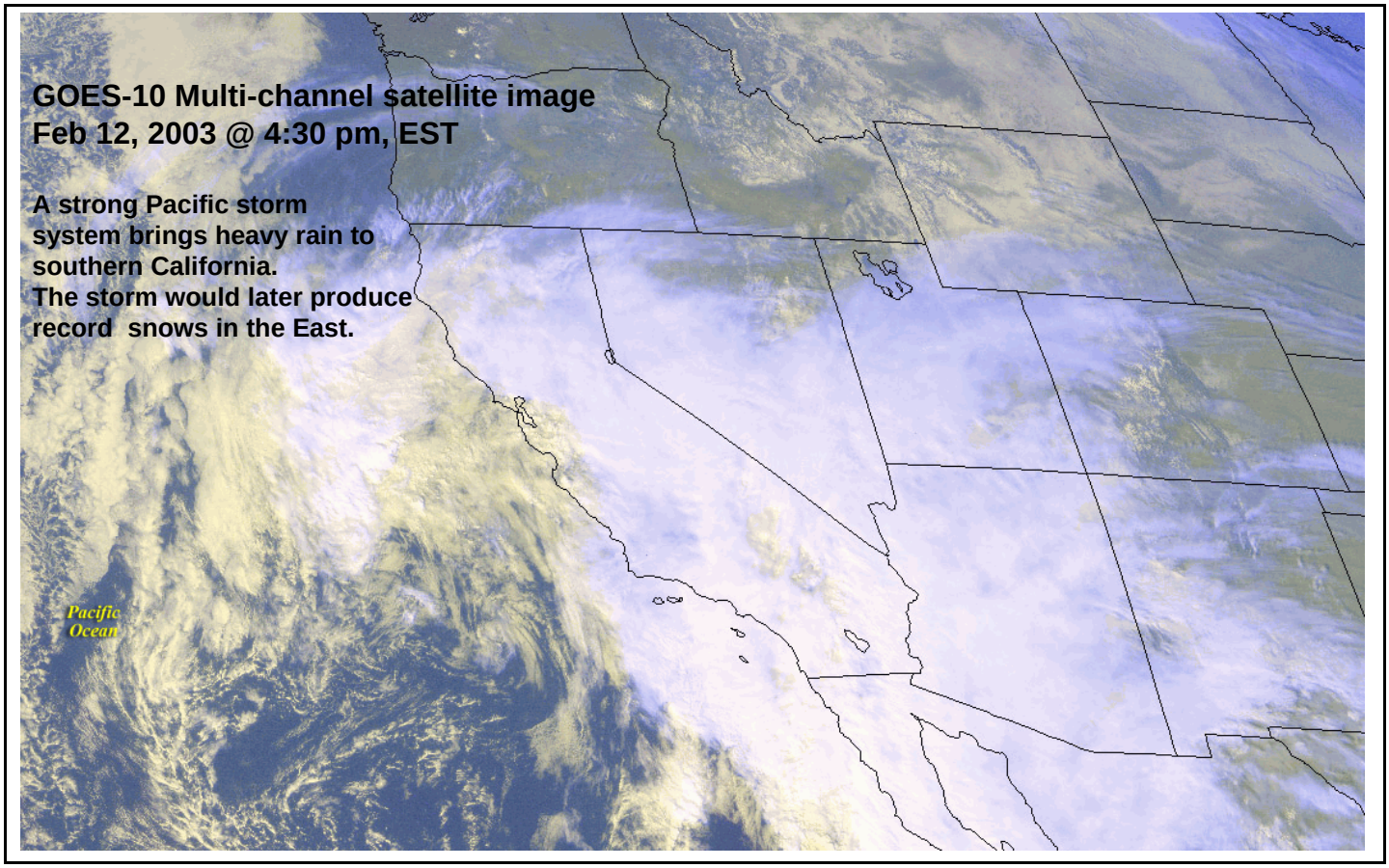
Volume 90, No. 07 http://www.usda.gov/oce/waob/jawf/wwcb.html February 20, 2003

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 9 - 15, 2003

Highlights provided by USDA/WAOB

The most significant **Southwestern** storm of the winter boosted soil moisture reserves and high-elevation snow packs, but provided only limited relief from the region's major drought. Only light precipitation fell elsewhere in the **West**, leaving most areas **west of the Rockies** facing significant water-supply concerns for the remainder of the year. Meanwhile, mild weather favored overwintering wheat on the **Plains**, although the crop continued to lose winter hardiness across **southern portions of the region**. Beneficial showers fell on the **eastern Plains**, especially across the **eastern half of Kansas**. Farther east, late-week rain and snow boosted soil

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Contents

Water Supply Forecast for the Western United States

Highlights

As of February 1, 2003, nearly every Western State is forecast to receive below-average spring runoff from a meager February snowpack. The only exceptions are New Mexico's Pecos River and basins in northern and central California, forecast to experience near- to above-average spring streamflows. Significant portions of northern Nevada, eastern Oregon, western Utah, and eastern Wyoming are forecast to experience streamflows less than 50 percent of average.

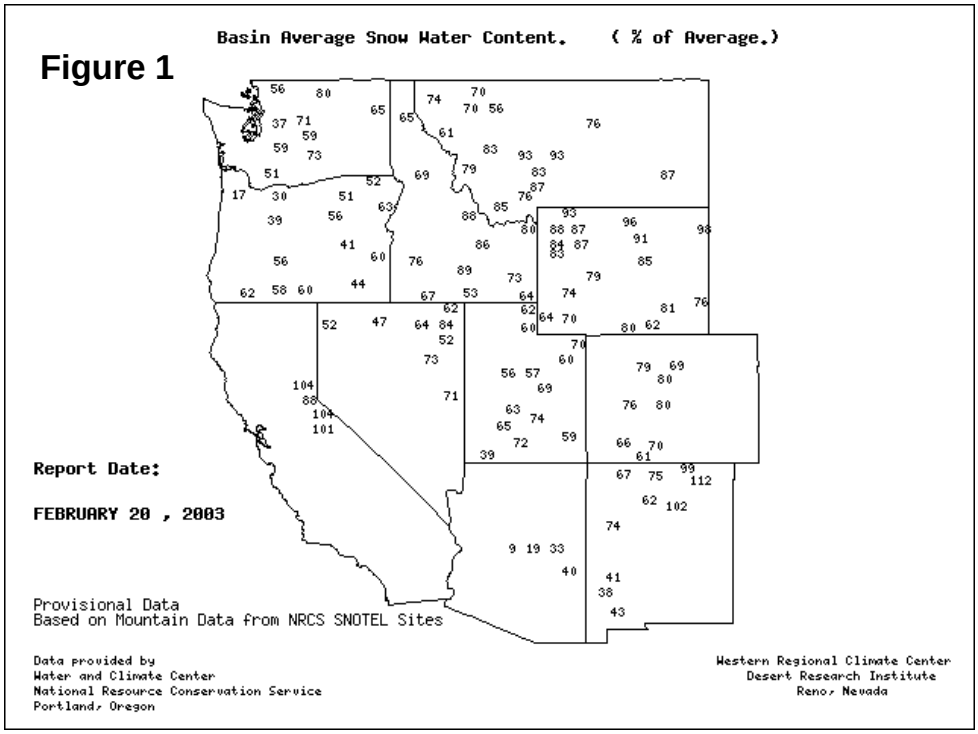
Below-average water supply forecasts come on the heels of last year's near-record or record-low runoff in the Southwest, Intermountain West, and southern Rockies. In many of these areas, this year's below-normal snowpack is resting on very dry soils, which typically translates into reduced snowmelt runoff. Additionally, the reservoir storage for nearly all Western States is running well below February averages.

Snowpack and Precipitation

The February 20, 2003, snow water content map (fig. 1) reflects the below-average snowpacks that are a concern. Extremely low snowpacks (less than 50 percent of average) are reported in parts of Oregon, northern Nevada, southwestern Utah, and Arizona. The entire Pacific Northwest reports below-average snowpacks. Below-average snowpacks also

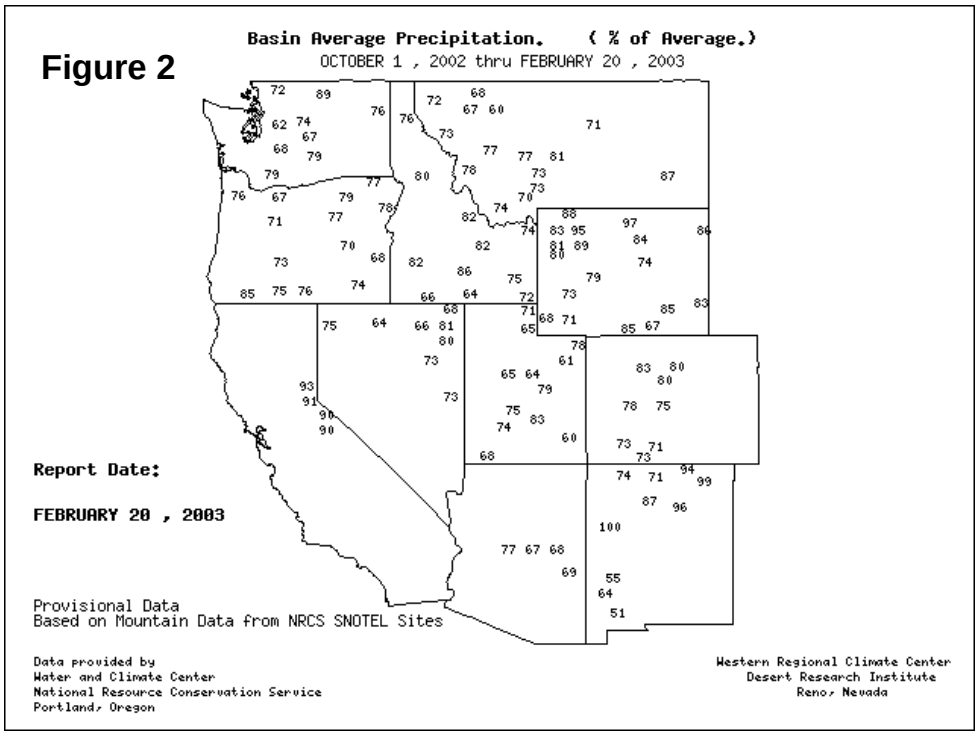
SNOTEL – River Basin Snow Water Content

Figure 1



SNOTEL – River Basin Precipitation

Figure 2



dominate the Rockies and Intermountain West. The only basins reporting near- to slightly above-average snowpacks are located in northeastern New Mexico and northern and central California.

Season-to-date precipitation (October 1, 2002 - February 20, 2003) reflects a similar pattern (fig. 2). Most of the Rockies and Intermountain West report below-average precipitation (50 to 90 percent).

Spring and Summer Streamflow Forecasts

The February 1, 2003, water supply forecasts (fig. 3) paint a bleak picture, ranging from significantly below average to slightly below average streamflow (less than 90 percent) across most of the West. Only basins in central and northwestern California, the Walker Basin in Nevada, and the Upper Pecos Basin in New Mexico are forecast to experience near- to above-average (90 to 130 percent) spring streamflow. These water supply forecasts follow last year's extremely low runoff in many Southwestern and Rocky Mountain basins.

Reservoir Storage

As of February 1, 2003, reservoir storage is below seasonal averages in all Western States (fig. 4). This reflects the carryover dryness from last year's drought in the Rockies and continuing drought from this water year's seasonal precipitation deficits across most of the West.

For More Information

The National Water and Climate Center Homepage provides the latest available snowpack and water supply information. Please visit:

http://www.wcc.nrcs.usda.gov

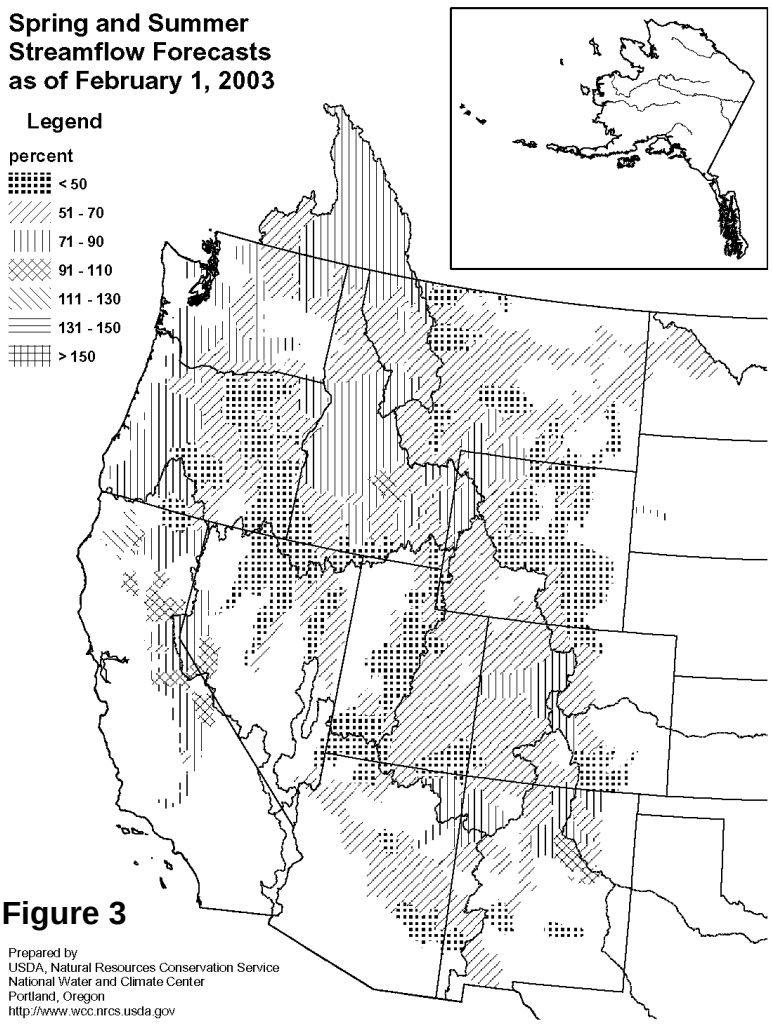


Figure 3

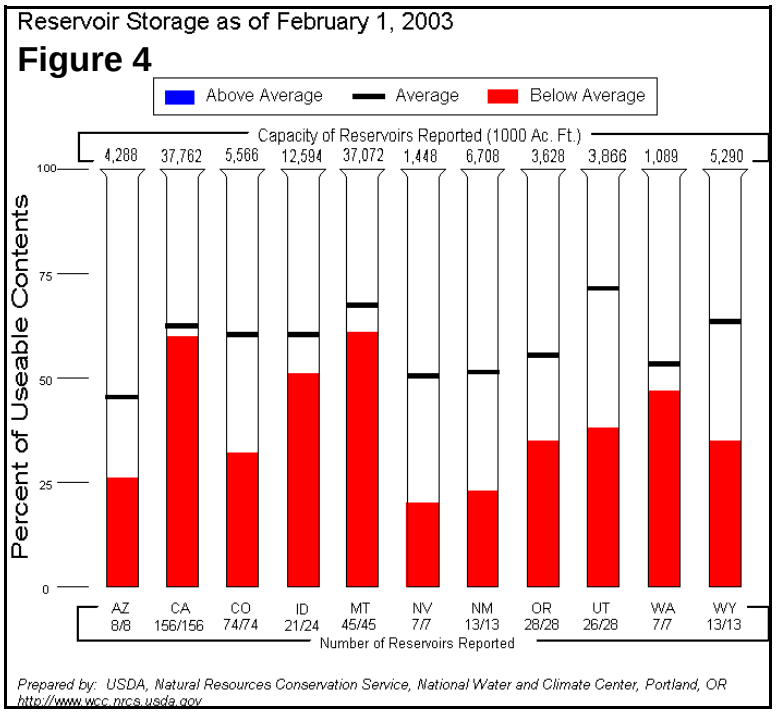
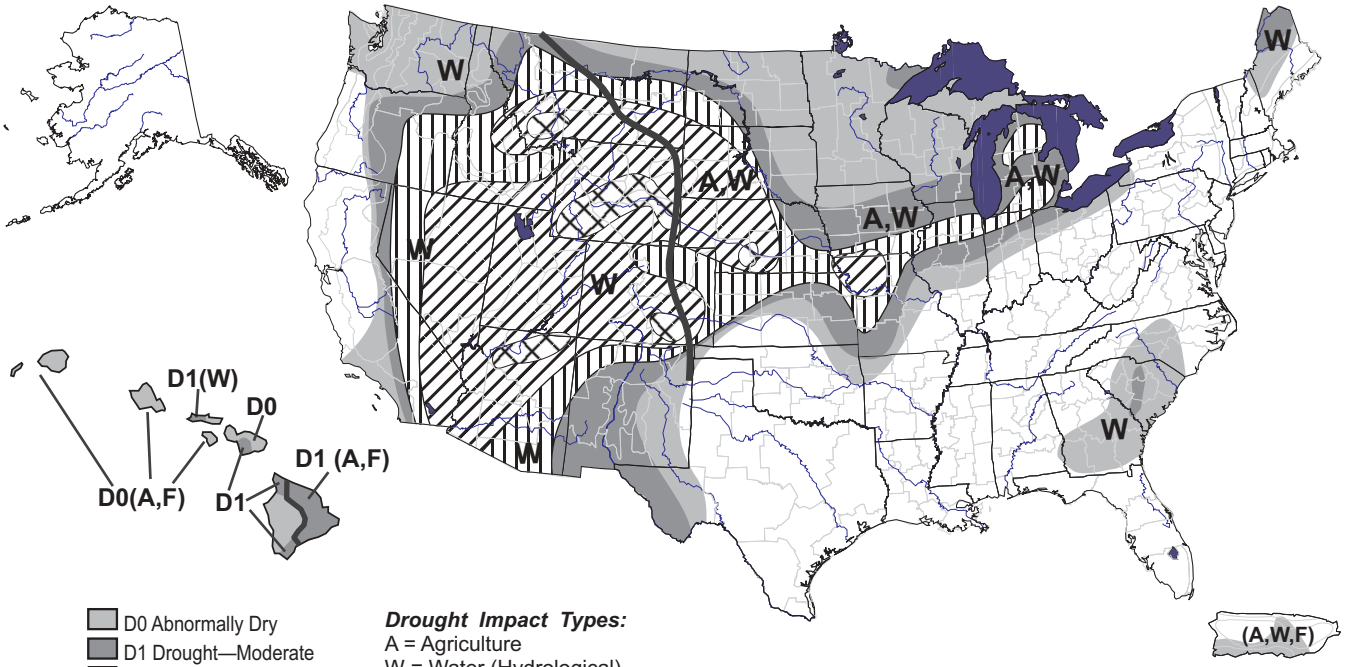


Figure 4

U.S. Drought Monitor

February 11, 2003
Valid 7 a.m. EST



D0 Abnormally Dry
D1 Drought—Moderate
D2 Drought—Severe
D3 Drought—Extreme
D4 Drought—Exceptional

Drought Impact Types:
A = Agriculture
W = Water (Hydrological)
F = Fire danger (Wildfires)
Delineates dominant impacts
(No type = All 3 impacts)

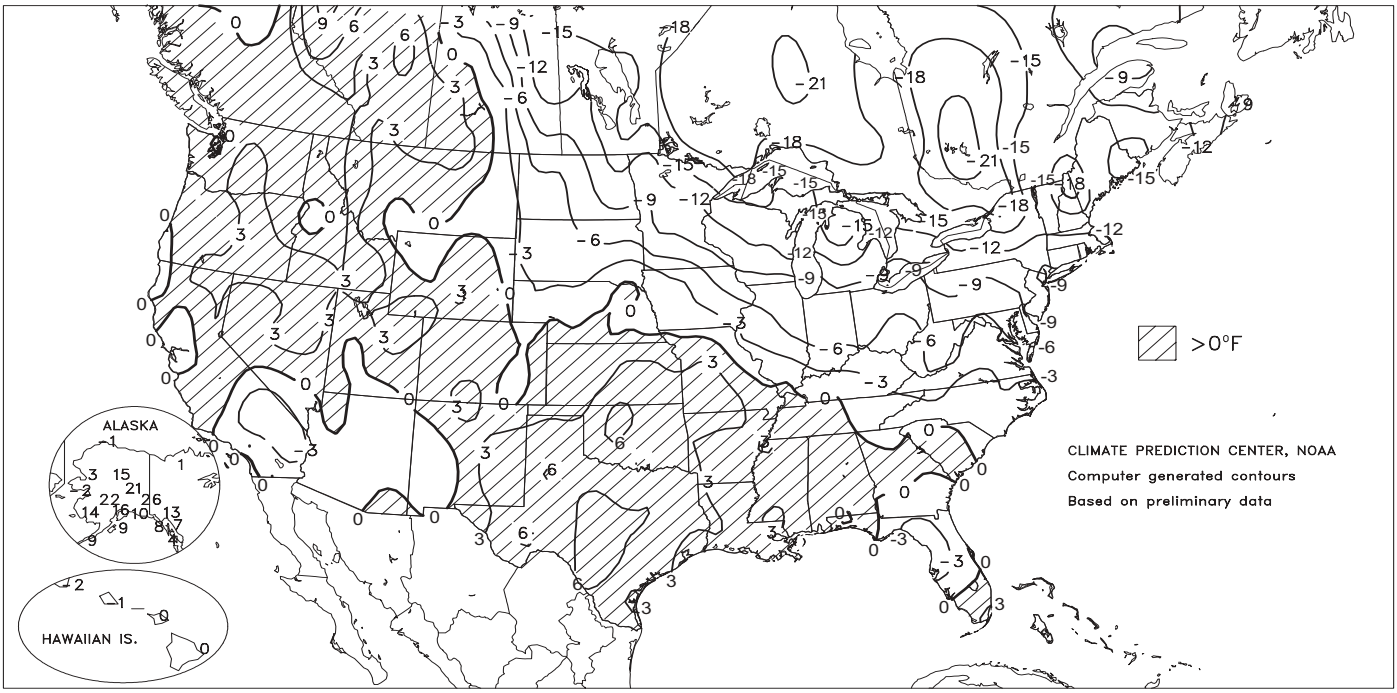
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

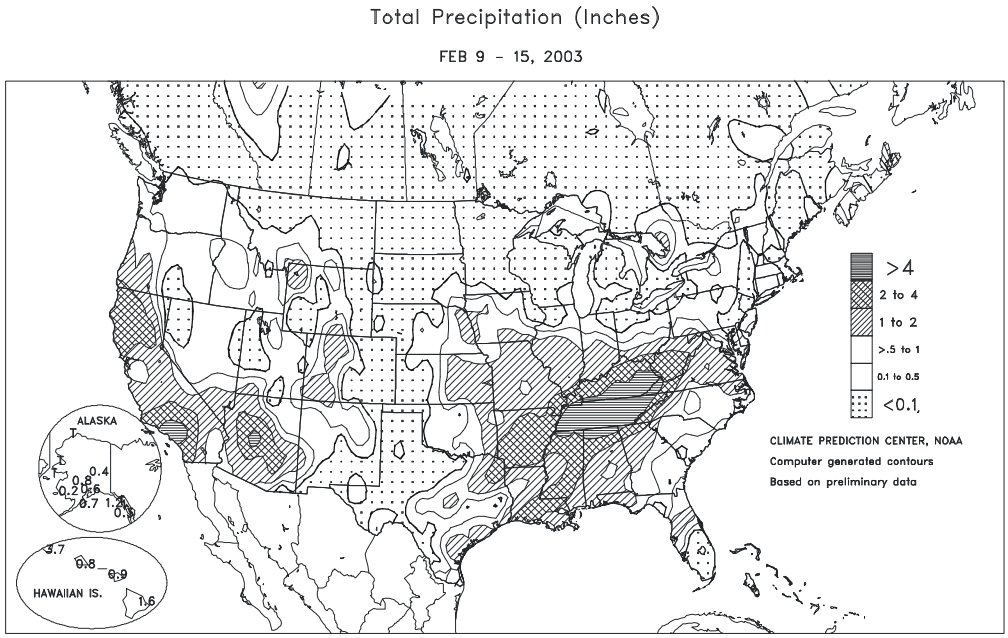
Released Thursday, February 13, 2003
Author: *Mark Svoboda, NDMC*

Departure of Average Temperature from Normal (°F)

FEB 9 - 15, 2003



(Continued from front cover)
moisture reserves in the **southern Corn Belt**, but unfavorably dry conditions persisted across much of the **Great Lakes region**. Bitterly cold weather (temperatures as much as 20ºF below normal) continued to stress livestock in the **northern Corn Belt**. Elsewhere, a late-week storm system produced torrential rainfall (4 inches or more) from the **northern Delta to southwestern Virginia**. Previously dry weather prevented major flooding, but the rain halted fieldwork and caused widespread, minor flooding. The system encountered very cold air **east of the Appalachians**, providing the ingredients for an historic snow storm from February 15-18.



Early in the week, cold weather lingered across the **Southwest**, while light precipitation spread across the **South** and **East**. On February 9, daily-record lows included 1ºF in **Winslow, AZ**, and 23ºF in **Paso Robles, CA.** Meanwhile, daily-record snowfall totals across the **interior South** included 2.8 inches in **Paducah, KY**, and 1.2 inches in **Little Rock, AR.** The following day, **Bridgeport, CT** (3.0 inches), also posted a daily-record snowfall. Farther south, **Vero Beach, FL** (88ºF on February 10), notched a daily-record high.

By Tuesday, a strong cold front crossed the **Midwest**, generating snow squalls and blizzard conditions. **Grand Rapids, MI**, received 7.4 inches of snow on February 11, accompanied by wind gusts to 53 m.p.h. Bitterly cold weather settled across the **Great Lakes and Northeastern States** during the mid- to late-week period, resulting in several daily-record lows. **Bangor, ME**, noted consecutive daily-record lows (-20 and -21ºF) on February 13-14, and **Massena, NY**, posted three record lows (-29, -31, and -28ºF) from February 14-16.

At midweek, heavy rain arrived across the **Southwest** in conjunction with a slow-moving storm system. February 12 rainfall totaled 1.20 inches in **San Diego, CA**, and 0.74 inch in **Las Vegas, NV.** For both locations it was the wettest day since February 21, 2000, when respective totals were 1.25 and 0.77 inches. **Yuma, AZ**, received a 24-hour total of 0.55 inch on February 12-13, exceeding last year's record-low annual total of 0.03 inch. Elsewhere in **Arizona**, **Phoenix** collected 1.42 inches on February 13, their highest daily total since 1.53 inches fell on March 6, 2000. Atop **southern California's Mount Wilson**, storm-total precipitation exceeded 10 inches, most of which (7.68 inches) fell in 24 hours on February 11-12. Elsewhere in **southern California**, February 10-14 totals in the **San Bernardino County** mountains reached 10.15 inches at **Forest Falls**, 9.75 inches at **Lytle Creek**, and 8.47 inches at **Lake Arrowhead**.

Toward week's end, the storm system took aim on areas farther east. On February 13, **Wichita, KS**, netted a daily-record rainfall of 0.72 inch. A day later in **Tennessee**, rainfall reached 3.36 inches in **Memphis** and 2.24 inches in **Nashville**, marking the highest daily totals of a prolonged precipitation event. February 13-16 rainfall included 4.75 inches in **Memphis**, 4.67 inches in **Jackson, KY**, and 4.39 inches in **Nashville**. In **eastern Tennessee**, a few 72-hour (February 14-17) totals approaching or exceeding 8 inches were reported in locations such as **Watts Bar Lake** at **Oliver Springs** (8.53 inches) and **Oak Ridge** (7.89 inches). Farther north, heavy snow developed across the **southern Corn Belt**, where February 14-15 totals in **Iowa** included 10.9 inches in **Des Moines** and 10.6 inches in **Ottumwa**. **Indianapolis, IN**, received 6.0 inches of snow from February 9-11 and 4.9 inches from February 14-17, boosting their season-to-date total to 37.8 inches (the highest seasonal total since 51.7 inches fell in 1995-96).

Meanwhile in the **Northeast**, maximum temperatures on February 16 climbed only to 4ºF in **Albany, NY** (their lowest high temperature since 2ºF on January 14, 1999), and -2ºF in **Burlington, VT** (their first high below 0ºF since a maximum of -5ºF on February 6, 1995). Farther south, the February 15-18 system produced the greatest storm-total snowfall on record in **Baltimore, MD** (28.2 inches), surpassing the 26.5-inch total observed from January 27-29, 1922. **Boston, MA**, received 27.5 inches on February 17-18, breaking their 24-hour and storm-total snowfall records (previously, 25.4 inches on March 31 - April 1, 1997, and 27.1 inches on February 6-7, 1978, respectively). **New York's Central Park** recorded 19.8 inches on February 16-17, the city's fourth-highest storm total behind 26.4 inches on December 26-27, 1947; 21.0 inches on March 12-14, 1888; and 20.2 inches on January 6-8, 1996.

Heavy rain developed across the **Hawaiian Islands** from **Kauai to Maui** on February 13. Locally heavy showers reached the **Big Island** a day later, but the entire State experienced a return to mostly dry weather by week's end. On **Kauai**, 24-hour (February 13-14) totals reached 7.08 inches in **Kokee** and 6.50 inches in **Wainiha**. Similar 24-hour totals were observed on **Oahu** at **St. Stephens** (6.11 inches) and **Maunawili** (5.91 inches). Farther east, **Lanai City, Lanai**, received 5.47 inches in a 48-hour period from February 13-15, while **Kahakuloa, Maui**, netted 7.93 inches. On the **Big Island**, 7.00 inches soaked **Honokaa** in 48 hours from February 14-16. Farther north, weekly temperatures were near normal in **northwestern Alaska** but averaged more than 20ºF above normal in parts of **southern interior Alaska**. Precipitation continued to fall but snow remained scarce at lower elevations across **southern Alaska**, where February 1-18 totals included 0.77 inch (but only 0.1 inch of snow) in **Anchorage** and 1.18 inches (0.3 inch of snow) in **King Salmon**. Month-to-date precipitation reached 2.98 inches (15.4 inches of snow) in **McGrath**, approaching their February 1944 record of 3.05 inches. On February 9, **McGrath** netted a daily-record total of 0.31 inch (all rain), while daily-record highs were set in **King Salmon** (44ºF) and **Kodiak** (47ºF).

Weather Data for Mississippi and the Missouri Bootheel

Weather Data for the Week Ending February 15, 2003

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

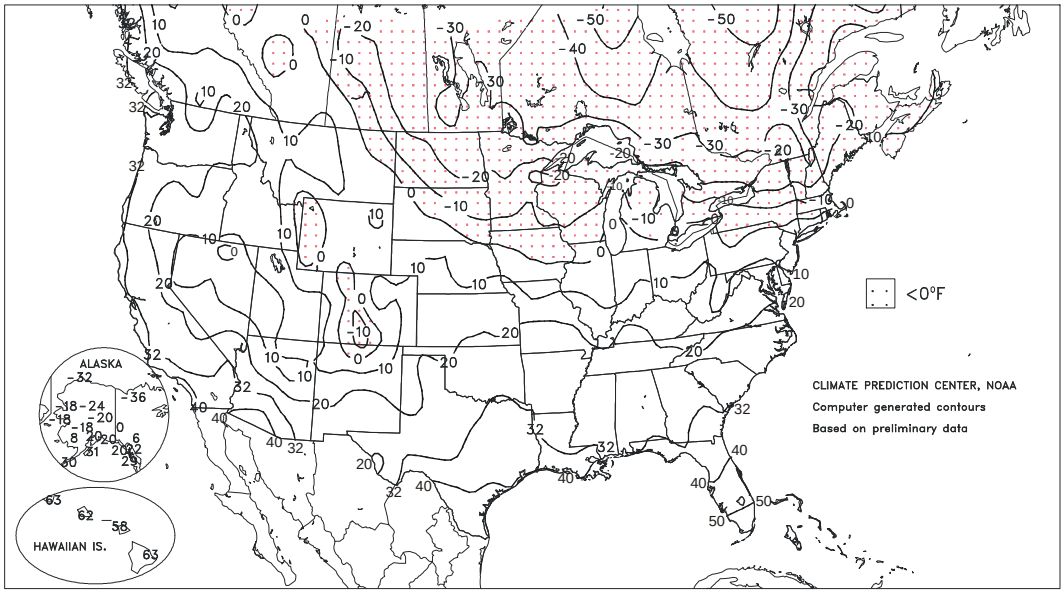
STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							4-INCH SOIL TEMP, °F		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
MS	BATESVILLE [x]	-	-	-	-	-	-	1.52	0.47	0.90	13.63	164	4.64	192	-	-	-	-	3	2
	BELZONI [x]	54	39	71	26	46	4	0.93	-0.40	0.61	-	-	3.66	124	-	-	0	1	3	1
	CLARKSDALE [x]	53	37	64	25	45	5	1.45	0.26	0.85	12.16	156	4.14	170	-	-	0	1	3	1
	CLEVELAND [x]	52	37	67	26	44	2	0.76	-0.29	0.41	10.60	144	3.68	160	-	-	0	1	3	0
	GREENVILLE [x]	52	39	69	30	46	4	0.61	-0.65	0.37	-	-	-	-	-	-	0	1	3	0
	GREENWOOD [x]	60	40	72	28	50	7	1.13	-0.06	0.84	11.45	142	3.90	148	-	-	0	2	3	1
	INDIANOLA 1S	57	41	70	32	49	-	0.78	-	0.35	9.62	-	3.25	-	49	44	0	1	4	0
	INVERNESS 5E	58	43	72	35	50	-	1.00	-	0.62	10.81	-	3.55	-	49	45	0	0	3	1
	LYON	56	37	66	32	47	-	1.83	-	0.99	11.43	-	2.90	-	51	42	0	1	4	1
	MACON	62	37	75	27	50	-	1.60	-	1.16	11.08	-	4.98	-	52	44	0	4	4	1
	MOORHEAD [x]	54	39	70	26	47	4	0.65	-0.61	0.24	6.05	70	4.51	167	-	-	0	1	3	0
	ONWARD	59	42	72	33	50	-	1.21	-	0.70	10.22	-	3.26	-	50	45	0	0	2	2
	PERTHSHIRE	56	38	66	31	47	-	1.73	-	0.59	14.56	-	-	-	51	42	0	1	4	2
	ROLLING FORK [x]	56	39	73	28	48	4	0.78	-0.55	0.51	6.99	82	3.30	116	-	-	0	2	3	1
	SCOTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SIDON	59	42	71	33	50	-	1.22	-	0.96	9.50	-	5.14	-	52	43	0	0	3	1
	STARKVILLE	60	38	73	28	49	-	2.24	-	1.88	10.99	-	-	-	52	43	0	3	5	1
	TUNICA [x]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TUNICA 1W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	VANCE	55	36	65	30	46	-	1.40	-	0.56	12.90	-	2.97	-	45	42	0	2	5	1
	VERONA	57	37	67	27	47	-	1.75	-	1.12	10.65	-	4.27	-	52	41	0	4	4	1
	VICKSBURG [x]	58	39	75	26	49	2	0.62	-0.85	0.43	10.11	115	3.76	121	-	-	0	3	2	0
	YAZOO CITY [x]	59	39	75	30	49	4	1.26	-0.21	0.78	9.62	102	3.97	126	-	-	0	3	3	1
	STONEVILLE [x]	53	38	68	27	46	5	0.62	-0.64	0.38	9.36	115	3.35	124	51	42	0	1	3	0
MO	DELTA	47	26	56	10	37	1	1.26	0.10	1.08	7.65	71	1.96	34	40	34	0	6	5	1
	STEELE	51	34	63	24	42	4	2.73	1.65	1.70	11.88	106	4.40	75	45	38	0	3	5	2
	GLENNONVILLE	51	31	63	21	41	4	2.24	1.40	1.35	9.21	99	2.97	62	44	37	0	4	5	2
	PORTAGEVILLE LF	50	32	62	24	41	3	2.69	1.72	1.84	9.79	93	4.13	75	47	37	0	4	5	2
	CLARKTON	50	30	61	18	40	3	2.56	1.72	1.49	9.44	102	3.42	71	42	36	0	5	5	2
	CARDWELL	53	32	64	24	42	3	2.48	1.50	1.48	10.75	102	4.15	75	46	39	0	5	5	2
	CHARLESTON	48	29	61	14	39	3	2.28	1.05	1.61	9.18	93	3.29	64	42	36	0	6	5	2
	PORTAGEVILLE DC	50	31	61	21	41	3	2.86	1.89	1.88	9.71	92	3.81	69	-	-	0	4	5	2

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

Weather and Crop Summary: The Delta and Bootheel experienced heavy, late-week rainfall, preventing a return to fieldwork. Similar to last week, cool weather early in the period yielded to well-above-normal temperatures by week's end. Some spring burn-down began in preparation for planting.

Extreme Minimum Temperature (°F)

FEB 9 - 15, 2003



National Weather Data for Selected Cities

Weather Data for the Week Ending February 15, 2003

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

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	61	38	74	27	49	3	1.21	0.24	0.61	12.06	100	4.83	63	94	39	0	3	4	1
	HUNTSVILLE	55	35	66	23	45	2	3.00	1.85	1.97	11.39	84	5.25	66	88	59	0	4	4	2
	MOBILE	68	44	79	35	56	3	0.71	-0.48	0.52	10.49	81	1.52	18	85	45	0	0	3	1
	MONTGOMERY	65	37	80	26	51	1	0.38	-0.93	0.21	7.64	60	2.47	32	97	46	0	3	3	0
AK	ANCHORAGE	37	31	42	20	34	16	0.64	0.47	0.17	1.86	90	1.01	99	99	88	0	3	5	0
	BARROW	-13	-20	1	-32	-16	0	0.01	-0.02	0.01	0.21	70	0.19	106	79	76	0	7	1	0
	FAIRBANKS	22	11	36	-20	16	21	0.36	0.28	0.13	1.18	80	0.77	104	89	84	0	7	5	0
	JUNEAU	40	30	44	22	35	6	0.04	-0.95	0.03	12.19	99	6.33	91	98	90	0	4	2	0
	KODIAK	43	34	47	31	39	9	0.68	-0.77	0.43	26.79	140	20.75	182	94	84	0	3	5	0
	NOME	12	-5	20	-18	4	-2	0.01	-0.18	0.01	1.84	79	0.87	65	79	71	0	7	1	0
AZ	FLAGSTAFF	46	22	50	9	34	2	1.97	1.35	1.51	2.84	54	2.15	62	87	45	0	6	4	1
	PHOENIX	67	51	72	41	59	1	1.77	1.61	1.18	2.52	122	2.36	207	68	49	0	0	3	2
	TUCSON	65	44	70	32	55	0	0.74	0.54	0.53	1.46	60	0.82	58	79	55	0	1	4	1
	YUMA	67	51	72	41	59	-3	0.64	0.58	0.40	0.86	93	0.83	166	72	54	0	0	4	0
AR	FORT SMITH	57	34	73	25	46	3	1.38	0.79	0.98	7.37	106	2.15	60	98	60	0	4	3	1
	LITTLE ROCK	56	35	66	27	46	2	2.64	1.84	1.18	11.60	116	3.43	65	94	55	0	5	4	3
CA	BAKERSFIELD	64	45	66	34	55	2	0.94	0.66	0.75	2.51	99	1.11	63	75	61	0	0	2	1
	FRESNO	62	44	67	33	53	2	0.55	0.05	0.27	3.39	74	0.95	29	89	72	0	0	3	0
	LOS ANGELES	64	52	72	45	58	0	2.99	2.22	2.17	5.84	91	3.03	65	89	75	0	0	3	2
	REDDING	61	38	65	27	50	1	1.02	-0.34	0.54	22.55	159	7.80	82	91	74	0	3	3	1
	SACRAMENTO	60	42	62	30	51	0	0.57	-0.32	0.36	8.21	100	1.92	33	92	59	0	1	3	0
	SAN DIEGO	66	55	72	49	60	1	3.02	2.52	1.19	5.03	108	3.05	91	85	63	0	0	4	4
	SAN FRANCISCO	58	46	61	37	52	0	1.08	0.07	0.43	13.29	139	2.54	38	87	74	0	0	4	0
	STOCKTON	61	40	66	27	51	0	0.53	-0.08	0.27	6.23	106	1.20	30	92	78	0	2	2	0
CO	ALAMOSA	45	8	53	-6	26	4	0.00	-0.03	0.00	0.35	55	0.11	35	79	42	0	7	0	0
	CO SPRINGS	45	19	53	5	32	1	0.08	0.02	0.08	0.26	33	0.18	49	82	37	0	5	1	0
	DENVER INTL	44	23	55	15	33	2	0.03	0.02	0.02	0.37	67	0.32	133	87	45	0	7	2	0
	GRAND JUNCTION	41	26	50	17	33	0	0.14	0.05	0.01	0.72	55	0.55	70	80	73	0	4	1	0
	PUEBLO	49	19	56	0	34	0	0.11	0.08	0.11	0.65	83	0.36	92	80	51	0	5	1	0
CT	BRIDGEPORT	29	15	35	11	22	-9	0.25	-0.44	0.24	6.84	78	2.65	50	70	46	0	7	2	0
	HARTFORD	27	7	35	0	17	-11	0.10	-0.60	0.08	6.59	73	2.82	52	75	44	0	7	2	0
DC	WASHINGTON	39	25	42	20	33	-4	0.38	-0.23	0.29	8.05	106	3.60	80	78	40	0	6	3	0
DE	WILMINGTON	37	17	46	7	27	-6	0.17	-0.48	0.09	7.20	88	3.00	62	83	40	0	7	3	0
FL	DAYTONA BEACH	67	46	80	40	57	-3	1.49	0.85	1.36	11.70	162	2.09	46	10	49	0	0	2	1
	JACKSONVILLE	66	39	80	34	53	-2	0.53	-0.23	0.52	7.45	93	2.05	38	94	37	0	0	2	1
	KEY WEST	76	67	81	63	71	0	0.02	-0.35	0.01	4.56	88	0.49	16	87	65	0	0	2	0
	MIAMI	81	63	87	58	72	3	0.00	-0.52	0.00	3.91	76	0.52	17	88	46	0	0	0	0
	ORLANDO	71	48	81	43	59	-3	0.23	-0.31	0.15	12.42	211	1.03	29	89	55	0	0	2	0
	PENSACOLA	65	45	75	36	55	1	0.99	-0.11	0.76	6.60	56	1.70	22	91	58	0	0	3	1
	TALLAHASSEE	67	39	76	31	53	-1	0.32	-0.75	0.30	9.03	77	2.41	31	90	43	0	1	2	0
	TAMPA	71	50	79	46	61	-1	0.43	-0.22	0.35	14.83	251	0.70	19	92	47	0	0	2	0
	WEST PALM	79	58	88	49	68	1	0.00	-0.61	0.00	3.91	47	1.32	25	97	61	0	0	0	0
GA	ATHENS	57	34	71	29	46	1	0.56	-0.50	0.40	8.74	82	3.30	47	70	48	0	2	3	0
	ATLANTA	59	36	71	29	48	2	0.54	-0.59	0.33	8.80	78	3.57	48	73	49	0	4	2	0
	AUGUSTA	63	34	77	25	48	0	0.33	-0.66	0.32	7.28	74	3.02	45	82	52	0	3	2	0
	COLUMBUS	64	37	76	30	51	1	0.25	-0.81	0.24	8.54	75	4.02	57	83	32	0	2	2	0
	MACON	64	34	77	27	49	1	0.41	-0.70	0.40	8.37	74	2.98	40	84	32	0	3	2	0
	SAVANNAH	65	36	79	30	51	-1	0.27	-0.44	0.23	5.42	65	1.54	28	92	37	0	3	2	0
HI	HILO	78	66	81	63	72	1	1.62	-0.47	1.51	14.02	57	3.54	25	81	68	0	0	4	1
	HONOLULU	78	66	82	62	72	-1	0.84	0.26	0.77	2.11	31	2.07	52	82	68	0	0	3	1
	KAHULUI	78	65	82	58	71	-1	0.88	0.30	0.79	3.87	47	3.32	65	79	69	0	0	2	1
	LIHUE	74	65	77	63	70	-2	3.72	2.93	3.22	7.06	63	5.98	94	80	72	0	0	3	1
ID	BOISE	49	29	56	22	39	3	0.46	0.18	0.27	4.27	127	2.23	113	82	65	0	4	2	0
	LEWISTON	48	30	53	26	39	1	0.18	-0.04	0.12	4.19	156	3.51	215	92	79	0	5	2	0
	POCATELLO	41	25	47	11	33	4	0.43	0.21	0.31	1.55	57	1.12	70	85	71	0	6	2	0
IL	CHICAGO/O'HARE	29	9	35	4	19	-7	0.00	-0.39	0.00	2.35	47	0.42	16	70	54	0	7	0	0
	MOLINE	33	8	42	1	21	-5	0.22	-0.12	0.17	1.38	31	0.69	30	83	56	0	7	2	0
	PEORIA	34	12	44	2	23	-4	0.56	0.19	0.44	3.64	78	1.43	63	89	47	0	7	4	0
	ROCKFORD	28	6	36	-3	17	-7	0.08	-0.22	0.04	1.22	30	0.44	21	72	52	0	7	2	0
	SPRINGFIELD	35	15	43	5	25	-5	1.06	0.66	0.48	3.55	72	1.85	77	87	61	0	7	4	0
IN	EVANSVILLE	43	24	49	16	33	-2	1.11	0.38	0.62	8.22	103	2.57	58	88	66	0	7	4	1
	FORT WAYNE	29	12	36	8	21	-5	0.17	-0.29	0.12	3.32	57	1.71	57	86	51	0	7	3	0
	INDIANAPOLIS	32	14	38	5	23	-7	0.69	0.13	0.31	5.32	79	2.30	63	94	57	0	7	4	0
	SOUTH BEND	28	11	36	7	20	-6	0.02	-0.45	0.02	3.33	52	1.53	47	73	59	0	7	1	0
IA	BURLINGTON	35	13	47	3	24	-3	0.69	0.35	0.57	2.01	49	1.22	62	88	44	0	7	3	1
	CEDAR RAPIDS	32	5	43	-4	19	-5	0.18	-0.07	0.14	0.93	30	0.66	42	92	50	0	7	2	0
	DES MOINES	34	12	48	5	23	-3	0.21	-0.07	0.20	0.68	23	0.68	43	83	59	0	7	2	0
	DUBUQUE	27	3	34	-7	15	-7	0.09	-0.24	0.07	1.24	34	0.51	26	76	60	0	7	2	0
	SIOUX CITY	40	9	51	0	25	1	0.81	0.70	0.80	1.18	81	1.05	133	82	61	0	7	2	1
	WATERLOO	30	1	40	-9	16	-6	0.12	-0.12	0.09	0.85	35	0.53	40	77	58	0	7	3	0
KS	CONCORDIA	45	22	56	15	34	2	0.68	0.57	0.47	1.12	65	1.01	119	86	65	0	6	2	0
	DODGE CITY	49	24	57	19	37	2	0.15	0.03	0.06	0.89	55	0.28	33	89	55	0	5	3	0
	GOODLAND	47	20	57	17	33	1	0.12	0.05	0.12	0.32	33	0.32	57	87	61	0	7	1	0
	TOPEKA	47	25	54	18	36	4	0.90	0.66	0.61	1.60	56	1.55	109	88	63	0	6	3	1

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending February 15, 2003

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	51	27	67	21	39	4	0.85	0.66	0.72	2.24	89	1.02	88	91	68	0	6	3	1
KY	JACKSON	39	26	46	19	33	-4	3.11	2.23	2.16	10.48	109	6.19	115	87	56	0	7	5	2
	LEXINGTON	39	23	44	18	31	-4	2.31	1.55	1.68	7.97	89	3.89	79	81	63	0	7	4	2
	LOUISVILLE	42	26	50	20	34	-3	1.69	0.93	0.81	9.97	117	3.36	69	85	52	0	6	5	2
	PADUCAH	49	27	62	14	38	1	2.41	1.43	1.79	11.26	114	4.19	76	96	63	0	6	4	1
LA	BATON ROUGE	67	43	77	32	55	2	1.81	0.52	1.72	10.29	72	3.14	35	10	55	0	1	2	1
	LAKE CHARLES	66	48	76	37	57	3	1.05	0.25	0.60	14.02	116	4.54	61	10	69	0	0	4	1
	NEW ORLEANS	68	47	77	37	58	3	0.92	-0.48	0.74	6.17	44	1.35	15	97	63	0	0	2	1
	SHREVEPORT	63	44	70	32	54	4	1.41	0.36	0.81	11.03	97	2.67	39	96	58	0	1	4	1
ME	CARIBOU	9	-14	27	-21	-2	-14	0.07	-0.42	0.04	10.98	151	8.05	198	76	47	0	7	3	0
	PORTLAND	22	0	34	-17	11	-13	0.07	-0.69	0.07	6.92	69	2.41	42	74	35	0	7	1	0
MD	BALTIMORE	37	19	40	9	28	-7	0.30	-0.40	0.23	8.77	105	3.81	77	82	51	0	7	2	0
MA	BOSTON	27	12	36	0	19	-12	0.03	-0.78	0.02	8.00	85	2.70	47	69	38	0	7	2	0
	WORCESTER	22	6	31	-2	14	-11	0.10	-0.63	0.07	7.61	80	3.10	55	83	41	0	7	2	0
MI	ALPENA	15	-8	19	-13	3	-15	0.02	-0.28	0.02	1.00	23	0.48	20	84	48	0	7	1	0
	GRAND RAPIDS	22	4	26	-1	13	-11	0.17	-0.19	0.16	3.15	57	1.19	42	84	60	0	7	2	0
	HOUGHTON LAKE	14	-9	19	-20	3	-16	0.01	-0.27	0.01	0.76	19	0.35	16	83	60	0	7	1	0
	LANSING	23	0	29	-7	11	-12	0.08	-0.27	0.08	1.34	30	0.55	23	77	60	0	7	1	0
	MUSKEGON	24	9	29	4	17	-8	0.02	-0.35	0.02	1.36	24	0.51	17	79	60	0	7	1	0
	TRAVERSE CITY	16	-2	22	-5	7	-14	0.16	-0.29	0.15	0.92	14	0.66	16	86	57	0	7	2	0
MN	DULUTH	10	-9	15	-17	1	-13	0.00	-0.18	0.00	1.01	41	0.20	13	75	51	0	7	0	0
	INT'L FALLS	5	-17	10	-30	-6	-16	0.00	-0.15	0.00	0.33	18	0.07	6	72	44	0	7	0	0
	MINNEAPOLIS	19	0	26	-7	10	-9	0.03	-0.14	0.02	0.98	41	0.78	55	74	57	0	7	2	0
	ROCHESTER	21	-2	26	-11	9	-8	0.05	-0.12	0.05	1.26	54	0.70	53	80	64	0	7	1	0
	ST. CLOUD	15	-8	22	-15	3	-12	0.03	-0.10	0.00	0.69	40	0.47	45	81	55	0	7	1	0
MS	JACKSON	63	40	75	26	52	4	1.31	0.21	0.80	10.38	77	4.08	50	93	49	0	2	3	2
	MERIDIAN	65	37	78	25	51	2	1.93	0.65	1.60	12.23	88	4.30	50	89	54	0	4	3	1
	TUPELO	57	35	68	25	46	2	1.89	0.79	1.08	12.15	90	5.03	68	90	64	0	5	4	1
MO	COLUMBIA	42	24	50	17	33	0	1.13	0.61	0.76	4.16	79	2.07	74	87	54	0	6	2	1
	KANSAS CITY	44	24	52	15	34	2	0.51	0.23	0.44	1.13	34	1.10	65	90	55	0	6	3	0
	SAINT LOUIS	41	25	49	20	33	-1	0.96	0.44	0.51	4.04	67	2.02	63	89	60	0	6	3	1
	SPRINGFIELD	51	30	62	23	41	5	1.40	0.87	0.83	4.72	74	1.83	57	84	67	0	6	4	1
MT	BILLINGS	38	22	40	17	30	1	0.07	-0.04	0.04	1.31	75	1.05	98	87	57	0	7	3	0
	BUTTE	34	11	37	-2	23	1	0.31	0.22	0.25	1.35	109	1.20	169	93	57	0	7	3	0
	GLASGOW	30	9	39	2	20	2	0.03	-0.03	0.02	0.24	29	0.19	40	91	82	0	7	2	0
	GREAT FALLS	38	17	43	12	28	2	0.01	-0.09	0.01	0.83	53	0.46	52	91	59	0	7	1	0
	HAVRE	33	16	41	11	25	4	0.03	-0.03	0.03	0.35	32	0.27	46	93	78	0	7	1	0
	KALISPELL	37	22	42	16	29	3	0.00	-0.28	0.00	2.23	60	0.99	48	93	82	0	7	0	0
	MISSOULA	41	26	46	19	33	5	0.00	-0.17	0.00	2.53	98	1.90	133	90	77	0	7	0	0
NE	GRAND ISLAND	37	16	48	8	27	0	0.46	0.34	0.42	1.17	82	1.15	151	89	75	0	7	2	0
	LINCOLN	39	16	51	9	27	0	1.07	0.96	0.79	1.82	105	1.81	208	89	73	0	7	5	1
	NORFOLK	39	13	53	6	26	0	0.44	0.29	0.43	0.89	59	0.84	99	85	59	0	7	2	0
	NORTH PLATTE	40	16	51	9	28	-1	0.07	-0.02	0.07	0.52	54	0.52	91	98	64	0	7	1	0
	OMAHA	38	15	49	6	26	-1	1.07	0.92	0.59	1.59	80	1.59	147	86	64	0	7	3	1
	SCOTTSBLUFF	40	16	51	2	28	-2	0.21	0.10	0.19	0.33	25	0.33	44	84	61	0	7	2	0
	VALENTINE	34	9	46	3	22	-4	0.10	0.01	0.08	0.52	65	0.48	102	91	72	0	7	3	0
NV	ELY	47	18	50	2	33	4	0.14	-0.03	0.08	0.56	36	0.42	39	83	62	0	7	3	0
	LAS VEGAS	58	43	65	32	50	-2	0.85	0.68	0.65	0.92	70	0.85	93	64	50	0	1	2	1
	RENO	55	27	60	16	41	3	0.06	-0.19	0.06	2.47	100	0.27	17	73	51	0	5	1	0
	WINNEMUCCA	53	21	57	7	37	1	0.18	0.04	0.17	2.17	112	1.78	158	85	56	0	5	2	0
NH	CONCORD	22	-7	34	-20	8	-15	0.04	-0.52	0.03	7.54	105	3.97	94	83	39	0	7	2	0
NJ	NEWARK	32	17	37	11	24	-9	0.11	-0.58	0.11	7.50	83	3.80	69	60	43	0	7	1	0
NM	ALBUQUERQUE	52	32	58	20	42	1	0.41	0.33	0.39	1.00	86	0.64	96	76	37	0	3	2	0
NY	ALBANY	23	4	34	-6	14	-10	0.09	-0.43	0.05	7.81	125	3.84	107	77	48	0	7	3	0
	BINGHAMTON	18	4	26	-5	11	-12	0.13	-0.48	0.12	6.17	89	3.43	88	85	55	0	7	2	0
	BUFFALO	21	6	30	-2	13	-12	0.46	-0.13	0.25	7.73	94	3.37	76	86	57	0	7	3	0
	ROCHESTER	22	5	30	-8	13	-12	0.59	0.09	0.31	6.90	113	3.13	92	79	59	0	7	5	0
	SYRACUSE	21	4	31	-5	12	-12	0.36	-0.14	0.13	5.97	87	3.13	84	83	63	0	7	4	0
NC	ASHEVILLE	50	29	67	24	39	1	0.65	-0.27	0.33	8.70	92	2.30	38	75	51	0	6	4	0
	CHARLOTTE	55	29	65	22	42	-2	0.51	-0.33	0.26	8.23	92	3.27	56	78	37	0	6	3	0
	GREENSBORO	50	30	54	24	40	0	0.20	-0.54	0.07	7.98	97	3.55	69	76	40	0	5	3	0
	HATTERAS	52	39	60	31	46	0	0.45	-0.48	0.43	6.11	49	3.78	47	81	50	0	1	2	0
	RALEIGH	52	29	57	23	40	-2	0.79	-0.04	0.34	8.77	99	3.73	64	74	43	0	6	3	0
	WILMINGTON	59	34	72	26	46	-2	0.07	-0.81	0.07	5.12	50	2.59	40	96	39	0	3	1	0
ND	BISMARCK	24	-2	30	-17	11	-6	0.00	-0.11	0.00	0.59	52	0.28	41	81	70	0	7	0	0
	DICKINSON	29	1	40	-8	15	-6	0.01	-0.10	0.01	0.47	49	0.12	20	96	68	0	7	1	0
	FARGO	15	-9	18	-20	3	-10	0.00	-0.11	0.00	1.11	70	0.28	28	78	62	0	7	0	0
	GRAND FORKS	14	-14	16	-26	0	-12	0.00	-0.14	0.00	0.53	35	0.21	21	80	51	0	7	0	0
	JAMESTOWN	18	-6	23	-23	6	-9	0.01	-0.10	0.01	0.38	29	0.14	16	88	68	0	7	1	0
	WILLISTON	24	-7	32	-20	8	-8	0.06	-0.02	0.03	1.33	103	0.71	99	92	81	0	7	3	0
OH	AKRON-CANTON	28	12	31	5	20	-7	0.15	-0.39	0.09	5.33	81	2.42	67	81	63	0	7	4	0
	CINCINNATI	35	17	37	9	26	-7	1.03	0.38	0.41	8.29	110	3.38	79	83	64	0	7	5	0
	CLEVELAND	28	13	32	7	21	-7	0.62	0.07	0.33	6.74	99	3.03	83	88	58	0	7	5	0
	COLUMBUS	33	16	34	11	25	-6	0.72	0.20	0.26	5.48	83	2.70	74	83	63	0	7	6	0
	DAYTON	31	15	33	9	23	-7	0.29	-0.26	0.11	4.82	70	1.61	43	87	59	0	7	4	0
	MANSFIELD	28	11	33	4	20	-7	0.04	-0.48	0.03	4.35	62	1.61	43	86	56	0	7	2	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending February 15, 2003

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	30	11	36	3	20	-6	0.04	-0.42	0.04	4.21	76	1.54	53	78	62	0	7	1	0
	YOUNGSTOWN	26	10	30	4	18	-9	0.30	-0.17	0.16	5.33	84	2.42	72	80	63	0	7	5	0
OK	OKLAHOMA CITY	57	34	76	25	45	4	0.30	-0.02	0.24	2.35	62	0.51	27	90	53	0	5	2	0
	TULSA	58	33	77	27	46	5	0.56	0.14	0.23	3.63	75	0.88	36	88	63	0	5	4	0
OR	ASTORIA	54	37	62	28	45	1	0.48	-1.50	0.40	26.66	109	13.89	99	92	82	0	1	4	0
	BURNS	47	22	50	14	34	5	0.05	-0.20	0.03	3.23	107	1.26	73	95	67	0	6	2	0
	EUGENE	53	34	59	25	44	2	0.51	-1.09	0.39	19.60	101	7.55	68	97	88	0	3	3	0
	MEDFORD	56	31	60	24	43	0	1.00	0.48	0.60	11.06	170	3.86	107	92	59	0	4	3	1
	PENDLETON	49	31	54	26	40	2	0.37	0.07	0.23	5.80	162	3.57	170	90	77	0	5	3	0
	PORTLAND	55	37	60	29	46	3	0.52	-0.53	0.48	16.63	127	8.63	117	88	71	0	3	3	0
	SALEM	56	34	59	26	45	2	0.70	-0.60	0.63	19.46	129	8.26	95	95	81	0	3	4	1
PA	ALLENTOWN	29	11	33	3	20	-9	0.05	-0.60	0.05	7.12	85	2.17	44	74	47	0	7	1	0
	ERIE	24	7	31	3	16	-12	0.05	-0.50	0.02	7.20	97	3.22	87	84	68	0	7	3	0
	MIDDLETOWN	32	14	36	8	23	-7	0.13	-0.58	0.06	7.92	105	3.32	77	91	50	0	7	3	0
	PHILADELPHIA	34	17	38	11	25	-9	0.11	-0.52	0.06	7.07	86	3.02	61	79	43	0	7	2	0
	PITTSBURGH	30	14	32	8	22	-8	0.10	-0.45	0.07	5.41	80	2.84	73	80	53	0	7	2	0
	WILKES-BARRE	24	11	31	5	18	-10	0.08	-0.42	0.06	5.73	94	2.27	64	75	45	0	7	2	0
	WILLIAMSPORT	28	10	33	4	19	-9	0.10	-0.54	0.09	6.03	84	2.67	63	82	47	0	7	2	0
RI	PROVIDENCE	28	11	37	3	20	-10	0.15	-0.68	0.15	8.31	80	3.16	51	78	45	0	7	1	0
SC	BEAUFORT	63	42	74	35	52	2	0.31	-0.45	0.28	4.93	55	1.13	19	88	35	0	0	2	0
	CHARLESTON	63	38	75	31	50	0	0.26	-0.47	0.22	5.95	66	1.72	30	86	35	0	1	2	0
	COLUMBIA	61	35	75	28	48	1	0.33	-0.60	0.33	6.53	65	2.37	35	72	42	0	3	1	0
	GREENVILLE	55	30	59	24	43	-1	0.42	-0.58	0.19	9.49	92	3.02	46	83	30	0	5	4	0
SD	ABERDEEN	23	-3	29	-15	10	-8	0.00	-0.09	0.00	0.60	58	0.30	45	82	69	0	7	0	0
	HURON	27	1	35	-12	14	-6	0.26	0.15	0.24	1.18	110	0.80	118	86	66	0	7	2	0
	RAPID CITY	32	11	39	4	22	-5	0.04	-0.05	0.03	0.55	59	0.51	94	94	72	0	7	2	0
	SIOUX FALLS	31	4	46	-9	18	-2	0.64	0.56	0.63	1.11	92	0.96	139	84	60	0	7	2	1
TN	BRISTOL	42	26	50	9	34	-3	1.79	0.98	0.96	9.74	113	5.36	102	88	53	0	6	3	2
	CHATTANOOGA	52	31	61	23	41	-2	2.50	1.34	1.67	12.01	95	5.27	67	90	54	0	5	4	2
	KNOXVILLE	46	29	53	22	38	-3	3.06	2.12	1.63	12.84	116	7.49	114	88	54	0	5	4	2
	MEMPHIS	57	38	66	33	48	4	4.65	3.61	3.36	16.02	132	6.36	99	92	56	0	0	4	2
	NASHVILLE	50	30	60	22	40	0	4.34	3.47	2.24	12.64	122	6.82	118	91	56	0	5	4	2
TX	ABILENE	67	40	76	25	53	5	0.01	-0.25	0.01	1.60	58	0.27	18	80	56	0	2	1	0
	AMARILLO	57	30	72	18	43	3	0.20	0.09	0.17	1.30	89	0.20	24	84	38	0	5	2	0
	AUSTIN	69	47	75	34	58	4	0.17	-0.30	0.06	6.79	129	2.27	80	82	59	0	0	4	0
	BEAUMONT	65	49	75	39	57	2	1.20	0.38	1.05	12.13	94	3.92	51	10	66	0	0	2	1
	BROWNSVILLE	75	56	81	40	66	4	0.10	-0.21	0.06	2.39	75	1.15	56	99	78	0	0	4	0
	CORPUS CHRISTI	71	54	75	41	62	3	0.88	0.42	0.86	5.51	128	2.32	91	99	88	0	0	2	1
	DEL RIO	71	50	75	37	61	6	0.05	-0.19	0.05	0.97	54	0.66	64	89	64	0	0	1	0
	EL PASO	62	40	67	28	51	1	0.02	-0.06	0.02	1.87	134	0.22	35	77	35	0	1	1	0
	FORT WORTH	64	44	74	36	54	5	0.17	-0.38	0.10	5.24	95	1.11	38	97	66	0	0	3	0
	GALVESTON	64	52	70	41	58	1	0.63	-0.01	0.51	5.62	62	1.98	35	99	75	0	0	2	1
	HOUSTON	67	50	76	40	59	4	1.13	0.40	0.73	9.76	109	4.11	78	99	77	0	0	3	1
	LUBBOCK	64	33	74	18	49	6	0.00	-0.17	0.00	1.61	107	0.04	5	75	50	0	5	0	0
	MIDLAND	65	38	73	24	52	4	0.01	-0.13	0.01	1.34	93	0.29	37	77	47	0	2	1	0
	SAN ANGELO	67	40	74	26	54	5	0.31	0.02	0.28	2.10	91	0.72	52	83	56	0	1	2	0
	SAN ANTONIO	69	50	76	36	60	6	0.14	-0.29	0.06	4.01	89	1.47	58	96	67	0	0	5	0
	VICTORIA	71	52	76	40	62	6	0.94	0.44	0.73	6.03	101	3.41	97	98	81	0	0	5	1
	WACO	66	45	72	35	56	6	0.74	0.15	0.48	9.19	158	1.56	51	94	83	0	0	3	0
	WICHITA FALLS	65	38	79	27	51	6	0.26	-0.10	0.21	2.31	66	0.43	24	88	58	0	3	2	0
UT	SALT LAKE CITY	46	29	52	20	38	4	0.13	-0.17	0.07	2.07	64	1.53	76	86	55	0	4	3	0
VT	BURLINGTON	15	-4	29	-19	5	-14	0.02	-0.38	0.02	2.65	50	1.37	44	80	44	0	7	1	0
VA	LYNCHBURG	44	28	47	19	36	-1	1.25	0.51	1.03	7.79	93	3.74	73	71	44	0	7	3	1
	NORFOLK	48	31	53	24	39	-2	1.32	0.52	0.80	8.65	99	4.49	79	85	44	0	4	3	2
	RICHMOND	46	25	49	21	36	-3	1.01	0.32	0.84	7.45	91	4.01	80	80	52	0	7	3	1
	ROANOKE	43	29	47	20	36	-2	1.34	0.60	1.06	7.36	96	3.47	72	69	46	0	6	3	1
	WASH/DULLES	38	20	41	7	29	-5	0.40	-0.26	0.29	7.48	99	3.87	87	74	46	0	7	3	0
WA	OLYMPIA	50	31	55	25	40	0	0.25	-1.32	0.17	17.31	92	9.92	90	97	87	0	5	2	0
	QUILLAYUTE	51	34	60	27	42	0	0.50	-2.63	0.37	28.82	83	14.09	69	87	74	0	4	6	0
	SEATTLE-TACOMA	48	35	52	29	41	-2	0.25	-0.81	0.24	14.27	109	8.29	111	95	87	0	3	2	0
	SPOKANE	43	26	50	20	34	2	0.10	-0.26	0.04	6.92	143	3.65	140	96	71	0	7	3	0
	YAKIMA	50	28	54	20	39	5	0.13	-0.06	0.13	5.82	195	2.33	146	89	68	0	5	1	0
WV	BECKLEY	35	21	39	12	28	-5	1.43	0.73	0.94	6.61	85	3.57	76	77	65	0	7	4	1
	CHARLESTON	38	24	41	12	31	-5	1.78	1.02	1.20	7.13	87	4.19	86	89	60	0	6	5	1
	ELKINS	34	16	37	3	25	-6	0.92	0.16	0.63	6.12	72	3.66	73	86	48	0	7	4	1
	HUNTINGTON	38	24	42	20	31	-5	1.78	1.05	1.14	6.94	86	3.84	81	90	62	0	7	5	1
WI	EAU CLAIRE	18	-6	24	-13	6	-12	0.02	-0.15	0.02	1.41	57	0.76	53	84	47	0	7	1	0
	GREEN BAY	15	-6	20	-12	5	-15	0.00	-0.22	0.00	1.55	50	0.82	48	77	51	0	7	0	0
	LA CROSSE	24	0	30	-8	12	-10	0.01	-0.22	0.01	1.25	42	0.89	52	80	49	0	7	1	0
	MADISON	23	1	31	-5	12	-10	0.09	-0.21	0.08	1.20	34	0.53	28	76	57	0	7	2	0
	MILWAUKEE	24	7	30	2	16	-9	0.12	-0.28	0.12	1.30	26	0.54	20	71	55	0	7	1	0
WY	CASPER	37	18	47	10	28	2	0.08	-0.06	0.05	0.72	49	0.53	62	83	68	0	7	3	0
	CHEYENNE	40	20	54	9	30	2	0.01	-0.07	0.01	0.12	11	0.01	2	79	50	0	7	1	0
	LANDER	31	11	38	5	21	-4	0.19	0.08	0.16	1.62	121	1.43	196	86	68	0	7	2	0
	SHERIDAN	36	17	43	8	27	1	0.15	0.03	0.11	1.29	75	1.11	106	84	75	0	7	2	0

Based on 1971-2000 normals ***** Not Available**

NOTE: These data are preliminary and subject to change. In the past, precipitation totals from a number of stations have been incomplete.

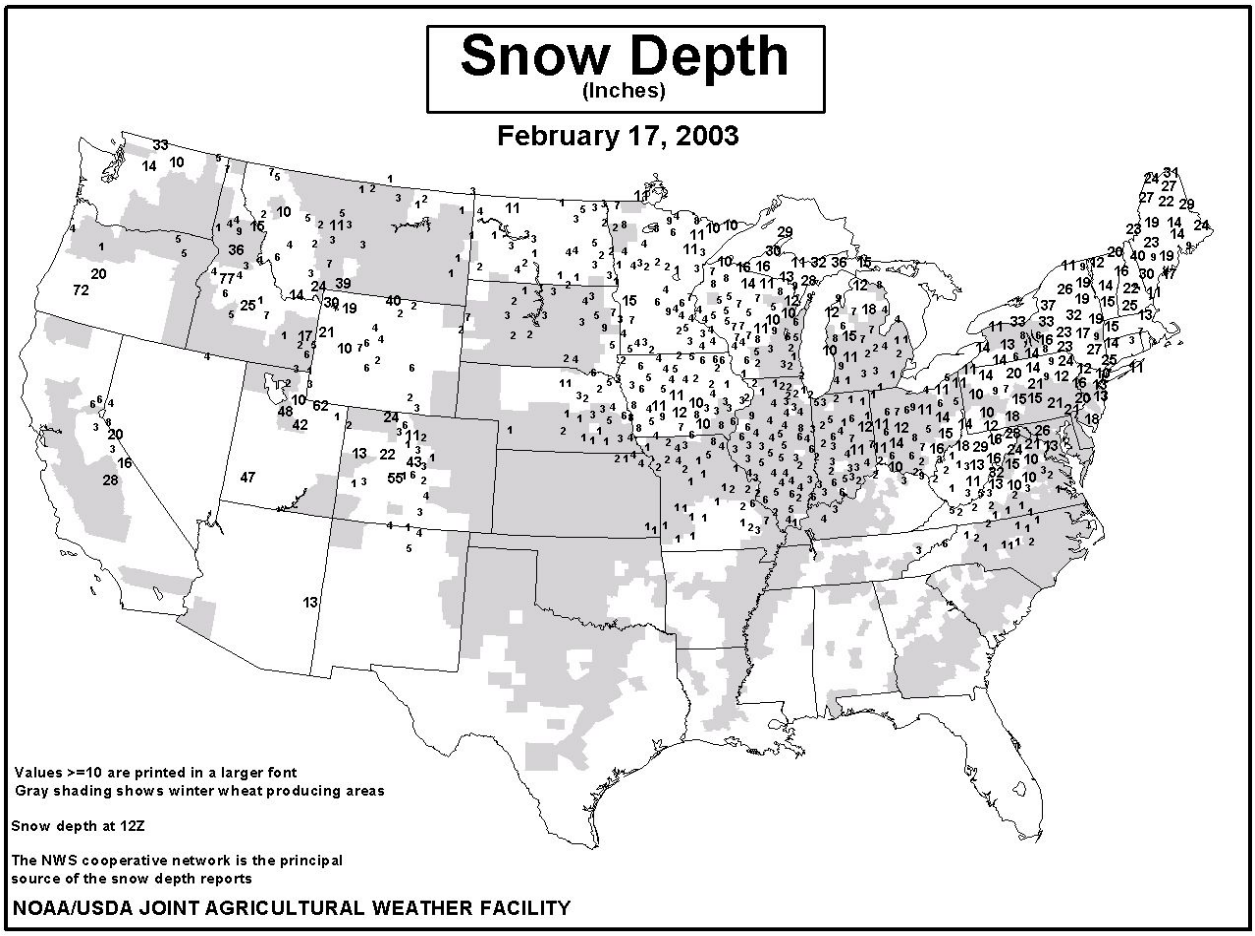
National Agricultural Summary

February 10 - 16, 2003

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

A large area of low pressure that developed in the eastern Pacific delivered much-needed rain to the Southwest early in the week. In California, the rain halted work in fields and orchards, and some crops experienced lodging, but the moisture was mostly beneficial, especially for dryland grains and forage crops. In addition, mild temperatures promoted vigorous growth of vegetables and other winter crops in California's valleys. The interior Southwest also received abundant rainfall. As the flow of sub-tropical moisture moved east, it met cold arctic air and produced a mixture of wintery precipitation along a boundary that extended from the western Corn Belt near midweek to the Atlantic Coast by the end of the week. Most of the precipitation in the Corn Belt fell as snow and boosted low soil moisture reserves west of the Mississippi River. In the interior Mississippi Delta, eastern Corn Belt, and Ohio and Tennessee Valleys, the precipitation was a mixture of rain, freezing rain, and snow. Where most of the precipitation was rain, soils became saturated, and low-lying areas along rivers and streams were flooded. In the interior Southeast, many areas received freezing rain that knocked down power lines and tree limbs and disrupted travel. Along the Atlantic Coastal Plain, especially in the southern Piedmont, the precipitation reduced soil moisture deficits. Rain also reduced moisture shortages in the Florida Panhandle and northern areas of the Peninsula. In southern Florida, warm, dry weather supported fieldwork and promoted vegetable crop development.



International Weather and Crop Summary

February 9 - 15, 2003

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

HIGHLIGHTS

FSU-WESTERN: A moderate to deep snow cover protected winter grains from bitterly cold weather.

EUROPE: Cold, dry weather prevailed across most of Europe as ample snow cover protected dormant winter grains across eastern Europe from bitterly cold weather.

EASTERN ASIA: Locally heavy rain returned to the Yangtze Valley, while on the North China Plain, mild weather continued to favor overwintering wheat.

SOUTHEAST ASIA: Showers continued to favor reproductive rice in Java, Indonesia.

AUSTRALIA: Showers boosted topsoil moisture and reservoir levels for irrigated summer crops, but much more rain was needed to end the severe drought plaguing the region.

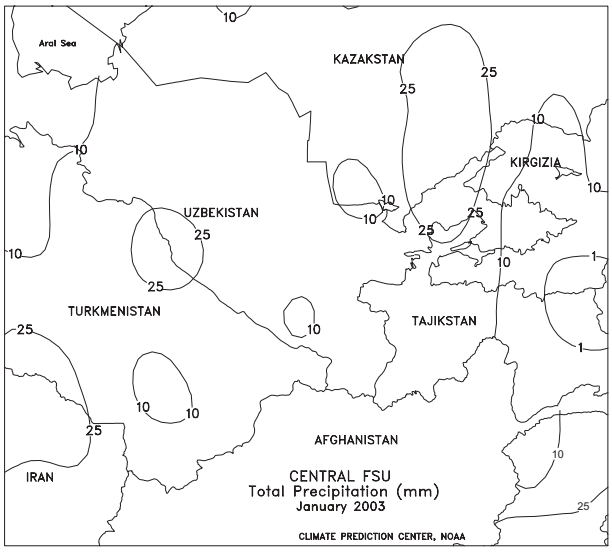
NORTHWESTERN AFRICA: Widespread rain returned to most of northwestern Africa, except in southern Morocco where rain was needed to alleviate short-term dryness.

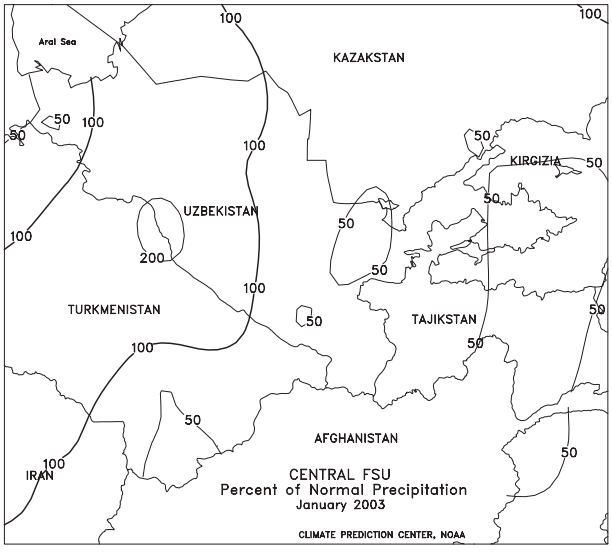
SOUTH AFRICA: Scattered showers in the corn belt were too light to prevent net evaporative losses and declines in crop conditions in the east.

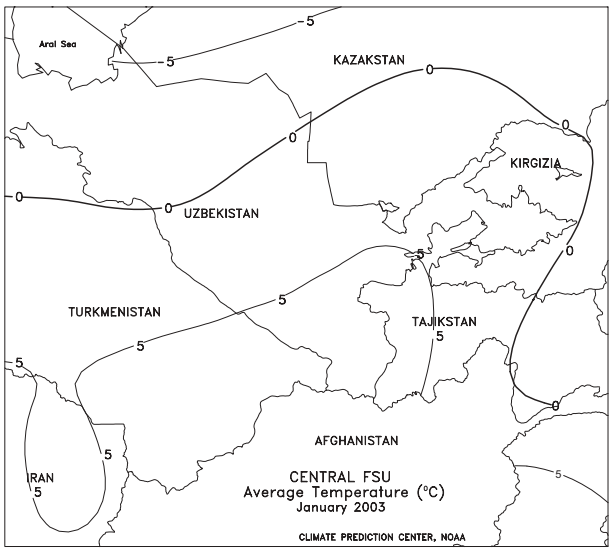
MIDDLE EAST: In central Turkey, seasonably colder weather stressed winter grains after several weeks of mild weather, while widespread precipitation boosted irrigation supplies for winter grains across eastern Turkey and the Middle East.

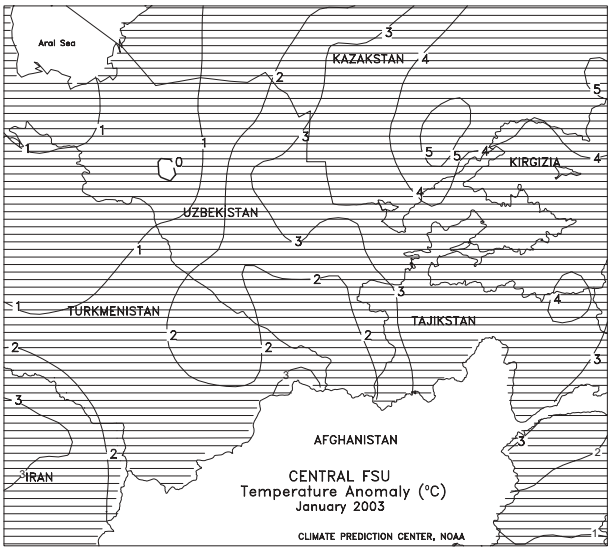
MEXICO: Rain increased irrigation supplies for winter crops across northwestern Mexico.

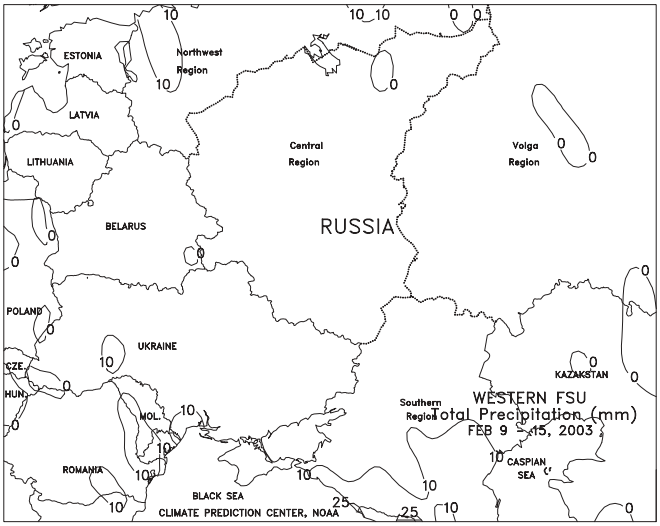
SOUTH AMERICA: Showers brought additional relief to heat-stressed summer crops in Argentina and southern Brazil.





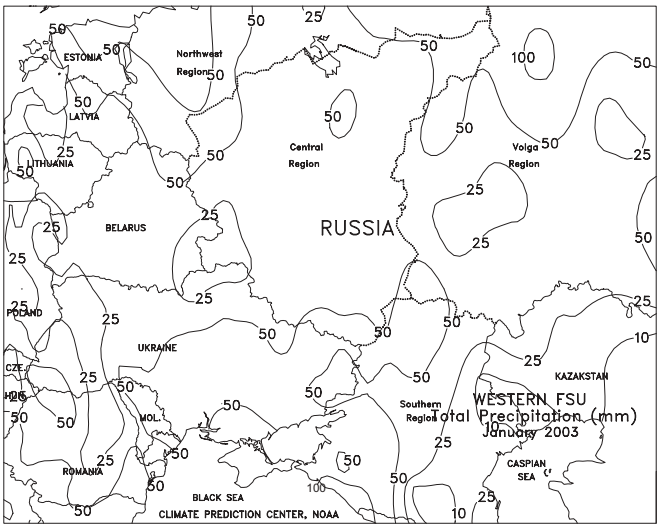


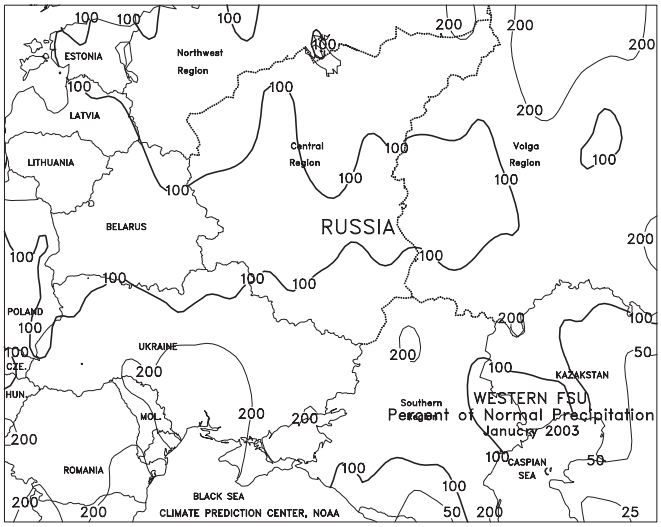


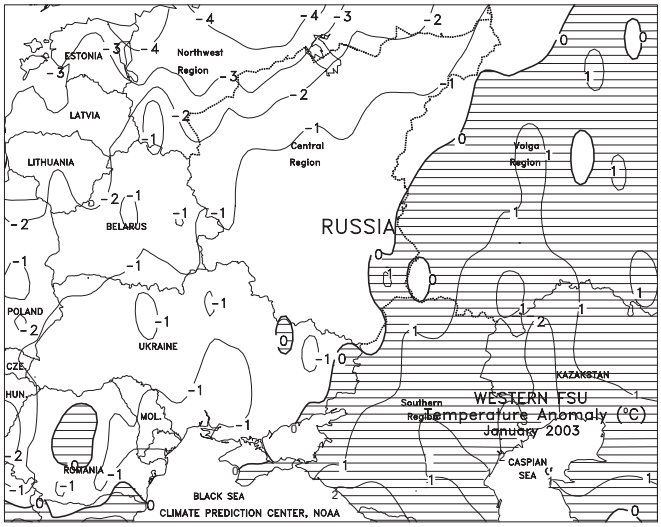


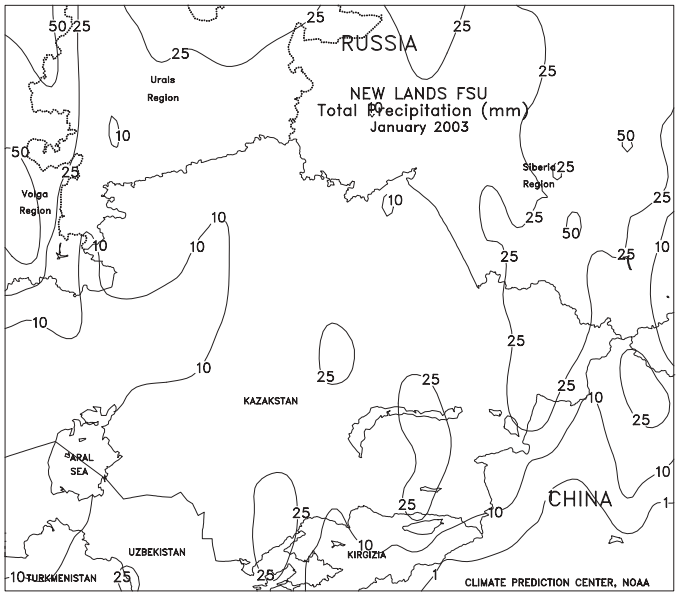
FSU-WESTERN

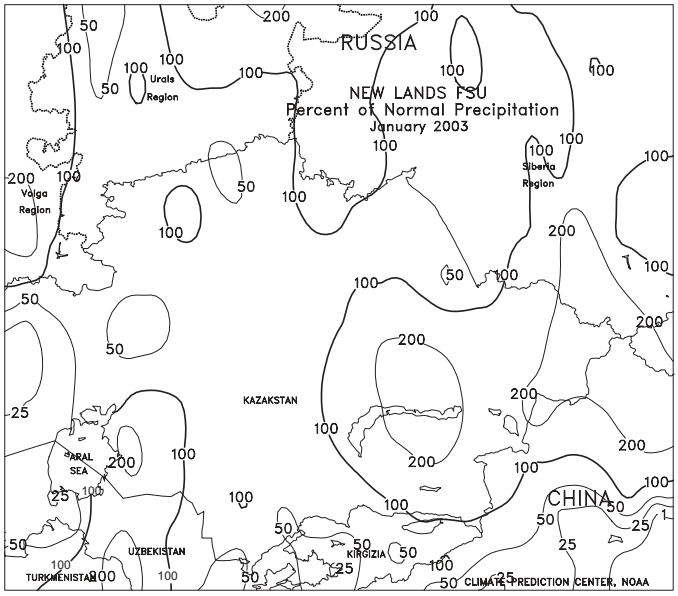
Bitterly cold weather prevailed over most of the region during the week. The lowest temperatures ranged from -30 to -18 degrees C as far south as southern Ukraine and the central portion of the Southern Region in Russia. A moderate to deep snow cover protected winter grains from potential winterkill in most areas. At week's end, milder weather overspread the region and was accompanied by light snow (3-13 mm of liquid equivalent) that spread from western Ukraine and Belarus eastward into the central portion of Russia. Weekly temperatures averaged 5 to 7 degrees C below normal in Ukraine, 3 to 5 degrees C below normal in Russia, and 1 to 4 degrees C below normal in Belarus. In January, bitter cold persisted over winter grain areas during most of the first 13 days of the month. The lowest temperatures ranged from -35 to -15 degrees C as far south as major winter wheat-producing areas of southern Ukraine and the North Caucasus region in Russia. However, unlike the cold episodes in December, moderate to heavy snow accompanied early January's bitter cold in Ukraine, Russia, and Moldova, providing a protective snow cover. On January 14, a warming trend began over most areas and continued until month's end, improving overwintering conditions for winter grains. For the entire month of January, temperatures averaged near to slightly below normal in Ukraine, most of Russia, Belarus, and the Baltics, and slightly above normal in the Southern Region in Russia. By month's end, the mild weather melted most of the protective snow cover in western Ukraine and crop areas in southern Russia adjacent to the Black Sea Coast. A moderate to deep snow cover blanketed winter grain areas throughout the remainder of Ukraine and Russia. Above-normal precipitation was observed in major winter wheat-producing areas of Ukraine and the Southern Region in Russia during January. Below-normal precipitation was observed in a band that extended from Lithuania and Belarus eastward across winter grain areas in central Russia.

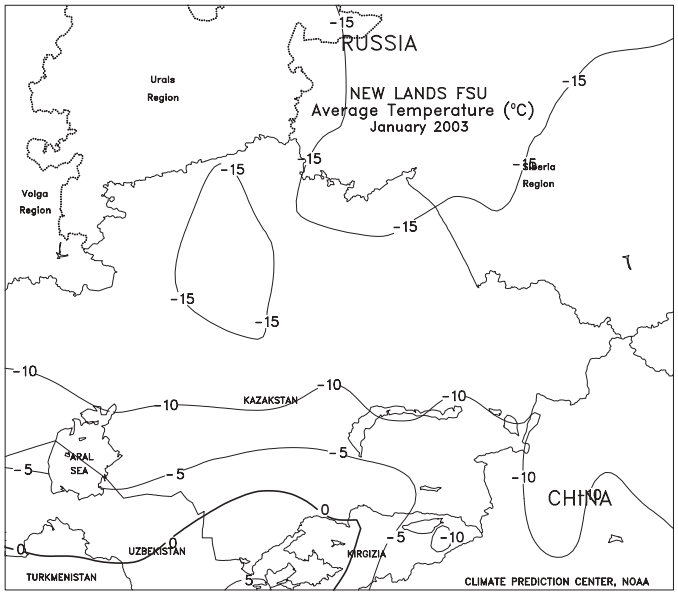


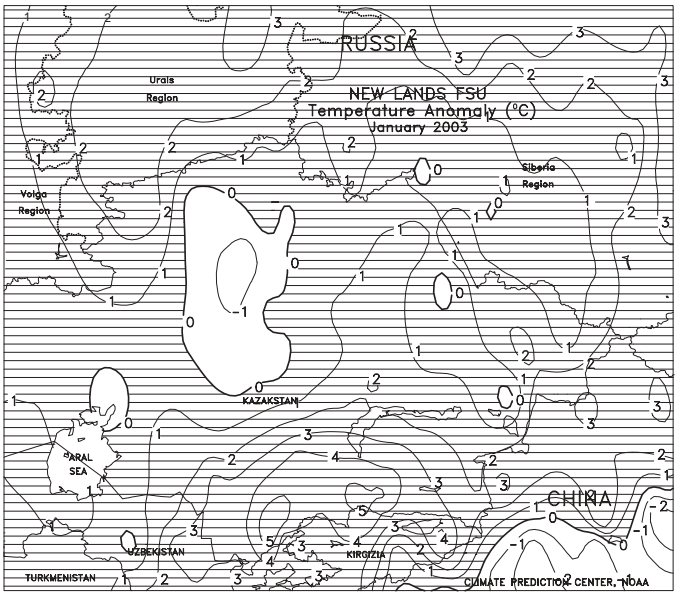





RUSSIA
NEW LANDS FSU
Total Precipitation (mm)
January 2003
Urals Region
Volga Region
Siberia Region
KAZAKSTAN
ARAL SEA
UZBEKISTAN
TURKMENISTAN
KIRGIZIA
CHINA
CLIMATE PREDICTION CENTER, NOAA

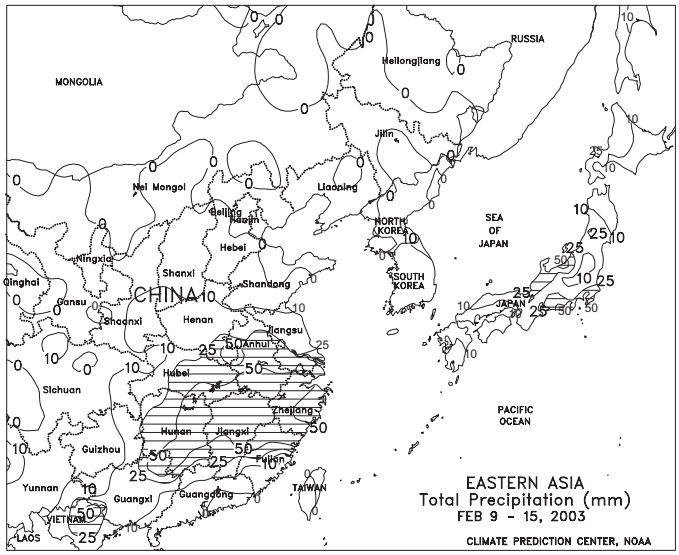

RUSSIA
NEW LANDS FSU
Percent of Normal Precipitation
January 2003
Urals Region
Volga Region
Siberia Region
KAZAKSTAN
ARAL SEA
UZBEKISTAN
TURKMENISTAN
KIRGIZIA
CHINA
CLIMATE PREDICTION CENTER, NOAA


RUSSIA
NEW LANDS FSU
Average Temperature (°C)
January 2003
Urals Region
Volga Region
Siberia Region
KAZAKSTAN
ARAL SEA
UZBEKISTAN
TURKMENISTAN
KIRGIZIA
CHINA
CLIMATE PREDICTION CENTER, NOAA


RUSSIA
NEW LANDS FSU
Temperature Anomaly (°C)
January 2003
Urals Region
Volga Region
Siberia Region
KAZAKSTAN
ARAL SEA
UZBEKISTAN
TURKMENISTAN
KIRGIZIA
CHINA
CLIMATE PREDICTION CENTER, NOAA

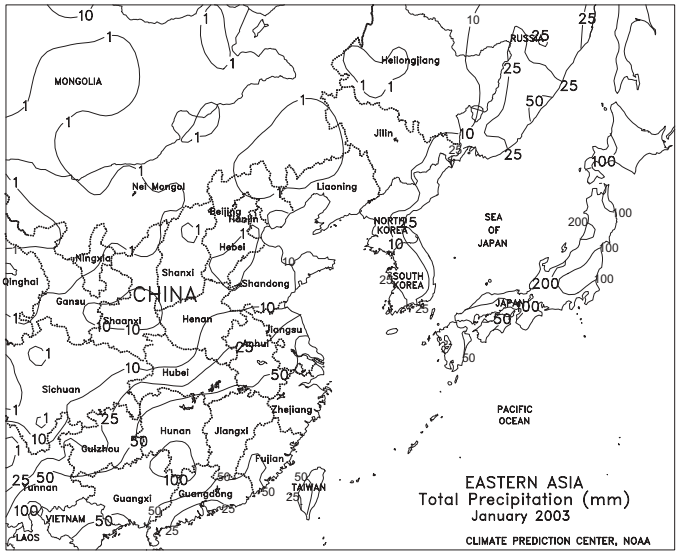
EUROPE

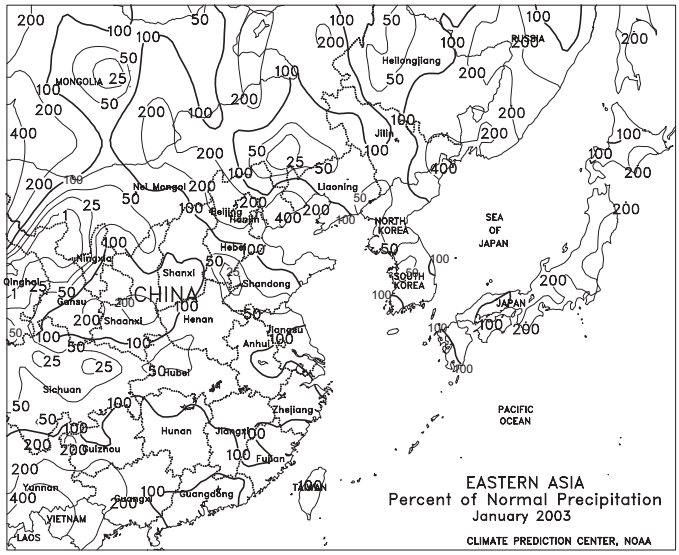
A high-pressure system centered over the North Sea ushered in unseasonably cold air across eastern and central Europe. However, the bitterly cold air coincided with a moderate to deep snow cover from Poland to the Balkans, providing ample protection for dormant winter crops. There was patchy snow cover across portions of central Europe, but minimum temperatures remained above the winterkill threshold. Minimum temperatures fell below freezing across the interior of the Iberian Peninsula and as far south as southern Italy and Greece, but temperatures remained above freezing across the Mediterranean coastal areas, causing no damage to citrus and other tree crops. The high pressure system stayed in place for the entire week, providing dry weather for most of Europe. Only England (10-20 mm), the Iberian Peninsula (less than 5 mm), southern Italy, and the southern Balkans (5-40 mm) received significant rain. Short-term dryness was developing across southern Spain and Italy's Po Valley, where rainfall had averaged about 40 percent of normal during the past 4 weeks. Winter crops remained dormant across Europe, except across the Mediterranean regions and coastal areas of western France and southern England. Temperatures averaged 4 to 9 degrees C below normal across eastern and central Europe and 1 to 4 degrees C below normal across western Europe. During January, near- to above-normal precipitation maintained adequate to abundant soil moisture and irrigation supplies for overwintering winter grains and oilseeds. In southern Italy and Greece, much-above-normal rainfall greatly boosted moisture supplies but possibly caused some flooding. Two cold air episodes stressed winter grains in northwestern Europe but caused no winterkill. Moderate to deep snow cover protected winter crops in eastern, central, and southeastern Europe.

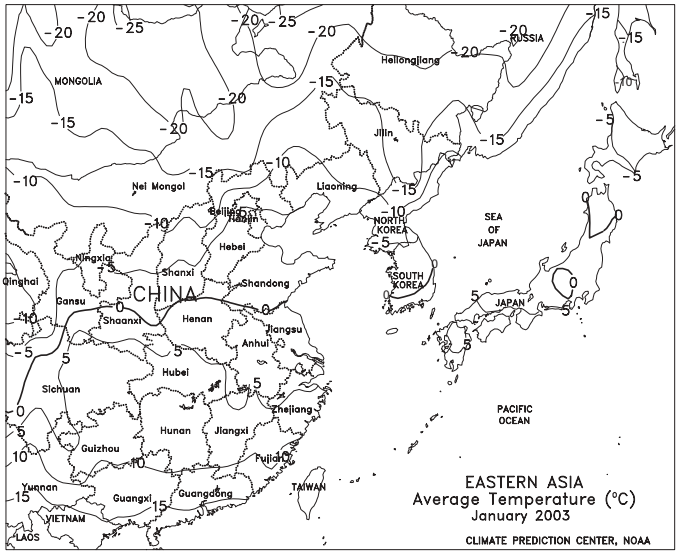


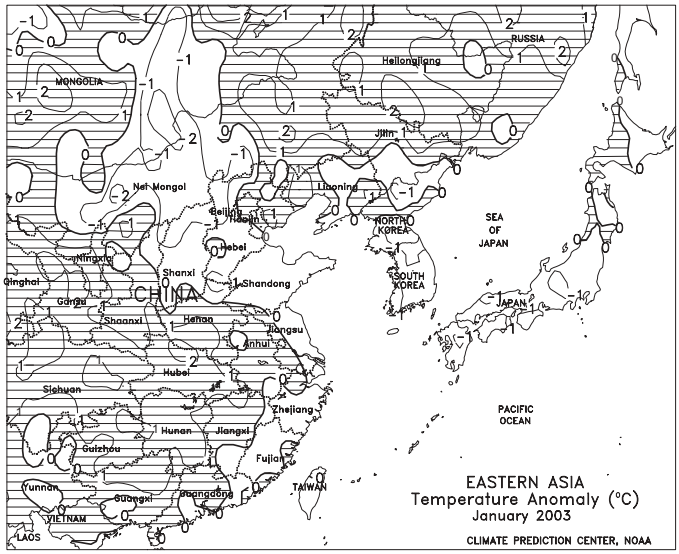
EASTERN ASIA

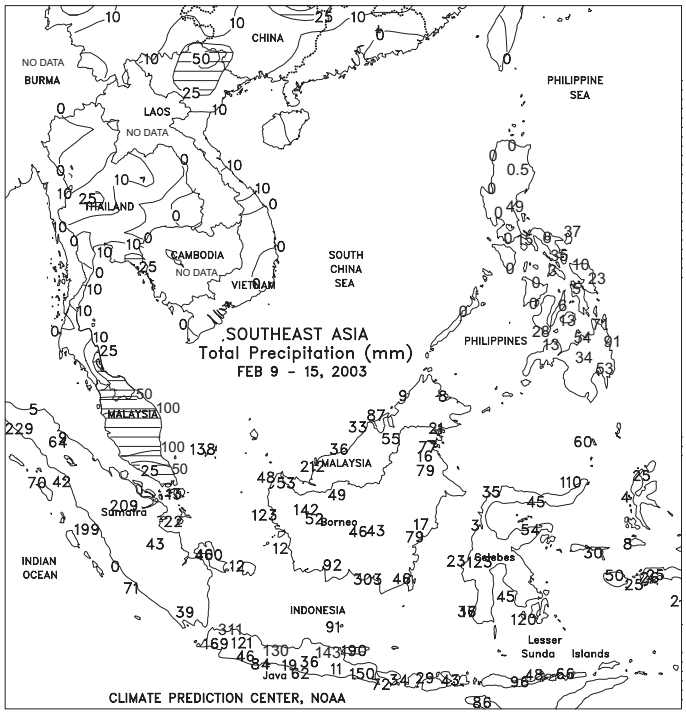
Moderate to heavy rain (25-50 mm or more) increased long-term moisture reserves in much of the middle and lower Yangtze River Valley. Lighter rain (less than 15 mm) fell in most sugarcane areas from Guangxi to southern Fujian, likely causing only minor disruptions in fieldwork. On the North China Plain, light to moderate precipitation (2-10 mm or more, mostly in the form of rain) and seasonable temperatures (lows from -15 to -5 degrees C) favored overwintering wheat. Elsewhere, mostly dry, warmer-than-normal weather covered the Korean Peninsula, but widespread precipitation (5-25 mm or more) continued in Japan. During January, periods of moderate to heavy precipitation increased long-term moisture reserves in southern China and Japan. However, along the southern Chinese coast, the showers were untimely for sugarcane fieldwork. Additionally, freezing temperatures may have caused minor damage to sugarcane in interior growing areas. On the North China Plain, snow cover offered some protection from periodic outbreaks of bitter cold weather (lows reaching or falling below -15 degrees C).


MONGOLIA
Heilongjiang
RUSSIA
Jilin
Nei Mongol
Liaoning
Beijing
Tianjin
NORTH KOREA
SEA OF JAPAN
Hebei
Ningxia
Shanxi
Shandong
SOUTH KOREA
Qinghai
Gansu
CHINA
JAPAN
Shaanxi
Henan
Jiangsu
Anhui
Sichuan
Hubei
Zhejiang
PACIFIC OCEAN
Hunan
Jiangxi
Guizhou
Fujian
Yunnan
Guangxi
Guangdong
TAIWAN
VIETNAM
LAOS
EASTERN ASIA
Total Precipitation (mm)
January 2003
CLIMATE PREDICTION CENTER, NOAA


MONGOLIA
Heilongjiang
RUSSIA
Jilin
Nei Mongol
Liaoning
Beijing
Tianjin
NORTH KOREA
SEA OF JAPAN
Hebei
Ningxia
Shanxi
Shandong
SOUTH KOREA
Qinghai
Gansu
CHINA
JAPAN
Shaanxi
Henan
Jiangsu
Anhui
Sichuan
Hubei
Zhejiang
PACIFIC OCEAN
Hunan
Jiangxi
Guizhou
Fujian
Yunnan
Guangxi
Guangdong
TAIWAN
VIETNAM
LAOS
EASTERN ASIA
Percent of Normal Precipitation
January 2003
CLIMATE PREDICTION CENTER, NOAA

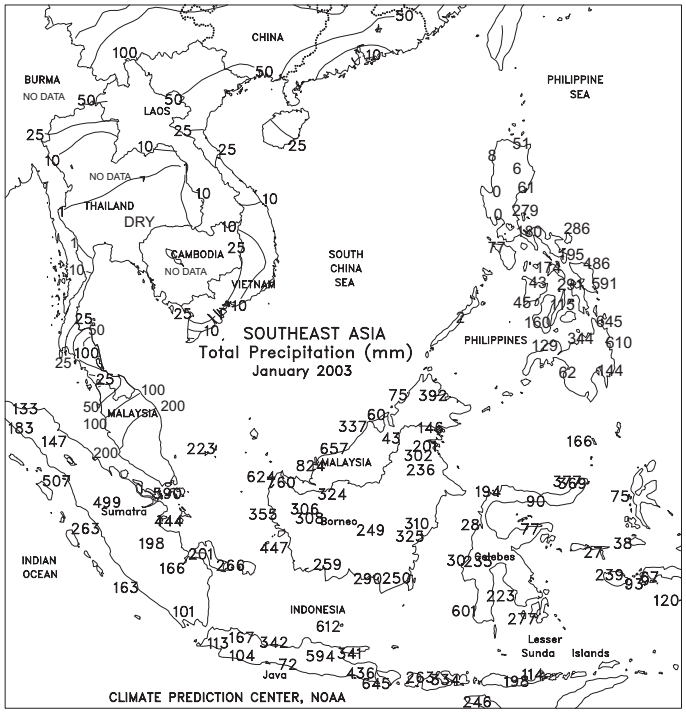

MONGOLIA
Heilongjiang
RUSSIA
Jilin
Nei Mongol
Liaoning
Beijing
Tianjin
NORTH KOREA
SEA OF JAPAN
Hebei
Ningxia
Shanxi
Shandong
SOUTH KOREA
Qinghai
Gansu
CHINA
JAPAN
Shaanxi
Henan
Jiangsu
Anhui
Sichuan
Hubei
Zhejiang
PACIFIC OCEAN
Hunan
Jiangxi
Guizhou
Fujian
Yunnan
Guangxi
Guangdong
TAIWAN
VIETNAM
LAOS
EASTERN ASIA
Average Temperature (°C)
January 2003
CLIMATE PREDICTION CENTER, NOAA

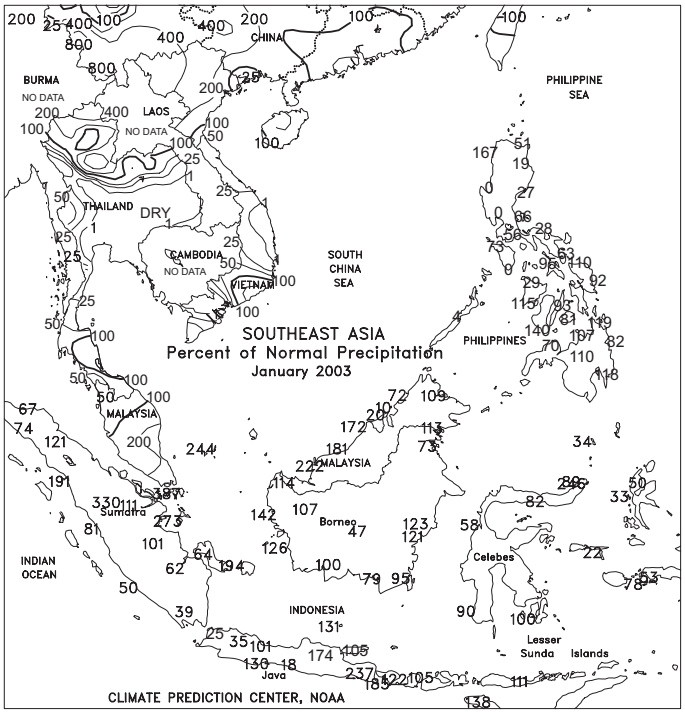

MONGOLIA
Heilongjiang
RUSSIA
Jilin
Nei Mongol
Liaoning
Beijing
Tianjin
NORTH KOREA
SEA OF JAPAN
Hebei
Ningxia
Shanxi
Shandong
SOUTH KOREA
Qinghai
Gansu
CHINA
JAPAN
Shaanxi
Henan
Jiangsu
Anhui
Sichuan
Hubei
Zhejiang
PACIFIC OCEAN
Hunan
Jiangxi
Guizhou
Fujian
Yunnan
Guangxi
Guangdong
TAIWAN
VIETNAM
LAOS
EASTERN ASIA
Temperature Anomaly (°C)
January 2003
CLIMATE PREDICTION CENTER, NOAA

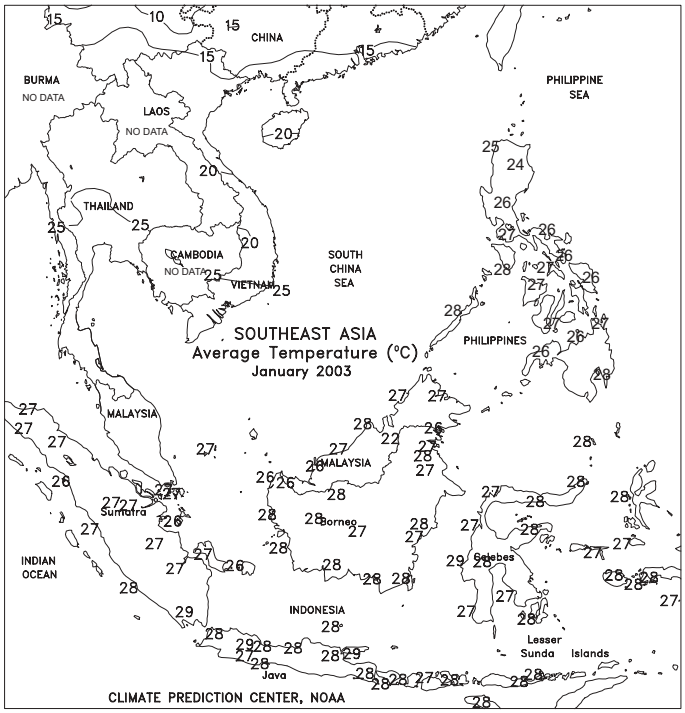


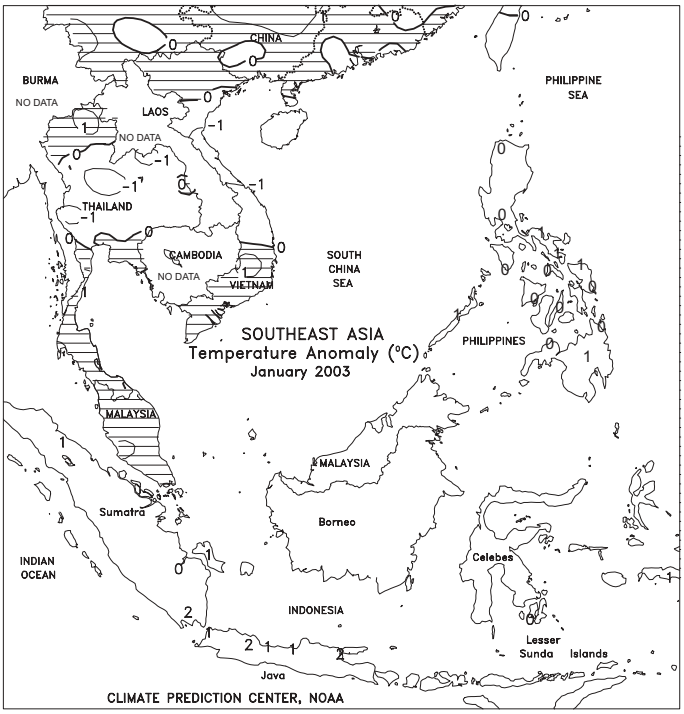
SOUTHEAST ASIA

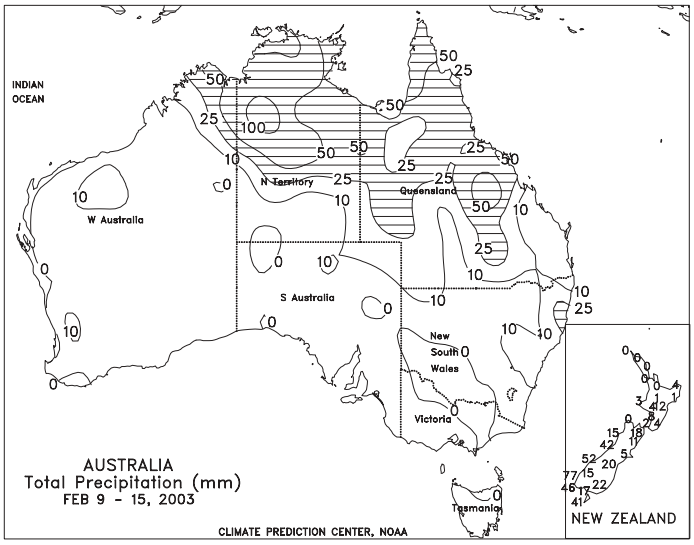
Showers (25-150 mm or more) continued to increase moisture supplies for reproductive main-season rice throughout Java, Indonesia. While showers have been especially heavy in western areas over recent weeks, significant moisture deficits remained. Warm, dry weather favored maturing second-season rice in the Philippines. In Indochina, warm, dry weather increased crop water use for irrigated rice. Showers (50-100 mm) maintained moisture supplies for oil palm in peninsular Malaysia and Sumatra. In January, above-normal rainfall boosted moisture supplies for vegetative rice in eastern Java, Indonesia, while western and northern areas remained too dry. Above-normal showers favored vegetative winter-spring rice in Vietnam and transplanted rice in northern Thailand. Showers in the southern half of the Philippines boosted moisture supplies for second-season rice, while warm, dry weather increased crop-water use in the northern Philippines. Showers maintained moisture reserves for oil palm in peninsular Malaysia and Sumatra.





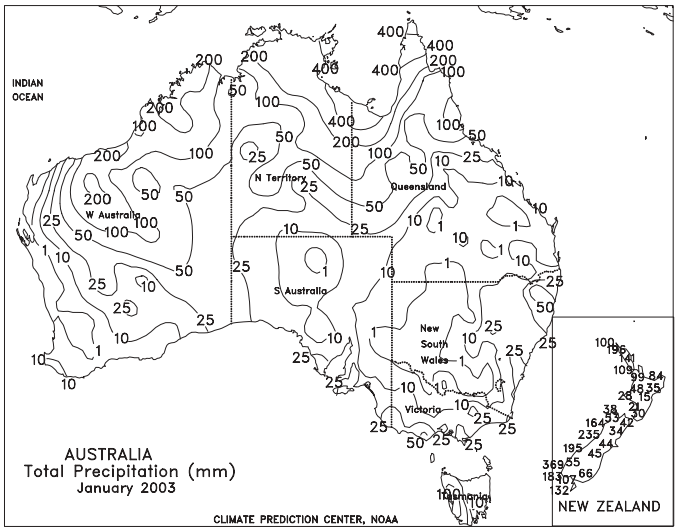


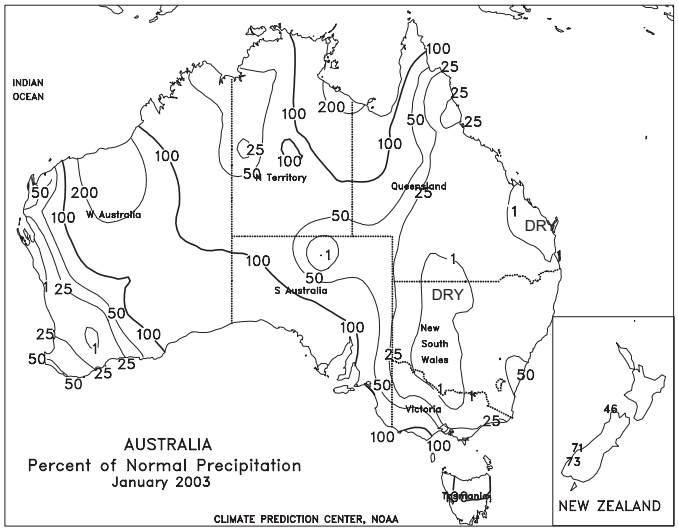


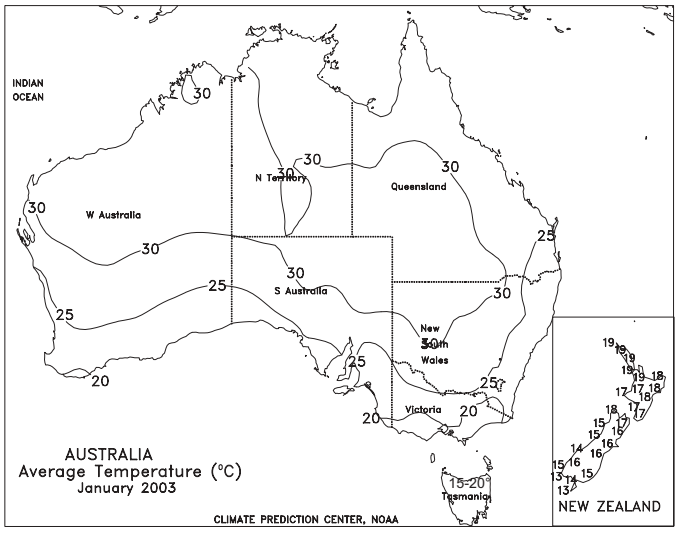


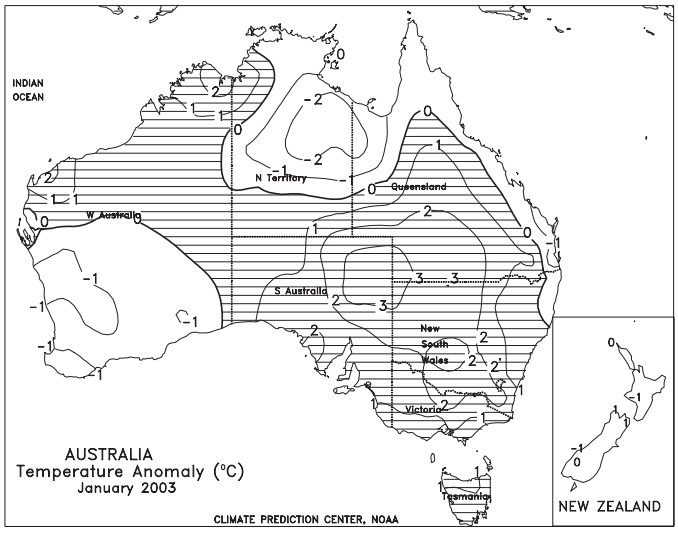
AUSTRALIA

Moderate to heavy rain (10-50 mm or more) fell across northern Queensland, causing local flooding, but boosting moisture supplies for sugarcane. In southern Queensland and northern New South Wales, scattered light to moderate showers (5-25 mm) locally improved topsoil moisture and reservoir levels for irrigated summer crops. Although the rainfall brought some drought relief to the area, much more rainfall was needed to end the severe drought. Nevertheless, any rainfall would likely be too late to significantly improve yield prospects for drought-stricken dryland cotton and sorghum. Elsewhere in Australia, hot, dry weather continued to dominate winter grain-producing areas in the southeast. Widely scattered, light showers (less than 10 mm) provided little drought relief in Western Australia. Temperatures in winter grain-producing areas averaged about 1 to 2 degrees C above normal, while temperatures were generally seasonable in extreme northern New South Wales and Queensland. In January, rainfall remained well below normal in Queensland and northern New South Wales, stressing drought-plagued cotton and sorghum. Unfavorably dry weather persisted in winter grain-producing areas as well, keeping a severe drought well entrenched.


INDIAN OCEAN
W Australia
N Territory
Queensland
S Australia
New South Wales
Victoria
Tasmania
NEW ZEALAND
AUSTRALIA
Total Precipitation (mm)
January 2003
CLIMATE PREDICTION CENTER, NOAA

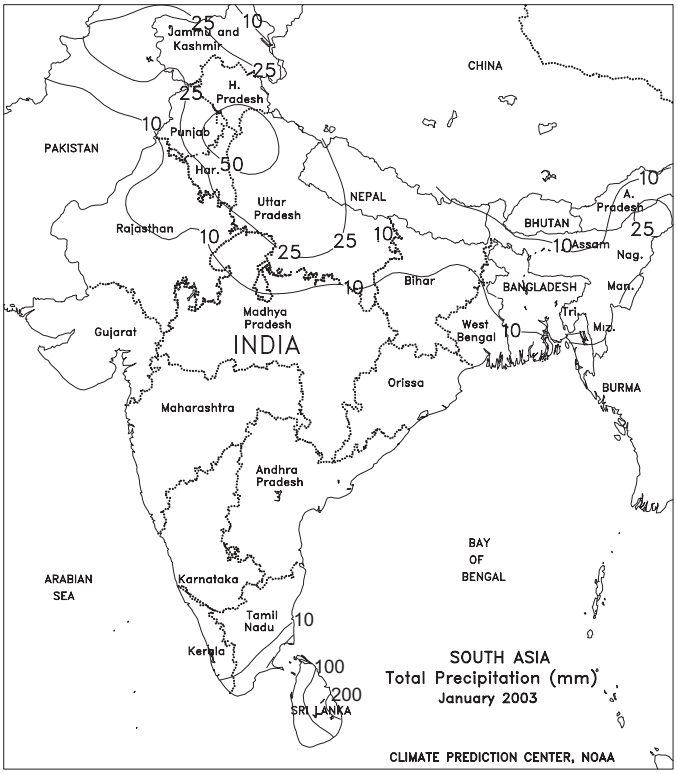

INDIAN OCEAN
W Australia
N Territory
Queensland
S Australia
New South Wales
Victoria
Tasmania
NEW ZEALAND
DRY
AUSTRALIA
Percent of Normal Precipitation
January 2003
CLIMATE PREDICTION CENTER, NOAA

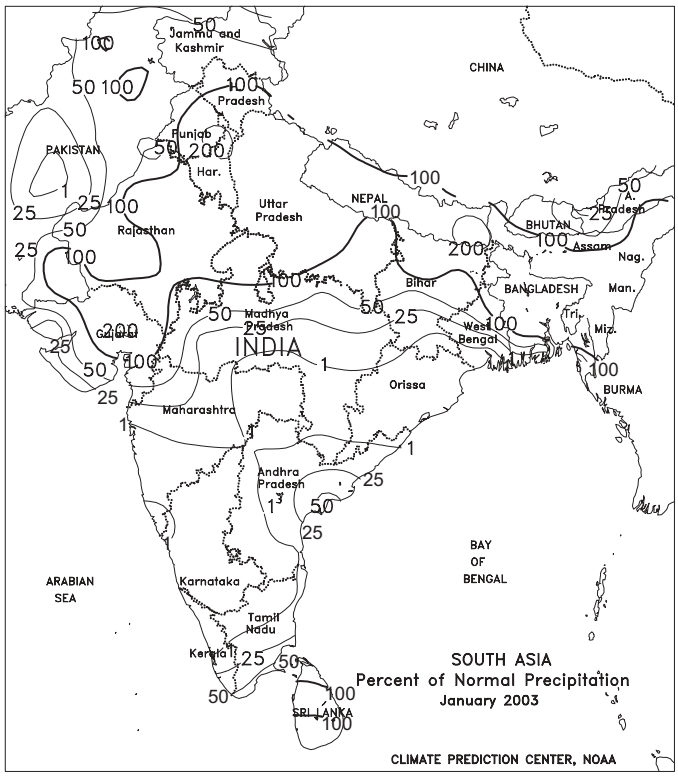

INDIAN OCEAN
W Australia
N Territory
Queensland
S Australia
New South Wales
Victoria
Tasmania
NEW ZEALAND
15-20
AUSTRALIA
Average Temperature (°C)
January 2003
CLIMATE PREDICTION CENTER, NOAA

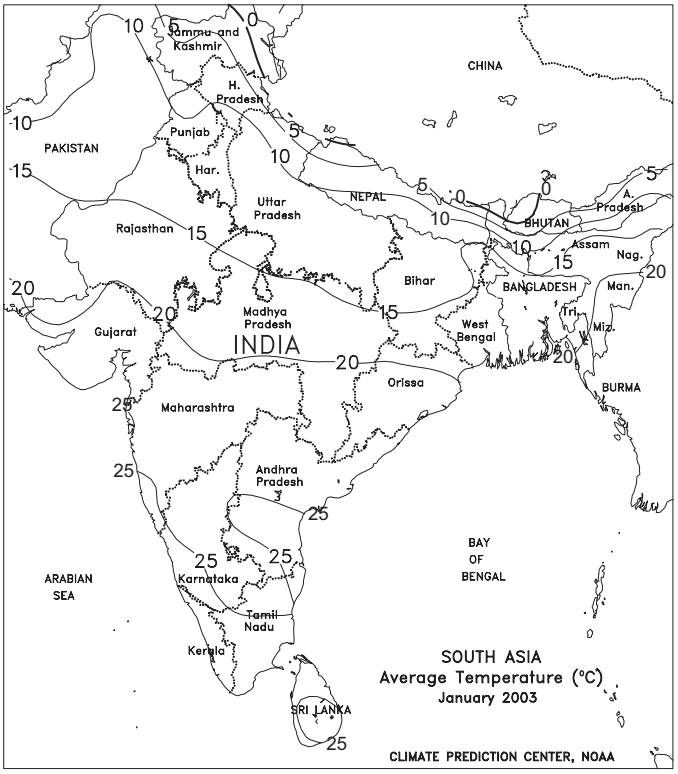

INDIAN OCEAN
W Australia
N Territory
Queensland
S Australia
New South Wales
Victoria
Tasmania
NEW ZEALAND
AUSTRALIA
Temperature Anomaly (°C)
January 2003
CLIMATE PREDICTION CENTER, NOAA

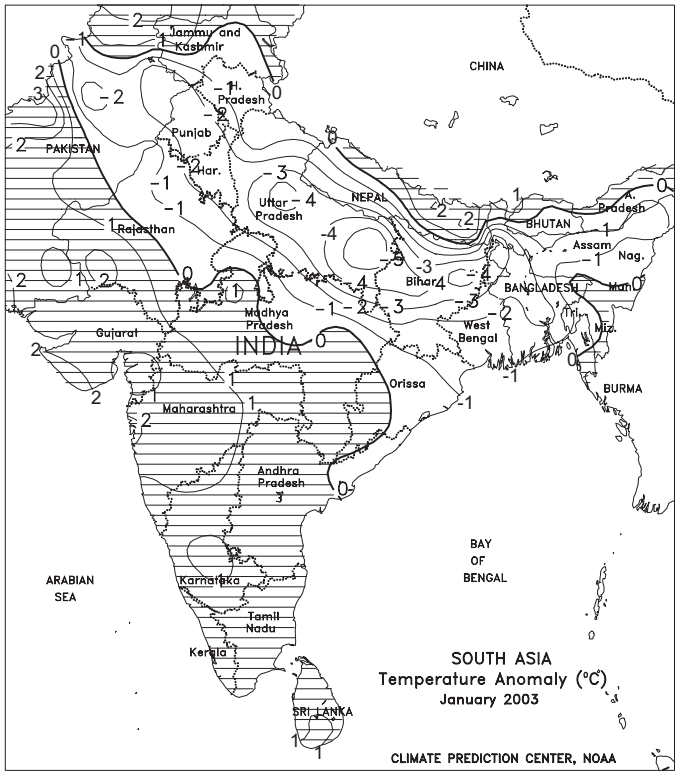
SOUTH ASIA

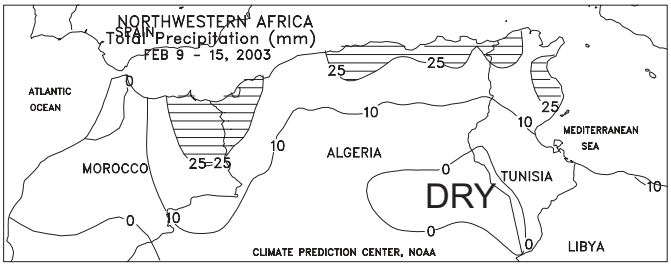
During January, unseasonably heavy showers improved winter wheat and oilseed prospects across northern and western India.





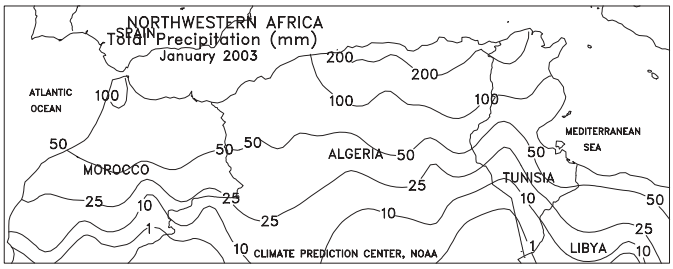


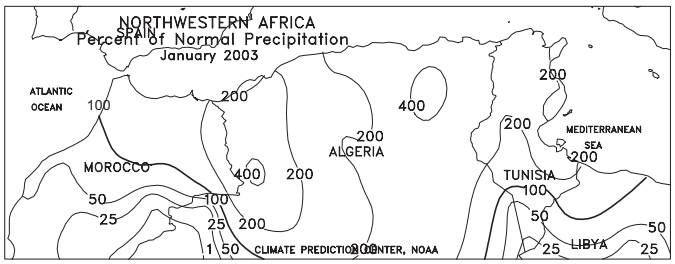


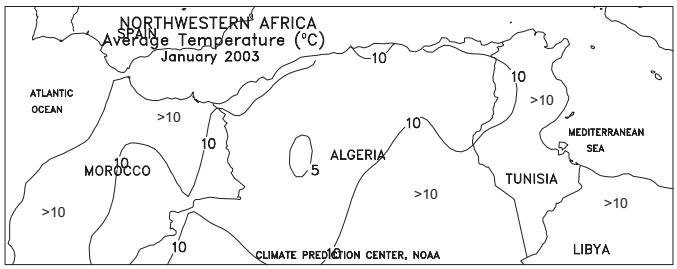


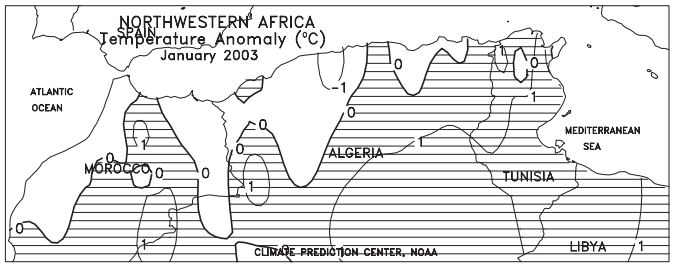
NORTHWESTERN AFRICA

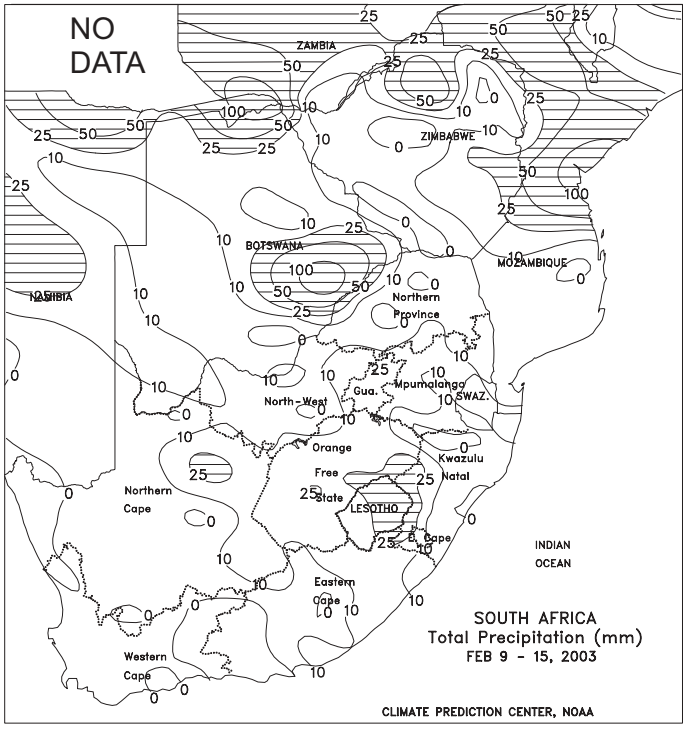
Widespread rain (10-35 mm) returned to Tunisia, Algeria, and eastern Morocco, maintaining adequate to abundant soil moisture for vegetative winter grains. Dry weather, however, continued across the southern and western winter grain areas of Morocco, where rain was needed to alleviate the short-term dryness. Temperatures averaged 1 to 2 degrees C below normal with scattered below-freezing minimum temperatures (-3 to 0 degrees C) burning back vegetative winter wheat. During January, much-above-normal rainfall in Algeria and Tunisia provided adequate to abundant soil moisture supplies for vegetative winter grains but caused some local flooding. In Morocco, near-normal rainfall favored winter crops in the north, but below-normal rainfall in the south reduced soil moisture supplies. Cold weather burned back vegetative growth in the higher elevations. In Algeria and Tunisia, much-above-normal January rainfall provided adequate to abundant soil moisture supplies for vegetative winter grains but caused some local flooding. In Morocco, near-normal rainfall favored winter crops in the north, but below-normal rainfall in the south reduced soil moisture supplies. Cold weather burned back vegetative growth in the higher elevations.





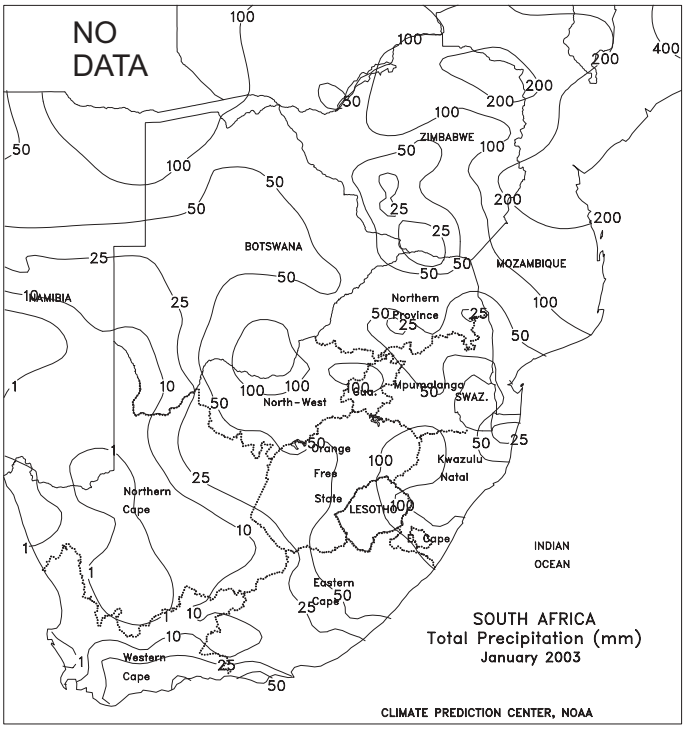


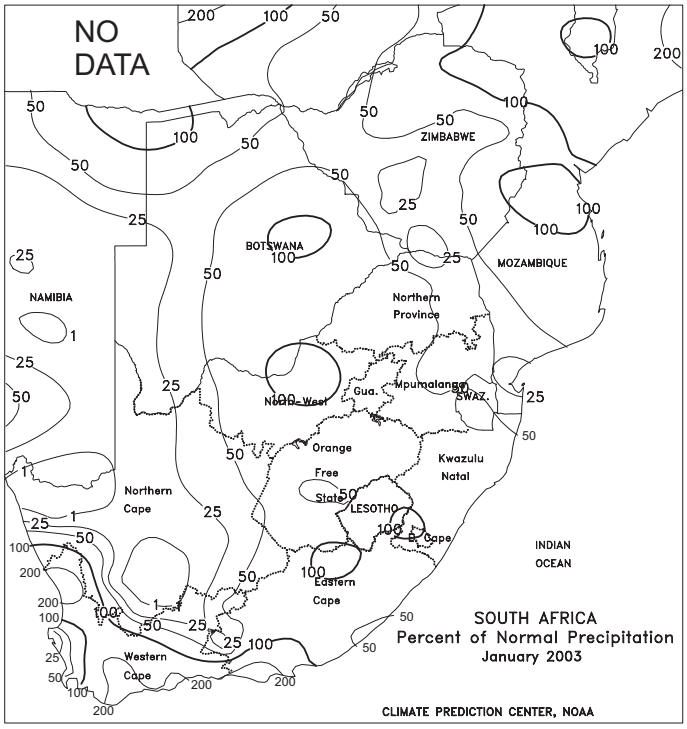


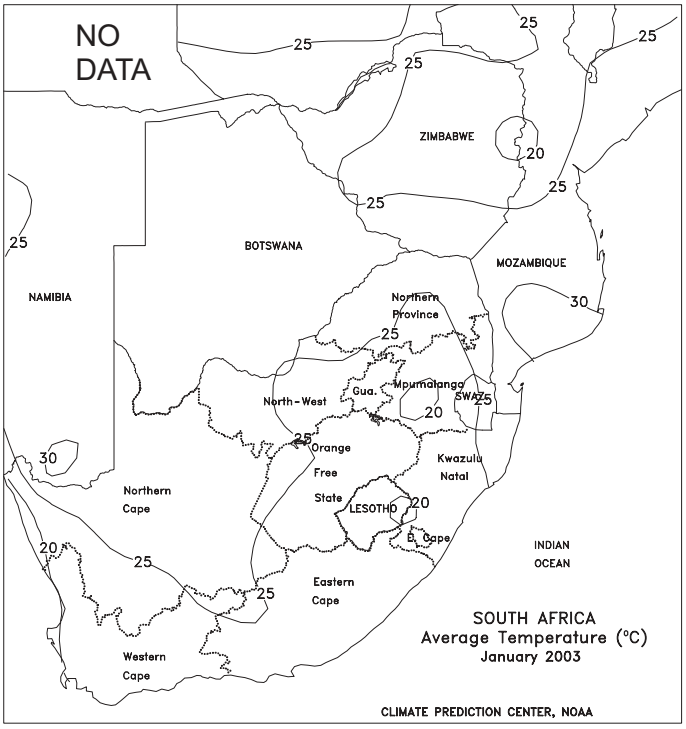


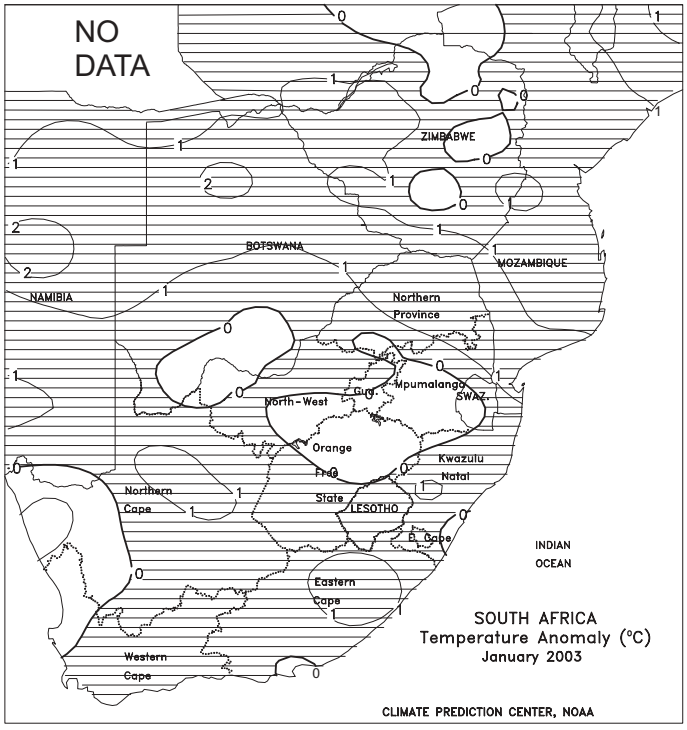
SOUTH AFRICA

Widely scattered showers (generally less than 10 mm) were too light to prevent net evaporative losses throughout much of the corn belt. As a result, moisture supplies continued to decline for reproductive summer crops. Although crop conditions were likely good in the western corn belt because of favorable weather throughout much of the growing season, additional rainfall was needed to maintain yield prospects as the crop advanced through reproduction. Farther east, the persistent drier-than-normal weather likely caused further declines in crop conditions. Soaking rains are needed during the next couple of weeks to alleviate moisture stress on reproductive summer crops and to avert more significant declines in yield potential. Temperatures in South Africa averaged about 1 to 2 degrees C above normal, with maximum temperatures generally in the lower 30s degrees C. In January, below-normal rainfall in the corn belt reduced moisture supplies for vegetative to reproductive summer crops. The dryness was more unfavorable for crops in the east because below-normal rainfall has fallen in the eastern corn belt much of the growing season. Although temperatures averaged above normal in major crop-producing areas, very hot weather was infrequent, limiting heat stress on crops.


NO DATA
ZIMBABWE
BOTSWANA
MOZAMBIQUE
NAMIBIA
Northern Province
Mpumalanga
Gua.
SWAZ.
North-West
Orange Free State
Kwazulu Natal
LESOTHO
Northern Cape
W. Cape
Eastern Cape
Western Cape
INDIAN OCEAN
SOUTH AFRICA
Total Precipitation (mm)
January 2003
CLIMATE PREDICTION CENTER, NOAA


NO DATA
ZIMBABWE
BOTSWANA
MOZAMBIQUE
NAMIBIA
Northern Province
Mpumalanga
Gua.
SWAZ.
North-West
Orange Free State
Kwazulu Natal
LESOTHO
Northern Cape
W. Cape
Eastern Cape
Western Cape
INDIAN OCEAN
SOUTH AFRICA
Percent of Normal Precipitation
January 2003
CLIMATE PREDICTION CENTER, NOAA


NO DATA
ZIMBABWE
BOTSWANA
MOZAMBIQUE
NAMIBIA
Northern Province
Mpumalanga
Gua.
SWAZ.
North-West
Orange Free State
Kwazulu Natal
LESOTHO
Northern Cape
W. Cape
Eastern Cape
Western Cape
INDIAN OCEAN
SOUTH AFRICA
Average Temperature (°C)
January 2003
CLIMATE PREDICTION CENTER, NOAA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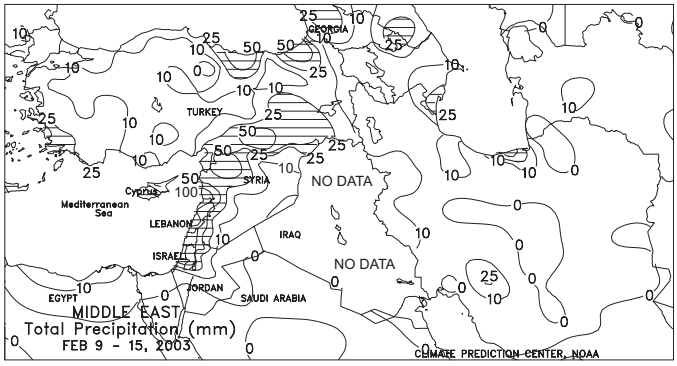
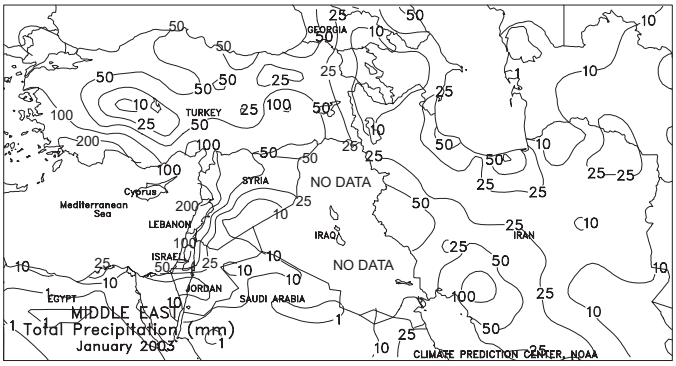
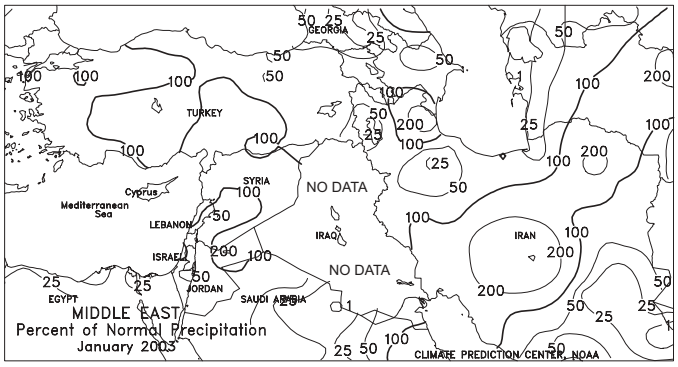
Gua.
SWAZ.
North-West
Orange Free State
Kwazulu Natal
LESOTHO
Northern Cape
W. Cape
Eastern Cape
Western Cape
INDIAN OCEAN
SOUTH AFRICA
Temperature Anomaly (°C)
January 2003
CLIMATE PREDICTION CENTER, NOAA

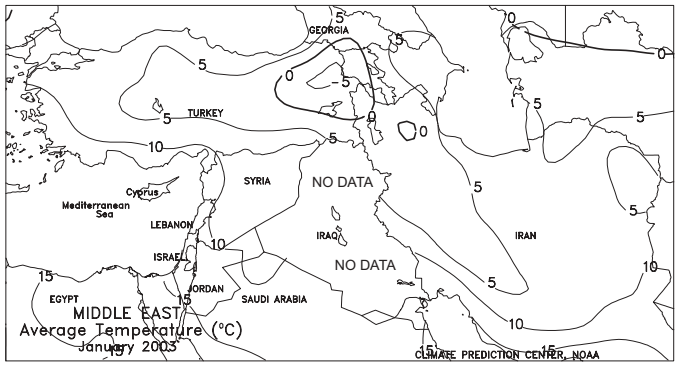


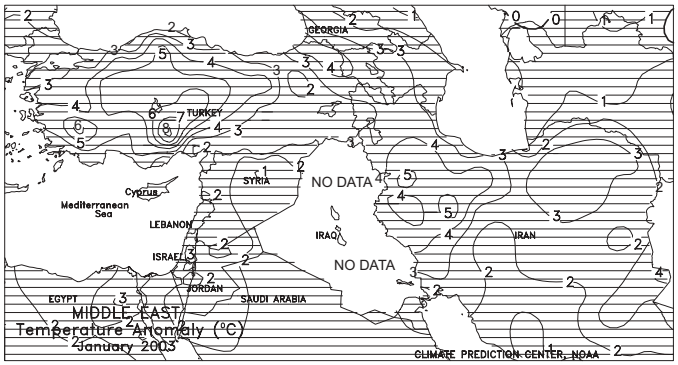
MIDDLE EAST

Light to moderate rain and snow (5-15 mm of water equivalent) covered the winter grain areas of Turkey, maintaining adequate moisture supplies for overwintering crops. The heaviest precipitation (15-50 mm) fell across eastern Turkey, boosting irrigation supplies and snowpack, especially in the Tigris and Euphrates watersheds of southeastern Turkey. Seasonably colder weather, however, stressed winter grains in the central Plateau after several weeks of mild weather, but kept winter grains dormant. On February 10 and 11, minimum temperatures fell to -13 to -10 degrees C in central Turkey, but temperatures were not low enough for winterkill. In western Iran, light precipitation (5-15 mm) increased moisture supplies for dormant winter crops and provided some isolated snow cover across the northwest by week's end. Moderate to heavy showers (25-100 mm or more) continued across the Mediterranean coast from Syria to northern Israel, boosting irrigation supplies. Eastern Syria also received beneficial rain (5-20 mm) for winter crops. Based on weather reports from neighboring areas of Turkey and Iran, light to moderate rain likely fell across northern Iraq. Temperatures averaged 1 to 3 degrees C below normal across Turkey, near normal across the Middle East, and 2 to 4 degrees C above normal across most of Iran. During January, near- to above-normal precipitation across Turkey and the Middle East increased moisture supplies for winter crops, while below-normal precipitation occurred in western Iran. In northwestern Iran, bitterly cold weather and little or no snow cover stressed dormant winter crops and possibly caused some winterkill. In central Turkey, however, mild weather reduced protective snow cover and caused winter grains to lose some winter hardiness.



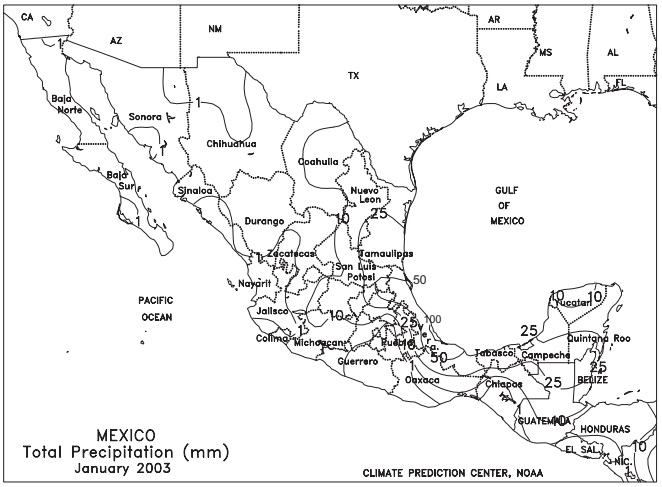


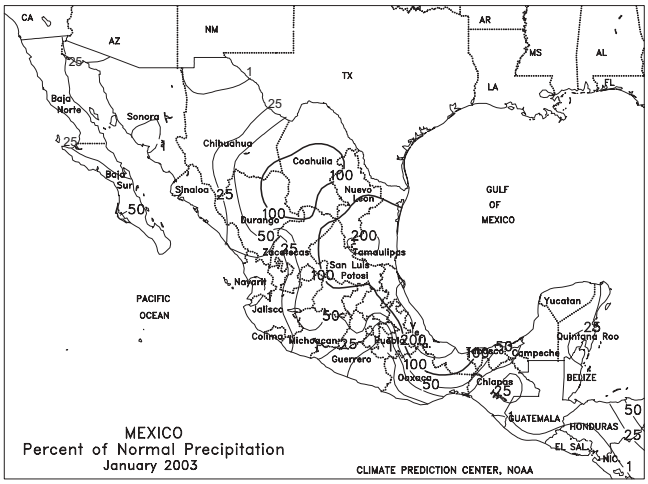


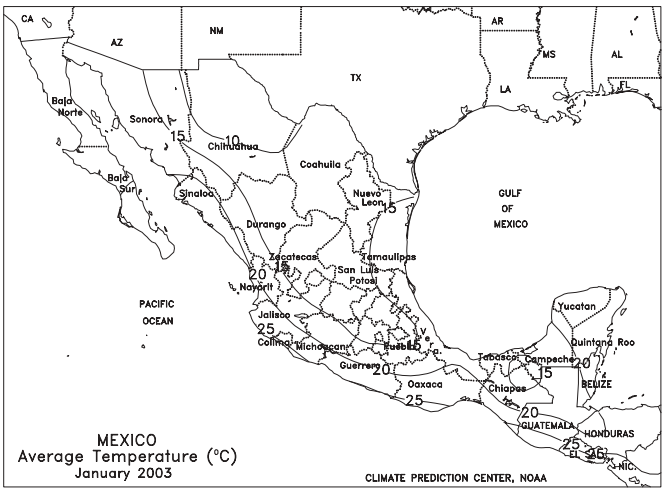


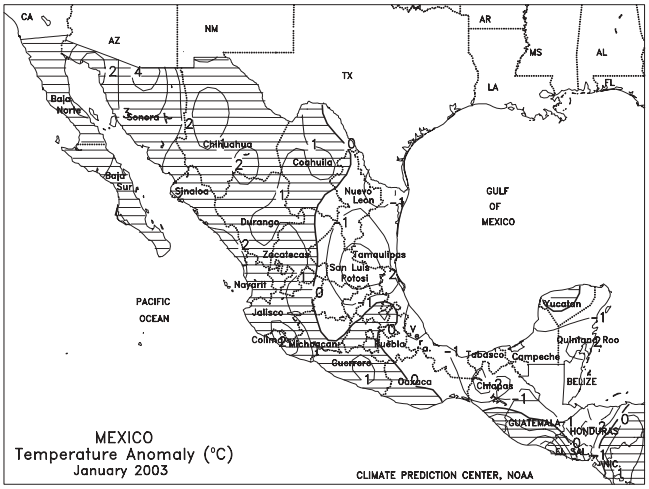
MEXICO

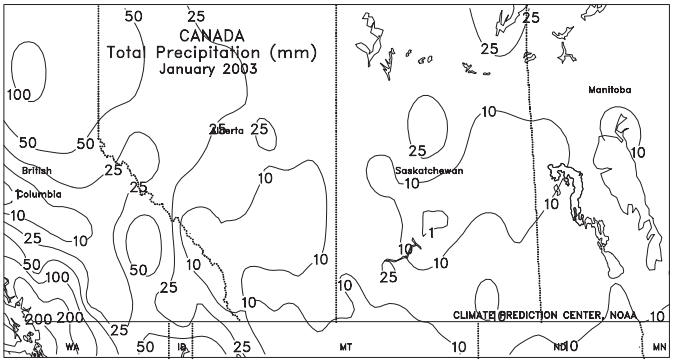
During January, near- to above-normal rainfall increased moisture supplies for winter crops across north-central, eastern, and central Mexico. However, much-above-normal rainfall across the coastal Gulf of Mexico areas (Veracruz and Tabasaco) slowed sugarcane, coffee, and orange harvesting. In northwestern Mexico, below-normal rainfall favored winter vegetable fieldwork but reduced irrigated supplies. Temperatures averaged 1 to 3 degrees C above normal across western Mexico and 1 to 2 degrees C below normal across eastern Mexico.

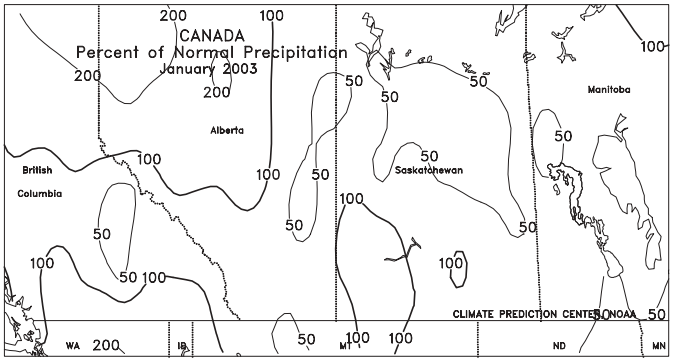


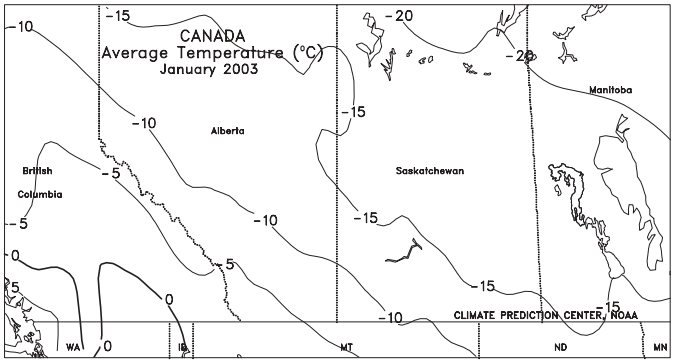


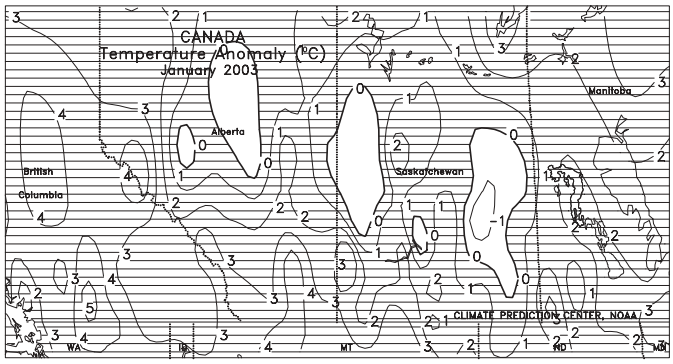


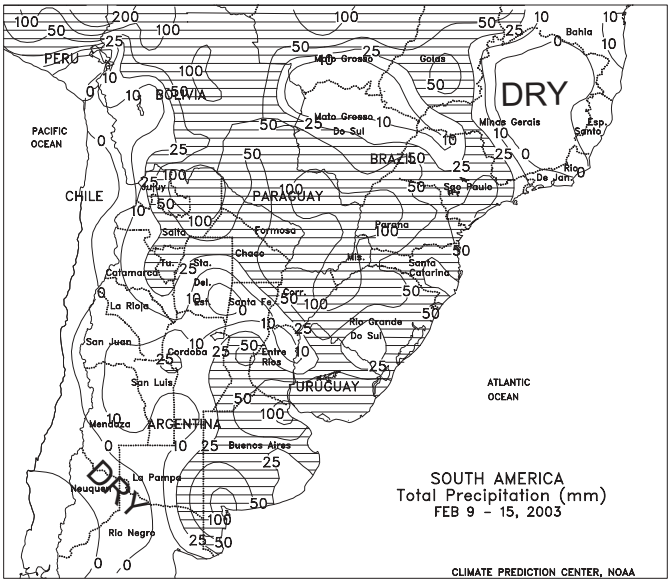






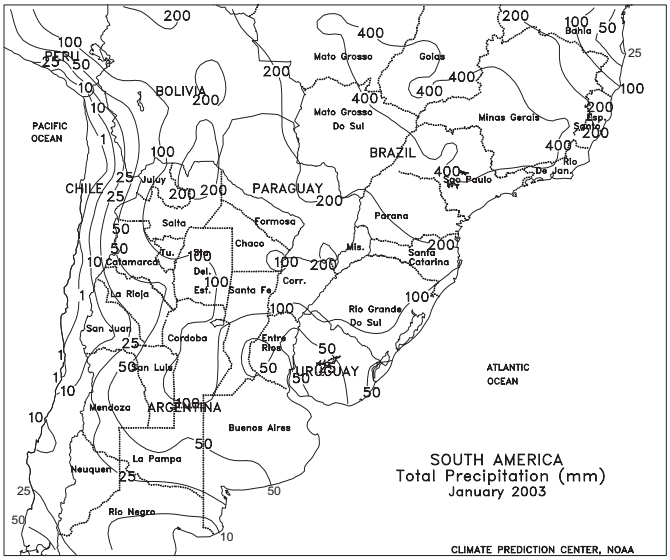


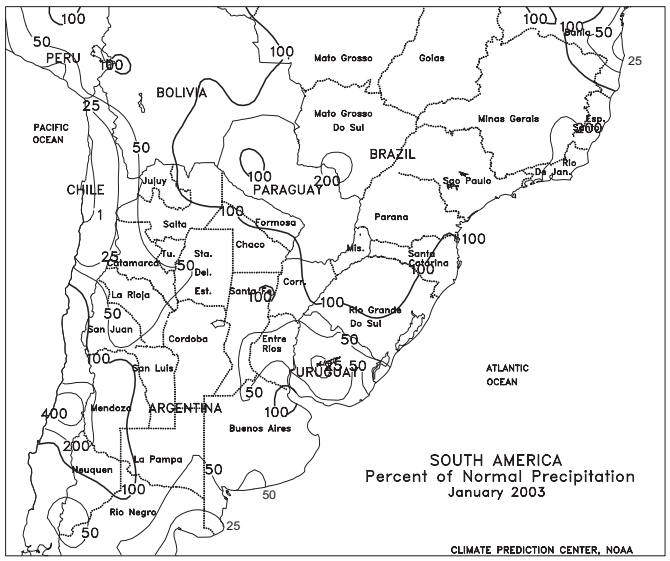


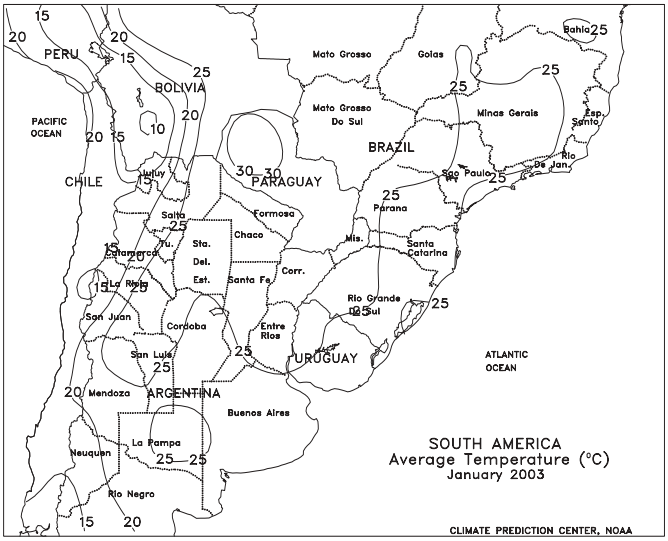


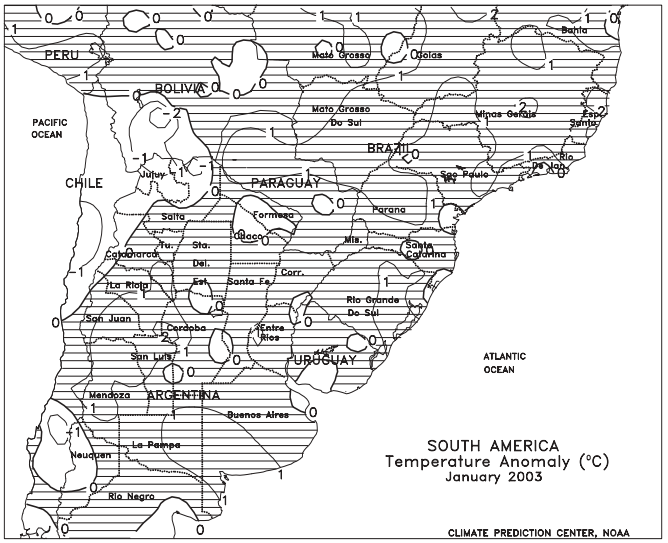
SOUTH AMERICA

Widespread rain continued to benefit summer crops stressed by a recent, short-lived heat wave. In Argentina, showers (10-25 mm, locally exceeding 50 mm) benefited immature corn and vegetative to reproductive soybeans from Cordoba and southern Santa Fe southward to La Pampa and Buenos Aires, although summer temperatures (highs in the lower and middle 30s degrees c) maintained high crop moisture demands. Continuing rain in northern crop areas (Chaco and Formosa) benefited immature cotton. In Brazil, beneficial rain (25-50 mm or more) brought additional relief to immature soybeans in Rio Grande do Sul. Elsewhere in Brazil, widespread rain (25-50 mm or more) maintained generally favorable conditions for summer crops in primary growing areas. During January, rainfall gradually declined over important growing areas of central Argentina and southern Brazil. By month's end, a heat wave (highs in the upper 30s-40s degrees C) had developed in central Argentina, compounding the stress on immature corn and early-planted soybeans approaching reproduction. In southern Brazil (Rio Grande do Sul), moisture reserves from previous bouts with heavy rain helped to carry crops through the brief dry spell. Elsewhere in Brazil, conditions remained generally favorable for immature summer crops, as well as developing coffee and citrus.









REVIEW OF THE CURRENT GROWING SEASON: SOUTH AFRICA

Many portions of South Africa's Corn Belt (also known as the Maize Triangle) are experiencing a drier-than-normal growing season, particularly in northern and eastern areas. By contrast, far western areas are actually wetter than normal (Fig. 1). Rainfall totals since November 1st have been between 80 and 120 percent of normal across the western and central Corn Belt (the provinces of North-West, Guateng, and northern portions of Free State). Across central and southern Free-State, rainfall totals since November 1st are between 60 and 90 percent of normal. In the eastern Corn Belt (Mpumalanga Province), precipitation totals are between 50 and 70 percent of normal resulting in rainfall deficits of 100 to 200 mm (Fig. 2). The eastern Corn Belt usually produces the highest yields in the region and is typically more productive than western areas. The driest area lies in Northern Province. Rainfall totals so far this season are only 30 to 60 percent of normal, resulting in deficits of 100 to 250 mm.

Figure 1

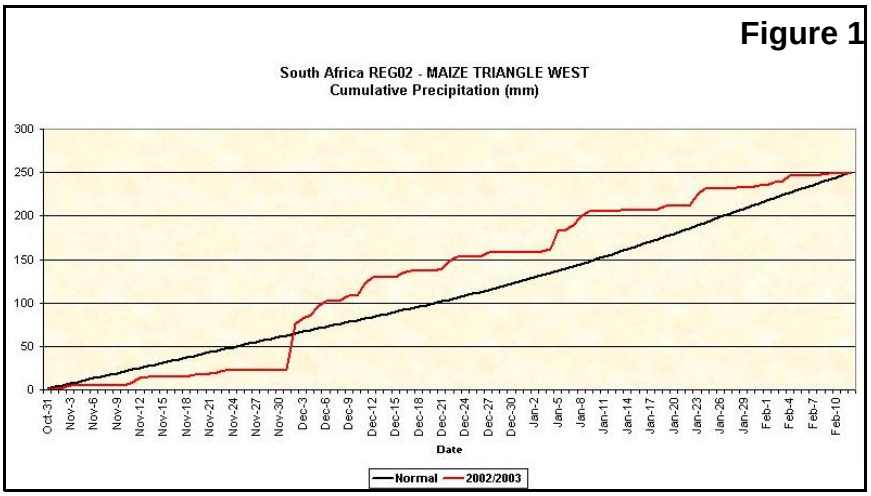


Figure 2

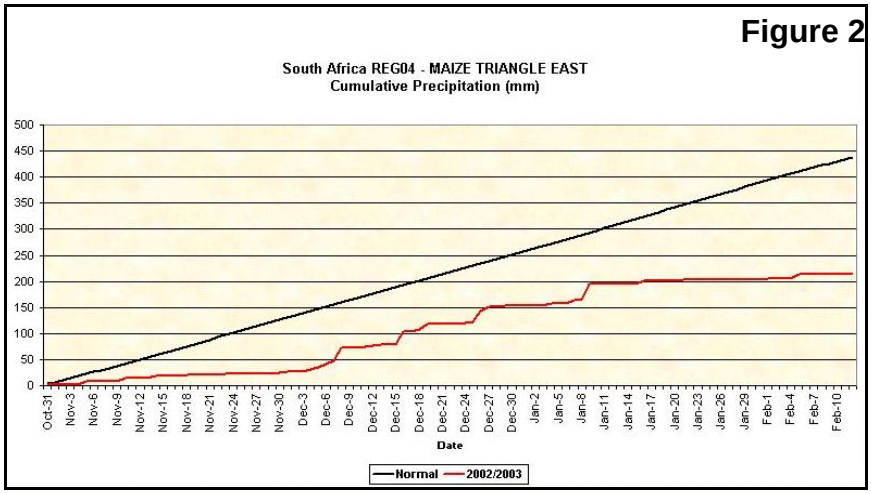
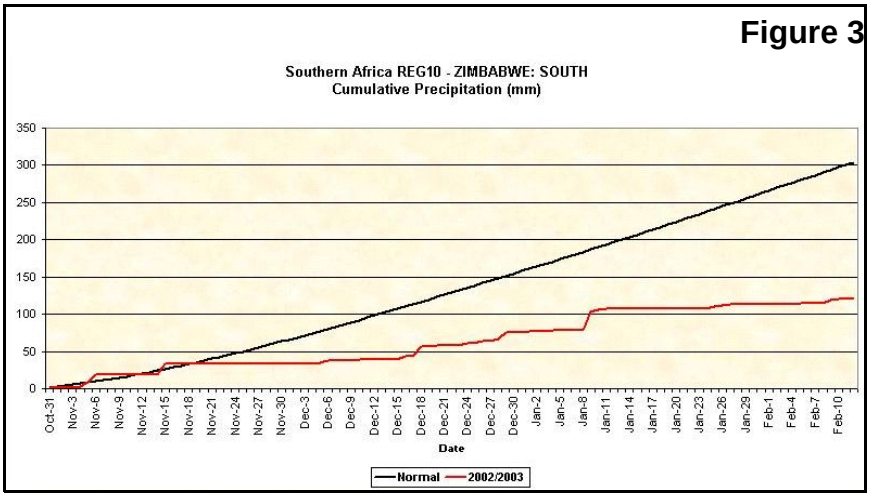


Figure 3



The season started with one of the driest Novembers on record with little if any significant precipitation. Rainfall totals for the month were between 20 and 50 percent of normal in most locations. The Northern Province received less than 20 percent of the normal rainfall. By contrast, December was relatively wet. Rainfall totals were between 90 and 200 percent of normal. The wettest areas were in the western Corn Belt. Northern Province, however, only received 50 to 80 percent of its normal December rainfall total. Unfortunately, January was once again dry across most of South Africa's summer crop areas. January rainfall totals were between 50 and 80 percent of normal, with the driest areas in the northern and eastern growing areas. The exception was the far western growing areas where rainfall totals were 100 to 200 percent of normal. During the first half of February, conditions have been drier than normal across most of the Corn Belt.

Temperatures across the region have, for the most part, been cooler than normal across much of southern Africa during November, December, and the first half of January. This has helped to mitigate the impacts of dryness by reducing moisture demand and evapotranspiration rates. Unfortunately, occasional heat has resulted in above-normal temperatures during the last half of January into the first half of February.

The dryness in South Africa is the southern extension of an area of dryness covering portions of southeastern Africa. Drier-than-normal conditions are a typical signature of El Nino. Moderate El Nino conditions have prevailed during the growing season. Drought has adversely impacted crops and water supplies across portions of Zimbabwe, Mozambique, and Botswana. Drier-than-normal conditions exist across portions of southern Zambia as well. Western and southern Zimbabwe (Fig. 3) and southern Mozambique were hardest hit by drought. Parts of Northern Province are also among areas hardest hit. Rainfall totals in these areas for the season so far range from 25 to 50 percent of normal. By contrast, unseasonably wet weather has resulted in flooding problems. Rainfall totals since November 1st are 120 to 200 percent of normal with surpluses ranging from 100 to 400 mm. Across Mozambique's Nampula province, satellite estimates indicate that rainfall totals so far this season are more than twice that of a normal season. This has resulted in surpluses of 400 mm to greater than 600 mm.

REVIEW OF THE CURRENT GROWING SEASON: NORTHWESTERN AFRICA

The season has been wetter than normal across most winter grain-producing areas of northwestern Africa. Precipitation totals from early November through mid-February are 100 to 200 percent of normal from Gibraltar in northern Morocco eastward to Tunis, the capital of Tunisia. The wettest area has been in eastern Algeria, where rainfall totals have been almost twice normal (Fig. 4). An active weather pattern during the autumn resulted in very wet conditions during November into early December. A succession of storm systems resulted in prolonged periods of precipitation. This was followed by a period of lighter-than-normal rainfall during most of December into early January. From around January 10th through the end of the month, heavy rains returned to the region. This triggered flooding and mud slides in some areas. The first half of February was characterized by frequent, although light, precipitation across northern Algeria and Tunisia.

By contrast, rainfall totals across western Morocco are below normal for the season. The season started out wet across this area, with heavy rains during November that caused some flooding problems. Rainfall became lighter and less frequent throughout December into early January. Since January 10th, little if any significant rainfall has occurred across western and southern Morocco (Fig. 5). Storm systems typically move into northwestern Africa from the North Atlantic, passing right through western Morocco. So far this calendar year, storm systems have been moving from Europe southward into Algeria, completely missing western Morocco. Until this pattern changes, rainfall deficits will likely increase across western Morocco since the potential for rainfall will be low.

Temperatures during November, December, and early January were warmer than normal across Algeria and Tunisia. From mid-January on, temperatures have been cooler than normal, with winds primarily from the north. Morning freezes occurred during the first week of February across parts of eastern Algeria and Tunisia.

Figure 4

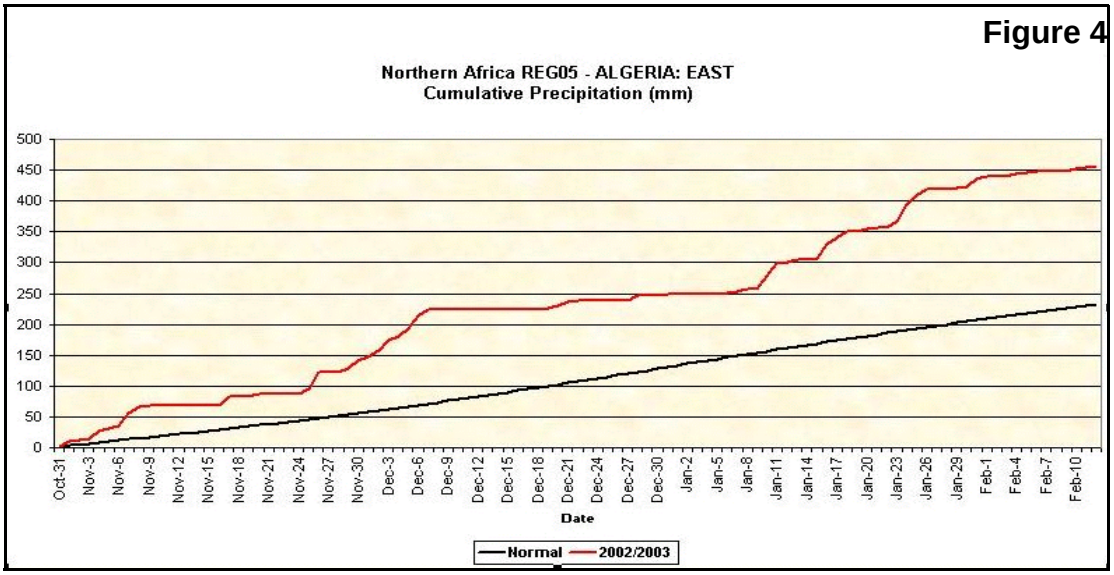
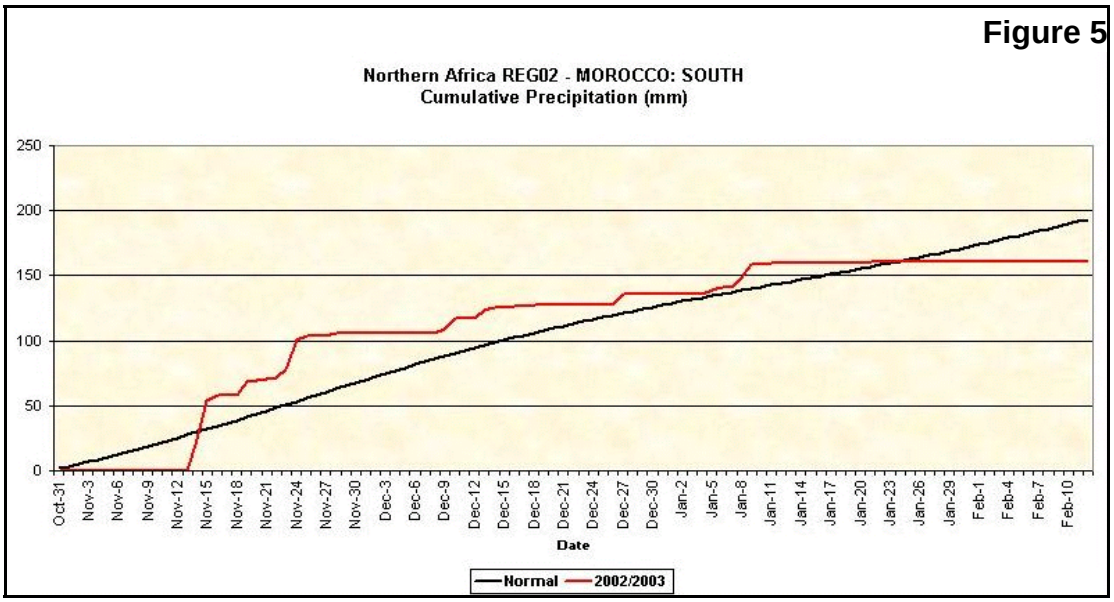


Figure 5



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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 5844, Washington, DC 20250.** Internet URL: **http://www.usda.gov/oce/waob/jawf**; E-mail address: ***jawfweb@oce.usda.gov***

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National Oceanic and Atmospheric Administration
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