

WEEKLY WEATHER AND CROP BULLETIN

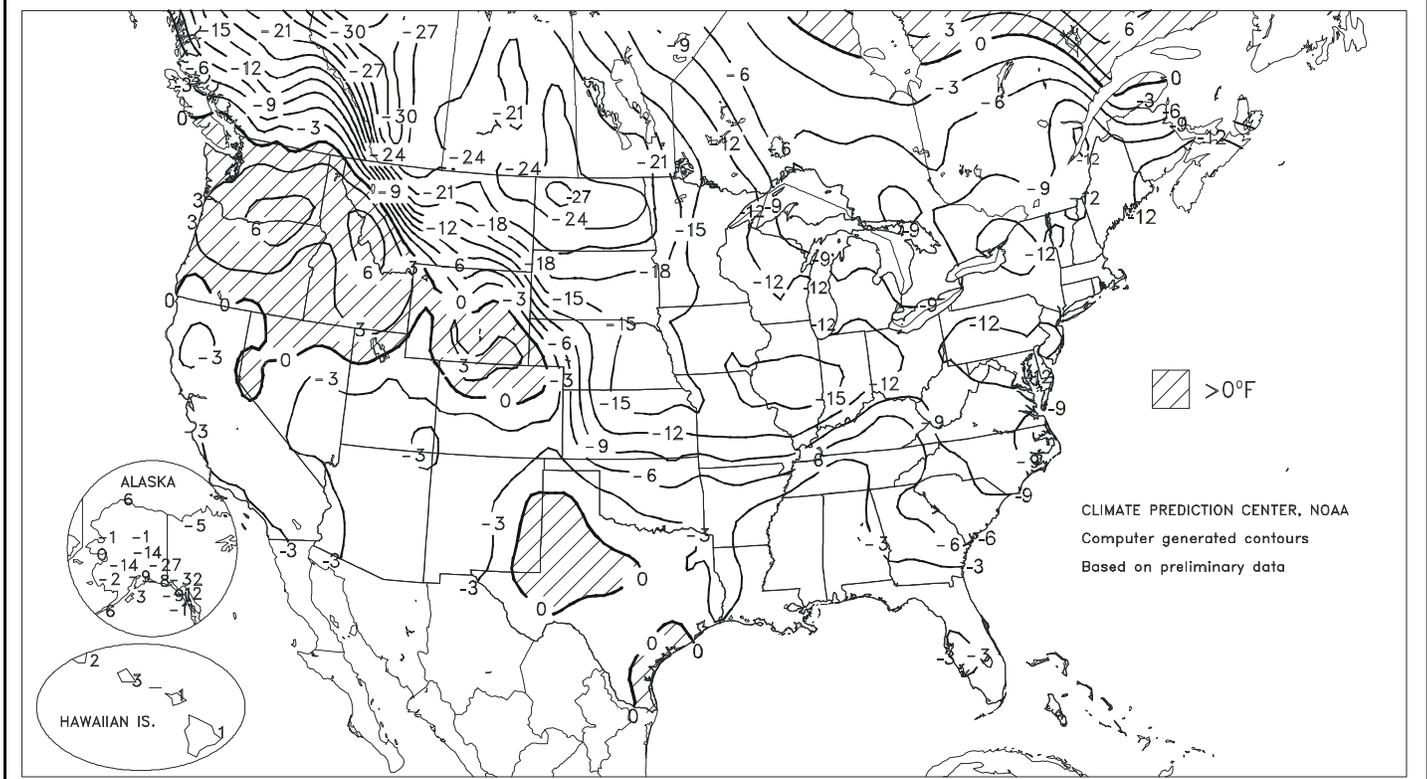
U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

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



Departure of Average Temperature from Normal (°F)

JAN 25 - 31, 2004



HIGHLIGHTS

January 25 - 31, 2004

Highlights provided by USDA/WAOB

Bitterly cold air made its strongest push of the season across the **northern Plains** and the **Midwest**, holding weekly temperatures 10 to 30°F below normal and lowering readings to near -40°F in the **Red River Valley** and adjacent areas. In fact, low temperatures in much of **Minnesota** and **North Dakota** ranged from -40 to -20°F on 4 consecutive mornings, severely stressing livestock and disrupting daily activities. Farther east, extremely cold weather persisted for a fourth consecutive week from the **lower Great Lakes region into the Northeast**, where temperatures averaged as much as 15°F below normal. Snow and ice accumulations accompanied the cold weather

(Continued on page 5)

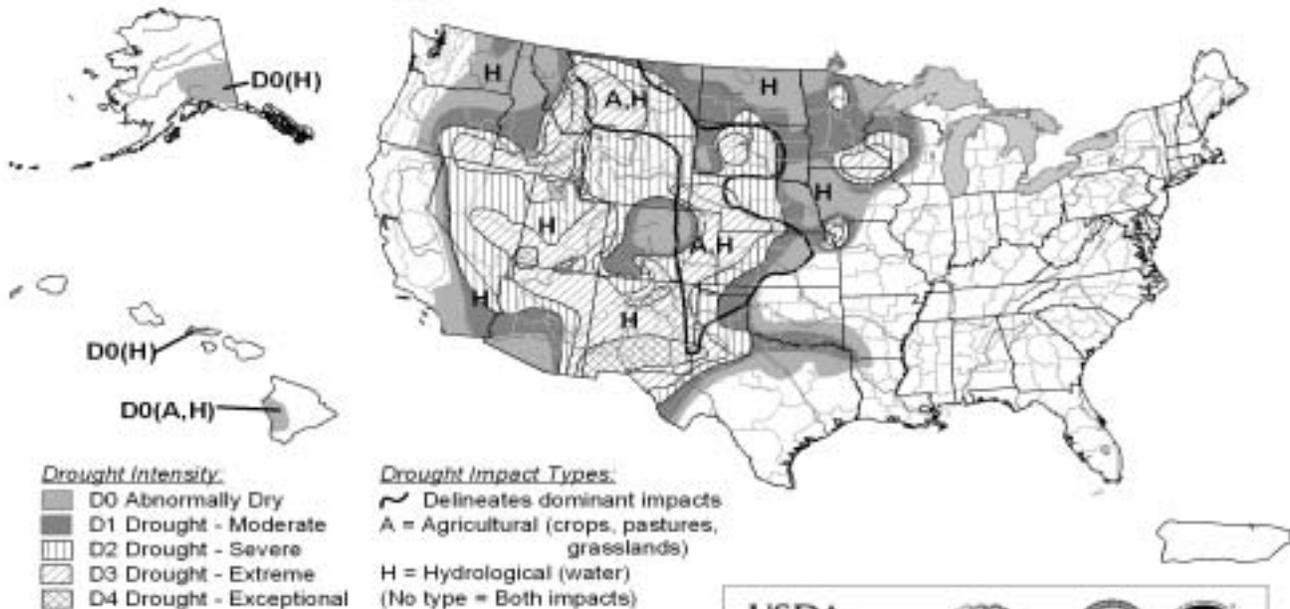
Contents

January 27 Drought Monitor & U.S. Seasonal Drought Outlook	2
Weather Data for Mississippi & the Missouri Bootheel & Cold Weather in the Central High Plains' Wheat Areas	3
Extreme Maximum & Minimum Temperature Maps	4
Total Precipitation Map	5
National Weather Data for Selected Cities	6
National Agricultural Summary & Snow Cover Map	9
January State Agricultural Summaries	10
International Weather and Crop Summary & January Temperature/Precipitation Table	14
Subscription Information	20

U.S. Drought Monitor

January 27, 2004

Valid 7 a.m. EST



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

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



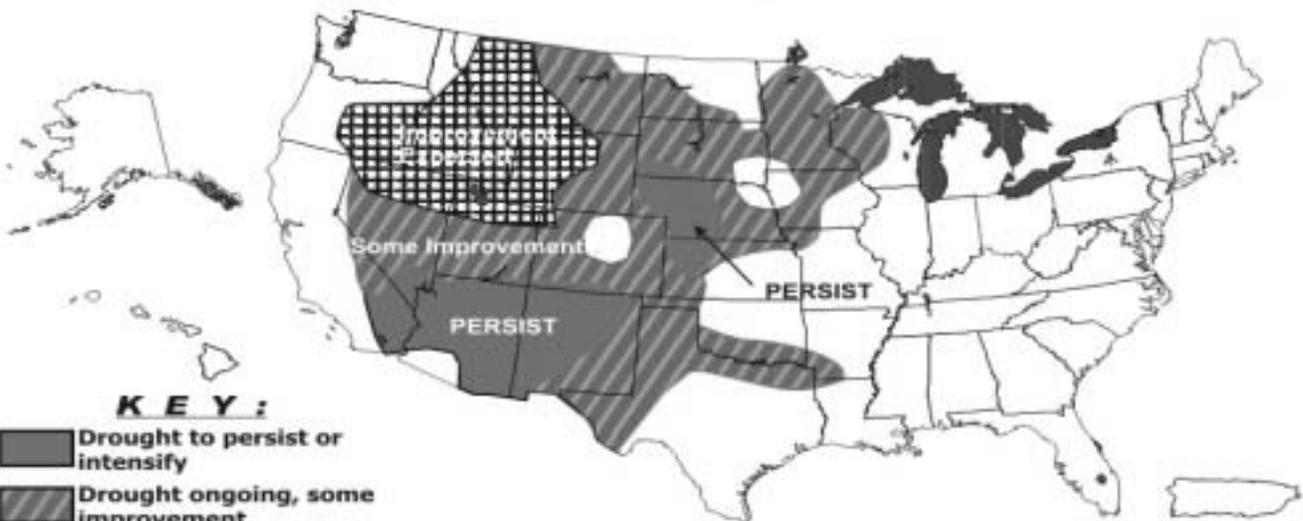
Released Thursday, January 29, 2004

Author: Mark Svoboda, NDMC



U. S. Seasonal Drought Outlook Through April 2004

Released January 15, 2004



Depicts general, large-scale trends based on subjectively derived probabilities guided by numerous indicators, including short and long-range statistical and dynamical forecasts. Short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance, so use caution if using this outlook for applications – such as crops – that can be affected by such events. "Ongoing" drought areas are schematically approximated from the Drought Monitor (D1 to D4). For weekly drought updates, see the latest Drought Monitor map and text.

Weather Data for Mississippi and the Missouri Bootheel

Weather Data for the Week Ending January 31, 2004

Data provided by the Mississippi State Delta Research and Extension Center (DREC),
the Southern Regional Climate Center (SRCC), and the University of Missouri.

STATES AND STATIONS	TEMPERATURE °F							PRECIPITATION							4-INCH SOIL TEMP. °F		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE 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	TEMP. °F		PRECIP
																		01 INCH OR MORE	50 INCH OR MORE	
MS INDIANOLA 1S	53	33	69	25	43	-	1.02	-	1.01	6.57	-	3.61	-	49	45	0	5	2	1	
MS INVERNESS 5E	54	34	70	25	44	-	1.14	-	1.14	5.93	-	3.52	-	52	41	0	5	1	1	
MS LYON	52	31	70	22	41	-	0.62	-	0.62	5.99	-	3.61	-	48	42	0	5	1	1	
MS MACON	57	33	74	23	45	-	0.40	-	0.40	6.53	-	2.94	-	51	44	0	5	1	0	
MS ONWARD	54	33	72	24	44	-	1.36	-	1.19	7.49	-	4.23	-	52	45	0	5	3	1	
MS PERTHSHIRE	52	31	71	22	41	-	0.66	-	0.65	6.82	-	4.01	-	48	41	0	5	2	1	
MS SCOTT	52	33	72	24	42	-	0.85	-	0.82	7.45	-	4.28	-	47	43	0	5	3	1	
MS SIDON	56	34	72	25	45	-	1.12	-	1.12	6.91	-	4.17	-	53	41	0	5	1	1	
MS STARKVILLE	56	32	71	20	44	3	0.50	-0.83	0.50	5.28	67	2.57	93	51	42	0	5	1	1	
MS TUNICA 1W	50	28	67	18	39	-	1.07	-	1.05	7.12	-	4.74	-	47	41	0	5	3	1	
MS VANCE	51	30	67	21	40	-	0.72	-	0.72	7.20	-	4.32	-	47	43	0	5	1	1	
MS VERONA	54	31	70	20	42	-	0.62	-	0.62	5.42	-	2.67	-	50	40	0	5	1	1	
MS STONEVILLE X	53	34	71	23	44	3	2.26	1.00	2.24	6.90	85	3.59	133	52	43	0	5	2	1	
MO DELTA	29	16	34	7	23	-11	0.74	-0.03	0.52	4.27	57	2.29	73	33	32	0	7	2	1	
MO STEELE	38	23	47	15	30	-7	1.01	0.37	0.91	6.03	71	3.18	90	38	35	0	6	3	1	
MO GLENNONVILLE	34	20	41	12	27	-9	0.41	-0.16	0.39	4.53	64	1.87	62	36	35	0	6	2	0	
MO PORTAGEVILLE LF	36	21	45	13	28	-8	0.99	0.44	0.97	5.32	69	2.89	89	37	34	0	6	3	1	
MO CLARKTON	35	20	44	11	27	-9	0.55	-0.02	0.52	4.82	68	2.06	68	36	35	0	6	2	1	
MO CARDWELL	37	23	47	15	30	-7	0.72	0.09	0.65	5.86	72	2.80	83	39	36	0	6	3	1	
MO CHARLESTON	34	18	44	9	26	-8	0.52	-0.05	0.51	5.14	69	2.38	79	35	33	0	7	2	1	
MO PORTAGEVILLE DC	36	21	43	12	28	-9	0.70	0.15	0.70	5.38	70	3.26	101	37	34	0	6	1	1	

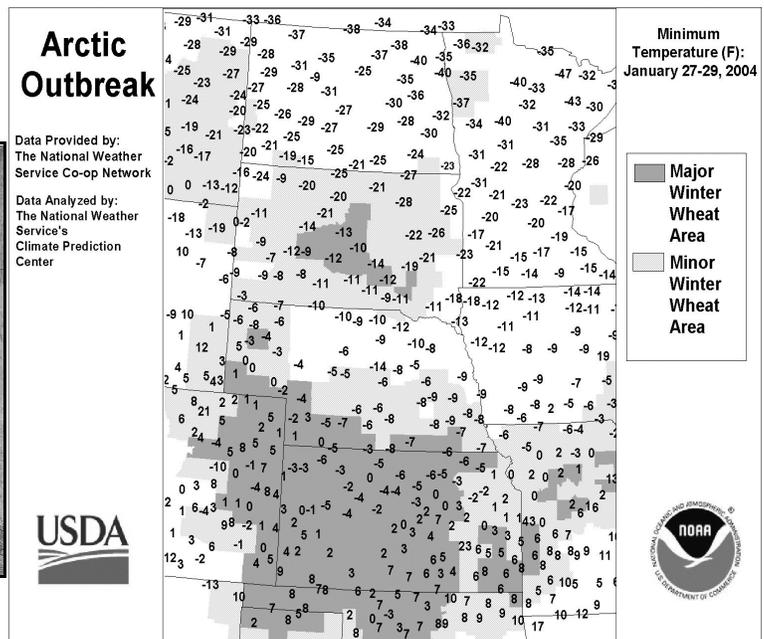
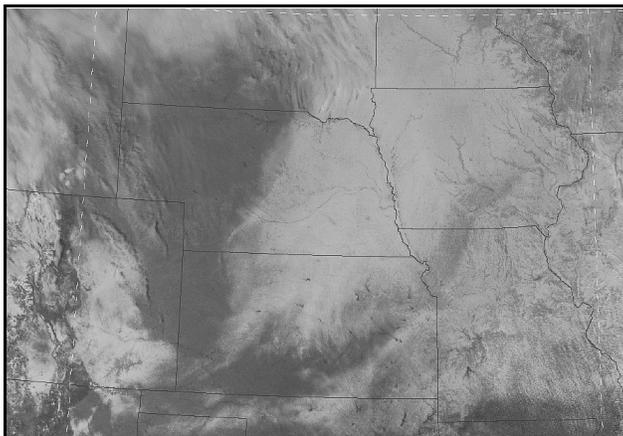
Compiled by USDA/OCE/WAOB's Stoneville Field Office. X Based on 1971-2000 normals. - Sufficient data not available.

Weather and Crop Summary: Early in the week, temperatures fell as much as 20 to 30°F in a 24-hour period. The Missouri Bootheel remained in a cold, polar regime throughout the week, while Mississippi saw a return to mild weather by week's end. Late-week rainfall was heavier in Mississippi, totaling at least 1 to 2 inches in several locations. To date, there have been no adverse reports regarding pastures and winter wheat.

Cold Weather in the Central High Plains' Wheat Areas

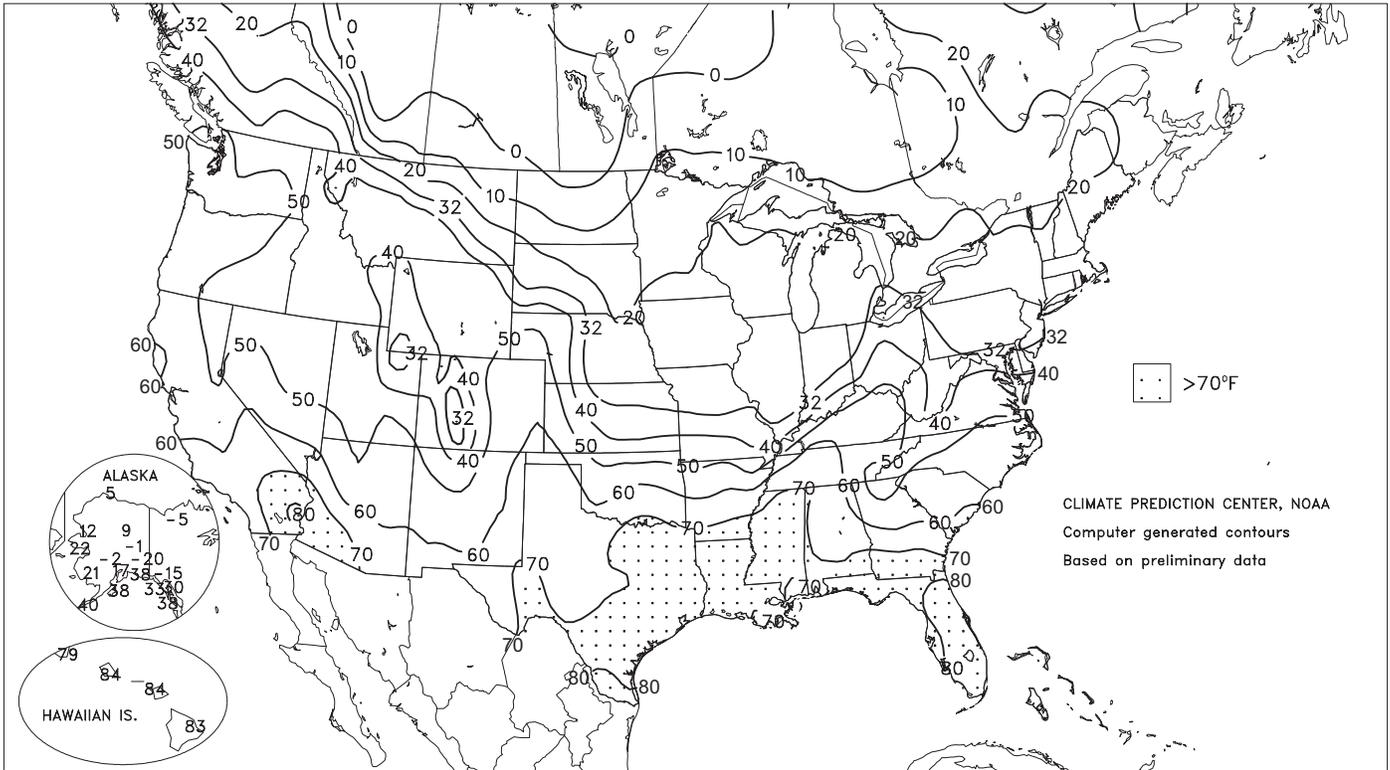
Although temperatures on the central High Plains were not as low as those observed farther north and east (-40°F), some winter wheat on the central High Plains was exposed to readings near -5°F on January 27 and 28. Prior to the cold air's arrival, snow blanketed much of the northern and eastern Plains, as shown in the satellite image below. Although the central High Plains' cold outbreak was short-lived, the region continues to suffer from sub-soil moisture shortages. In addition, most of the central High Plains' wheat crop remains poorly established and susceptible to winter weather extremes.

**GOES-East Satellite Enhanced Visible
January 27, 2004 at 19 GMT (1 pm CST)**



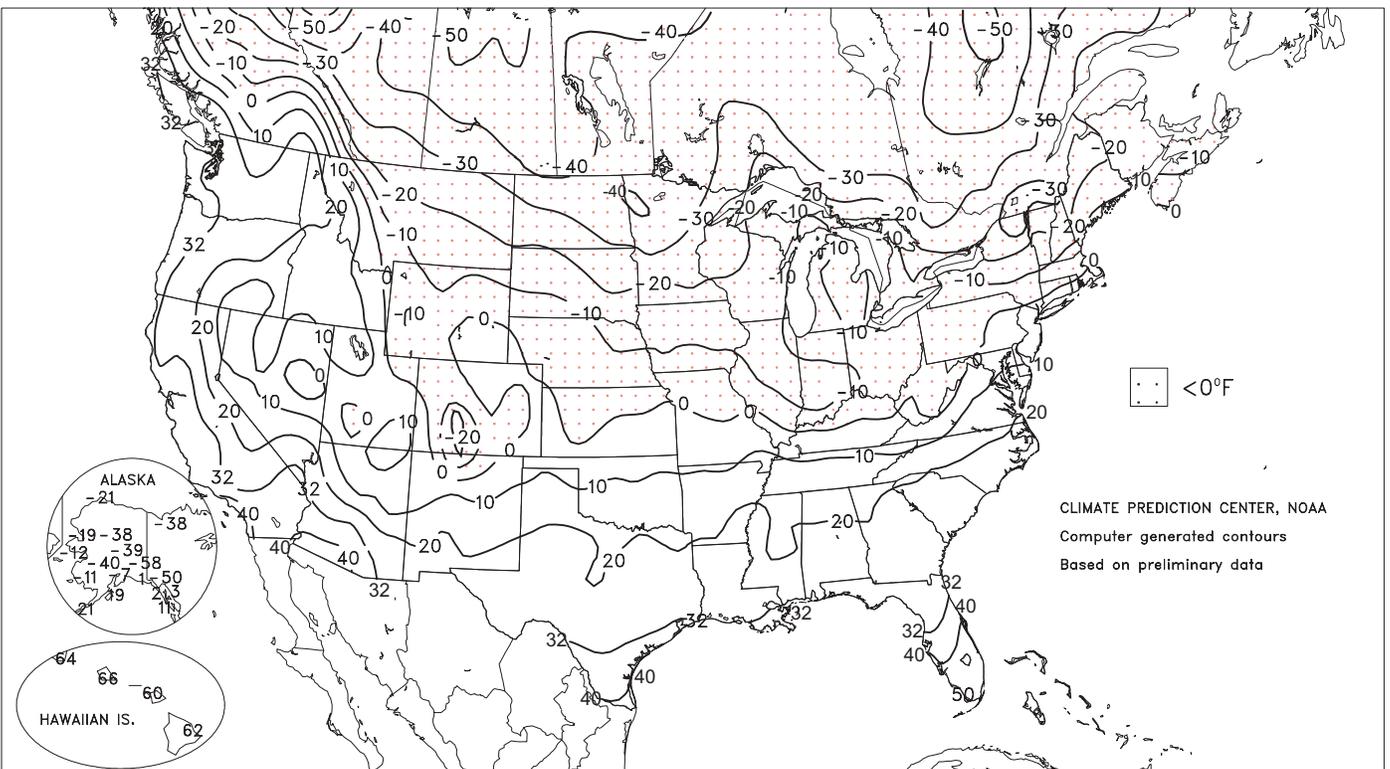
Extreme Maximum Temperature (°F)

JAN 25 - 31, 2004



Extreme Minimum Temperature (°F)

JAN 25 - 31, 2004



east of the Appalachians, especially in the Mid-Atlantic States, while locally heavy snow squalls blanketed areas downwind of the unfrozen parts of the Great Lakes. Meanwhile, winter agricultural regions of southern Texas and peninsular Florida escaped much of the cold weather, although scattered frost and near-freezing temperatures were reported as far south as central Florida on January 29. Prior to the cool air's arrival, rain aided pastures and winter grains in the Southeast. Toward month's end, beneficial rainfall returned to parts of the South, boosting weekly rainfall above 2 inches in parts of the central Gulf Coast States and Florida. Elsewhere, temperatures on the central High Plains were not nearly as low as those observed farther north and east. Nevertheless, some winter wheat on the central High Plains was exposed to readings near -5°F on January 27 and 28. Before the cold air arrived, snow blanketed much of the northern and east-central Plains. Although the central High Plains' cold outbreak was short-lived, the region continued to suffer from sub-soil moisture shortages and a poorly established wheat crop. In contrast, mild weather melted much of the snow cover at low elevations in the Northwest. Nevertheless, prospects for Northwestern winter grains continued to improve due to significant increases in soil moisture since autumn. West of the Cascades, however, heavy rain and melting snow caused some river flooding. Mostly dry weather prevailed elsewhere from the Rockies westward, maintaining concerns about low reservoir levels in the Southwest and Intermountain West.

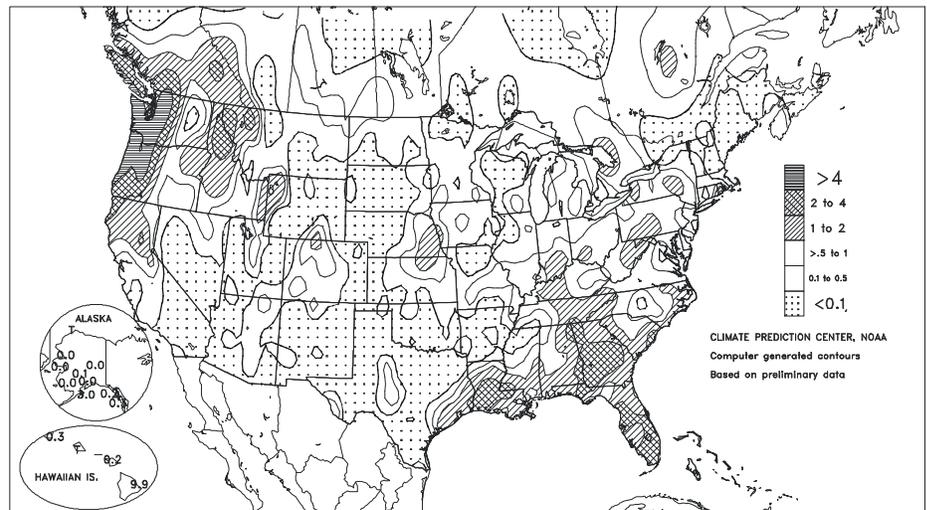
On January 25, the minimum of -7°F in Cleveland, OH, was its lowest temperature since February 4, 1996, when it was -10°F. In Michigan, Flint's January 25 minimum of -16°F was its lowest reading since February 10, 1994, when it was -19°F. Farther south and west, moisture overran the cold air, resulting in daily-record precipitation totals for January 25 in Nashville, TN (1.38 inches), and Hastings, NE (0.58 inch, in the form of snow, sleet, and freezing rain). In addition, daily-record snowfall totals for January 25 included 8.6 inches in Sioux City, IA, and 4.0 inches in Asheville, NC. East of the Appalachians, ice accumulations were especially severe in the southern mid-Atlantic region. In contrast, mild weather prevailed in Florida, where daily records included 82°F (on January 26) in Jacksonville and 84°F (on January 27) in West Palm Beach. Later in the week, cooler air and locally heavy showers arrived in Florida. Apalachicola, FL, noted a daily-record low (28°F) on January 29, followed by consecutive daily-record totals on January 31 and February 1 in Florida locations such as Vero Beach (1.23 and 1.24 inches) and Fort Lauderdale (1.16 and 3.62 inches).

Meanwhile, extremely cold air reached the northern Plains by January 27, resulting in daily-record lows in locations such as Grand Forks, ND (-31°F), and Sisseton, SD (-21°F). The chill continued to intensify, producing three more record lows in Grand Forks from January 28-30 (-37, -39, and -43°F, respectively). Sisseton also noted another daily-record low, -25°F on January 30. Grand Forks' January 30 low also set a monthly and all-time record (previously, -40°F on February 1, 1996) for the airport site. Cold air spread eastward at month's end, producing daily-record lows on January 31 in locations such as Lincoln, IL (-14°F), Cincinnati, OH (-12°F), Indianapolis, IN (-11°F), and Elkins, WV (-11°F).

Occasional snow accompanied the northern Plains' bitterly cold weather. In North Dakota, Williston received 7.8 inches of snow in a 24-hour period on January 30-31. In addition, Williston netted daily-record totals on January 24 (5.6 inches), 25 (2.8 inches), and 27 (4.3 inches), contributing to its second-highest January snowfall on record (25.4 inches, behind only 28.3 inches in 1999). The last 8 days of the month featured 24.6 inches of snow in Glasgow, MT, capping the city's snowiest January on record (32.9 inches; previously, 28.8 inches in 1916). Glasgow also set a record for its greatest seasonal snowfall

Total Precipitation (Inches)

JAN 25 - 31, 2004



(61.1 inches through January 31 (61.6 inches; previously, 60.9 inches in 1951-52). Farther south, however, season-to-date snowfall totals through January were as low as 10.4 inches in Denver, CO, and 8.9 inches in Kansas City, MO. Season-to-date snowfall was somewhat higher in the upper Midwest, including Minnesota totals of 22.7 inches in Rochester and 36.2 inches in Minneapolis. Those totals represented a significant improvement from the 2002-03 upper Midwestern "snow drought," when snowfall through January was 9.7 inches in Rochester and 10.1 inches in Minneapolis.

Meanwhile, lake-enhanced snowfall persisted downwind of the Great Lakes. Duluth, MN, received 26.1 inches on January 25-26, contributing to its second-snowiest January on record (42.3 inches) behind 46.8 inches in 1969. Farther east, January snowfall records were established in locations such as Gaylord, MI (74.0 inches; previously, 64.0 inches in 1971), and Rochester, NY (61.3 inches; previously, 60.4 inches in 1978). Gaylord also experienced its snowiest month, breaking the November 1893 record of 68.0 inches. Snow squalls were especially intense downwind of Lake Ontario, where Parish (Oswego County), NY, received 86 inches from January 28-31. Parish's snowfall was especially heavy on January 29, when 1 foot fell in just 90 minutes. Nearby Minetto, NY, recorded 67 inches during the last 4 days of the month in the wake of a 26-inch accumulation from January 22-24. Farther west, Northwestern weekly rainfall included 6.23 inches in Astoria, OR, and 3.81 inches in Olympia, WA. Much of the rain fell on January 28-29, totaling 4.72 inches in Astoria and 2.76 inches in Olympia.

Hawaii's most impressive rains fell across the Big Island on January 25-26 and 28-29. The first event featured 24-hour rainfall totaling 7.15 inches in Mountain View and 6.79 inches in Piihonua. Mountain View netted another 4.47 inches on January 28-29. Elsewhere on the Big Island, Hilo's 4.96-inch total in 24 hours on January 25-26 boosted its monthly rainfall to 12.21 inches (125 percent of normal). Nearly all of Hilo's rain, 11.34 inches, fell during the last 13 days of January. The January 25-26 event also dumped heavy rain farther west, where 24-hour totals included 2.99 inches at Maui's Hana Airport and 3.67 inches in Kamalo, Molokai. Meanwhile, weekly temperatures ranged from 6°F above normal in far northern and southwestern parts of Alaska to more than 20°F below normal across the southeastern interior part of the State, where the month ended on a bitterly cold note. January 31 Alaskan lows included -55°F in Tok and -49°F in Northway. January also ended on a dry note in Alaska, leaving monthly totals as low as 0.04 inch (6 percent of normal) in Bethel and 0.25 inch (24 percent) in King Salmon. Above-normal January precipitation was confined to the southern fringe of Alaska, where Juneau netted 5.89 inches (122 percent of normal), including 34.2 inches of snow (118 percent).

National Weather Data for Selected Cities

Weather Data for the Week Ending January 31, 2004

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

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE		50 INCH OR MORE	
																		0.1 INCH OR MORE	50 INCH OR MORE		
AL	BIRMINGHAM	54	31	63	20	42	-1	0.95	-0.21	0.95	6.07	61	2.78	51	89	47	0	5	1	1	
	HUNTSVILLE	50	28	66	18	39	-1	1.18	0.01	1.17	6.23	56	3.07	56	83	65	0	5	2	1	
	MOBILE	60	41	72	26	50	0	1.07	-0.23	0.60	7.24	70	3.45	60	77	53	0	3	3	1	
	MONTGOMERY	56	35	69	21	46	-1	0.75	-0.45	0.56	6.56	66	2.62	52	91	52	0	4	2	1	
AK	ANCHORAGE	12	2	17	-7	7	-9	0.00	-0.14	0.00	2.41	139	0.31	46	61	48	0	7	0	0	
	BARROW	-2	-14	5	-21	-8	6	0.01	-0.02	0.01	0.17	71	0.09	75	79	76	0	7	1	0	
	FAIRBANKS	-12	-35	-1	-39	-24	-15	0.00	-0.08	0.00	0.44	34	0.00	0	***	***	0	7	0	0	
	JUNEAU	18	10	30	3	14	-12	0.04	-0.96	0.04	11.89	116	5.96	124	57	51	0	7	1	0	
	KODIAK	36	29	38	19	32	2	3.03	1.31	1.19	17.46	110	7.23	88	91	82	0	7	6	3	
	NOME	12	0	22	-12	6	0	0.00	-0.19	0.00	1.45	75	0.24	26	60	45	0	7	0	0	
AZ	FLAGSTAFF	39	14	47	1	27	-4	0.10	-0.43	0.06	1.76	44	0.84	39	88	37	0	7	2	0	
	PHOENIX	63	43	68	38	53	-2	0.21	0.07	0.21	1.03	59	0.84	101	70	48	0	0	1	0	
	TUCSON	61	37	67	33	49	-4	0.04	-0.15	0.04	1.00	50	0.83	84	81	52	0	0	1	0	
	YUMA	69	47	72	42	58	-2	0.00	-0.06	0.00	0.38	48	0.38	100	56	43	0	0	0	0	
AR	FORT SMITH	44	25	54	15	34	-5	0.47	-0.05	0.45	4.71	82	2.87	121	89	62	0	6	2	0	
	LITTLE ROCK	49	26	68	19	37	-4	0.22	-0.58	0.22	7.30	88	3.31	92	85	44	0	6	1	0	
CA	BAKERSFIELD	57	43	62	37	50	0	0.05	-0.23	0.02	1.89	97	0.59	50	84	72	0	0	3	0	
	FRESNO	54	40	58	36	47	-1	0.14	-0.36	0.12	3.25	93	0.30	14	94	80	0	0	3	0	
	LOS ANGELES	62	48	64	46	55	-2	0.01	-0.74	0.01	1.65	35	0.49	16	96	70	0	0	1	0	
	REDDING	51	33	57	30	42	-5	0.83	-0.67	0.65	14.56	130	2.74	42	95	82	0	4	3	1	
	SACRAMENTO	54	41	57	36	48	0	0.30	-0.64	0.29	6.41	102	2.15	56	98	60	0	0	2	0	
	SAN DIEGO	62	51	64	48	57	-1	0.26	-0.26	0.16	1.00	28	0.39	17	91	74	0	0	3	0	
	SAN FRANCISCO	55	45	57	40	50	-1	0.09	-0.98	0.05	9.49	129	3.06	69	89	79	0	0	2	0	
	STOCKTON	***	***	***	***	***	***	***	***	***	4.72	104	***	***	***	***	***	***	***	***	***
CO	ALAMOSA	31	-6	38	-15	13	-4	0.00	-0.03	0.00	0.07	12	0.02	8	78	56	0	7	0	0	
	CO SPRINGS	41	16	51	3	28	-1	0.01	-0.02	0.01	0.36	51	0.30	107	86	33	0	7	1	0	
	DENVER INTL	44	18	54	4	31	2	0.13	0.13	0.08	0.28	52	0.16	70	73	37	0	7	2	0	
	GRAND JUNCTION	33	15	39	5	24	-4	0.11	0.01	0.10	1.28	114	0.73	122	84	65	0	7	2	0	
	PUEBLO	44	12	57	-8	28	-3	0.17	0.14	0.13	0.48	67	0.43	130	87	64	0	7	2	0	
CT	BRIDGEPORT	24	13	31	2	19	-11	0.26	-0.52	0.17	5.00	69	1.72	46	66	43	0	7	2	0	
	HARTFORD	23	9	29	-2	16	-10	0.26	-0.55	0.17	5.22	70	1.31	34	68	50	0	7	2	0	
DC	WASHINGTON	29	17	40	14	23	-12	0.47	-0.18	0.28	5.70	91	1.38	43	79	49	0	7	3	0	
DE	WILMINGTON	24	14	29	4	19	-12	0.33	-0.37	0.19	6.15	90	1.34	39	81	53	0	7	3	0	
FL	DAYTONA BEACH	70	47	81	34	58	0	0.87	0.19	0.50	2.87	49	1.32	42	97	47	0	0	3	1	
	JACKSONVILLE	66	39	82	23	52	-1	1.41	0.56	1.32	2.91	46	1.71	46	93	39	0	2	3	1	
	KEY WEST	75	63	81	57	69	-1	1.83	1.38	0.88	3.54	81	2.51	113	87	70	0	0	3	2	
	MIAMI	75	57	84	50	66	-2	1.72	1.26	0.95	4.03	99	2.78	148	92	62	0	0	3	2	
	ORLANDO	71	47	82	37	59	-2	1.84	1.30	1.06	4.79	101	3.23	133	94	49	0	0	3	2	
	PENSACOLA	60	43	74	28	51	-1	0.27	-0.93	0.18	5.19	56	1.56	29	87	56	0	1	3	0	
	TALLAHASSEE	62	39	72	23	51	-1	3.07	1.92	3.06	5.71	60	3.70	69	90	49	0	2	2	1	
	TAMPA	68	49	75	36	59	-2	1.69	1.14	0.93	5.07	111	3.77	166	93	54	0	0	3	2	
	WEST PALM	75	55	84	48	65	-1	1.52	0.66	0.68	6.33	92	2.07	55	95	62	0	0	3	2	
GA	ATHENS	47	27	55	23	37	-6	1.43	0.36	1.38	4.84	58	2.54	54	78	56	0	6	2	1	
	ATLANTA	48	29	54	24	38	-5	1.52	0.33	1.49	5.55	63	2.86	57	79	61	0	5	2	1	
	AUGUSTA	49	27	59	19	38	-7	2.04	1.01	1.56	4.47	59	2.45	54	90	60	0	7	3	1	
	COLUMBUS	54	33	63	24	44	-3	1.52	0.46	0.82	5.80	63	2.87	60	86	47	0	2	2	2	
	MACON	54	31	59	22	42	-4	3.39	2.23	2.81	9.16	103	4.30	86	87	49	0	3	3	2	
	SAVANNAH	54	34	60	24	44	-6	0.49	-0.37	0.30	2.54	38	1.06	27	86	53	0	3	3	0	
HI	HILO	79	65	83	62	72	1	9.89	7.64	4.84	23.03	114	12.98	133	89	79	0	0	6	5	
	HONOLULU	82	70	84	66	76	3	0.03	-0.55	0.03	11.75	211	6.94	254	79	68	0	0	1	0	
	KAHULUI	81	65	84	60	73	2	0.16	-0.61	0.09	9.35	137	6.63	177	87	73	0	0	3	0	
	LIHUE	79	69	79	64	74	2	0.30	-0.63	0.17	9.76	104	6.74	147	84	79	0	0	5	0	
ID	BOISE	39	29	47	19	34	2	0.97	0.67	0.54	3.54	128	1.92	138	83	71	0	5	4	1	
	LEWISTON	49	37	54	33	43	8	0.38	0.13	0.19	2.76	126	0.97	85	76	56	0	0	4	0	
	POCATELLO	34	24	43	11	29	3	0.08	-0.15	0.04	1.19	53	0.22	19	84	74	0	6	4	0	
IL	CHICAGO/O'HARE	15	4	24	-9	9	-14	0.00	-0.39	0.00	1.78	43	0.12	7	80	63	0	7	0	0	
	MOLINE	14	4	23	-6	9	-13	0.22	-0.08	0.15	3.48	92	0.70	44	72	60	0	7	3	0	
	PEORIA	15	3	23	-10	9	-14	0.21	-0.10	0.18	2.33	60	0.69	46	81	61	0	7	2	0	
	ROCKFORD	13	1	23	-12	7	-13	0.08	-0.22	0.04	3.67	106	0.44	31	75	64	0	7	3	0	
	SPRINGFIELD	17	2	25	-14	9	-17	0.19	-0.12	0.07	2.89	69	1.41	87	82	66	0	7	5	0	
IN	EVANSVILLE	28	13	34	-5	20	-11	0.24	-0.43	0.11	3.22	50	2.02	69	88	69	0	7	4	0	
	FORT WAYNE	17	4	25	-6	10	-14	0.32	-0.12	0.17	4.51	94	1.89	92	88	71	0	7	4	0	
	INDIANAPOLIS	20	5	31	-11	12	-15	0.27	-0.25	0.16	7.44	135	4.01	162	90	65	0	7	4	0	
	SOUTH BEND	15	6	25	-2	11	-13	0.30	-0.17	0.17	2.37	44	0.67	30	83	70	0	7	5	0	
IA	BURLINGTON	14	1	23	-10	8	-16	0.00	-0.28	0.00	4.60	135	0.28	21	85	59	0	7	0	0	
	CEDAR RAPIDS	13	-1	26	-12	6	-13	0.06	-0.16	0.06	2.27	90	0.47	45	81	59	0	7	1	0	
	DES MOINES	12	0	27	-8	6	-15	0.03	-0.21	0.02	1.59	67	0.70	68	75	63	0	7	2	0	
	DUBUQUE	12	-2	23	-13	5	-13	0.07	-0.22	0.06	1.85	62	0.18	14	75	64	0	7	2	0	
	SIOUX CITY	8	-2	21	-12	3	-17	0.62	0.52	0.46	0.89	71	0.66	112	79	68	0	7	4	0	
	WATERLOO	11	-4	27	-15	3	-14	0.12	-0.07	0.12	0.75	38	0.21	25	72	64	0	7	1	0	
KS	CONCORDIA	19	2	31	-7	11	-17	0.65	0.56	0.61	1.47	97	0.69	105	83	76	0	7	2	1	
	DODGE CITY	33	9	44	1	21	-10	0.04	-0.05	0.04	0.54	39	0.04	6	89	65	0	7	1	0	
	GOODLAND	38	8	58	1	23	-6	0.03	-0.03	0.02	0.60	72	0.04	9	85	69	0	7	2	0	
	TOPEKA	20	8	31	0	14	-14	0.48	0.29	0.39	3.25	137	0.89	94	83	77	0	7	2	0	

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending January 31, 2004

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE
KY WICHITA	29	14	38	6	21	-10	0.19	0.08	0.19	2.70	123	1.81	215	92	76	0	6	1	0
KY JACKSON	41	18	63	1	30	-4	0.56	-0.23	0.38	8.04	103	4.25	119	90	51	0	6	3	0
KY LEXINGTON	35	13	55	-6	24	-8	0.33	-0.36	0.18	7.03	95	3.14	94	86	67	0	6	4	0
KY LOUISVILLE	33	15	45	-1	24	-9	0.37	-0.35	0.27	6.41	92	3.28	100	85	58	0	7	4	0
KY PADUCAH	34	17	48	6	26	-8	0.76	-0.09	0.63	5.29	67	3.09	89	93	60	0	7	3	1
LA BATON ROUGE	61	38	75	24	50	0	2.29	0.86	1.52	6.42	56	3.76	61	96	47	0	3	3	2
LA LAKE CHARLES	60	40	75	25	50	-1	2.80	1.65	1.38	10.02	99	6.54	118	91	53	0	1	3	3
LA NEW ORLEANS	59	44	71	33	52	-1	1.08	-0.39	0.58	4.97	45	3.01	51	81	64	0	0	3	1
LA SHREVEPORT	55	33	72	21	44	-3	0.20	-0.85	0.17	8.02	88	4.41	96	84	47	0	3	2	0
ME CARIBOU	7	-7	16	-19	0	-9	0.00	-0.58	0.00	6.02	98	0.94	32	75	57	0	7	0	0
ME PORTLAND	22	3	27	-7	13	-9	0.00	-0.86	0.00	3.94	47	0.22	5	64	30	0	7	0	0
MD BALTIMORE	27	14	36	8	20	-12	0.56	-0.17	0.34	6.15	90	1.43	41	80	59	0	7	3	0
MA BOSTON	24	13	28	1	18	-11	0.05	-0.82	0.05	6.05	79	0.99	25	53	30	0	7	1	0
MA WORCESTER	19	7	23	-6	13	-10	0.00	-0.85	0.00	5.42	69	0.86	21	67	36	0	7	0	0
MI ALPENA	20	3	24	-18	11	-6	0.06	-0.29	0.06	2.13	59	0.74	42	85	62	0	7	1	0
MI GRAND RAPIDS	19	8	24	-3	13	-9	0.22	-0.21	0.22	1.81	38	0.58	29	86	64	0	7	1	0
MI HOUGHTON LAKE	17	-1	23	-14	8	-9	0.18	-0.15	0.14	2.47	74	1.27	79	84	70	0	7	3	0
MI LANSING	18	3	24	-16	10	-11	0.27	-0.09	0.24	2.35	62	0.93	58	86	73	0	7	3	0
MI MUSKEGON	19	10	24	-1	15	-8	0.35	-0.10	0.23	2.92	60	1.36	61	87	75	0	7	4	0
MI TRAVERSE CITY	18	7	21	-7	13	-7	0.26	-0.37	0.24	2.98	53	1.39	47	90	67	0	7	2	0
MN DULUTH	8	-12	17	-30	-2	-11	0.00	-0.26	0.00	0.54	26	0.00	0	80	70	0	7	0	0
MN INT'L FALLS	0	-24	9	-35	-12	-16	0.08	-0.11	0.06	1.05	68	0.67	80	80	64	0	7	2	0
MN MINNEAPOLIS	7	-7	20	-24	0	-14	0.18	-0.03	0.16	1.02	50	0.23	22	72	62	0	7	2	0
MN ROCHESTER	7	-8	20	-21	0	-13	0.00	-0.20	0.00	0.44	22	0.01	1	79	70	0	7	0	0
MN ST. CLOUD	4	-13	17	-31	-4	-14	0.29	0.12	0.20	0.61	42	0.33	43	82	66	0	7	2	0
MS JACKSON	59	32	74	19	45	0	1.38	0.14	1.34	7.57	69	4.24	75	92	37	0	5	3	1
MS MERIDIAN	57	30	69	20	44	-3	0.69	-0.64	0.63	5.70	51	3.07	52	88	51	0	5	3	1
MS TUPELO	53	30	69	18	41	0	0.72	-0.32	0.72	6.28	56	3.07	60	84	60	0	5	1	1
MO COLUMBIA	20	6	27	-1	13	-16	0.56	0.14	0.53	5.78	138	2.31	134	87	70	0	7	2	1
MO KANSAS CITY	19	7	28	-1	13	-15	0.14	-0.08	0.11	2.51	90	0.55	48	86	71	0	7	2	0
MO SAINT LOUIS	23	11	34	3	17	-14	0.50	0.03	0.45	6.32	126	3.97	186	78	61	0	7	3	0
MO SPRINGFIELD	32	13	46	6	22	-10	0.86	0.36	0.85	7.81	148	3.88	184	89	76	0	7	2	1
MT BILLINGS	28	0	51	-14	14	-11	0.10	-0.05	0.09	1.05	71	0.29	36	81	61	0	7	2	0
MT BUTTE	34	18	42	4	26	7	0.18	0.10	0.11	0.69	65	0.32	60	75	49	0	7	2	0
MT GLASGOW	-2	-17	7	-25	-10	-22	0.03	-0.03	0.02	0.69	96	0.16	46	79	74	0	7	2	0
MT GREAT FALLS	11	-9	45	-20	1	-22	0.01	-0.10	0.01	0.35	26	0.24	35	85	62	0	7	1	0
MT HAVRE	-2	-13	6	-22	-7	-23	0.09	0.02	0.06	0.44	45	0.20	43	80	73	0	7	3	0
MT KALISPELL	35	19	42	12	27	4	0.48	0.18	0.23	3.35	107	2.00	136	86	76	0	7	5	0
MT MISSOULA	38	26	43	18	32	7	0.22	0.03	0.16	1.53	69	0.67	63	86	70	0	6	3	0
NE GRAND ISLAND	13	-1	24	-10	6	-18	0.15	0.05	0.15	0.39	33	0.22	41	84	72	0	7	1	0
NE LINCOLN	12	-1	26	-8	6	-17	0.33	0.23	0.28	0.93	61	0.41	61	80	70	0	7	3	0
NE NORFOLK	10	-1	22	-11	5	-17	0.00	-0.11	0.00	0.21	17	0.00	0	78	70	0	7	0	0
NE NORTH PLATTE	25	3	40	-3	14	-11	0.00	-0.06	0.00	0.10	13	0.00	0	83	51	0	7	0	0
NE OMAHA	11	-1	24	-9	5	-18	0.68	0.53	0.37	1.96	116	1.12	145	80	66	0	7	2	0
NE SCOTTSBLUFF	42	14	55	1	28	2	0.00	-0.11	0.00	0.61	55	0.11	20	81	57	0	7	0	0
NE VALENTINE	21	0	43	-9	11	-11	0.00	-0.06	0.00	0.31	49	0.08	27	78	66	0	7	0	0
NV ELY	36	11	45	-3	24	-2	0.00	-0.15	0.00	1.20	97	0.01	1	82	63	0	7	0	0
NV LAS VEGAS	56	38	62	31	47	-2	0.01	-0.13	0.01	0.97	98	0.01	2	64	42	0	1	1	0
NV RENO	46	28	58	19	37	2	0.02	-0.23	0.02	2.19	113	0.96	91	79	59	0	5	1	0
NH WINNEMUCCA	40	25	48	19	33	1	0.16	0.00	0.15	2.32	141	0.53	64	86	64	0	7	2	0
NH CONCORD	21	5	26	-6	13	-7	0.05	-0.58	0.05	5.99	101	0.68	23	61	35	0	7	1	0
NJ NEWARK	24	15	29	7	20	-11	0.33	-0.50	0.30	6.96	92	1.83	46	67	53	0	7	2	0
NM ALBUQUERQUE	46	24	53	18	35	-2	0.00	-0.08	0.00	0.22	22	0.11	22	60	31	0	7	0	0
NY ALBANY	18	5	28	-9	11	-11	0.28	-0.26	0.15	6.25	121	0.77	31	76	51	0	7	2	0
NY BINGHAMTON	16	5	21	-5	11	-10	0.55	-0.04	0.48	5.10	91	1.97	76	85	64	0	7	3	0
NY BUFFALO	22	10	32	-2	16	-8	0.98	0.33	0.38	6.53	94	2.89	91	85	62	0	7	5	0
NY ROCHESTER	20	10	32	-4	15	-8	0.72	0.22	0.35	5.28	104	2.86	122	85	65	0	7	5	0
NY SYRACUSE	19	6	25	-15	12	-10	0.42	-0.14	0.16	4.98	87	1.89	73	85	66	0	7	4	0
NC ASHEVILLE	40	21	45	15	30	-6	0.50	-0.44	0.50	3.40	46	0.75	18	85	63	0	7	1	1
NC CHARLOTTE	43	23	55	20	33	-9	0.34	-0.54	0.34	3.33	46	0.93	23	75	48	0	6	1	0
NC GREENSBORO	38	21	49	16	29	-9	0.18	-0.60	0.18	3.21	49	0.56	16	78	50	0	7	1	0
NC HATTERAS	46	34	58	25	40	-6	0.58	-0.62	0.35	7.08	68	1.37	23	84	56	0	2	3	0
NC RALEIGH	38	23	53	19	31	-9	0.42	-0.48	0.42	4.76	67	1.24	31	76	57	0	7	1	0
NC WILMINGTON	44	31	56	24	37	-9	1.64	0.65	1.64	7.04	85	2.09	46	93	62	0	4	1	1
ND BISMARCK	-2	-18	12	-27	-10	-22	0.07	-0.02	0.05	0.59	66	0.11	24	77	67	0	7	3	0
ND DICKINSON	-2	-17	17	-24	-9	-25	0.08	-0.02	0.05	0.35	49	0.15	41	83	70	0	7	3	0
ND FARGO	-5	-23	14	-36	-14	-22	0.28	0.14	0.22	1.49	112	0.31	41	76	66	0	7	3	0
ND GRAND FORKS	-8	-28	8	-43	-18	-25	0.00	-0.14	0.00	0.67	54	0.00	0	85	68	0	7	0	0
ND JAMESTOWN	-7	-22	9	-31	-15	-25	0.16	0.03	0.07	0.66	62	0.19	31	84	72	0	7	4	0
ND WILLISTON	-6	-23	4	-30	-15	-25	0.82	0.73	0.30	1.50	135	1.28	237	78	70	0	7	6	0
OH AKRON-CANTON	21	8	35	-3	14	-11	0.51	-0.01	0.29	5.87	107	2.96	119	84	72	0	7	4	0
OH CINCINNATI	28	9	43	-12	19	-11	0.55	-0.08	0.31	6.54	105	4.28	147	89	73	0	7	4	0
OH CLEVELAND	23	8	37	-7	15	-11	0.65	0.10	0.25	6.75	120	2.72	110	92	73	0	7	6	0
OH COLUMBUS	23	8	39	-6	15	-13	0.44	-0.11	0.20	8.03	147	5.25	208	86	67	0	7	4	0
OH DAYTON	22	5	38	-10	14	-13	0.29	-0.26	0.16	6.76	119	4.31	166	90	62	0	7	3	0
OH MANSFIELD	20	6	37	-3	13	-11	0.77	0.22	0.49	6.36	108	3.09	117	93	69	0	7	3	0

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending January 31, 2004

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.		
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE	
OK	TOLEDO	19	7	31	-7	13	-11	0.06	-0.36	0.06	3.63	79	0.38	20	88	74	0	7	1	0
	YOUNGSTOWN	20	7	33	-8	14	-11	0.73	0.23	0.35	6.35	120	3.67	157	89	77	0	7	6	0
	OKLAHOMA CITY	45	21	58	12	33	-5	0.02	-0.20	0.02	2.58	81	1.47	115	89	56	0	6	1	0
OR	TULSA	41	20	54	11	30	-7	0.68	0.35	0.67	4.75	118	2.29	143	84	72	0	6	2	1
	ASTORIA	49	42	53	36	46	3	6.23	4.09	2.24	22.87	114	13.00	135	96	85	0	0	7	3
	BURNS	36	19	44	4	27	1	0.31	0.06	0.21	3.09	125	1.54	131	88	82	0	6	5	0
	EUGENE	50	39	55	33	45	4	2.18	0.46	0.88	17.90	112	7.27	95	95	85	0	0	7	1
	MEDFORD	46	35	50	30	41	0	0.76	0.21	0.31	7.83	146	3.16	128	98	78	0	2	5	0
	PENDLETON	48	36	59	33	42	7	0.87	0.56	0.47	5.09	174	2.37	163	83	67	0	0	5	0
	PORTLAND	51	42	57	38	46	5	1.41	0.29	0.39	12.19	113	4.72	93	91	81	0	0	7	0
	SALEM	50	41	55	36	45	4	2.85	1.52	0.79	17.40	141	6.96	119	93	84	0	0	7	3
PA	ALLENTOWN	21	12	26	2	16	-11	0.52	-0.23	0.44	7.02	102	2.06	59	69	55	0	7	3	0
	ERIE	21	11	32	-5	16	-10	0.52	0.00	0.41	4.79	77	1.82	72	82	68	0	7	3	0
	MIDDLETOWN	22	10	26	1	16	-13	0.01	-0.65	0.01	5.02	83	1.62	57	83	54	0	7	1	0
	PHILADELPHIA	25	16	30	8	20	-12	0.29	-0.44	0.15	6.76	99	1.30	37	75	54	0	7	4	0
	PITTSBURGH	22	10	34	-1	16	-12	0.53	-0.06	0.24	7.41	133	4.07	151	88	62	0	7	4	0
	WILKES-BARRE	20	9	24	0	15	-11	0.52	-0.03	0.32	6.06	121	2.09	85	84	55	0	7	3	0
	WILLIAMSPORT	21	10	26	-1	16	-10	0.59	-0.07	0.30	6.91	119	2.48	87	74	56	0	7	2	0
RI	PROVIDENCE	25	12	28	1	18	-11	0.19	-0.76	0.19	7.88	93	1.45	33	55	39	0	7	1	0
SC	BEAUFORT	52	33	60	24	43	-6	1.17	0.27	1.13	3.34	46	1.54	38	87	52	0	2	2	1
	CHARLESTON	51	31	60	23	41	-7	1.09	0.23	1.07	3.43	47	1.57	38	85	55	0	2	2	1
	COLUMBIA	47	27	59	21	37	-8	0.37	-0.67	0.22	2.83	35	0.70	15	81	50	0	7	3	0
	GREENVILLE	45	24	56	18	35	-6	0.79	-0.17	0.69	4.05	49	1.38	31	85	48	0	7	2	1
SD	ABERDEEN	2	-13	17	-28	-5	-17	0.28	0.20	0.15	0.81	94	0.48	100	79	68	0	7	5	0
	HURON	6	-8	19	-23	-1	-16	0.09	0.01	0.04	0.31	36	0.12	25	81	66	0	7	4	0
	RAPID CITY	18	-2	40	-9	8	-15	0.00	-0.06	0.00	0.30	39	0.04	11	84	60	0	7	0	0
	SIoux FALLS	6	-7	20	-18	0	-15	0.44	0.35	0.21	1.53	149	0.46	90	79	63	0	7	5	0
TN	BRISTOL	40	21	45	10	31	-4	0.52	-0.28	0.46	7.32	106	2.94	84	85	49	0	7	3	0
	CHATTANOOGA	45	28	52	20	36	-4	2.09	0.88	2.06	7.98	78	3.60	67	83	56	0	5	2	1
	KNOXVILLE	43	25	49	14	34	-4	0.87	-0.11	0.79	6.07	67	2.67	58	82	48	0	5	2	1
	MEMPHIS	50	28	68	19	39	-2	1.16	0.21	1.08	6.24	63	3.16	75	79	43	0	5	3	1
	NASHVILLE	48	25	66	11	37	0	1.54	0.70	1.38	6.78	80	3.59	90	83	53	0	5	3	1
TX	ABILENE	58	32	67	23	45	1	0.00	-0.19	0.00	1.67	75	1.65	170	71	50	0	5	0	0
	AMARILLO	55	20	66	13	37	0	0.01	-0.10	0.01	0.63	51	0.54	86	81	27	0	7	1	0
	AUSTIN	62	33	75	21	47	-4	0.01	-0.38	0.01	2.50	58	1.99	105	76	48	0	3	1	0
	BEAUMONT	61	41	75	29	51	-2	2.63	1.48	1.63	8.78	80	5.59	98	93	53	0	2	3	2
	BROWNSVILLE	71	52	81	43	62	2	0.13	-0.22	0.11	2.31	94	1.96	144	95	67	0	0	3	0
	CORPUS CHRISTI	66	47	77	36	56	-1	0.30	-0.07	0.28	2.58	77	2.01	124	91	64	0	0	2	0
	DEL RIO	62	39	73	28	50	-2	0.02	-0.13	0.01	0.96	73	0.92	161	87	59	0	1	2	0
	EL PASO	55	33	61	24	44	-3	0.03	-0.05	0.03	0.37	30	0.36	80	55	24	0	4	1	0
	FORT WORTH	55	32	74	23	44	-1	0.01	-0.36	0.01	4.01	90	3.05	161	83	47	0	5	1	0
	GALVESTON	62	48	74	39	55	-1	1.92	1.05	1.02	10.50	138	4.79	117	90	56	0	0	3	2
	HOUSTON	62	44	74	30	53	1	1.16	0.36	0.92	9.07	123	6.08	165	82	52	0	2	3	1
	LUBBOCK	58	28	69	21	43	4	0.00	-0.12	0.00	1.91	163	1.91	382	72	32	0	6	0	0
	MIDLAND	59	32	68	25	46	2	0.00	-0.11	0.00	0.47	40	0.47	89	65	47	0	4	0	0
	SAN ANGELO	58	34	65	20	46	0	0.00	-0.20	0.00	0.45	26	0.45	56	75	50	0	3	0	0
	SAN ANTONIO	62	38	74	29	50	-1	0.17	-0.19	0.16	2.44	67	2.33	140	87	44	0	2	2	0
	VICTORIA	65	42	76	31	54	0	0.37	-0.15	0.20	5.15	105	3.05	125	98	62	0	2	2	0
	WACO	57	35	70	23	46	-1	0.00	-0.42	0.00	4.57	98	4.08	215	85	58	0	4	0	0
	WICHITA FALLS	56	26	70	19	41	0	0.00	-0.23	0.00	1.50	54	1.39	124	85	58	0	6	0	0
UT	SALT LAKE CITY	36	23	46	18	30	0	0.15	-0.15	0.08	4.46	172	0.50	36	90	59	0	7	3	0
VT	BURLINGTON	10	-3	19	-17	4	-13	0.15	-0.33	0.15	5.33	120	0.44	20	75	53	0	7	1	0
VA	LYNCHBURG	33	19	45	12	26	-9	0.60	-0.17	0.58	5.10	75	1.75	49	72	49	0	7	3	1
	NORFOLK	40	28	50	21	34	-6	0.68	-0.19	0.50	7.85	113	1.61	41	77	51	0	6	3	1
	RICHMOND	33	20	46	14	26	-10	0.51	-0.22	0.44	5.84	88	1.56	44	84	58	0	7	3	0
	ROANOKE	34	19	44	11	27	-9	0.56	-0.18	0.53	4.58	75	1.63	50	70	54	0	7	3	1
WA	WASH/DULLES	27	12	38	2	19	-13	0.56	-0.10	0.33	6.00	98	1.43	47	77	53	0	7	3	0
	OLYMPIA	48	39	54	32	43	4	3.79	2.08	1.32	13.98	91	7.96	106	94	86	0	1	6	3
	QUILLAYUTE	47	40	50	33	43	2	5.81	2.68	1.81	27.43	97	13.78	101	98	90	0	0	7	5
	SEATTLE-TACOMA	47	40	53	33	44	2	2.28	1.13	1.52	9.15	85	5.27	103	92	86	0	0	5	1
	SPOKANE	37	29	44	21	33	4	0.10	-0.29	0.05	3.71	91	1.57	86	95	76	0	5	2	0
	YAKIMA	47	25	56	17	36	5	0.11	-0.11	0.10	4.23	166	2.16	185	90	76	0	6	2	0
WV	BECKLEY	28	12	37	-3	20	-11	0.26	-0.45	0.18	4.89	77	2.56	79	91	79	0	7	4	0
	CHARLESTON	35	17	50	3	26	-8	0.65	-0.09	0.37	6.64	101	3.75	115	87	54	0	7	3	0
	ELKINS	29	9	42	-11	19	-10	0.77	0.01	0.32	5.57	81	2.81	82	90	58	0	7	5	0
	HUNTINGTON	36	16	53	1	26	-7	0.44	-0.25	0.31	5.89	90	3.22	100	87	55	0	7	4	0
WI	EAU CLAIRE	9	-8	21	-22	1	-12	0.11	-0.11	0.10	1.49	72	0.36	35	80	55	0	7	2	0
	GREEN BAY	14	-4	23	-14	5	-11	0.02	-0.24	0.02	2.87	110	1.19	98	76	61	0	7	1	0
	LA CROSSE	11	-6	24	-19	2	-15	0.16	-0.12	0.15	1.10	45	0.38	32	72	52	0	7	2	0
	MADISON	14	-1	22	-13	6	-12	0.12	-0.17	0.12	2.62	90	0.62	50	72	61	0	7	1	0
	MILWAUKEE	16	4	23	-10	10	-11	0.00	-0.41	0.00	2.30	57	0.26	14	74	61	0	7	0	0
WY	CASPER	36	15	46	1	25	2	0.01	-0.10	0.01	0.43	36	0.04	7	69	55	0	7	1	0
	CHEYENNE	40	21	48	11	31	5	0.00	-0.08	0.00	0.78	86	0.02	4	57	39	0	6	0	0
	LANDER	35	10	47	-1	23	2	0.08	-0.02	0.08	0.97	86	0.15	29	70	54	0	7	1	0
	SHERIDAN	36	4	45	-10	20	-3	0.00	-0.15	0.00	0.90	62	0.03	4	78	62	0	7	0	0

Based on 1971-2000 normals

National Agricultural Summary

January 26 - February 1, 2004

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

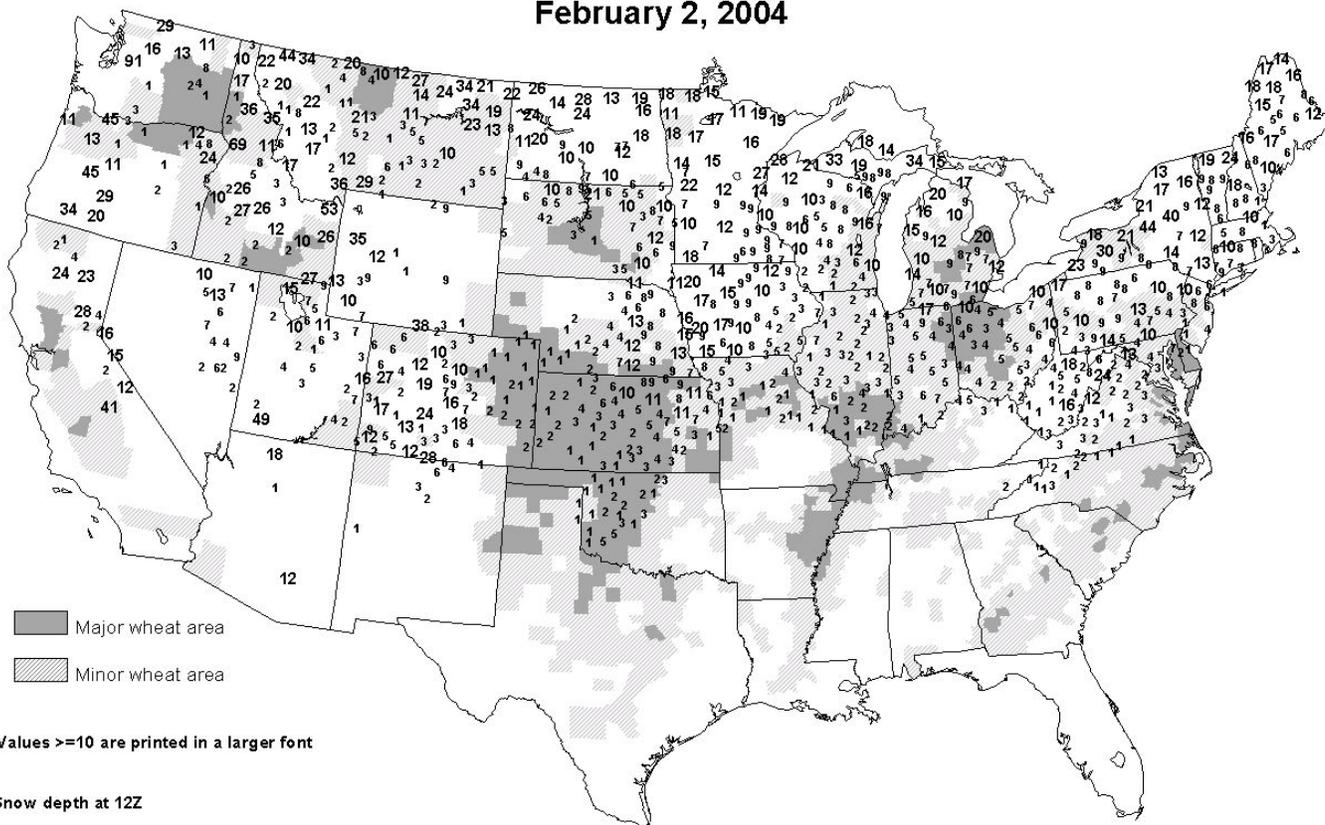
A series of Arctic cold fronts brought cold weather, snow, and ice to the middle and northern Atlantic Coast States. This same system caused bitterly cold weather in the Corn Belt and northern and central Great Plains, where temperatures remained below freezing all week in most areas. Snow cover in those areas expanded to protect more of the winter wheat crop, but much of the crop was still exposed to the cold. Freezing temperatures reached the Gulf Coast but missed the citrus-producing areas of Florida, Texas, and California. Temperatures were mostly above normal across the Pacific Northwest and northern and central Rockies. Moderate to heavy rain fell across the Gulf Coast and parts of the Southeast. Heavy precipitation fell in the Pacific Northwest, with a wintry mix early in the week giving

way to rain later. The Southwest and western areas of the Great Plains remained mostly dry, though some pockets of light precipitation occurred.

In Florida, harvest of citrus crops, sugarcane, and vegetables was active, though precipitation caused some fieldwork delays. Widespread rainfall replenished soil moisture across most of Georgia, but low temperatures caused some winter damage to small grains. In Texas, cold, dry weather continued to stress small grain crops. In Arizona, small grain seedings neared completion and vegetable and citrus harvests were active. Clearer skies and sufficient soil moisture in California promoted the development of small grains, and fieldwork was active for vegetable crops.

Snow Depth (Inches)

February 2, 2004



Values ≥ 10 are printed in a larger font

Snow depth at 12Z

The NWS cooperative network is the principal source of the snow depth reports

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

January State Agricultural Summaries

These summaries, issued weekly through the summer growing season, provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service. The crop weather reports are also available on the Internet through the NASS Home Page on the World Wide Web at <http://www.usda.gov/nass/> or from JAWF at <http://www.usda.gov/oce/waob/jawf>.

ALABAMA: North, Central; The weather has been cold, wet with little growth on winter pasture for the last month. Farmers allowed livestock to graze fescue pastures, thereby, feeding a little less hay, grain than this time last year. In other fields, farmers fed hay, feed supplements to livestock. South; Grazing is not doing well. Rain has helped but cold weather is hurting growth. Cool-season forages have experienced difficult growing conditions this winter with high rust pressure in some areas. rainfall. Grazing conditions have been less than desirable for most producers. Farmers are gearing up for another farming year. Activities: Chopping stalks, feeding cows, soil testing.

ALASKA: DATA NOT AVAILABLE

ARIZONA: Temperatures for the State were well below normal for the week. Cotton harvested was complete. Small Grains plantings are near completions, while emerging is well underway. Alfalfa conditions remain good to excellent, with harvest progressing at a normal rate. Precipitation was reported at 13 of the 17 reporting stations. Precipitation ranged from 0.01 inches at Douglas, Prescott to 0.30 inches at Canyon De Chelly.

ARKANSAS: As a result of excess rainfall, winter wheat is in fair condition. Cattle are in excellent condition for this time of year. Pasture supply is more than adequate, is also in excellent condition. Both cattle, pastures have been reported to be in the best condition in years. January temperatures were above normal. The average temperature for the month of January was 40.2^o, 3.8^o above normal. The highest temperature for the month was 75^o, the lowest was 19^o. There were 8 days with high temperatures above 60^o, only one day with low temperatures less than 20^o. Temperatures averaged above normal on 19 days during the month. Precipitation during the month totaled 3.48 inches, 0.11 inches above normal. The nearly 2 inches of rainfall that fell near the end of the month was the most for any single day since September 2003, the most for any day in January since 1999.

CALIFORNIA: Early January rainfall greatly aided the development of planted crops, but also hindered field activity. Later in the month, cooler temperatures, overcast days slowed the growth of small grains. Herbicides for weed control were applied in alfalfa, grain fields. Shredding, discing of harvested cotton fields was completed. Field preparations for spring planting of corn, cotton took place late in the month. Planting of winter wheat was finished in most areas by mid-January. Wheat, oats, barley, winter forage showed steady growth. Planted sugar beets exhibited vigorous growth. Hazing, other measures were taken to protect the young plants from birds. Potato harvesting continued. Pruning, tying, brush shredding continued in grape vineyards, with rainfall delaying activity at times. Pre-emergent herbicides and dormant sprays were applied in orchards, vineyards. Foliar fertilizer, scale treatments were applied to cherry trees in the San Joaquin Valley. Orchard and vineyard removal continued. Brush, stumps from orchard, vineyard removal were piled for burning or recycling. Strawberry fields were weeded. Bareroot, strawberry stock digging, trimming of strawberry plants continued. Foliar nutrient treatments were applied in some citrus orchards. Rainfall early in the month slowed Navel orange harvesting somewhat, which helped keep supplies in line with demand. Ice marks became visible in many Navel orchards, though internal frost damage to fruit was minimal. Lemon harvesting continued. Grapefruit, tangerines, Satsumas, Clementines, pummelos were also harvested. Olive trees were pruned in many locations. Avocado maturity was advancing, with Zutanos, Hass varieties being packed. Cultural activities continued in many tree nut orchards as weather permitted. Field work included pruning, brush shredding, cultivation, soil amendments, weed control treatments, cover crop planting. Dormant sprays were being applied to control diseases, over wintering insect pests. Pecans were harvested in the Central Valley. New almond orchards were planted where older orchards or vineyards had been removed. Spring vegetable planting continued through most of January. Fields of broccoli, cabbage, cauliflower, lettuce, onions, garlic exhibited good growth. Cultivation to control weeds continued in a number of fields. Red onion planting was completed. Hothouse-grown tomatoes were blooming. Around the middle of January, winter rains, wet soil conditions were hindering ground preparation for spring planting of both cucumber and squash. Carrot planting continued in Kern County. Cole crops were being harvested in the San Joaquin Valley. Napa cabbage, bok choy, mustard greens were harvested for shipment to wholesale markets. Specialty crops harvested for farmer's markets included beets, sugar cane, gai choy, kale, green onions, radishes, spinach, tatsoi, turnips. Rangeland, pasture feeds were varied, but continued to improve throughout January, due to rainfall and good soil moisture. However, foggy, overcast conditions slowed grass growth at times. Cattle were moved to lower

pastures in the southern San Joaquin Valley. By mid-January, minimal supplemental feed was being given to cattle. In Central state, stock ewes, lambs grazed in fallow pastures, alfalfa fields, some broccoli fields. Lambs grazed on alfalfa in the southern desert area. Bees were moved into place in preparation for almond pollination.

COLORADO: Temperatures were generally above average statewide for the month of January with the exception of the Western Slope. Growing regions saw virtually no precipitation until the end of the month when light to moderate snow fell on much of the state. Current snowpack levels are below average statewide. Irrigation water availability remains a top concern to growers along the Front Range, Eastern Plains. Winter wheat condition is still variable across the state ranging from poor along, south of the I-70 corridor to good in the northern region. Activities: Continue to center around feed, care of livestock, preparation for the upcoming calving, lambing season.

DELAWARE: Cold temperatures, windy weather conditions are beginning to dry out vegetation. Small grains are in fair condition. Livestock, poultry in good condition. Good quality hay for horses is in short supply, hay supply for cows is fair. Activities: Repairs to equipment, attending conferences, visiting FSA offices, planning for the next crop season.

FLORIDA: Dry, cool conditions persisted during most of January. Some grove caretakers irrigated citrus trees during the month to maintain growth, encourage fruit development. Pasture condition in the Panhandle, the northern, central Peninsula declined from good to mostly fair throughout the month because of the dry, cool weather. Livestock producers fed hay, other supplemental feeds to keep animals healthy when pastures could not provide enough food. Southwestern grazing, cattle condition, Statewide, remained fair to good throughout the month. At the beginning of the month, strawberry producers around Plant City kept nighttime surveillance as temperatures plunged to near freezing levels due to an Arctic cold air mass covering the State. Moderate frost on the ground was reported on several mornings in northern locations, to a lesser degree in central locations, especially near the end of the month. No frost in the trees or damage or loss of any kind was reported for the citrus crop. Sugarcane harvesting in the Everglades remained steady during the month. Tomato picking was virtually finished in the Palmetto-Ruskin region by mid-month as Miami-Dade County producers increased harvesting. Tomato picking in the Immokalee area was steady throughout most of the month. Some grove caretakers started fertilizing citrus trees in anticipation of new spring growth. Potato producers started planting in the Hastings area about mid-month. However, a lack of contracts for chipping potatoes limited the planting of processing types. Tobacco plant beds progressed normally in northern areas. Row crop producers were preparing land for planting at the end of the month. Significant rains fell in most areas during the last week of the month with some vegetable planting, harvesting curtailed for a few days. The early, mid season orange harvest peaked near mid-month with the weekly market reaching over nine million boxes during two weeks. Navel orange picking decreased, shipments were cut short by crystallization in larger sizes which decreased the value for fresh utilization. Small amounts of Valencia oranges were starting to be harvested during late January, primarily for fresh shipments. Grapefruit harvesting for fresh shipments increased during the month with harvest for processing increasing near the end of the month. As the harvest of Sunburst tangerines decreased, the picking of Honey tangerines increased with excellent fruit sizes, color picked during the month. Tangelo harvesting neared completion, Temple harvest for fresh and processing usage remained heavy during the month.

GEORGIA: Warm temperatures in early January were followed by much colder temperatures for the rest of the month. Cold temperatures slowed grain growth. Rain was needed for small grains, winter grazing. Hay feeding continued to increase due to declining pasture conditions. Much needed rain fell the latter part of the month. Rain brought temporary relief to the moisture deficit. However, more rain was needed to replenish topsoil, subsoil, farm ponds. Rain, cold temperatures limited field work. Growers began preparing for planting spring crops. Greenhouse tobacco transplants appeared in good condition. Wheat planting neared completion. Row crop producers took soil samples, limed fields. Activities: Cotton stalk shredding, harrowing fields, harvesting vegetables, the routine care of livestock, poultry.

HAWAII: The returning trade winds brought variable weather to the State during the past week. Windward areas received showers while leeward sections were sunny, dry. Banana orchards were in mostly fair to good condition despite increased disease infection, some leaf damage by strong

winds. Papaya orchards were in fair condition due to wet weather. Vegetable crops were in mostly fair condition.

IDAHO: Topsoil 2% short, 83% adequate, 15% surplus. Winter Wheat condition 25% fair, 72% good, 3% excellent. Hay, Roughage supply 2% short, 91% adequate, 7% surplus. Lambing complete 10%. Calving complete 7%. Soil moisture has recharged due to timely winter snows, rains. If the inclement weather continues, hay supplies could become short.

ILLINOIS: Topsoil 1% very short, 10% short, 75% adequate, 14% surplus. January ended with extremely cold temperatures, a good snowcover across most of the state. Wheat producers are concerned that early in the month their crop may have received damage prior to the snow that fell later in the month. The snowcover that currently exists did protect the crop from the sub-zero temperatures which occurred across the state the last week of the month. Condition of the winter wheat crop as of February 1 2% poor, 26% fair, 58% good, 14% excellent. Topsoil moisture levels declined slightly during the month with the driest areas reported across northern state. Last week farmers were busy working on machinery, caring for livestock, hauling grain, completing paperwork for the farm program sign up.

INDIANA: Soil moisture in the central, southern regions is in good shape with the northern areas drier, especially in the northwestern region. Temperatures averaged 2.1° below normal for the state during January. Coldest weather, snow arrived during the last week of the month. Precipitation was mostly rain early in the month, causing some flooding, ponding in fields, along river bottoms. Snow, ice hindered most outside activities. Precipitation averaged 3.60 inches compared with 2.44 inches for normal. Fieldwork is now at a standstill as snow covers most of the state. Farmers are spending most of their time hauling manure, taking care of livestock, working on taxes. Applying fertilizer in fields dry enough, or frozen, occurred during January. Farmers were hauling grain to market, also planning, budgeting for the spring workload. Winter wheat appears to be in mostly good condition. Tobacco sales, stripping continued. Hay supplies are mostly adequate, but prices are high in some areas. Livestock are in fair to mostly good condition, but under some stress from the recent very cold temperatures. Feed usage has increased the last couple of weeks. Cattle producers still concerned about the market. Calving season has started in the south. Lambing continues. Activities: Attending meetings, signing up at FSA offices, cleaning ditches, tile work, spreading lime, purchasing supplies, cleaning up, repairing equipment, taking care of livestock.

IOWA: Soil 13% very short, 38% short, 48% adequate, 1% surplus. The beginning of January was marked by relatively mild temperatures, but recent extreme cold, high winds have caused stress on livestock as well as increased feed usage. At the end of January, the average depth of snow cover across state was 5 inches, compared to 2 inches last month and 1 inch at the same time last year. Shortness of soil moisture remained a concern. Field Crops Report: Grain movement from farm to elevator 19% none, 40% light, 35% moderate, 6% heavy. Livestock, Pasture, Range Report: Hog, pig losses in January were lower than last year at 14% below avg.; 83% avg.; 3% above average. Cattle, calf losses were similar to last year at 16% below avg.; 80% avg.; 4% above average.

KANSAS: Topsoil 19% very short, 36% short, 38% adequate, 7% surplus. Precipitation varied throughout the State, with the central, eastern districts receiving the most. Wheat condition 9% very poor, 18% poor, 31% fair, 38% good, 4% excellent. Wheat wind damage is 70% none, 22% light, 6% moderate, 2% severe. Wheat freeze damage is 69% none, 21% light, 8% moderate, 2% severe. Feed grain supplies 3% very short, 14% short, 80% adequate, 3% surplus. Hay, forage 3% very short, 16% short, 77% adequate, 4% surplus. Calving continues across much of the State.

KENTUCKY: January began warm, wet. Several storm systems crossed the State bringing heavy rainfall amounts which caused flood watches to be issued. High temperatures were at record levels by weeks end. Another cold front late on the weekend brought more rain, colder temperatures. Temperatures for the period averaged 50°, 18° above normal. Extreme highs lower 70's, extreme lows middle 20's. Precipitation (liq. equ.) totaled 1.87 in. statewide which was 1.05 in. above normal. Precipitation totals ranged from a low of 0.49 in. at London to a high of 3.20 in. at Covington. The first full week of the month brought below normal temperatures, near normal precipitation. A front provided arctic air for the first part of the week. Another system moved through late on the 8th, dropping 2-4 in. of snowfall across the eastern third of state. Temperatures rose above normal to end the week. Due to the heavy rains the previous last week, there were flood warnings along the Ohio River from Cincinnati westward to the Mississippi River. The river caused flooding of most low lying areas. Temperatures averaged 27°, 4° below normal. Extreme highs upper 60's, extreme lows in the single digits. Precipitation (liq. equ.) totaled 0.76 in. statewide which was +0.04 in. from normal. Precipitation totals ranged from a low of 0.21 in. at Mayfield to a high of 1.43 in. at Quicksand. Temperatures at the beginning of the second full week were above

normal as highs reached the 50's for most of the State through midweek. A weak front moved through after midweek bringing some light showers to the east, colder temperatures to the whole State. There was a slight warm up again late in the work week ahead of a storm system that brought rain, mixed precipitation, snow showers over the weekend. The storm system set up a significant cool down for the next week. Temperatures 37°, 5° above normal. Extreme high temperatures mid to upper 50's, extreme low temperatures mid to upper teens. Rainfall totaled 0.79 in. statewide, 0.07 in. above normal. Precipitation totals ranged from a low of 0.34 in. at Covington to a high of 1.28 in. at London. It was a pretty quiet week weatherwise as conditions were generally dry, cool for the third full week. Some of the lowest temperatures of the winter season were observed the morning of the 23rd as lows dipped into the single digits. There was a healthy winter storm across the Commonwealth over the weekend bringing between 0.5-1.0 in. of precipitation. Areas to the south received rain, while areas in central state faced freezing rain, icing, areas to the north received snow. Temperatures began to warm up Sunday night allowing for melting to begin. This is the first week of the new year that precipitation has been below normal, despite all the rain, ice, sleet, snow received over the weekend. Temperatures averaged 28°, 4° below normal. Extreme highs lower 50's, extreme lows single digits. Precipitation (liq. equ.) totaled 0.51 in. statewide which was 0.21 in. below normal. Precipitation totals ranged from a low of 0.27 in. at London to a high of 0.91 in. at Princeton. Temperatures were very erratic the last week of January. Most of the snow, ice melted on as highs south of a warm front hit the middle 60's. The warmer weather did not stick around as a cold front on the 27th kept highs in the middle 20's. Cold temperatures hung around for the remainder of the week bringing lows on morning of 31st well below zero. Livestock cold stress was also an issue for a couple of days as wind chills fell below -10°. Temperatures averaged 27°, 5° below normal. Extreme highs were in the middle 60's. Extreme lows were in the negative teens. Precipitation (liq. equ.) totaled 0.35 in. statewide, 0.40 in. below normal. Precipitation totals ranged from a low of 0.06 in. at Mayfield to a high of 1.26 in. at Hardinsburg. Livestock remained in mostly good condition throughout the month, despite of the wet conditions, extreme temperature fluctuation, wind chills. Winter wheat remains in mostly good condition. Farmers continued moving grain, tobacco to market. Burley tobacco auction sales resumed sales on January 5th. Total Belt-wide auction sales through January totaled 59.5 million lbs, averaging \$196.15 per cwt. Total contract sales totaled 199.2 million lbs., averaging \$198.67 per cwt. Total burley belt sales totaled 258.7 million lbs., averaging \$ 198.09 per cwt. Resales totaled 1,693, 125 pounds so far this season. The Burley Cooperatives received 60.7% of the auction sales for the season-to-date. The auction markets scheduled a two-week recess that began after sales on January 22, and will resume on February 9th. Twenty-one markets remain open for at least one more auction.

LOUISIANA: Field crop producers were preparing for spring planting as field conditions continued to dry out. The state averaged 4.87 inches of rain over the last 4 weeks. Livestock producers were fertilizing winter pastures, feeding hay. Strawberry producers took precautions (including covering) to avoid any major freeze damage as temperatures dropped into the lower 20s in the central, southern parishes during January. Crawfish producers continued putting out traps as harvesting was just getting started. Activities: Repairing, cleaning equipment

MARYLAND: Extreme cold temperatures, snow have increased feed requirements for livestock. Livestock, poultry in good condition despite the cold weather. Hay supply is adequate, but good quality hay is in short supply. Small grains are generally in fair condition. Activities: Stripping tobacco, repairing equipment, attending conferences, planning for the next crop season.

MICHIGAN: January brought frigid air, snow across the State. Temperatures were below normal for much of the month. Winter wheat, hay appear to be overwintering well due to heavy snow cover in all areas of the State. Fruit winter hardiness has been good because temperatures were consistently cold in January. Apple trimming was the main activity in early January before snow made the task difficult. Feed supplies were adequate except for dry hay in the northern Lower, Upper Peninsulas, where it was in short supply. Livestock remained in good condition. Calving is expected to get underway on most operations in mid-March or April.

MINNESOTA: Depleted topsoil, subsoil moisture, winter injury to alfalfa, have been concerns due to minimal snow coverage earlier in the season. Good winter conditions prevailed on farms this past month. Mild temperatures were received during the first half of the month, with below normal temperatures, wide spread snow falls during the second half. Livestock feed supplies are adequate at the present time, livestock conditions have been favorable.

MISSISSIPPI: Soil 6% short, 66% adequate, 28% surplus. Hay supply 5% short, 81% adequate, 14% surplus. Feed Grain 4% short, 94% adequate, 2% surplus. Despite slightly cooler than normal temperatures throughout December, early January, warmer than average mid-January temperatures proved to be favorable for winter forages. Statewide rainfall has been typical for this time of year, with producers hoping for residual moisture for the upcoming crop season. Cattle are in good condition, both hay, ryegrass supplies continue to remain sufficient. Many producers are already making plans for the 2004 growing season.

MISSOURI: Livestock required more care, heavier feeding during the recent snow, cold weather. Hay supplies are adequate in most areas with the exception of a few counties along the western edge of the State where some shortages are expected due to earlier feeding requirements in late summer and fall. Winter wheat is in fair to good condition with no major problems reported. Rain of the past month will provide needed moisture reserves for wheat, pastures when spring growth resumes, recent snow has provided protection from cold weather across much of the State. Farmers are doing taxes, planning for the new crop year.

MONTANA: During the month of January, weather conditions in state have been very cold with sub zero temperatures, snow falling throughout the state. Soil 11% very short, 30% short, 55% adequate, 4% surplus compared to 2003 25% very short, 46% short, 26% adequate, 3% surplus. Subsoil moisture 34% very short, 43% short, 22% adequate, 1% surplus compared to 2003 during which subsoil moisture 45% very short, 39% short, 16% adequate, 0% surplus. Winter wheat 5% very poor, 13% poor, 46% fair, 33% good, 3% excellent. This year's winter wheat crop conditions are above last year's crop because of less wind, freeze or drought damage. Wind damage to the winter wheat 29% none, 40% light, 19% moderate, 12% heavy. Freeze, drought damage 31% none, 37% light, 28% moderate, 4% heavy. Snow cover for winter wheat 6% very poor, 9% poor, 26% fair, 41% good, 18% excellent. Snow fall has closed much of the pastures available for grazing. Livestock grazing 16% open, 31% difficult, 53% closed, compared to 2003, when 81% open, 15% difficult, 4% closed. Currently, all the cattle, sheep are receiving supplemental feed. Calving, lambing 4% and 2% completed respectively, will be well underway during February.

NEBRASKA: January temperatures averaged above normals the second, third weeks but below normals the first, last weeks of the month. Snow depth at the end of January averaged 4.9 inches. Wheat 9% very poor, 19% poor, 41% fair, 31% good, 0 excellent. Hay, forage supplies were mostly adequate. Cattle were in mostly good condition with calving underway. Snow cover restricted stalk field grazing potential in the eastern two-thirds of the state. Producer activities included livestock care, tax work.

NEVADA: January began with a wet storm system moving across the State, but precipitation was somewhat limited for the remainder of the month. Precipitation totals for the month predominately well below normal with some stations reporting only half their normal. Temperatures were near normal over most of the State, but were much colder in the east. January was the coldest on record for Elko. Snow accumulations in western, central watersheds were 10% or more above normal, while the eastern State snow pack was 84% of normal. Some early calving, lambing was beginning. Limited marketing of bred cows, heavy calves took place. Hay marketing, shipping continued. Potato processing remained active. Fall seeded grains, garlic were in generally good condition. Winter livestock feeding was common. Activities: Equipment maintenance, livestock care, fence repairs, crop, livestock marketing, industry meetings.

NEW ENGLAND: Arctic cold temperatures blasted the six state region during January. During the first two weeks of the year New Englanders experienced some of the coldest weather in decades. Snow fell in some areas at the end of the month. Farmers kept busy tending livestock, moving apples, potatoes out of storage.

NEW JERSEY: Temperatures were above normal the first week of January across most of the state. Temperatures fell to below normal by the second week of January, remained there through the end of the month. There were measurable amounts of rainfall across most of the state for the month of January. There was a mixture of ice, snow, in varying amounts, across most

of the state the last week of January. Activities: Maintaining farm structures, caring for livestock.

NEW MEXICO: As supplemental feeding continues to be heavy, ranchers have cut herd numbers down drastically. The pecan harvest is close to completion. Fields being grazed are not lasting due to the drought situation, small grain growth has been slightly stunted due to cold night temperatures. Some farmers are preparing fields for the 2004 crop, while others are holding off.

NEW YORK: Extremely cold weather, heavy snowfall during the month made outside chores difficult. Snow removal was a major activity. Other major activities for the month included tending livestock, grading, packing onions, apples, cabbage; attending meetings and trade shows, machinery maintenance.

NORTH CAROLINA: Days suitable for field work 2. Soil 0% very short, 3% short, 65% adequate, 32% surplus. The last week of January brought an ice storm which covered most of the State. The storm produced below normal temperatures with lows ranging from 8 to 28°. Conditions halted or limited the ability to work outside for several days. The month of January also experienced below normal precipitation levels. Small grain crop conditions are currently rated good with only small percentages rated poor. Winter wheat seedings for the 2004 crop in state are estimated at the 650,000 acres, up 23% from 2003. A timely soybean harvest, a period of dry fall weather allowed for the increase in planted wheat acreage. Activities: Tending livestock, cleaning up from any damage caused by the ice storm.

NORTH DAKOTA: Arctic cold temperatures during January replaced mild December weather. Below normal temperatures, bitter wind chill were experienced throughout the state. Average snow cover was 14.0 inches on February 1. This compares to 2.7 inches a year ago. County, secondary roads 70% open, 22% difficult, 8% closed. Snow cover protection for alfalfa 1% poor, 57% adequate, 42% excellent. Cattle conditions 0% very poor, 4% poor, 26% fair, 61% good, 9% excellent. Sheep conditions were rated 0% very poor, 3% poor, 22% fair, 68% good, 7% excellent. Hay, forage supplies 1% very short, 10% short, 83% adequate, 6% surplus. Reporters noted grain movement has been hampered by very cold temperatures, snow drifted roads, railcar shortages.

OHIO: January was 3.8° below normal across the state of state, with temperatures averaging 22.7° across the state. Precipitation averaged 3.57 inches, 1.04 above normal for the month of January. Winter wheat is reported to be in good to excellent condition. Beef cattle are doing well, with no major problems reported.

OKLAHOMA: Topsoil 16% very short, 28% short, 52% adequate, 4% surplus. Subsoil 24% very short, 33% short, 42% adequate, 1% surplus. Winter Wheat 12% very poor, 18% poor, 30% fair, 34% good, 6% excellent. Rye 10% very poor, 15% poor, 29% fair, 41% good, 5% excellent. Oats 17% very poor, 26% poor, 37% fair, 17% good, 3% excellent. Wheat Grazed 46% 2004, 58% 2003, 38% avg. Rye Grazed 69% 2004, 82% 2003, 36% avg. Oats Grazed 29% 2004, 44% 2003, 33 avg. Livestock 2% very poor, 8% poor, 36% fair, 41% good, 13% excellent; Pasture, Range 11% very poor, 29% poor, 42% fair, 15% good, 3% excellent. Livestock: Livestock ranged from mostly good to fair condition. Livestock condition 13% excellent, 41% good, 36% fair, 8% poor, 2% very poor. The milder weather has helped livestock conditions. Many cattleman have supplemented with hay this month. The death loss of cattle has continued to be light due to the mild winter conditions. Hay supplies were rated as mostly average.

OREGON: Activities: Winter care of livestock ongoing across state, supplemental feeding continued. Shipments of wheat, oats, barley, potatoes, corn, dry onions continued. Nurseries continued shipping, preparations for the upcoming season. Mountain snowpack levels are above average in most of the State, according to the Natural Resources Conservation Service (NRCS), with Klamath Basin levels reaching 18% above average, other basin levels in northwest, north central state standing at more than 10% above average. The increased snowpack may not be enough to offset water shortages, however, in south, southeast state, where irrigation reservoir levels range from 16 to 50% of normal. A livestock feed assistance program, in conjunction with the State Department of Agriculture (ODA), the State Cattleman's Association (OCA), is ongoing in Harney, Malheur counties, designed to provide relief to

ranchers from heavy drought conditions. The program will use excess stocks of nonfat dry milk as a protein source in livestock feed. The ODA, the State Association of Nurseries (OAN) are working to prevent importation of plant species at risk for sudden oak death.

PENNSYLVANIA: Much of the Commonwealth received significant rainfall at the beginning of year. The temperature dropped, remained at or near the 20's for a majority of January. Much state received significant snowfall, accumulation during the middle of the month, this continued for the remainder of January. Activities: Feeding, caring for livestock, preparing for the spring activities, hunting, attending organizational meetings, conventions, Farm Shows.

SOUTH CAROLINA: The weather for the month began with periods of mild conditions being observed throughout the state. There were several reports of 70° temperatures ranging from the midlands to the coast. The few showers that did fall during this period were light, scattered. Despite the warm, mild conditions, there were several cold fronts that provided frost, morning temperatures in the 20's in the upstate counties. By the end of the third week, sleet, freezing rain began to fall covering the upper, central portions of the state. As the ice accumulated, it did not take long for conditions to cripple the state. Most businesses, schools in the midlands were closed Monday, part of the day Tuesday of the following week. While some businesses, schools were open Wednesday, power outages continued to plague some areas. The week ended with overcast skies, cool temperatures. The average statewide rainfall for the month of January was well below an inch. Activities: Feeding hay to livestock, tending to winter grazing pastures. Some farmers are busy servicing their equipment for the upcoming crop year while some have already started preparing land for planting. The majority of the small grains are in mostly good condition.

SOUTH DAKOTA: Soil temperatures averaged 3.3° cooler than normal. The month of January brought an average of 0.30 inch of precipitation from snowfall, above-average temperatures statewide. The average snow depth for the state was 4.2 inches. Many producers remain concerned over the lack of snow cover. Winter wheat 10% very poor, 22% poor, 38% fair, 26% good, 4% excellent. Mild weather in the beginning of the month allowed many producers to utilize field residue for grazing. Cattle, sheep remain in mostly fair to excellent condition. Activities: Marketing grain, calving, tending to livestock, repairing machinery. In general, county, township roads are open for travel, with little or no difficulty.

TENNESSEE: Temperatures during January averaged slightly below normal, while precipitation totals were near normal. The beginning of the month brought unseasonably warm temperatures with only moderate rainfall. An arctic high pressure system dominated the weather towards the middle of the month resulting in cold, dry conditions. At month's end temperatures, rainfall were both below normal. Winter wheat was rated in good condition due to the relatively normal temperatures thus far through the winter months. Livestock were reported in mostly good condition, hay stocks were reported in adequate supply.

TEXAS: Conditions during the month varied from extremely cold, windy to very mild and wet. Early in January, nighttime temperatures reached freezing or below freezing, from the Panhandle south to the Coastal Bend. Days were mild at times between the series of cold fronts. Hard freezing temperatures frequented parts of the state extending from the Panhandle to Central areas during the month. Most areas of the state received from trace amounts to over 5 inches of precipitation. Areas of the Upper Coast, parts of Central, East State received the most moisture. Areas of the Plains received some snow, sparse amounts rainfall. Despite the rain during the month, areas west of a line from Laredo to North of Fort Worth were low on top soil moisture for a majority of the acreage. Persistent high winds in the Plains, West State dried up much of the moisture received during the middle of the month. Counties along the Upper Coast, East State received more than adequate moisture, were contending with wet fields, muddy pastures by month's end. January precipitation improved the condition of some small grain fields and winter pastures. However, the extremely dry, cold weather across the Plains worsened the prospects of the wheat acreage. Greenbugs, aphids were being treated on some fields. Harvest was complete for cotton, peanuts, sorghum, pecans. Preparations for Spring planting were ongoing, with much less field activity in the Northern Plains. Winter vegetable crops were progressing well. Timber harvesting, pine tree planting were active in East State. Supplemental feeding of livestock continued. The Spring calving, lambing, kidding season has begun.

UTAH: January has been dry, cold, which is in stark contrast to December. Concerns over continued drought have caused some thought for shorter season crops, leaving some roplandidle. Most ranchers are supplementing feeding their winter range animals. Hay stocks are being used up to offset poor range conditions. Producers have started calving, are trying to protect the new born animals from the cold weather.

VIRGINIA: Pasture 5% very poor, 18% poor, 34% fair, 36% good, 7% excellent. Livestock 1% very poor, 4% poor, 32% fair, 55% good, 8% excellent. Small grain, winter grazing crops 5% very poor, 16% poor, 38% fair, 34% good, 7% excellent. January started off cold, dry and ended cold and wet. The cold temperatures hampered pasture growth, the ice hindered grazing. Farmers were forced to feed more than the normal rations of hay, silage, grain to their livestock. Hay supplies were adequate but quality was below average. The small grain crops were stunted due to late planting, inadequate topsoil moisture, cold temperatures. Farmers hope that the snow cover will help recuperate the small grains. State's fruit orchard were doing well. The snow has insulated the trees from the harmful cold temperatures. Orchard workers have spent their time on rodent control, catching up on delayed pruning. While some farmers were unable to apply lime due to wet fields, others were able to apply lime on frozen fields. Activities: Farmers attending producer meetings, preparing taxes, fixing fences, maintaining farm equipment, ordering seeds, fertilizer, trapping muskrats, beavers. January was a cold month for state. The colder parts of state experienced wind chill, nighttime temperatures in the teens. Most of state was covered in a snow storm that came at the end of January. The western parts of state experience up to 8 inches of snow, while the other regions experienced up to 4 inches of rain.

WASHINGTON: Large amounts of snow blanketed the state during the first part of the month. Warmer temperatures near the end of the month allowed for a large amount of snow melt, with little runoff being reported in most Eastern counties. This should help recharge moisture levels for spring crops. Local livestock owners were kept busy, feeding additional hay to sustain cattle during cold temperatures. Asotin County reported having some calving losses during the cold weather. In Yakima county, damage to fruit was associated with nectarine, peach flower bud tissue. Otherwise damage levels do not indicate a reduction in crops. Cherry, apple growers in Benton are pruning hard to make up for lost time. Most grape growers are reporting some damage as a result of late December, early January freezes, but will wait until most cold weather is past to make damage assessments and then prune. Winter wheat was protected throughout the month due to adequate snow cover in most areas.

WEST VIRGINIA: Topsoil 55% adequate, 45% surplus, 3% short, 80% adequate, 17% surplus last year. Winter wheat 15% fair, 83% good, 2% excellent. Cattle, calves 2% poor, 23% fair, 65% good, 10% excellent. Sheep, lambs 2% poor, 18% fair, 75% good, 5% excellent. Hay, roughage supplies 15% short, 80% adequate, 5% surplus. Feed grain supplies 5% short, 95% adequate. Activities: Feeding, caring for livestock. Insuring adequate water supplies are available. Lambing, calving have begun.

WISCONSIN: Temperatures averaged 1 to 4° below normal for the month of January. Temperatures ranged from lows of 10 - 20° below zero to highs in the mid-40's. Precipitation was mainly in the form of snow, varied across the state. Northern parts of the state received as much as 1.25 inches, while much of southern state reported as little as 0.25 to 0.5 inches. Even with the below normal precipitation, snow cover is greater this year compared to last year across much of the state.

WYOMING: Topsoil 20% very short, 40% short, 36% adequate, 4% surplus. Last year at this time, 85% of the State was rated short or very short. Subsoil 26% very short, 44% short, 30% adequate. Last year at this time, 94% of the State was rated short or very short. Average depth of snow cover 3.90 inches. Winter wheat 17% poor, 69% fair, 14% good. This compares 43% good as of January 5, 27% good 2003 at this time. Winter wheat wind damage 40% none, 25% light, 29% moderate, 6% severe, freeze damage 88% none, 11% light, 1% moderate. Spring calves born 5%. Cattle condition 80% good to excellent. Farm flock sheep shorn 5%, farm flock ewes lambing 6%. Sheep condition 76% good to excellent. Stock water supplies 18% very short, 25% short, 57% adequate. Hay, roughage supplies 5% short, 94% adequate, 1% surplus, better than last year at this time when only 39% of the State had adequate supplies. Temperatures averaged below normal in northern, western areas, above normal in the southeast for the month. Precipitation during the month averaged below normal for almost all of the State.

International Weather and Crop Summary

January 25 - 31, 2004

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

HIGHLIGHTS

EUROPE: Showers benefited winter grains in Spain and Portugal, while snow protected winter crops from bitterly cold weather in eastern Europe.

FSU-WESTERN: Unseasonably mild weather diminished the protective snow cover in eastern Ukraine and the Southern Region in Russia, leaving winter wheat areas vulnerable to potential weather extremes.

MIDDLE EAST: Across Turkey, the coastal eastern Mediterranean and western Iran, precipitation continued to boost moisture supplies for winter crops, while unseasonably warm weather continued across western Iran.

NORTHWESTERN AFRICA: Light rain improved conditions for winter grains in northern Morocco and most of Algeria, while the 8th consecutive week of dryness continued to limit moisture for crops in southern Morocco.

SOUTH AFRICA: Unseasonable warmth and dryness returned to the corn belt, limiting moisture for normal development of vegetative to reproductive summer crops.

EASTERN ASIA: In winter wheat areas of the North China Plain, bitter cold weather gave way to more seasonable temperatures, lowering the potential for winterkill.

SOUTHEAST ASIA: Seasonal showers boosted moisture supplies for corn, rice, and oil palm throughout Indonesia.

AUSTRALIA: Soaking rain favored cotton, sorghum, and sugarcane along coastal sections of eastern Australia, while much lighter rain farther inland brought limited drought relief.

SOUTH AMERICA: Loally heavy rain benefited immature summer crops in central Argentina and most of Brazil.

January 2004 MONTHLY DATA FROM SELECTED FOREIGN CITIES CLIMATE PREDICTION CENTER-NCEP-NWS-NOAA *** DATA NOT AVAILABLE

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
NORWAY	OSLO	-4	-8	0	-20	-6	-0.4	51	-7
SWEDEN	UPPSALA	***	***	2	-16	***	***	***	***
FINLAN	HELSINKI	-5	-9	0	-22	-7	-1.8	24	-21
UKINGD	ABERDEEN	6	2	12	-2	4	0.8	97	-7
	MANCHESTER	8	3	12	-4	6	1.2	120	48
	CARDIFF	9	5	13	0	7	0.8	136	37
	LONDON	9	4	12	-2	6	1.1	71	15
IRELAN	DUBLIN	8	3	13	-5	6	0.2	82	15
ICELAN	REYKJAVIK	1	-1	8	-10	0	0.6	25	-53
DENMAR	COPENHAGEN	0	-3	4	-12	-1	-1.9	48	6
LUXEMB	LUXEMBOURG	3	-1	11	-9	1	0.2	101	28
SWITZE	ZURICH	3	-1	12	-7	1	0.7	151	91
	GENEVA	5	0	15	-10	3	1.4	140	65
FRANCE	PARIS/ORLY	7	3	15	-6	5	0.9	92	42
	STRASBOURG	5	0	14	-11	2	0.7	83	51
	BOURGES	7	2	14	-7	5	1.1	107	52
	BORDEAUX	11	5	17	-3	8	1.5	136	49
	TOULOUSE	9	4	17	-3	7	1.1	145	96
	MARSEILLE	10	3	17	-3	7	0.1	16	-39
SPAIN	VALLADOLID	9	3	15	-3	6	1.9	24	-19
	MADRID	11	2	18	-5	6	0.9	1	-27
	SEVILLE	17	8	21	1	13	1.8	6	-57
PORTUG	LISBON	15	10	18	5	13	2.0	126	32
GERMAN	HAMBURG	2	-1	9	-8	1	-0.7	89	24
	BERLIN	1	-3	7	-11	-1	-1.8	64	18
	DUSSELDORF	5	1	12	-7	3	0.0	72	5
	LEIPZIG	2	-2	8	-16	-1	-0.5	49	16
	DRESDEN	0	-4	8	-15	-2	-1.6	65	29
	STUTTGART	3	-2	12	-12	1	0.2	121	85
	NURNBERG	2	-3	10	-13	0	-0.4	75	32
	AUGSBURG	2	-3	11	-18	-1	0.0	136	98
AUSTRI	VIENNA	1	-4	9	-15	-2	-1.6	68	40
	INNSBRUCK	2	-4	9	-13	-1	0.0	74	28
CZECHR	PRAGUE	-1	-6	6	-20	-3	-1.9	40	18
POLAND	WARSAW	-3	-7	4	-15	-5	-3.2	26	3
	LODZ	-3	-7	4	-16	-5	-3.6	43	14
	KATOWICE	-2	-6	5	-16	-4	-2.5	46	10
HUNGAR	BUDAPEST	1	-4	10	-13	-2	-1.3	33	3
YUGOSL	BELGRADE	2	-2	13	-10	0	-1.9	96	54
ROMANI	BUCHAREST	1	-6	8	-17	-3	-1.9	59	31
BULGAR	SOFIA	2	-5	15	-14	-2	-1.4	50	24
ITALY	MILAN	8	2	16	-2	5	2.4	10	-50
	VERONA	6	0	14	-4	3	1.1	24	-53
	VENICE	6	0	12	-5	3	-0.1	25	-26
	GENOA	11	5	18	1	8	-0.9	29	-59
	ROME	11	3	17	-5	7	-1.6	37	-32
	NAPLES	12	5	16	-4	8	-0.5	69	-27
GREECE	THESSALONIKA	7	1	16	-4	4	-1.2	72	39
	LARISSA	9	0	16	-9	5	-0.7	89	29
	ATHENS	12	6	18	-2	9	-1.2	144	105
TURKEY	ISTANBUL	7	3	15	-6	5	-0.7	121	61
	ANKARA	2	-5	10	-22	-2	-0.6	82	47
CYPRUS	LARNACA	17	8	20	3	12	0.5	230	172
ESTONI	TALLINN	-5	-8	0	-17	-6	-2.8	23	-34
RUSSIA	ST.PETERSBURG	-7	-10	-1	-21	-9	-2.5	30	-11
LITHUA	KAUNAS	-5	-9	1	-21	-7	-3.7	48	8
BELARU	MINSK	-5	-9	1	-17	-7	-1.8	86	43
RUSSIA	KAZAN	-7	-11	0	-24	-9	2.4	96	62
	MOSCOW	-5	-8	2	-19	-6	1.1	89	45
	YEKATERINBURG	-7	-12	0	-22	-9	4.4	10	-13
	OMSK	-14	-21	-3	-30	-17	-0.5	15	-10
KAZAKH	KUSTANAY	-10	-16	-1	-24	-13	3.0	1	-18
RUSSIA	BARNAUL	-14	-22	-1	-33	-18	-2.9	7	-16
	KHABAROVSK	-16	-24	-5	-34	-20	0.7	14	2
	VLADIVOSTOK	-8	-14	-1	-21	-11	1.7	5	-6
UKRAIN	KIEV	-3	-6	4	-15	-4	-0.2	54	16
	LVOV	-3	-8	6	-16	-6	-2.6	43	10
	KIROVOGRAD	-2	-5	4	-12	-3	0.6	101	77
	ODESSA	1	-2	8	-10	-1	-0.2	111	80
	YALTA	9	4	13	0	6	1.8	190	127

Based on Preliminary Reports

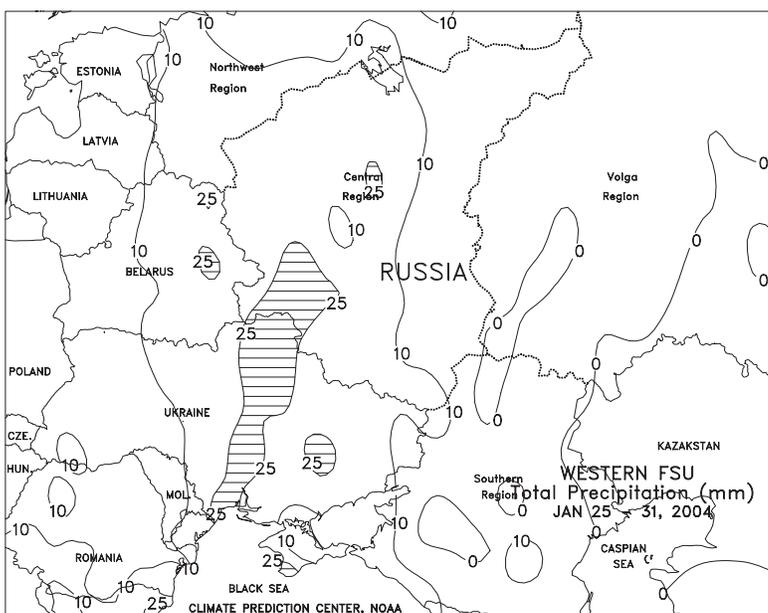
January 2004

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)				
		AVG MAX	AVG MIN	HI MAX	LO MIN	DPART AVG	F/NRM	TOTAL			DPART F/NRM	AVG MAX	AVG MIN	HI MAX	LO MIN	DPART AVG	F/NRM	TOTAL	DPART F/NRM	
RUSSIA	SARATOV	-5	-9	2	-17	-7	2.8	53	20	TANZAN	DAR ES SALAAM	33	25	36	23	29	1.6	72	-14	
UKRAIN	KHARKOV	-1	-4	6	-11	-3	3.0	55	21	GABON	LIBREVILLE	30	25	32	22	28	0.9	331	44	
RUSSIA	VOLGOGRAD	-2	-6	2	-14	-4	2.4	35	5	TOGO	LOME	33	25	35	21	29	2.1	20	6	
	ASTRAKHAN	1	-4	6	-14	-2	3.0	22	8	BURKIN	OUAGADOUGOU	34	19	40	16	26	1.5	0	0	
	KRASNODAR	7	0	16	-6	4	3.1	28	-36	COTE D	ABIDJAN	33	26	34	22	29	2.1	22	3	
	ORENBURG	-6	-12	0	-23	-9	3.5	17	-11	MOZAMB	MAPUTO	31	24	39	21	27	0.8	220	54	
KAZAKH	TSELINOGRAD	-11	-19	-2	-29	-15	-0.9	9	-9	ZAMBIA	LUSAKA	26	19	29	15	22	-0.6	223	-8	
	KARAGANDA	-10	-17	-3	-28	-14	-0.4	17	-5	ZIMBAB	KADOMA	29	19	36	15	24	0.0	163	-17	
GEORGI	TBILISI	9	-1	17	-7	4	2.8	10	-8	S AFRI	PRETORIA	28	19	35	16	24	1.1	39	-97	
UZBEKI	TASHKENT	9	2	17	-4	6	4.1	47	-9	S AFRI	JOHANNESBURG	25	15	30	12	20	0.3	122	-13	
TURKME	ASHKHABAD	11	2	20	-4	7	4.2	51	29	S AFRI	BETHAL	***	***	28	13	***	***	***	***	
SYRIA	DAMASCUS	12	3	16	-2	8	1.6	65	38	S AFRI	DURBAN	28	21	33	0	24	-0.1	262	126	
ISRAEL	JERUSALEM	12	7	16	4	9	1.6	130	-10	CANADA	CAPE TOWN	28	17	36	14	22	1.7	5	-7	
PAKIST	KARACHI	26	15	32	11	21	2.3	8	-3	CANADA	TORONTO	-5	-14	14	-24	-9	-3.3	49	-2	
INDIA	AMRITSAR	16	4	23	0	10	-1.5	43	17		MONTREAL	-12	-19	7	-29	-15	-5.0	35	-38	
	NEW DELHI	19	9	23	4	14	-0.5	16	-5		WINNIPEG	-16	-27	-6	-41	-22	-4.1	43	24	
	AHMEDABAD	28	12	32	8	20	0.3	0	-2		REGINA	-13	-23	0	-42	-18	-2.1	21	7	
	INDORE	26	11	31	7	19	0.2	9	4		SASKATOON	-15	-24	1	-45	-20	-2.6	30	15	
	CALCUTTA	25	13	29	9	19	-0.3	8	-6		LETHBRIDGE	-4	-14	10	-35	-9	-1.5	11	-7	
	VERAVAL	29	15	31	12	22	0.5	4	1		CALGARY	-6	-15	11	-34	-10	-2.0	17	6	
	BOMBAY	31	17	37	14	24	0.0	0	-2		EDMONTON	-10	-18	7	-35	-14	-2.3	15	-4	
	POONA	30	12	33	8	21	0.6	0	-1		VANCOUVER	7	2	12	-12	4	0.8	161	9	
	BEGAMPET	29	16	32	11	22	0.1	40	33	MEXICO	GUADALAJARA	21	9	27	2	15	-0.5	16	4	
	VISHAKHAPATNAM	27	19	30	17	23	-0.5	5	-2		TLAXCALA	18	7	24	1	12	-0.6	3	-2	
	MADRAS	30	20	32	18	25	0.4	24	-2		ORIZABA	19	14	29	9	17	1.4	33	-10	
	MANGALORE	33	21	35	19	27	-0.3	0	-3		BERMUD	ST GEORGES	20	15	23	12	17	-1.4	137	19
HONGKONG	HONG KONG INT	19	14	24	7	16	-0.3	54	26	BAHAMA	NASSAU	25	17	28	10	21	0.0	26	-19	
N KORE	PYONGYANG	0	-10	6	-20	-5	0.9	8	-3	CUBA	HAVANA	26	16	29	8	21	-0.5	48	-15	
S KORE	SEOUL	2	-4	8	-17	-1	1.0	20	-3	JAMAIC	KINGSTON	30	23	32	21	27	0.6	5	-19	
JAPAN	SAPORO	0	-5	4	-11	-3	1.4	142	31	P RICO	SAN JUAN	28	21	31	19	25	-0.3	56	-20	
	NAGOYA	9	1	13	-3	5	0.4	20	-24	GUADEL	RAIZET	28	21	29	18	25	0.1	141	57	
	TOKYO	10	3	14	0	7	0.8	4	-45	MARTIN	LAMENTIN	29	22	29	19	26	1.2	73	-39	
	KYOHAMA	10	3	16	0	6	0.4	11	-48	BARBAD	BRIDGETOWN	29	24	30	21	27	0.8	46	-17	
	KYOTO	9	1	13	-3	5	-0.3	18	-40	TRINID	PORT OF SPAIN	31	22	32	20	27	1.5	33	-34	
	OSAKA	9	3	13	-2	6	0.1	20	-27	COLOMB	BOGOTA	19	6	20	0	13	-0.4	22	-11	
THAILA	PHITSANULOK	32	19	34	15	25	0.3	4	-1	VENEZU	CARACAS	30	23	33	20	27	2.2	19	-5	
	BANGKOK	33	24	35	20	28	1.3	46	36	F GUIA	CAYENNE	30	23	31	20	26	0.7	218	-219	
MALAYS	KUALA LUMPUR	34	24	35	23	29	2.3	252	83	BRAZIL	FORTALEZA	30	25	32	23	27	-0.9	271	161	
VIETNA	HANOI	20	16	28	10	18	0.4	6	-14		RECIFE	30	26	32	23	28	-1.0	167	106	
CHINA	HARBIN	-11	-21	-6	-27	-16	2.0	3	-1		CAMPO GRANDE	34	24	39	22	29	3.1	115	-104	
	HAMI	-4	-17	2	-23	-11	-0.5	7	5		FRANCA	27	19	29	18	23	0.3	247	-37	
	LANCHOW	***	***	4	-10	***	***	***	***		RIO DE JANEIRO	30	23	37	19	26	-0.9	225	90	
	BEIJING	2	-7	9	-13	-2	1.4	1	-2		LONDRINI	31	20	34	15	25	1.2	156	-51	
	TIENTSIN	3	-7	9	-13	-2	0.6	0	-3		SANTA MARIA	32	20	35	14	26	0.3	22	-129	
	LHASA	7	-7	12	-11	0	0.9	0	0		TORRES	26	20	28	13	23	-2.8	93	-65	
	KUNMING	16	4	20	1	10	1.4	28	11	PERU	LIMA	26	20	28	19	23	0.1	0	0	
	CHENGCHOW	7	-3	13	-8	2	1.3	2	-11	BOLIVI	LA PAZ	13	5	16	1	9	0.1	184	23	
	YEHCHANG	9	2	15	-2	6	0.7	42	19	CHILE	SANTIAGO	30	13	32	10	21	0.5	0	-3	
	HANKOW	8	2	14	-3	5	0.8	54	9	ARGENT	IGUAZU	32	20	36	17	26	0.6	100	-70	
	CHUNGKING	11	7	15	4	9	1.1	15	-3		FORMOSA	35	22	40	17	28	0.7	16	-141	
	CHIHKIANG	8	3	18	-3	6	0.6	41	-5		CERES	34	19	40	14	26	1.0	7	-127	
	WU HU	8	1	14	-7	4	0.8	62	13		CORDOBA	31	19	35	13	25	1.6	43	-96	
	SHANGHAI	7	1	13	-5	4	0.0	95	47		RIO CUARTO	30	18	36	13	24	1.2	155	21	
	NANCHANG	9	4	14	-2	6	0.8	48	-25		ROSARIO	32	19	38	11	25	0.6	38	-70	
	TAIPEI	18	14	25	7	16	-0.4	122	51		BUENOS AIRES	31	18	37	10	24	0.8	88	-16	
	CANTON	18	10	27	3	14	0.5	60	19		SANTA ROSA	33	18	37	12	25	1.6	51	-39	
	NANNING	17	11	27	5	14	0.7	58	23		TRES ARROYOS	31	16	38	9	23	1.9	27	-55	
CANARY	LAS PALMAS	20	16	22	13	18	0.3	10	-8	MARSHA	MAJURO	30	27	30	25	28	1.2	190	-4	
MOROCC	CASABLANCA	17	10	21	4	14	1.2	4	-66	NEW CA	NOUMEA	30	24	34	21	27	1.0	19	-95	
	MARRAKECH	19	7	21	1	13	1.0	0	-30	FIJI	NAUSORI	30	22	32	19	26	-0.2	108	-242	
ALGERI	ALGER	17	6	21	0	12	1.0	88	19	SAMOA	PAGO PAGO	30	26	31	23	28	0.3	317	-39	
	BATNA	13	0	20	-5	6	1.0	25	-2	TAHITI	PAPEETE	31	25	33	23	28	1.1	254	-19	
TUNISI	TUNIS	16	9	22	3	13	1.0	59	-11	PNEWGU	PORT MORESBY	31	25	34	23	28	1.0	107	-64	
NIGER	NIAMEY	33	18	36	13	26	1.4	0	0	NZEALA	AUCKLAND	25	17	28	11	21	***	70	***	
MALI	TIMBUKTU	29	15	34	10	22	1.1	0	0		WELLINGTON	21	15	27	10	18	***	146	***	
	BAMAKO	33	17	35	11	25	-0.3	1	1	AUSTRA	DARWIN	31	26	33	23	28	0.0	650	163	
MAURIT	NOUAKCHOTT	29	15	33	8	22	1.1	0	-1		BRISBANE	29	23	35	19	26	0.9	398	238	
SENEGA	DAKAR	25	19	28	15	22	1.5	0	-1		PERTH	32	18	41	14	25	0.6	0	-8	
CHAGOS	DIEGO GARCIA	30	26	32	23	28	0.3	373	17		CEDUNA	25	14	42	7	20	-2.1	4	-7	
LIBYA	TRIPOLI	***	9	23	4	***	***	34	-19		ADELAIDE	23	15	34	11	19	-2.7	4	-33	
	BENGHAZI	***	***	23	7	***	***	40	-20		MELBOURNE	23	12	38	5	18	-1.7	30	-18	
EGYPT	CAIRO	19	11	24	9	15	1.0	19	14		WAGGA	33	15	42	7	24	0.4	27	-20	
	ASWAN	23	10	29																



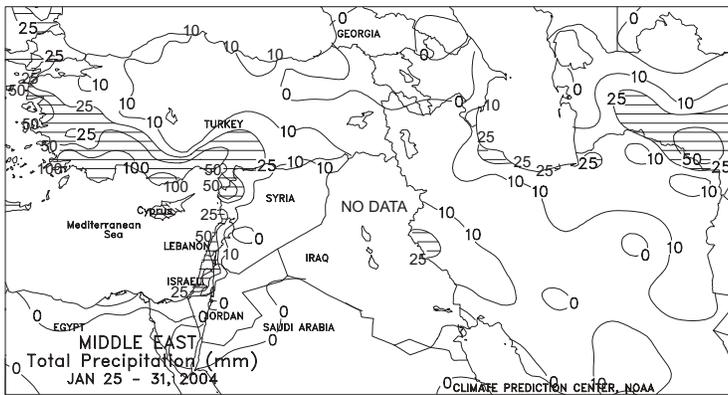
EUROPE

Widespread precipitation (10-50 mm or more) fell across western Europe, while bitterly cold weather prevailed in the east. The precipitation in England and France maintained favorable moisture supplies for upcoming spring growth of currently dormant winter grains. In the Iberian Peninsula, widespread showers (3-60 mm or more) were especially beneficial for semi-dormant to vegetative winter grains, following a 4- to 5-week dry spell. The greatest rainfall (25-60 mm or more) was reported across Portugal and the northwestern half of Spain, with lighter amounts (3-15 mm) reported in southeastern Spain. During the first half of the week, colder weather helped to produce light snow across most of Europe (except for the lower elevations of the Iberian Peninsula, western France, and central and southern Italy). On January 29, snow cover extended from eastern and central Europe into the northeastern half of France, portions of the United Kingdom, and the higher elevations in northern Italy. By week's end, however, the snow cover across France, United Kingdom, and Germany was disappearing. Across the Alps, the Czech Republic, northern Poland, and Romania, a moderate to deep snow cover protected dormant winter grains from bitterly cold weather (minimum temperatures of -20 to -15 degrees C). Moderate snow cover remained across the Alps and eastern Europe by week's end. Temperatures averaged near normal across England, France, and Germany, 2 to 4 degrees C below normal across eastern Europe and Italy, and 1 to 3 degrees C above normal across the Iberian Peninsula.



FSU-WESTERN

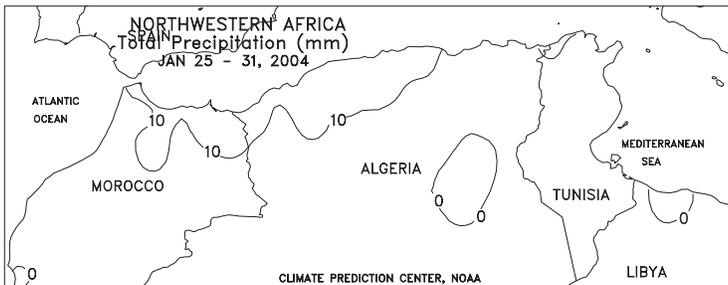
A front extended from central Ukraine northward through the Central Region in Russia during most of the week. A series of low pressure systems moved north along the front, producing mixed precipitation. A mixture of snow, freezing rain, and rain fell in central and eastern Ukraine, where precipitation ranged from 8 to 45 mm (liquid equivalent). Farther north, across eastern Belarus and the Central Region, precipitation fell mostly as snow (10-34 mm of liquid equivalent). Elsewhere, light snow (5 mm or less of liquid equivalent) fell in the Baltics, western Belarus, and western Ukraine, while dry weather prevailed from the Southern Region in Russia northward into the Volga Region. West of the front, unseasonably cold air spread south from the Baltics into western Ukraine, where weekly temperatures averaged 1 to 6 degrees C below normal. Although extreme minimum temperatures in these areas ranged from -22 to -15 degrees C, a deep snow cover provided adequate protection from the bitter cold. Along and ahead of the front, weekly temperatures in central and eastern Ukraine and the Southern Region in Russia averaged 1 to 5 degrees C above normal. Extreme maximum temperatures in these areas ranged from 5 to 15 degrees C. By week's end, most winter wheat areas in eastern Ukraine and the Southern Region in Russia were snow free, leaving crops vulnerable to potential weather extremes.



MIDDLE EAST

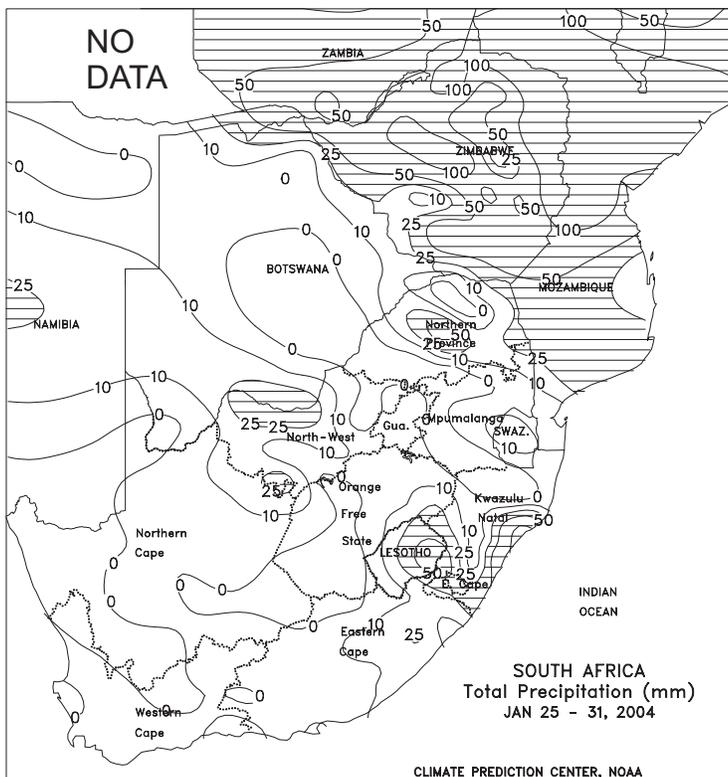
A series of storms across the western portion of the Middle East produced widespread rain across the region. In central Turkey, light snow then rain (3-15 mm of water equivalent) maintained favorable moisture supplies for upcoming spring growth for currently dormant winter grains. The week started fairly cold with minimum temperatures ranging from -15 to -10 degrees C in this region, but snow cover protected dormant grains. Warmer weather prevailed by week's end, with minimum temperatures above 0 degrees C. However, winter grains remained dormant in central Turkey. The heaviest rain (25-100 mm or more) continued to fall across western and southern Turkey, boosting moisture supplies for winter crops but causing isolated problems with excessive wetness. Across the coastal eastern Mediterranean, widespread rain (10-50 mm) continued to provide abundant moisture for winter crops. Based on reports from surrounding countries, probably little or no precipitation fell across northern Iraq. In western Iran, light to

moderate rain (5-15 mm, with isolated rainfall greater than 20 mm) increased soil moisture supplies for rainfed winter grains. Temperatures in this region were slightly cooler than last week but still averaged 3 to 6 degrees C above normal. Winter grains have lost some winter hardiness and are vulnerable to potential future cold air outbreaks. In western Turkey, temperatures were near normal, while across central Turkey and the eastern Mediterranean, temperatures were 1 to 3 degrees C above normal



NORTHWESTERN AFRICA

Across winter grain areas in northern Morocco and the western half of Algeria, widespread light to moderate rain (3-20 mm or more) benefited vegetative winter grains. Little or no rain fell across southern Morocco, where soil moisture is becoming limited due to 8 consecutive weeks of dryness. Across eastern Algeria and Tunisia, light rain (less than 10 mm) maintained adequate soil moisture levels for vegetative winter grains. Since winter grains typically advance through the heading stage from mid-March to April across the region, timely rains will be needed in upcoming weeks to ensure current crop prospects. Temperatures averaged 1 to 3 degrees C above normal, increasing crop water use.



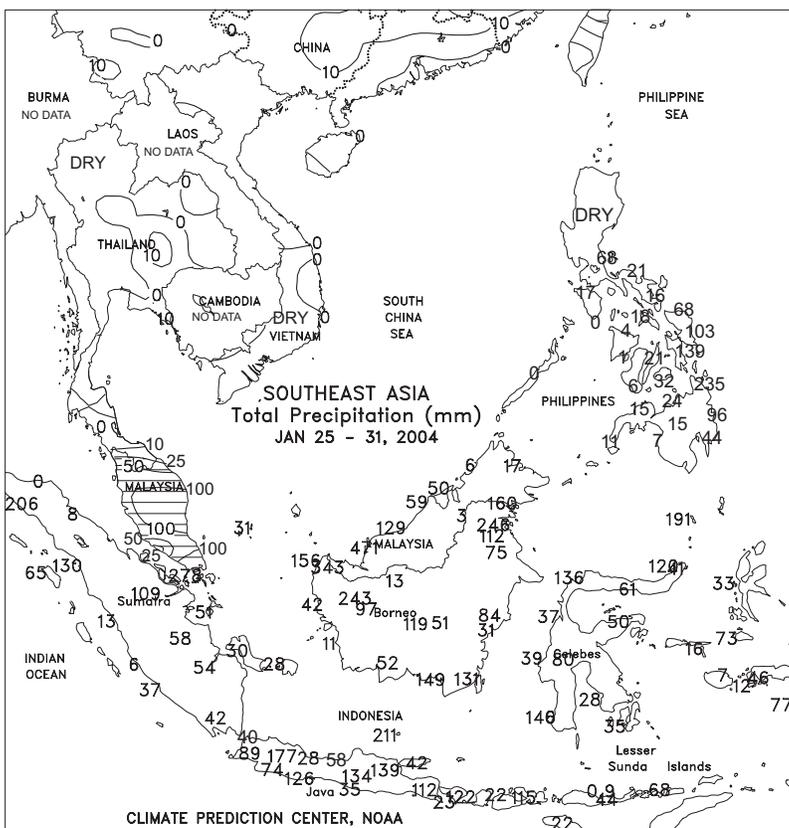
SOUTH AFRICA

Following last week's beneficial rainfall, unfavorable warmth and dryness returned to the corn belt, with virtually no rain falling in major production areas of North West, Free State, Gauteng, and Mpumalanga. Temperatures averaging 1 to 2 degrees C (highs ranging from the upper 20s degrees C in the east to the middle 30s in the west) exacerbated the effect of the dryness on vegetative to reproductive summer crops. Corn and other summer crops are advancing through reproduction and need rain to prevent significant declines in yield potential. Dry weather also dominated northern sugarcane areas, but showers (10-50 mm or more) returned to southern KwaZulu-Natal at midweek. Mostly dry, seasonably warm weather maintained irrigation demands in most other coastal crop areas, including fruit and vegetable areas of Western Cape.



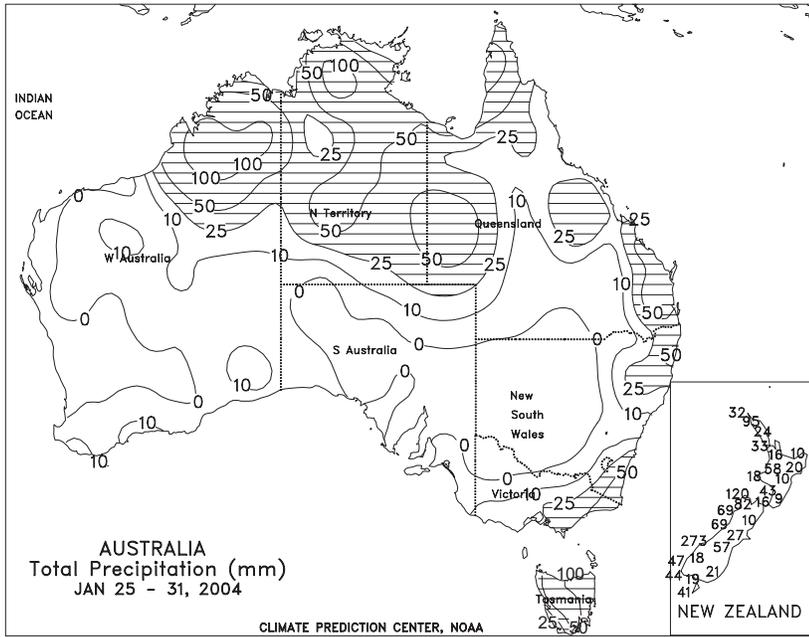
EASTERN ASIA

Mostly dry, seasonably cool weather dominated China's major winter crop areas, maintaining mostly favorable conditions for overwintering crops. On the North China Plain, unseasonably cold weather gradually dissipated, with highs exceeding 10 degrees C in most winter wheat areas. Bitter cold weather (temperatures of -15 degrees C or lower) was confined to northernmost growing areas, where patchy snow cover offered limited protection from winterkill. However, the warming trend eventually melted the protective layer of snow, and the traditionally colder winter wheat areas are at risk from future outbreaks of arctic air. Elsewhere in China, cool, showery weather (temperatures averaging 1-3 degrees C below normal; 5-10 mm or more) increased moisture for sugarcane but maintained sluggish growth and fieldwork progress. Mostly dry, seasonably cool weather covered Japan, with precipitation (5-25 mm or more) confined to western coastal areas.



SOUTHEAST ASIA

In Indonesia, heavy showers (50-100 mm or more) boosted moisture supplies for reproductive corn and vegetative rice. Seasonal showers (50-100 mm) also increased moisture supplies for oil palm throughout Indonesia and Malaysia. Unseasonably cool weather (1-3 degrees C below normal) slowed development of winter-spring rice in northern Vietnam.



AUSTRALIA

In eastern Australia, soaking rain returned to portions of Queensland and northern New South Wales, helping summer crop development in some areas. Locally heavy rain (30-100 mm or more) along the coast favored sugarcane but likely caused some local flooding. Rainfall declined with increasing distance from the coast, however, with only light rain reported in western summer crop-producing areas. As a result, sorghum and cotton in the east benefited the most from the rainfall (5-30 mm), while crops and reservoirs farther west received limited drought relief (mostly less than 5 mm). Temperatures in eastern Australia were generally seasonable, averaging about 1 degree C above normal.



SOUTH AMERICA

In Argentina, much-needed rain covered important southern and southwestern summer crop areas, including recently dry La Pampa, southern Cordoba, and Buenos Aires. However, dry weather dominated most other major growing areas, including nearly all growing areas of Santa Fe and Entre Rios, which are also experiencing a drying trend. Near- to above-normal temperatures (highs ranging from the middle 30s degrees C in southern growing areas to the 40s in the far north) increased crop moisture demands throughout Argentina, and many crop areas require a soaking rain to sustain favorable yield prospects. Summer grains and oilseeds widely vary in development, with all but the latest planted crops in or nearing the moisture- and temperature-sensitive reproductive stage. In Brazil, widespread, moderate to heavy rain (25-100 mm or more) increased moisture reserves for summer crop development, although dry pockets lingered in primary soybean areas of Rio Grande do Sul and western Parana. The heaviest rain (greater than 100 mm) occurred in recently dry locations in Sao Paulo and Mato Grosso. Near-normal temperatures (highs in the 30s degrees C) favored crop development in most major growing areas.

The *Weekly Weather and Crop Bulletin* (ISSN 0043-1974) is published weekly and is jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the *Weekly Weather Chronicle*. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53rd Congress, 3rd Session. NOAA and IMC are responsible for managing, printing, and distributing the bulletin. The contents may be reprinted freely, with proper credit.

Annual subscriptions: Domestic and International subscriptions are **\$60**. Check and credit card (Visa, MasterCard, Discover, and American Express) payments are accepted. Payments (invoices) should be mailed to: **NNDCC/NCDC, P.O. Box 70169, Chicago, IL 60673-0169**; or invoices faxed to: (304) 726-4409.

Send address changes to: **NCDC Subscription Services Center, 310 State Route 956, Building 300, Rocket Center, WV 26726**; call toll free: (866) 742-3322; TDD: (828) 271-4010; fax: (304) 726-4409; or E-mail: noaasubsvcs@imcwv.com

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/waob/jawf>; E-mail address: jawfweb@oce.usda.gov

U.S. DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration
National Weather Service/Climate Prediction Center
Managing Editor **David Miskus** (202) 720-7919
Meteorologists **Eric Luebehusen,**
..... **Brad Pugh, and Chester Schmitt**

NCDC SUBSCRIPTION SERVICES CENTER

Subscriptions **Toll free:** (866) 742-3322
..... **TDD:** (828) 271-4010
..... **Fax:** (304) 726-4409
..... **E-mail:** noaasubsvcs@imcwv.com

U.S. DEPARTMENT OF AGRICULTURE

Economic Research Service
E.R.S. Editor **Sharon Lee** (202) 694-5125
National Agricultural Statistics Service
Agricultural Statistician **Brian Young** (202) 720-7621
State Summaries Editor . **Delores Thomas** (202) 720-8033
World Agricultural Outlook Board
International Editor **Tom Puterbaugh** (202) 720-2012
U.S. Editor **Brad Rippey** (202) 720-2397
Agricultural Weather Analysts **Mark Brusberg,**
..... **Brian Morris, Harlan Shannon, and Bob Stefanski**
Stoneville **Bart Freeland and Nancy Lopez**

NCDC Subscription Services Center
Attn: Weekly Weather & Crop Bulletin
310 State Route 956
Building 300
Rocket Center, WV 26726

WEEKLY NEWS BULLETIN
FIRST CLASS

FIRST CLASS MAIL
POSTAGE & FEES PAID
NOAA
PERMIT NO. G-19

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300