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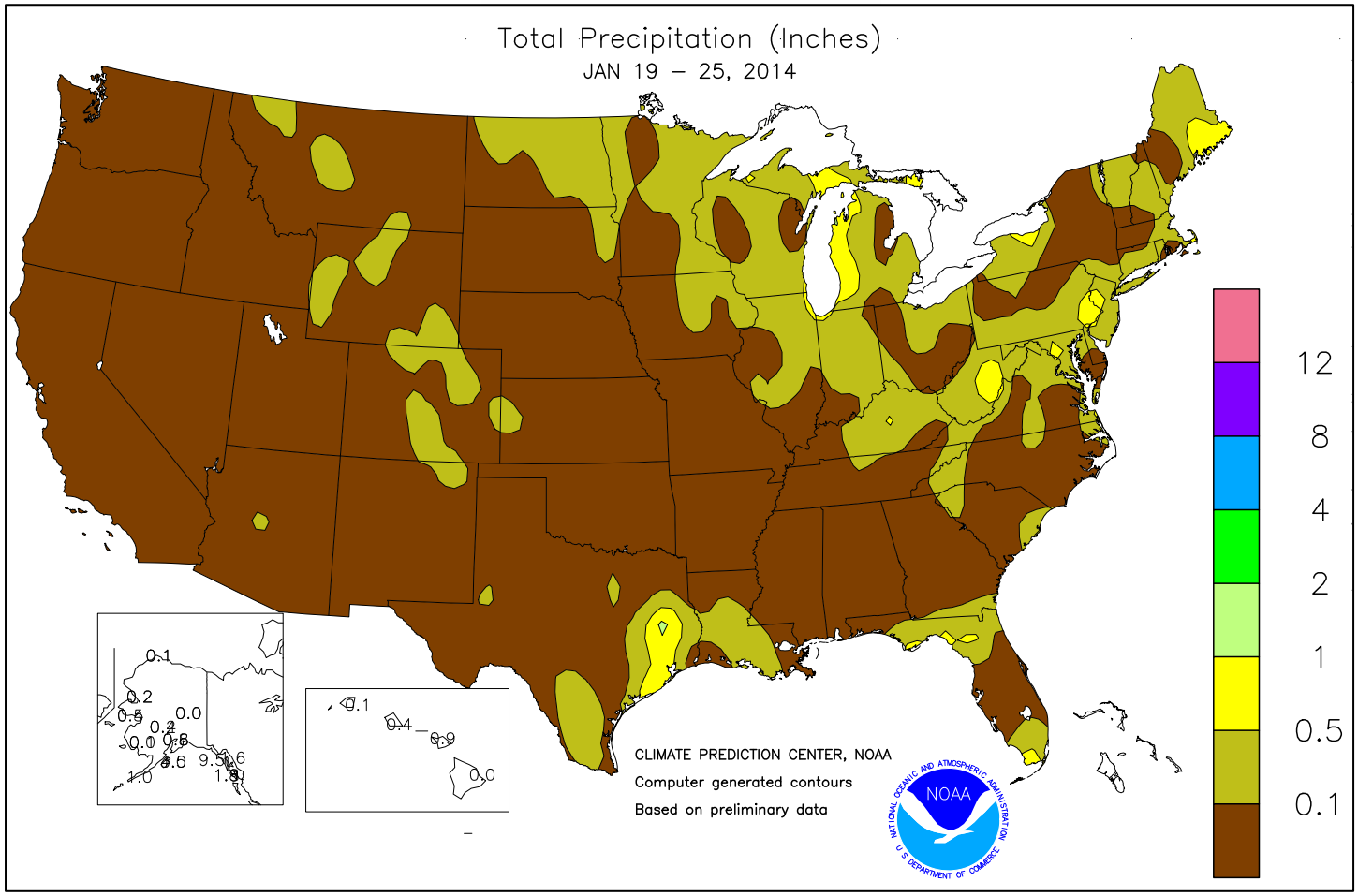
WEEKLY WEATHER AND CROP BULLETIN

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 19 – 25, 2014

Highlights provided by USDA/WAOB

Dry weather covered the nation, except for some light precipitation along the **Gulf Coast** and occasional snow showers in the **Rockies** and from the **northern Plains into the Northeast**. In the nation's drought-affected areas, from the **Pacific Coast to the central and southern Plains**, dryness maintained a number of agricultural concerns. In particular, the failure of significant winter precipitation to develop in much of the **West** has increased the odds that **California**, the **Great Basin**, and parts of the

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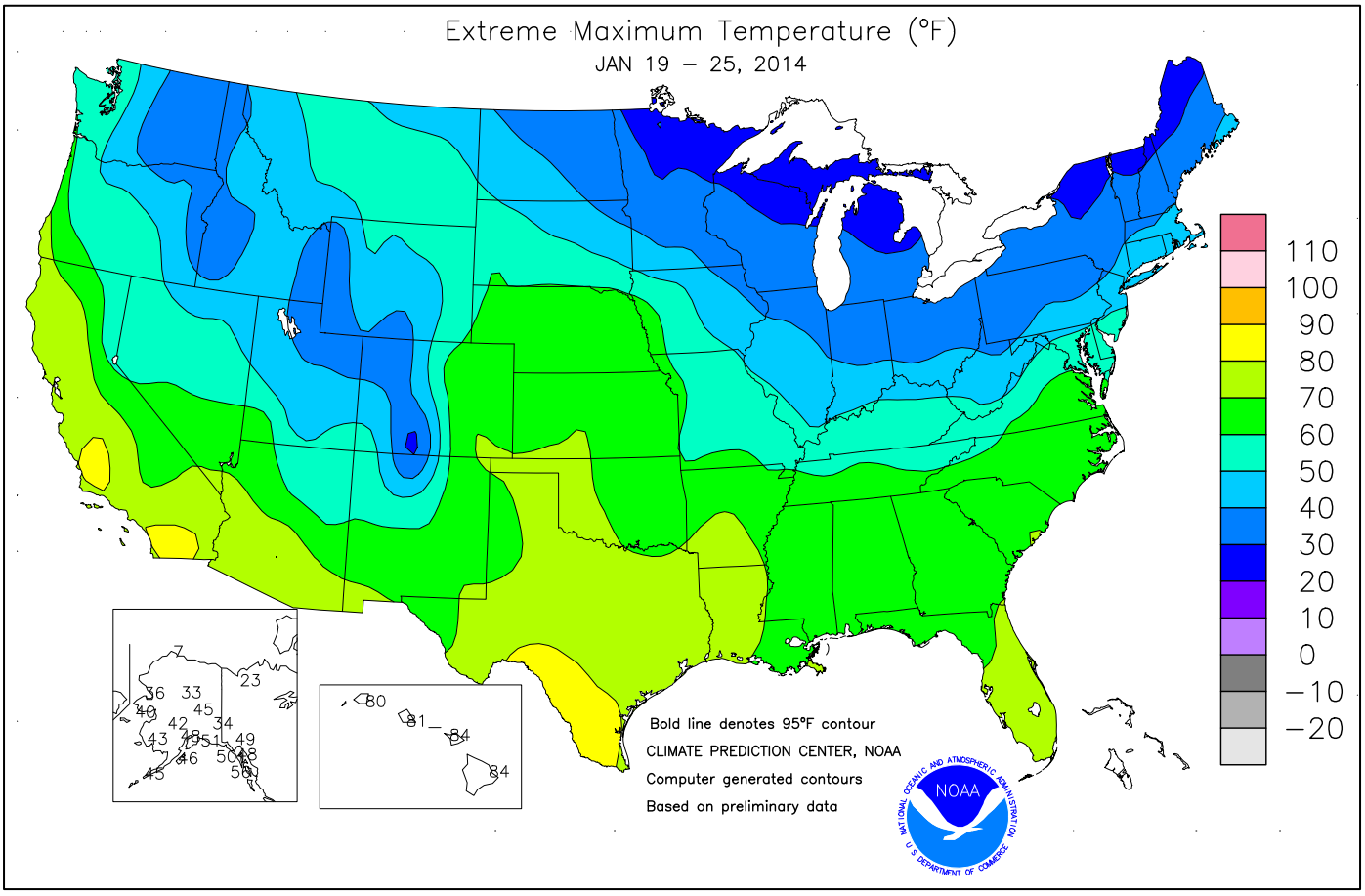
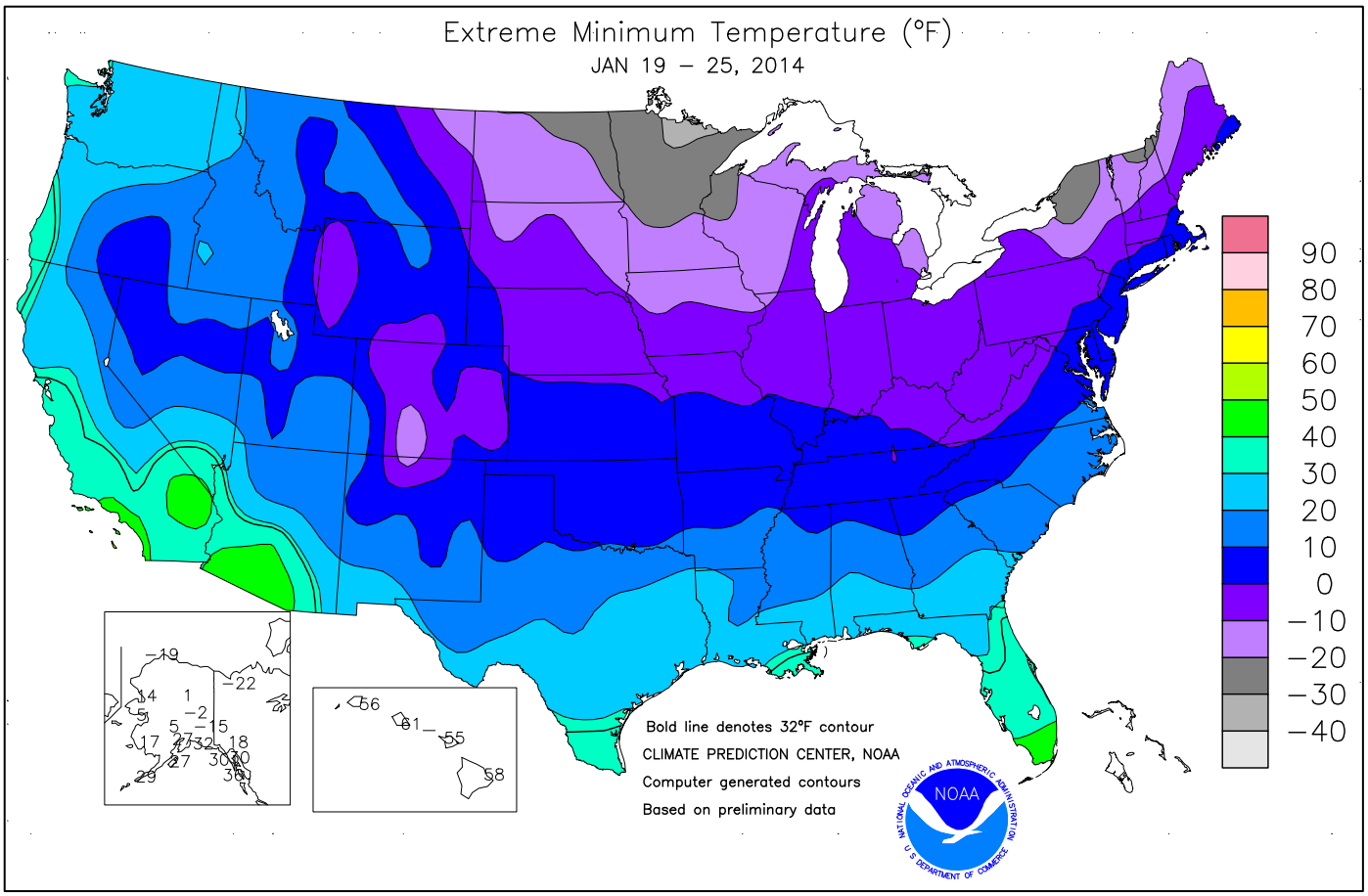
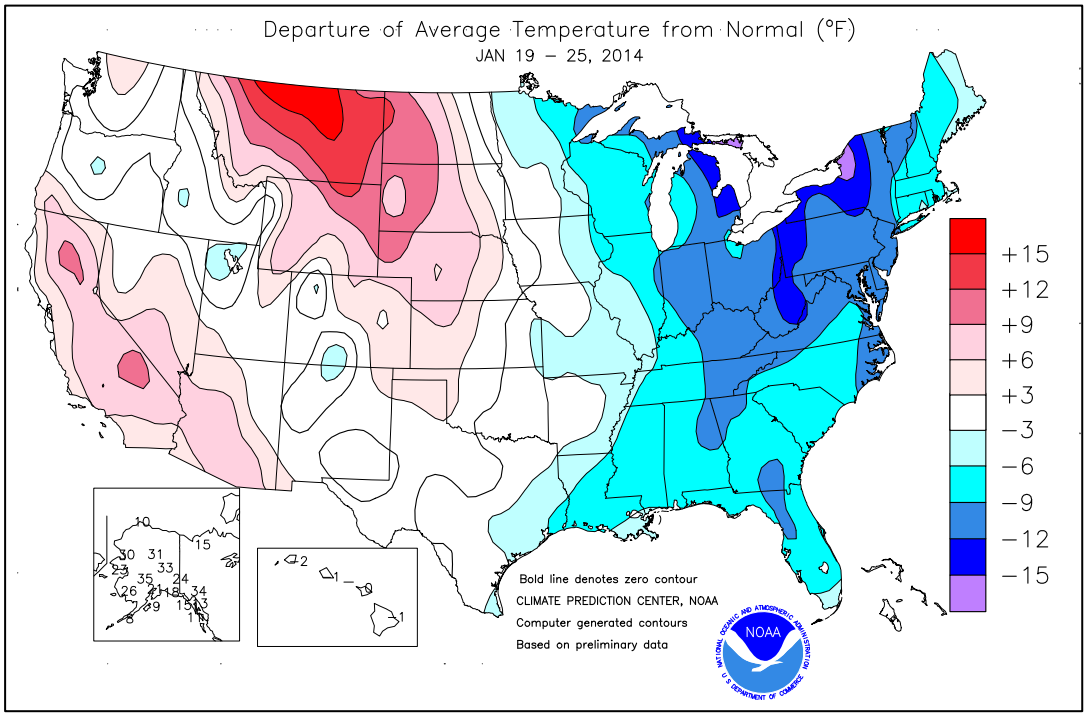

Extreme Maximum Temperature (°F)
JAN 19 – 25, 2014
110
100
90
80
70
60
50
40
30
20
10
0
−10
−20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA


Extreme Minimum Temperature (°F)
JAN 19 – 25, 2014
90
80
70
60
50
40
30
20
10
0
−10
−20
−30
−40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA



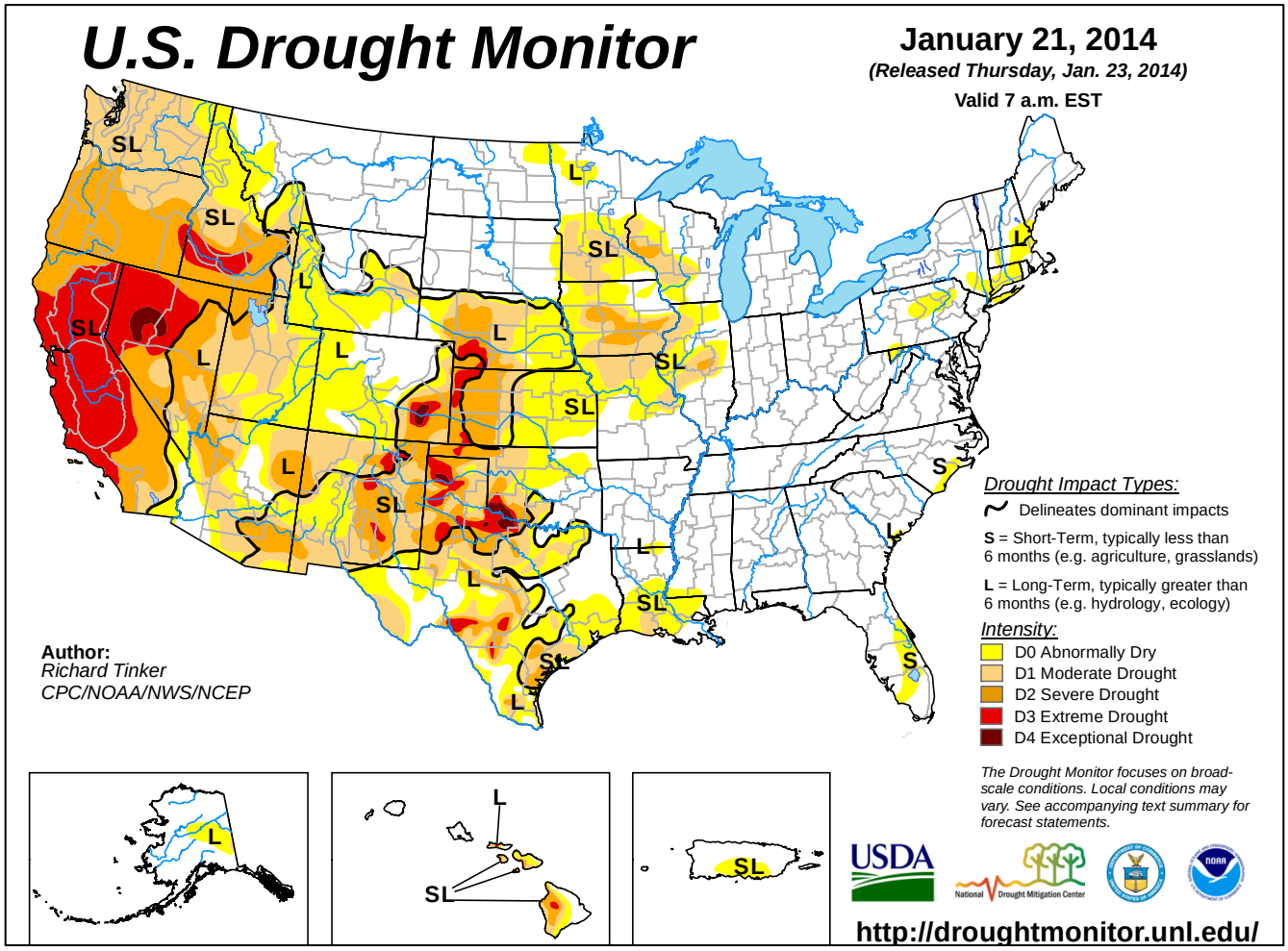
(Continued from front cover)

Southwest will soon complete a third year of drought. Across the **nation's mid-section**, the loss or absence of a protective snow cover—coupled with drought on the **central and southern High Plains**, has left winter wheat vulnerable to potential weather extremes. Farther north, wheat in much of **Nebraska** and neighboring areas was exposed to sub-zero temperatures without the benefit of a protective snow cover on January 23—the second such occurrence this month. Cold weather was much more persistent from the **Mississippi Valley to the East Coast**. Weekly temperatures averaged more than 10°F below normal in much of the **Ohio Valley** and the **lower Great Lakes region**. The sustained period of **Midwestern** cold, which developed during December, has stressed livestock. Cold air also settled across the **South**, resulting in another minor freeze event across **Florida's peninsula**. Temperatures on January 23 were not low enough to harm **Florida's** citrus, but required some producers to take measures to protect other freeze-sensitive crops, such as strawberries and winter vegetables. In contrast, mild weather dominated the **northern and central High Plains** and portions of the **West**. Temperatures averaged at least 10°F above normal across the **northern High Plains** and parts of **California**.

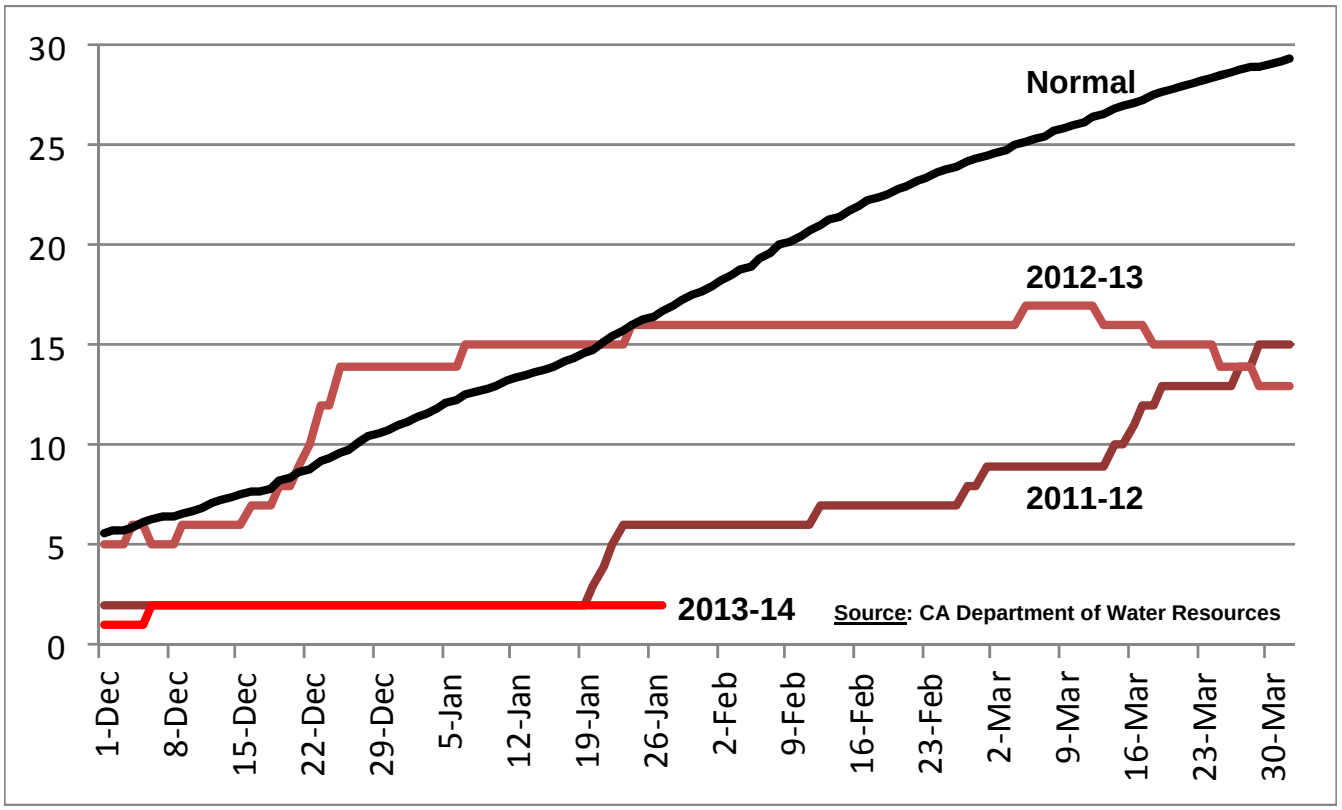
Precipitation highlights were negligible, except for snow on January 21—heaviest in the **Mid-Atlantic States**—and a late-week wintry mix across the **Deep South**. Daily-record snowfall totals for January 21 reached 13.5 inches in **Philadelphia, PA**; 11.0 inches in **New York's Central Park**; 10.5 inches in **Wilmington, DE**; and 10.0 inches in **Newark, NJ**. Gusty winds accompanied the snow, causing travel disruptions. Snow also blanketed portions of the **Ohio Valley**, where January 21 totals included 5.4 inches in **Jackson, KY**, and 5.3 inches in **Cincinnati, OH**. Farther west, a disturbance crossing the **Rockies** and **Plains** produced daily-record snowfall totals in locations such as **Cheyenne, WY** (2.2 inches on January 22), and **Dalhart, TX** (1.5 inches on January 23). Late in the week, frozen precipitation fell along the **western and central Gulf Coast**. With a trace of snow, **Galveston, TX**, reported flakes on January 24 for the first time on record. Elsewhere on the 24th, **Alexandria, LA**, netted a daily-record snowfall of 1.6 inches. Farther north, a series of disturbances produced light snow from the **Midwest into the Northeast**. **Pittsburgh, PA**, received a daily-record snowfall of 5.2 inches on January 25. Meanwhile in downtown **Sacramento, CA**, a record-setting winter period without a drop of rain stretched to 49 days—December 8 – January 25. Similarly, the spell without any precipitation in **Flagstaff, AZ**, climbed to 35 days (December 22 – January 25), threatening the all-time winter record of 39 days set from December 1, 1917 – January 8, 1918.

Consistent warmth led to dozens of additional daily-record highs in **California**. **Burbank** and **Santa Maria** set records for consecutive 80-degree days in January—10 and 7 days, respectively. **Burbank's** streak, which lasted from January 13-22, bettered the 2009 record of 8 days in a row. **Santa Maria's** streak, which ran from January 13-19, shattered the 1931 mark of 4 consecutive days. **Burbank** and **Santa Maria** also set all-time January records for 80°F warmth—13 and 9 days, respectively. Former records had been 12 days (in 2003) in **Burbank** and 6 days (in 1976) in **Santa Maria**. **California's** warmth generally peaked on January 24, when monthly record highs were tied or broken in locations such as downtown **Sacramento** (79°F; previously, 74°F on January 31, 1976); **Fresno** (78°F; previously, 78°F on January 28, 1986); and **Montague** (65°F; previously, 64°F on January 12, 1986). Daily-record warmth briefly expanded outside of **California**, with highs climbing to 85°F (on January 20) in **Del Rio, TX**; 81°F (on January 21) in **Phoenix, AZ**; and 70°F (on January 24) in **Medford, OR**. Early in the week and again at week's end, record-setting warmth briefly expanded across portions of the **nation's mid-section**. In **Kansas**, daily-record highs for January 19 soared to 69°F in **Russell** and **Hill City**. Similarly, daily-record highs in **Nebraska** for the 19th rose to 68°F in **Grand Island** and **McCook**. Later, both **Grand Island** (-8°F) and **McCook** (-2°F) reported sub-zero readings, without snow cover, on January 23. However, warmth quickly returned to the **High Plains**, with **Havre, MT**, noting a daily-record high of 54°F on January 25. Farther east, however, repeated surges of cold air led to several daily-record lows. **Watertown, NY**, plunged below -20°F on 5 consecutive days from January 20-24, including a daily-record low of -37°F on the 22nd. Elsewhere on January 22, daily-record lows dipped to -13°F in **Flint, MI**, and -6°F in **Youngstown, OH**. Farther south, **Cape Hatteras, NC**, closed the week with consecutive daily-record lows (13 and 14°F, respectively) on January 24-25. Consecutive daily-record lows were also set on January 24-25 in **Florence, SC** (13 and 12°F), and **Wilmington, NC** (16 and 14°F).

Alaskan temperatures soared, averaging more than 30°F above normal for the week at some interior locations. Virtually the entire state, except the **North Slope**, experienced above-freezing temperatures at some point during the week. Among the warmest days was January 23, when daily-record highs soared to 50°F in **Delta Junction** and 48°F in **Anchorage**. **Juneau** posted a trio of daily-record highs (47, 48, and 48°F) from January 22-24. Meanwhile, heavy precipitation continued to fall across portions of **southeastern Alaska**, while generally light amounts covered the remainder of the state. Weekly precipitation—all rain—totaled 9.43 inches in **Yakutat**, aided by consecutive daily-record amounts (3.36 and 3.95 inches, respectively) on January 22-23. Farther south, **Hawaii's** highlight was some wind-blown, mid-week showers, associated with a cold front. During a 24-hour period on January 21-22, totals on **Kauai** included 3.20 inches in **Wainiha** and 2.87 inches in **Kokee**. Showers later crossed the remainder of **Hawaii**, accompanied by gusty winds. On January 22, gusts were clocked to 47 mph in **Hilo**, on the **Big Island**, and 46 mph in **Honolulu, Oahu**. In the front's wake, **Kahului, Maui**, collected a daily-record low of 55°F on January 24. At week's end, showers returned to **Kauai**.



Daily Sierra Nevada Snowpack (Inches), 2013-14 vs. Normal



National Weather Data for Selected Cities

Weather Data for the Week Ending January 25, 2014

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		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	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	47	21	63	11	34	-8	0.00	-1.26	0.00	8.54	100	1.48	36	71	26	0	7	0	0
	HUNTSVILLE	44	19	64	7	31	-9	0.00	-1.23	0.00	9.94	102	3.37	82	69	43	0	7	0	0
	MOBILE	55	30	65	24	43	-7	0.10	-1.25	0.10	9.78	110	2.41	57	88	41	0	6	1	0
	MONTGOMERY	53	24	67	18	39	-7	0.00	-1.15	0.00	11.27	131	2.31	64	74	24	0	6	0	0
AK	ANCHORAGE	41	31	48	27	36	20	0.76	0.63	0.67	3.59	235	1.98	413	89	79	0	4	3	1
	BARROW	0	-7	7	-19	-4	10	0.09	0.09	0.03	1.35	1038	0.19	1900	80	72	0	7	6	0
	FAIRBANKS	32	13	45	-2	23	33	0.00	-0.11	0.00	0.78	68	0.00	0	83	78	0	7	0	0
	JUNEAU	42	35	48	30	39	14	1.56	0.52	1.11	18.37	204	9.85	273	95	90	0	2	5	1
	KODIAK	43	34	46	27	39	9	3.95	2.12	1.35	13.89	101	9.45	154	98	91	0	4	7	3
	NOME	34	23	40	5	29	23	0.53	0.34	0.21	3.22	194	1.21	186	93	81	0	7	5	0
AZ	FLAGSTAFF	51	21	57	15	36	6	0.00	-0.49	0.00	1.35	40	0.00	0	70	19	0	7	0	0
	PHOENIX	76	51	81	46	64	10	0.00	-0.17	0.00	0.39	25	0.00	0	35	19	0	0	0	0
	PRESCOTT	62	29	65	24	45	8	0.00	-0.36	0.00	0.31	13	0.00	0	50	12	0	5	0	0
	TUCSON	75	46	79	41	61	9	0.00	-0.19	0.00	0.83	47	0.00	0	31	18	0	0	0	0
AR	FORT SMITH	53	21	68	8	37	-1	0.00	-0.52	0.00	4.89	95	0.79	45	69	25	0	7	0	0
	LITTLE ROCK	53	24	71	11	38	-2	0.00	-0.80	0.00	9.28	126	2.34	88	66	19	0	6	0	0
CA	BAKERSFIELD	73	46	79	38	59	11	0.00	-0.28	0.00	0.10	6	0.00	0	44	32	0	0	0	0
	FRESNO	72	40	78	37	56	10	0.00	-0.50	0.00	0.15	5	0.00	0	64	43	0	0	0	0
	LOS ANGELES	74	52	78	49	63	6	0.00	-0.70	0.00	0.31	8	0.01	0	82	51	0	0	0	0
	REDDING	75	36	78	26	56	10	0.00	-1.52	0.00	0.46	5	0.08	2	57	36	0	4	0	0
	SACRAMENTO	71	34	76	30	53	6	0.00	-0.91	0.00	0.43	8	0.00	0	83	19	0	3	0	0
	SAN DIEGO	71	54	77	50	63	5	0.00	-0.52	0.00	0.46	16	0.00	0	66	48	0	0	0	0
	SAN FRANCISCO	66	44	69	43	55	5	0.00	-1.05	0.00	0.36	6	0.01	0	71	58	0	0	0	0
	STOCKTON	68	33	74	30	51	5	0.00	-0.63	0.00	0.35	9	0.01	1	78	55	0	5	0	0
CO	ALAMOSA	26	-9	30	-12	9	-6	0.00	-0.03	0.00	0.17	34	0.00	0	84	77	0	7	0	0
	CO SPRINGS	50	17	64	2	34	6	0.09	0.06	0.07	0.34	55	0.27	135	70	21	0	7	2	0
	DENVER INTL	51	22	65	4	37	9	0.10	0.07	0.10	0.84	168	0.59	311	63	26	0	6	1	0
	GRAND JUNCTION	38	14	43	11	26	0	0.00	-0.12	0.00	1.00	104	0.04	9	81	58	0	7	0	0
	PUEBLO	55	13	69	1	34	4	0.04	-0.02	0.04	0.11	17	0.08	32	63	38	0	7	1	0
CT	BRIDGEPORT	29	15	45	2	22	-8	0.30	-0.53	0.21	7.05	113	2.72	98	69	51	0	7	2	0
	HARTFORD	27	11	45	2	19	-7	0.11	-0.76	0.04	7.32	113	3.40	119	63	43	0	7	4	0
DC	WASHINGTON	37	19	59	9	28	-6	0.18	-0.52	0.18	8.08	148	2.55	106	57	36	0	6	1	0
DE	WILMINGTON	31	14	53	3	23	-8	0.39	-0.37	0.30	11.56	193	6.34	246	73	43	0	7	3	0
FL	DAYTONA BEACH	63	39	73	33	51	-7	0.17	-0.54	0.15	3.17	63	1.48	64	86	33	0	0	2	0
	JACKSONVILLE	59	34	72	29	46	-7	0.30	-0.55	0.30	6.93	131	6.07	228	91	36	0	3	1	0
	KEY WEST	70	59	75	56	65	-5	0.33	-0.15	0.33	6.08	160	4.99	299	86	60	0	0	1	0
	MIAMI	72	53	76	46	63	-5	0.18	-0.23	0.18	5.69	163	1.02	78	83	47	0	0	1	0
	ORLANDO	67	41	76	30	54	-7	0.06	-0.49	0.05	1.53	38	1.26	71	81	34	0	1	2	0
	PENSACOLA	57	35	67	28	46	-6	0.06	-1.18	0.06	6.52	83	2.76	71	72	30	0	1	1	0
	TALLAHASSEE	59	32	69	28	46	-6	0.08	-1.15	0.08	7.51	93	2.62	66	76	35	0	4	1	0
	TAMPA	63	44	70	39	54	-7	0.04	-0.46	0.04	2.32	60	1.51	95	85	46	0	0	1	0
	WEST PALM BEACH	70	48	75	38	59	-7	0.00	-0.91	0.00	11.06	189	6.72	247	81	48	0	0	0	0
GA	ATHENS	48	22	67	12	35	-7	0.00	-1.07	0.00	12.18	171	4.56	134	58	30	0	7	0	0
	ATLANTA	48	23	69	11	35	-7	0.00	-1.18	0.00	10.92	147	3.12	86	54	28	0	5	0	0
	AUGUSTA	53	21	69	11	37	-8	0.00	-1.04	0.00	9.12	142	2.22	68	71	32	0	7	0	0
	COLUMBUS	52	25	65	18	38	-9	0.00	-1.07	0.00	11.43	145	2.56	73	71	21	0	6	0	0
	MACON	52	22	67	13	37	-8	0.00	-1.16	0.00	11.72	155	2.68	74	83	22	0	7	0	0
	SAVANNAH	56	31	69	23	44	-5	0.00	-0.91	0.00	4.48	78	2.10	72	70	33	0	4	0	0
HI	HILO	80	61	84	58	71	0	0.00	-2.28	0.00	21.40	121	1.20	17	86	74	0	0	0	0
	HONOLULU	79	65	81	61	72	-1	0.43	-0.15	0.43	5.65	116	1.99	99	81	65	0	0	1	0
	KAHULUI	81	62	84	55	72	0	0.88	0.04	0.88	4.30	73	2.25	81	92	77	0	0	1	1
	LIHUE	78	62	80	56	70	-2	0.11	-0.90	0.11	6.40	77	1.12	32	87	74	0	0	1	0
ID	BOISE	28	24	31	22	26	-5	0.00	-0.30	0.00	1.02	43	0.36	36	96	91	0	7	0	0
	LEWISTON	34	29	38	27	31	-3	0.00	-0.25	0.00	1.06	57	0.33	41	84	76	0	7	0	0
	POCATELLO	41	13	47	11	27	2	0.02	-0.23	0.02	0.91	47	0.48	58	88	71	0	7	1	0
IL	CHICAGO/O'HARE	25	3	37	-6	14	-8	0.27	-0.09	0.17	4.55	123	2.61	207	67	53	0	7	3	0
	MOLINE	26	3	43	-9	15	-6	0.08	-0.25	0.07	2.22	66	1.00	85	71	58	0	7	2	0
	PEORIA	29	5	46	-5	17	-5	0.16	-0.14	0.11	3.28	94	1.79	164	78	52	0	7	3	0
	ROCKFORD	24	-1	38	-10	11	-8	0.09	-0.21	0.04	3.37	109	1.68	165	72	58	0	7	4	0
	SPRINGFIELD	33	9	45	-3	21	-4	0.07	-0.25	0.04	2.88	77	1.28	106	78	46	0	7	3	0
IN	EVANSVILLE	36	16	52	3	26	-5	0.05	-0.60	0.04	9.00	159	1.67	79	74	54	0	7	2	0
	FORT WAYNE	24	3	36	-8	14	-9	0.22	-0.22	0.10	5.21	121	2.35	155	84	61	0	7	5	0
	INDIANAPOLIS	27	6	40	-6	16	-10	0.12	-0.43	0.06	6.77	139	2.33	127	83	55	0	7	3	0
	SOUTH BEND	24	6	38	-8	15	-8	0.51	0.03	0.20	5.18	109	2.85	171	76	64	0	7	4	0
IA	BURLINGTON	30	6	46	-5	18	-5	0.01	-0.27	0.01	1.42	47	0.34	37	81	51	0	7	1	0
	CEDAR RAPIDS	25	0	42	-10	13	-5	0.03	-0.19	0.03	0.83	37	0.15	20	83	59	0	7	1	0
	DES MOINES	32	5	53	-6	19	-1	0.05	-0.17	0.04	1.20	58	0.39	53	67	52	0	7	2	0
	DUBUQUE	23	-3	38	-14	10	-7	0.12	-0.16	0.07	1.72	66	0.48	52	82	66	0	7	2	0
	SIOUX CITY	38	5	65	-6	21	2	0.00	-0.11	0.00	0.35	32	0.17	39	71	47	0	7	0	0
	WATERLOO	24	-1	44	-12	11	-5	0.12	-0.06	0.05	1.36	81	0.42	74	80	63	0	7	3	0
KS	CONCORDIA	44	14	65	1	29	2	0.00	-0.13	0.00	0.75	55	0.21	41	66	39	0	6	0	0
	DODGE CITY	50	18	66	6	34	4	0.00	-0.11	0.00	0.56	46	0.08	17	66	25	0	6	0	0
	GOODLAND	50	16	67	4	33	5	0.08	0.00	0.07	0.24	33	0.19	58	67	39	0	7	2	0
	TOPEKA	43	13	65	2	28	1	0.00	-0.19	0.00	0.90	43	0.34	49	63	38	0	7	0	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending January 25, 2014

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		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	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	47	17	67	4	32	2	0.01	-0.14	0.01	0.72	36	0.12	18	65	34	0	6	1	0
KY	JACKSON	32	13	55	-3	22	-12	0.61	-0.16	0.36	10.22	149	3.13	120	83	43	0	5	4	0
	LEXINGTON	32	10	52	-6	21	-11	0.26	-0.45	0.15	7.89	121	2.31	92	81	58	0	6	3	0
	LOUISVILLE	34	14	53	2	24	-9	0.28	-0.44	0.15	7.84	128	2.41	100	80	43	0	6	3	0
	PADUCAH	39	16	57	2	28	-5	0.01	-0.76	0.01	10.09	148	1.95	80	78	37	0	7	1	0
LA	BATON ROUGE	56	30	70	25	43	-7	0.21	-1.22	0.21	5.41	55	1.69	38	92	35	0	5	1	0
	LAKE CHARLES	57	32	71	24	44	-7	0.15	-1.13	0.14	4.26	49	2.21	53	95	51	0	4	2	0
	NEW ORLEANS	56	37	68	32	47	-5	0.09	-1.30	0.09	5.33	58	2.12	51	90	49	0	2	1	0
	SHREVEPORT	57	29	74	24	43	-3	0.00	-1.04	0.00	5.81	74	0.83	25	63	24	0	5	0	0
ME	CARIBOU	14	-4	28	-11	5	-4	0.52	-0.13	0.41	7.08	130	3.50	156	81	59	0	7	2	0
	PORTLAND	24	7	37	-3	16	-5	0.08	-0.83	0.06	8.35	114	4.00	131	73	45	0	7	2	0
MD	BALTIMORE	33	14	53	3	23	-9	0.42	-0.34	0.42	7.95	134	2.68	103	62	43	0	6	1	0
MA	BOSTON	28	14	41	6	21	-8	0.14	-0.74	0.11	7.83	118	3.21	111	67	42	0	7	2	0
	WORCESTER	22	8	36	0	15	-8	0.16	-0.75	0.09	7.51	110	3.09	101	80	46	0	7	4	0
MI	ALPENA	15	-8	29	-21	4	-13	0.20	-0.18	0.06	3.49	111	1.35	102	85	62	0	7	6	0
	GRAND RAPIDS	24	6	34	0	15	-7	0.38	-0.06	0.17	4.85	116	2.15	146	80	56	0	7	4	0
	HOUGHTON LAKE	17	-3	27	-14	7	-10	0.22	-0.13	0.08	3.38	115	1.18	100	83	69	0	7	4	0
	LANSING	20	1	30	-5	11	-10	0.10	-0.26	0.05	3.68	111	1.80	158	80	62	0	7	2	0
	MUSKEGON	26	9	34	-1	18	-5	0.40	-0.08	0.16	4.94	115	2.24	136	72	63	0	7	5	0
	TRAVERSE CITY	20	6	30	-3	13	-7	0.27	-0.41	0.15	3.50	72	0.91	41	87	63	0	7	5	0
MN	DULUTH	11	-9	29	-21	1	-7	0.25	-0.02	0.14	3.83	223	0.95	122	74	59	0	7	4	0
	INT'L FALLS	8	-16	27	-36	-4	-7	0.56	0.37	0.24	4.12	324	2.68	470	78	59	0	7	5	0
	MINNEAPOLIS	21	-3	39	-17	9	-4	0.24	0.02	0.12	2.39	138	0.93	127	79	61	0	7	5	0
	ROCHESTER	20	-5	35	-17	8	-4	0.22	0.00	0.12	1.71	101	0.61	91	76	65	0	7	3	0
	ST. CLOUD	19	-5	37	-21	7	-2	0.27	0.10	0.12	2.89	237	1.12	211	79	50	0	7	3	0
MS	JACKSON	54	25	69	19	39	-6	0.00	-1.29	0.00	6.04	63	1.54	37	69	25	0	7	0	0
	MERIDIAN	51	23	65	18	37	-9	0.00	-1.35	0.00	9.58	99	2.23	51	81	37	0	7	0	0
	TUPELO	47	19	66	6	33	-7	0.00	-1.10	0.00	8.00	80	1.82	47	68	43	0	6	0	0
MO	COLUMBIA	38	12	54	1	25	-3	0.00	-0.37	0.00	2.61	71	0.90	74	69	32	0	7	0	0
	KANSAS CITY	40	10	62	0	25	-2	0.00	-0.24	0.00	1.15	46	0.35	42	65	30	0	7	0	0
	SAINT LOUIS	38	16	53	2	27	-3	0.09	-0.38	0.09	3.23	73	1.27	81	67	50	0	6	1	0
	SPRINGFIELD	43	14	59	1	28	-3	0.00	-0.47	0.00	3.32	71	0.76	51	67	41	0	7	0	0
MT	BILLINGS	45	27	55	16	36	12	0.03	-0.14	0.03	2.60	206	0.62	105	67	43	0	6	1	0
	BUTTE	42	12	47	8	27	9	0.00	-0.11	0.00	0.32	36	0.10	27	89	39	0	7	0	0
	CUT BANK	45	22	53	6	34	15	0.08	0.00	0.08	0.63	103	0.19	68	84	43	0	5	1	0
	GLASGOW	38	15	50	-5	27	16	0.00	-0.06	0.00	0.93	150	0.06	24	82	68	0	7	0	0
	GREAT FALLS	46	21	58	8	34	12	0.25	0.12	0.24	1.64	139	0.70	137	83	40	0	5	2	0
	HAVRE	43	22	54	9	33	19	0.00	-0.08	0.00	1.54	181	0.25	74	76	62	0	6	0	0
	MISSOULA	38	20	42	17	29	5	0.01	-0.21	0.01	1.50	77	0.38	48	91	85	0	7	1	0
NE	GRAND ISLAND	44	11	68	-8	28	6	0.00	-0.11	0.00	0.25	24	0.14	38	64	44	0	6	0	0
	LINCOLN	42	8	66	-5	25	3	0.01	-0.12	0.01	0.43	31	0.21	40	65	35	0	6	1	0
	NORFOLK	42	7	66	-6	24	4	0.00	-0.11	0.00	0.27	26	0.13	35	70	44	0	7	0	0
	NORTH PLATTE	50	9	66	-8	29	6	0.00	-0.08	0.00	0.23	34	0.07	25	76	30	0	7	0	0
	OMAHA	40	7	65	-5	24	2	0.00	-0.17	0.00	0.31	21	0.11	20	65	43	0	7	0	0
	SCOTTSBLUFF	50	18	62	9	34	9	0.00	-0.11	0.00	0.93	100	0.30	81	60	32	0	7	0	0
	VALENTINE	45	11	61	-11	28	7	0.01	-0.05	0.01	0.78	150	0.07	37	69	48	0	6	1	0
NV	ELY	49	15	58	9	32	7	0.00	-0.17	0.00	0.99	96	0.00	0	80	49	0	7	0	0
	LAS VEGAS	65	44	67	40	55	8	0.00	-0.13	0.00	0.05	6	0.00	0	28	19	0	0	0	0
	RENO	56	22	59	20	39	5	0.00	-0.24	0.00	0.41	25	0.00	0	66	45	0	7	0	0
	WINNEMUCCA	53	14	54	10	33	2	0.00	-0.17	0.00	0.63	44	0.02	3	78	50	0	7	0	0
NH	CONCORD	22	6	37	-2	14	-6	0.10	-0.56	0.06	6.59	128	3.20	147	71	48	0	7	3	0
NJ	NEWARK	28	14	47	5	21	-10	0.44	-0.46	0.40	7.43	114	2.81	95	68	46	0	7	2	0
NM	ALBUQUERQUE	50	23	60	13	37	1	0.00	-0.08	0.00	0.40	48	0.00	0	56	25	0	7	0	0
NY	ALBANY	21	6	36	-6	14	-8	0.05	-0.50	0.04	5.67	126	2.29	126	72	46	0	7	2	0
	BINGHAMTON	17	1	30	-11	9	-12	0.11	-0.46	0.06	6.36	130	2.92	158	85	59	0	7	4	0
	BUFFALO	19	6	31	1	12	-12	0.38	-0.31	0.22	7.55	123	2.63	111	83	63	0	7	7	0
	ROCHESTER	20	5	31	-5	13	-11	0.17	-0.34	0.08	4.03	91	1.04	60	79	66	0	7	5	0
	SYRACUSE	20	2	32	-12	11	-11	0.21	-0.37	0.07	4.58	91	1.69	88	83	53	0	7	5	0
NC	ASHEVILLE	40	14	62	2	27	-9	0.00	-0.94	0.00	9.86	156	2.19	74	71	38	0	7	0	0
	CHARLOTTE	46	22	66	8	34	-8	0.00	-0.91	0.00	9.93	162	2.80	95	57	25	0	6	0	0
	GREENSBORO	41	19	62	7	30	-8	0.17	-0.63	0.17	9.06	160	3.87	149	62	29	0	7	1	0
	HATTERAS	47	26	62	13	36	-10	0.10	-1.23	0.10	8.10	90	4.20	95	82	43	0	5	1	0
	RALEIGH	43	21	64	11	32	-8	0.10	-0.83	0.10	7.71	129	1.80	61	63	38	0	7	1	0
	WILMINGTON	51	25	66	14	38	-8	0.00	-1.04	0.00	3.83	54	2.10	63	77	29	0	5	0	0
ND	BISMARCK	35	6	43	-16	20	10	0.12	0.04	0.05	1.44	200	0.18	64	77	67	0	7	4	0
	DICKINSON	36	11	46	-12	23	9	0.00	-0.08	0.00	0.40	71	0.02	9	83	62	0	7	0	0
	FARGO	18	-8	35	-21	5	-2	8.68	8.51	4.18	10.83	967	9.62	1749	83	65	0	7	6	3
	GRAND FORKS	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
	JAMESTOWN	27	-2	37	-15	13	4	0.18	0.04	0.14	0.92	106	0.29	67	89	62	0	7	2	0
	WILLISTON	35	10	46	-13	23	15	0.00	-0.11	0.00	1.23	131	0.16	43	78	69	0	7	0	0
OH	AKRON-CANTON	23	7	35	-2	15	-10	0.40	-0.14	0.36	5.29	110	1.80	98	83	66	0	7	4	0
	CINCINNATI	29	7	44	-8	18	-11	0.43	-0.20	0.19	7.58	139	2.66	123	85	60	0	7	4	0
	CLEVELAND	24	9	37	-1	16	-9	0.49	-0.06	0.30	6.08	122	1.98	108	76	56	0	7	6	0
	COLUMBUS	26	10	37	0	18	-10	0.31	-0.24	0.23	6.54	137	2.24	122	77	60	0	7	4	0
	DAYTON	26	6	36	-6	16	-10	0.11	-0.45	0.08	6.74	135	2.16	113	83	58	0	7	2	0
	MANSFIELD	22	4	34	-5	13	-11	0.24	-0.34	0.16	5.89	113	1.82	94	91	60	0	7	4	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending January 25, 2014

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		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	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	21	1	34	-10	11	-13	0.24	-0.17	0.12	10.74	265	7.67	544	83	65	0	7	5	0
	YOUNGSTOWN	21	4	34	-6	13	-12	0.37	-0.14	0.25	5.87	125	2.35	137	82	62	0	7	6	0
OK	OKLAHOMA CITY	54	22	67	4	38	2	0.00	-0.24	0.00	1.32	46	0.06	6	60	24	0	5	0	0
	TULSA	51	20	65	5	35	-1	0.00	-0.33	0.00	1.92	53	0.14	12	59	32	0	5	0	0
OR	ASTORIA	54	35	60	32	45	2	0.08	-2.10	0.07	9.28	53	4.28	60	83	71	0	1	2	0
	BURNS	46	8	50	3	27	2	0.00	-0.25	0.00	0.41	19	0.20	23	89	72	0	7	0	0
	EUGENE	46	30	53	26	38	-2	0.00	-1.74	0.00	3.22	23	1.74	31	96	87	0	6	0	0
	MEDFORD	56	29	70	23	42	3	0.00	-0.55	0.00	0.89	19	0.53	29	88	58	0	6	0	0
	PENDLETON	30	27	31	25	28	-6	0.00	-0.33	0.00	1.18	47	0.38	37	94	90	0	7	0	0
	PORTLAND	47	32	49	30	40	0	0.00	-1.13	0.00	3.62	38	2.00	53	83	66	0	5	0	0
	SALEM	49	29	56	24	39	-1	0.00	-1.31	0.00	2.89	27	1.62	38	88	77	0	6	0	0
PA	ALLENTOWN	25	9	39	-1	17	-10	1.89	1.10	1.39	15.71	262	11.67	449	70	52	0	7	4	1
	ERIE	22	7	35	1	15	-12	0.14	-0.38	0.06	8.06	143	2.10	111	78	63	0	7	5	0
	MIDDLETOWN	28	11	41	2	20	-8	0.34	-0.29	0.34	6.18	117	2.44	120	72	47	0	7	1	0
	PHILADELPHIA	31	15	51	4	23	-9	0.32	-0.47	0.27	7.79	132	2.59	99	63	44	0	6	2	0
	PITTSBURGH	23	7	37	-5	15	-12	0.10	-0.51	0.05	4.83	100	1.57	79	82	55	0	7	4	0
	WILKES-BARRE	21	6	36	-5	13	-13	0.11	-0.44	0.08	5.45	126	2.11	119	79	52	0	7	3	0
	WILLIAMSPORT	25	9	38	0	17	-8	0.06	-0.59	0.03	4.88	98	1.24	61	68	53	0	7	3	0
RI	PROVIDENCE	29	13	45	2	21	-8	0.15	-0.84	0.14	8.41	114	3.59	111	68	46	0	7	2	0
SC	BEAUFORT	55	29	68	20	42	-6	0.00	-0.94	0.00	4.61	75	1.83	61	75	25	0	4	0	0
	CHARLESTON	55	29	70	17	42	-6	0.00	-0.93	0.00	4.23	67	2.08	69	70	26	0	5	0	0
	COLUMBIA	52	25	69	11	39	-6	0.00	-1.07	0.00	9.11	134	3.23	94	61	31	0	5	0	0
	GREENVILLE	47	22	66	9	35	-6	0.00	-0.99	0.00	9.77	137	3.10	95	57	23	0	6	0	0
SD	ABERDEEN	28	-2	41	-18	13	2	0.08	-0.01	0.07	1.01	138	0.13	37	82	70	0	7	2	0
	HURON	33	3	47	-11	18	4	0.09	-0.02	0.08	1.29	177	0.26	76	81	54	0	7	2	0
	RAPID CITY	47	13	61	-8	30	7	0.00	-0.06	0.00	0.75	115	0.19	76	76	35	0	6	0	0
	SIOUX FALLS	30	0	46	-14	15	1	0.03	-0.08	0.02	1.35	153	0.22	61	79	63	0	7	2	0
TN	BRISTOL	36	12	56	2	24	-10	0.10	-0.70	0.09	8.03	135	1.69	66	74	32	0	7	2	0
	CHATTANOOGA	44	18	64	7	31	-8	0.01	-1.23	0.01	10.26	117	2.28	58	70	36	0	7	1	0
	KNOXVILLE	40	20	59	5	30	-7	0.02	-1.00	0.02	11.11	141	2.89	85	63	31	0	5	1	0
	MEMPHIS	46	22	64	9	34	-6	0.00	-0.93	0.00	7.98	91	3.16	102	62	33	0	6	0	0
	NASHVILLE	41	20	63	4	30	-7	0.01	-0.86	0.01	10.59	141	2.61	88	65	34	0	5	1	0
TX	ABILENE	59	30	72	14	44	1	0.00	-0.19	0.00	1.11	56	0.00	0	50	26	0	5	0	0
	AMARILLO	56	21	69	5	39	3	0.00	-0.11	0.00	0.35	32	0.03	6	59	20	0	6	0	0
	AUSTIN	62	28	79	19	45	-5	0.11	-0.28	0.06	1.38	36	0.52	37	65	42	0	5	2	0
	BEAUMONT	61	32	76	25	47	-5	0.11	-1.17	0.09	2.41	25	1.12	26	96	43	0	3	2	0
	BROWNSVILLE	69	43	78	34	56	-3	0.01	-0.31	0.01	3.70	183	0.18	20	86	56	0	0	1	0
	CORPUS CHRISTI	69	38	83	29	53	-3	0.02	-0.32	0.02	0.96	33	0.67	59	85	50	0	2	1	0
	DEL RIO	67	35	85	27	51	0	0.00	-0.11	0.00	0.48	44	0.00	0	56	31	0	2	0	0
	EL PASO	60	31	69	26	46	1	0.00	-0.08	0.00	0.26	24	0.00	0	38	18	0	5	0	0
	FORT WORTH	58	31	73	18	44	0	0.00	-0.37	0.00	3.10	78	0.34	24	53	23	0	4	0	0
	GALVESTON	59	42	71	31	51	-5	0.40	-0.54	0.27	1.95	30	1.30	43	96	58	0	2	2	0
	HOUSTON	61	34	77	28	48	-4	0.34	-0.49	0.30	2.57	40	0.91	33	85	55	0	3	2	0
	LUBBOCK	58	19	69	9	38	0	0.00	-0.09	0.00	0.60	61	0.00	0	57	25	0	7	0	0
	MIDLAND	59	27	73	14	43	0	0.00	-0.11	0.00	1.44	141	0.00	0	53	26	0	6	0	0
	SAN ANGELO	63	28	76	23	46	1	0.00	-0.17	0.00	1.15	78	0.00	0	56	29	0	6	0	0
	SAN ANTONIO	66	35	82	27	50	0	0.12	-0.24	0.08	0.79	25	0.24	20	75	29	0	3	2	0
	VICTORIA	66	37	81	29	51	-2	0.12	-0.41	0.11	1.37	32	0.92	51	81	54	0	2	2	0
	WACO	60	28	80	24	44	-2	0.02	-0.37	0.02	1.64	40	0.30	22	70	39	0	6	1	0
	WICHITA FALLS	57	24	75	8	40	0	0.01	-0.21	0.01	1.31	52	0.02	2	56	29	0	5	1	0
UT	SALT LAKE CITY	37	17	39	15	27	-2	0.00	-0.30	0.00	2.25	101	0.58	59	93	67	0	7	0	0
VT	BURLINGTON	16	-1	32	-15	7	-10	0.27	-0.23	0.17	5.00	131	2.46	153	77	51	0	7	2	0
VA	LYNCHBURG	37	15	60	1	26	-8	0.05	-0.75	0.05	8.95	153	3.26	125	68	37	0	7	1	0
	NORFOLK	42	20	65	13	31	-9	0.12	-0.78	0.07	7.21	122	2.46	85	66	37	0	6	2	0
	RICHMOND	39	18	61	7	28	-8	0.13	-0.66	0.13	9.15	158	3.04	114	59	39	0	6	1	0
	ROANOKE	35	17	59	5	26	-10	0.10	-0.64	0.10	6.14	118	1.76	76	61	44	0	6	1	0
	WASH/DULLES	33	12	54	-2	22	-10	0.20	-0.48	0.20	7.90	148	2.32	103	67	46	0	7	1	0
WA	OLYMPIA	48	29	55	23	38	0	0.00	-1.71	0.00	5.59	42	3.57	65	97	89	0	6	0	0
	QUILLAYUTE	56	35	66	31	45	4	0.04	-3.04	0.03	15.56	63	9.40	94	88	76	0	1	2	0
	SEATTLE-TACOMA	50	37	55	34	44	3	0.02	-1.14	0.02	4.07	43	2.41	64	90	79	0	0	1	0
	SPOKANE	29	26	32	25	28	0	0.00	-0.39	0.00	1.12	31	0.44	33	96	90	0	7	0	0
	YAKIMA	34	30	36	29	32	2	0.00	-0.24	0.00	0.42	19	0.10	12	85	81	0	7	0	0
WV	BECKLEY	27	10	49	-8	19	-11	5.68	4.96	3.19	13.42	246	7.06	299	78	51	0	7	4	2
	CHARLESTON	31	13	51	1	22	-11	0.44	-0.30	0.29	8.66	152	2.42	103	84	42	0	7	3	0
	ELKINS	26	7	43	-4	17	-11	0.45	-0.32	0.34	8.36	140	2.09	83	84	41	0	7	4	0
	HUNTINGTON	31	12	52	-3	22	-10	0.41	-0.29	0.23	7.86	137	2.31	98	80	44	0	6	2	0
WI	EAU CLAIRE	17	-5	35	-18	6	-6	0.03	-0.21	0.02	1.75	99	0.22	30	85	52	0	7	2	0
	GREEN BAY	18	-4	30	-11	7	-8	0.13	-0.15	0.07	2.74	120	0.85	98	80	60	0	7	2	0
	LA CROSSE	22	-3	38	-13	10	-6	0.05	-0.23	0.03	2.04	99	0.52	63	77	50	0	7	2	0
	MADISON	23	0	35	-8	11	-6	0.04	-0.24	0.03	2.02	80	0.40	46	70	59	0	7	2	0
	MILWAUKEE	23	2	34	-7	12	-8	0.11	-0.30	0.04	2.71	77	0.92	70	71	59	0	7	4	0
WY	CASPER	37	22	43	12	29	7	0.07	-0.04	0.07	1.89	191	0.69	186	62	51	0	7	1	0
	CHEYENNE	45	22	55	1	34	8	0.13	0.05	0.12	0.82	111	0.32	114	52	31	0	6	2	0
	LANDER	40	16	49	7	28	8	0.13	0.02	0.13	1.29	132	0.60	162	87	46	0	7	1	0
	SHERIDAN	47	22	59	13	35	13	0.00	-0.17	0.00	1.56	126	0.44	79	65	46	0	6	0	0

Based on 1971-2000 normals

***** Not Available**

2013 U.S. Weather Review

Annual "Weather Review" provided by USDA/WAOB; rankings provided by NCDC

Drought remained at the forefront of the weather headlines as the year began, but was soon replaced by concerns about excessive spring wetness in the Corn Belt. The sudden Midwestern wetness hampered corn and soybean planting, delaying the start of the 2013 growing season. Drought persisted, however, across portions of the Great Plains, leading to a sub-par (2012-13) season for Hard Red Winter wheat (HRW). With the westward shift of drought, the spotlight began to focus on California and the Great Basin. Those areas experienced exceedingly dry conditions beginning in January 2013, securing a second consecutive disappointing winter wet season. Later, a feeble start to the West's 2013-14 wet season led to mounting concerns about summer water supplies, especially in areas entering a third year of drought.

Eventually, during the second half of the summer, drought returned to parts of the Midwest. However, the lack of excessive heat and the smaller-scale drought—compared to 2012—helped to limit the degree of harm to corn and soybeans. By the end of September, corn condition ratings (55 percent good to excellent; 16 percent poor to very poor) were dramatically opposed to those noted at the same time in 2012 (25 and 50 percent, respectively). Meanwhile, wet conditions prevailed for much of the year across the northern Plains and the Southeast, although an autumn drying trend in the latter region reduced topsoil moisture for the establishment of cool-season crops. In contrast, autumn moisture for HRW establishment was overall much better in 2013 than the previous year. As a result, 62 percent of the U.S. winter wheat was rated in good to excellent condition by late-November 2013, compared to just 33 percent a year earlier.

Despite some late-year drought expansion in the West, the portion of the contiguous U.S. covered by drought fell to just 30 percent during December, according to the U.S. Drought Monitor. This represented less than half of the drought coverage at the height of the 2012 drought (65 percent) and at the beginning of the year (61 percent). The last occurrence of U.S. drought coverage below 30 percent was December 2011.

According to preliminary information provided by the National Climatic Data Center, generally cool weather from the Plains and Midwest into parts of the Southeast partially offset warmth in the West and Northeast). As a result, the nation's annual average temperature of 52.4°F was 0.3°F above the 1901-2000 mean (figures 1 and 2). It was the 37th-warmest year on record, but 2.9°F cooler than 2012—the nation's hottest-ever year.

The nation overall posted its 21st-wettest year on record, and was 4.50 inches wetter than during drought-plagued 2012. Despite record-setting dryness in California, an average of 31.17 inches fell across the Lower 48 states, 107 percent of normal (figure 3). It was the wettest year on record in Michigan and North Dakota, and among the ten wettest in Georgia, Kentucky, Virginia, South Carolina, South Dakota, Tennessee, North Carolina, and Wisconsin (figure 4).

California's dryness projected across the entire year, leading to record-setting low precipitation totals. In fact, California's average annual precipitation of 7.37 inches was 33 percent of normal and significantly below the 1898 standard of 9.80 inches.

Figure 1

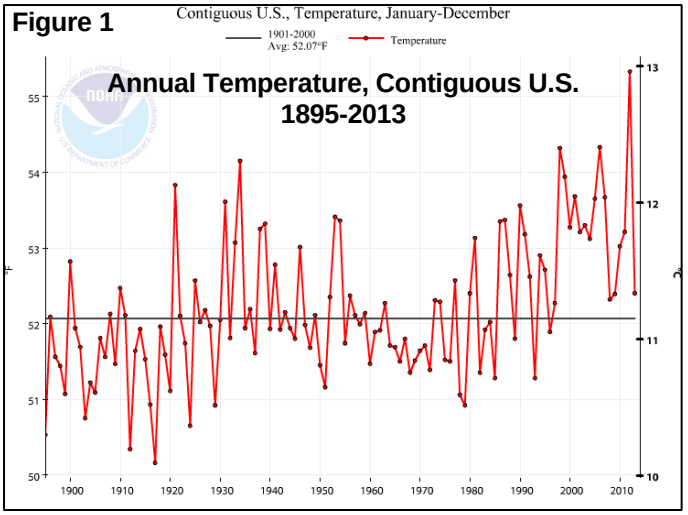
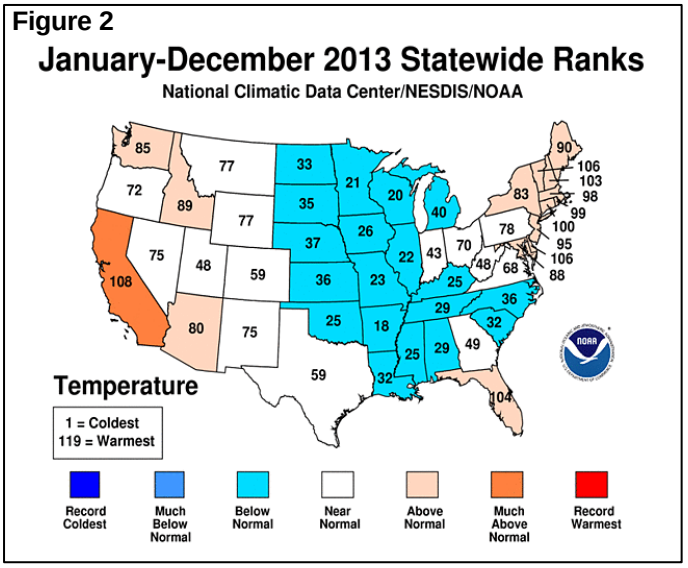


Figure 2



Winter (December 2012 – February 2013)

Generally mild weather from the Plains to the Atlantic Seaboard contrasted with colder-than-normal weather in the West. East of the Rockies, however, February was the coldest month of the winter of 2012-13—relative to normal. Conversely, frigid conditions in December and January across the Intermountain West eased somewhat toward the end of winter.

Winter precipitation eradicated drought across much of the lower Southeast. Even as heavy rain triggered lowland flooding across the Deep South, including Florida's panhandle, showers largely bypassed Florida's citrus belt. As a result, producers across Florida's peninsula had to rely on irrigation as warm weather pushed citrus into an early bloom during February.

Farther west, above-normal winter precipitation provided some limited relief to drought-stressed rangeland, pastures, and winter wheat on the Plains. Beneficial winter precipitation also fell across the upper Midwest. However, subsoil moisture shortages persisted, heading into spring, across the nation's mid-section. In contrast, drought was mostly eliminated before or during winter in the eastern Corn Belt.

Elsewhere, the Western wet season got off to a good start, especially in December. However, unfavorably dry conditions developed as 2013 began and persisted through January and February. As a result, water-supply prospects dimmed by the end of winter, especially from California to the central and southern Rockies.

Figure 3

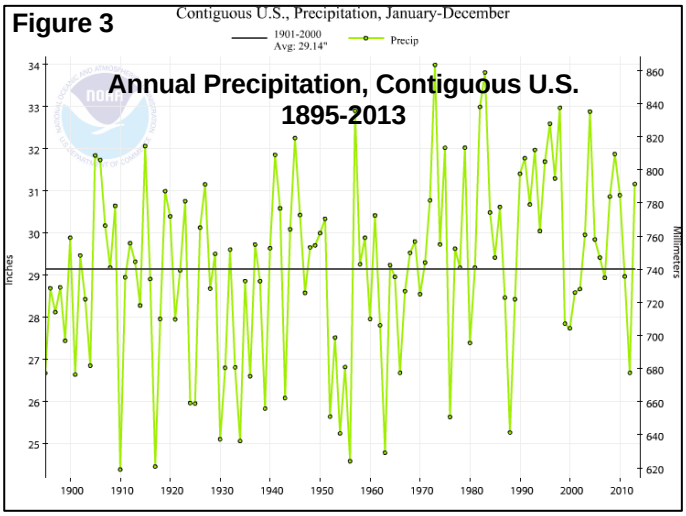
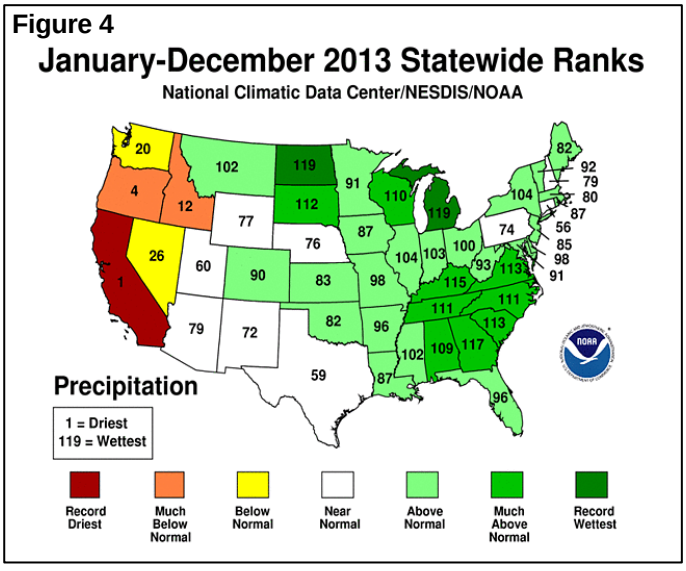


Figure 4



The winter of 2012-13 was overall warm and wet. The nation's average temperature of 34.3°F was 1.9°F above the long-term mean, while the average precipitation of 7.10 inches was 110 percent of normal. These numbers represented the 19th-warmest, 25th-wettest December-February period on record.

Winter warmth was most prevalent east of the Rockies, while chilly conditions were the rule from California to the southern Rockies. State temperature rankings ranged from the 20th-coldest winter in Utah to the fifth-warmest winter in Delaware (figure 5). Meanwhile, most of the eastern half of the U.S. experienced a wet winter, while pockets of dryness dotted the West. State rankings varied from the 21st-driest December-February period in California to the fourth-wettest winter in Alabama, Louisiana, and Michigan (figure 6). Top-ten values for winter wetness were also noted in Georgia, Mississippi, Illinois, and Wisconsin.

Figure 5

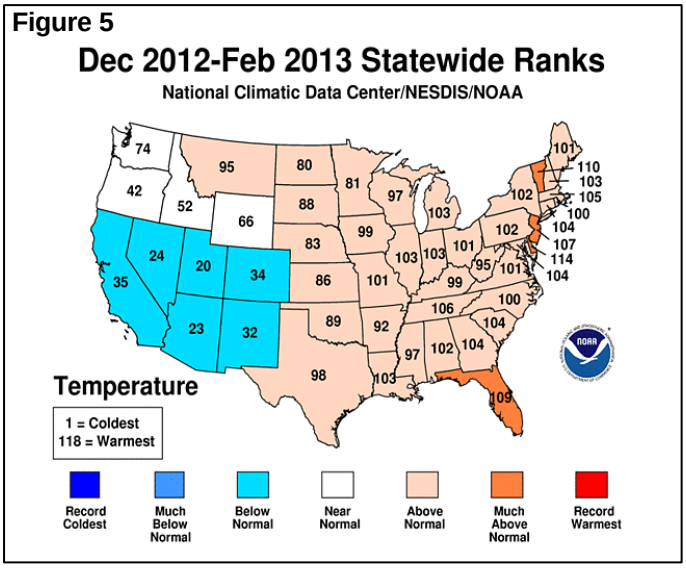
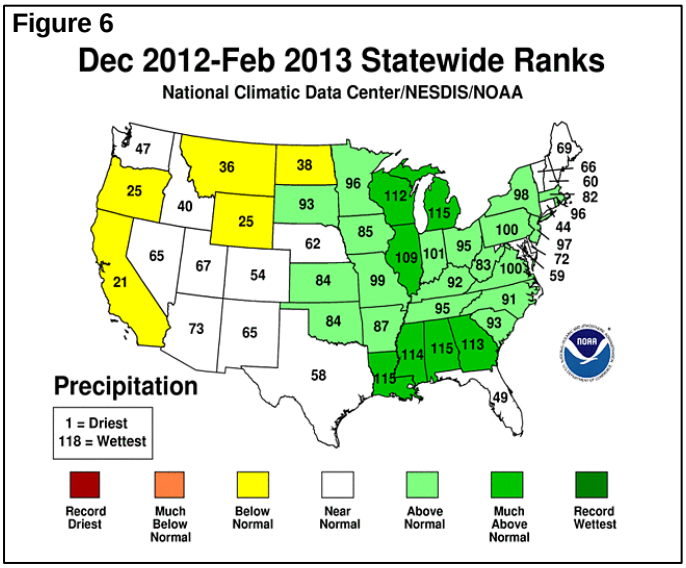


Figure 6



Spring (March-May)

In stark contrast to 2012, cold, wet weather hindered spring planting across the northern Plains and much of the Midwest. Significant planting delays also occurred in the Mississippi Delta. Peak periods of Midwestern wetness occurred in April and late May, resulting in separate rounds of flooding in the middle Mississippi Valley and environs. By the end of spring, lingering drought had been virtually eradicated from the states bordering the Mississippi River to the Atlantic Seaboard. Meanwhile, drought persisted or intensified from California and parts of Oregon to the southern half of the High Plains.

Spring warmth accompanied the Western dryness, leading to a mostly disappointing finish to the snow-accumulation season—

and a premature snow-melt period. Only the northern tier of the West escaped without drought impacts. East of the Rockies, spring was slow to arrive, with snow falling in parts of the upper Midwest through April and into early May. In Minnesota and North Dakota, for example, it was the coldest spring since 1950.

Figure 7

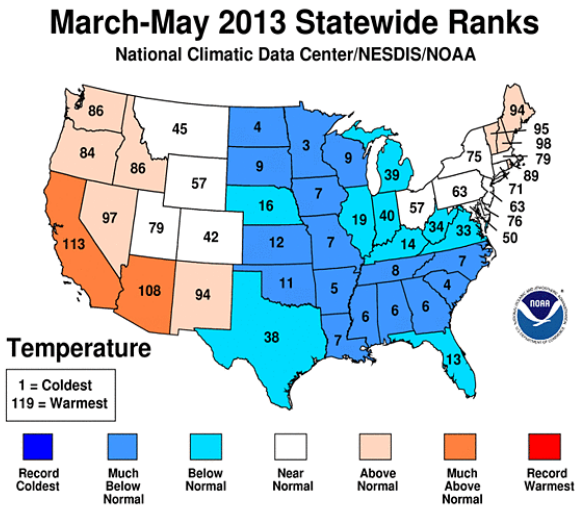
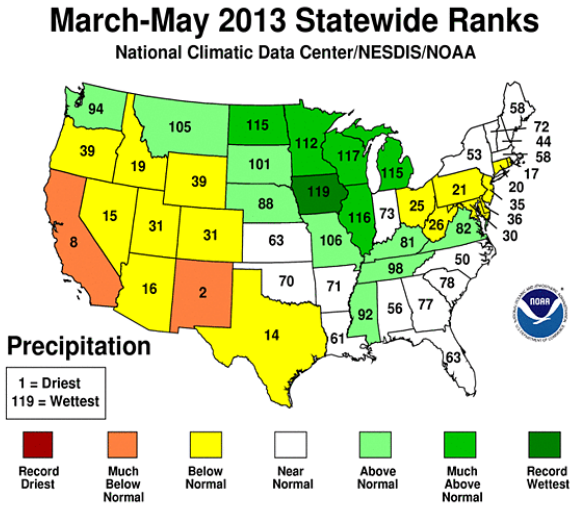


Figure 8



The spring of 2013 was overall cool and slightly wet. The nation's average temperature of 50.5°F was 0.5°F below the long-term mean, while the average precipitation of 7.92 inches was 103 percent of normal. Those numbers represented the 38th-coolest, 45th-wettest March to May during the 119-year period of record.

Despite the overall cool pattern, spring warmth prevailed west of the Rockies. California experienced its seventh-warmest spring, but 14 states from the Plains and upper Midwest into the Southeast had one of their ten coolest March-May periods (figure 7). Meanwhile, state precipitation rankings ranged from the second-driest spring in New Mexico to the wettest spring on record in Iowa (figure 8). Spring precipitation averaged 17.61 inches (196 percent of normal) in Iowa, supplanting the March-May 1991 record of 15.33 inches. Elsewhere, California noted its eighth-driest spring, while it was among the ten wettest March-May periods in Wisconsin, Illinois, Michigan, North Dakota, and Minnesota.

Summer (June-August)

A subtle, late-June drying trend in the western Corn Belt became more pervasive as the summer progressed, encompassing much of the Midwest by the end of August. At the same time, late-summer temperatures climbed sharply, following previously cool conditions, placing immature corn and soybeans under increasingly stressful conditions toward summer's end. In contrast, seemingly incessant summer rainfall in the East hampered fieldwork and adversely affected a variety of fruits, vegetables, and row crops. Farther west, weather patterns across the Plains and Mid-South alternated between wet and dry conditions. The southern High Plains received some rain, but not enough to vanquish the effects of a 3-year drought. Elsewhere, an active monsoon circulation provided mid- to late-summer drought relief in the Southwest, while hot, generally dry conditions affected the interior Northwest.

Figure 9

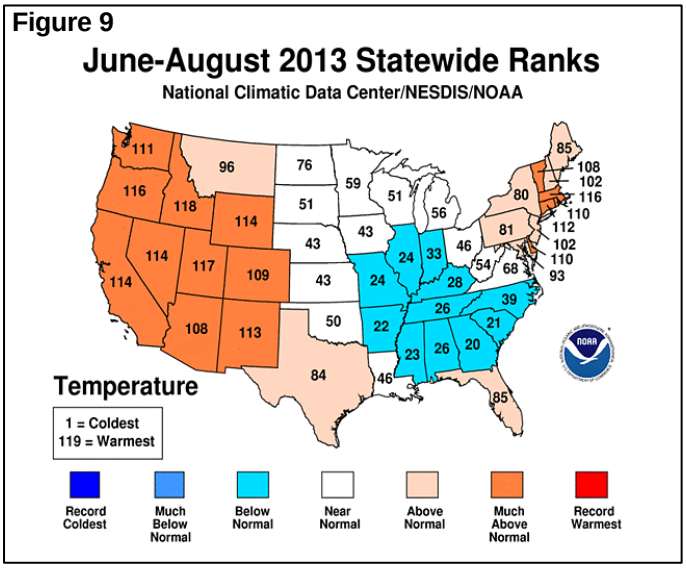
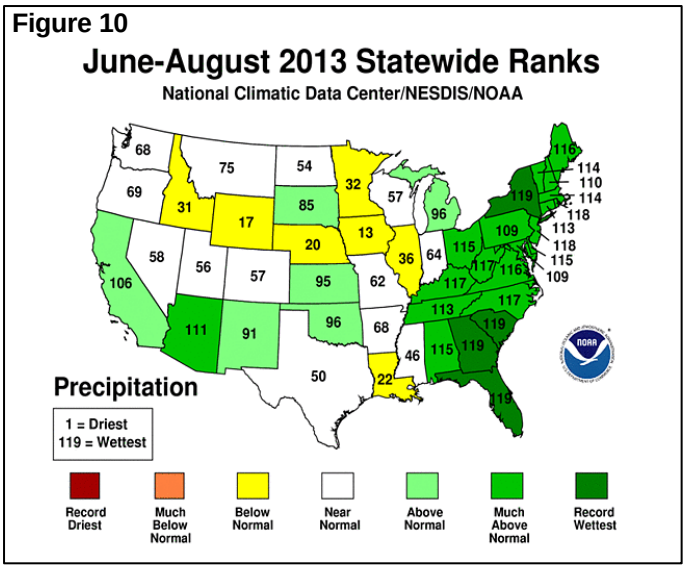


Figure 10



Overall, the summer of 2013 featured warm, wet conditions. The nation's average June-August temperature of 72.6°F was 1.2°F above the 20th century mean, while the average precipitation of 9.53 inches was 116 percent of normal. It was the 15th-warmest, eighth-wettest summer since 1895.

Temperature rankings ranged from the 20th-coolest summer in Georgia to one of the ten hottest summers on record in eight Western states and four Northeastern states (figure 9). Meanwhile, Iowa experienced its 13th-driest summer, while it was the wettest June-August period on record in Florida, Georgia, New York, and South Carolina (figure 10). In addition, top-ten rankings for summer wetness were noted in Arizona and fifteen Eastern states.

Autumn (September-November)

Autumn began with inundating rains in Colorado and record-setting precipitation in parts of the Northwest. Colorado's flood event, which lasted about a week and extended to portions of several other states, came at the tail end of an active Southwestern monsoon season. Nearly forgotten amid the Western wetness was the Midwestern warmth that pushed late-developing corn and soybeans toward maturity. In addition, generally dry weather promoted a rapid pace of fieldwork across the eastern half of the nation.

Wintry conditions arrived in October across the north-central U.S., where an early-month snow storm slammed the Black Hills and neighboring areas. Farther east, however, Midwestern producers made excellent progress in harvesting corn and soybeans during October, despite occasional rain. As autumn progressed, producers also made good progress planting winter wheat, with the only large-scale area of concern being a lack of soil moisture on the southern High Plains. By autumn's end, wheat had slipped into dormancy in all but the nation's southern production areas.

Cold weather expanded during November to encompass the Midwest, South, and East. The cold weather had little effect on late-season harvest activities, although some high moisture content corn remained in the field across the northern Corn Belt as autumn drew to a close. Meanwhile, the Southeast's overall dry autumn ended on a wet note, with a pre-Thanksgiving storm halting fieldwork but boosting topsoil moisture. Farther west, however, water-supply concerns began to mount, as California moved deeper into a potential third consecutive year of drought.

Autumn featured overall mild, wet conditions. The nation's average September-November temperature of 54.1°F was 0.5°F above the 20th century mean, while the average precipitation of 7.23 inches was 108 percent of normal. It was the 44th-warmest, 34th-wettest summer since 1895. However, due to a recent and ongoing string of warm autumns, it was the coolest September-November period since 2006. Cool weather was a little more dominant in the East, where Kentucky experienced its 29th-coolest fall (figure 11). However, Florida largely escaped the cool air intrusions, securing its 16th-warmest autumn. General warmth also covered the West. Meanwhile, state precipitation rankings ranged from the 10th-driest autumn in California to the second-wettest autumn in Colorado, North Dakota, and Wyoming (figure 12). Top-ten rankings for autumn wetness also occurred in New Mexico and South Dakota. In contrast, dryness prevailed in portions of the East.

Figure 11

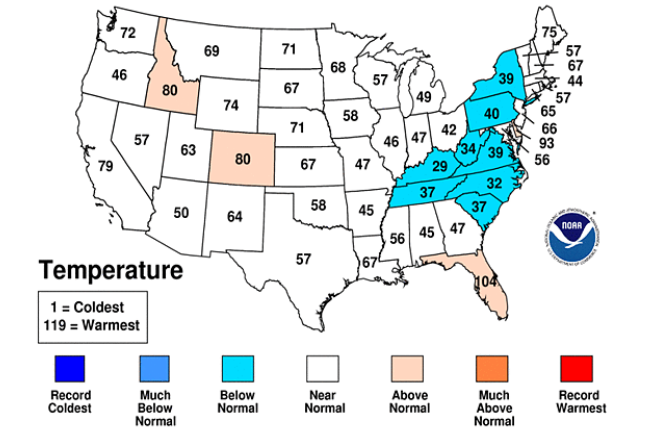
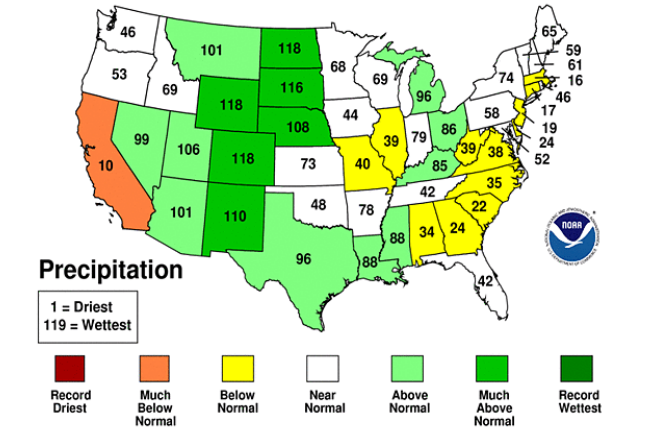


Figure 12



December

December storminess was widespread, except in the West. 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. 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. However, the Southeast was spared from the cold weather, with temperatures remaining unusually high through month's end. 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 overall was rated in good to excellent condition at the end of December. However, drought concerns persisted on the central and southern High Plains.

National Weather Data for Selected Cities

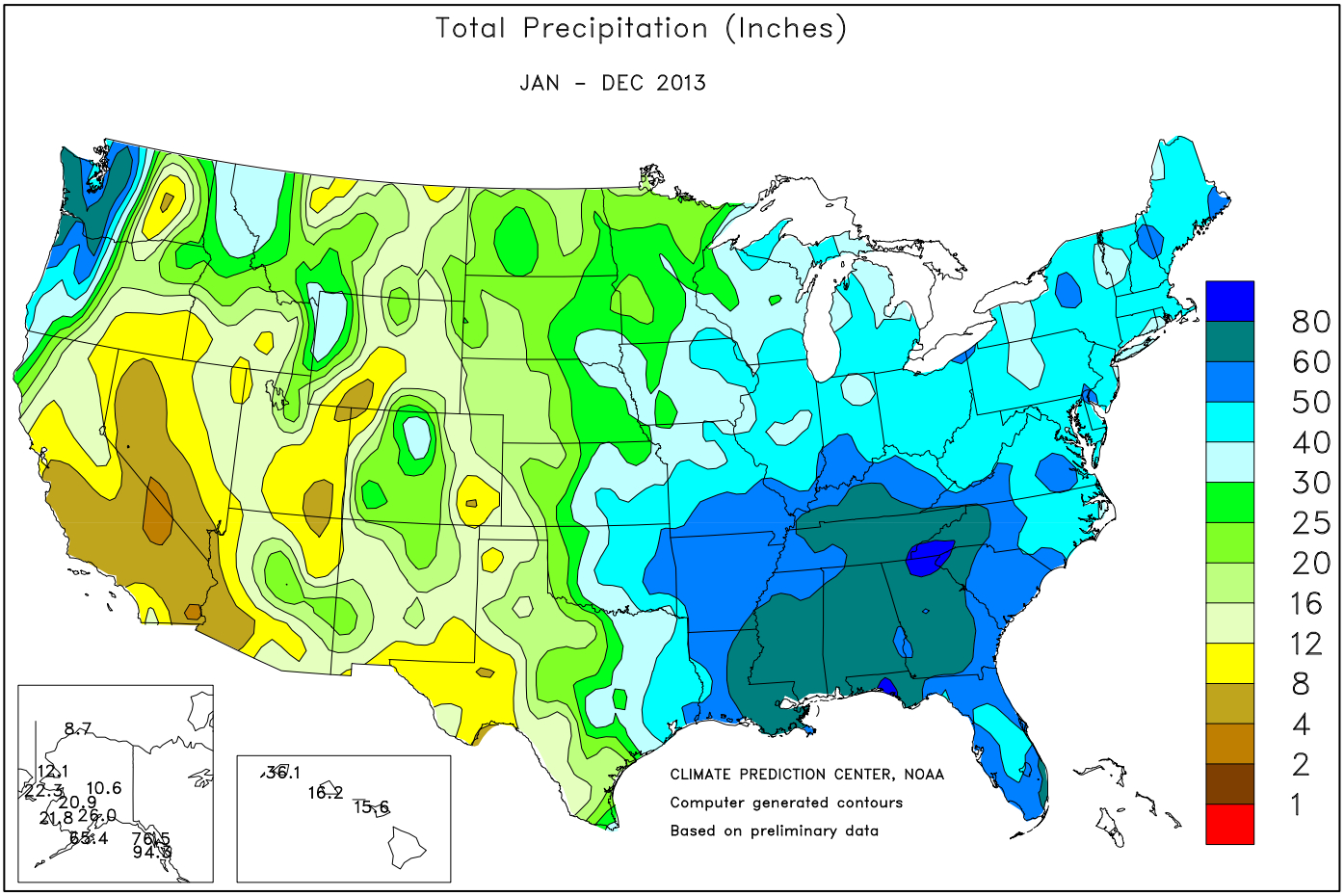
2013

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMP, °F AVERAGE	TEMP, °F DEPARTURE	PRECIP. TOTAL	PRECIP. DEPARTURE
AL BIRMINGHAM	62	0	67.87	13.89
HUNTSVILLE	61	0	58.29	0.78
MOBILE	67	0	69.26	2.97
MONTGOMERY	66	1	56.21	1.44
AK ANCHORAGE	38	2	26.01	9.95
BARROW	15	4	8.72	4.57
COLD BAY	41	3	46.43	6.15
FAIRBANKS	29	2	10.64	0.31
JUNEAU	43	1	76.49	18.16
KING SALMON	37	2	24.53	5.12
KODIAK	42	1	65.43	-9.92
NOME	28	1	22.33	5.77
AZ FLAGSTAFF	46	0	24.80	1.89
PHOENIX	76	3	8.42	0.13
TUCSON	71	2	8.54	-3.63
AR FORT SMITH	62	1	47.04	3.17
LITTLE ROCK	62	0	52.77	1.84
CA BAKERSFIELD	67	2	3.43	-3.05
EUREKA	50	-3	16.59	-21.51
FRESNO	67	4	3.01	-8.22
LOS ANGELES	64	1	3.65	-9.50
REDDING	64	2	12.80	-20.72
SACRAMENTO	62	1	5.80	-12.13
SAN DIEGO	64	0	5.57	-5.20
SAN FRANCISCO	58	1	3.38	-16.72
STOCKTON	62	0	4.62	-9.22
CO ALAMOSA	40	-1	10.19	2.94
CO SPRINGS	49	1	19.23	1.84
DENVER	50	1	17.61	3.99
GRAND JUNCTION	50	-2	12.41	3.43
PUEBLO	53	1	9.68	-2.71
CT BRIDGEPORT	53	1	36.64	-7.51
HARTFORD	51	1	51.71	5.55
DC WASHINGTON	59	1	44.26	4.91
DE WILMINGTON	55	1	48.35	5.54
FL DAYTONA BEACH	72	1	48.05	-1.24
FT LAUDERDALE	77	1	76.46	12.26
FT MYERS	75	0	53.79	-0.40
JACKSONVILLE	69	1	45.21	-7.13
KEY WEST	78	0	46.69	7.75
MELBOURNE	74	2	42.83	-5.46
MIAMI	78	1	70.41	11.88
ORLANDO	74	1	42.72	-5.63
PENSACOLA	69	1	74.59	10.31
ST PETERSBURG	74	0	56.13	6.55
TALLAHASSEE	69	1	66.77	3.57
TAMPA	74	1	52.47	7.71
WEST PALM BEACH	77	2	64.97	3.58
GA ATHENS	61	-1	59.87	12.05
ATLANTA	62	0	66.01	15.82
AUGUSTA	63	0	55.50	10.91
COLUMBUS	66	1	62.64	14.07
MACON	63	-1	72.93	27.94
SAVANNAH	67	1	54.07	4.49
HI HILO	74	0	101.99	-24.28
HONOLULU	77	0	16.20	-2.08
KAHULUI	76	0	15.63	-3.17
LIHUE	75	-1	36.14	-3.42
ID BOISE	52	0	9.57	-2.63
LEWISTON	54	1	9.49	-3.23
POCATELLO	47	0	6.17	-6.42
IL CHICAGO/O'HARE	49	0	42.08	5.80
MOLINE	49	-1	39.24	1.20
PEORIA	51	0	43.56	7.54
ROCKFORD	48	0	40.57	3.96
SPRINGFIELD	52	-1	38.35	2.79
IN EVANSVILLE	56	0	53.59	9.32
FORT WAYNE	50	0	42.20	5.65
INDIANAPOLIS	52	-1	45.94	5.00
SOUTH BEND	49	-1	40.48	0.78
IA BURLINGTON	50	-2	33.46	-4.48
CEDAR RAPIDS	47	-2	37.80	4.39
DES MOINES	51	1	31.97	-2.75
DUBUQUE	45	-2	38.06	2.55
SIOUX CITY	47	-1	26.73	0.74
WATERLOO	46	-1	40.90	7.76
KS CONCORDIA	53	-1	27.19	-1.24
DODGE CITY	55	0	20.72	-1.63
GOODLAND	51	0	16.74	-3.02
HILL CITY	53	0	16.96	-5.93
TOPEKA	55	1	34.01	-1.63
WICHITA	56	0	40.79	10.41
KY JACKSON	55	-1	56.72	7.33
LEXINGTON	55	0	59.53	13.63
LONDON-CORBIN	55	-1	56.42	9.01
LOUISVILLE	57	0	53.59	9.06
PADUCAH	57	0	60.33	11.09
LA BATON ROUGE	67	0	68.86	5.79
LAKE CHARLES	69	1	57.45	0.27
NEW ORLEANS	69	0	66.37	2.21
SHREVEPORT	66	0	53.46	2.16
ME BANGOR	44	-1	40.06	0.49
CARIBOU	41	2	51.88	14.45
PORTLAND	47	1	43.76	-2.07
MD BALTIMORE	56	1	42.93	0.99
MA BOSTON	52	0	40.35	-2.18
WORCESTER	48	1	45.70	-3.35
MI ALPENA	43	0	31.62	3.22
DETROIT	50	0	39.91	7.01
FLINT	48	1	32.63	1.02
GRAND RAPIDS	49	1	45.49	8.37
HOUGHTON LAKE	43	0	30.70	2.26
LANSING	47	0	41.46	9.93
MUSKEGON	48	1	43.76	10.89
TRAVERSE CITY	46	0	44.06	10.59
MN DULUTH	39	0	30.48	-0.52
INT'L FALLS	35	-3	31.84	7.90
MINNEAPOLIS	45	0	32.77	3.36
ROCHESTER	44	0	41.76	10.35
ST. CLOUD	41	-1	28.83	1.70
MS JACKSON	64	0	64.37	8.43
MERIDIAN	63	-2	67.28	8.63
TUPELO	62	1	53.05	-2.81
MO COLUMBIA	54	0	41.52	1.24
JOPLIN	56	-2	45.99	-0.08
KANSAS CITY	53	-1	34.45	-3.54
SPRINGFIELD	55	-1	51.84	6.87
ST JOSEPH	52	-2	32.07	-3.17
ST LOUIS	56	0	42.66	3.91
MT BILLINGS	49	2	16.69	1.93
BUTTE	40	0	11.31	-1.47
GLASGOW	42	-1	15.88	4.65
GREAT FALLS	46	2	11.77	-3.12
HELENA	46	2	10.58	-0.74
KALISPELL	44	1	17.26	0.05
MILES CITY	47	1	17.11	3.62
MISSOULA	46	1	9.46	-4.36
NE GRAND ISLAND	51	1	26.93	1.04
HASTINGS	50	-1	25.22	-2.72
LINCOLN	50	-1	26.69	-1.68
MCCOOK	52	1	13.28	-8.34
NORFOLK	48	-1	24.92	-1.74
NORTH PLATTE	49	0	21.77	2.11
OMAHA/EPPLEY	51	0	28.98	-1.24
SCOTTSBLUFF	50	2	13.80	-2.53
VALENTINE	47	0	23.62	4.10
NV ELKO	47	1	6.78	-2.81
ELY	45	0	8.54	-1.43
LAS VEGAS	70	2	2.96	-1.53
RENO	54	3	4.01	-3.47
WINNEMUCCA	48	-1	5.72	-2.61
NH CONCORD	46	0	40.80	3.20
NJ ATLANTIC CITY	54	0	46.11	5.52
NEWARK	55	0	42.94	-3.32
NM ALBUQUERQUE	58	1	9.32	-0.14
NY ALBANY	49	1	43.83	5.77
BINGHAMTON	46	0	42.95	4.30
BUFFALO	49	1	46.01	5.47
ROCHESTER	49	1	36.76	2.80
SYRACUSE	49	1	40.41	0.37
NC ASHEVILLE	56	1	75.25	28.21
CHARLOTTE	60	-1	49.62	6.10
GREENSBORO	58	0	50.43	7.30
HATTERAS	64	1	53.33	-4.42
RALEIGH	60	0	50.69	7.64
WILMINGTON	63	-1	51.41	-5.66
ND BISMARCK	41	-1	26.75	9.91
DICKINSON	42	-1	21.36	5.01
FARGO	40	-2	32.09	10.90
GRAND FORKS	38	-2	19.65	0.05
JAMESTOWN	39	-3	16.52	-1.97
MINOT	38	-4	27.22	8.78
WILLISTON	40	-1	21.28	7.12
OH AKRON-CANTON	51	1	42.02	3.55
CINCINNATI	54	0	49.49	6.88
CLEVELAND	51	1	41.83	3.13
COLUMBUS	53	0	41.55	3.05
DAYTON	52	0	36.52	-3.06
MANSFIELD	50	1	42.96	-0.27
TOLEDO	49	-1	36.82	3.61
YOUNGSTOWN	49	0	39.12	1.10
OK OKLAHOMA CITY	60	0	52.78	16.93
TULSA	60	-1	33.08	-9.34
OR ASTORIA	51	0	59.21	-7.92
BURNS	44	0	6.90	-3.67
EUGENE	53	1	21.20	-29.71
MEDFORD	55	1	8.98	-9.39
PENDLETON	52	0	9.26	-3.50
PORTLAND	54	0	26.72	-10.35
SALEM	54	1	23.61	-16.39
PA ALLENTOWN	52	1	45.96	0.79
ERIE	50	0	54.44	11.67
MIDDLETOWN	53	0	42.63	2.13
PHILADELPHIA	56	1	55.87	13.83
PITTSBURGH	51	0	36.64	-1.21
WILKES-BARRE	50	0	27.57	-9.98
WILLIAMSPORT	51	1	32.69	-8.90
PR SAN JUAN	81	1	84.92	34.16
RI PROVIDENCE	52	1	45.46	-1.00
SC CHARLESTON	66	1	58.11	6.58
COLUMBIA	64	0	55.47	7.20
FLORENCE	64	0	54.69	9.93
GREENVILLE	60	0	69.55	19.33
MYRTLE BEACH	63	-1	46.83	1.12
SD ABERDEEN	40	-4	21.87	1.65
HURON	44	-1	25.18	4.29
RAPID CITY	46	-1	21.69	5.06
SIOUX FALLS	44	-1	25.79	1.10
TN BRISTOL	56	1	57.67	16.35
CHATTANOOGA	61	1	68.74	14.22
JACKSON	58	-2	58.37	3.59
KNOXVILLE	59	1	69.33	21.11
MEMPHIS	62	0	59.43	4.78
NASHVILLE	59	0	54.87	6.76
TX ABILENE	65	1	23.19	-0.58
AMARILLO	58	1	15.21	-4.51
AUSTIN	68	-1	37.04	3.39
BEAUMONT	69	0	56.11	-3.78
BROWNSVILLE	75	2	29.01	1.46
COLLEGE STATION	69	0	39.34	-0.33
CORPUS CHRISTI	74	2	23.44	-8.81
DALLAS/FT WORTH	66	0	29.39	-5.34
DEL RIO	71	1	15.47	-2.76
EL PASO	65	0	9.51	0.08
GALVESTON	71	0	39.24	-4.60
HOUSTON	69	0	38.84	-9.00
LUBBOCK	61	1	12.61	-6.07
MIDLAND	65	1	8.50	-6.30
SAN ANGELO	66	1	19.80	-1.10
SAN ANTONIO	71	2	32.00	-0.92
VICTORIA	71	1	25.55	-14.55
WACO	66	-1	37.88	4.54
WICHITA FALLS	63	0	21.33	-7.48
UT SALT LAKE CITY	53	1	11.64	-4.86
VT BURLINGTON	47	2	44.98	8.93
VA LYNCHBURG	56	1	45.57	2.26
NORFOLK	60	0	45.64	-0.10
RICHMOND	59	1	53.72	9.82
ROANOKE	57	1	53.10	10.62
WASH/DULLES	55	1	45.35	3.54
WA OLYMPIA	51	1	41.44	-9.35
QUILLAYUTE	52	3	88.65	-13.07
SEATTLE-TACOMA	54	2	32.56	-4.50
SPOKANE	48	1	11.36	-5.31
YAKIMA	52	3	5.49	-2.77
WV BECKLEY	52	0	42.84	1.22
CHARLESTON	55	0	47.22	3.18
ELKINS	50	0	46.00	-0.09
HUNTINGTON	56	1	44.90	2.59
WI EAU CLAIRE	43	-1	35.90	3.78
GREEN BAY	44	-1	35.15	5.96
LA CROSSE	46	-1	35.88	3.52
MADISON	46	0	45.38	12.43
MILWAUKEE	47	-1	40.02	5.21
WAUSAU	42	-2	38.52	5.16
WY CASPER	45	0	15.15	2.12
CHEYENNE	46	1	18.30	2.85
LANDER	45	0	15.54	2.12
SHERIDAN	45	0	18.01	3.29

Based on 1971-2000 normals

***** Not Available**


Total Precipitation (Inches)
JAN - DEC 2013
80
60
50
40
30
25
20
16
12
8
4
2
1
8.7
12.1
22.3
10.6
20.9
21.8
26.0
85.4
76.5
94.9
36.1
16.2
15.6
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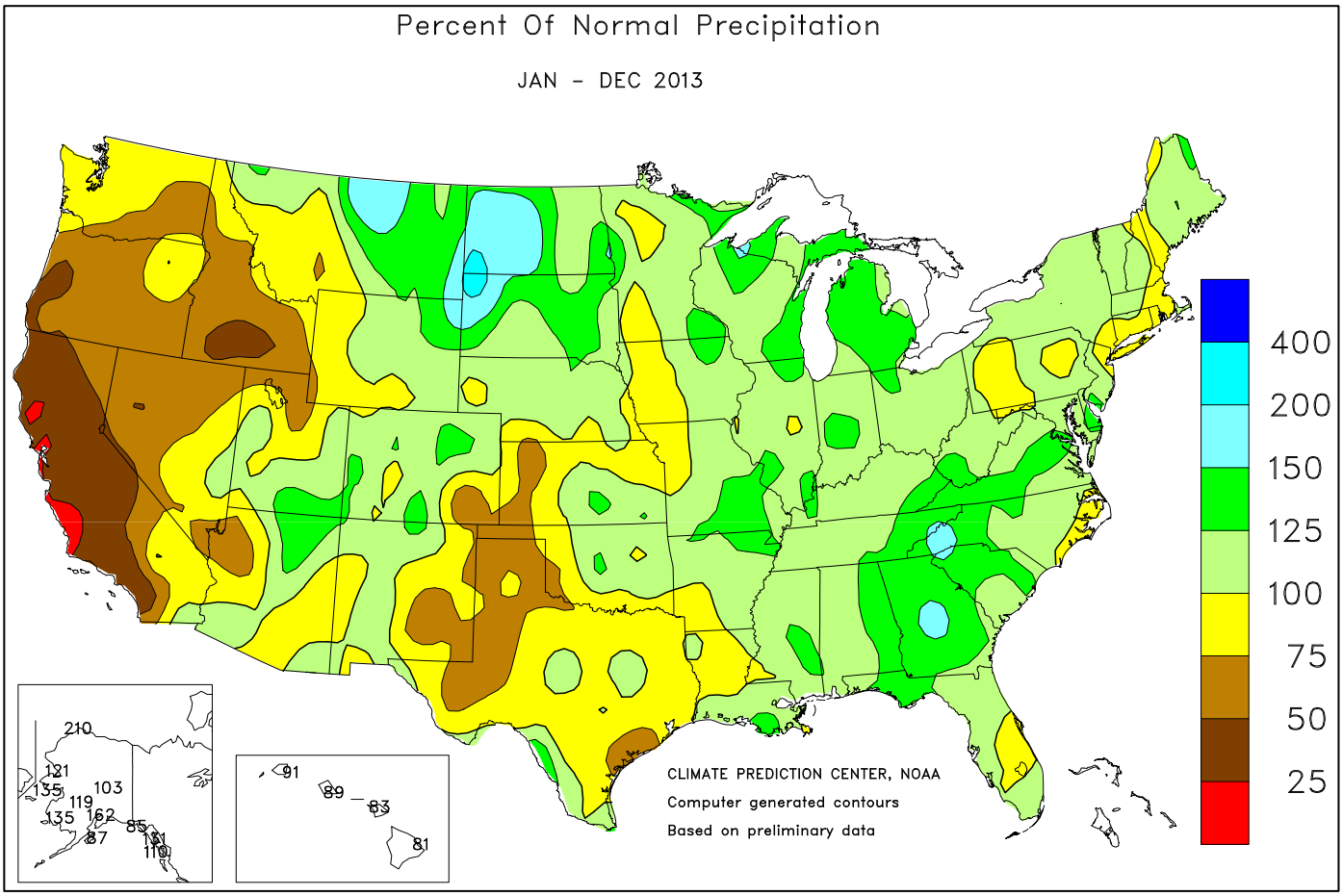
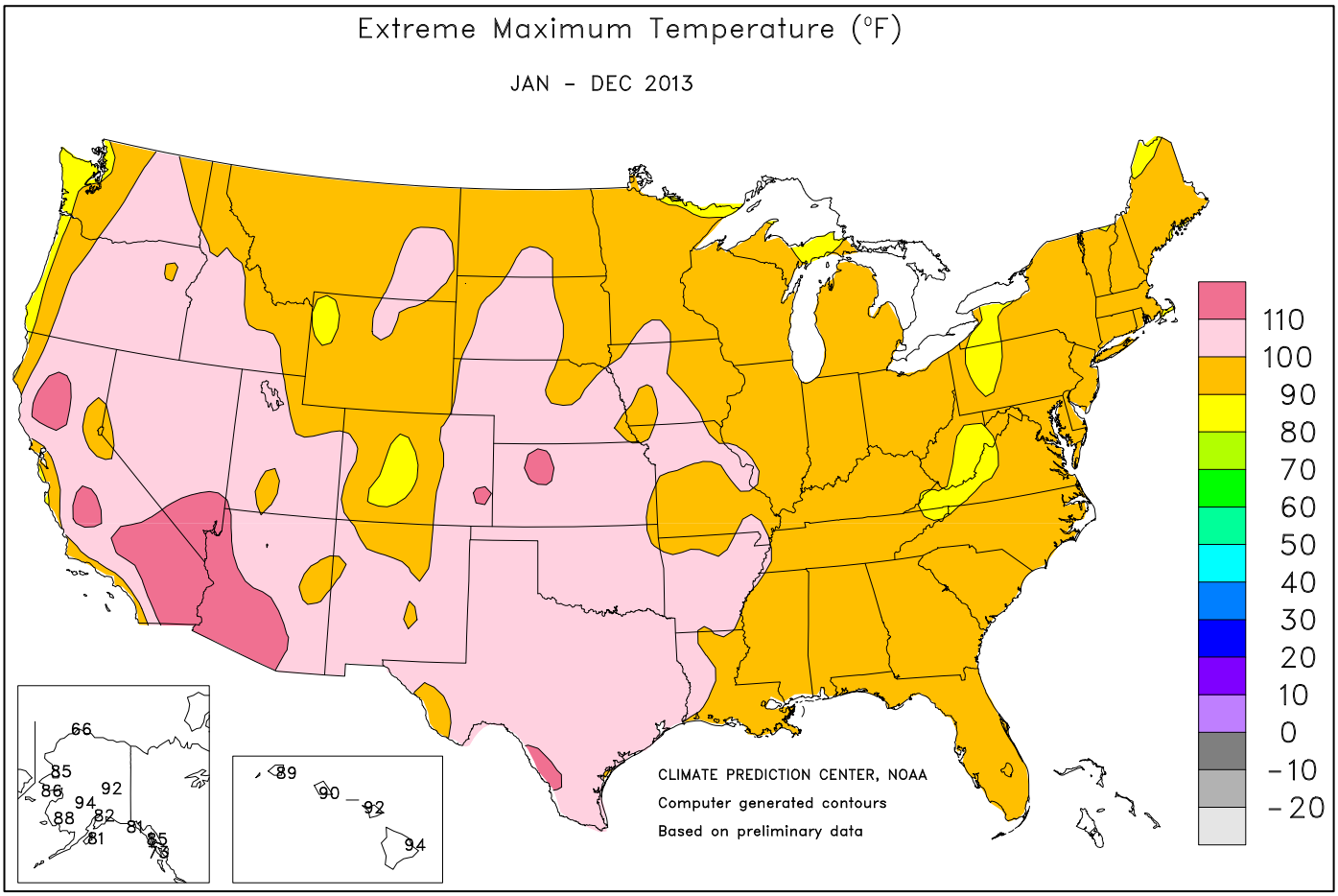
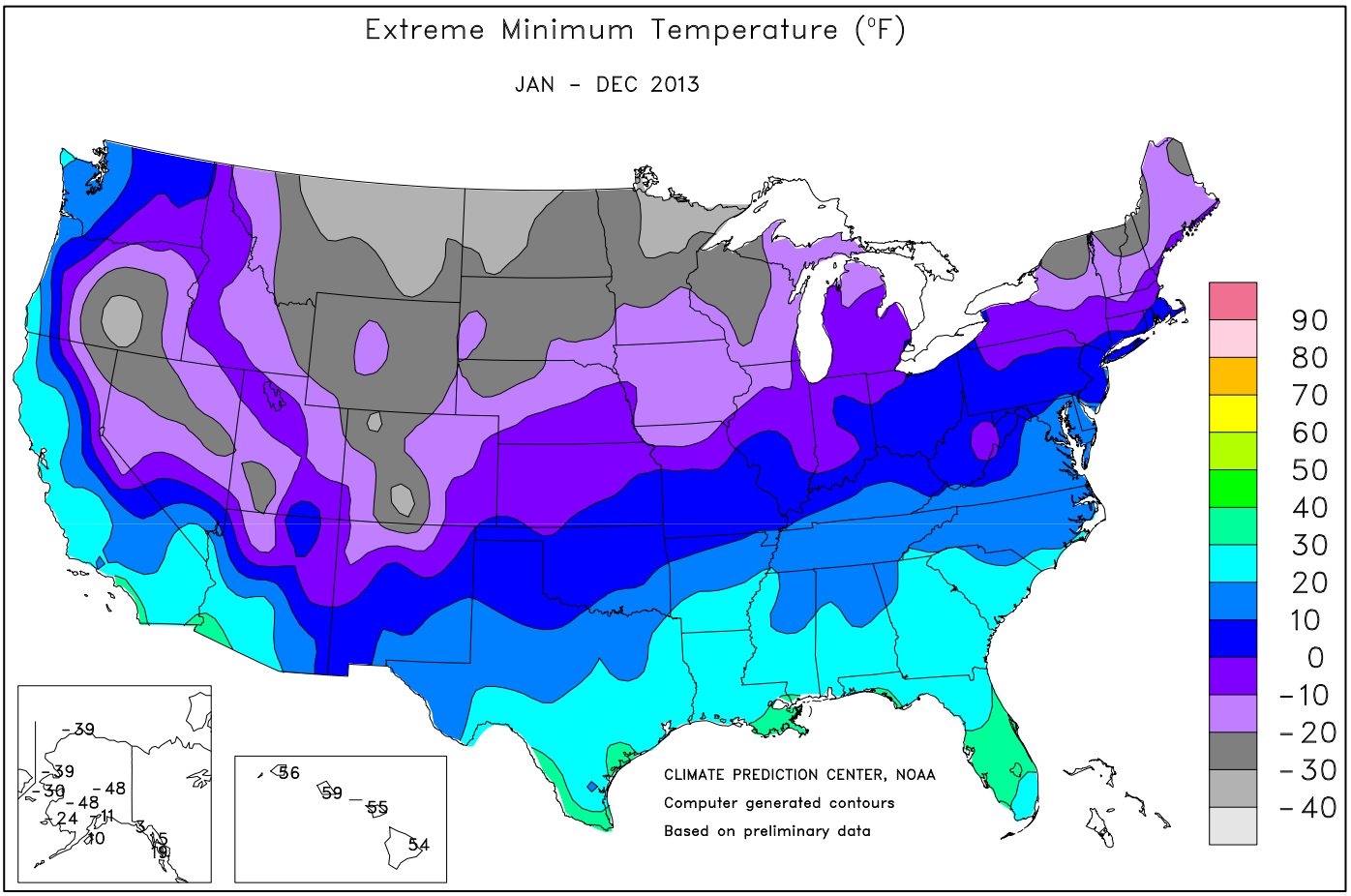
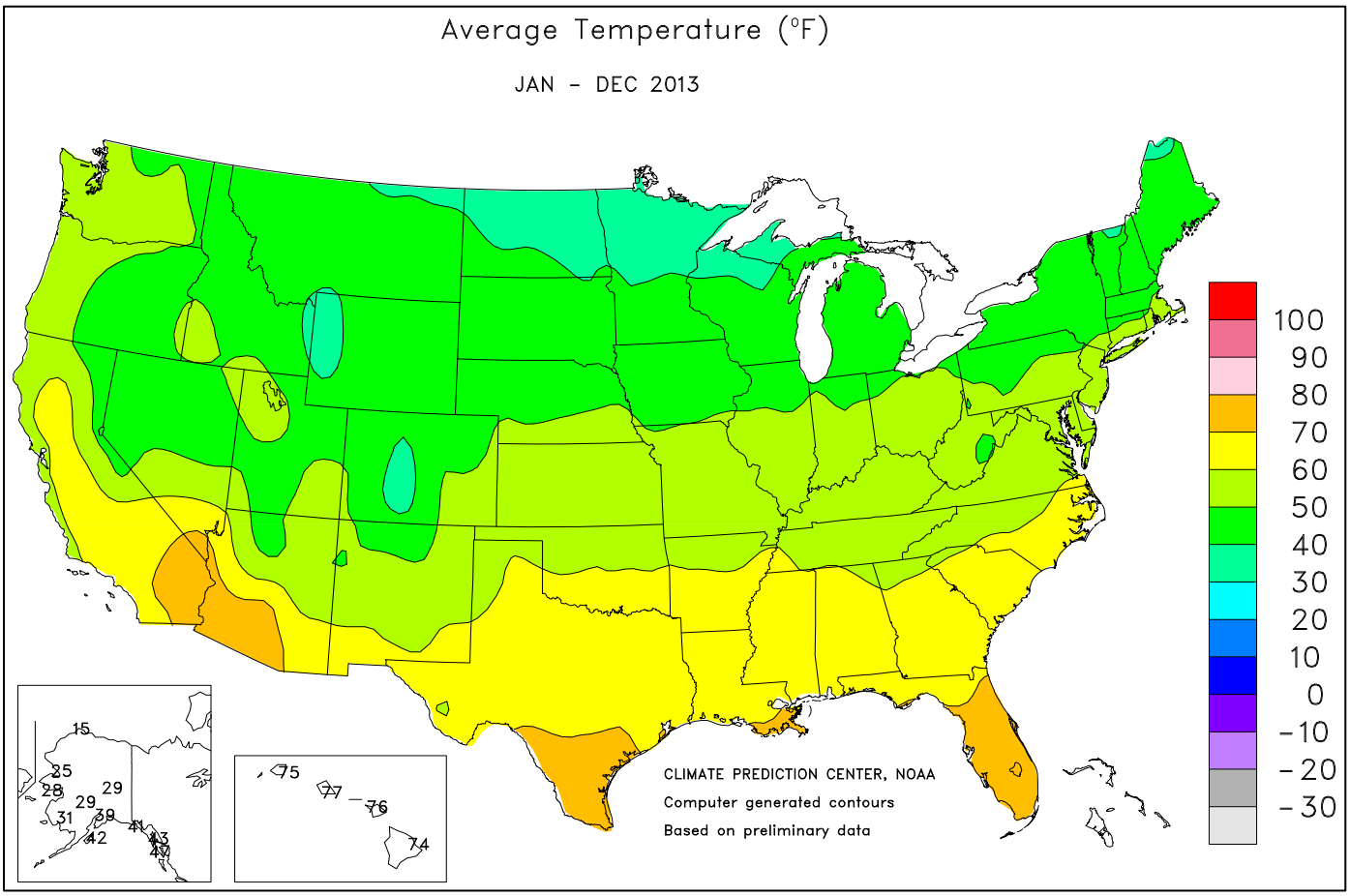
Computer generated contours
Based on preliminary data


Percent Of Normal Precipitation
JAN - DEC 2013
400
200
150
125
100
75
50
25
210
121
135
103
119
162
135
85
87
181
110
91
89
83
81
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Extreme Maximum Temperature (°F)
JAN - DEC 2013
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
66
85
86
92
94
88
82
81
81
85
78
89
90
92
94
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Extreme Minimum Temperature (°F)
JAN - DEC 2013
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
39
39
30
48
48
24
11
10
5
19
56
59
55
54
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Average Temperature (°F)
JAN - DEC 2013
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
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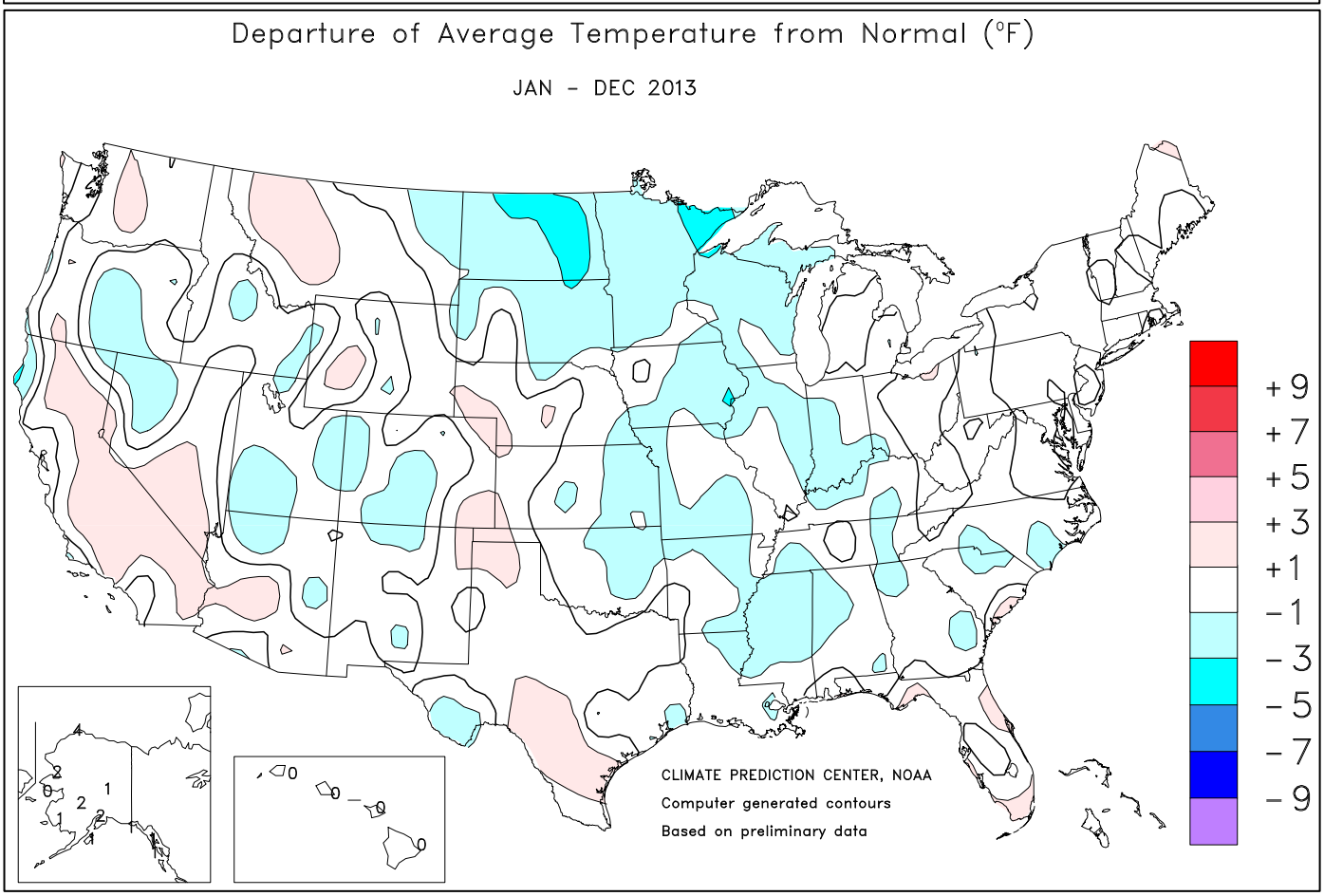
Computer generated contours
Based on preliminary data


Departure of Average Temperature from Normal (°F)
JAN - DEC 2013
+9
+7
+5
+3
+1
-1
-3
-5
-7
-9
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

2013 U.S. Fieldwork Highlights

Highlights, released on January 10, 2014, were provided by USDA/NASS.

April: Near-normal temperatures, stretching from the Pacific Northwest down to and through the Southwestern and Gulf Coast States and up to New England, provided producers in those areas ample time to prepare fields and begin planting their 2013 crops. Conversely, cold weather remained entrenched over the northern Great Plains and portions of the Great Lakes region, where planting progress of row crops and small grains was well behind normal. Heavy precipitation in portions of the Corn Belt and Southeast hampered fieldwork. Corn producers had planted just 2 percent of the 2013 crop by April 14, fourteen percentage points behind last year and 5 points behind the 5-year average. By April 28, five percent of the corn crop was planted, representing the slowest planting pace since 1984. Significant soil moisture shortages in much of the Hard Red growing region negatively impacted winter wheat conditions during March and early April.

May: Below-average temperatures coupled with heavy rainfall hampered fieldwork and crop development across much of the Midwest. Conversely, much of the Southwest received little precipitation, forcing some producers to irrigate their crops earlier than normal. Unseasonably cool early-month weather limited crop development in many of the major winter wheat-producing states, leading to the slowest heading pace since 1993. Warmer weather and limited precipitation provided producers in many areas ample time for fieldwork during the week ending May 19, evidenced by record-tying corn planting progress of 43 percentage points. Similarly, double-digit corn emergence occurred in 13 of the 18 major estimating states during the same week. By June 2, heading of the nation's winter wheat was 73 percent complete, 15 percentage points behind last year and 7 points behind the 5-year average. As May began, soybean planting was most advanced in the lower Mississippi Valley States, but overall was well behind normal due to unfavorable planting conditions earlier in the spring. By May 12, six percent of the nation's soybean crop was planted, 37 percentage points behind last year and 18 points behind the 5-year average. Despite improved conditions by the end of the month, producers nationwide had planted just 57 percent of this year's soybean crop by June 2. This represented the slowest pace since 1996, when 45 percent of the crop was planted on June 2.

June: Near-normal temperatures and abundant rainfall blanketed much of the country from the Mississippi River Valley eastward during June, providing favorable conditions for developing summer crops but limiting fieldwork in some areas. Conversely, June delivered hot, dry weather to the Southwest, exacerbating drought conditions and providing no relief from irrigation water supply shortages. By June 2, sorghum producers had planted 52 percent of the nation's crop, 23 percentage points behind last year and 8 points behind the 5-year average. Planting was nearing completion ahead of the normal pace across most regions in Texas, while progress in Kansas was 13 percentage points—or over 2 weeks—behind normal. As June progressed, producers in Kansas took advantage the days suitable for fieldwork, planting nearly half of their crop during the 2 weeks ending June 16. Nationally, producers had planted 97 percent of the sorghum crop by June 30, on par with last year but 2 percentage points ahead of the 5-year average. With drought conditions limiting head development in portions of the Great Plains and cool spring weather delaying green-up earlier in the season, 73 percent of the 2013 winter wheat crop was at or beyond the heading stage by June 2. This was 15 percentage points behind last year and 7 points behind the 5-year average. Producers had harvested 43 percent of the nation's crop by month's end, 30 percentage points behind last year and 9 points behind the 5-year average.

July: With the exception of the Northeast, July brought near-normal temperatures to most areas east of the Rocky Mountains. Compared with previous months, monsoonal moisture benefitted developing summer crops in the Four Corners region; however, additional rainfall was needed to alleviate long-term drought. Elsewhere, a short-term drying trend centered over portions of the Corn Belt negatively affected developing corn and soybeans in some areas. As July began, heading of this year's oat crop was complete or nearly complete in most states; however, progress in North Dakota, Minnesota, and Wisconsin—the three largest producing states—remained well behind normal, following significant seeding and emergence delays earlier in the year. Progress lagged as the month continued, and harvest did not begin in Minnesota and North Dakota until the week ending July 28 and August 4, respectively. Nationwide, 38 percent of the oat crop was harvested by August 4, forty-six percentage points behind last year and 14 points behind the 5-year average. As July began, hot, windy weather left some spring wheat producers in Idaho battling depleted soil moisture levels, despite irrigation capabilities, while others chose to chop their crop for silage due to shortages in water supplies. Nationally, spring wheat emergence was virtually complete, while 45 percent of the crop was at or beyond the heading stage by July 7. This was 40 percentage points behind last year and 8 points behind the 5-year average. Warmer, drier weather on the northern Great Plains around mid-month accelerated crop maturation, following delayed seeding earlier in the spring; however, spring wheat development remained well behind normal. By July 28, harvest was underway in a limited number of fields across the country.

August: Cooler-than-normal weather blanketed much of the country during the first 3 weeks of the month. On the southern Great Plains, however—where soil moisture remained less than adequate for most dryland crops—daytime temperatures climbed over 100°F. By August 4, seventy-nine percent of the soybeans were at or beyond the blooming stage, 14 percentage points behind last year and 6 points behind the 5-year average. Despite below-average temperatures, pod set advanced rapidly in most areas during the first part of the month. During the latter part of the month, reports in Indiana indicated the need for soaking rainfall to benefit soybeans in the pod-filling stage. Ninety-two percent of the crop was setting pods by September 1, six percentage points behind last year and 4 points behind the 5-year average. In Illinois, some soybean fields had started turning yellow by month's end. By August 11, barley producers had harvested 17 percent of this year's crop, 34 percentage points behind last year and 4 points behind the 5-year average. Harvest advanced most rapidly in Idaho and Montana, where 21 percent or more of the crop was combined during the week ending August 11. With harvest complete or nearly complete in the Treasure and Magic Valleys, progress in Idaho advanced rapidly under hot, dry conditions. By month's end, 76 percent of the nation's barley crop was harvested, 14 percentage points behind last year but 5 points ahead of the 5-year average.

September: Above-average temperatures in the Great Plains and Mississippi River Valley allowed for the maturation of row crops. Above-average precipitation in the western U.S., eastern Texas, and the Mississippi Delta helped to alleviate drought. Eighty-four percent of the corn crop was at or beyond the dough stage by September 1, thirteen percentage points behind last year and 5 points behind the 5-year average. Nationwide, 42 percent of the corn crop was at or beyond the dent stage by September 1, forty-two percentage points behind last year and 19 points behind the 5-year average. Nationally, 12 percent of the corn was harvested by September 29, forty percentage points behind last year and 11 points behind the 5-year average. By September 1, ninety-five percent of the rice was at or beyond the heading stage. This was 4 percentage points behind last year but slightly ahead of the 5-year average. Producers had harvested 18 percent of the nation's rice crop by September 1, twenty-one percentage points behind last year and 7 points behind the 5-year average. Rice harvest was nearly complete in some southwestern Louisiana parishes. Fifty-eight percent of the nation's rice was harvested by September 29, seventeen percentage points behind last year and 4 points behind the 5-year average.

October: Cooler-than-normal weather blanketed the western half of the U.S. during October, while near-normal temperatures covered the eastern half of the country. Precipitation was above normal in the northern Great Plains, western Corn Belt, western Ohio Valley, and eastern Texas. By the end of the month, cooler and drier weather conditions promoted rapid fieldwork in the northern Great Plains and western Corn Belt. By October 27, fifty-nine percent of the corn was harvested, 32 percentage points behind last year and 3 points behind the 5-year average pace. Nationwide, 92 percent of the cotton crop had open bolls by October 27, four percentage points behind last year and 2 points behind the 5-year average. Cotton on the Northern and Southern Plains of Texas was developing at the normal pace, but harvest ran slightly behind normal. By October 27, thirty-four percent of the cotton crop was harvested, 13 percentage points behind last year and 10 points behind the 5-year average.

November: Temperatures were below normal in the eastern U.S. but above normal in the western part of the nation and in Florida. Midwestern tornadoes and accompanying strong straight-line winds that hit an area centering on Illinois on November 17 had little agricultural impact because most harvest activities were complete. Producers nationwide had sown 91 percent of the intended 2014 winter wheat acreage by November 3, slightly ahead of the 5-year average pace. By November 24, ninety-three percent of the nation's winter wheat had emerged. This was 5 percentage points ahead of the previous year and 4 points ahead of the 5-year average. Soil moisture was adequate for winter wheat development on the central High Plains, but areas of drought on the southern High Plains were placing stress on the emerging crop. Nonetheless, winter wheat conditions remained significantly improved over last year, with 62 percent of the crop reported in good to excellent condition on November 24—compared with 33 percent in 2012. Producers had harvested 84 percent of the nation's peanut crop by November 3, two percentage points behind last year but 6 points ahead of the 5-year average. Dry weather early in the month allowed Georgia producers to harvest 91 percent of the crop by November 10. Harvest was largely complete in the nation's peanut-producing areas by the middle of the month—97 percent complete and 5 points ahead of the 5-year average. Ninety-three percent of this year's sugarbeet crop had been harvested by November 3, four percentage points ahead of last year and 3 points ahead of the 5-year average. During the week ending November 10, producers in Michigan harvested 18 percent of the state's crop. Nationally, 97 percent of the sugarbeet crop was harvested by November 10, slightly behind last year but slightly ahead of the 5-year average.

2013 U.S. Crop Production Highlights

Highlights, released on January 10, 2014, were provided by USDA/NASS.

Corn: Corn for grain production is estimated at a record 13.9 billion bushels, down slightly from the November 1 forecast but 29 percent above 2012. The average U.S. yield is estimated at 158.8 bushels per acre. This is down 1.6 bushels from the November forecast but 35.4 bushels above the 2012 average yield of 123.4 bushels per acre. Estimated yields in 2013 are up sharply from 2012 in many of the major corn-producing states. The cool, wet weather that delayed planting in most of the Corn Belt helped to sustain the crop through the summer months. Yield increases of 30 bushels or more, compared with 2012, are estimated in several large corn-producing states. Record yields are estimated in Alabama, Arkansas, California, Delaware, Florida, Indiana, Kentucky, Louisiana, Maryland, Michigan, Mississippi, New Mexico, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia.

Corn planted area, at 95.4 million acres, is down 1.8 percent from 2012. Area harvested for grain is estimated at 87.7 million acres, up slightly from both the November forecast and 2012. The 2013 corn objective yield data indicate the highest number of ears per acre on record for the combined ten objective yield States (Iowa, Illinois, Indiana, Kansas, Minnesota, Missouri, Nebraska, Ohio, South Dakota, and Wisconsin). Record-high ear counts were recorded in Illinois, Indiana, Minnesota, Missouri, Nebraska, and Wisconsin.

Corn silage production is estimated at 118 million tons in 2013, up 4 percent from 2012, representing the highest U.S. production since 1981. The silage yield is estimated at 18.8 tons per acre, up 3.4 tons from 2012. Area harvested for silage is estimated at 6.26 million acres, down 15 percent from a year ago.

Sorghum: Grain production in 2013 is estimated at 389 million bushels, down 6 percent from the November 1 forecast but up 58 percent from 2012. Planted area is estimated at 8.06 million acres, up 29 percent from last year. Area harvested for grain, at 6.53 million acres, is up 32 percent from 2012. Average grain yield, at 59.6 bushels per acre, is down 2.6 bushels from the previous forecast but up 9.8 bushels from last year. Record-high grain yields are estimated for Arkansas, Louisiana, Mississippi, and South Dakota. Meanwhile, yields in Arizona, Georgia, New Mexico, and Texas were down from the previous year due to drought. In South Dakota, grain production is estimated to be the highest on record.

Oats: The 2013 production is estimated at 65.9 million bushels, up 3 percent from 2012 but the third-lowest production on record. Yield is estimated at 64.0 bushels per acre, up 2.7 bushels from the previous year. Harvested area, at 1.03 million acres, is slightly below last year. This is the second-lowest acreage harvested for grain on record. Record-low acres were planted in California, Georgia, North Carolina, Ohio, Oregon, South Carolina, Texas, and Virginia. Producers harvested record-low acreage in Kansas, Idaho, Minnesota, North Carolina, Ohio, Pennsylvania, South Carolina, Wisconsin, and Virginia.

Barley: Production is estimated at 215 million bushels, down 2 percent from 2012. Average yield per acre, at 71.7 bushels, is up 3.8 bushels from the previous year. Producers seeded 3.48 million acres in 2013, down 4 percent from last year. Harvested area, at 3.00 million acres, is down 8 percent from 2012.

All wheat: Production is estimated at 2.13 billion bushels in 2013, down 6 percent from 2012. Grain area totaled 45.2 million acres, down 8 percent from the previous year. The U.S. yield is estimated at a record high of 47.2 bushels per acre, up 0.9 bushel from the previous year. The levels of production and changes from 2012 by type are winter wheat, 1.53 billion bushels, down 7 percent; other spring wheat, 534 million bushels, down 2 percent; and Durum wheat, 61.9 million bushels, down 25 percent.

Winter wheat: The 2013 winter wheat production totaled 1.53 billion bushels, down 7 percent from the previous year. The U.S. yield, at 47.4 bushels per acre, is up slightly from 2012 and represents the second-highest yield on record—0.4 bushel below 1999. Area harvested for grain is estimated at 32.4 million acres, down 7 percent from the previous year.

Planted acres were up from 2012 in most of the major Hard Red Winter (HRW) growing states. Particularly large acreage increases were experienced in Kansas, Nebraska, Oklahoma, and Texas. Conversely, Montana and North Dakota had large decreases in planted acres from the previous year. Harvested acres were down substantially across the HRW region, with large decreases in Colorado, the Dakotas, Kansas, Montana, Nebraska, Oklahoma, and Texas. A record-high yield is estimated in New Mexico. Nationally, HRW production totaled 744 million bushels, down 26 percent from 2012. Record-high production is estimated in Nevada, up 17 percent from last year.

In the Soft Red Winter (SRW) growing area, planted and harvested acreage increases from 2012 were experienced throughout the region, with producers in North Carolina seeding and harvesting the largest acreage on record. Record-high yields were realized in Arkansas, Florida, Georgia, Illinois, Indiana, Kentucky, New York, Pennsylvania,

and Tennessee. SRW production totaled 565 million bushels, up 35 percent from 2012. Record production was recorded in Kentucky, Maryland, North Carolina, and Tennessee.

White winter production totaled 225 million bushels, up 2 percent from the previous year. Harvested acreage in the Pacific Northwest (Idaho, Oregon, and Washington) was below 2012's level. Yields were also down from last year in most Pacific Northwest States.

Other spring wheat: Production for 2013 is estimated at 534 million bushels, down 2 percent from 2012. Harvested area totaled 11.3 million acres, down 6 percent from last year. The U.S. yield is estimated at a record-high 47.1 bushels per acre, up 2.1 bushels from last year.

Durum wheat: Production for 2013 is estimated at 61.9 million bushels, down 25 percent from 2012. Grain area harvested totaled 1.42 million acres, down 33 percent from the previous year. The U.S. yield is estimated at 43.6 bushels per acre, up 4.8 bushels from 2012 and the second-highest yield on record. Production in Idaho is down 15 percent from last year and represents a record low for the state.

Rice: Production in 2013 is estimated at 190 million cwt, up 1 percent from the previous forecast but down 5 percent from 2012. Planted area is estimated at 2.49 million acres, down 8 percent from 2012. Area harvested, at 2.47 million acres, is also down 8 percent from the previous crop year. The average yield for all U.S. rice is estimated at a record-high 7,694 pounds per acre, up 34 pounds from the previous forecast and 245 pounds above the previous record high set in 2012. Good growing conditions and new seed varieties, combined with dry weather conditions at harvest, led to record-setting yields in Arkansas, Louisiana, Mississippi, and Missouri.

All hay: Production of all dry hay for 2013 is estimated at 136 million tons, down 3 percent from the August 1 forecast but up 13 percent from the 2012 total. Area harvested is estimated at 58.3 million acres, up 2 percent from the August 1 forecast and up 4 percent from last year. The average yield, at 2.33 tons per acre, is down 0.14 ton from August but up 0.20 ton from the previous year.

Alfalfa and alfalfa mixtures: Production in 2013 is estimated at 57.6 million tons, down 4 percent from the August 1 forecast but up 11 percent from 2012. Harvested area, at 17.8 million acres, is up less than 1 percent from the August 1 forecast and 3 percent above the previous year. Average yield is estimated at 3.24 tons per acre, 0.15 ton below the August 1 forecast but up 0.23 ton from 2012. Alfalfa production was generally up across the country as hay conditions improved over the drought-affected crop of 2012. Exceptions occurred in the Southwest, where producers noted that dry conditions had a major negative impact on their ability to cut non-irrigated alfalfa hay.

All other hay: Production in 2013 totaled 78.4 million tons, down 2 percent from the August 1 forecast and 16 percent above 2012. Harvested area, at 40.5 million acres, is up 4 percent from both August and last year. Average yield is estimated at 1.93 tons per acre, down 0.12 ton from August but up 0.19 ton from last year. Hay production rebounded from the drought-affected crop of 2012. However, dry conditions in the Southwest hindered non-irrigated production, while untimely rainfall in the Mississippi Delta led to hay quality issues because producers were unable to bale mowed hay.

Peanuts: Production is estimated at 4.17 billion pounds, up 7 percent from the previous forecast but down 38 percent from 2012. Planted area is estimated at 1.07 million acres, while area harvested is estimated at 1.04 million acres. Planted and harvested acres are both down 35 percent from the previous crop year. Average yield is estimated at 4,006 pounds per acre, up 219 pounds from the previous forecast but down 211 pounds from 2012. Coming off record-high production and average yield for the U.S. in 2012, peanut producers reduced acres in 2013. Yields increased in Florida, New Mexico, Oklahoma, and Texas, but decreased in Alabama, Georgia, Mississippi, North Carolina, South Carolina, and Virginia. Condition of the crop was rated mostly good to excellent during the growing season. Florida is the only state reporting a record-high yield.

Sunflower: The 2013 sunflower production totaled 2.03 billion pounds, down 27 percent from 2012 and the lowest since 1989. The U.S. average yield per acre decreased 134 pounds from last year to 1,379 pounds. Planted area, at 1.58 million acres, is 18 percent below last year and is the second lowest since 1976. Area harvested decreased 20 percent from last year to 1.47 million acres. For the second time since data for both states began to be published in 1977, South Dakota out-produced North Dakota to be the leading sunflower-producing state during 2013. Production in South Dakota is estimated at 997 million pounds, an increase of 12 percent from 2012. Meanwhile, production in North Dakota declined 58 percent due to a combination of planted acreage decreasing 42 percent and yield declining 457 pounds from last year. Cool weather and wet conditions in the spring sharply reduced the amount of sunflowers that were able to be seeded. Compared with last year, Minnesota and North Dakota were the only states among the nine major sunflower-producing states with a decrease in yield.

Soybeans: Production in 2013 totaled 3.29 billion bushels, up 1 percent from the November 1 forecast and up 8 percent

from 2012. U.S. production is the third largest on record. The average yield per acre is estimated at 43.3 bushels, 0.3 bushel above the November 1 forecast and 3.5 bushels above last year's yield. Planted area for the nation, at 76.5 million acres, is down less than 1 percent from last year and is the fourth largest on record. Soybean growers harvested 75.9 million acres, up fractionally from the November 1 forecast but down slightly from last year.

Compared with last year, yields were up or unchanged across most of the Corn Belt, with the exception being the Northern States where a cool, wet spring led to planting delays followed by slower-than-normal crop development. Atlantic States from Maryland to South Carolina saw yields decline from last year due to a combination of planting delays for double-crop soybeans and stretches of dry weather. Record-high yields occurred in Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, New York, Ohio, Pennsylvania, and Tennessee.

The 2013 soybean objective yield survey data indicate that final average pod counts were higher than last year in nine of the eleven objective yield states. Compared with last year, pod counts were up more than 200 pods per 18 square feet in Illinois, Indiana, Kansas, Missouri, Nebraska, and South Dakota, as growing conditions were much improved.

Cotton: Upland cotton production is estimated at 12.6 million 480-pound bales, up 1 percent from the December 1 forecast but down 24 percent from last year. The U.S. yield for Upland cotton is estimated at 807 pounds per acre, up 19 pounds from last month but down 62 pounds from 2012. Upland planted area, estimated at 10.2 million acres, is down 15 percent from last year. Harvested area, at 7.47 million acres, is down 2 percent from last month and down 18 percent from last year. Record-high Upland yields are forecast in Arkansas, Louisiana, and Mississippi. In Louisiana, objective yield data forecasted boll weights to be the highest on record. Objective yield data in Mississippi forecasted a record-high number of bolls per acre and boll weight.

American Pima producers planted 201,000 acres, down 16 percent from last year. Harvested area, at 199,400 acres, is down 16 percent from last year. Production is estimated at 635,700 bales (480-pound), up 2 percent from the September 1 forecast but down 18 percent from last year. The U.S. yield is estimated at 1,530 pounds per acre, up 20 pounds from the September 1 forecast but down 51 pounds from last year.

Sugarbeets: Production for 2013 is estimated at 32.8 million tons, up slightly from the November 1 forecast but down 7 percent from last year. Growers in the 10 major sugarbeet-producing states planted 1.20 million acres, down 3 percent from last year. Harvested area, at 1.15 million acres, is down 4 percent from the previous year. Estimated yield, at 28.5 tons per acre, is up 0.8 ton from the November forecast but 0.8 tons below last year. Planting began behind schedule due to a cold, wet spring; however, a wet and extended fall season helped to produce favorable yields.

Sugarcane: Production of sugarcane for sugar and seed in 2013 is estimated at 32.2 million tons, of which 30.5 million tons was utilized for sugar and 1.74 million tons for seed. Total production for sugar and seed is unchanged from the December 1 forecast and down slightly from 2012. Sugarcane producers harvested 905,600 acres for sugar and seed in 2013, unchanged from the December forecast but up slightly from last year. Yield for sugar and seed is estimated at 35.6 tons per acre, unchanged from the December forecast but down 0.1 tons from 2012. In Louisiana, rainfall caused a late start to harvesting while a freeze later in the season slowed down harvesting. Florida reported very good growing conditions this season. Production in Hawaii was up slightly from last year, despite drought conditions on the island of Maui, since the entire crop is irrigated.

National Agricultural Summary

January 20 - 26, 2014

Weekly National Agricultural Summary provided by USDA/NASS

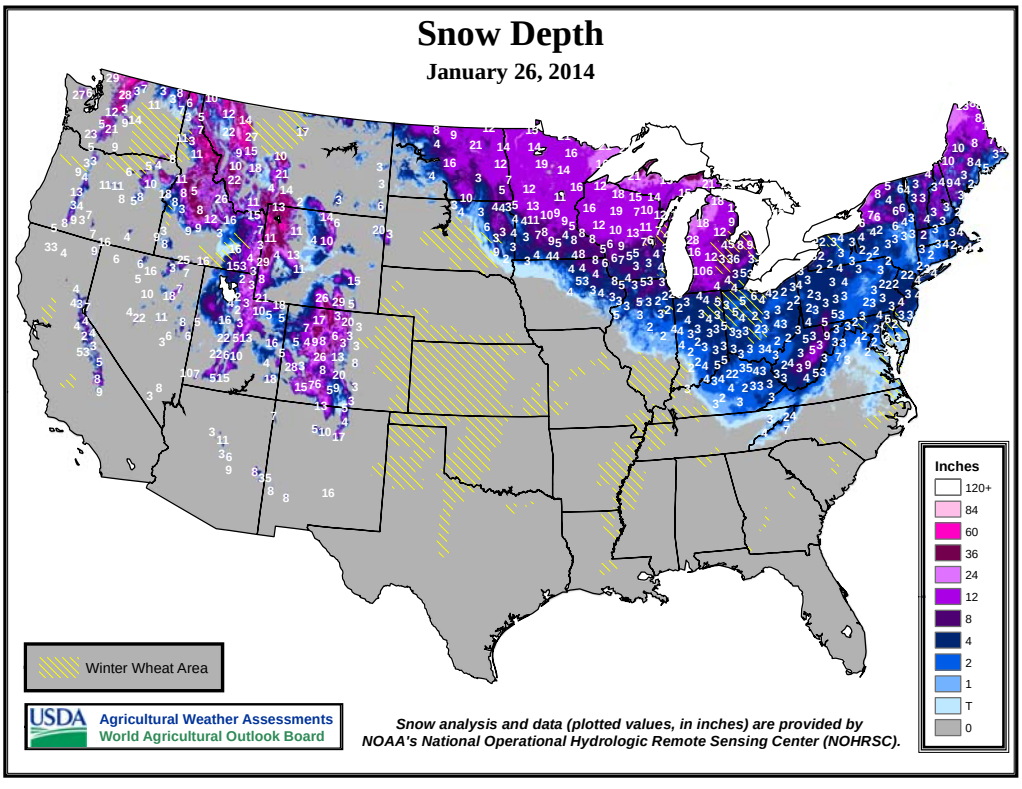
The weather was generally warmer than normal west of the Great Plains with some areas averaging at least 5 to 10°F above normal in California, Arizona and Montana. Temperatures were lower in the eastern United States with temperatures averaging 10 and 15°F below normal in the Ohio River Valley. Precipitation remained limited across the nation, with only small areas—primarily in West Virginia, Texas, Michigan, and Minnesota—recording over one-half inch of precipitation. Many winter wheat-producing areas remain free of snow cover and susceptible to winter frost damage.

Unseasonably warm, dry weather persisted across California, as a stubborn high pressure ridge continued to block cool air and storm systems from moving across the state. Winter grains experienced varying levels of stress due to drought and did not germinate. Dry soil and wind abrasion was a factor in northern California, and irrigation continued where possible. Lack of precipitation caused dryland grains to shrivel. Oat fields yellowed and showed a lack of vigor throughout the Central Valley. Alfalfa hay grew well in Fresno County due to warm weather. The abnormally warm January weather has caused some fruit trees to bud out early. Fruit orchards continued to require irrigation due to lack of rain. Navel orange and lemon harvest remained active. Avocados were harvested. Farmers continued to prune and irrigate kiwi and grape vines. Almond buds continued to swell. Almond, walnut, and pistachio orchards continued to need irrigation due to existing drought conditions. Tree removals were ongoing and land was prepared for tree planting. Broccoli and lettuce harvests were ongoing. Carrot harvest was ending. Cilantro and mustard for seed were irrigated. Fertilizer and herbicides were applied to processing onions. Range and non-irrigated pasture continue to be rated in poor to fair condition. Drought conditions continued across most of the state, with extreme conditions in most of the San Joaquin Valley and Central Coast. Livestock supplemental feeding of hay and grain continued. Sheep grazed some alfalfa fields. Bees were moved in preparation for the imminent almond pollination.

Arizona's alfalfa condition was rated very poor to excellent, depending on location. Harvesting occurred on half of the alfalfa acreage across the state. Central Arizona growers shipped Bok Choy, broccoli, cilantro, red and green cabbage, Chinese cabbage, kale, lemons, 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 lettuce including Boston, iceberg, romaine, green and red leaf lettuce. Warm, windy weather is depleting moisture levels throughout the state. Range and pastures were rated in very poor to good condition, depending on location.

Colder weather returned to Texas. Many areas experienced ice and snow, as a winter storm found its way south. Southeast Texas and the Upper Coast received rain. Areas from the northern High Plains to the Blacklands remained dry. Producers on the northern High Plains continued to irrigate winter wheat. Wheat producers in the northern Low Plains continued to be concerned with the condition of the wheat crop. Oats continued to green up in South Texas. Cotton producers on the southern High Plains continued to have equipment serviced in preparation for the upcoming planting season. Many producers in the Blacklands began applying fertilizer on fields in preparation for milo or corn. Harvest of sugarcane continued in the Lower Valley. Fresh market spinach continued to be harvested on dry fields in South Texas. Producers in north East Texas began planting of onions and potatoes. Heavy supplemental feeding continued in many areas of the state. Cattle remained generally in good condition throughout the state. Producers continued to see above-normal prices for their livestock. Fire danger continued to be a concern in dry areas.

No locations in Florida recorded over a half-inch of rain. Maximum temperatures ranged from the 60s to the 80s. North Florida farmers continued to plant cover crops. Sugarcane harvest proceeded as scheduled in Hendry, Palm Beach, and Glades counties. Potatoes were being planted in Saint Johns, Bradford, and Putnam counties. Some losses on vegetables and strawberries were reported in Bradford County due to frost and cold weather. Strawberries were being harvested in Bradford County. The southern part of the state reported frost and freezing temperatures, but no crop damage was noted. Farmers in Miami-Dade County were harvesting and planting winter vegetables. Rain was light in most of the citrus area. Growers and caretakers continued to irrigate due to dry conditions. The majority of the active commercial citrus groves in the state are drought-free. 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 was fair to good, but the pasture condition was mostly fair. Cattlemen were feeding hay and supplements across the state. Cold weather, frost, and drought contributed to the pasture decline.



International Weather and Crop Summary

January 19-25, 2014

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

HIGHLIGHTS

EUROPE: Mild, wet weather persisted across much of the region, although colder conditions arrived over northeastern portions of the continent.

WESTERN FSU: Sharply colder, snowy weather ended a month-long spell of spring-like warmth.

MIDDLE EAST: Much-needed rain improved moisture reserves for Turkish winter grains, while showers lingered in southernmost growing areas.

NORTHWEST AFRICA: Widespread rainfall maintained abundant to locally excessive soil moisture for vegetative winter grains.

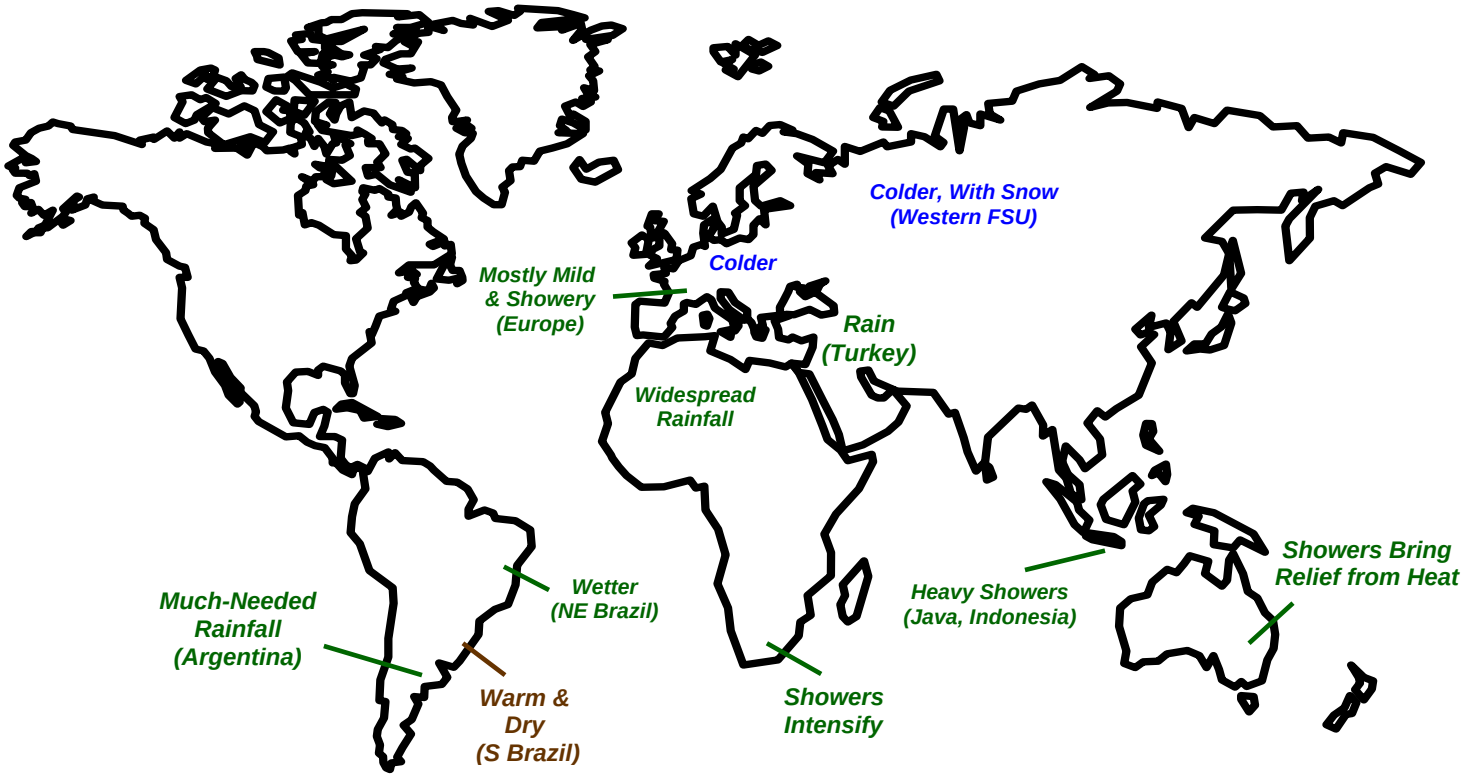
SOUTHEAST ASIA: Heavy showers maintained abundant to locally excessive moisture supplies for rice nearing reproduction in Java, Indonesia.

AUSTRALIA: Following a very hot start to the week, showers and more seasonable temperatures helped stabilize crop conditions.

SOUTH AFRICA: Showers intensified across the corn belt, bringing timely moisture for summer crops in or nearing reproduction.

ARGENTINA: Much-needed rain brought relief from stressful heat, helping to stabilize the condition of summer grains, oilseeds, and cotton.

BRAZIL: Beneficial rain covered previously dry northern crop areas, but unseasonable warmth and dryness developed in the south.



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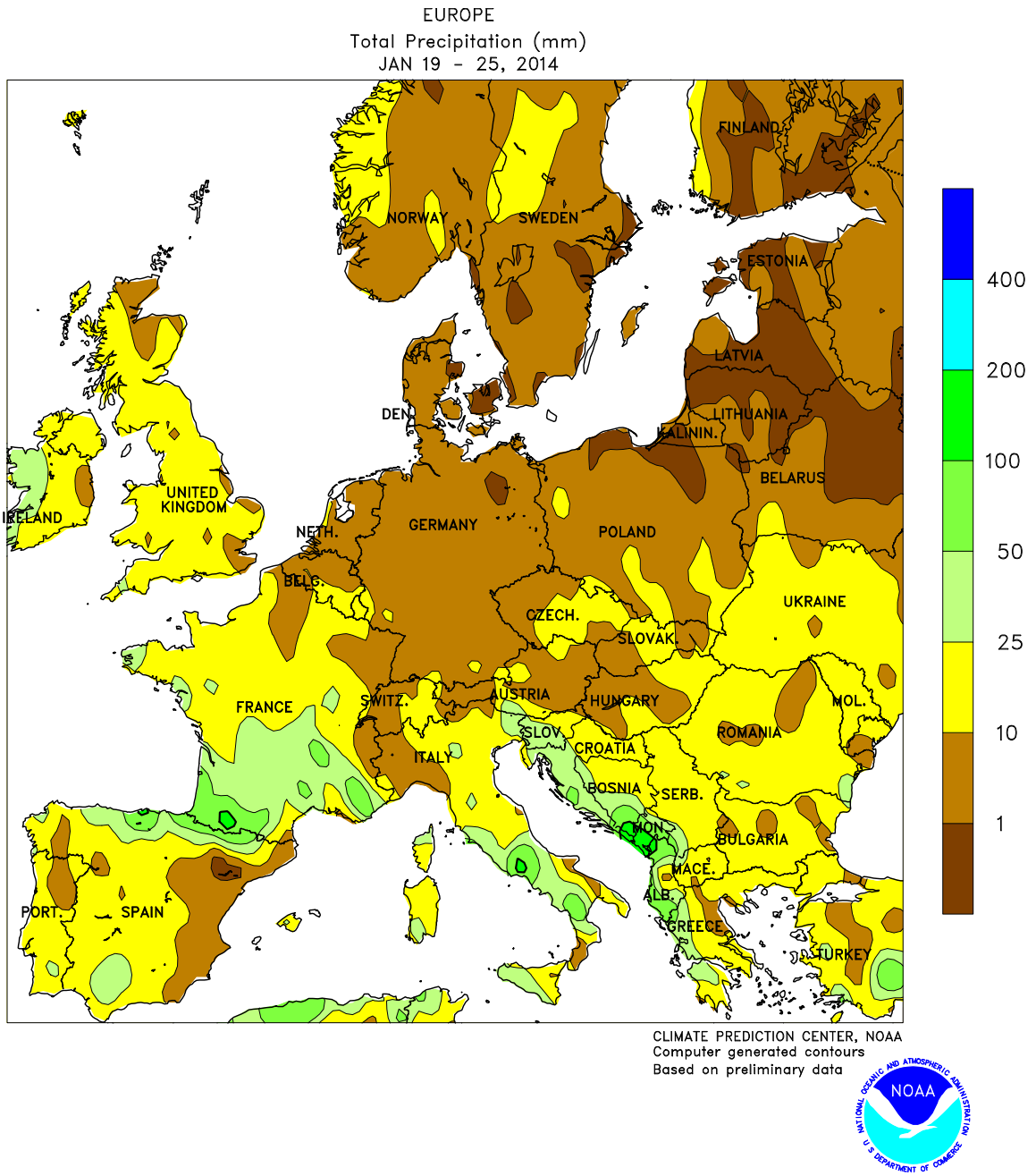

EUROPE

Unseasonably warm, showery weather across western and southern crop districts contrasted with colder conditions over eastern portions of the continent. A series of Atlantic disturbances generated light to moderate rain (5-50 mm) across western Europe, maintaining adequate to abundant moisture reserves for dormant winter wheat and rapeseed in France and the United Kingdom. The storms tracked south across the Mediterranean, producing moderate to heavy rain and mountain snow (10-100 mm liquid equivalent) across Portugal, Spain, Italy, and Greece. The precipitation improved soil moisture for winter wheat but hampered citrus harvesting and other seasonal fieldwork. Meanwhile, colder weather (3-10°C below normal) settled over the northeastern quarter of the European Union, resulting in the area's first widespread snowfall (2-30 cm) of the winter. However, some of the precipitation also fell as freezing rain, with 20 to 30 mm of ice in western and southern Poland causing power outages and disrupting travel. In the Balkans, unseasonably warm weather (up to 7°C above normal) for much of the week gave way to a late-week snow storm (10-30 cm), easing concerns over short-term drought and providing winter wheat protection against potential winterkill.

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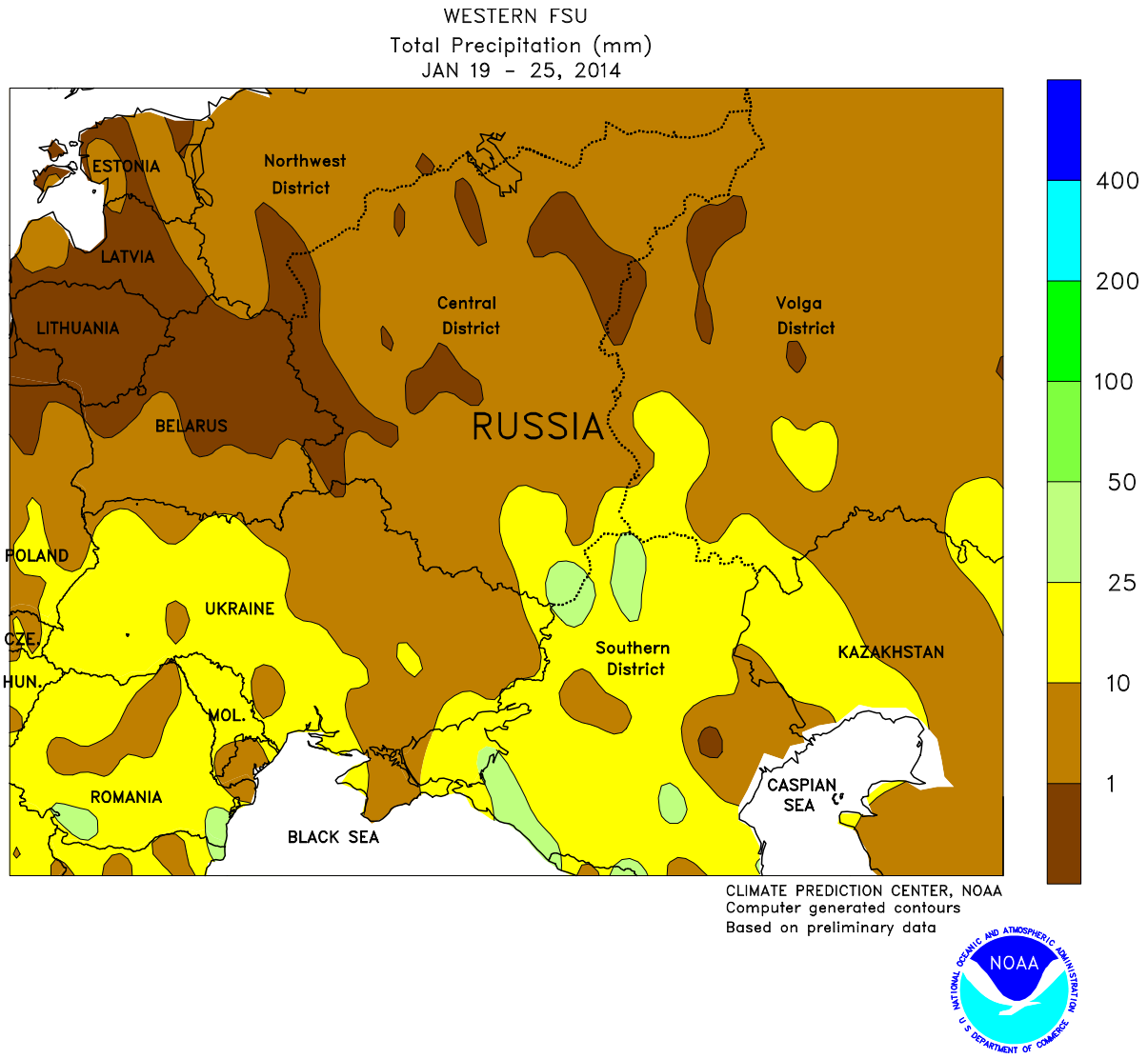

WESTERN FSU

Sharply colder, snowy weather brought an abrupt end to the region's month-long spell of spring-like warmth. Temperatures for the week averaged 2 to 10°C below normal as the coldest air of the winter arrived. Widespread snow (5-25 cm) accompanied the cold air, insulating winter grains against potential winterkill as nighttime lows plunged below -20°C (locally as low as -28°C) by week's end. The snow not only provided much-needed protection from bitter cold but also improved moisture reserves for spring growth.

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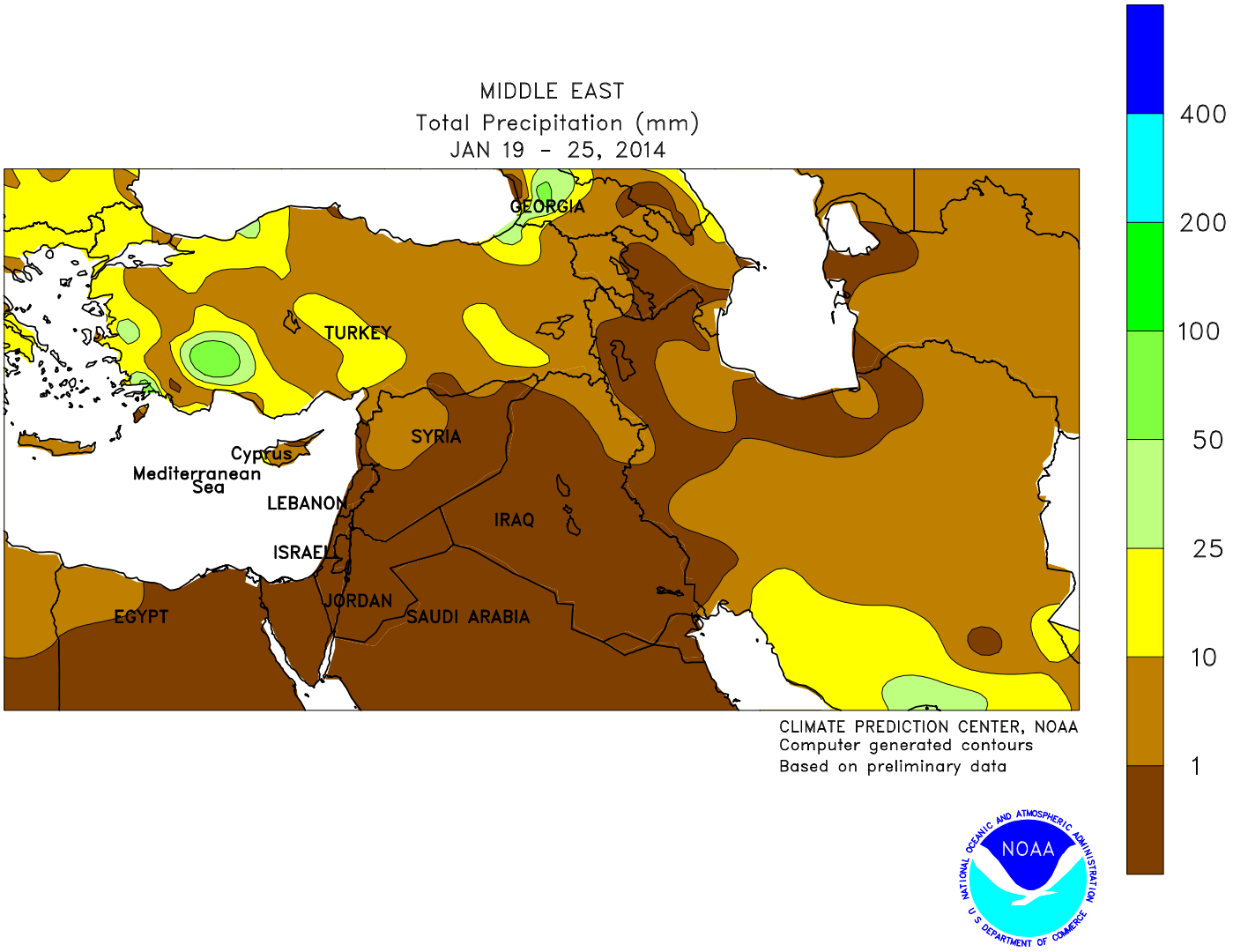

MIDDLE EAST

Much-needed precipitation arrived in Turkey, while rain and mountain snow lingered in southern-most growing areas. A Mediterranean storm produced 2 to locally more than 50 mm of rain across central and western Turkey, the first significant precipitation in nearly 2 months. The rain improved soil moisture for dormant winter wheat and barley, although concerns persisted over Turkish winter grain prospects due to an unfavorably dry autumn and a sharp cold snap in early December. Meanwhile, a departing storm produced an additional 2 to 30 mm of rain across central and southern Iran, maintaining abundant supplemental moisture for typically-irrigated winter grains. Dry weather returned from the eastern Mediterranean Coast into Iraq and northern Iran, promoting fieldwork and winter crop development. Temperatures across the region averaged 5 to 9°C above normal, minimizing the risk of winterkill but keeping northern growing areas devoid of a protective snow cover.

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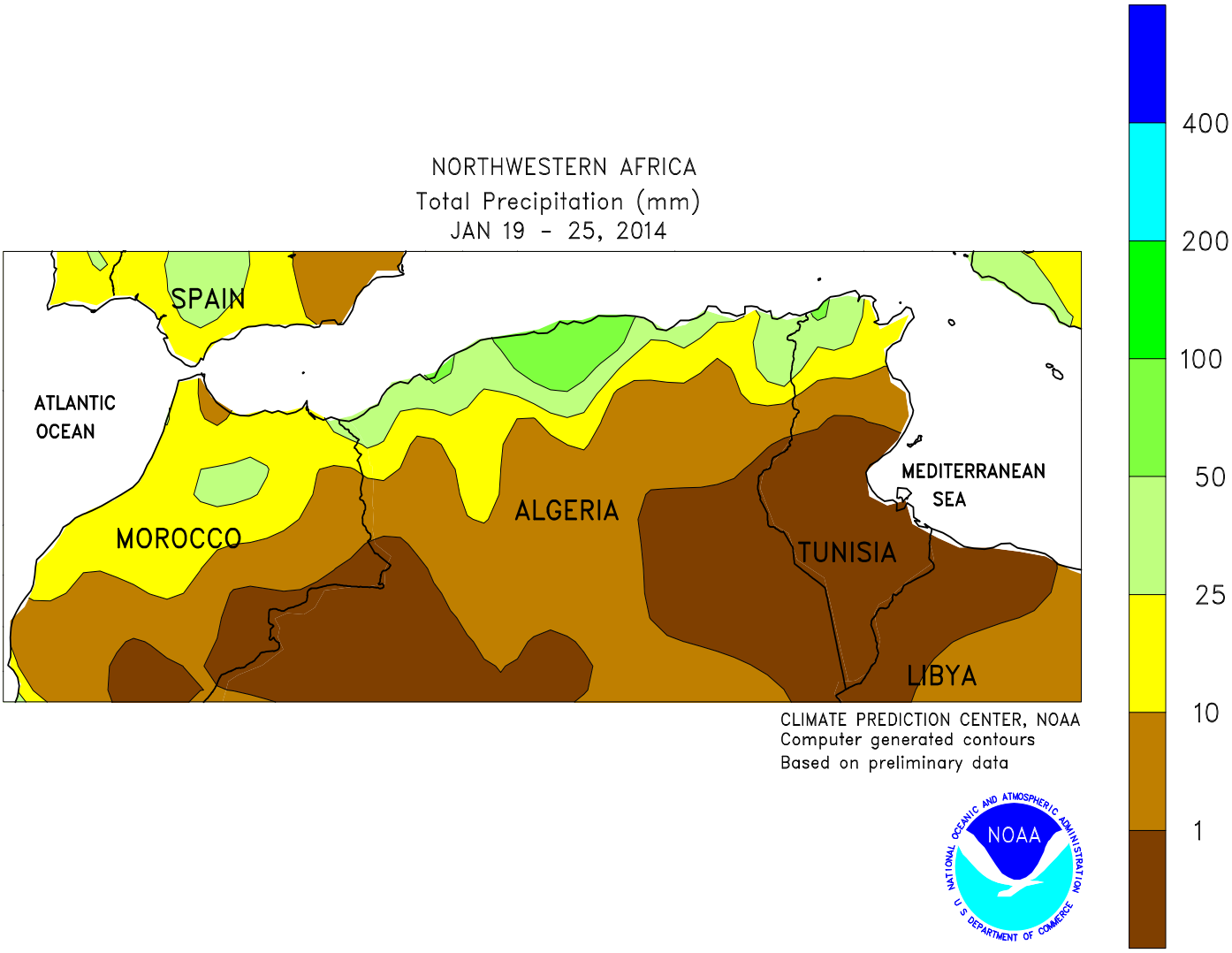
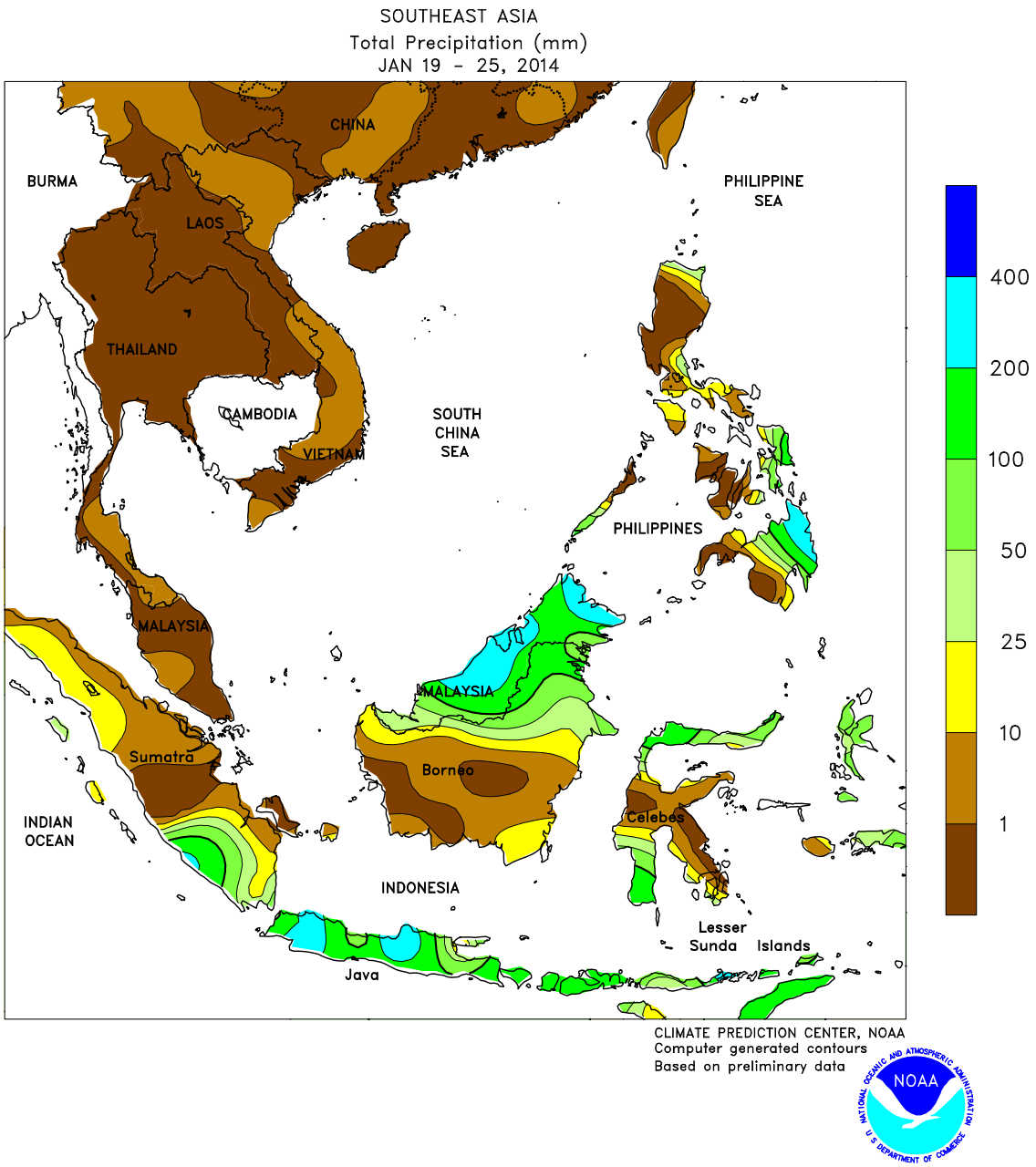


NORTHWESTERN AFRICA

Wet weather prevailed across the region, maintaining mostly favorable conditions for vegetative winter crops. In Morocco, 5 to 30 mm of rain sustained favorable moisture in the north and improved crop prospects in previously-dry southern portions of the country. Meanwhile, moderate to heavy showers (25-70 mm) lingered in Algeria and Tunisia, maintaining abundant to locally excessive soil moisture for vegetative wheat and barley.

For additional information contact: mbrusberg@oce.usda.gov



SOUTHEAST ASIA

Heavy monsoon showers maintained abundant moisture supplies for rice entering the latter stages of reproduction across Java, Indonesia. Eastern growing areas averaged 75 mm of rain for the week, while the central and western areas averaged nearly 200 mm. At the same time, local reports of over 300 mm of rain in the west exacerbated periodic (since mid-December) flooding. In neighboring oil palm areas of Indonesia and Peninsular Malaysia, generally dry conditions facilitated harvesting, while upwards of 300 mm of rain in Malaysian Borneo caused coastal flooding and delayed oil palm harvesting. Meanwhile, heavy showers (200-300 mm) in the southern Philippines maintained localized flooding in minor corn producing areas. Farther north, mostly sunny weather benefited rice development and seasonal fieldwork. In Vietnam, winter-spring rice transplanting was nearly complete, with the earliest planted crop nearing reproduction. Seasonably warm, sunny weather aided rice development in both the Mekong and Red River Deltas, as water supplies entering the winter were above normal in the north and slightly below normal in the south.

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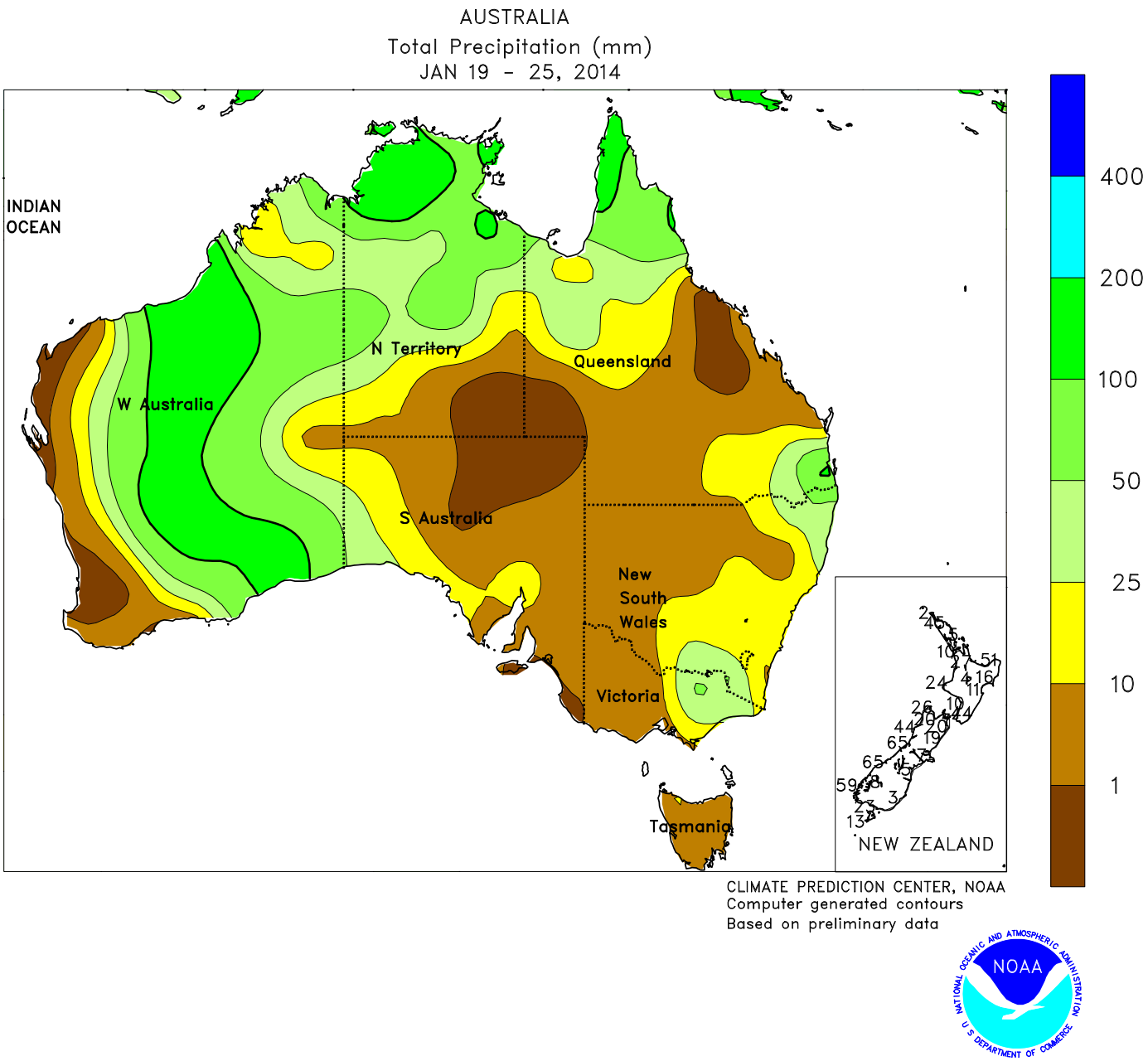
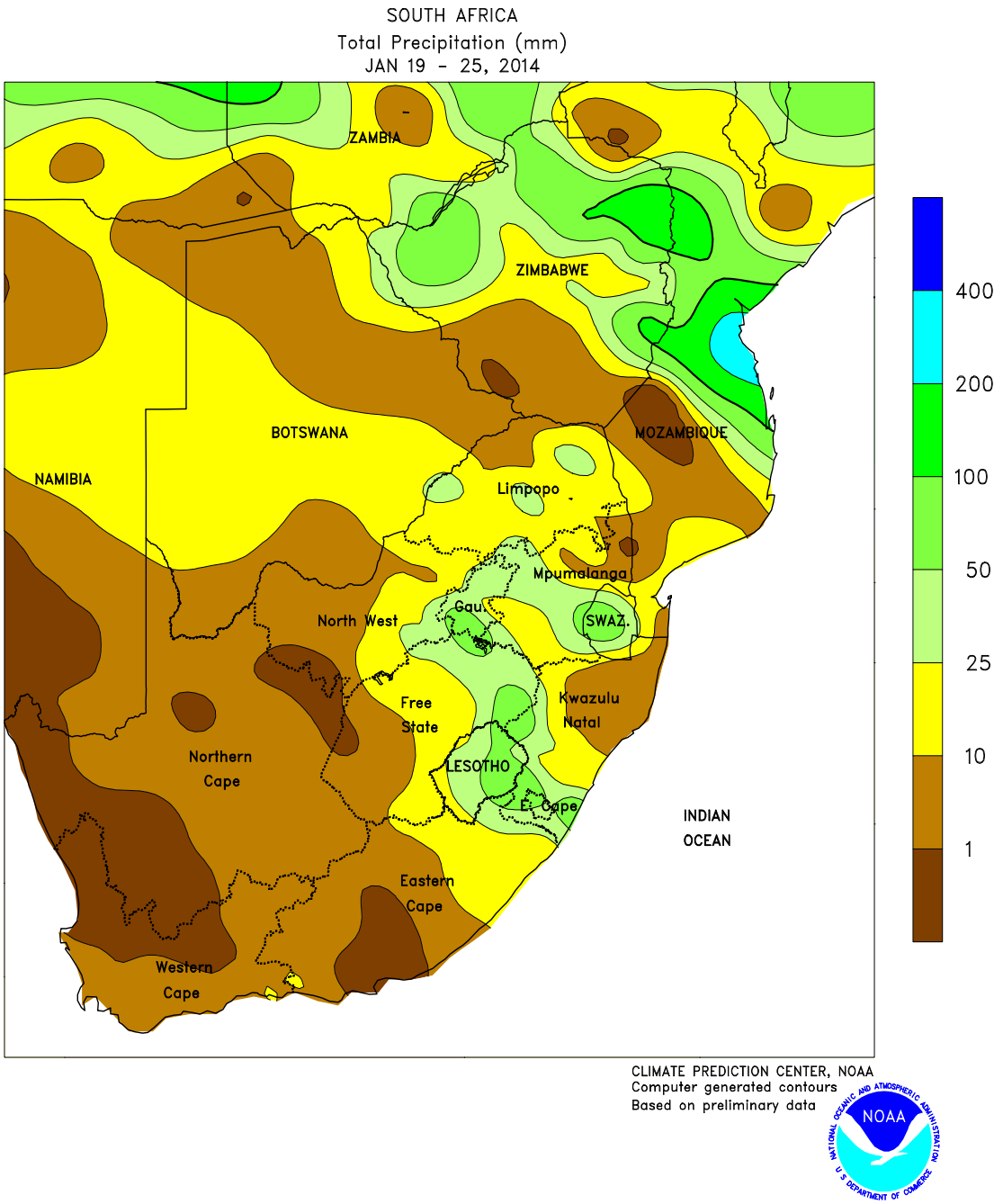


AUSTRALIA

During the first half of the week, very hot weather overspread northern New South Wales and southern Queensland, combining with persistent dryness to reduce summer crop prospects. Daily maximum temperatures ranged from the upper 30s to lower 40s degrees C in major summer crop areas, stressing cotton and sorghum. During the latter half of the week, widespread showers (5-25 mm, locally near 40 mm) and more seasonable temperatures returned to the region, helping stabilize crop conditions. Although the showers have been beneficial, additional rainfall is needed to prevent further reductions in yield potential because of the recent heat and persistent dryness.

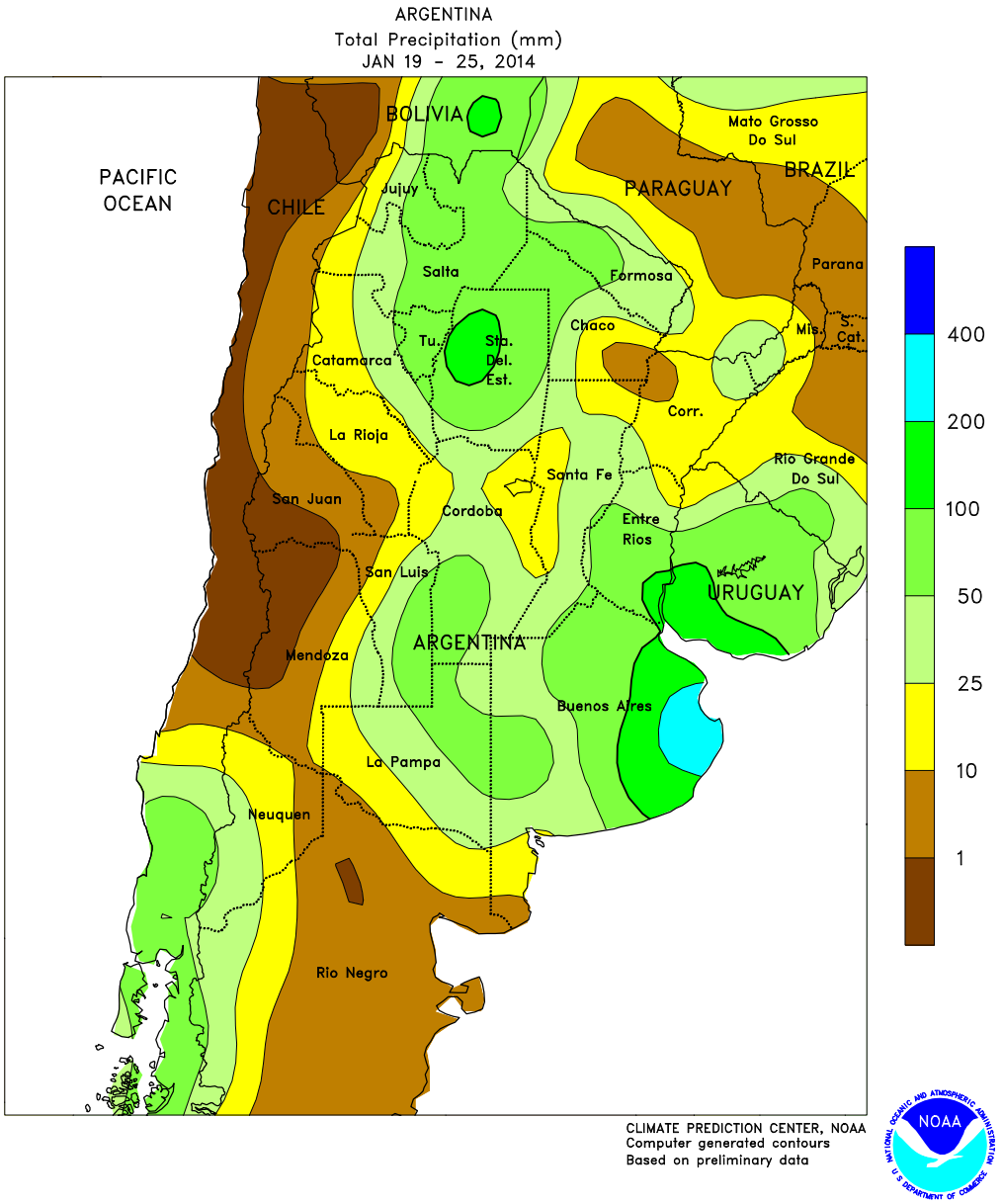
For additional information contact: mbrusberg@oce.usda.gov



SOUTH AFRICA

Beneficial rain returned to key commercial farming areas, providing timely moisture for summer crops advancing through reproduction. Rainfall totaled 10 to 50 mm throughout most of the corn belt (North West and Free State to Mpumalanga), with isolated amounts approaching 100 mm. Similar amounts were recorded in southern sections of KwaZulu-Natal, benefiting rain-fed sugarcane. Although the rainfall temporarily lowered temperatures to seasonable levels, weekly temperatures averaged 1 to 2°C above normal; unseasonable warmth returned at week's end, with daytime highs reaching the middle 30s (degrees C) in western production areas, maintaining high evapotranspiration rates. Meanwhile, warm, mostly dry weather dominated the Cape Provinces, spurring growth of irrigated summer row crops. Light showers (less than 10 mm) were recorded in coastal areas of Western Cape but drier, hotter conditions (daytime highs approaching 40°C) supported rapid development — and early harvesting — of interior tree and vine crops.

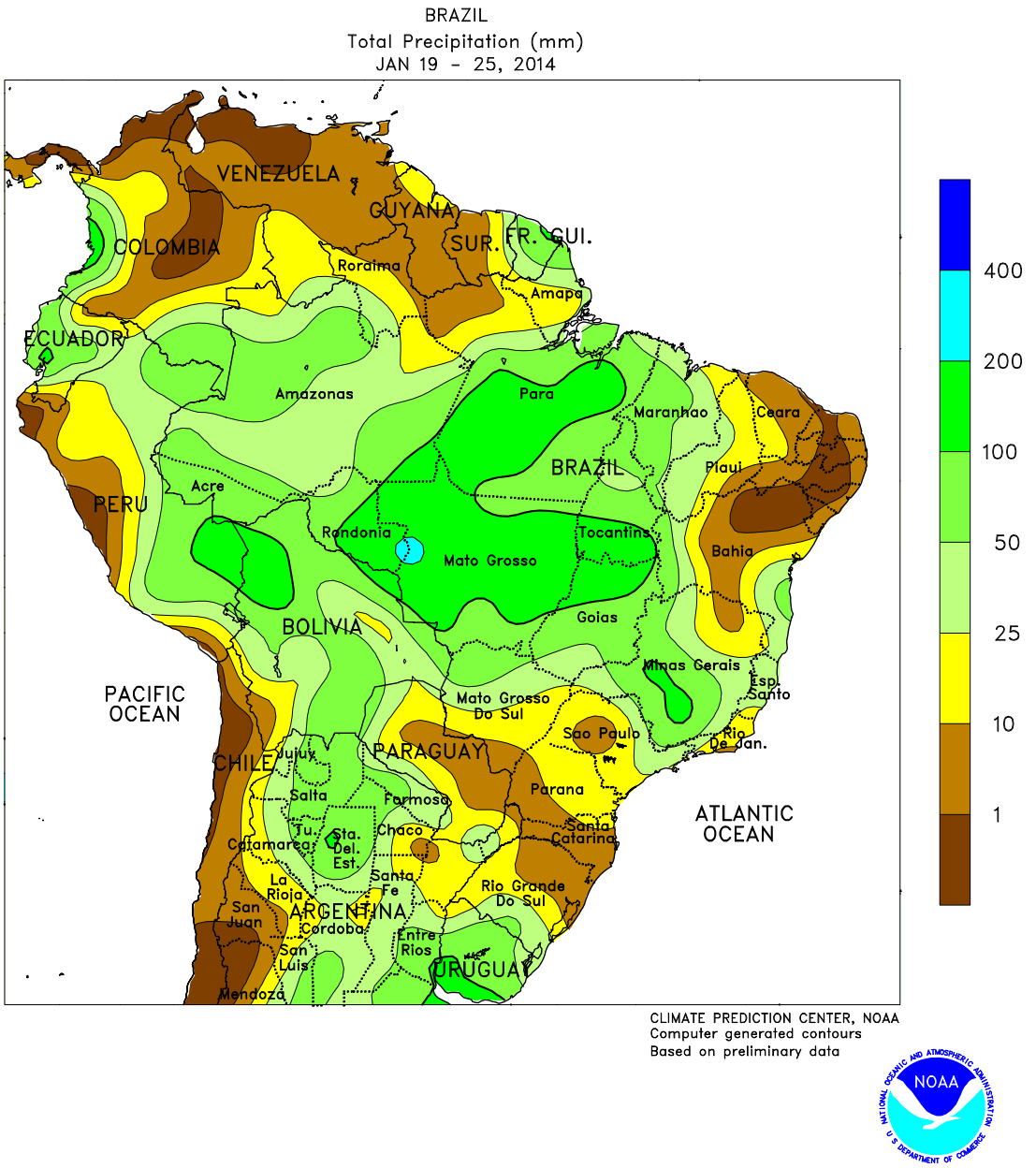
For additional information contact: mbrusberg@oce.usda.gov



ARGENTINA

After several weeks of stressful conditions, rain overspread the region, lowering temperatures to seasonable levels and helping to stabilize the condition of vegetative to filling summer crops. Rainfall totaled more than 25 mm throughout high-yielding corn and soybean areas of central Argentina (southern Cordoba to northeastern Buenos Aires), with highest amounts (greater than 100 mm) concentrated over the eastern third of Buenos Aires. Weekly temperatures averaged 1 to 3°C above normal in these areas, owing mainly to several days of stressful heat (daytime highs of 37-40°C) before the onset of the rain. In fact, daytime highs of 25°C or lower (nighttime lows below 10°C) were recorded at week's end upon the passage of the cold front that brought the rainfall. Farther north (notably Santiago del Estero and Salto to Corrientes), rain fell at the beginning and the end of the week, while the latter moisture arrived with the strong cold front that soaked the south. Daytime highs reached the upper 30s and lower 40s (degrees C) during the dry period in between events, resulting in weekly temperatures averaging 2 to 4°C above normal. A continuation of rainy weather and seasonable temperatures is vital for normal development of summer grains, oilseeds, and cotton for the remainder of the growing season to prevent further declines in yield potential. According to Argentina's Ministry of Agriculture, corn and soybeans were 93 and 97 percent planted, respectively, as of January 23, similar to last year's pace.

For additional information contact: mbrusberg@oce.usda.gov



BRAZIL

Showers intensified in primary summer crop areas of central and northeastern Brazil, but unseasonable warmth and dryness developed in the south. Rainfall totaled 50 to 100 mm — with locally higher amounts — from Mato Grosso to western Bahia, improving prospects for soybeans, cotton, and other summer crops following several weeks of sporadic rainfall. Rainfall also increased in key coffee production areas along the southeastern coast (Rio Grande do Sul, Espirito Santo, and southern Bahia), but seasonable warmth and dryness continued along the northeastern coast, spurring growth of irrigated sugarcane and cocoa. The rainfall was especially welcome in the vicinity of western Bahia, which had been trending drier than normal since late December. Weekly temperatures were near normal across the region, although daytime highs occasionally reached the middle 30s (degrees C), maintaining high crop moisture demands and losses to evaporation. Elsewhere, unseasonable warmth and dryness developed in the south (Mato Grosso do Sul and Sao Paulo to Rio Grande do Sul), reducing moisture for immature corn and soybeans. Weekly temperatures averaged up to 3°C above normal (daytime highs reaching in the lower and middle 30s), and rainfall totaled below 25 mm, even though cooler, wetter conditions had developed at week's end. Rain will be needed in these areas soon to ensure normal development of corn, soybeans, and other crops advancing through reproduction.

For additional information contact: mbrusberg@oce.usda.gov

Unseasonable Warmth Plagues Argentine Summer Crops

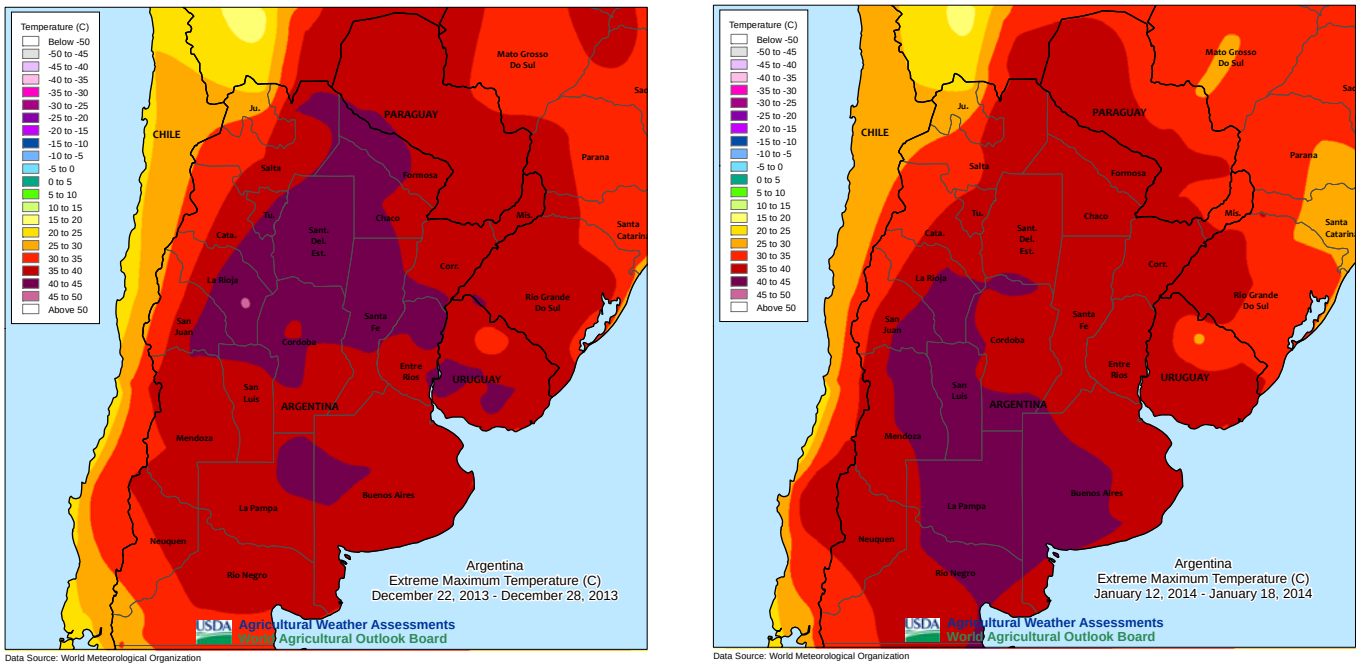


Figure 1 Weekly (7-day) maximum temperatures (°C) for the periods ending December 28, 2013, and January 18, 2014 (Data source: World Meteorological Organization).

Prior to this week's arrival of much-needed rainfall (see page 30 of this week's *Weekly Weather and Crop Bulletin* for more details), above-normal temperatures dominated Argentina's primary agricultural areas for much of the growing season, fostering rapid development of summer grains, oilseeds, and cotton but sustaining high moisture losses through evapotranspiration. In fact, daytime highs have reached stressful levels on several occasions, negatively impacting early-planted corn advancing through reproduction. As depicted in Figure 1, daytime highs reached the upper 30s to lower 40s (degrees C) on several occasions, most notably in late December and mid-January. As a result of the early stress, which lowered the yield potential for at least a portion of the corn crop, USDA lowered the official forecast for Argentine corn in the January 10 release of the World Agricultural Supply and Demand Estimates report. Conditions were also blamed for delays in summer crop planting.

This season already ranks as one of the warmest on record. As seen in Figure 2, temperatures averaged over the period from December 1 to January 26 are the highest since at least the early 1980s in major farming areas of central Argentina. This region — stretching from Cordoba to northern Buenos Aires — is representative of some the country's highest yielding farming areas (Figure 3), reflecting its importance to national production of grains and oilseeds. Other regions, including Argentina's northern cotton areas and the southern wheat belt (La Pampa and southern Buenos Aires) show a similar pattern to that experienced in central Argentina.

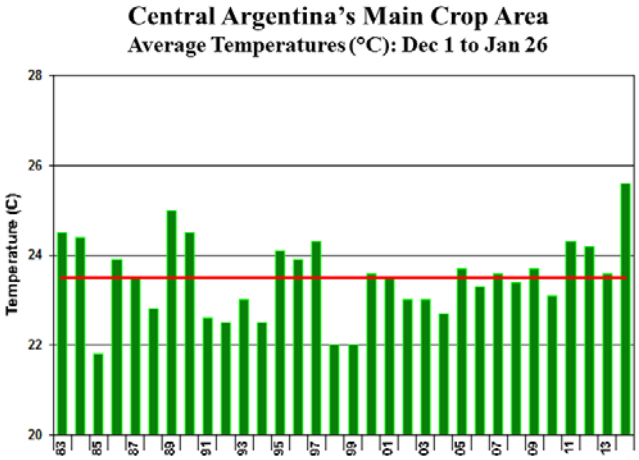


Figure 2 Historical depiction of average temperatures (°C) in Argentina's main summer production areas (Data Source: WMO).

Similar conditions were observed during the 2011/12 growing season, although in that year, unseasonable heat lingered through the early part of February, compounding stress on summer crops (Figure 4). In addition, rainfall this season has been higher than that recorded in 2011/12, helping to mitigate the impact of the heat in some areas (Figure 5). Seasonable levels of rainfall will be needed for the remainder of the growing season as more crops — including soybeans — enter reproductive phases of development, which typically occur through March for later-planted varieties.

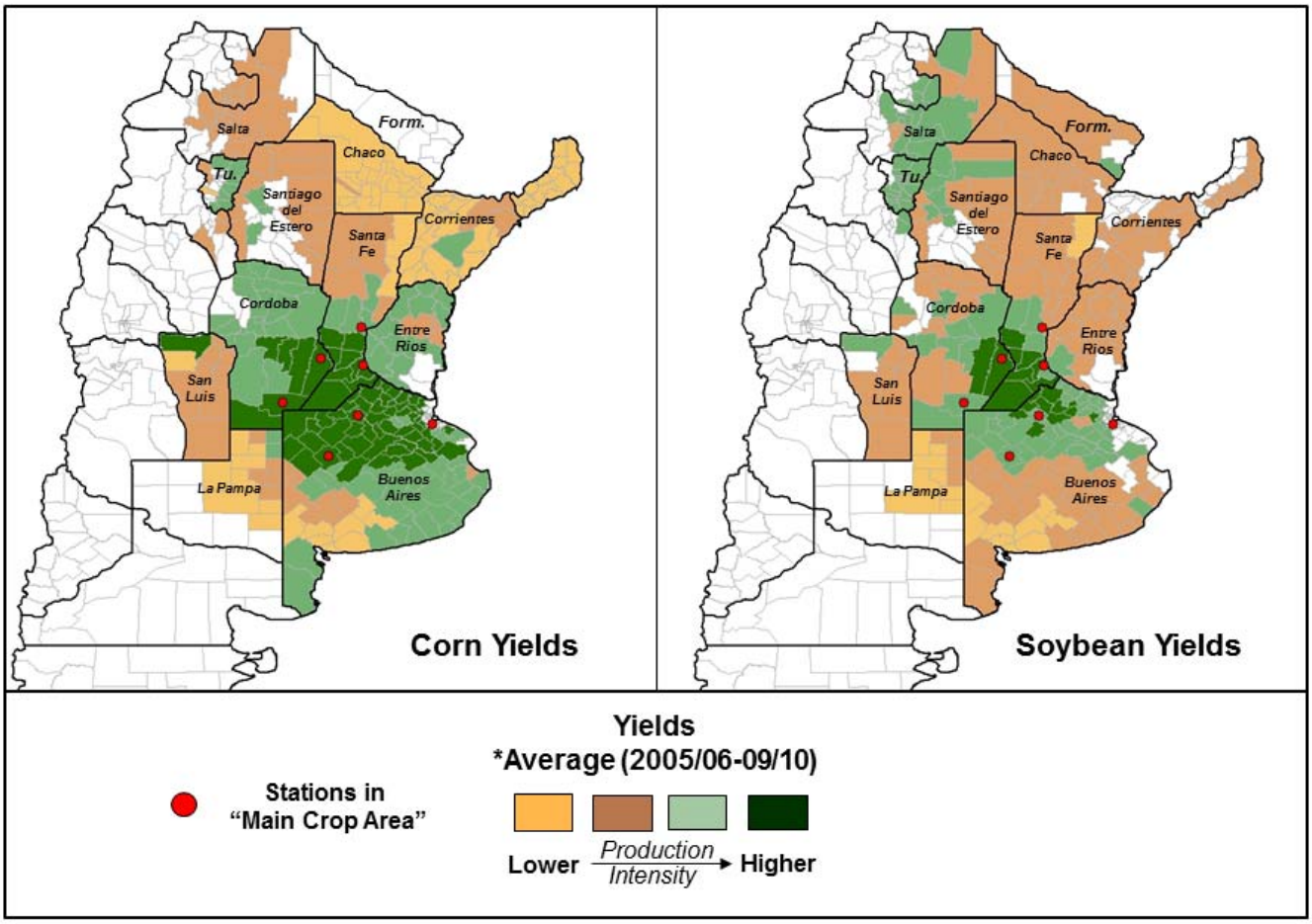


Figure 3 Depiction of corn and soybean yields (Source: The Agriculture Ministry of Argentina) with location of WMO stations plotted in the highest yielding farming areas.

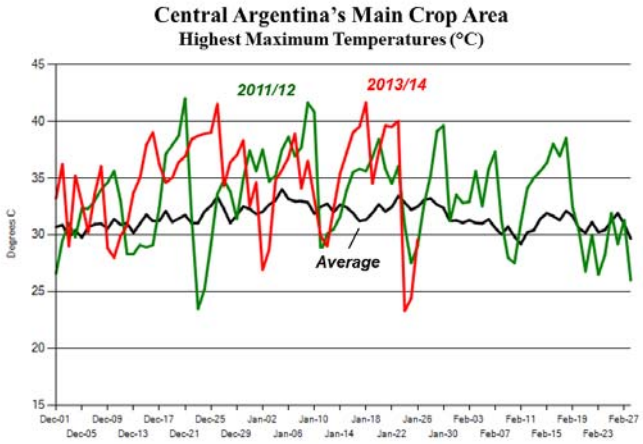


Figure 4 Seasonal comparison of highest maximum temperatures (°C) (Data Source: WMO).

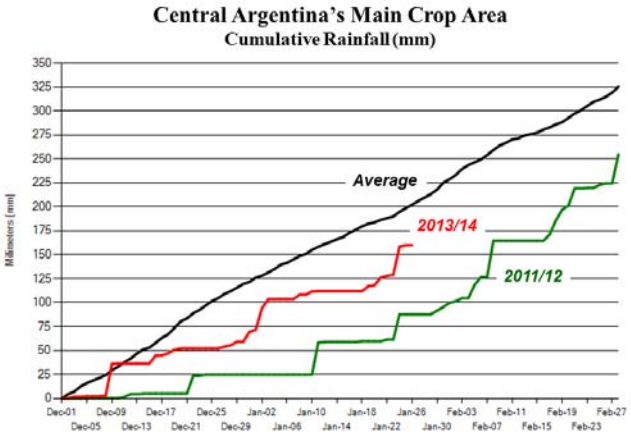
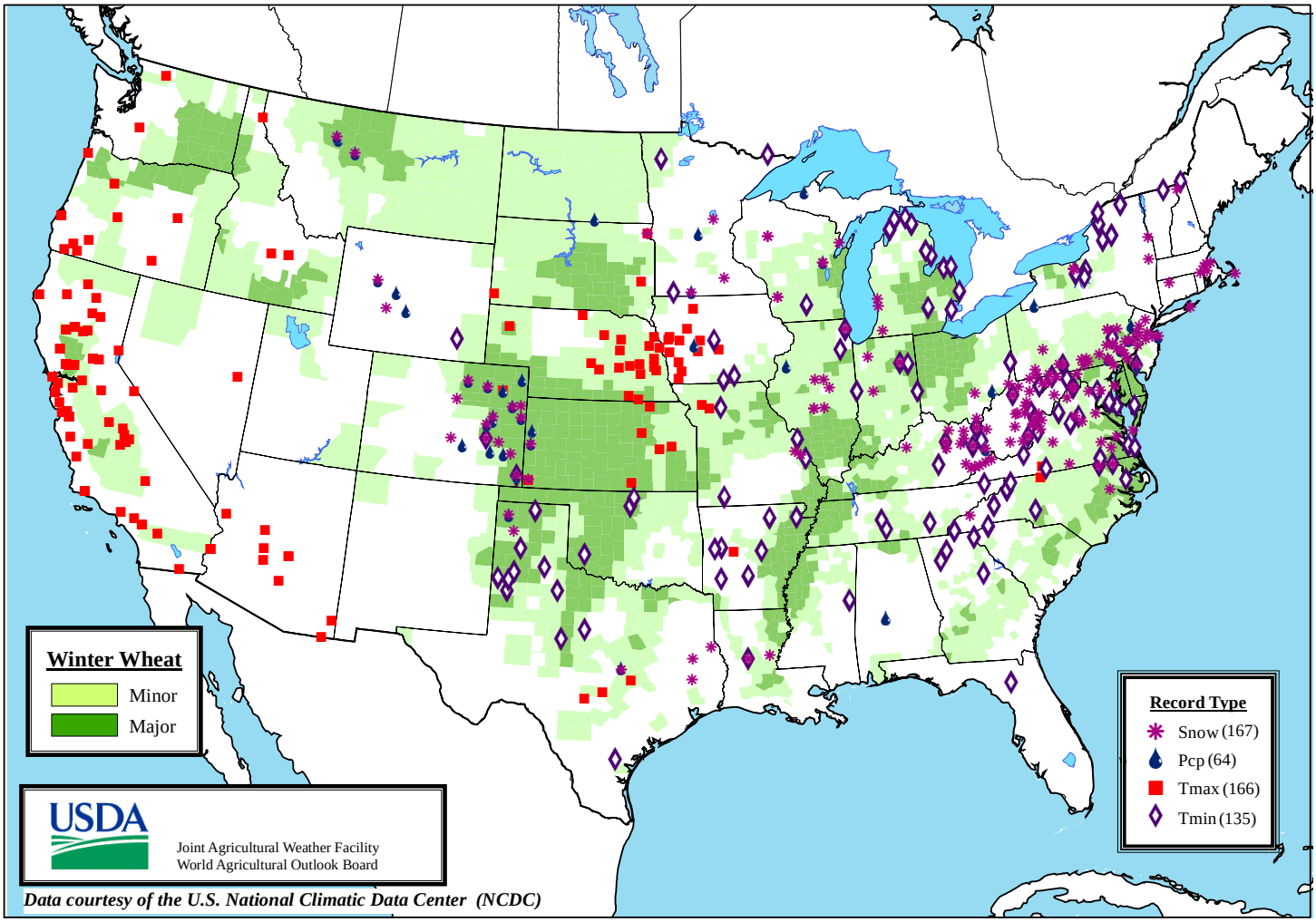


Figure 5 Seasonal comparison of cumulative rainfall (mm) (Data Source: WMO).

Daily Weather Records (ASOS & COOP)

January 19-25, 2014



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Correspondence to the meteorologists should be directed to:
***Weekly Weather and Crop Bulletin*, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 4443B, Washington, DC 20250.**
Internet URL: **http://www.usda.gov/oce/weather**
E-mail address: ***brippey@oce.usda.gov***

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