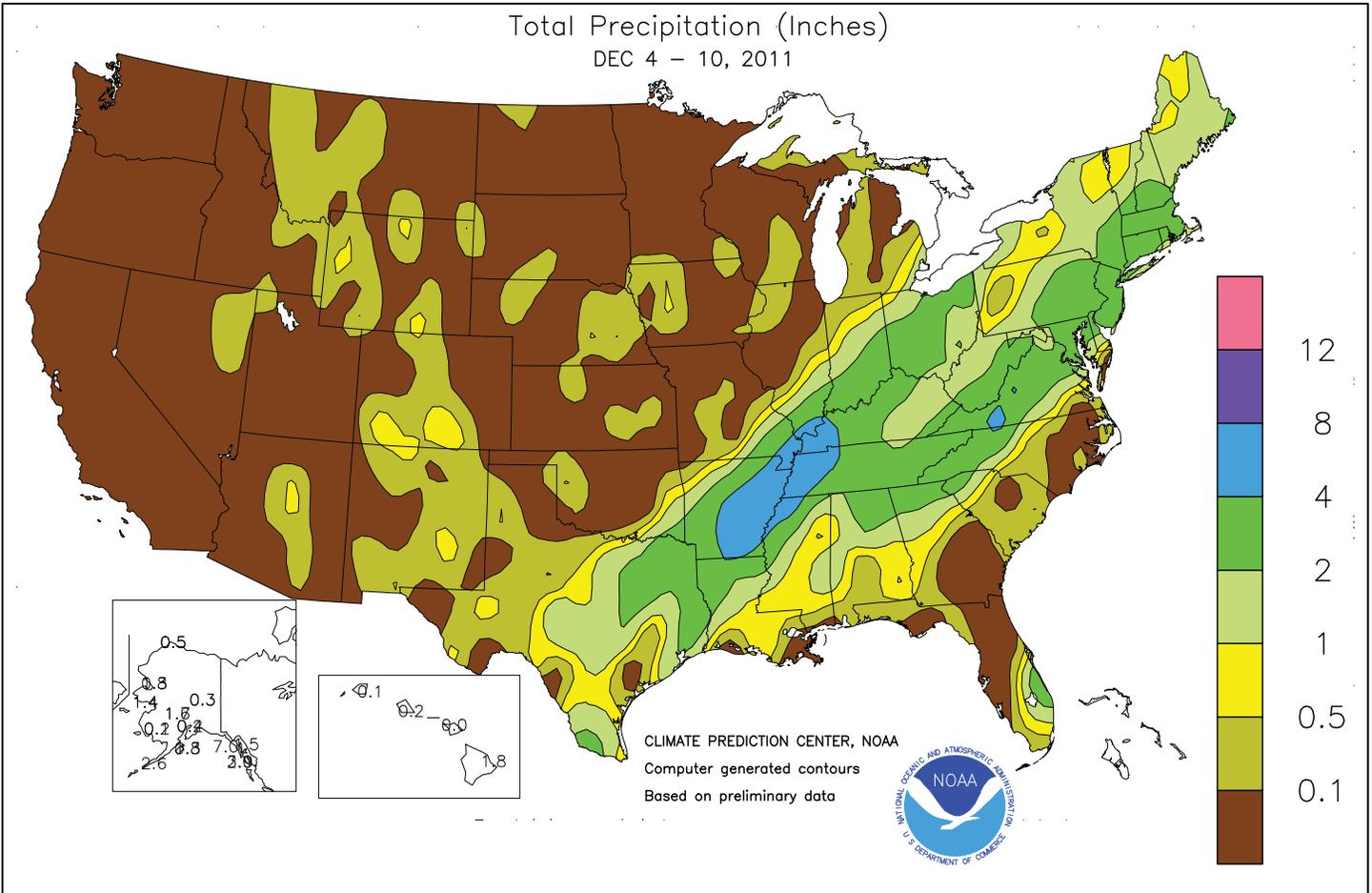


# WEEKLY WEATHER AND CROP BULLETIN



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE  
National Agricultural Statistics Service  
and World Agricultural Outlook Board



## HIGHLIGHTS

### December 4 - 10, 2011

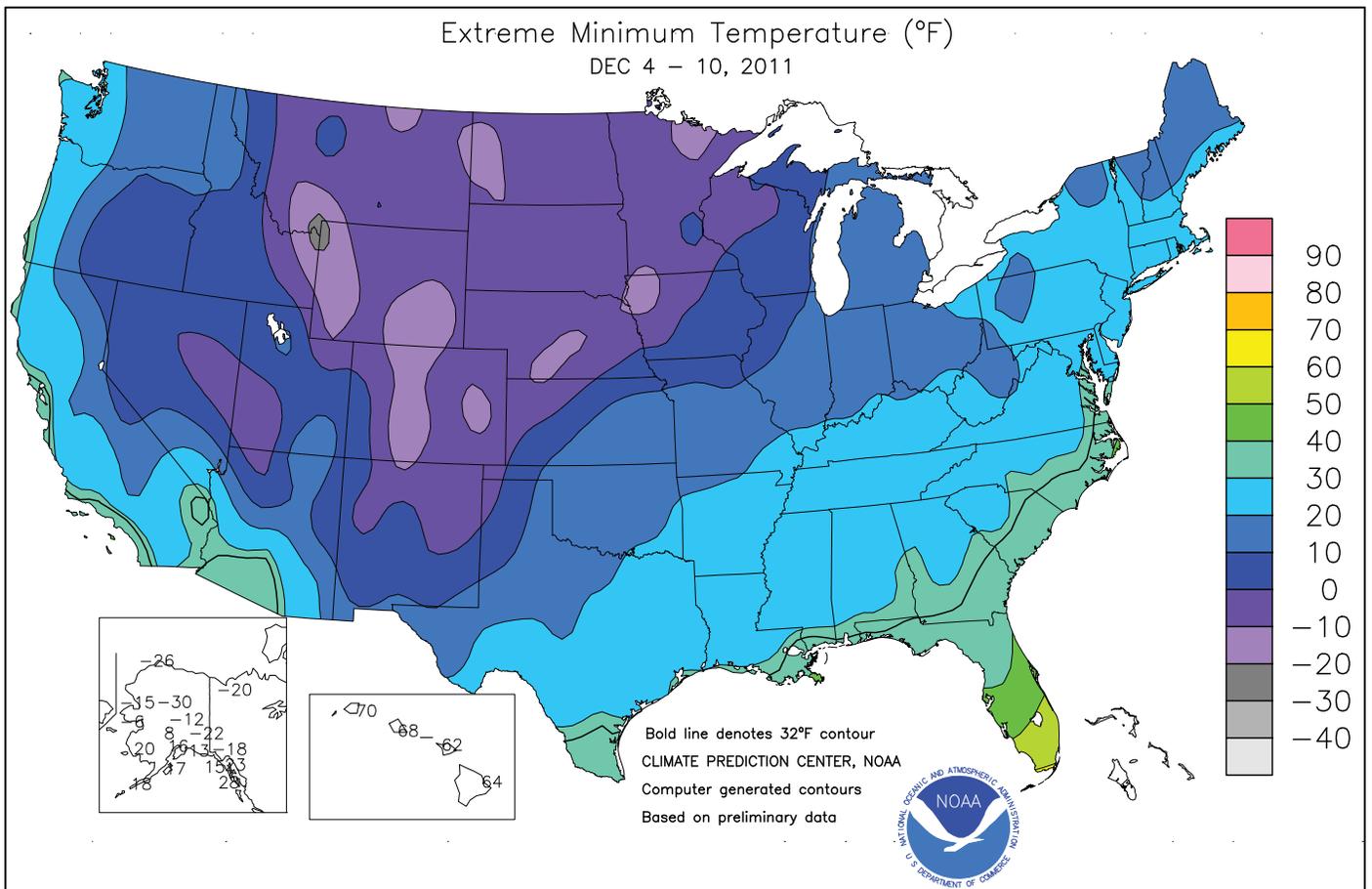
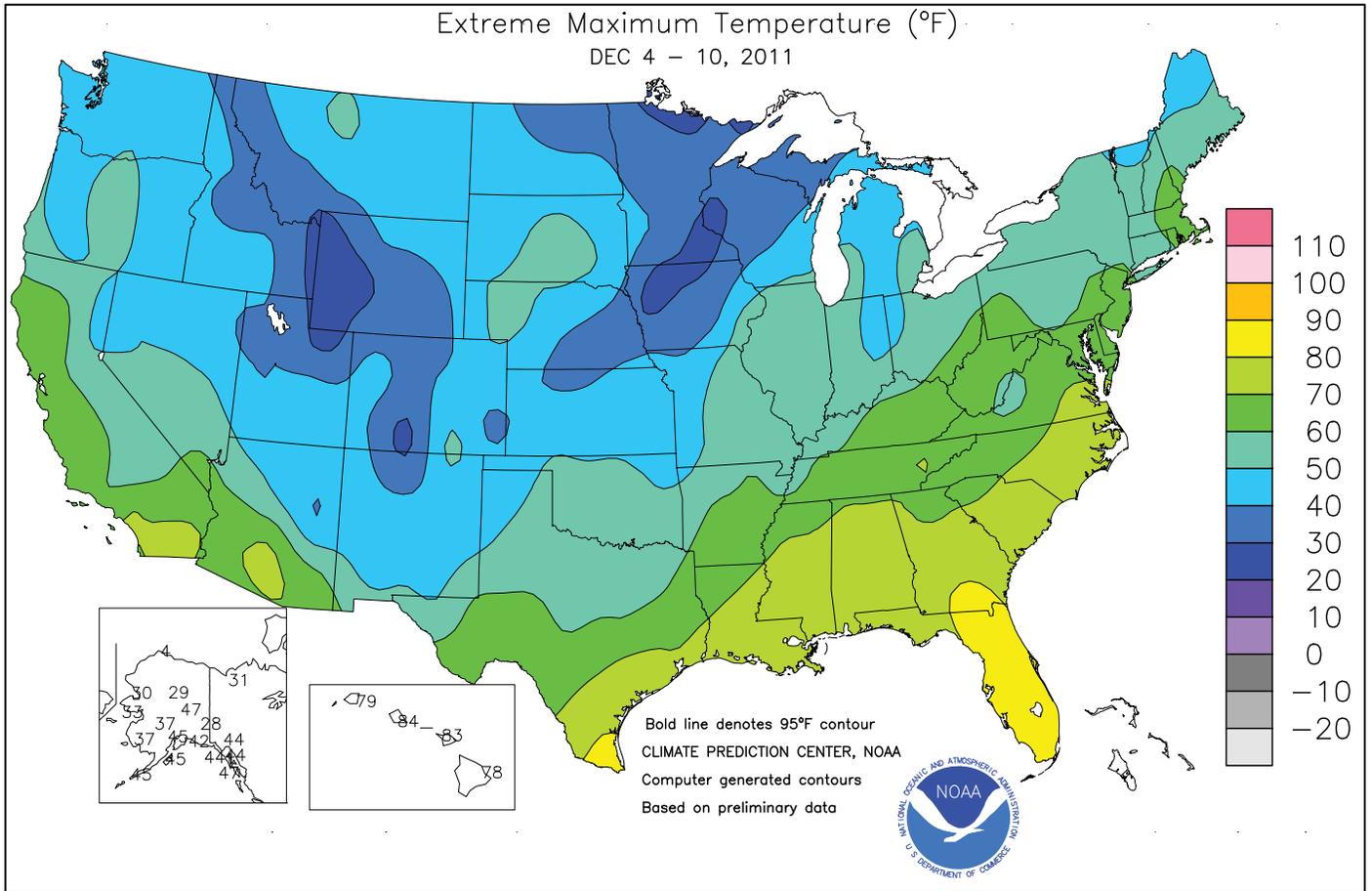
*Highlights provided by USDA/WAOB*

**C**old weather gripped areas from the **Pacific Coast to the Mississippi River**, permitting winter grains to slip deeper into dormancy. A variable snow cover provided wheat with some protection against the cold outbreak, which resulted in lows to  $-10^{\circ}\text{F}$  or below as far south as **Nebraska** and **eastern Colorado**. Weekly temperatures averaged 10 to  $20^{\circ}\text{F}$  below normal across parts of the **western Corn Belt** and **central and southern sections of the Rockies and High Plains**. In contrast, warmer-than-normal weather prevailed in the **Atlantic Coast States**,

*(Continued on page 3)*

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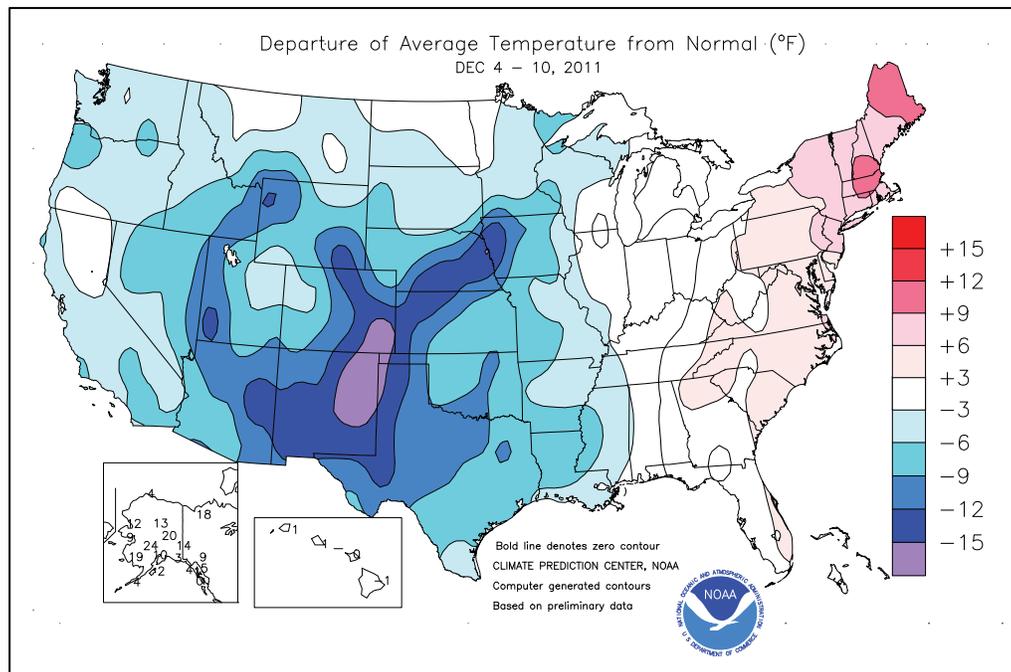


(Continued from front cover)

with temperatures averaging as much as 10°F above normal in **New England**. Meanwhile, a wet weather pattern persisted from the **southeastern Plains into the Northeast**, including the waterlogged **eastern Corn Belt**. Weekly rainfall totaled 4 inches or more from portions of **Arkansas into the lower Ohio Valley**. In **Ohio** and neighboring areas, many producers were opting to wait for fields to freeze before proceeding with the corn harvest. Heavy rain also soaked the **interior Southeast**, with totals exceeding 2 inches in many areas. However, little or no rain fell in the **southern Atlantic region**, allowing fieldwork activities such as winter wheat planting and soybean harvesting to near completion. Farther west, precipitation (rain and snow) provided some additional drought relief on the **southernmost Plains**. Elsewhere, precipitation ended across the **West** early in the week. During the cold, dry period that followed, winter agricultural regions in parts of **California** and the **Desert Southwest** faced multiple nights with freeze warnings. As a result, some producers took measures to protect citrus and other freeze-sensitive crops.

Early in the week, snow lingered on the **southern Plains**, while the latest round of torrential rain struck the **Mid-South** and the **Ohio Valley**. Following a record-setting snowfall for December 3 in **Goodland, KS** (6.5 inches), daily-record amounts in **Texas** for December 5 reached 1.5 inches in **Midland** and 1.3 inches in **Abilene**. Daily-record precipitation totals for December 4 included 3.30 inches in **Pine Bluff, AR**; 2.63 inches in **Paducah, KY**; and 2.58 inches in **Memphis, TN**. **Memphis** set another daily-record on December 5, boosting its 2-day total to 5.42 inches. **Little Rock, AR**, also netted consecutive daily-record amounts on December 4-5, totaling 5.07 inches. **Little Rock's** early-December deluge came on the heels of its wettest November on record (14.57 inches; previously, 13.14 inches in 1988). The list of stations reporting record-high annual precipitation totals continued to grow, with **Frankfort, KY** (63.37 inches through December 10), shattering its 1935 standard of 60.66 inches. Elsewhere in **Kentucky, Paducah** (72.61 inches) surged past its 1950 annual mark of 70.58 inches. The **Ohio** state annual precipitation record was unofficially broken by several **Hamilton County** stations, all of which have exceeded the 1870 standard of 70.82 inches, set in the **Lake County** community of **Little Mountain**. By December 6-7, precipitation ended as snow in the **Mid-South**, where **Little Rock** received 1.6 inches of snow. Later, **Caribou, ME**, reported 9.0 inches of snow on December 7-8, including a daily-record amount (8.2 inches) on the latter date. Toward week's end, a surge of cold air crossed the **Midwest**, preceded by snow showers. In **Illinois, Chicago's** 0.5-inch total on December 9 represented its fifth-latest first accumulation on record, behind December 16, 1965; December 14, 2001; December 12, 1946; and December 10, 2003. Farther south, much-needed precipitation overspread **southern Texas**, where **McAllen's** December 10 rainfall of 1.66 inches represented more than one-sixth—or 17 percent—of its year-to-date total of 9.79 inches (46 of normal). Late-week showers also developed along **Florida's east coast**, where daily-record totals for December 10 reached 2.80 inches in **Vero Beach** and 1.98 inches in **Melbourne**.

As the week began, cold air surged into the **western and central U.S.** In **California, Santa Maria** (29°F) posted a daily-record low for December 4, followed the next day by records in locations such as **Paso**



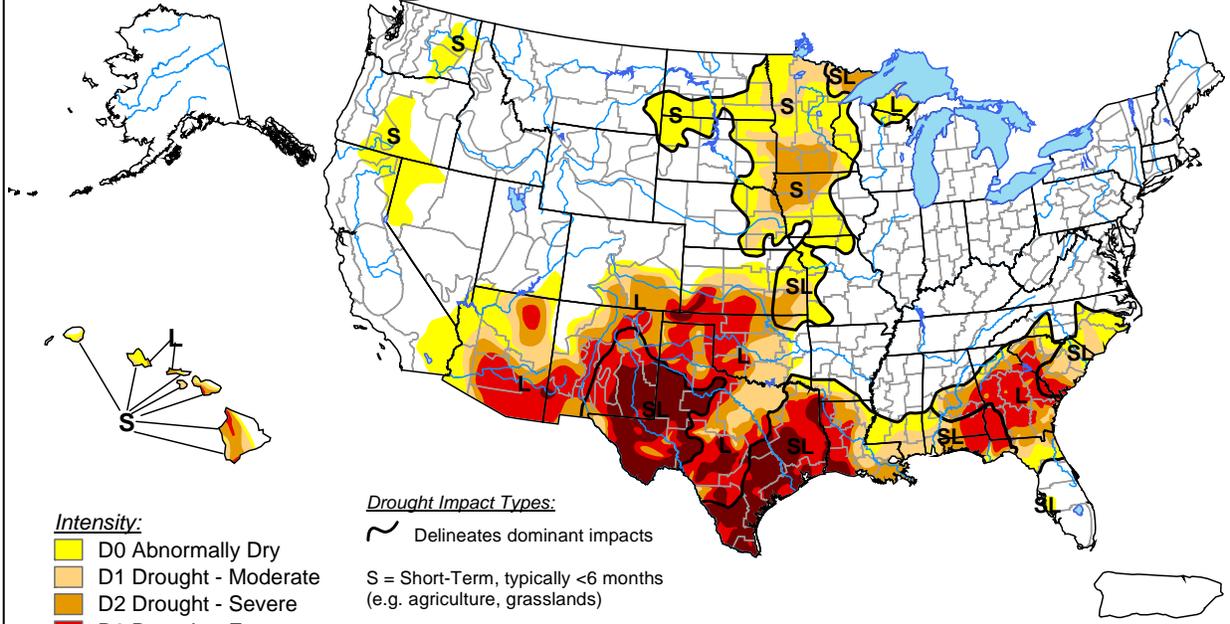
**Robles** (24°F) and **Stockton** (27°F). Both **Paso Robles** (22°F on December 7 and 8) and **Stockton** (26°F on December 6 and 9) turned even colder before a slow warming trend commenced toward week's end. In **California's San Joaquin Valley, Bakersfield** reported nine consecutive freezes, with lows ranging from 28 to 32°F, from December 3-11. Farther inland, daily-record lows included -1°F (on December 6) in **Dalhart, TX**; -6°F (on December 6) in **Cedar City, UT**; -13°F (on December 5) in **Broken Bow, NE**; -23°F (on December 6) in **Crested Butte, CO**; and -27°F (on December 6) in **Laramie, WY**. Later, cold air settled into **southern Texas**, where **Del Rio** (23°F) notched a daily-record low for December 7. The following day, records in **Texas** for December 8 included 26°F in **Victoria** and 30°F in **Corpus Christi**. Farther east, readings of 76°F (on December 6) in **New Bern, NC**, and 79°F (on December 7) in **St. Simons Island, GA**, were among a smattering of daily-record highs. However, the **Eastern** warmth was swept away in the wake of an intensifying coastal storm that produced December 8 wind gusts to 69 mph in **Westhampton, NY**, and 55 mph in **Milton (Blue Hill Observatory), MA**.

**Alaskan** temperatures continued to climb from November's frigid levels, averaging 10 to 25°F above normal at many interior locations. On December 4, monthly record highs were set or tied in locations such as **North Pole** (49°F; previously, 47°F on December 29, 1982) and **Eielson Air Force Base** (48°F; tied the record originally set on December 24, 1985). However, widespread storminess accompanied the mild weather. **Barrow** set December daily precipitation (0.33 inch) and snowfall (6.5 inches) records on the 4<sup>th</sup>. Meanwhile, **Valdez** had a busy week, with a monthly record barometric pressure of 1035.07 millibars (nearly 30.57 inches) on December 6, followed by 18.9 inches of snow from December 7-9. In **western Alaska**, December 1-10 snowfall totaled 28.2 inches in **Kotzebue** and 23.1 inches in **Nome**. **Kotzebue's** snowiest December, 33.9 inches, occurred in 2004, while **Nome's** December record of 31.0 inches was noted in 1931. Elsewhere, **Valdez** netted 9.03 inches of precipitation during the first 10 days of December, aided by totals of 2.93 inches on the 4<sup>th</sup> and 3.28 inches on the 8<sup>th</sup>. High winds accompanied the early-week precipitation, with a gust to 118 mph reported on December 4 in **Glen Alps**, near **Anchorage**. Farther south, December opened on a quiet note in **Hawaii**, although heavy showers developed in some windward locations by week's end. On the **Big Island, Hilo** netted 4.69 inches of rain on December 10-11. During a 24-hour period ending the morning of December 11, totals reached 4.39 inches in **Kilohana, Kauai**, and 4.30 inches in **Hakalau**, on the **Big Island**.

# U.S. Drought Monitor

December 6, 2011

Valid 7 a.m. EST



**Intensity:**

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

**Drought Impact Types:**

- Delineates dominant impacts
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- SL = Short-Long Term, typically 6-12 months (e.g. hydrology, ecology)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu/>

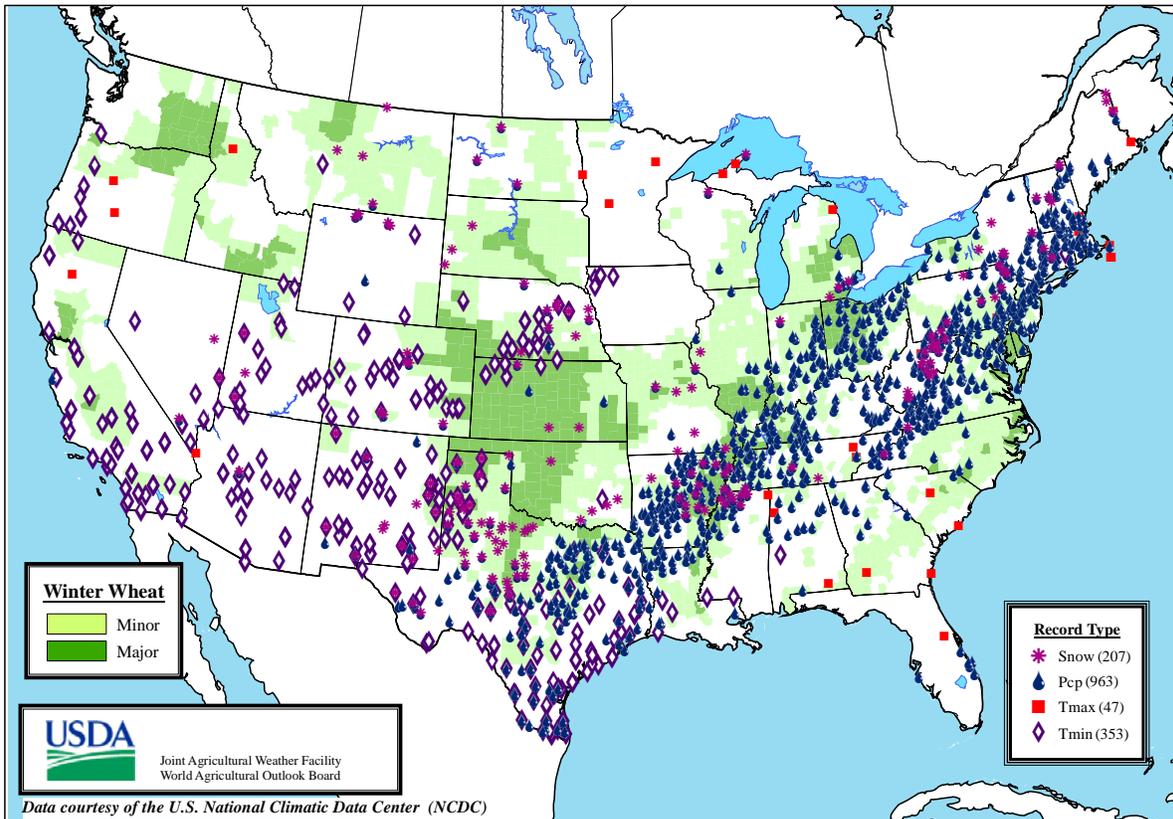


Released Thursday, December 8, 2011

Author: David Miskus, NOAA/NWS/NCEP/CPC

## Daily Weather Records (ASOS & COOP)

December 4-10, 2011

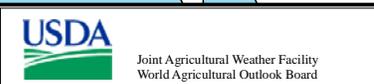


**Winter Wheat**

- Minor
- Major

**Record Type**

- Snow (207)
- Pcp (963)
- Tmax (47)
- Tmin (353)



Data courtesy of the U.S. National Climatic Data Center (NCDC)

National Weather Data for Selected Cities

Weather Data for the Week Ending December 10, 2011

Data Provided by Climate Prediction Center (301-763-8000, Ext. 7503)

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	58	41	72	29	49	1	2.41	1.41	1.95	2.41	165	55.49	109	92	57	0	3	3	1
HUNTSVILLE	54	37	69	25	46	0	2.14	0.85	0.91	2.14	115	55.39	103	87	68	0	3	3	2
MOBILE	61	44	73	30	52	-2	0.21	-0.92	0.10	0.21	13	48.75	77	87	62	0	2	3	0
MONTGOMERY	62	40	76	29	51	0	0.29	-0.91	0.15	0.29	17	45.63	89	91	55	0	2	3	0
AK ANCHORAGE	33	23	45	16	28	10	0.44	0.22	0.32	0.64	200	14.73	96	83	74	0	7	3	0
BARROW	2	-10	4	-26	-4	4	0.48	0.48	0.31	0.48	4800	6.50	161	90	77	0	7	4	0
FAIRBANKS	27	6	47	-12	16	20	0.26	0.12	0.16	0.32	160	8.95	91	85	70	0	7	4	0
JUNEAU	38	31	44	23	35	5	1.49	0.31	0.65	3.71	222	61.90	113	98	89	0	4	5	1
KODIAK	41	27	45	17	34	3	1.28	-0.31	0.54	1.62	72	66.25	95	86	75	0	5	3	2
NOME	27	13	33	-6	20	9	1.41	1.17	0.59	1.84	526	18.20	114	93	87	0	7	6	1
AZ FLAGSTAFF	35	3	42	0	19	-13	0.01	-0.38	0.01	0.82	144	19.35	89	89	40	0	7	1	0
PHOENIX	61	39	71	36	50	-6	0.04	-0.13	0.04	0.17	71	3.73	49	66	44	0	0	1	0
PRESCOTT	44	17	56	11	31	-8	0.00	-0.28	0.00	0.53	136	10.25	56	85	34	0	7	0	0
TUCSON	58	32	70	28	45	-8	0.20	0.02	0.20	0.74	296	11.13	98	79	51	0	5	1	0
AR FORT SMITH	48	30	56	25	39	-5	0.83	-0.11	0.61	1.76	128	44.88	107	84	52	0	5	2	1
LITTLE ROCK	50	32	66	27	41	-5	5.13	3.90	2.98	5.13	287	57.59	120	93	54	0	4	4	2
CA BAKERSFIELD	61	30	64	28	46	-3	0.00	-0.14	0.00	0.00	0	4.39	74	66	41	0	7	0	0
FRESNO	60	32	62	31	46	-1	0.00	-0.25	0.00	0.00	0	10.93	107	73	54	0	5	0	0
LOS ANGELES	64	44	66	37	54	-4	0.00	-0.33	0.00	0.00	0	9.23	78	70	25	0	0	0	0
REDDING	62	30	70	25	46	0	0.00	-0.94	0.00	0.00	0	26.14	87	72	54	0	5	0	0
SACRAMENTO	58	30	60	29	44	-3	0.00	-0.50	0.00	0.00	0	16.69	103	89	33	0	7	0	0
SAN DIEGO	64	44	67	41	54	-4	0.00	-0.22	0.00	0.00	0	8.23	84	63	34	0	0	0	0
SAN FRANCISCO	57	40	58	39	48	-3	0.00	-0.58	0.00	0.00	0	16.46	91	79	60	0	0	0	0
STOCKTON	58	27	61	26	43	-4	0.00	-0.38	0.00	0.00	0	10.01	80	81	62	0	7	0	0
CO ALAMOSA	24	-6	30	-10	9	-11	0.06	-0.01	0.06	0.11	110	4.45	63	80	63	0	7	1	0
CO SPRINGS	35	10	46	-5	23	-7	0.01	-0.05	0.01	0.02	25	15.81	93	79	34	0	7	1	0
DENVER INTL	31	7	39	-5	19	-12	0.02	-0.04	0.02	0.29	322	16.83	126	83	57	0	7	1	0
GRAND JUNCTION	38	15	45	7	26	-5	0.00	-0.09	0.00	0.00	0	9.39	109	67	41	0	7	0	0
PUEBLO	35	7	47	-5	21	-11	0.01	-0.06	0.01	0.12	109	8.49	70	84	75	0	7	1	0
CT BRIDGEPORT	53	37	57	27	45	7	2.34	1.58	1.71	2.34	213	56.53	135	82	68	0	2	3	1
HARTFORD	52	35	60	25	43	9	2.75	1.94	2.27	2.75	233	67.25	154	90	65	0	3	4	1
DC WASHINGTON	54	39	60	31	46	3	3.34	2.68	3.10	3.34	352	45.34	122	86	61	0	1	2	1
DE WILMINGTON	54	35	62	26	45	6	2.16	1.40	1.99	2.16	198	53.33	132	98	72	0	4	3	1
FL DAYTONA BEACH	75	55	81	42	65	3	0.00	-0.58	0.00	0.00	0	45.62	96	94	54	0	0	0	0
JACKSONVILLE	72	47	80	35	59	2	0.04	-0.51	0.04	0.04	5	46.02	91	95	59	0	0	1	0
KEY WEST	78	69	81	65	74	1	0.13	-0.31	0.05	0.13	20	42.43	113	92	69	0	0	3	0
MIAMI	80	68	82	59	74	3	0.37	-0.17	0.12	0.37	47	62.94	110	86	60	0	0	3	0
ORLANDO	79	55	82	42	67	3	0.00	-0.54	0.00	0.01	1	56.10	120	91	64	0	0	0	0
PENSACOLA	64	46	76	35	55	-1	0.38	-0.49	0.34	0.38	30	41.31	67	85	58	0	0	2	0
TALLAHASSEE	68	43	78	32	56	0	0.12	-0.71	0.12	0.12	10	30.53	51	91	65	0	1	1	0
TAMPA	77	57	82	42	67	2	0.04	-0.48	0.04	0.04	5	53.10	123	86	55	0	0	1	0
WEST PALM BEACH	78	68	82	58	73	3	0.28	-0.59	0.05	0.28	21	47.26	79	84	66	0	0	2	0
GA ATHENS	62	40	72	28	51	4	0.47	-0.33	0.36	0.47	41	33.57	74	85	56	0	2	2	0
ATLANTA	60	41	71	32	51	3	0.79	-0.09	0.58	0.79	62	35.59	75	78	58	0	1	2	1
AUGUSTA	66	37	78	27	52	3	0.05	-0.53	0.05	0.05	6	28.22	67	93	64	0	3	1	0
COLUMBUS	65	44	75	33	55	4	0.55	-0.45	0.42	0.55	38	35.27	77	89	49	0	0	2	0
MACON	65	38	76	27	52	2	0.23	-0.60	0.23	0.23	19	30.34	72	96	50	0	3	1	0
SAVANNAH	70	45	78	36	57	4	0.05	-0.46	0.05	0.05	7	33.49	71	88	67	0	0	1	0
HI HILO	77	66	78	64	71	-2	1.83	-1.09	0.49	2.33	54	77.07	64	88	78	0	0	7	0
HONOLULU	83	70	84	68	76	0	0.24	-0.35	0.10	0.24	29	15.41	95	76	67	0	0	3	0
KAHULUI	81	66	83	62	74	0	0.00	-0.59	0.00	0.00	0	10.65	64	75	67	0	0	0	0
LIHUE	79	71	79	70	75	1	0.09	-0.96	0.05	0.35	23	41.88	115	76	72	0	0	3	0
ID BOISE	39	18	45	13	29	-4	0.00	-0.32	0.00	0.00	0	10.19	90	75	53	0	7	0	0
LEWISTON	38	22	48	19	30	-5	0.00	-0.24	0.00	0.00	0	12.83	107	86	74	0	7	0	0
POCATELLO	31	3	39	-4	17	-11	0.01	-0.23	0.01	0.01	3	12.21	103	84	66	0	7	1	0
IL CHICAGO/O'HARE	37	25	52	12	31	0	0.15	-0.47	0.08	0.50	56	47.68	137	73	59	0	5	3	0
MOLINE	34	21	53	7	28	-2	0.19	-0.35	0.07	1.03	132	33.20	91	83	67	0	7	5	0
PEORIA	36	24	52	9	30	-2	0.09	-0.55	0.01	0.32	34	37.31	108	86	60	0	7	4	0
ROCKFORD	35	23	51	10	29	1	0.08	-0.46	0.02	0.86	109	37.83	107	77	57	0	6	2	0
SPRINGFIELD	39	25	54	13	32	-2	0.02	-0.61	0.01	0.15	16	28.15	83	90	57	0	6	2	0
IN EVANSVILLE	44	31	57	20	38	-1	3.40	2.47	2.04	3.40	252	67.39	160	89	64	0	4	2	2
FORT WAYNE	37	26	51	13	31	-2	1.10	0.42	0.68	1.11	114	46.89	135	88	69	0	5	3	1
INDIANAPOLIS	40	28	56	15	34	-1	1.36	0.60	0.72	1.36	123	45.79	117	86	60	0	5	2	2
SOUTH BEND	37	25	52	11	31	-1	0.41	-0.35	0.33	0.44	40	44.29	117	83	63	0	5	3	0
IA BURLINGTON	34	17	53	2	25	-7	0.17	-0.39	0.10	0.73	90	30.81	84	93	68	0	7	3	0
CEDAR RAPIDS	30	15	43	3	23	-5	0.05	-0.36	0.02	1.60	267	29.06	89	88	63	0	7	3	0
DES MOINES	30	14	37	4	22	-7	0.06	-0.28	0.05	1.48	296	36.18	107	81	66	0	7	2	

Weather Data for the Week Ending December 10, 2011

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	
KY WICHITA	57	20	48	14	29	-7	0.01	-0.31	0.01	0.74	157	23.10	78	90	69	0	7	1	0	
JACKSON	51	35	65	25	43	2	1.52	0.48	0.68	1.52	103	57.35	123	84	54	0	4	3	2	
LEXINGTON	45	32	61	19	39	0	2.15	1.24	1.88	2.15	165	64.07	148	86	69	0	4	3	1	
LOUISVILLE	47	34	60	23	40	-1	2.90	2.01	2.30	2.90	227	65.70	156	88	57	0	4	3	2	
PADUCAH	45	31	59	22	38	-2	5.06	3.93	2.61	5.06	310	72.66	156	93	63	0	4	3	2	
LA BATON ROUGE	59	39	78	27	49	-5	0.23	-0.93	0.15	0.24	15	46.85	79	95	58	0	3	3	0	
LAKE CHARLES	60	41	75	28	51	-4	0.25	-0.77	0.24	0.25	17	34.22	63	85	57	0	2	2	0	
NEW ORLEANS	62	47	80	34	55	-2	0.39	-0.84	0.20	0.39	22	53.71	88	83	63	0	0	3	0	
SHREVEPORT	52	34	66	25	43	-7	3.11	2.07	1.71	3.11	207	28.31	59	93	61	0	4	3	2	
ME CARIBOU	37	25	47	11	31	10	1.01	0.31	0.44	1.06	105	53.11	151	93	78	0	6	4	0	
PORTLAND	49	33	57	21	41	10	2.07	1.09	0.98	2.07	146	50.35	117	90	64	0	2	3	2	
MD BALTIMORE	55	35	63	27	45	5	2.63	1.90	2.38	2.63	250	54.66	138	91	68	0	4	2	1	
MA BOSTON	54	39	63	31	47	9	2.59	1.75	1.78	2.59	214	51.01	127	88	64	0	1	3	2	
WORCESTER	50	35	59	24	42	10	2.37	1.53	1.74	2.37	194	64.10	138	94	66	0	4	4	1	
MI ALPENA	33	23	51	13	28	0	0.07	-0.34	0.07	0.22	37	35.44	130	84	54	0	6	1	0	
GRAND RAPIDS	38	26	51	17	32	1	0.51	-0.21	0.42	0.73	70	43.11	122	83	59	0	6	2	0	
HOUGHTON LAKE	33	24	49	14	28	1	0.01	-0.40	0.01	0.26	43	30.07	110	78	60	0	6	1	0	
LANSING	36	25	49	13	31	1	0.36	-0.21	0.33	0.53	64	37.17	123	86	68	0	6	2	0	
MUSKOGON	38	28	51	22	33	1	0.14	-0.51	0.12	0.65	68	40.34	129	70	58	0	6	2	0	
TRAVERSE CITY	34	26	50	18	30	0	0.39	-0.19	0.39	0.67	81	28.73	91	74	53	0	6	1	0	
MN DULUTH	23	5	31	-1	14	-4	0.04	-0.24	0.03	0.06	14	25.58	84	70	57	0	7	2	0	
INT'L FALLS	19	-1	29	-15	9	-4	0.00	-0.18	0.00	0.00	0	19.23	82	80	55	0	7	0	0	
MINNEAPOLIS	25	12	29	5	18	-5	0.01	-0.25	0.01	0.24	62	26.16	91	72	59	0	7	1	0	
ROCHESTER	23	7	29	-3	15	-6	0.02	-0.27	0.02	0.39	91	26.95	87	82	73	0	7	1	0	
ST. CLOUD	26	7	35	-2	16	-3	0.00	-0.17	0.00	0.00	0	27.75	104	81	48	0	7	0	0	
MS JACKSON	55	36	75	24	45	-5	0.62	-0.58	0.49	0.62	36	43.40	83	92	64	0	4	2	0	
MERIDIAN	56	38	71	26	47	-4	0.76	-0.45	0.48	0.76	44	47.23	86	93	71	0	3	3	0	
TUPELO	52	35	70	24	43	-3	0.56	-0.83	0.44	0.56	28	46.48	90	88	69	0	4	2	0	
MO COLUMBIA	38	22	54	11	30	-5	0.52	-0.16	0.10	1.18	118	37.15	96	87	65	0	7	7	0	
KANSAS CITY	36	18	43	9	27	-7	0.01	-0.43	0.01	1.13	177	34.36	93	87	56	0	7	1	0	
SAINT LOUIS	41	28	57	19	35	-2	0.20	-0.56	0.20	0.36	32	44.40	120	80	63	0	6	1	0	
SPRINGFIELD	38	22	48	15	30	-9	0.03	-0.89	0.03	0.49	36	38.32	89	86	71	0	7	1	0	
MT BILLINGS	32	16	43	6	24	-4	0.07	-0.04	0.03	0.07	41	19.41	136	77	48	0	7	3	0	
BUTTE	30	-4	36	-17	13	-7	0.05	-0.06	0.05	0.05	31	11.60	93	88	48	0	7	1	0	
CUT BANK	35	9	52	-3	22	-1	0.00	-0.06	0.00	0.01	13	5.95	49	84	53	0	7	0	0	
GLASGOW	28	1	43	-9	14	-5	0.03	-0.03	0.03	0.14	175	22.76	208	79	70	0	7	1	0	
GREAT FALLS	37	14	49	3	26	0	0.05	-0.06	0.05	0.13	81	16.30	113	81	49	0	6	1	0	
HAVRE	36	14	53	0	25	3	0.01	-0.07	0.01	0.01	8	11.94	108	73	57	0	7	1	0	
MISSOULA	30	10	34	2	20	-5	0.15	-0.10	0.15	0.15	44	14.39	111	87	72	0	7	1	0	
NE GRAND ISLAND	27	4	37	-9	16	-12	0.40	0.21	0.39	0.91	314	26.96	106	86	72	0	7	2	0	
LINCOLN	27	4	33	-3	15	-15	0.19	-0.04	0.19	0.88	251	28.48	102	89	79	0	7	1	0	
NORFOLK	26	1	35	-10	14	-13	0.18	-0.01	0.14	0.51	176	20.76	79	81	71	0	7	2	0	
NORTH PLATTE	34	6	50	-6	20	-8	0.08	0.00	0.08	0.18	138	23.57	122	90	64	0	7	1	0	
OMAHA	26	6	33	2	16	-13	0.15	-0.12	0.13	0.85	207	27.85	94	89	76	0	7	3	0	
SCOTTSBLUFF	34	6	45	-10	20	-8	0.02	-0.12	0.02	0.12	60	18.80	118	80	58	0	7	1	0	
VALENTINE	34	6	50	-5	20	-6	0.11	0.02	0.11	0.11	85	21.85	113	84	57	0	7	1	0	
NV ELY	37	2	49	-8	20	-8	0.13	0.05	0.13	0.17	142	11.88	124	82	58	0	7	1	0	
LAS VEGAS	54	33	60	28	44	-5	0.00	-0.06	0.00	0.07	88	2.20	53	39	22	0	3	0	0	
RENO	47	17	51	14	32	-3	0.00	-0.19	0.00	0.00	0	4.93	72	61	44	0	7	0	0	
WINNEMUCCA	43	2	47	0	22	-9	0.03	-0.14	0.01	0.04	17	9.24	119	80	59	0	7	3	0	
NH CONCORD	50	28	62	19	39	9	2.36	1.67	1.72	2.36	234	53.07	149	97	62	0	5	3	1	
NJ NEWARK	54	38	62	30	46	6	2.25	1.43	1.94	2.25	189	67.65	154	83	67	0	2	3	1	
NM ALBUQUERQUE	38	19	45	9	29	-9	0.00	-0.08	0.00	0.13	108	3.65	40	80	45	0	7	0	0	
NY ALBANY	46	31	57	23	38	6	1.79	1.15	1.49	1.79	192	51.68	142	91	68	0	4	3	1	
BINGHAMTON	42	30	53	20	36	5	0.99	0.23	0.69	1.01	93	65.95	180	86	69	0	5	2	1	
BUFFALO	42	31	60	20	37	4	1.25	0.34	0.84	1.43	109	47.36	124	87	64	0	4	5	1	
ROCHESTER	43	32	60	19	38	5	0.75	0.10	0.48	0.82	87	38.35	119	79	60	0	4	4	0	
SYRACUSE	46	35	58	25	40	8	0.46	-0.35	0.19	0.50	42	46.06	121	82	56	0	2	4	0	
NC ASHEVILLE	54	35	61	26	45	4	1.82	1.05	0.90	1.82	163	42.77	96	89	63	0	5	3	2	
CHARLOTTE	60	38	69	30	49	2	0.56	-0.11	0.54	0.56	58	41.67	101	87	52	0	3	2	1	
GREENSBORO	58	38	66	31	48	4	0.67	0.00	0.62	0.67	70	41.20	100	80	51	0	3	2	1	
HATTERAS	66	52	72	46	59	7	0.83	-0.09	0.45	0.83	62	60.67	111	96	61	0	0	5	0	
RALEIGH	62	40	72	31	51	5	0.54	-0.09	0.54	0.54	59	42.23	103	83	53	0	2	1	1	
WILMINGTON	68	44	76	37	56	5	0.02	-0.81	0.01	0.02	2	43.37	80	92	51	0	0	2	0	
ND BISMARCK	26	3	43	-7	15	-4	0.12	0.03	0.12	0.13	100	22.87	138	77	64	0	7	1	0	
DICKINSON	28	4	45	-8	16	-5	0.01	-0.07	0.01	0.01	8	18.55	115	83	59	0	7	1	0	
FARGO	27	7	41	-1	17	0	0.01	-0.10	0.01	0.01	6	23.60	114	69	42	0	7	1	0	
GRAND FORKS	25	5	38	-3	15	-1	0.00	-0.11	0.00	0.00	0	19.08	99	79	47	0	7	0	0	
JAMESTOWN	26	5	43	-1	16	-1	0.00	-0.08	0.00	0.00	0	22.00	121	81	50	0	7	0	0	
WILLISTON	28	3	43	-14	15	-1	0.05	-0.07	0.05	0.05	28	19.11	139	82	65	0	7	1	0	
OH AKRON-CANTON	42	31	57	19	37	3	1.62	0.90	1.44	1.62	156	55.25	151	78	65	0	4	5	1	
CINCINNATI	43	31	55	18	37	-1	3.20	2.44	2.69	3.20	294	69.00	171	85	67	0	4	3	1	
CLEVELAND	42	33	57	21	37	2	2.10	1.30	1.55	2.10	183	62.45	170	89	66	0	4	5	1	
COLUMBUS	43	32	55	21	38	1	2.16	1.44	1.96	2.16	206	51.72	141	83	71	0	4	4	1	
DAYTON	39	28	50	14	33	-2	2.47	1.73	1.90	2.47	233	53.85	143	94	68	0	5	3	2	
MANSFIELD	40	30	56	17	35	2	2.19	1.37	1.82	2.19	184	53.77	131	98	71	0	4	5	1	

Weather Data for the Week Ending December 10, 2011

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	37	28	50	18	33	0	1.36	0.71	0.74	1.38	147	46.97	149	87	74	0	6	3	2
OK YOUNGSTOWN	43	32	58	18	37	3	1.23	0.48	1.11	1.23	114	50.85	141	83	67	0	4	4	1
OK OKLAHOMA CITY	41	25	52	15	33	-9	0.00	-0.41	0.00	1.05	178	29.03	84	80	57	0	6	0	0
OR TULSA	43	25	50	18	34	-8	0.00	-0.66	0.00	0.71	74	31.25	76	82	62	0	6	0	0
OR ASTORIA	45	30	51	27	38	-6	0.00	-2.51	0.00	0.01	0	64.13	106	97	89	0	5	0	0
OR BURNS	42	5	46	3	24	-3	0.00	-0.28	0.00	0.01	3	10.12	105	86	73	0	7	0	0
OR EUGENE	38	29	43	27	34	-7	0.00	-2.04	0.00	0.00	0	28.61	63	93	88	0	7	0	0
OR MEDFORD	45	23	49	19	34	-5	0.00	-0.71	0.00	0.01	1	15.50	94	95	67	0	7	0	0
OR PENDLETON	37	19	47	14	28	-7	0.00	-0.35	0.00	0.00	0	11.60	98	96	82	0	7	0	0
OR PORTLAND	42	29	47	26	36	-6	0.02	-1.36	0.01	0.02	1	34.65	104	93	83	0	6	2	0
OR SALEM	39	28	45	25	34	-7	0.00	-1.58	0.00	0.00	0	32.50	91	94	87	0	7	0	0
PA ALLENTOWN	52	35	60	23	43	8	0.70	-0.09	0.28	0.70	61	67.40	157	92	74	0	5	2	0
PA ERIE	44	35	62	24	39	3	1.76	0.83	1.21	1.79	135	53.65	133	80	64	0	2	5	1
PA MIDDLETOWN	52	33	61	27	42	5	1.49	0.68	1.25	1.49	127	71.96	187	94	60	0	4	3	1
PA PHILADELPHIA	55	38	63	30	47	6	2.30	1.56	2.07	2.30	215	62.27	156	85	66	0	2	3	1
PA PITTSBURGH	46	33	61	20	40	4	0.30	-0.39	0.16	0.30	30	42.05	117	84	54	0	4	3	0
PA WILKES-BARRE	47	33	62	22	40	5	1.69	1.05	1.36	1.69	180	58.61	163	89	66	0	4	3	1
PA WILLIAMSPORT	47	33	57	24	40	6	1.80	1.05	1.55	1.81	165	68.42	172	88	65	0	3	4	1
RI PROVIDENCE	54	35	61	27	45	8	2.55	1.61	1.69	2.55	188	55.32	127	89	69	0	4	4	2
SC BEAUFORT	68	46	76	38	57	4	0.28	-0.31	0.14	0.28	34	33.07	70	91	57	0	0	4	0
SC CHARLESTON	69	46	78	37	58	5	0.03	-0.61	0.02	0.03	3	36.37	74	93	52	0	0	2	0
SC COLUMBIA	65	38	77	25	52	3	0.07	-0.58	0.07	0.07	8	35.62	78	85	60	0	2	1	0
SC GREENVILLE	58	40	66	30	49	3	1.07	0.24	0.91	1.07	91	43.06	91	83	52	0	2	3	1
SD ABERDEEN	27	0	44	-10	13	-7	0.04	-0.02	0.04	0.04	50	23.02	116	81	63	0	7	1	0
SD HURON	30	6	51	-2	18	-4	0.03	-0.05	0.02	0.03	23	22.28	108	85	50	0	7	2	0
SD RAPID CITY	32	9	48	-4	20	-7	0.02	-0.14	0.02	0.11	138	19.27	118	85	55	0	7	1	0
SD SIOUX FALLS	29	6	48	-3	17	-5	0.00	-0.04	0.00	0.02	9	23.68	97	76	58	0	7	0	0
TN BRISTOL	55	33	67	21	44	4	2.24	1.46	1.42	2.24	200	45.83	117	94	56	0	4	3	2
TN CHATTANOOGA	56	39	70	28	47	2	2.64	1.51	1.83	2.64	162	60.90	119	87	63	0	2	3	2
TN KNOXVILLE	55	35	72	26	45	2	2.04	1.02	1.07	2.04	141	53.80	119	93	58	0	4	3	2
TN MEMPHIS	48	34	62	27	41	-5	5.68	4.23	2.86	5.68	272	55.46	109	91	63	0	4	4	2
TN NASHVILLE	50	34	67	23	42	-1	1.76	0.67	1.30	1.76	112	49.65	110	87	53	0	4	3	1
TX ABILENE	43	29	57	19	36	-11	0.52	0.28	0.27	0.72	212	15.64	68	89	70	0	6	2	0
TX AMARILLO	37	17	46	4	27	-12	0.07	-0.02	0.07	0.35	292	5.81	30	88	62	0	7	1	0
TX AUSTIN	54	33	66	22	44	-10	1.52	0.99	1.21	2.09	279	14.16	44	87	67	0	3	2	1
TX BEAUMONT	61	44	74	29	52	-4	0.34	-0.79	0.21	0.40	25	27.62	49	84	54	0	2	7	0
TX BROWNSVILLE	69	50	82	35	59	-4	0.54	0.27	0.54	0.71	178	17.14	64	86	56	0	0	1	1
TX CORPUS CHRISTI	63	43	76	25	53	-7	0.47	0.11	0.45	0.67	131	11.56	37	82	62	0	2	3	0
TX DEL RIO	55	35	65	23	45	-9	0.50	0.33	0.41	0.50	208	9.44	53	88	62	0	2	3	0
TX EL PASO	46	25	54	18	36	-11	0.16	0.00	0.11	0.41	186	4.93	56	85	49	0	6	2	0
TX FORT WORTH	48	31	55	22	40	-9	2.18	1.64	1.51	2.97	391	24.56	75	86	58	0	3	2	2
TX GALVESTON	58	47	71	33	52	-8	1.22	0.42	0.82	1.22	104	19.56	47	87	66	0	0	2	1
TX HOUSTON	57	41	72	29	49	-7	1.29	0.45	0.98	1.30	107	21.59	48	84	63	0	2	2	1
TX LUBBOCK	41	21	56	9	31	-11	0.08	-0.06	0.08	0.55	275	4.89	27	89	74	0	7	1	0
TX MIDLAND	44	26	60	18	35	-11	0.49	0.35	0.28	0.66	347	4.61	32	86	69	0	7	2	0
TX SAN ANGELO	48	30	61	21	39	-9	0.57	0.38	0.28	0.83	296	9.09	45	83	67	0	5	3	0
TX SAN ANTONIO	57	37	70	27	47	-7	1.23	0.79	0.66	1.49	237	16.26	51	89	57	0	3	3	1
TX VICTORIA	62	39	76	22	50	-7	0.06	-0.49	0.05	0.08	10	11.82	31	84	58	0	3	2	0
TX WACO	49	33	56	21	41	-9	1.97	1.34	1.04	2.58	290	26.12	83	83	68	0	3	2	2
TX WICHITA FALLS	44	26	58	18	35	-10	0.02	-0.34	0.01	0.96	188	12.50	45	89	70	0	6	2	0
UT SALT LAKE CITY	35	18	41	15	27	-5	0.00	-0.27	0.00	0.00	0	19.10	122	78	47	0	7	0	0
VT BURLINGTON	42	33	52	26	38	9	0.59	0.03	0.24	0.65	79	49.47	143	86	62	0	4	5	0
VA LYNCHBURG	55	33	61	26	44	3	2.75	2.03	1.80	2.75	270	37.11	90	87	57	0	4	3	2
VA NORFOLK	64	45	76	36	54	7	0.27	-0.34	0.25	0.27	31	49.71	114	84	57	0	0	2	0
VA RICHMOND	60	38	72	30	49	6	0.78	0.14	0.78	0.78	85	46.28	111	86	57	0	2	1	1
VA ROANOKE	54	33	61	25	44	2	2.29	1.62	1.69	2.29	239	43.14	106	85	63	0	4	3	2
WA WASH/DULLES	54	34	62	25	44	5	2.35	1.65	2.14	2.35	233	44.10	111	89	64	0	4	2	1
WA OLYMPIA	40	28	46	25	34	-5	0.00	-1.91	0.00	0.00	0	45.43	99	97	86	0	6	0	0
WA QUILLAYUTE	45	28	48	24	36	-5	0.11	-3.34	0.05	0.17	3	98.43	107	99	94	0	7	3	0
WA SEATTLE-TACOMA	41	31	43	26	36	-6	0.00	-1.37	0.00	0.01	1	34.13	102	92	82	0	4	0	0
WA SPOKANE	35	19	42	15	27	-2	0.00	-0.55	0.00	0.00	0	14.43	95	88	71	0	7	0	0
WA YAKIMA	39	15	51	10	27	-4	0.00	-0.30	0.00	0.00	0	7.03	96	88	77	0	7	0	0
WV BECKLEY	47	31	59	20	39	1	2.24	1.55	1.57	2.24	229	39.56	100	86	65	0	4	3	2
WV CHARLESTON	53	34	69	23	43	3	1.75	0.94	1.26	1.75	148	49.13	117	92	53	0	4	3	1
WV ELKINS	49	27	65	16	38	3	1.99	1.19	1.80	1.99	172	50.64	116	93	52	0	6	3	1
WV HUNTINGTON	50	34	66	22	42	2	1.41	0.64	0.68	1.43	130	60.73	152	89	55	0	4	4	2
WI EAU CLAIRE	23	10	30	-3	16	-6	0.03	-0.25	0.02	0.40	95	31.10	99	88	67	0	7	2	0
WI GREEN BAY	30	19	42	9	25	0	0.11	-0.28	0.11	0.85	149	36.25	128	79	53	0	6	1	0
WI LA CROSSE	26	16	32	5	21	-5	0.01	-0.33	0.01	0.73	143	34.42	109	88	68	0	7	1	0
WI MADISON	33	21	49	9	27	0	0.24	-0.20	0.24	1.03	158	29.35	92	77	57	0	6	1	0
WI MILWAUKEE	35	24	50	10	29	-1	0.16	-0.40	0.14	0.72	88	31.09	93	72	50	0	5	2	0
WY CASPER	26	11	37	-7	18	-7	0.03	-0.11	0.03	0.16	80	12.70	101	70	60	0	7	1	0
WY CHEYENNE	29	8	41	-6	19	-9	0.01	-0.10	0.01	0.17	106	18.95	125	74	51	0	7	1	0
WY LANDER	20	1	26	-9	10	-13	0.05	-0.10	0.05	0.30	136	14.73	113	88	62	0	7	1	0
WY SHERIDAN	33	8	41	-5	21	-3	0.12	-0.02	0.10	0.25	125	18.51	130	78	63	0	7	2	0

Based on 1971-2000 normals

\*\*\* Not Available

## November Weather and Crop Summary

### Weather

Weather summary provided by USDA/WAOB

**Highlights:** Mild weather covered the eastern half of the U.S., promoting some late-season winter wheat development as far north as the central Plains and the Midwest. In contrast, near- to below-normal temperatures affected the northern High Plains and much of the West. As a result, at least one-tenth of the winter wheat had not emerged by November 27 in Oregon (12%) and Montana (10%). Elsewhere, lingering drought hampered wheat growth in Texas, with 26% not yet emerged, while planting delays and excessive wetness in Ohio kept 10% of the crop from emerging by November 27.

Midwestern precipitation was highly variable, with wet conditions in the southern and eastern Corn Belt contrasting with mostly dry weather in the upper Mississippi Valley. Fieldwork neared completion in the latter region, but nearly one-quarter (24%) of Ohio's corn crop had not yet been harvested by November 27.

Weather variability was also noted on the Plains, where much-needed, drought-easing precipitation fell across Oklahoma, southern Kansas, and southeastern Colorado. Parts of northern Texas also received beneficial moisture, but large sections of western and southern Texas remained mired in historic drought.

Drier-than-normal conditions also prevailed during November across much of the nation's southern tier. In the Southeast, long stretches of warm, dry weather allowed autumn fieldwork activities—including winter wheat planting and cotton, peanut, and soybean harvesting—to advance quickly. Louisiana's sugarcane harvest was nearly three-quarters (72%) complete by November 27, well ahead of the average pace.

Farther west, an early-season chill engulfed the Pacific Coast States. However, generally below-normal precipitation accompanied the cool spell, allowing fieldwork to proceed with few delays. More significant storminess affected the Four Corners States and the Rockies, helping to establish high-elevation snow packs.

**Historical Perspective:** According to preliminary information provided by the National Climatic Data Center, the contiguous U.S. experienced its 25<sup>th</sup>-warmest, 37<sup>th</sup>-wettest November during the 117-year period of record. The nation's average temperature of 44.3°F was 1.8°F above the 20<sup>th</sup>-century mean, while precipitation averaged 2.33 inches, 110 percent of normal. State temperature rankings ranged from the 27<sup>th</sup>-coolest November in Washington to the second-warmest November in Maine and Delaware (figure 1). Average temperatures were among the ten highest November values on record in a dozen other states from Indiana and Michigan to the northern Atlantic Coast. Meanwhile, during the nation's wettest November since 2004, rankings ranged from the ninth-driest November in Minnesota (figure 2) to top-ten wetness in eight states (AR, IL, IN, KY, MO, OK, OH, and TN).

Figure 1

### November 2011 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA

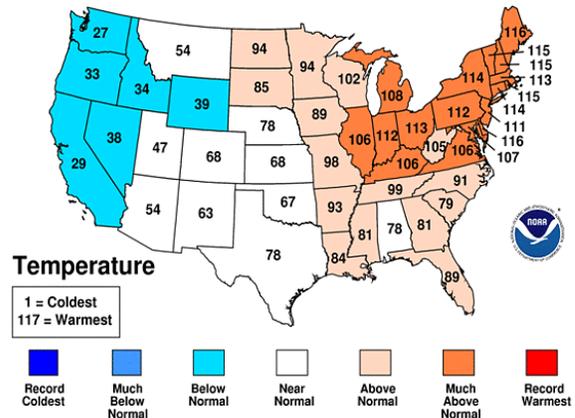
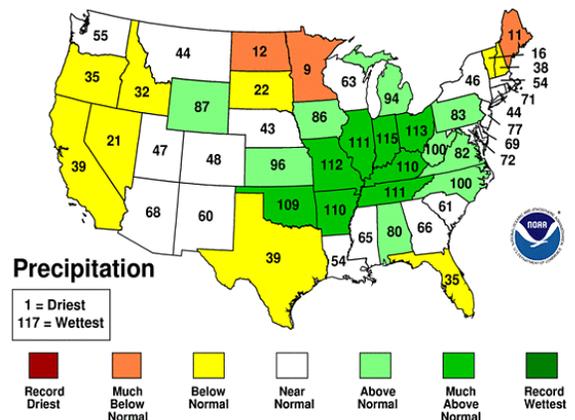


Figure 2

### November 2011 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



**Summary:** In early November, widespread precipitation arrived across the West and quickly spread to the central Plains. Cheyenne, WY, received 9.5 inches of snow on November 1-2, boosted by a daily-record total of 7.7 inches on the 1<sup>st</sup>. Precipitation later spread into parts of the Ohio Valley and the Midwest, with daily-record totals reported in locations such as Cincinnati, OH (2.26 inches on November 3), and Traverse City, MI (1.09 inches on November 2). Cincinnati also surpassed an annual precipitation total of 60 inches for the first time (previously, 57.58 inches in 1990). By November 4, rain shifted into the southern Mid-Atlantic States, where Greensboro, NC (1.51 inches), collected a daily-record amount. Meanwhile, rain and snow showers returned to the West. Daily-record snowfall totals reached 4.0 inches in both Ely, NV (on November 4), and Billings, MT (on November 5). Cold air trailed both episodes of Western storminess. Daily-record lows for November 3 included 4°F at Utah's Bryce Canyon Airport and 24°F in Lancaster, CA. The following day, records for November 4 dipped to 21°F in Ponca City, OK, and 31°F in Victoria, TX. A record-setting chill returned to the West by November 5, when

lows dipped to 0°F in Ely, NV, and 14°F in Klamath Falls, OR. High winds preceded the Western chill, with gusts to 82 mph reported at both Laguna Peak in Ventura County, CA (on November 2), and Taos, NM (on November 5). Farther east, highs soared to daily-record levels in Texas locations such as El Paso (84°F on November 1) and San Angelo (87°F on November 2). Several days later, record-setting highs in Texas for November 8 included 95°F in McAllen and 92°F in Harlingen. In contrast, Bishop, CA, posted consecutive daily-record lows (13 and 15°F, respectively) on November 8-9. Other daily-record lows for November 8 included 7°F in Flagstaff, AZ, and 30°F in Redding, CA. Elsewhere in California, Stockton notched consecutive daily-record lows (34 and 32°F, respectively) on November 9-10.

Flagstaff, AZ, also received two significant snowfalls in 3 days, with 6.8 inches on November 7 coming on the heels of a 5.7-inch total on November 5. Meanwhile, heavy precipitation erupted across the nation's mid-section, where daily-record rainfall totals in Kansas for November 7 included 2.77 inches in Chanute and 2.05 inches in Topeka. The following day, record-setting amounts for November 8 reached 2.92 inches in Russellville, AR; 1.91 inches in Joplin, MO; and 1.66 inches in Tulsa, OK. November 6-8 rainfall totaled 3.04 inches in Tulsa; 4.05 inches in Fayetteville, AR; and 6.16 inches in Muskogee, OK. Farther west, November 8-9 snowfall topped a foot in parts of the southern Rockies, with 19 inches reported in Eagle Nest, NM. Heavy precipitation also spread into parts of the Midwest. Green Bay, WI, received 2.20 inches of precipitation on November 8-9, including 2.0 inches of snow. Daily-record snowfall totals for November 9 reached 8.9 inches in Rhinelander, WI, and 3.7 inches in Des Moines, IA. The last time Des Moines had experienced a more significant early-season snowfall was October 26, 1997, when 6.6 inches fell. Later, windy weather accompanied some precipitation across the Northwest. In northwestern Montana's Glacier National Park, a wind gust to 87 mph was reported at Logan Pass on November 11. The following day, Big Sky, MT, received 6.8 inches of snow, a record for November 12.

Just prior to mid-month, a record-setting chill shifted into the Deep South. Harlingen (37°F on November 11) collected a daily-record low, just 3 days after soaring to 92°F. On November 11, Gulf Coast cities reporting daily-record lows included Corpus Christi, TX (32°F), and Mobile, AL (31°F). A day later, records for November 12 fell to 22°F in Tallahassee, FL, and 27°F in Macon, GA.

Heavy rain erupted across the Mid-South on November 15, when daily-record totals in Arkansas included 5.12 inches in Little Rock and 3.71 inches in Jonesboro. For Little Rock, it was the second-wettest November day on record, behind only 6.23 inches on November 19, 1988. The following day, record-setting Southeastern totals for November 16 reached 2.31 inches in Bowling Green, KY, and 1.59 inches in Columbus, GA. In addition, nearly three dozen tornadoes were spotted on November 15-16 from eastern Texas to southern Virginia. Deadly tornadoes claimed a total of five lives in York County,

SC, and Davidson County, NC—the nation's first tornado-related fatalities since August. Farther north, Philadelphia, PA, set a record for its highest annual precipitation, aided by a 0.74-inch rainfall on November 16. Philadelphia's year-to-date total—59.96 inches through November—surpassed its 1996 annual standard of 56.45 inches. Later, precipitation began to overspread the nation's northern tier. From November 16-19, Yakima, WA, received 3.6 inches of snow. Idaho Falls, ID (0.49 inch), collected a daily-record precipitation total for November 17. High winds also swept into parts of the West, with a gust to 141 mph reported on Virginia Peak in western Nevada. On November 18-19, snowfall reached 13.8 inches in Rapid City, SD. Elsewhere in South Dakota, daily-record amounts for the 19<sup>th</sup> included 9.5 inches in Pierre, 5.0 inches in Huron, and 4.0 inches in Watertown. Pierre also experienced its snowiest November day on record, previously set with an 8.0-inch total on November 9, 1998, and November 25, 2001.

At mid-month, record-setting warmth prevailed in parts of the South. In Louisiana, Monroe (86°F) and New Orleans (84°F) posted daily-record highs for November 14. Monroe also notched a daily-record high on the 15<sup>th</sup>, reaching 87°F. New Orleans' streak of records reached 3 days, with highs soaring to 86 and 85°F on November 15-16, respectively. Highs topped 90°F in southern Texas on November 16, when both Harlingen and McAllen attained 93°F. By November 17, record-setting warmth was confined to Florida, where West Palm Beach reached 87°F. Farther west, sharply colder air trailed Western storminess. Daily-record lows for November 19 included -14°F in Casper, WY; -7°F in Rapid City, SD; and 27°F in Redding, CA. By the morning of November 20, lows in Montana dipped to -10°F in Cut Bank and -13°F in Havre—although neither reading was close to a daily record. Meanwhile, record-setting warmth returned to the Deep South, where daily-record highs were reported on November 20-21 in locations such as New Iberia, LA (84°F both days), and College Station, TX (86 and 85°F, respectively). Elsewhere in Texas, Laredo (93°F) posted a daily-record high for November 20. Farther east, Montgomery, AL (83 and 81°F), notched a pair of daily-record highs on November 21-22. Cooler weather soon returned to the South and East, but warmth quickly overspread the Plains and the Northwest. Grand Forks, ND (58 and 56°F) registered a pair of daily-record highs on November 23-24. Havre, MT (65°F), collected a daily-record high for November 23. On Thanksgiving Day, November 24, highs soared to daily-record levels in locations such as Omaha, NE (73°F); Concordia, KS (73°F); Mitchell, SD (71°F); and Des Moines, IA (67°F). For Omaha, it was also the latest observance of a high of 73°F or greater (previously, 75°F on November 20, 1933), and the warmest Thanksgiving Day on record.

Concurrent with the late-season warmth, heavy precipitation spread southward along the Pacific Coast. In southern California, daily-record rainfall totals for November 20 included 2.06 inches in Santa Barbara and 0.98 inch in Los Angeles (LAX Airport). The following day, torrential rainfall erupted across the Mid-South, where records in Arkansas for November 21 reached 6.06 inches in Little Rock, 5.48 inches in Mt. Ida,

5.20 inches in Russellville, and 4.41 inches in Hot Springs. With totals of 6.06 inches on the 21<sup>st</sup> and 5.12 inches on the 15<sup>th</sup>, Little Rock experienced its second- and third-wettest November days on record, behind 6.23 inches on November 19, 1988—and its ninth- and 13<sup>th</sup>-wettest days during any month. Little Rock's monthly rainfall totaled to 14.57 inches, eclipsing its November 1988 standard of 13.14 inches. Similarly, Russellville's monthly total of 12.74 inches surpassed its long-standing November record of 11.25 inches, set in 1889. In the wake of the heavy rain, the White River near Augusta, AR, crested 4.01 feet above flood stage on November 27, but still 10.79 feet below the near-record level achieved on May 5, 2011. Farther west, a pair of Pacific storms slammed into the Northwest, producing heavy precipitation and high winds. November 20-26 precipitation totals of 4 to 10 inches were common from the Pacific Coast to the Cascades, with amounts reaching 5.11 inches in Scappoose, OR, and 4.61 inches in Olympia, WA. Some of the heaviest precipitation fell on November 22, when daily-record totals included 2.68 inches in Hoquiam, WA, and 2.35 inches in Portland, OR. Winds above 70 mph were common along and near the northern Pacific Coast, with a gust to 97 mph reported on November 22 atop Mt. Hebo, OR. Meanwhile, several inches of snow accumulated in northern New York and parts of New England. On November 23, Bangor, ME, received a daily-record snowfall of 8.6 inches. November 22-23 storm-total snowfall reached 5.0 inches in Burlington, VT, and 8.2 inches in Gray, ME, near Portland. Aside from the Northwest, most of the nation experienced tranquil weather on Thanksgiving Day. However, showers developed late in the day across southern Arizona, where Douglas (0.54 inch) tallied a daily-record amount for November 24.

Toward month's end, warm weather prevailed along both the Atlantic and Pacific Coasts, while cold air arrived across the nation's mid-section. In southern California, daily-record highs for November 27 soared to 87°F in San Gabriel and El Cajon. Meanwhile, highs climbed to daily-record levels in Eastern locations such as Salisbury, MD (72°F), and Virginia's Dulles Airport (70°F). The following day, November 28, Eastern records included 73°F in Georgetown, DE, and 72°F in Newark, NJ. Salisbury topped its earlier reading with a daily-record high of 74°F on November 29. In Maine, both Bangor (63°F) and Caribou (61°F) posted daily-record highs for the last day of November. In contrast, Corpus Christi, TX (27°F on the 28<sup>th</sup>), notched a monthly record low, edging the former standard of 28°F set on November 28, 1993. As the month ended, high winds preceded and accompanied a sudden turn toward cold weather in the West. On November 30, Bishop, CA, noted a monthly record wind gust to 60 mph, topping the record of 59 mph that had just been set on November 18. In Los Angeles County, CA, a northwesterly gust to 97 mph was clocked on the 30<sup>th</sup> on Whitaker Peak. Farther east, the month ended on a snowy note in parts of the Mid-South, where November 28-29 snowfall totals included 2.0 inches in Jackson, TN, and 2.5 inches in Jonesboro, AR. Meanwhile, record-setting rainfall amounts for the 28<sup>th</sup> reached 2.59 inches in Asheville, NC; 2.48 inches in Crossville, TN; and 1.94 inches in Lexington, KY. The following day, record-setting totals for November 29 included

2.53 inches in Fort Wayne, IN, and 1.63 inches in Lansing, MI. Fort Wayne received 4.4 inches of snow on November 29-30, while Lansing netted 8.1 inches. Cincinnati, OH, set a record for its wettest November (8.33 inches; previously, 7.51 inches in 1985) and extended its annual precipitation record to 66.76 inches (previously, 57.58 inches in 1990).

In Alaska, early-November storminess foretold a month of extremes. On November 3, daily-record precipitation totals were established in locations such as King Salmon (0.66 inch) and Bethel (0.55 inch). Bethel also received 9.8 inches of snow from November 2-5, including a daily-record amount (5.2 inches) on the 3<sup>rd</sup>. Similarly, 6.0 inches of snow blanketed Juneau on November 4-5, aided by a daily-record total (5.3 inches) on the 4<sup>th</sup>. A few days later, Anchorage received record-setting precipitation (0.49 inch) and snowfall (6.1 inches) for November 6. Later, an unusually vicious storm over the Bering Sea battered western Alaska with high winds, heavy precipitation, and a coastal storm surge. On November 8-9, the Bering Sea storm produced Alaskan wind gusts to 76 mph in Kotzebue and 66 mph in Nome. During the same period, snowfall totaled 7.9 inches in Kotzebue and 6.4 inches in Nome. As storminess engulfed the remainder of the state, a 4.7-inch snowfall in Kodiak on November 11-12 included some thunder and a wind gust to 62 mph on the latter date. In the storm's wake, an intense early-season cold wave gripped Alaska. In Fairbanks, temperatures plunged to -35°F or lower on 7 consecutive days (November 15-21), including a reading of -41°F on November 17. That marked Fairbanks' first November reading below -40°F since November 30, 1994 (-45°F), and its earliest temperature below -40°F since November 10, 1989 (-42°F). At the height of the cold spell, Manley Hot Springs recorded a low of -54°F on November 17. Elsewhere, daily-record lows included -39°F (on November 17) in McGrath and -8°F (on November 19) in Anchorage. Meanwhile, some widespread snow fell across southern Alaska, where Kodiak received 5.9 inches on November 14-15 and 9.6 inches on November 19-20. From November 13-16, snowfall totaled 23.5 inches in Yakutat and 15.9 inches in Juneau. In some areas, high winds accompanied the snow, with a monthly record wind gust to 83 mph recorded in Valdez on November 15. Later, King Salmon notched daily-record lows on November 23 and 25-26, including a reading of -25°F on the 26<sup>th</sup>. Bethel also posted a daily-record low on November 26, reporting -22°F. Meanwhile, heavy snow blanketed parts of southeastern Alaska, where Juneau's monthly total of 49.0 inches was padded by a 13.9-inch snowfall on November 23. Bitterly cold weather persisted in much of Alaska through month's end, with Kodiak reporting consecutive daily-record lows of 7°F on November 26 and 27. Fairbanks completed its sixth-coldest November in more than a century. Similarly, Nome experienced its eighth-coldest November in 104 years—and coldest since 1963. Valdez received 66.4 inches of snow during the month, with more than one-quarter of that total (17.5 inches) falling on November 30.

In Hawaii, early-November downpours provided some drought relief. November 1-5 totals reached 6.11 inches in Hilo, on the Big Island, and 3.64 inches in Lihue. Kauai's famously wet Mt.

Waialeale netted 22.12 inches of rain during the week ending November 5. Hilo's November total eventually climbed to 17.47 inches (113 percent of normal), although more than three-quarters (13.50 inches) of that total fell during the first half of the month. Periodic gusty winds accompanied Hawaii's showers, with Lihue, Kauai (northeasterly gust to 38 mph during a November 26-28 post-frontal event), reporting its highest wind since July 8.

## Fieldwork

*Fieldwork summary provided by USDA/NASS*

Near-normal temperatures prevailed west of the Great Plains and across much of the South during November, allowing producers ample time to harvest row crops and seed small grains. Elsewhere, average temperatures throughout much of the Corn Belt, Great Lakes region, and Northeast were as much as 6°F above average. Precipitation totals were below average for many areas during the month, with portions of Great Plains accumulating less than 25 percent of their normal amounts. Elsewhere, abundant moisture in parts of the Corn Belt and Ohio Valley hampered fieldwork.

As November began, corn producers were rapidly completing harvest. Warmer, drier weather gave producers in Ohio time to ramp up the harvest pace on what was a slower than normal crop season; however, overall progress remained well behind normal. By November 20, corn producers had harvested 96 percent of the nation's crop, 3 percentage points behind last year but 8 points ahead of the 5-year average.

Ninety-five percent of the sorghum crop was at or beyond the mature stage by November 6, slightly behind the 5-year average, with progress complete or nearly complete in all major estimating states except New Mexico and Oklahoma. Mostly dry weather promoted rapid fieldwork on the central Great Plains early in the month. In Kansas, the largest sorghum-producing state, harvest continued at a rapid pace, despite increased rainfall during the week ending November 13. Nationally, producers had harvested 94 percent of the sorghum crop by November 27, slightly ahead of the 5-year average.

By November 13, winter wheat producers had seeded 96 percent of the 2012 crop, slightly ahead of the 5-year average. Early-season storms delivered beneficial moisture to the emerging crop in portions of the Rocky Mountains, while additional moisture was needed on the southern Great Plains to boost establishment. In Texas, mid-month moisture left many winter wheat fields developing well in the northern part of the state, while ongoing drought conditions limited crop growth in many southern fields. By November 27, emergence had advanced to 92 percent

complete, slightly behind last year but on par with the 5-year average. Overall, 52 percent of the winter wheat crop was reported in good to excellent condition on November 27, compared to 49 percent on November 6 and 47 percent at the same time last year.

As the month began, rice producers in the upper Delta and California were busy harvesting the last of the 2011 crop. Harvest was complete in Louisiana, Mississippi, and Texas. By November 6, ninety-seven percent of the nation's crop was harvested, on par with the 5-year average.

Soybean producers had harvested 96 percent of this year's crop by November 13, three percentage points behind last year but 2 points ahead of the 5-year average. Despite favorable weather providing ample time for fieldwork, Ohio was the only major estimating state where progress remained behind normal.

With progress most advanced in the Dakotas, 85 percent of the sunflower crop was harvested by November 6. This was 9 percentage points ahead of last year and 20 points, or nearly 2 weeks, ahead of the 5-year average. Harvest was steady in the four major estimating states throughout much of the month. By November 20, producers had combined 98 percent of this year's crop, 9 percentage points ahead of the 5-year average.

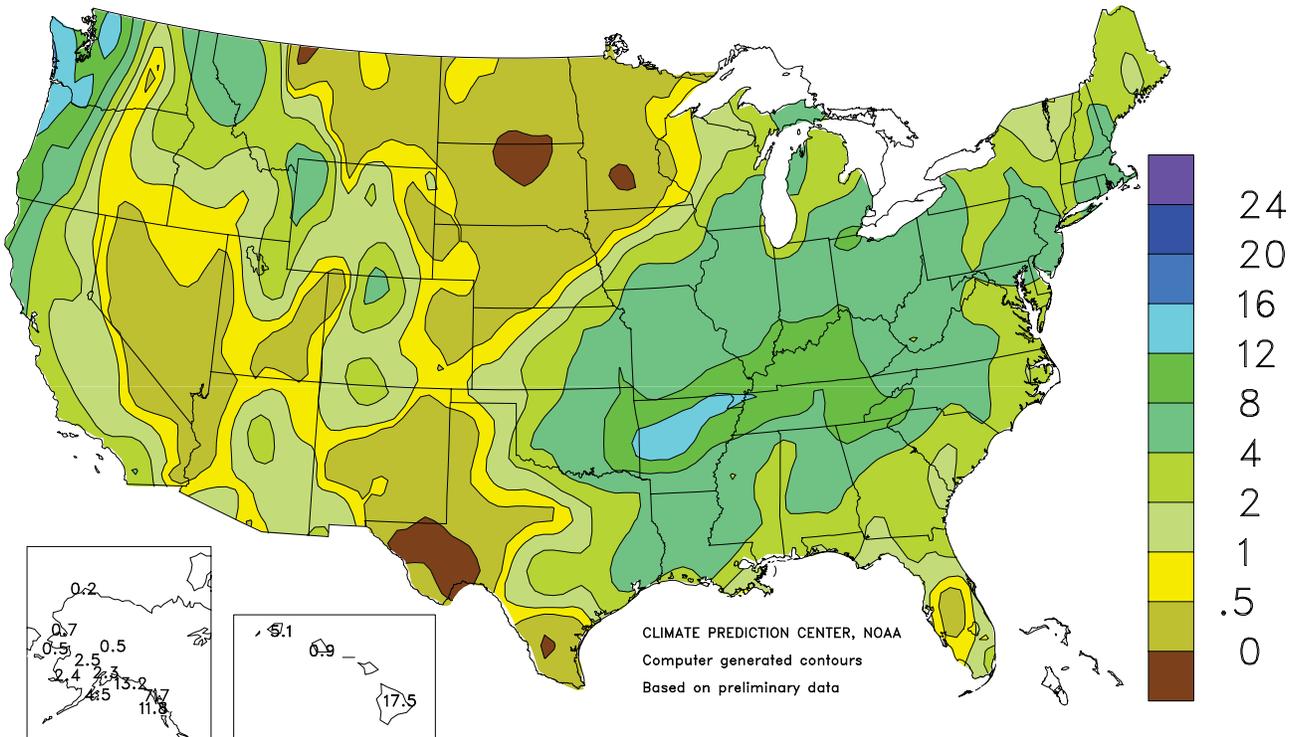
By November 6, peanut producers had harvested 80 percent of this year's crop, 5 percentage points behind last year but slightly ahead of the 5-year average. Early-month rainfall limited fieldwork in Georgia and left producers hoping for sunny days to wrap up this year's harvest. Some peanut fields in Texas that were too badly damaged to grade well were baled for hay. The latter half of the month brought rainfall to the peanut-producing areas of Texas, slowing fieldwork. By November 20, overall progress was ahead of normal in three of the four largest producing states. By November 27, ninety-seven percent of the peanut crop was harvested, slightly ahead of the 5-year average.

Cool, mostly dry weather across the South promoted a rapid harvest pace for cotton early in the month. In Texas, harvest advanced quickly in the Northern High Plains due to a freeze that aided with defoliation. By November 13, nationwide harvest, at 79 percent complete, was advancing at the quickest pace since 2001. Toward month's end, favorable weather in the Southwest allowed ample time for producers in Arizona and California to continue harvesting their crop. By November 27, cotton producers had harvested 92 percent of the nation's crop, 2 percentage points ahead of last year and 10 points ahead of the 5-year average.

Sugarbeet producers had harvested 96 percent of this year's crop by November 6, on par with last year but 3 percentage points ahead of the 5-year average.

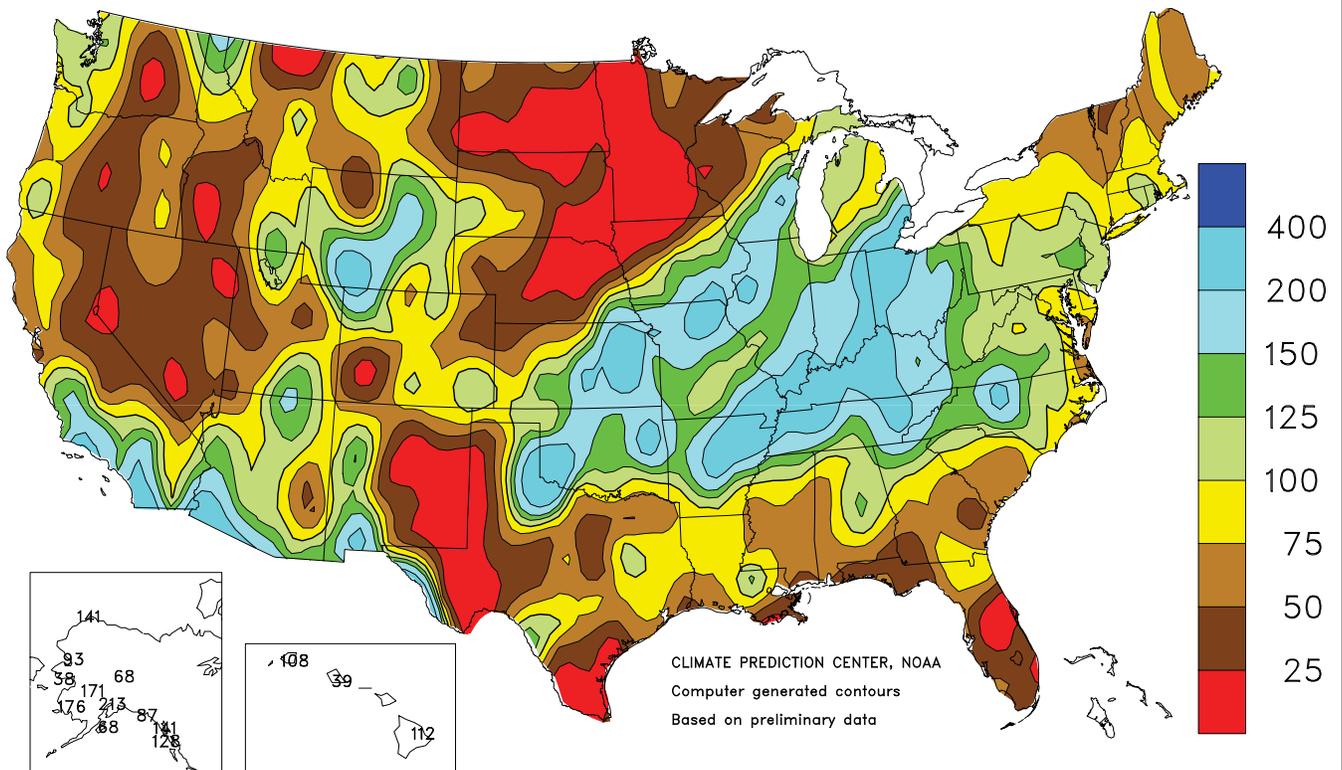
### Total Precipitation (Inches)

November 2011



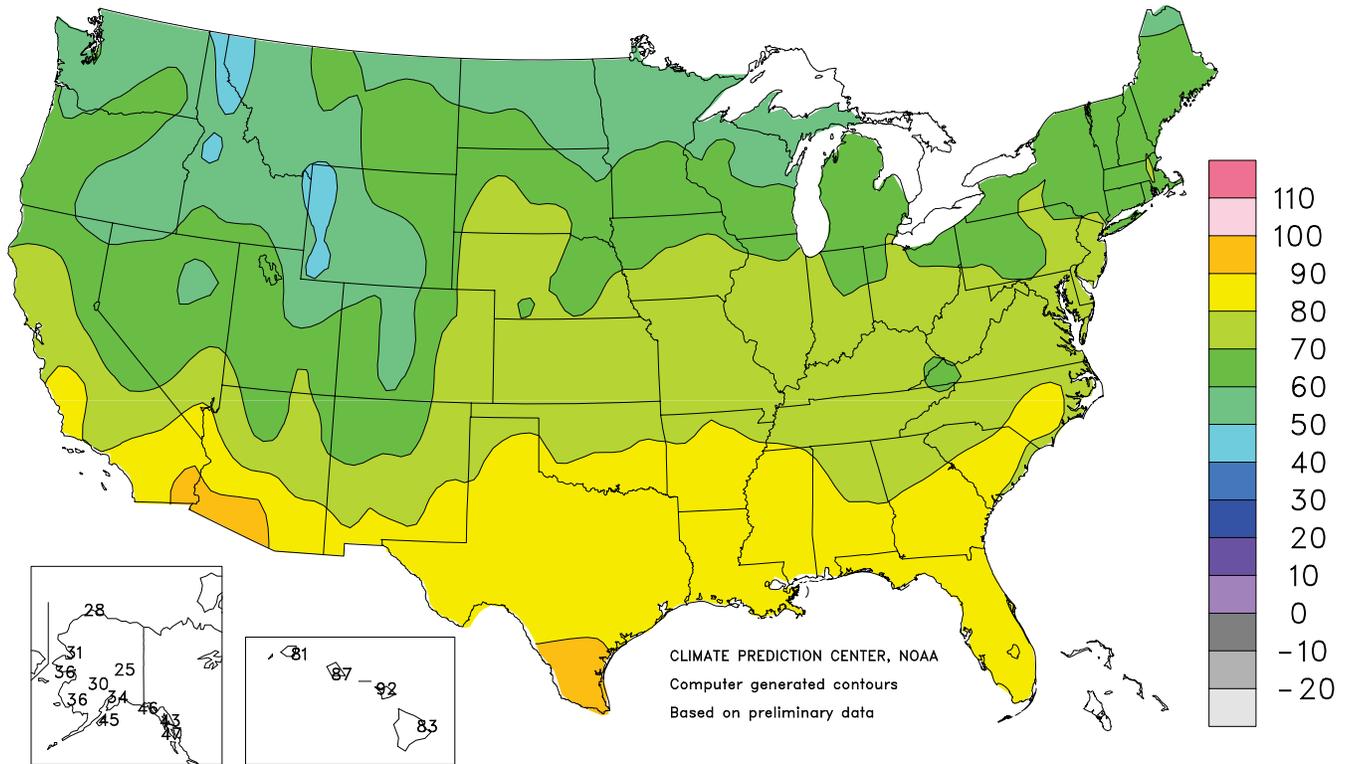
### Percent Of Normal Precipitation

November 2011



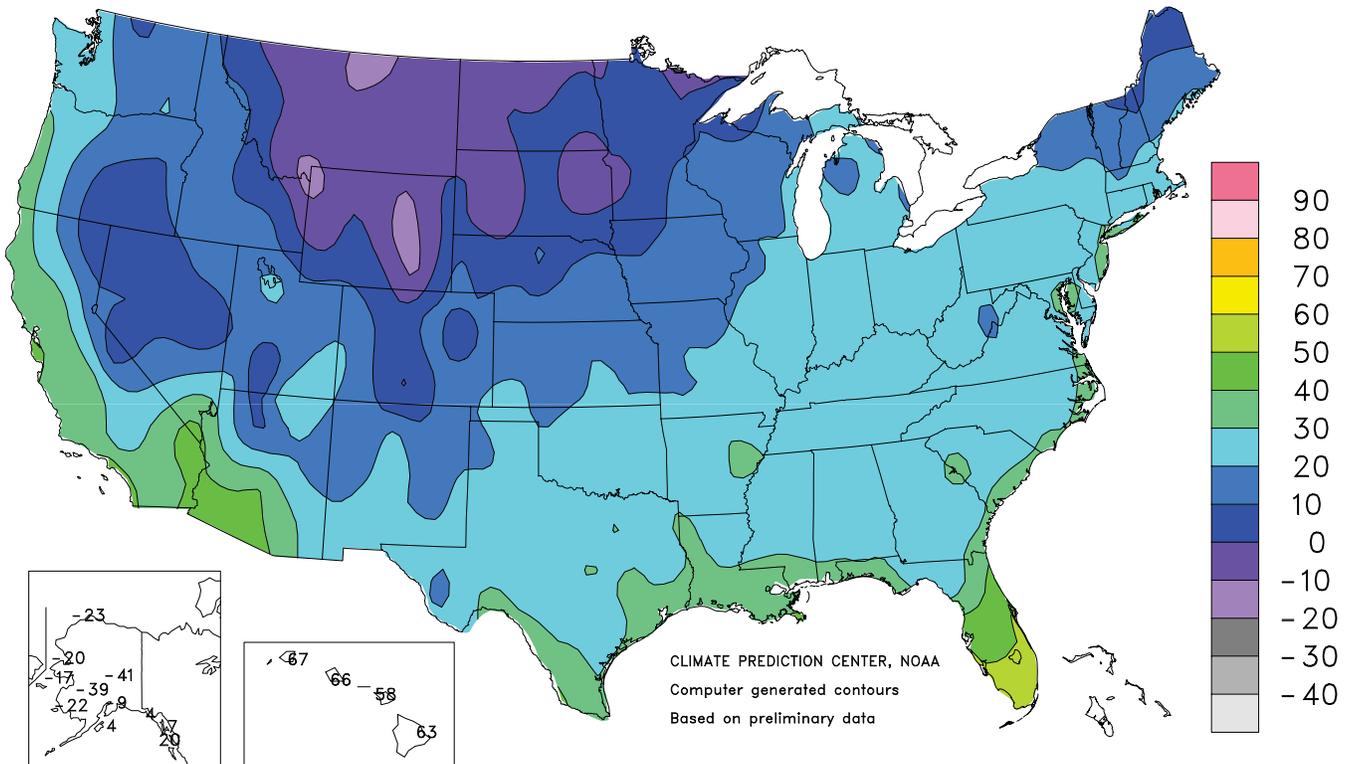
### Extreme Maximum Temperature (°F)

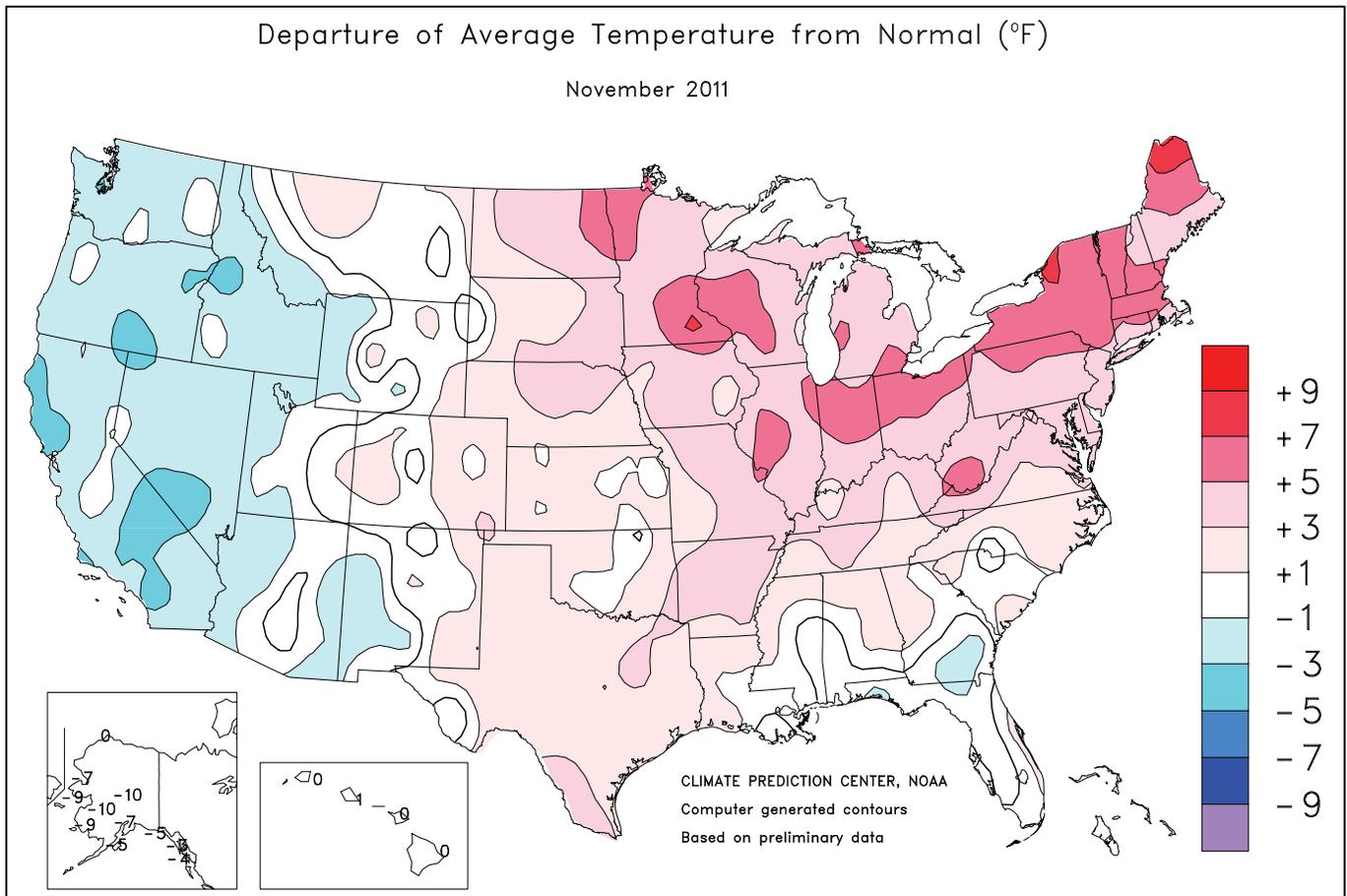
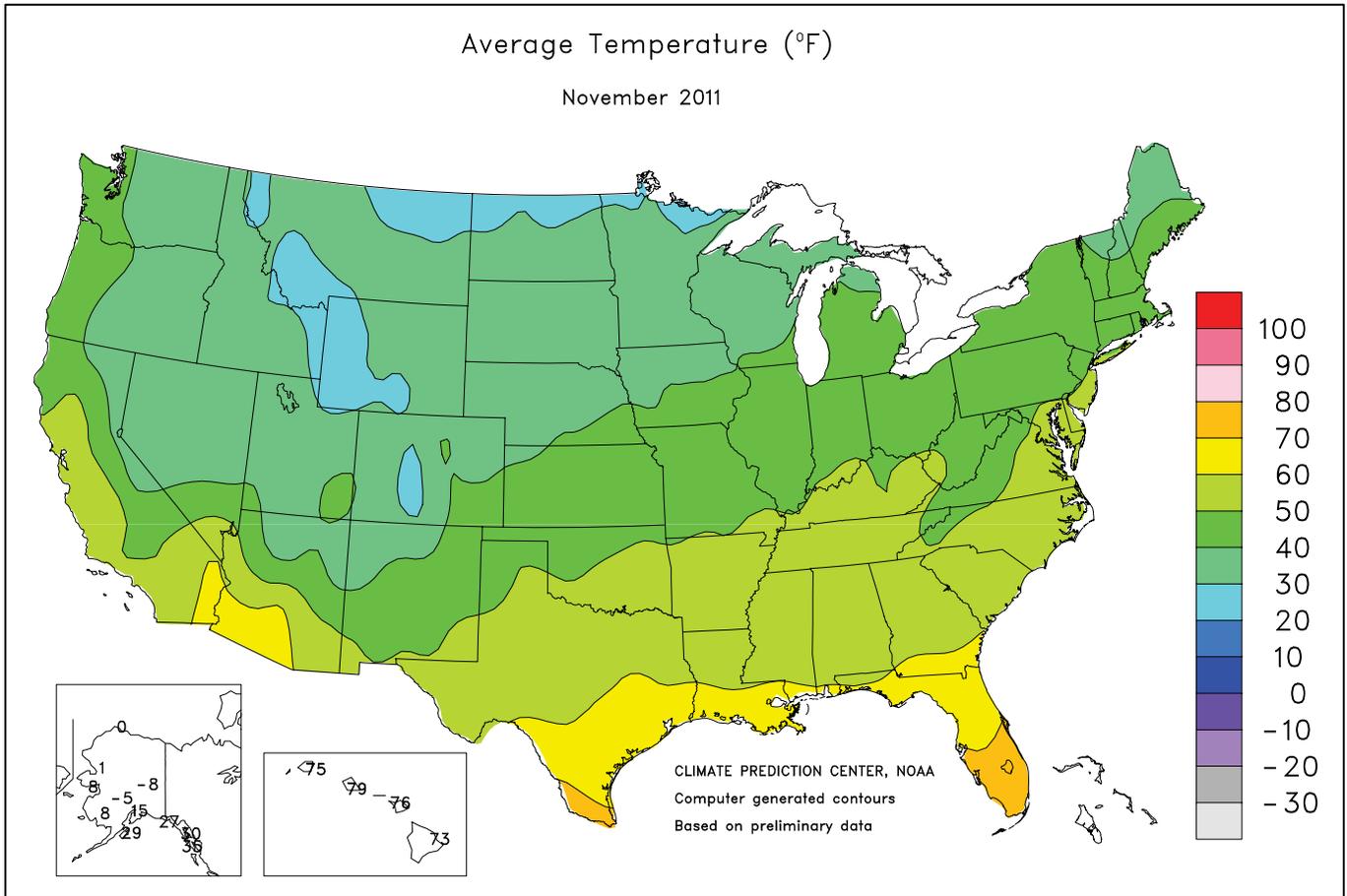
November 2011



### Extreme Minimum Temperature (°F)

November 2011





National Weather Data for Selected Cities

November 2011

Data Provided by Climate Prediction Center (301-763-8000, Ext. 7503)

STATES AND STATIONS	TEMP., °F		PRECIP.		STATES AND STATIONS	TEMP., °F		PRECIP.		STATES AND STATIONS	TEMP., °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	56	3	6.37	1.74	LEXINGTON	50	4	7.68	4.24	COLUMBUS	49	5	4.77	1.58
HUNTSVILLE	54	3	4.98	-0.24	LONDON-CORBIN	49	2	6.78	2.88	DAYTON	47	5	5.81	2.51
MOBILE	60	1	2.89	-2.52	LOUISVILLE	52	4	7.62	3.82	MANSFIELD	47	7	5.30	1.54
MONTGOMERY	58	2	5.78	1.25	PADUCAH	51	4	10.00	5.47	TOLEDO	45	5	7.15	4.37
AK ANCHORAGE	15	-7	2.32	1.23	LA BATON ROUGE	60	1	7.44	2.68	YOUNGSTOWN	46	5	4.16	1.09
BARROW	0	1	0.23	0.07	LAKE CHARLES	62	2	2.39	-2.22	OK OKLAHOMA CITY	50	1	2.24	0.13
COLD BAY	33	-2	3.08	-1.71	NEW ORLEANS	64	3	3.18	-1.91	TULSA	51	1	5.37	1.90
FAIRBANKS	-8	-10	0.46	-0.22	SHREVEPORT	59	3	4.25	-0.43	OR ASTORIA	45	-2	10.40	-0.10
JUNEAU	30	-3	7.68	2.25	ME BANGOR	41	4	2.19	-1.50	BURNS	32	-1	0.48	-0.63
KING SALMON	15	-8	2.72	1.18	CARIBOU	38	7	1.79	-1.33	EUGENE	45	0	5.34	-3.10
KODIAK	29	-5	4.53	-2.10	PORTLAND	44	6	2.86	-1.86	MEDFORD	45	1	1.99	-0.94
NOME	8	-9	0.49	-0.79	MD BALTIMORE	50	4	2.45	-0.67	PENDLETON	41	0	0.83	-0.80
AZ FLAGSTAFF	36	-1	1.76	-0.10	MA BOSTON	50	5	4.21	0.23	PORTLAND	45	-1	6.57	0.96
PHOENIX	64	2	0.81	0.08	WORCESTER	47	7	4.27	-0.07	SALEM	45	0	5.96	-0.43
TUCSON	59	0	0.97	0.30	MI ALPENA	40	5	1.87	-0.21	PA ALLENTOWN	47	5	4.90	1.20
AR FORT SMITH	55	4	7.19	2.39	DETROIT	46	5	6.00	3.34	ERIE	48	5	4.36	0.40
LITTLE ROCK	56	4	14.57	8.84	FLINT	44	6	2.82	0.17	MIDDLETOWN	47	3	4.50	0.98
CA BAKERSFIELD	53	-2	0.76	0.17	GRAND RAPIDS	44	6	2.50	-0.85	PHILADELPHIA	51	4	3.87	0.71
EUREKA	47	-4	3.86	-1.92	HOUGHTON LAKE	40	5	2.59	0.45	PITTSBURGH	47	5	3.75	0.73
FRESNO	54	1	0.67	-0.43	LANSING	43	5	3.24	0.58	WILKES-BARRE	46	4	2.87	-0.25
LOS ANGELES	59	-3	1.69	0.56	MUSKEGON	44	5	3.28	0.05	WILLIAMSPORT	46	5	3.40	-0.22
REDDING	49	-2	2.62	-1.41	TRAVERSE CITY	42	5	3.23	0.56	PR SAN JUAN	80	0	4.74	-1.43
SACRAMENTO	52	-1	0.74	-1.45	MN DULUTH	33	5	0.60	-1.52	RI PROVIDENCE	48	4	4.79	0.39
SAN DIEGO	60	-2	3.12	2.05	INT'L FALLS	29	5	0.91	-0.45	SC CHARLESTON	59	1	1.40	-1.26
SAN FRANCISCO	54	-1	1.55	-0.94	MINNEAPOLIS	39	6	0.30	-1.64	COLUMBIA	55	0	1.68	-1.20
STOCKTON	51	-2	0.77	-1.00	ROCHESTER	38	7	0.38	-1.63	FLORENCE	56	1	1.17	-1.42
CO ALAMOSA	29	1	0.51	0.03	ST. CLOUD	34	5	0.23	-1.31	GREENVILLE	53	2	4.39	0.60
CO SPRINGS	41	5	0.19	-0.33	MS JACKSON	57	2	3.50	-1.54	MYRTLE BEACH	57	0	2.89	-0.08
DENVER	40	3	0.47	-0.13	MERIDIAN	55	-1	2.94	-2.01	SD ABERDEEN	32	3	0.03	-0.72
GRAND JUNCTION	40	2	0.55	-0.16	TUPELO	54	3	5.14	0.13	HURON	35	4	0.43	-0.46
PUEBLO	41	3	0.38	-0.20	MO COLUMBIA	47	4	4.50	1.03	RAPID CITY	34	1	0.71	0.10
CT BRIDGEPORT	50	5	3.20	-0.45	JOPLIN	49	2	5.62	1.56	SIOUX FALLS	36	5	0.04	-1.32
HARTFORD	46	4	3.81	-0.25	KANSAS CITY	45	2	4.89	2.59	TN BRISTOL	49	3	4.60	1.52
DC WASHINGTON	52	3	1.94	-1.09	SPRINGFIELD	48	2	5.29	0.83	CHATTANOOGA	53	3	8.14	3.26
DE WILMINGTON	49	3	4.13	0.94	ST JOSEPH	44	2	3.86	1.70	JACKSON	53	3	8.34	3.27
FL DAYTONA BEACH	68	1	0.06	-2.97	ST LOUIS	51	6	4.67	0.96	KNOXVILLE	51	2	7.08	3.10
FT LAUDERDALE	75	1	0.42	-4.15	MT BILLINGS	36	2	0.46	-0.29	MEMPHIS	56	4	7.71	1.95
FT MYERS	72	0	0.24	-1.47	BUTTE	25	-2	0.25	-0.35	NASHVILLE	52	3	6.15	1.70
JACKSONVILLE	62	0	1.48	-0.86	GLASGOW	30	2	0.73	0.34	TX ABILENE	56	2	0.18	-1.12
KEY WEST	76	0	0.17	-2.47	GREAT FALLS	35	3	0.35	-0.24	AMARILLO	48	3	0.62	-0.06
MELBOURNE	71	2	1.24	-1.88	HELENA	32	1	0.77	0.29	AUSTIN	61	1	2.18	-0.50
MIAMI	75	1	1.80	-1.63	KALISPELL	31	0	0.42	-1.03	BEAUMONT	64	3	1.21	-3.54
ORLANDO	69	0	0.13	-2.19	MILES CITY	31	-1	0.22	-0.30	BROWNSVILLE	70	2	0.55	-1.20
PENSACOLA	61	0	1.78	-2.68	MISSOULA	31	-1	0.85	-0.11	COLLEGE STATION	62	2	2.41	-0.77
ST PETERSBURG	70	0	1.35	-0.69	NE GRAND ISLAND	40	4	0.21	-1.20	CORPUS CHRISTI	68	3	0.34	-1.40
TALLAHASSEE	61	1	0.93	-2.93	HASTINGS	40	3	0.38	-1.08	DALLAS/FT WORTH	58	3	0.86	-1.71
TAMPA	70	1	1.24	-0.38	LINCOLN	40	2	1.66	0.08	DEL RIO	62	2	0.75	-0.21
WEST PALM BEACH	74	1	1.33	-4.22	MCCOOK	38	0	0.28	-0.81	EL PASO	54	1	0.23	-0.19
GA ATHENS	54	1	3.08	-0.63	NORFOLK	38	3	0.10	-1.34	GALVESTON	67	2	2.35	-1.29
ATLANTA	56	3	2.49	-1.61	NORTH PLATTE	37	2	0.13	-0.63	HOUSTON	63	2	4.69	0.50
AUGUSTA	55	1	1.63	-1.05	OMAHA/EPPLEY	42	4	1.31	-0.51	LUBBOCK	51	3	0.26	-0.45
COLUMBUS	58	1	3.33	-0.64	SCOTTSBLUFF	37	3	0.38	-0.42	MIDLAND	55	3	0.21	-0.44
MACON	56	1	3.13	-0.09	VALENTINE	37	4	0.44	-0.28	SAN ANGELO	58	4	0.32	-0.78
SAVANNAH	60	1	0.72	-1.68	NV ELKO	34	-1	0.39	-0.66	SAN ANTONIO	63	3	1.81	-0.77
HI HILO	73	-1	17.46	1.88	ELY	34	1	0.36	-0.27	VICTORIA	64	1	0.13	-2.51
HONOLULU	79	1	0.89	-1.37	LAS VEGAS	55	0	0.11	-0.20	WACO	58	1	2.39	-0.22
KAHULUI	76	0	0.07	-2.10	RENO	42	1	0.06	-0.74	WICHITA FALLS	54	2	1.01	-0.67
LIHUE	75	-1	5.06	0.36	WINNEMUCCA	35	-2	0.50	-0.30	UT SALT LAKE CITY	39	-1	1.62	0.22
ID BOISE	40	0	0.33	-1.05	NH CONCORD	42	4	3.68	0.11	VT BURLINGTON	43	6	1.43	-1.63
LEWISTON	40	0	0.93	-0.28	NJ ATLANTIC CITY	51	5	4.52	1.26	VA LYNCHBURG	49	2	3.27	0.09
POCATELLO	33	-2	1.17	0.04	NEWARK	51	5	3.53	-0.35	NORFOLK	56	4	1.84	-1.14
IL CHICAGO/O'HARE	45	6	3.44	0.43	NM ALBUQUERQUE	46	2	0.13	-0.49	RICHMOND	53	4	4.17	1.11
MOLINE	43	4	4.44	1.71	NY ALBANY	44	5	1.86	-1.42	ROANOKE	50	3	4.30	1.09
PEORIA	45	5	4.69	1.70	BINGHAMTON	44	6	3.08	-0.24	WASH/DULLES	49	4	2.18	-1.13
ROCKFORD	42	5	4.03	1.40	BUFFALO	46	6	3.10	-0.82	WA OLYMPIA	40	-2	8.78	0.65
SPRINGFIELD	48	6	3.31	0.44	ROCHESTER	46	6	2.46	-0.38	QUILLAYUTE	42	-2	14.54	-0.28
IN EVANSVILLE	50	4	8.32	4.14	SYRACUSE	47	7	3.36	-0.41	SEATTLE-TACOMA	43	-2	5.16	-0.74
FORT WAYNE	46	5	6.09	3.11	NC ASHEVILLE	49	3	5.32	1.50	SPOKANE	35	0	1.73	-0.51
INDIANAPOLIS	49	6	4.87	1.26	CHARLOTTE	52	0	3.34	-0.02	YAKIMA	36	-1	0.48	-0.57
SOUTH BEND	45	5	3.46	0.07	GREENSBORO	52	3	6.78	3.82	WV BECKLEY	49	6	3.78	0.90
IA BURLINGTON	44	3	4.86	2.14	HATTERAS	58	0	6.08	1.15	CHARLESTON	51	5	4.88	1.22
CEDAR RAPIDS	40	3	2.91	0.67	RALEIGH	55	4	3.32	0.35	ELKINS	46	5	3.89	0.47
DES MOINES	43	5	2.78	0.68	WILMINGTON	58	2	2.97	-0.29	HUNTINGTON	50	4	6.20	2.88
DUBUQUE	39	3	3.85	1.36	ND BISMARCK	31	3	0.06	-0.64	WI EAU CLAIRE	37	5	0.55	-1.37
SIoux CITY	38	3	0.05	-1.35	DICKINSON	31	2	0.06	-0.53	GREEN BAY	39	5	3.42	1.15
WATERLOO	39	4	2.22	0.12	FARGO	34	7	0.26	-0.80	LA CROSSE	40	5	0.91	-1.19
KS CONCORDIA	43	2	1.26	-0.19	GRAND FORKS	31	5	0.12	-0.87	MADISON	40	5	3.35	1.04
DODGE CITY	43	1	1.90	0.89	JAMESTOWN	32	5	0.08	-0.63	MILWAUKEE	43	5	2.53	-0.17
GOODLAND	40	3	0.31	-0.51	MINOT	31	4	0.23	-0.63	WAUSAU	37	5	1.36	-0.84
HILL CITY	41	1	0.55	-0.19	WILLISTON	29	3	0.39	-0.26	WY CASPER	33	1	1.24	0.42
TOPEKA	45	2	4.66	2.35	OH AKRON-CANTON	46	5	4.86	1.82	CHEYENNE	35	2	0.82	0.18
WICHITA	45	1	3.32	1.50	CINCINNATI	49	4	8.33	4.87	LANDER	32	2	0.99	0.00
KY JACKSON	52	4	5.48	1.28	CLEVELAND	48	6	4.54	1.16	SHERIDAN	32	1	1.14	0.34

# National Agricultural Summary

## December 5 – 11, 2011

Weekly National Agricultural Summary provided by USDA/NASS

With the exception of the Atlantic Coast States, weekly temperatures were below normal across much of the country. Most notably, temperatures averaged more than 15°F below normal in portions of the southern Rocky Mountains. Elsewhere, some locations in New England recorded temperatures that were more than 10°F above average. While much of the nation was relatively dry, areas in a band stretching from southern Texas northeastward to New England received precipitation totaling more than twice the weekly normal.

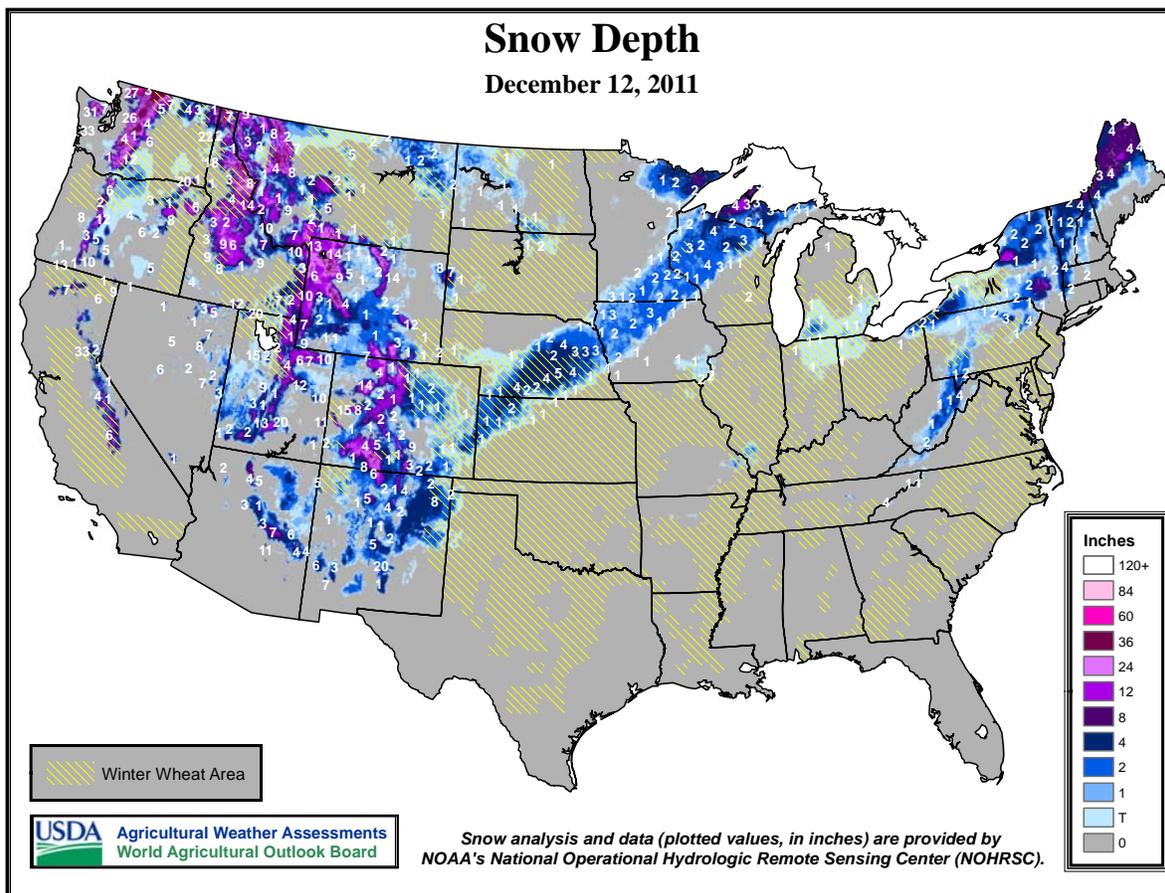
Much of Florida experienced near-normal temperatures during the week, with a few areas along the east coast accumulating rainfall in excess 400 percent of normal. Fieldwork was rapid for sugarcane producers who hoped to get their remaining crop harvested and any fields replanted before the Christmas holiday. A limited number of row crop fields were left to be harvested. Vegetable crops were harvested and replanted in some areas, with market movement including avocados, cucumbers, peppers, squash, and sweet corn. In the citrus region, harvesting of early and mid-season oranges increased.

Producers in Ohio had just 1 day suitable for fieldwork during the week, with topsoil moisture levels reported

as 86 percent surplus. Excessive wetness limited corn harvest to very few acres, and left producers waiting for the ground to freeze in order to get combines into their fields.

In Arizona, temperatures were mostly below normal for the week, while scattered precipitation fell in some areas. Cotton harvesting advanced to 75 percent complete, 3 percentage points behind last year and 9 points behind the 5-year average. Producers were also seeding small grain crops. A variety of fruit and vegetable crops were shipped by growers in central and western Arizona.

Northern California experienced overnight freezes throughout much of the week. Meanwhile, southern portions of the state were plagued by dry, gusty conditions, which increased concerns of wildfires for the Southland. Row crop producers were completing field cleanup activities in preparation for spring planting. Winter wheat was reported in mostly good to excellent condition, with the earliest seeded stands beginning to head. Fruit, nut, and vegetable crops were harvested, while producers continued a variety of orchard maintenance activities.



## December 8 ENSO Update

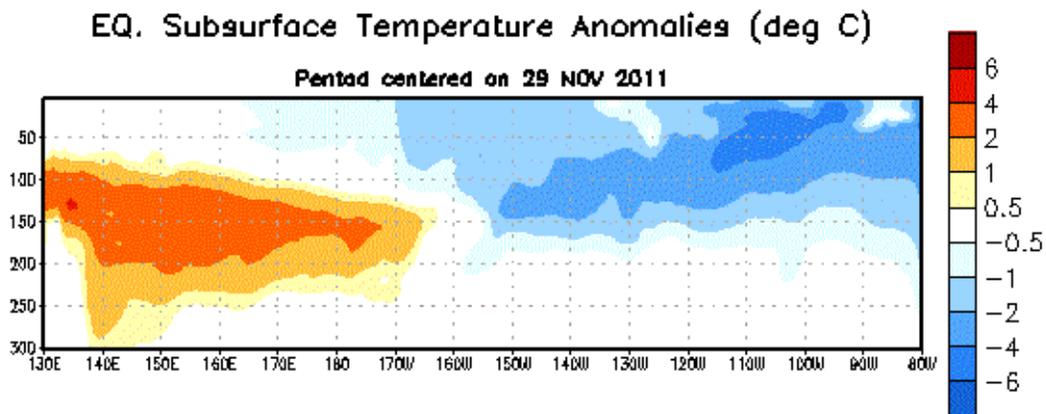


Figure 1: Depth-longitude section of equatorial Pacific upper-ocean (0-300m) temperature anomalies ( $^{\circ}\text{C}$ ) centered on the week of 29 November 2011. The anomalies are averaged between  $5^{\circ}\text{N}$ - $5^{\circ}\text{S}$ . Anomalies are departures from the 1982-2004 base period pentad means.

### ENSO Alert System Status: [La Niña Advisory](#)

#### Synopsis: La Niña is expected to continue through the Northern Hemisphere winter 2011-12.

During November 2011, below-average sea surface temperatures (SST) associated with La Niña conditions continued across the eastern and central equatorial Pacific Ocean. The recent weekly SST indices in the Niño-3.4 and Niño-3 regions maintained levels near  $-1.0^{\circ}\text{C}$ , indicative of weak to moderate La Niña. The oceanic heat content (average temperature in the upper 300m of the ocean) weakened slightly, but still indicates a large area of below-average temperatures at depth in the eastern Pacific (figure 1). Also reflecting La Niña, the atmospheric circulation over the global tropics featured anomalous low-level easterly and upper-level westerly winds in the central and west-central Pacific. Averaged over the month, convection was suppressed near and just west of the Date Line and enhanced over northern Australia and parts of Indonesia. Collectively, these oceanic and atmospheric patterns are consistent with the continuation of La Niña conditions.

A majority of the models predict a weak or moderate strength La Niña to continue through the Northern Hemisphere winter and then gradually weaken after peaking during the December–January period. The models are roughly split between those that predict La Niña to remain weak (3-month average in the Niño-3.4 region between  $-0.5$  and  $-0.9^{\circ}\text{C}$ ) and those that predict a stronger episode. Over the last half-century, La Niña events that were preceded by ENSO-neutral conditions during the Northern Hemisphere summer (May–August) were less likely to attain strong amplitude (stronger than

$-1.5^{\circ}\text{C}$ ) the following winter. This observation, in combination with the model forecasts, favors a weak-to-moderate strength La Niña during the Northern Hemisphere winter, likely weakening with the onset of northern spring.

During December 2011 - February 2012, there is an increased chance of above-average temperatures across the south-central and southeastern U.S. and below-average temperatures over the western and north-central U.S. Also, above-average precipitation is favored across the northern tier of states, excluding New England, and drier-than-average conditions are more likely across the southern tier of the U.S. (see [3-month seasonal outlook](#) released on 17 November 2011).

This discussion is a consolidated effort of the National Oceanic and Atmospheric Administration (NOAA), NOAA's National Weather Service, and their funded institutions. Oceanic and atmospheric conditions are updated weekly on the Climate Prediction Center web site ([El Niño/La Niña Current Conditions and Expert Discussions](#)). Forecasts for the evolution of El Niño/La Niña are updated monthly in the [Forecast Forum](#) section of CPC's Climate Diagnostics Bulletin. The next ENSO Diagnostics Discussion is scheduled for 5 January 2012. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: [ncep.list.ens0-update@noaa.gov](mailto:ncep.list.ens0-update@noaa.gov).

## International Weather and Crop Summary

December 4-10, 2011

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

### HIGHLIGHTS

**EUROPE:** Much-needed rain improved soil moisture reserves for winter crops over central and northern Europe.

**WESTERN FSU:** Mild, increasingly wet weather melted much of the region's protective snow cover.

**MIDDLE EAST:** Rain and snow returned to the western half of the region, boosting moisture reserves for winter wheat and barley.

**NORTHWESTERN AFRICA:** Sunny skies promoted fieldwork and winter grain growth after recent heavy rain.

**SOUTH ASIA:** Warm, sunny weather benefited cotton harvesting in southern India as well as winter crop development to the north.

**EAST ASIA:** Colder weather promoted the onset of dormancy for winter wheat as moisture reserves remained favorable entering the winter months.

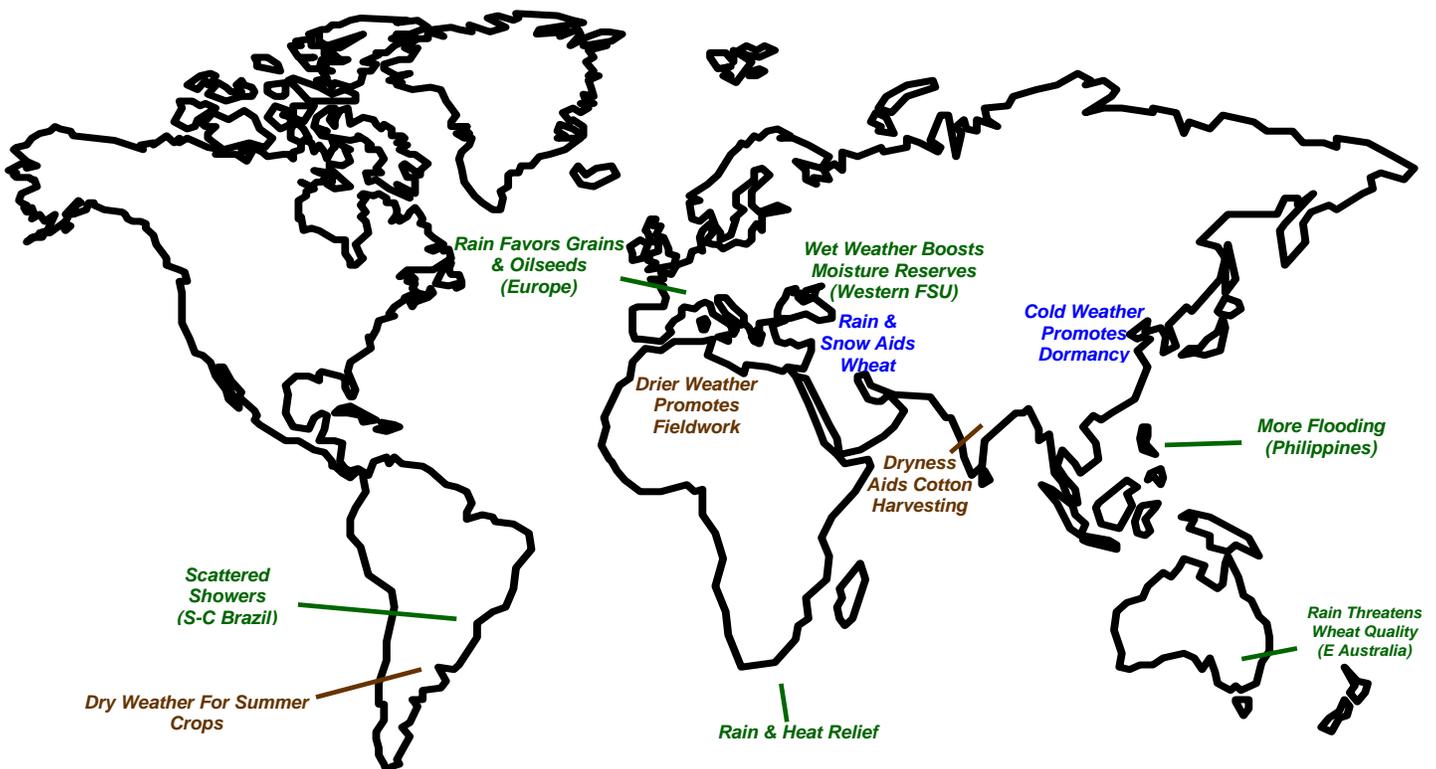
**SOUTHEAST ASIA:** Heavy rainfall renewed flooding concerns in the eastern Philippines, while seasonable rainfall favored rice in Java, Indonesia.

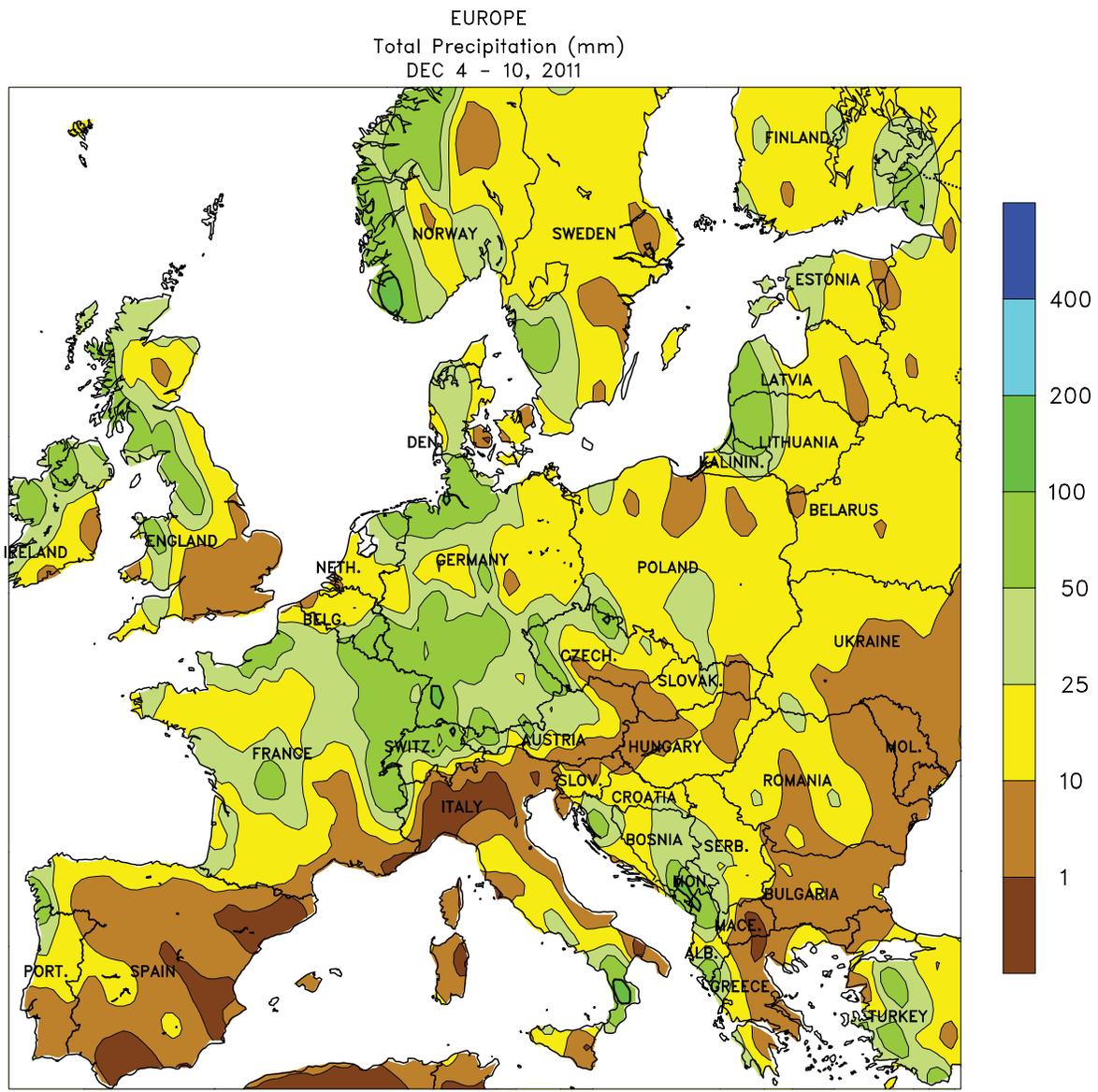
**AUSTRALIA:** Wet weather continued to plague portions of eastern Australia, benefiting vegetative summer crops but hampering winter wheat harvesting and further reducing crop quality.

**SOUTH AFRICA:** Late-week showers brought needed relief from warmth and dryness.

**ARGENTINA:** Warm, dry weather hastened drydown and harvesting of winter grains, while reducing moisture for summer grains, oilseeds, and cotton.

**BRAZIL:** Lingering dryness increased concern for corn and soybeans in sections of the south.





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

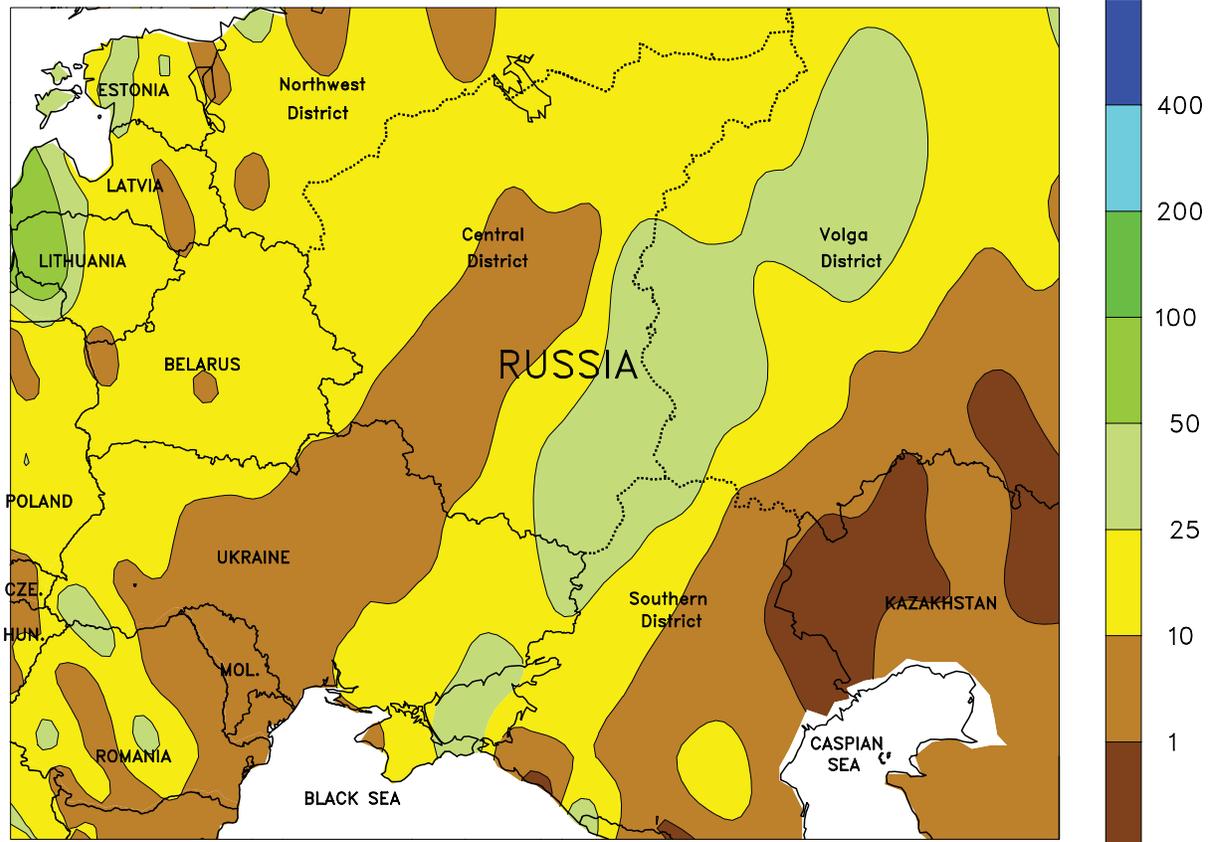


**EUROPE**

A dramatic change in the weather pattern brought widespread rain and above-normal temperatures to much of the continent. Following weeks of mostly dry conditions, rainfall tallied 10 to more than 70 mm from England and France into Poland and the northern Balkans. The rain provided soil moisture for vegetative winter grains and oilseeds in England and France, and boosted moisture reserves for dormant winter crops in Germany, Poland, and the Balkans. Nevertheless, concerns still exist over poorly established winter wheat and rapeseed from central Poland southward into Romania, where autumn precipitation was less than 40 percent of normal. In contrast,

drier weather returned to the Iberian Peninsula, encouraging winter wheat planting and establishment following recent rainfall. Sunny skies also prevailed in northern Italy, increasing irrigation requirements for winter wheat. However, showers provided much-needed moisture to central and southern Italy, where drier-than-normal autumn weather reduced moisture reserves for winter wheat and specialty crops. Temperatures averaged 2 to 6°C above normal over most crop areas, keeping the region devoid of snow cover and encouraging additional late-season growth in western growing districts.

WESTERN FSU  
Total Precipitation (mm)  
DEC 4 - 10, 2011



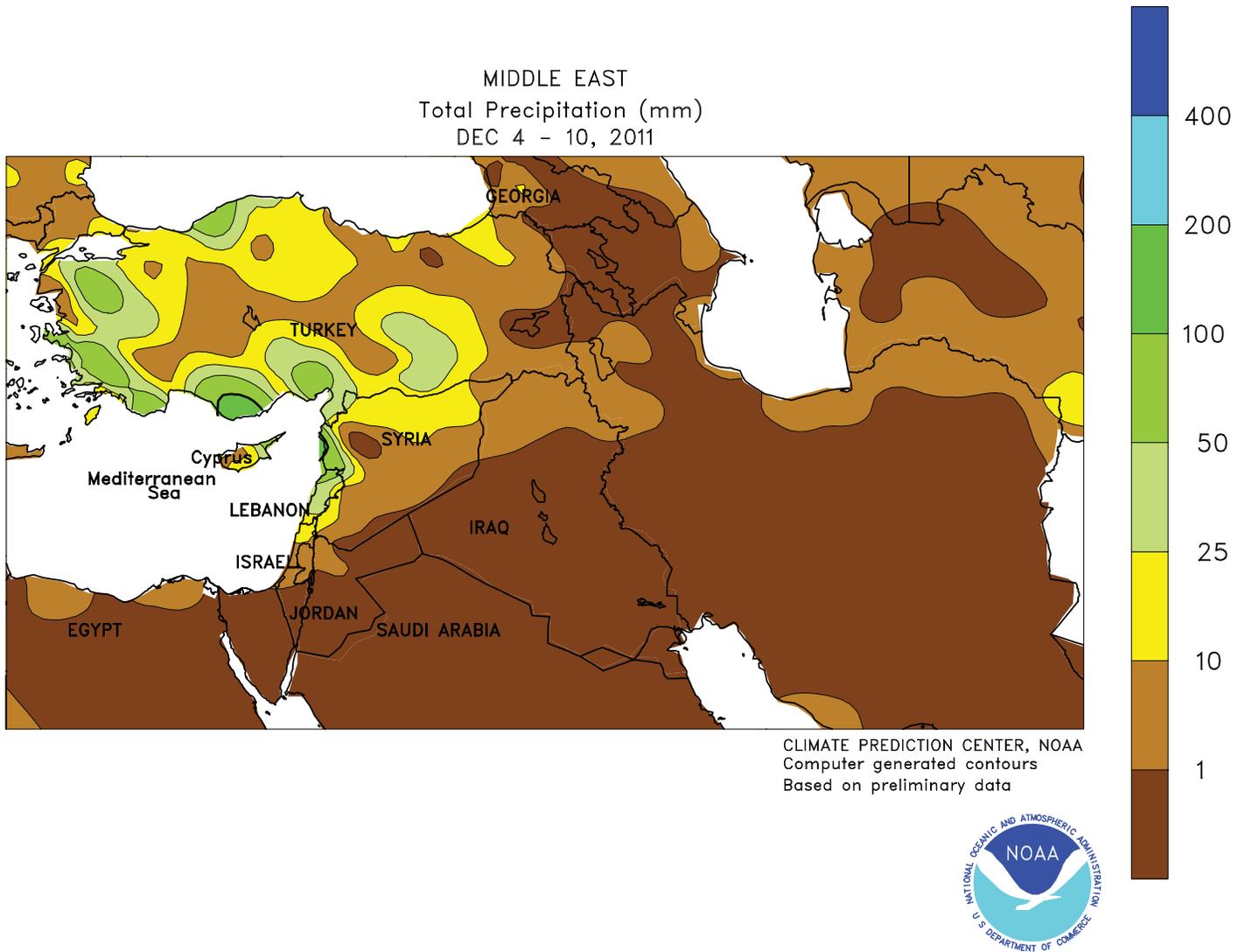
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



**WESTERN FSU**

Mild, increasingly wet weather provided much-needed moisture in the west but melted the region's protective snow cover. A pair of fast-moving frontal systems generated rain and wet snow from Belarus and Ukraine (5-20 mm liquid equivalent) into Russia (locally more than 25 mm), boosting moisture reserves for dormant winter crops. However, temperatures averaged up to 8°C above normal across the western half of the region, leaving crops devoid of protective snow cover. A shallow to moderate snowpack (2-25 cm)

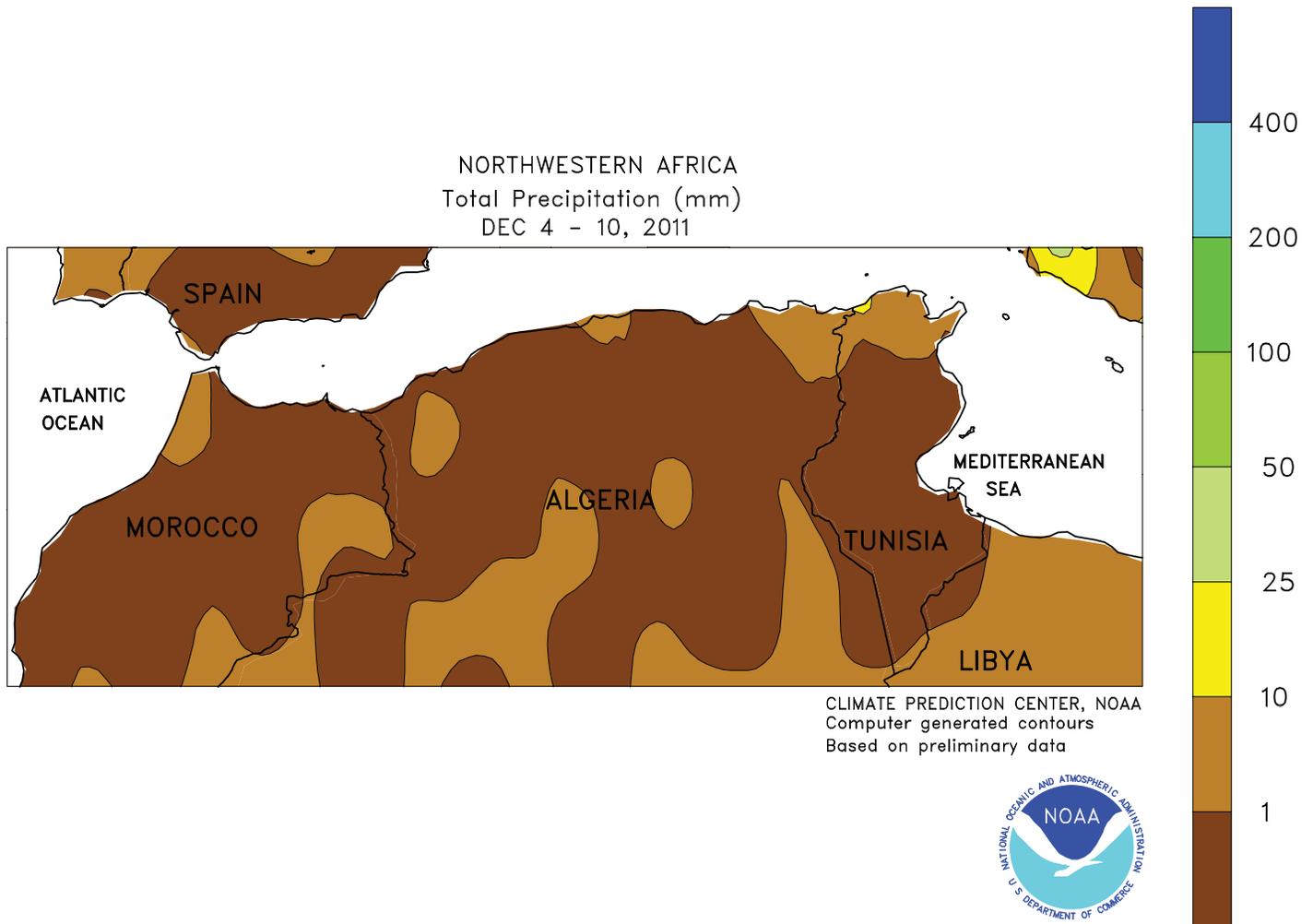
persisted in Russia's Volga District, where conditions were slightly cooler (2-4°C above normal). Despite the recent rainfall, however, concerns persist over stands of poorly established winter wheat in east-central and southern-most portions of Ukraine, where autumn precipitation totaled less than 40 percent of normal (locally less than 20 percent). Producers in this region will likely have to switch to shorter-season varieties in the spring if winter crops fail to survive the winter.



**MIDDLE EAST**

Rain and snow returned to central and western crop districts, while drier weather settled over eastern growing areas. A slow-moving storm system brought rain and snow (10-40 mm liquid equivalent) to Turkey, Syria, and northern Iraq, providing soil moisture for wheat and barley establishment. However, winter grains on Turkey's Anatolia Plateaus are

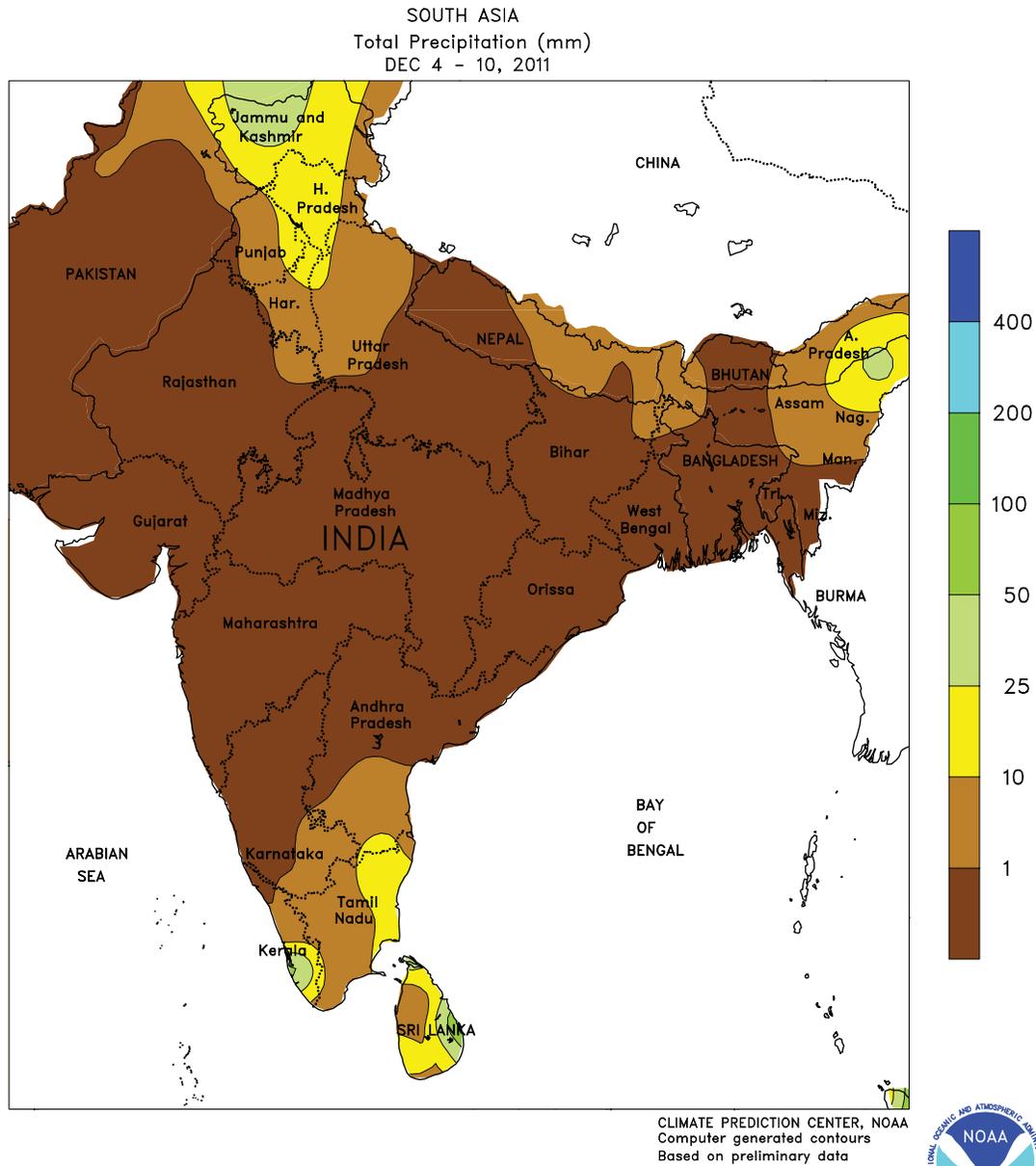
dormant, although the precipitation was nevertheless beneficial for recharging moisture reserves. Meanwhile, mostly sunny skies promoted winter crop growth in Iran after recent, locally heavy rain. Winter crop prospects over most of the Middle East remain excellent due to the favorably wet start to the fall-winter growing season.



**NORTHWESTERN AFRICA**

After recent heavy rain, a welcomed respite promoted fieldwork and crop development. As the storm track shifted northward, sunny skies allowed producers to resume winter crop planting and favored crop growth in areas where wheat and barley were

already sown. Temperatures averaged near to slightly below normal, with no untimely hard freezes reported. Overall, winter grain prospects are excellent across the entire region due to the favorable start to the winter-spring growing season.

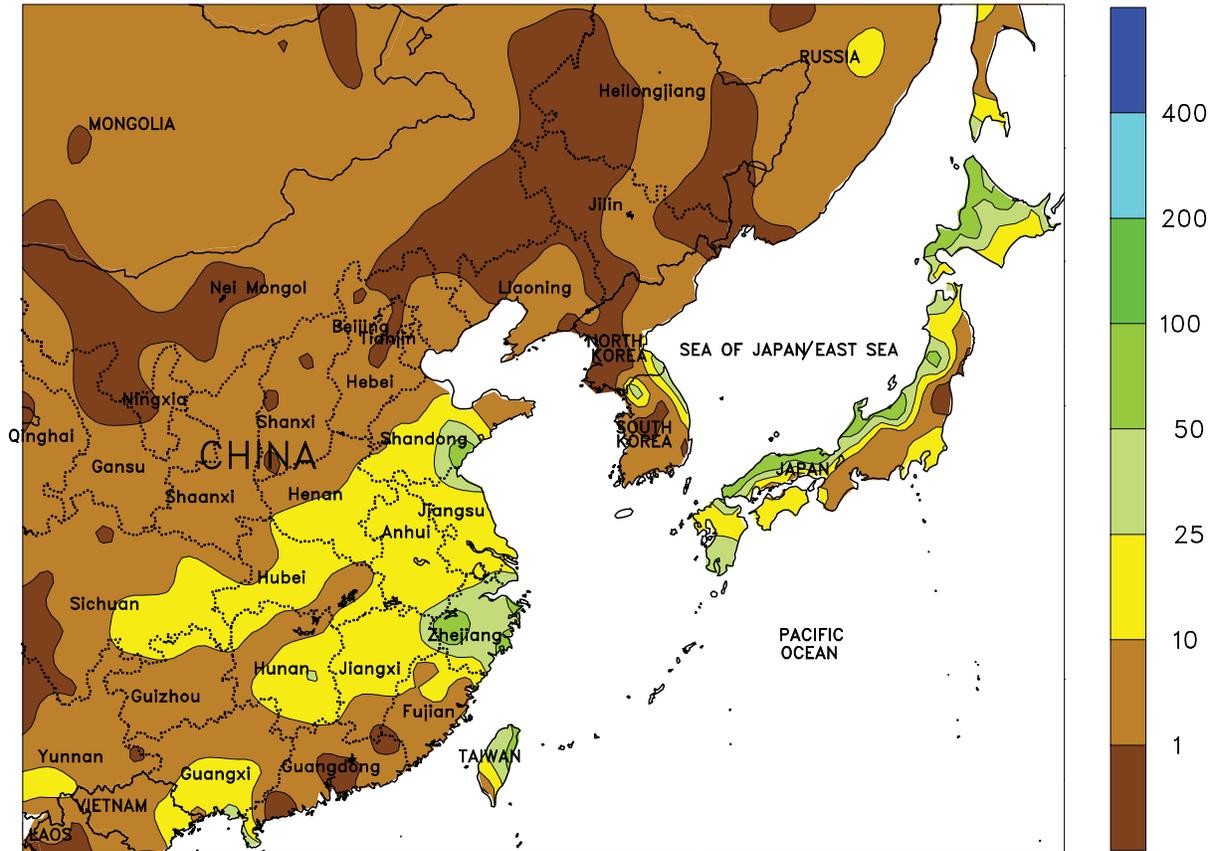


**SOUTH ASIA**

Dry weather prevailed across the region with rainfall confined to the far southern coast of India and parts of Sri Lanka. Additionally, warm weather occurred throughout most areas as weekly temperatures averaged around 20°C (25°C in southern India). The conditions favored cotton harvesting in India where

peak boll opening had likely occurred in Gujarat, Maharashtra, and Andhra Pradesh. The conditions also favored development of winter wheat and rapeseed in northern areas. Although, daytime highs in the lower 30s (degrees C) maintained high irrigation requirements—typical for this time of year.

EASTERN ASIA  
Total Precipitation (mm)  
DEC 4 - 10, 2011



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

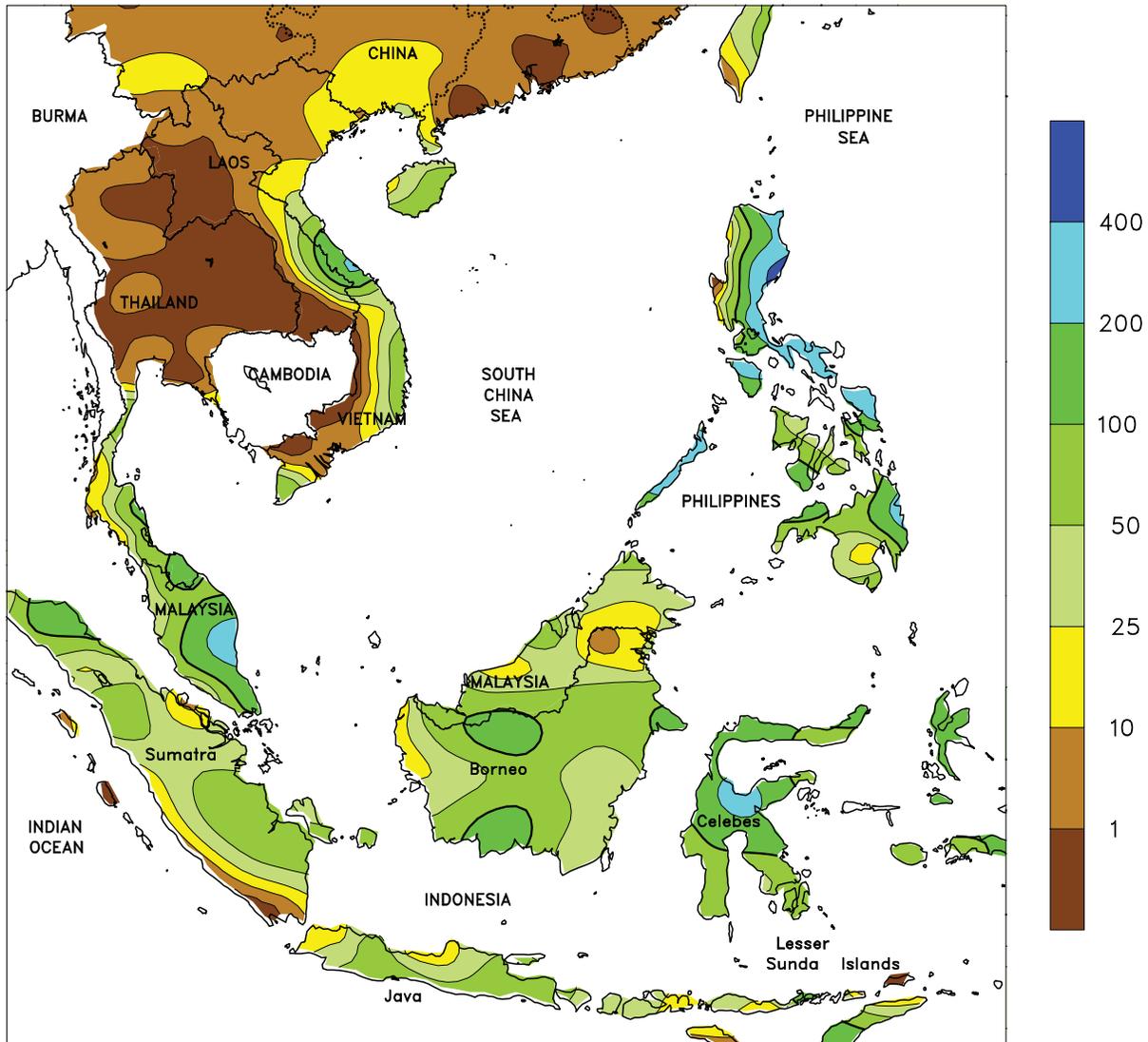


**EASTERN ASIA**

Showers in the first half of the week overspread eastern China, maintaining favorable moisture reserves for winter crops nearing or into dormancy. Rainfall totals of over 10 mm were common across the North China Plain, with some light snow mixing in on occasion. Slightly higher rainfall amounts occurred in part of the Yangtze Valley as 25 to nearly 50 mm

prevailed. Winter wheat in Henan, Shandong, and Hebei was dormant with weekly temperatures averaging less than 5°C, while most winter rapeseed remained active in the Yangtze Valley amidst slightly warmer weather (weekly average temperatures above 5°C) but with significantly reduced development.

SOUTHEAST ASIA  
 Total Precipitation (mm)  
 DEC 4 - 10, 2011



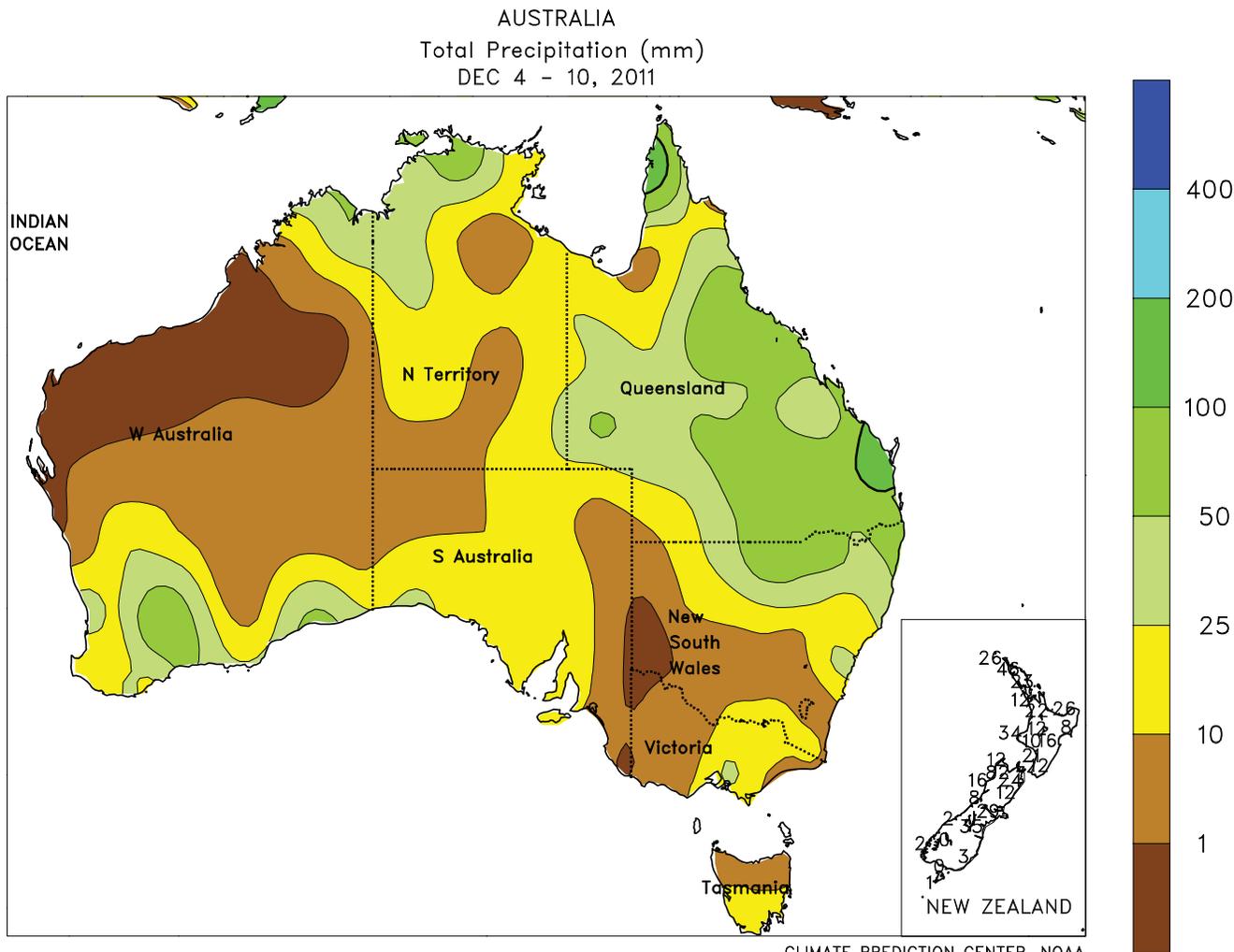
CLIMATE PREDICTION CENTER, NOAA  
 Computer generated contours  
 Based on preliminary data



**SOUTHEAST ASIA**

Easterly winds strengthened across the region bringing more flooding to parts of Vietnam and the Philippines. Upwards of 450 mm of rain occurred in the eastern Philippines, with totals over 100 mm common. Most flooding was confined to areas closest to the coast and upland areas, as the northeast has experienced over 3 times the normal rainfall amounts in the last 30 days. Heavy showers (over 100 mm) also returned to central Vietnam, but drier weather to the south aided the

final stages of the coffee harvest. In Malaysia, more seasonable amounts of rain (50-100 mm) prevailed in the east allowing sufficient periods of dryness for oil palm harvesting, while over 200 mm of rain on the peninsula caused substantial harvest delays. Meanwhile, most areas of Indonesia experienced seasonable showers (50-100 mm) with few oil palm harvest delays and good soil moisture for rice in Java.



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

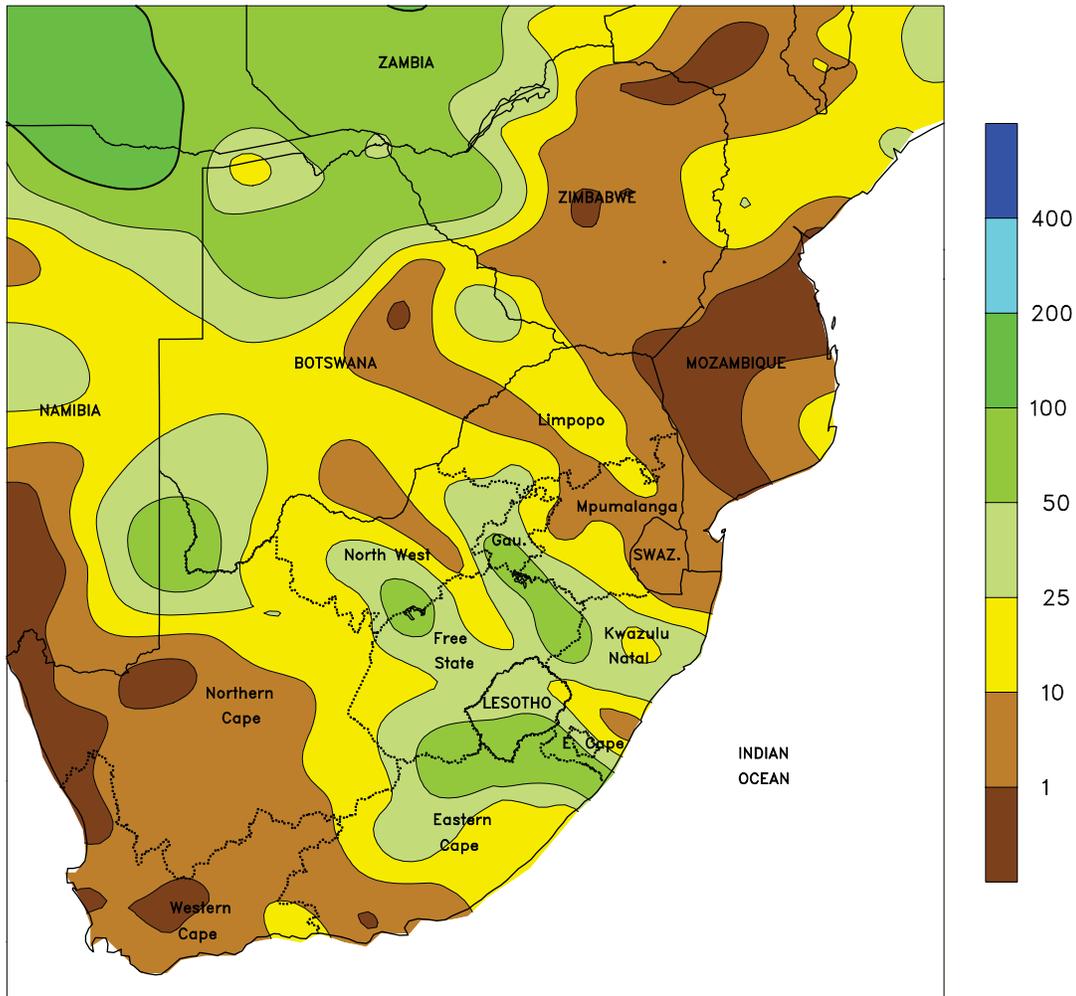


**AUSTRALIA**

Frequent, locally heavy showers (25-100 mm or more) in Queensland and northern New South Wales benefited vegetative summer crops, aiding early cotton and sorghum development. However, the persistent wetness continued to hamper winter wheat harvesting and likely caused further reductions in crop quality. In southeastern Australia, mostly dry weather favored wheat, barley, and canola harvesting

across a large portion of the wheat belt. Winter crop harvesting also progressed across Western Australia, following a wet start (10-25 mm) to the week. Temperatures averaged about 1°C below normal in Western Australia and 1 to 2°C above normal in southeastern Australia. In east-central Australia, temperatures averaged about 2 to 4°C below normal.

SOUTH AFRICA  
Total Precipitation (mm)  
DEC 4 - 10, 2011



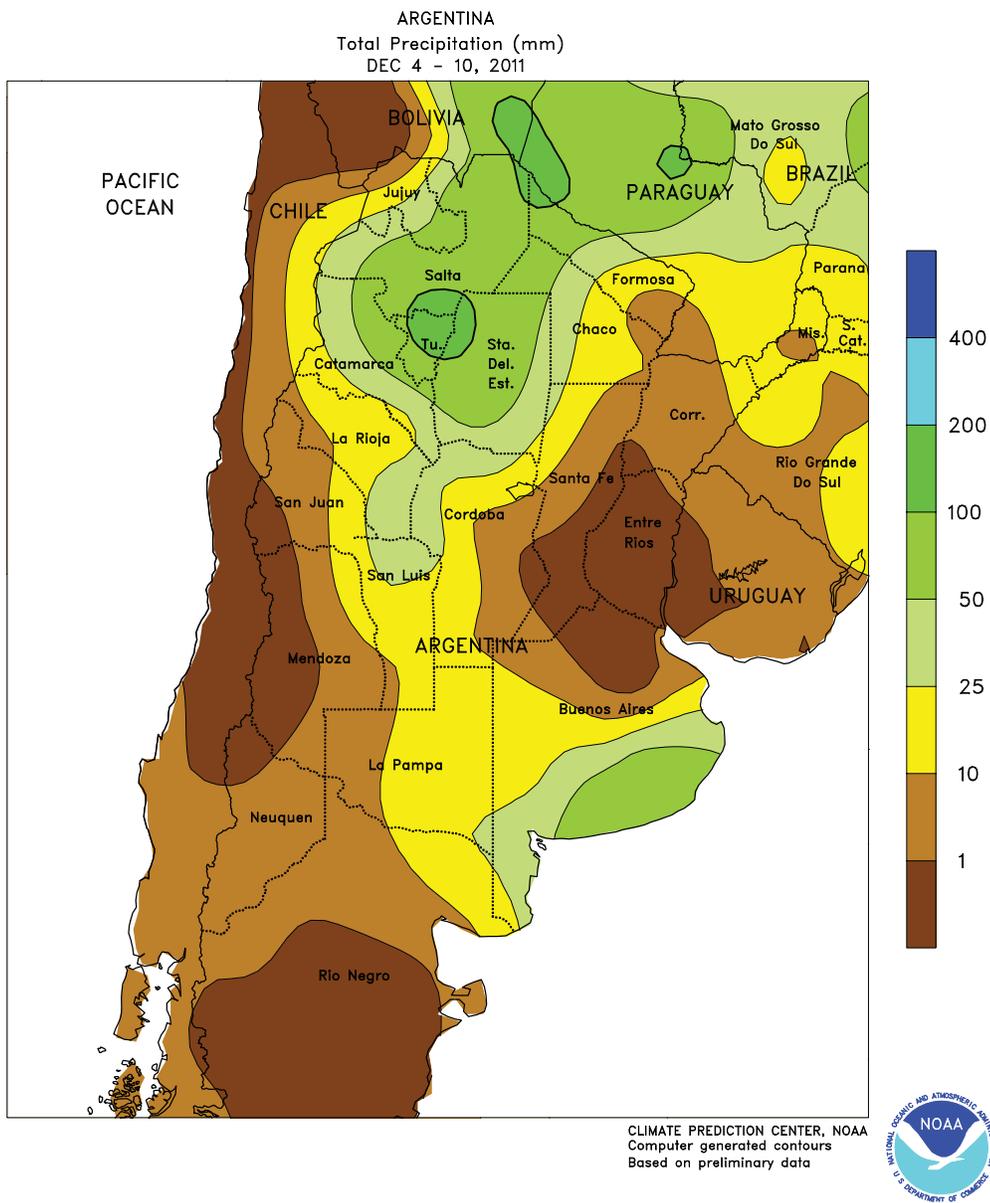
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



**SOUTH AFRICA**

Across the corn belt, late-week showers ended an unfavorable spell of warmth and dryness. Rainfall totaled 10 to 25 mm or more in most areas, including western commercial production areas (Free State and North West) that required moisture for planting. Before the onset of the rain, daytime highs had briefly risen to the low and middle 30s (degrees C), compounding the effects of the dryness on emerged summer crops in eastern sections of the corn belt (in and around southwestern Mpumalanga). Lingering pockets of dryness in the east will

necessitate additional rain soon. Elsewhere, beneficial rain (locally exceeding 25 mm) also fell in rain-fed sugarcane areas of southern KwaZulu-Natal, with somewhat lighter amounts in irrigated production areas of northern KwaZulu-Natal and eastern Mpumalanga. Meanwhile, seasonably warmer and drier conditions prevailed in the predominantly irrigated farming areas of Western and Northern Cape Provinces, promoting development of summer row crops as well as fruit in the region's orchards and vineyards.



**ARGENTINA**

Unseasonable warmth and dryness persisted over a large section of central Argentina, hastening drydown and harvesting of winter grains but reducing moisture for normal development of corn and soybeans. High-yielding farming areas of the lower Parana River Valley (Entre Rios, northern Buenos Aires, and southern Santa Fe) received virtually no rain for a second week; weekly average temperatures 1 to 2°C above normal (daytime highs reaching the lower and middle 30s degrees C) exacerbated the effects of the dryness on emerging to vegetative summer grains and oilseeds. Moisture will be needed soon as early planted corn and soybeans enter reproductive stages of development. Meanwhile, beneficial rain (10-25 mm or more) continued in western and southern parts

of the area (La Pampa, southern Buenos Aires, and portions of Cordoba), sustaining topsoil moisture for summer crop germination and late winter grain development. Farther north, heavy rain (25-50 mm or more) brought some relief from dryness to western agricultural areas (notably Santiago del Estero and Salta). The rainfall extended eastward into the main cotton producing areas of western Chaco, but eastern production areas, including those in Formosa and northeastern Santa Fe, continued to record unseasonably light amounts (below 25 mm). The rain engendered below-normal weekly average temperatures, although daytime highs commonly reached the lower and middle 30s.



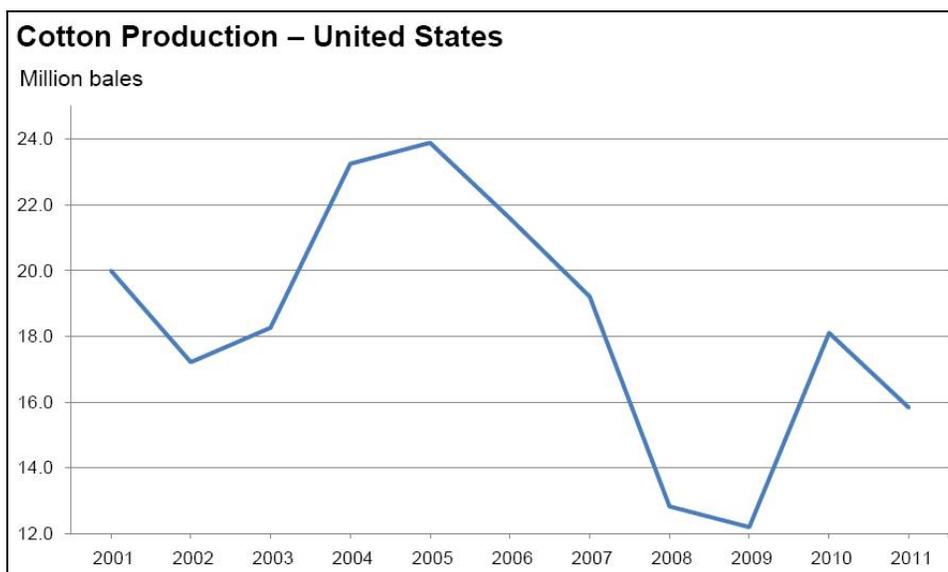
# U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on December 9, 2011. Forecasts refer to December 1.

**All cotton** production is forecast at 15.8 million 480-pound bales, down 3 percent (%) from the November forecast and down 13% from last year. Yield is expected to average 771 pounds per harvested acre, down 41 pounds from last year. Upland cotton production is forecast at 15.1 million 480-pound bales, down 14% from 2010. American Pima production, forecast at 737,200 bales, was carried forward from last month.

The **all orange** forecast for the 2011-2012 season is 9.12 million tons, up 2% from the previous forecast and up 3% from the 2010-2011 final utilization. Florida's all orange forecast, at 150 million boxes (6.75 million tons), is up 2% from the October forecast

and up 7% from last season's final utilization. Early, midseason, and Navel varieties in Florida are forecast at 75.0 million boxes (3.38 million tons), up 1% from the October forecast and up 7% from last season. The Florida Valencia orange forecast, at 75.0 million boxes (3.38 million tons), is up 3% from the October forecast and up 7% from the 2010-2011 crop. Sizes for both Valencia and early, midseason, and Navel varieties in Florida are expected to be larger than average. The Florida crop has benefited from good growing conditions this fall. Harvest is ahead of schedule for non-Valencia varieties in Florida. California and Texas orange production forecasts are carried forward from October.



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