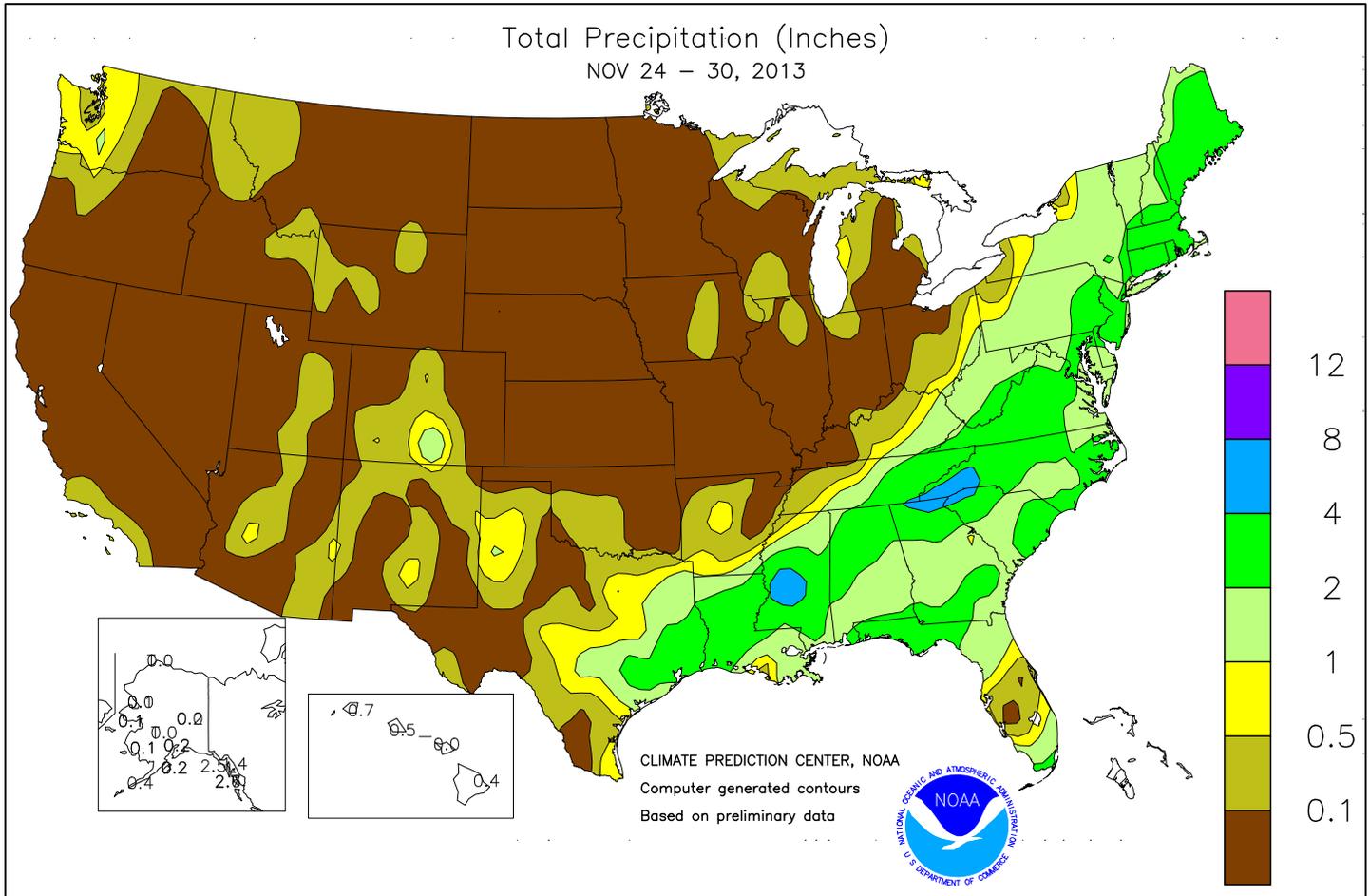


# WEEKLY WEATHER AND CROP BULLETIN



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 24 – 30, 2013

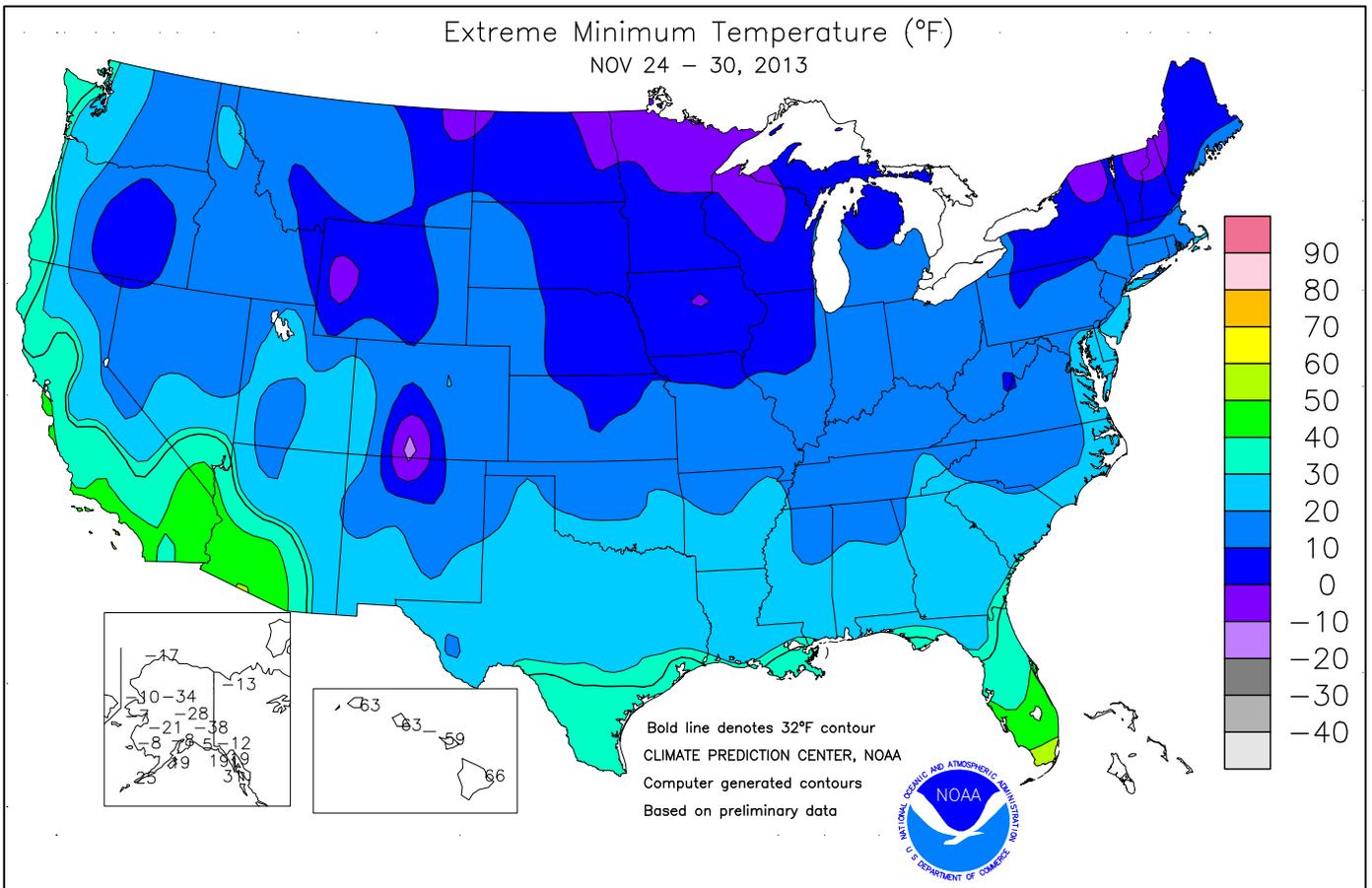
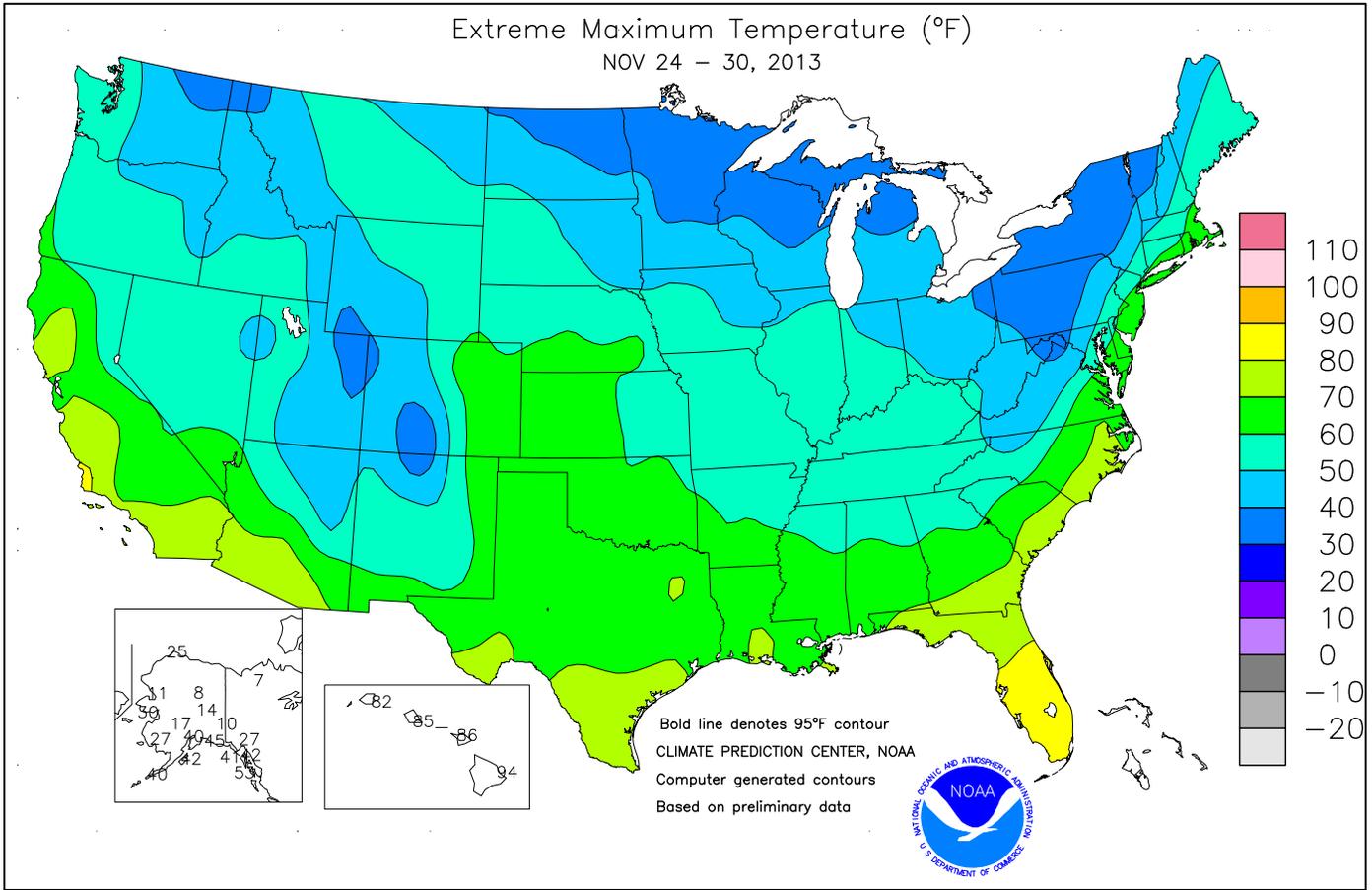
Highlights provided by USDA/WAOB

**A** Thanksgiving week cold wave in **South, East, and Midwest** held temperatures 10 to 15°F below normal in a broad area stretching from **eastern Texas to New York**. On November 28-29, temperatures fell below 32°F as far south as the **Gulf Coast**, excluding winter agricultural areas across **southern Texas** and **Florida's peninsula**. Mostly dry weather covered the nation, except for early- to mid-week precipitation across the **South** and **East**. Weekly totals topped 2 inches across parts of the **lower Southeast** and in many locations from **eastern Texas** to

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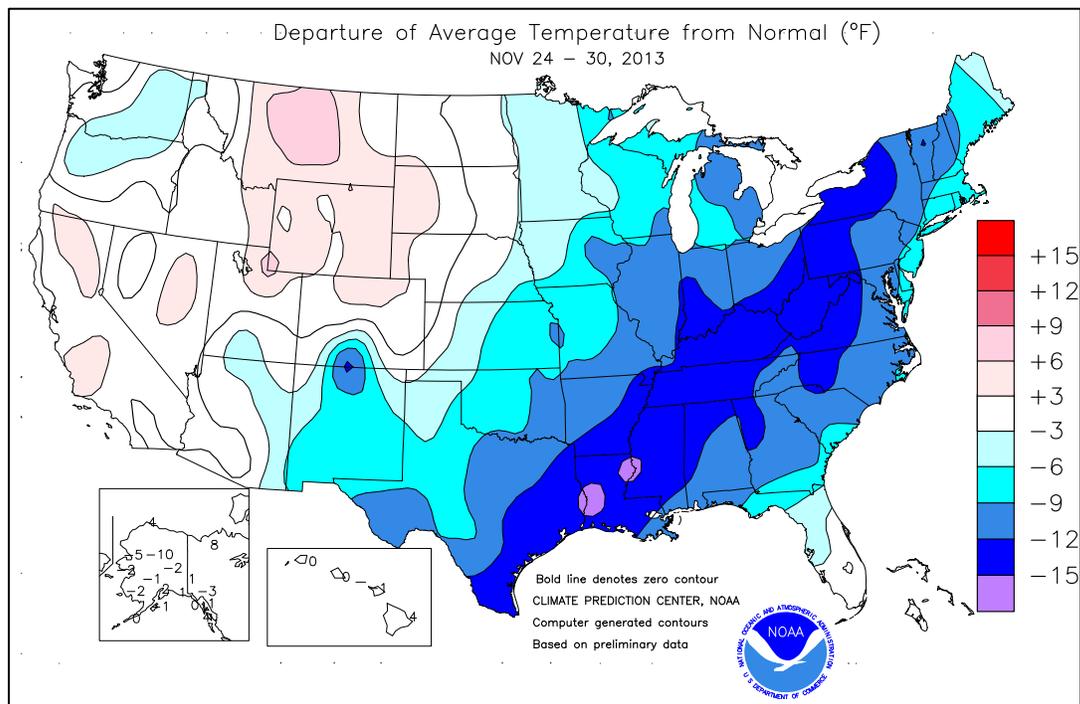


(Continued from front cover)

**New England.** Precipitation was especially beneficial in the **East**, which for the most part had experienced a very dry autumn. However, rain also slowed **Southeastern** fieldwork, including cotton harvesting. Along the northern and western fringe of the storm, wintry precipitation (snow, sleet, and freezing rain) caused some travel disruptions. In addition, precipitation ended as snow in parts of the **East**, hampering pre-holiday travel. Farther west, early-week snow and ice on the **southern High Plains** halted fieldwork but provided some drought relief. Across the remainder of the **nation's mid-section**, cold, dry weather allowed winter wheat to slip into dormancy. Toward week's end, mild weather returned to the **High Plains**, eroding an already patchy snow cover. Elsewhere, a warming trend accompanied mostly dry weather in the **West**. As a result, late-autumn fieldwork in **California** and the **Desert Southwest** proceeded with few delays.

Early in the week, a winter storm unfolded across the **south-central U.S.** Record-setting snowfall totals for November 24 included 5.5 inches in **Alamosa, CO**, and 2.2 inches in **Lubbock, TX**. **Alamosa's** 4-day snowfall, from November 22-25, reached 18.1 inches. By November 25, heavy rain erupted across the **western and central Gulf Coast States**, where daily-record totals topped 3 inches in locations such as **Jackson, MS** (3.87 inches), and **Alexandria, LA** (3.45 inches). The following day, record-setting **Southeastern** totals for November 26 included 3.56 inches in **Tallahassee, FL**; 3.00 inches in **Greenville-Spartanburg, SC**; 2.67 inches in **Chattanooga, TN**; 2.60 inches in **Alma, GA**; 2.59 inches in **Asheville, NC**; and 2.50 inches in **Lynchburg, VA**. **Asheville** also achieved an annual precipitation record, with a total of 67.55 inches (161 percent of normal) through November. Previously, **Asheville's** wettest year had been 1973, when 64.91 inches fell. By November 27, the day before Thanksgiving, wet weather shifted into the **Northeast**. Daily-record amounts for the 27<sup>th</sup> totaled 3.12 inches in **Providence, RI**; 2.57 inches in **Worcester, MA**; and 2.48 inches in **Portland, ME**. Meanwhile, precipitation changed to snow in the **Appalachians** and downwind of the **Great Lakes**. Daily-record snowfall totals for November 27 included 6.1 inches in **South Bend, IN**, and 1.4 inches in **Jackson, KY**. **Muskegon, MI**, received a daily-record snowfall of 6.5 inches on November 28, Thanksgiving Day.

The week opened on a cold note in the **East**, with highs failing to reach the freezing mark as far south as the **northern Mid-Atlantic States**. Highs on November 24 included 27°F in **Blacksburg, VA**, and 29°F in **Allentown, PA**. Chilly conditions also gripped the **southern Plains**, where **Oklahoma City, OK**, posted a high of 30°F on November 24. The following day in **Arkansas**, highs of 27°F in **Lead Hill** and



30°F in **Mena** tied November records for the stations' respective lowest maximum temperatures. Farther east, **Northeastern** daily-record lows for November 25 dipped to 7°F in **Watertown, NY**, and 15°F in **Danville, VA**. In contrast, warmth arrived in the **Pacific Coast States**, resulting in daily-record highs in locations such as **Seattle, WA** (58°F on November 27), and **Sacramento, CA** (70°F on November 28). Meanwhile, another surge of cold air trailed the heavy precipitation across the **South and East**. On November 27-28, consecutive daily-record lows were established in locations such as **Jackson, TN** (15 and 14°F), and **Greenwood, MS** (22 and 19°F). Similarly, **Gaylord, MI**, posted consecutive daily-record lows (-2 and -8°F) on November 28-29, while **Massena, NY**, achieved the same feat (-1 and -2°F) on November 29-30. In the **East**, the cold snap's most impressive day was Thanksgiving Day, November 28, when lows fell to daily-record levels in locations such as **Tupelo, MS** (17°F); **Birmingham, AL** (18°F); and **Augusta, GA** (21°F). **Augusta** narrowly missed its coldest Thanksgiving on record, which remains 20°F on November 26, 1970.

**Alaska's** frigid conditions eased slightly, although weekly temperatures still averaged as much as 10°F below normal across the interior. Widespread but generally light precipitation fell across **Alaska**, with **Fairbanks** reporting a weekly snowfall of 5.0 inches. Heavy precipitation was confined to **southeastern Alaska**, where **Valdez** ensured its wettest year on record. Through November, precipitation in **Valdez** totaled 94.78 inches (156 percent of normal), surpassing the 1981 annual standard of 93.30 inches. Meanwhile, tranquil weather prevailed in **Hawaii** until week's end, when torrential rainfall erupted across **Kauai**. During a 24-hour period ending on the morning of December 1, rainfall totals on **Kauai** reached 12.08 inches on **Mt. Waialeale** and 7.26 inches in both **Mana** and **Kilohana**. Prior to the late-week deluge, warm, dry weather prevailed, especially on the **Big Island**, where **Hilo** posted consecutive daily-record highs (88 and 94°F, respectively) on November 27-28. In addition, **Hilo's** high of 94°F on November 28 set a monthly record and tied an all-time record (previously, respective records were 92°F on November 7, 1996, and 94°F on May 20, 1966).

National Weather Data for Selected Cities

Weather Data for the Week Ending November 30, 2013

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 SEP 1	PCT. NORMAL SINCE SEP 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	49	27	60	18	38	-12	3.07	1.96	2.25	8.56	72	60.82	123	83	35	0	6	2	2
HUNTSVILLE	47	25	57	17	36	-12	2.07	0.75	1.55	8.10	62	51.72	100	74	42	0	6	2	2
MOBILE	57	33	67	25	45	-11	1.90	0.58	1.71	10.22	70	61.91	100	82	49	0	4	3	1
AK MONTGOMERY	55	31	65	22	43	-11	1.42	0.19	1.02	4.27	38	47.27	95	81	36	0	4	3	1
ANCHORAGE	27	15	40	-8	21	1	0.23	0.01	0.15	10.83	179	24.21	161	83	72	0	7	2	0
BARROW	5	-6	25	-17	-1	4	0.04	0.01	0.03	2.52	203	7.56	188	83	74	0	7	2	0
FAIRBANKS	5	-13	14	-28	-4	-2	0.00	-0.14	0.00	2.32	85	8.12	85	78	73	0	7	0	0
JUNEAU	38	28	42	19	33	2	1.40	0.24	0.53	24.38	115	65.29	123	95	88	0	4	6	1
KODIAK	37	26	42	19	31	-1	0.23	-1.28	0.14	21.10	92	60.99	90	79	62	0	6	2	0
NOME	20	3	30	-7	12	-2	0.10	-0.17	0.07	7.17	134	20.28	130	85	76	0	7	4	0
AZ FLAGSTAFF	42	21	49	15	32	-2	0.17	-0.24	0.17	5.76	97	23.45	111	94	54	0	7	1	0
PHOENIX	70	50	75	46	60	2	0.01	-0.16	0.01	3.29	145	8.03	109	65	40	0	0	1	0
PRESCOTT	55	29	58	27	42	1	0.14	-0.14	0.14	4.41	96	13.05	73	90	38	0	7	1	0
TUCSON	67	47	75	40	57	1	0.00	-0.14	0.00	2.85	86	7.71	69	61	40	0	0	0	0
AR FORT SMITH	48	28	63	21	38	-9	0.04	-1.06	0.03	8.07	65	42.94	106	80	39	0	5	2	0
LITTLE ROCK	47	27	61	22	37	-11	0.31	-1.05	0.25	11.24	82	45.84	99	84	39	0	6	2	0
CA BAKERSFIELD	67	46	77	43	57	6	0.00	-0.14	0.00	0.97	93	3.33	58	81	60	0	0	0	0
FRESNO	70	44	76	42	57	8	0.00	-0.25	0.00	0.58	29	2.86	29	77	61	0	0	0	0
LOS ANGELES	70	53	77	50	62	2	0.31	0.01	0.31	0.74	42	3.38	30	75	45	0	0	1	0
REDDING	67	33	74	28	50	2	0.00	-0.95	0.00	3.12	47	12.42	43	88	68	0	3	0	0
SACRAMENTO	65	40	70	38	53	3	0.00	-0.52	0.00	1.46	42	5.37	35	96	43	0	0	0	0
SAN DIEGO	69	54	74	51	62	2	0.01	-0.24	0.01	1.74	101	5.12	54	71	49	0	0	1	0
SAN FRANCISCO	62	46	66	44	54	2	0.00	-0.60	0.00	1.14	31	3.03	18	80	63	0	0	0	0
STOCKTON	64	37	67	33	51	1	0.00	-0.41	0.00	1.41	48	4.31	36	96	81	0	0	0	0
CO ALAMOSA	22	-3	36	-12	9	-15	0.87	0.79	0.46	5.13	251	10.02	145	87	80	0	7	2	0
CO SPRINGS	47	24	59	20	35	2	0.10	0.04	0.10	5.50	211	19.17	113	79	32	0	7	1	0
DENVER INTL	51	28	65	22	39	6	0.01	-0.08	0.01	6.61	263	17.37	131	73	33	0	7	1	0
GRAND JUNCTION	41	29	46	25	35	1	0.03	-0.09	0.03	5.51	210	11.47	136	93	80	0	6	1	0
PUEBLO	49	24	63	19	37	2	0.11	0.02	0.07	1.84	89	9.64	80	85	52	0	7	2	0
CT BRIDGEPORT	43	27	62	18	35	-7	1.81	1.00	1.34	5.54	51	32.30	79	63	43	0	5	2	1
HARTFORD	37	22	51	13	30	-8	3.44	2.54	3.12	9.78	81	47.78	112	67	41	0	6	2	1
DC WASHINGTON	41	29	49	24	35	-11	2.20	1.51	1.54	10.44	104	38.78	107	66	37	0	6	2	2
DE WILMINGTON	44	26	60	19	35	-8	2.51	1.74	1.44	6.80	66	43.14	109	77	41	0	7	2	2
FL DAYTONA BEACH	72	55	82	36	63	-2	0.51	-0.12	0.45	11.15	79	46.37	100	89	57	0	0	2	0
JACKSONVILLE	65	44	76	30	54	-5	1.53	0.98	1.50	8.01	57	44.37	89	89	67	0	1	2	1
KEY WEST	78	69	82	59	73	-2	3.09	2.60	1.30	9.24	74	44.75	122	89	69	0	0	4	3
MIAMI	80	64	84	52	72	-1	2.27	1.65	0.77	23.07	128	65.75	117	89	58	0	0	5	3
ORLANDO	75	55	84	39	65	-2	0.10	-0.45	0.05	6.87	64	42.46	92	89	61	0	0	2	0
PENSACOLA	60	38	69	29	49	-9	2.74	1.75	2.47	14.43	101	70.86	117	79	43	0	2	3	1
TALLAHASSEE	64	41	75	30	52	-6	3.56	2.67	3.56	8.60	71	61.89	105	71	54	0	1	1	1
TAMPA	73	53	80	38	63	-4	0.19	-0.27	0.18	9.11	87	51.62	122	88	58	0	0	2	0
GA WEST PALM BEACH	79	62	83	47	70	-1	1.24	0.05	0.56	13.02	68	60.64	104	86	58	0	0	5	2
ATHENS	50	28	59	22	39	-11	1.53	0.69	1.32	6.11	57	52.26	118	77	42	0	6	2	1
ATLANTA	50	29	61	22	39	-12	1.10	0.12	0.98	7.19	64	58.22	126	73	43	0	5	2	1
AUGUSTA	55	29	69	21	42	-10	0.80	0.24	0.75	3.30	35	48.61	117	81	46	0	6	2	1
COLUMBUS	54	32	63	25	43	-11	1.21	0.19	0.92	3.41	36	53.78	122	82	38	0	3	2	1
MACON	53	28	60	21	41	-12	2.05	1.25	1.96	5.75	65	63.89	156	88	40	0	6	2	1
SAVANNAH	62	36	72	29	49	-7	1.29	0.79	1.25	4.52	43	51.69	111	80	48	0	2	2	1
HI HILO	86	68	94	66	77	4	0.45	-3.15	0.19	17.20	50	81.89	71	83	71	1	0	4	0
HONOLULU	83	70	85	63	76	-1	0.52	-0.01	0.51	3.43	66	12.51	81	73	65	0	0	2	1
KAHULUI	84	65	86	59	74	-1	0.00	-0.55	0.00	4.97	138	13.62	87	79	71	0	0	0	0
LIHUE	80	69	82	63	75	0	0.71	-0.36	0.71	13.65	117	30.87	89	79	70	0	0	1	1
ID BOISE	45	27	49	23	36	0	0.00	-0.33	0.00	3.84	132	8.74	81	90	74	0	7	0	0
LEWISTON	37	26	43	19	32	-6	0.02	-0.24	0.01	2.39	80	8.78	75	87	81	0	7	2	0
POCATELLO	47	17	53	13	32	1	0.03	-0.22	0.03	1.72	58	5.75	50	85	63	0	7	1	0
IL CHICAGO/O'HARE	35	18	50	11	27	-8	0.01	-0.66	0.01	7.77	86	40.14	119	73	53	0	7	1	0
MOLINE	35	15	50	8	25	-10	0.00	-0.59	0.00	5.42	62	38.02	106	81	50	0	7	0	0
PEORIA	36	18	52	10	27	-9	0.00	-0.70	0.00	10.23	115	42.06	125	78	44	0	7	0	0
ROCKFORD	34	15	49	9	25	-8	0.04	-0.55	0.04	6.89	79	38.89	113	82	60	0	7	1	0
SPRINGFIELD	38	18	54	8	28	-10	0.00	-0.66	0.00	5.98	72	36.65	111	77	41	0	7	0	0
IN EVANSVILLE	41	22	56	17	32	-10	0.02	-1.00	0.02	10.93	110	46.28	114	75	46	0	7	1	0
FORT WAYNE	35	20	49	14	28	-9	0.00	-0.69	0.00	7.02	83	39.34	116	82	53	0	7	0	0
INDIANAPOLIS	36	20	52	13	28	-11	0.00	-0.84	0.00	11.15	121	41.11	108	75	45	0	7	0	0
SOUTH BEND	33	22	47	19	28	-8	0.39	-0.41	0.32	11.20	107	38.18	104	73	61	0	7	4	0
IA BURLINGTON	36	17	51	7	27	-9	0.00	-0.61	0.00	4.90	53	31.95	89	84	45	0	7	0	0
CEDAR RAPIDS	33	13	48	4	23	-9	0.01	-0.47	0.01	7.52	97	36.91	116	86	49	0	7	1	0
DES MOINES	36	18	54	5	27	-6	0.00	-0.41	0.00	7.63	97	31.17	93	76	49</				

Weather Data for the Week Ending November 30, 2013

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 SEP 1	PCT. NORMAL SINCE SEP 1	TOTAL IN., SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
KY WICHITA	44	22	60	14	33	-7	0.01	-0.36	0.01	5.69	79	40.20	138	80	55	0	7	1	0
KY JACKSON	40	23	56	16	31	-14	1.14	0.09	0.96	6.42	58	49.63	110	83	49	0	7	3	1
KY LEXINGTON	40	22	54	15	31	-12	0.26	-0.62	0.23	10.24	111	53.89	129	74	57	0	7	3	0
KY LOUISVILLE	42	25	57	20	33	-11	0.08	-0.86	0.07	16.37	170	48.18	118	78	43	0	6	2	0
LA PADUCAH	43	23	58	17	33	-10	0.03	-1.12	0.02	11.43	99	52.19	116	82	38	0	7	2	0
LA BATON ROUGE	54	33	68	26	44	-12	1.24	0.08	1.03	12.48	93	65.14	113	91	42	0	4	2	1
LA LAKE CHARLES	52	35	66	28	43	-14	2.64	1.54	1.95	16.41	113	55.40	105	90	50	0	3	2	2
LA NEW ORLEANS	56	38	65	32	47	-12	1.31	0.01	1.10	12.90	94	63.19	107	83	53	0	1	2	1
LA SHREVEPORT	49	30	66	26	40	-13	1.42	0.35	1.19	21.51	174	48.47	104	90	52	0	5	3	1
ME CARIBOU	29	15	53	6	22	-4	1.94	1.22	1.84	13.56	145	48.30	141	84	62	0	7	4	1
ME PORTLAND	36	20	58	12	28	-7	2.59	1.54	2.44	11.19	90	39.40	95	72	43	0	6	2	1
MD BALTIMORE	40	24	49	19	32	-11	2.27	1.53	1.68	12.09	118	37.67	98	76	42	0	7	2	2
MA BOSTON	40	25	62	18	33	-9	1.89	1.00	1.71	5.55	49	35.74	92	69	36	0	6	2	1
MA WORCESTER	34	19	60	13	27	-9	2.74	1.81	2.46	8.26	62	41.26	91	82	42	0	7	2	1
MI ALPENA	28	13	35	0	21	-10	0.05	-0.39	0.04	7.41	103	29.48	111	86	65	0	7	2	0
MI GRAND RAPIDS	33	21	47	15	27	-8	0.09	-0.72	0.06	9.86	95	42.18	123	79	53	0	7	2	0
MI HOUGHTON LAKE	27	14	37	7	21	-10	0.17	-0.29	0.09	8.29	110	28.39	106	86	71	0	7	3	0
MI LANSING	32	20	46	14	26	-8	0.02	-0.61	0.01	6.63	79	39.55	135	74	57	0	7	2	0
MI MUSKEGON	34	23	46	19	29	-6	0.35	-0.38	0.22	9.81	103	41.06	136	77	61	0	7	4	0
MI TRAVERSE CITY	31	18	40	8	24	-9	0.29	-0.30	0.12	14.59	159	40.50	131	89	63	0	7	4	0
MN DULUTH	27	10	36	-3	18	-5	0.13	-0.29	0.10	6.02	69	27.61	92	74	60	0	7	4	0
MN INT'L FALLS	25	6	35	-6	15	-4	0.13	-0.12	0.08	5.29	83	30.40	131	82	65	0	7	3	0
MN MINNEAPOLIS	33	16	42	8	25	-3	0.00	-0.36	0.00	4.89	73	31.33	110	75	55	0	7	0	0
MN ROCHESTER	33	13	44	2	23	-3	0.00	-0.40	0.00	5.39	74	40.09	132	75	54	0	7	0	0
MN ST. CLOUD	30	8	38	1	19	-5	0.00	-0.25	0.00	6.75	101	27.08	102	86	51	0	7	0	0
MS JACKSON	50	29	64	23	40	-12	4.96	3.72	3.84	16.10	138	59.88	118	85	41	0	5	2	2
MS MERIDIAN	51	28	64	22	40	-13	3.06	1.82	1.64	10.44	88	59.97	112	84	46	0	5	2	2
MS TUPELO	46	26	58	17	36	-12	1.85	0.54	0.86	10.20	87	47.48	95	81	43	0	6	4	2
MO COLUMBIA	41	21	57	11	31	-8	0.00	-0.78	0.00	6.73	67	39.83	105	76	42	0	7	0	0
MO KANSAS CITY	40	22	53	11	31	-7	0.01	-0.50	0.01	11.01	107	33.67	93	74	40	0	6	1	0
MO SAINT LOUIS	42	23	59	15	32	-9	0.00	-0.87	0.00	6.10	65	40.70	113	66	44	0	7	0	0
MO SPRINGFIELD	43	23	60	14	33	-9	0.00	-1.07	0.00	11.13	87	49.28	118	77	51	0	6	0	0
MT BILLINGS	47	28	56	22	38	7	0.00	-0.14	0.00	6.54	195	14.71	104	70	42	0	5	0	0
MT BUTTE	45	15	49	7	30	7	0.00	-0.11	0.00	3.81	154	11.09	91	88	40	0	7	0	0
MT CUT BANK	48	22	53	13	35	9	0.00	-0.08	0.00	3.30	159	13.06	107	84	38	0	6	0	0
MT GLASGOW	36	16	41	7	26	3	0.00	-0.06	0.00	2.50	120	15.09	139	90	78	0	7	0	0
MT GREAT FALLS	52	22	56	15	37	8	0.00	-0.11	0.00	1.95	71	10.83	76	83	31	0	5	0	0
MT HAVRE	43	18	53	10	31	6	0.05	-0.03	0.05	2.80	133	17.90	163	83	63	0	6	1	0
MT MISSOULA	36	17	40	12	26	-2	0.02	-0.20	0.02	1.99	69	8.31	66	90	85	0	7	1	0
NE GRAND ISLAND	44	17	60	8	30	-2	0.00	-0.28	0.00	7.40	138	26.81	106	82	50	0	7	0	0
NE LINCOLN	43	13	63	6	28	-5	0.00	-0.31	0.00	6.04	94	26.46	96	79	47	0	7	0	0
NE NORFOLK	41	15	57	6	28	-2	0.00	-0.28	0.00	6.39	118	24.80	95	78	52	0	7	0	0
NE NORTH PLATTE	45	15	59	12	30	-1	0.00	-0.12	0.00	7.25	218	21.61	112	87	51	0	7	0	0
NE OMAHA	40	18	57	11	29	-4	0.00	-0.37	0.00	7.56	105	28.80	98	78	52	0	7	0	0
NE SCOTTSBLUFF	50	20	60	12	35	5	0.00	-0.17	0.00	4.86	160	13.17	84	84	61	0	7	0	0
NE VALENTINE	44	16	58	8	30	1	0.00	-0.13	0.00	5.31	150	22.94	120	80	65	0	7	0	0
NV ELY	48	18	52	11	33	3	0.00	-0.10	0.00	3.13	122	7.28	77	88	62	0	7	0	0
NV LAS VEGAS	62	44	65	42	53	2	0.00	-0.06	0.00	1.72	200	2.91	71	70	45	0	0	0	0
NV RENO	53	25	56	21	39	1	0.00	-0.19	0.00	0.57	34	3.60	55	79	60	0	7	0	0
NV WINNEMUCCA	51	16	54	13	34	0	0.00	-0.17	0.00	2.26	114	4.67	62	92	57	0	7	0	0
NH CONCORD	34	17	53	3	25	-9	2.06	1.28	1.88	9.11	89	37.40	108	80	41	0	7	3	1
NJ NEWARK	43	27	62	21	35	-8	2.48	1.57	1.70	5.03	45	38.33	90	60	40	0	5	2	2
NM ALBUQUERQUE	47	27	54	22	37	-4	0.03	-0.06	0.02	5.03	187	8.92	99	82	46	0	7	2	0
NY ALBANY	33	18	39	11	25	-11	1.24	0.53	0.81	8.96	91	40.46	114	78	49	0	7	2	1
NY BINGHAMTON	29	16	35	9	22	-12	1.68	0.88	1.14	9.13	92	39.43	111	89	62	0	7	4	1
NY BUFFALO	31	19	35	15	25	-12	0.64	-0.30	0.39	13.41	122	41.04	112	86	56	0	7	5	0
NY ROCHESTER	31	17	37	7	24	-12	0.76	0.09	0.53	8.38	94	33.61	108	85	60	0	6	5	1
NY SYRACUSE	31	18	36	7	25	-11	1.68	0.78	0.78	10.94	98	37.52	102	91	57	0	7	6	2
NC ASHEVILLE	44	23	53	20	33	-11	2.69	1.83	2.61	8.79	82	67.57	155	83	47	0	7	2	1
NC CHARLOTTE	47	24	54	19	35	-15	2.68	1.96	2.46	7.17	66	42.49	105	78	32	0	7	2	1
NC GREENSBORO	44	24	49	20	34	-13	2.89	2.20	2.44	6.85	65	45.24	113	72	35	0	7	2	1
NC HATTERAS	55	39	71	33	47	-8	2.25	1.23	1.53	18.22	114	49.43	93	84	58	0	0	2	2
NC RALEIGH	49	26	66	18	38	-10	1.54	0.86	0.85	7.33	70	44.80	112	81	44	0	6	2	2
NC WILMINGTON	58	30	72	23	44	-10	1.98	1.15	1.17	6.98	53	49.69	93	78	38	0	4	2	2
ND BISMARCK	36	13	46	6	24	1	0.00	-0.11	0.00	9.18	256	25.49	155	84	63	0	7	0	0
ND DICKINSON	37	18	49	8	27	3	0.00	-0.08	0.00	7.82	220	20.98	131	82	52	0	7	0	0
ND FARGO	31	11	42	3	21	0	0.00	-0.15	0.00	8.94	172	30.85	150	80	57	0	7	0	0
ND GRAND FORKS	27	5	35	-3	16	-4	0.00	-0.15	0.00	4.61	99	18.84	99	86	65	0	7	0	0
ND JAMESTOWN	31	10	42	2	21	-1	0.00	-0.11	0.00	6.66	173	15.89	88	88	59	0	7	0	0
ND WILLISTON	33	14	41	3	23	3	0.00	-0.14	0.00	4.33	151	20.22	149	83	68	0	7	0	0
OH AKRON-CANTON	32	21	40	16	27	-11	0.70	-0.04	0.57	11.44	127	38.50	108	82	62	0	7	3	1
OH CINCINNATI	38	21	51	15	29	-12	0.10	-0.70	0.09	11.15	121	44.19	112	78	54	0	7	2	0
OH CLEVELAND	34	24	42	20	29	-9	0.15	-0.68	0.09	9.43	95	37.63	106	75	52	0	7	3	0
OH COLUMBUS	35	23	43	17	29	-11	0.27	-0.50	0.25	10.51	125	37.15	104	74	53	0	7	2	0
OH DAYTON	36	22	48	16	29	-10	0.00	-0.77	0.00	9.57	110	31.95	88	78	50	0	7	0	0
OH MANSFIELD	32	19	42	13	26	-11	0.08	-0.81	0.06	9.80	99	38.74	97	89	54	0	7	3	0

Weather Data for the Week Ending November 30, 2013

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 SEP 1	PCT. NORMAL SINCE SEP 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
OK TOLEDO	33	21	47	13	27	-10	0.00	-0.66	0.00	6.98	88	33.76	110	75	51	0	7	0	0
OK YOUNGSTOWN	31	19	36	14	25	-12	0.71	-0.06	0.58	8.40	89	35.62	102	84	63	0	7	3	1
OK OKLAHOMA CITY	48	28	63	20	38	-7	0.28	-0.16	0.24	6.31	65	51.50	152	78	43	0	6	2	0
OR TULSA	47	27	61	18	37	-9	0.00	-0.77	0.00	7.95	65	31.32	78	67	53	0	6	0	0
OR ASTORIA	54	35	59	32	44	-1	0.22	-2.39	0.20	17.80	95	54.14	95	93	73	0	3	3	0
OR BURNS	49	14	51	7	32	3	0.01	-0.27	0.01	2.78	119	6.70	72	89	66	0	7	1	0
OR EUGENE	50	25	55	21	37	-6	0.02	-2.13	0.01	9.83	74	19.76	46	96	90	0	7	2	0
OR MEDFORD	54	27	57	23	40	-1	0.00	-0.74	0.00	4.09	81	8.64	56	92	56	0	7	0	0
OR PENDLETON	41	19	48	13	30	-8	0.02	-0.36	0.02	3.19	98	8.46	75	92	82	0	7	1	0
OR PORTLAND	50	30	53	28	40	-4	0.02	-1.40	0.02	9.70	96	24.98	80	85	68	0	6	1	0
OR SALEM	50	28	53	24	39	-4	0.00	-1.63	0.00	10.39	96	22.35	67	91	78	0	6	0	0
PA ALLENTOWN	37	23	48	16	30	-9	1.91	1.04	1.06	7.07	62	41.93	100	74	45	0	7	2	2
PA ERIE	32	24	37	18	28	-12	0.79	-0.15	0.40	14.51	115	48.36	124	81	59	0	7	5	0
PA MIDDLETOWN	36	24	40	18	30	-11	1.54	0.69	1.41	14.24	143	38.51	103	78	40	0	7	2	1
PA PHILADELPHIA	44	27	64	20	36	-8	2.28	1.51	1.25	8.44	86	50.67	131	63	40	0	6	2	2
PA PITTSBURGH	33	21	39	15	27	-12	0.86	0.12	0.84	7.44	88	33.21	95	83	58	0	7	3	1
PA WILKES-BARRE	35	19	48	13	27	-11	1.45	0.73	0.97	5.80	58	24.14	69	78	54	0	7	2	1
PA WILLIAMSPORT	33	21	37	13	27	-11	1.80	0.95	1.59	7.28	67	28.90	75	81	53	0	7	2	1
RI PROVIDENCE	41	25	63	18	33	-8	3.34	2.34	3.02	9.83	83	40.65	96	58	41	0	5	2	1
SC BEAUFORT	60	37	70	31	49	-7	1.24	0.68	1.20	4.88	45	45.71	98	86	44	0	1	2	1
SC CHARLESTON	61	34	73	29	48	-8	2.24	1.61	2.15	9.97	85	56.02	116	79	46	0	3	2	1
SC COLUMBIA	55	30	71	22	42	-10	0.63	-0.01	0.50	5.97	61	49.48	110	81	47	0	5	2	1
SC GREENVILLE	47	27	56	22	37	-11	3.15	2.30	3.01	8.54	73	62.88	136	74	42	0	7	2	1
SD ABERDEEN	35	7	47	-3	21	-3	0.01	-0.08	0.01	7.26	173	21.00	106	84	61	0	7	1	0
SD HURON	38	12	43	4	25	-1	0.01	-0.12	0.01	6.95	162	24.16	118	83	47	0	7	1	0
SD RAPID CITY	47	21	59	15	34	4	0.00	-0.07	0.00	7.08	230	21.14	130	79	43	0	7	0	0
SD SIOUX FALLS	37	13	49	4	25	-1	0.00	-0.23	0.00	4.25	72	24.67	102	78	58	0	7	0	0
TN BRISTOL	42	22	53	15	32	-11	2.50	1.71	2.30	6.47	76	51.33	135	82	42	0	6	3	1
TN CHATTANOOGA	46	26	55	21	36	-12	3.10	1.89	2.58	6.55	53	60.74	122	74	44	0	6	2	2
TN KNOXVILLE	44	27	55	24	36	-10	2.43	1.41	2.21	9.76	101	61.13	140	83	47	0	6	3	1
TN MEMPHIS	45	28	59	21	36	-13	0.23	-1.27	0.19	8.67	70	54.62	112	78	40	0	5	2	0
TN NASHVILLE	44	24	59	16	34	-12	0.68	-0.45	0.47	9.39	86	46.90	108	81	37	0	6	2	0
TX ABILENE	51	32	68	25	41	-9	0.05	-0.17	0.04	4.67	66	21.00	93	85	59	0	5	2	0
TX AMARILLO	48	27	65	22	38	-3	1.42	1.34	0.90	3.57	88	15.94	83	86	56	0	6	2	2
TX AUSTIN	53	33	67	26	43	-14	1.12	0.59	0.84	17.13	179	36.35	116	84	54	0	3	2	1
TX BEAUMONT	53	36	68	31	45	-13	2.82	1.69	1.88	19.62	126	54.82	100	89	50	0	1	2	2
TX BROWNSVILLE	62	45	76	36	53	-12	0.42	0.10	0.22	14.38	133	24.43	92	84	57	0	0	3	0
TX CORPUS CHRISTI	57	42	74	38	50	-12	0.43	0.10	0.26	12.15	113	23.15	76	85	66	0	0	3	0
TX DEL RIO	57	38	69	34	48	-9	0.34	0.17	0.31	6.54	130	15.03	86	85	61	0	0	2	0
TX EL PASO	53	31	65	24	42	-7	0.09	-0.02	0.09	3.95	139	9.25	107	76	41	0	4	1	0
TX FORT WORTH	51	33	68	29	42	-10	0.54	0.04	0.52	7.99	88	26.67	83	78	47	0	4	2	1
TX GALVESTON	53	43	67	40	48	-15	1.84	0.97	1.17	14.37	111	38.60	96	92	66	0	0	2	2
TX HOUSTON	54	37	70	31	45	-13	1.73	0.82	1.26	16.01	123	37.21	84	89	61	0	1	2	1
TX LUBBOCK	51	28	69	23	40	-4	0.31	0.17	0.31	2.23	45	12.01	67	89	64	0	5	1	0
TX MIDLAND	50	31	68	28	41	-8	0.09	-0.02	0.09	2.52	53	7.08	50	90	66	0	6	1	0
TX SAN ANGELO	52	31	70	25	42	-9	0.56	0.37	0.55	6.93	105	18.69	94	87	67	0	6	2	1
TX SAN ANTONIO	55	38	71	33	47	-10	0.83	0.35	0.44	8.06	85	31.50	102	84	52	0	0	2	0
TX VICTORIA	58	39	75	33	48	-12	1.05	0.50	0.92	15.06	127	29.98	80	88	64	0	0	3	1
TX WACO	50	32	64	26	41	-12	0.66	0.07	0.50	15.13	165	36.56	120	91	60	0	4	2	1
TX WICHITA FALLS	50	29	66	22	39	-9	0.09	-0.24	0.08	4.61	58	20.09	74	84	55	0	6	2	0
UT SALT LAKE CITY	51	30	54	29	40	5	0.00	-0.30	0.00	2.58	60	10.04	66	78	42	0	6	0	0
VT BURLINGTON	29	16	37	7	23	-10	1.25	0.59	1.08	9.75	97	42.44	125	79	51	0	7	3	1
VA LYNCHBURG	41	20	46	14	30	-14	2.87	2.13	2.70	6.17	59	39.89	100	77	44	0	7	2	1
VA NORFOLK	51	33	69	27	42	-8	1.51	0.86	1.00	7.63	73	40.89	96	75	47	0	4	2	2
VA RICHMOND	47	27	64	20	37	-9	2.58	1.91	1.42	8.71	82	47.61	117	75	39	0	6	2	2
VA ROANOKE	40	24	47	19	32	-12	2.11	1.38	2.08	6.41	63	48.72	123	70	49	0	7	2	1
WA WASH/DULLES	38	24	42	16	31	-11	2.22	1.48	1.75	11.92	114	39.78	103	71	39	0	6	2	1
WA OLYMPIA	49	29	55	24	39	-2	0.05	-1.96	0.05	16.04	112	39.29	92	97	91	0	6	1	0
WA QUILLAYUTE	56	38	60	30	47	4	0.94	-2.63	0.59	20.47	71	82.30	94	85	76	0	1	4	1
WA SEATTLE-TACOMA	53	39	58	33	46	3	0.08	-1.37	0.06	11.48	107	30.88	98	83	73	0	0	2	0
WA SPOKANE	36	22	39	17	29	-2	0.07	-0.50	0.06	3.22	79	10.69	74	91	73	0	7	2	0
WA YAKIMA	42	17	45	12	29	-4	0.00	-0.27	0.00	0.83	42	5.19	75	83	70	0	7	0	0
WV BECKLEY	36	19	44	12	28	-13	1.70	1.00	1.51	6.51	74	36.48	95	75	61	0	7	4	1
WV CHARLESTON	39	22	53	16	31	-12	1.42	0.53	1.26	6.83	70	40.89	100	93	53	0	6	3	1
WV ELKINS	38	18	47	10	28	-10	1.25	0.42	1.11	6.83	68	39.74	93	86	49	0	7	2	1
WV HUNTINGTON	39	21	54	17	30	-13	1.00	0.20	0.91	6.93	78	39.35	101	87	52	0	7	3	1
WI EAU CLAIRE	31	12	39	1	21	-6	0.00	-0.38	0.00	6.56	83	34.20	110	80	49	0	7	0	0
WI GREEN BAY	30	15	38	6	23	-7	0.04	-0.44	0.02	9.18	122	33.17	119	82	54	0	7	2	0
WI LA CROSSE	35	17	47	8	26	-5	0.00	-0.44	0.00	7.17	94	34.31	110	76	41	0	7	0	0
WI MADISON	32	15	43	8	23	-8	0.14	-0.37	0.14	7.29	96	43.77	140	79	59	0	7	1	0
WI MILWAUKEE	32	18	47	11	25	-9	0.02	-0.60	0.02	8.11	96	38.24	117	76	52	0	7	1	0
WY CASPER	45	20	50	2	32	4	0.00	-0.17	0.00	4.74	161	13.94	112	75	47	0	6	0	0
WY CHEYENNE	49	24	57	15	36	6	0.00	-0.14	0.00	9.30	330	17.79	119	68	38	0	6	0	0
WY LANDER	43	19	49	4	31	5	0.00	-0.19	0.00	6.99	200	14.85	116	83	45	0	7	0	0
WY SHERIDAN	49	19	59	10	34	7	0.00	-0.14	0.00	6.93	193	16.93	121	81	63	0	7	0	0

Based on 1971-2000 normals

\*\*\* Not Available

# National Agricultural Summary

November 25 – December 1, 2013

Weekly National Agricultural Summary provided by USDA/NASS

Temperatures were generally above average in the western United States, while readings were below normal in the eastern portion of the nation. A band extending from the Appalachian Mountains to the Delta saw temperatures at least 10°F below normal. There was little precipitation recorded for the week in the western United States and the Corn Belt, but parts of the Southeast and New England received more than 2 inches.

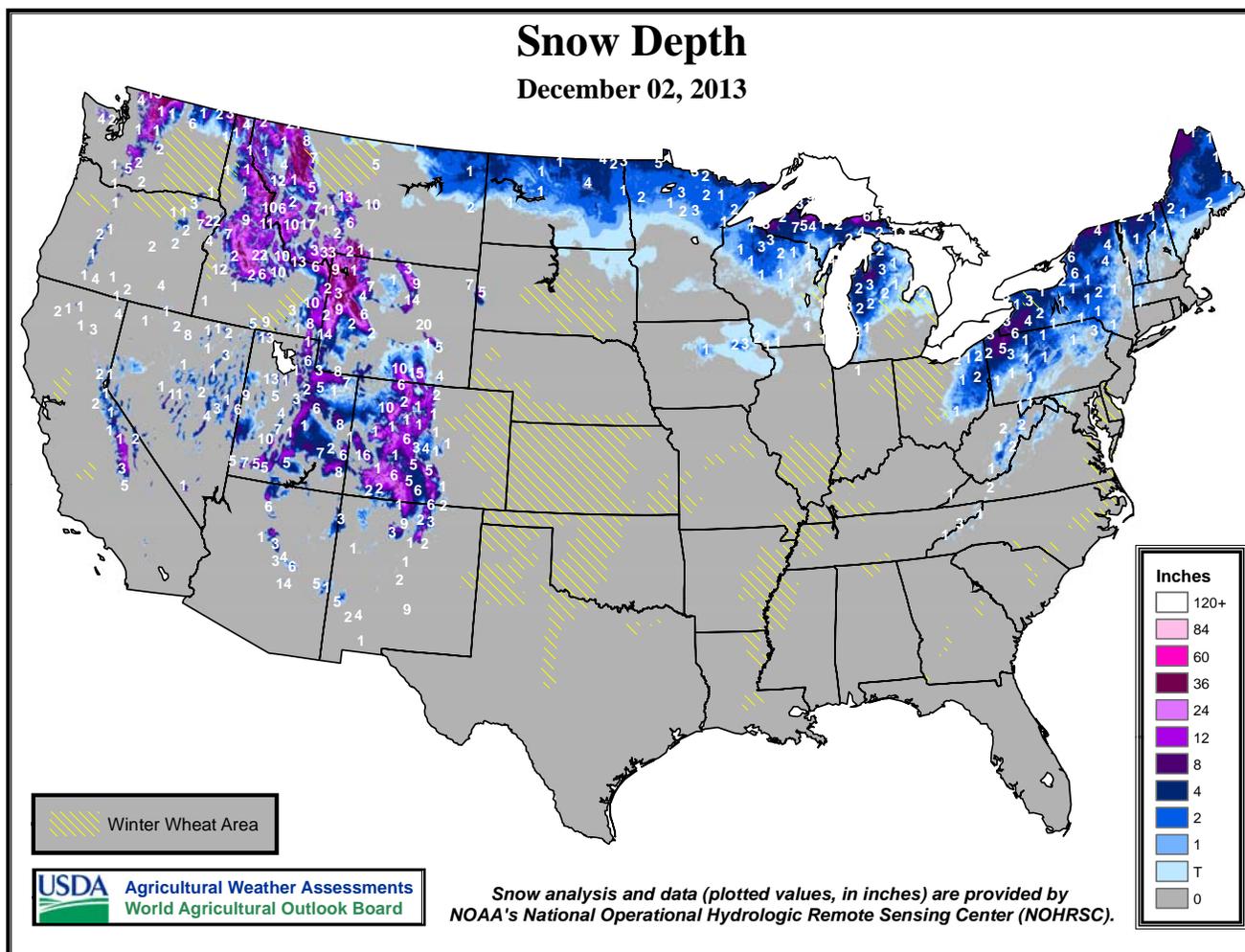
A quiet weather pattern persisted over California through the middle of the week, as high pressure settled over the West Coast. This brought dry conditions with above-normal temperatures to the state. Significant precipitation was confined to southern California on late Thursday and Friday. Harvested cotton fields were chopped and disked in order to have all fields in compliance with Cotton Plowdown Regulations by the December 20 deadline. Field preparation and planting continued for winter wheat and oats. Alfalfa continued to grow and was green-chopped as weather permitted. Range and non-irrigated pasture remained in fair to very poor condition. Though last week's rain germinated new vegetation in some areas, more precipitation is needed to improve foothill and valley range conditions. Sheep and cattle grazed on idle fields, dry land grains, and alfalfa fields. Livestock supplemental feeding of hay and grain continued. Calving season continued and lambing was underway across the state.

A hard freeze hit parts of northern Florida during the week. Numerous locations in the state recorded precipitation during the week, with some areas recording more than 2 inches of rain. Cotton and soybean harvest

was still underway in the northern part of the state. Recent frosts in the Panhandle put an end to warm season perennial pastures. Hay was being fed to livestock in the northern regions of the state. Sugarcane harvest was proceeding as scheduled in Hendry and Glades counties. Vegetable harvest in Charlotte, Collier, Glades, Hendry, and Lee counties was ramped up for the Thanksgiving market. Tomato harvest was completed in Gadsden County. Cabbage continued to be planted in Putnam County. Avocados were being harvested in Miami-Dade County. The cattle condition across the state was good. The pasture condition ranged from poor in north Florida to good across the remainder of the state. Pasture condition declined seasonally due to cooler, drier weather. Cattlemen were feeding supplemental hay in the panhandle and northern areas.

Temperatures were mostly above normal across Arizona for the week. Cotton harvest was 65 percent complete, same as last week due to rain that halted fieldwork. Cotton harvest is 7 percentage points behind last year and 6 points behind the five-year average. Arizona's alfalfa condition was rated in mostly fair to excellent condition. Harvesting occurred on over three-quarters of the alfalfa acreage across the state.

Mostly dry weather conditions in North Dakota last week allowed producers to make good harvest progress on remaining corn and sunflower acreage. However, with some snow being received over the weekend, there are some indications that some corn and sunflowers may not be harvested until spring. Dry conditions were recorded in much of South Dakota, with row crop harvest winding down in most locations.



**International Weather and Crop Summary**

**November 24 - 30, 2013**

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

**EUROPE:** Drier weather in western Europe allowed producers to resume fieldwork, while rain and snow in eastern growing areas provided soil moisture for wheat and rapeseed.

**FSU-WESTERN:** Although above-normal temperatures persisted, somewhat cooler weather eased winter crops toward dormancy.

**MIDDLE EAST:** Much-needed rain provided soil moisture for wheat establishment in Turkey.

**NORTHWEST AFRICA:** Widespread rain maintained adequate to abundant soil moisture for winter wheat establishment.

**EAST ASIA:** A brief period of showers provided favorable moisture to winter crops as some wheat began to enter dormancy.

**SOUTHEAST ASIA:** Rainfall in Java, Indonesia, benefited rice, although more rain would be welcomed in central growing areas.

**AUSTRALIA:** Widespread showers further improved early summer crop prospects.

**SOUTH AFRICA:** Rain maintained generally favorable conditions for corn and other rain-fed summer crops.

**ARGENTINA:** Locally heavy rain returned to central Argentina, benefiting emerging summer grains and oilseeds.

**BRAZIL:** Heavy showers increased moisture for soybeans and cotton in key production areas.

**November 2013**

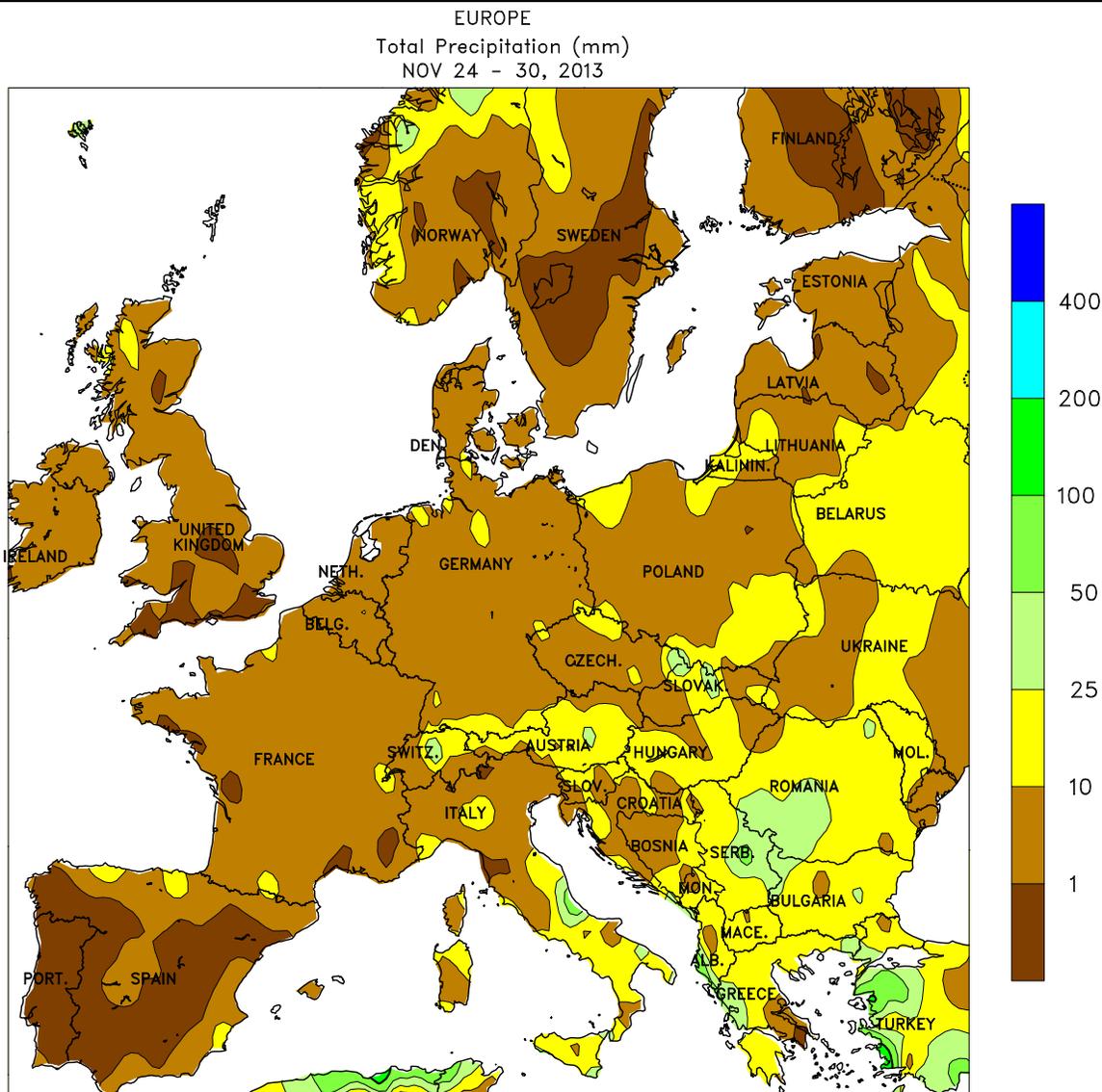
COUNTRY	CITY	TEMPERATURE (C)					PRECIP. (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DEP NRM	TOT	DEP NRM
ALGERI	ALGER	19	11	28	3	15	-0.2	199	118
	BATNA	16	5	27	-3	10	-0.2	24	6
ARGENT	IGUAZU	31	19	36	14	25	0.6	179	42
	FORMOSA	31	20	40	13	25	0.8	208	39
	CERES	29	17	37	11	23	1.2	165	63
	CORDOBA	27	14	37	9	20	-0.2	256	146
	RIO CUARTO	27	14	38	9	21	1	165	33
	ROSARIO	27	16	34	10	22	1.3	247	137
	BUENOS AIRES	26	15	34	7	20	1.2	202	109
	SANTA ROSA	29	13	36	6	21	1.7	100	4
	TRES ARROYOS	25	12	32	3	18	1.7	52	-33
AUSTRA	DARWIN	32	25	34	21	29	-0.7	411	277
	BRISBANE	26	19	29	14	22	0	203	96
	PERTH	30	15	37	9	22	3	7	-20
	CEDUNA	25	12	39	6	19	-0.3	7	-13
	ADELAIDE	23	12	34	7	17	-0.7	9	-11
	MELBOURNE	21	11	33	5	16	0	56	7
	WAGGA	27	9	36	4	18	0.2	8	-33
	CANBERRA	24	7	32	-2	15	-0.5	106	39
AUSTRI	VIENNA	9	4	20	-3	6	1.9	38	-7
	INNSBRUCK	7	1	18	-11	4	0.7	40	-27
BAHAMA	NASSAU	29	23	33	20	26	1.5	94	26
BARBAD	BRIDGETOWN	30	25	30	22	27	0.3	80	-52
BELARU	MINSK	6	3	12	-7	5	4.2	65	16
BERMUD	ST GEORGES	23	19	27	14	21	-0.9	86	-4
BOLIVI	LA PAZ	17	3	21	-2	10	0.5	31	-23
BRAZIL	FORTALEZA	30	26	32	24	28	-0.4	6	-20
	RECIFE	29	25	30	21	27	-1.5	47	19
	CAMPO GRANDE	30	21	34	14	25	-0.3	143	-9
	FRANCA	27	19	33	16	23	0.4	149	-4
	RIO DE JANEIRO	29	22	40	18	25	0.2	131	32
	LONDRINA	31	19	37	15	25	2	114	-55
	SANTA MARIA	29	18	35	12	23	1.3	296	172
	TORRES	24	17	30	12	21	-2.5	150	9
BULGAR	SOFIA	12	4	20	-7	8	3.3	30	-13
BURKIN	OUAGADOUGOU	38	21	39	17	29	1.6	0	-3
CANADA	TORONTO	6	-2	16	-13	2	-1	36	-33
	MONTREAL	5	-3	19	-15	1	-0.7	100	8
	WINNIPEG	-1	-10	10	-26	-6	-0.5	0	-22
	REGINA	-1	-13	13	-31	-7	-1.6	0	-13
	SASKATOON	-4	-14	9	-29	-9	-2.7	0	-13
	LETHBRIDGE	-14	-21	0	-29	-18	-16.3	2	-14
	CALGARY	2	-9	11	-22	-3	-0.4	13	0
	EDMONTON	-2	-10	11	-25	-6	-2.3	22	7
	VANCOUVER	9	3	15	-4	6	0.1	123	-57
CANARY	LAS PALMAS	24	19	26	16	22	0.8	14	-3
CHILE	SANTIAGO	27	10	34	7	18	1.1	0	-5
CHINA	HARBIN	1	-6	13	-16	-2	2.7	19	9
	HAMI	8	-5	17	-10	1	1.2	0	-2
	LANCHOW	***	***	10	1	***	*****	*****	*****
	BEIJING	12	1	19	-4	7	2	0	-7
	TIENTSIN	12	2	19	-6	7	1.2	4	-5
	LHASA	14	-3	17	-6	5	1.6	1	0
	KUNMING	20	8	25	3	14	1.8	9	-33
	CHENGCHOW	15	5	23	0	10	2	31	9
	YEHCHANG	18	10	24	3	14	1.6	34	-12
	HANKOW	18	7	24	-3	13	0.3	55	6
	CHUNGKING	17	13	21	8	15	0.7	55	7
	CHIHKIANG	19	11	28	3	15	2.1	84	30
	WU HU	18	9	27	-1	13	1.5	16	-43
	SHANGHAI	18	10	28	-2	14	0.3	20	-33
	NANCHANG	20	11	32	3	16	2.1	88	31
	TAIPEI	24	20	31	12	22	0	51	-21
	CANTON	24	16	30	6	20	0.3	42	8
	NANNING	24	16	31	11	20	0.8	214	173
COLOMB	BOGOTA	19	9	21	6	14	0.6	255	167
COTE D	ABIDJAN	30	25	32	22	28	-0.2	299	167
CUBA	HAVANA	29	20	32	16	25	0.6	0	-86
CYPRUS	LARNACA	25	15	28	8	20	2.8	2	-51
CZECHR	PRAGUE	7	2	16	-7	4	1.6	34	5

Based on Preliminary Reports

## November 2013

COUNTRY	CITY	TEMPERATURE					PRECIP.			COUNTRY	CITY	TEMPERATURE					PRECIP.		
		AVG	AVG	HI	LO	DEP	NRM	TOT	DEP			AVG	AVG	HI	LO	AVG	NRM	TOT	DEP
		(C)					(MM)					(C)					(MM)		
		MAX	MIN	MAX	MIN	AVG	NRM	TOT	DEP	MAX	MIN	MAX	MIN	AVG	NRM	TOT	DEP		
DENMAR	COPENHAGEN	8	4	12	-2	6	1.4	22	-22	MEXICO	GUADALAJARA	23	14	29	7	19	1.2	20	7
EGYPT	CAIRO	26	17	33	11	22	2.3	0	-5		TLAXCALA	22	10	26	4	16	1	16	-2
	ASWAN	31	18	36	15	25	3.0	0	0		ORIZABA	21	14	27	9	18	0.4	84	7
ESTONI	TALLINN	6	3	9	-7	5	3.6	55	-14	MOROCC	CASABLANCA	20	13	24	8	17	0.5	41	-12
ETHIOP	ADDIS ABABA	23	11	26	8	17	1.3	4	-4		MARRAKECH	24	11	32	6	18	1.5	10	-14
F GUIA	CAYENNE	31	23	33	21	27	0.8	147	-7	MOZAMB	MAPUTO	***	***	38	17	***	*****	*****	*****
FIJI	NAUSORI	30	23	33	20	27	1.7	118	-126	N KORE	PYONGYANG	8	1	18	-8	5	0.1	82	41
FINLAN	HELSINKI	5	2	9	-9	4	3.3	84	13	NEW CA	NOUMEA	27	21	30	20	24	0.4	41	-29
FRANCE	PARIS/ORLY	10	5	17	-1	7	0.0	81	32	NIGER	NIAMEY	38	21	42	18	30	1.6	0	-1
	STRASBOURG	8	4	18	-5	6	0.8	75	27	NORWAY	OSLO	3	-2	12	-9	1	1.5	33	-54
	BOURGES	9	5	18	-3	7	0.3	71	9	NZEALA	AUCKLAND	22	14	26	10	18	*****	56	*****
	BORDEAUX	12	7	20	-4	10	0.5	92	-13		WELLINGTON	18	12	23	5	15	*****	40	*****
	TOULOUSE	11	6	23	-5	9	-0.1	78	29	P RICO	SAN JUAN	30	24	32	22	27	0.4	224	67
	MARSEILLE	14	7	23	-3	11	0.3	44	-6	PAKIST	KARACHI	32	18	35	16	25	1.3	0	*****
GABON	LIBREVILLE	29	24	30	22	26	0.6	644	121	PERU	LIMA	21	17	24	14	19	-0.4	694	693
GERMAN	HAMBURG	8	4	13	-6	6	0.8	42	-27	PHILIP	MANILA	31	25	34	24	28	0.1	107	-36
	BERLIN	8	4	14	-4	6	1.1	31	-13	PNEWGU	PORT MORESBY	31	25	34	22	28	0.7	100	46
	DUSSELDORF	9	4	15	-5	6	-0.5	38	-24	POLAND	WARSAW	8	4	16	-4	6	3.0	20	-16
	LEIPZIG	7	3	16	-6	5	0.8	41	5		LODZ	8	3	15	-4	5	2.6	20	-21
	DRESDEN	7	3	16	-6	5	0.6	26	-17		KATOWICE	8	2	17	-4	5	1.9	24	-25
	STUTTGART	7	3	16	-5	5	0.6	38	-8	PORTUG	LISBON	17	11	21	6	14	0.1	7	-94
	NURNBERG	7	2	16	-10	5	0.6	32	-13	ROMANI	BUCHAREST	13	5	23	-4	9	4.1	32	-7
	AUGSBURG	6	2	17	-8	4	0.6	23	-28	RUSSIA	ST.PETERSBURG	6	3	10	-6	5	4.6	40	-14
GREECE	THESSALONIKA	17	10	23	-2	14	3.1	27	-32		KAZAN	4	1	13	-4	3	6.6	35	-12
	LARISSA	18	7	26	-2	13	2.4	27	-45		MOSCOW	6	3	16	-5	4	5.7	46	-12
	ATHENS	***	***	25	5	***	*****	*****	*****		YEKATERINBURG	4	0	13	-6	2	8.0	27	-2
GUADEL	RAIZET	30	23	31	20	27	0.6	93	-103		OMSK	3	-2	11	-10	1	8.2	22	-7
HONGKO	HONG KONG INT	25	20	32	12	23	1.1	37	2		BARNAUL	2	-3	12	-16	-1	6.2	35	6
HUNGAR	BUDAPEST	11	5	19	-6	8	3.6	28	-21		KHABAROVSK	-1	-7	10	-19	-4	3.8	33	10
ICELAN	REYKJAVIK	***	***	8	-4	***	*****	*****	*****		VLADIVOSTOK	4	-1	13	-11	2	2.9	40	14
INDIA	AMRITSAR	26	10	28	7	18	0.0	23	16		VOLGOGRAD	7	1	17	-6	4	4.8	10	-21
	NEW DELHI	27	12	31	9	20	-0.8	2	-6		ASTRAKHAN	11	2	19	-6	6	3.4	9	-8
	AHMEDABAD	32	17	36	13	24	-0.2	0	-10		ORENBURG	6	0	13	-8	3	6.6	16	-19
	INDORE	28	15	31	11	21	-0.7	0	-15	S AFRI	PRETORIA	31	17	35	13	24	2.6	105	-7
	CALCUTTA	30	18	33	15	24	-0.1	0	-37		JOHANNESBURG	26	13	29	9	20	1.6	142	25
	VERAVAL	33	21	36	18	27	0.8	0	-26		BETHAL	27	13	31	8	20	2.1	200	62
	BOMBAY	34	22	38	18	28	0.6	0	-6		DURBAN	26	19	33	13	22	0.5	78	-34
	POONA	30	15	33	10	23	0.3	13	-14		CAPE TOWN	24	15	31	11	19	1.1	92	74
	BEGAMPET	29	18	32	14	24	0.3	14	-15	S KORE	SEOUL	11	3	21	-6	7	-0.5	59	-4
	VISHAKHAPATNAM	30	22	32	19	26	0.2	189	87	SAMOA	PAGO PAGO	30	26	32	23	28	0.6	140	-143
	MADRAS	31	23	33	21	27	0.8	188	-167	SENEGA	DAKAR	29	24	33	19	26	0.6	7	5
	MANGALORE	33	23	34	20	28	0.4	111	45	SPAIN	VALLADOLID	11	4	20	-4	8	-0.1	7	-41
INDONE	SERANG	32	23	34	21	28	-0.1	155	5		MADRID	15	4	23	-4	10	-0.3	23	-28
IRELAN	DUBLIN	9	4	14	-3	7	-0.8	22	-43		SEVILLE	20	9	27	2	14	-0.9	1	-96
ITALY	MILAN	12	6	20	-4	9	2.0	67	-9	SWITZE	ZURICH	6	3	18	-6	4	0.2	108	20
	VERONA	14	7	19	-2	11	3.8	76	11		GENEVA	8	4	19	-5	6	0.9	116	32
	VENICE	14	8	19	-1	11	3.1	80	9	SYRIA	DAMASCUS	22	8	26	2	15	3.0	7	-16
	GENOA	16	11	21	3	14	1.1	42	-61	TAHITI	PAPEETE	30	24	31	21	27	0.3	26	-104
	ROME	17	10	23	0	14	1.2	153	57	TANZAN	DAR ES SALAAM	33	23	35	21	28	1.7	78	-38
	NAPLES	18	11	25	0	15	1.9	115	-24	THAILA	PHITSANULOK	33	22	35	19	27	0.9	33	0
JAMAIC	KINGSTON	32	25	34	24	29	1.2	24	-66		BANGKOK	33	25	36	24	29	1.7	80	31
JAPAN	SAPPORO	10	4	16	-3	7	2.1	108	6	TOGO	LOME	31	26	33	25	28	1.2	0	-22
	NAGOYA	16	8	22	1	12	0.0	49	-30	TRINID	PORT OF SPAIN	31	23	33	22	27	0.4	145	-53
	TOKYO	17	10	21	6	14	0.8	37	-55	TUNISI	TUNIS	21	13	29	5	17	1.1	52	-12
	YOKOHAMA	17	10	22	4	14	0.5	23	-76	TURKEY	ISTANBUL	18	11	23	1	14	3.0	13	-68
	KYOTO	16	8	22	2	12	-0.4	69	7		ANKARA	15	-1	21	-8	7	1.8	14	-26
	OSAKA	17	10	22	3	13	-0.1	119	55	TURKME	ASHKHBAD	18	6	26	0	12	2.1	2	-18
KAZAKH	KUSTANAY	6	-1	11	-10	3	8.7	10	-13	UKINGD	ABERDEEN	9	3	15	-2	6	0.1	25	-58
	TSELINOGRAD	4	-3	12	-9	1	7.2	13	-12		LONDON	10	5	16	-3	8	-0.1	27	-23
	KARAGANDA	3	-4	11	-12	0	5.3	32	5	UKRAIN	KIEV	8	4	18	-4	6	4.9	38	-10
KENYA	NAIROBI	26	15	29	13	21	1.3	82	-32		LVOV	9	3	17	-6	6	4.1	29	-15
LIBYA	TRIPOLI	23	13	32	7	18	0.6	93	44		KIROVOGRAD	9	4	21	-5	7	5.3	13	-22
	BENGHAZI	23	15	25	11	19	1.0	24	-18		ODESSA	11	7	19	-5	9	3.9	9	-34
LITHUA	KAUNAS	7	3	11	-4	5	3.1	66	19		YALTA	14	10	18	4	12	2.7	9	-53
LUXEMB	LUXEMBOURG	7	3	14	-4	5	0.6	58	-20		KHARKOV	8	3	18	-4	6	4.8	14	-30
MALAYS	KUALA LUMPUR	32	24	34	23	28	1.5	444	156	UZBEKI	TASHKENT	15	4	21	-3	10	1.3	20	-28
MALI	BAMAKO	36	18	40	13	27	-0.1	0	-5	ZIMBAB	KADOMA	31	18	36	16	25	-1.1	115	29
MARSHA	MAJURO	29	26	31	25	28	0.2	320	-1										
MARTIN	LAMENTIN	31	24	33	21	27	1.5	148	-53										
MAURIT	NOUAKCHOTT	33	21	38	18	27	1.2	22	20										

Based on Preliminary Reports



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

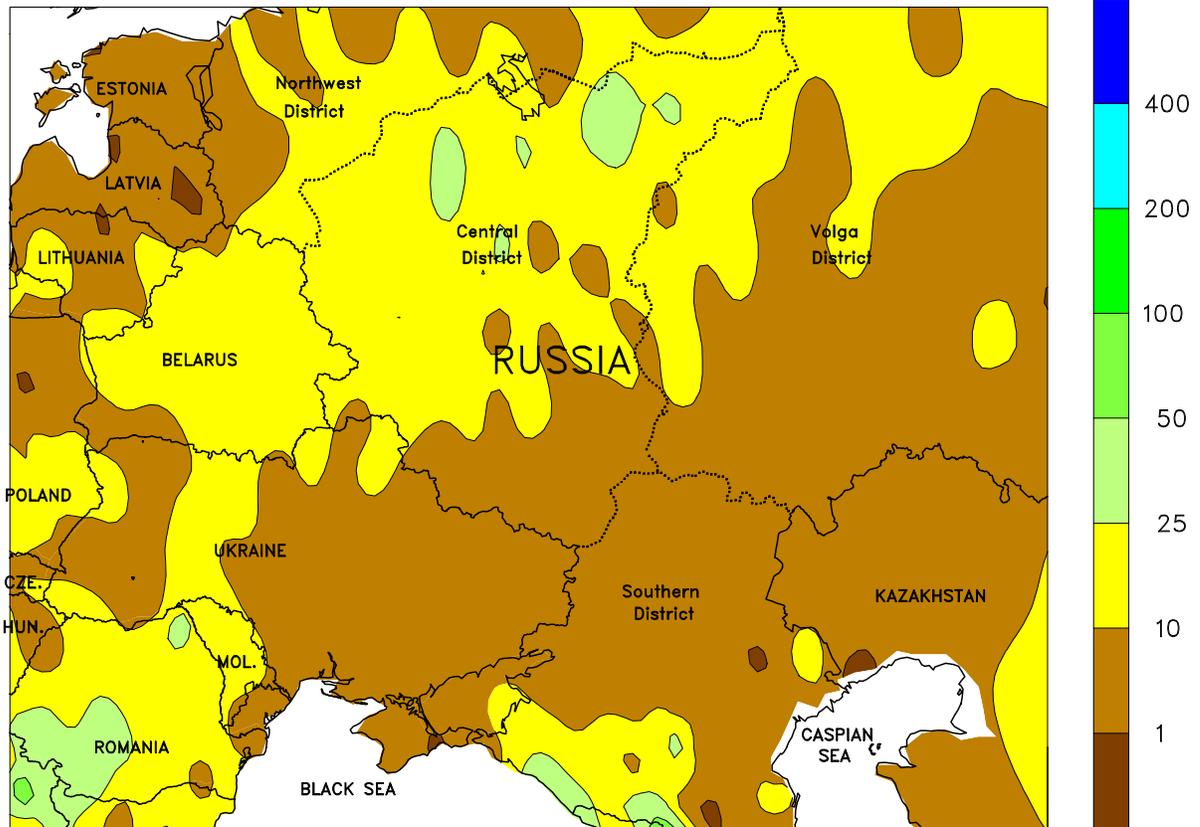


**EUROPE**

Drier weather promoted a resumption of fieldwork in western Europe, while rain and snow improved soil moisture for winter crops in eastern growing areas. High pressure anchored over Scandinavia provided dry albeit cool weather (1-5°C below normal) to most of western Europe. The respite from recent wetness allowed producers to resume late summer crop harvesting as well as other seasonal fieldwork. However, hard freezes (-5°C or below) were noted as far south as central Spain, slowing winter crop establishment and possibly causing some burnback to tender vegetation. Meanwhile, a cold front

generated rain and snow (5-25 mm, locally more) across much of eastern Europe, providing soil moisture for winter wheat and rapeseed. By mid-week, snow covered central portions of the Danube River Valley, although warmer weather at week's end caused much of the snow to melt. Farther south, a potent Mediterranean storm developed south of Italy at week's end, bringing increasingly rainy, windy weather to Greece and southern Italy. Weekly average temperatures dipped below 5°C from eastern France into Poland and the Balkans, indicating that winter crops were easing into dormancy in these locales.

WESTERN FSU  
Total Precipitation (mm)  
NOV 24 - 30, 2013



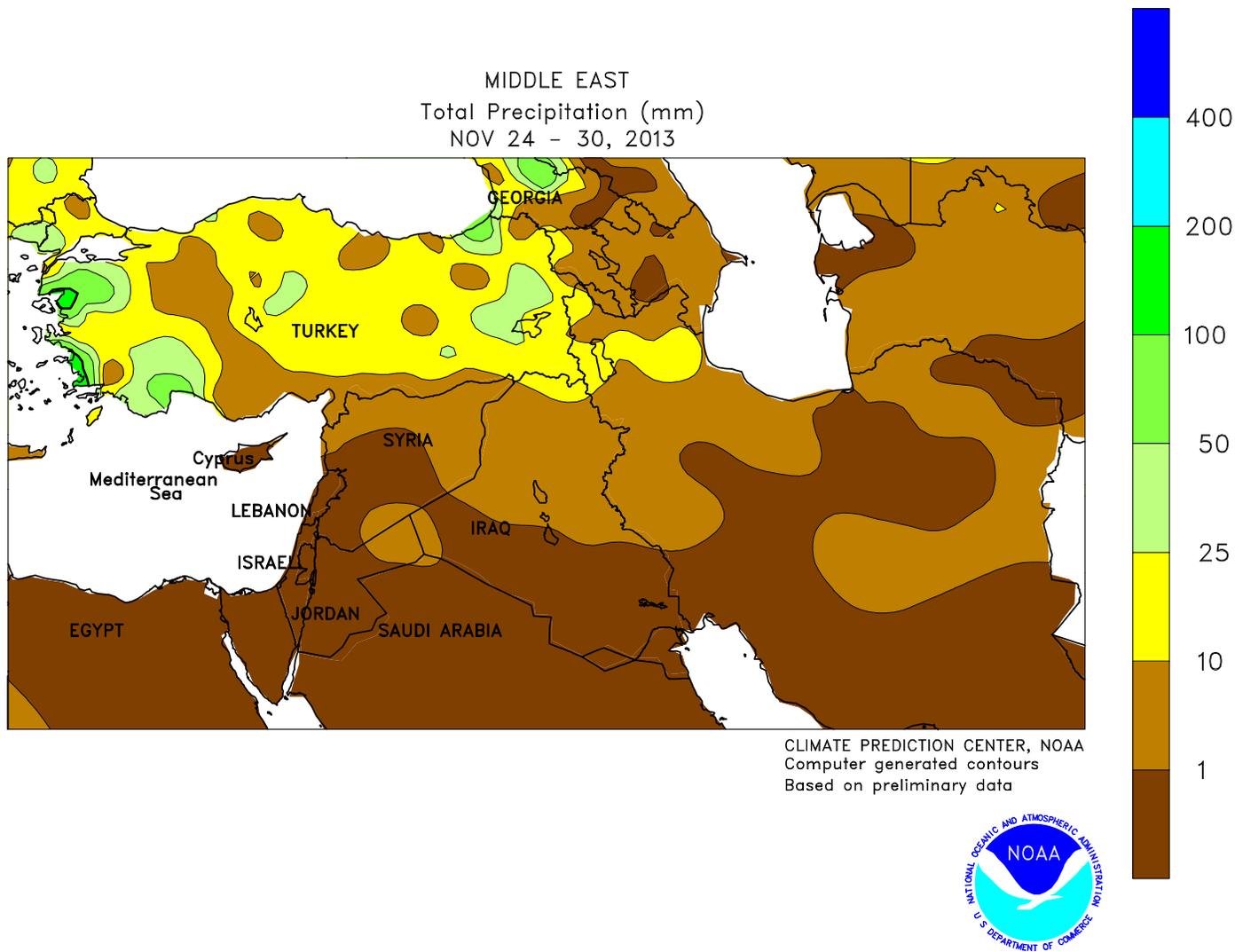
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



**WESTERN FSU**

Despite a fifth consecutive week of above-normal temperatures, somewhat cooler weather eased winter crops toward dormancy. Temperatures averaged 1 to 5°C above normal across most major growing areas, which were notably lower than readings have been for most of November. Consequently, winter crops eased toward dormancy as weekly average temperatures dropped below 5°C across all but southern-most growing areas. Winter

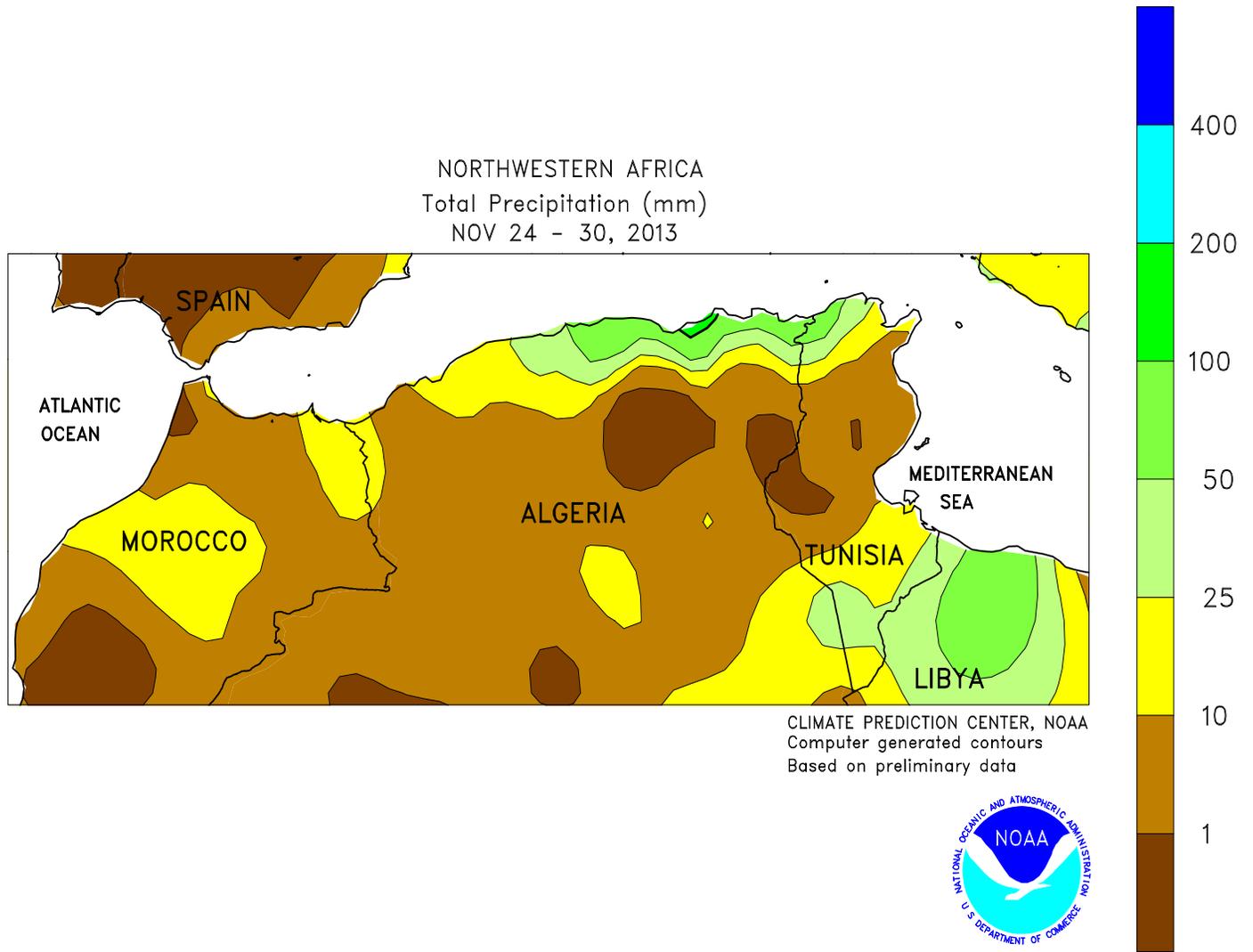
wheat added vegetative growth from southern Ukraine into southern portions of Russia’s Southern District, where weekly average temperatures remained well above 5°C. Rain (10-25 mm) provided soil moisture for winter wheat in key growing areas of the Southern District. A second area of mostly rain (10-25 mm) fell from western Ukraine and Belarus into northern Russia. At week’s end, most of the region remained uncharacteristically devoid of snow cover.



**MIDDLE EAST**

Much-needed rain arrived in central Turkey, while seasonably drier weather returned to southern portions of the region. An upper-air low generated the first appreciable rainfall of the season (10-25 mm, locally more) across much of central Turkey, supplying soil moisture for winter wheat and barley establishment. Rain also fell in western Turkey, maintaining adequate to abundant soil moisture for winter grains. However, the precipitation bypassed some growing areas in western

portions of Turkey's Anatolian Plateau, where soil moisture remained limited for wheat and barley establishment. In contrast, drier weather from eastern Syria into western Iran favored fieldwork and winter crop establishment after a 2-week spell of unseasonably heavy rain. Temperatures averaged 1 to 4°C above normal over much of the region, allowing winter grains to add vegetative growth, even in the typically colder northern crop areas.

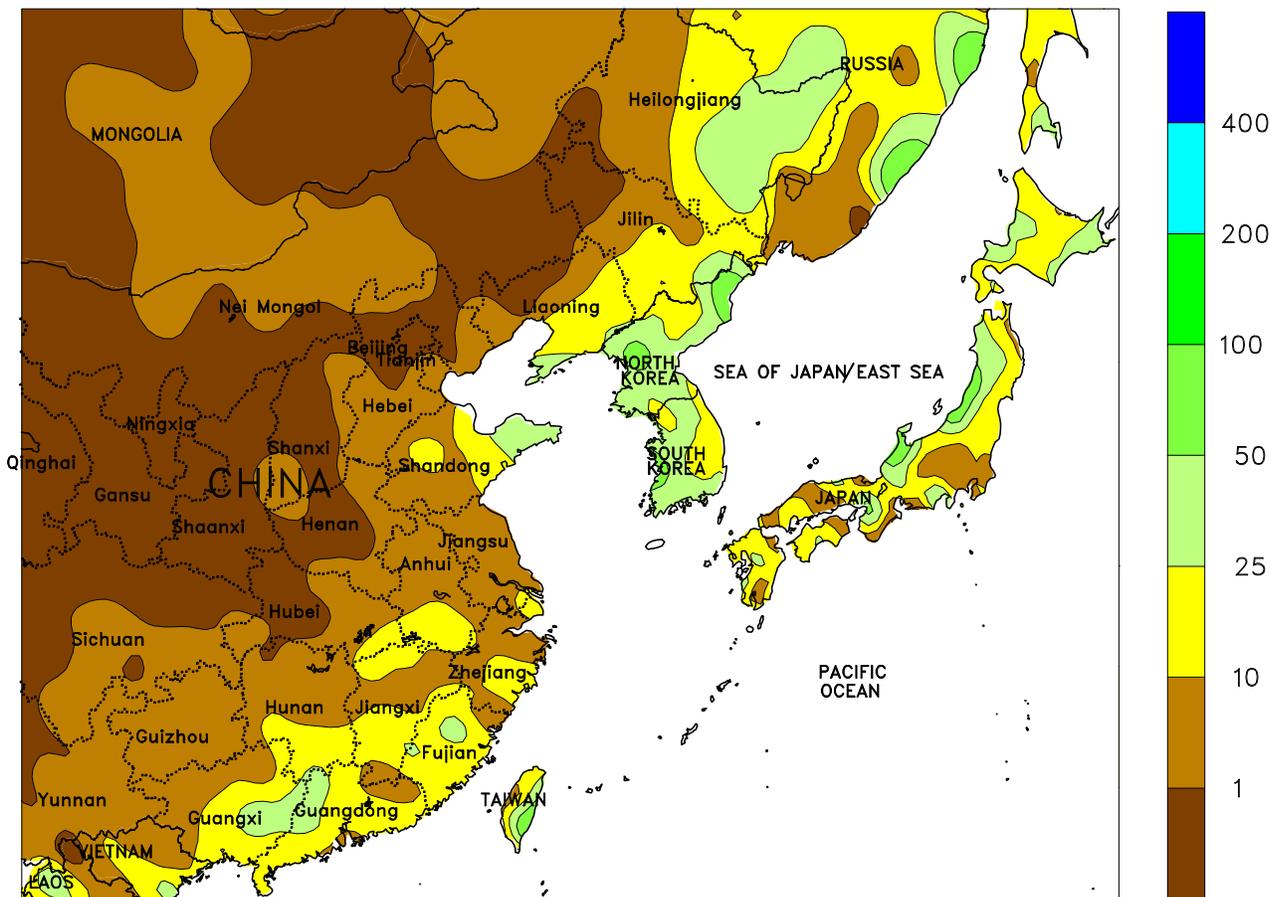


**NORTHWESTERN AFRICA**

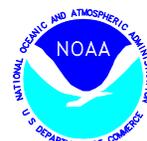
Locally heavy rain persisted across the region, maintaining adequate to abundant soil moisture for winter grains. A persistent northerly flow ushered copious Mediterranean moisture into the region, leading to widespread, locally heavy showers and thunderstorms (10-100 mm) in Algeria and Tunisia. Lighter showers (1-10 mm) were also reported in

Morocco, where much-needed rain arrived the previous week. Overall, early prospects for winter wheat and barley were favorable due to adequate to abundant soil moisture for crop establishment. However, some planting delays have been likely in eastern growing areas where wet weather has been the most pronounced.

EASTERN ASIA  
Total Precipitation (mm)  
NOV 24 - 30, 2013



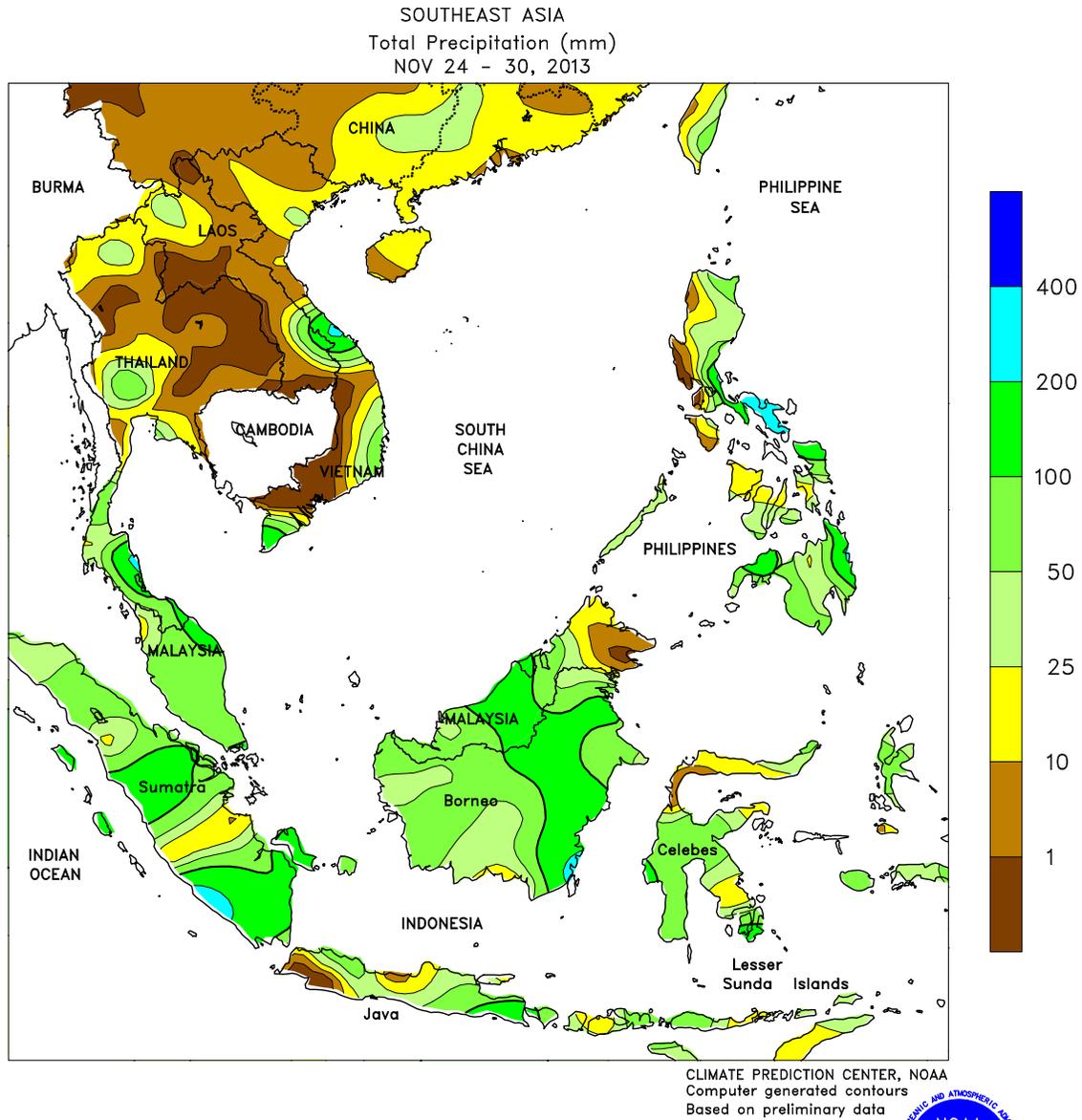
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



**EASTERN ASIA**

Early-week showers (1-10 mm) maintained favorable topsoil moisture for winter wheat, although poor subsoil moisture has necessitated supplemental irrigation for proper crop establishment. Weekly temperatures averaged below 5°C in parts of Hebei and Shandong, easing wheat into dormancy. Across the remainder of the North China Plain, temperatures were sufficient to maintain crop growth, albeit at a limited rate with lows consistently below freezing. In the Yangtze Valley, moisture conditions were similar to those of the North China Plain. Early-week showers (1-20

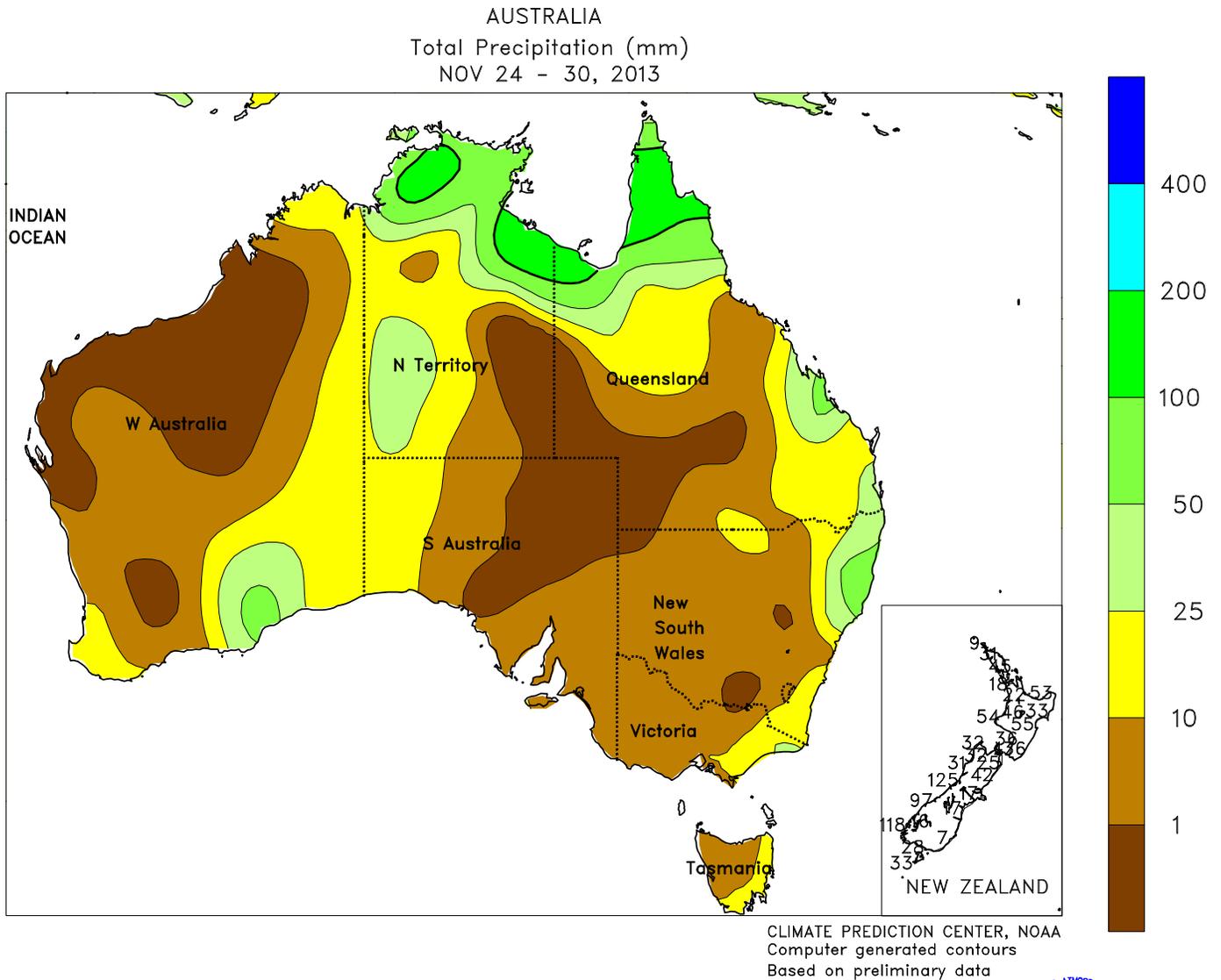
mm) in eastern rapeseed areas provided favorable topsoil moisture, while supplemental irrigation was needed to make up for seasonal (since October 1) rainfall deficits. Weekly temperatures averaged between 5 and 10°C, allowing crops to continue developing. Dormancy typically occurs mid- to late-December in the Yangtze Valley; rapeseed does not typically go dormant in Sichuan and across the southern tier provinces. The bulk of the rainfall for the week (10-50 mm) was concentrated in the far southern provinces where sugarcane harvesting is underway.



**SOUTHEAST ASIA**

Rainfall (30-75 mm) maintained favorable moisture supplies for rice in western Java, Indonesia, while boosting moisture supplies in eastern Java, where the rainy season has yet to become fully established. However, a period of drier-than-normal weather reduced moisture for rice in central Java. In the Philippines,

abundant to excessive moisture conditions for rice and corn continued in the northeast with 200 to over 300 mm of rain. Meanwhile, widespread seasonal rain (30-100 mm) maintained good soil moisture for oil palm throughout Malaysia and Indonesia.

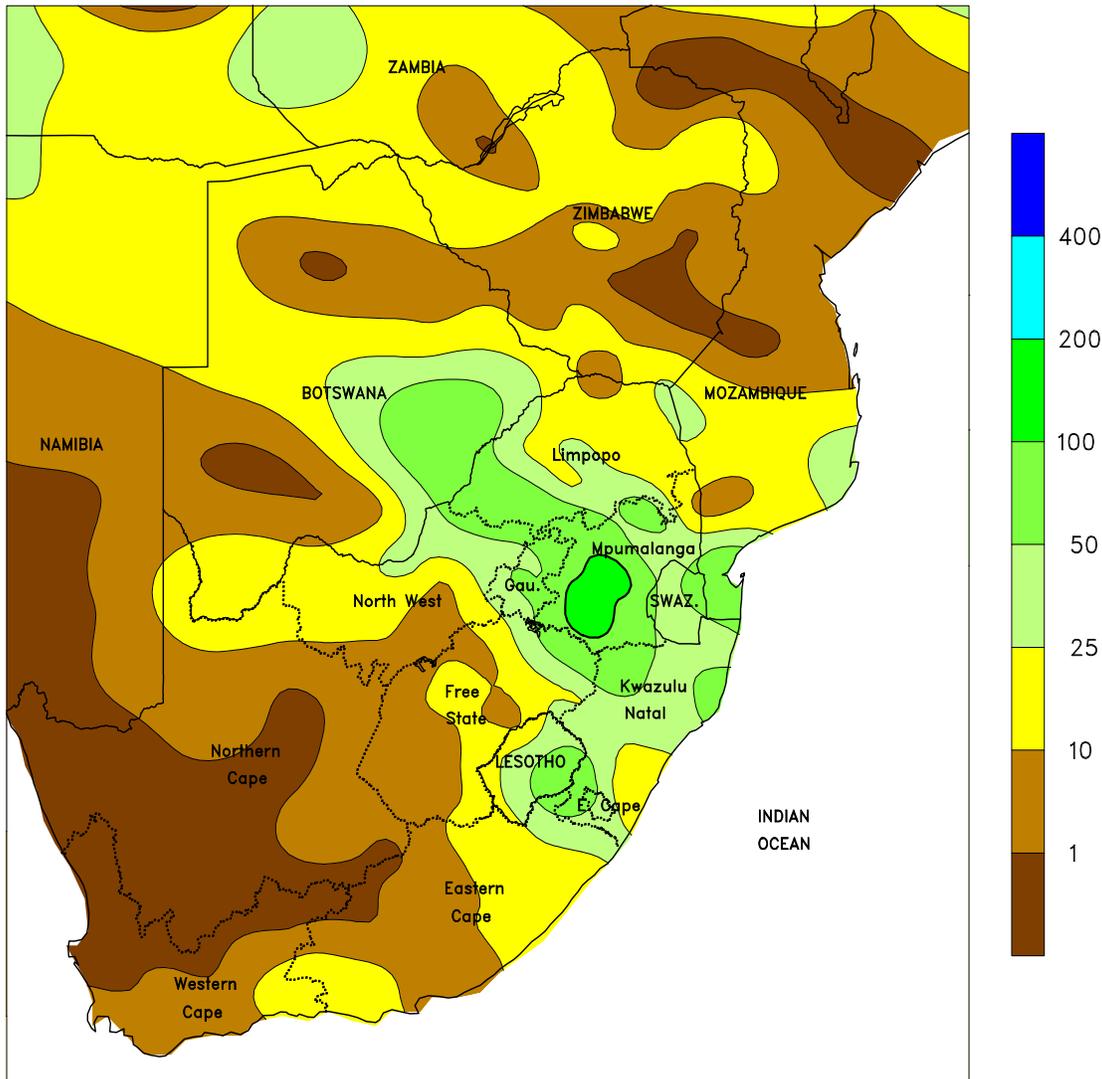


**AUSTRALIA**

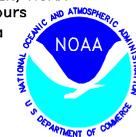
In western and southeastern Australia, seasonably warm, mostly dry weather covered much of the wheat belt. The warmth and dryness helped maintain winter crop quality and allowed wheat, barley, and canola harvesting to proceed. Elsewhere, for a second consecutive week, widespread showers (5-25 mm, locally near 50 mm) overspread northern New South Wales and southern Queensland, further

improving early summer crop prospects. The continuing rain increased topsoil moisture for dryland summer crops, such as sorghum, and helped ease watering requirements for crops that are predominately irrigated, such as cotton. Temperatures in major summer crop areas were generally seasonable, with maximum temperatures generally in the lower to middle 30s degrees C.

SOUTH AFRICA  
Total Precipitation (mm)  
NOV 24 - 30, 2013



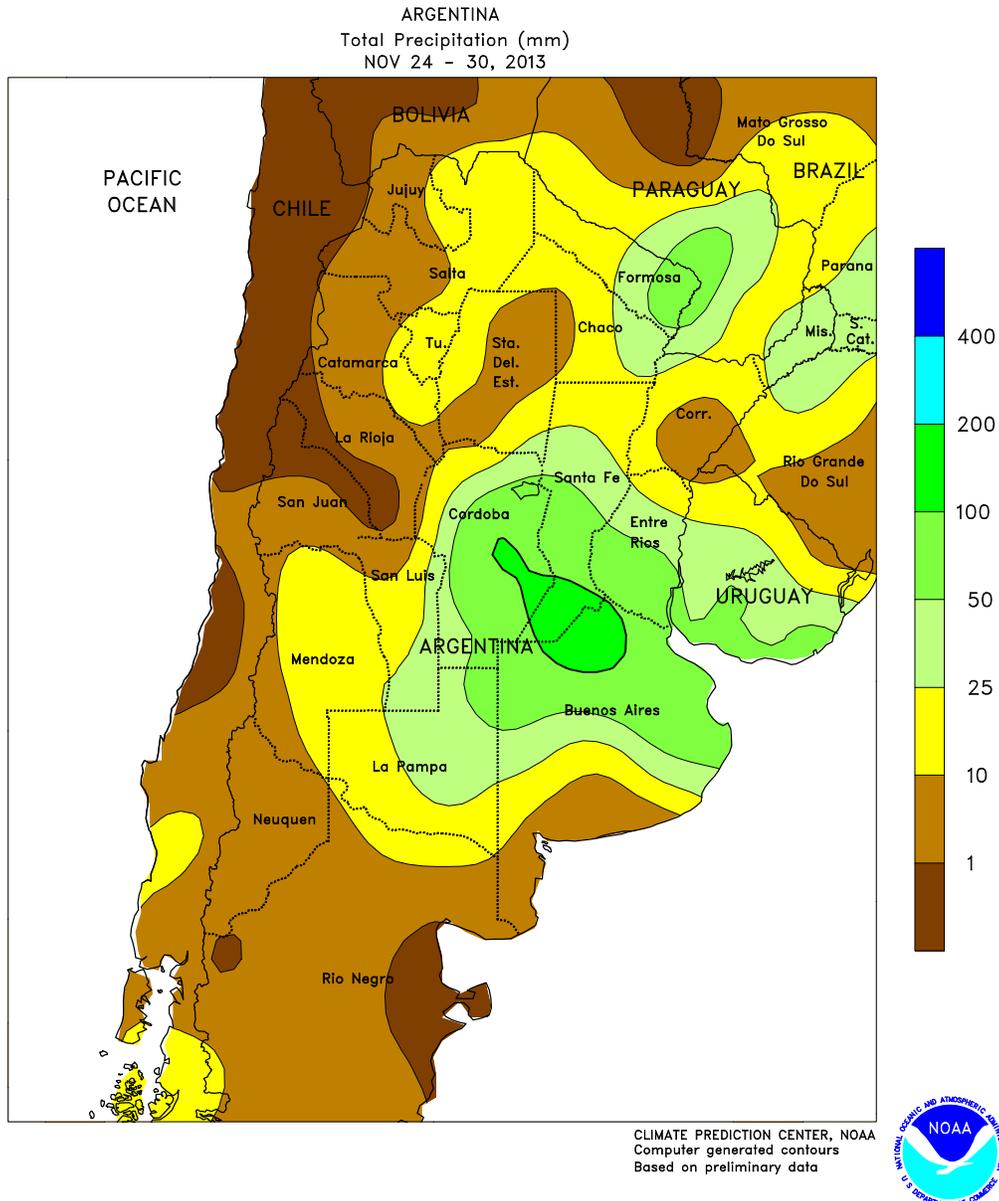
CLIMATE PREDICTION CENTER, NOAA  
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**SOUTH AFRICA**

Locally heavy showers benefited rain-fed summer crops in key eastern production areas. Rainfall exceeded 25 mm over a broad area stretching from southern Limpopo to KwaZulu-Natal, with the heaviest amounts (greater than 100 mm) centered over south-central Mpumalanga. The moisture maintained generally favorable conditions for germination and establishment of summer crops in central and eastern sections of the corn belt, particularly toward the western edge of the rain where planting was underway. Near- to below-normal temperatures (daytime highs ranging from the upper 20s to lower 30s degrees C) fostered crop development in the absence of stressful heat. Drier conditions continued in the western corn belt (central sections of North West and Free State), with

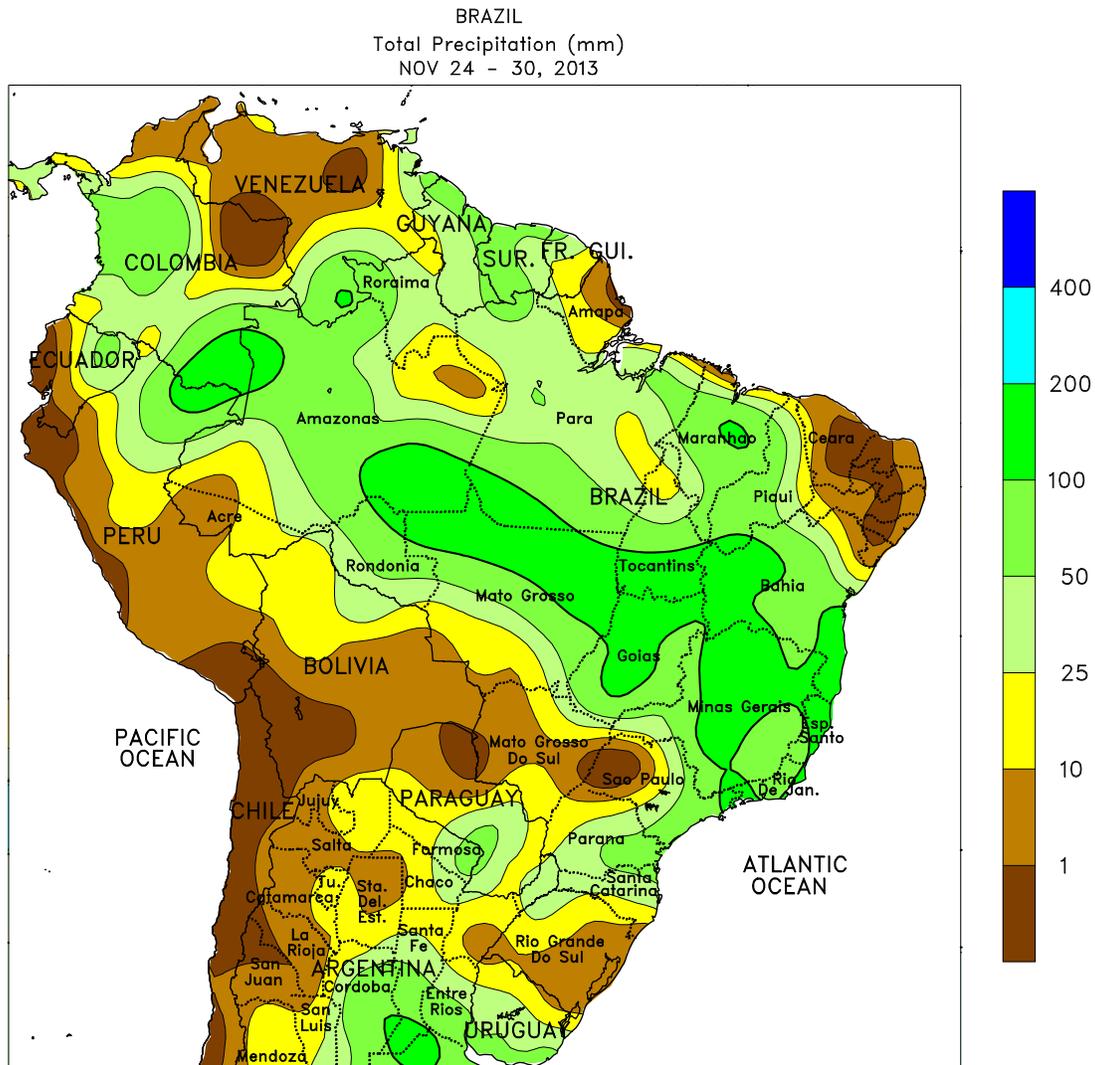
above-normal temperatures (daytime highs reaching the middle 30s) maintaining high moisture losses. Farmers in western sections of the corn belt typically plant in December — or later — as moisture becomes available. Elsewhere, showers (5-25 mm) lingered along southern coastal areas of Western and Eastern Cape Provinces, but seasonably warmer conditions (daytime highs reaching the middle 30s) maintained high moisture demands of predominantly irrigated crops. Mostly dry, unseasonably warm weather (daytime highs approaching 40°C) also maintained high irrigation requirements for corn, cotton, and other irrigated crops in Northern Cape.



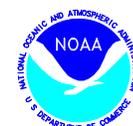
**ARGENTINA**

Locally heavy rain increased moisture for summer crop establishment as well as development of immature winter grains. Rainfall totaled 25 to 100 mm in the high-yielding farming areas of central Argentina, with amounts in excess of 100 mm recorded in northern Buenos Aires. In contrast, drier conditions prevailed in southern sections of La Pampa and Buenos Aires, spurring fieldwork that included planting of summer grains and oilseeds and early winter grain harvests. Weekly average temperatures were near normal throughout the region, with daytime highs reaching the 30s (degrees C) during periods of dryness. Somewhat warmer conditions prevailed in the traditionally warmer north, with weekly temperatures

averaging 1 to 2°C above normal and daytime highs reaching 40°C early in the week from Santiago del Estero to western Formosa. Scattered showers brought some relief from the heat, but weekly totals were generally below 25 mm. An exception was the eastern cotton belt (eastern production areas of Chaco and Formosa), where rainfall amounts approached 50 mm in spots. According to Argentina's Ministry of Agriculture, sunflowers were 97 percent planted as of November 28, still well ahead of last season (89 percent planted). In contrast, corn was 44 percent planted (up 4 points), 14 points behind last year. Soybean planting advanced 10 points to 44 percent complete, slightly behind last year.



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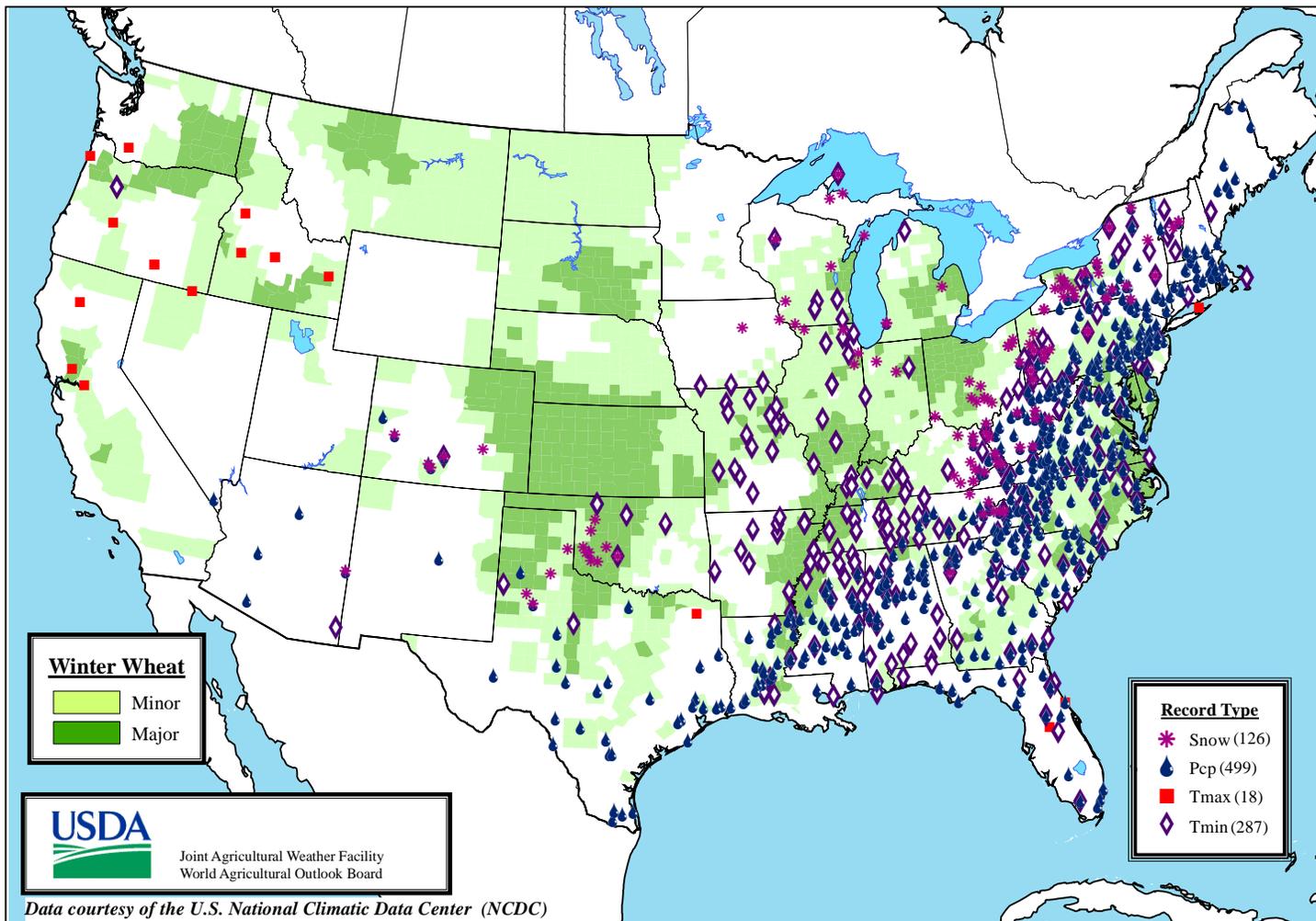
**BRAZIL**

Showers intensified across central and northeastern Brazil, increasing moisture for germination and establishment of summer row crops, notably soybeans and cotton. Unseasonably heavy rain (greater than 100 mm) covered a broad area stretching from northern Mato Grosso southeastward through Minas Gerais and southern Bahia. Most of the remainder of Brazil's northern farming areas recorded rainfall in excess of 25 mm, with the exception of Brazil's northeastern tip, where seasonably drier conditions prevailed. The moisture was particularly timely in the northeastern interior (in and around western Bahia), which has experienced an erratic pattern of rainfall so far this season. However, some flooding may have occurred, particularly along the southern coast of Bahia and in

northern Espirito Santo, which recorded 150 to 225 mm (about 5 times the normal weekly rainfall). Despite the rain, however, weekly temperatures averaged near to slightly above normal, with daytime highs reaching the middle 30s (degrees C) on some of the rain-free days. Meanwhile, rainfall declined from the previous week in most southern production areas (southern Mato Grosso do Sul and western Sao Paulo through Rio Grande do Sul), with many locations recording amounts below 25 mm. Most of the rain came at week's end, bringing some relief from a brief spell of unseasonable warmth (daytime high reaching the middle 30s) and dryness. The dry periods favored late harvesting of sugarcane in the main production areas of western Sao Paulo.

# Daily Weather Records (ASOS & COOP)

## November 24-30, 2013



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