Rainfall was more scattered and light in nature in western and northern sections of the corn belt (Limpopo and the more westerly crop areas of North West and Free State) and was accompanied by higher temperatures (weekly temperatures averaging 4°C or more above normal, with highs locally in excess of 38°C). Western farmers are still awaiting substantial rain before planting activities will occur. Dryness and unseasonable warmth spurred rapid development of irrigated crops in the Cape Provinces, though daytime highs in the low 40s posed some stress on vegetative row crops.

ARGENTINA
Total Precipitation (mm)
NOV 29 - DEC 5, 2015



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

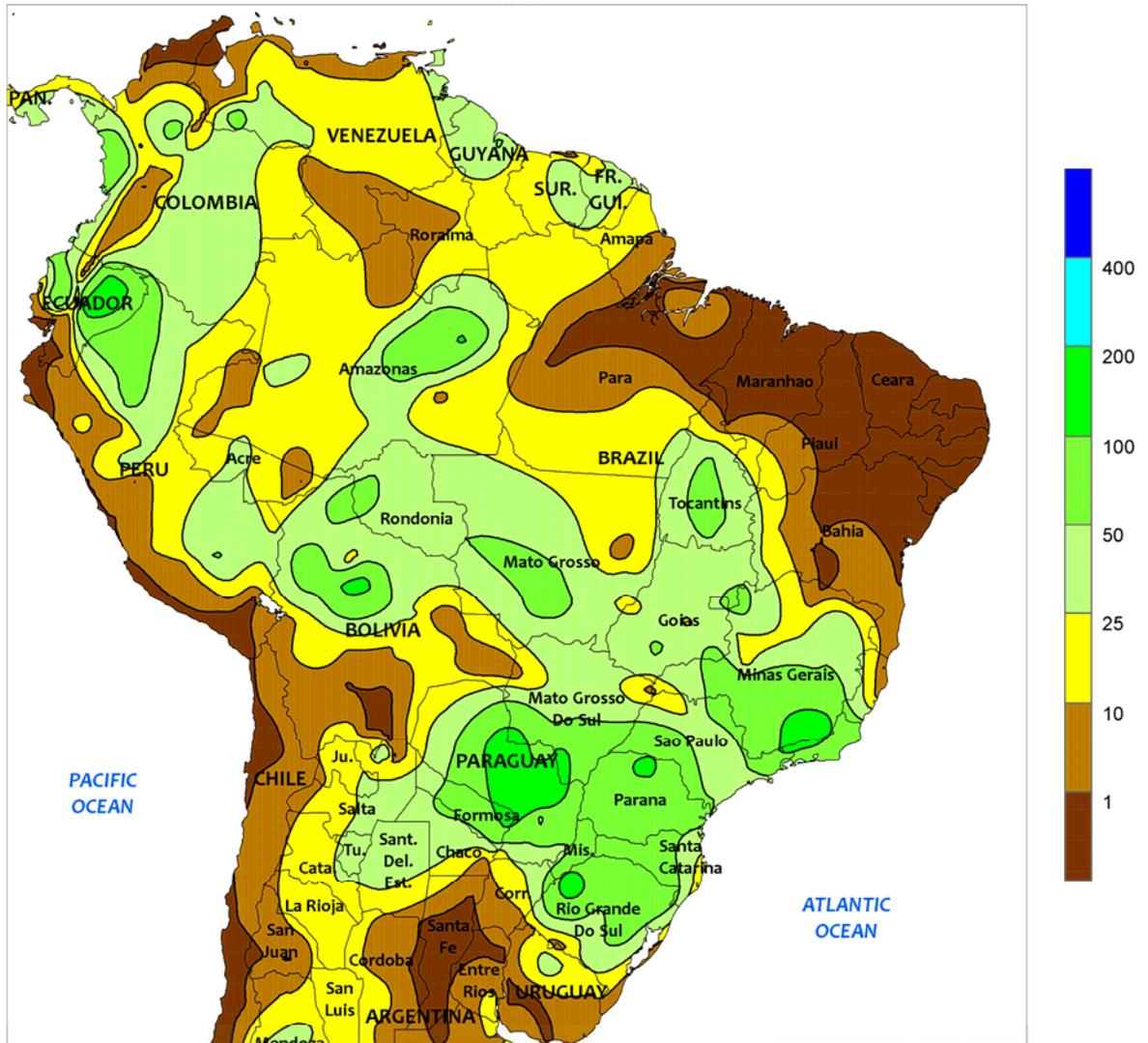


ARGENTINA

Drier weather spurred development of winter grains and summer crops throughout central Argentina, following weeks of beneficial rainfall. Amounts totaled less than 10 mm over major production areas of Buenos Aires, Cordoba, Santa Fe, and Entre Rios, with large areas recording virtually no rain. Near- to slightly above-normal temperatures accompanied the dryness, as daytime highs reached the upper 20s and lower 30s (degrees C) on several days. Heavier showers (10-50 mm, locally higher) overspreading northern Argentina boosted moisture for crops in previously dry northwestern farming areas (notably western

sections of Santiago del Estero and Salta), while maintaining overall favorable levels for cotton and other crops in Formosa and northern sections of Chaco. Drier conditions spurred vegetative growth of cotton and other summer crops in southern Chaco and northern Santa Fe. Weekly average temperatures were slightly below normal in northern Argentina, with highs mostly in the upper 20s and lower 30s. According to Argentina's Ministry of Agriculture, sunflowers were 95 percent planted as of December 3, 3 points behind last year. Corn and soybeans were 54 and 58 percent planted, respectively.

BRAZIL
Total Precipitation (mm)
NOV 29 - DEC 5, 2015



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



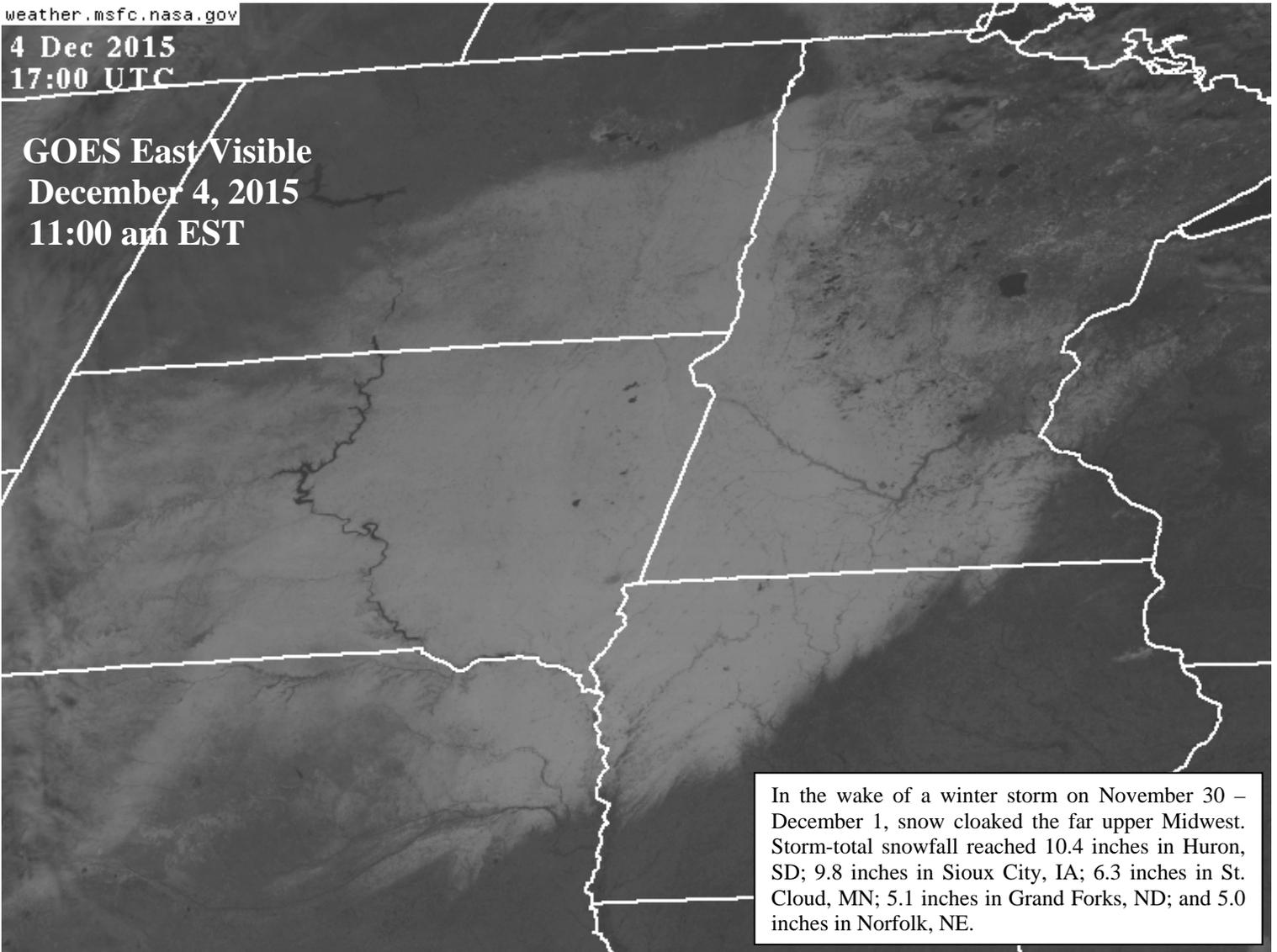
BRAZIL

Widespread showers continued, maintaining mostly favorable conditions for summer crops in major growing areas of southern and central Brazil. Rainfall totaling 25 to 50 mm — locally higher — ranged from Rio Grande do Sul northward to Mato Grosso, Tocantins, and Minas Gerais, with patchier, lighter amounts on the northern extent of these areas. In fact, rainfall tapered off greatly from Tocantins and western Bahia, with virtually no rain falling at the edges of the northeastern interior farming areas in Bahia, Piaui, and Maranhao. In southern agricultural areas (Mato Grosso do Sul and Minas Gerais southward), weekly temperatures averaged near to slightly below normal, with daytime highs reaching the upper

20s and lower 30s (degrees C). The seasonable warmth and moisture favored corn and soybean development, and helped to further improve prospects for sugarcane, coffee, and citrus. Warmer conditions prevailed farther north, with highs reaching the upper 30s and lower 40s on the warmest days. The hottest conditions were centered over the northeastern interior, which has experienced an erratic pattern of seasonal rainfall so far this season. More consistent rains are needed to ensure uniform germination of soybeans and cotton in these areas. Meanwhile, the warmth — accompanied by seasonal dryness — along the northeastern coast spurred growth of sugarcane and other irrigated plantation crops.

4 Dec 2015
17:00 UTC

GOES East Visible
December 4, 2015
11:00 am EST



In the wake of a winter storm on November 30 – December 1, snow cloaked the far upper Midwest. Storm-total snowfall reached 10.4 inches in Huron, SD; 9.8 inches in Sioux City, IA; 6.3 inches in St. Cloud, MN; 5.1 inches in Grand Forks, ND; and 5.0 inches in Norfolk, NE.

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