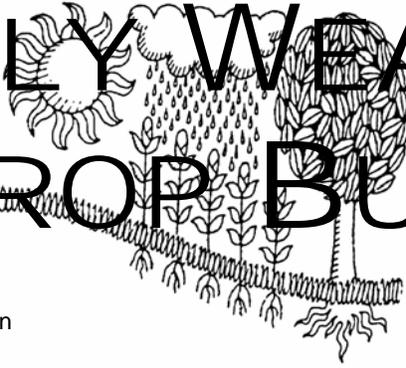
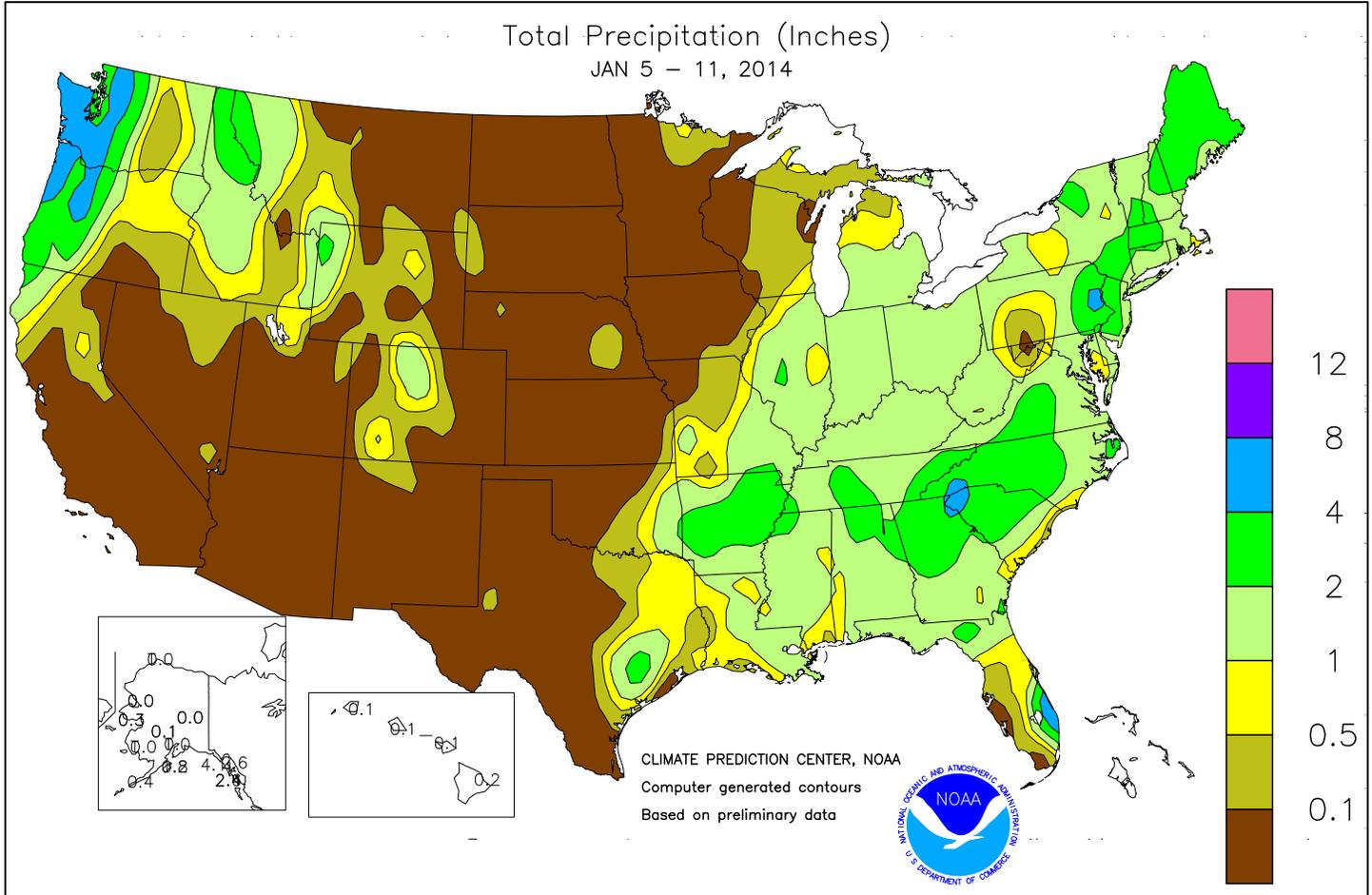


# WEEKLY WEATHER AND CROP BULLETIN



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 5 - 11, 2014

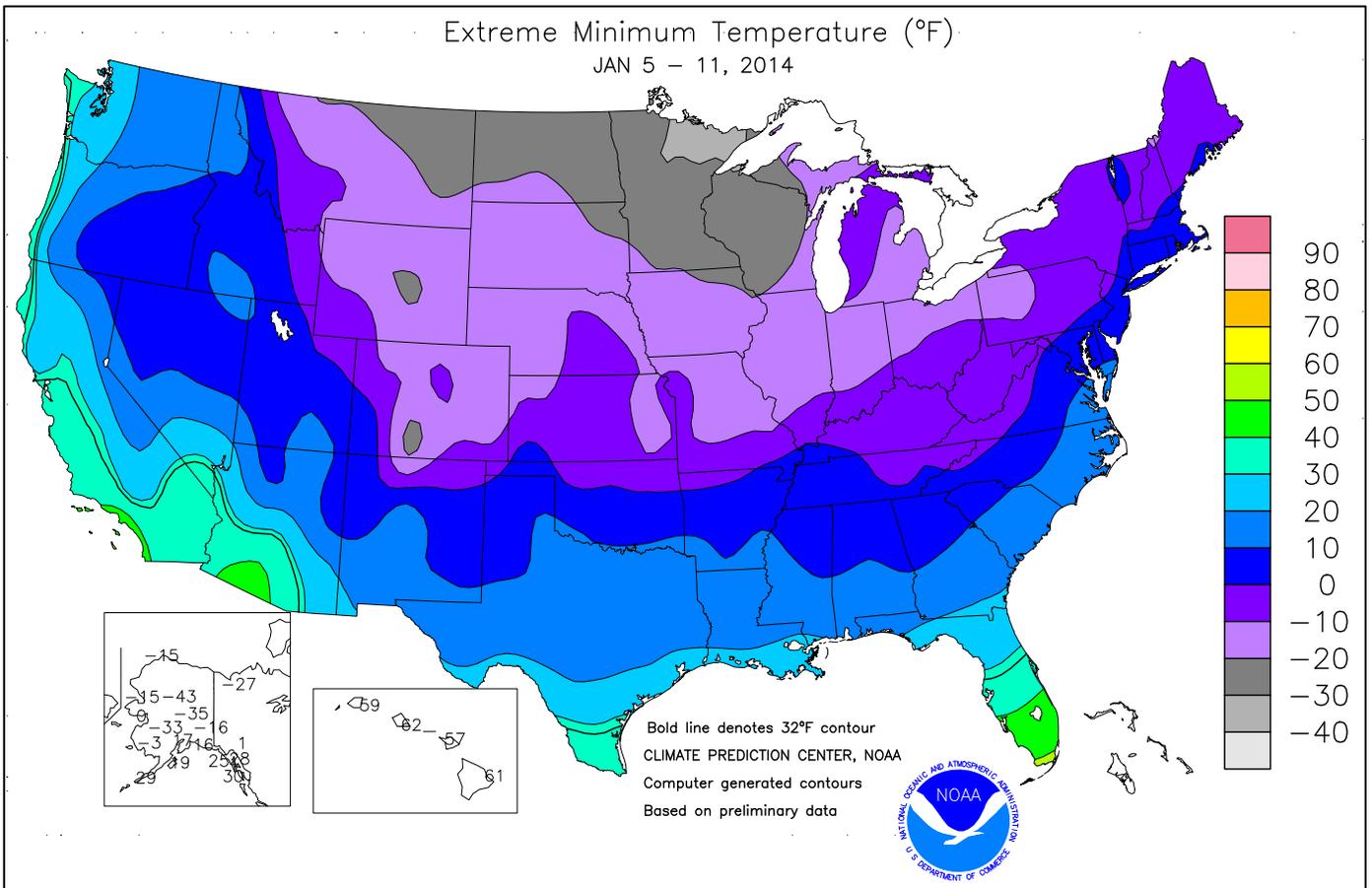
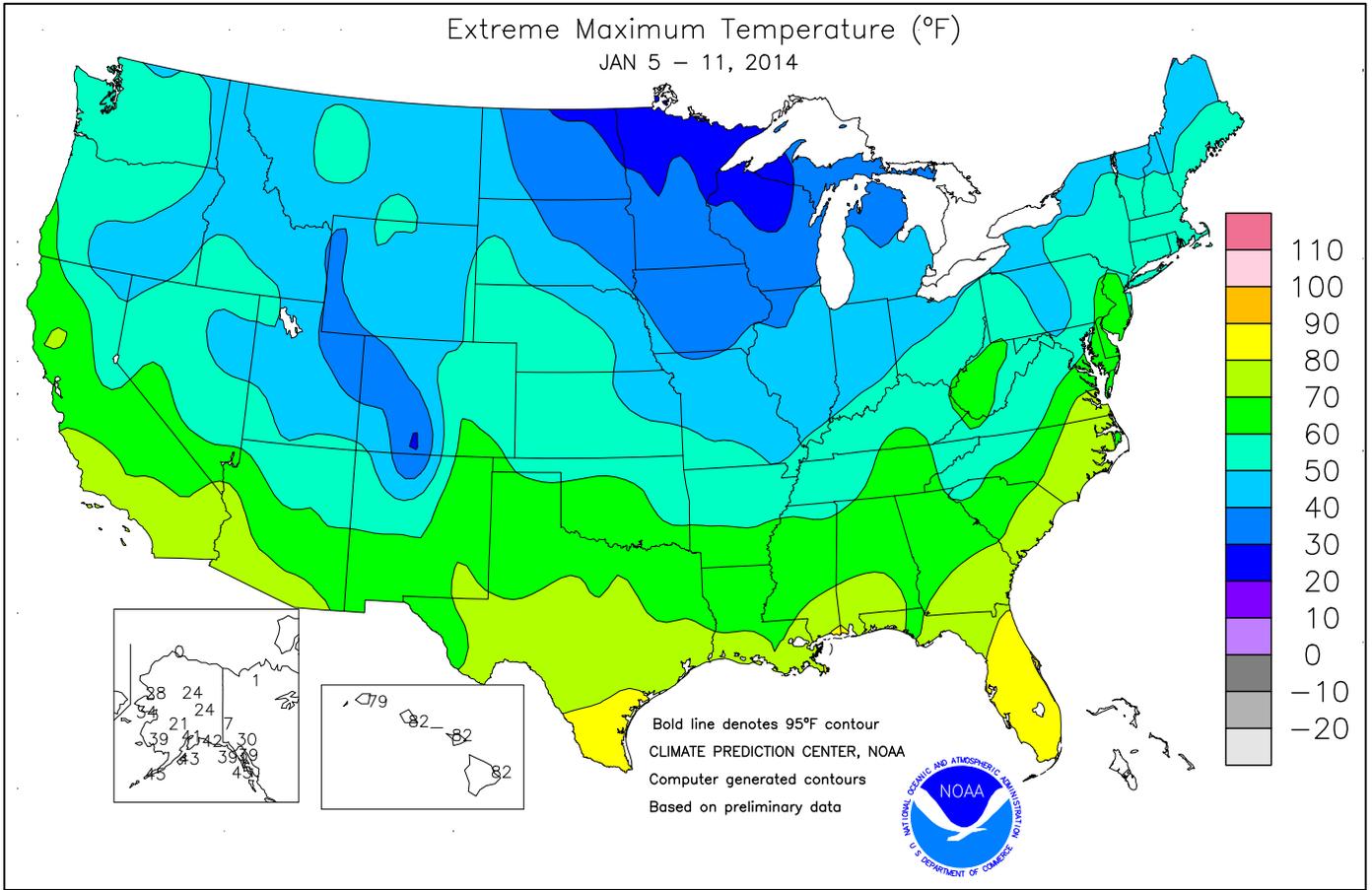
Highlights provided by USDA/WAOB

A brutal but short-lived cold wave hit much of the eastern half of the nation but spared winter agricultural areas of Deep South Texas and peninsular Florida. At the height of the cold wave, wind chill temperatures of -45 to -60°F were common across the upper Midwest. On January 6, sub-zero temperatures plunged as far south as northern Oklahoma and the Ozark Plateau, while readings below -20°F stretched from eastern Montana to Wisconsin. The following day, readings below 0°F reached as far east

(Continued on page 3)

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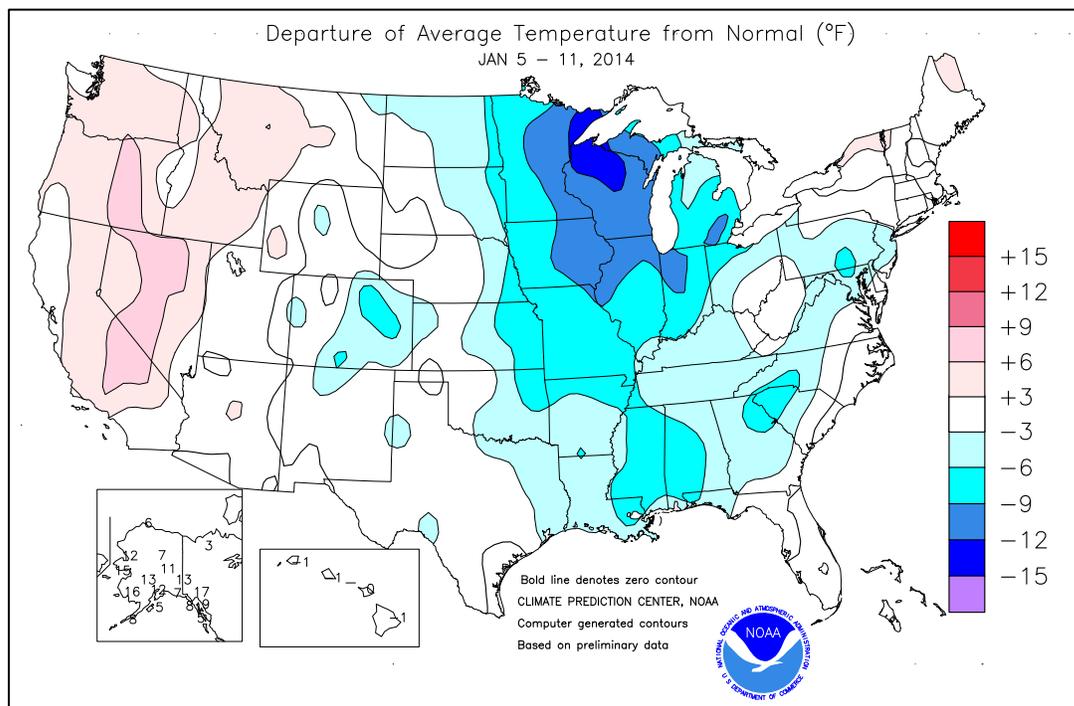
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(Continued from front cover)

as the **Appalachians**. By week's end, however, temperatures rebounded to above-normal levels nearly nationwide. Along and east of a line from **eastern Texas to the Great Lakes region**, widespread precipitation occurred both before and after the Arctic outbreak. As temperatures fell and subsequently rose, wintry precipitation (snow, sleet, and freezing rain) caused widespread travel disruptions. Some of the harshest conditions occurred early in the week across the **lower Midwest**, where heavy snow was followed by high winds and frigid conditions. Meanwhile, weekly precipitation topped 2 inches in parts of **Arkansas** and from the **southern Appalachians to New England**. Heavy showers, locally 4 inches or more, also dotted **Florida's east coast**. Farther west, some areas of the **Plains' winter wheat belt** had adequate snow to provide insulation during the cold snap. However, a protective snow cover was lacking in much of **Nebraska**, as well as neighboring areas in portions of **southern South Dakota** and **northern Kansas**, leaving wheat exposed to temperatures as low as -15°F on January 6. Elsewhere, **California's** disappointing dry winter continued, while unfavorable dryness also persisted in the **Southwest**. In the **Northwest**, however, late-week precipitation provided relief from developing drought. Precipitation topped 2 inches in parts of the **northern Rockies** and exceeded 4 inches **west of the Cascades**.

Early in the week, dangerously cold weather invaded the **northern Plains** and **Midwest**. On January 5 in **North Dakota**, wind chill temperatures plunged to -60°F in **Rolla** and -58°F in **Minot**. The following day, minimum wind chills included -55°F in **Rhinelander, WI**, and -52°F in **Rochester, MN**. Actual temperatures also dropped to record-setting levels. **Casper, WY**, posted a daily-record low of -24°F on January 5. The next day, record-breaking lows for January 6 included -25°F in **Miles City, MT**; -15°F in **Toledo, OH**; -14°F in **Detroit, MI**, and **Fort Wayne, IN**; and -13°F in **Vichy-Rolla, MO**. **Fort Wayne** reported an even lower reading, -15°F, on January 7. **Vichy-Rolla** reported a January 6 high of 1°F, tying a January 1963 record for its all-time lowest maximum temperature. With a low of -16°F on January 6, **Chicago, IL**, logged its lowest temperature since a reading of -18°F occurred on January 16, 2009. On January 7, **West Virginia** minima of -9°F in **Beckley** and -3°F in **Charleston** were the lowest since February 5, 1996, when readings dipped to -16 and -12°F, respectively. In **Vicksburg, MS**, three consecutive daily-record lows (19, 12, and 15°F) were established from January 6-8. Consecutive daily-record lows were set on January 6-7 in **Southeastern** locations such as **Tupelo, MS** (10 and 7°F); **Huntsville, AL** (8 and 4°F); **Bristol, TN** (2 and -2°F); and **London, KY** (-1 and -4°F). Cold weather lingered a bit longer in deeply snow-covered areas of the **Great Lakes region**, where **Flint, MI**, posted a daily-record low of -21°F on January 9. By week's end, however, record-setting warmth returned to parts of the **East**. Daily-record highs for January 11 reached 86°F in **Orlando, FL**, and 52°F in **Montpelier, VT**. **Georgetown, DE**, notched a daily-record high of 67°F on January 11, shorting after collecting consecutive daily-record lows (8 and 10°F) on January 7-8. Elsewhere, periods of record-setting warmth also affected the **Pacific Coast States**. On January 5, record-setting highs in **California** climbed to 71°F in **Red Bluff** and 66°F in **San Francisco**. Later, **California** locations such as **Lancaster** (72 and 74°F) and **Bishop** (75 and 71°F) closed the week with consecutive daily-record highs on January 10-11. Farther north, consecutive



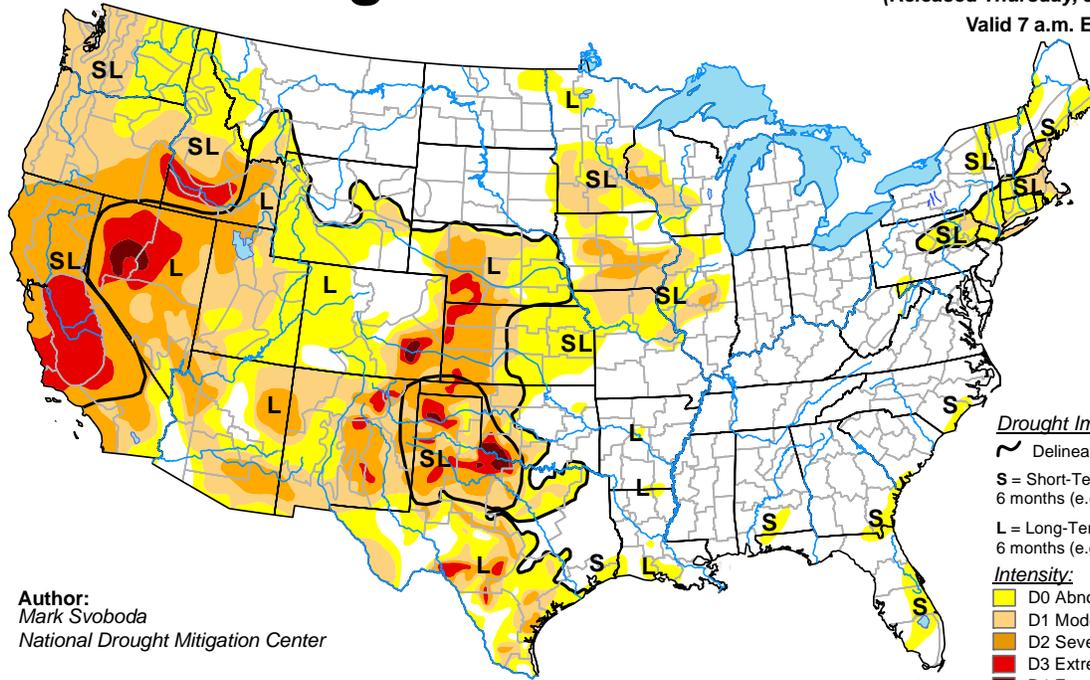
daily-record highs (57 and 58°F) were also noted on January 10-11 in **Portland, OR**.

The week opened in the midst of a developing **Midwestern** snow storm. Record-setting snowfall totals for January 5 included 10.8 inches in **St. Louis, MO**; 9.6 inches in **Springfield, IL**; and 9.5 inches in **Fort Wayne, IN**, and **Lansing, MI**. With an 11.4-inch total on January 5, **Indianapolis, IN**, experienced its second-snowiest calendar day on record, behind only 12.1 inches on March 19, 1906. In the storm's wake, bitterly cold weather and wind gusts to 40 mph or higher resulting in significant blowing and drifting of the newly fallen snow. Wet weather lingered through January 6 in **Maine**, where daily-record totals—all rain—included 1.35 inches in **Portland** and 1.13 inches in **Bangor**. Snow squalls persisted for several days downwind of the **Great Lakes**, where **Buffalo, NY**, received 17.6 inches from January 6-8. Farther south, locally heavy showers dotted **Florida's east coast**, where **Fort Pierce** received 7.38 inches of rain on January 9. Toward week's end, precipitation spread across the **Northwest** and developed from the **Mid-South into the East**. **Quillayute, WA**, collected 7.04 inches of rain from January 7-11, aided by a daily-record sum of 2.74 inches on the 10<sup>th</sup>. High winds preceded the **Northwestern** precipitation, with **Cut Bank, MT**, clocking a gust to 82 mph on January 11—the highest January gust in that location since 1989. Meanwhile, locally severe thunderstorms accompanied the **Southeastern** rain, resulting in an all-time-record wind gust to 86 mph on January 11 in **Raleigh-Durham, NC**. **Eastern** daily-record precipitation amounts for January 11 reached 1.39 inches in **Reading, PA**; 1.13 inches in **Caribou, ME**; and 1.07 inches in **Florence, SC**.

Mild conditions dominated **Alaska**, while significant precipitation was generally limited to the southern tier of the state. Weekly temperatures averaged at least 10 to 15°F above normal in a broad area covering much of **western and southern portions of the Alaskan mainland**. **Bethel** posted consecutive daily-record highs of 39°F on January 6-7, while **King Salmon** notched a record-setting high of 43°F on the latter date. Meanwhile, **Yakutat** netted a daily-record precipitation amount (3.61 inches, along with 3.1 inches of snow) on January 5, en route to a weekly total of 5.13 inches. Farther south, **Hawaii** experienced warm, tranquil weather. However, heavy showers had occurred previously across the state's eastern islands in late December and the western islands in early January. Isolated showers developed across windward sections of **Kauai** late in the week, when **Kilohana** received 2.55 inches in a 24-hour period on January 10-11. Elsewhere, weekly rainfall totaled less than 0.15 inch at many major observation sites, including **Lihue, Kauai**; **Honolulu, Oahu**; and **Kahului, Maui**.

# U.S. Drought Monitor

January 7, 2014  
(Released Thursday, Jan. 9, 2014)  
Valid 7 a.m. EST

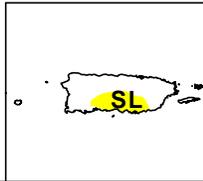
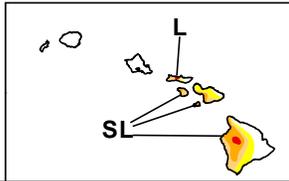
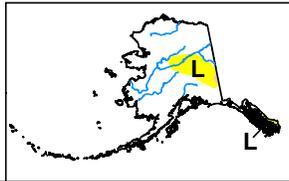


Author:  
Mark Svoboda  
National Drought Mitigation Center

**Drought Impact Types:**  
 ~ Delineates dominant impacts  
 S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)  
 L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

**Intensity:**  
 Yellow: D0 Abnormally Dry  
 Orange: D1 Moderate Drought  
 Red-Orange: D2 Severe Drought  
 Red: D3 Extreme Drought  
 Dark Red: D4 Exceptional Drought

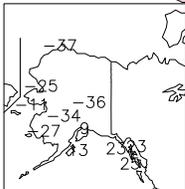
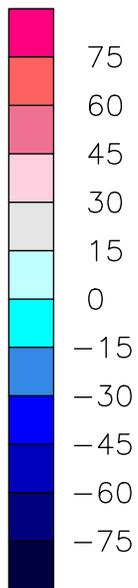
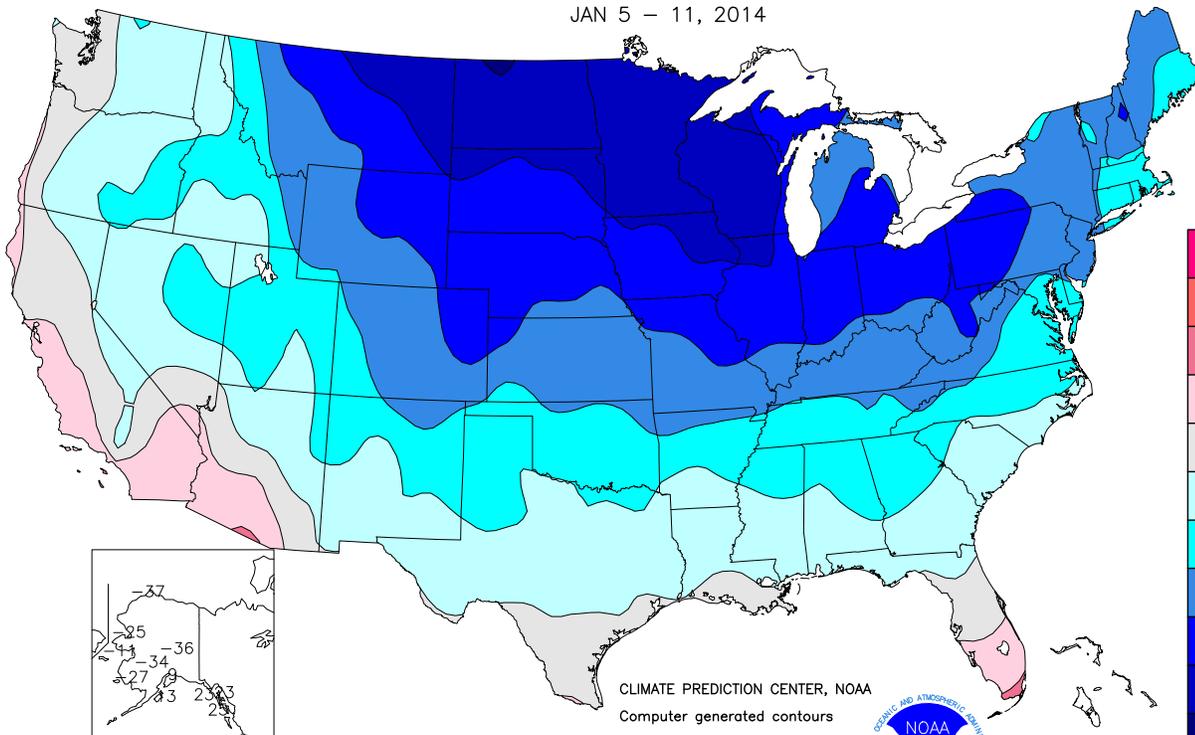
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



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

## Extreme Wind Chill Temperature (°F)

JAN 5 - 11, 2014



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



National Weather Data for Selected Cities

Weather Data for the Week Ending January 11, 2014

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN, SINCE DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL, IN, SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F				
																90 AND ABOVE	32 AND BELOW	.01 INCH OF MORE	.50 INCH OF MORE	
AL BIRMINGHAM	48	25	65	7	37	-6	0.83	-0.37	0.69	8.19	136	1.13	73	87	43	0	5	3	1	
HUNTSVILLE	45	23	62	4	34	-6	2.48	1.21	2.11	9.36	130	2.79	171	76	58	0	5	3	1	
MOBILE	55	30	73	14	43	-7	0.70	-0.51	0.57	9.15	148	1.74	113	79	54	0	4	3	1	
AK MONTGOMERY	52	28	70	13	40	-6	1.57	0.51	1.26	10.92	173	1.92	141	86	42	0	5	4	1	
ANCHORAGE	32	23	41	17	28	12	0.04	-0.12	0.04	1.62	128	0.16	73	93	86	0	7	1	0	
BARROW	-4	-11	0	-15	-7	6	0.02	0.02	0.01	1.23	946	0.03	300	81	72	0	7	2	0	
FAIRBANKS	9	-6	24	-35	2	11	0.00	-0.14	0.00	0.00	0	0.00	0	79	75	0	7	0	0	
JUNEAU	38	33	39	28	35	9	2.56	1.41	1.06	11.89	172	3.34	223	97	91	0	1	7	2	
KODIAK	39	30	43	19	34	4	1.22	-0.67	0.39	7.42	74	3.09	127	93	86	0	4	4	0	
NOME	25	17	34	0	21	15	0.28	0.09	0.09	2.32	183	0.28	108	84	74	0	7	4	0	
AZ FLAGSTAFF	48	19	55	11	33	4	0.00	-0.44	0.00	1.35	56	0.00	0	68	22	0	7	0	0	
PHOENIX	68	42	71	39	55	2	0.00	-0.19	0.00	0.39	33	0.00	0	49	25	0	0	0	0	
PRESCOTT	57	24	62	20	41	5	0.00	-0.31	0.00	0.31	18	0.00	0	56	16	0	7	0	0	
TUCSON	68	38	72	32	53	2	0.00	-0.24	0.00	0.85	63	0.00	0	47	25	0	1	0	0	
AR FORT SMITH	42	22	57	8	32	-5	0.79	0.26	0.44	4.90	120	0.79	113	88	59	0	4	4	0	
LITTLE ROCK	43	24	60	9	34	-6	2.29	1.48	0.96	9.27	160	2.33	218	83	46	0	5	4	2	
CA BAKERSFIELD	64	38	71	35	51	5	0.00	-0.24	0.00	0.10	9	0.00	0	68	54	0	0	0	0	
FRESNO	63	39	67	36	51	6	0.00	-0.43	0.00	0.15	8	0.00	0	76	58	0	0	0	0	
LOS ANGELES	69	49	78	47	59	2	0.01	-0.56	0.01	0.31	12	0.01	1	76	49	0	0	1	0	
REDDING	61	33	71	29	47	2	0.08	-1.30	0.07	0.46	7	0.08	5	77	63	0	4	2	0	
SACRAMENTO	61	36	66	31	49	4	0.00	-0.75	0.00	0.43	13	0.00	0	92	44	0	1	0	0	
SAN DIEGO	68	51	75	47	60	3	0.00	-0.46	0.00	0.46	24	0.00	0	70	47	0	0	0	0	
SAN FRANCISCO	61	48	66	44	54	5	0.01	-0.88	0.01	0.36	9	0.01	1	78	66	0	0	1	0	
STOCKTON	61	35	64	27	48	3	0.00	-0.54	0.00	0.35	14	0.00	0	90	74	0	2	0	0	
CO ALAMOSA	23	-11	32	-20	6	-8	0.00	-0.06	0.00	0.17	41	0.00	0	85	62	0	7	0	0	
CO SPRINGS	40	12	56	-10	26	-2	0.00	-0.08	0.00	0.25	47	0.18	164	75	34	0	7	0	0	
DENVER INTL	38	12	57	-10	25	-3	0.06	-0.01	0.06	0.65	155	0.45	409	78	48	0	7	1	0	
GRAND JUNCTION	30	9	34	1	20	-5	0.00	-0.14	0.00	0.98	138	0.02	11	86	73	0	7	0	0	
PUEBLO	44	11	65	-6	28	-1	0.00	-0.08	0.00	0.06	12	0.04	33	75	55	0	7	0	0	
CT BRIDGEPORT	39	18	55	8	28	-3	1.34	0.49	0.72	6.10	134	1.70	156	81	61	0	6	4	1	
HARTFORD	37	13	57	4	25	-1	2.20	1.34	1.03	6.49	138	2.56	231	80	63	0	6	5	2	
DC WASHINGTON	40	22	58	6	31	-4	1.68	0.94	0.87	7.57	189	2.02	210	77	43	0	6	4	2	
DE WILMINGTON	40	18	62	3	29	-3	1.63	0.83	0.68	10.93	247	5.70	553	82	52	0	6	4	1	
FL DAYTONA BEACH	70	50	84	31	60	1	0.57	-0.12	0.39	2.62	73	0.93	104	92	56	0	1	3	0	
JACKSONVILLE	65	42	81	22	54	1	1.73	0.97	1.17	4.99	138	4.13	421	90	57	0	3	4	1	
KEY WEST	75	64	81	55	69	-1	0.41	-0.11	0.19	5.76	204	4.66	675	98	76	0	0	5	0	
MIAMI	77	63	85	49	70	2	0.44	0.05	0.25	5.22	194	0.54	106	94	65	0	0	5	0	
ORLANDO	74	53	86	34	63	2	0.70	0.18	0.41	1.43	48	1.14	168	88	61	0	0	3	0	
PENSACOLA	58	36	75	19	47	-5	1.04	-0.09	0.88	5.22	96	1.45	100	78	48	0	3	3	1	
TALLAHASSEE	62	41	73	22	51	-1	0.83	-0.36	0.52	6.39	114	1.48	97	75	61	0	3	5	1	
TAMPA	69	51	79	33	60	-1	0.57	0.10	0.42	1.99	68	1.18	193	87	60	0	0	2	0	
WEST PALM BEACH	75	59	84	48	67	1	6.51	5.76	3.51	10.83	265	6.53	687	92	73	0	0	4	3	
GA ATHENS	47	25	61	7	36	-6	3.98	2.99	2.74	11.93	239	4.30	336	77	60	0	4	4	2	
ATLANTA	49	26	65	6	37	-5	2.72	1.69	2.24	10.79	210	2.98	227	74	58	0	4	5	1	
AUGUSTA	52	29	69	12	41	-4	1.75	0.80	1.01	9.00	206	2.09	171	86	62	0	4	5	2	
COLUMBUS	52	29	66	11	41	-6	1.82	0.77	1.46	11.21	195	2.32	172	90	42	0	4	5	1	
MACON	53	29	68	11	41	-4	1.98	0.92	1.21	11.38	215	2.33	171	95	47	0	3	5	2	
SAVANNAH	60	38	75	19	49	0	0.31	-0.55	0.17	3.84	98	1.47	132	81	61	0	3	4	0	
HI HILO	79	63	82	61	71	0	0.23	-1.83	0.14	20.45	156	0.24	9	87	70	0	0	4	0	
HONOLULU	79	66	82	62	73	0	0.08	-0.55	0.06	5.07	138	1.42	173	76	63	0	0	2	0	
KAHALUI	80	64	82	57	72	0	0.13	-0.72	0.08	3.16	76	1.10	101	78	67	0	0	3	0	
LIHUE	77	65	79	59	71	-1	0.13	-0.95	0.07	5.69	92	0.32	23	82	74	0	0	3	0	
ID BOISE	40	26	54	15	33	4	0.34	0.04	0.27	1.01	57	0.34	85	75	70	0	5	3	0	
LEWISTON	44	32	53	20	38	5	0.23	-0.01	0.14	0.99	73	0.24	77	83	60	0	4	3	0	
POCATELLO	37	19	49	1	28	4	0.46	0.21	0.30	0.89	62	0.46	139	81	64	0	6	3	0	
IL CHICAGO/O'HARE	22	3	40	-16	12	-10	1.47	1.08	0.79	4.16	141	2.20	423	76	65	0	7	4	2	
MOLINE	20	2	40	-15	11	-10	0.40	0.03	0.31	3.69	137	0.77	154	77	67	0	7	3	0	
PEORIA	23	7	40	-14	15	-8	1.10	0.75	0.71	2.98	104	1.47	320	86	65	0	7	4	1	
ROCKFORD	18	-2	37	-18	8	-11	0.88	0.57	0.87	3.01	121	1.30	310	80	69	0	7	2	1	
SPRINGFIELD	25	8	43	-13	17	-8	0.82	0.42	0.49	2.59	84	1.09	202	92	67	0	7	4	0	
IN EVANSVILLE	35	17	51	-4	26	-5	1.45	0.82	0.73	10.88	249	1.55	187	79	63	0	5	4	2	
FORT WAYNE	27	8	40	-15	18	-6	1.42	0.94	0.84	4.73	139	1.86	295	89	76	0	7	4	1	
INDIANAPOLIS	27	8	42	-15	17	-10	1.52	0.97	1.12	6.37	169	1.92	263	92	77	0	6	4	1	
SOUTH BEND	25	4	43	-14	15	-9	1.50	0.97	0.81	4.39	116	2.09	299	85	76	0	6	6	2	
IA BURLINGTON	26	7	56	-14	16	-7	0.33	0.02	0.33	0.44	18	0.33	80	83	54	0	6	1	0	
CEDAR RAPIDS	16	0	34	-17	8	-10	0.01	-0.21	0.01	0.42	24	0.05	17	83	65	0	7	1	0	
DES MOINES	19	4	35	-12	12	-8	0.04	-0.18	0.04	1.01	62	0.18	60	74	63	0	7	1	0	
DUBUQUE	15	-3	33	-22	6	-11	0.07	-0.21	0.07	1.30	63	0.11	30	82	75	0	7	1	0	
SIoux CITY	22	3	42	-13	12	-6	0.00	-0.14	0.00	0.35	41	0.17	89	76	67	0	7	0	0	
WATERLOO	14	-4	32	-19	5	-11	0.08	-0.09	0.08	1.10	83	0.15	68	83	69	0	7	1	0	
KS CONCORDIA	31	13	50	-6	22	-5	0.05	-0.12	0.05	0.76	70	0.21	95	80	67	0	7	1	0	
DODGE CITY	37	13	55	-11	25	-5	0.01	-0.15	0.01	0.56	57	0.08	36	80	52	0	7	1	0	
GOODLAND	36	12	51	-9	24	-3	0.03	-0.08	0.02	0.13	24	0.11	73	82	60	0	7	2	0	
TOPEKA	31	13	50	-8	22	-5	0.07	-0.15	0.07	0.92	53	0.34	113	74	61	0	7	1	0	

Based on 1971-2000 normals

\*\*\* Not Available

Weather Data for the Week Ending January 11, 2014

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN. SINCE DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL IN. SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
WICHITA	36	17	54	-5	27	-3	0.06	-0.17	0.05	0.68	41	0.11	35	78	61	0	7	2	0
KY JACKSON	42	18	59	-7	30	-4	1.59	0.78	0.87	8.97	168	1.88	177	86	51	0	5	5	1
LEXINGTON	40	18	56	-4	29	-3	1.23	0.43	0.74	7.03	139	1.45	139	84	63	0	5	3	1
LOUISVILLE	40	18	56	-3	29	-4	1.61	0.87	0.68	7.26	156	1.82	188	84	56	0	5	4	2
PADUCAH	37	20	52	2	29	-4	1.90	1.17	0.93	10.09	189	1.94	202	86	59	0	5	5	2
LA BATON ROUGE	57	32	71	19	45	-5	0.77	-0.54	0.46	4.82	69	1.09	64	87	42	0	3	3	0
LAKE CHARLES	58	34	72	20	46	-5	0.77	-0.46	0.51	3.18	51	1.12	71	89	51	0	4	2	1
NEW ORLEANS	57	36	74	24	46	-7	0.76	-0.40	0.52	4.40	67	1.12	76	83	60	0	3	3	1
SHREVEPORT	51	31	67	15	41	-5	0.74	-0.25	0.59	5.75	98	0.74	57	83	45	0	4	4	1
ME CARIBOU	26	5	45	-2	16	6	2.06	1.35	1.14	5.59	136	2.10	226	81	56	0	7	3	2
PORTLAND	34	11	50	3	23	1	1.99	1.05	1.33	7.08	130	2.62	215	82	53	0	7	4	2
MD BALTIMORE	37	17	57	3	27	-6	1.54	0.74	0.75	7.24	165	1.98	190	81	60	0	6	4	2
MA BOSTON	39	20	59	7	29	-1	0.92	0.06	0.54	6.13	127	1.49	134	79	50	0	6	4	1
WORCESTER	35	14	57	2	25	1	1.34	0.41	0.64	6.34	127	1.88	157	87	54	0	6	4	2
MI ALPENA	22	5	39	-13	13	-6	0.83	0.42	0.32	3.03	128	0.86	159	87	69	0	7	4	0
GRAND RAPIDS	26	11	42	-1	19	-4	1.44	1.00	0.72	4.04	123	1.66	281	85	72	0	6	6	1
HOUGHTON LAKE	20	5	38	-12	13	-6	0.60	0.24	0.44	2.72	123	0.63	134	85	77	0	7	4	0
LANSING	24	6	41	-13	15	-7	1.36	1.02	0.75	3.48	133	1.61	358	86	75	0	7	6	1
MUSKOGON	27	13	43	-1	20	-4	1.16	0.66	0.81	3.76	114	1.48	221	81	72	0	6	4	1
TRAVERSE CITY	23	9	41	-4	16	-6	0.26	-0.40	0.19	1.30	37	0.29	34	86	68	0	7	3	0
MN DULUTH	6	-10	28	-28	-2	-10	0.13	-0.07	0.09	3.40	283	0.38	146	76	67	0	7	4	0
INT'L FALLS	4	-15	27	-31	-6	-8	1.25	1.10	0.79	3.12	347	1.73	865	80	65	0	7	3	1
MINNEAPOLIS	11	-6	32	-23	3	-10	0.00	-0.22	0.00	1.70	132	0.14	48	80	68	0	7	0	0
ROCHESTER	10	-7	31	-23	2	-10	0.09	-0.10	0.08	1.22	96	0.11	44	77	69	0	7	2	0
ST. CLOUD	8	-11	28	-24	-2	-11	0.02	-0.13	0.01	1.94	218	0.15	75	86	66	0	7	2	0
MS JACKSON	53	27	67	14	40	-5	0.53	-0.73	0.35	5.63	81	1.11	68	81	39	0	4	3	0
MERIDIAN	51	25	67	10	38	-8	1.40	0.11	1.26	9.01	129	1.71	104	82	55	0	5	3	1
TUPELO	45	25	61	7	35	-5	1.25	0.01	0.83	7.82	101	1.44	89	74	41	0	4	3	1
MO COLUMBIA	30	11	46	-11	20	-8	0.67	0.31	0.30	2.59	88	0.87	181	85	64	0	6	4	0
KANSAS CITY	28	10	46	-11	19	-8	0.06	-0.20	0.04	1.16	58	0.35	100	85	59	0	7	3	0
SAINT LOUIS	31	14	49	-8	23	-7	0.88	0.41	0.64	2.79	80	1.08	174	75	69	0	5	4	1
SPRINGFIELD	35	15	50	-10	25	-7	0.71	0.27	0.52	3.35	89	0.76	131	86	72	0	6	3	1
MT BILLINGS	35	19	49	-4	27	3	0.07	-0.11	0.07	2.55	280	0.56	233	69	49	0	7	1	0
BUTTE	31	11	45	-13	21	4	0.07	-0.04	0.04	0.32	47	0.10	67	87	54	0	7	3	0
CUT BANK	34	15	50	-15	25	6	0.00	-0.08	0.00	0.05	11	0.01	8	80	51	0	7	0	0
GLASGOW	21	0	48	-26	11	0	0.04	-0.04	0.03	1.05	214	0.05	42	83	75	0	7	2	0
GREAT FALLS	38	19	54	-21	28	6	0.02	-0.15	0.02	1.25	140	0.27	123	75	50	0	6	1	0
HAVRE	30	10	52	-18	20	5	0.00	-0.11	0.00	1.46	221	0.23	153	79	66	0	7	0	0
MISSOULA	32	21	44	7	26	3	0.17	-0.08	0.14	1.40	95	0.31	94	83	71	0	6	3	0
NE GRAND ISLAND	32	10	52	-9	21	-1	0.09	-0.02	0.09	0.25	31	0.14	93	73	61	0	7	1	0
LINCOLN	28	6	49	-8	17	-5	0.10	-0.07	0.10	0.41	38	0.20	91	75	63	0	7	1	0
NORFOLK	26	7	48	-13	17	-3	0.00	-0.11	0.00	0.32	40	0.13	87	73	60	0	7	0	0
NORTH PLATTE	35	7	54	-15	21	-2	0.03	-0.05	0.02	0.24	46	0.07	58	83	47	0	7	2	0
OMAHA	24	6	46	-11	15	-6	0.00	-0.17	0.00	0.27	24	0.09	41	73	63	0	7	0	0
SCOTTSBLUFF	39	13	58	-11	26	2	0.08	-0.03	0.06	0.93	131	0.30	200	78	54	0	7	2	0
VALENTINE	32	11	50	-11	21	0	0.02	-0.04	0.02	0.76	185	0.05	63	78	56	0	7	1	0
NV ELY	44	18	50	5	31	6	0.00	-0.15	0.00	0.81	116	0.00	0	82	51	0	7	0	0
LAS VEGAS	59	38	62	34	48	2	0.00	-0.11	0.00	0.05	9	0.00	0	38	25	0	0	0	0
RENO	51	26	57	19	39	6	0.00	-0.20	0.00	0.41	36	0.00	0	75	55	0	6	0	0
WINNEMUCCA	46	25	56	6	35	6	0.02	-0.17	0.02	0.63	59	0.02	8	81	59	0	4	1	0
NH CONCORD	33	7	50	-4	20	-1	1.61	0.95	1.00	5.62	147	2.23	259	84	55	0	7	4	1
NJ NEWARK	39	17	61	3	28	-4	1.38	0.49	0.60	6.52	138	1.90	165	78	58	0	6	5	1
NM ALBUQUERQUE	47	23	55	20	35	0	0.00	-0.11	0.00	0.40	63	0.00	0	49	20	0	7	0	0
NY ALBANY	34	10	56	1	22	-1	0.91	0.36	0.42	5.07	150	1.68	233	82	52	0	6	4	0
BINGHAMTON	31	10	52	-8	21	-2	1.63	1.08	0.93	5.79	154	2.33	324	80	62	0	6	5	1
BUFFALO	33	14	50	-5	23	-2	1.60	0.86	0.52	6.78	142	1.88	196	89	67	0	6	7	1
ROCHESTER	34	14	53	-3	24	-1	0.44	-0.08	0.29	4.01	117	0.83	120	76	65	0	6	4	0
SYRACUSE	35	14	55	0	25	1	0.65	0.07	0.22	4.04	104	1.19	157	82	57	0	6	4	0
NC ASHEVILLE	45	20	56	-1	33	-3	2.03	1.18	1.32	9.74	217	2.07	188	87	70	0	4	5	2
CHARLOTTE	46	23	65	6	35	-7	2.43	1.56	1.37	9.79	228	2.64	236	85	50	0	4	4	2
GREENSBORO	43	22	59	5	33	-5	2.94	2.18	1.38	8.56	211	3.36	339	79	46	0	5	4	3
HATTERAS	57	40	70	19	48	1	2.10	0.77	1.97	7.17	115	3.26	192	86	57	0	3	4	1
RALEIGH	51	26	69	9	39	-1	1.00	0.14	0.66	7.26	175	1.33	121	79	51	0	4	3	1
WILMINGTON	60	34	76	18	47	1	0.88	-0.11	0.76	3.49	69	1.76	139	83	47	0	4	4	1
ND BISMARCK	17	-2	37	-18	8	-2	0.02	-0.06	0.02	1.35	241	0.05	42	80	65	0	7	1	0
DICKINSON	20	2	43	-20	11	-3	0.00	-0.06	0.00	0.40	95	0.02	25	81	65	0	7	0	0
FARGO	8	-6	29	-24	1	-6	0.30	0.13	0.20	1.46	185	0.35	159	78	68	0	7	2	0
GRAND FORKS	6	-10	28	-28	-2	-7	0.01	-0.13	0.00	0.94	127	0.10	53	82	69	0	7	1	0
JAMESTOWN	12	-4	34	-22	4	-5	0.00	-0.11	0.00	0.29	48	0.03	19	86	69	0	7	0	0
WILLISTON	18	-4	42	-25	7	-1	0.05	-0.06	0.04	1.23	171	0.14	93	78	68	0	7	2	0
OH AKRON-CANTON	35	12	51	-11	24	-2	0.99	0.42	0.55	4.72	127	1.29	174	85	70	0	6	6	1
CINCINNATI	36	15	53	-7	26	-4	1.60	0.93	0.68	6.65	160	1.91	220	85	72	0	5	5	2
CLEVELAND	33	12	51	-11	22	-4	0.76	0.21	0.34	5.19	134	1.19	165	81	63	0	6	5	0
COLUMBUS	38	16	55	-7	27	-2	1.20	0.65	0.69	5.88	161	1.48	203	86	71	0	6	4	1
DAYTON	33	14	51	-10	24	-3	1.47	0.88	0.93	6.32	164	1.73	222	87	71	0	5	4	1
MANSFIELD	32	10	50	-13	21	-4	1.04	0.44	0.44	5.07	125	1.23	156	95	69	0	7	6	0

Based on 1971-2000 normals

\*\*\* Not Available

Weather Data for the Week Ending January 11, 2014

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	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE
OK TOLEDO	26	4	44	-15	15	-9	6.51	6.08	3.10	10.16	316	7.11	1226	89	77	0	6	5	3
OK YOUNGSTOWN	35	11	52	-12	23	-3	1.14	0.62	0.43	4.98	136	1.47	213	82	66	0	6	5	0
OK OKLAHOMA CITY	43	24	63	6	34	-2	0.06	-0.27	0.03	1.34	57	0.06	13	76	41	0	4	3	0
OR TULSA	41	20	59	-2	31	-5	0.13	-0.24	0.10	1.92	66	0.14	29	76	54	0	6	3	0
OR ASTORIA	51	42	54	33	46	4	3.18	1.03	0.98	8.65	66	3.73	134	89	75	0	0	6	3
OR BURNS	40	21	47	1	31	7	0.20	-0.07	0.17	0.41	25	0.20	56	88	68	0	7	4	0
OR EUGENE	48	38	55	24	43	4	1.52	-0.17	0.64	3.09	30	1.56	72	94	85	0	2	6	1
OR MEDFORD	50	33	59	18	42	4	0.50	-0.05	0.35	0.87	24	0.50	69	91	69	0	2	4	0
OR PENDLETON	46	29	59	17	38	5	0.36	0.06	0.15	1.19	63	0.38	95	83	69	0	5	4	0
OR PORTLAND	50	37	58	25	44	5	1.54	0.41	0.67	3.46	48	1.70	115	91	77	0	2	5	1
OR SALEM	51	39	56	22	45	5	1.13	-0.15	0.37	2.49	31	1.21	73	89	79	0	2	4	0
PA ALLENTOWN	36	12	61	-1	24	-4	8.87	8.09	5.06	13.46	306	9.32	923	78	58	0	6	4	3
PA ERIE	36	13	53	-10	25	-3	1.05	0.44	0.41	7.69	170	1.42	178	76	62	0	6	5	0
PA MIDDLETOWN	32	14	46	0	23	-6	1.46	0.85	0.50	5.56	138	1.81	229	85	54	0	6	4	1
PA PHILADELPHIA	41	19	61	4	30	-3	1.63	0.83	0.74	7.30	168	2.10	204	73	59	0	6	4	1
PA PITTSBURGH	37	13	54	-9	25	-3	0.89	0.30	0.50	4.00	110	0.99	129	88	62	0	6	5	1
PA WILKES-BARRE	37	11	59	-4	24	-3	1.23	0.71	0.53	4.99	155	1.59	237	82	55	0	6	4	1
PA WILLIAMSPORT	33	11	50	-5	22	-4	0.69	0.10	0.30	4.60	124	0.95	125	78	55	0	6	4	0
RI PROVIDENCE	40	17	60	6	29	0	1.73	0.76	1.23	6.63	123	2.03	161	79	61	0	6	4	1
SC BEAUFORT	58	37	73	18	47	-2	0.43	-0.47	0.36	4.14	97	1.36	118	88	47	0	3	3	0
SC CHARLESTON	61	37	75	17	49	1	0.53	-0.38	0.41	3.64	83	1.48	126	81	48	0	3	3	0
SC COLUMBIA	52	29	69	13	41	-3	2.79	1.78	2.02	9.02	193	3.03	235	84	60	0	4	5	2
SC GREENVILLE	45	24	58	5	34	-7	2.65	1.67	1.83	9.54	186	2.85	226	86	49	0	4	5	2
SD ABERDEEN	14	-5	35	-21	4	-7	0.00	-0.11	0.00	0.91	172	0.02	13	81	72	0	7	0	0
SD HURON	17	1	37	-19	9	-5	0.04	-0.05	0.03	1.15	225	0.11	92	80	63	0	7	2	0
SD RAPID CITY	33	9	54	-16	21	-1	0.02	-0.06	0.02	0.68	131	0.07	58	79	52	0	7	1	0
SD SIOUX FALLS	15	-1	34	-18	7	-7	0.00	-0.10	0.00	1.19	180	0.06	43	80	67	0	7	0	0
TN BRISTOL	46	18	63	-2	32	-2	1.16	0.40	0.83	7.72	176	1.37	138	84	47	0	5	5	1
TN CHATTANOOGA	45	25	63	5	35	-4	1.60	0.43	1.06	9.83	156	1.83	122	87	71	0	4	3	1
TN KNOXVILLE	45	21	60	2	33	-4	1.79	0.75	1.34	10.53	181	2.41	180	85	54	0	5	4	1
TN MEMPHIS	44	25	59	8	34	-6	2.52	1.56	1.40	7.50	108	2.67	214	73	49	0	4	5	2
TN NASHVILLE	43	22	58	2	33	-4	1.41	0.50	0.96	9.66	169	1.67	142	78	49	0	5	3	1
TX ABILENE	54	26	72	11	40	-3	0.00	-0.24	0.00	1.12	70	0.00	0	73	47	0	5	0	0
TX AMARILLO	47	18	63	7	32	-3	0.03	-0.13	0.03	0.35	42	0.03	14	72	30	0	6	1	0
TX AUSTIN	58	36	73	12	47	-3	0.41	-0.05	0.22	1.27	42	0.41	66	74	53	0	2	2	0
TX BEAUMONT	59	38	74	23	49	-3	0.56	-0.76	0.32	2.02	29	0.72	42	88	47	0	2	2	0
TX BROWNSVILLE	70	50	84	37	60	1	0.08	-0.16	0.04	3.69	260	0.14	45	87	69	0	0	4	0
TX CORPUS CHRISTI	65	46	79	30	56	0	0.63	0.28	0.35	0.94	42	0.64	136	81	67	0	2	3	0
TX DEL RIO	57	37	78	26	47	-4	0.00	-0.09	0.00	0.49	55	0.00	0	80	53	0	2	0	0
TX EL PASO	59	31	65	19	45	1	0.00	-0.11	0.00	0.26	28	0.00	0	44	16	0	4	0	0
TX FORT WORTH	52	31	70	15	42	-2	0.34	-0.14	0.14	3.12	97	0.34	52	80	43	0	3	3	0
TX GALVESTON	59	44	72	28	52	-4	0.12	-0.77	0.10	0.90	19	0.17	15	90	58	0	2	2	0
TX HOUSTON	59	39	74	21	49	-3	0.32	-0.51	0.27	2.00	42	0.33	31	87	66	0	2	2	0
TX LUBBOCK	51	20	64	7	36	-1	0.00	-0.09	0.00	0.60	75	0.00	0	71	40	0	7	0	0
TX MIDLAND	56	28	69	14	42	-1	0.00	-0.11	0.00	1.44	180	0.00	0	69	47	0	5	0	0
TX SAN ANGELO	57	28	73	13	43	-1	0.00	-0.17	0.00	1.15	99	0.00	0	78	56	0	4	0	0
TX SAN ANTONIO	60	41	78	22	50	0	0.12	-0.25	0.08	0.69	28	0.12	24	82	45	0	2	2	0
TX VICTORIA	63	44	76	24	53	0	0.79	0.24	0.59	1.24	39	0.80	111	86	63	0	2	3	1
TX WACO	55	33	71	16	44	-2	0.28	-0.17	0.18	1.62	48	0.28	47	84	59	0	3	3	0
TX WICHITA FALLS	49	26	69	11	37	-3	0.01	-0.26	0.01	1.31	64	0.01	3	72	51	0	5	1	0
UT SALT LAKE CITY	38	23	50	11	30	1	0.33	0.04	0.20	2.13	132	0.44	116	83	56	0	6	2	0
VT BURLINGTON	33	16	52	6	25	6	1.66	1.18	1.01	4.33	152	1.81	292	77	49	0	6	4	2
VA LYNCHBURG	40	19	52	2	30	-5	2.52	1.74	1.00	8.51	201	2.83	280	82	46	0	6	4	3
VA NORFOLK	53	30	73	14	41	1	1.45	0.60	1.25	6.72	163	1.97	179	82	51	0	4	4	1
VA RICHMOND	48	25	67	10	37	1	1.45	0.64	0.80	7.98	191	1.86	175	76	53	0	5	4	1
VA ROANOKE	41	20	53	1	30	-6	1.41	0.73	0.67	5.91	158	1.52	173	76	49	0	5	4	2
WA WASH/DULLES	36	18	51	3	27	-5	1.58	0.89	0.73	7.53	190	1.94	218	82	60	0	6	4	2
WA OLYMPIA	47	36	52	21	41	3	2.81	1.16	1.06	5.15	51	2.98	140	97	88	0	2	6	2
WA QUILLAYUTE	51	41	54	26	46	6	7.04	4.01	2.31	14.85	81	8.44	216	86	78	0	1	5	5
WA SEATTLE-TACOMA	49	40	58	31	45	5	2.11	0.98	0.86	4.03	57	2.33	160	86	75	0	2	5	1
WA SPOKANE	36	26	47	15	31	5	0.42	0.01	0.15	1.13	41	0.44	81	90	70	0	5	4	0
WA YAKIMA	44	25	59	11	34	6	0.10	-0.18	0.08	0.42	24	0.10	27	81	66	0	6	2	0
WV BECKLEY	44	17	69	-9	30	-1	0.79	0.07	0.48	7.38	184	1.01	109	73	61	0	5	4	0
WV CHARLESTON	46	18	61	-3	32	-2	1.20	0.50	0.80	7.74	183	1.49	164	91	57	0	5	4	1
WV ELKINS	43	13	60	-9	28	-1	1.01	0.26	0.56	7.52	170	1.24	127	84	49	0	5	4	1
WV HUNTINGTON	43	18	61	-4	30	-3	1.18	0.46	0.70	6.26	146	1.44	155	84	55	0	5	4	1
WI EAU CLAIRE	10	-8	31	-24	1	-11	0.04	-0.16	0.02	0.84	65	0.04	15	84	64	0	7	2	0
WI GREEN BAY	15	-4	35	-21	6	-10	0.31	0.06	0.31	1.94	111	0.31	94	82	66	0	7	1	0
WI LA CROSSE	14	-4	33	-20	5	-11	0.10	-0.12	0.10	1.39	91	0.10	33	80	58	0	7	1	0
WI MADISON	16	-3	36	-18	7	-11	0.16	-0.09	0.16	1.82	91	0.16	47	79	66	0	7	1	0
WI MILWAUKEE	20	1	39	-14	11	-10	0.49	0.10	0.48	2.49	91	0.70	137	78	67	0	7	2	0
WY CASPER	31	11	42	-24	21	-1	0.08	-0.03	0.05	1.53	199	0.36	240	71	57	0	7	2	0
WY CHEYENNE	36	16	50	-10	26	0	0.00	-0.08	0.00	0.42	72	0.15	125	65	45	0	7	0	0
WY LANDER	28	2	52	-17	15	-5	0.01	-0.10	0.01	1.16	153	0.47	313	85	56	0	7	1	0
WY SHERIDAN	32	9	52	-11	21	0	0.00	-0.17	0.00	1.42	158	0.27	123	78	62	0	7	0	0

Based on 1971-2000 normals

\*\*\* Not Available

## December Weather and Crop Summary

### Weather

*Weather summary provided by USDA/WAOB*

**Highlights:** Winter got off to an early start across much of the nation, with very cold air settling into the western and central U.S. and snow covering more than half of the country for several days.

December storminess was widespread, except in the West, where a potential third consecutive winter of drought got underway in California and the Great Basin. In addition, an early-season cold wave gripped much of the West during the first half of the month, possibly harming citrus in California's San Joaquin Valley and sending temperatures plummeting below -40°F at a few locations in Montana.

Meanwhile, several impressive storms affected the East, where multiple rain and snow events chipped away at autumn precipitation deficits. At times, snow also blanketed portions of the Plains and Midwest, with winter's chill deepening in those regions as the month progressed. By the end of December, temperatures across the upper Great Lakes region rivaled those observed in the West a few weeks earlier.

However, the Southeast was spared from the cold weather, with temperatures regularly topping 80°F and remaining unusually high through month's end. In fact, several Southeastern locations set or tied records for December warmth.

Elsewhere, most of the nation's winter wheat moved into its period of dormancy with few concerns. On the Great Plains, well over half of the wheat was rated in good to excellent condition at the end of December in states such as South Dakota (70% good to excellent), Nebraska (65%), Oklahoma (63%), Montana (60%), and Kansas (58%). However, drought concerns persisted on the southern High Plains, including Texas' northern panhandle. By January 12, more than one-third (38%) of the Texas wheat crop was rated very poor to poor—with just 22% good to excellent.

**Summary:** December opened with some heavy showers along Florida's east coast and precipitation moving into the Northwest. Daily-record precipitation totals for December 1 included 2.70 inches in West Palm Beach, FL, and 1.08 inches in Troutdale, OR. The following day, heavy snow developed across the north-central U.S. Record-setting snowfall totals for December 2 reached 7.5 inches in Duluth, MN, and 6.2 inches in Billings, MT. Duluth's snow lasted for several days, totaling 23.3 inches from December 2-4. During the same period, 11.2 inches blanketed Billings. By December 3, snow expanded its coverage to include parts of the central Plains and the Intermountain West. Daily-record totals for December 3 included 8.0 inches in Valentine, NE; 6.7 inches in Ely, NV; and 6.0 inches in Salt Lake City, UT. Snow also fell across portions of the interior Northwest, where Pendleton, OR, received a record-setting amount (2.4 inches) for December 3. The widespread snowfall persisted through December 4, when daily-record totals reached 8.5 inches in International Falls, MN; 7.3 inches in Grand Forks, ND; and 5.9 inches in Grand Junction, CO. Snow lingered across the southern Rockies through December 5, when Albuquerque, NM, collected a daily-record snowfall of 3.7 inches. Dallas-Ft. Worth, TX, received snow and

sleet totaling 0.5 inch on December 5-6, shortly after posting a high of 79°F on December 4. With a sharp cold front sweeping eastward into subtropical moisture, heavy precipitation erupted on December 5 in the Appalachians and neighboring areas. Nashville, TN, measured a daily-record total of 2.91 inches of rain on December 5, part of a 4-day storm that featured a precipitation total of 4.99 inches. Jackson, KY, netted a daily-record total of 2.15 inches on December 6. Meanwhile, snow blanketed areas from the Ozark Plateau to the Ohio Valley on December 6, resulting in daily-record amounts in locations such as Dayton, OH (6.1 inches); Paducah, KY (4.8 inches); and Springfield, MO (3.2 inches). Springfield's December 5-7 snowfall total reached 7.3 inches.

With cold weather already in place across the West early in the month, moisture along the leading edge of another strong surge of Canadian air led to some powdery snowfall accumulations. Record-setting snowfall totals for December 7 included 6.6 inches in Winnemucca, NV, and 5.6 inches in Pocatello, ID. Prior to the second surge of cold air, Portland, OR, had already collected daily-record lows (27, 22, and 19°F) from December 3-5. Another record (15°F) was observed in Portland on December 7. Meanwhile in Montana, Great Falls endured four consecutive daily-record lows (-23, -26, -28, and 33°F) from December 4-7. Daily-record lows also plunged below -30°F in Montana locations such as Havre (-39°F on December 7); Simpson (-37°F on December 5); Miles City (-36°F on December 7); and Cut Bank (-35°F on December 7). In dramatic contrast, temperatures topped 80°F in the lower Southeast. On December 5, Alma, GA, tied a monthly record (83°F) most recently achieved on December 4, 1978. Daily-record highs for December 5 included 84°F in Baton Rouge, LA, and 83°F in Montgomery, AL. Two days later, warmth lingered in Florida, where Tallahassee tied a monthly record with a high of 84°F on December 7. On the same date, the national temperature range was 128°F, from a low of -42°F in Chinook and Jordan, MT, to a high of 86°F in Fort Myers and several other locations in Florida. In California's San Joaquin Valley, Hanford reported three consecutive hard freezes (25, 21, and 21°F) from December 4-6, followed by another remarkable string of eight hard freezes—with low temperatures ranging from 21 to 26°F—from December 8-15. California's citrus growers fought a protracted battle during the cold snap, trying to salvage fruits with a strategy that included flooding orchards, icing oranges, and employing wind machines—all in an effort to raise ground-level temperatures. Farther north, Eugene, OR, reported its second-lowest temperature on record—tied with December 10, 1972—with a low of -7°F on December 7. Eugene later posted a low of -10°F on December 8, second only to the identically timed all-time-record low of -12°F on December 8, 1972.

The second week of December initially featured a continuation of severely cold Western weather. On December 8, for example, temperatures in Montana plunged to daily-record levels in Havre (-37°F) and Miles City (-29°F). Meanwhile in Oregon, all-time-record lows were established on December 8 in Burns (-30°F; previously, -28°F on February 4, 1985, and December 22, 1990) and Lakeview (-27°F; previously, -22°F on February 7 and 10, 1933, and January 7 and 21, 1937). Record-setting cold was noted as far south as northern Texas, where December 8 lows dipped to 3°F in Amarillo and 5°F in Borger. The Plains' cold

wave persisted for several days, with Dalhart, TX (3°F), and McAlester, OK (6°F), collecting daily-record lows for December 10. Meanwhile in California's Central Valley, Stockton posted consecutive daily-record lows (22 and 24°F, respectively) on December 9-10. Closer to California's coast, Paso Robles dipped below 20°F on December 5-6 and 9-10, resulting in daily-record lows on each of those days but the 9th. Eventually, the focus for cold weather shifted to the Midwest. On December 11, daily-record lows in South Dakota fell to -20°F in Watertown and -18°F in Huron. South Bend, IN, collected a daily-record low (-3°F) on December 12. In contrast, record-setting warmth lingered in Florida, where Jacksonville tied a monthly record high with a high of 84°F on December 9. Elsewhere in Florida, Melbourne's high of 85°F set a record for December 10.

From December 8-14, multiple storms left a snowy, icy mark in the Mid-Atlantic region. Starting on the 8th, Wilmington, DE, measured a daily-record snowfall of 6.0 inches. The following day, frozen precipitation overspread the Mid-South, where Springfield, MO, collected a daily-record snowfall (4.3 inches) for December 9. Precipitation quickly returned to the northern Mid-Atlantic region on December 10, resulting in daily-record snowfall values in locations such as Wilmington, DE (2.9 inches); Allentown, PA (2.7 inches); and Newark, NJ (2.3 inches). Farther west, enough Pacific moisture reached western Montana to produce daily-record snowfall amounts in Missoula (3.8 inches on December 9) and Kalispell (6.0 inches on December 10). By December 14, precipitation again developed in the Northeast, bringing daily-record snowfall totals to Bridgeport, CT (5.0 inches), and Newark, NJ (4.3 inches). Farther inland, a sustained period of heavy lake-effect snowfall led to 4-day totals of locally 3 to 5 feet. Downwind of Lake Ontario in western New York, December 10-13 snowfall totaled 56.2 inches in Highmarket.

Abrupt warmth arrived in southern California and the Desert Southwest at mid-month. Los Angeles (LAX Airport), CA, collected consecutive daily-record highs (80 and 85°F, respectively) on December 15-16. Elsewhere in California on the 16th, record-breaking highs surged to 88°F in Elsinore, 83°F in Santa Maria, and 78°F in Redding. California's warmth persisted through December 17, when daily-record highs climbed to 88°F in Burbank and 87°F in Riverside. Also on the 17th, daily-record highs in Arizona rose to 83°F in Tucson and 82°F in Phoenix. Record-setting warmth also reached the High Plains, albeit briefly, in advance of a strong cold front. Daily-record highs for December 18 included 69°F in Oklahoma City, OK, and Imperial, NE. Grand Island, NE, experienced its warmest day (67°F on December 18) during the second half of December since December 29, 1999, when the high reached 68°F. A day later, record-setting highs in Texas for December 19 surged to 75°F in Childress and 72°F in Amarillo. Eventually, warm weather replaced previously cold conditions across the Midwest, South, and East. On December 20, St. Louis, MO, logged a daily-record high of 71°F. By December 21, readings of 81°F in Montgomery, AL; 80°F in Greenwood, MS; 76°F in Memphis, TN; 75°F in Charleston, WV; 74°F in Bowling Green, KY; and 72°F in Washington, DC, were among dozens of daily-record highs. Record-setting warmth continued along the Atlantic Seaboard through December 22. On that date, December records were tied or broken in locations such as Jacksonville, FL (84°F); Savannah, GA (83°F); Norfolk, VA (81°F); and Salisbury, MD (77°F). Meanwhile, high temperatures topped 60°F as far north as southern New England and exceeded 70°F in parts of the northern

Mid-Atlantic region. Warmth lingered through December 23 along the immediate southern Atlantic Coast, where daily-record highs included 86°F in Melbourne, FL, and 82°F in Charleston, SC. However, cold air was more stubborn across the nation's northern tier, where readings had plunged to daily-record levels in locations such as International Falls, MN (-32°F on December 15), and Massena, NY (-25°F on December 17).

During the Northern cold snap, snow squalls affected areas downwind of the Great Lakes. For example, 16.0 inches of snow blanketed Gaylord, MI, on December 15—the snowiest day in that location during the last 15 years. Heavy snow also fell around mid-month, courtesy of a coastal storm, across northern New England. Portland, ME, received a daily-record snowfall of 10.6 inches on December 15. Two days later, another disturbance crossing the Northeast produced additional snow. Record-setting totals for December 17 reached 6.4 inches in Boston, MA, and 3.6 inches in Bridgeport, CT. Eventually, however, the focus for significant precipitation shifted to the West. On December 18, Havre, MT, received a daily-record snowfall of 5.0 inches. Record-setting snowfall totals for December 19 reached 7.1 inches in Casper, WY; 6.9 inches in Salt Lake City, UT; 5.5 inches in Rapid City, SD; and 5.2 inches in Ely, NV. Precipitation, associated with a strong cold front, soon spread eastward. Midland, TX, measured a daily-record precipitation total of 1.05 inches on December 20. Elsewhere in Texas, Dalhart received a daily-record snowfall of 6.0 inches on December 21. Farther east, impressive rainfall totals for December 21 included 5.26 inches in Paducah, KY, and 4.12 inches in Cape Girardeau, MO. Both of those amounts represented the stations' highest single-day December totals on record (previously, 4.65 inches in Paducah on December 3, 1982, and 3.92 inches in Cape Girardeau on December 24, 1982). Selected daily-record totals for December 21 included 4.94 inches in Pine Bluff, AR; 4.42 inches in Evansville, IN; and 2.46 inches in Dayton, OH.

As the holidays approached, snow and freezing rain spread from the Great Lakes States into northern New England. Daily-record snowfall totals for December 22 included 8.0 inches in Milwaukee, WI; 6.0 inches in Green Bay, WI; 5.0 inches in Rockford, IL; and 3.5 inches in Houghton Lake, MI. Just to the southeast of the heaviest band of snow, freezing rain glazed areas from Michigan to Maine. Elsewhere, heavy rain continued to drench the Southeast. With a 5.19-inch deluge on December 22, Montgomery, AL, experienced its wettest December day on record (previously, 4.78 inches on December 9, 1919). Daily-record amounts for December 22 included 3.10 inches in Columbus, GA, and 2.80 inches in Asheville, NC. Farther north, Caribou, ME, received 5.8 inches of snow of December 22—part of a record-setting stretch with measurable snow on 13 consecutive days (previously, nine days in a row in February 1960 and January 1991). During the 13-day streak, from December 15-27, Caribou's snow depth increased from 1 to 20 inches due to 36.2 inches of fresh snow. Snow squalls lingered for several days downwind of the Great Lakes, with Houghton Lake reporting a daily-record amount (4.5 inches) for Christmas Day.

Frigid conditions at times accompanied the Northern snow. On December 23-24, International Falls, MN, posted consecutive lows of -34°F. On December 24, Christmas Eve, Midwestern daily-record lows included -24°F in Pellston, MI, and -19°F in Ottumwa, IA. Within a few days, however, temperatures rebounded across the nation's mid-section. By December 27, daily-record highs in

Nebraska reached 62°F in Lincoln and 61°F in Omaha. On December 28, daily-record highs surged to 47°F in Minneapolis-St. Paul, MN, and 62°F in Sioux City, IA; Norfolk, NE; and Colorado Springs, CO. Farther west, mild weather dominated the Pacific Coast states. Red Bluff, CA, notched a daily-record high (74°F) for December 22. The following day, Northwestern records for December 23 included 57°F in The Dalles, OR, and 56°F in Yakima, WA. Later, warmth intensified across much of California. For example, daily-record highs for December 26 soared to 80°F in Laguna Beach and 80°F in Salinas. Long Beach, CA, registered a trio of daily-record highs (83, 83, and 84°F) from December 25-27. The month ended on a mild, dry note in California, where December 29 featured daily-record highs in locations such as Red Bluff (72°F) and San Francisco (68°F). The following day, additional record highs in California included 74°F in Paso Robles and 67°F in Fresno. In stark contrast, frigid conditions swept across the nation's northern tier. Grand Forks, ND, collected a daily-record low of -26°F on December 29. In Wisconsin, record-setting lows for December 30 included -31°F in Owen; -27°F in Antigo; and -19°F in Green Bay. Meanwhile, another Eastern storm led to record-setting precipitation totals for December 29 climbed to 2.07 inches in Augusta, GA; 1.94 inches in Raleigh-Durham, NC; 1.86 inches in Apalachicola, FL; 1.37 inches in Wilmington, DE; and 1.32 inches in Boston, MA. The following day, post-storm showers resulted in a trace of snow as far south as North Little Rock, AR, and Muscle Shoals, AL. Rain showers lingered across Deep South Texas, where record-setting totals for December 30 included 2.48 inches in Harlingen and 2.39 inches in Brownsville.

As cold and snowy as it was in many parts of the country, several previous years have featured harsher overall weather. For example, Rockford, IL, reported 8 days with sub-zero readings during the month, compared to the December 1963 record of 15 days. The temperature in Grand Junction, CO, remained at or below 32°F on 25 consecutive days from December 4-28, well shy of the record of 32 days established in December 1962 – January 1963. Grand Junction also experienced its second-coldest December behind 1919. Meanwhile, La Crosse, WI, received measurable snow on 13 days, just shy of the December standard of 15 days set in 2000 and 2008. Caribou, ME, managed to tie an all-time frequency record—23 days of measurable snow, previously achieved in January 1967—but with a total of 44.8 inches came up short of its December snowfall record (59.9 inches in 1972). On the flip side, however, it was the driest December on record in several Western locations, including the Washington communities of Omak (0.11 inch) and Ephrata (0.02 inch).

Near- to above-normal temperatures covered Alaska during December. Temperatures averaged more than 5°F above normal in parts of western Alaska. In the Aleutians, Cold Bay posted ten daily-record highs during the month, including seven in a row from December 3-9. King Salmon collected its latest-ever 50-degree reading, and highest December temperature on record, with a high of 54°F on December 6. Elsewhere on December 6, Kotzebue noted a daily-record high of 37°F and a daily-record precipitation total—all rain—of 0.29 inch. Monthly snowfall reached 23.1 inches in Anchorage, aided by a daily-record total of 8.5 inches on December 14. Juneau received a monthly snowfall of 40.4 inches, assisted by 5- to 7-inch totals on December 11, 15, 19, and 30. Monthly precipitation totaled 18.38 inches (171 percent of normal) on Annette Island, with 1-inch amounts occurring on 8 different days. Late in the month, cold weather

briefly invaded interior Alaska, where lows on December 26 plunged to -58°F in Chicken and -50°F in Eagle.

Hawaii's primary December highlight was heavy, late-month rainfall across windward sections of the Big Island. More than three-quarters (15.47 inches) of Hilo's 20.20-inch monthly rainfall—175 percent of normal—occurred during the last 5 days of December. If not for the Big Island's downpours, highlights would have been some heavy rain on Kauai as the month began and locally heavy, mid-month showers on Kauai and Oahu.

## Fieldwork

*Fieldwork summary provided by USDA/NASS*

December temperatures were below normal for most areas across the nation, with notable exceptions in California and the Southeast. The only widespread areas with substantially above-normal precipitation occurred in Alabama, Georgia, and the Carolinas. According to the U.S. Drought Monitor, areas suffering drought conditions on December 31 were mostly limited to the western United States with areas of extreme drought across the southern Plains, California, Nevada, and Idaho.

In California, relatively dry conditions allowed producers to complete normal agricultural winter activities, including plowing down of cotton fields and irrigation and pruning of orchards and vineyards. Sub-freezing temperatures in parts of the state forced citrus growers to protect groves from frost by setting up wind machines, irrigation, and other measures to help minimize damage to trees and fruit. California's winter wheat condition declined during December due to lack of precipitation and wind damage.

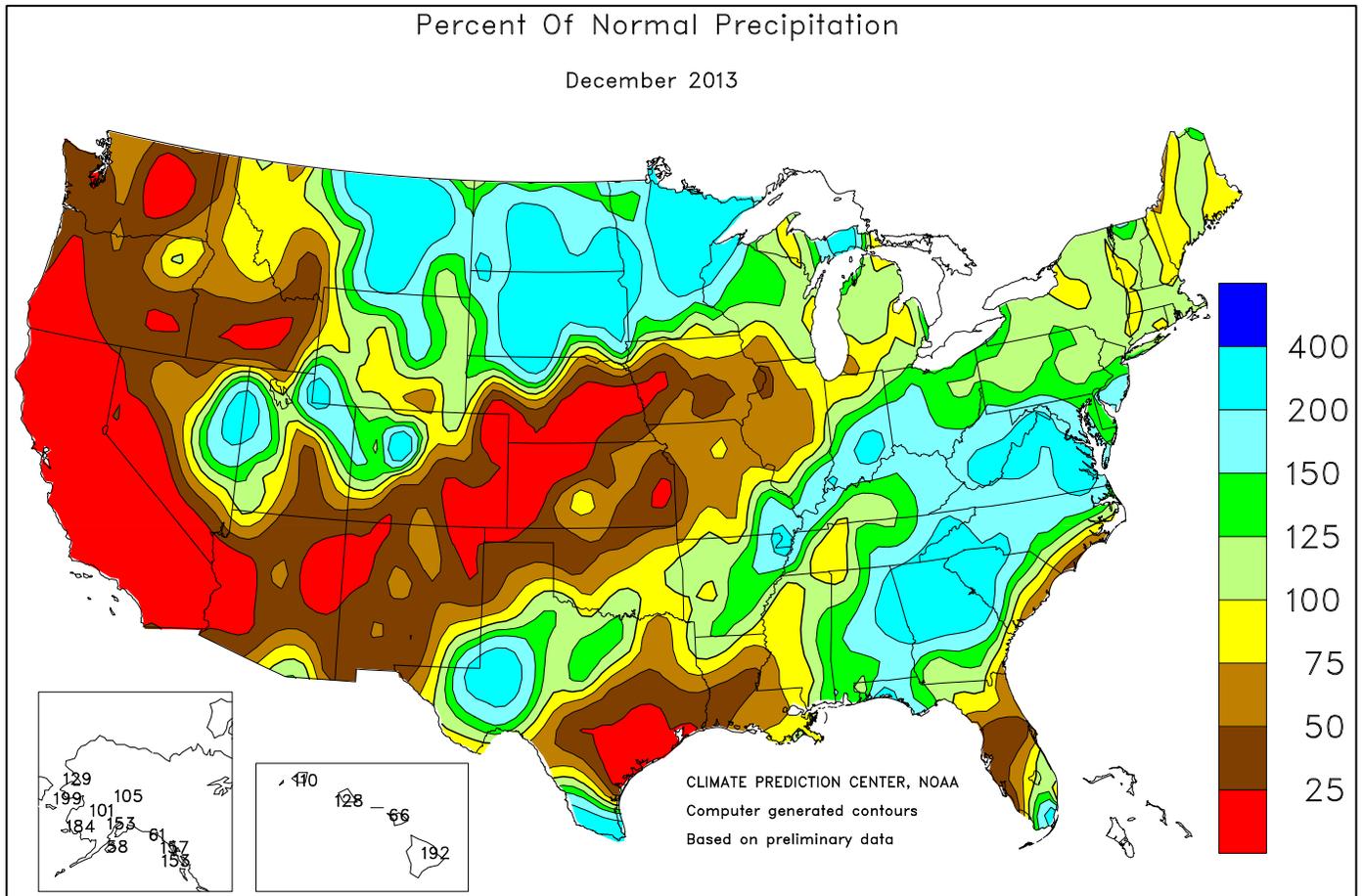
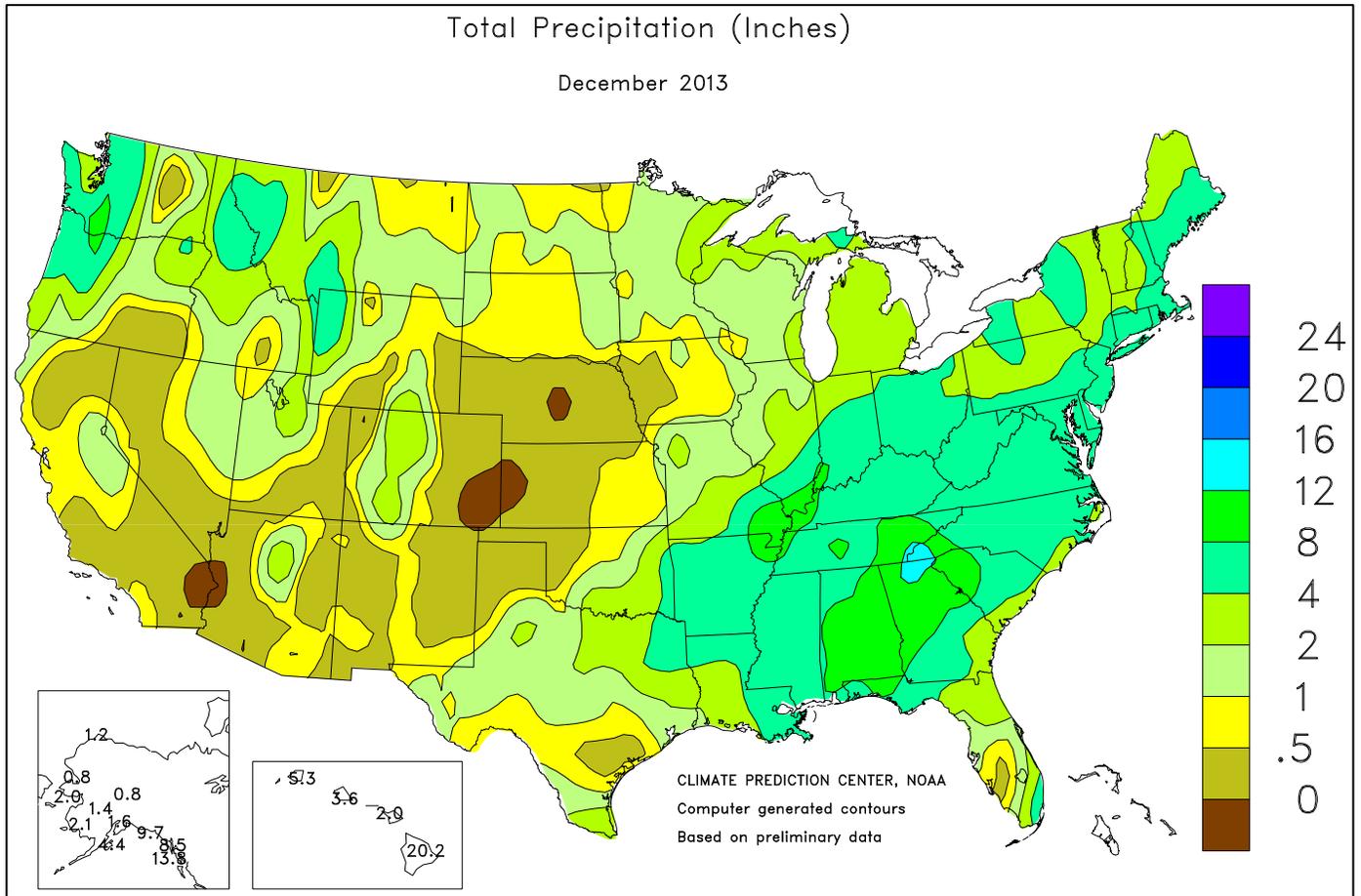
During December, Florida producers experienced above-average temperatures and below-average precipitation. These conditions allowed for the continuation of the winter vegetable harvest and development of those crops. Growers and caretakers of citrus groves continued to irrigate due to dry conditions. Field workers continued to report small sizes on all citrus varieties.

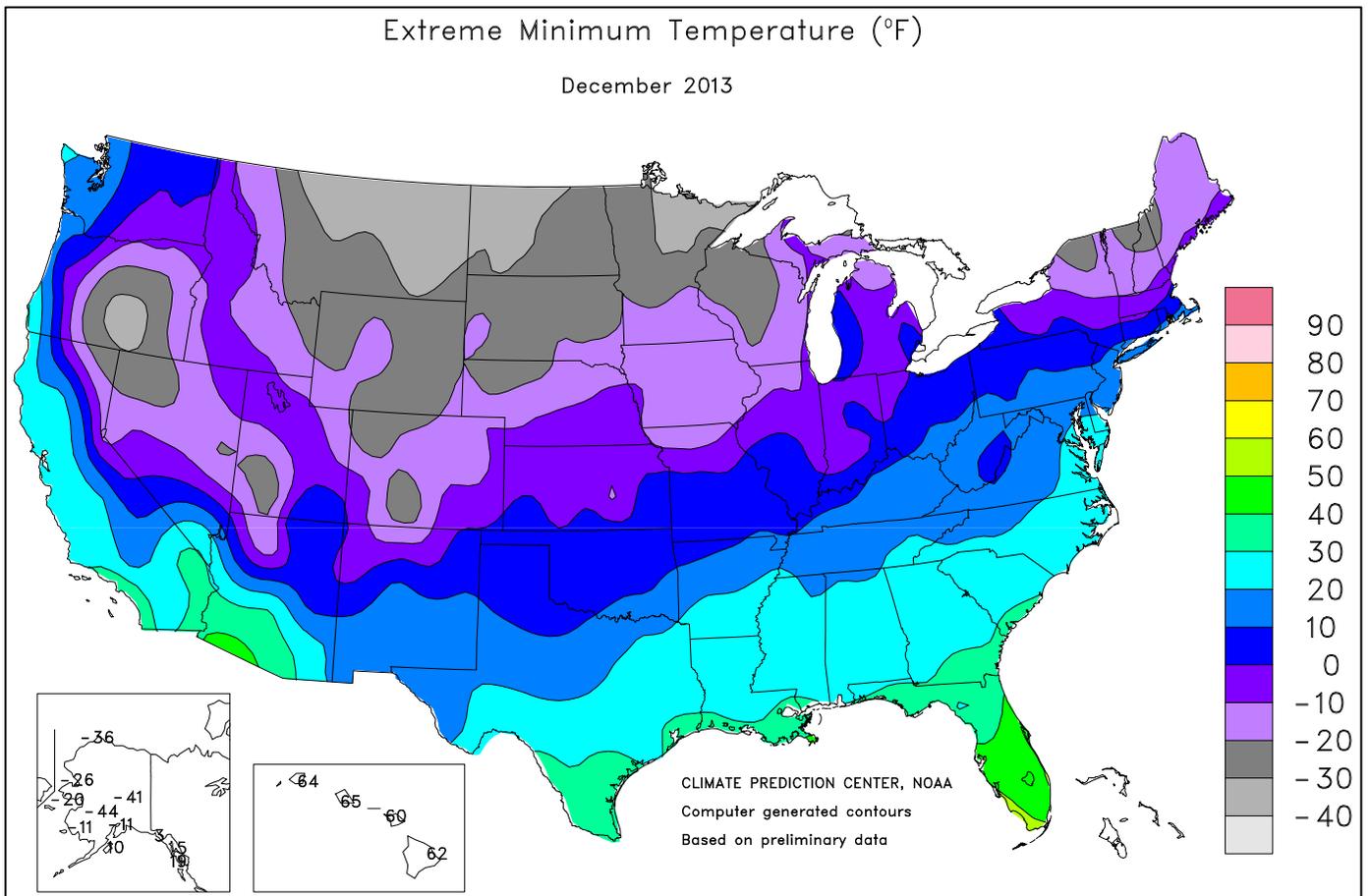
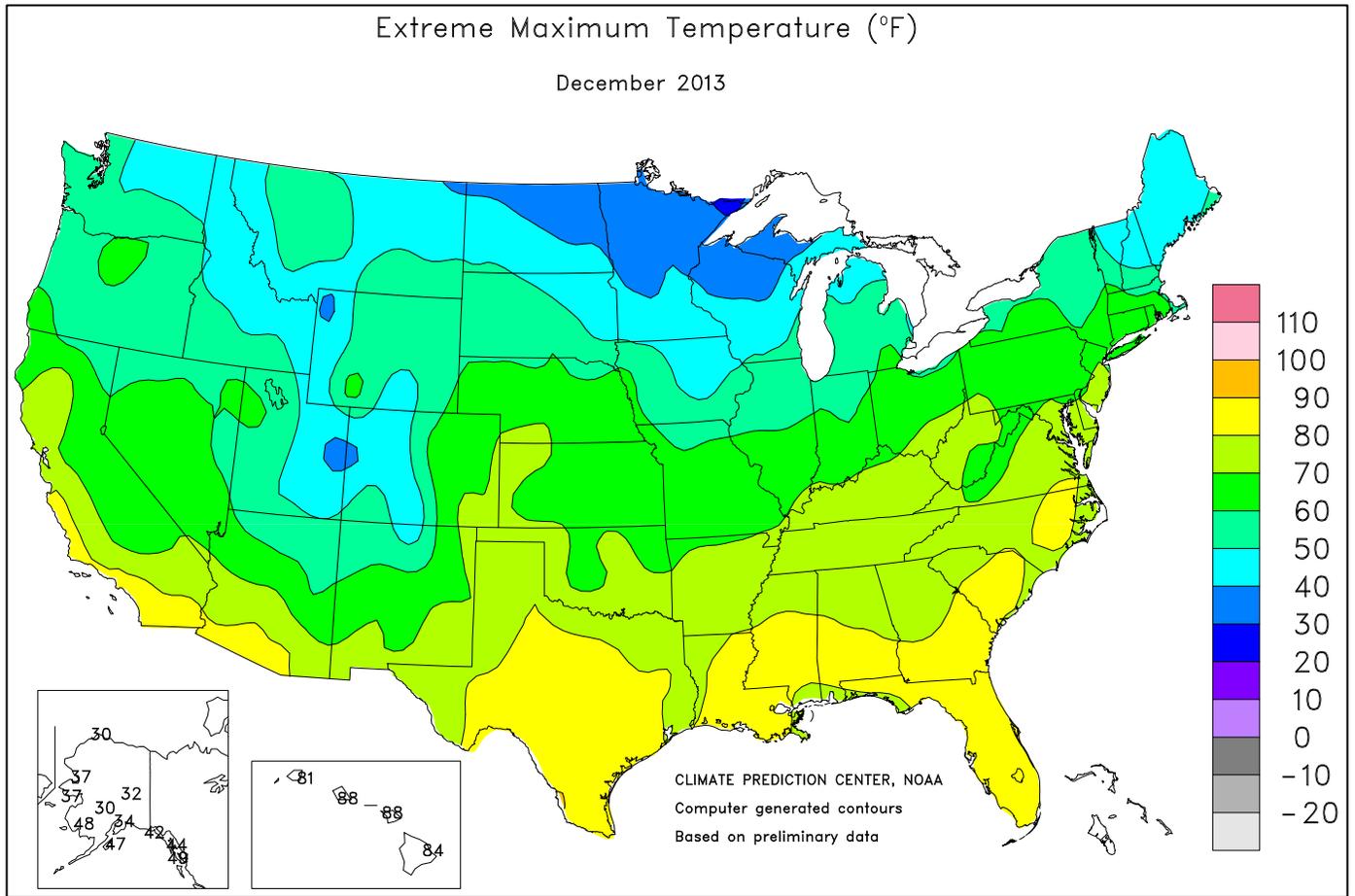
Most of the winter wheat crop was reported to be in good or excellent condition. By December 29, the portion of the Plains' wheat rated in good to excellent condition included 65 percent in Nebraska, 63 percent in Oklahoma, and 58 percent in Kansas.

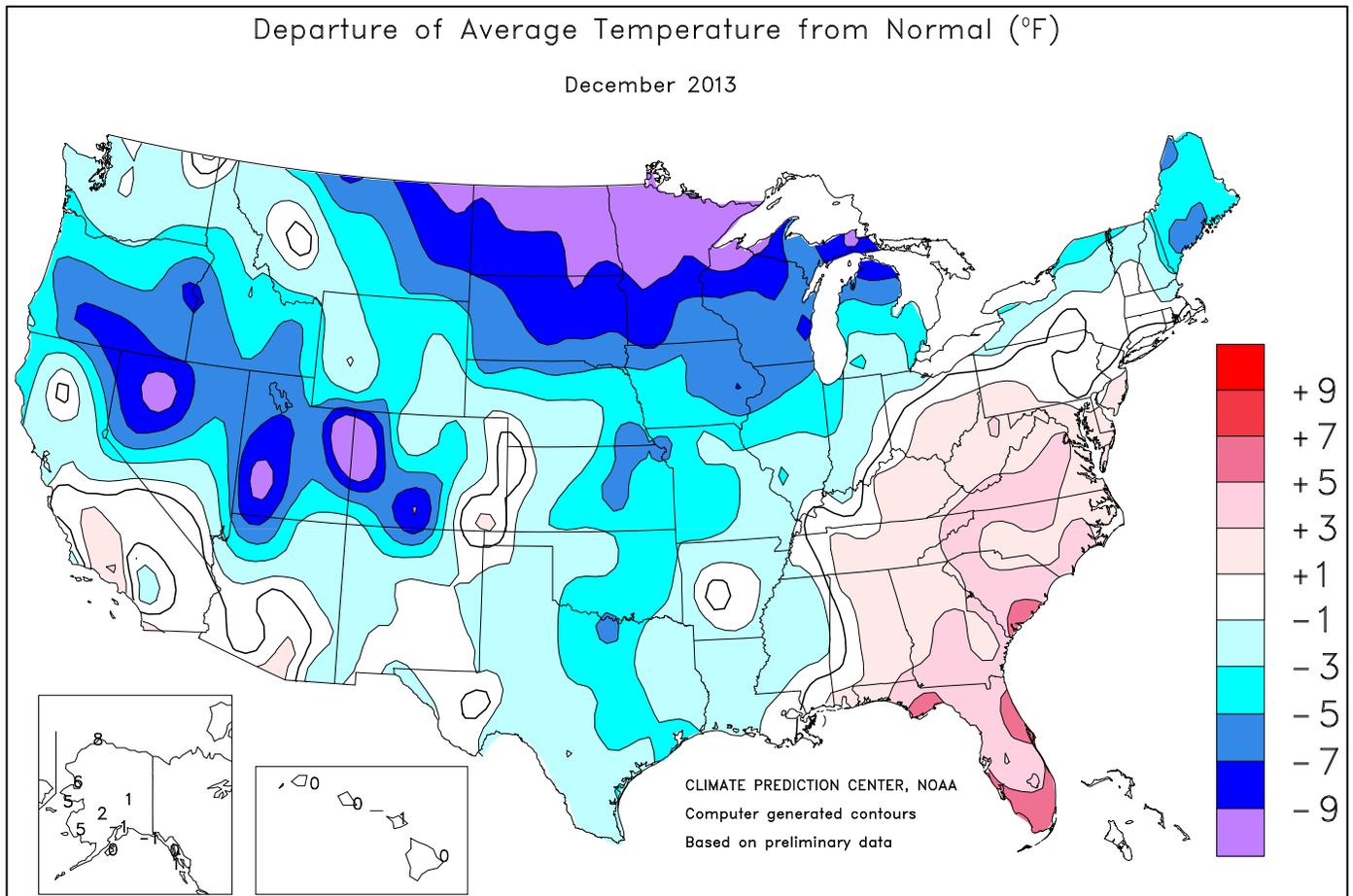
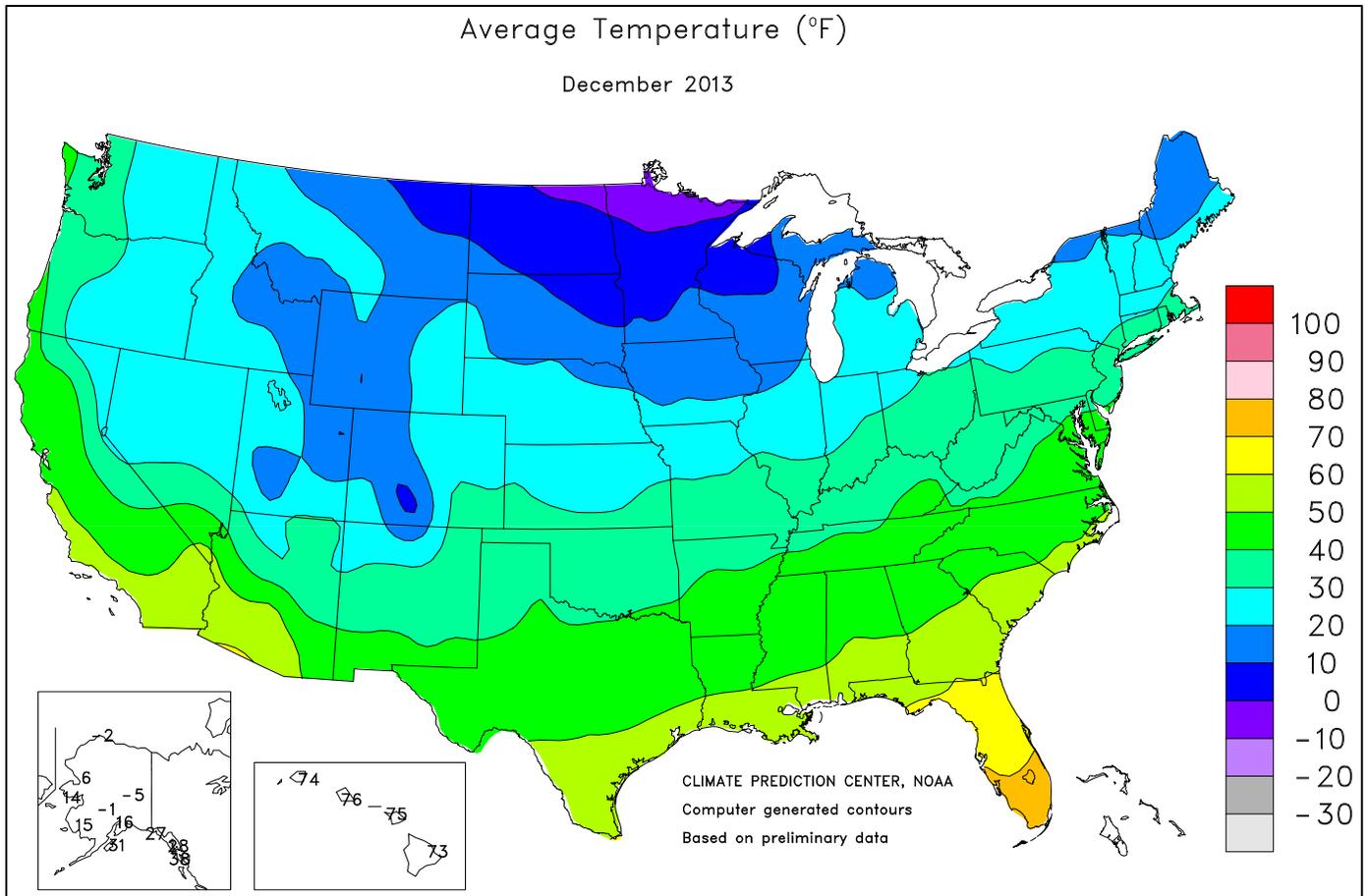
## U.S. Crop Production Highlights

*The following information was released by USDA's Agricultural Statistics Board on January 10, 2014. Forecasts refer to January 1.*

The U.S. **all orange** forecast for the 2013-2014 season is 7.39 million tons, down 5 percent from the previous forecast and down 11 percent from the 2012-2013 final utilization. The Florida all orange forecast, at 115 million boxes (5.18 million tons), is down 5 percent from the previous forecast and down 14 percent from last season's final utilization. Early, midseason, and Navel varieties in Florida are forecast at 54.0 million boxes (2.43 million tons), down 4 percent from the previous forecast and down 20 percent from last season. Current droppage is projected to be the highest in a series dating back to the 1960-1961 season. The Florida Valencia orange forecast, at 61.0 million boxes (2.75 million tons), is down 6 percent from the previous forecast and down 8 percent from last season's final utilization.







National Weather Data for Selected Cities

December 2013

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMP. °F		PRECIP.		STATES AND STATIONS	TEMP. °F		PRECIP.		STATES AND STATIONS	TEMP. °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	47	1	7.06	2.59	LEXINGTON	38	2	5.58	1.55	COLUMBUS	35	2	4.30	1.37
HUNTSVILLE	45	2	6.57	0.98	LONDON-CORBIN	41	3	6.44	2.13	DAYTON	33	2	4.58	1.50
MOBILE	53	1	7.37	2.71	LOUISVILLE	39	1	5.43	1.74	MANSFIELD	30	0	4.07	0.81
MONTGOMERY	52	3	8.96	3.99	PADUCAH	37	0	8.14	3.76	TOLEDO	28	-1	3.07	0.43
AK ANCHORAGE	16	-1	1.61	0.56	LA BATON ROUGE	52	0	3.72	-1.54	YOUNGSTOWN	31	1	3.52	0.56
BARROW	-2	9	1.16	1.04	LAKE CHARLES	51	-2	2.05	-2.55	OK OKLAHOMA CITY	37	-3	1.26	-0.63
COLD BAY	38	7	4.31	-0.02	NEW ORLEANS	55	0	3.21	-1.86	TULSA	35	-5	1.78	-0.65
FAIRBANKS	-5	1	0.78	0.04	SHREVEPORT	47	-1	4.98	0.43	OR ASTORIA	38	-5	5.00	-5.40
JUNEAU	28	-1	8.52	3.11	ME BANGOR	19	-5	2.93	-0.40	BURNS	20	-5	0.21	-1.09
KING SALMON	22	5	1.13	-0.26	CARIBOU	13	-3	3.58	0.39	EUGENE	34	-6	1.48	-6.81
KODIAK	31	0	4.44	-3.20	PORTLAND	24	-4	4.35	0.11	MEDFORD	31	-7	0.36	-2.54
NOME	14	6	2.01	1.00	MD BALTIMORE	39	2	5.27	1.92	PENDLETON	30	-4	0.80	-0.68
AZ FLAGSTAFF	28	-2	1.35	-0.48	MA BOSTON	33	-2	4.62	0.89	PORTLAND	37	-3	1.62	-4.09
PHOENIX	56	2	0.39	-0.53	WORCESTER	28	-1	4.42	0.62	SALEM	36	-4	1.27	-5.19
TUCSON	53	1	0.83	-0.20	MI ALPENA	17	-7	2.14	0.31	PA ALLENTOWN	32	0	4.04	0.65
AR FORT SMITH	39	-2	4.10	0.71	DETROIT	27	-3	2.42	-0.09	ERIE	31	-2	5.96	2.23
LITTLE ROCK	43	0	6.94	2.23	FLINT	25	-2	1.85	-0.33	MIDDLETOWN	34	0	3.74	0.50
CA BAKERSFIELD	48	1	0.10	-0.66	GRAND RAPIDS	26	-2	2.70	0.00	PHILADELPHIA	39	2	5.20	1.89
EUREKA	42	-6	0.56	-5.79	HOUGHTON LAKE	18	-6	2.20	0.45	PITTSBURGH	34	1	3.26	0.40
FRESNO	47	2	0.15	-1.19	LANSING	24	-3	1.88	-0.29	WILKES-BARRE	31	0	3.34	0.79
LOS ANGELES	59	1	0.30	-1.49	MUSKEGON	26	-3	2.70	0.06	WILLIAMSPORT	30	-1	3.64	0.70
REDDING	46	1	0.38	-4.29	TRAVERSE CITY	22	-4	2.59	-0.07	PR SAN JUAN	80	2	7.62	3.05
SACRAMENTO	45	-1	0.43	-2.02	MN DULUTH	5	-9	2.88	1.94	RI PROVIDENCE	33	-1	4.82	0.68
SAN DIEGO	59	1	0.46	-0.85	INT'L FALLS	-4	-12	1.44	0.74	SC CHARLESTON	56	5	2.15	-1.09
SAN FRANCISCO	50	1	0.35	-2.54	MINNEAPOLIS	13	-6	1.46	0.46	COLUMBIA	51	4	5.88	2.50
STOCKTON	44	-1	0.34	-1.48	ROCHESTER	13	-4	1.10	0.08	FLORENCE	51	4	4.34	0.87
CO ALAMOSA	8	-9	0.17	-0.16	ST. CLOUD	6	-8	1.77	1.08	GREENVILLE	47	3	6.67	2.81
CO SPRINGS	29	0	0.07	-0.35	MS JACKSON	47	-1	4.50	-0.84	MYRTLE BEACH	52	3	2.07	-1.38
DENVER	29	0	0.25	-0.06	MERIDIAN	48	-1	7.35	2.04	SD ABERDEEN	7	-9	0.88	0.50
GRAND JUNCTION	16	-12	0.96	0.44	TUPELO	44	1	6.18	0.06	HURON	11	-8	1.03	0.64
PUEBLO	31	1	0.03	-0.36	MO COLUMBIA	30	-2	1.71	-0.76	RAPID CITY	19	-6	0.56	0.16
CT BRIDGEPORT	35	0	4.33	0.86	JOPLIN	33	-4	1.38	-1.58	SIoux FALLS	12	-6	1.13	0.61
HARTFORD	30	-1	3.92	0.32	KANSAS CITY	28	-3	0.80	-0.84	TN BRISTOL	41	4	6.34	2.95
DC WASHINGTON	42	2	5.53	2.48	SPRINGFIELD	32	-4	2.56	-0.61	CHATTANOOGA	45	3	7.98	3.17
DE WILMINGTON	38	2	5.22	1.82	ST JOSEPH	24	-7	0.67	-0.77	JACKSON	40	-2	4.80	-0.56
FL DAYTONA BEACH	66	5	1.69	-1.02	ST LOUIS	33	-1	1.96	-0.90	KNOXVILLE	43	2	8.22	3.73
FT LAUDERDALE	74	5	1.20	-1.45	MT BILLINGS	22	-4	1.98	1.31	MEMPHIS	43	0	4.82	-0.86
FT MYERS	71	5	0.50	-1.08	BUTTE	18	0	0.22	-0.31	NASHVILLE	41	1	7.98	3.44
JACKSONVILLE	60	5	0.86	-1.78	GLASGOW	8	-8	0.87	0.50	TX ABILENE	42	-3	1.11	-0.16
KEY WEST	76	4	1.09	-1.05	GREAT FALLS	21	-3	0.94	0.27	AMARILLO	36	-1	0.32	-0.29
MELBOURNE	69	6	2.15	-0.16	HELENA	24	3	0.29	-0.17	AUSTIN	47	-5	0.86	-1.58
MIAMI	75	5	4.67	2.49	KALISPELL	21	-2	1.58	-0.07	BEAUMONT	52	-2	1.29	-3.96
ORLANDO	68	5	0.27	-2.04	MILES CITY	13	-8	0.61	0.16	BROWNSVILLE	60	-1	3.52	2.41
PENSACOLA	57	3	3.76	-0.21	MISSOULA	23	0	1.12	-0.03	COLLEGE STATION	49	-3	0.76	-2.47
ST PETERSBURG	68	4	0.82	-1.78	NE GRAND ISLAND	25	-1	0.11	-0.55	CORPUS CHRISTI	56	-2	0.29	-1.46
TALLAHASSEE	59	5	4.89	0.79	HASTINGS	24	-3	0.14	-0.59	DALLAS/FT WORTH	43	-4	2.76	0.19
TAMPA	69	6	0.81	-1.49	LINCOLN	22	-4	0.22	-0.64	DEL RIO	50	-2	0.48	-0.27
WEST PALM BEACH	74	6	4.34	1.20	MCCOOK	27	-2	0.22	-0.31	EL PASO	45	0	0.26	-0.51
GA ATHENS	47	2	7.62	3.91	NORFOLK	20	-4	0.14	-0.51	GALVESTON	53	-5	0.65	-2.88
ATLANTA	48	3	7.80	3.98	NORTH PLATTE	24	-2	0.16	-0.24	HOUSTON	51	-3	1.66	-2.03
AUGUSTA	50	3	6.90	3.76	OMAHA/EPPLEY	22	-4	0.20	-0.72	LUBBOCK	39	-1	0.60	-0.07
COLUMBUS	51	2	8.87	4.47	SCOTTSBLUFF	26	0	0.63	0.07	MIDLAND	43	-2	1.44	0.79
MACON	50	2	9.04	5.11	VALENTINE	19	-5	0.71	0.38	SAN ANGELO	45	-1	1.15	0.21
SAVANNAH	57	6	2.38	-0.43	NV ELKO	21	-5	0.65	-0.28	SAN ANTONIO	52	0	0.55	-1.41
HI HILO	73	1	20.20	9.70	ELY	22	-4	0.99	0.49	VICTORIA	53	-2	0.45	-2.02
HONOLULU	76	1	3.64	0.79	LAS VEGAS	48	1	0.05	-0.35	WACO	44	-4	1.34	-1.42
KAHULUI	75	2	2.04	-1.04	RENO	29	-5	0.41	-0.47	WICHITA FALLS	38	-5	1.29	-0.39
LIHUE	74	1	5.28	0.50	WINNEMUCCA	19	-11	0.61	-0.20	UT SALT LAKE CITY	25	-5	1.67	0.44
ID BOISE	24	-7	0.66	-0.72	NH CONCORD	23	-3	3.39	0.43	VT BURLINGTON	23	-2	2.54	0.32
LEWISTON	31	-3	0.73	-0.32	NJ ATLANTIC CITY	39	2	6.06	2.91	VA LYNCHBURG	41	3	5.69	2.46
POCATELLO	20	-5	0.43	-0.67	NEWARK	37	1	4.62	1.05	NORFOLK	46	2	4.75	1.72
IL CHICAGO/O'HARE	24	-3	1.94	-0.49	NM ALBUQUERQUE	36	0	0.40	-0.09	RICHMOND	44	4	6.11	2.99
MOLINE	21	-5	1.22	-0.98	NY ALBANY	28	0	3.38	0.71	ROANOKE	42	3	4.38	1.52
PEORIA	25	-3	1.49	-0.91	BINGHAMTON	28	1	3.44	0.41	WASH/DULLES	39	3	5.58	2.51
ROCKFORD	19	-5	1.69	-0.37	BUFFALO	28	-2	4.92	1.12	WA OLYMPIA	38	0	2.02	-5.87
SPRINGFIELD	27	-3	1.60	-0.94	ROCHESTER	28	-1	2.99	0.26	QUILLAYUTE	41	0	6.16	-8.34
EVANSVILLE	35	-1	7.33	3.79	SYRACUSE	28	-1	2.89	-0.23	SEATTLE-TACOMA	40	-1	1.66	-3.96
FORT WAYNE	28	-1	2.86	0.09	NC ASHEVILLE	42	3	7.67	4.28	SPOKANE	26	-1	0.68	-1.57
INDIANAPOLIS	30	-2	4.44	1.41	CHARLOTTE	46	2	7.13	3.95	YAKIMA	28	-1	0.32	-1.06
SOUTH BEND	26	-3	2.33	-0.76	GREENSBORO	44	3	5.19	2.13	WV BECKLEY	37	2	6.36	3.27
BURLINGTON	23	-5	1.08	-1.02	HATTERAS	52	2	3.90	-0.66	CHARLESTON	39	1	6.24	2.92
CEDAR RAPIDS	17	-7	0.68	-0.80	RALEIGH	46	3	5.91	2.87	ELKINS	35	2	6.27	2.83
DES MOINES	21	-4	0.81	-0.52	WILMINGTON	53	4	1.73	-2.05	HUNTINGTON	39	2	5.55	2.18
DUBUQUE	16	-6	1.24	-0.45	ND BISMARCK	8	-7	1.26	0.82	WI EAU CLAIRE	11	-7	1.53	0.50
SIoux CITY	18	-4	0.18	-0.48	DICKINSON	10	-8	0.38	0.04	GREEN BAY	15	-6	1.89	0.48
WATERLOO	15	-7	0.94	-0.17	FARGO	4	-9	1.21	0.64	LA CROSSE	16	-6	1.52	0.29
KS CONCORDIA	27	-3	0.54	-0.32	GRAND FORKS	0	-11	0.82	0.27	MADISON	17	-6	1.62	-0.04
DODGE CITY	30	-3	0.48	-0.29	JAMESTOWN	5	-9	0.63	0.19	MILWAUKEE	21	-5	1.79	-0.43
GOODLAND	30	0	0.05	-0.35	MINOT	4	-11	0.98	0.35	WAUSAU	11	-8	1.57	0.24
HILL CITY	29	-2	0.00	-0.47	WILLISTON	8	-5	1.07	0.50	WY CASPER	21	-3	1.20	0.58
TOPEKA	29	-2	0.56	-0.86	OH AKRON-CANTON	31	0	3.49	0.51	CHEYENNE	26	-1	0.50	0.04
WICHITA	30	-4	0.60	-0.75	CINCINNATI	35	0	4.92	1.64	LANDER	20	-1	0.69	0.08
KY JACKSON	40	2	7.09	2.82	CLEVELAND	32	1	4.10	0.96	SHERIDAN	19	-3	1.12	0.44

# National Agricultural Summary

January 6 - 12, 2014

Weekly National Agricultural Summary provided by USDA/NASS

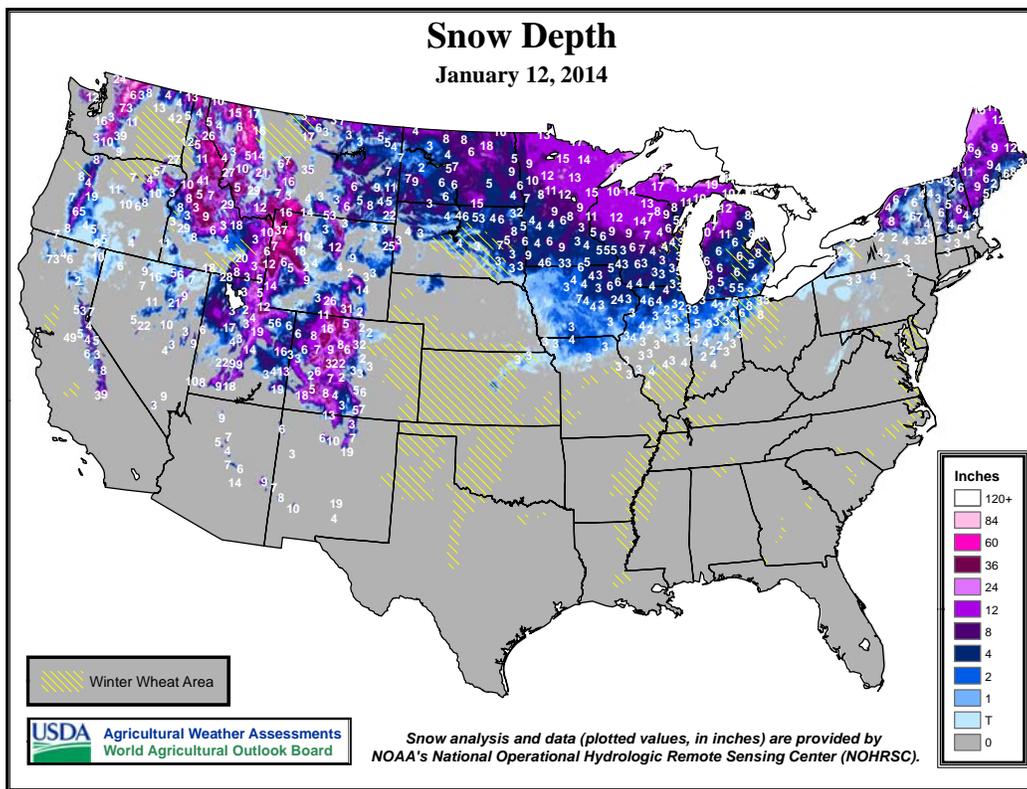
Precipitation was generally limited to the eastern United States, but small areas in Florida and the Pacific Northwest recorded more than 4 inches of precipitation. Temperatures were below normal across most of the country, with only a few areas along the Atlantic Coast and west of the Rockies recording above-average temperatures. Temperatures averaged more than 10°F below normal in most of Wisconsin and some surrounding areas.

A high-pressure ridge remained over the West Coast at the beginning of the week and brought continued dry and mild conditions to California. Small grain crops continued to develop and were treated with herbicides. Growth continued in irrigated fields. Dryland fields suffered from drought conditions that have caused some fields not to germinate. Some producers have reported crop loss due to December freezes. Oat fields in Merced County were replanted due to a lack of water. Alfalfa fields remained in a state of dormancy. Navel orange harvest was ongoing. Lemon harvest remained active. Satsuma mandarin and Clementine tangerine harvests continued in the southern part of the State. Harvested almond, walnut and pistachio orchards were pruned and irrigated due to lack of rain. Tree removals were ongoing and land was prepared for tree planting. Winter vegetables such as broccoli, lettuce and cauliflower were harvested in Imperial County. Onions and broccoli continued to develop. Processing tomato fields were bedded and received fumigation in Fresno County. Fertilizer and herbicides were applied to processing onions. Baby carrots were harvested and fresh onions were planted. Radicchio harvest continued in Merced County. Range and non-irrigated pasture remained in poor to fair condition. Drought persisted, with extreme conditions in most of the San Joaquin Valley and Central Coast. Calving season was drawing to a close. Livestock supplemental feeding of hay and grain continued. Sheep grazed some alfalfa fields. The movement of bees was beginning in preparation for almond pollination.

In Arizona, cotton harvest was 99 percent complete, equal to last year, but slightly ahead of the 5-year average. Arizona's alfalfa condition was rated very poor to good, depending on location. Central Arizona growers shipped Bok Choy, broccoli, red and green cabbage, Chinese cabbage, kale, lemons, cilantro, and parsley. Western Arizona growers shipped anise, arugula, broccoli, Bok Choy, green and red cabbage, cauliflower, celery, Chinese cabbage, cilantro, endive, escarole, frisee, kale, parsley, radicchio, spinach, and various lettuces. High temperatures are depleting moisture levels. Range and pastures were rated in very poor to good condition, depending on location.

Colder weather continued last week and precipitation fell across much of Texas. Many coastal areas received 0.50 to 2.00 inches of precipitation; however, the Northern Plains received little or no rain. Winter wheat conditions were reported as fair to poor in the Plains, particularly in areas that lack adequate moisture. Producers in the coastal regions reported that small grains were progressing well. Cotton harvest is wrapping up and gins continue to run last year's crop. Farmers are starting to prepare fields for this year's upcoming crops. Pecan harvest has been completed in the Edwards Plateau, North East Texas, and the Cross Timbers areas. The Trans-Pecos fall onion planting was reported as dormant at the 3-leaf stage. South Texas producers have had to apply irrigation water to cabbage, spinach and onions, due to dry conditions. Supplemental feeding of cattle has increased due to colder weather and a decline of forage quality. Cattle body condition scores remain fair. Cattle in the Cross Timbers area are being brought in from other areas to take advantage of the winter wheat crop. Range and pasture conditions continue to decline as forages remain dormant and are being grazed.

Most of Florida reported less than an inch of rain last week. Farmers in the northern part of the state were completing the soybean harvest. Planting of oats, wheat, rye, and winter grazing was ongoing. Jackson County reported a small amount of damage to winter oats due to frost. Sugarcane harvest proceeded as scheduled in Hendry, Palm Beach, and Glades Counties. Cabbage and potatoes were being planted in Flagler County. Farmers in Manatee County began planting tomatoes. Cold winds associated with the Arctic front battered vegetables crops in Charlotte, Collier, Hendry and Lee Counties, requiring some replanting of okra, sweet potatoes, green beans, and strawberries. Rain was light in most of the citrus area. Temperatures during the recent cold snap did not reach damaging levels in the citrus-producing region. Growers and caretakers continued to irrigate due to dry conditions. Field workers reported small sizes on all varieties. Grove activity included harvesting, hedging and topping after harvest, resetting of new trees, pushing of dead groves and replanting new citrus, mowing, fertilizing, and psyllid control. The cattle condition across the state was primarily fair, as was the pasture condition. Cattlemen were feeding hay and supplements across the state. Cold weather in the northern part of the state contributed to pasture decline. Drought was the main contributing factor for the decline in pasture condition in the southern part of the state.



# International Weather and Crop Summary

January 5-11, 2014

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

## HIGHLIGHTS

**EUROPE:** Unseasonably warm weather continued over the continent, keeping major winter crop areas devoid of snow cover but minimizing the risk of freeze damage.

**WESTERN FSU:** Spring-like warmth maintained favorable conditions for dormant winter wheat but kept key crop areas devoid of snow cover.

**MIDDLE EAST:** Stormy weather in the south provided supplemental moisture for irrigated winter grains, while dry conditions and milder weather in the north eroded the protective snow cover in Turkey.

**NORTHWEST AFRICA:** Generally dry, mild weather encouraged winter grain development.

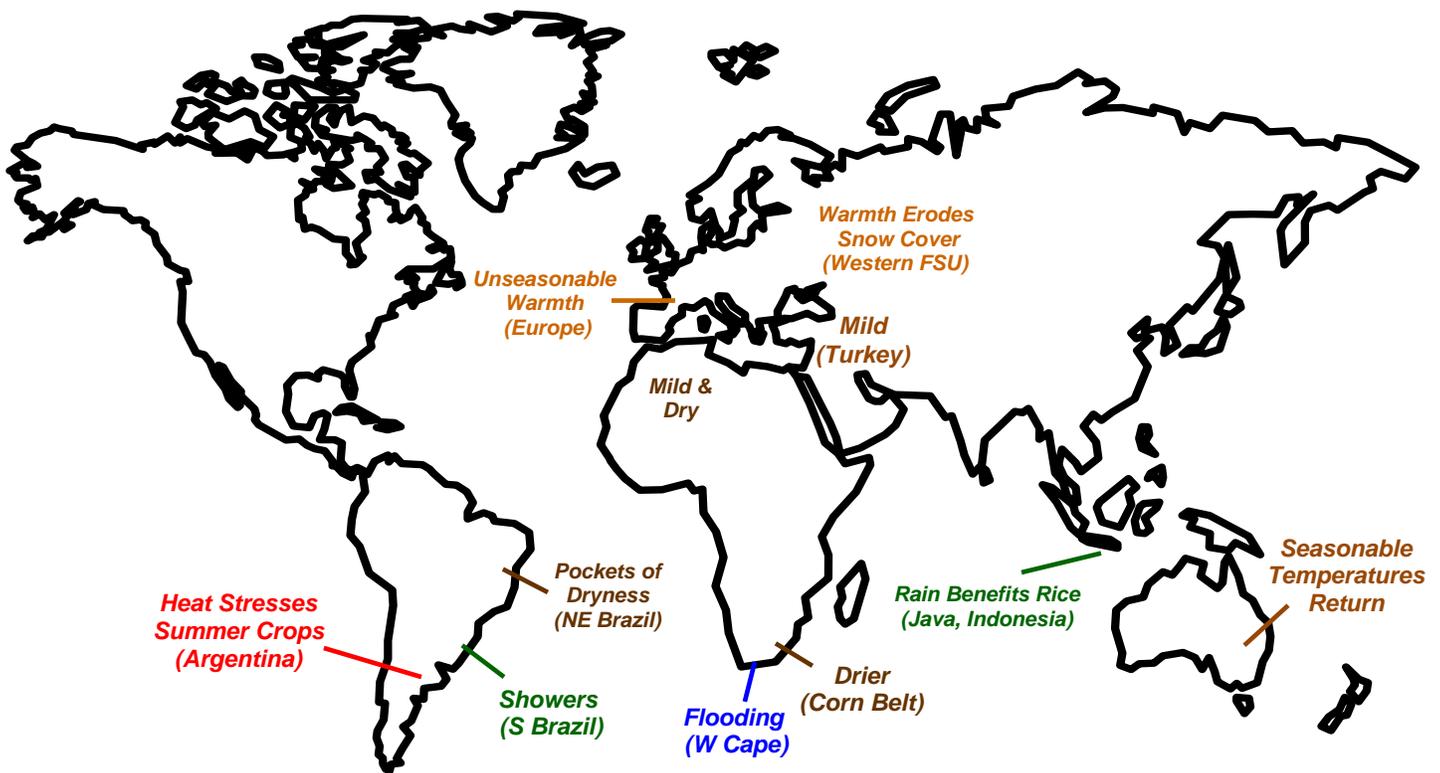
**SOUTHEAST ASIA:** Monsoon showers continued to benefit rice in Java, Indonesia.

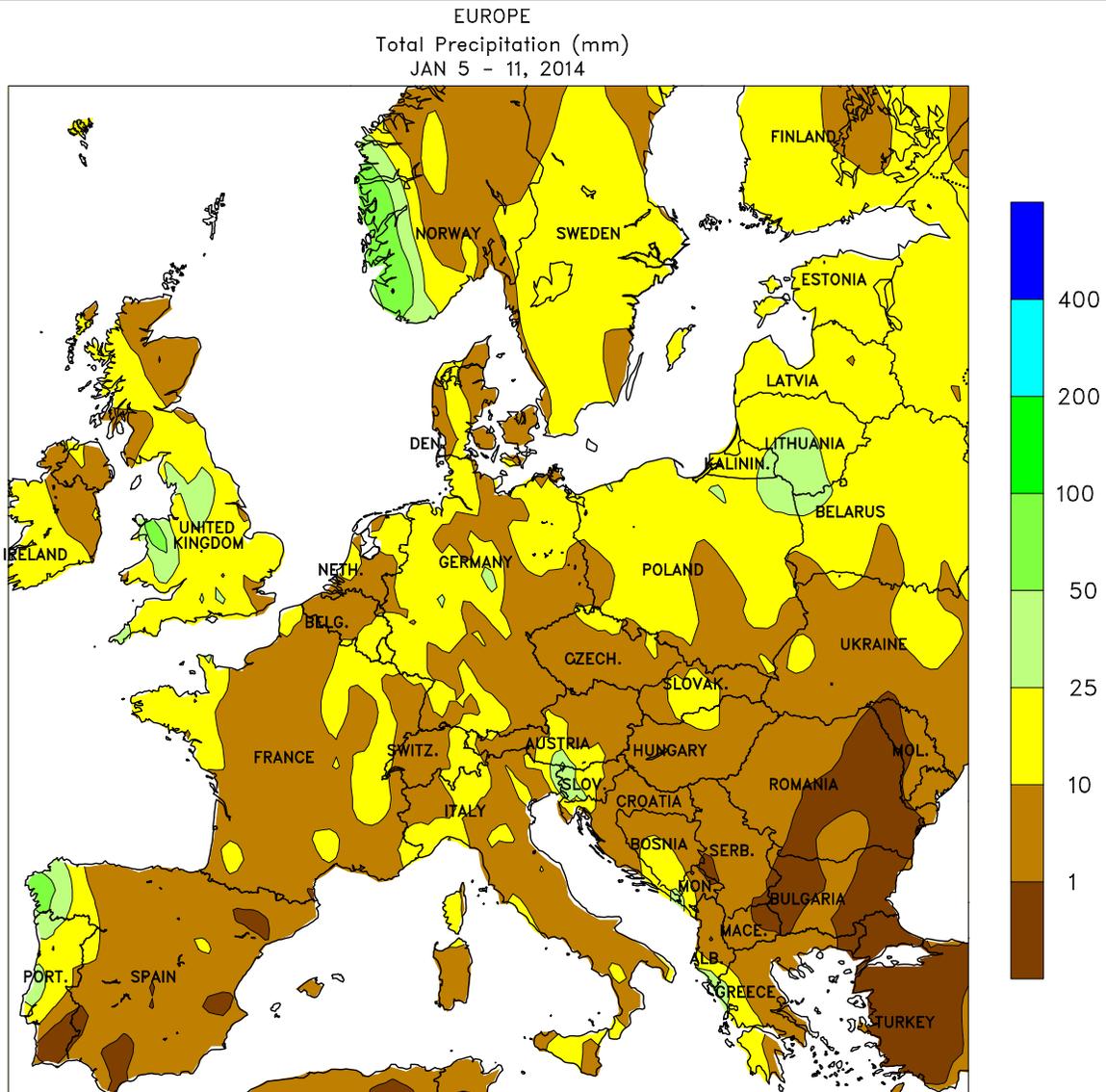
**AUSTRALIA:** More seasonable temperatures returned to major summer crop areas.

**SOUTH AFRICA:** Warmth and dryness spurred development of eastern summer crops, while flooding rain hit the far southwest.

**ARGENTINA:** Unseasonable warmth and dryness stressed summer grains, oilseeds, and cotton for much of the week.

**BRAZIL:** Beneficial rain continued in southern and central corn and soybeans areas but pockets of unseasonable dryness lingered in the northeast.





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Computer generated contours  
Based on preliminary data

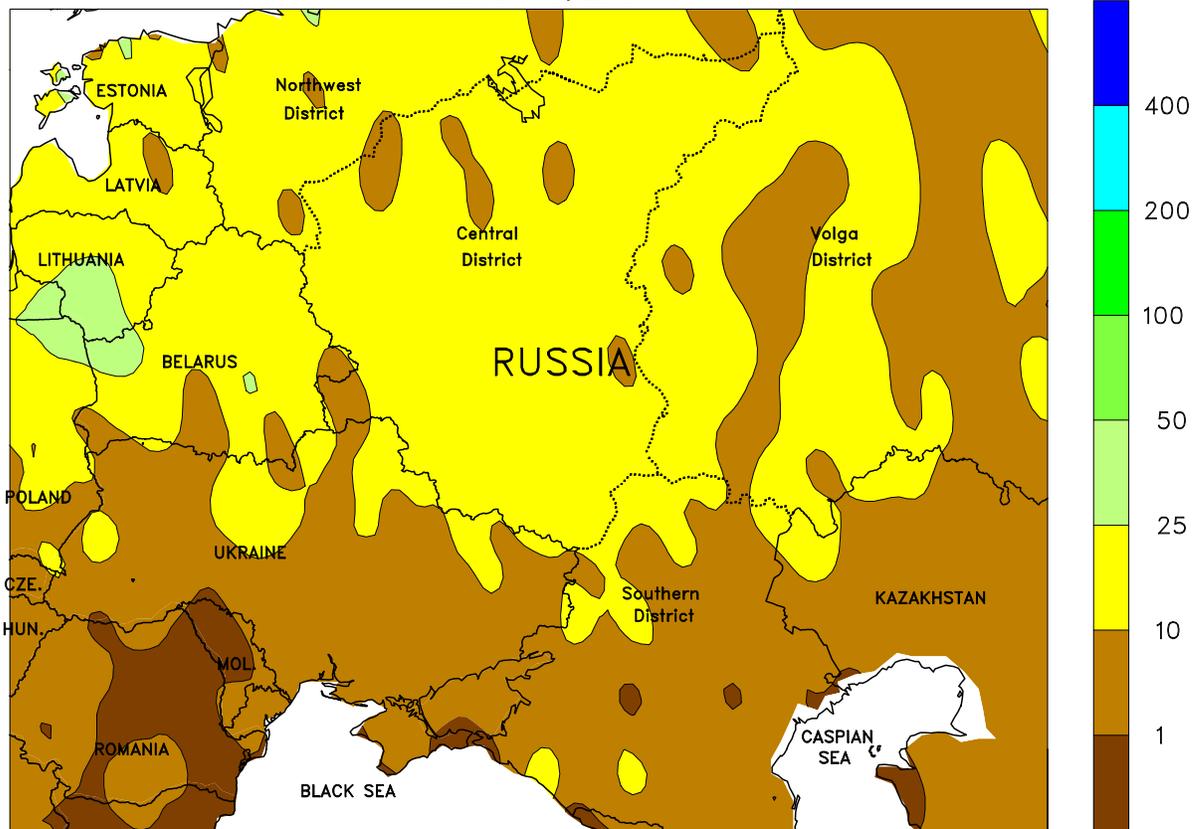


**EUROPE**

Unseasonably warm, showery weather prevailed across the continent, providing mostly favorable conditions for dormant to vegetative winter crops. In eastern Europe, a persistent ridge of high pressure over Eurasia produced spring-like warmth (locally more than 7°C above normal) from Poland and the Baltic States into the Balkans. With daytime highs consistently topping 10 to 15°C, these typically colder eastern growing areas remained devoid of a protective snowpack which normally blankets the

eastern third of Europe by early January. In western Europe, a series of disturbances generated widespread showers (2-25 mm, locally more), maintaining abundant soil moisture for dormant winter crops in northern growing areas while further improving soil moisture for Spain’s vegetative winter wheat and barley. Temperatures across western Europe averaged up to 3°C above normal, causing crops in France and the United Kingdom to lose cold hardiness.

WESTERN FSU  
Total Precipitation (mm)  
JAN 5 - 11, 2014



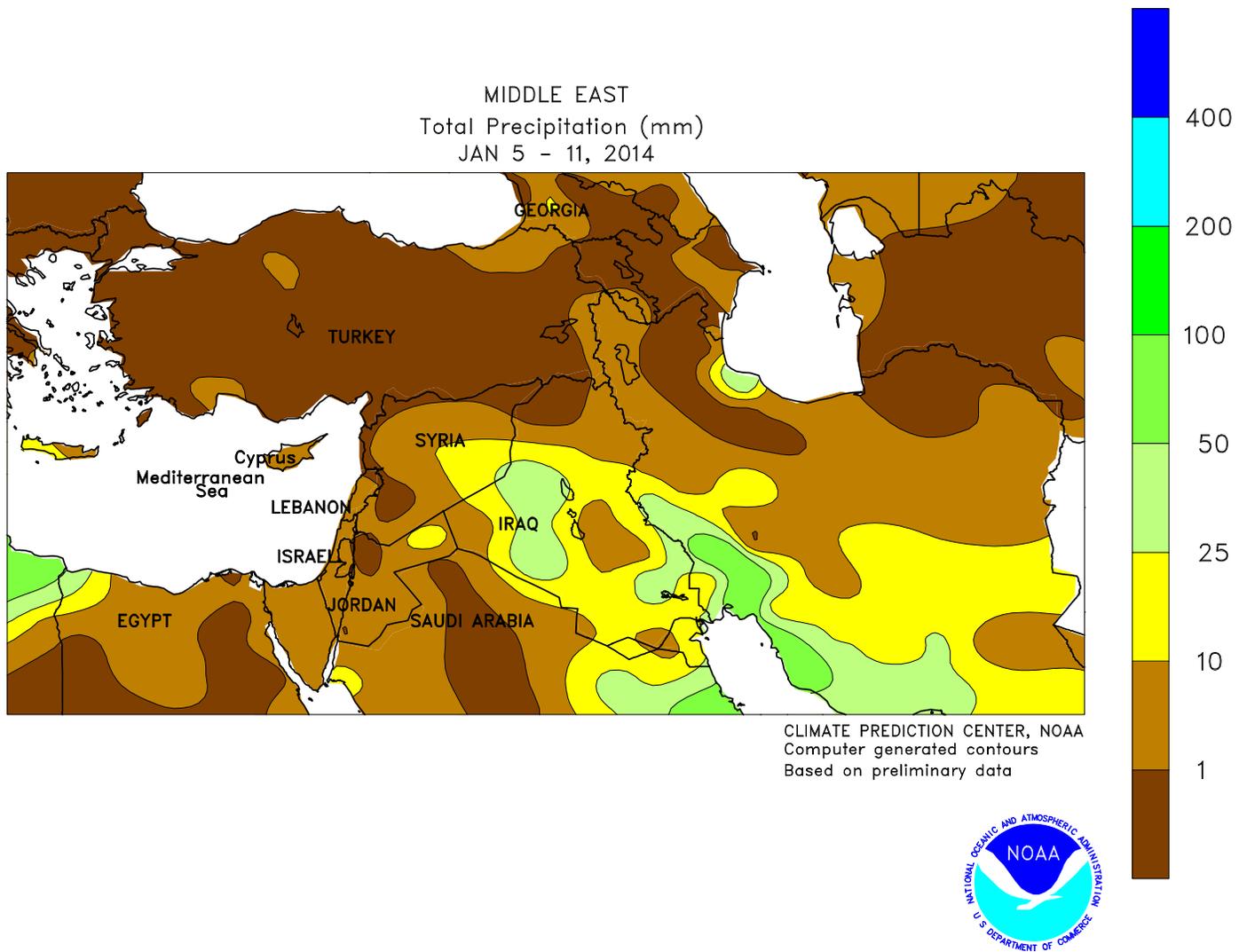
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Based on preliminary data



**WESTERN FSU**

Spring-like warmth persisted, maintaining favorable conditions for winter wheat but leaving the region uncharacteristically devoid of snow. Temperatures averaged 3 to 10°C above

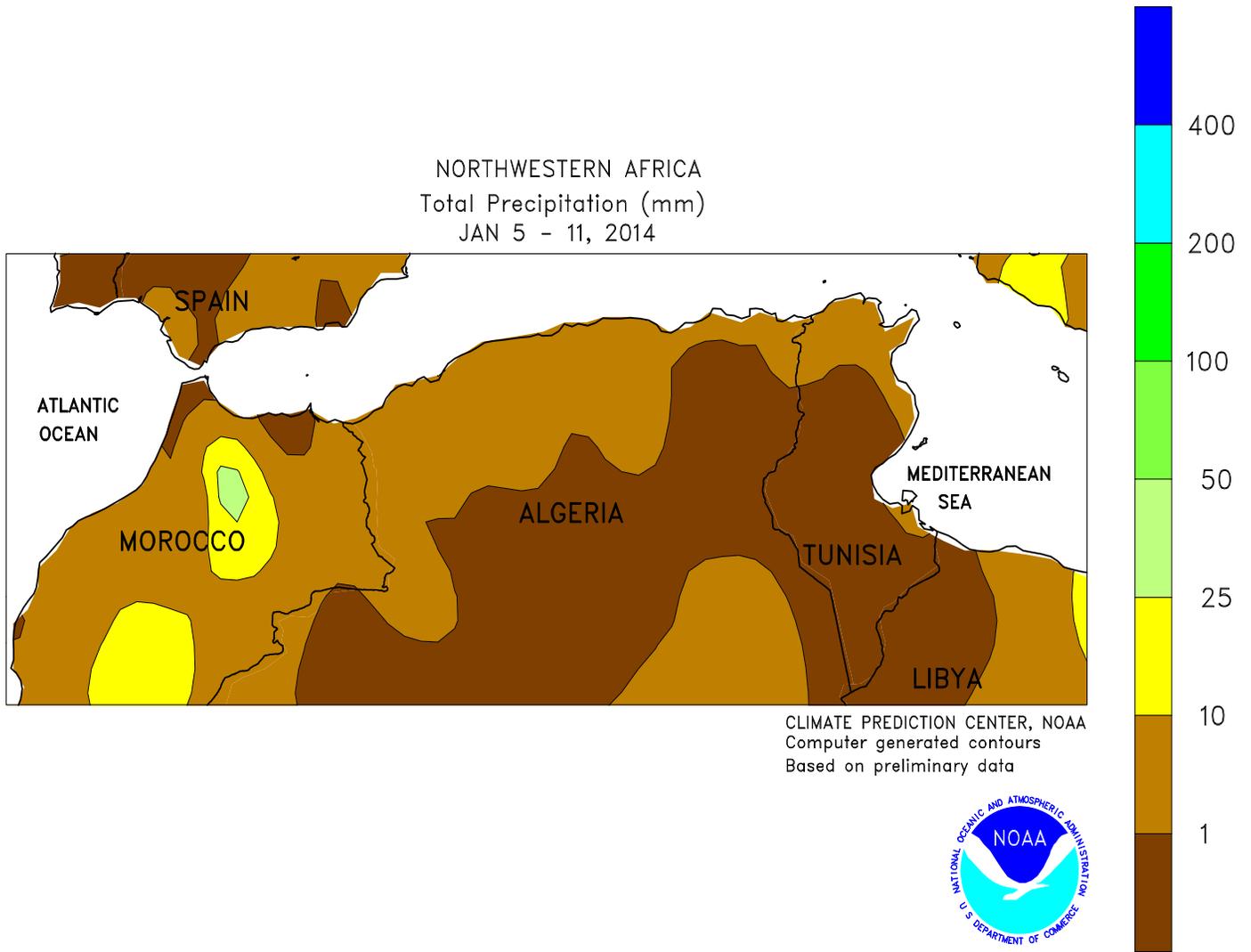
normal, eliminating the risk of winterkill. Daytime highs topped 10°C across Belarus, Ukraine, and southern Russia, keeping key southern winter wheat areas devoid of snow cover.



**MIDDLE EAST**

Stormy weather across southern growing areas contrasted with dry, mild conditions in the north. A pair of slow-moving storms generated widespread rain and mountain snow (10-50 mm liquid equivalent, locally more) from Iraq into western and southern Iran. The moisture was beneficial for winter wheat and barley and further recharged irrigation reserves for warm-season crops. In addition, locally heavy snow in the western

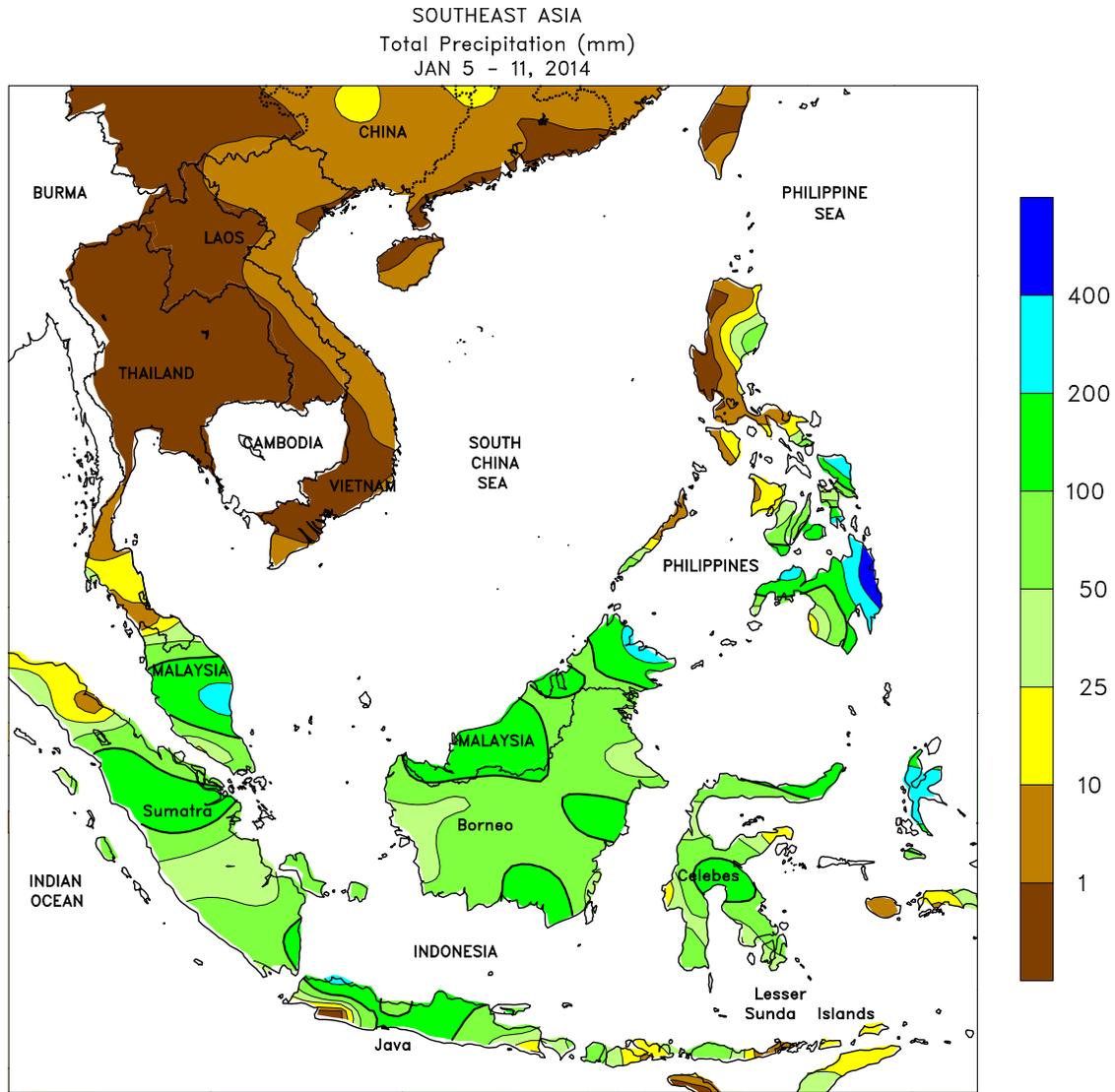
mountains of Iran boosted snowpacks and spring runoff prospects. Meanwhile, dry, mild weather (1-2°C above normal) prevailed in Turkey, eroding the protective snow cover on the Anatolian Plateau. Concerns continued in this key Turkish winter grain area, where wheat and barley were poorly established following an unfavorably dry autumn and an abrupt cold snap in early December.



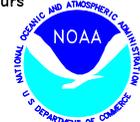
**NORTHWESTERN AFRICA**

Generally dry, mild weather prevailed across the region's key winter grains areas. The growing season has gotten off to a favorable start — with steady, occasionally heavy rain — in Algeria and Tunisia, and the respite was welcomed for seasonal fieldwork and pesticide applications. Generally dry

weather also prevailed in Morocco, although a few showers (2-40 mm) dotted central and southern growing areas. Moroccan winter grain prospects are also mostly favorable, although a lack of soil moisture remains a concern in southern-most portions of the country.



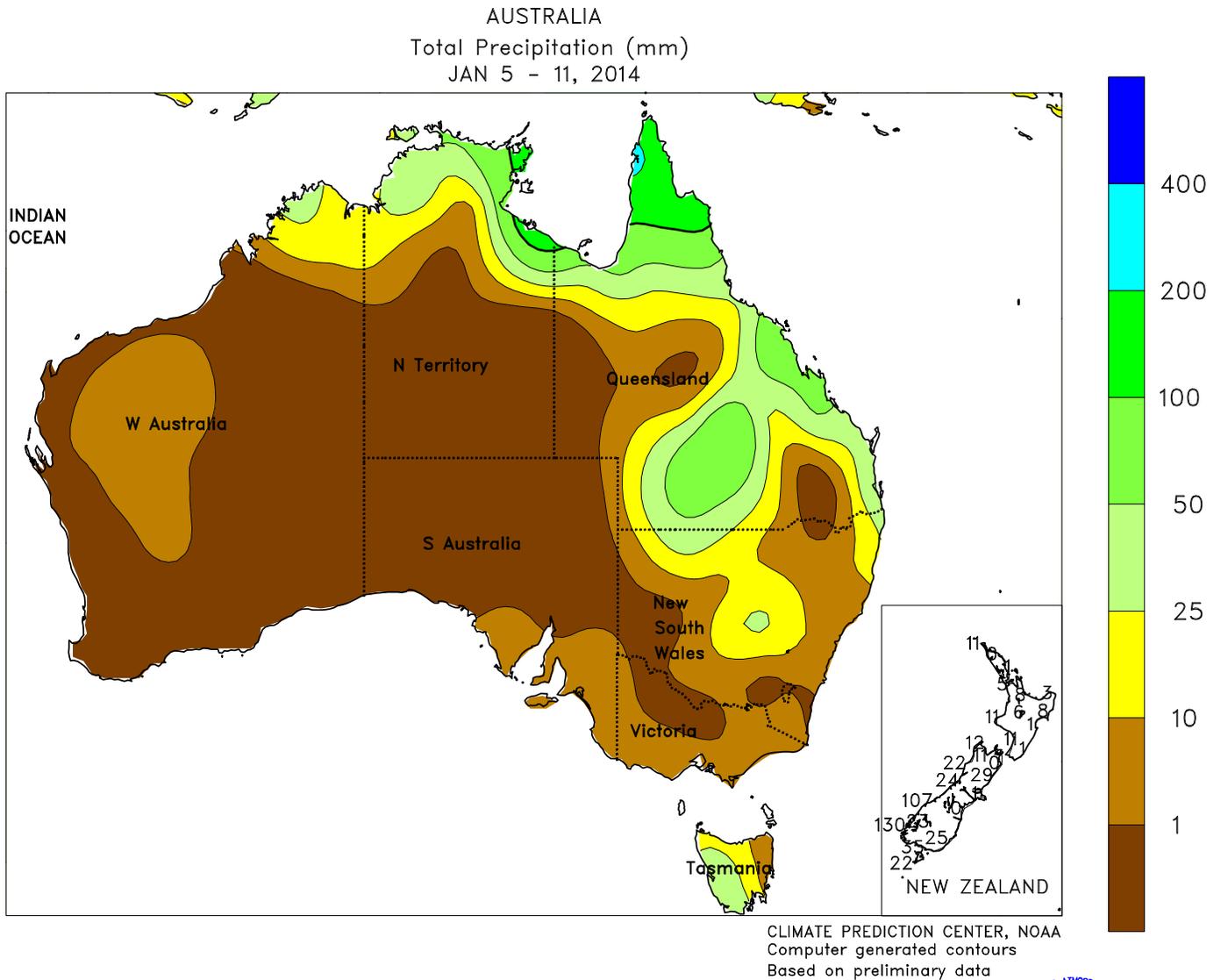
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Computer generated contours  
Based on preliminary data



**SOUTHEAST ASIA**

Consistently heavy monsoon rainfall (50-100 mm) maintained abundant soil moisture for reproductive rice in Java, Indonesia. Rainfall for the season has been on par with, if not better than, last year and rice prospects remained good. Moisture conditions for oil palm elsewhere in Indonesia and neighboring Malaysia have also been favorable, although some areas continued to

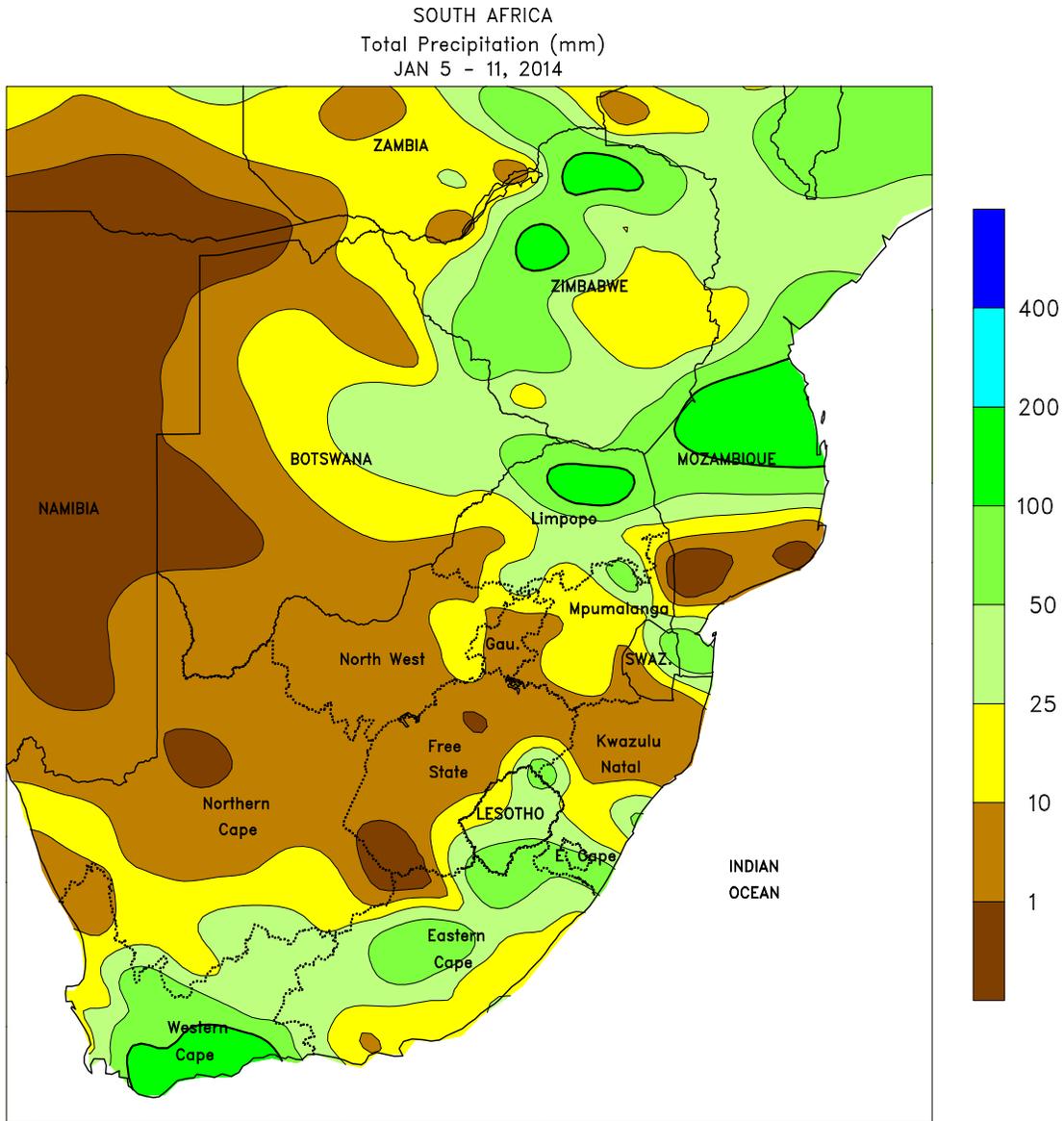
experience excessive rain. In the Philippines, seasonable showers (25-50 mm) continued in the north, benefiting corn and rice, while localized flooding in eastern Mindanao was likely with reports of 600 mm or more of rain (generally outside major agricultural areas). Meanwhile, irrigated rice in Thailand and Vietnam continued to benefit from warm, sunny weather.



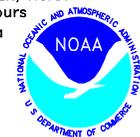
**AUSTRALIA**

In the wake of last week's hot weather, temperatures retreated to more seasonable levels in Queensland and northern New South Wales, helping ease heat stress on summer crops. Showers (5-50 mm or more) overspread a large portion of eastern Australia as well, but little rain (generally less than 5 mm) fell across southeastern Queensland and northeastern

New South Wales, providing minimal additional moisture for cotton and sorghum. The relatively dry weather likely maintained local irrigation requirements and further reduced soil moisture for dryland crops. Temperatures in major summer crop growing areas averaged near normal, with maximum temperatures in the lower to middle 30s degree C.



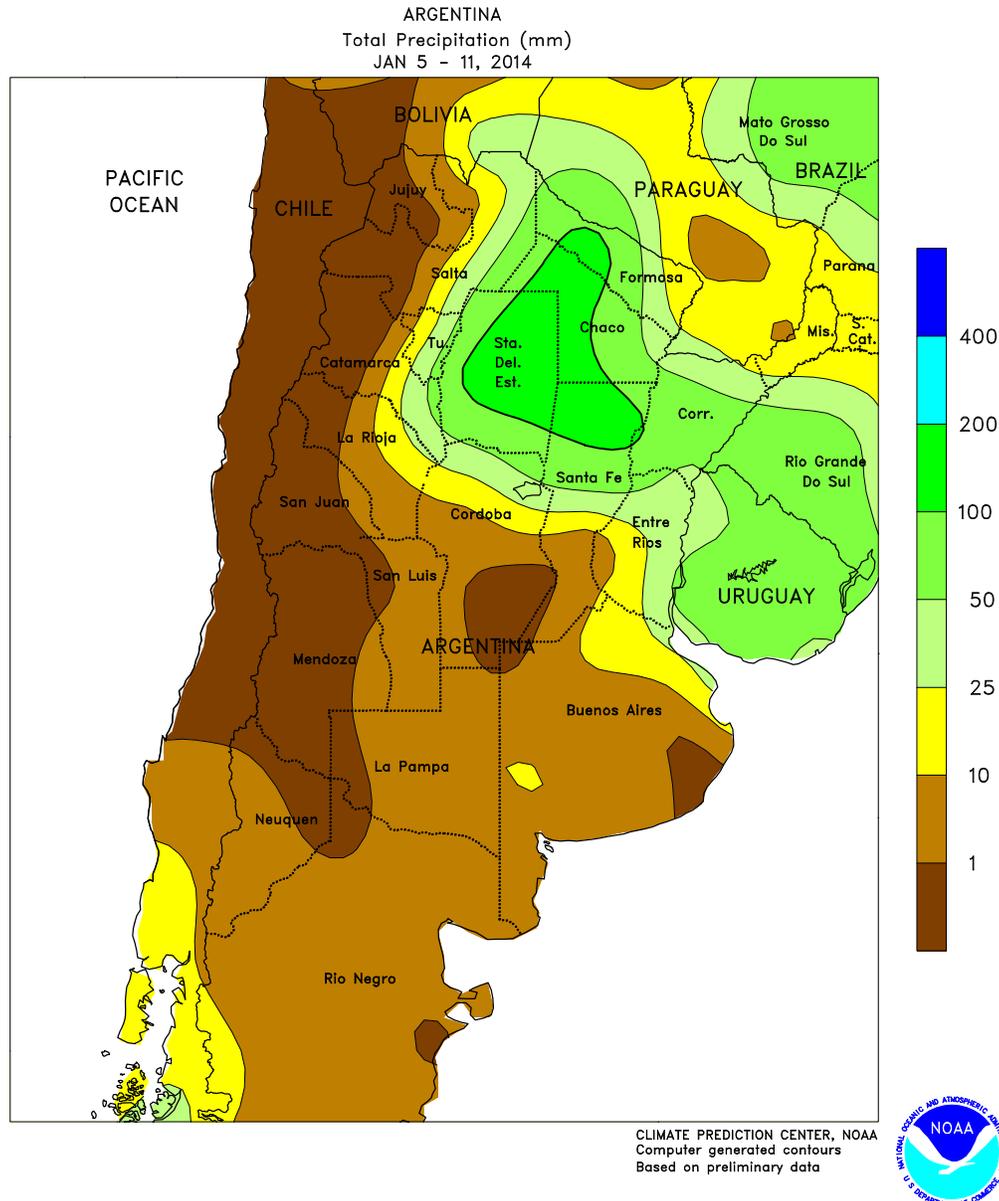
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Based on preliminary data



**SOUTH AFRICA**

Warm, mostly dry weather prevailed across the corn belt, spurring growth of rain-fed summer crops. Rainfall totaled 5 to 25 mm in most major production areas (North West and Free State to Mpumalanga), with amounts of 25 to 100 mm in outlying production areas of Limpopo. Weekly temperatures averaged as much as 2°C above normal in the drier locations, with daytime highs briefly reaching the middle 30s (degrees C) in western sections of the corn belt (North West); most other areas recorded highs from the middle 20s to lower 30s. Elsewhere, unseasonably heavy rain (25-100 mm, locally

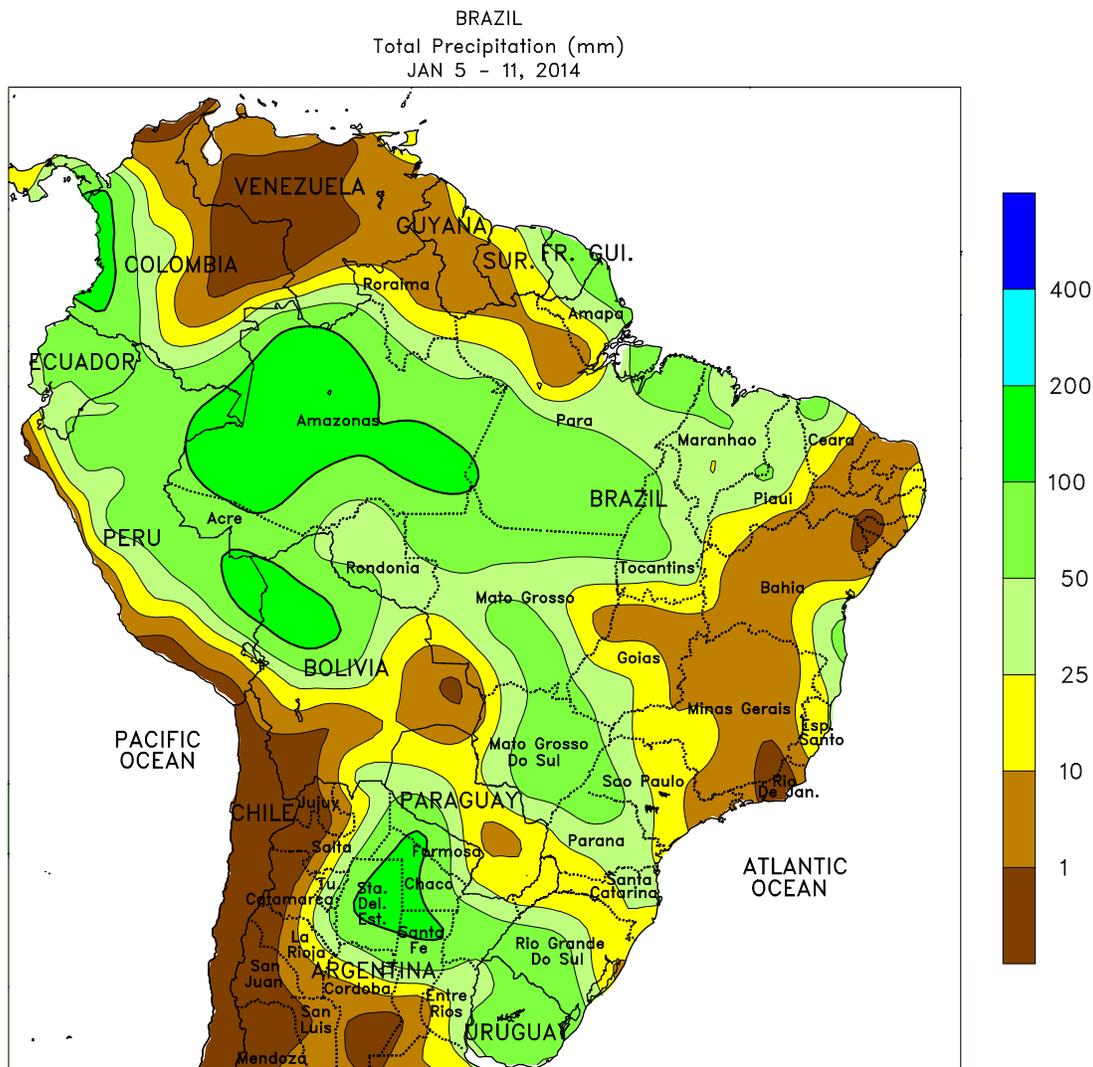
higher) swept across the southern coast, providing a significant boost in long-term moisture reserves but necessitating treatment for diseases and pests in tree and vine crop areas of Western Cape. In fact, rainfall approaching 200 mm flooded southern sections of Western Cape. Amounts tapered off toward the east, with rainfall greater than 25 mm benefiting rain-fed sugarcane in southern sections of KwaZulu-Natal. Drier conditions prevailed in northern KwaZulu-Natal and eastern Mpumalanga, with daytime highs in the lower and middle 30s fostering development of predominantly irrigated sugarcane.



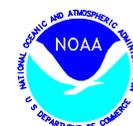
**ARGENTINA**

Unseasonable heat and dryness renewed stress on summer grains, oilseeds, and cotton. Virtually no rain fell during the first half of the week in central Argentina (La Pampa, Buenos Aires, and southern sections of Cordoba, Santa Fe, and Entre Rios), with daytime highs ranging from 35 to 40°C. Cooler weather developed toward the end of the week, but most areas remained dry, with scattered showers (greater than 10 mm) generally confined to northeastern Buenos Aires and Entre Rios. Hot weather (daytime highs from 35 to 42°C) also brought early-week stress to summer crops across the north, but locally heavy rain (25-100 mm, with locally higher amounts) followed, briefly

lowering temperatures to more seasonable levels (daytime highs from the middle 20s to lower 30s degrees C) and giving a needed boost in moisture to emerging to vegetative corn, soybeans, and cotton. However, earlier-planted corn and soybeans were in or approaching reproduction, and a return to a more seasonable pattern of rainfall and temperatures is needed to prevent additional declines in yield potential. According to Argentina's Ministry of Agriculture, corn and soybeans were 82 and 86 percent planted, respectively, as of January 9, behind last year's pace for both crops. Winter wheat was 100 percent harvested (3 points ahead of last year).



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Based on preliminary data



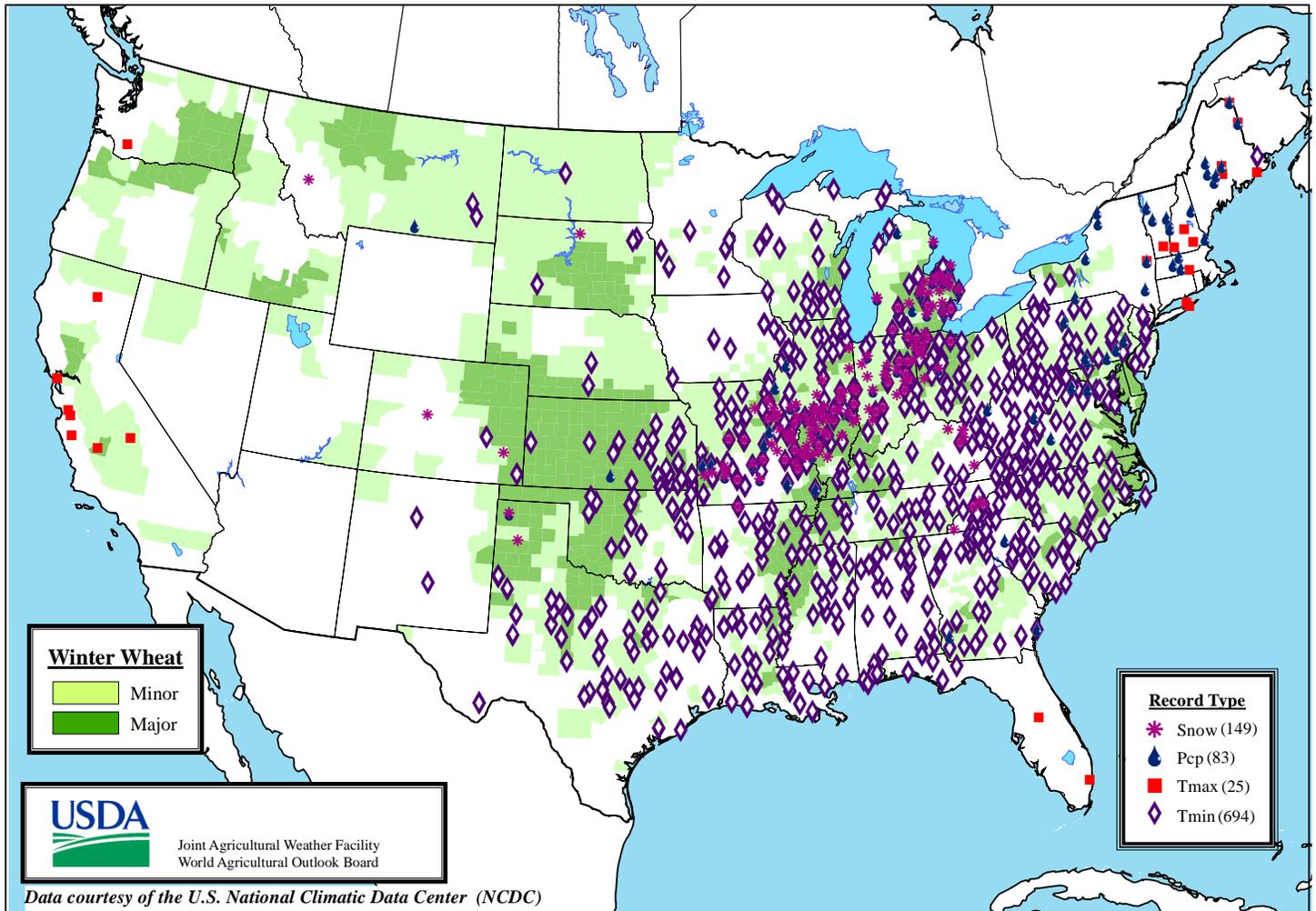
**BRAZIL**

Showers continued throughout southern corn and soybean areas, although amounts were generally lower than those recorded last week. Most areas stretching from Mato Grosso do Sul and western Sao Paulo to Rio Grande do Sul recorded more than 25 mm; lighter rain fell in key agricultural areas from northern Rio Grande do Sul to southern Parana, though these locations recorded more than 100 mm last week and could tolerate a brief period of dryness. In spite of the drier conditions, temperatures were generally seasonable, with daytime highs mostly in the upper 20s and lower 30s (degrees C). Drier weather also prevailed from eastern Sao Paulo northward through Bahia, extending westward into Goias. Weekly average temperatures were near to above normal in these areas

(highs reaching the lower 30s on most days), compounding the dryness through high evapotranspiration rates. It was the second week of dryness in northeastern Goias and western Bahia, where a return to seasonal rainfall is needed to ensure more normal development of soybeans and cotton. Elsewhere, moderate showers (25-50 mm) and summer warmth (daytime highs in the lower and middle 30s) aided development of main-season soybeans, corn, and cotton from Mato Grosso through Tocantins. Scattered showers (locally greater than 25 mm) boosted moisture for coffee, cocoa, and other crops from southeastern Bahia to Espirito Santo, but seasonably drier weather continued elsewhere along the northeastern coast, prompting growth of sugarcane and other irrigated summer crops.

# Daily Weather Records (ASOS & COOP)

## January 5-11, 2014



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