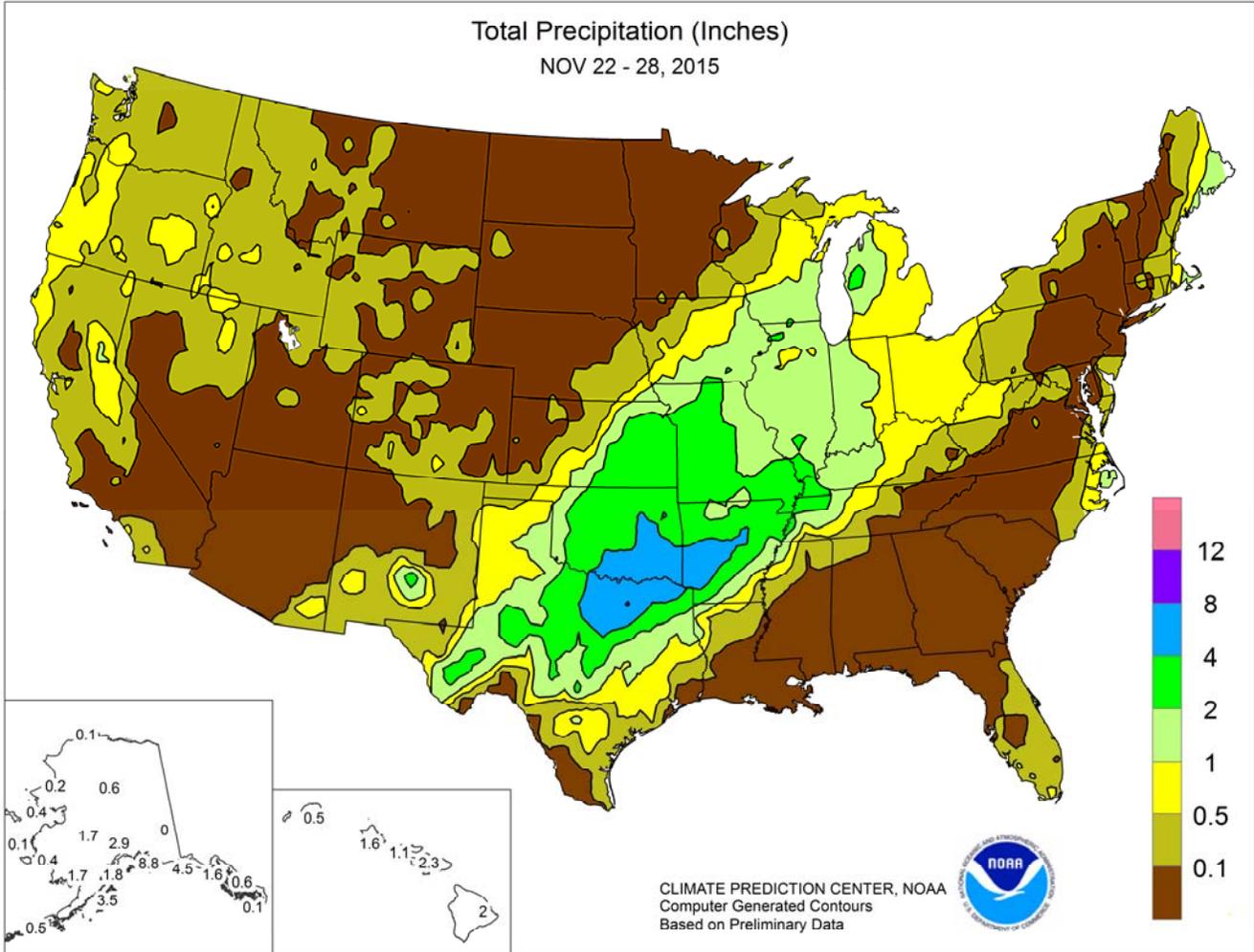


# WEEKLY WEATHER AND CROP BULLETIN



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

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



## HIGHLIGHTS

### November 22 – 28, 2015

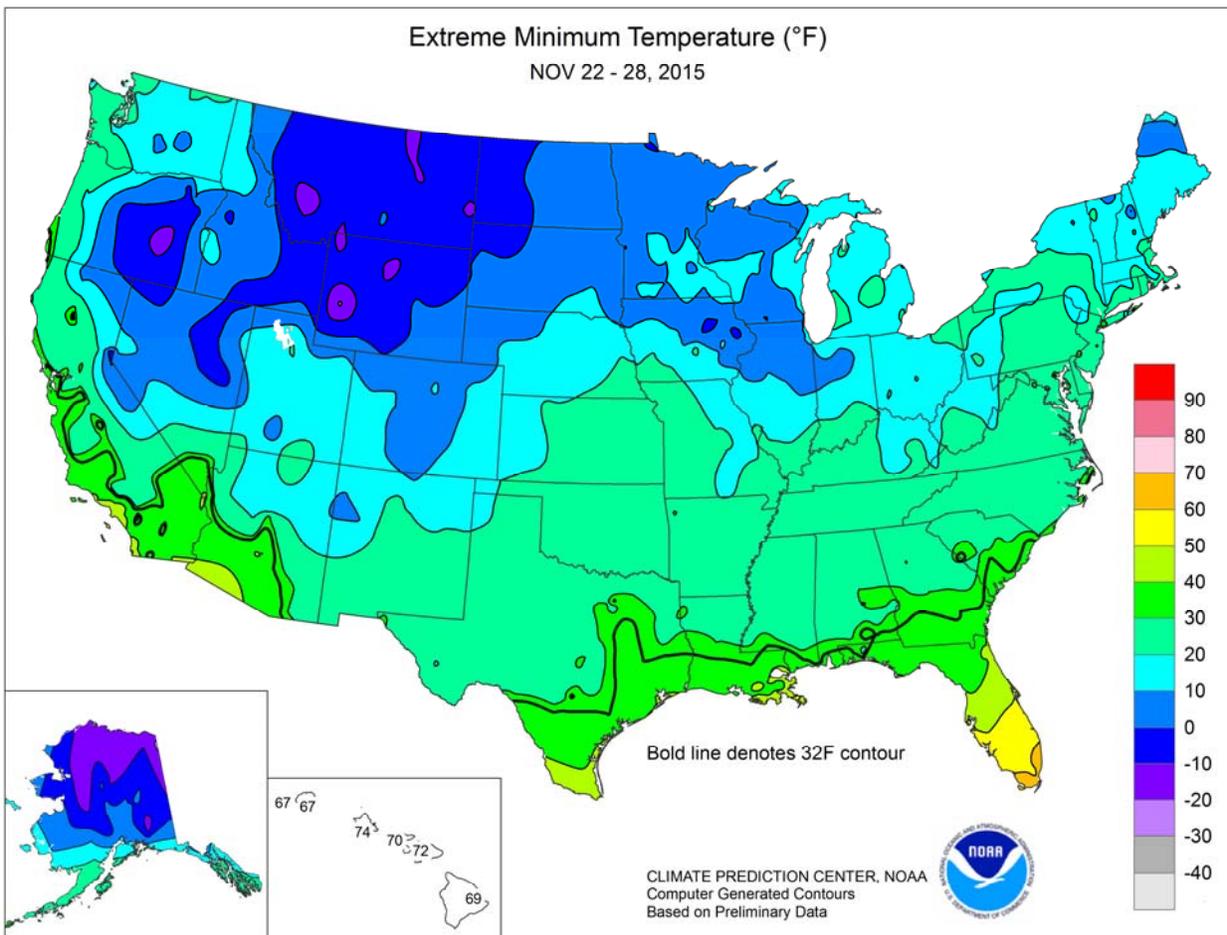
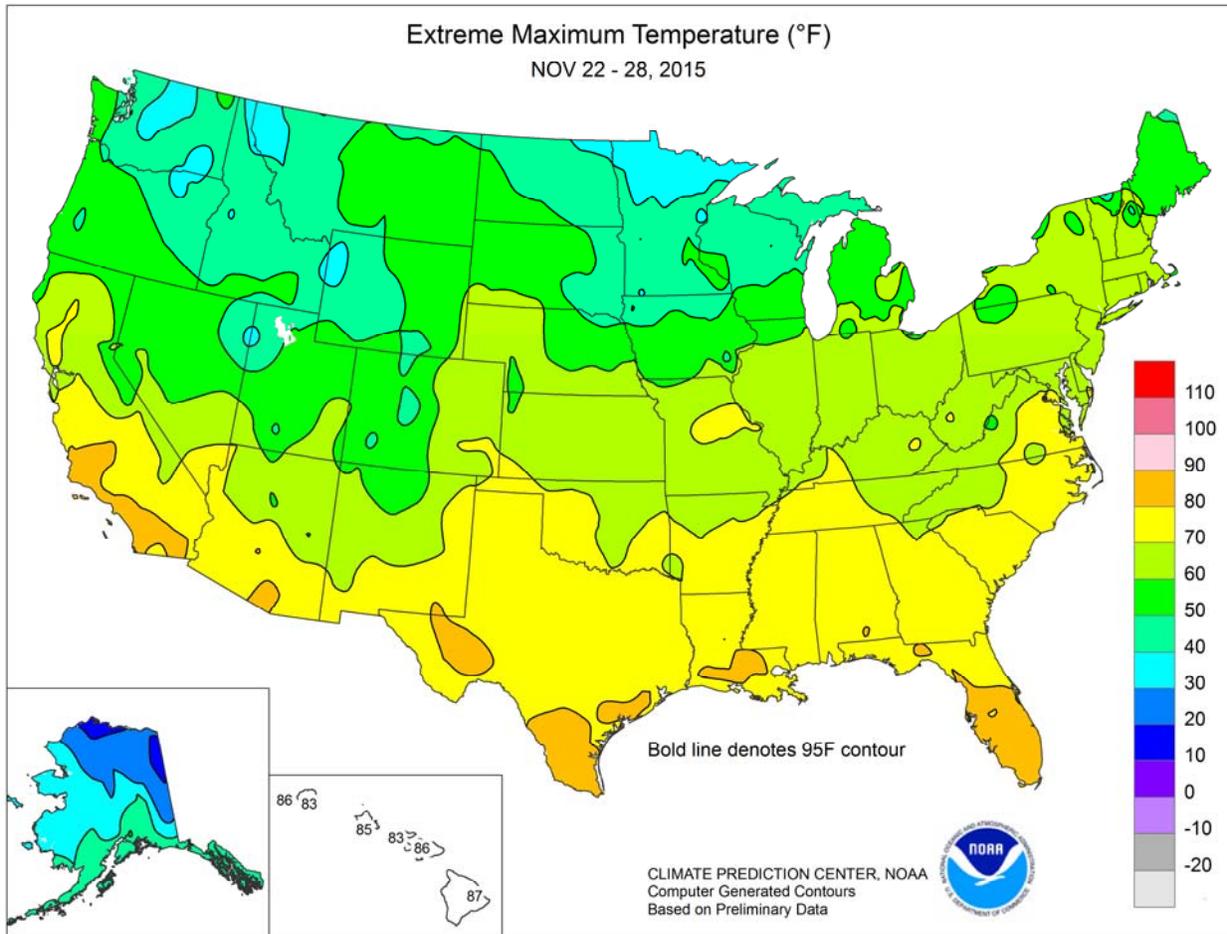
*Highlights provided by USDA/WAOB*

Previously delayed fieldwork advanced early in the week from the **southern High Plains into the Southeast**. Favorably dry weather, accompanied by a warming trend, continued through week's end in the **Southeast**, allowing winter wheat planting and cotton, peanut, and soybean harvesting to proceed. In contrast, mid- to late-week rain, freezing rain, and snow curtailed fieldwork from the **southern Plains into the Great Lakes region**. Although only a small amount of **Midwestern** corn remained in the field, unharvested cotton on the **southern High Plains** was

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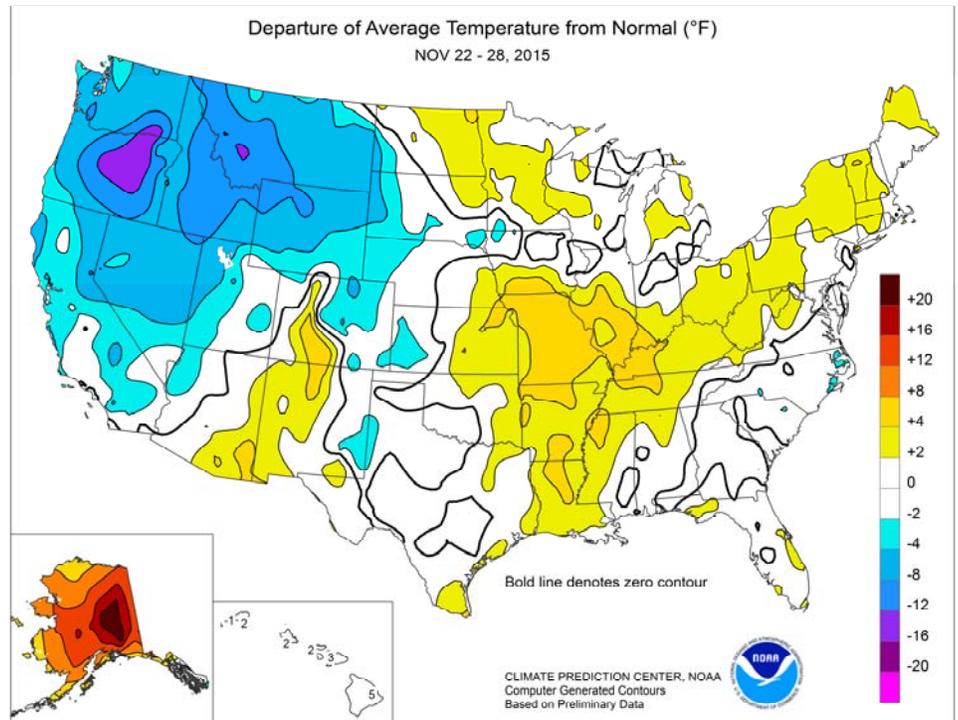


(Continued from front cover)

exposed to adversely cold, wet, breezy weather. Storm-total precipitation topped 4 inches in parts of the **mid-South** and **southeastern Plains**, leading to another round of flooding. Farther north, the previous week's **Midwestern** snow melted away, only to be replaced by new snow from portions of the **southern and central Plains into the western Corn Belt and upper Great Lakes region**. Elsewhere, most dry weather prevailed from the **Southwest to the north-central U.S.**, although enough snow fell on the **northern High Plains** to provide winter wheat with some protection from sudden cold. Snow also blanketed much of the **Northwest**, with a chilly rain falling at lower elevations. With the surge of cold air into the **western U.S.**, weekly temperatures averaged at least 10 to 15°F below normal in several **Northwestern** locations. Starting on Thanksgiving Day, November 26, sub-zero temperatures covered the **northern High Plains** and **northern Intermountain West**. Transitional temperatures occurred across the **eastern half of the U.S.**, where a period of cold weather preceded a late-week warm spell.

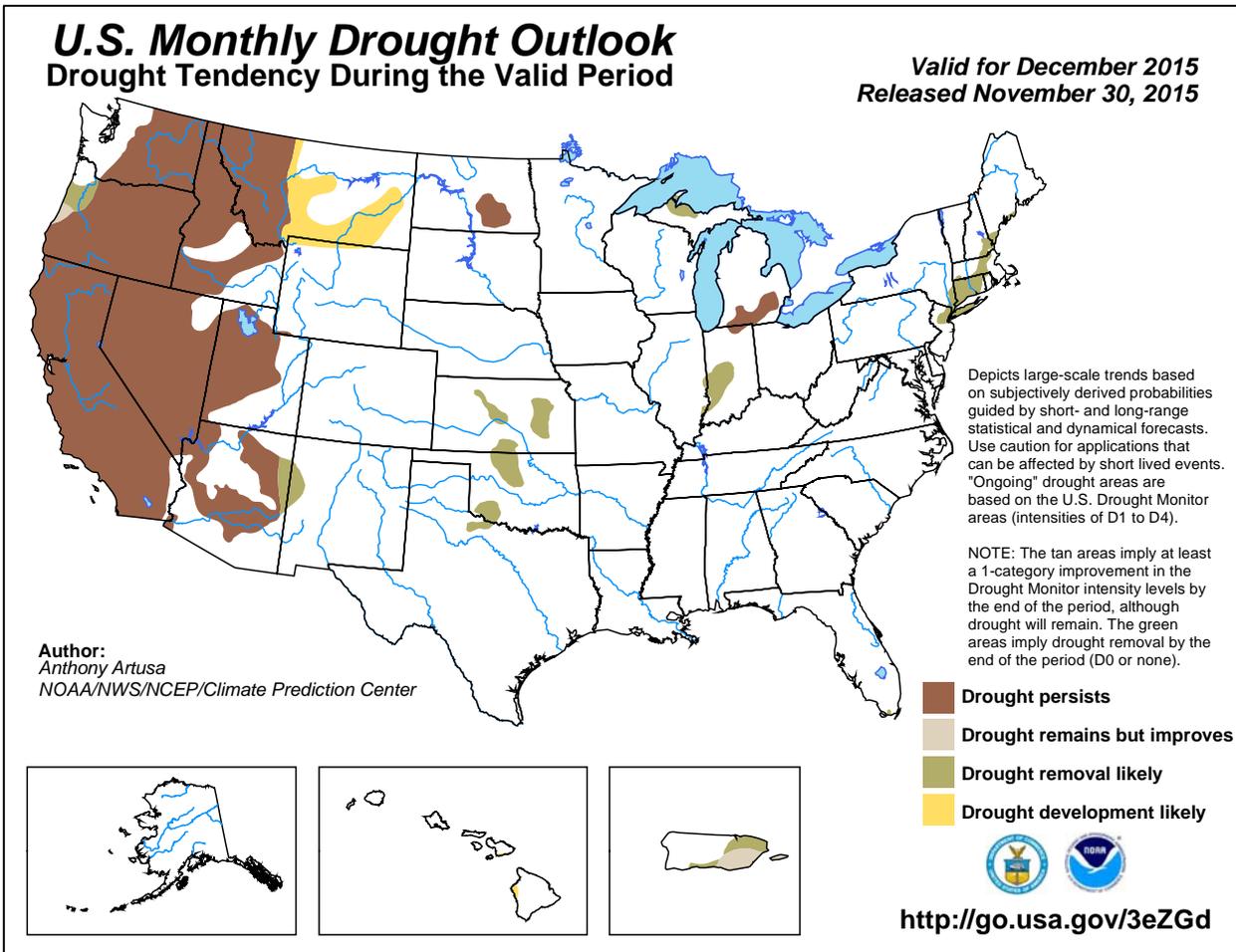
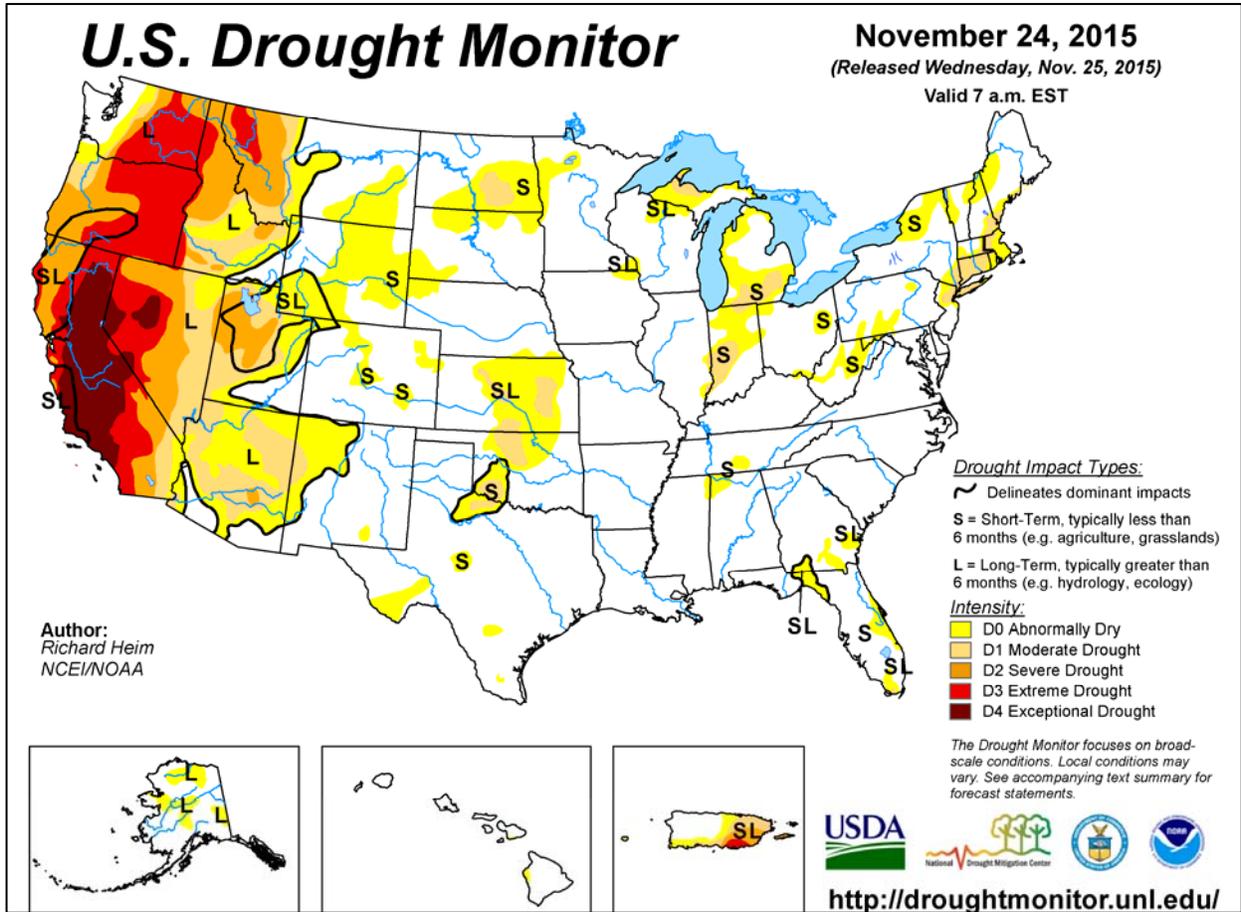
**Western** warmth lingered early in the week in advance of an approaching storm. In **southern California**, daily-record highs for November 22 reached 90°F in **Camarillo** and 88°F in **Long Beach**. Farther inland, **Bakersfield, CA**, posted a daily-record high (82°F) for November 23. Farther east, frigid weather prevailed in the wake of a departing **Midwestern** snow storm. November 22 featured daily-record lows in **Moline, IL** (1°F, with an 8-inch snow cover), and **Dubuque, IA** (2°F, with a 9-inch snow cover). Cold air also settled across **Texas**, where record-setting lows for November 22 included 21°F in **San Angelo** and 31°F in **Del Rio**. By mid-week, however, warmth returned to the **nation's mid-section**. Daily-record highs for November 25 climbed to 78°F in **Dalhart, TX**, and 56°F in **Muskegon, MI**. In the **eastern U.S.**, daily-record highs included 67°F (on November 26) in **Zanesville, OH**, and 67°F (on November 27) in **Hartford, CT**. In stark contrast, very cold air overspread the **West**, starting on Thanksgiving Day. From November 26-30, the month ended with five consecutive daily-record lows (13, 13, 9, 8, and 10°F, respectively) in **Montague, CA**. November ended with five sub-zero readings in a row in locations such as **Burns, OR** (-9, -15, -15, -15, and -14°F), and **Big Piney, WY** (-19, -22, -16, -16, and -10°F). In **California's Central Valley**, consecutive daily-record lows were noted on November 28-29 in **Stockton** (28 and 25°F) and **Sacramento** (27°F both days).

The week began on a dry note, except along the **Atlantic Seaboard**. In **Florida**, daily-record totals for November 22 reached 1.32 inches in **Ft. Myers** and 1.29 inches in **Naples**. Later, precipitation spread from the **Pacific Northwest to the northern High Plains**, where **Great Falls, MT**, netted a daily-record snowfall (3.9 inches) for November 24. Weekly snowfall totaled 15.6 inches in **Lander, WY**, aided by a daily-record sum of 9.5 inches on November 25. In **Oregon**, 24-hour snowfall on November 24-25 totaled 10 inches in **Mitchell** and 6 inches in **Madras**. By November 26, Thanksgiving Day, heavy precipitation erupted from the **southern Plains into the**



**Corn Belt.** It was the wettest Thanksgiving Day on record in several locations, including **Wichita, KS** (2.17 inches); **Rockford, IL** (1.51 inches); and **Madison, WI** (1.19 inches). On the **Plains**, Thanksgiving Day snowfall included 4.2 inches in **Pueblo, CO**, and 3.2 inches in **Grand Island, NE**. Meanwhile, a few freezing rain accumulations of at least one-half inch were reported on the **southern High Plains**. Farther east, November 26-29 rainfall in **northeastern Texas** climbed to 10.59 inches in **McKinney** and 8.03 inches in **Dallas-Ft. Worth**. During the same 4-day period, totals included 6.75 inches in **Mt. Ida, AR**, and 5.08 inches in **McAlester, OK**. The **Trinity River at Dallas, TX**, surged 11.08 feet above flood stage on November 28—just 0.9 foot below the level achieved earlier this year on May 29. On November 29, crests were the highest since December 18, 2001, in gauge locations such as the **Sulphur River near Talco, TX** (10.34 feet above flood stage), and the **Little River near Idabel, OK** (3.43 feet above flood stage).

Mild weather prevailed in **Alaska**, accompanied by a continuation of widespread precipitation. Weekly temperatures averaged 10 to 20°F above normal across much of the **Alaskan mainland**. Daily-record highs were established in several locations, including **Anchorage** (45°F on November 24 and 25). From November 22-25, precipitation totaled 1.81 inches (along with 5.6 inches of snow) in **King Salmon** and 1.74 inches (15.8 inches of snow) in **McGrath**. On November 23, **McGrath** reported daily record for precipitation (1.47 inches) and snowfall (10.8 inches). For November, **McGrath's** precipitation was 4.14 inches (293 percent of normal), while snowfall totaled 44.3 inches (230 percent). **King Salmon** received a daily-record amount on November 24, when the 1.37-inch total included 3.4 inches of snow. Farther south, **Hawaii** experienced warm, showery weather. On the **Big Island, Hilo** posted consecutive daily-record highs of 87°F on November 22-23. Meanwhile daily-record rainfall totals were set in several locations, including **Kahului, Maui** (1.72 inches on November 24), and **Honolulu, Oahu** (0.84 inch on November 23). At **Hawaii's** major airport observation sites, November rainfall ranged from 128 percent of normal in **Lihue, Kauai**, to 201 percent at **Kahului**. Actual totals ranged from 4.16 inches in **Honolulu** to 22.81 inches in **Hilo**.



National Weather Data for Selected Cities

Weather Data for the Week Ending November 28, 2015

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN, SINCE SEP 1	PCT. NORMAL SINCE SEP 1	TOTAL, IN, SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F			
																90 AND ABOVE	82 AND BELOW	.01 INCH OF MORE	.50 INCH OF MORE
AL BIRMINGHAM	65	42	75	27	54	3	0.00	-1.12	0.00	8.29	72	50.36	103	82	39	0	3	0	0
HUNTSVILLE	64	42	73	26	53	4	0.04	-1.28	0.04	10.04	80	51.71	101	74	42	0	3	1	0
MOBILE	68	47	78	32	58	1	0.00	-1.35	0.00	21.92	155	68.99	113	85	52	0	1	0	0
AK MONTGOMERY	69	41	79	28	55	1	0.00	-1.21	0.00	11.46	107	42.55	86	82	37	0	2	0	0
ANCHORAGE	37	26	45	16	32	12	0.57	0.35	0.41	11.42	192	18.73	126	92	78	0	6	6	0
BARROW	5	-6	14	-18	-1	3	0.09	0.06	0.07	0.99	83	5.70	143	93	82	0	7	2	0
FAIRBANKS	29	12	35	-5	20	21	0.00	-0.14	0.00	4.74	180	12.70	134	94	88	0	7	0	0
JUNEAU	37	27	45	20	32	0	1.57	0.41	1.37	28.96	138	80.76	153	96	85	0	6	4	1
KODIAK	44	35	46	26	40	7	3.51	2.01	1.43	22.33	100	69.87	104	89	76	0	3	5	3
NOME	29	16	34	-1	22	7	0.43	0.15	0.21	5.84	111	16.08	104	85	68	0	7	4	0
AZ FLAGSTAFF	46	20	58	10	33	-1	0.00	-0.41	0.00	6.71	119	25.12	121	83	31	0	6	0	0
PHOENIX	72	51	81	42	61	2	0.00	-0.17	0.00	1.77	82	6.93	95	50	28	0	0	0	0
PRESCOTT	56	27	67	20	42	0	0.00	-0.28	0.00	3.79	86	17.73	100	79	24	0	5	0	0
TUCSON	74	48	82	35	61	5	0.00	-0.14	0.00	4.81	148	12.94	117	43	27	0	0	0	0
AR FORT SMITH	62	41	72	26	52	4	2.76	1.64	1.58	11.52	96	61.13	152	84	52	0	2	3	2
LITTLE ROCK	62	42	74	30	52	3	4.77	3.40	2.98	13.94	106	52.80	115	85	51	0	2	2	2
CA BAKERSFIELD	63	41	82	35	52	0	0.05	-0.09	0.03	0.75	79	3.41	61	82	63	0	0	2	0
FRESNO	61	39	75	33	50	0	0.34	0.09	0.18	2.35	126	6.01	62	90	71	0	0	2	0
LOS ANGELES	69	52	86	46	61	1	0.02	-0.27	0.02	1.97	127	4.89	44	56	39	0	0	1	0
REDDING	58	38	72	31	48	-1	0.17	-0.79	0.17	2.20	35	9.02	32	66	49	0	1	1	0
SACRAMENTO	60	37	70	27	48	-2	0.03	-0.49	0.03	1.73	55	6.77	45	86	38	0	2	1	0
SAN DIEGO	69	56	84	52	62	2	0.28	0.03	0.20	3.24	205	9.03	97	63	42	0	0	3	0
SAN FRANCISCO	57	45	67	42	51	-2	0.28	-0.33	0.25	1.47	42	5.10	30	78	56	0	0	2	0
STOCKTON	60	36	71	28	48	-2	0.25	-0.16	0.25	2.13	79	5.03	43	92	68	0	3	1	0
CO ALAMOSA	48	15	54	3	32	7	0.12	0.04	0.11	2.20	112	9.18	134	81	39	0	7	2	0
CO SPRINGS	45	21	64	5	33	0	0.08	0.01	0.04	2.12	82	24.95	147	75	38	0	7	3	0
DENVER INTL	42	20	64	3	31	-3	0.05	-0.05	0.03	3.85	157	17.44	132	77	47	0	7	3	0
GRAND JUNCTION	47	24	59	18	35	0	0.11	-0.02	0.07	4.19	164	12.41	148	79	46	0	6	2	0
PUEBLO	51	18	70	6	35	0	0.44	0.35	0.34	1.19	60	16.22	136	73	44	0	7	2	0
CT BRIDGEPORT	54	35	63	27	44	1	0.00	-0.82	0.00	5.81	55	29.39	73	85	56	0	3	0	0
HARTFORD	52	31	67	19	41	2	0.21	-0.70	0.20	9.55	81	34.96	83	84	46	0	4	2	0
DC WASHINGTON	57	38	65	32	48	2	0.00	-0.69	0.00	6.94	71	39.84	111	80	48	0	1	0	0
DE WILMINGTON	55	33	66	28	44	1	0.01	-0.76	0.01	8.33	84	43.36	111	89	45	0	4	1	0
FL DAYTONA BEACH	74	59	79	45	67	2	0.54	-0.11	0.32	12.02	86	43.31	93	90	59	0	0	3	0
JACKSONVILLE	71	51	76	37	61	1	0.01	-0.54	0.01	12.78	92	43.97	89	95	63	0	0	1	0
KEY WEST	80	71	82	69	76	1	0.32	-0.18	0.32	9.15	74	31.66	86	87	66	0	0	1	0
MIAMI	80	68	85	63	74	1	1.51	0.87	0.61	22.17	124	52.20	93	89	58	0	0	6	1
ORLANDO	77	58	81	48	68	1	0.16	-0.39	0.13	9.29	88	53.35	117	92	56	0	0	3	0
PENSACOLA	67	52	74	39	60	1	0.00	-1.02	0.00	14.43	103	60.13	100	76	50	0	0	0	0
TALLAHASSEE	73	49	81	34	61	2	0.07	-0.83	0.07	11.89	101	49.17	84	87	50	0	0	1	0
TAMPA	79	60	83	49	69	1	0.09	-0.35	0.09	7.58	74	63.00	149	86	46	0	0	1	0
GA WEST PALM BEACH	79	68	81	60	74	2	0.54	-0.69	0.52	12.39	66	43.27	75	73	56	0	0	3	1
ATHENS	63	37	73	28	50	-1	0.00	-0.85	0.00	17.77	170	52.79	120	88	47	0	2	0	0
ATLANTA	62	40	72	31	51	0	0.00	-0.99	0.00	14.45	133	55.86	122	75	46	0	1	0	0
AUGUSTA	67	38	75	27	52	0	0.00	-0.57	0.00	14.08	152	40.45	98	94	48	0	3	0	0
COLUMBUS	66	42	75	32	54	-1	0.00	-1.01	0.00	12.21	137	45.59	104	84	37	0	2	0	0
MACON	67	37	76	28	52	-1	0.00	-0.80	0.00	10.67	126	37.58	92	93	41	0	2	0	0
SAVANNAH	69	46	77	33	57	0	0.02	-0.48	0.02	8.09	77	44.24	95	89	50	0	0	1	0
HI HILO	85	71	87	69	78	5	1.98	-1.71	0.96	54.89	165	124.48	109	91	80	0	0	3	2
HONOLULU	83	75	85	74	79	2	1.61	1.09	1.09	9.54	193	20.83	137	86	78	0	0	5	1
KAHULUI	83	74	86	72	79	4	2.33	1.79	1.36	5.97	179	28.39	184	84	78	0	0	3	2
LIHUE	81	73	83	67	77	2	0.53	-0.54	0.39	10.64	94	28.12	82	85	78	0	0	3	0
ID BOISE	35	21	46	10	28	-9	0.86	0.53	0.58	2.97	110	9.08	85	92	76	0	7	2	1
LEWISTON	38	24	47	18	31	-7	0.15	-0.12	0.15	2.37	83	8.48	73	87	73	0	7	1	0
POCATELLO	36	12	53	-6	24	-8	0.41	0.16	0.28	3.17	112	10.09	89	87	63	0	7	2	0
IL CHICAGO/O'HARE	44	28	60	7	36	0	1.26	0.58	0.86	11.10	127	34.73	103	88	74	0	5	2	1
MOLINE	45	26	62	1	36	1	1.98	1.38	1.81	11.17	131	39.65	111	83	69	0	5	2	1
PEORIA	50	33	67	11	42	5	1.27	0.56	0.86	11.01	128	43.25	130	83	63	0	3	3	1
ROCKFORD	42	26	58	7	34	0	1.77	1.17	1.51	10.32	122	34.87	102	87	75	0	5	2	1
SPRINGFIELD	53	35	68	16	44	5	0.90	0.24	0.77	9.45	118	37.23	114	87	61	0	3	3	1
IN EVANSVILLE	58	39	70	24	48	5	1.19	0.17	0.62	9.11	95	46.67	116	80	60	0	3	2	2
FORT WAYNE	46	28	61	11	37	-1	0.90	0.21	0.87	6.58	81	42.23	126	87	66	0	4	2	1
INDIANAPOLIS	51	35	62	16	43	3	1.35	0.50	1.15	6.38	72	42.55	113	83	53	0	3	2	1
SOUTH BEND	45	28	63	11	37	0	0.87	0.07	0.77	7.87	77	32.15	89	91	74	0	5	3	1
IA BURLINGTON	48	31	63	12	40	3	1.11	0.49	0.91	8.30	92	36.89	104	92	68	0	4	3	1
CEDAR RAPIDS	42	27	55	12	34	1	1.76	1.26	1.73	12.07	160	37.71	119	98	76	0	5	2	1
DES MOINES	45	30	58	16	37	3	1.02	0.59	0.98	9.43	122	38.59							

Weather Data for the Week Ending November 28, 2015

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE SEP 1	PCT. NORMAL SINCE SEP 1	TOTAL IN., SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
KY WICHITA	54	33	69	24	44	3	2.32	1.94	2.06	6.45	91	38.76	134	81	62	0	5	3	1	
JACKSON	59	38	71	21	49	4	0.32	-0.72	0.32	5.72	53	51.49	115	74	39	0	2	1	0	
LEXINGTON	56	36	68	18	46	3	0.51	-0.36	0.51	8.47	96	51.75	125	78	54	0	3	1	1	
LOUISVILLE	59	39	70	26	49	4	0.92	-0.02	0.84	12.41	134	55.47	137	78	44	0	2	2	1	
PADUCAH	60	41	69	24	50	6	2.20	1.05	1.68	10.82	98	51.24	115	80	48	0	3	2	2	
LA BATON ROUGE	71	48	81	32	60	3	0.00	-1.16	0.00	23.83	184	71.22	124	89	49	0	1	0	0	
LAKE CHARLES	72	52	80	34	62	4	0.13	-0.98	0.10	15.63	111	61.59	118	91	53	0	0	2	0	
NEW ORLEANS	70	54	80	42	62	3	0.00	-1.30	0.00	18.53	141	64.92	111	79	56	0	0	0	0	
SHREVEPORT	67	47	77	31	57	3	0.93	-0.14	0.77	15.75	132	60.60	131	87	52	0	1	3	1	
ME CARIBOU	38	22	50	11	30	3	0.45	-0.27	0.25	8.82	97	31.29	92	87	65	0	7	3	0	
PORTLAND	48	28	61	18	38	2	0.51	-0.55	0.22	11.73	96	38.50	93	93	60	0	5	3	0	
MD BALTIMORE	57	34	68	28	45	2	0.03	-0.71	0.03	8.71	87	44.95	117	80	49	0	4	1	0	
MA BOSTON	52	36	64	29	44	1	0.55	-0.35	0.34	7.74	71	30.53	79	84	54	0	3	2	0	
WORCESTER	48	32	61	23	40	3	0.21	-0.73	0.20	8.97	69	35.69	79	81	46	0	4	2	0	
MI ALPENA	43	26	56	16	35	3	0.57	0.12	0.33	5.62	80	20.27	77	90	66	0	6	4	0	
GRAND RAPIDS	46	29	60	19	38	2	1.02	0.20	0.61	7.84	78	29.48	86	91	61	0	5	4	1	
HOUGHTON LAKE	41	25	54	14	33	1	1.14	0.68	0.70	7.98	109	24.50	92	88	70	0	6	4	1	
LANSING	44	28	60	21	36	1	0.75	0.12	0.48	5.57	68	31.91	110	84	67	0	6	2	0	
MUSKOGON	46	31	56	21	39	3	1.72	0.98	1.23	8.40	91	31.52	105	84	64	0	6	5	1	
TRAVERSE CITY	42	29	55	22	36	2	1.37	0.77	1.02	9.72	108	26.62	87	87	55	0	6	4	1	
MN DULUTH	34	19	42	10	26	2	0.06	-0.38	0.04	11.44	133	28.59	96	84	68	0	7	2	0	
INT'L FALLS	29	13	35	0	21	1	0.10	-0.16	0.10	7.38	118	23.86	103	90	70	0	7	1	0	
MINNEAPOLIS	39	23	51	14	31	2	0.12	-0.26	0.12	11.37	171	33.41	118	86	65	0	6	1	0	
ROCHESTER	37	22	49	10	29	2	0.40	-0.02	0.40	6.80	94	31.99	106	90	76	0	6	1	0	
ST. CLOUD	37	18	44	7	28	3	0.00	-0.27	0.00	8.08	121	31.70	120	92	60	0	6	0	0	
MS JACKSON	68	43	79	27	56	3	0.00	-1.24	0.00	16.62	148	53.21	106	86	43	0	2	0	0	
MERIDIAN	67	40	77	26	53	-1	0.00	-1.24	0.00	17.49	154	53.18	101	88	44	0	3	0	0	
TUPELO	64	40	73	24	52	3	0.05	-1.24	0.05	8.92	80	61.48	125	82	46	0	3	1	0	
MO COLUMBIA	57	37	76	20	47	7	2.09	1.30	1.82	10.32	105	42.68	114	84	57	0	2	3	1	
KANSAS CITY	52	34	64	23	43	4	1.86	1.34	1.60	10.64	106	42.56	118	84	58	0	4	3	1	
SAINT LOUIS	58	39	72	23	48	6	1.26	0.37	1.24	10.36	114	49.32	139	71	55	0	1	3	1	
SPRINGFIELD	57	38	65	21	48	5	2.24	1.15	2.14	12.62	102	48.16	116	77	59	0	2	3	1	
MT BILLINGS	33	15	50	1	24	-7	0.11	-0.03	0.10	2.59	79	12.42	89	78	54	0	7	2	0	
BUTTE	25	-4	40	-19	11	-13	0.04	-0.07	0.02	4.42	185	11.23	92	86	59	0	7	2	0	
CUT BANK	35	13	46	-2	24	-2	0.00	-0.08	0.00	2.95	149	8.43	70	87	56	0	6	0	0	
GLASGOW	32	10	51	-5	21	-3	0.09	0.03	0.05	2.70	134	12.20	113	81	67	0	7	2	0	
GREAT FALLS	31	10	51	-7	20	-9	0.31	0.20	0.25	6.36	237	14.42	102	78	53	0	7	2	0	
HAVRE	31	8	57	-9	20	-6	0.15	0.07	0.13	3.09	156	11.57	107	85	68	0	7	2	0	
MISSOULA	27	7	40	-5	17	-12	0.13	-0.09	0.13	2.65	97	8.80	70	85	76	0	7	1	0	
NE GRAND ISLAND	43	25	60	18	34	1	0.29	0.00	0.29	7.34	140	24.00	96	84	67	0	6	1	0	
LINCOLN	47	27	61	21	37	3	0.26	-0.07	0.26	7.06	112	36.41	133	81	60	0	5	1	0	
NORFOLK	43	23	55	11	33	2	0.16	-0.13	0.16	5.84	110	25.24	97	84	65	0	6	1	0	
NORTH PLATTE	43	19	63	14	31	0	0.01	-0.12	0.01	3.79	116	20.37	106	85	45	0	7	1	0	
OMAHA	46	27	60	20	37	3	0.32	-0.07	0.32	12.13	171	38.96	134	86	66	0	5	1	0	
SCOTTSBLUFF	40	18	63	9	29	-2	0.05	-0.12	0.03	3.36	114	22.89	146	82	65	0	7	2	0	
VALENTINE	41	15	62	4	28	-2	0.05	-0.08	0.05	7.68	220	25.65	134	87	62	0	7	1	0	
NV ELY	39	8	58	-4	24	-7	0.16	0.05	0.16	3.59	142	8.57	91	75	55	0	7	1	0	
LAS VEGAS	61	43	75	37	52	0	0.00	-0.06	0.00	1.42	184	4.48	112	36	23	0	0	0	0	
RENO	43	25	60	16	34	-4	0.11	-0.08	0.11	3.36	218	7.76	120	75	57	0	6	1	0	
WINNEMUCCA	43	17	58	2	30	-5	0.04	-0.13	0.03	2.41	130	8.77	119	82	52	0	7	2	0	
NH CONCORD	50	25	64	17	38	3	0.17	-0.63	0.15	10.19	102	33.54	98	85	49	0	6	2	0	
NJ NEWARK	56	36	66	27	46	2	0.05	-0.88	0.03	6.98	65	34.66	82	78	46	0	3	2	0	
NM ALBUQUERQUE	57	33	63	26	45	4	0.00	-0.10	0.00	2.71	103	10.51	118	66	35	0	5	0	0	
NY ALBANY	51	30	64	20	41	5	0.02	-0.71	0.02	11.83	124	34.97	99	79	45	0	4	1	0	
BINGHAMTON	45	29	59	22	37	2	0.09	-0.71	0.07	7.58	79	39.10	111	85	65	0	5	3	0	
BUFFALO	48	31	62	23	39	1	0.38	-0.56	0.34	9.60	91	34.08	94	79	50	0	5	4	0	
ROCHESTER	49	32	65	24	41	4	0.29	-0.38	0.21	7.77	90	33.91	110	82	54	0	5	4	0	
SYRACUSE	49	32	66	25	40	3	0.11	-0.80	0.06	9.71	90	37.23	102	91	54	0	5	3	0	
NC ASHEVILLE	56	32	66	24	44	0	0.00	-0.87	0.00	17.97	173	44.06	102	85	44	0	5	0	0	
CHARLOTTE	61	34	70	26	48	-2	0.00	-0.73	0.00	16.74	158	39.67	99	84	38	0	3	0	0	
GREENSBORO	59	34	69	27	47	0	0.00	-0.69	0.00	15.44	151	40.65	102	83	39	0	3	0	0	
HATTERAS	62	48	70	39	55	-1	1.34	0.29	1.33	27.80	178	64.50	122	89	57	0	0	2	1	
RALEIGH	61	35	71	27	48	-1	0.00	-0.69	0.00	16.14	159	50.16	126	87	45	0	3	0	0	
WILMINGTON	65	40	76	30	53	-2	0.09	-0.74	0.09	26.91	209	66.85	126	95	48	0	2	1	0	
ND BISMARCK	38	12	50	1	25	1	0.00	-0.12	0.00	1.50	42	16.68	102	84	59	0	7	0	0	
DICKINSON	36	9	52	-6	22	-3	0.00	-0.09	0.00	1.69	48	11.47	72	80	48	0	7	0	0	
FARGO	36	16	43	4	26	4	0.00	-0.17	0.00	3.45	66	20.39	99	84	57	0	7	0	0	
GRAND FORKS	35	15	41	3	25	4	0.00	-0.16	0.00	3.38	73	20.18	106	87	60	0	7	0	0	
JAMESTOWN	36	15	46	6	26	3	0.00	-0.11	0.00	2.12	56	22.11	123	86	51	0	7	0	0	
WILLISTON	33	11	51	-5	22	1	0.06	-0.08	0.06	3.65	132	11.51	85	78	63	0	7	1	0	
OH AKRON-CANTON	50	32	63	18	41	2	0.52	-0.22	0.30	8.16	94	37.48	107	75	51	0	3	2	0	
CINCINNATI	55	34	66	20	45	3	0.61	-0.19	0.49	10.39	116	42.63	109	78	61	0	3	2	0	
CLEVELAND	49	34	64	21	41	2	0.75	-0.08	0.48	9.38	98	37.81	107	78	47	0	3	3	0	
COLUMBUS	53	34	65	21	43	2	0.63	-0.14	0.51	8.23	102	40.08	114	76	57	0	3	2	1	
DAYTON	51	33	64	19	42	3	0.84	0.07	0.47	6.99	83	36.72	101	86	53	0	4	2	0	
MANSFIELD	48	32	62	16	40	2	0.75	-0.15	0.43	7.33	77	37.32	94	85	50	0				

Weather Data for the Week Ending November 28, 2015

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE SEP 1	PCT. NORMAL SINCE SEP 1	TOTAL IN., SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP	
																		01 INCH OR MORE	50 INCH OR MORE	01 INCH OR MORE	50 INCH OR MORE
OK TOLEDO	47	29	61	18	38	0	0.57	-0.09	0.54	5.19	68	33.53	111	87	67	0	5	2	1		
OK YOUNGSTOWN	49	32	63	22	41	3	0.48	-0.29	0.32	9.28	102	40.26	116	78	55	0	4	2	0		
OK OKLAHOMA CITY	55	36	71	22	46	0	3.06	2.62	1.38	8.94	93	51.84	153	92	65	0	4	3	3		
OR TULSA	57	37	67	27	47	1	4.14	3.36	2.63	11.51	96	53.26	134	82	65	0	1	3	3		
OR ASTORIA	50	31	53	28	41	-4	0.29	-2.32	0.24	24.14	136	53.26	96	86	65	0	5	2	0		
OR BURNS	28	5	49	-15	16	-14	0.79	0.52	0.40	2.07	95	6.85	75	84	74	0	7	2	0		
OR EUGENE	47	26	51	18	36	-7	0.40	-1.75	0.26	5.98	48	18.63	45	88	81	0	6	2	0		
OR MEDFORD	50	27	55	19	39	-2	0.24	-0.50	0.22	2.31	49	9.77	65	89	53	0	6	2	0		
OR PENDLETON	28	17	32	9	23	-16	0.34	-0.05	0.32	2.80	91	7.81	70	92	86	0	7	2	0		
OR PORTLAND	47	29	51	24	38	-6	0.71	-0.70	0.46	9.44	99	25.14	82	88	68	0	6	2	0		
OR SALEM	49	27	52	24	38	-5	0.73	-0.89	0.52	9.41	93	25.38	77	81	66	0	6	2	1		
PA ALLENTOWN	53	29	65	21	41	1	0.02	-0.85	0.02	9.10	82	36.30	88	78	53	0	5	1	0		
PA ERIE	49	36	64	29	43	3	0.49	-0.45	0.32	9.78	80	33.48	87	65	49	0	3	3	0		
PA MIDDLETOWN	54	32	65	27	43	1	0.00	-0.85	0.00	13.05	136	37.67	102	86	47	0	4	0	0		
PA PHILADELPHIA	56	38	66	33	47	2	0.01	-0.76	0.01	11.53	122	41.73	109	70	45	0	0	1	0		
PA PITTSBURGH	52	34	64	20	43	3	0.22	-0.52	0.22	9.79	120	37.54	108	72	48	0	4	1	0		
PA WILKES-BARRE	51	31	63	21	41	2	0.03	-0.70	0.03	7.37	76	28.54	82	77	51	0	4	1	0		
PA WILLIAMSPORT	51	30	62	25	40	2	0.07	-0.78	0.07	8.91	85	37.17	97	79	51	0	5	1	0		
RI PROVIDENCE	52	32	65	24	42	1	0.51	-0.50	0.43	8.61	75	36.01	86	85	56	0	3	2	0		
SC BEAUFORT	68	46	76	35	57	1	0.01	-0.56	0.01	12.65	118	48.73	105	91	49	0	0	1	0		
SC CHARLESTON	68	43	78	31	56	0	0.06	-0.57	0.06	29.90	260	71.75	149	90	46	0	1	1	0		
SC COLUMBIA	66	38	75	29	52	-1	0.00	-0.65	0.00	26.10	276	57.15	128	85	44	0	3	0	0		
SC GREENVILLE	61	37	71	27	49	0	0.00	-0.86	0.00	23.19	204	51.79	112	84	42	0	3	0	0		
SD ABERDEEN	40	15	51	1	28	3	0.01	-0.09	0.01	2.87	69	20.21	102	84	59	0	7	1	0		
SD HURON	40	18	52	6	29	2	0.00	-0.15	0.00	4.69	111	23.90	117	88	54	0	7	0	0		
SD RAPID CITY	38	13	55	1	26	-4	0.14	0.07	0.10	1.87	61	24.45	151	83	51	0	7	2	0		
SD SIOUX FALLS	34	16	40	3	25	-2	0.12	-0.13	0.12	9.40	162	31.03	129	83	70	0	7	1	0		
TN BRISTOL	58	30	68	21	44	1	0.01	-0.77	0.01	8.94	110	38.11	101	90	42	0	5	1	0		
TN CHATTANOOGA	61	36	72	28	49	1	0.00	-1.21	0.00	13.33	112	54.01	110	87	46	0	3	0	0		
TN KNOXVILLE	58	33	67	24	46	-1	0.00	-1.01	0.00	7.85	85	40.77	94	82	45	0	4	0	0		
TN MEMPHIS	64	44	75	28	54	4	2.58	1.09	2.57	12.47	106	46.43	96	74	47	0	2	2	1		
TN NASHVILLE	62	40	72	22	51	4	0.28	-0.85	0.28	8.97	86	43.41	101	76	40	0	3	1	0		
TX ABILENE	59	39	76	24	49	-2	1.68	1.46	0.83	11.88	168	37.04	165	88	69	0	4	3	2		
TX AMARILLO	56	27	76	22	42	0	0.96	0.87	0.50	4.99	124	33.70	177	83	51	0	6	3	1		
TX AUSTIN	66	45	77	27	55	-2	0.83	0.29	0.41	29.16	309	58.73	189	91	73	0	2	4	0		
TX BEAUMONT	72	52	79	37	62	3	0.04	-1.09	0.03	22.45	149	69.92	129	95	58	0	0	2	0		
TX BROWNSVILLE	79	63	86	49	71	5	0.47	0.13	0.20	20.04	186	47.09	179	81	68	0	0	3	0		
TX CORPUS CHRISTI	71	55	79	38	63	0	0.67	0.34	0.48	8.06	76	44.07	145	95	73	0	0	3	0		
TX DEL RIO	67	47	77	31	57	0	0.43	0.25	0.23	6.83	138	27.47	158	85	67	0	1	2	0		
TX EL PASO	63	40	77	31	51	1	0.22	0.12	0.12	3.85	142	11.02	129	76	45	0	1	2	0		
TX FORT WORTH	64	45	75	30	54	2	7.15	6.65	3.47	20.95	233	57.89	181	83	58	0	1	3	3		
TX GALVESTON	68	58	76	44	63	0	0.02	-0.86	0.01	26.44	211	58.01	145	90	71	0	0	2	0		
TX HOUSTON	69	50	77	35	60	1	1.06	0.14	0.94	19.39	152	64.78	148	96	67	0	0	2	1		
TX LUBBOCK	58	31	73	25	45	0	0.67	0.53	0.47	5.56	113	27.86	155	84	59	0	4	3	0		
TX MIDLAND	63	39	74	25	51	1	1.24	1.13	0.63	7.18	154	21.21	151	81	58	0	2	3	1		
TX SAN ANGELO	65	41	78	21	53	2	0.41	0.22	0.21	3.66	56	23.92	120	85	61	0	2	3	0		
TX SAN ANTONIO	67	48	79	33	57	0	2.31	1.81	1.49	12.68	136	42.72	138	86	62	0	0	4	2		
TX VICTORIA	70	50	81	32	60	0	0.76	0.20	0.46	11.75	100	52.04	139	97	69	0	1	3	0		
TX WACO	64	44	76	31	54	0	2.59	2.01	1.07	21.28	238	49.45	163	90	66	0	2	3	3		
TX WICHITA FALLS	59	36	78	25	47	-2	3.41	3.08	2.44	10.40	132	43.97	163	83	67	0	4	3	2		
UT SALT LAKE CITY	43	25	56	21	34	-2	0.04	-0.26	0.04	2.74	66	13.89	92	79	35	0	6	1	0		
VT BURLINGTON	45	30	61	22	38	4	0.18	-0.50	0.17	9.23	94	34.00	101	76	50	0	5	2	0		
VA LYNCHBURG	57	32	69	24	44	0	0.00	-0.74	0.00	14.83	146	39.57	99	80	44	0	3	0	0		
VA NORFOLK	59	38	70	29	49	-1	0.71	0.06	0.71	12.47	121	45.59	107	84	51	0	3	1	1		
VA RICHMOND	59	34	69	26	46	-1	0.00	-0.68	0.00	10.33	99	43.03	106	89	46	0	3	0	0		
VA ROANOKE	56	33	68	28	45	0	0.01	-0.73	0.01	17.85	180	49.26	125	79	45	0	4	1	0		
VA WASH/DULLES	57	33	68	27	45	2	0.02	-0.73	0.02	7.85	77	35.14	91	82	49	0	4	1	0		
WA OLYMPIA	44	24	48	19	34	-7	0.28	-1.73	0.19	19.26	142	42.88	102	88	79	0	7	2	0		
WA QUILLAYUTE	51	29	56	21	40	-3	0.27	-3.31	0.27	30.94	112	77.57	90	83	71	0	5	1	0		
WA SEATTLE-TACOMA	47	32	50	27	39	-5	0.40	-1.06	0.32	14.06	138	33.67	109	85	72	0	5	2	0		
WA SPOKANE	35	19	44	11	27	-5	0.13	-0.44	0.13	2.45	65	9.66	68	87	57	0	7	1	0		
WA YAKIMA	40	19	47	9	30	-4	0.24	-0.02	0.23	1.19	66	5.49	82	71	62	0	7	2	0		
WV BECKLEY	52	35	65	20	43	2	0.10	-0.59	0.10	7.22	85	44.30	116	75	51	0	3	1	0		
WV CHARLESTON	59	35	71	22	47	3	0.26	-0.63	0.24	6.21	66	42.63	106	84	39	0	4	2	0		
WV ELKINS	54	27	66	15	40	1	0.11	-0.72	0.10	5.79	59	43.23	102	87	43	0	6	2	0		
WV HUNTINGTON	57	35	68	18	46	2	0.40	-0.40	0.40	7.76	91	42.56	110	83	43	0	4	1	0		
WI EAU CLAIRE	40	21	50	9	30	2	0.30	-0.09	0.30	10.79	139	38.35	124	87	57	0	6	1	0		
WI GREEN BAY	40	25	50	16	32	1	1.07	0.57	0.99	10.87	147	27.08	98	91	65	0	5	2	1		
WI LA CROSSE	42	25	49	16	34	2	0.51	0.05	0.50	6.46	86	29.18	94	89	58	0	5	2	1		
WI MADISON	40	25	55	9	32	0	1.43	0.91	1.17	12.93	175	35.91	115	90	71	0	5	3	1		
WI MILWAUKEE	42	28	58	16	35	0	1.88	1.25	1.54	10.77	130	28.54	88	84	68	0	5	2	1		
WY CASPER	34	16	52	1	25	-4	0.39	0.22	0.14	1.82	64	12.22	99	65	56	0	6	4	0		
WY CHEYENNE	36	17	59	3	27	-4	0.15	0.01	0.09	2.77	101	16.66	112	74	52	0	7	2	0		
WY LANDER	32	12	47	-3	22	-5	0.89	0.70	0.45	2.26	66	14.67	115	82	58	0	7	3	0		
WY SHERIDAN	37	10	54	-7	23	-5	0.16	0.02	0.14	2.17	62	15.66	112	80	61	0	7	2	0		

Based on 1971-2000 normals

\*\*\* Not Available

# National Agricultural Summary

November 23 – 29, 2015

Weekly National Agricultural Summary provided by USDA/NASS

## HIGHLIGHTS

Below-average temperatures were recorded across the Northwest, while the rest of the nation experienced near-average temperatures. Some locations in Montana, Oregon, and Washington averaged more than 12°F below normal. Mostly dry

conditions prevailed across the western U.S. and along the Atlantic Coast, but above-normal precipitation occurred from the southern Plains to the Great Lakes region. A large area in Arkansas, Oklahoma, and Texas received at least 4 inches.

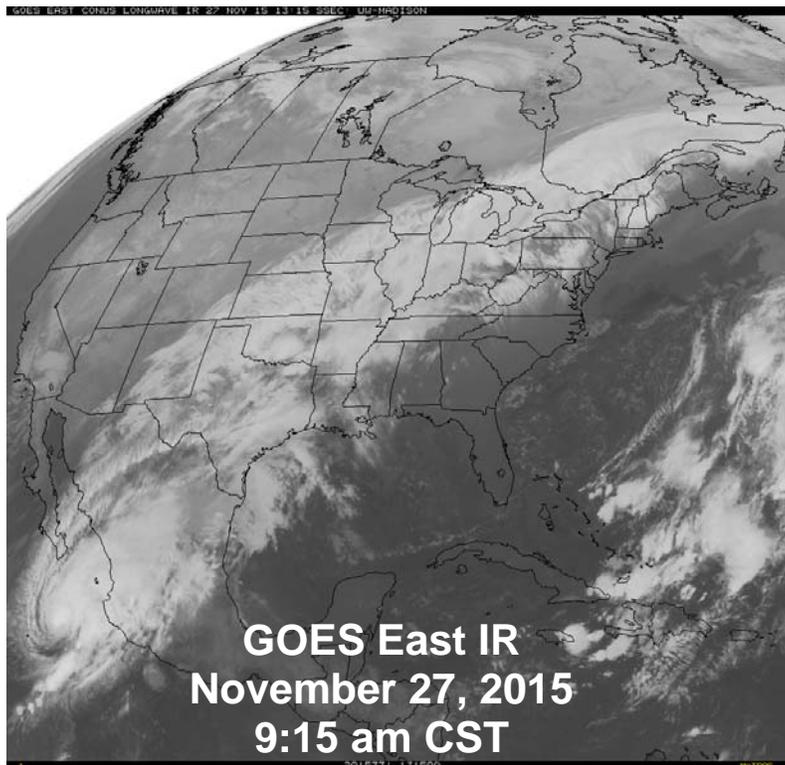
**Winter Wheat:** By November 29, ninety-three percent of the nation's winter wheat was emerged, slightly behind last year but equal to the 5-year average. Emergence was complete in seven states (CO, IL, IN, MI, NE, OH, and SD). Overall, 55 percent of the winter wheat was reported in good to excellent condition, up 2 percentage points from last week but 3 points below the same time last year.

**Cotton:** Producers had harvested 80 percent of this year's cotton crop by November 29, three percentage points behind last year and 8 points behind the 5-year average. On the Texas Plains, cotton harvest advanced at the beginning of the week, while portions of the Southern Low Plains and the

Trans-Pecos experienced delays. Texas farmers harvested 15 percent of the state's cotton during the week, bringing the overall total to 75 percent by November 29.

**Sorghum:** Nationally, 98 percent of the sorghum was harvested by week's end, 7 percentage points ahead of last year and slightly ahead of the 5-year average.

**Other Crops:** Peanut producers had harvested 93 percent of the nation's crop by November 29, seven percentage points behind last year and 6 points behind the 5-year average. The peanut harvest was at least 90 percent complete in all estimating states except South Carolina.



The complex interaction between eastern Pacific Hurricane Sandra; a strong cold front bisecting the United States; and a deep upper-level trough of low pressure over western North America led to a variety of weather extremes. Sandra reached peak intensity early Thanksgiving Day, November 26, with maximum sustained winds near 145 mph (Category 4) and a central pressure estimated at 935 millibars (27.61 inches). In the satellite image at left, Sandra was a rapidly weakening Category 2 hurricane with sustained winds near 100 mph. Sandra never made landfall, dissipating before reaching the Mexican coast, but tropical moisture in the middle and upper levels of the atmosphere contributed to late-November downpours and flooding in portions of the south-central U.S.

On November 27, daily-record rainfall totals included 3.45 inches in Dallas-Ft. Worth (DFW), TX; 2.70 inches in McAlester, OK; and 2.57 inches in Batesville, AR. DFW's storm-total (November 26-29) rainfall reached 8.03 inches. On the "warm" side of the cold front, daily-record highs were noted on November 27 in Poughkeepsie, NY (66°F), and Reading, PA (65°F). In contrast, daily-record lows dipped to -22°F in Big Piney, WY, and -15°F in Burns, OR.

**Crop Progress and Condition**

**Week Ending November 29, 2015**

Weekly U.S. Progress and Condition Data provided by USDA/NASS

Winter Wheat Percent Emerged				
	Prev Year	Prev Week	Nov 29 2015	5-Yr Avg
AR	96	80	85	95
CA	77	55	70	62
CO	100	100	100	99
ID	100	91	95	99
IL	97	95	100	98
IN	92	97	100	97
KS	99	97	99	98
MI	89	100	100	98
MO	74	90	96	86
MT	100	97	98	93
NE	100	100	100	100
NC	73	40	60	64
OH	93	100	100	97
OK	99	93	97	96
OR	90	76	79	93
SD	100	100	100	94
TX	83	74	79	82
WA	100	85	87	98
18 Sts	94	90	93	93
These 18 States planted 87% of last year's winter wheat acreage.				

Winter Wheat Condition by Percent					
	VP	P	F	G	EX
AR	3	8	49	36	4
CA	0	0	20	35	45
CO	1	8	40	43	8
ID	0	1	33	59	7
IL	1	5	27	55	12
IN	1	3	26	58	12
KS	2	8	42	42	6
MI	1	2	18	61	18
MO	0	9	42	45	4
MT	0	2	25	57	16
NE	0	6	31	54	9
NC	2	9	20	64	5
OH	0	2	27	55	16
OK	3	10	36	38	13
OR	0	15	68	17	0
SD	0	1	30	55	14
TX	3	8	33	36	20
WA	5	12	46	34	3
18 Sts	2	7	36	44	11
Prev Wk	2	8	37	42	11
Prev Yr	1	5	36	49	9

Cotton Percent Harvested				
	Prev Year	Prev Week	Nov 29 2015	5-Yr Avg
AL	91	81	85	92
AZ	74	70	75	68
AR	100	100	100	100
CA	99	99	100	98
GA	90	64	74	85
KS	62	63	69	80
LA	100	100	100	100
MS	100	96	99	100
MO	91	92	96	94
NC	91	71	85	92
OK	57	70	75	74
SC	98	58	64	89
TN	94	90	96	93
TX	58	60	75	80
VA	96	89	94	96
15 Sts	83	70	80	88
These 15 States harvested 99% of last year's cotton acreage.				

Sorghum Percent Harvested				
	Prev Year	Prev Week	Nov 29 2015	5-Yr Avg
AR	100	100	100	100
CO	93	97	99	96
IL	99	100	100	100
KS	94	95	97	98
LA	100	100	100	100
MO	95	94	96	98
NE	100	95	97	100
NM	48	75	95	79
OK	93	95	96	93
SD	100	95	97	99
TX	85	91	98	94
11 Sts	91	94	98	97
These 11 States harvested 98% of last year's sorghum acreage.				

Peanuts Percent Harvested				
	Prev Year	Prev Week	Nov 29 2015	5-Yr Avg
AL	99	82	90	97
FL	99	96	98	100
GA	100	89	94	100
NC	99	85	90	99
OK	92	90	95	96
SC	100	65	74	99
TX	95	85	97	98
VA	100	99	100	100
8 Sts	100	87	93	99
These 8 States harvested 97% of last year's peanut acreage.				

VP - Very Poor; P - Poor;  
 F - Fair;  
 G - Good; EX - Excellent  
  
 NA - Not Available  
 \* Revised

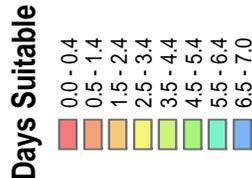
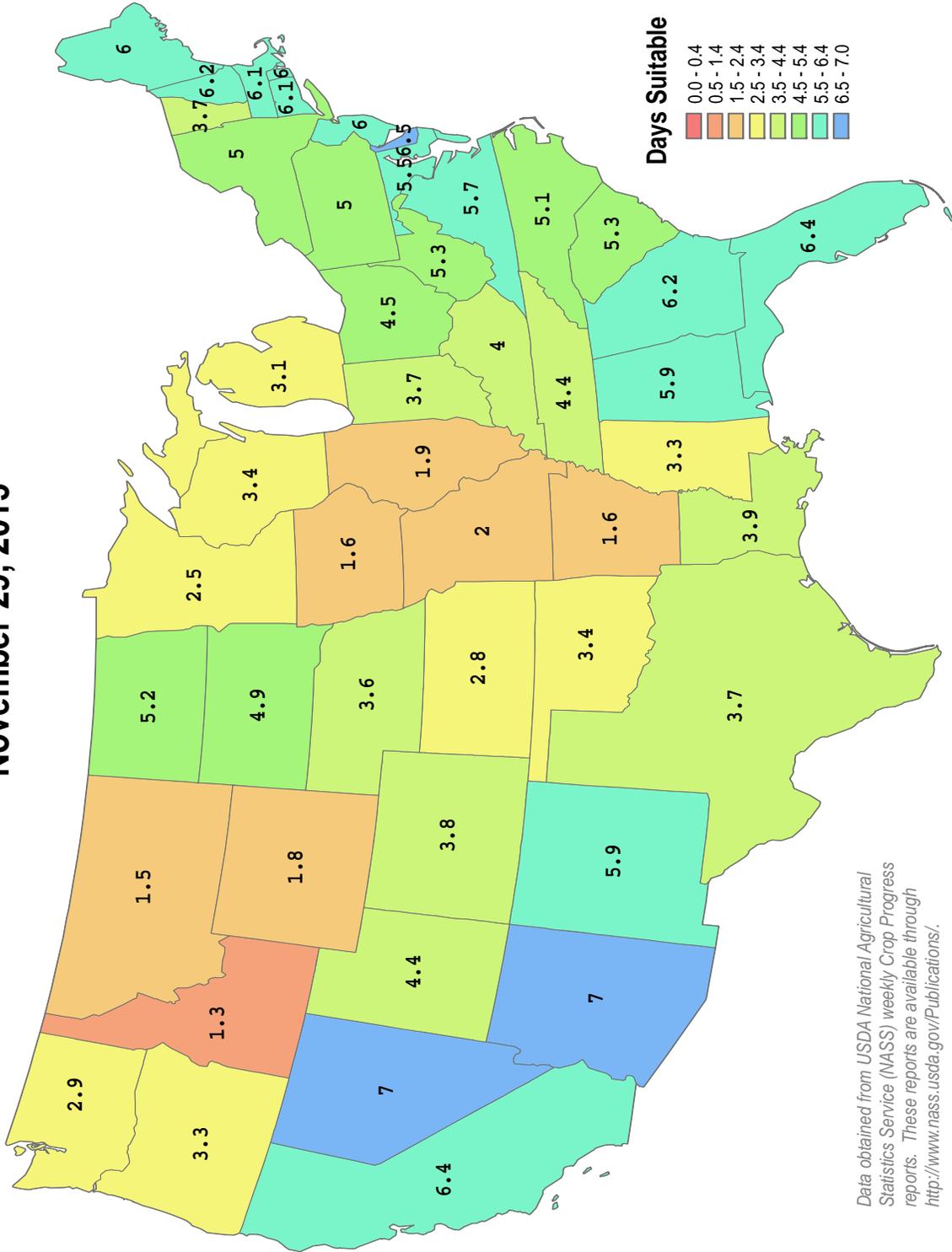
### Crop Progress and Condition

#### Week Ending November 29, 2015

Weekly U.S. Progress and Condition Data provided by USDA/NASS

# Days Suitable for Fieldwork

## Week Ending November 29, 2015



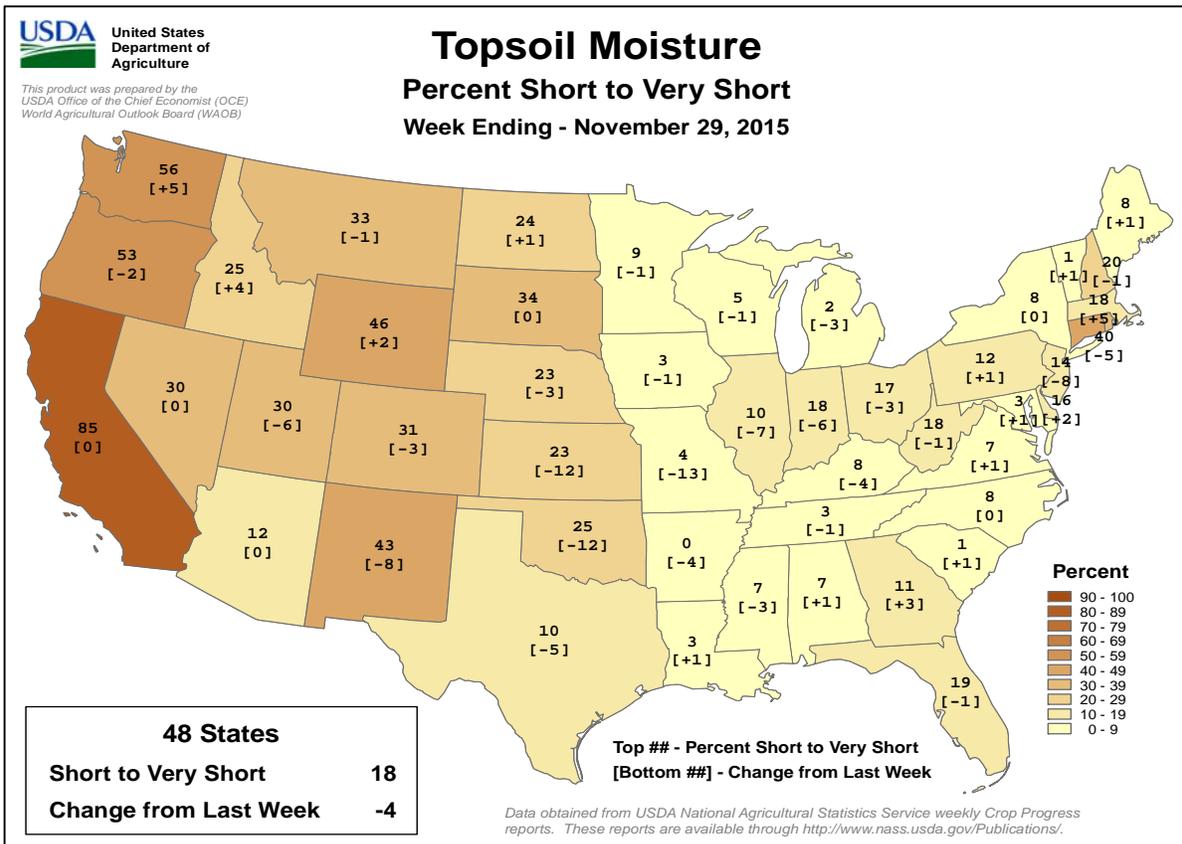
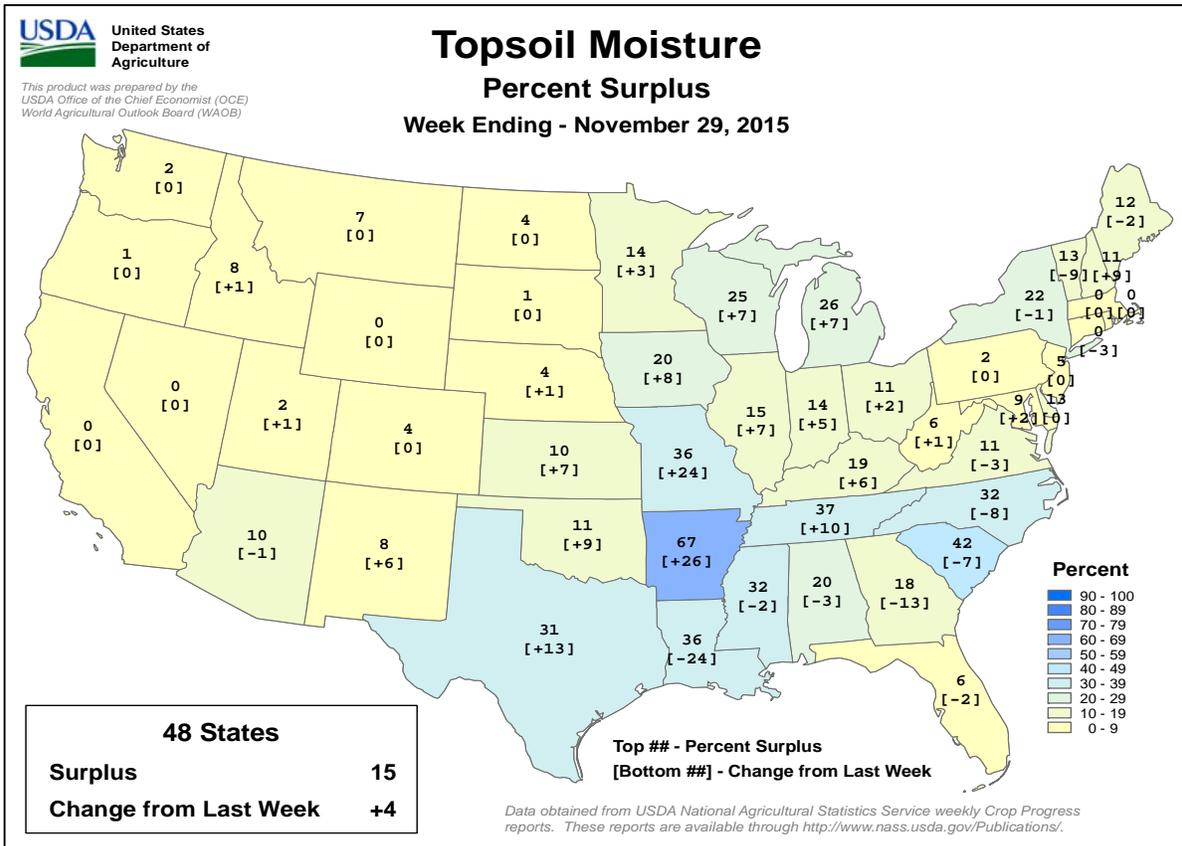
This product was prepared by the  
 USDA Office of the Chief Economist (OCE)  
 World Agricultural Outlook Board (WAOB)

Data obtained from USDA National Agricultural  
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### Crop Progress and Condition

#### Week Ending November 29, 2015

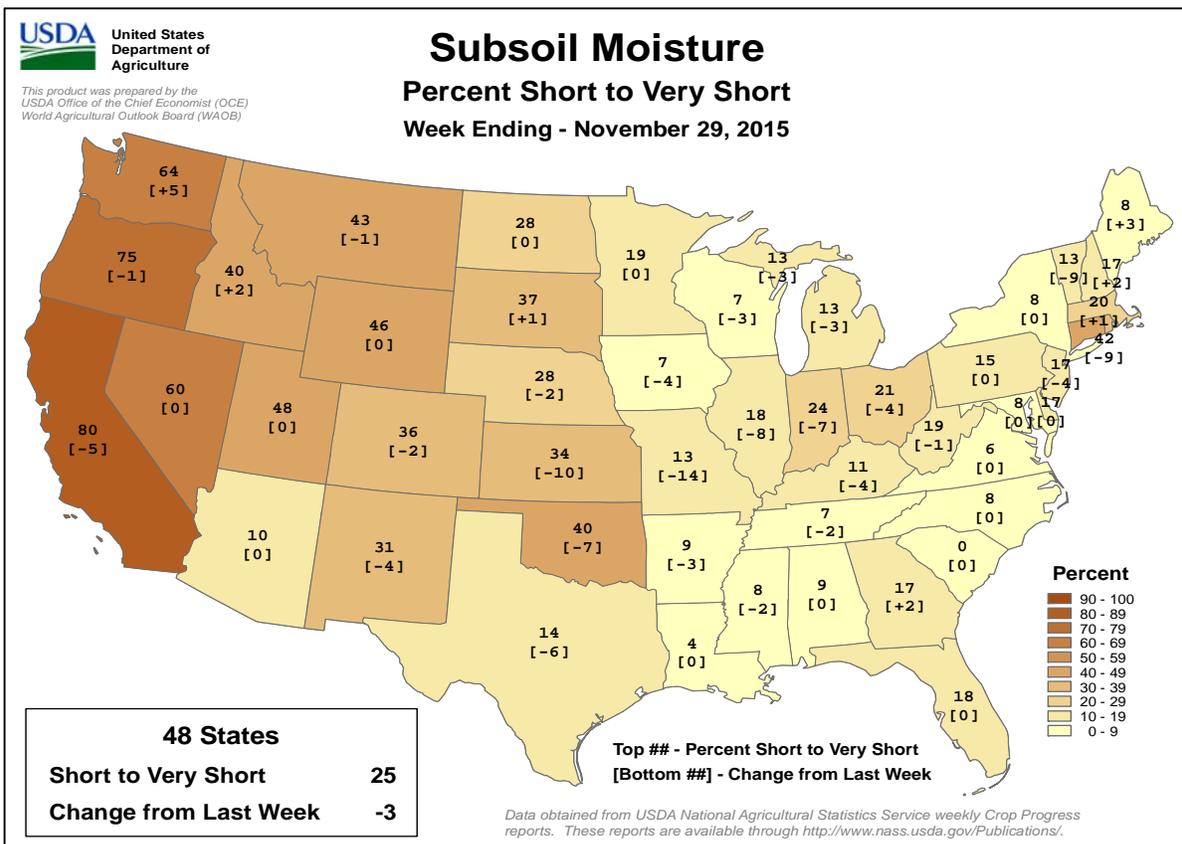
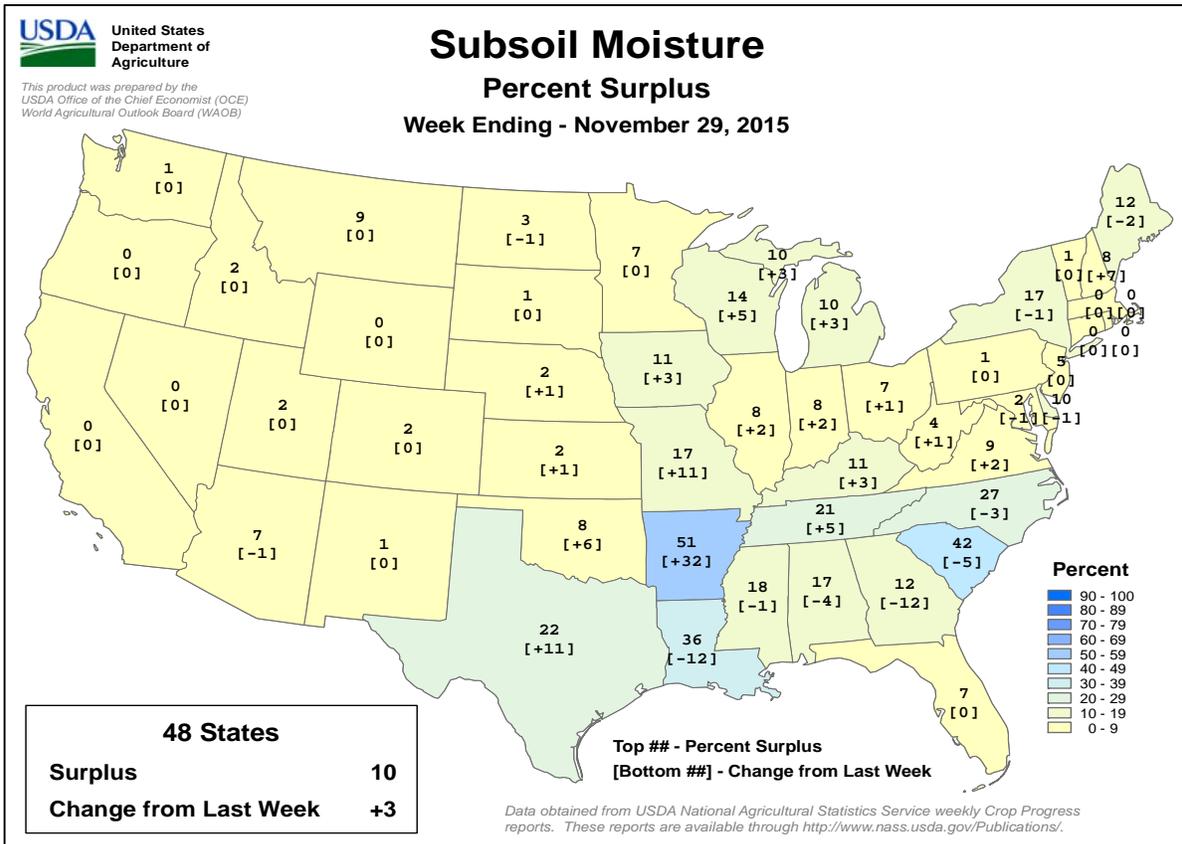
Weekly U.S. Progress and Condition Data provided by USDA/NASS



**Crop Progress and Condition**

**Week Ending November 29, 2015**

Weekly U.S. Progress and Condition Data provided by USDA/NASS



## International Weather and Crop Summary

November 22-28, 2015

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

### HIGHLIGHTS

**EUROPE:** Heavy rain overspread southeastern Europe, while chilly conditions settled over the rest of the continent.

**WESTERN FSU:** Additional rain and snow further eased drought from central Ukraine into western Russia, while warmer-than-normal conditions promoted winter wheat development in southern Russia.

**MIDDLE EAST:** Drier weather promoted a resumption of fieldwork in Iraq and western Iran, while showers improved soil moisture for winter wheat development in Turkey.

**NORTHWESTERN AFRICA:** Moderate to heavy rain favored winter grain development in central and eastern portions of the region, while dry weather further reduced topsoil moisture in Morocco.

**EASTERN ASIA:** A sudden blast of arctic air forced winter crops into dormancy earlier than usual and likely caused some freeze damage.

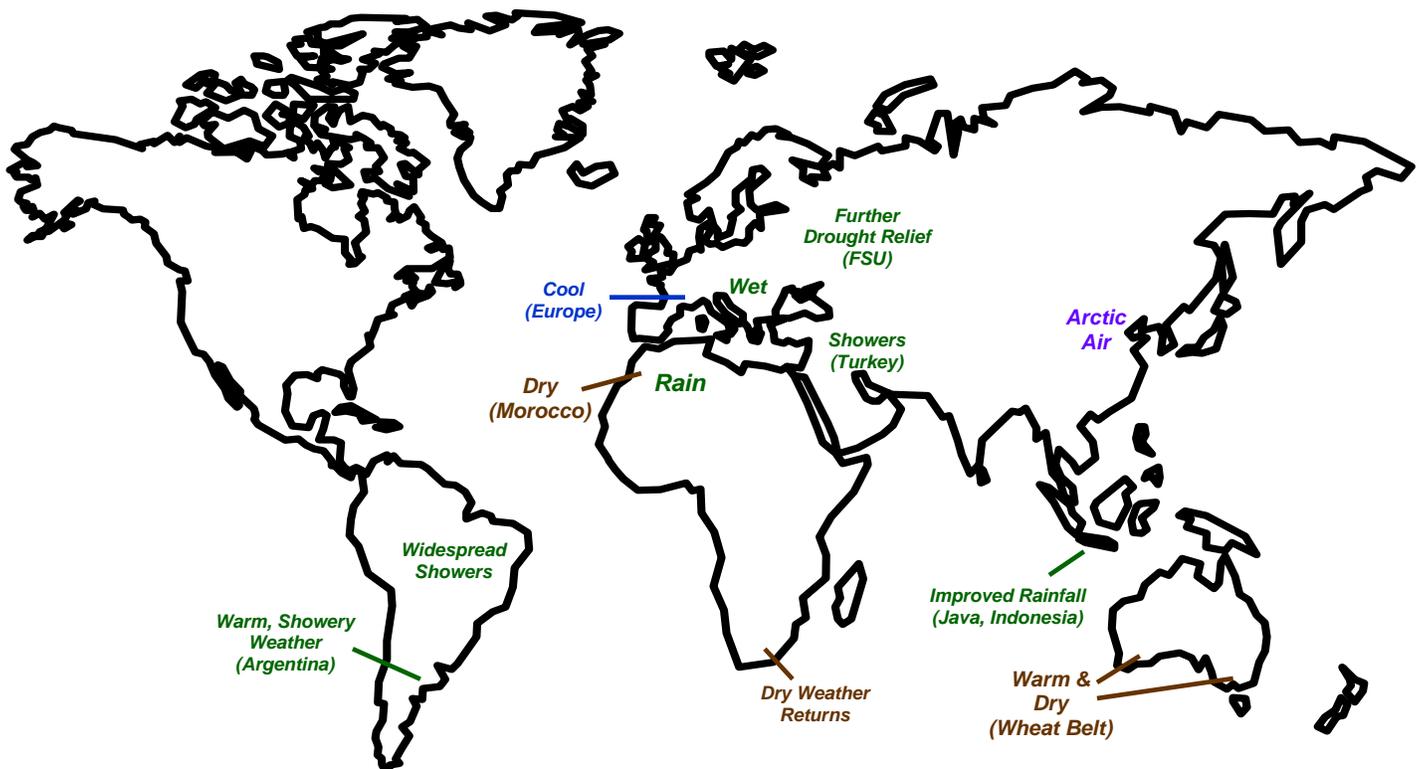
**SOUTHEAST ASIA:** Seasonable showers continued to improve water supplies for rice in Java, Indonesia, but more rainfall is needed.

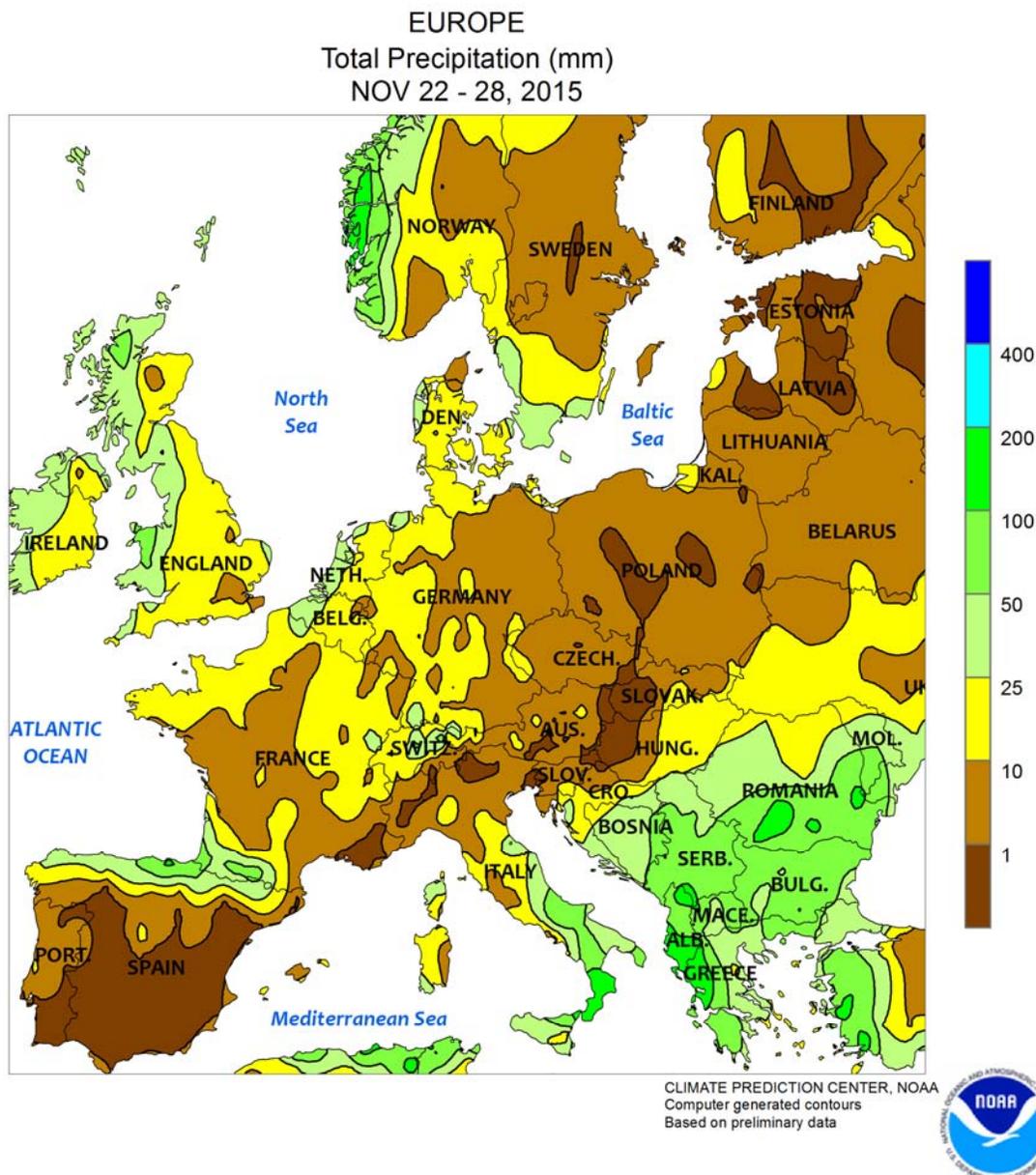
**AUSTRALIA:** Very warm, mostly dry weather persisted in the wheat belt, aiding winter grain and oilseed maturation and harvesting.

**SOUTH AFRICA:** Drier weather returned, favoring planting of corn and other summer crops.

**ARGENTINA:** Warm, showery weather maintained overall favorable conditions of both winter and summer crops.

**BRAZIL:** Widespread, locally heavy showers benefited rain-fed summer crops, while further improving conditions for sugarcane and cotton.



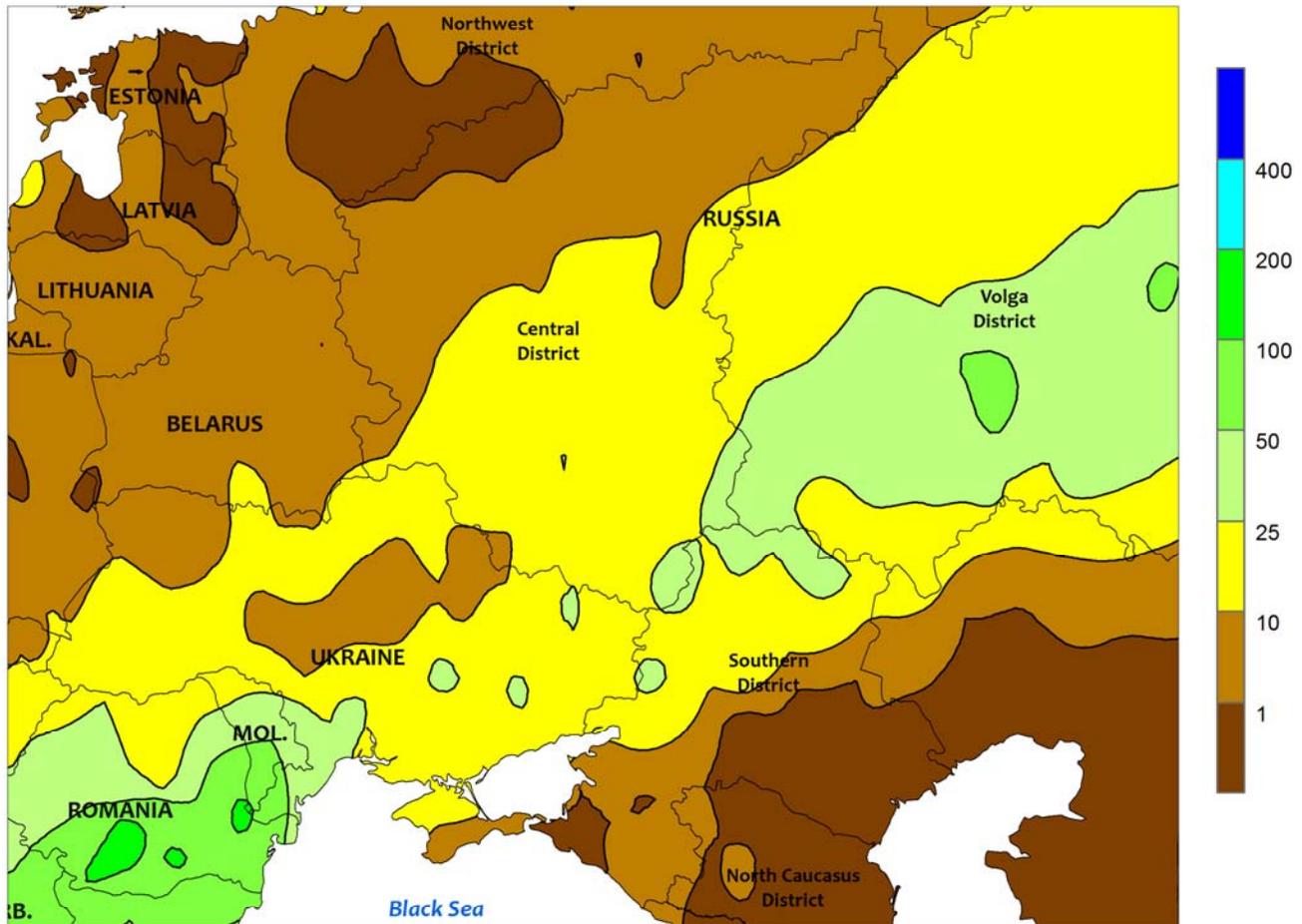


**EUROPE**

Heavy rain overspread southeastern Europe, while chilly conditions settled over the rest of the continent. A slow-moving Mediterranean storm system produced moderate to heavy rainfall (15-130 mm, locally more) from Greece and southern Italy into the southern and central Balkans, boosting soil moisture for winter wheat and rapeseed development but curtailing late-season fieldwork. In contrast, mostly dry albeit chilly weather (1-3°C below normal) promoted winter grain planting across Spain and northern Italy. Over central and northern Europe, the coldest weather of the season eased winter crops toward dormancy from Germany into Poland,

with weekly average temperatures well below 5°C in many primary growing areas. Highly variable precipitation (trace to more than 40 mm) was reported over northern Europe, with the season's first snow observed in parts of Germany and the higher elevations of the Balkans. Elsewhere, rain maintained adequate to abundant soil moisture for winter crop development in the United Kingdom, while rain and snow (10-30 mm liquid equivalent) sustained favorable moisture reserves for semi-dormant to dormant winter grains and oilseeds across the Low Countries, Denmark, and southern Scandinavia.

WESTERN FSU  
 Total Precipitation (mm)  
 NOV 22 - 28, 2015



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

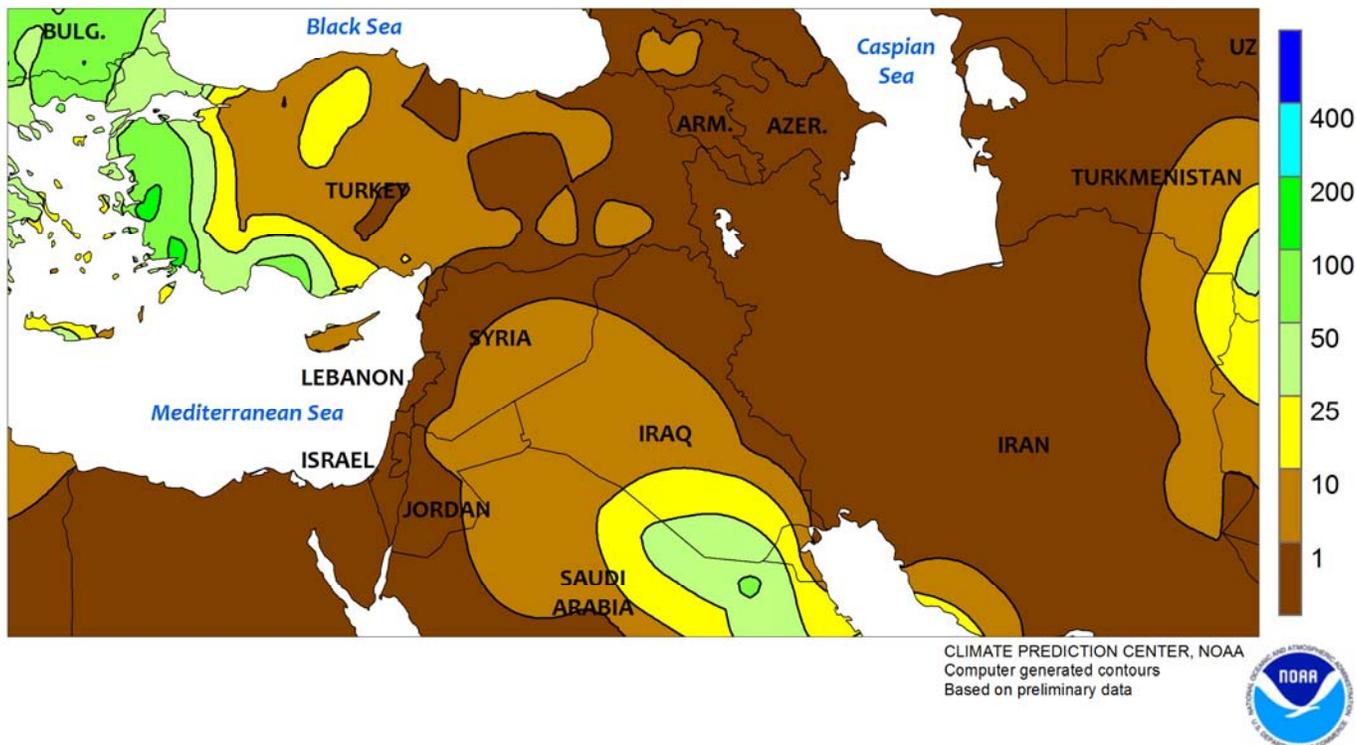


**WESTERN FSU**

Rain and snow further eased drought in Ukraine and western Russia, while warmth favored winter wheat development in southern Russia. Another round of rain and snow (5-30 mm liquid equivalent, locally more) continued to alleviate the vestiges of autumn drought from central Ukraine into Russia's Central District. While not enough to completely eradicate lingering 90-day deficits, the precipitation provided additional much-needed moisture for late winter wheat establishment in the still-vegetative southern growing areas. However, weekly average temperatures below 5°C expanded southward into central Ukraine and the northern Southern

District, indicating winter wheat in these areas was now dormant. In addition, a shallow snow cover (2-10 cm) was now on the ground from eastern-most Ukraine into southern portions of the Central District as well as the northern Southern District. Meanwhile, winter wheat in southern Russia developed favorably under sunny skies and above-normal temperatures (5-8°C above normal); in the Krasnodar Oblast in the southwestern corner of Russia's Southern District (a key wheat producer), most stations have received over 100 mm of rainfall since October 12, supporting good prospects for winter wheat establishment.

MIDDLE EAST  
Total Precipitation (mm)  
NOV 22 - 28, 2015

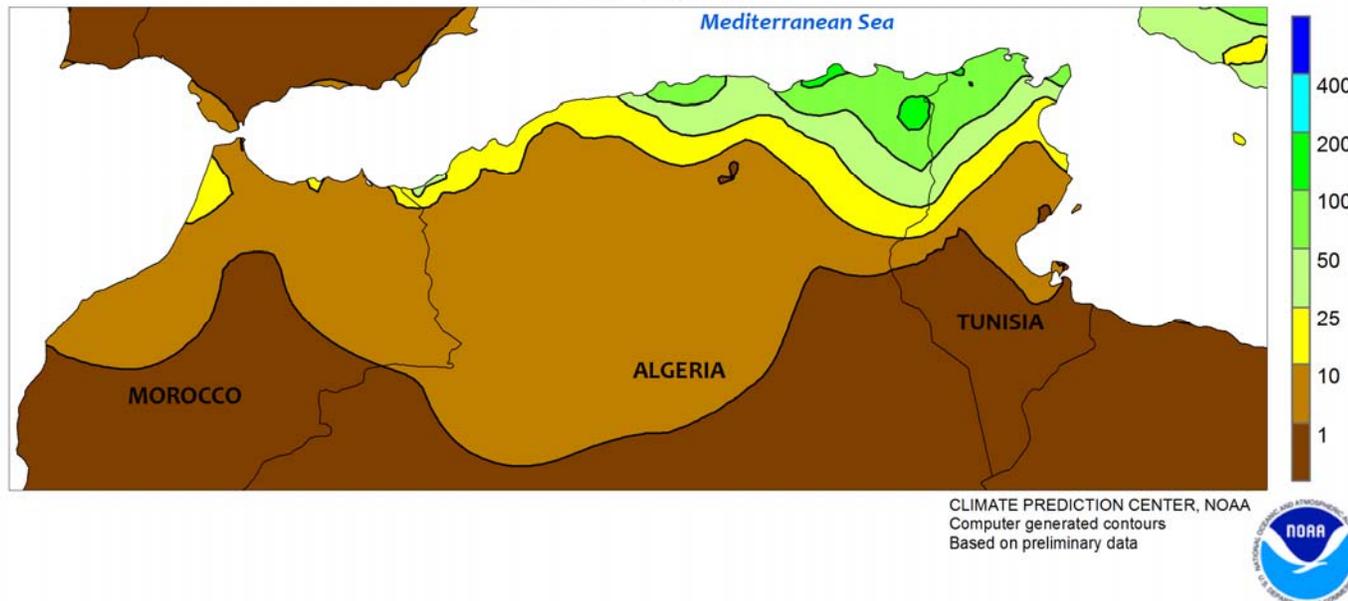


MIDDLE EAST

Welcomed rainfall in western portions of the region was accompanied by a return of favorably drier weather in central growing areas. In Turkey, increasingly heavy rain (3-20 mm on the Anatolian Plateau to more than 100 mm in western growing areas) signaled the first significant precipitation since late October, improving soil moisture for winter wheat and barley establishment. Meanwhile, a welcomed respite from recent unseasonably heavy rain in Iraq and western Iran allowed fields to dry and producers to resume winter grain planting; parts of

eastern Iraq and western Iran have reported more than 150 mm of rain since the beginning of October, representing a season's worth of rainfall in two months in some cases. Sunny skies also favored seasonal fieldwork from the eastern Mediterranean Coast into northern Iran, though rain was approaching at the end of the period. Despite the arrival of chilly air (-5 to 0°C) early in the period over northern and central winter wheat areas, weekly average temperature well above 5°C indicated crops were not yet dormant.

NORTHWESTERN AFRICA  
Total Precipitation (mm)  
NOV 22 - 28, 2015

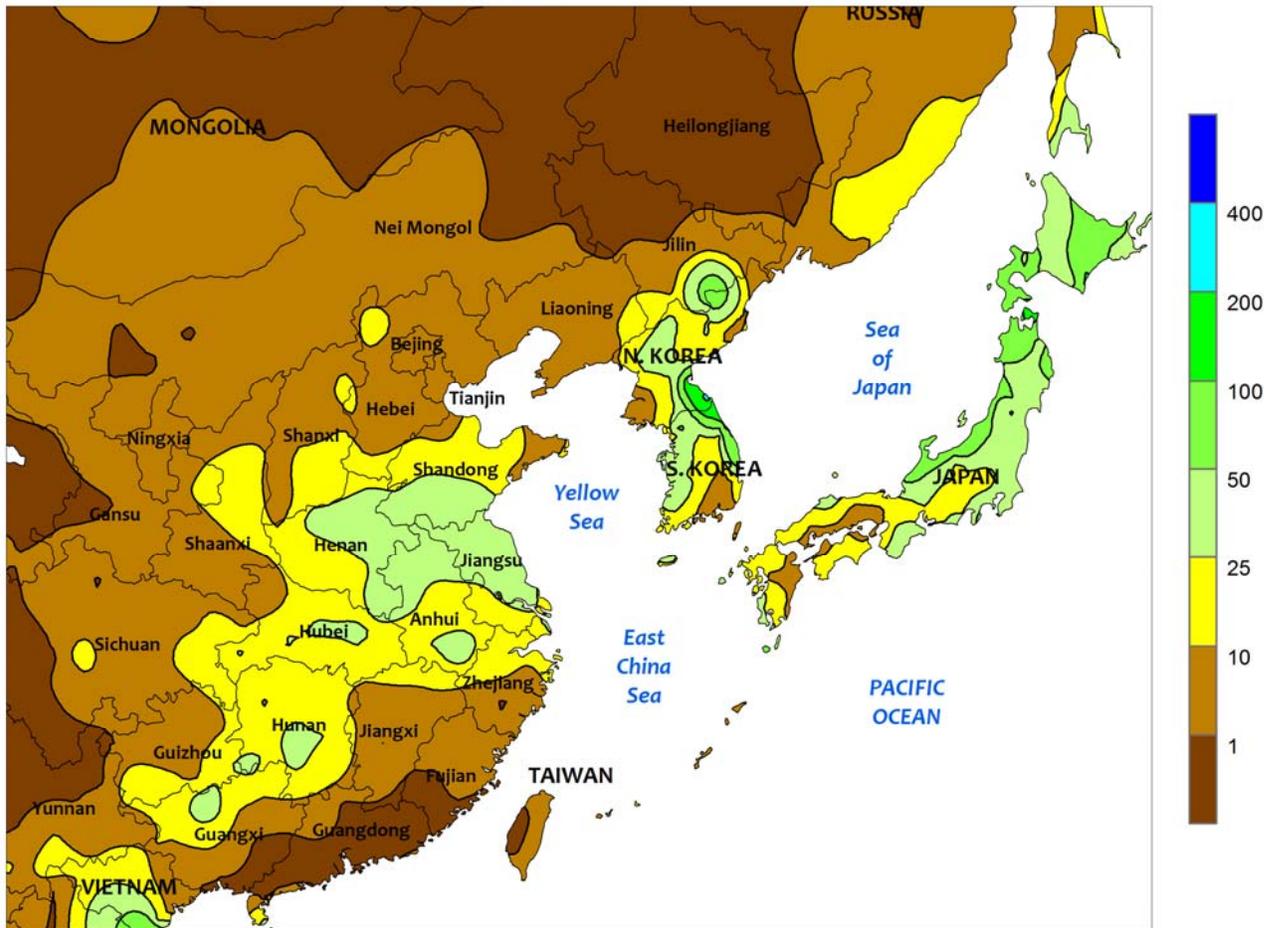


#### NORTHWESTERN AFRICA

Rain in central and eastern growing areas contrasted with increasing dryness in western portions of the region. A Mediterranean storm system produced moderate to heavy rainfall (20-130 mm) from central Algeria into northern Tunisia, with somewhat lighter showers (8-40 mm) noted in northwestern Algeria. The rain alleviated short-term

dryness and improved soil moisture for winter grain establishment. Meanwhile, protracted short-term dryness (little if any rain during the period, 25 mm or less since October 21) persisted in Morocco, further reducing topsoil moisture for winter grain establishment after a favorably wet start to the winter growing season.

EASTERN ASIA  
Total Precipitation (mm)  
NOV 22 - 28, 2015



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

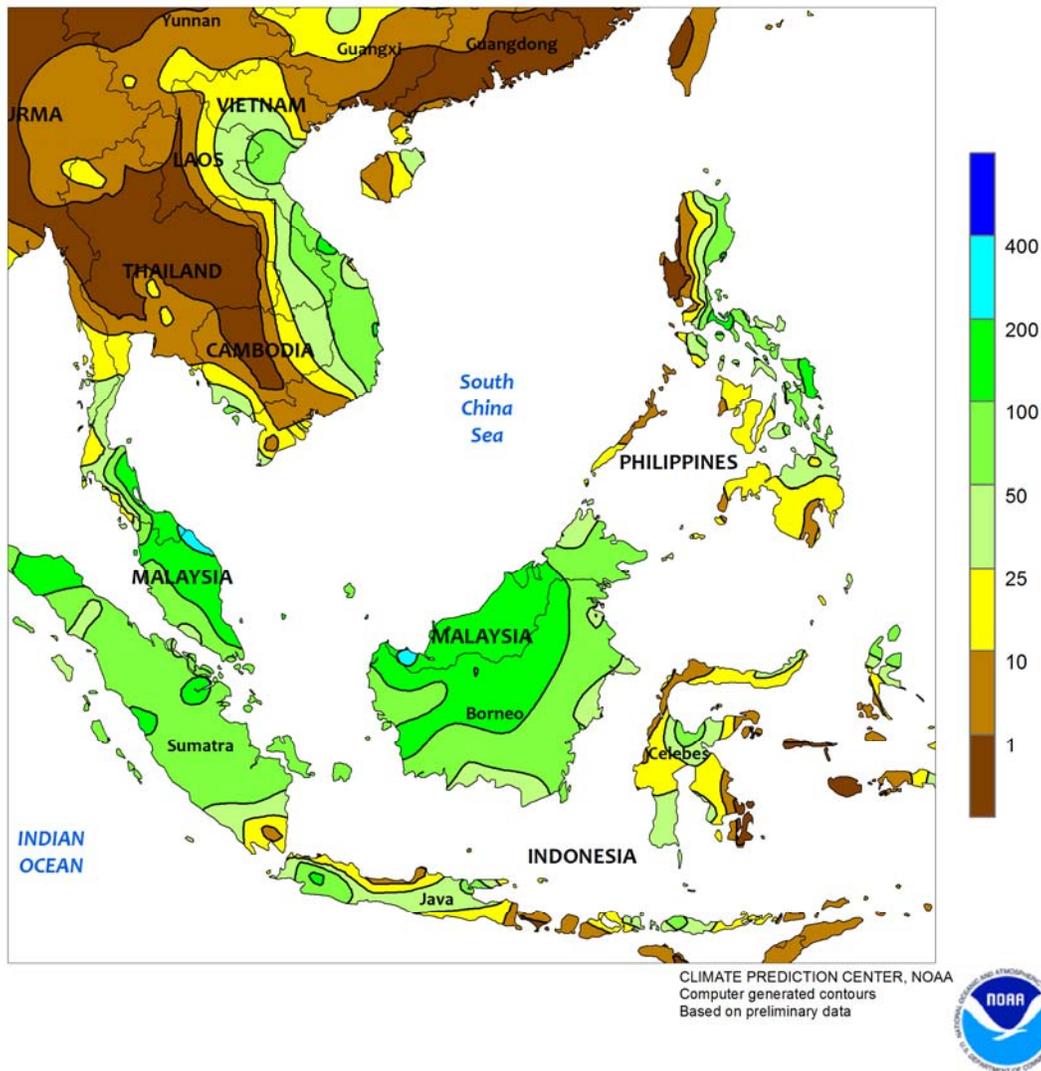


**EASTERN ASIA**

Early-week showers on the North China Plain and within the Yangtze Valley turned to snow by mid-week with a sudden blast of arctic air. Liquid equivalent of the rain and snow was 10 to 25 mm in northern portions of the North China Plain and into much of the Yangtze Valley, with upwards of 50 mm in central and southern areas of the North China Plain. Prior to the onset of frigid weather, the rainfall along with generally mild weather promoted good growth of wheat and rapeseed. However, as minimum temperatures plunged below -10°C by mid-week, all

development stopped as crops were suddenly forced into dormancy with little time to acclimate and harden to sub-freezing temperatures. Some freeze damage was likely in the coldest areas (Shandong and Hebei), where minimum temperatures dipped to nearly -15°C. Temperatures returned to more seasonable levels by the end of the week, preventing further damage. While the first freeze of the season typically occurs at the end of November in the main winter crop areas, minimum temperatures do not usually fall below -10°C until January.

SOUTHEAST ASIA  
Total Precipitation (mm)  
NOV 22 - 28, 2015

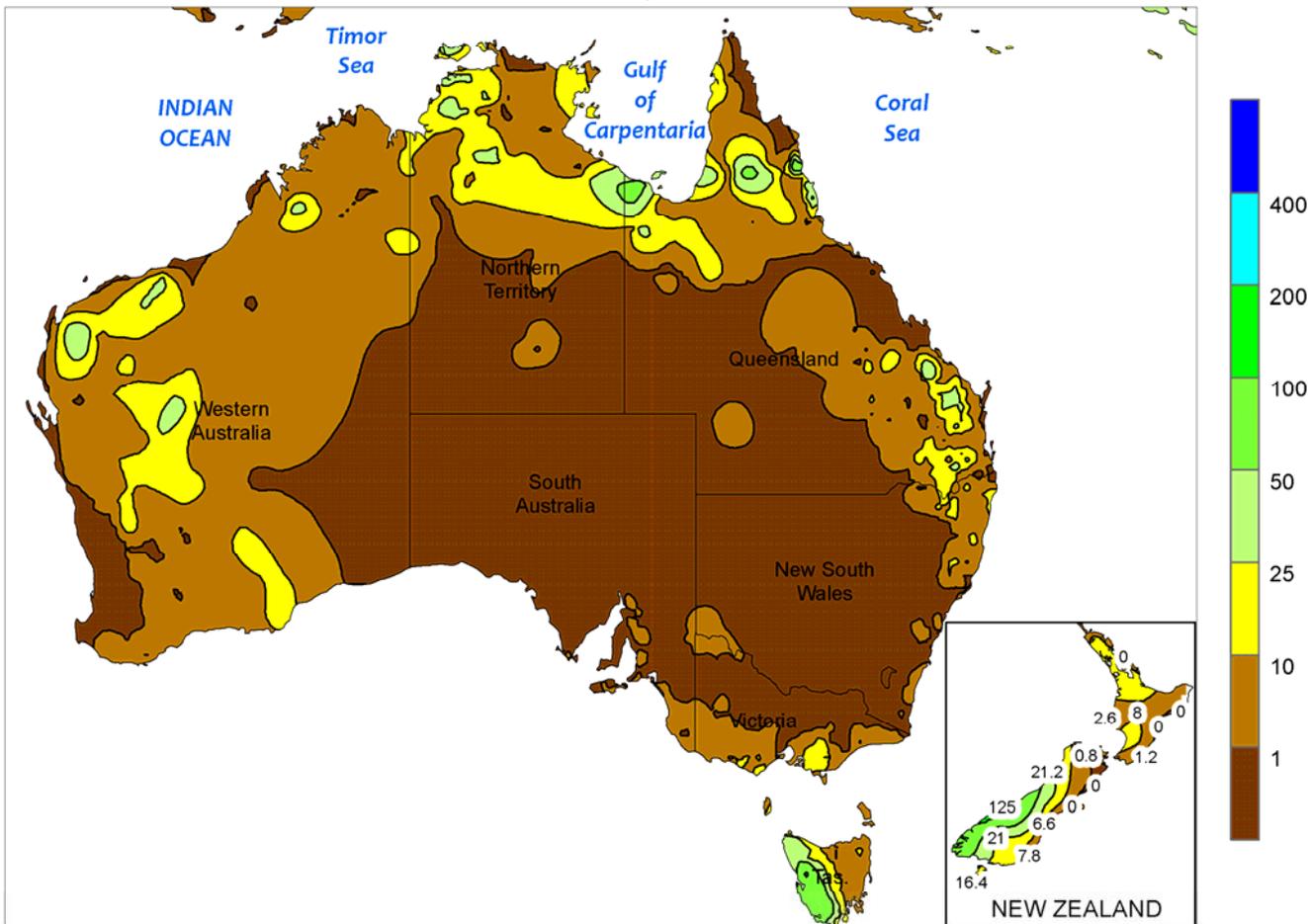


**SOUTHEAST ASIA**

Seasonal rainfall continued across western Java, Indonesia, while the rainy season had yet to begin in other parts of Java. In western rice areas, upwards of 130 mm of rain improved water supplies and reduced deficits. Short-term rainfall totals (since November 1) have been on par with the long-term average but seasonal totals (since August 1) have lagged the average by almost 200 mm. In other parts of Java, showers remained unseasonably light (less than 25 mm in most areas), with the rainy season delayed by nearly three weeks in the central growing area. Meanwhile, consistent showers (50-100 mm or more) in oil palm areas

of Indonesia and Malaysia continued to boost soil moisture for trees but slowed harvesting. Farther north, seasonal showers continued in the eastern Philippines, benefiting winter rice and corn, while drier-than-normal conditions persisted in the south (Mindanao). Elsewhere, showers (25-50 mm) in northern Vietnam slowed winter rice harvesting that was nearly complete as well as slowing lingering coffee harvesting in the Central Highlands. Temperatures remained above normal across Indochina, increasing water demands of rice, particularly in Thailand where reservoir levels are critically low.

AUSTRALIA  
Total Precipitation (mm)  
NOV 22 - 28, 2015



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

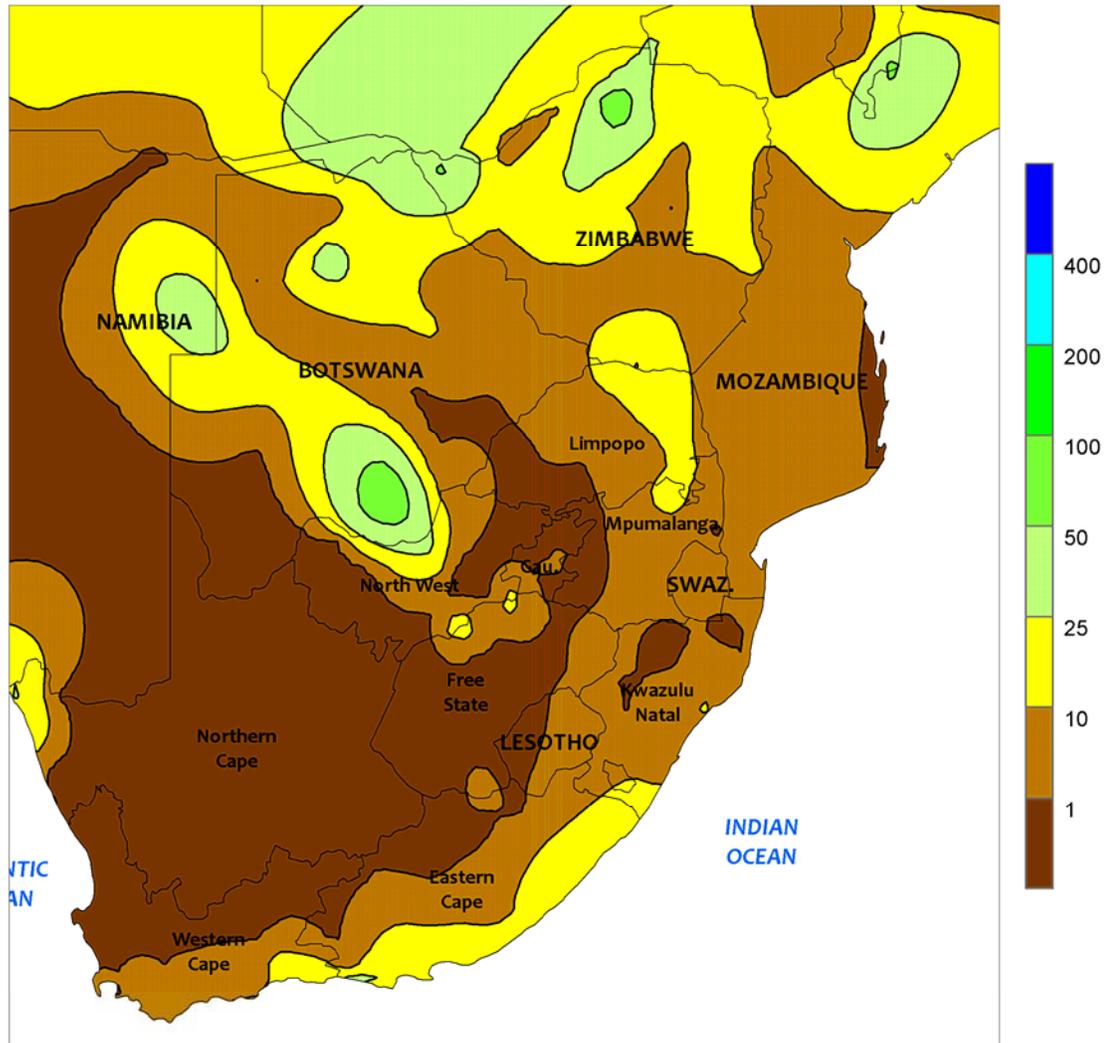


**AUSTRALIA**

For a second consecutive week, very warm, mostly dry weather persisted in the wheat belt, aiding wheat, barley, and canola maturation and harvesting. Although the weather was favorable for winter grains and oilseeds, the warmth and dryness in New South Wales increased irrigation requirements for summer crops and reduced topsoil moisture for dryland crops. In contrast, widespread showers (5-25 mm, locally more) in southern Queensland

avored summer crop emergence and establishment and may have encouraged additional planting in its wake. Temperatures in southern Queensland and northern New South Wales averaged 2 to 4°C above normal, with maximum temperatures generally in the middle to upper 30s degrees C. Elsewhere in New South Wales, temperatures averaged near normal with maximum temperatures mostly in the upper 20s to lower 30s degrees C.

SOUTH AFRICA  
Total Precipitation (mm)  
NOV 22 - 28, 2015



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



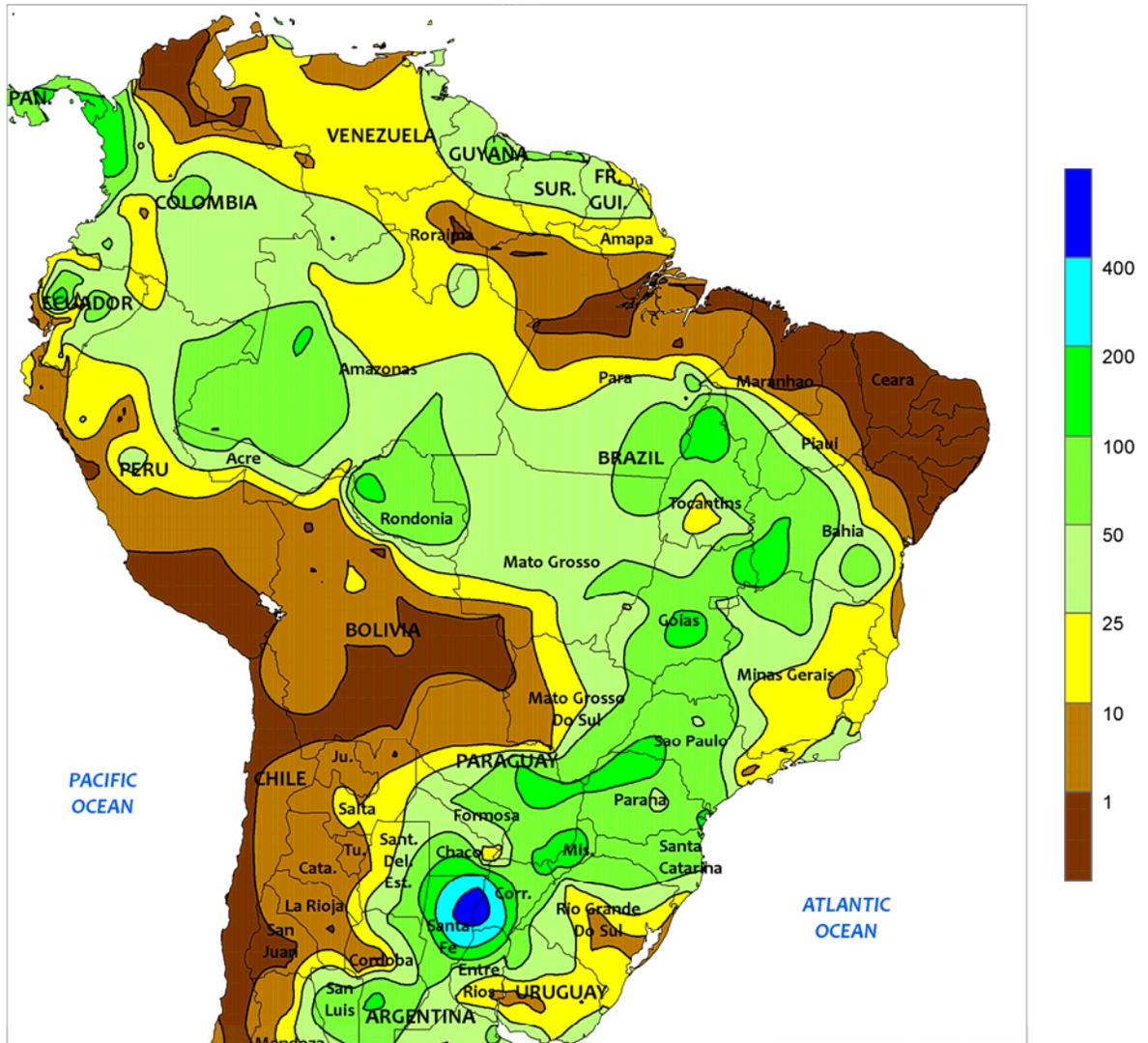
**SOUTH AFRICA**

Following last week’s much-needed rainfall, drier weather overspread the region, promoting fieldwork in areas with sufficient soil moisture for planting. Little to no rain fell across the corn belt (North West and Free State to western sections of Limpopo and Mpumalanga). Drier conditions also prevailed in the irrigated sugarcane areas of eastern Mpumalanga and northern KwaZulu-Natal, but light showers (locally greater than 10 mm) returned during the latter half of the week to rain-fed sugarcane areas of southern KwaZulu-Natal. Weekly average temperatures were generally within 1°C of normal throughout the

forementioned areas as early week mild conditions gradually gave way to warmer conditions accompanying the dryness. On several days, daytime highs reached the upper 30s (degrees C) in northern sections of the corn belt (Limpopo and bordering sections of North West, Gauteng, and Mpumalanga) and the irrigated sugarcane areas of eastern Mpumalanga and northern KwaZulu-Natal. In the Cape Provinces, rainfall (greater than 10 mm) was confined to the Indian Coast as mostly dry, seasonably mild weather (highs reaching the middle and upper 30s on several days) dominated interior farming areas.



BRAZIL  
Total Precipitation (mm)  
NOV 22 - 28, 2015



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



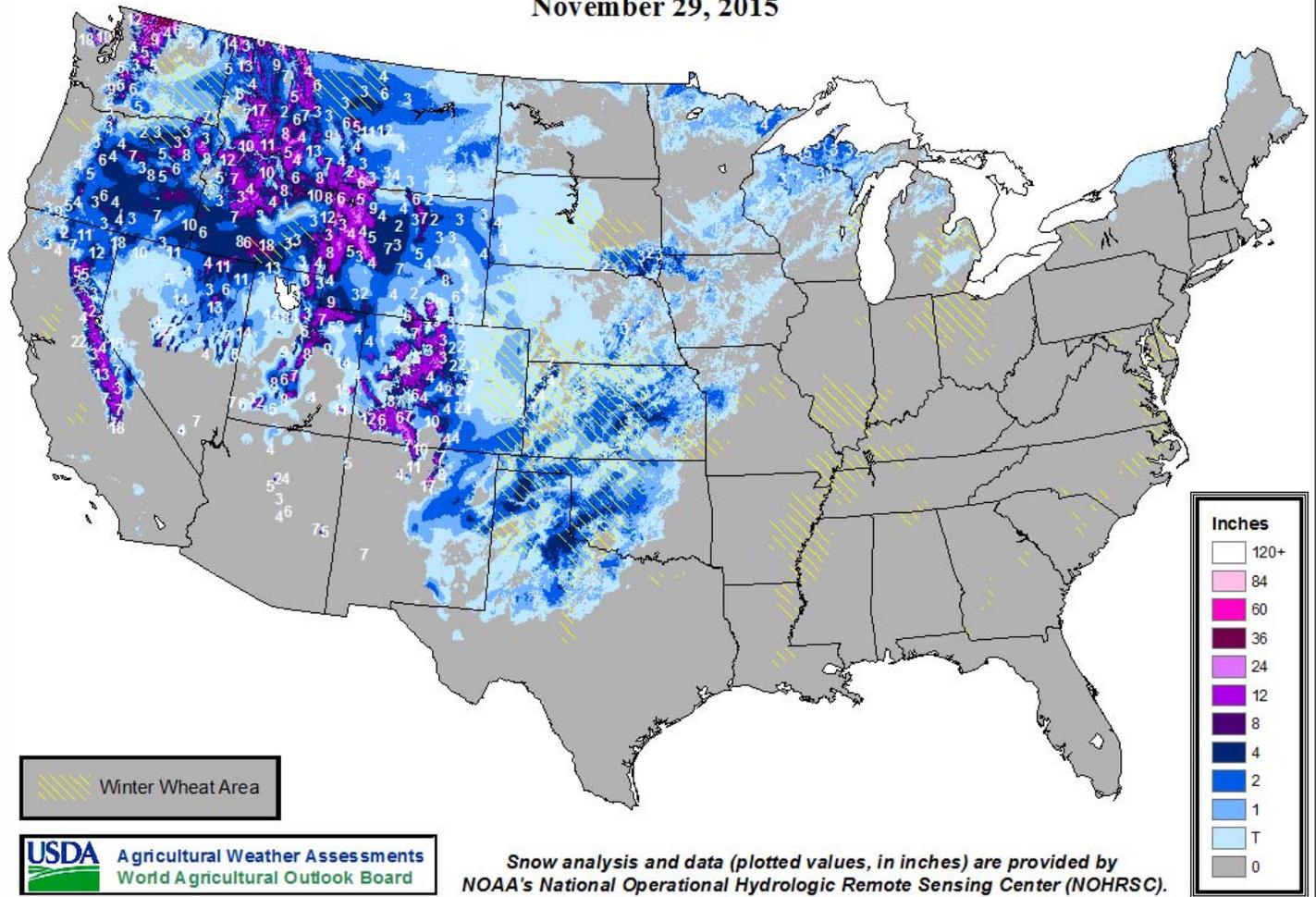
**BRAZIL**

Seasonal showers maintained overall favorable conditions for summer row crops, while helping to further improve levels of moisture for specialty crops. The biggest week-to-week increase was reported in the northeastern interior; rainfall totaled 50 to 100 mm — locally higher — in and around western Bahia, providing some soybean and cotton farms with their first significant rain of the summer planting season. Similar amounts were recorded in the Center West Region (Mato Grosso, Goiás, and Mato Grosso do Sul) and most southern production areas (Parana to northern Rio Grande do Sul). Showers tapered off from the previous week in coffee areas of southern and

eastern Minas Gerais, with some locations receiving less than 25 mm. However, abundant rain (greater than 50 mm) continued in western sections of Minas Gerais, as well as Sao Paulo, where the moisture was favorable for sugarcane and citrus. Warmer-than-normal weather (weekly temperatures averaging 1-4°C above normal, with daytime highs in excess of 35°C) maintained high crop moisture demands in the main central growing areas. Near-normal temperatures (highs reaching the upper 20s and lower 30s) favored development of soybeans and corn in the south, though the damp weather slowed the final stage of wheat harvesting in Rio Grande do Sul.

# Snow Depth

November 29, 2015



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