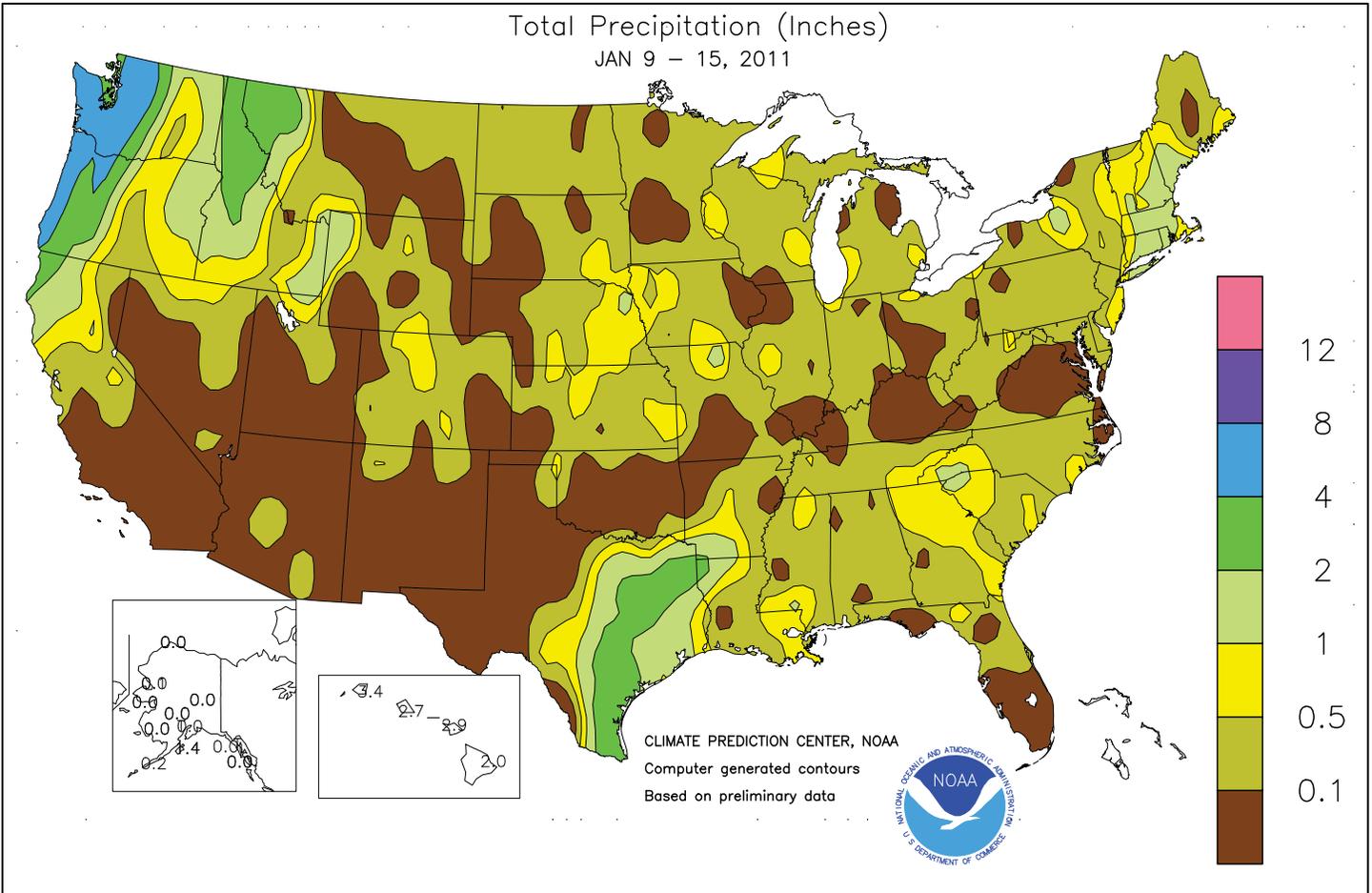


# WEEKLY WEATHER AND CROP BULLETIN



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

### January 9 - 15, 2011

*Highlights provided by USDA/WAOB*

A pair of storms combined near the **northern Atlantic Coast** on January 11-12, resulting in another major snowfall (locally 2 to 3 feet) in parts of the **Northeast**. Before joining forces, the storms separately affected the **South** and the **nation's mid-section**, respectively. Across the **South**, snow and ice accumulations caused travel and electrical disruptions on January 9-10. By the morning of January 11, snow covered a portion of all of the **Lower 48 states**, except **Florida**, and blanketed approximately 70 percent of the country. **Southern** recovery was slow, as

*(Continued on page 5)*

## Contents

<b>Water Supply Forecast for the Western United States</b> .....	2
Extreme Maximum & Minimum Temperature Maps.....	4
Temperature Departure Map.....	5
January 11 Drought Monitor & Record Reports.....	6
<b>U.S. Crop Production Highlights &amp; Citrus Freeze Damage Report</b> .....	7
Agricultural Weather Data Compiled by USDA's Stoneville Field Office.....	8
National Weather Data for Selected Cities.....	9
National Agricultural Summary & Snow Cover Map.....	12
International Weather and Crop Summary.....	13
<b>December International Temperature/Precipitation Maps</b> .....	25
Bulletin Information & <b>Satellite Image of Southern Snow Cover</b> .....	40

# Water Supply Forecast for the Western United States

## Highlights

Despite the presence of a moderate to strong La Niña, significant early-season precipitation covered much of the West. La Niña impacts typically include wet conditions from the Pacific to the northern Rockies and drier-than-normal weather in the Southwest. By the end of December, however, only southern Arizona and parts of New Mexico were experiencing typical La Niña effects. Farther north, a core wet area stretched from the Sierra Nevada to the central Rockies. Season-to-date precipitation was close to normal across the northern tier of the West, but a December warm spell melted some snow and left snow packs smaller than precipitation values might otherwise indicate.

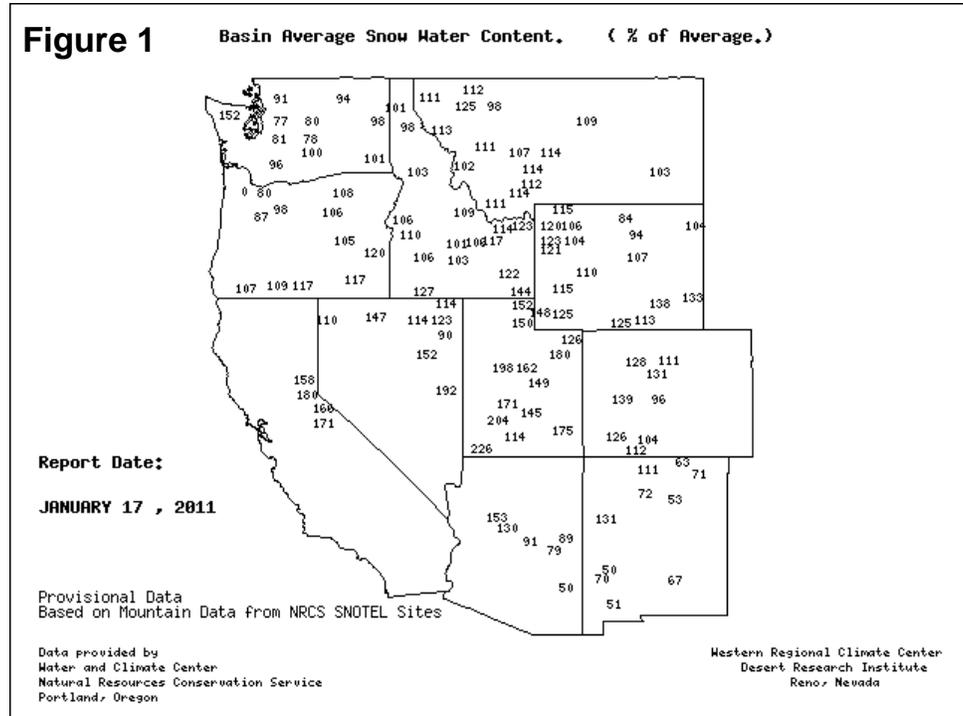
By January 1, spring and summer streamflow forecasts called for near- to above-average runoff across the majority of the West. Several river basins in Arizona and New Mexico did not share in the early-season bounty and face the prospect of significantly below-average spring and summer streamflows.

Although much of the West was free of drought as 2011 began, low reservoir levels remained a concern in a few states. In particular, reservoir storage was well below average for January 1 in Nevada, New Mexico, and Oregon.

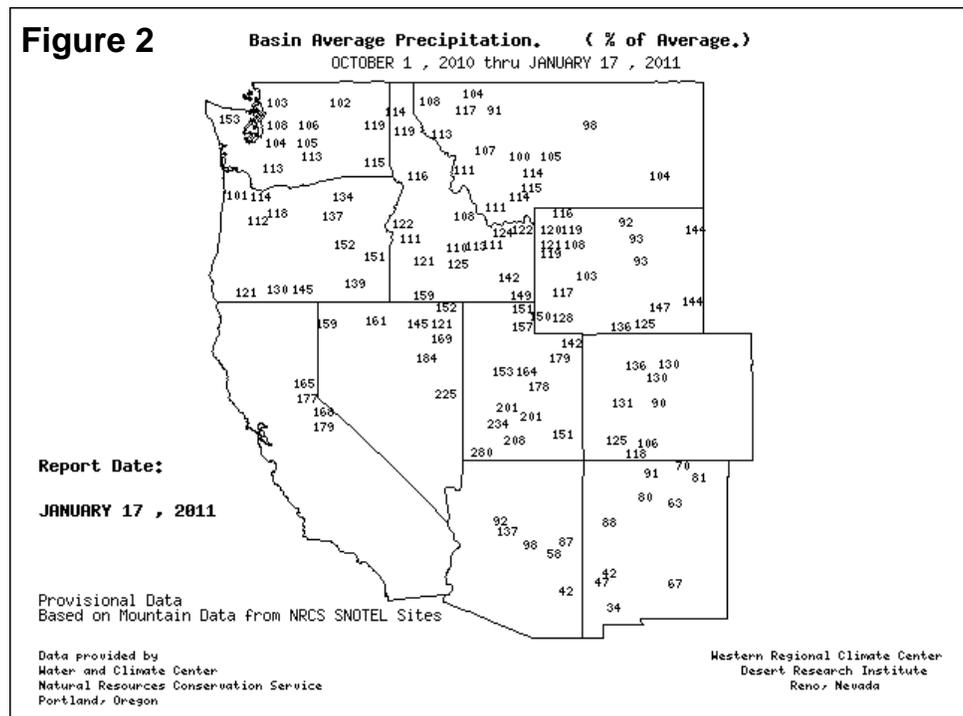
## Snowpack and Precipitation

By January 17, 2011, the snow water content map reflected abundant snow packs across the majority of the West (figure 1). In particular, snow packs were significantly above the long-term

## SNOTEL – River Basin Snow Water Content



## SNOTEL – River Basin Precipitation



average (greater than 150 percent of average) for the date from the Sierra Nevada into Utah. In fact, near- to above-average snow packs covered the northern two-thirds of the West, except in the northern Cascades. Farther south, however, substantially below-average snow packs (less than 70 percent of average) were reported in southern Arizona and parts of New Mexico.

Season-to-date precipitation (October 1, 2010 - January 17, 2011) indicated that wetter-than-normal weather prevailed across the northern two-thirds of the West. Exceptions were limited to near-normal precipitation in the northern Cascades and the eastern slopes of the northern Rockies. Season-to-date totals exceeded twice the average values in parts of Utah and eastern Nevada (figure 2). In contrast, some areas in southern sections of Arizona and New Mexico noted basin-average precipitation values less than 50 percent of average.

### Spring and Summer Streamflow Forecasts

December's abundant precipitation led to a favorable initial outlook for spring and summer streamflows in many Western basins. Based on information through January 1, abundant runoff can be expected from the Sierra Nevada into the central Rockies, with some river basins anticipating more than twice the normal spring and summer streamflow (figure 3). Farther north, periods of mild December weather melted some snow in the Northwest, although prospects for near-normal runoff still exist. In contrast, early-season storms largely bypassed southern Arizona and much of New Mexico. As a result, January 1 forecasts indicated that spring and summer streamflows could be less than 50 percent of average in a few river basins.

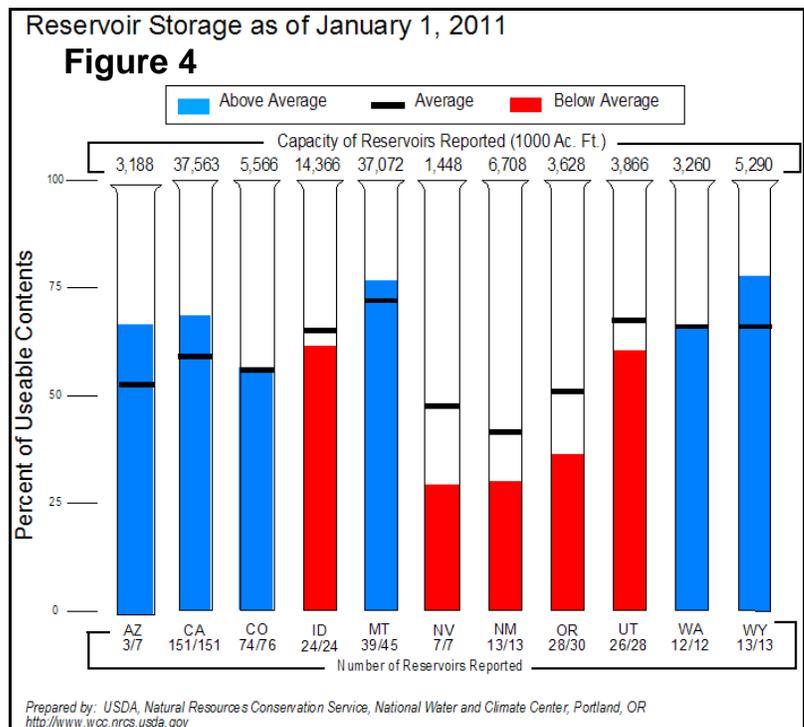
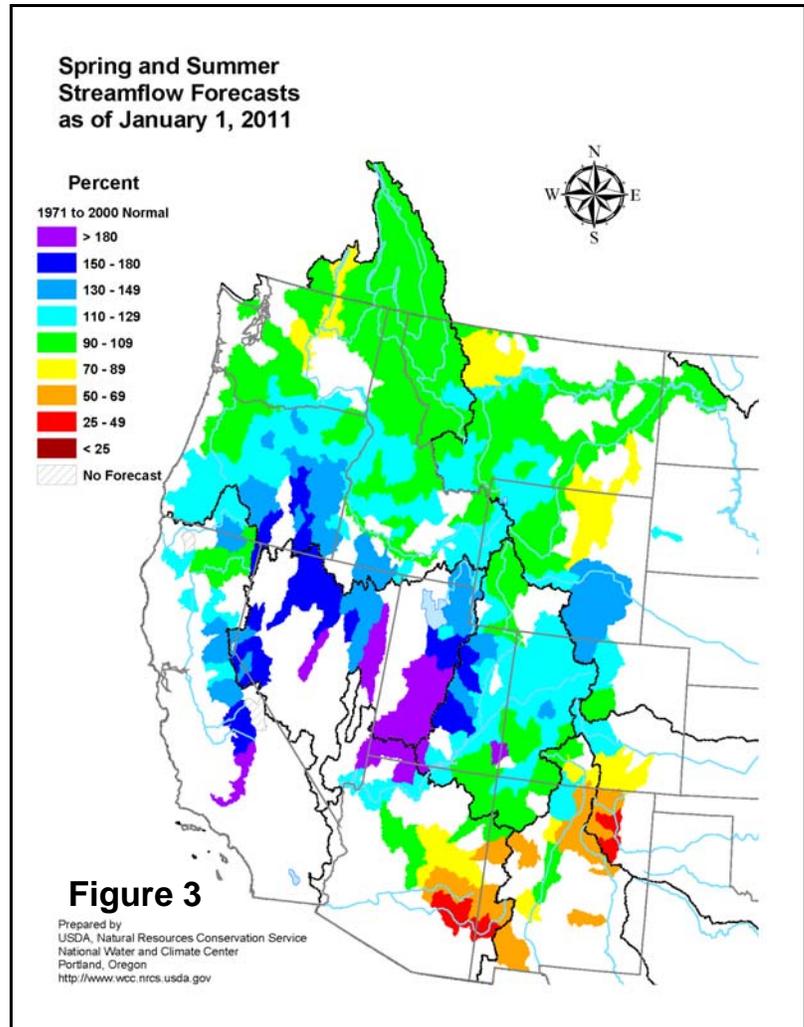
### Reservoir Storage

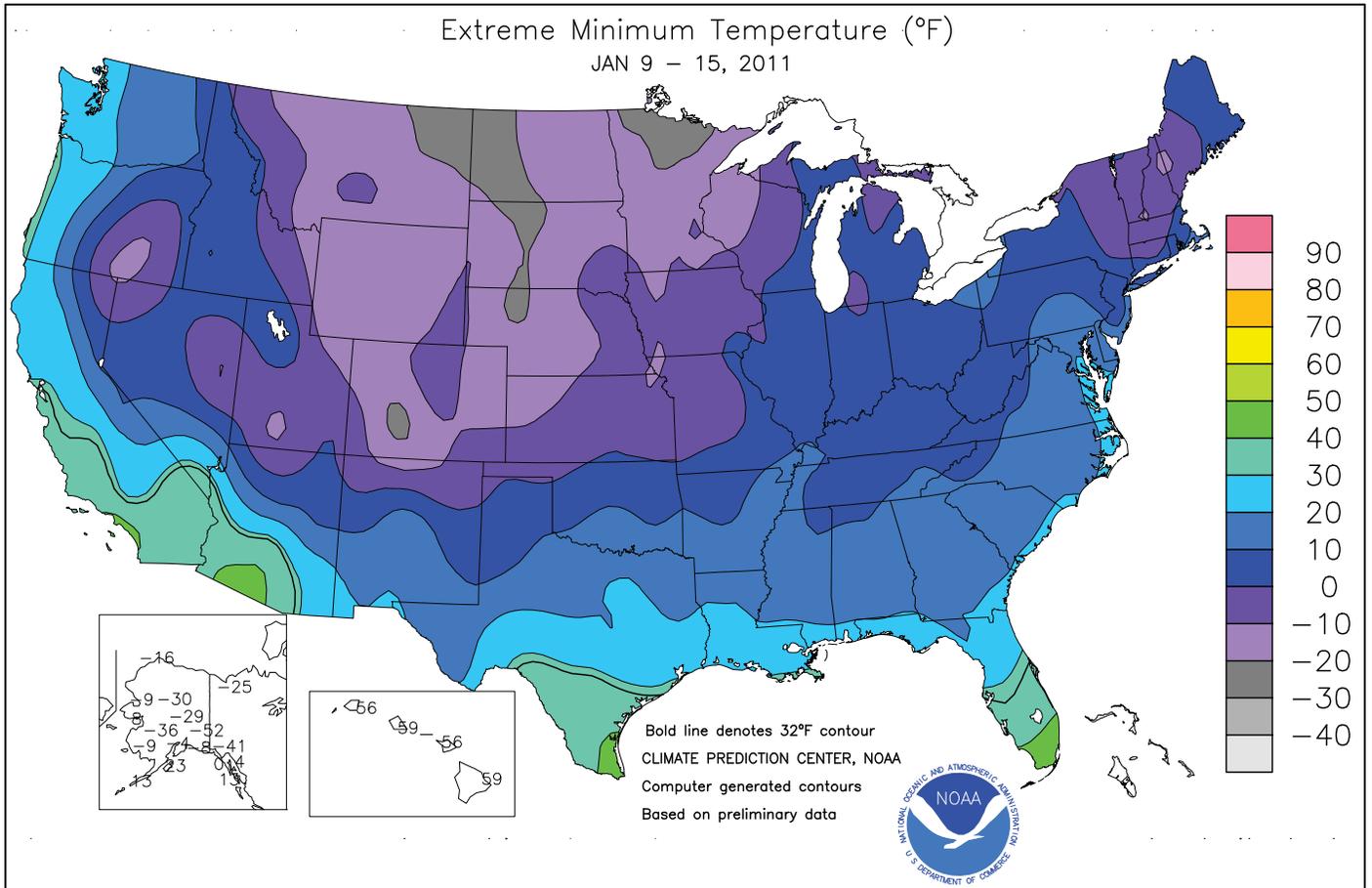
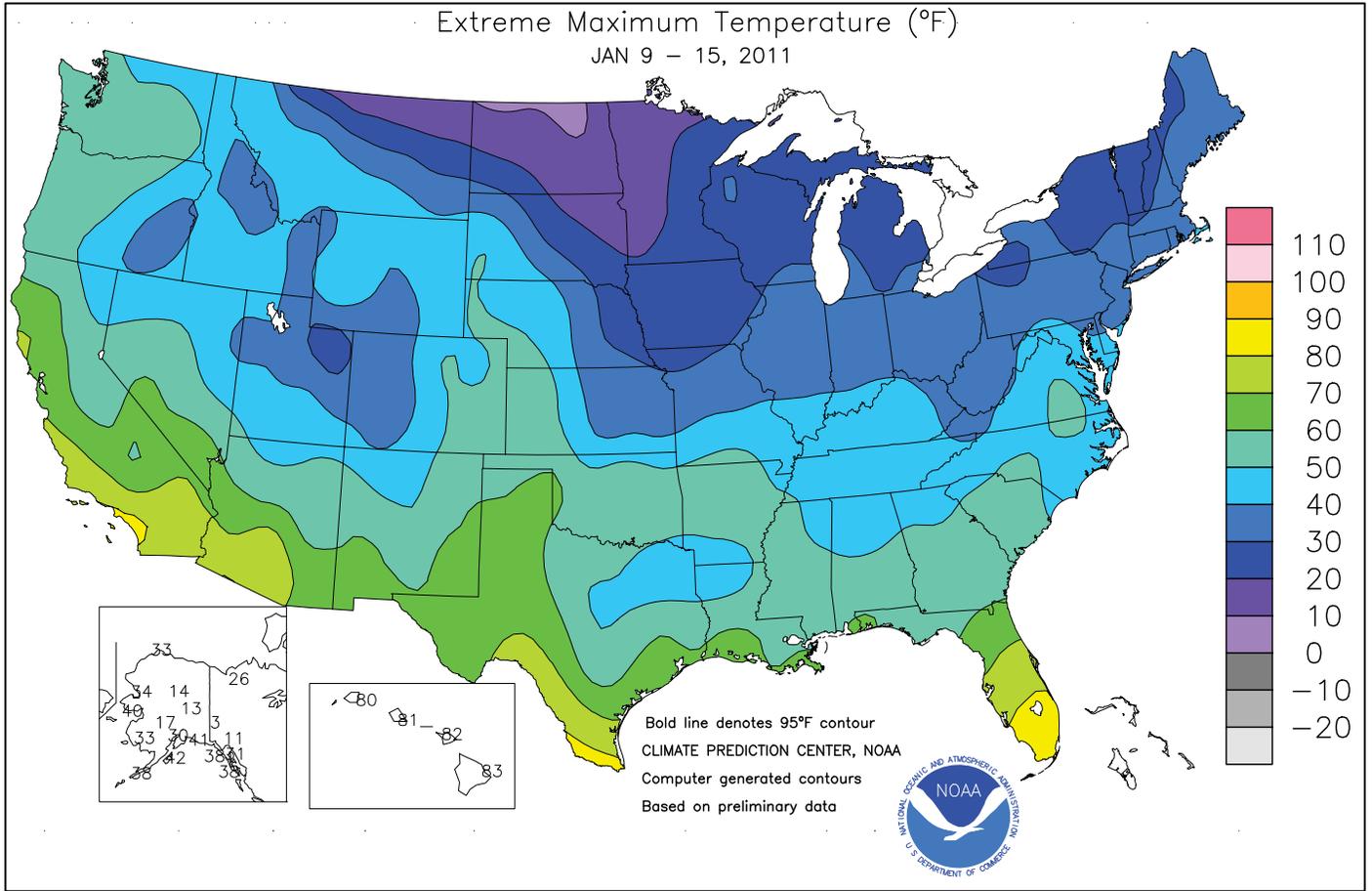
On January 1, reservoir storage as a percent of average was lowest in Nevada (figure 4). Below-average storage was also observed in Idaho, New Mexico, Oregon, and Utah. Near-average storage was noted in Colorado and Washington, while above-average storage was reported in Arizona, California, Montana, and Wyoming.

### For More Information

The National Water and Climate Center homepage provides the latest available snowpack and water supply information. Please visit:

<http://www.wcc.nrcs.usda.gov>

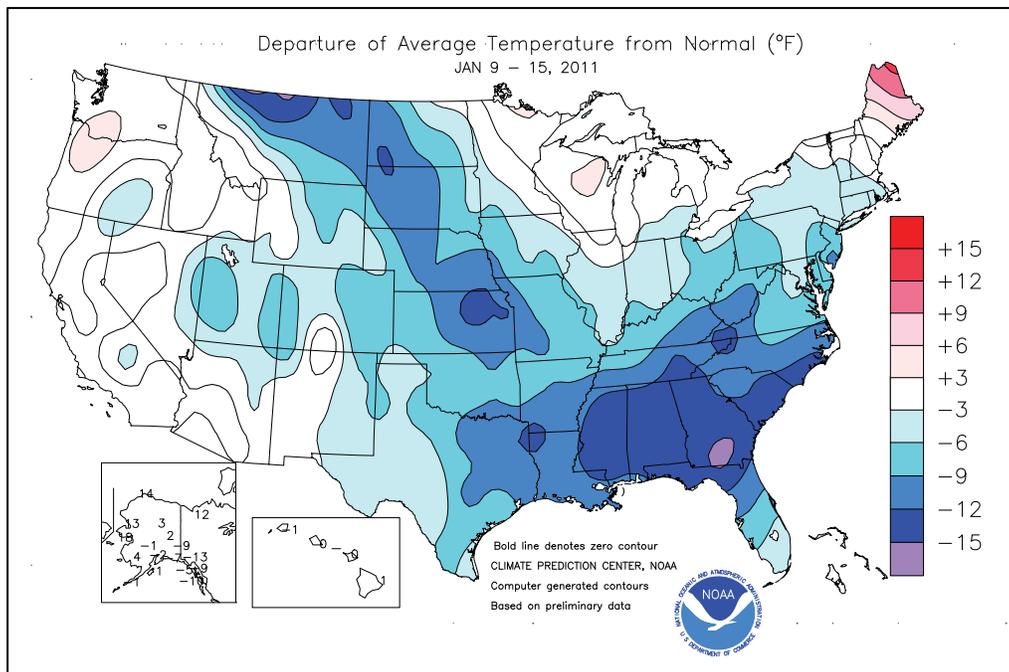




(Continued from front cover)

cold weather persisted for several days in the storm's wake. Farther north, snow also blanketed the **Midwest**. The snow replenished soft red winter wheat's protective cover from the **Delta into the eastern Corn Belt**, but maintained stress on winter-weary livestock in the **upper Midwest**. Harsh conditions also persisted on the **northern Plains**, due to an extensive snow cover and bitterly cold conditions. A shallow to moderately deep snow cover helped to insulate the hard red winter wheat crop as far south as **Kansas**. However, fields remained mostly bare on the **southern Plains**, where wheat has been stressed by drought, wind, and temperature extremes. Elsewhere, the **Southwest** experienced dry weather and a warming trend, while wetness returned to the **Northwest**. At week's end, some **Northwestern** rivers began to rise due to heavy rain and melting snow, as mild, moist air spread inland. In contrast, colder-than-normal conditions dominated the **eastern two-thirds of the U.S.**, with weekly temperatures averaging as much as 15°F below normal in the **Southeast**. From January 9-12, temperatures fell below -20°F in several locations from the **northern Plains into the upper Great Lakes region**. Sub-zero readings were noted across the **northern and central Plains** and the **western Corn Belt**, although snow helped to insulate winter wheat. In the **South**, temperatures fell below 10°F on January 13 and 14 as far south as **northern sections of Mississippi and Alabama**. However, **Florida's winter agricultural belt** did not experience a significant cold outbreak—escaping with a light freeze in a few locations on January 13.

Early in the week, beneficial rain fell in the **south-central U.S.**, while snow overspread the **northern and central Plains** and the **Deep South**. Freezing rain or drizzle fell atop the snow in parts of the **South**. On January 9, daily-record rainfall totals in **Texas** included 2.44 inches in **Waco** and 1.22 inches in **Laredo**. **San Antonio, TX**, netted 2.56 inches of rain during the first 15 days of January, compared to 1.06 inches during the last 3 months of 2010. Locally severe thunderstorms accompanied the rainfall in **Texas**; on January 9, **Corpus Christi** received marble-size hail and reported a thunderstorm wind gust to 69 mph. Meanwhile, daily-record snowfall amounts for the 9<sup>th</sup> reached 8.2 inches in **Grand Island, NE**; 6.5 inches in **Huntsville, AL**; and 6.0 inches in **Mobridge, SD**, and **Tupelo, MS**. **Huntsville's** January 9-10 snowfall reached 8.9 inches, third on its storm-total list behind 17.1 inches on December 31, 1963 - January 1, 1964, and 9.6 inches on January 7-8, 1988. Other January 9-10 storm totals included 8.8 inches in **Athens, GA**; 8.4 inches in **Chattanooga, TN**; 7.7 inches in **Asheville, NC**; 6.5 inches in **Greenville-Spartanburg, SC**; 6.4 inches in **Tupelo, MS**; and 5.6 inches in **Little Rock, AR**. Impressive snowfall also covered the **east-central Plains**, where January 10 totals included 7.9 inches in **Topeka, KS**, and 7.2 inches in **Kansas City, MO**. Later, the focus for snowfall shifted into the **Corn Belt**, resulting in daily-record amounts for January 11 in **Chicago, IL** (5.9 inches), and **Fort Wayne, IN** (5.5 inches). On January 12, heavy snow bombarded parts of the **Northeast**. **Hartford, CT** (24.0 inches on January 12), experienced its snowiest day and greatest storm total on record (previously, 21.9 inches on February 12, 2006). Other



snowfall records for January 12 included 21.1 inches in **Worcester, MA**; 18.3 inches in **Concord, NH**; and 14.0 inches in **Islip, NY**. Isolated storm totals of 3 feet or more were noted in **western Massachusetts**, where **Savoy** reported 40.5 inches, and **southern Vermont**, where **Wilmington** received 36 inches. At the height of the storm on January 12, a wind gust to 66 mph was clocked in **Nantucket, MA**.

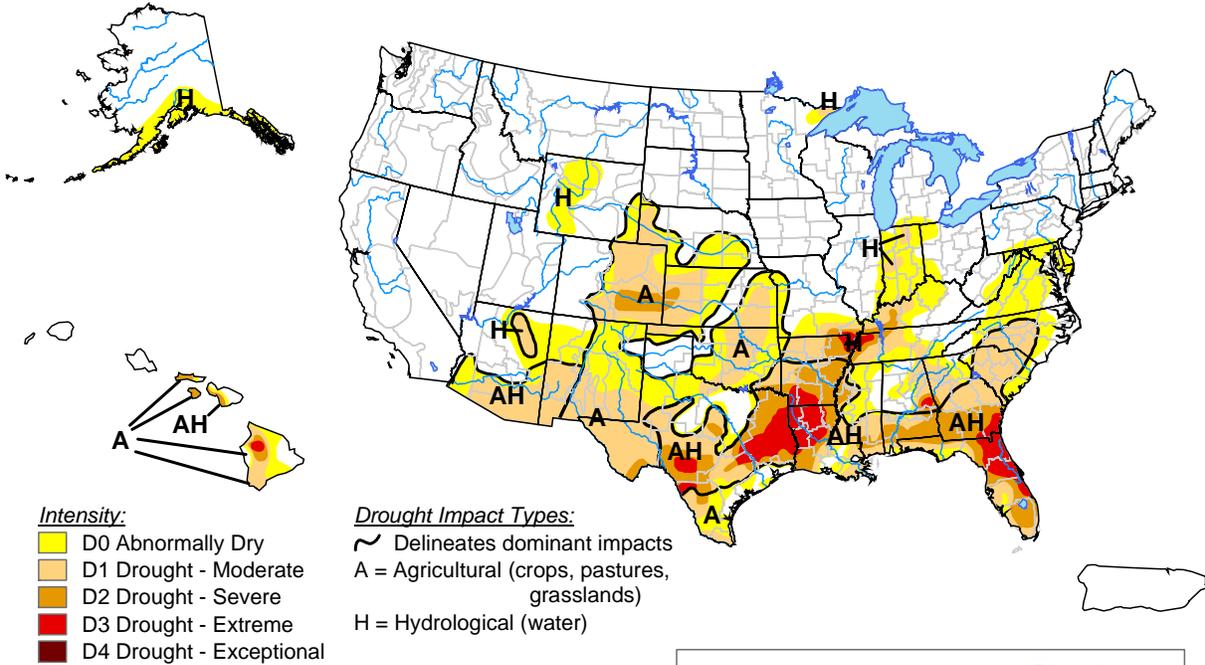
Very cold air trailed the storm, starting across the **Intermountain West** and eventually shifting into the Southeast. Daily-record lows for January 10 dipped to -30°F in **Maybell, CO**, and -24°F in **Randolph, UT**. The following day, records for January 11 included -40°F in **Crested Butte, CO**; -26°F in **Roosevelt, UT**; and -24°F in **Stanley, ID**. On the **central High Plains**, **Burlington, CO** (-16°F), tallied its lowest reading since December 23, 1990. **Wichita, KS** (-1°F on January 13), noted a sub-zero reading for the first time since December 8, 2005. Later, **Jackson, TN** (6°F), posted a daily-record low for January 13. Daily records for the 14<sup>th</sup> included 8°F in **Huntsville, AL**, and 18°F in **Tallahassee, FL**. In contrast, warm weather arrived in the **West**. Late-week daily-record highs reached 79°F (on January 15) in **Chula Vista, CA**, and 62°F in **Yakima, WA**. In addition, late-week precipitation totals locally topped 6 inches in the **Cascades** and the **Northwestern coastal ranges**. Flooding occurred along several **Northwestern** streams, including the **Siletz River** (4.58 feet above flood stage at **Siletz, OR**, on January 16). At week's end, rain also returned to **southern Texas**, where both **Harlingen** (1.64 inches) and **Brownsville** (1.57 inches) collected daily-record totals for January 15.

Mostly dry weather prevailed in **Alaska**, but frigid conditions in eastern areas contrasted with mild weather farther west. Consecutive daily-record highs were set in locations such as **Barrow** (33 and 28°F on January 9-10, respectively), **Nome** (39 and 40°F on January 10-11, respectively), and **Valdez** (48 and 41°F on January 11-12, respectively). Later, temperatures plunged across parts of **eastern interior Alaska**, where both **Northway** and **Chicken** posted lows of -52°F on January 15. Farther south, a favorably wet weather pattern continued in previously drought-stricken **Hawaii**. Most of the rain fell on January 12-13, when **Honolulu, Oahu**, netted 2.72 inches. Elsewhere on **Oahu**, January 12-13 rainfall totaled 11.16 inches at **Schofield Barracks**.

# U.S. Drought Monitor

January 11, 2011

Valid 8 a.m. EST



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



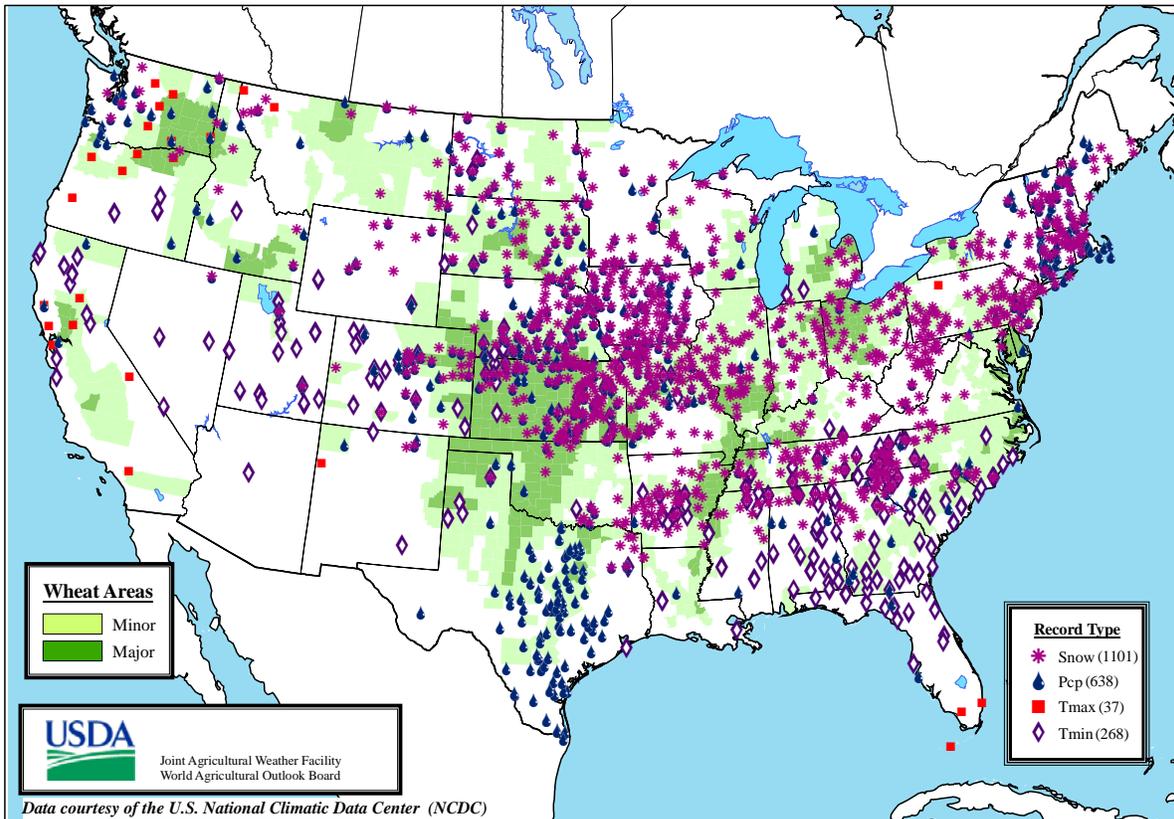
Released Thursday, January 13, 2011

Author: Brian Fuchs, National Drought Mitigation Center

<http://drought.unl.edu/dm>

## Daily Weather Records (ASOS & COOP)

January 9-15, 2011



## U.S. Crop Production Highlights

*The following information was released by USDA's Agricultural Statistics Board on Jan. 12, 2011. Forecasts refer to Jan. 1.*

The **all orange** forecast for the 2010-2011 season is 8.79 million tons, down 2 percent (%) from the December 1 forecast but 7% above the 2009-2010 final utilization. The Florida all orange forecast, at 140 million boxes (6.30 million tons), is down 2% from December 1 but 5% above last season's final utilization. Early, midseason, and navel varieties in Florida are forecast at 67.0 million boxes (3.02 million tons), down 1% from December and 2% below last season. The Florida Valencia orange forecast, at 73.0 million boxes (3.29 million tons), is down 3% from the previous forecast but up 12% from 2009-2010. Several days of sub-freezing temperatures were recorded during December in Florida's citrus-producing region.

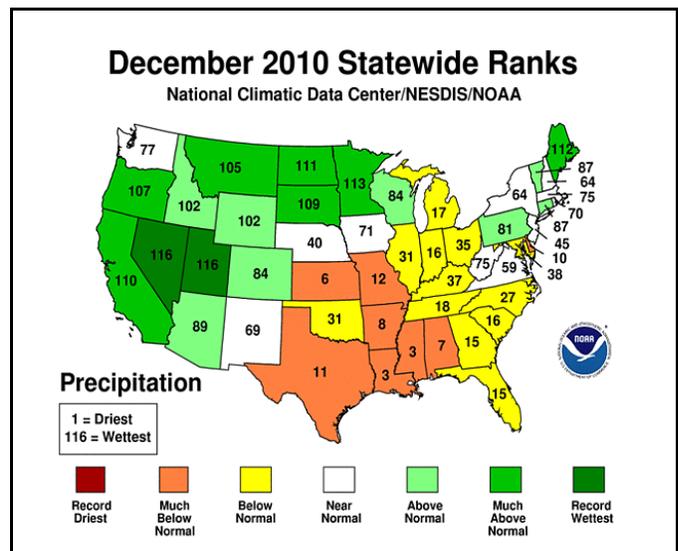
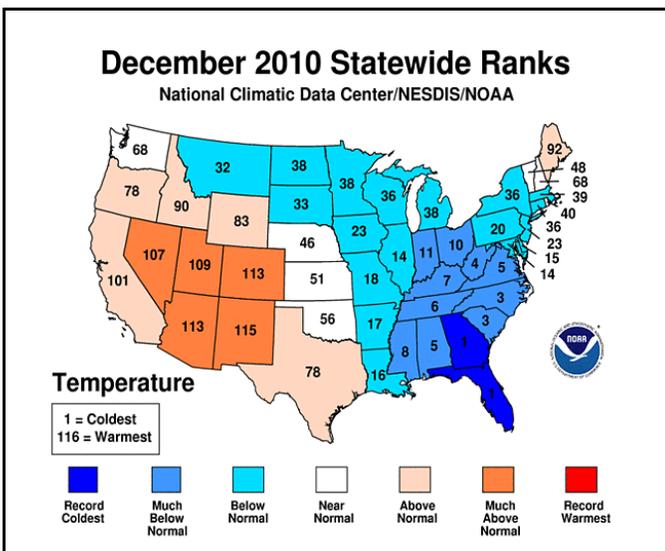
All orange production in California is forecast at 2.42 million tons (60.5 million boxes), unchanged from the October 1 forecast but up 14% from last season. The California navel orange forecast, at 1.86 million tons (46.5 million boxes), is unchanged from the previous forecast but up 17% from the 2009-2010 crop. Valencia oranges are forecast at 560,000 tons (14.0 million boxes), unchanged from the previous forecast but up 7% from last season. Wet weather and lower temperatures in December slowed the harvest. In Texas, orange production is forecast at 1.64 million boxes (70,000 tons), down 3% from the previous forecast but up slightly from last season's final utilization.

## Citrus Freeze Damage Report January 18, 2011

*A special survey was conducted on January 10-11, 2011, to assess the effect of sub-freezing temperatures that occurred throughout the Florida citrus-producing region during December 2010. Using Federal-State Inspection Service standards, fruit was cut and scored for damage at one-quarter- and one-half-inch depths, as well as the center. The table below shows the distribution and severity of fruit damage. For all varieties, the majority of samples observed fell into the "no damage apparent" category. The complete report is available at: [http://www.nass.usda.gov/Statistics\\_by\\_State/Florida/Publications/Citrus/cit/2010-11/frz0111.pdf](http://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Citrus/cit/2010-11/frz0111.pdf)*

### Florida Citrus — Condition of Fruit on Trees by Fruit Type

Fruit Type (Number of Groves)	No Damage Apparent	Damage at 1/4-Inch Cut	Damage at 1/2-Inch Cut	Minor Damage at Center Cut	Major Damage at Center Cut
<b>Oranges:</b>					
Early (57)	66.4%	11.0%	11.4%	6.7%	4.5%
Midseason (35)	54.3	20.0	12.5	6.8	6.4
Late (148)	87.4	6.5	3.8	1.5	0.8
<b>Grapefruit:</b>					
White (47)	97.9%	0.8%	0.0%	1.3%	0.0%
Colored (43)	96.5	2.6	0.9	0.0	0.0



**Agricultural Weather Data Compiled by USDA's Stoneville Field Office**

Weather Data for the Week Ending January 15, 2011

Data Provided by the Mississippi State Delta Research and Extension Center (DREC) and the University of Missouri Commercial Agriculture Program.

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							4-INCH SOIL TEMP. °F		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 DEC01	PCT. NORMAL SINCE DEC01	TOTAL IN, SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	01 INCH OR MORE	.50 INCH OR MORE	
MISSISSIPPI																				
ND TUNICA 1W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LYON	34	20	48	9	27	-	0.20	0.20	1.70	-	0.40	-	39	38	0	6	1	0	0	
VANCE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PERTHSHIRE	35	24	49	18	29	-	0.00	0.00	0.61	-	0.09	-	38	35	0	7	0	0	0	
SCOTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SANDY RIDGE	36	25	50	19	31	-	0.16	0.16	1.49	-	0.47	-	42	39	0	7	1	0	0	
NE VERONA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD STONEVILLE x	37	24	50	19	30	-11	0.01	-1.25	0.01	1.44	18	0.58	21	40	36	0	7	1	0	0
INDIANOLA 1S*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
INVERNESS 5E	36	24	49	18	30	-	0.33	0.13	2.12	-	0.57	-	42	40	0	7	4	0	0	0
SIDON	37	26	50	20	31	-	0.48	0.45	2.93	-	1.49	-	-	-	0	7	2	0	0	0
NORTH ISSAQUENA	37	27	49	20	32	-	0.11	0.11	2.06	-	0.15	-	44	41	0	6	1	0	0	0
SILVER CITY	37	26	49	20	32	-	0.36	0.35	4.59	-	0.39	-	41	39	0	6	2	0	0	0
ONWARD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAYDAY	38	27	52	20	33	-	0.39	0.38	3.50	-	0.60	-	42	40	0	6	2	0	0	0
MISSOURI																				
NW CORNING	22	6	29	-7	15	-10	0.01	-0.13	0.01	0.06	4	0.02	5	-	-	0	7	1	0	0
ALBANY	23	4	29	-16	15	-11	0.05	-0.10	0.05	0.30	17	0.06	17	31	31	0	7	1	0	0
ST. JOSEPH	23	8	32	-2	16	-11	0.00	-0.14	0.00	0.28	16	0.07	21	-	-	0	7	0	0	0
NC LINNEUS	24	9	33	-7	17	-9	0.02	-0.13	0.02	0.57	29	0.02	5	30	30	0	7	1	0	0
BRUNSWICK	25	9	30	-7	17	-10	0.00	-0.19	0.00	0.73	32	0.00	0	32	32	0	7	0	0	0
NE NOVELTY	25	8	32	-6	17	-9	0.02	-0.20	0.02	1.02	40	0.02	4	30	29	0	7	1	0	0
MONROE CITY	26	10	33	-3	18	-11	0.04	-0.24	0.04	1.14	39	0.04	6	31	30	0	7	1	0	0
WC GREEN RIDGE	27	10	35	-6	19	-9	0.10	-0.09	0.10	0.95	33	0.10	14	32	32	0	7	1	0	0
C AUXVASSE	27	11	35	-4	20	-8	0.05	-0.28	0.05	2.07	61	0.05	6	32	32	0	7	1	0	0
COL-SANBORN FLD	27	14	34	0	21	-9	0.07	-0.24	0.06	2.11	68	0.07	8	32	32	0	7	2	0	0
WILLIAMSBURG	28	12	37	-2	21	-8	0.06	-0.32	0.06	2.45	68	0.06	6	32	32	0	7	1	0	0
COL-JEFFERS F&G	27	12	35	-3	20	-10	0.03	-0.29	0.02	2.11	68	0.03	4	32	32	0	7	2	0	0
COL SOUTH FARMS	27	12	35	-3	20	-10	0.08	-0.24	0.08	2.50	80	0.08	10	-	-	0	7	1	0	0
COL-BF	27	10	36	-4	19	-11	0.06	-0.26	0.06	1.60	51	0.06	7	31	31	0	7	1	0	0
VERSAILLES	29	13	41	1	21	-10	0.03	-0.21	0.03	1.72	52	0.03	4	33	32	0	7	1	0	0
EC VANDALIA	27	12	34	-3	19	-9	0.01	-0.39	0.01	1.84	53	0.02	2	30	28	0	7	1	0	0
SW LAMAR	29	13	40	-2	21	-11	0.01	-0.28	0.01	0.75	22	0.01	1	33	33	0	7	1	0	0
SC COOK STATION	33	13	46	-4	23	-10	0.13	-0.33	0.13	1.37	31	0.13	11	33	33	0	7	1	0	0
MOUNTAIN GROVE	32	13	48	0	22	-9	0.00	-0.48	0.00	0.57	12	0.00	0	31	30	0	7	0	0	0
SE DELTA	35	20	51	12	27	-7	0.00	-0.58	0.00	1.35	24	0.01	1	32	31	0	7	0	0	0
CHARLESTON	35	20	49	11	28	-7	0.00	-0.65	0.00	2.67	47	0.10	6	30	29	0	7	0	0	0
GLENNONVILLE	35	20	48	13	28	-8	0.00	-0.49	0.00	1.90	35	0.01	1	34	34	0	7	0	0	0
CLARKTON	35	19	49	11	27	-9	0.01	-0.51	0.01	2.01	36	0.01	1	32	31	0	7	1	0	0
PORTAGEVILLE DC	36	21	50	14	29	-7	0.03	-0.72	0.02	2.91	47	0.08	5	35	32	0	7	2	0	0
PORTAGEVILLE LF	35	21	49	15	28	-8	0.01	-0.67	0.01	2.93	48	0.05	3	34	32	0	7	1	0	0
STEELE	35	21	50	14	28	-8	0.06	-0.54	0.05	2.57	41	0.08	5	34	32	0	7	2	0	0
CARDWELL	35	19	50	11	27	-9	0.06	-0.60	0.05	2.34	37	0.07	4	36	34	0	7	2	0	0

Compiled by USDA/OCE/WAOB's Stoneville Field Office. \* Beasley Lake. X Based on 1971-2000 normals. - Sufficient data not available.

Data are preliminary and subject to revision.

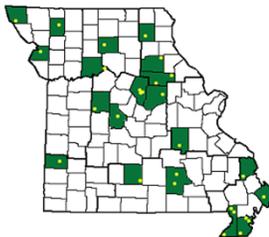
Mississippi: ND = Northern Delta; NE = Northeastern Mississippi; EC = East Central Mississippi; SD = Southern Delta.

Missouri: NW = Northwest; NC = North Central; NE = Northeast; WC = West Central; C = Central; EC = East Central; SW = Southwest; SE = Southeast;

SC = South Central. (Col=Columbia, Col-Jeffers F&G=Columbia Jefferson Farm and Gardens, Col-BF=Bradford Farm)

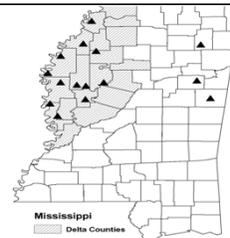
**Weather and Crop Summary for the Mississippi Delta:** Wintry weather took hold of the region, resulting in snow across the northern Delta and sleet or freezing rain in the southern Delta. Temperatures were very low and well below normal, averaging near the freezing mark for the week. Single-digit minima were noted in the far north. Precipitation deficits remained serious, with drought reaching severe status in parts of the Delta, according to the U.S. Drought Monitor.

Missouri Weather Stations



Note: For information on the weather stations in Missouri, please visit: <http://agebb.missouri.edu/weather/stations/index.htm>

Mississippi Weather Stations



Note: For information on the weather stations in Mississippi, please visit: [http://www.deltaweather.msstate.edu/maps/weather\\_station\\_map.htm](http://www.deltaweather.msstate.edu/maps/weather_station_map.htm)

National Weather Data for Selected Cities

Weather Data for the Week Ending January 15, 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	37	22	48	16	29	-13	0.80	-0.45	0.57	3.99	59	2.62	116	87	47	0	7	3	1
HUNTSVILLE	34	18	42	8	26	-13	0.75	-0.52	0.47	7.07	89	4.84	205	89	64	0	7	2	0
MOBILE	48	29	61	21	38	-12	0.09	-1.19	0.09	2.88	41	1.49	65	82	45	0	5	1	0
MONTGOMERY	42	24	54	15	33	-13	0.10	-0.98	0.05	2.29	33	1.26	64	86	46	0	7	3	0
AK ANCHORAGE	21	6	30	-4	14	-2	0.02	-0.12	0.01	0.76	56	0.03	10	82	65	0	7	2	0
BARROW	9	-8	33	-16	1	14	0.00	0.00	0.00	0.33	254	0.19	1900	91	80	0	7	0	0
FAIRBANKS	2	-17	13	-29	-7	3	0.00	-0.13	0.00	0.38	38	0.11	42	84	78	0	7	0	0
JUNEAU	21	12	31	4	16	-10	0.03	-1.08	0.03	3.22	43	1.37	65	49	36	0	7	1	0
KODIAK	35	27	42	23	31	1	1.37	-0.52	0.83	7.09	64	3.96	113	82	69	0	7	5	1
NOME	32	15	40	8	24	18	0.00	-0.19	0.00	2.29	166	0.83	224	70	57	0	7	0	0
AZ FLAGSTAFF	42	12	52	0	27	-2	0.00	-0.39	0.00	3.40	134	***	***	82	33	0	6	0	0
PHOENIX	68	45	76	41	57	4	0.00	-0.19	0.00	1.08	83	0.01	3	52	29	0	0	0	0
PRESCOTT	52	25	59	17	38	1	0.00	-0.33	0.00	3.01	160	0.00	0	81	28	0	7	0	0
TUCSON	67	35	72	32	51	0	0.40	0.18	0.20	1.06	72	0.60	133	60	31	0	1	2	0
AR FORT SMITH	39	21	57	13	30	-7	0.10	-0.42	0.09	2.24	51	0.10	10	79	45	0	7	2	0
LITTLE ROCK	37	23	56	13	30	-10	0.21	-0.59	0.21	2.29	37	0.21	14	86	51	0	6	1	0
CA BAKERSFIELD	55	38	64	35	47	0	0.00	-0.25	0.00	5.98	494	0.16	36	87	77	0	0	0	0
FRESNO	53	39	61	37	46	1	0.01	-0.45	0.01	7.44	344	1.52	185	90	79	0	0	1	0
LOS ANGELES	70	50	81	45	60	3	0.00	-0.61	0.00	9.48	329	0.65	60	54	38	0	0	0	0
REDDING	54	36	64	27	45	0	0.85	-0.59	0.53	9.71	134	1.03	40	94	79	0	2	3	1
SACRAMENTO	52	38	62	27	45	0	0.12	-0.69	0.12	6.53	168	0.98	69	96	69	0	1	1	0
SAN DIEGO	70	51	77	48	61	4	0.00	-0.49	0.00	5.28	241	0.28	32	66	44	0	0	0	0
SAN FRANCISCO	54	44	63	36	49	0	0.19	-0.75	0.15	6.66	146	0.66	39	87	78	0	0	2	0
STOCKTON	51	36	61	25	44	-1	0.17	-0.40	0.11	4.80	169	0.57	56	97	90	0	2	3	0
CO ALAMOSA	37	1	49	-16	19	5	0.04	-0.02	0.04	0.42	95	0.04	36	82	46	0	7	1	0
CO SPRINGS	34	12	49	-5	23	-5	0.09	0.03	0.08	0.16	28	0.09	60	84	43	0	7	2	0
DENVER INTL	35	12	51	-5	23	-5	0.51	0.45	0.41	0.73	162	0.51	364	76	50	0	7	2	0
GRAND JUNCTION	29	7	40	-6	18	-7	0.06	-0.08	0.05	0.73	92	0.09	33	81	64	0	7	2	0
PUEBLO	35	5	52	-14	20	-9	0.08	0.00	0.07	0.52	93	0.08	47	87	70	0	7	2	0
CT BRIDGEPORT	31	18	36	8	25	-5	0.87	0.02	0.66	5.36	106	1.27	80	75	52	0	7	3	1
HARTFORD	29	12	33	-6	20	-6	1.05	0.18	0.97	7.52	144	1.37	85	77	56	0	7	2	1
DC WASHINGTON	37	26	46	23	31	-4	0.12	-0.62	0.12	1.99	45	0.21	15	68	40	0	7	1	0
DE WILMINGTON	31	18	37	14	25	-7	0.43	-0.37	0.43	3.13	64	0.72	48	82	56	0	7	1	0
FL DAYTONA BEACH	60	38	72	28	49	-9	0.00	-0.70	0.00	1.68	42	1.30	101	91	50	0	1	0	0
JACKSONVILLE	52	30	62	22	41	-12	0.69	-0.11	0.69	2.39	59	2.05	142	91	48	0	5	1	1
KEY WEST	71	60	79	52	65	-5	0.00	-0.51	0.00	0.83	27	0.25	26	89	65	0	0	0	0
MIAMI	74	56	82	45	65	-3	0.00	-0.39	0.00	1.23	42	0.02	3	87	50	0	0	0	0
ORLANDO	65	42	74	32	54	-7	0.08	-0.45	0.08	1.17	36	0.39	40	83	52	0	1	1	0
PENSACOLA	48	31	60	23	39	-13	0.35	-0.84	0.29	4.35	71	2.87	134	73	44	0	4	2	0
TALLAHASSEE	49	27	58	18	38	-14	0.24	-0.98	0.24	4.35	69	2.87	129	82	45	0	6	1	0
TAMPA	64	43	73	31	53	-8	0.00	-0.47	0.00	1.78	56	1.23	140	83	42	0	1	0	0
WEST PALM BEACH	72	53	79	42	62	-4	0.00	-0.81	0.00	1.69	37	0.39	27	85	51	0	0	0	0
GA ATHENS	38	21	50	16	30	-12	0.87	-0.16	0.55	4.05	73	2.13	114	83	50	0	7	2	1
ATLANTA	36	23	50	19	30	-12	0.73	-0.36	0.38	3.45	60	1.83	94	79	58	0	7	2	0
AUGUSTA	42	23	56	15	33	-11	0.55	-0.44	0.54	2.26	46	1.10	61	86	45	0	7	2	1
COLUMBUS	43	26	56	21	34	-12	0.79	-0.28	0.76	3.87	61	2.31	117	80	39	0	7	2	1
MACON	43	23	55	16	33	-12	0.64	-0.46	0.64	2.65	45	1.57	79	83	44	0	7	1	1
SAVANNAH	45	26	56	18	35	-14	0.36	-0.53	0.36	2.43	55	0.80	49	82	41	0	6	1	0
HI HILO	80	64	83	59	72	1	1.96	-0.19	1.79	9.53	66	2.40	62	84	73	0	0	2	1
HONOLULU	79	67	81	59	73	0	2.73	2.12	2.01	14.46	360	2.73	233	85	78	0	0	3	2
KAHULUI	79	64	82	56	72	0	2.88	2.03	1.31	7.04	151	3.42	216	87	76	0	0	3	3
LIHUE	77	65	80	56	71	-1	3.37	2.30	1.35	13.58	200	3.58	177	83	77	0	0	4	3
ID BOISE	39	25	49	13	32	3	0.34	0.04	0.24	3.59	184	0.34	60	82	69	0	6	4	0
LEWISTON	43	31	54	19	37	4	0.16	-0.09	0.10	1.89	126	0.19	42	78	66	0	4	3	0
POCATELLO	30	13	45	-2	22	-2	0.19	-0.06	0.09	2.16	138	0.19	40	83	75	0	5	3	0
IL CHICAGO/O'HARE	27	16	33	9	22	0	0.28	-0.11	0.27	2.64	83	0.30	41	83	66	0	7	2	0
MOLINE	25	10	32	1	18	-3	0.19	-0.17	0.18	1.87	64	0.19	27	82	68	0	7	2	0
PEORIA	25	11	32	0	18	-4	0.33	0.00	0.33	4.11	135	0.34	52	86	66	0	7	1	0
ROCKFORD	27	14	34	5	21	2	0.22	-0.08	0.18	1.95	74	0.22	37	76	62	0	7	4	0
SPRINGFIELD	28	12	36	1	20	-5	0.19	-0.18	0.19	1.94	59	0.27	36	84	65	0	7	1	0
IN EVANSVILLE	31	19	44	8	25	-6	0.00	-0.63	0.00	2.55	54	0.75	63	73	65	0	7	0	0
FORT WAYNE	27	13	31	4	20	-4	0.42	-0.04	0.41	1.98	54	0.90	101	87	70	0	7	2	0
INDIANAPOLIS	28	16	35	6	22	-4	0.23	-0.32	0.23	2.72	67	0.86	83	80	65	0	7	1	0
SOUTH BEND	27	14	30	0	21	-2	0.06	-0.45	0.04	2.87	71	1.24	127	89	78	0	7	3	0
IA BURLINGTON	25	8	30	-2	16	-7	0.10	-0.19	0.04	0.92	34	0.10	18	89	68	0	7	3	0
CEDAR RAPIDS	21	5	26	-6	13	-5	0.00	-0.22	0.00	0.96	51	0.00	0	88	70	0	7	0	0
DES MOINES	22	7	26	1	15	-5	0.62	0.40	0.39	1.45	83	0.68	162	83	71	0	7	4	0
DUBUQUE	22	8	27	0	15														

Weather Data for the Week Ending January 15, 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	28	10	36	-1	19	-11	0.32	0.11	0.24	0.44	25	0.32	74	85	64	0	7	2	0
	JACKSON	30	18	41	6	24	-10	0.11	-0.68	0.06	3.90	68	0.93	62	81	56	0	7	3	0
	LEXINGTON	29	18	41	3	24	-8	0.12	-0.65	0.12	3.09	56	0.60	41	76	62	0	7	1	0
	LOUISVILLE	33	21	45	10	27	-6	0.11	-0.63	0.11	2.30	45	0.64	46	75	55	0	7	1	0
	PADUCAH	35	20	49	13	28	-4	0.07	-0.65	0.07	2.64	46	0.42	31	78	49	0	7	1	0
LA	BATON ROUGE	47	30	62	21	39	-11	0.53	-0.82	0.53	6.53	84	1.94	79	85	40	0	4	1	1
	LAKE CHARLES	50	34	63	25	42	-9	0.09	-1.19	0.09	5.22	76	1.94	84	79	46	0	2	1	0
	NEW ORLEANS	49	35	62	28	42	-10	0.55	-0.67	0.55	3.84	53	1.67	76	76	52	0	3	1	1
	SHREVEPORT	39	28	46	20	34	-12	1.05	0.04	0.68	1.50	23	1.09	58	81	53	0	5	2	1
ME	CARIBOU	27	18	33	5	22	12	0.13	-0.56	0.09	5.66	125	0.46	35	88	71	0	7	2	0
	PORTLAND	32	16	39	-1	24	2	0.75	-0.19	0.73	4.86	81	0.83	47	78	53	0	7	3	1
MD	BALTIMORE	35	21	41	19	28	-4	0.16	-0.64	0.16	2.18	45	0.22	15	74	47	0	7	1	0
MA	BOSTON	33	21	35	15	27	-3	0.42	-0.45	0.40	4.30	80	0.69	43	77	56	0	7	3	0
	WORCESTER	26	15	29	7	20	-4	0.91	-0.03	0.61	6.20	112	1.12	64	87	61	0	7	4	1
MI	ALPENA	24	7	27	-5	16	-2	0.26	-0.15	0.19	1.95	75	0.62	79	87	67	0	7	3	0
	GRAND RAPIDS	28	15	29	3	21	-2	0.33	-0.11	0.14	2.38	67	0.60	71	85	64	0	7	4	0
	HOUGHTON LAKE	24	7	26	-3	16	-2	0.27	-0.09	0.14	1.57	65	0.45	66	88	77	0	7	4	0
	LANSING	26	13	27	4	19	-3	0.20	-0.13	0.13	2.08	74	0.43	67	86	74	0	7	4	0
	MUSKEGON	28	15	30	2	21	-3	0.58	0.08	0.23	3.01	84	1.14	120	82	71	0	7	5	0
	TRAVERSE CITY	27	16	29	13	22	1	0.17	-0.50	0.12	2.47	63	0.25	20	89	63	0	7	4	0
MN	DULUTH	18	5	23	-6	12	4	0.44	0.21	0.21	2.54	190	0.46	115	82	71	0	7	4	0
	INT'L FALLS	15	-4	20	-28	6	4	0.36	0.19	0.20	2.16	216	0.59	197	88	71	0	7	4	0
	MINNEAPOLIS	19	6	23	-4	13	0	0.53	0.31	0.17	3.40	241	0.61	149	83	73	0	7	4	0
	ROCHESTER	19	4	24	-9	12	1	0.36	0.17	0.16	4.15	301	0.47	131	83	77	0	7	4	0
	ST. CLOUD	16	1	21	-13	9	1	0.48	0.31	0.21	3.00	303	0.55	183	90	69	0	7	4	0
MS	JACKSON	40	26	53	18	33	-12	0.31	-0.97	0.31	4.77	62	0.89	38	83	49	0	6	1	0
	MERIDIAN	40	23	54	15	32	-14	0.41	-0.91	0.41	3.09	40	1.98	82	87	53	0	7	1	0
	TUPELO	35	19	45	7	27	-13	0.68	-0.52	0.60	3.65	43	1.42	62	87	59	0	7	2	1
MO	COLUMBIA	27	12	35	-3	19	-9	0.34	-0.02	0.29	2.62	83	0.34	49	81	60	0	7	2	0
	KANSAS CITY	24	9	31	-6	16	-11	0.49	0.24	0.47	1.01	47	0.49	100	86	66	0	7	2	0
	SAINT LOUIS	31	17	40	7	24	-5	0.23	-0.24	0.14	1.56	42	0.26	29	78	61	0	7	2	0
	SPRINGFIELD	30	13	44	0	22	-9	0.12	-0.32	0.12	0.86	22	0.12	14	85	65	0	7	1	0
MT	BILLINGS	27	7	44	-2	17	-7	0.05	-0.14	0.04	1.05	103	0.10	29	83	57	0	7	2	0
	BUTTE	27	11	42	-12	19	2	0.01	-0.10	0.01	0.65	87	0.01	5	80	54	0	5	1	0
	CUT BANK	14	-7	37	-19	4	-15	0.00	-0.08	0.00	0.01	2	0.00	0	87	69	0	7	0	0
	GLASGOW	7	-7	14	-19	0	-10	0.42	0.34	0.16	2.34	433	0.88	518	86	81	0	7	5	0
	GREAT FALLS	27	-3	42	-11	12	-9	0.09	-0.08	0.08	1.68	170	0.12	38	89	65	0	7	2	0
	HAVRE	4	-6	12	-18	-1	-15	0.12	0.01	0.07	1.21	166	0.18	82	82	77	0	7	3	0
	MISSOULA	30	17	47	4	23	0	0.24	-0.01	0.19	1.87	115	0.59	126	86	74	0	6	3	0
NE	GRAND ISLAND	20	3	32	-12	12	-10	0.93	0.82	0.73	1.22	139	0.98	445	84	73	0	7	4	1
	LINCOLN	20	3	28	-10	12	-10	0.56	0.39	0.29	0.80	68	0.56	175	86	72	0	7	2	0
	NORFOLK	18	4	26	-8	11	-9	0.87	0.76	0.63	1.29	148	0.87	395	81	75	0	7	2	1
	NORTH PLATTE	25	0	46	-20	13	-10	0.41	0.33	0.37	0.91	160	0.47	276	90	69	0	7	2	0
	OMAHA	20	6	26	-3	13	-8	0.61	0.44	0.41	1.15	93	0.61	197	84	73	0	7	2	0
	SCOTTSBLUFF	34	11	51	-8	22	-2	0.02	-0.09	0.02	0.95	122	0.02	9	81	60	0	7	1	0
	VALENTINE	21	0	43	-19	11	-9	0.23	0.17	0.22	1.16	264	0.30	273	81	74	0	7	2	0
NV	ELY	31	4	41	-16	18	-7	0.00	-0.17	0.00	3.34	418	0.00	0	83	70	0	7	0	0
	LAS VEGAS	56	37	67	32	47	1	0.00	-0.11	0.00	1.78	287	0.01	5	54	36	0	1	0	0
	RENO	47	24	59	16	36	3	0.00	-0.22	0.00	1.46	114	0.07	18	80	62	0	7	0	0
	WINNEMUCCA	40	20	48	3	30	1	0.29	0.10	0.09	1.90	161	0.31	84	87	72	0	7	4	0
NH	CONCORD	28	10	34	-10	19	-1	1.12	0.46	1.11	4.75	113	1.17	94	82	56	0	7	2	1
NJ	NEWARK	33	21	38	14	27	-4	0.68	-0.23	0.36	4.70	90	0.82	49	69	50	0	7	2	0
NM	ALBUQUERQUE	46	22	52	14	34	-1	0.00	-0.11	0.00	1.07	151	0.00	0	62	28	0	7	0	0
NY	ALBANY	25	12	31	-4	18	-5	0.70	0.15	0.61	4.03	109	1.08	104	82	62	0	7	2	1
	BINGHAMTON	22	14	27	9	18	-4	0.39	-0.16	0.29	2.85	70	0.81	78	87	70	0	7	5	0
	BUFFALO	24	15	30	12	20	-5	0.44	-0.28	0.17	4.01	78	1.29	94	89	68	0	7	6	0
	ROCHESTER	25	15	30	8	20	-4	0.45	-0.07	0.20	3.42	92	0.78	80	85	72	0	7	5	0
	SYRACUSE	24	15	31	7	20	-3	2.51	1.93	2.09	5.20	124	2.78	255	88	70	0	7	6	1
NC	ASHEVILLE	32	15	45	4	24	-12	0.59	-0.30	0.59	2.49	50	1.23	76	85	51	0	7	1	1
	CHARLOTTE	38	20	50	13	29	-12	0.49	-0.41	0.47	2.66	55	0.92	56	77	49	0	7	2	0
	GREENSBORO	36	21	48	14	28	-9	0.25	-0.54	0.19	2.80	62	0.60	42	73	42	0	7	2	0
	HATTERAS	42	30	52	23	36	-10	0.09	-1.28	0.05	3.57	51	0.10	4	77	46	0	4	2	0
	RALEIGH	39	23	50	19	31	-8	0.21	-0.69	0.12	3.21	69	0.82	51	72	42	0	7	2	0
	WILMINGTON	40	25	52	21	33	-13	0.66	-0.36	0.66	4.33	77	0.70	38	89	41	0	7	1	1
ND	BISMARCK	8	-4	19	-18	2	-8	0.39	0.31	0.16	1.92	315	0.52	306	84	76	0	7	5	0
	DICKINSON	9	-8	23	-20	1	-13	0.25	0.19	0.21	0.49	109	0.27	245	87	72	0	7	3	0
	FARGO	10	-3	16	-19	4	-2	0.46	0.29	0.25	2.94	334	1.19	384	84	75	0	7	4	0
	GRAND FORKS	7	-7	13	-19	0	-5	0.44	0.30	0.23	1.28	156	0.56	207	94	80	0	7	6	0
	JAMESTOWN	7	-5	13	-17	1	-7	0.18	0.05	0.13	1.01	149	0.31	129	88	73	0	7	3	0
	WILLISTON	7	-13	12	-27	-3	-10	0.51	0.40	0.29	2.65	335	0.70	318	83	76	0	7	5	0
OH	AKRON-CANTON	26	14	33	7	20	-5	0.29	-0.26	0.19	2.94	73	0.99	93	83	70	0	7	4	0
	CINCINNATI	29	18	39	2	24	-6	0.21	-0.45	0.21	2.43	54	0.66	53	81	70	0	7	1	0
	CLEVELAND	27	16	34	7	21	-5	0.38	-0.17	0.20	2.58	62	1.24	119	87	66	0	7	4	0
	COLUMBUS	29	16	36	4	22	-6	0.16	-0.39	0.14	2.09	53	0.83	80	83	69	0	7	2	0
	DAYTON	28	16	35	5	22	-4	0.20	-0.38	0.19	2.15	51	0.70	63	90	69	0	7	2	0
	MANSFIELD	25	13	32	5	19	-5	0.22	-0.37	0.16	1.60	37	0.57	51	88					

Weather Data for the Week Ending January 15, 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	TEMP. °F		PRECIP
																		01 INCH OR MORE	50 INCH OR MORE	
OK TOLEDO	27	12	31	7	20	-4	0.60	0.18	0.38	2.96	86	1.52	188	84	67	0	7	4	0	
OK YOUNGSTOWN	25	15	32	8	20	-5	0.61	0.09	0.20	5.29	134	1.48	149	90	74	0	7	7	0	
OK OKLAHOMA CITY	40	17	59	9	28	-8	0.03	-0.28	0.02	0.16	6	0.03	5	84	43	0	7	2	0	
OR TULSA	38	17	56	7	27	-9	0.06	-0.30	0.06	0.61	19	0.06	9	81	55	0	7	1	0	
OR ASTORIA	47	39	54	29	43	1	4.13	1.97	1.54	17.97	125	6.60	165	97	87	0	3	7	4	
OR BURNS	29	10	37	-12	20	-4	0.54	0.28	0.31	4.18	232	0.54	108	92	85	0	7	3	0	
OR EUGENE	48	37	58	24	43	4	1.17	-0.53	0.61	8.04	70	1.26	40	94	87	0	4	4	1	
OR MEDFORD	47	32	51	22	40	2	0.99	0.44	0.81	5.35	136	1.04	100	96	78	0	3	3	1	
OR PENDLETON	43	30	57	10	36	3	0.56	0.26	0.35	3.73	182	0.60	105	83	71	0	4	4	0	
OR PORTLAND	49	39	59	31	44	5	2.21	1.08	0.83	11.05	141	2.70	127	90	78	0	3	6	3	
OR SALEM	50	38	59	27	44	4	1.78	0.50	0.67	11.91	134	1.96	82	94	83	0	4	5	2	
PA ALLENTOWN	30	12	34	5	21	-6	0.31	-0.49	0.27	3.48	72	0.56	38	77	55	0	7	2	0	
PA ERIE	26	17	30	12	22	-5	0.70	0.13	0.32	3.78	78	1.54	136	81	69	0	7	6	0	
PA MIDDLETOWN	31	17	38	14	24	-5	0.28	-0.33	0.28	2.37	54	0.40	35	83	53	0	7	1	0	
PA PHILADELPHIA	32	19	38	12	26	-6	0.46	-0.34	0.34	4.00	84	0.76	51	69	51	0	7	2	0	
PA PITTSBURGH	26	16	36	8	21	-7	0.21	-0.40	0.16	2.61	66	1.05	94	81	61	0	7	3	0	
PA WILKES-BARRE	26	15	32	8	20	-6	0.31	-0.22	0.24	2.98	84	0.53	54	84	60	0	7	2	0	
PA WILLIAMSPORT	31	15	36	11	23	-3	0.29	-0.32	0.28	4.45	110	0.42	38	82	56	0	7	2	0	
RI PROVIDENCE	32	18	34	5	25	-4	1.08	0.09	1.03	5.41	91	1.37	75	79	63	0	7	2	1	
SC BEAUFORT	45	27	56	22	36	-12	0.20	-0.72	0.20	1.53	32	0.53	31	80	33	0	6	1	0	
SC CHARLESTON	44	26	55	19	35	-13	0.58	-0.35	0.58	3.58	72	1.10	65	86	39	0	7	1	1	
SC COLUMBIA	42	24	54	17	33	-11	0.64	-0.40	0.64	2.44	46	1.04	55	79	49	0	7	1	1	
SC GREENVILLE	38	20	50	14	29	-12	0.76	-0.23	0.76	2.70	47	1.54	84	81	47	0	7	1	1	
SD ABERDEEN	10	-5	18	-21	3	-7	0.56	0.45	0.26	2.47	412	0.70	318	81	76	0	7	5	0	
SD HURON	12	-2	21	-10	5	-9	0.71	0.61	0.43	2.14	369	0.76	400	85	75	0	7	4	0	
SD RAPID CITY	24	2	52	-12	13	-9	0.03	-0.05	0.02	0.78	137	0.17	100	89	62	0	7	2	0	
SD SIOUX FALLS	14	0	20	-10	7	-7	0.62	0.51	0.31	2.17	301	0.63	315	84	77	0	7	4	0	
TN BRISTOL	31	15	42	4	23	-11	0.11	-0.66	0.08	3.26	68	0.70	49	82	52	0	7	2	0	
TN CHATTANOOGA	35	20	47	13	28	-11	0.70	-0.50	0.51	4.77	68	3.34	153	86	57	0	7	3	1	
TN KNOXVILLE	34	19	45	12	27	-10	0.36	-0.69	0.34	4.72	73	2.52	130	83	56	0	7	2	0	
TN MEMPHIS	37	22	54	14	29	-10	0.22	-0.71	0.19	3.11	42	0.59	33	82	53	0	7	3	0	
TN NASHVILLE	34	19	48	13	27	-10	0.24	-0.67	0.24	3.00	48	1.13	66	83	55	0	7	1	0	
TX ABILENE	47	30	55	18	39	-4	0.11	-0.10	0.11	1.31	77	0.11	25	81	68	0	4	1	0	
TX AMARILLO	43	16	58	2	29	-6	0.01	-0.13	0.01	0.23	25	0.01	3	84	43	0	7	1	0	
TX AUSTIN	45	33	55	22	39	-11	2.81	2.38	1.54	3.82	116	3.02	351	75	63	0	3	3	2	
TX BEAUMONT	50	36	61	26	43	-9	0.49	-0.85	0.49	5.57	72	0.56	23	82	45	0	3	1	0	
TX BROWNSVILLE	68	48	81	44	58	-1	1.84	1.58	1.57	1.86	118	1.85	394	88	73	0	0	4	1	
TX CORPUS CHRISTI	55	45	68	38	50	-6	2.19	1.85	1.12	2.81	117	2.19	332	80	70	0	0	3	2	
TX DEL RIO	53	39	73	36	46	-5	0.00	-0.08	0.00	0.10	11	0.08	42	77	59	0	0	0	0	
TX EL PASO	56	30	61	22	43	-1	0.00	-0.09	0.00	0.16	16	0.00	0	55	26	0	5	0	0	
TX FORT WORTH	41	27	48	21	34	-10	1.32	0.88	1.27	3.37	97	1.32	148	81	54	0	6	2	1	
TX GALVESTON	50	40	60	31	45	-11	0.91	-0.02	0.90	3.16	61	1.03	61	80	59	0	1	2	1	
TX HOUSTON	50	36	65	26	43	-8	0.80	-0.03	0.76	5.18	99	2.14	138	73	56	0	3	2	1	
TX LUBBOCK	48	18	64	8	33	-4	0.00	-0.08	0.00	0.00	0	0.00	0	69	48	0	7	0	0	
TX MIDLAND	51	25	67	20	38	-5	0.00	-0.11	0.00	0.02	2	0.00	0	71	46	0	7	0	0	
TX SAN ANGELO	52	32	68	22	42	-2	0.29	0.14	0.28	1.28	102	0.29	94	80	61	0	4	2	0	
TX SAN ANTONIO	48	39	56	33	44	-6	2.35	1.99	1.38	3.22	121	2.59	370	79	58	0	0	4	2	
TX VICTORIA	52	40	63	33	46	-7	1.95	1.40	1.09	3.29	94	2.10	202	80	70	0	0	3	2	
TX WACO	43	31	50	20	37	-9	2.76	2.35	2.44	3.53	98	2.76	333	78	61	0	3	2	1	
UT WICHITA FALLS	41	21	51	12	31	-9	0.07	-0.17	0.05	0.21	10	0.08	16	86	63	0	7	3	0	
UT SALT LAKE CITY	30	15	39	8	23	-6	0.21	-0.09	0.10	3.26	182	0.22	39	88	69	0	7	4	0	
VT BURLINGTON	22	12	28	1	17	-1	0.63	0.14	0.58	4.63	148	1.03	113	85	70	0	7	4	1	
VA LYNCHBURG	36	20	48	13	28	-6	0.02	-0.78	0.02	2.57	55	0.41	28	63	41	0	7	1	0	
VA NORFOLK	37	27	48	24	32	-8	0.17	-0.71	0.17	3.32	72	0.44	28	73	42	0	7	1	0	
VA RICHMOND	38	23	50	18	31	-5	0.07	-0.76	0.07	3.85	83	0.59	39	65	40	0	7	1	0	
VA ROANOKE	36	23	47	15	29	-7	0.01	-0.69	0.00	2.10	51	0.11	9	61	43	0	7	1	0	
WA WASH/DULLES	35	20	44	16	28	-4	0.11	-0.58	0.11	1.62	37	0.15	12	71	46	0	7	1	0	
WA OLYMPIA	46	36	55	24	41	3	3.88	2.21	1.34	14.39	131	5.04	163	96	87	0	4	7	3	
WA QUILLAYUTE	44	36	51	28	40	0	4.51	1.48	1.64	28.75	143	9.73	173	99	84	0	3	7	3	
WA SEATTLE-TACOMA	46	38	54	30	42	2	2.57	1.44	0.90	11.97	155	3.29	156	92	76	0	4	6	2	
WA SPOKANE	34	23	47	8	29	2	1.01	0.60	0.50	4.53	150	1.34	172	89	70	0	4	3	1	
WV YAKIMA	39	24	62	16	32	4	0.55	0.29	0.23	2.97	157	0.59	116	89	75	0	7	5	0	
WV BECKLEY	27	13	37	8	20	-10	0.10	-0.62	0.06	2.94	67	0.66	50	78	59	0	7	3	0	
WV CHARLESTON	31	20	42	12	25	-8	0.20	-0.51	0.10	3.67	79	1.24	95	83	55	0	7	3	0	
WV ELKINS	28	11	39	-5	20	-9	0.13	-0.64	0.08	2.18	45	0.33	23	89	60	0	7	3	0	
WV HUNTINGTON	31	19	42	6	25	-7	0.06	-0.66	0.05	2.22	47	0.69	51	85	58	0	7	2	0	
WI EAU CLAIRE	21	4	27	-15	12	1	0.09	-0.13	0.09	1.92	134	0.09	23	90	66	0	7	1	0	
WI GREEN BAY	24	9	28	-1	17	1	0.35	0.10	0.15	2.35	124	0.44	92	88	64	0	7	4	0	
WI LA CROSSE	21	6	26	-10	14	-2	0.30	0.06	0.12	2.79	167	0.39	89	87	68	0	7	4	0	
WI MADISON	25	12	28	1	19	2	0.41	0.16	0.17	1.96	92	0.47	98	85	72	0	7	5	0	
WI MILWAUKEE	27	18	31	10	23	2	0.32	-0.07	0.14	1.96	66	0.39	53	78	61	0	7	5	0	
WY CASPER	28	4	42	-24	16	-6	0.22	0.11	0.22	1.59	189	0.23	105	75	67	0	6	1	0	
WY CHEYENNE	35	13	46	-1	24	-2	0.05	-0.03	0.05	0.47	75	0.05	29	72	49	0	6	1	0	
WY LANDER	25	5	49	-11	15	-5	0.35	0.24	0.35	1.16	140	0.38	173	85	62	0	7	1	0	
WY SHERIDAN	30	1	46	-15	16	-5	0.07	-0.10	0.07	0.39	39	0.19	59	79	69	0	7	1	0	

Based on 1971-2000 normals

\*\*\* Not Available

# National Agricultural Summary

## January 10 – 16, 2011

Weekly National Agricultural Summary provided by USDA/NASS

Much of the country west of the Rocky Mountains experienced above-average temperatures, while portions of the central Great Plains and Southeast recorded well-below-normal temperatures. Most notably, temperatures in southern Georgia averaged more than 15 degrees F below average. Dry conditions prevailed across the nation's mid-section, leaving many small grain crops in need of moisture. Elsewhere, precipitation totaled more than twice the weekly normal across much of the nation's northern tier, as well as southern and eastern Texas.

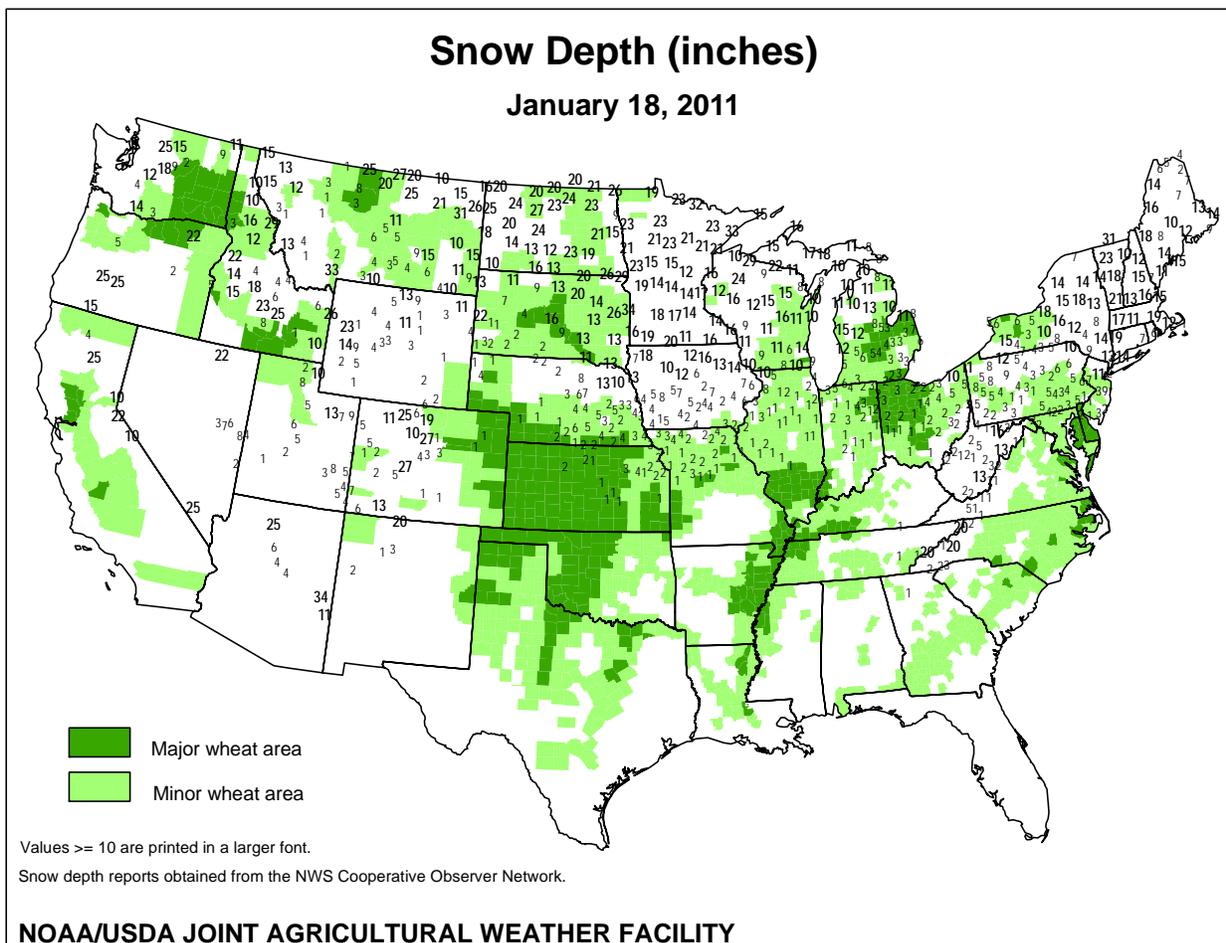
Continuing the recent trend in cool weather, temperatures in Florida dipped more than 10 degrees F below average, with freezes and frosts of varying intensity evident from the Panhandle to the southern Peninsula. Potato producers in Flagler and Putnam Counties reported being behind schedule due to the cold weather, while sugarcane harvesting was again hampered by freezes. Growers remained busy assessing any damage incurred. The state's winter vegetable harvest was halted because of the cold. Despite preventative measures taken by strawberry producers, portions of the crop began to show signs of stress. Moderate to severe drought conditions persisted in the citrus-producing area.

Precipitation totals were mixed across Texas during the week, with southern and eastern portions of the state receiving up to 4 inches of rain. Most other regions of Texas were dry. On the Plains, irrigated winter wheat progressed well. Conversely, many dryland fields

continued to be impacted by unusually dry conditions. Producers in the Blacklands made fertilizer applications to their fields. Cotton producers in the Northern Plains were readying their fields for spring planting, but additional soil moisture was needed in parts of the Low Plains before tillage operations could continue. In the Lower Valley, potatoes were planted, while cabbage and spinach harvest was aided by cooler weather. Wet field conditions slowed citrus and sugarcane harvesting.

In Arizona, temperatures varied during the week, ranging from 6 degrees F below normal to 5 degrees F above normal. Precipitation was scarce. Cotton producers were nearly finished harvesting their crop, while alfalfa harvesting continued in limited areas. Vegetable growers across the state shipped a variety of crops, including broccoli, cabbage, cilantro, lettuce, and various citrus.

California's over-wintered small grain and forage crops continued to emerge well, following recent rainfall and increased soil moisture availability; however, low-lying areas showed signs of yellowing due to sustained excessive wetness. Field maintenance activities remained steady in alfalfa fields, but growth was slow because of cooler-than-normal weather. Citrus harvesting gained speed in the San Joaquin Valley as orchard floors dried out. Anthomyiid and sciarid infestations were evident in some strawberry fields along the Central Coast. Producers continued regular maintenance activities in dormant orchards. Winter vegetable harvesting was ongoing across the state.



## International Weather and Crop Summary

January 9-15, 2011

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

### HIGHLIGHTS

**EUROPE:** Rainy, warmer weather melted most of the region's protective snow cover but maintained favorable winter wheat prospects on the Iberian Peninsula.

**WESTERN FSU:** Additional snowfall maintained sufficient insulation for dormant winter crops, although somewhat warmer conditions arrived by week's end.

**MIDDLE EAST:** Rain and snow in Iraq and Iran further eased drought and provided additional, much-needed soil moisture for winter crops.

**NORTHWEST AFRICA:** Showers maintained favorable soil moisture for winter grain establishment in Algeria and Tunisia, while dry weather persisted in western growing areas.

**SOUTH ASIA:** Cool weather provided overall favorable conditions for winter crops.

**EAST ASIA:** Cold weather continued across winter growing areas with little effect on dormant crops.

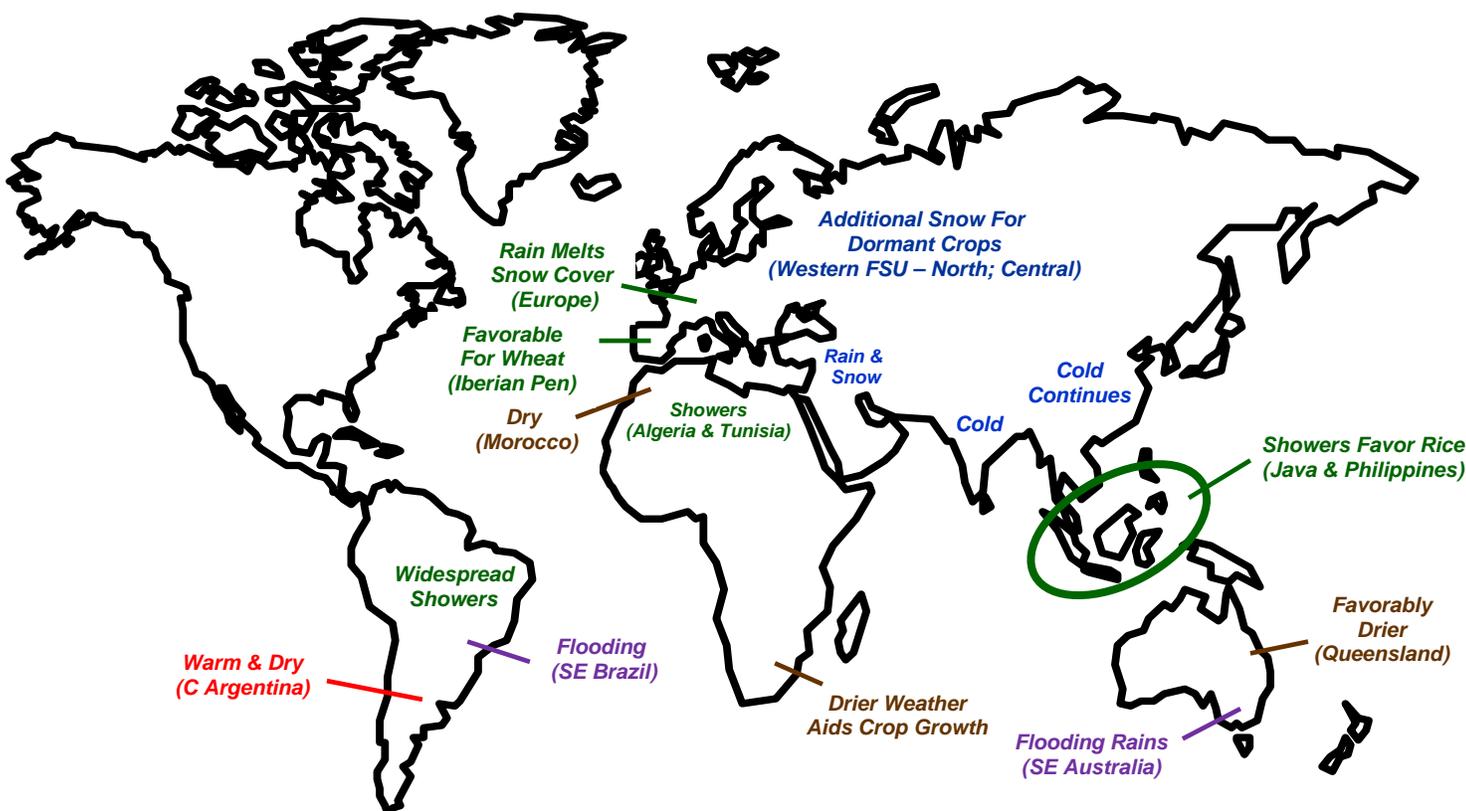
**SOUTHEAST ASIA:** Showers maintained favorable moisture reserves for rice in Java, Indonesia and the Philippines.

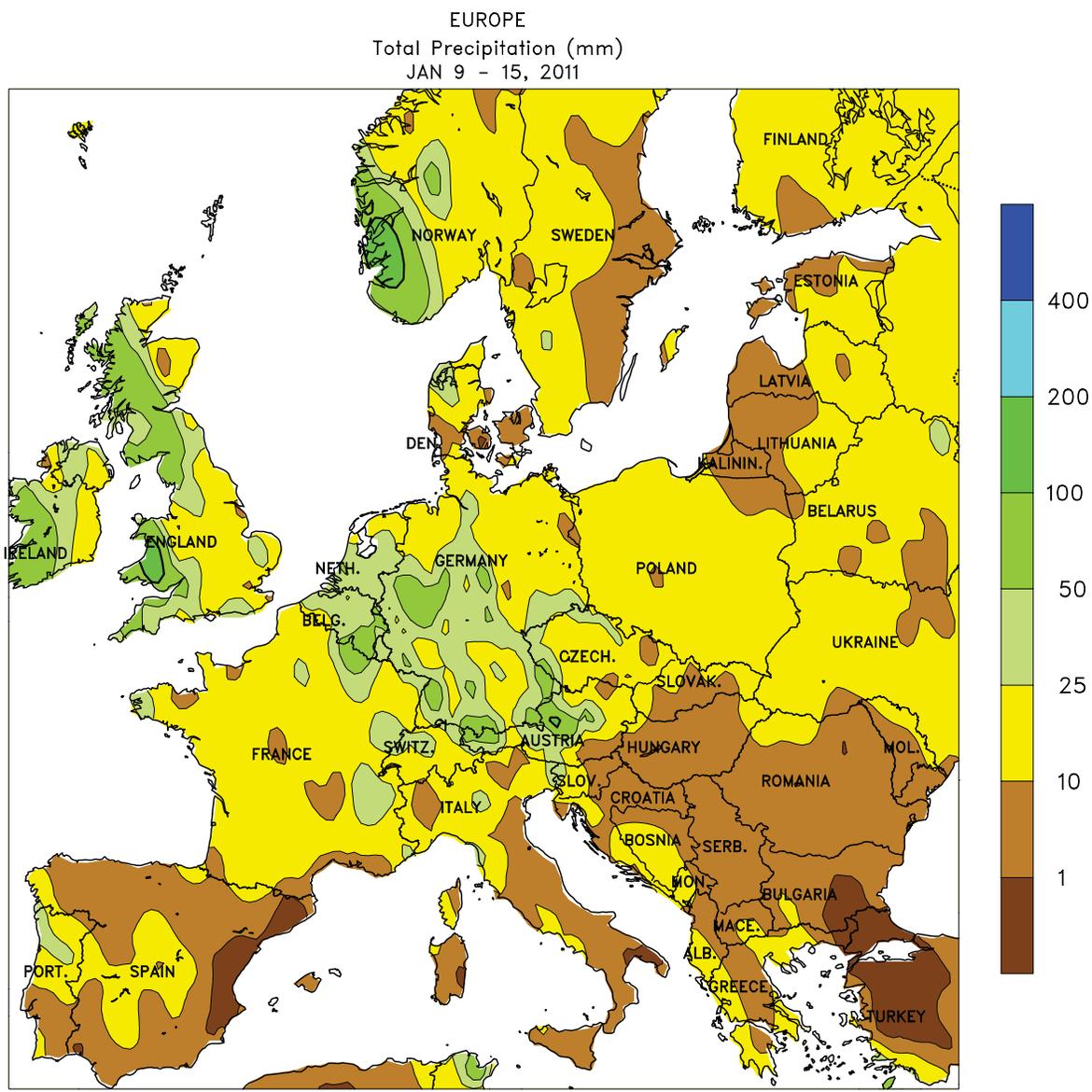
**AUSTRALIA:** Flooding rains in southeastern Australia halted winter grain harvesting, while drier weather overspread Queensland, allowing swollen rivers to begin to recede.

**SOUTH AFRICA:** Mild, dry weather favored development of vegetative to reproductive summer crops.

**ARGENTINA:** Warmth and dryness dominated key farming areas of central Argentina.

**BRAZIL:** Heavy rain continued throughout central Brazil, maintaining abundant moisture for crop development but hampering fieldwork and exacerbating local flood conditions.





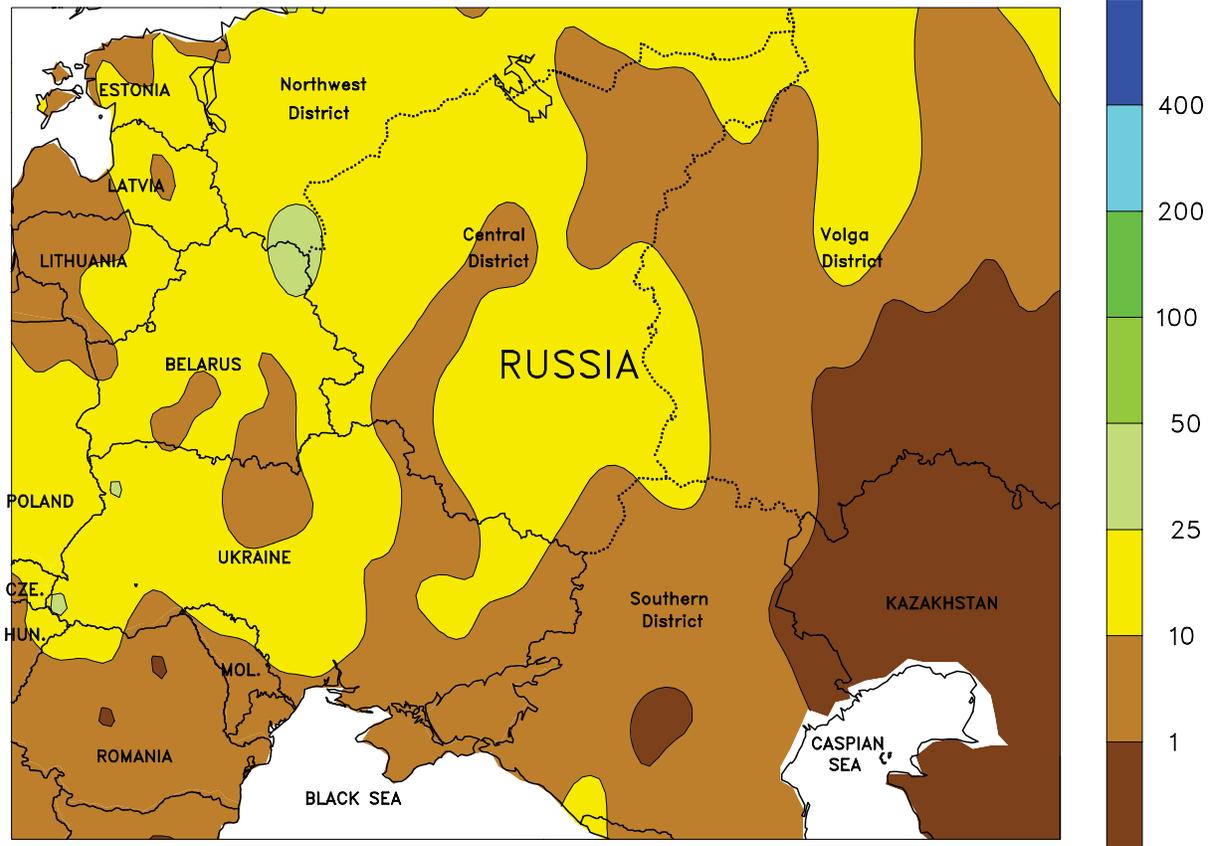
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data

**EUROPE**

A series of Atlantic storms brought mild, wet weather to much of the continent, although dry conditions persisted in the Balkans. Rain was heaviest (50-110 mm) from the United Kingdom into north-central Europe, causing localized flooding but maintaining abundant soil moisture reserves for spring growth. Across the remainder of northern Europe's wheat belt, showers (10-25 mm) along with temperatures up to 6 degrees C above normal melted

the region's protective snow cover. In Spain, the continuation of wet weather (5-20 mm) provided favorable soil moisture for winter wheat and further boosted summer crop irrigation reserves. Rain and mountain snow returned to northern Italy, maintaining abundant moisture for winter crops. In contrast, mostly dry weather persisted over the Balkans, with abnormal warmth (3-8 degrees C above normal) reducing winter crop cold hardiness.

WESTERN FSU  
 Total Precipitation (mm)  
 JAN 9 - 15, 2011



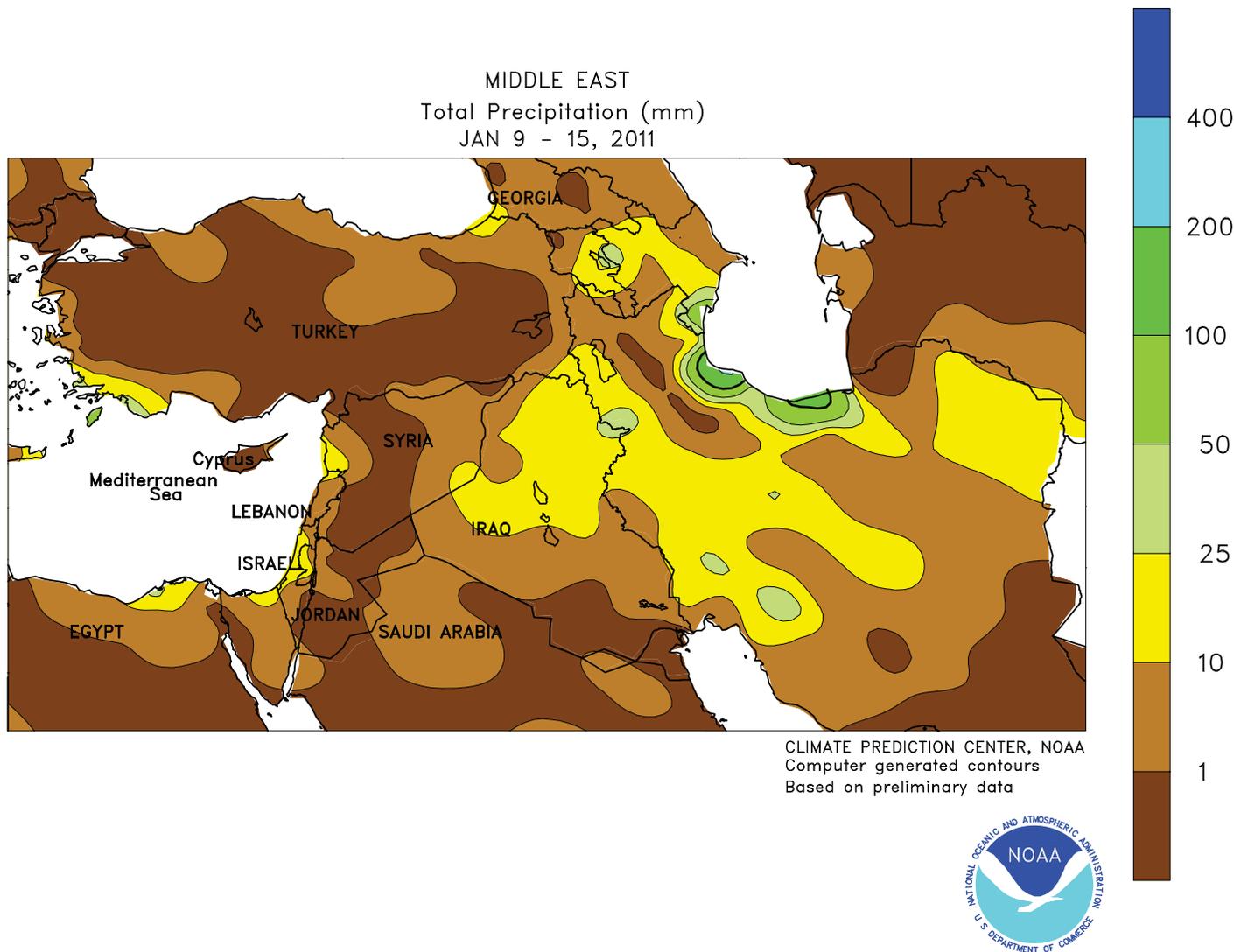
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 Computer generated contours  
 Based on preliminary data



**WESTERN FSU**

Unsettled, milder weather prevailed over the region, although dry conditions lingered in the south. A storm system produced another round of beneficial snow (5-20 mm liquid equivalent) from Belarus and northern Ukraine into central and northern Russia. Snow depths at week's end exceeded 20 cm from Belarus into Russia's Volga District, while crops in northern portions of Ukraine and the Southern District were protected by 5 to 10 cm of snow. In contrast, dormant winter wheat in southern portions of the

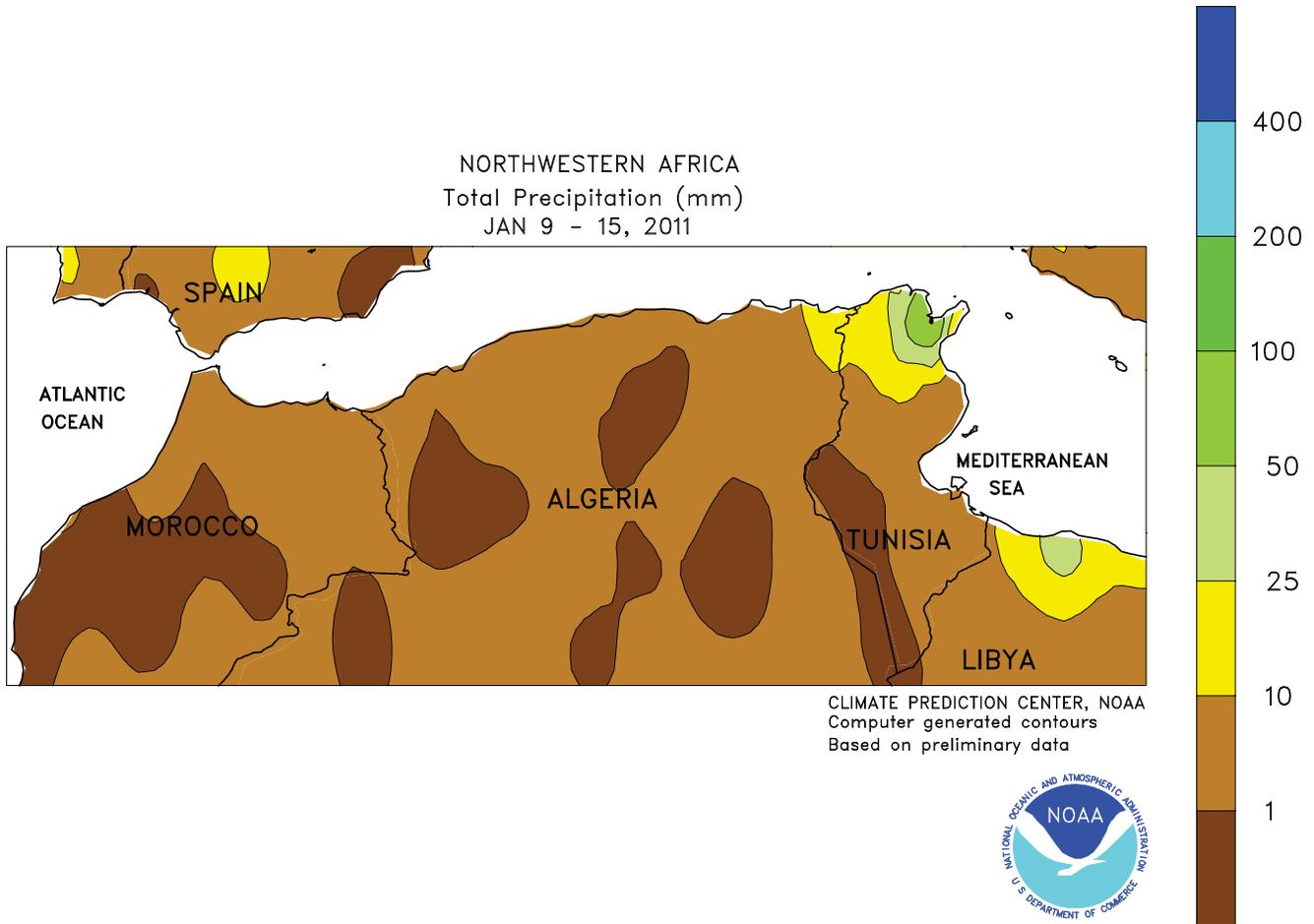
Southern District remained exposed, with little if any snow on the ground. Temperatures averaged 2 to 8 degrees C above normal over most crop areas, with colder-than-normal conditions (1-3 degrees C below normal) confined to the southern Volga District and the northern Southern District. Despite the overall wet weather pattern in the western Former Soviet Union, dry conditions lingered in the southern half of the Southern District, maintaining a trend which began in mid-December.



**MIDDLE EAST**

A slow-moving storm system brought additional drought relief to eastern portions of the region, while dry weather settled over western crop districts. Rain and mountain snow (10-30 mm liquid equivalent) provided much-needed moisture for winter grains in Iraq and Iran. However, irrigation reserves and mountain snowpacks are still in need of additional recharge across the eastern half of the region due to a much drier-than-

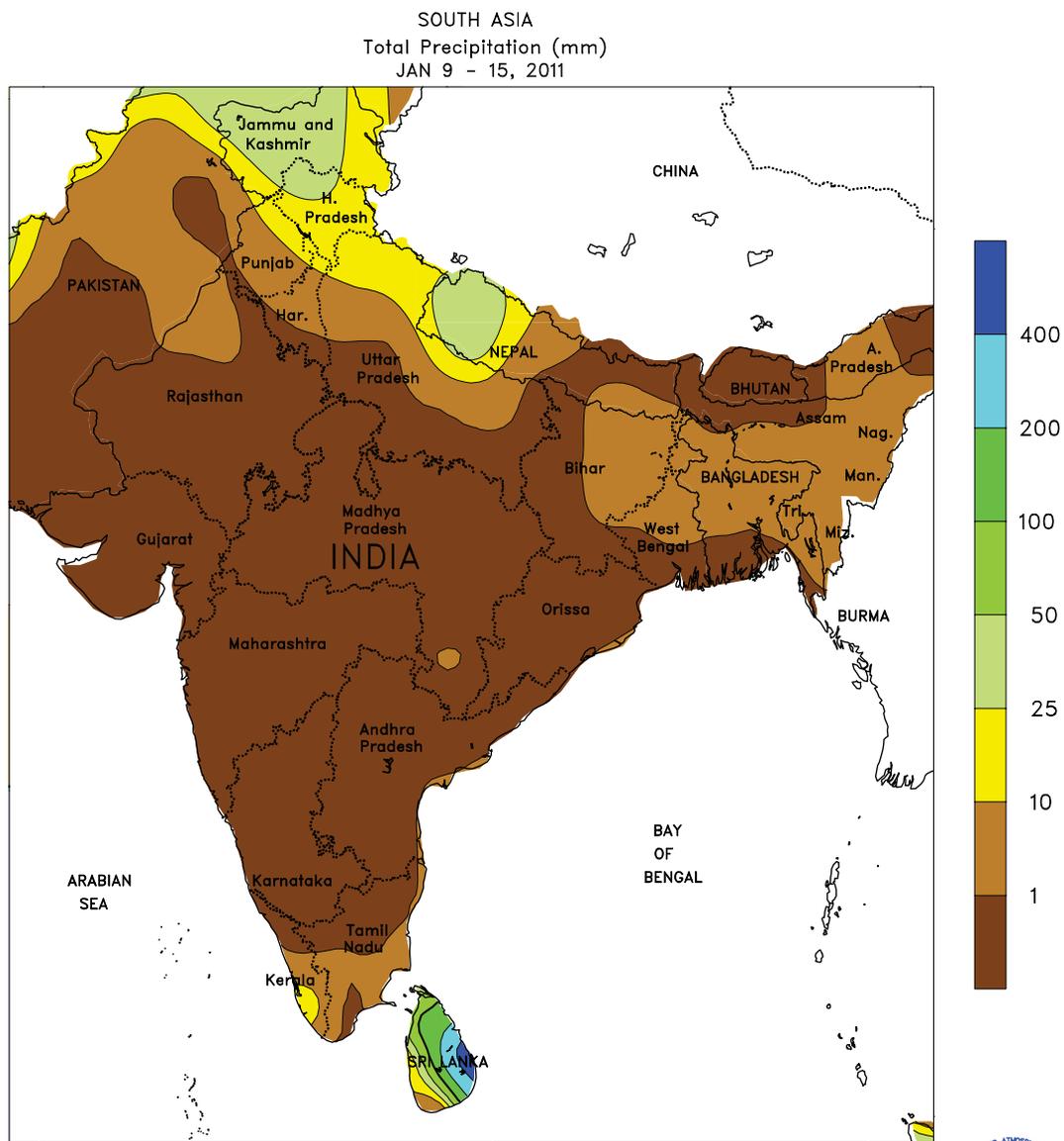
normal autumn. Despite the widespread precipitation in the east, unfavorably dry conditions persisted from northwestern Iran into eastern Turkey, lowering spring runoff prospects and further depleting soil moisture reserves. Generally dry weather prevailed from Turkey's Anatolia Plateau southward into Israel and Jordan, where soil moisture remained mostly adequate for winter crop growth due to recent rainfall.



**NORTHWESTERN AFRICA**

Dry weather in western portions of the region contrasted with persistent rainfall in eastern growing areas. In Morocco, another week of sunny skies promoted winter grain development, although soil moisture levels have declined to unfavorable levels in southern Morocco. Scattered, mostly light showers (2-10 mm) maintained

adequate soil moisture for winter crops in Algeria. In Tunisia, moderate to heavy rain (20-50 mm, locally more) was favorable for vegetative winter wheat and barley but may have caused local flooding. Temperatures averaged 2 to 4 degrees C above normal, with no freezes or damaging heat observed.



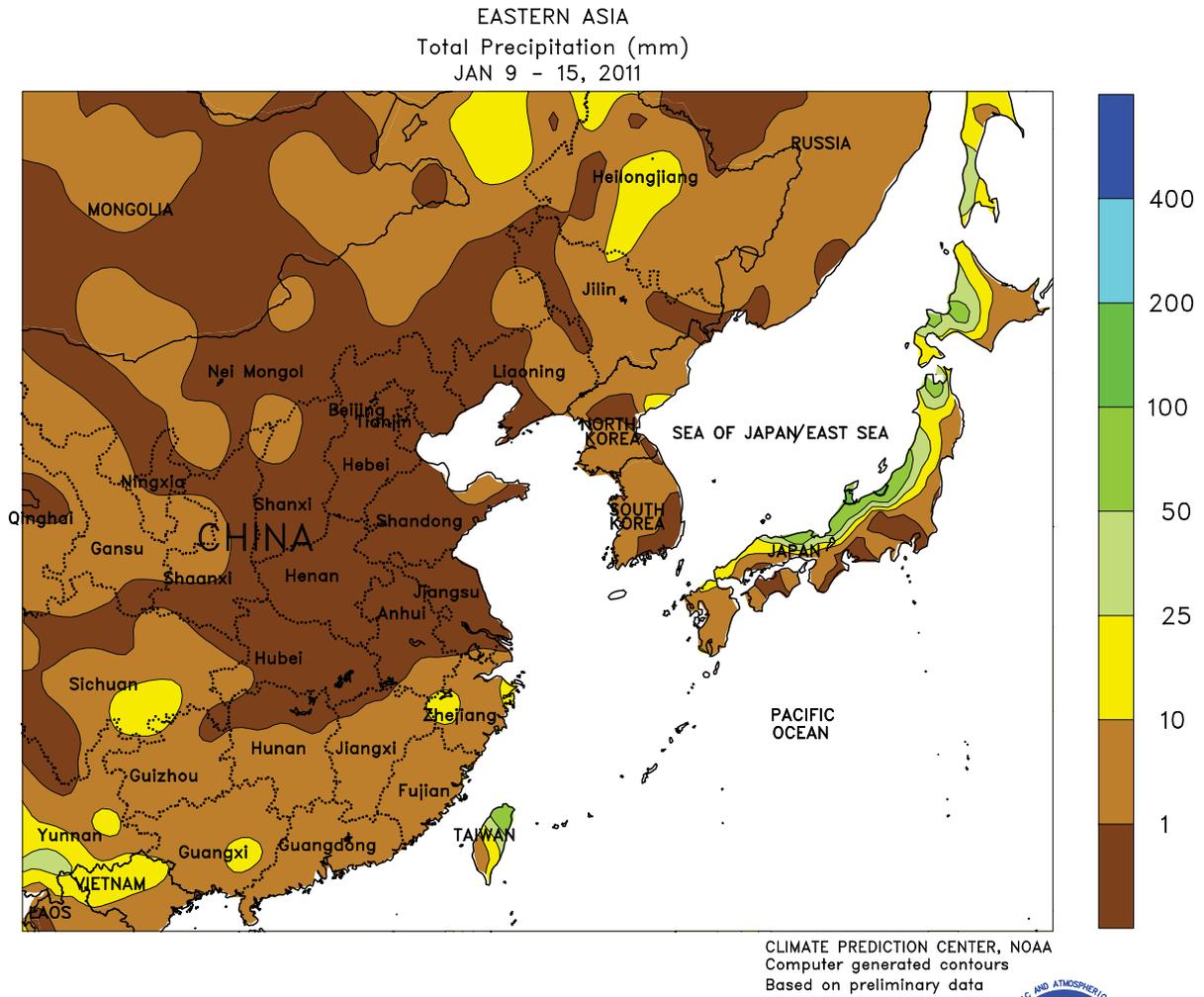
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Computer generated contours  
Based on preliminary data



**SOUTH ASIA**

Cool weather continued across much of India and Pakistan. Temperatures averaged 1 to 3 degrees C below normal in winter growing areas with minimum temperatures in the

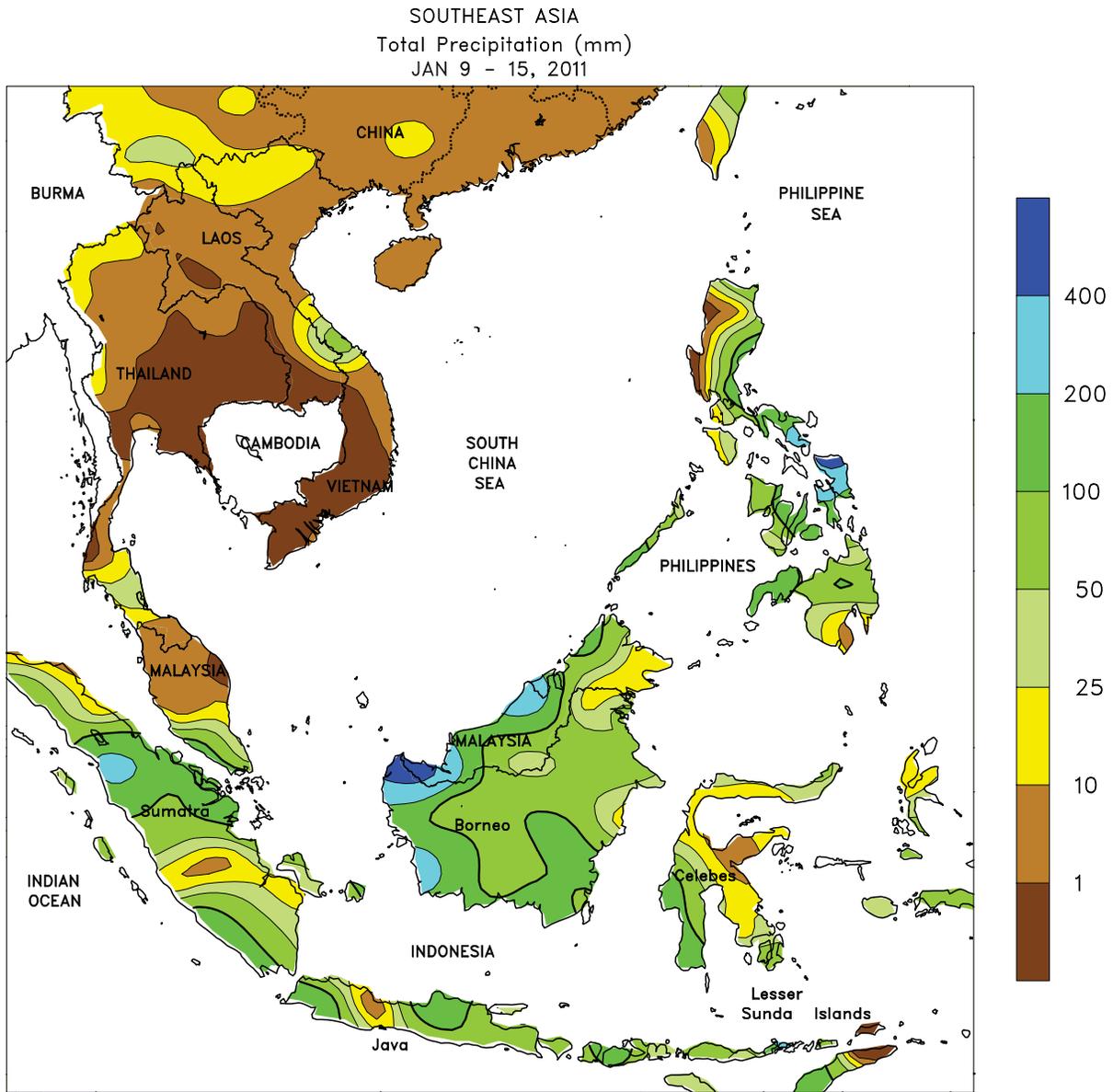
lower single digits. The cool conditions slowed development of winter wheat and rapeseed but reduced irrigation requirements.



**EASTERN ASIA**

Colder-than-usual weather continued across winter crop areas, with minimum temperatures approaching -15 degrees C for wheat in Shandong and Hebei. Despite the frigid weather,

however, dormant crops were overwintering well. In contrast, near-freezing temperatures slowed sugarcane development in southern China and threatened yield potential.



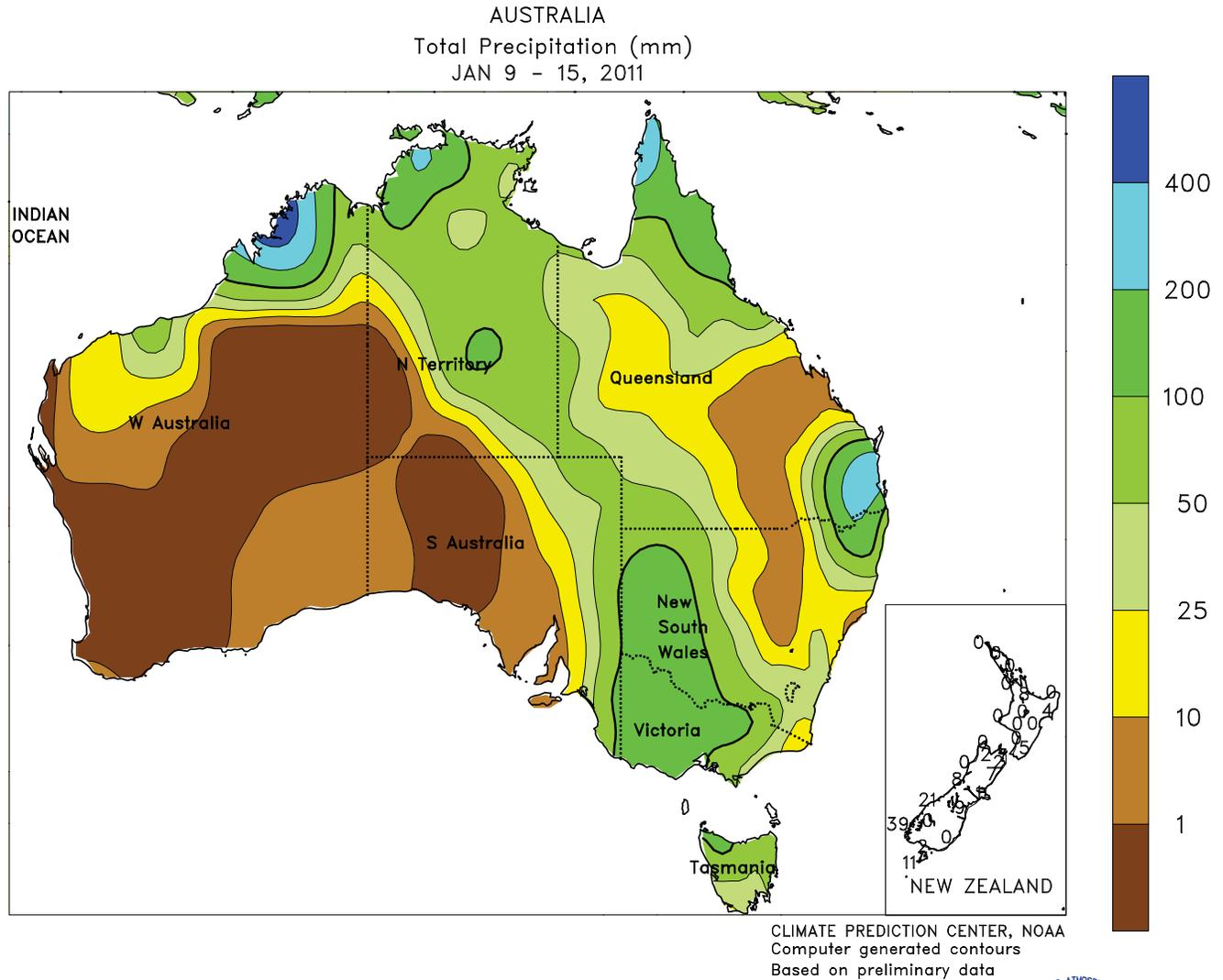
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



**SOUTHEAST ASIA**

Rain continued to fall (albeit lighter than previous weeks) across Java, Indonesia, bringing upwards of 100 mm to rice nearing reproduction. Meanwhile, showers remained heavy in the east-central Philippines, where over 200 mm maintained high moisture levels and localized flooding. In general,

however, key rice areas received more favorable amounts (25-50 mm) and allowed fieldwork to proceed with few delays. Farther south, heavy showers (over 100 mm) slowed oil palm harvesting in key producing areas of western Indonesia and eastern Malaysia.

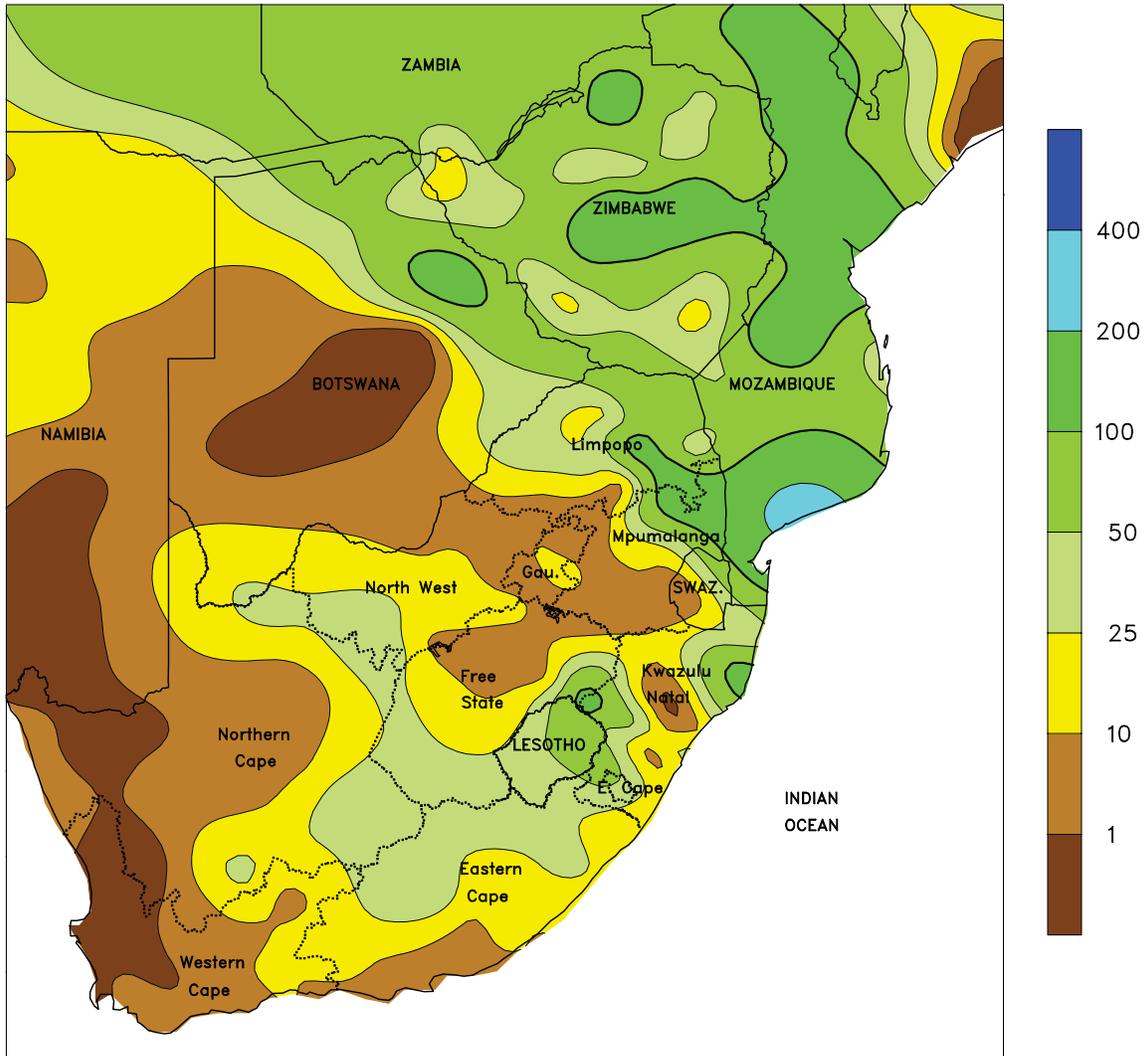


**AUSTRALIA**

Early in the week, heavy rain (25-200 mm or more) in southeastern Queensland continued to cause severe, local flooding. The excessively wet weather continued to delay fieldwork, slow summer crop development, and damage crops locally. By mid-week, however, much-needed drier weather overspread most of central and southern Queensland, allowing swollen rivers to begin receding in the hardest hit areas. Farther south, showers fell throughout New South Wales, maintaining abundant moisture for reproductive summer crops. The lightest

and most widely scattered showers (2-10 mm, locally near 25 mm) were confined to northern portions of the wheat belt, aiding winter grain drydown and harvesting. In southern New South Wales, Victoria, and extreme eastern South Australia, heavy showers (25-150 mm, locally more) halted winter grain harvesting and caused local flooding. In contrast, dry weather favored uninterrupted winter grain harvesting throughout the remainder of South Australia. Temperatures in southern and eastern Australia averaged near normal.

SOUTH AFRICA  
Total Precipitation (mm)  
JAN 9 - 15, 2011



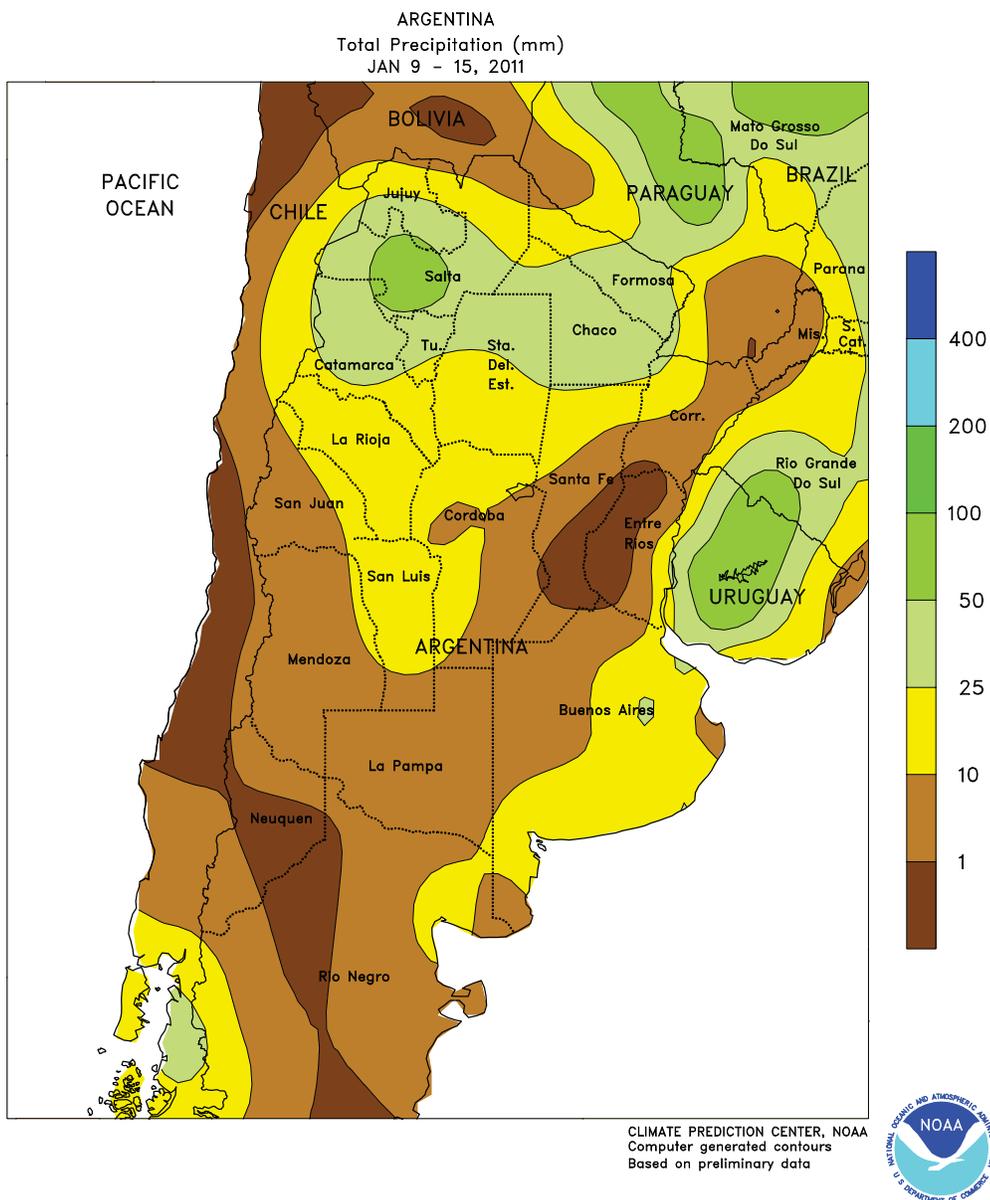
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



**SOUTH AFRICA**

Mostly dry, mild weather promoted summer crop development across the corn belt, following several weeks of abundant rain. Rainfall totaled less than 10 mm over the main production areas of Free State and Mpumalanga; somewhat heavier rain (5-25 mm) fell in Northwest and Gauteng. In spite of the dryness, temperatures averaged near to slightly below normal across the corn belt, with highs mostly in the middle and upper 20s degrees C. Elsewhere, scattered showers (5-25 mm,

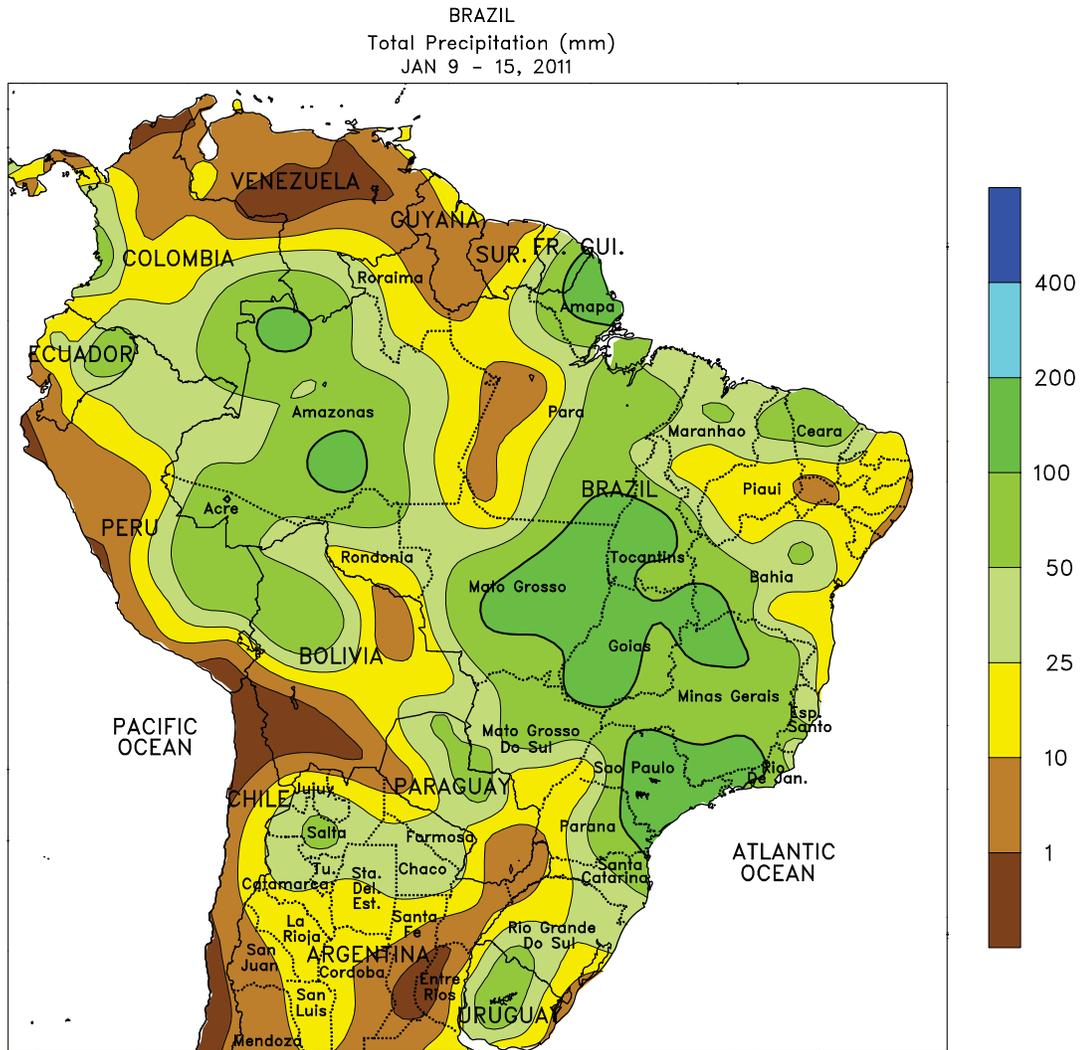
locally exceeding 50 mm) continued in KwaZulu-Natal, although similar to the corn belt, amounts were lower than in recent weeks. Unseasonably heavy rain (10-25 mm or more) continued in the eastern agricultural areas of Northern Cape and nearby locations in Eastern Cape and southern Free State. Mostly dry, unseasonably warm weather (highs reaching the middle and upper 30s degrees C) fostered growth of tree and vine crops in Western Cape.



**ARGENTINA**

Dry weather dominated much of central Argentina, although rain was approaching the region at week's end. The driest location continued to be southern Santa Fe and nearby locations in Entre Rio, Cordoba, and La Pampa, where little, if any, rain fell. At week's end, temperatures rose into the upper 30s degrees C, compounding the stressful effects of the dryness on reproductive summer grains and oilseeds. Scattered showers (5-25 mm) were recorded in western and southern growing areas, including La Pampa and southwestern Buenos Aires, although periodic warmth (several days of temperatures reaching the middle and upper 30s degrees C) developed in those areas as well. However, on January 16, heavy rain began to fall in southern farming areas as a strong

front passed through the region, bringing much-needed relief to crops suffering from stressful heat and dryness. Additional information will appear in next week's *Weekly Weather and Crop Bulletin*. In northern Argentina, showers tapered off from the previous week's heavy levels but temperatures remained seasonable, though highs approached 40 degrees C in some areas. The heaviest rain (greater than 25 mm) was concentrated over the far north, including Chaco, northern Santiago del Estero, and most of Formosa. The rain helped to further improve pastures and prospects of summer row crops, including cotton. Drier conditions (rainfall less than 25 mm) prevailed from southern Santiago del Estero eastward, including cotton areas of northern Santa Fe.



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

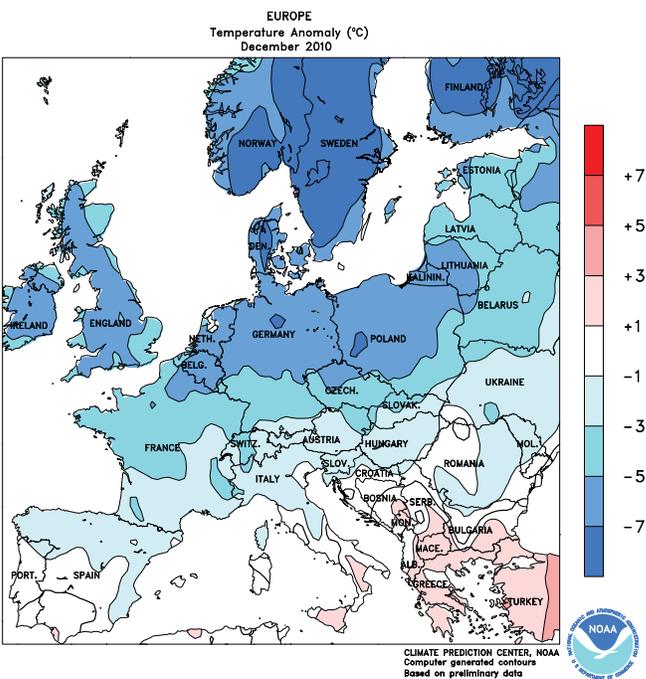
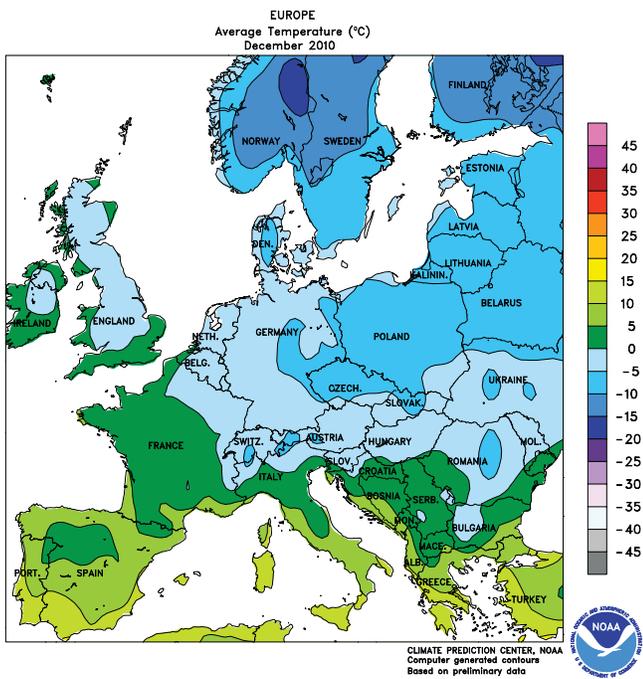
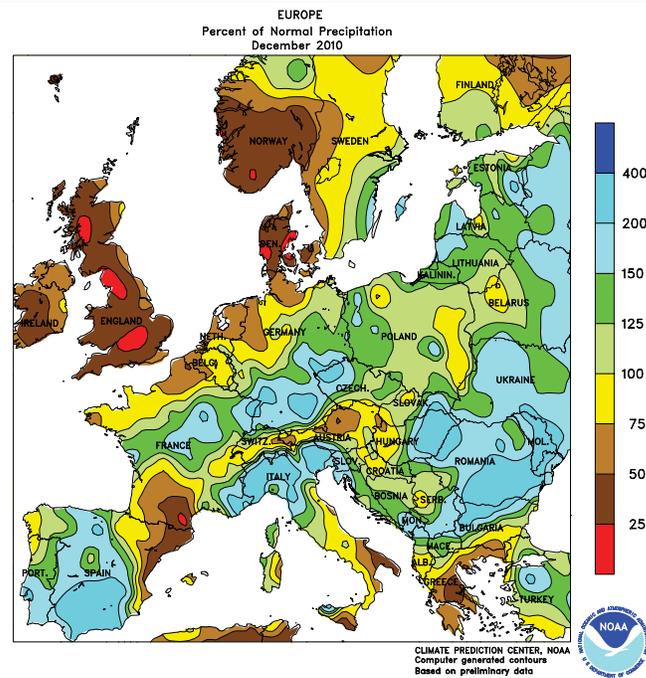
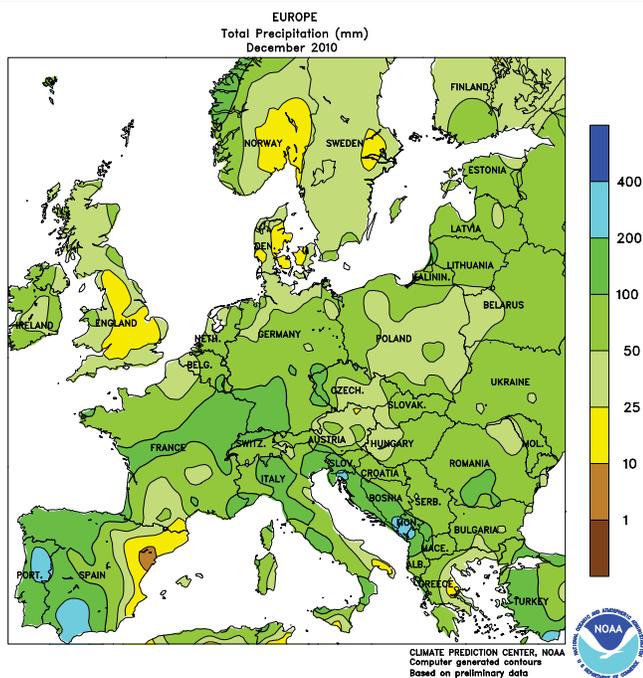


**BRAZIL**

Wet weather continued throughout central Brazil, keeping soybeans and other crops abundantly watered. However, the persistent, heavy rain (greater than 100 mm) in southern Mato Grosso and eastern Sao Paulo worsened localized flooding and hampered relief efforts. Major crops in those areas, notably coffee, may be experiencing problems with the excessive wetness. The Center-West (Mato Grosso, Goias, and northern Mato Grosso do Sul) received similar amounts of rainfall which maintained abundant moisture levels for summer row crops but also hampered seasonal fieldwork,

including the early stages of the soybean harvest. Seasonable warmth (highs in the lower and middle 30s degrees C) across central Brazil fostered rapid crop development in the absence of stressful heat. In southern Brazil, light to moderate shows (10-50 mm) maintained overall favorable conditions for corn and soybeans. Temperatures reached the middle 30s degrees C in western growing areas of Rio Grande do Sul, but highs stayed in the lower 30s elsewhere. Dryness and seasonable warmth prevailed along the northeastern coast, aiding sugarcane harvesting.

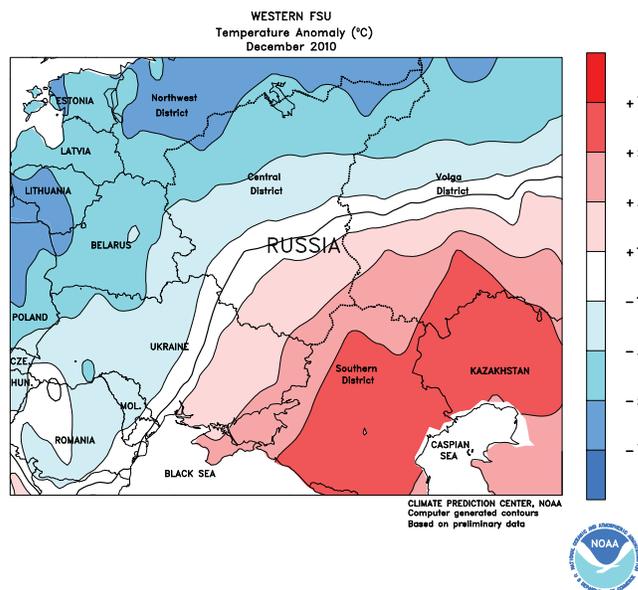
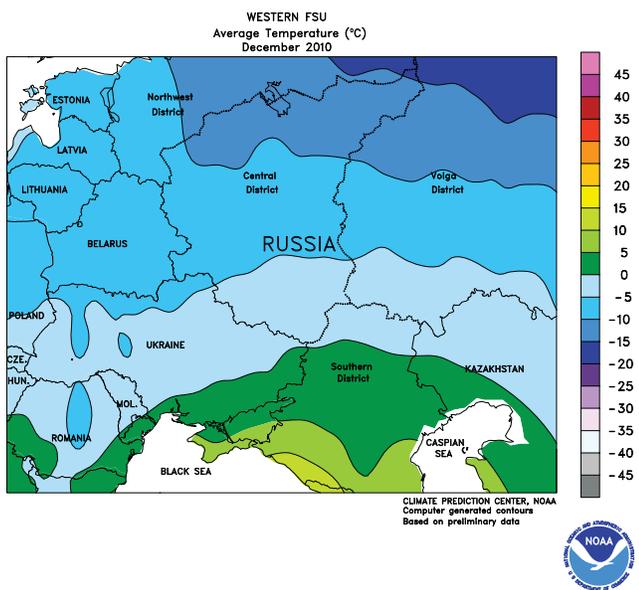
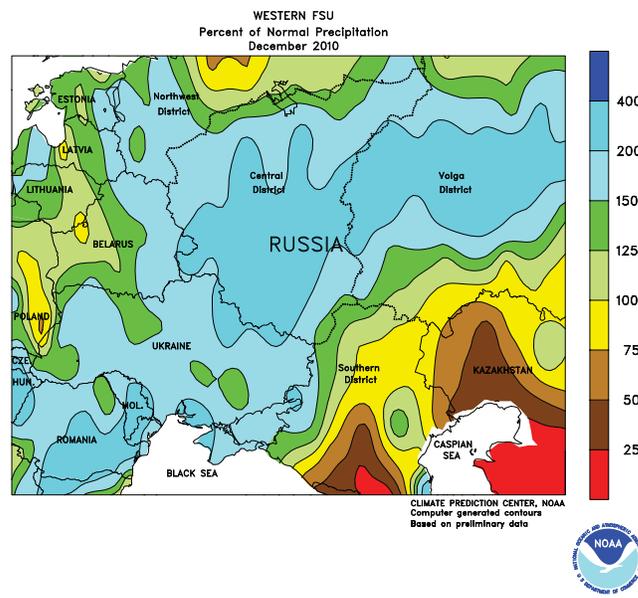
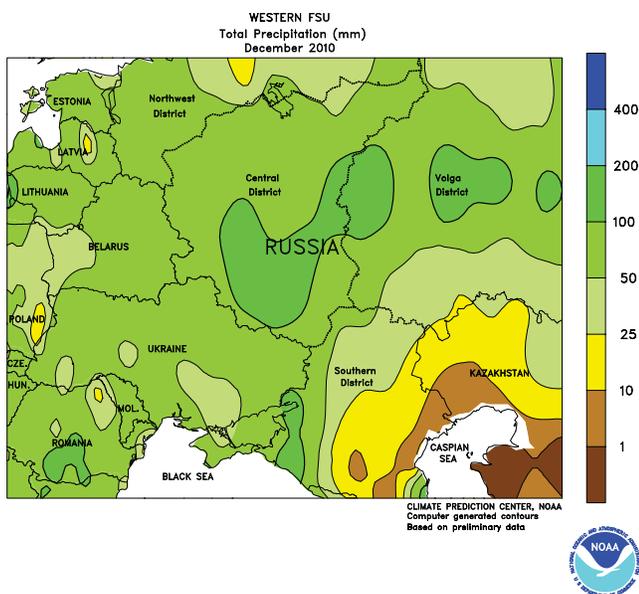
# December International Temperature and Precipitation Maps



## EUROPE

In December, locally heavy rain and mountain snow across Italy further delayed winter wheat planting but improved spring runoff prospects. There are concerns that producers in northern Italy may forgo planting winter wheat due to several months of excessive wetness. Above-normal rainfall was favorable for vegetative winter wheat in Spain, although

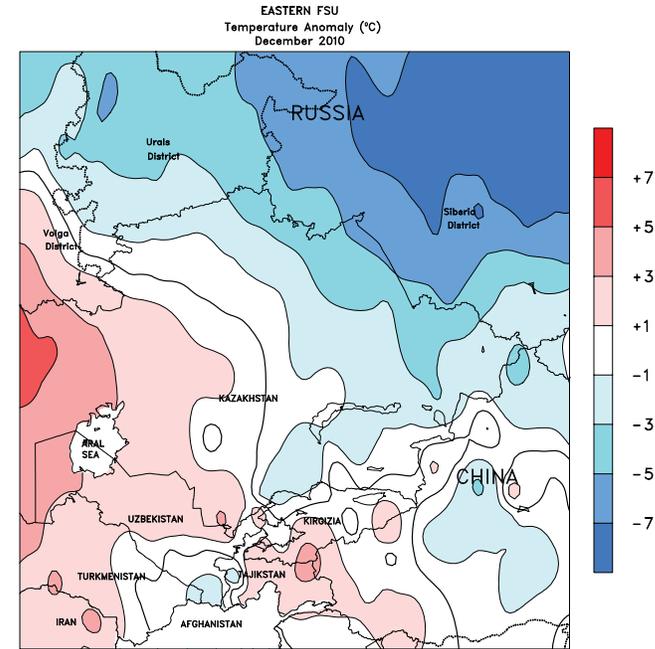
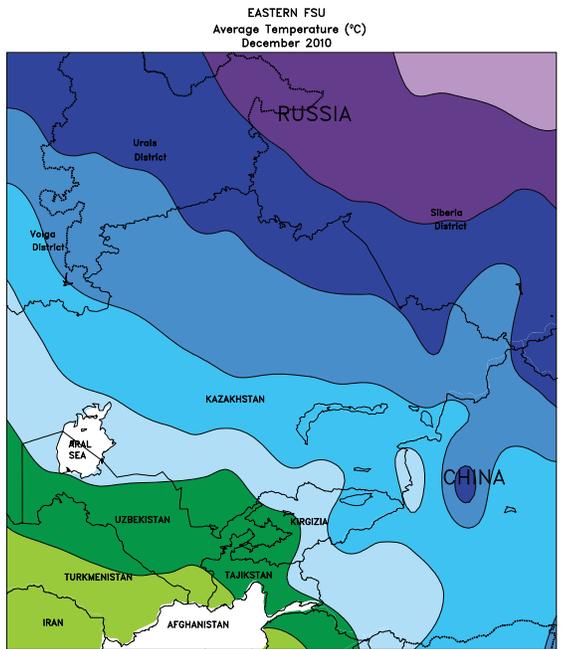
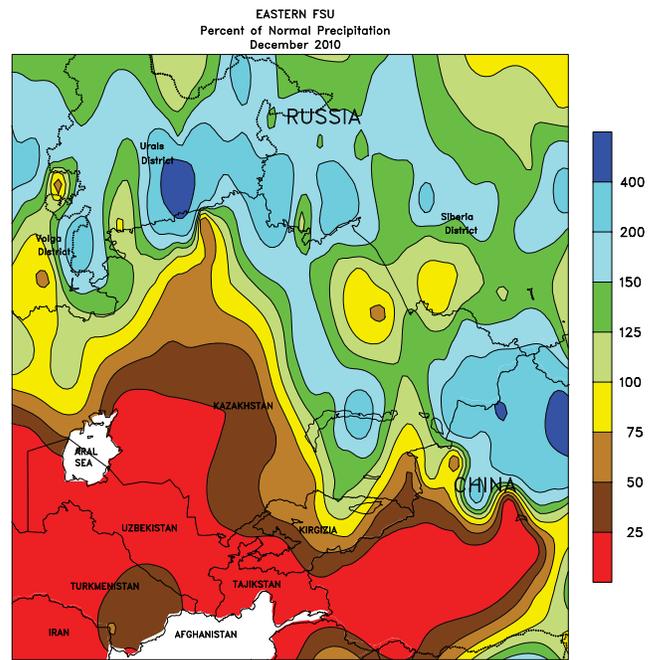
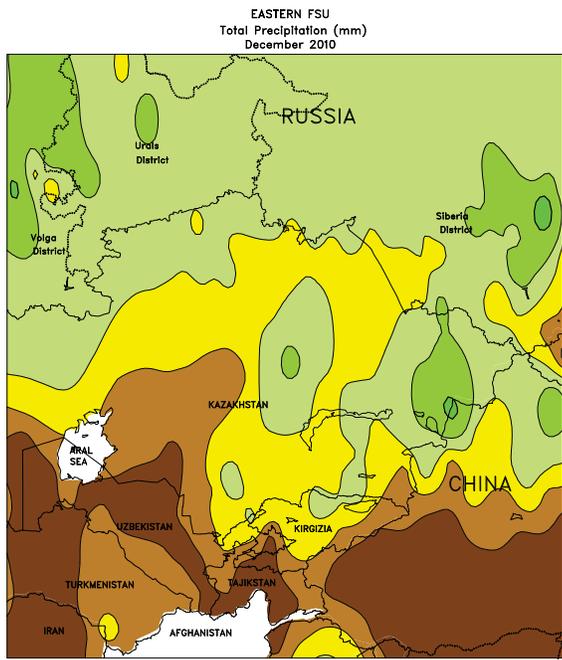
locally excessive totals (up to 350 mm) likely caused some flooding. Elsewhere in Europe, December featured sharply colder-than-normal weather (up to 8 degrees C below normal). However, plentiful snowfall provided nearly ideal overwintering conditions for dormant grains and oilseeds and minimized the threat of winterkill.



**WESTERN FSU**

During December, winter grains in southern growing areas entered dormancy more than a month later than normal, facilitating additional crop establishment on the heels of this summer's historic drought. Elsewhere in the region, near- to below-normal temperatures along with abundant snowfall provided favorable conditions for dormant winter grains and

oilseeds. The greatest threat of winterkill occurred early in December, when temperatures below -25 degrees C settled into the Central and Volga Districts. However, most crops were protected by 20 cm of fresh snow when the arctic air arrived. Since the early month cold snap, temperatures remained above the threshold for crop damage.



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

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

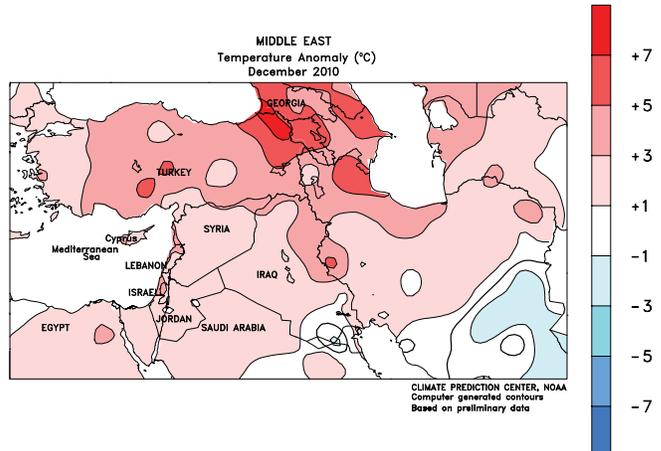
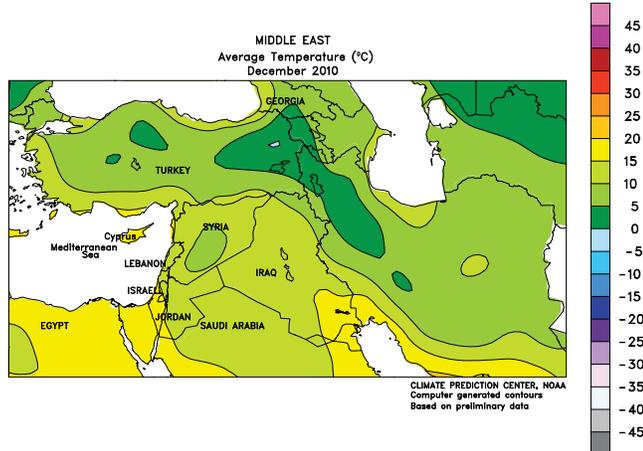
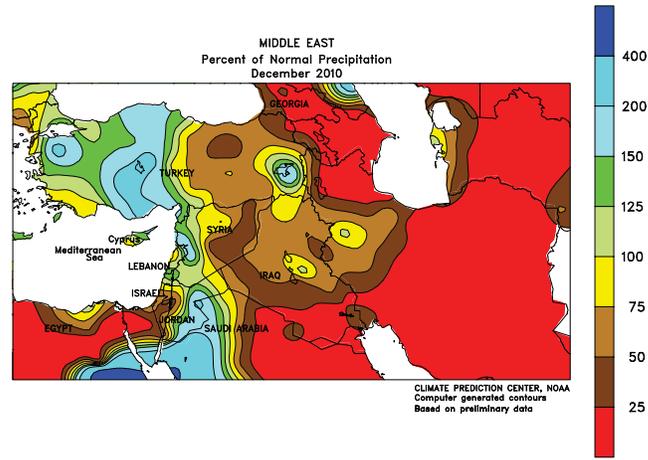
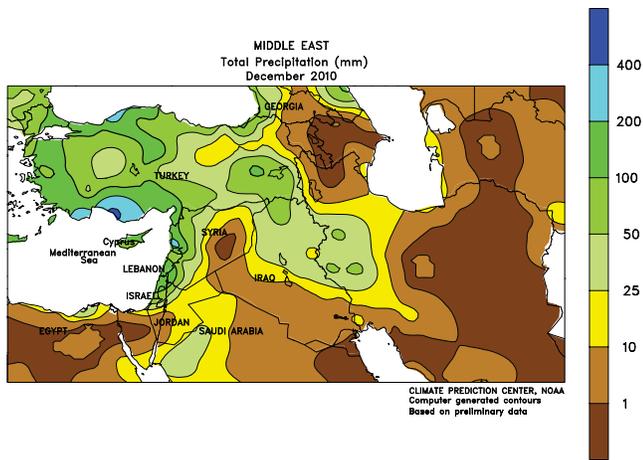
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data

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

**EASTERN FSU**

In December, warm, dry weather in the south contrasted with cold, wet conditions across the north. Primary grain areas of northern Kazakhstan and southern and eastern Russia were blanketed with abundant snowfall, with monthly precipitation averaging more than 150 percent of normal. Arctic air settled over much of the region, with

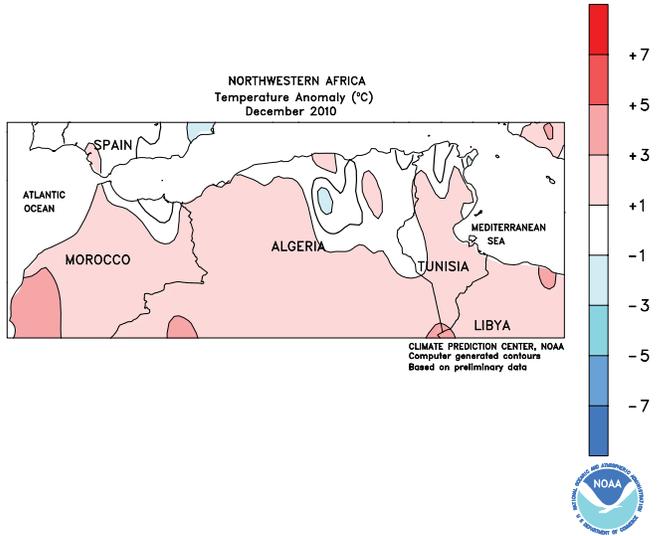
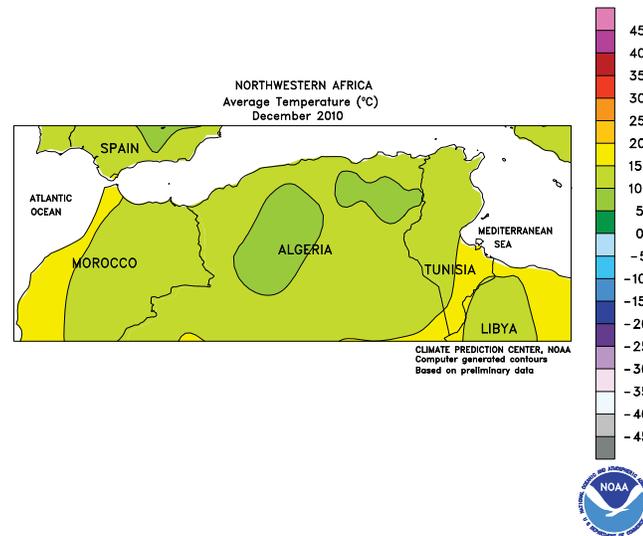
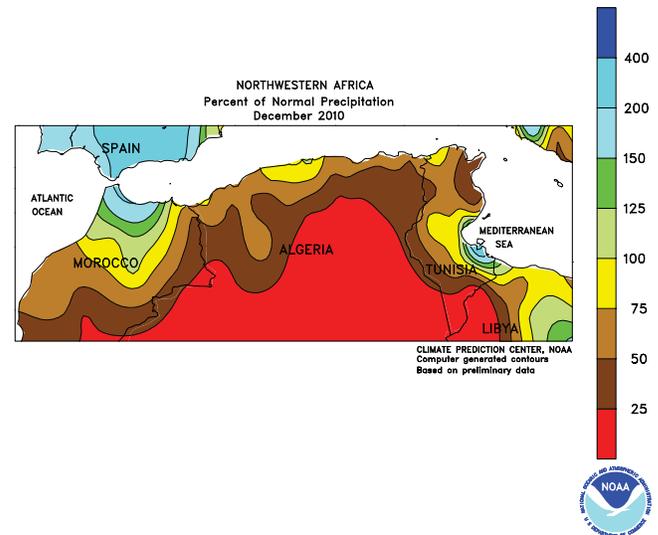
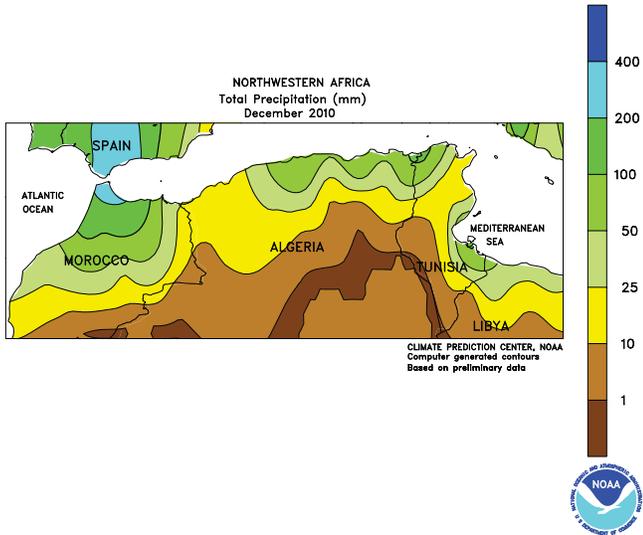
temperatures averaging up to 8 degrees C below normal in the Siberia District. Farther south, dry weather prevailed from Uzbekistan into southern Kazakhstan and Kirgizia; the lack of precipitation coupled with near- to above-normal temperatures reduced mountain snowpacks and lowered spring runoff prospects.



**MIDDLE EAST**

In December, wetter-than-normal conditions boosted soil moisture for winter grain establishment in Turkey. Farther east, drought continued to impede winter crop development from northern Syria into Iraq and Iran, with little if any precipitation reported in northwestern and eastern Iran. However, much-needed rainfall arrived at month's end from

the eastern Mediterranean coast into west-central Iran. Much of the region remained devoid of snow cover as temperatures averaged up to 7 degrees C above normal. Despite the lack of snow, winter crops were seldom subjected to temperatures below -10 degrees C (well above the threshold for crop damage).

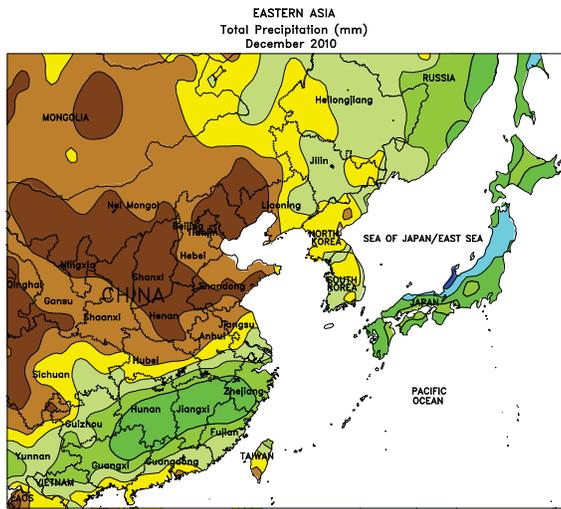


**NORTHWESTERN AFRICA**

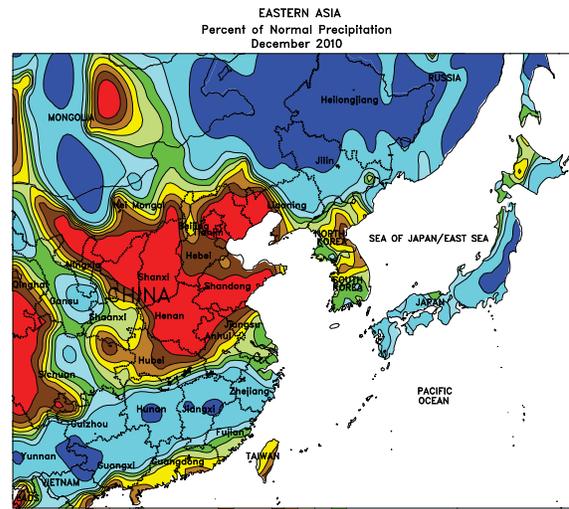
Heavy December rainfall (200 mm or more) in Morocco maintained abundant soil moisture for vegetative winter grains but flooded low-lying fields. Some localized replanting was likely necessary, but the overall impact of

the heavy rain was favorable. In Algeria and Tunisia, showers (25-75 mm) maintained adequate soil moisture for winter crop development, although rain was generally lighter than normal.

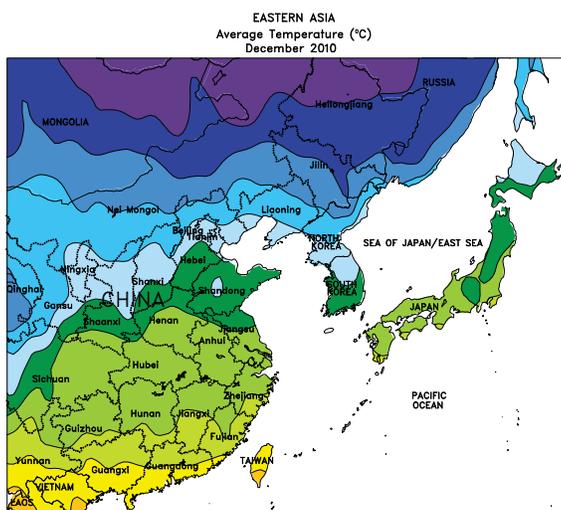




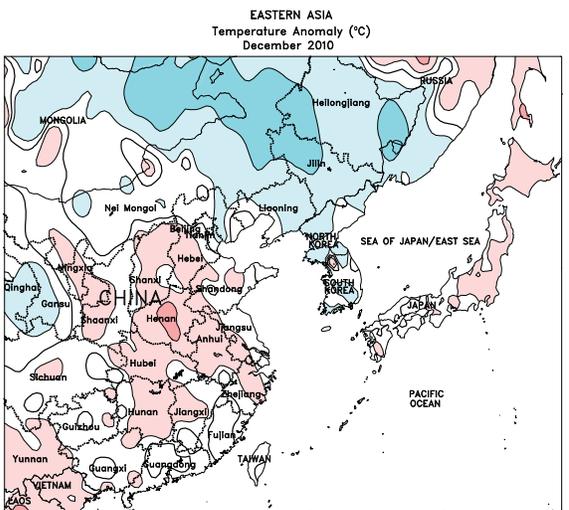
EASTERN ASIA  
Total Precipitation (mm)  
December 2010  
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



EASTERN ASIA  
Percent of Normal Precipitation  
December 2010  
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



EASTERN ASIA  
Average Temperature (°C)  
December 2010  
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



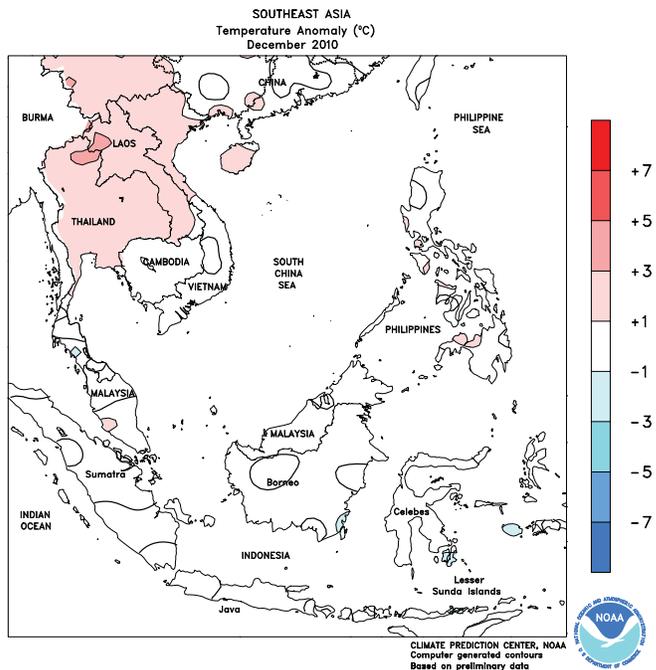
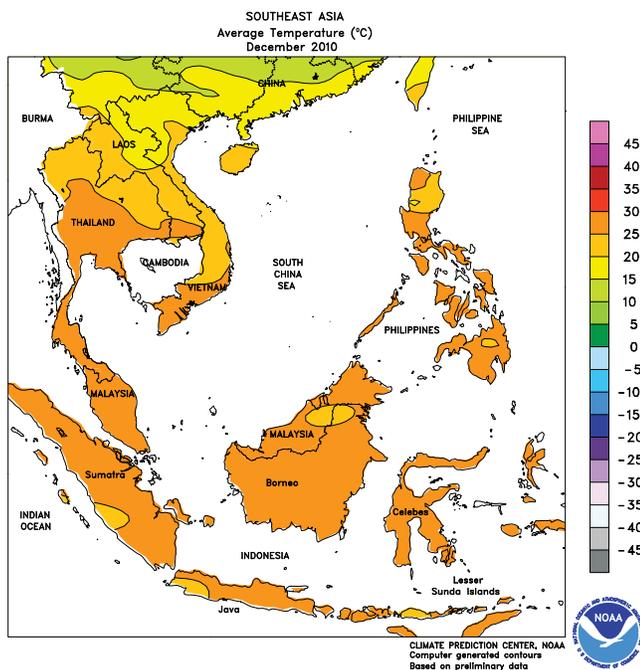
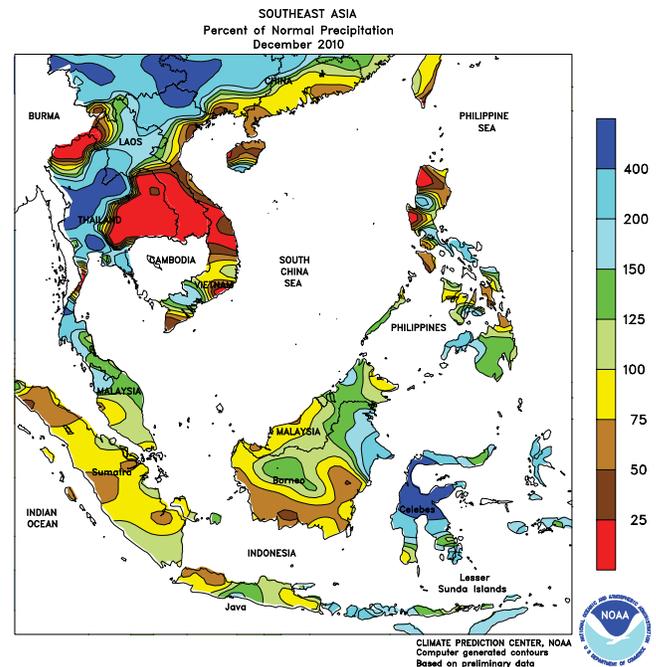
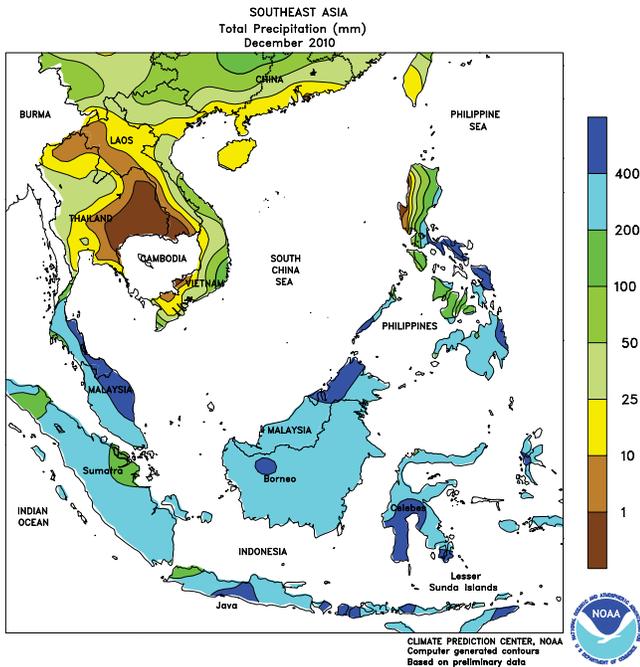
EASTERN ASIA  
Temperature Anomaly (°C)  
December 2010  
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data



**EASTERN ASIA**

In December, cooler- and drier-than-normal weather prevailed for winter wheat and rapeseed in China. Crops benefited from an extended period of vegetative growth before going dormant around mid-month.

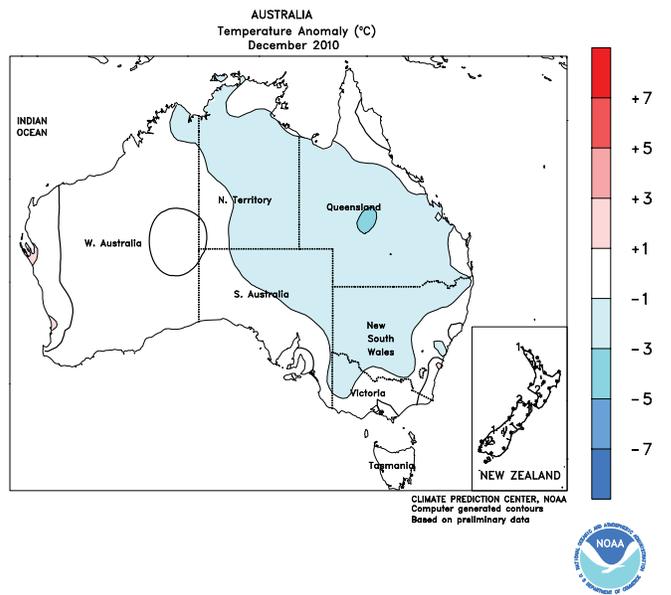
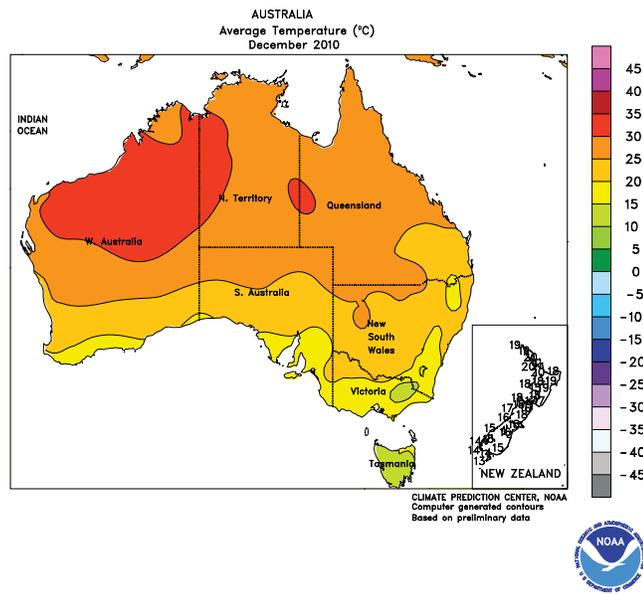
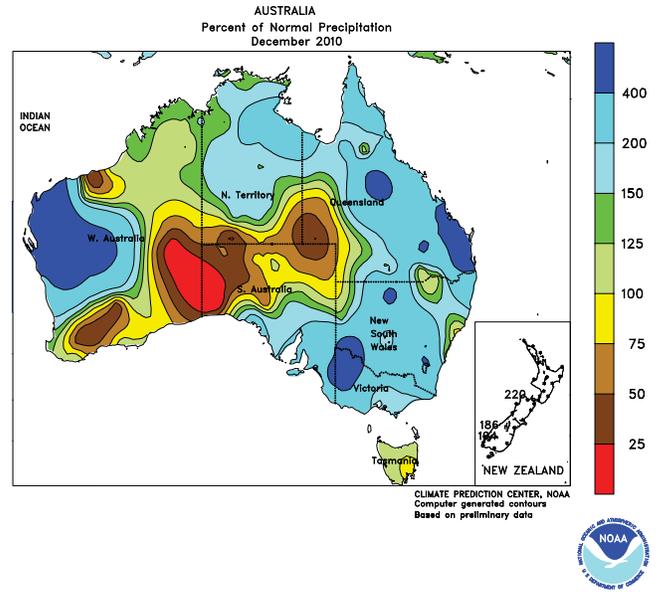
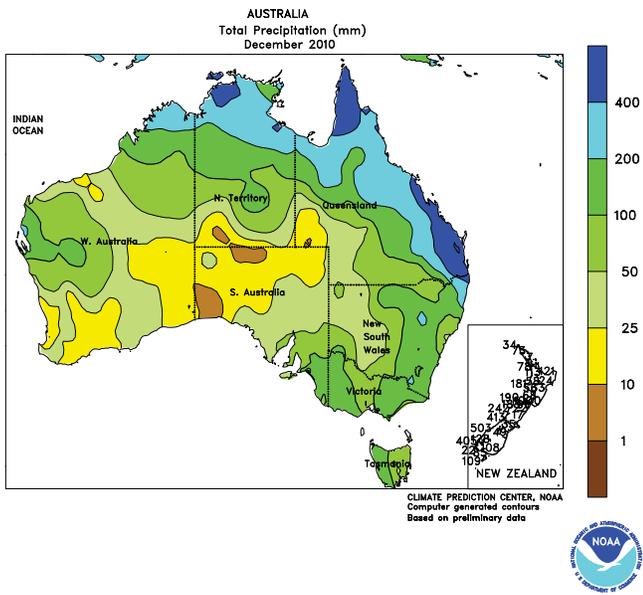
Despite the dry conditions, moisture requirements were low for the dormant crops, while moisture reserves remained favorable from heavy late-summer/early autumn rainfall.



**SOUTHEAST ASIA**

In December, above-normal rainfall continued to benefit rice across much of the region. Rice in the eastern and southern Philippines benefited from consistent rainfall through the month, although some flooding likely occurred in southern

Luzon. Similarly in Indonesia, prolonged rainfall maintained abundant soil moisture for rice. Meanwhile, winter-spring rice in southern Vietnam benefited from periodic showers, providing supplemental moisture for the irrigated crop.

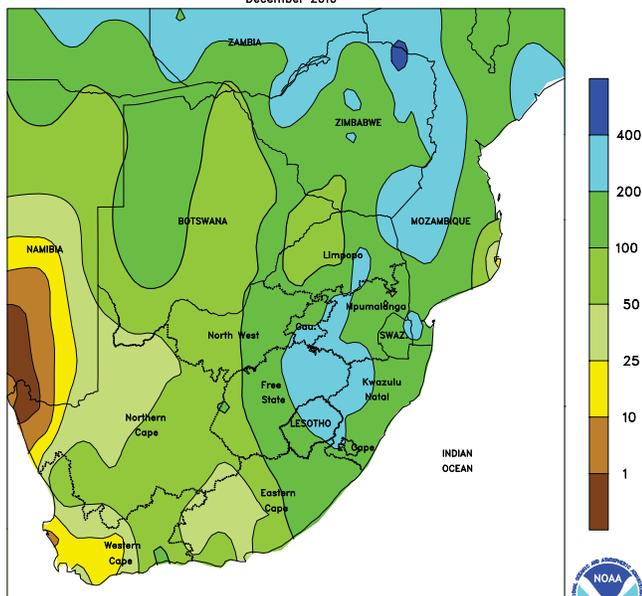


**AUSTRALIA**

In December, widespread, heavy rain caused severe local flooding in Queensland, hampering summer crop development and delaying fieldwork. Following a cool, wet start to December, warm, dry weather overspread southeastern

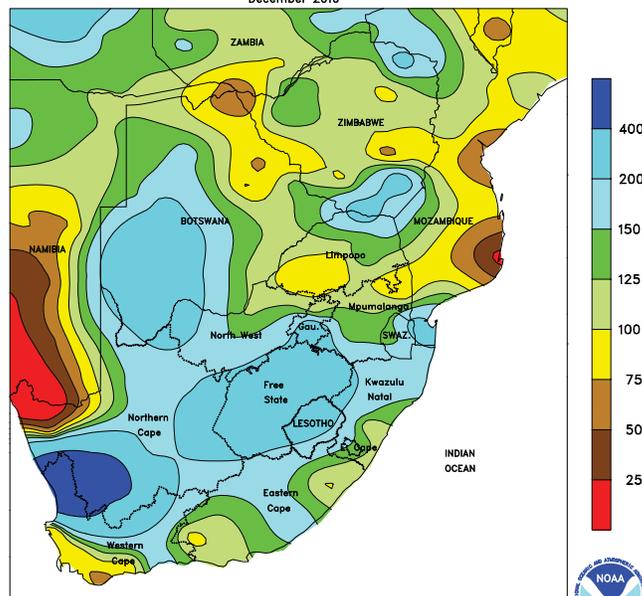
Australia, allowing winter grain harvesting to accelerate and progress rapidly by month's end. In Western Australia, winter grains were harvested before locally heavy rain arrived in mid-December.

SOUTH AFRICA  
Total Precipitation (mm)  
December 2010



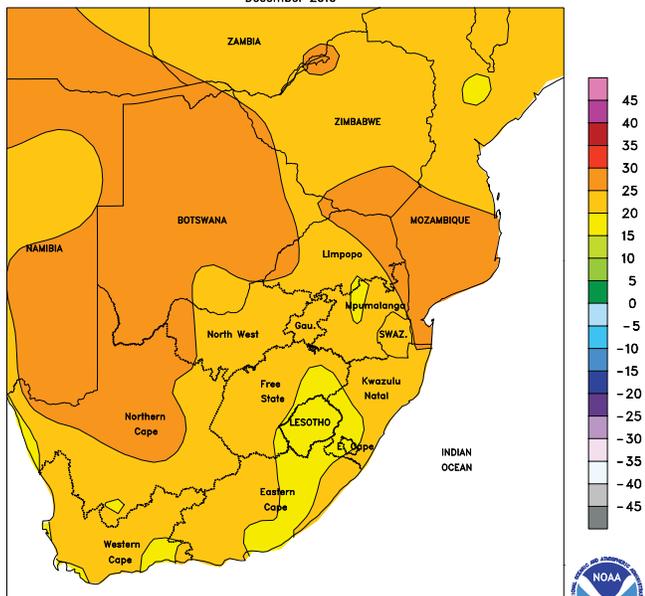
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data

SOUTH AFRICA  
Percent of Normal Precipitation  
December 2010



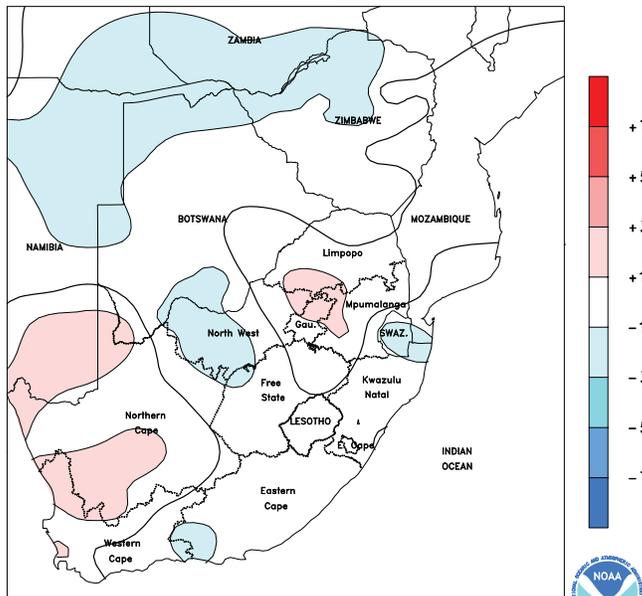
CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data

SOUTH AFRICA  
Average Temperature (°C)  
December 2010



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

SOUTH AFRICA  
Temperature Anomaly (°C)  
December 2010

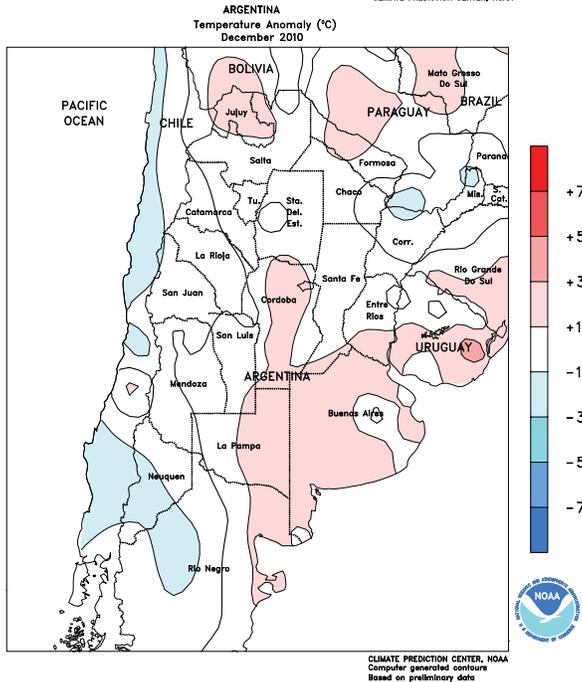
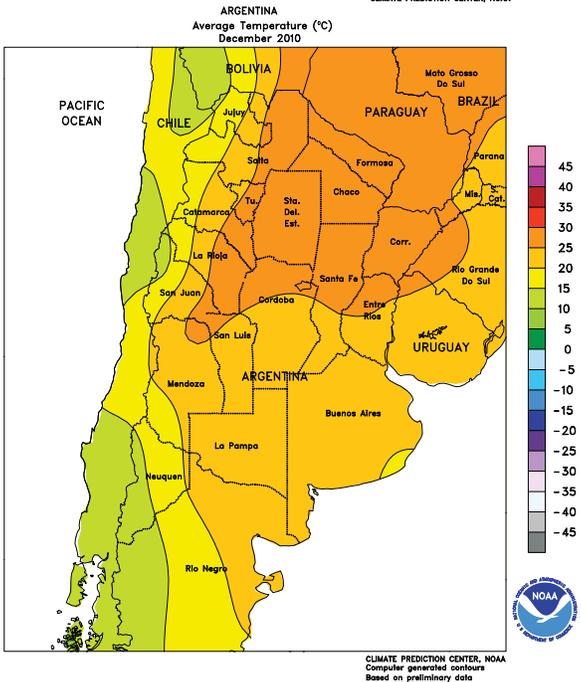
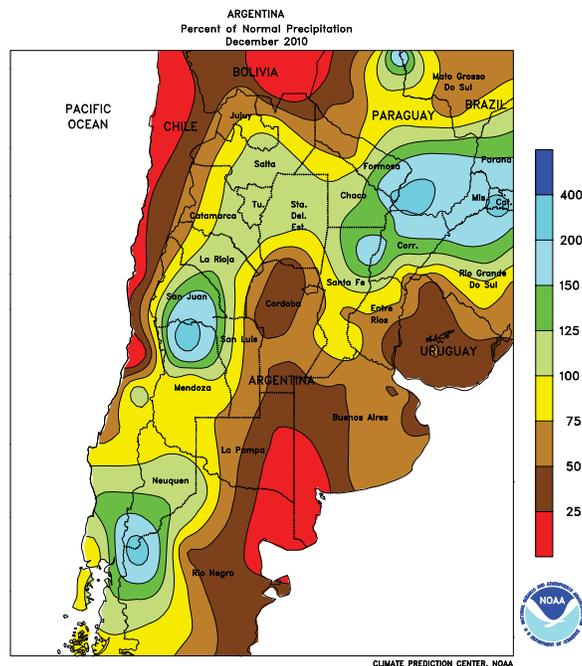
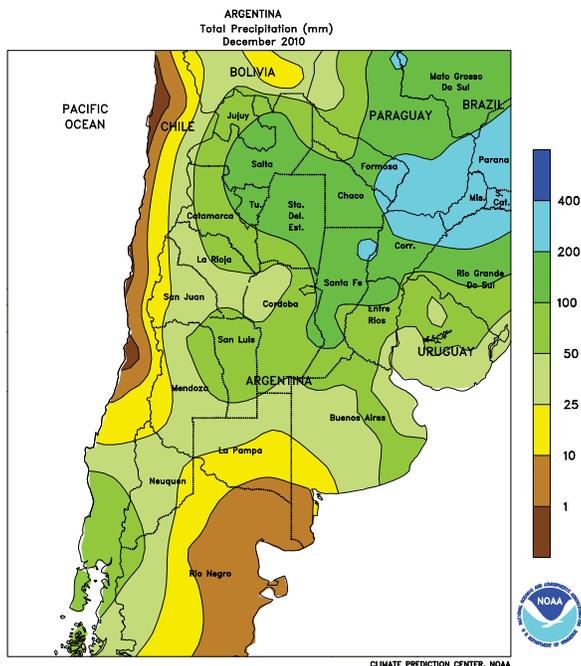


CLIMATE PREDICTION CENTER, NOAA  
Computer generated contours  
Based on preliminary data

**SOUTH AFRICA**

In December, frequent, occasionally heavy showers resulted in above-normal monthly rainfall totals over nearly the entire country, maintaining favorable conditions for emerging to vegetative summer crops. In the corn belt, the heaviest rain fell during the middle part of the month, providing timely moisture for late summer crop planting in western farming areas. An

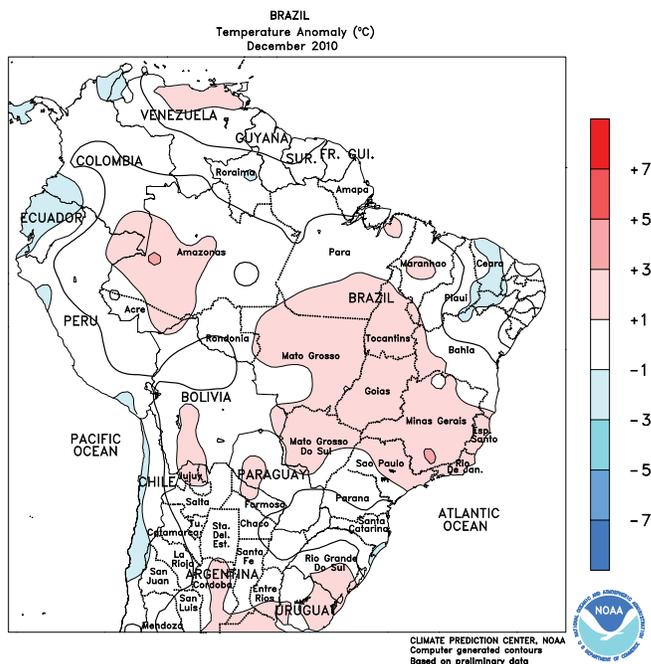
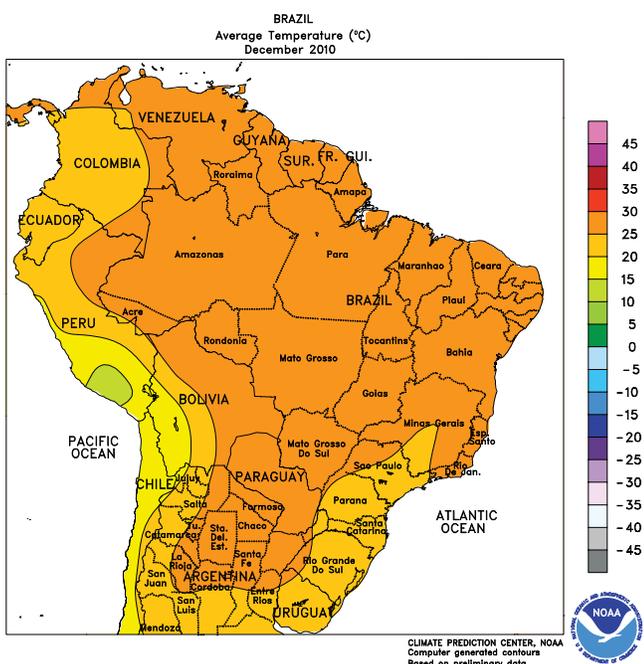
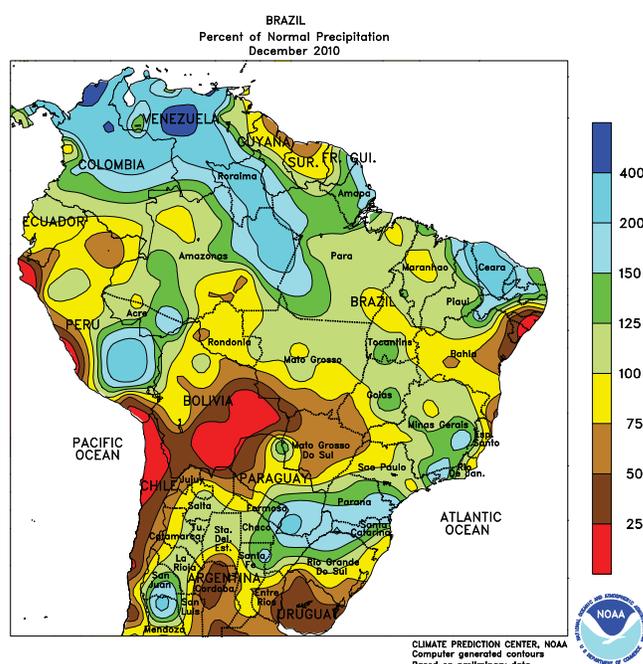
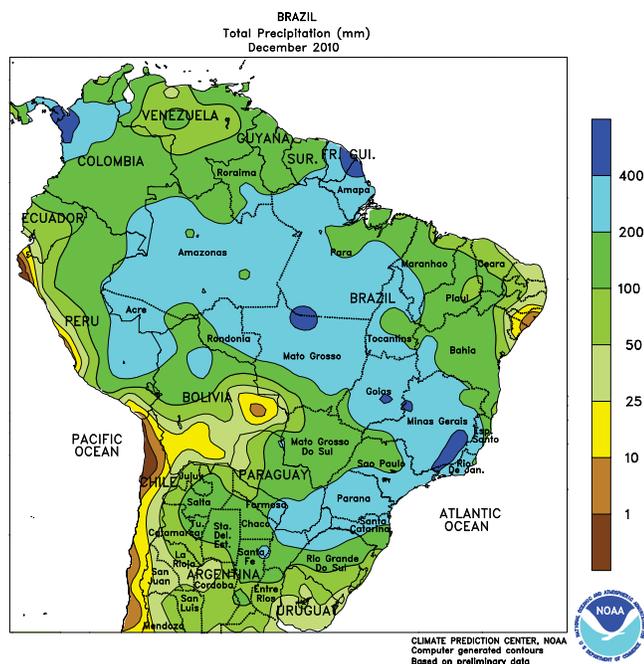
unseasonably wet pattern also prevailed in sugarcane areas of KwaZulu-Natal, helping to further alleviate that area's long-term drought. Meanwhile, variable showers boosted irrigation reserves in the Cape Provinces. In spite of the frequent rain, temperatures were generally seasonable, averaging within 1 degree C of normal for the month in most areas.



**ARGENTINA**

In December, rainfall was below normal in most major grain and oilseed areas of central Argentina. In high-yielding farming areas in and around northern Buenos Aires, scattered showers during the middle part of the month helped to stabilize crops after an extended period of unfavorable dryness. By month's end, however, dry, occasionally hot weather returned, stressing early planted corn in or approaching reproduction and reportedly causing delays in the final stages of summer crop planting. Even drier, warmer weather prevailed in outlying

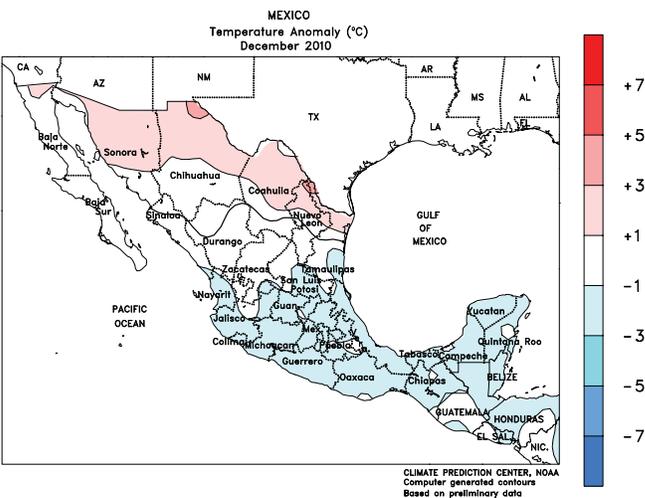
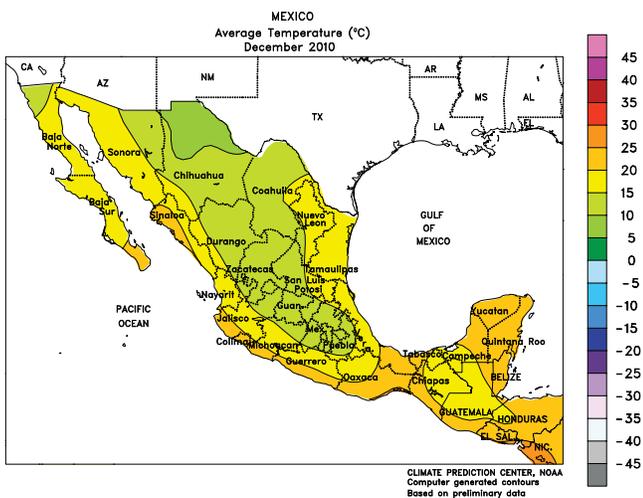
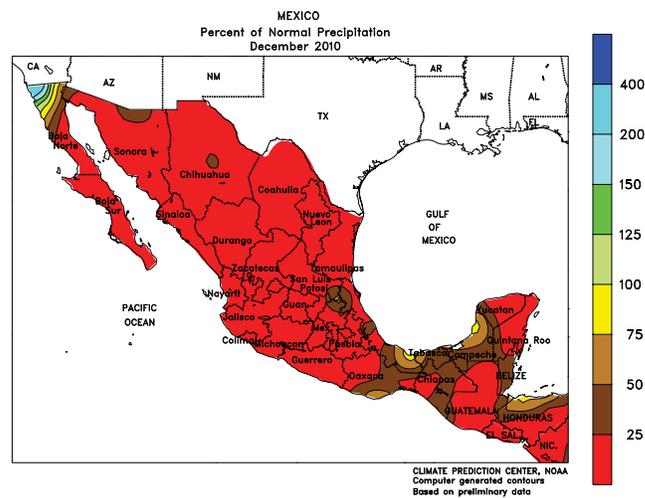
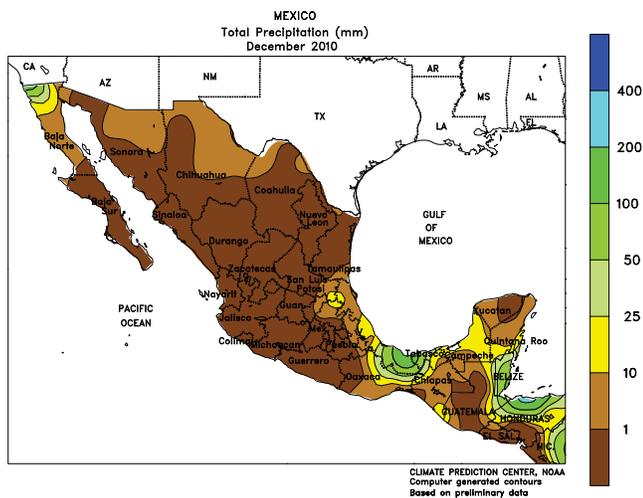
production areas of La Pampa and southwestern Buenos Aires, with monthly temperatures averaging up to 2 degrees C above normal. In contrast, frequent, moderate to heavy showers resulted in near- to above-normal rainfall over a large section of northern Argentina. The rainfall benefited pastures and summer row crops, particularly cotton in Chaco and other eastern areas that had previously been dry. The wetter weather pattern also resulted in more seasonable temperatures across the north.



**BRAZIL**

In December, frequent, occasionally heavy rainfall maintained mostly favorable conditions for soybeans and other crops, including coffee, sugarcane, and citrus, in key production areas of central and southeastern Brazil. Monthly totals were near normal in most areas, although pockets of dryness lingered in the vicinity of the border between Mato Grosso and Mato Grosso do Sul. In southern

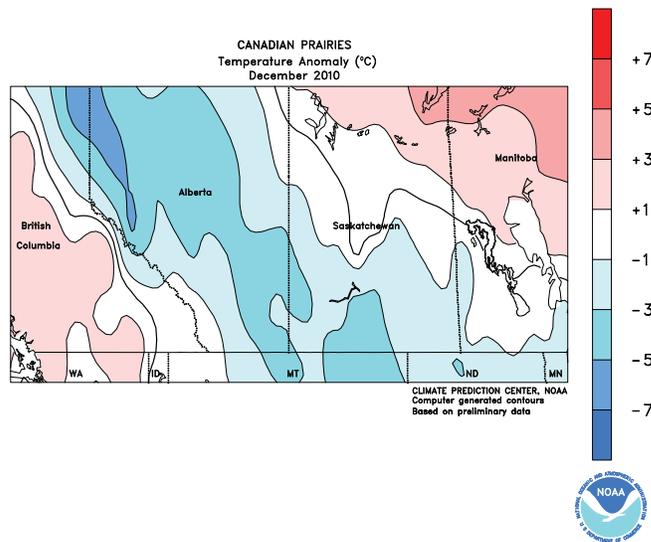
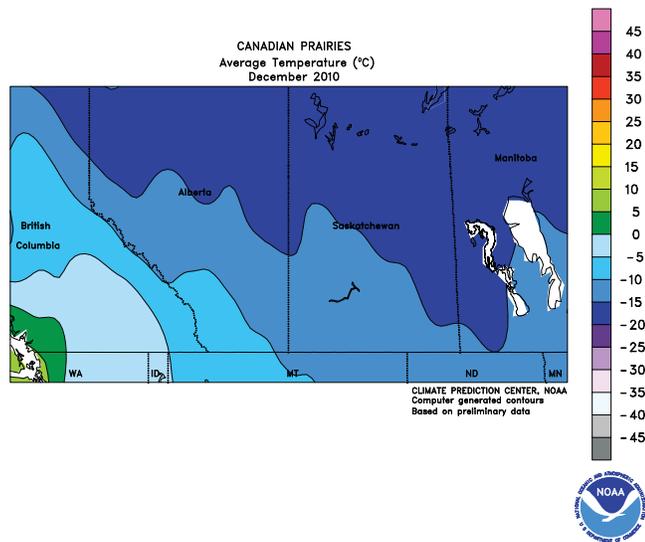
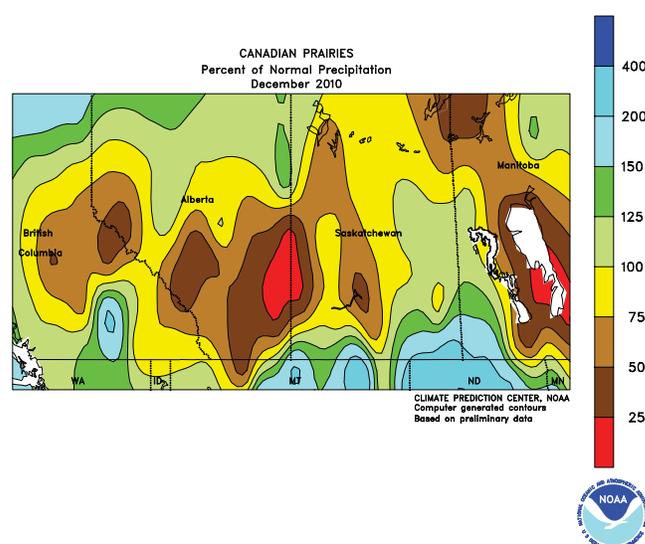
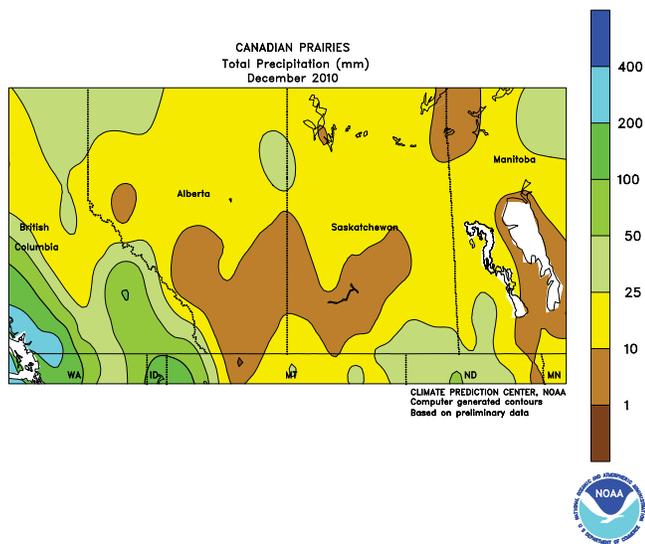
Brazil, near- to above-normal rainfall benefited establishment and early development of soybeans and corn after a drier-than-normal November. Seasonal dryness prevailed during the month along the northeastern coast, aiding sugarcane harvesting and other fieldwork. Near- to above-normal temperatures maintained high rates of crop development throughout the region.



**MEXICO**

In December, seasonable warmth and dryness continued to promote seasonal fieldwork throughout northern and central Mexico. However, scattered showers were recorded in northern-most sections of Baja California, hampering wheat planting but boosting local reservoir levels for the predominantly irrigated crop. Mostly dry weather also

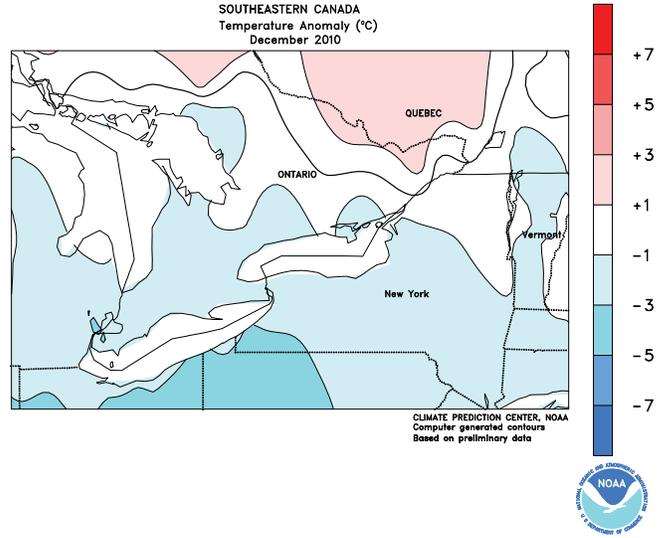
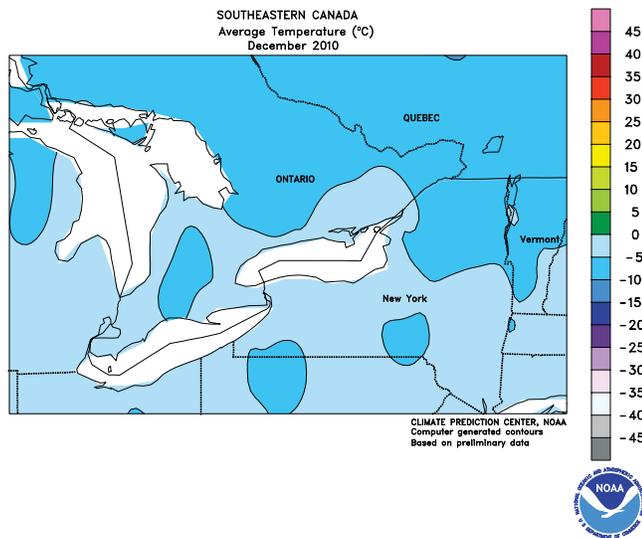
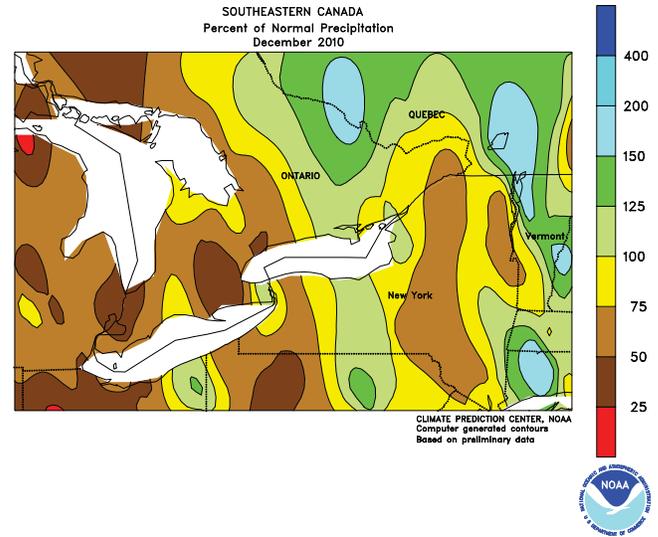
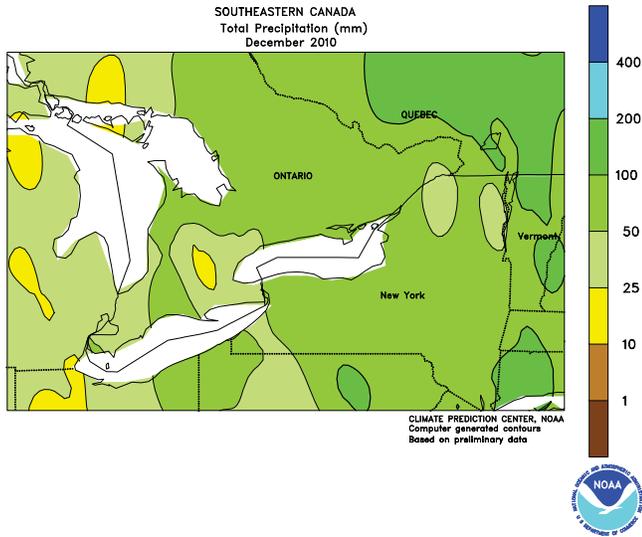
prevailed in the south, although isolated showers (monthly totals exceeding 25 mm) lingered over southern Veracruz, Tabasco, and northern Chiapas. According to the Government of Mexico, reservoirs nationwide were at 82.7 percent capacity as of December 30, compared with 76.5 percent last year, and 87.5 percent in 2008.



**CANADIAN PRAIRIES**

Colder-than-normal weather gripped the region for much of December. In the eastern Prairies, temperatures averaged up to 2 degrees C below normal in Manitoba and northern and eastern sections of Saskatchewan; temperatures averaged 3 to 5 degrees C below normal farther west (Alberta and southwestern Saskatchewan). Although temperatures fell

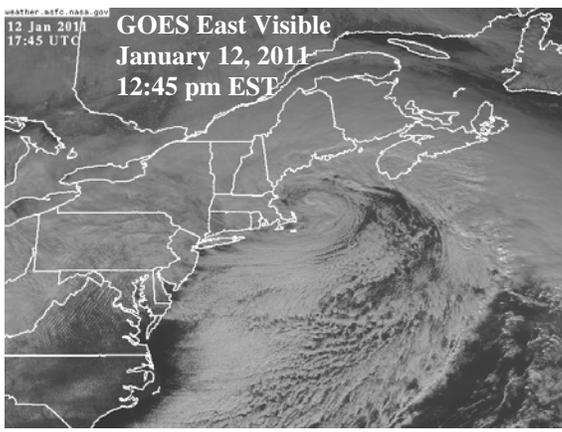
below the threshold for winterkill (-17 degrees C or lower) throughout the Prairies, near- to above-normal precipitation maintained a protective layer of snow cover for winter grains and pastures during the month in most eastern farming areas. Patchy snow cover increased the potential for winterkill in sections of the west.



**SOUTHEASTERN CANADA**

Unseasonably wet, occasionally cool weather prevailed for much of December. Temperatures briefly dipped below -20 degrees C early in the month in southwestern Ontario, but a shallow layer of snow offered winter

wheat some protection from winterkill; somewhat deeper snow cover existed at the same time in Quebec. Heavier snow blanketed the region during the latter half of the month.



The storm that produced heavy snow across the South on January 9-10 ultimately became a major nor'easter on January 12 (see inset, upper left). Cold weather in the storm's wake allowed snow and ice to remain on the ground for days, even across the South. In the image, above, snow-covered agricultural regions such as the northern Delta appear bright, while rivers and snow-covered forested areas are darker.

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