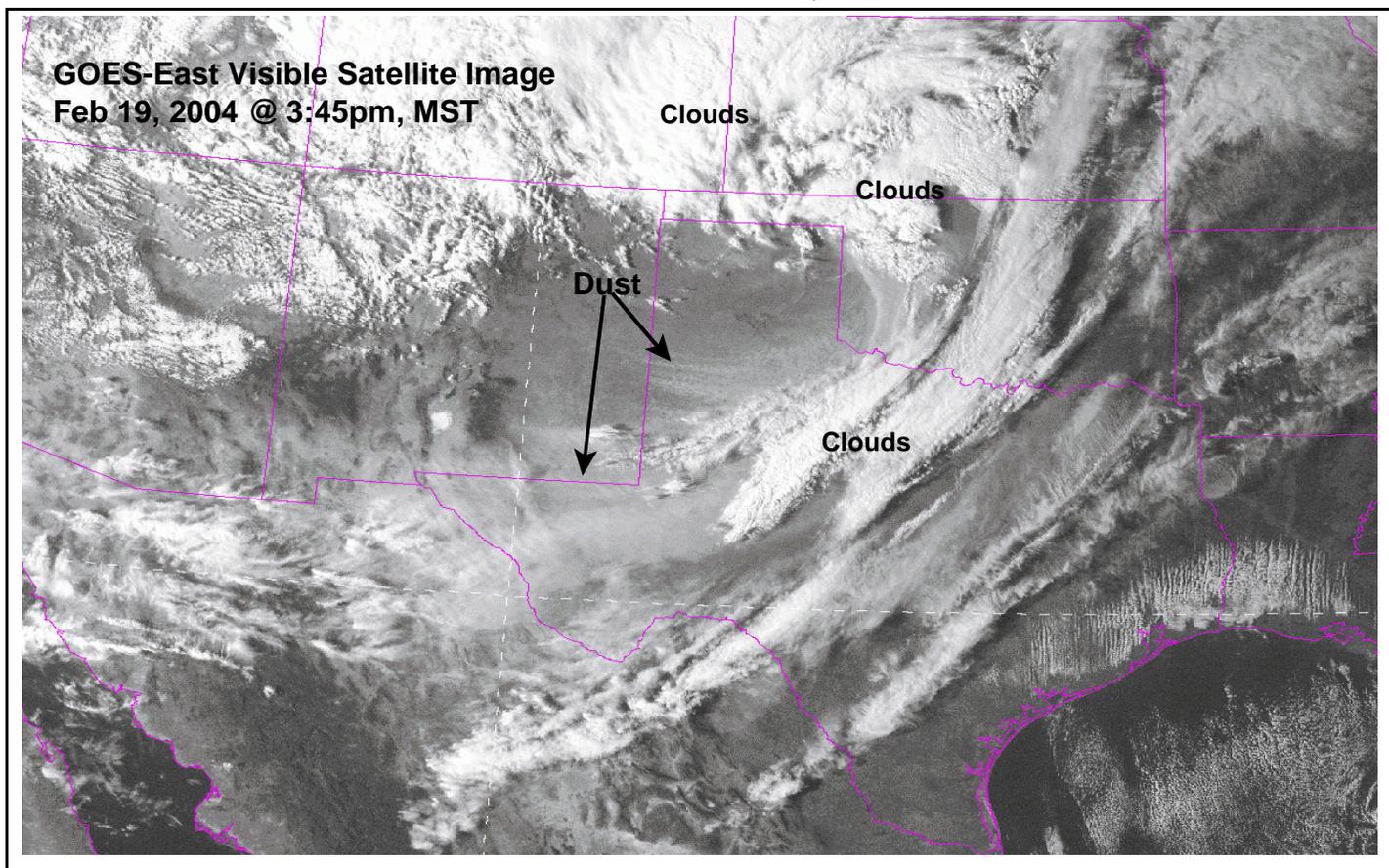


WEEKLY WEATHER AND CROP BULLETIN



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

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



HIGHLIGHTS

February 15 - 21, 2004

Highlights provided by USDA/WAOB

Mild, mostly dry weather melted most of the winter wheat crop's protective snow cover on the **northern and central Plains**, where weekly temperatures generally ranged from 4 to 10°F above normal. Midweek temperatures climbed to near 80°F on the **southern Plains** and topped 70°F as far north as **western Nebraska**. On February 19, a storm system crossing the **central Plains** produced some light rain and wet snow in **eastern Colorado** but provided little precipitation elsewhere. South of the storm's track, high winds raked the **Texas and New Mexico High Plains**, reducing visibilities in some locations to less than one-half mile in blowing dust.

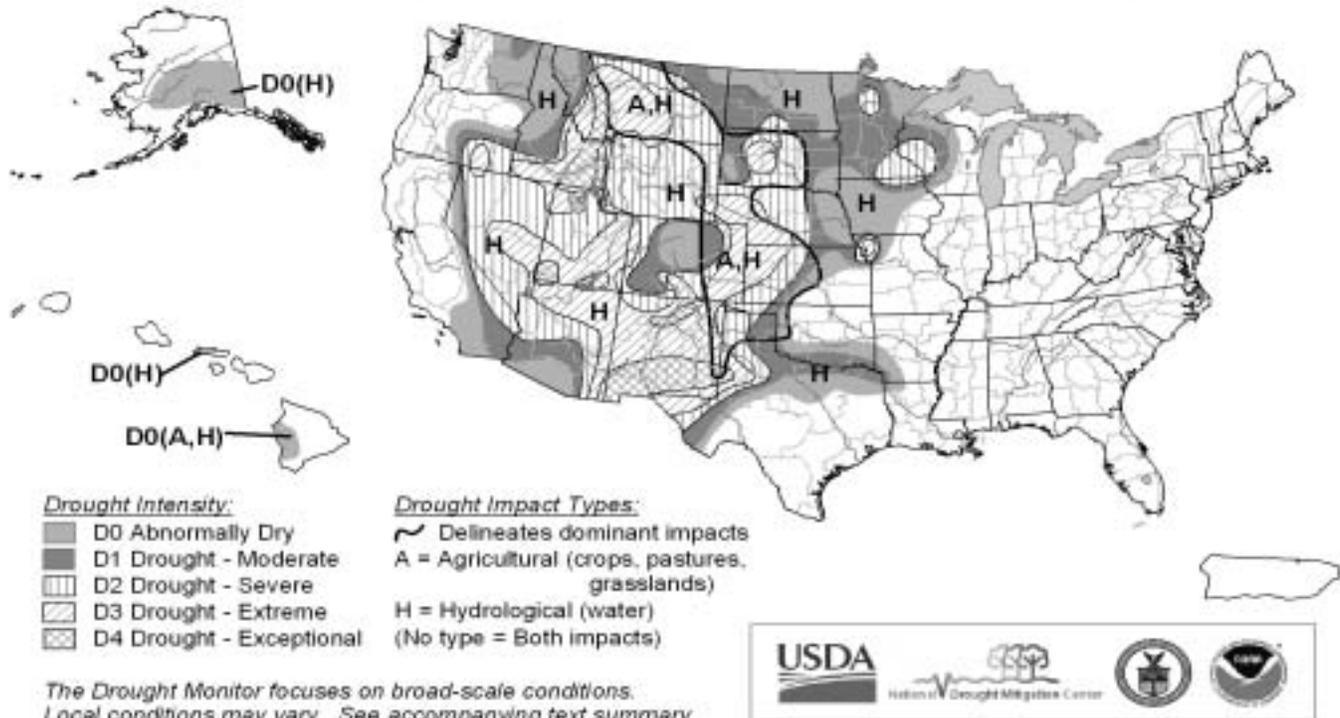
(Continued on page 3)

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U.S. Drought Monitor

February 17, 2004
Valid 7 a.m. EST



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

- Drought Impact Types:**
- ~ Delineates dominant impacts
 - A = Agricultural (crops, pastures, grasslands)
 - H = Hydrological (water)
 - (No type = Both impacts)

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



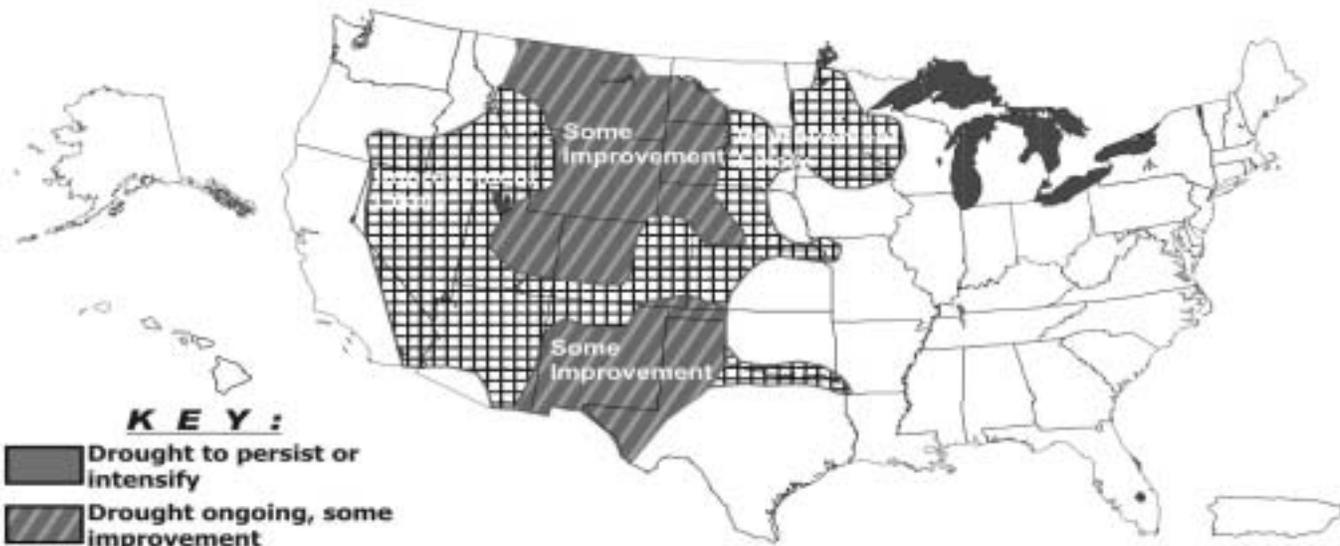
Released Thursday, February 19, 2004
Author: Michael Hayes, NDMC

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



U. S. Seasonal Drought Outlook Through May 2004

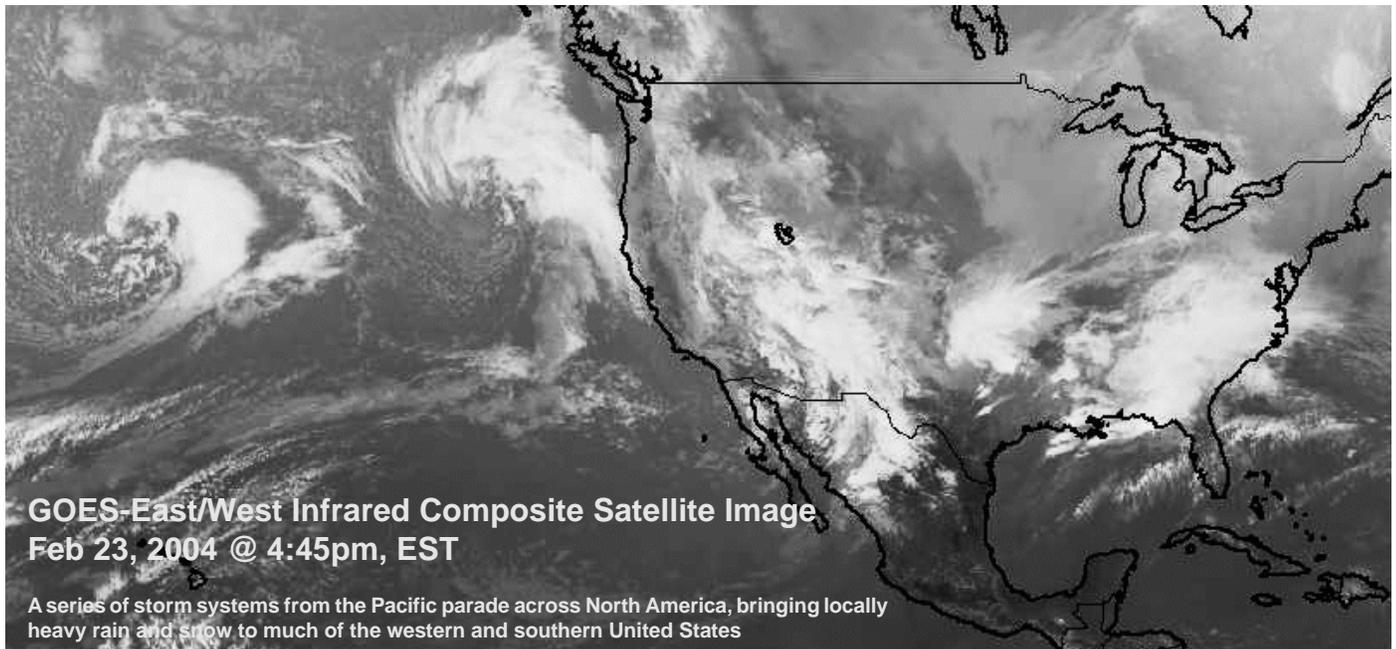
Released February 19, 2004



KEY:

- Drought to persist or intensify
- ▨ Drought ongoing, some improvement
- ▩ Drought likely to improve, impacts ease
- Drought development likely

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.



(Continued from front cover)

Farther west, heavy rain and high-elevation snow pounded **northern California**, maintaining favorable water-supply prospects but causing local flooding. Wet weather also prevailed across the **northern Rockies** and the **Northwest**, but unfavorably dry conditions persisted through week's end in drought-stricken areas of the **Great Basin, central and southern Rockies**, and the **Southwest**. Storminess increased across **southern California** and the **Four Corners region** on Sunday, February 22, boosting high-elevation snow packs but causing local concerns with respect to flooding and mudslides, especially on hillsides burned during last year's wildfires. Meanwhile, bitterly cold weather lingered early in the week from the **upper Midwest to northern New England**, where temperatures as low as -30°F were reported. Tranquil weather prevailed across the **Midwest** thereafter, although some rain and snow showers crossed the **Great Lakes and Northeastern States** toward week's end. Elsewhere, **Southern** pastures and winter grains benefited from a week of mostly dry weather, following early- to mid-February downpours that left some fields saturated, particularly from the **western Gulf Coast States into the Tennessee Valley**. However, some additional light snow fell early in the week across the **southern Mid-Atlantic region**. Although a return to mild weather snapped a 3-week cold snap across the majority of the Nation, a lingering chill in the **Southeast** held temperatures as much as 8°F below normal.

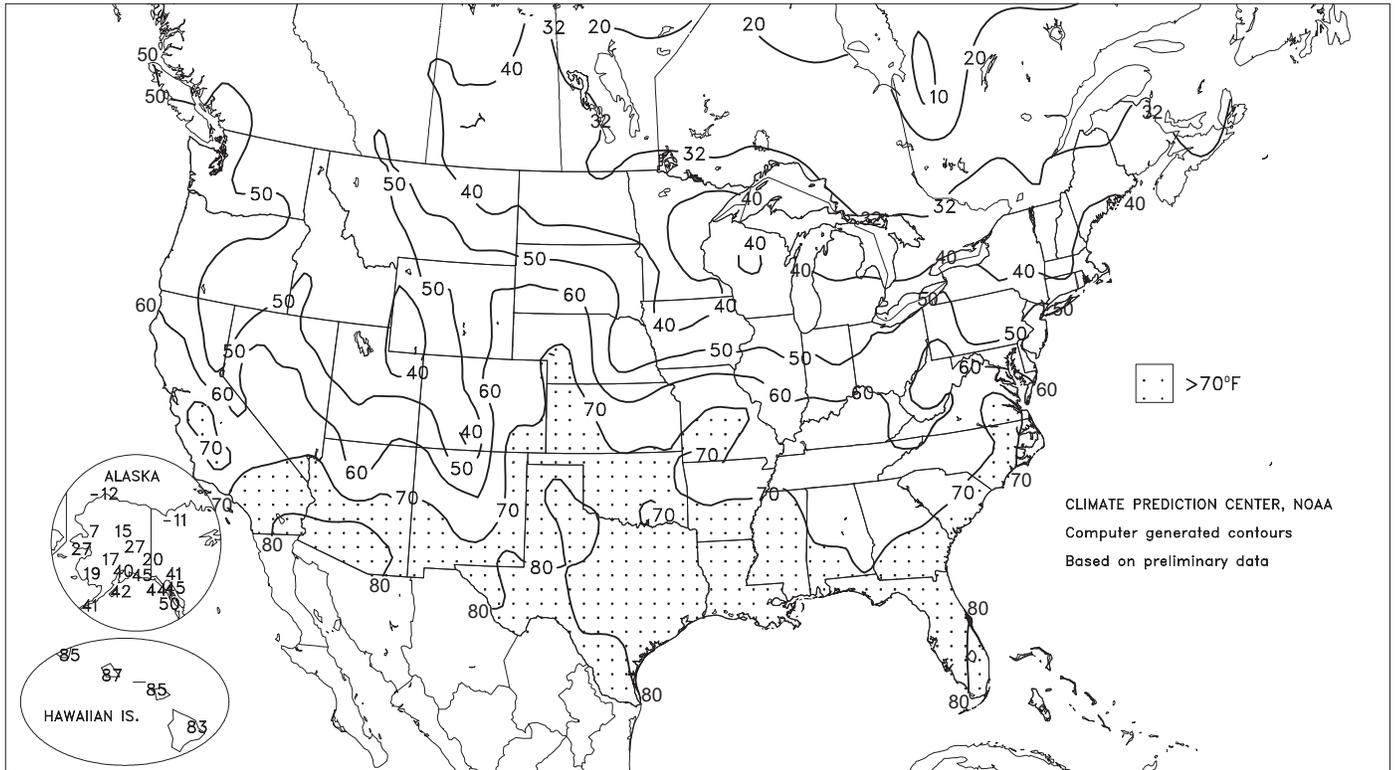
Early in the week, lingering cold weather across the **Nation's northern tier** resulted in daily-record lows for February 15 in locations such as **International Falls, MN** (-32°F), and **Houlton, ME** (-20°F). More bitterly cold air swept into **northern New England** on February 17, breaking another daily-record low (-26°F) in **Houlton**. Chilly weather also persisted in parts of the **Intermountain West**, where **Alamosa, CO** (-17°F on February 16), notched its third daily-record low in 8 days. Meanwhile, precipitation overspread the **Northwest** in advance of a series of Pacific storm systems. On February 16, **Redmond, OR** (0.43 inch), netted a daily-record total, followed the next day by a daily record (0.29 inch) in **Missoula, MT**. Much heavier rain fell in **northern California**, where 24-hour totals on February 16-17 reached 6.10 inches in **Venado (Sonoma County)** and 3.90 inches near **Calistoga (Napa County)**. Meanwhile along the **Atlantic Seaboard**, a developing winter storm remained east of the major **East Coast** cities. Along the immediate coastline, however, February 17-18 snowfall totaled 8.0 inches in **Nantucket, MA**, and 2.4 inches in **Atlantic City, NJ**.

By midweek, warm weather overspread the **western half of the Nation** in advance of Pacific storminess, ending a long spell of colder-than-normal weather across the **central Plains** and **western Corn Belt**. For example, streaks of below-normal daily average temperatures ended at 24 consecutive days (January 25 - February 17) in locations such as **Kansas City, MO**, and **Hastings, NE**. Pre-storm warmth also produced consecutive daily-record highs in **Tucson, AZ** (83 and 85°F on February 17-18). On February 18, daily-record warmth reached the **High Plains**, where highs included 80°F in **Amarillo**, 66°F in **Colorado Springs**, and 62°F in **Billings**. Scattered showers immediately followed the **High Plains'** warmth, resulting in daily-record totals in locations such as **Billings** (0.28 inch on February 18) and **Pueblo, CO** (0.43 inch on February 19). Farther south, however, the afternoon of February 19 featured blowing dust and visibilities of one-half mile or less in locations such as **Lubbock, TX**, and **Las Cruces, NM**. **Lubbock** also clocked a peak wind gust to 58 m.p.h. Meanwhile, a final flurry of daily-record highs on February 19 in **Missouri** included 73°F in **Joplin** and 71°F in **Springfield**. At week's end, warm weather reached much of the **East** except **New England**, where snow developed. February 21-22 snowfall in **Maine** totaled 8.6 inches in **Portland** and 9.0 inches in **Bangor**. Meanwhile, heavy precipitation began to overspread the **Southwest**, including **southern California**, where **San Diego** netted 1.39 inches from February 21-23. During the 7-month period from July 2003 - January 2004, only 1.55 inches (29 percent of normal) fell in **San Diego**, followed by 0.67 inch during the first 20 days of February.

Cold, dry weather prevailed on the **Alaskan mainland**, where weekly temperatures averaged as much as 8°F below normal. In contrast, mild, showery conditions affected much of **southern Alaska**, boosting month-to-date (February 1-21) precipitation to 19.49 inches in **Yakutat** and 5.59 inches in **Juneau**. **Yakutat** typically nets 10.99 inches in February, while **Juneau** normally receives 4.02 inches. Meanwhile in **Hawaii**, warm weather (weekly temperatures up to 4°F) accompanied widely scattered, locally heavy showers in windward locations. On February 15-16, 24-hour rainfall included 2.42 inches in **Honokaa**, on the **Big Island**, and 2.37 inches in **Wainiha, Kauai**. **Hawaiian** daily-record highs included 85°F (on February 15) in **Lihue, Kauai**, and 87°F (on February 19) in **Honolulu, Oahu**. Those daily records fell 1°F shy of the stations' respective monthly record highs (86°F in **Lihue**, most recently set on February 20, 1986, and 88°F in **Honolulu**, established on February 11, 1984).

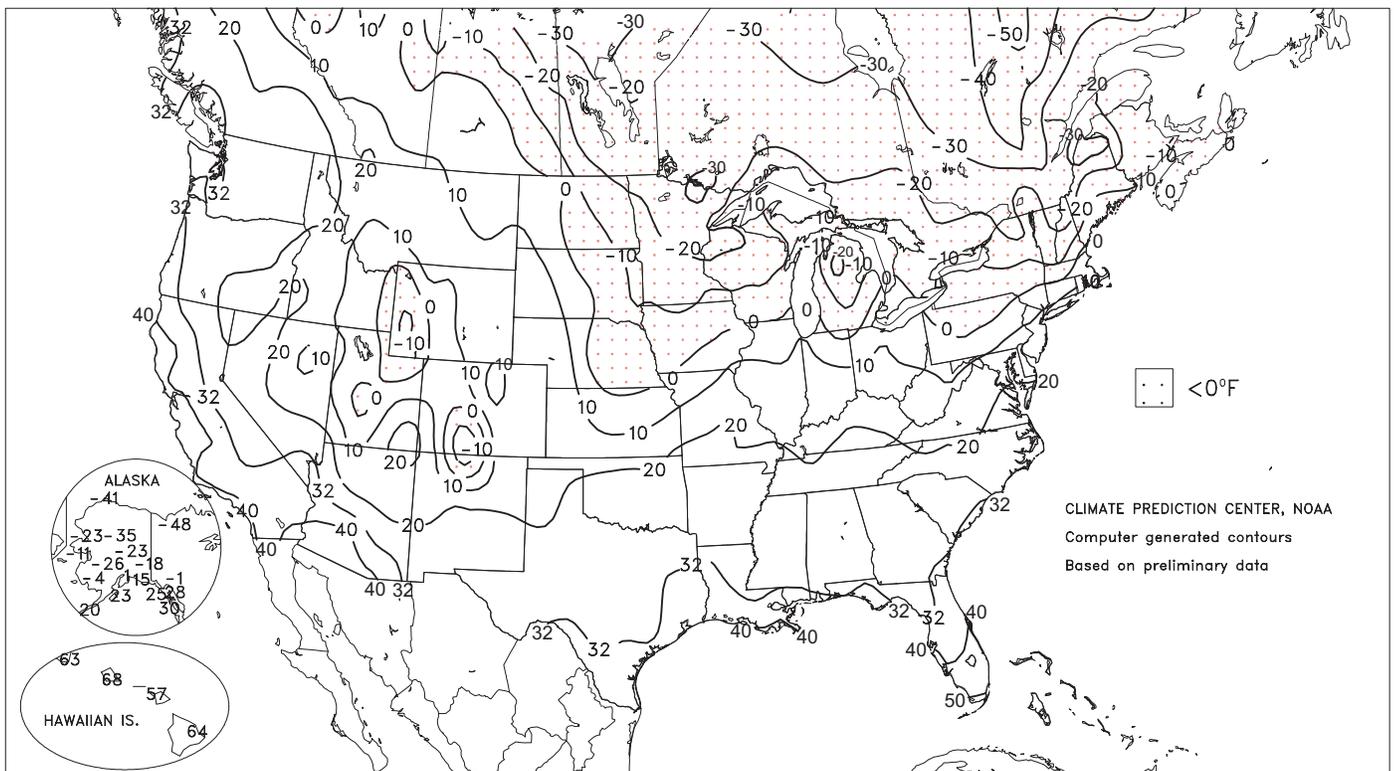
Extreme Maximum Temperature (°F)

FEB 15 - 21, 2004



Extreme Minimum Temperature (°F)

FEB 15 - 21, 2004



Weather Data for Mississippi and the Missouri Bootheel

Weather Data for the Week Ending February 21, 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	TEMP. °F				
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
MS	INDIANOLA 1S	56	36	72	30	46	-	0.37	-	0.37	12.44	-	9.48	-	48	43	0	3	1	0
	INVERNESS 5E	56	37	70	31	46	-	0.33	-	0.33	11.71	-	9.30	-	54	41	0	3	1	0
	LYON	56	34	72	30	45	-	0.42	-	0.42	11.07	-	8.69	-	49	40	0	4	1	0
	MACON	57	35	70	31	46	-	0.22	-	0.22	13.51	-	9.92	-	52	43	0	2	1	0
	ONWARD	57	36	71	30	47	-	0.08	-	0.08	8.13	-	8.13	-	52	44	0	3	1	0
	PERTSHIRE	56	34	74	29	45	-	0.42	-	0.42	12.44	-	9.63	-	42	35	0	3	1	0
	SCOTT	57	37	74	31	47	-	0.34	-	0.34	13.00	-	9.83	-	47	42	0	3	1	0
	SIDON	56	37	70	31	46	-	0.45	-	0.45	13.32	-	10.58	-	55	40	0	3	1	0
	STARKVILLE	57	33	70	29	45	-2	0.42	-0.77	0.42	10.91	76	8.20	88	52	42	0	4	1	0
	TUNICA 1W	54	33	69	27	44	-	0.41	-	0.41	12.07	-	9.69	-	48	40	0	4	1	0
	VANCE	54	34	70	29	44	-	0.71	-	0.71	13.00	-	10.12	-	46	42	0	4	1	1
	VERONA	56	33	70	28	44	-	0.51	-	0.44	10.57	-	7.82	-	52	39	0	3	2	0
	STONEVILLE X	55	33	73	30	44	-3	1.37	0.25	1.37	13.17	93	9.86	113	52	41	0	4	1	1
	MO	DELTA	51	28	64	21	38	-2	0.00	-0.85	0.00	5.37	55	3.39	62	44	35	0	5	0
STEELE		54	32	65	25	42	0	0.00	-1.33	0.00	8.41	73	5.56	84	47	39	0	4	0	0
GLENNONVILLE		53	31	65	24	41	-1	0.00	-1.01	0.00	6.04	65	3.38	64	47	37	0	4	0	0
PORTAGEVILLE LF		53	32	65	25	42	0	0.00	-1.31	0.00	7.56	72	5.13	86	49	37	0	4	0	0
CLARKTON		53	29	66	23	41	0	0.00	-1.01	0.00	6.51	70	3.75	71	45	37	0	4	0	0
CARDWELL		54	32	66	25	42	-1	0.00	-1.27	0.00	8.26	74	5.20	82	47	39	0	4	0	0
CHARLESTON		52	29	64	22	40	-1	0.00	-1.07	0.00	7.18	69	4.42	75	48	36	0	5	0	0
PORTAGEVILLE DC		53	31	64	23	42	0	0.00	-1.31	0.00	7.73	74	5.61	94	51	39	0	4	0	0

Compiled by USDA/OCE/WAOB's Stoneville Field Office.

X Based on 1971-2000 normals.

- Sufficient data not available.

Weather and Crop Summary: A dramatic warming trend was observed toward week's end, with high temperatures climbing as much as 20 to 30°F from early-week levels. However, late-week minimum temperatures remained low. Precipitation was confined to Mississippi and represented a carryover from Valentine's weekend storminess. There were some lingering snow showers and flurries in the northernmost Delta counties. Warmer, drier conditions allowed for extremely moist soils to begin to dry. Spring burndown for crops began, mostly by air, because sub-soil moisture was too excessive to support ground equipment. Winter wheat and pastures continued to develop normally.

A February Turn Toward Southern Wetness

Following a 2-month spell of mostly dry weather across the Gulf Coast and Southern Atlantic States, a series of February storm systems have aided pastures and winter grains and replenished soil moisture in preparation for spring planting. However, some areas from southern and eastern Texas to the Tennessee Valley have received too much February precipitation, causing sporadic lowland flooding. Wetness is already causing some spring fieldwork delays in the Deep South, and a continuation of rainy weather could cause planting delays elsewhere across the Nation's southern tier.

Meanwhile in southern California and the Southwest, early- to mid-February storminess provided generally light rain and snow, but much heavier precipitation arrived on February 21. The sudden barrage of late-winter storms is providing limited drought relief and boosting high-elevation snow packs. However, local flooding and mudslides remain a concern, especially on hillsides burned during last year's wildfires.

Data in the tables below was compiled by USDA/WAOB from information provided by the National Weather Service.

Precipitation and Normals (Inches)

Location	Dec. 2003 - Jan. 2004	Feb. 1-23, 2004
Gainesville, FL	2.05 / 6.07 (34% of normal)	4.01 / 2.74 (146%)
Alma, GA	3.18 / 8.50 (37% of normal)	4.33 / 3.21 (135%)
Columbia, SC	3.32 / 8.04 (41% of normal)	3.12 / 3.14 (99%)
New Orleans, LA	4.94 / 10.94 (45% of normal)	7.25 / 4.54 (160%)
Baton Rouge, LA	6.38 / 11.45 (56% of normal)	10.29 / 4.25 (242%)

Precipitation and Normals (Inches)

Location	Jul. 2003 - Jan. 2004	Feb. 1-23, 2004
San Diego, CA	1.55 / 5.43 (29% of normal)	2.06 / 1.64 (126%)
Thermal, CA	1.17 / 2.33 (50% of normal)	0.68 / 0.53 (128%)
Phoenix, AZ	3.24 / 5.95 (54% of normal)	0.99 / 0.62 (160%)
Albuquerque, NM	3.69 / 6.67 (55% of normal)	0.97 / 0.34 (285%)
Santa Maria, CA	3.80 / 6.56 (58% of normal)	3.00 / 2.63 (114%)

National Weather Data for Selected Cities

Weather Data for the Week Ending February 21, 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	OF INCH OR MORE		
																		0.1 INCH OR MORE	5.0 INCH OR MORE	
AL	BIRMINGHAM	56	35	65	28	46	-2	0.52	-0.48	0.49	11.23	87	7.93	94	97	55	0	3	3	0
	HUNTSVILLE	53	34	64	29	43	-2	0.75	-0.49	0.70	12.51	86	9.35	104	91	66	0	3	3	1
	MOBILE	60	38	72	31	49	-5	0.00	-1.24	0.00	11.68	83	7.89	84	83	48	0	3	0	0
	MONTGOMERY	59	36	72	29	47	-4	0.12	-1.26	0.12	9.30	67	5.36	60	98	58	0	2	1	0
AK	ANCHORAGE	29	15	40	1	22	3	0.00	-0.19	0.00	3.30	147	1.20	101	84	74	0	7	0	0
	BARROW	-17	-28	-12	-41	-23	-7	0.00	-0.03	0.00	0.23	72	0.15	75	76	72	0	7	0	0
	FAIRBANKS	8	-14	27	-23	-3	0	0.00	-0.08	0.00	0.77	50	0.33	41	83	76	0	7	0	0
	JUNEAU	41	34	45	28	37	7	1.50	0.51	0.60	16.91	128	10.99	141	96	90	0	4	5	1
	KODIAK	39	30	42	23	35	5	2.66	1.31	0.84	24.47	121	14.24	113	92	80	0	4	6	2
	NOME	12	-4	27	-11	4	-2	0.00	-0.17	0.00	1.69	68	0.48	33	67	59	0	7	0	0
AZ	FLAGSTAFF	47	23	56	12	35	3	0.08	-0.57	0.07	2.00	34	1.08	27	89	35	0	7	2	0
	PHOENIX	73	50	81	42	62	3	0.00	-0.19	0.00	1.04	47	0.85	65	41	28	0	0	0	0
	TUCSON	72	43	85	36	58	3	0.00	-0.22	0.00	1.12	43	0.96	60	47	25	0	0	0	0
	YUMA	73	51	81	44	62	0	0.00	-0.06	0.00	0.70	72	0.70	127	49	32	0	0	0	0
AR	FORT SMITH	60	33	72	27	46	1	0.00	-0.66	0.00	6.26	83	4.42	107	90	40	0	4	0	0
	LITTLE ROCK	59	34	70	26	46	0	0.01	-0.81	0.01	10.40	97	6.42	107	91	42	0	4	1	0
CA	BAKERSFIELD	65	46	80	41	56	2	0.32	0.02	0.26	2.80	100	1.50	74	75	54	0	0	3	0
	FRESNO	59	47	66	41	53	1	0.37	-0.15	0.26	4.64	92	1.69	46	87	68	0	0	4	0
	LOS ANGELES	62	49	71	46	56	-2	0.46	-0.31	0.22	2.66	38	1.50	28	95	70	0	0	3	0
	REDDING	57	47	62	41	52	2	4.27	2.94	2.47	21.69	142	9.87	93	90	78	0	0	5	3
	SACRAMENTO	61	48	67	40	55	3	1.90	1.05	0.89	9.20	103	4.94	76	95	57	0	0	5	2
	SAN DIEGO	63	52	70	46	58	-1	0.25	-0.25	0.23	1.64	32	1.03	27	91	66	0	0	2	0
	SAN FRANCISCO	58	50	65	46	54	1	1.60	0.64	0.54	12.22	118	5.79	77	89	78	0	0	6	2
	STOCKTON	61	46	69	40	54	2	1.53	0.94	0.80	7.23	114	4.11	91	90	77	0	0	6	2
CO	ALAMOSA	33	0	41	-17	17	-7	0.29	0.25	0.15	0.54	81	0.49	144	90	73	0	7	2	0
	CO SPRINGS	50	25	66	20	38	6	0.21	0.12	0.21	1.05	121	0.99	220	81	29	0	6	1	0
	DENVER INTL	51	27	67	22	39	7	0.01	-0.05	0.01	0.54	90	0.42	145	81	34	0	6	1	0
	GRAND JUNCTION	43	24	48	13	34	-2	0.07	-0.04	0.06	1.75	125	1.20	136	81	62	0	6	2	0
	PUEBLO	56	25	67	17	40	5	0.43	0.37	0.43	1.14	137	1.09	248	84	53	0	6	1	0
CT	BRIDGEPORT	37	22	44	12	30	-2	0.01	-0.69	0.01	7.28	78	4.00	68	70	45	0	6	1	0
	HARTFORD	34	18	40	6	26	-4	0.01	-0.69	0.01	6.64	69	2.73	45	76	52	0	7	1	0
DC	WASHINGTON	49	30	60	19	39	0	0.00	-0.64	0.00	7.88	97	3.56	70	66	32	0	4	0	0
DE	WILMINGTON	44	24	53	14	34	-1	0.00	-0.69	0.00	8.74	99	3.93	73	81	34	0	6	0	0
FL	DAYTONA BEACH	66	45	81	36	55	-5	0.00	-0.67	0.00	5.58	72	4.03	79	93	48	0	0	0	0
	JACKSONVILLE	64	39	78	31	52	-4	0.03	-0.71	0.03	4.53	52	3.33	55	94	49	0	1	1	0
	KEY WEST	72	62	78	56	67	-4	0.53	0.19	0.48	4.30	78	3.27	98	82	64	0	0	2	0
	MIAMI	75	58	83	50	67	-2	0.17	-0.34	0.15	4.81	86	3.56	104	89	56	0	0	2	0
	ORLANDO	70	46	81	37	58	-5	0.00	-0.58	0.00	5.45	85	3.89	96	92	57	0	0	0	0
	PENSACOLA	61	42	73	33	51	-4	0.00	-1.14	0.00	11.01	87	7.38	85	90	53	0	0	0	0
	TALLAHASSEE	62	39	77	28	51	-4	0.01	-1.13	0.01	9.22	72	7.21	83	89	48	0	1	1	0
	TAMPA	67	48	76	41	58	-5	0.03	-0.65	0.01	5.45	84	4.15	99	92	50	0	0	3	0
	WEST PALM	74	55	83	45	64	-4	0.21	-0.35	0.17	7.24	82	2.98	52	91	62	0	0	2	0
GA	ATHENS	56	35	67	30	45	-2	0.25	-0.84	0.24	7.34	63	5.04	64	83	49	0	3	2	0
	ATLANTA	54	37	64	33	45	-2	0.30	-0.85	0.28	9.47	77	6.78	80	87	59	0	0	2	0
	AUGUSTA	60	33	69	26	47	-2	0.18	-0.83	0.17	7.49	70	5.47	73	89	52	0	3	2	0
	COLUMBUS	57	38	66	29	48	-3	0.12	-0.99	0.12	9.60	77	6.67	83	93	47	0	1	1	0
	MACON	59	36	69	27	47	-3	0.12	-0.99	0.12	13.57	110	8.71	104	85	41	0	1	1	0
	SAVANNAH	61	37	76	29	49	-4	0.09	-0.58	0.08	4.31	48	2.83	46	86	55	0	1	2	0
HI	HILO	81	66	83	64	74	3	1.91	-0.25	1.13	27.89	105	17.84	111	86	79	0	0	4	2
	HONOLULU	83	70	87	68	77	4	0.00	-0.58	0.00	11.90	163	7.09	159	80	70	0	0	0	0
	KAHULUI	83	63	85	57	73	1	0.05	-0.48	0.05	10.69	124	7.97	144	93	80	0	0	1	0
	LIHUE	80	68	85	63	74	2	0.08	-0.69	0.06	10.21	87	7.19	103	84	75	0	0	3	0
ID	BOISE	47	30	57	24	39	1	0.68	0.40	0.30	4.51	125	2.89	130	85	69	0	5	4	0
	LEWISTON	49	35	53	31	42	3	0.41	0.19	0.22	4.20	146	2.41	132	90	75	0	3	3	0
	POCATELLO	38	20	48	0	29	-2	0.32	0.08	0.21	2.99	102	2.02	110	88	72	0	5	4	0
IL	CHICAGO/O'HARE	37	18	45	5	27	-1	0.20	-0.19	0.19	2.98	56	1.32	45	87	65	0	6	2	0
	MOLINE	38	18	49	5	28	0	0.10	-0.27	0.10	4.47	93	1.69	65	88	66	0	6	1	0
	PEORIA	42	22	56	14	32	3	0.13	-0.29	0.13	2.95	59	1.31	50	87	57	0	6	1	0
	ROCKFORD	35	16	44	1	26	0	0.14	-0.18	0.14	4.17	95	0.95	41	87	67	0	7	1	0
	SPRINGFIELD	43	25	56	15	34	2	0.06	-0.40	0.04	3.32	62	1.84	65	85	60	0	5	2	0
IN	EVANSVILLE	48	28	66	18	38	1	0.01	-0.77	0.01	4.74	55	3.54	69	81	57	0	5	1	0
	FORT WAYNE	34	18	46	4	26	-2	0.09	-0.39	0.08	5.42	87	2.80	82	86	63	0	6	2	0
	INDIANAPOLIS	41	25	54	13	33	1	0.12	-0.48	0.12	8.81	122	5.38	129	83	51	0	6	1	0
	SOUTH BEND	34	18	44	3	26	-2	0.27	-0.20	0.26	3.78	56	2.08	57	85	61	0	7	2	0
IA	BURLINGTON	39	21	52	12	30	0	0.11	-0.29	0.11	5.93	134	1.61	69	92	59	0	5	1	0
	CEDAR RAPIDS	33	15	43	1	24	-2	0.33	0.07	0.33	3.24	98	1.44	80	95	65	0	7	1	0
	DES MOINES	36	20	50	1	28	0	0.41	0.12	0.41	2.95	93	2.06	111	86	69	0	6	1	0
	DUBUQUE	31	15	40	2	23	-1	0.25	-0.10	0.25	2.76	70	1.09	48	85	72	0	7	1	0
	SIOUX CITY	33	14	42	-8	23	-3	0.01	-0.14	0.01	1.48	94	1.25	136	88	73	0	7	1	0
	WATERLOO	31	13	41	-8	22	-2	0.37	0.11	0.37	1.65	62	1.11	72	87	68	0	7	1	0
KS	CONCORDIA	44	24	57	2	34	1	0.00	-0.19	0.00	1.88	89	0.90	88	83	62	0	4	0	0
	DODGE CITY	58	26	69	12	42	5	0.10	-0.07	0.09	0.75	43	0.25	25	84	32	0	6	2	0
	GOODLAND	55	25	73	18	40	7	0.00	-0.11	0.00	0.83	78	0.27	41	79	43	0	5	0	0
	TOPEKA	47	24	65	6	36	1	0.03	-0.27	0.02	3.93	126	1.57	93	85	63	0	4	2	0

Weather Data for the Week Ending February 21, 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	52	28	67	14	40	3	0.03	-0.24	0.03	3.11	113	2.22	159	87	61	0	4	1	0
KY JACKSON	48	29	62	18	39	0	0.08	-0.86	0.06	11.60	111	7.81	126	77	39	0	4	2	0
KY LEXINGTON	46	27	61	15	37	0	0.01	-0.82	0.01	8.70	90	4.81	86	73	52	0	5	1	0
KY LOUISVILLE	50	31	66	20	40	2	0.01	-0.81	0.01	9.55	103	6.42	115	68	38	0	4	1	0
KY PADUCAH	52	28	67	20	40	1	0.00	-0.99	0.00	6.86	64	4.66	73	86	43	0	5	0	0
LA BATON ROUGE	63	38	75	31	50	-4	0.01	-1.20	0.01	14.85	97	12.19	121	97	47	0	3	1	0
LA LAKE CHARLES	65	42	75	37	54	-1	0.02	-0.70	0.01	20.08	159	16.60	206	94	50	0	0	2	0
LA NEW ORLEANS	61	42	75	37	51	-5	0.00	-1.31	0.00	9.50	63	7.54	75	89	58	0	0	0	0
LA SHREVEPORT	64	39	75	31	52	0	0.36	-0.68	0.35	12.82	104	9.21	119	91	41	0	1	2	0
ME CARIBOU	19	-2	30	-23	9	-5	0.03	-0.45	0.03	6.92	90	1.85	41	74	43	0	7	1	0
ME PORTLAND	31	12	41	-2	22	-4	0.32	-0.42	0.32	5.63	53	1.91	30	73	41	0	7	1	0
MD BALTIMORE	46	25	56	16	35	-1	0.00	-0.74	0.00	8.18	91	3.46	62	81	43	0	6	0	0
MA BOSTON	36	22	43	12	29	-3	0.01	-0.79	0.01	7.53	75	2.47	39	69	41	0	6	1	0
MA WORCESTER	31	17	37	8	24	-3	0.01	-0.73	0.01	7.43	73	2.87	45	77	42	0	7	1	0
MI ALPENA	29	8	34	-8	18	-2	0.24	-0.07	0.22	2.62	58	1.23	46	90	63	0	7	2	0
MI GRAND RAPIDS	34	18	43	-4	26	0	0.08	-0.28	0.07	3.45	59	2.22	70	86	61	0	7	2	0
MI HOUGHTON LAKE	29	6	38	-20	17	-4	0.21	-0.08	0.16	2.96	70	1.76	71	91	71	0	7	3	0
MI LANSING	32	11	43	-13	21	-4	0.10	-0.23	0.10	2.80	58	1.37	52	85	64	0	6	1	0
MI MUSKEGON	34	17	43	1	26	0	0.14	-0.22	0.14	3.29	55	1.73	51	90	68	0	7	1	0
MI TRAVERSE CITY	30	10	40	-9	20	-2	0.48	0.10	0.41	4.03	57	2.44	56	92	62	0	7	3	0
MN DULUTH	28	11	45	-15	20	4	0.62	0.45	0.37	3.13	119	2.59	153	84	64	0	7	3	0
MN INT'L FALLS	25	2	33	-32	14	1	0.00	-0.14	0.00	1.05	52	0.67	52	87	56	0	7	0	0
MN MINNEAPOLIS	31	17	42	-5	24	2	0.15	-0.02	0.14	1.95	76	1.16	74	80	62	0	7	2	0
MN ROCHESTER	28	14	38	-6	21	1	0.49	0.32	0.29	1.24	50	0.81	56	88	75	0	7	5	0
MS ST. CLOUD	28	10	41	-20	19	1	0.09	-0.02	0.06	1.14	62	0.86	75	93	66	0	7	2	0
MS JACKSON	60	33	74	26	47	-3	0.00	-1.07	0.00	12.77	89	9.43	105	95	42	0	4	0	0
MS MERIDIAN	59	33	69	27	46	-5	0.03	-1.29	0.03	11.39	75	8.76	89	96	53	0	4	1	0
MS TUPELO	56	32	71	25	44	-2	0.60	-0.59	0.59	11.89	82	8.69	103	95	62	0	4	2	1
MO COLUMBIA	48	28	69	17	38	3	0.13	-0.43	0.13	6.48	113	3.01	92	90	56	0	4	1	0
MO KANSAS CITY	47	27	64	7	37	3	0.17	-0.16	0.12	3.43	94	1.47	74	91	59	0	5	3	0
MO SAINT LOUIS	50	29	69	19	40	4	0.01	-0.56	0.01	7.11	108	4.76	128	80	59	0	4	1	0
MO SPRINGFIELD	54	30	71	22	42	4	0.00	-0.56	0.00	8.19	119	4.26	115	81	51	0	5	0	0
MT BILLINGS	50	30	62	26	40	9	0.33	0.21	0.20	1.37	74	0.61	52	75	36	0	5	2	0
MT BUTTE	37	15	43	-1	26	3	0.08	-0.03	0.08	0.81	60	0.44	54	93	49	0	7	1	0
MT GLASGOW	30	14	37	7	22	1	0.00	-0.06	0.00	1.61	181	1.08	208	95	85	0	7	0	0
MT GREAT FALLS	47	28	54	19	38	11	0.00	-0.11	0.00	0.39	23	0.28	28	76	35	0	5	0	0
MT HAVRE	37	20	43	14	29	5	0.00	-0.08	0.00	0.45	38	0.21	32	90	79	0	7	0	0
MT KALISPELL	39	26	42	18	32	4	0.21	-0.06	0.11	3.72	94	2.37	102	94	84	0	7	2	0
MT MISSOULA	39	26	42	17	33	3	0.44	0.27	0.30	2.28	84	1.42	90	91	76	0	7	2	0
NE GRAND ISLAND	40	19	49	-5	30	1	0.00	-0.17	0.00	0.92	59	0.75	83	85	60	0	5	0	0
NE LINCOLN	40	18	50	-6	29	0	0.00	-0.16	0.00	1.60	86	1.08	107	84	65	0	6	0	0
NE NORFOLK	38	18	48	-8	28	0	0.03	-0.16	0.03	1.29	78	1.08	107	87	64	0	7	1	0
NE NORTH PLATTE	53	20	71	12	36	5	0.00	-0.13	0.00	0.41	38	0.31	46	88	40	0	6	0	0
NE OMAHA	37	17	49	-7	27	-2	0.02	-0.17	0.02	3.11	143	2.27	182	87	68	0	7	1	0
NE SCOTTSBLUFF	53	24	69	20	38	7	0.01	-0.13	0.01	0.82	56	0.32	36	89	55	0	7	1	0
NE VALENTINE	50	20	65	6	35	7	0.00	-0.12	0.00	0.57	63	0.34	60	88	59	0	6	0	0
NV ELY	42	23	49	11	32	1	0.14	-0.04	0.14	1.47	85	0.28	23	81	62	0	5	1	0
NV LAS VEGAS	63	44	68	37	53	0	0.25	0.08	0.18	1.27	88	0.31	30	65	40	0	0	2	0
NV RENO	52	37	59	28	44	5	0.18	-0.07	0.13	2.53	94	1.31	73	70	50	0	2	2	0
NH WINNEMUCCA	48	31	59	25	40	3	0.08	-0.06	0.06	2.89	141	1.10	89	79	60	0	4	2	0
NH CONCORD	32	6	40	-11	19	-5	0.11	-0.44	0.11	7.02	92	1.71	37	77	42	0	7	1	0
NJ NEWARK	41	24	54	13	33	-1	0.01	-0.69	0.01	9.37	97	4.24	69	84	56	0	6	1	0
NM ALBUQUERQUE	55	32	64	23	44	2	0.04	-0.07	0.04	0.28	22	0.17	22	59	27	0	3	1	0
NY ALBANY	33	10	39	-3	21	-5	0.17	-0.35	0.16	7.70	115	2.22	55	89	56	0	7	2	0
NY BINGHAMTON	29	12	39	-4	21	-3	0.09	-0.52	0.09	6.05	81	2.92	66	79	58	0	7	1	0
NY BUFFALO	32	16	49	-2	24	-2	0.34	-0.24	0.26	7.64	87	4.00	81	91	63	0	7	2	0
NY ROCHESTER	33	13	44	-7	23	-3	0.17	-0.33	0.12	5.96	91	3.54	92	86	64	0	7	3	0
NY SYRACUSE	30	10	40	-5	20	-5	0.32	-0.18	0.26	6.04	83	2.94	71	87	56	0	7	2	0
NC ASHEVILLE	49	29	64	26	39	-1	0.20	-0.74	0.20	7.33	72	4.68	68	85	57	0	6	1	0
NC CHARLOTTE	54	29	65	23	42	-4	0.14	-0.73	0.14	5.93	61	3.53	54	82	37	0	4	1	0
NC GREENSBORO	50	28	67	21	39	-3	0.32	-0.44	0.32	5.45	62	2.80	48	81	38	0	5	1	0
NC HATTERAS	49	40	58	35	45	-2	1.08	0.17	0.63	9.71	73	4.00	46	93	69	0	0	3	1
NC RALEIGH	51	30	68	23	41	-3	0.43	-0.41	0.36	7.35	77	3.83	59	83	47	0	5	3	0
NC WILMINGTON	56	34	74	28	45	-4	0.63	-0.25	0.44	9.87	90	4.92	68	92	44	0	4	2	0
ND BISMARCK	33	16	40	-4	25	5	0.08	-0.03	0.05	1.31	107	0.83	106	85	74	0	7	2	0
ND DICKINSON	36	20	40	8	28	5	0.00	-0.09	0.00	0.62	61	0.41	60	92	71	0	7	0	0
ND FARGO	28	7	37	-17	18	2	0.17	0.04	0.17	2.11	124	0.93	82	90	73	0	7	1	0
ND GRAND FORKS	25	2	33	-25	14	-1	0.00	-0.14	0.00	1.40	85	0.73	67	95	76	0	7	0	0
ND JAMESTOWN	28	13	37	-9	21	4	0.11	0.00	0.10	0.79	57	0.32	34	94	79	0	7	2	0
ND WILLISTON	33	17	40	9	25	6	0.00	-0.08	0.00	1.71	126	1.49	189	94	79	0	7	0	0
OH AKRON-CANTON	37	21	52	5	29	0	0.12	-0.44	0.08	7.10	100	4.19	102	85	66	0	5	2	0
OH CINCINNATI	43	26	56	15	35	0	0.08	-0.61	0.08	8.06	99	5.80	119	76	51	0	4	1	0
OH CLEVELAND	37	22	52	11	29	0	0.27	-0.28	0.16	7.42	102	3.39	82	86	52	0	5	3	0
OH COLUMBUS	41	24	52	11	32	-1	0.12	-0.41	0.10	9.81	139	7.03	171	71	45	0	5	2	0
OH DAYTON	39	23	52	11	31	0	0.10	-0.45	0.10	8.22	112	5.78	136	71	53	0	6	1	0
OH MANSFIELD	36	20	49	5	28	0	0.19	-0.33	0.17	7.63	102	4.36	104	88	53	0	5	2	0

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending February 21, 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	36	21	50	5	29	1	0.26	-0.21	0.26	5.01	84	1.76	53	87	64	0	5	1	0
	YOUNGSTOWN	36	18	52	-1	27	-1	0.15	-0.34	0.08	7.16	106	4.48	119	81	55	0	5	2	0
	OKLAHOMA CITY	60	32	73	24	46	3	0.00	-0.42	0.00	3.23	78	2.12	95	82	38	0	5	0	0
	TULSA	59	32	71	20	45	2	0.00	-0.51	0.00	5.65	107	3.19	112	80	50	0	5	0	0
OR	ASTORIA	54	40	58	30	47	3	1.82	-0.09	0.91	27.62	106	17.75	114	95	78	0	1	5	1
	BURNS	37	21	44	12	29	-2	0.68	0.40	0.35	3.98	122	2.42	124	92	79	0	6	3	0
	EUGENE	53	40	58	31	46	3	2.09	0.55	1.04	20.76	100	10.13	81	95	85	0	1	4	2
	MEDFORD	55	38	58	28	47	3	2.35	1.85	1.54	10.33	149	5.66	140	96	61	0	1	5	2
	PENDLETON	49	34	53	29	42	3	0.81	0.53	0.42	6.64	174	3.92	168	93	74	0	2	4	0
	PORTLAND	53	39	57	31	46	2	1.37	0.36	0.57	14.66	105	7.20	87	89	77	0	1	5	2
	SALEM	54	38	58	30	46	3	1.85	0.61	0.94	20.16	125	9.72	100	94	81	0	2	5	2
PA	ALLENTOWN	40	19	50	7	30	-1	0.00	-0.66	0.00	9.52	107	4.55	83	75	40	0	6	0	0
	ERIE	34	17	56	-2	25	-4	0.37	-0.19	0.36	7.35	93	4.38	105	85	58	0	6	2	0
	MIDDLETOWN	39	21	49	11	30	-2	0.00	-0.73	0.00	6.94	85	3.54	71	91	45	0	7	0	0
	PHILADELPHIA	44	25	54	15	35	0	0.00	-0.65	0.00	9.58	109	4.12	75	78	34	0	6	0	0
	PITTSBURGH	43	23	61	7	33	2	0.09	-0.48	0.05	10.23	141	6.89	157	71	41	0	5	2	0
	WILKES-BARRE	34	13	45	-1	24	-6	0.04	-0.46	0.04	7.83	120	3.86	97	89	56	0	7	1	0
	WILLIAMSPORT	37	15	45	-1	26	-3	0.02	-0.61	0.02	8.49	110	4.07	85	82	49	0	6	1	0
RI	PROVIDENCE	37	21	44	11	29	-3	0.13	-0.70	0.07	10.06	91	3.63	52	64	50	0	6	2	0
SC	BEAUFORT	60	39	76	34	50	-1	0.09	-0.63	0.05	5.89	62	4.09	64	87	39	0	0	2	0
	CHARLESTON	59	37	75	31	48	-3	0.51	-0.21	0.37	6.72	70	4.86	77	94	47	0	1	2	0
	COLUMBIA	57	34	68	27	45	-3	0.56	-0.36	0.53	6.40	59	4.27	57	84	53	0	3	2	1
	GREENVILLE	54	32	67	28	43	-2	0.43	-0.64	0.43	6.32	56	3.65	49	85	44	0	4	1	0
SD	ABERDEEN	33	14	44	-10	23	3	0.00	-0.11	0.00	1.34	118	1.01	133	90	74	0	7	0	0
	HURON	35	16	52	-4	26	4	0.00	-0.13	0.00	0.58	49	0.39	49	92	65	0	7	0	0
	RAPID CITY	52	24	63	17	38	10	0.00	-0.11	0.00	0.50	49	0.25	40	81	42	0	6	0	0
	SIOUX FALLS	31	13	42	-12	22	0	0.00	-0.11	0.00	2.20	168	1.13	143	88	72	0	7	0	0
TN	BRISTOL	48	27	60	23	38	-1	0.84	-0.01	0.78	10.33	110	5.95	99	91	47	0	7	3	1
	CHATTANOOGA	53	33	65	27	43	-1	0.63	-0.56	0.62	12.52	91	8.14	91	83	62	0	3	2	1
	KNOXVILLE	49	32	60	27	41	-1	0.58	-0.41	0.56	8.40	70	4.99	67	94	59	0	3	2	1
	MEMPHIS	56	34	71	26	45	-1	0.22	-0.87	0.22	10.41	80	7.33	100	82	41	0	3	1	0
	NASHVILLE	52	32	64	23	42	0	0.01	-0.92	0.01	12.37	111	9.18	140	75	41	0	4	1	0
TX	ABILENE	68	37	80	25	52	3	0.00	-0.29	0.00	1.85	61	1.84	106	74	45	0	2	0	0
	AMARILLO	62	29	80	17	46	5	0.00	-0.13	0.00	0.88	56	0.79	82	75	24	0	3	0	0
	AUSTIN	70	36	76	26	53	-2	0.00	-0.52	0.00	8.29	145	7.78	237	81	45	0	3	0	0
	BEAUMONT	66	44	76	36	55	-1	0.00	-0.74	0.00	14.04	104	10.85	131	99	55	0	0	0	0
	BROWNSVILLE	75	51	83	40	63	0	0.03	-0.23	0.01	3.03	89	2.68	117	93	51	0	0	3	0
	CORPUS CHRISTI	71	46	78	36	59	-1	0.00	-0.47	0.00	3.32	71	2.75	93	97	57	0	0	0	0
	DEL RIO	75	42	81	27	59	2	0.00	-0.25	0.00	1.08	54	1.04	83	77	39	0	1	0	0
	EL PASO	66	37	75	28	52	1	0.00	-0.08	0.00	0.41	28	0.40	57	39	17	0	3	0	0
	FORT WORTH	64	38	72	30	51	1	0.00	-0.64	0.00	5.62	93	4.66	133	88	39	0	2	0	0
	GALVESTON	63	48	72	36	56	-2	0.00	-0.57	0.00	13.70	143	7.99	131	95	63	0	0	0	0
	HOUSTON	69	45	75	34	57	1	0.00	-0.72	0.00	13.02	136	10.03	170	83	59	0	0	0	0
	LUBBOCK	65	32	78	21	49	5	0.00	-0.17	0.00	1.97	119	1.97	201	74	31	0	3	0	0
	MIDLAND	67	35	79	24	51	2	0.00	-0.14	0.00	0.85	54	0.85	93	70	31	0	3	0	0
	SAN ANGELO	70	35	79	23	53	3	0.00	-0.30	0.00	1.66	64	1.66	101	74	44	0	3	0	0
	SAN ANTONIO	72	42	79	29	57	2	0.01	-0.43	0.01	3.41	70	3.30	113	89	33	0	1	1	0
	VICTORIA	71	43	79	31	57	0	0.01	-0.49	0.01	7.01	109	4.91	125	97	52	0	1	1	0
	WACO	66	38	72	30	52	0	0.00	-0.65	0.00	6.79	107	6.30	175	94	55	0	2	0	0
	WICHITA FALLS	63	34	79	24	48	1	0.00	-0.42	0.00	2.52	65	2.41	111	83	53	0	4	0	0
UT	SALT LAKE CITY	37	20	49	5	29	-6	0.45	0.13	0.33	5.56	158	1.59	69	91	70	0	7	2	0
VT	BURLINGTON	25	5	35	-13	15	-6	0.25	-0.14	0.16	6.16	109	1.27	37	80	52	0	7	2	0
VA	LYNCHBURG	49	24	66	15	37	-1	0.26	-0.50	0.26	7.12	79	3.77	65	76	32	0	7	1	0
	NORFOLK	53	35	72	30	44	2	0.40	-0.41	0.33	9.24	98	3.00	47	82	45	0	3	3	0
	RICHMOND	50	27	70	21	39	-1	0.06	-0.68	0.05	7.70	88	3.42	60	79	45	0	6	2	0
	ROANOKE	51	29	66	19	40	0	0.20	-0.56	0.19	6.85	82	3.90	71	71	37	0	4	2	0
	WASH/DULLES	47	25	62	16	36	1	0.00	-0.68	0.00	7.36	91	2.79	55	74	37	0	6	0	0
WA	OLYMPIA	51	35	54	31	43	2	0.99	-0.49	0.36	17.56	87	11.54	94	96	89	0	2	4	0
	QUILLAYUTE	51	37	55	29	44	2	1.87	-1.20	0.53	31.42	84	17.77	77	97	85	0	2	6	2
	SEATTLE-TACOMA	52	40	56	34	46	2	0.92	-0.08	0.50	12.42	89	8.54	103	90	77	0	0	4	1
	SPOKANE	40	29	44	26	35	2	0.77	0.41	0.35	4.89	95	2.75	95	99	85	0	5	4	0
	YAKIMA	46	30	54	25	38	2	0.59	0.41	0.32	4.53	145	2.46	141	96	84	0	6	4	0
WV	BECKLEY	46	26	61	15	36	1	0.06	-0.67	0.05	6.68	79	4.35	81	59	40	0	6	2	0
	CHARLESTON	49	26	65	17	37	-1	0.02	-0.78	0.02	8.92	101	6.03	109	80	34	0	6	1	0
	ELKINS	47	20	66	8	33	1	0.10	-0.69	0.06	8.21	90	5.46	95	92	37	0	7	2	0
	HUNTINGTON	48	29	62	16	39	1	0.07	-0.71	0.07	8.66	99	6.00	111	89	50	0	4	1	0
WI	EAU CLAIRE	31	14	40	-17	22	2	0.45	0.28	0.26	3.05	117	1.92	122	88	57	0	7	2	0
	GREEN BAY	31	9	40	-13	20	-2	0.46	0.24	0.39	3.73	113	2.05	108	88	65	0	7	2	0
	LA CROSSE	33	16	42	-13	24	0	0.09	-0.13	0.09	1.77	56	1.05	55	84	57	0	7	1	0
	MADISON	31	12	42	-5	22	-2	0.56	0.26	0.56	3.92	103	1.92	89	88	70	0	7	1	1
	MILWAUKEE	34	19	43	5	26	0	0.11	-0.28	0.11	3.57	68	1.54	50	83	70	0	7	1	0
WY	CASPER	42	24	54	18	33	5	0.03	-0.12	0.02	0.67	41	0.28	28	73	55	0	6	2	0
	CHEYENNE	48	25	62	18	37	8	0.00	-0.10	0.00	0.89	76	0.13	18	59	40	0	6	0	0
	LANDER	42	19	55	12	31	4	0.07	-0.06	0.07	1.34	92	0.52	62	78	65	0	7	1	0
	SHERIDAN	46	25	53	19	35	7	0.01	-0.10	0.01	1.01	55	0.14	12	82	57	0	6	1	0

National Agricultural Summary

February 16 - 22, 2004

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Temperatures were mild across most of the Nation, averaging over 6 degrees Fahrenheit above normal in parts of the northern and central Great Plains and adjacent areas of the Rocky Mountains. The only areas that experienced below-average temperatures were the Great Basin, the Gulf Coast, the Southeast, and the Atlantic Coast States. Much snow cover across the northern and central Great Plains and southern Corn Belt melted in response to the above-normal temperatures, but significant snowfall across the northern Corn Belt kept snow cover intact. Elsewhere, a Pacific storm produced moderate to heavy rainfall along coastal areas of the Pacific Northwest and light to moderate precipitation extended farther inland to the western Rocky Mountains. The Great Plains remained dry, causing continued moisture stress for winter wheat. After 2 weeks of heavy rainfall, the Mississippi Delta and Southeast began to dry out, with only light

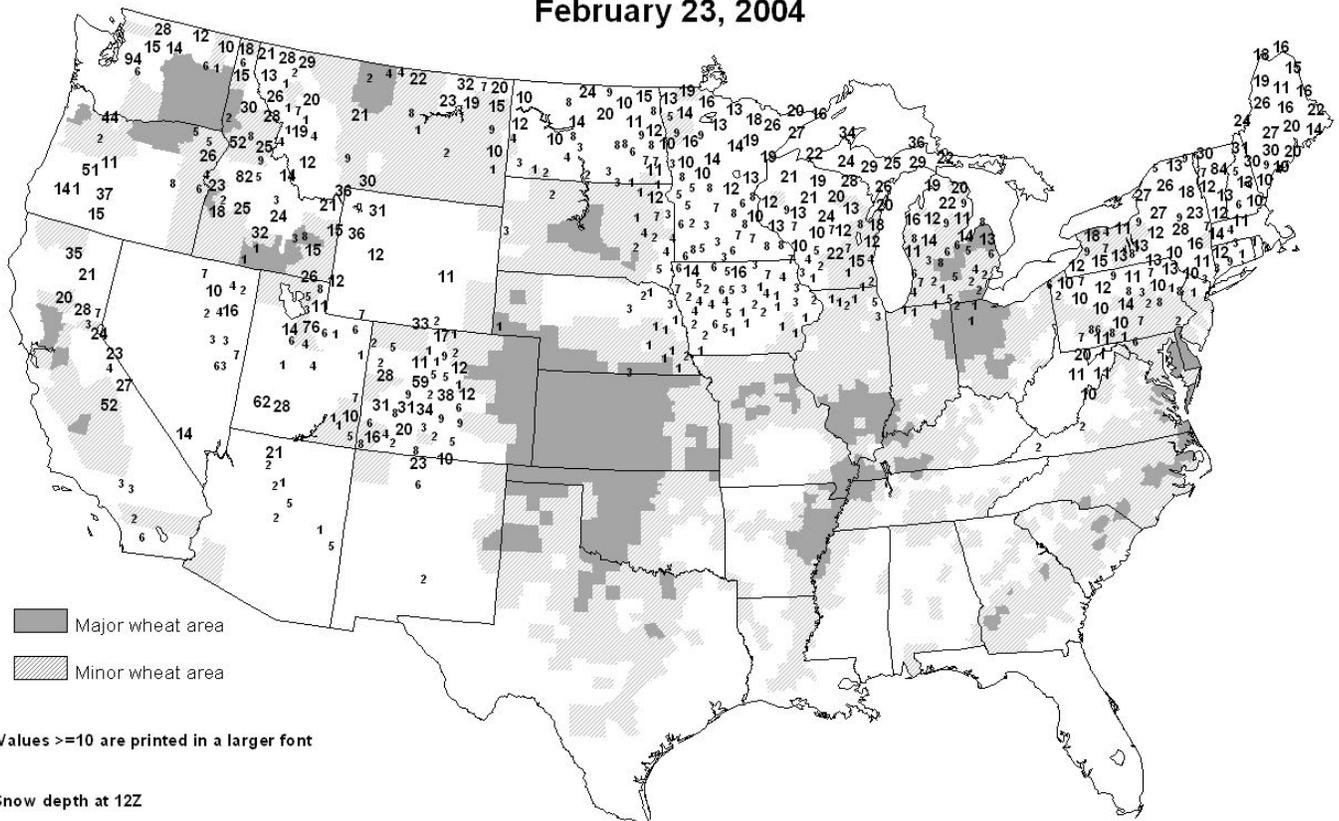
rainfall. The southern Corn Belt was mostly dry, with only light, widely scattered precipitation.

In Florida, peanut growers were actively preparing for planting, while sugarcane and citrus harvest continued. Recent rains in Georgia benefited small grains but made fieldwork difficult. Heading of small grains had begun in Arizona, while citrus and vegetable growers continued to harvest a variety of crops. In southern areas of Texas, corn and sorghum planting was active, while small grains in the Plains were coming out of dormancy but showing moisture stress. In California, warm weather and adequate soil moisture produced good growth in small grains and sugarbeets. Warm, sunny weather in Hawaii, with only light, passing showers, was beneficial for new plantings of bananas and papayas.

Snow Depth

(Inches)

February 23, 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

International Weather and Crop Summary

February 15 - 21, 2004

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

HIGHLIGHTS

EUROPE: Widespread precipitation provided much-needed moisture for winter grains in Spain, while patchy snow cover left winter grains vulnerable to bitterly cold weather farther east in Poland.

FSU-WESTERN: Periods of light to moderate snow maintained a widespread snow cover, protecting winter grains from unseasonably cold weather.

MIDDLE EAST: In central Turkey, snow cover protected dormant winter grains from bitterly cold weather.

NORTHWESTERN AFRICA: A late-week low pressure system brought much-needed rain to Northwestern Africa, boosting soil moisture for vegetative winter grains, especially in Morocco.

SOUTH AFRICA: Unseasonable dryness returned to the corn belt, limiting moisture for reproductive to filling summer crops.

AUSTRALIA: Scattered showers maintained local moisture supplies in parts of eastern Australia, but hot, dry weather in many areas stressed immature summer crops.

EASTERN ASIA: Showers benefited winter grains and oilseeds, especially winter wheat breaking dormancy in southern growing areas.

SOUTHEAST ASIA: Heavy showers boosted moisture supplies for reproductive to maturing rice in Indonesia, while rainfall was light over oil palm areas.

BRAZIL: Drier-than-normal weather persisted in southern corn and soybean areas, raising concern for current favorable yield prospects.

ARGENTINA: Unseasonable dryness returned to most major summer crop areas, although below-normal temperatures lowered moisture demands of immature grains and oilseeds.



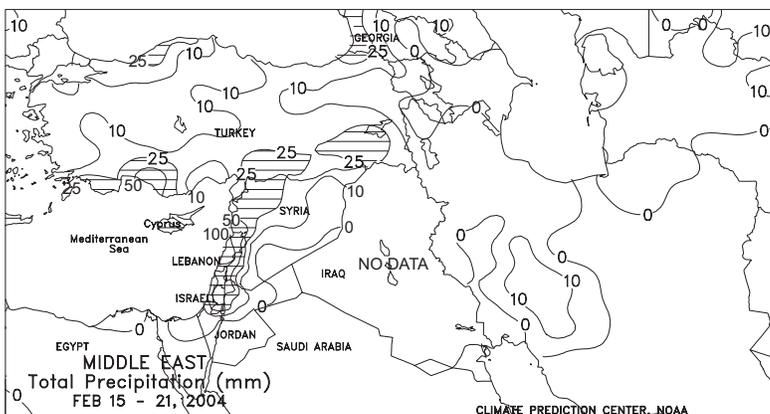
EUROPE

High pressure dominated northern Europe, while active weather produced widespread beneficial precipitation across southern Europe, including Spain. Seasonably cold but mostly dry weather (less than 5 mm) prevailed across northern Europe, keeping winter grains dormant. On February 20, bitterly cold weather (minimum temperatures of -20 to -16 degrees C) occurred in extreme eastern Poland, northern and central Romania, and the higher elevations in the Balkans. Most of these areas had light to moderate snow cover protecting dormant winter grains. In extreme eastern Poland, however, relatively mild weather a few days before resulted in patchy to light snow cover, leaving winter grains vulnerable to isolated potential winterkill. A mid- to late-week storm brought widespread precipitation (10-40 mm) across most of Spain, southern France, most of Italy, and the Balkans. This precipitation fell mostly as rain in Spain, France, and Italy and as snow in the higher elevations of these areas and across most of the Balkans. The rain was beneficial across Spain, helping to replenish soil moisture supplies for vegetative to semi-dormant winter grains. Temperatures averaged 1 to 3 degrees C below normal in Spain, Poland, and the Balkans and near normal elsewhere.



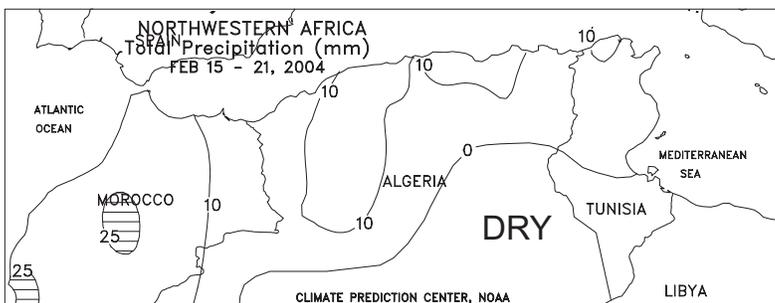
FSU-WESTERN

Periods of light to moderate snow (2-25 mm of liquid equivalent) maintained a widespread snow cover across most of the region. The greatest amounts of precipitation (25-50 mm of liquid equivalent) fell as a mixture of rain and snow along the Black Sea Coast in the Southern Region. The greatest amounts of snow (10-25 mm of liquid equivalent) fell in northeastern Ukraine and adjacent areas in Russia. Temperatures widely fluctuated during the week, with a brief warm-up between two cold spells observed early and late in the week. The lowest temperatures (-33 to -20 degrees C) were observed in areas protected by a deep snow cover, including northern Belarus, northeastern Ukraine, and the Central and Volga Regions in Russia. In areas where snow cover was thin or patchy (Moldova, southern Ukraine, and southern portions of the Southern Region in Russia), temperatures remained above -15 degrees C. Weekly temperatures averaged 4 to 8 degrees C below normal across northern Russia, while weekly temperatures averaged 1 to 5 degrees C below normal across the Baltics, Belarus, Moldova, and Ukraine.



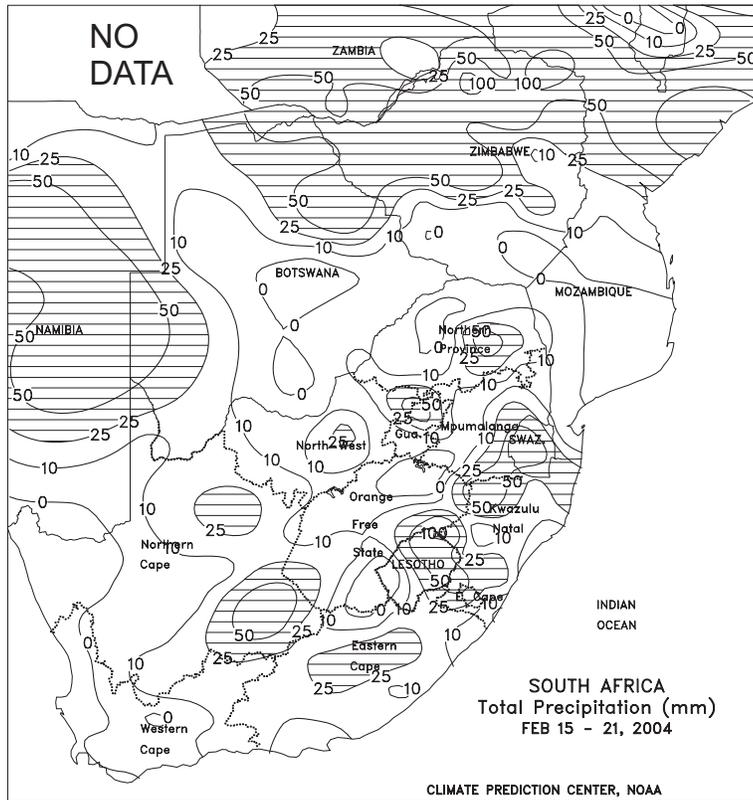
MIDDLE EAST

Storms continued to bring widespread precipitation to Turkey and the eastern Mediterranean. Light precipitation (3-10 mm) fell across the central Plateau of Turkey, while the heavier amounts (15-40 mm) covered the southern and eastern portions of the country. This precipitation (rain and snow) continued to maintain adequate to abundant moisture supplies for upcoming spring growth and development for winter grains. A shallow to moderate snow cover protected dormant winter grains in central Turkey from early-week bitterly cold weather (minimum temperatures ranging from -18 to -14 degrees C). In the eastern Mediterranean, widespread rain (25-100 mm, with snow in higher elevations) maintained favorable moisture supplies for vegetative winter grains. This rain also covered most of Syria. In western Iran, mostly dry weather prevailed for dormant to semi-dormant winter grains. Seasonably cooler weather prevailed across western Iran, with minimum temperatures reaching -9 to -2 degrees C. Based on reports from surrounding countries, possibly moderate rain fell in extreme northwestern Iraq, with lighter amounts in the northeast. Temperatures averaged 3 to 6 degrees C below normal in Turkey, 1 to 4 degrees C below normal across the eastern Mediterranean, and 1 to 3 degrees C above normal across western Iran.



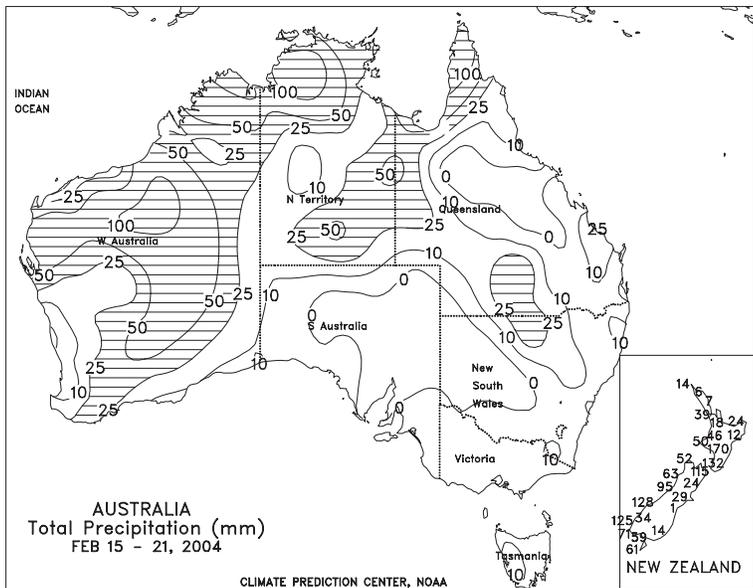
NORTHWESTERN AFRICA

A late-week storm brought timely rain to the major winter grain areas of Morocco, Algeria, and Tunisia. Much-needed widespread rain (5-25 mm) covered Morocco and Algeria, boosting soil moisture for vegetative winter grains. Lighter amounts (3-15 mm) fell across Tunisia. A dry spell since middle to late December had reduced soil moisture across the region. Timely follow-up rains will be needed in upcoming weeks to maintain soil moisture as winter grains advance through the moisture-critical reproductive phase of development, which is typically in March and early April. Temperatures averaged 1 to 3 degrees C above normal across the region, increasing crop water use. The highest maximum temperatures ranged from 20 to 26 degrees C.



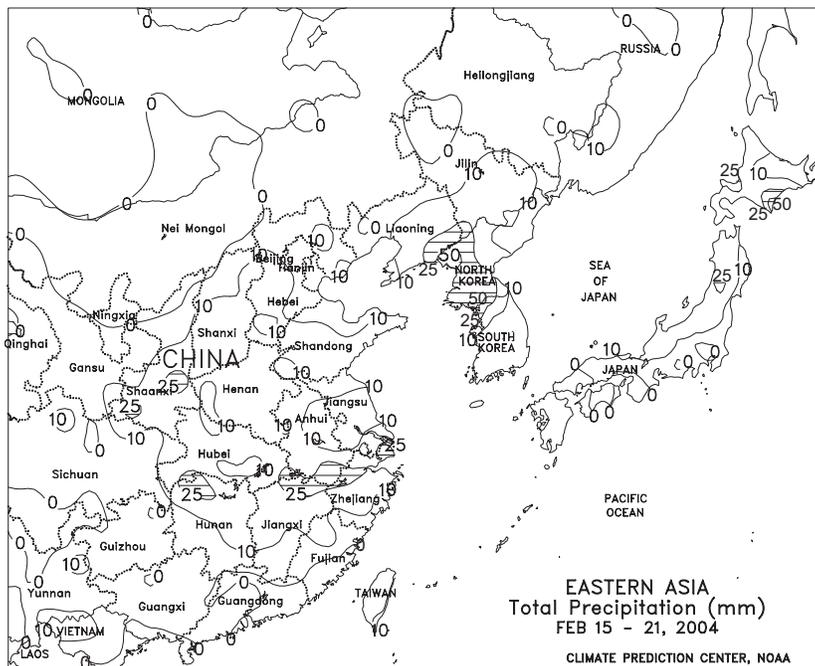
SOUTH AFRICA

Mostly dry weather dominated the corn belt, with little or no rain recorded in many primary production areas of North West, Free State, Gauteng, and Mpumalanga. Seasonable warmth (highs from the middle and upper 20s degrees C in eastern growing areas to the lower and middle 30s toward the west) spurred development of reproductive to filling corn and other summer crops. However, despite last week's scattered showers, moisture remained limited for normal development in many locations, especially traditionally higher yielding areas in the east (western Mpumalanga and neighboring locations in Gauteng and Free State). Elsewhere, moderate to heavy showers (10-50 mm or more) swept across non-commercial growing areas in Limpopo (Northern Province) and the Cape Provinces. Beneficial showers also continued in sugarcane areas in and around KwaZulu-Natal, but dryness and seasonable warmth maintained irrigation requirements in fruit and vegetable areas of Western Cape.



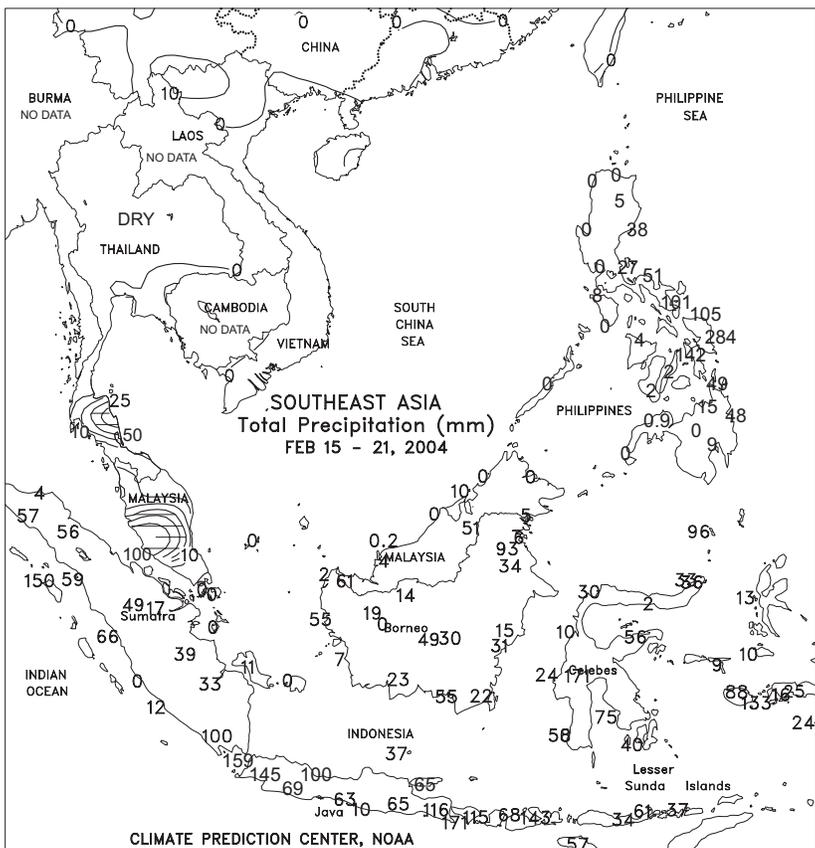
AUSTRALIA

Scattered showers (2-22 mm, locally more) maintained local moisture supplies in parts of Queensland and northern New South Wales. However, most areas experienced generally dry weather. Although the showers provided local drought relief, the many areas that did not receive rainfall suffered from hot weather as well, which increased stress on immature summer crops. Crops in eastern Australia were in the late reproductive to maturing stages of development. Temperatures averaged about 3 to 6 degrees C above normal in eastern Australia, with high temperatures mostly in the upper 30s to lower 40s degrees C.



EASTERN ASIA

Late-week showers covered central China's main winter grain and oilseed areas, increasing topsoil moisture for early crop development. The rain was especially timely for winter wheat in southern growing areas (Henan to Jiangsu), where crops have likely begun to break dormancy in response to a recent warm spell. In fact, temperatures averaged 5 to 8 degrees C above normal throughout the region, causing wheat to lose winter hardiness on the North China Plain. The warm-up also spurred rapeseed growth as freezing weather stayed well north of the Yangtze Valley. Subsoil moisture reserves are generally favorable for winter crops following last season's wetter-than-normal weather, but topsoil moisture was becoming limited. Additional rain will be needed over the next few weeks to ensure good early vegetative development. Elsewhere, warmth and dryness supported seasonal fieldwork in southern China's sugarcane and rice areas. Light showers (5-10 mm, locally exceeding 25 mm) lingered over northern and central Japan. Unseasonably heavy precipitation (10-25 mm or more) was moving through the Korean Peninsula at week's end.



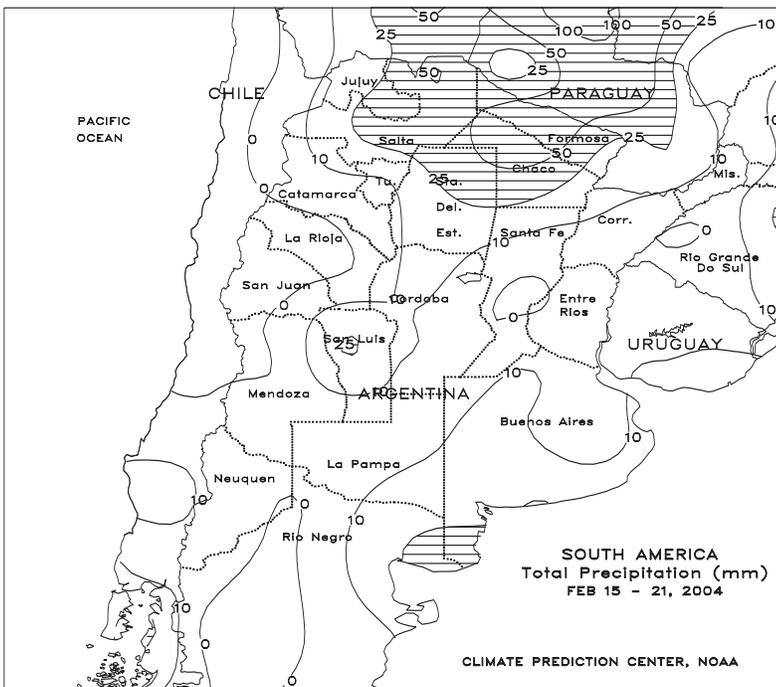
SOUTHEAST ASIA

Heavy showers (50-100 mm or more) fell throughout rice areas of Indonesia, increasing moisture supplies for reproductive rice. Scattered showers (25-50 mm, with locally heavier amounts) fell in oil palm areas of Malaysia and Indonesia. Rainfall has not met short-term water requirements for oil palm over the last 2 weeks. However, long-term moisture has been adequate. Warmer weather returned to northern Vietnam, aiding crop development.



BRAZIL

Unseasonably dry weather persisted in the south, with rainfall totaling under 25 mm in most growing areas from southern Mato Grosso do Sul to Rio Grande do Sul. The recent drying trend has helped to erode previous soil moisture surpluses and has raised concern for developing corn and soybeans in some of the drier locations. However, the dryness favored seasonal fieldwork, including winter corn planting and treatments for pests and diseases. Farther north, warm, showery weather (highs in the lower and middle 30s degrees C, with rainfall totaling 25-50 mm or more) maintained adequate to excessive moisture for soybeans and other summer crops. Additional reports of damage to unharvested soybeans emanated from Mato Grosso, Brazil's top soybean producer. According to independence analyst Safras e Mercado, soybeans were 5 percent harvested as of February 20. Harvesting was 10 percent complete in Mato Grosso, comparable to last season's pace, but anecdotal accounts were noted of harvest delays due to wetness.



ARGENTINA

Following last week's timely showers, dry weather returned to most major summer grain and oilseed areas of central Argentina (La Pampa and Cordoba eastward through northern Buenos Aires and Entre Rios), reducing moisture available to immature crops. However, below-normal temperatures (2-3 degrees C below normal, with highs generally in the upper 20s and lower 30s degrees C) lowered crop moisture demands. Cool, showery weather (highs in the lower and middle 20s degrees C, with rainfall totaling 10-25 mm or more) boosted moisture reserves for immature corn and sunflowers in southern growing areas (southern La Pampa and southern Buenos Aires), while farther north, locally heavy showers (10-50 mm or more) doused cotton areas of Chaco and Formosa. According to Argentina's Agricultural Secretariat, sunflowers were 25 percent harvested as of February 20, slightly ahead of last season's pace. The bulk of the harvest occurred in Santa Fe, Entre Rios, and Santiago del Estero. Corn and soybean harvesting usually begin in March.

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

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