

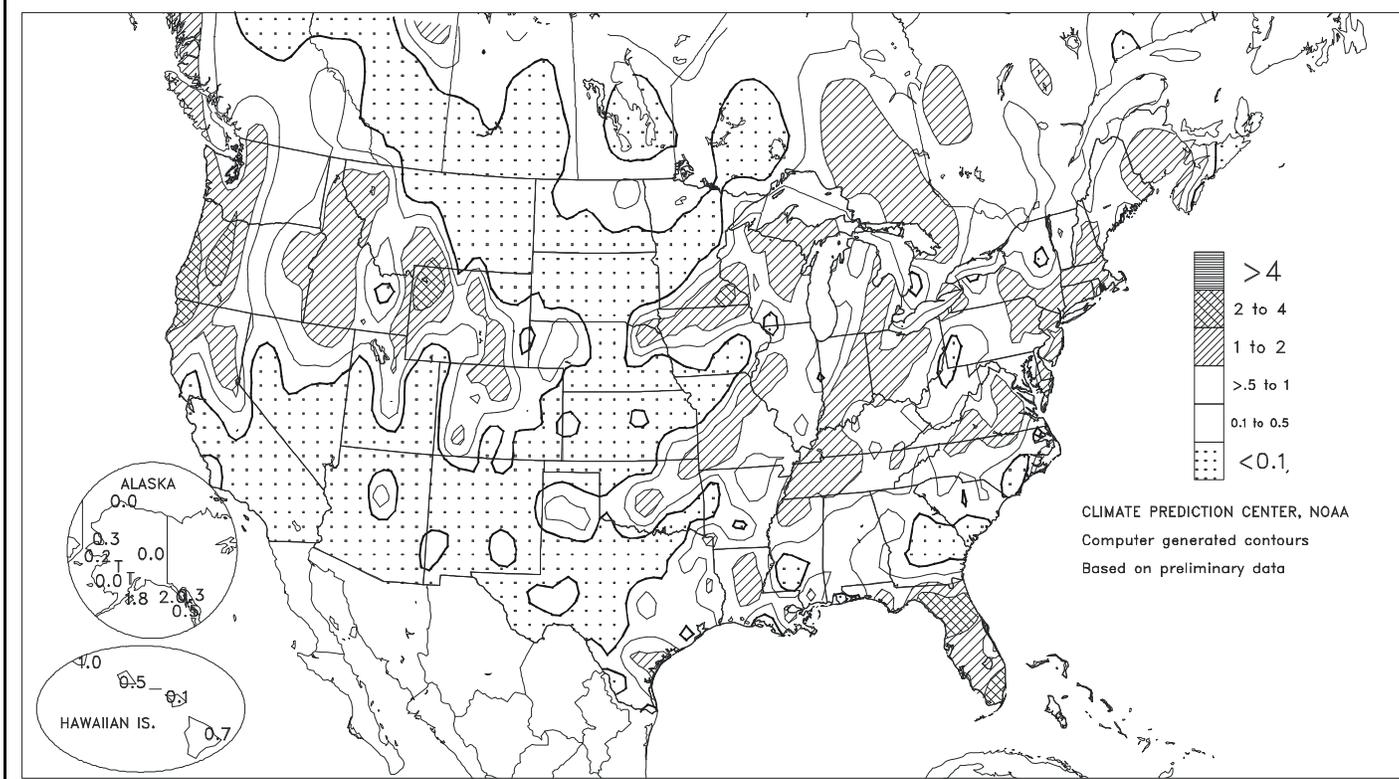
# WEEKLY WEATHER AND CROP BULLETIN

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

## Total Precipitation (Inches)

MAR 23 - 29, 2003



## HIGHLIGHTS

March 23 - 29, 2003

Highlights provided by USDA/WAOB

**F**or the second consecutive week, a spring storm system produced a variety of weather conditions across the Nation. Despite some additional precipitation in the **West**, the water-supply situation remained virtually unchanged. Water-supply concerns persisted due to the combination of mostly below-normal reservoir levels and forecasts of below-normal spring and summer runoff in most **Western** watersheds. Meanwhile on the **central and southern Plains**, warm weather and recent soil moisture improvements promoted winter wheat development. However, sharply colder air spread onto the **southern High Plains** by March 29 and 30, threatening jointing winter

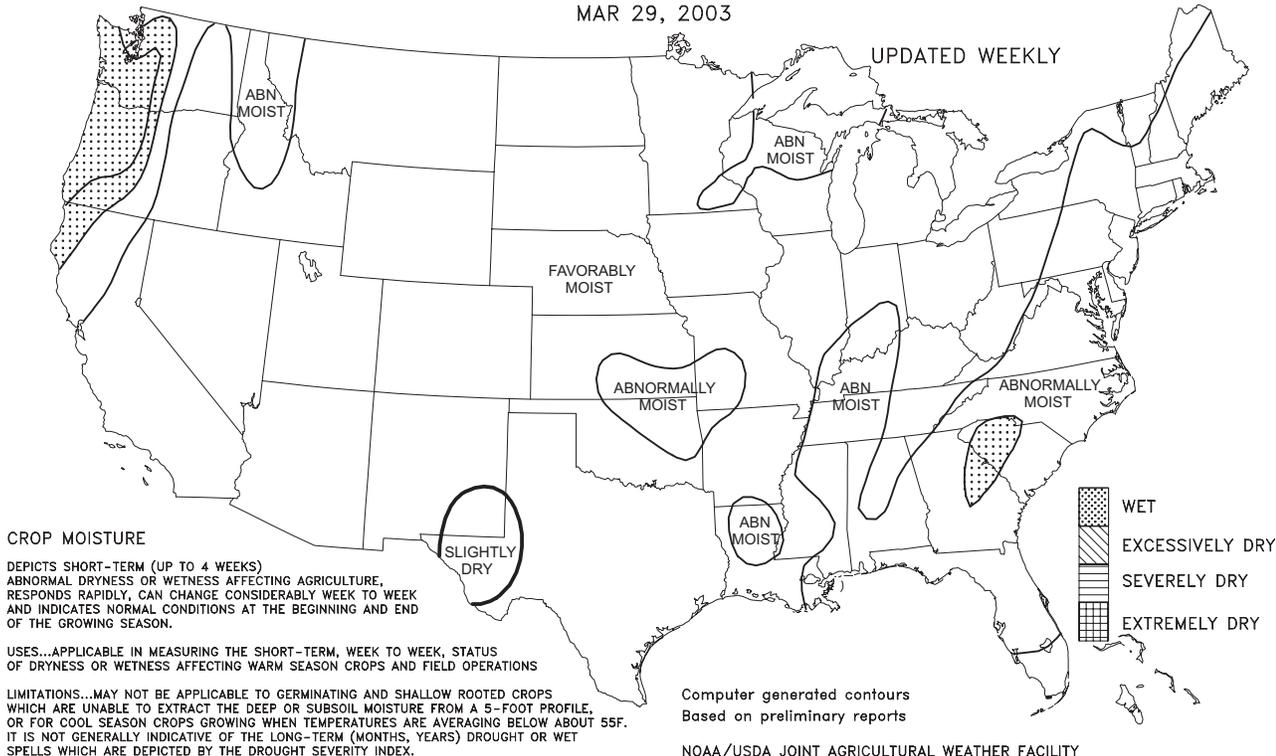
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Crop Moisture  
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-F.T. SOIL PROFILE  
MAR 29, 2003

UPDATED WEEKLY



CROP MOISTURE

DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE. RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

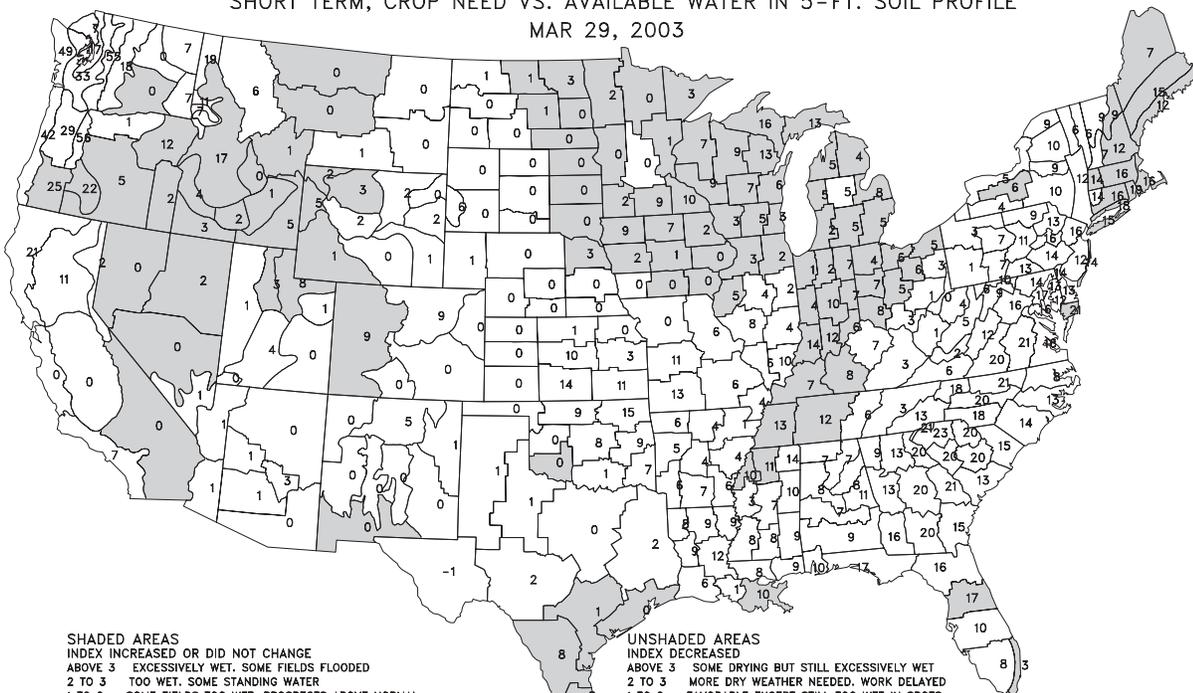
USES...APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS

LIMITATIONS...MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55F. IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

Computer generated contours  
Based on preliminary reports

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Crop Moisture Index  
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-F.T. SOIL PROFILE  
MAR 29, 2003



SHADED AREAS

INDEX INCREASED OR DID NOT CHANGE  
 ABOVE 3 EXCESSIVELY WET. SOME FIELDS FLOODED  
 2 TO 3 TOO WET. SOME STANDING WATER  
 1 TO 2 SOME FIELDS TOO WET. PROSPECTS ABOVE NORMAL  
 0 TO 1 MOISTURE ADEQUATE FOR PRESENT CROP NEEDS  
 0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED  
 -1 TO -2 SOME IMPROVEMENT BUT STILL ABNORMALLY DRY  
 -2 TO -3 DRYNESS EASED BUT FIELDS STILL EXCESSIVELY DRY  
 -3 TO -4 SEVERE DRYNESS CONTINUES. MORE RAIN URGENTLY NEEDED  
 BELOW -4 NOT ENOUGH RAIN. STILL EXTREMELY DRY

UNSHADED AREAS

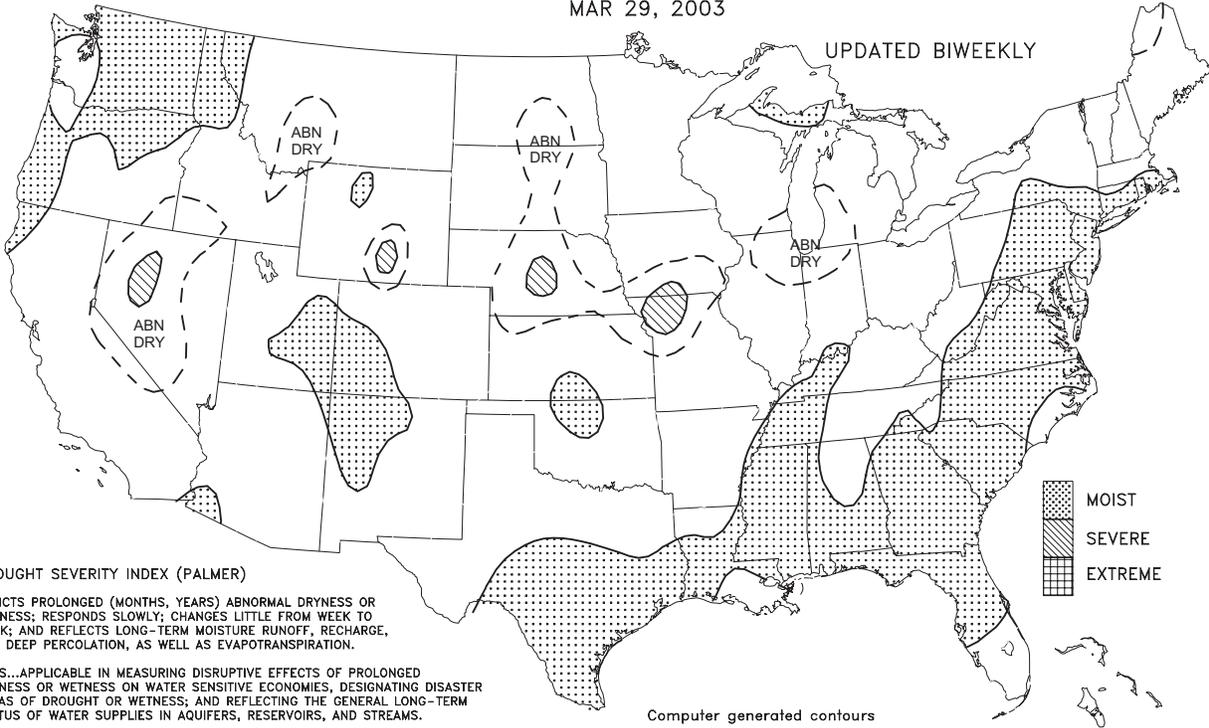
INDEX DECREASED  
 ABOVE 3 SOME DRYING BUT STILL EXCESSIVELY WET  
 2 TO 3 MORE DRY WEATHER NEEDED. WORK DELAYED  
 1 TO 2 FAVORABLE EXCEPT STILL TOO WET IN SPOTS  
 0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK  
 0 TO -1 TOPSOIL MOISTURE SHORT. GERMINATION SLOW  
 -1 TO -2 ABNORMALLY DRY. PROSPECTS DETERIORATING  
 -2 TO -3 EXCESSIVELY DRY. YIELD PROSPECTS REDUCED  
 -3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DRYNESS  
 BELOW -4 EXTREMELY DRY. MOST CROPS RUINED

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

BASED ON PRELIMINARY DATA

DROUGHT SEVERITY  
LONG TERM PALMER  
MAR 29, 2003

UPDATED BIWEEKLY



DROUGHT SEVERITY INDEX (PALMER)

DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; RESPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION, AS WELL AS EVAPOTRANSPIRATION.

USES...APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNATING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS, AND STREAMS.

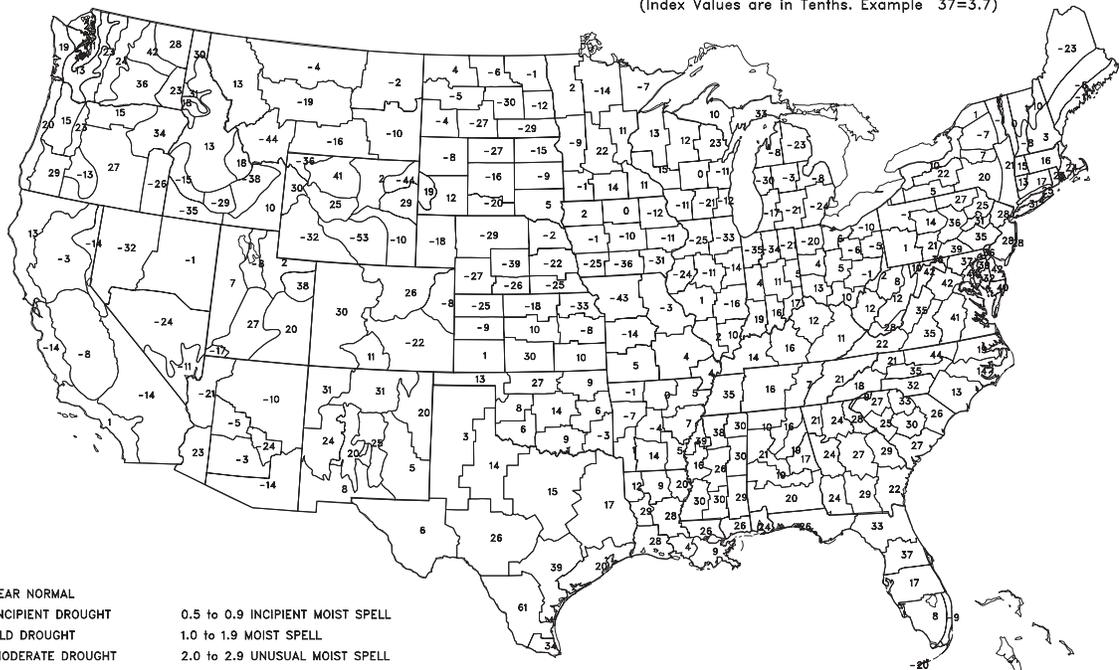
LIMITATIONS...IS NOT GENERALLY INDICATIVE OF SHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).

Computer generated contours  
Based on preliminary reports

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Drought Severity Index by Division  
MAR 29, 2003  
(Long Term Palmer)

(Index Values are in Tenths. Example 37=3.7)



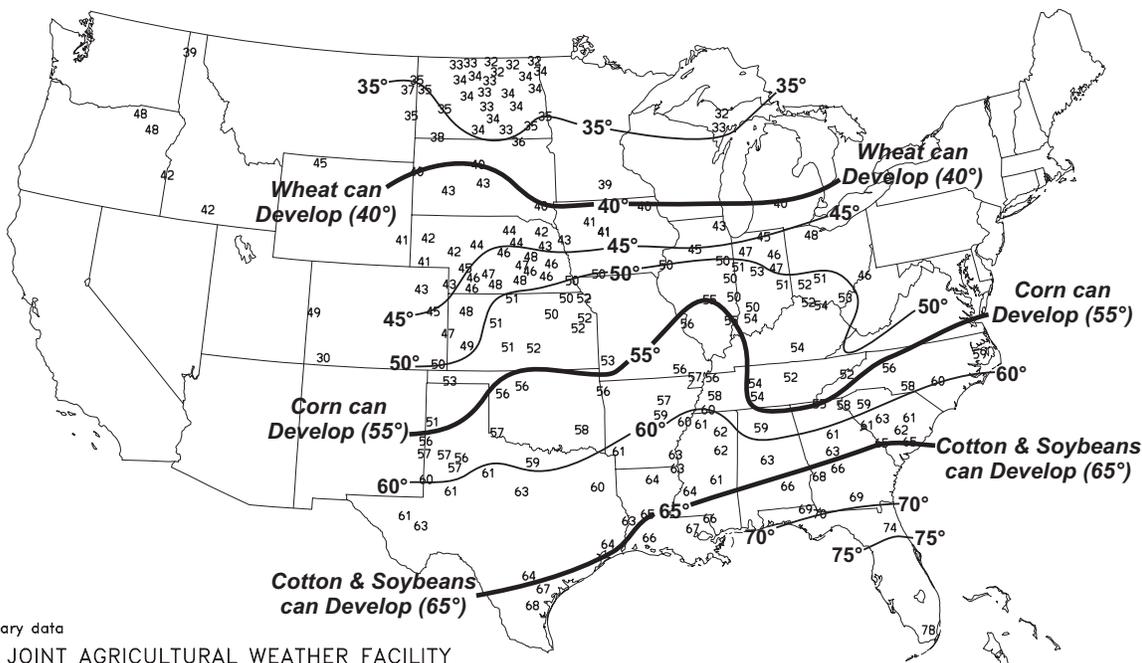
0.4 to -0.4 NEAR NORMAL  
-0.5 to -0.9 INCIPENT DROUGHT  
-1.0 to -1.9 MILD DROUGHT  
-2.0 to -2.9 MODERATE DROUGHT  
-3.0 to -3.9 SEVERE DROUGHT  
BELOW -4.0 EXTREME DROUGHT

0.5 to 0.9 INCIPENT MOIST SPELL  
1.0 to 1.9 MOIST SPELL  
2.0 to 2.9 UNUSUAL MOIST SPELL  
3.0 to 3.9 VERY MOIST SPELL  
ABOVE 4.0 EXTREME MOIST SPELL

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY  
Based on preliminary data

Average Soil Temperature (°F, 4" Bare)

MAR 23 - 29, 2003



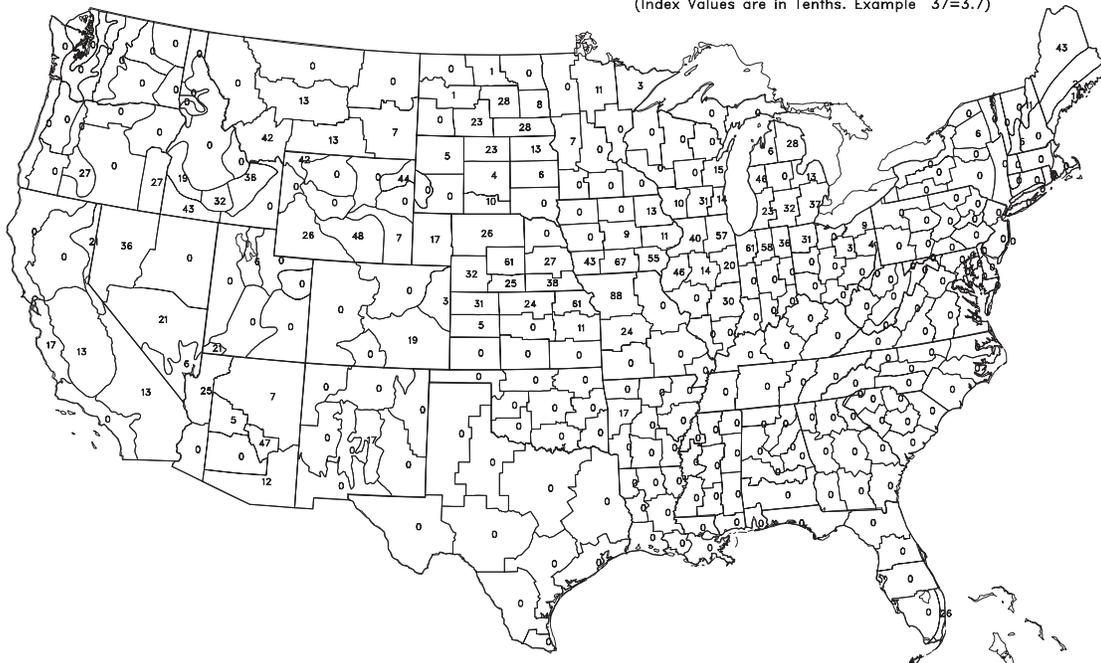
Based on preliminary data  
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY  
Supplemental data provided by High Plains Regional Climate Center

Additional Precipitation Needed to Bring Index Near Zero

MAR 29, 2003

(Long Term Palmer)

(Index Values are in Tenths. Example 37=3.7)



NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY  
Based on preliminary data

## Weather Data for Mississippi and the Missouri Bootheel

### Weather Data for the Week Ending March 29, 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			
	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 Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
MS BATESVILLE <sup>x</sup>	71	47	78	39	59	4	0.63	-0.70	0.43	2.72	49	12.55	86	-	-	0	0	2	0
BELZONI <sup>x</sup>	78	51	81	44	64	6	0.90	-0.58	0.80	3.00	50	14.54	90	-	-	0	0	2	1
CLARKSDALE <sup>x</sup>	74	47	76	41	60	4	0.84	-0.38	0.47	2.00	39	10.75	71	-	-	0	0	2	0
CLEVELAND <sup>x</sup>	72	49	76	42	61	3	0.89	-0.51	0.50	2.67	47	11.92	79	-	-	0	0	2	1
GREENVILLE <sup>x</sup>	71	49	78	44	60	2	0.60	-0.73	0.32	1.83	34	-	-	-	-	0	0	3	0
GREENWOOD <sup>x</sup>	72	46	80	43	59	0	0.57	-0.82	0.37	1.57	29	10.39	70	-	-	0	0	2	0
INDIANOLA 1S	71	48	78	43	60	-	0.84	-	0.60	2.37	-	9.81	-	65	58	0	0	3	1
INVERNESS 5E	72	51	79	44	61	-	0.50	-	0.35	1.87	-	10.52	-	62	58	0	0	3	0
LYON	71	47	78	41	59	-	0.76	-	0.50	2.64	-	8.73	-	66	53	0	0	3	1
MACON	74	49	81	44	62	-	0.35	-	0.30	3.04	-	13.39	-	68	57	0	0	2	0
MOORHEAD <sup>x</sup>	73	51	78	42	62	4	0.64	-0.76	0.35	1.84	33	12.69	81	-	-	0	0	2	0
ONWARD	71	48	79	44	60	-	0.19	-	0.10	2.11	-	10.92	-	65	58	0	0	3	0
PERTSHIRE	70	46	77	41	58	-	0.49	-	0.26	1.90	-	8.56	-	68	54	0	0	3	0
ROLLING FORK <sup>x</sup>	75	50	81	43	62	4	0.32	-1.10	0.20	2.09	36	12.11	75	-	-	0	0	2	0
SCOTT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SIDON	72	49	79	44	61	-	0.50	-	0.34	1.47	-	9.24	-	71	58	0	0	4	0
STARKVILLE	72	48	80	43	60	3	0.33	-1.07	0.17	3.38	60	14.77	91	68	56	0	0	2	0
TUNICA <sup>x</sup>	73	49	77	42	61	5	1.33	0.00	1.13	3.69	71	-	-	-	-	0	0	2	1
TUNICA 1W	70	46	77	41	58	-	-	-	-	-	-	-	-	63	55	0	0	-	-
VANCE	70	46	76	40	58	-	0.92	-	0.44	2.98	-	8.98	-	58	54	0	0	4	0
VERONA	71	47	78	43	59	-	0.62	-	0.32	2.87	-	11.19	-	69	54	0	0	2	0
VICKSBURG <sup>x</sup>	73	50	79	46	61	1	0.37	-1.10	0.23	2.68	45	13.86	81	-	-	0	0	3	0
YAZOO CITY <sup>x</sup>	74	47	80	45	61	1	0.33	-1.22	0.18	1.30	20	10.30	58	-	-	0	0	2	0
STONEVILLE <sup>x</sup>	74	49	78	41	61	4	0.60	-0.80	0.38	2.54	45	11.59	71	71	56	0	0	2	0
MO DELTA	67	40	74	34	53	3	0.26	-1.23	0.17	1.5	32	5.13	42	61	46	0	0	2	0
STEELE	69	46	75	38	57	6	0.48	-0.76	0.24	1.53	33	8.89	73	62	52	0	0	2	0
GLENNONVILLE	67	43	74	35	56	6	0.27	-0.99	0.23	1.53	39	6.74	66	62	49	0	0	2	0
PORTAGEVILLE LF	69	45	75	37	57	6	0.31	-0.83	0.29	1.54	36	8.29	73	65	49	0	0	2	0
CLARKTON	69	42	75	35	55	5	0.21	-1.05	0.16	1.47	37	7.41	73	61	49	0	0	2	0
CARDWELL	68	44	75	37	56	4	1.39	0.24	1.24	2.54	57	9.23	79	62	51	0	0	2	1
CHARLESTON	67	43	73	35	55	5	0.59	-0.55	0.37	2.14	53	7.97	73	62	49	0	0	2	0
PORTAGEVILLE DC	68	45	74	37	57	6	0.31	-0.83	0.27	1.95	46	8.29	73	64	51	0	0	2	0

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

**Weather and Crop Summary:** Although there were two rain events last week, precipitation was generally light and not limiting to most fieldwork. In addition, very warm weather, gusty winds, and solar radiation boosted evaporation rates and helped fields to dry between rain events. Spring tillage practices and bedding continued throughout the week. Corn and soybean planting continued, while rice seeding began. Due to ideal conditions, fertilizer applications to wheat fields carried over from the previous week.

## U.S. Prospective Planting Highlights

*The following information was released by USDA's Agricultural Statistics Board on March 31, 2003.*

**Corn** growers intend to plant 79.0 million acres of corn for all purposes in 2003, virtually unchanged from 2002 but 4 percent (%) above 2001. Expected acreage is up in the eastern Corn Belt, as growers are switching back to corn after planting soybeans last year when persistently wet weather in the spring prevented them from seeding corn. However, all States in the Great Plains, except North Dakota, are decreasing their intended corn plantings, as continued drought conditions are expected to persist into the 2003 crop year.

**Soybean** growers intend to plant an estimated 73.2 million acres of soybeans, down 1% from last year and, if realized, the lowest planted area since 1998. This is the third consecutive year that soybean acreage has declined in the United States. Growers in most of the Corn Belt and central Great Plains States intend to plant fewer acres in 2003. Expected increases in acreage, offsetting some of the decreases, were located in the northern Great Plains, upper Mississippi Valley, Atlantic Coast, and Delta regions.

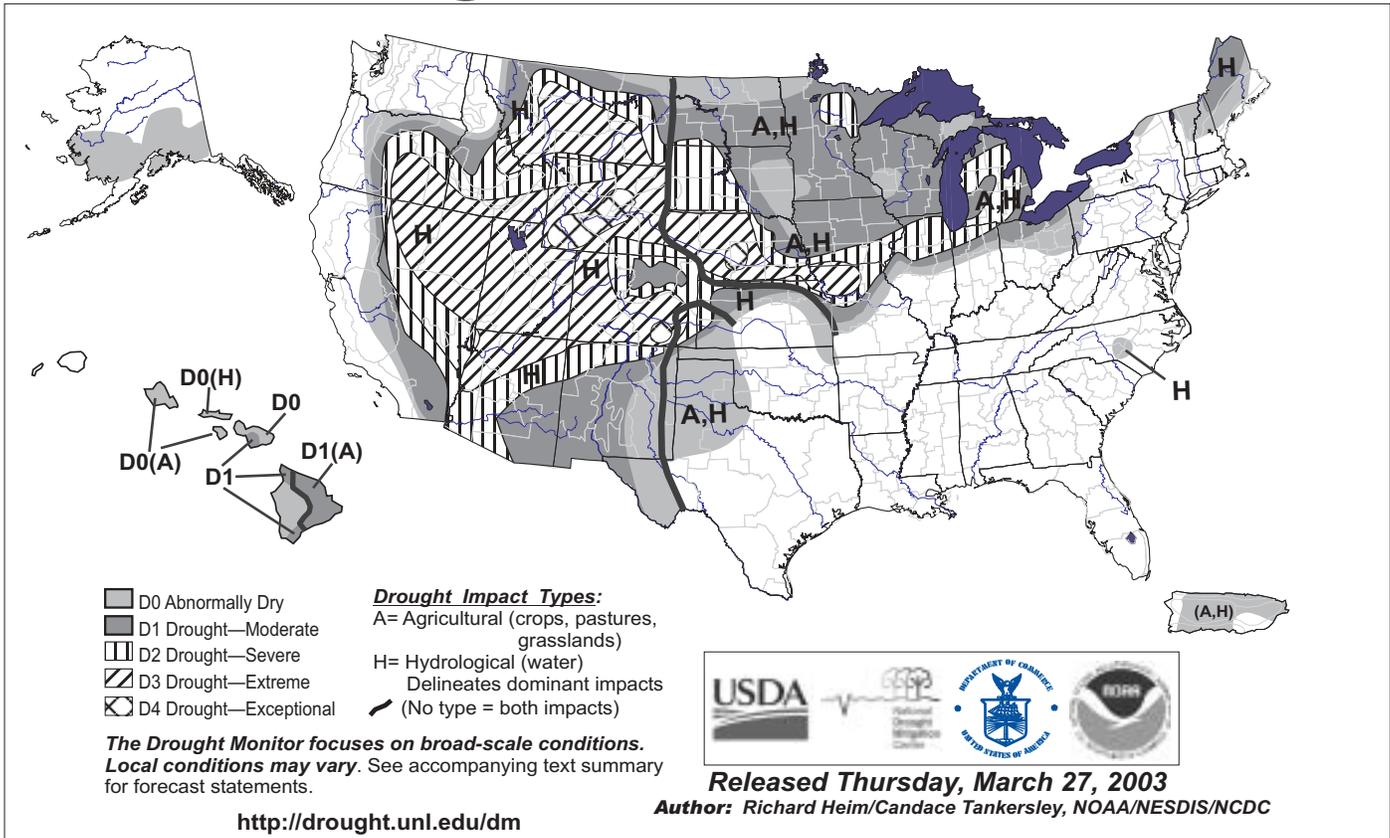
**All wheat** planted area is expected to total 61.7 million acres in 2003, up 2% from 2002. Winter wheat planted area for the 2003

crop is 44.3 million acres, up 6% from 2002. Of the total, about 31.9 million acres are Hard Red Winter, 8.2 million acres Soft Red Winter, and 4.2 million acres White Winter. The 2003 other spring wheat planted acreage is estimated at 14.6 million acres, down 7% from last year. Of the total, about 13.8 million acres are Hard Red Spring wheat. Area planted to Durum wheat is intended to total 2.83 million acres, down 3% from a year ago.

**All Cotton** plantings for 2003 are expected to total 14.3 million acres, 2% above last year. Upland acreage is expected to total 14.1 million acres, a 2% increase from 2002. Producers in the Southeast region and Arizona intend to decrease acreage from last year. All other cotton-producing States intend to increase planted acreage, except for Oklahoma growers, who intend to plant the same acreage as last year. American-Pima cotton growers intend to decrease their plantings to 200,000 acres, down 18% from 2002. The decrease is primarily in California, where producers are intending to plant 40,000 acres less than last year.

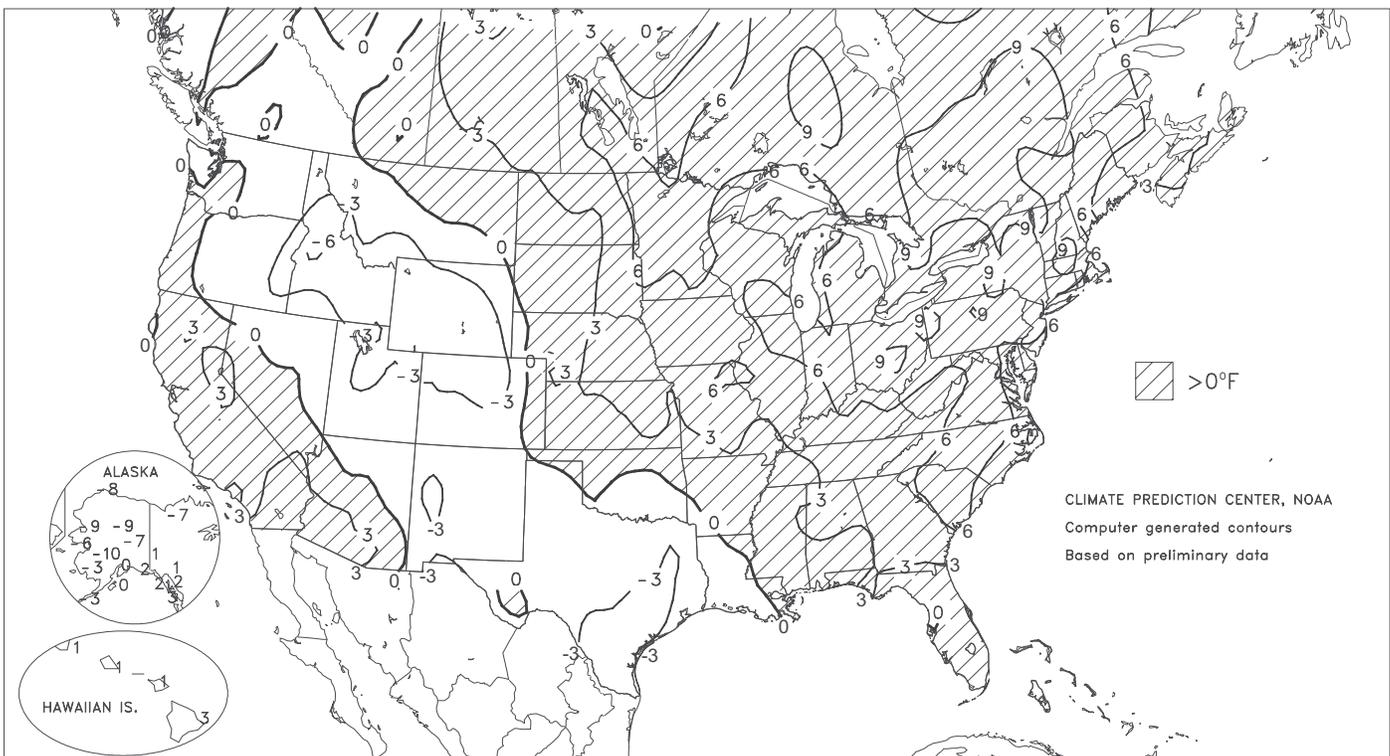
# U.S. Drought Monitor

March 25, 2003  
Valid 7 a.m. EST



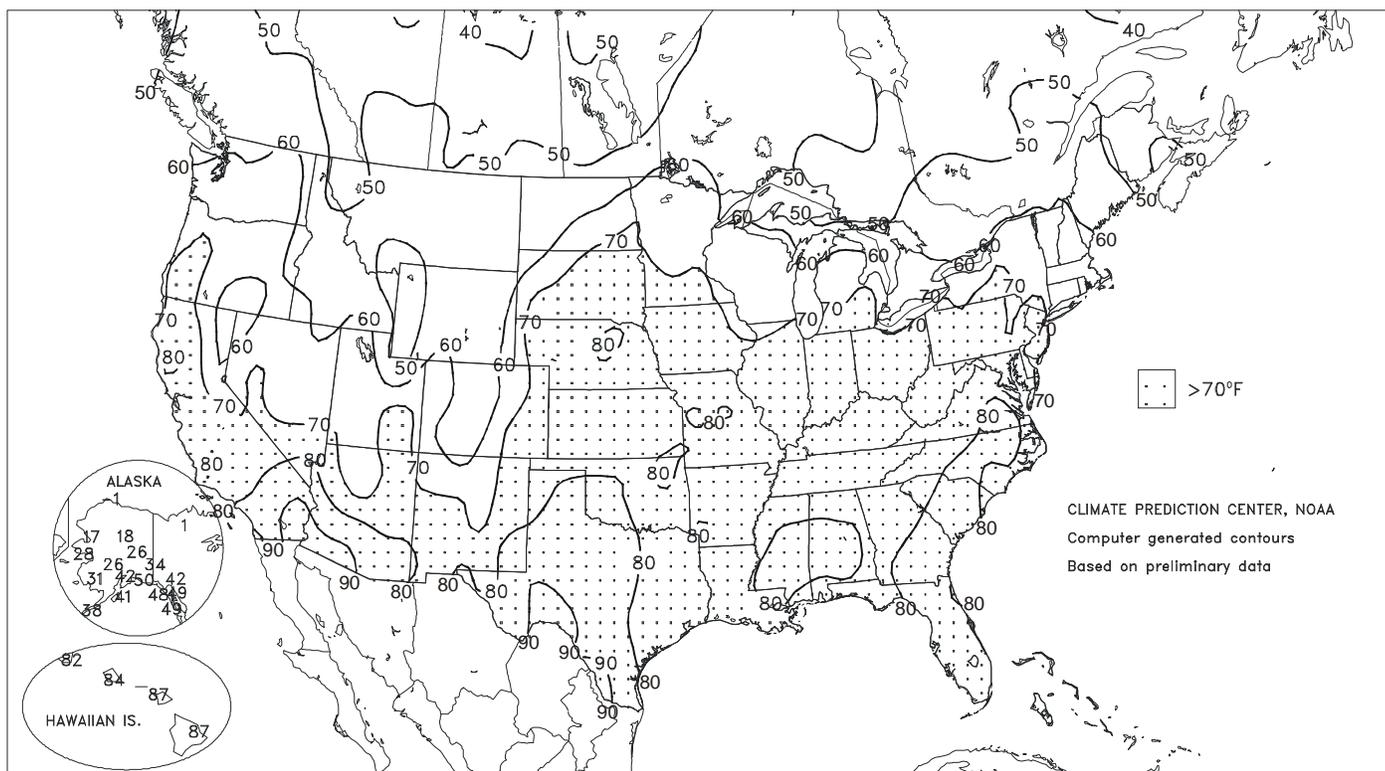
## Departure of Average Temperature from Normal (°F)

MAR 23 - 29, 2003



Extreme Maximum Temperature (°F)

MAR 23 - 29, 2003



(Continued from front cover)

wheat. In the **Midwest**, beneficial precipitation preceded the late-week chill, although snowy, windy conditions briefly increased livestock stress in the **western Great Lakes region**. The **Midwestern** rain and snow boosted topsoil moisture in preparation for spring planting, but some long-term precipitation deficits persisted. Farther south, spring planting operations accelerated from the **western Gulf Coast region to the Delta**, but some wetness-related fieldwork delays persisted in the **southern Atlantic States**. Cold air also swept into the **South** at week's end, raising concerns for peaches and other blooming trees in **central and eastern Texas** and parts of the **interior Southeast**.

Early in the week, record warmth continued across **southern Florida**, where **Miami** (89°F on March 23) posted their 15<sup>th</sup> daily-record high of the month. Meanwhile, warm weather also overspread much of the **Plains** and **Midwest** in advance of a cold front. Daily-record highs on March 24 included 82°F in **Joplin, MO**, and 75°F in **South Bend, IN**. Toward week's end, record-high temperatures were noted along the **West Coast** due to the effects of downslope winds. In **California**, both the **Oceanside Marina** (81 and 77°F) and downtown **Oakland** (76 and 79°F) closed the week with consecutive daily-record highs. In contrast, **Victoria, TX**, marked consecutive daily-record lows (37 and 33°F) on March 29-30. Other daily records on March 30 included 24°F in **McAlester, OK**, 29°F in **Longview, TX**, and 31°F in **Del Rio, TX**.

Locally heavy showers ended along the **East Coast** early in the week, quickly followed by another round of generally light precipitation across the **Midwest, South, and East** during the early-to-midweek period. On March 24-25, there were nearly 100 reports of large hail (diameter of 0.75 inch or greater), mostly from **Texas**

to **Missouri**. On Thursday, some heavy and locally severe thunderstorms swept across **Florida**, where **Gainesville** (2.51 inches) collected a daily-record total. **Florida** also noted nine tornadoes on March 27, including one in **Miami** that caused a fatality. However, the week's most substantial precipitation arrived in the **Northwest** at midweek in conjunction with a developing storm system. In **Oregon**, **Portland** received measurable precipitation on 16 consecutive days from March 12-27, although the highest daily total during that time was only 0.45 inch on March 12, 21, and 22. **Portland** also noted measurable rainfall on 27 different days during the month, breaking their March 1961 record of 25 days. Farther inland, **Wells, NV** (0.49 inch), noted a record precipitation total for March 26. By Friday, daily-record totals in the **Great Lakes region** included 1.19 inches in **Marquette, MI**, and 1.42 inches in **Fort Wayne, IN**. **Marquette** also received 10.5 inches of snow en route to a March 27-29 total of 20.2 inches. During the same period, **Duluth, MN**, measured 10.1 inches.

For the second consecutive week, cold **Alaskan** weather was mostly confined to **interior, western, and northern sections**, where weekly temperatures averaged as much as 10°F below normal. In contrast, **Juneau, AK**, posted a daily-record high of 49°F on March 26. **Alaskan** precipitation was again scarce, leaving March 1-29 totals as low as 0.02 inch (7 percent of normal) in **Fairbanks**, 0.15 inch (21 percent) in **King Salmon**, and 1.70 inches (40 percent) in **Valdez**. Meanwhile, a relatively quiet weather pattern across **Hawaii** was broken by late-week showers, especially from **Kauai to Maui**. On March 27-28, some of the highest reported 24-hour totals on **Oahu** included 2.78 inches in **St. Stephens** and 2.30 inches in **Maunawili**. Meanwhile, **Lanai City, Lanai**, netted 1.07 inches.

National Weather Data for Selected Cities

Weather Data for the Week Ending March 29, 2003

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 Mar 1	PCT. NORMAL SINCE Mar 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	
AL	BIRMINGHAM	74	50	79	41	62	5	0.20	-1.17	0.20	4.29	76	12.31	80	90	44	0	0	1	0
	HUNTSVILLE	73	47	80	42	60	5	0.35	-1.05	0.33	1.85	30	11.13	67	88	49	0	0	2	0
	MOBILE	76	53	80	45	65	3	0.11	-1.45	0.11	3.05	45	9.17	52	90	44	0	0	1	0
	MONTGOMERY	76	49	83	42	62	2	0.29	-1.02	0.20	3.31	55	8.10	49	100	49	0	0	2	0
AK	ANCHORAGE	36	21	42	12	29	0	0.03	-0.08	0.03	0.14	25	1.29	65	79	65	0	7	1	0
	BARROW	-12	-26	-1	-33	-19	-8	0.00	0.00	0.00	0.01	100	0.21	88	78	76	0	7	0	0
	FAIRBANKS	23	-1	26	-14	11	-6	0.00	-0.05	0.00	0.01	5	1.08	95	78	63	0	7	0	0
	JUNEAU	46	28	49	22	37	2	0.27	-0.41	0.21	3.29	101	10.41	86	91	76	0	5	3	0
	KODIAK	38	28	41	5	33	-1	1.78	0.62	0.68	6.14	127	29.59	158	84	72	0	4	4	2
	NOME	15	-5	28	-14	5	-6	0.20	0.09	0.20	0.50	104	1.80	84	89	79	0	7	1	0
AZ	FLAGSTAFF	54	27	63	25	40	2	0.00	-0.48	0.00	1.14	47	4.03	56	67	18	0	7	0	0
	PHOENIX	81	58	87	55	69	4	0.00	-0.18	0.00	0.51	53	4.25	165	40	23	0	0	0	0
	TUCSON	78	50	86	47	64	3	0.00	-0.11	0.00	0.52	72	1.62	63	43	22	0	0	0	0
	YUMA	84	59	90	55	71	3	0.00	-0.03	0.00	0.24	120	1.35	157	41	22	1	0	0	0
AR	FORT SMITH	70	42	81	34	56	1	0.00	-0.84	0.02	1.99	55	5.69	66	86	42	0	0	2	0
	LITTLE ROCK	70	45	79	39	57	1	0.95	-0.24	0.89	2.47	55	8.18	72	94	48	0	0	3	1
CA	BAKERSFIELD	74	47	81	43	61	2	0.01	-0.25	0.01	0.37	29	2.02	55	84	54	0	0	1	0
	FRESNO	73	48	79	45	61	4	0.00	-0.41	0.00	0.64	31	2.29	36	81	52	0	0	0	0
	LOS ANGELES	70	54	80	50	62	3	0.00	-0.39	0.00	0.76	34	5.58	67	73	58	0	0	0	0
	REDDING	68	48	81	41	58	4	0.26	-0.74	0.10	3.29	68	12.30	73	67	52	0	0	2	0
	SACRAMENTO	70	46	76	42	58	3	0.21	-0.29	0.18	1.90	73	4.57	46	85	40	0	0	2	0
	SAN DIEGO	70	56	79	53	63	2	0.00	-0.44	0.00	1.38	66	6.27	98	80	60	0	0	0	0
	SAN FRANCISCO	65	49	75	46	57	3	0.25	-0.34	0.24	1.20	39	5.11	44	78	61	0	0	2	0
	STOCKTON	71	45	77	40	58	2	0.09	-0.34	0.09	1.12	53	2.80	38	88	60	0	0	1	0
CO	ALAMOSA	52	18	62	6	35	0	0.00	-0.11	0.00	0.37	97	0.66	79	74	25	0	7	0	0
	CO SPRINGS	53	27	67	14	40	0	0.50	0.23	0.50	0.90	99	1.49	97	84	26	0	4	1	1
	DENVER INTL	45	27	60	20	36	-5	0.17	0.01	0.09	3.06	387	3.56	285	86	51	0	7	2	0
	GRAND JUNCTION	56	32	68	20	44	-2	0.32	0.10	0.27	0.72	82	1.87	94	66	35	0	3	2	0
	PUEBLO	60	31	74	18	46	2	0.12	-0.13	0.11	0.74	89	1.56	110	74	48	0	3	2	0
CT	BRIDGEPORT	57	38	64	33	47	5	1.06	0.08	0.82	3.73	98	9.28	89	92	64	0	0	3	1
	HARTFORD	61	36	70	31	49	8	0.74	-0.17	0.60	2.79	78	8.35	81	85	46	0	1	2	1
DC	WASHINGTON	68	46	76	41	57	7	0.87	0.11	0.43	3.79	113	11.64	127	88	51	0	0	3	0
DE	WILMINGTON	64	41	73	35	52	6	0.62	-0.25	0.27	4.36	119	11.40	115	96	46	0	0	3	0
FL	DAYTONA BEACH	76	60	81	55	68	2	3.16	2.30	2.81	10.38	294	16.06	171	100	59	0	0	2	1
	JACKSONVILLE	77	56	83	49	67	4	0.24	-0.66	0.23	10.28	283	15.03	144	96	49	0	0	2	0
	KEY WEST	81	70	85	66	75	0	1.29	0.84	0.78	2.98	178	4.77	88	93	55	0	0	4	1
	MIAMI	84	68	89	63	76	3	1.25	0.59	1.24	3.81	167	5.07	81	88	55	0	0	2	1
	ORLANDO	79	60	85	54	70	1	1.56	0.76	1.34	5.28	161	7.65	95	95	61	0	0	2	1
	PENSACOLA	74	54	78	46	65	2	0.39	-1.00	0.38	6.73	113	12.63	79	94	59	0	0	2	0
	TALLAHASSEE	77	52	81	45	64	1	0.19	-1.18	0.11	6.93	114	14.12	88	92	48	0	0	3	0
	TAMPA	78	61	81	54	69	0	1.22	0.66	1.17	3.86	147	6.88	91	92	59	0	0	2	1
	WEST PALM	82	65	85	59	74	3	2.71	1.78	1.90	7.23	215	9.16	95	85	64	0	0	4	2
GA	ATHENS	73	50	77	44	62	6	0.48	-0.55	0.47	5.56	119	11.84	86	86	48	0	0	2	0
	ATLANTA	71	51	76	42	61	4	0.22	-0.88	0.18	6.83	136	12.37	84	87	54	0	0	2	0
	AUGUSTA	77	51	82	41	64	6	0.00	-0.98	0.00	6.84	159	12.57	97	93	41	0	0	0	0
	COLUMBUS	75	51	80	45	63	3	0.15	-1.06	0.15	5.70	106	13.52	92	89	43	0	0	1	0
	MACON	76	51	79	42	64	6	0.06	-0.95	0.05	7.99	175	14.62	104	91	43	0	0	2	0
	SAVANNAH	78	55	84	47	66	5	0.10	-0.78	0.09	7.55	227	11.62	114	98	51	0	0	2	0
HI	HILO	83	67	87	64	75	3	0.69	-2.82	0.63	1.33	10	8.03	25	83	73	0	0	2	1
	HONOLULU	82	70	84	67	76	1	0.51	0.18	0.47	1.62	93	3.93	58	78	70	0	0	3	0
	KAHULUI	83	66	87	61	74	1	0.06	-0.46	0.06	0.74	35	8.50	103	83	75	0	0	1	0
	LIHUE	80	69	82	64	74	1	1.00	0.23	0.99	4.69	142	11.20	100	81	71	0	0	2	1
ID	BOISE	50	34	59	26	42	-4	0.90	0.60	0.68	1.52	122	4.00	106	70	49	0	3	3	1
	LEWISTON	54	35	63	29	45	-2	0.13	-0.12	0.08	2.20	224	5.89	192	81	56	0	1	2	0
	POCATELLO	49	26	53	21	37	-3	0.12	-0.17	0.09	0.58	47	2.01	59	72	47	0	7	3	0
IL	CHICAGO/O'HARE	60	37	74	26	48	7	0.59	-0.13	0.36	1.63	69	2.17	38	83	46	0	2	5	0
	MOLINE	62	36	73	25	49	6	0.90	0.13	0.67	1.51	57	2.41	42	85	48	0	2	3	1
	PEORIA	62	37	77	28	50	6	0.86	0.17	0.55	1.96	76	3.56	62	89	40	0	2	3	1
	ROCKFORD	59	34	70	25	46	6	0.58	-0.08	0.38	1.52	72	2.02	41	86	49	0	3	5	0
	SPRINGFIELD	63	38	76	28	51	6	0.37	-0.37	0.32	1.71	59	3.61	57	80	46	0	2	2	0
IN	EVANSVILLE	67	40	75	35	53	4	0.91	-0.08	0.56	2.60	66	8.66	87	81	50	0	0	2	1
	FORT WAYNE	61	35	72	27	48	6	1.46	0.74	1.43	2.37	92	5.06	77	88	45	0	1	2	1
	INDIANAPOLIS	64	40	74	32	52	7	1.75	0.95	1.16	3.20	101	7.91	98	85	44	0	1	2	2
	SOUTH BEND	61	36	75	25	48	7	0.25	-0.49	0.20	1.26	48	3.39	49	83	47	0	2	2	0
IA	BURLINGTON	61	38	76	29	50	6	0.75	0.02	0.66	1.20	45	2.86	52	84	38	0	1	4	1
	CEDAR RAPIDS	58	33	70	23	46	5	0.10	-0.51	0.05	0.28	14	1.18	29	86	35	0	5	4	0
	DES MOINES	59	37	73	28	48	6	0.18	-0.43	0.08	0.71	36	2.87	69	73	36	0	2	3	0
	DUBUQUE	55	34	66	24	45	6	0.25	-0.42	0.11	0.62	27	1.29	26	81	49	0	4	3	0
	SIoux CITY	57	31	77	25	44	3	1.18	0.65	1.12	1.63	92	2.81	94	80	49	0	4	3	1
	WATERLOO	58	34	73	22	46	7	0.54	-0.04	0.38	0.98	52	1.83	48	82	47	0	4	3	0
KS	CONCORDIA	62	39	76	25	51	5	0.00	-0.54	0.00	1.87	88	3.09	88	66	39	0	2	0	0
	DODGE CITY	61	35	75	23	48	1	0.00	-0.46	0.00	2.31	140	3.69	126	81	37	0	2	0	0
	GOODLAND	58	31	75	21	45	3	0.02	-0.24	0.02	1.20	112	2.05	106	82	49	0	3	1	0
	TOPEKA	65	37	76	28	51	3	0.01	-0.62	0.01	0.82	35	2.70	61	77	44	0	1	1	0

Weather Data for the Week Ending March 29, 2003

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 Mar 1	PCT. NORMAL SINCE Mar 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	62	40	74	29	51	2	0.00	-0.63	0.00	3.53	143	5.59	129	81	46	0	1	0	0
KY JACKSON	70	45	78	36	57	7	0.81	-0.10	0.57	1.44	35	11.42	101	83	43	0	0	2	1
KY LEXINGTON	66	43	74	33	54	5	0.25	-0.69	0.15	1.08	26	6.88	64	86	50	0	0	3	0
KY LOUISVILLE	70	44	77	35	57	7	0.64	-0.30	0.37	2.03	50	7.29	69	89	39	0	0	4	0
KY PADUCAH	69	42	75	35	55	4	0.42	-0.56	0.27	2.02	51	9.77	86	88	43	0	0	2	0
LA BATON ROUGE	73	52	81	47	63	1	0.22	-0.97	0.13	2.14	46	9.92	62	99	51	0	0	2	0
LA LAKE CHARLES	71	53	78	49	62	-1	0.36	-0.45	0.33	3.73	114	10.29	85	96	61	0	0	4	0
LA NEW ORLEANS	74	55	79	48	65	1	2.23	1.02	2.09	4.47	93	9.23	57	94	69	0	0	2	1
LA SHREVEPORT	70	49	79	44	59	-2	0.50	-0.41	0.28	2.27	59	10.36	82	91	47	0	0	4	0
ME CARIBOU	41	30	49	24	36	7	0.49	-0.09	0.23	1.94	83	6.03	82	95	73	0	5	4	0
ME PORTLAND	51	33	58	28	42	5	0.47	-0.52	0.31	2.83	74	7.31	66	94	59	0	3	3	0
MD BALTIMORE	65	40	75	35	53	6	0.73	-0.10	0.31	3.73	102	13.03	129	91	54	0	0	3	0
MA BOSTON	59	40	69	35	50	8	0.81	-0.07	0.67	2.52	71	8.42	78	90	50	0	0	2	1
MA WORCESTER	57	37	65	34	47	10	1.06	0.08	0.81	2.74	70	9.53	86	91	45	0	0	3	1
MI ALPENA	52	27	64	17	39	7	0.28	-0.23	0.20	1.57	81	2.07	41	89	54	0	5	3	0
MI GRAND RAPIDS	57	33	71	24	45	7	0.35	-0.34	0.20	1.29	56	2.81	48	91	52	0	3	3	0
MI HOUGHTON LAKE	51	28	64	19	39	6	0.41	-0.11	0.33	0.82	45	1.17	25	89	64	0	4	2	0
MI LANSING	59	30	71	23	45	7	0.67	0.03	0.56	1.29	62	1.85	36	89	54	0	4	2	1
MI MUSKEGON	53	32	66	26	43	6	0.63	0.02	0.32	1.30	61	1.82	31	91	67	0	4	5	0
MI TRAVERSE CITY	50	30	65	22	40	6	0.88	0.34	0.72	1.65	94	2.35	36	89	55	0	5	3	1
MN DULUTH	43	28	56	22	36	7	0.09	-0.36	0.08	0.29	19	0.72	21	81	57	0	6	2	0
MN INT'L FALLS	43	26	66	17	35	7	0.33	0.08	0.27	0.46	56	0.65	28	87	52	0	6	3	0
MN MINNEAPOLIS	52	34	72	28	43	7	0.59	0.09	0.57	1.44	87	2.22	64	85	49	0	3	2	1
MN ROCHESTER	49	32	66	26	41	6	1.56	1.02	1.30	2.01	122	2.97	89	89	60	0	5	4	1
MN ST. CLOUD	50	29	66	24	40	7	0.02	-0.42	0.02	0.38	29	1.14	43	89	41	0	6	1	0
MS JACKSON	73	48	82	44	60	1	0.36	-1.02	0.28	4.08	77	14.50	94	95	45	0	0	4	0
MS MERIDIAN	74	48	81	41	61	2	0.23	-1.31	0.23	3.81	59	12.18	69	95	51	0	0	1	0
MS TUPELO	72	45	78	43	58	2	1.01	-0.34	0.43	2.88	49	12.12	77	94	56	0	0	4	0
MO COLUMBIA	64	40	79	29	52	4	0.86	0.09	0.60	2.82	97	5.09	74	85	46	0	1	3	1
MO KANSAS CITY	63	39	74	30	51	4	0.00	-0.56	0.00	1.18	53	2.39	51	84	38	0	1	0	0
MO SAINT LOUIS	67	44	79	34	55	6	0.33	-0.50	0.30	2.80	85	5.74	75	79	54	0	0	2	0
MO SPRINGFIELD	63	36	77	28	50	1	1.01	0.05	0.85	2.78	80	6.82	87	82	55	0	2	2	1
MT BILLINGS	50	30	57	26	40	1	0.01	-0.27	0.01	0.60	62	1.80	77	73	32	0	5	1	0
MT BUTTE	41	21	50	17	31	-2	0.12	-0.07	0.09	0.40	55	1.95	113	86	39	0	7	2	0
MT GLASGOW	50	24	55	14	37	2	0.08	-0.03	0.07	0.17	44	0.57	57	88	40	0	6	2	0
MT GREAT FALLS	48	24	55	19	36	0	0.19	-0.06	0.19	0.34	39	1.07	52	81	32	0	7	1	0
MT HAVRE	51	23	56	18	37	1	0.00	-0.14	0.00	0.18	31	0.54	38	83	37	0	7	0	0
MT KALISPELL	42	29	45	27	36	-2	0.34	0.11	0.16	1.25	126	2.32	64	88	68	0	7	6	0
MT MISSOULA	46	29	54	24	38	-2	0.39	0.20	0.21	1.39	170	4.04	152	86	64	0	6	4	0
NE GRAND ISLAND	59	34	78	21	46	4	0.16	-0.36	0.16	0.57	31	2.21	72	77	42	0	2	1	0
NE LINCOLN	61	33	76	20	47	4	0.00	-0.56	0.00	0.85	43	2.88	87	77	39	0	4	0	0
NE NORFOLK	59	33	80	23	46	5	0.54	0.04	0.46	0.65	37	1.76	57	77	41	0	4	2	0
NE NORTH PLATTE	56	28	78	15	42	1	0.14	-0.16	0.07	1.28	117	2.12	107	88	35	0	6	2	0
NE OMAHA	60	35	74	28	47	4	0.07	-0.47	0.02	0.50	26	2.17	62	81	44	0	3	4	0
NE SCOTTSBLUFF	49	27	69	17	38	-2	0.43	0.14	0.29	1.32	129	2.03	95	88	48	0	4	3	0
NE VALENTINE	54	26	77	12	40	2	0.09	-0.18	0.09	0.76	79	1.34	77	77	37	0	6	1	0
NV ELY	51	23	61	12	37	-1	0.09	-0.12	0.08	0.42	45	1.12	46	79	41	0	6	2	0
NV LAS VEGAS	73	54	81	45	64	4	0.00	-0.07	0.00	0.33	63	2.46	137	32	21	0	0	0	0
NV RENO	59	37	68	28	48	3	0.08	-0.05	0.08	0.31	40	0.70	24	63	39	0	2	1	0
NH WINNEMUCCA	57	27	68	18	42	0	0.52	0.33	0.44	0.63	83	2.52	114	79	43	0	5	2	0
NH CONCORD	57	30	66	24	44	7	0.87	0.15	0.46	2.74	99	8.64	107	100	48	0	5	3	0
NJ NEWARK	63	44	75	39	53	8	0.56	-0.40	0.30	3.92	101	10.78	100	75	49	0	0	2	0
NM ALBUQUERQUE	62	36	73	27	49	-1	0.01	-0.10	0.01	1.45	279	2.47	170	61	21	0	2	1	0
NY ALBANY	58	35	67	28	46	7	0.72	-0.02	0.55	1.65	59	7.26	97	86	49	0	3	2	1
NY BINGHAMTON	56	34	68	26	45	9	0.61	-0.10	0.41	2.07	77	6.79	88	90	66	0	3	2	0
NY BUFFALO	57	35	73	30	46	8	0.69	-0.02	0.35	2.74	100	7.71	93	93	50	0	2	3	0
NY ROCHESTER	58	36	70	30	47	10	0.53	-0.09	0.30	1.88	81	5.88	88	88	61	0	1	3	0
NY SYRACUSE	58	33	75	28	46	9	0.73	-0.01	0.46	2.55	93	6.59	88	92	52	0	4	3	0
NC ASHEVILLE	67	42	73	34	54	5	0.09	-0.90	0.09	3.84	90	9.49	78	88	48	0	0	1	0
NC CHARLOTTE	73	51	80	44	62	6	0.09	-0.82	0.08	5.94	146	11.52	99	88	43	0	0	2	0
NC GREENSBORO	74	49	80	42	62	10	0.07	-0.77	0.05	5.69	160	12.96	127	82	37	0	0	2	0
NC HATTERAS	67	56	74	50	61	6	0.41	-0.67	0.24	5.75	125	11.30	79	92	66	0	0	4	0
NC RALEIGH	74	48	80	41	61	7	0.25	-0.57	0.21	4.37	116	10.90	97	84	48	0	0	4	0
NC WILMINGTON	73	51	80	42	62	4	0.03	-0.83	0.01	5.03	128	10.75	89	99	54	0	0	3	0
ND BISMARCK	48	24	63	17	36	2	0.15	-0.06	0.12	0.26	36	0.76	45	82	53	0	6	3	0
ND DICKINSON	45	22	53	10	34	0	0.00	-0.23	0.00	2.03	376	2.18	163	89	29	0	6	0	0
ND FARGO	50	26	73	20	38	6	0.09	-0.19	0.08	0.21	21	0.67	28	88	47	0	6	2	0
ND GRAND FORKS	46	26	63	20	36	6	0.28	0.06	0.26	0.38	49	0.78	38	93	57	0	6	2	0
ND JAMESTOWN	46	23	68	18	35	3	0.08	-0.14	0.08	0.21	28	0.36	19	93	48	0	7	1	0
ND WILLISTON	47	24	56	12	35	2	0.07	-0.10	0.05	1.76	284	2.72	175	88	54	0	7	3	0
OH AKRON-CANTON	63	39	75	31	51	10	1.11	0.39	0.60	2.79	97	6.50	85	88	58	0	2	3	1
OH CINCINNATI	66	40	73	33	53	6	0.98	0.07	0.43	2.54	71	7.79	84	90	47	0	0	3	0
OH CLEVELAND	61	39	76	32	50	9	0.90	0.19	0.53	2.30	86	7.02	94	87	48	0	1	4	1
OH COLUMBUS	66	43	77	36	54	9	1.08	0.40	0.52	2.25	85	6.86	93	80	50	0	0	3	2
OH DAYTON	63	41	72	32	52	8	1.00	0.17	0.39	2.65	89	5.94	75	85	43	0	1	3	0
OH MANSFIELD	61	37	74	29	49	9	0.89	0.03	0.50	2.48	84	5.76	74	94	50	0	2	2	1

Based on 1971-2000 normals

\*\*\* Not Available

Weather Data for the Week Ending March 29, 2003

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 Mar 1	PCT. NORMAL SINCE Mar 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	61	35	73	28	48	7	0.58	-0.09	0.45	1.71	72	4.88	79	86	51	0	3	3	0
	YOUNGSTOWN	62	38	76	29	50	10	0.83	0.09	0.41	2.28	82	6.21	87	87	57	0	2	3	0
	OKLAHOMA CITY	65	40	77	29	52	-2	0.72	0.10	0.31	1.28	48	2.15	39	88	38	0	1	3	0
	TULSA	68	42	81	32	55	0	0.68	-0.13	0.46	3.25	99	5.17	76	87	49	0	1	3	0
OR	ASTORIA	55	39	66	30	47	0	1.01	-0.53	0.28	13.17	191	30.68	126	92	80	0	1	5	0
	BURNS	49	26	61	20	37	-2	0.20	-0.04	0.15	1.18	104	2.53	74	84	59	0	6	2	0
	EUGENE	56	39	69	33	48	1	0.98	-0.19	0.44	5.70	105	15.16	78	96	84	0	0	5	0
	MEDFORD	59	37	74	31	48	0	0.74	0.38	0.60	2.08	122	6.30	100	95	45	0	3	2	1
	PENDLETON	56	37	68	31	47	0	0.22	-0.05	0.16	1.70	150	5.68	149	79	58	0	1	2	0
	PORTLAND	57	40	71	33	48	0	0.71	-0.03	0.41	5.61	163	15.97	126	94	77	0	0	5	0
	SALEM	57	38	69	29	47	0	0.51	-0.30	0.18	4.74	122	14.90	101	95	82	0	1	5	0
PA	ALLENTOWN	64	37	69	32	51	9	0.72	-0.08	0.38	3.40	104	7.92	83	86	46	0	1	3	0
	ERIE	59	37	76	30	48	8	1.28	0.51	0.70	2.23	79	8.12	106	97	72	0	2	3	2
	MIDDLETOWN	63	38	69	32	51	6	1.01	0.31	0.52	3.98	132	10.52	120	97	52	0	1	2	1
	PHILADELPHIA	66	44	74	39	55	9	0.59	-0.27	0.36	3.96	113	10.93	112	87	68	0	0	2	0
	PITTSBURGH	65	38	76	31	52	9	0.26	-0.46	0.18	1.33	46	6.35	80	88	43	0	2	3	0
	WILKES-BARRE	61	38	69	31	50	9	0.53	-0.13	0.29	1.46	60	4.50	64	89	49	0	1	2	0
	WILLIAMSPORT	62	37	72	30	49	8	0.69	-0.07	0.54	2.64	90	7.65	91	91	56	0	1	3	1
RI	PROVIDENCE	58	38	65	33	48	6	0.68	-0.37	0.61	3.67	90	9.47	80	91	59	0	0	2	1
SC	BEAUFORT	76	57	83	49	66	6	0.00	-0.88	0.00	3.53	105	7.56	72	97	49	0	0	0	0
	CHARLESTON	77	55	84	47	66	6	0.00	-0.90	0.00	6.96	188	10.44	96	92	48	0	0	0	0
	COLUMBIA	77	52	83	42	65	7	0.00	-1.00	0.00	7.08	167	12.04	94	90	43	0	0	0	0
	GREENVILLE	73	49	77	42	61	7	0.10	-0.98	0.10	6.17	124	12.12	89	83	43	0	0	1	0
SD	ABERDEEN	53	24	76	17	38	3	0.02	-0.33	0.02	0.39	33	1.08	51	86	48	0	7	1	0
	HURON	55	27	76	18	41	4	0.00	-0.44	0.00	0.13	9	1.39	55	83	36	0	5	0	0
	RAPID CITY	51	26	73	9	39	1	0.00	-0.27	0.00	1.05	118	1.59	92	73	30	0	5	0	0
	SIoux FALLS	55	30	76	23	42	5	0.03	-0.47	0.03	0.33	21	1.29	49	81	42	0	5	1	0
TN	BRISTOL	67	39	73	35	53	4	0.34	-0.46	0.19	2.39	66	11.18	106	93	42	0	0	2	0
	CHATTANOOGA	72	47	78	40	59	5	0.49	-0.83	0.49	3.57	62	13.98	87	84	48	0	0	1	0
	KNOXVILLE	70	44	77	38	57	5	0.51	-0.58	0.50	1.82	38	13.70	102	86	49	0	0	2	1
	MEMPHIS	71	47	77	41	59	3	0.33	-0.97	0.31	1.68	33	10.80	79	83	41	0	0	2	0
	NASHVILLE	70	43	77	36	56	3	1.22	0.18	0.70	2.30	51	12.34	101	93	42	0	0	4	1
TX	ABILENE	70	44	86	32	57	-2	0.00	-0.30	0.00	0.48	38	1.62	48	77	41	0	1	0	0
	AMARILLO	64	33	78	24	48	-2	0.40	0.12	0.40	0.60	60	0.84	39	83	26	0	3	1	0
	AUSTIN	72	43	80	33	58	-6	0.41	0.00	0.41	0.99	50	6.55	112	77	58	0	0	1	0
	BEAUMONT	72	54	78	48	63	-1	0.44	-0.44	0.43	1.99	58	9.41	75	95	55	0	0	2	0
	BROWNSVILLE	78	58	85	51	68	-2	0.17	-0.09	0.15	0.61	78	1.87	56	90	61	0	0	3	0
	CORPUS CHRISTI	76	54	80	48	65	-3	0.49	0.13	0.49	1.29	82	3.65	73	91	59	0	0	1	0
	DEL RIO	79	52	94	39	66	0	0.00	-0.22	0.00	0.69	82	1.46	62	70	42	2	0	0	0
	EL PASO	70	44	82	37	57	-2	0.00	-0.03	0.00	0.18	95	1.55	150	56	18	0	0	0	0
	FORT WORTH	70	47	78	39	59	-1	0.00	-0.61	0.00	0.85	30	4.16	59	85	43	0	0	0	0
	GALVESTON	70	57	75	50	64	-2	0.49	-0.14	0.47	0.65	26	3.54	38	92	66	0	0	2	0
	HOUSTON	73	52	79	45	63	-1	0.26	-0.51	0.19	2.05	67	8.22	84	93	64	0	0	3	0
	LUBBOCK	70	36	86	27	53	-1	0.16	-0.01	0.12	0.25	40	0.35	19	80	34	0	2	2	0
	MIDLAND	72	42	87	35	57	-1	0.00	-0.06	0.00	0.18	51	1.18	81	71	36	0	0	0	0
	SAN ANGELO	71	45	86	33	58	-2	0.00	-0.19	0.00	1.20	136	3.09	108	72	41	0	0	0	0
	SAN ANTONIO	73	48	82	36	61	-3	0.03	-0.38	0.02	0.78	45	3.91	76	91	47	0	0	2	0
	VICTORIA	74	49	79	37	62	-4	0.44	-0.06	0.30	1.16	56	4.86	74	96	62	0	0	4	0
	WACO	72	49	79	37	60	-1	0.19	-0.29	0.18	1.38	61	4.53	69	87	58	0	0	2	0
	WICHITA FALLS	71	42	86	30	56	-1	0.28	-0.23	0.28	0.47	23	1.38	29	85	37	0	1	1	0
UT	SALT LAKE CITY	53	32	60	26	43	-3	0.39	-0.04	0.35	1.43	82	3.12	70	81	33	0	4	2	0
VT	BURLINGTON	56	34	68	28	45	10	0.69	0.11	0.31	1.86	89	3.83	64	98	56	0	3	4	0
VA	LYNCHBURG	72	41	78	34	56	7	0.27	-0.56	0.17	3.14	89	10.41	102	86	41	0	0	2	0
	NORFOLK	69	49	80	43	59	8	0.19	-0.70	0.15	2.45	65	10.02	91	90	53	0	0	2	0
	RICHMOND	72	44	80	40	58	7	0.84	-0.04	0.60	4.87	128	11.24	109	95	53	0	0	3	1
	ROANOKE	71	40	78	34	55	5	0.47	-0.38	0.19	2.58	73	9.83	100	75	40	0	0	3	0
WA	WASH/DULLES	69	38	76	33	53	6	0.54	-0.24	0.30	3.05	93	10.87	120	87	51	0	0	3	0
	OLYMPIA	55	36	69	25	45	1	0.76	-0.33	0.53	7.61	154	19.39	104	96	82	0	1	5	1
	QUILLAYUTE	52	37	61	32	45	1	1.27	-0.93	0.60	14.34	139	31.53	87	94	76	0	1	5	1
	SEATTLE-TACOMA	54	40	65	34	47	0	0.31	-0.47	0.12	6.33	182	16.08	126	91	72	0	0	4	0
	SPOKANE	50	31	57	26	40	-2	0.45	0.15	0.39	2.13	153	6.04	128	88	51	0	4	3	0
	YAKIMA	58	29	68	24	43	-1	0.11	-0.03	0.05	0.55	93	3.03	118	81	48	0	6	3	0
WV	BECKLEY	64	36	72	29	50	5	0.34	-0.44	0.22	1.02	30	7.87	82	83	59	0	2	2	0
	CHARLESTON	69	39	78	31	54	6	0.49	-0.33	0.33	1.58	44	10.85	108	93	46	0	2	2	0
	ELKINS	64	32	74	28	48	5	0.33	-0.51	0.17	1.52	42	8.09	79	95	42	0	5	2	0
	HUNTINGTON	70	42	79	34	56	7	0.52	-0.29	0.37	1.41	40	8.60	87	89	41	0	0	2	0
WI	EAU CLAIRE	51	32	68	25	42	7	1.19	0.65	0.79	1.76	108	2.72	78	84	36	0	5	3	1
	GREEN BAY	49	33	62	26	41	6	0.89	0.34	0.58	2.15	117	3.30	81	92	58	0	5	2	1
	LA CROSSE	53	33	70	26	43	4	1.27	0.68	0.91	2.30	131	3.39	86	88	41	0	5	4	1
	MADISON	53	32	65	22	43	6	0.84	0.20	0.69	1.49	74	2.34	51	79	53	0	5	3	1
	MILWAUKEE	53	37	68	28	45	7	0.34	-0.38	0.32	1.12	49	1.90	33	77	55	0	2	2	0
WY	CASPER	44	21	61	6	33	-5	0.28	0.09	0.27	0.83	104	1.45	72	85	55	0	6	2	0
	CHEYENNE	45	26	63	17	35	-1	0.34	0.09	0.16	0.72	79	1.02	57	76	46	0	5	4	0
	LANDER	45	25	58	13	35	-3	0.28	-0.04	0.22	0.96	90	2.37	111	76	56	0	5	2	0
	SHERIDAN	47	26	58	20	37	-1	0.25	-0.01	0.19	1.39	164	2.56	117	83	57	0	7	3	0

## National Agricultural Summary

March 24 - 30, 2003

*Weekly National Agricultural Summary provided by USDA/NASS*

### HIGHLIGHTS

Most areas enjoyed warm weather early in the week, except a band stretching from the northern Rockies to Texas. By week's end, a cold front had covered much of the eastern part of the country. Snow in the Northeast halted outdoor activities. In the Pacific Northwest, warm weather supported planting of small grains in most areas, while some other areas experienced rain delays. Dry weather prevailed over most of the Great Plains, western Corn Belt, and Great Lakes, but cold weather limited small grain seeding. In Texas, precipitation helped small grains and reduced the pre-planting irrigation water requirements for row crops. In drier areas, small grains continued to be stressed. Planting of spring crops continued at a moderate rate where soil

moisture and temperatures were adequate. Temperatures were near normal to slightly above normal in the Southeast, until the cold front moved through at week's end. Planting preparations advanced, despite recent rains. Showers and above-normal temperatures stimulated development of winter grains and forages along the eastern Gulf Coast, as well as adjacent areas of the interior Southeast and Atlantic Coastal Plains. Most of Florida's citrus belt had at least 2 days of scattered rain. Weak cold fronts moved up and down Florida's peninsula, depositing varying amounts of useful moisture. Most citrus groves were in very good to excellent condition as a result of abundant rainfall during March.

**Winter Wheat:** The Nation's winter wheat condition was rated as 3 percent (%) very poor, 11 % poor, 35 % fair, 43 % good, and 8 % excellent. Fifteen percent of Kansas wheat was jointed, compared with 10 % last year and 16 % for the 5-year average. Wheat freeze damage reports indicate 88 % of the wheat with no damage, 9 % with light damage, and 3 % with moderate damage. Seventy-two percent of Oklahoma wheat was jointing, significantly ahead of the 5-year average of 54 %. In Texas, wheat condition was rated at 66 % of normal, compared with 43 % last year. Warmer weather and rain showers combined to help the wheat crop begin its spring greening in the middle Mississippi Valley. Warm weather in the northern Great Plains allowed the crop to progress ahead of last year's pace.

**Oats:** One percent of the oat crop was planted, compared with 3 % planted at this time last year, and behind the 4 %, 5-year average. Dry weather favored seedbed preparation across the northern Corn Belt and adjacent parts of the Great Plains, but cool

weather after midweek delayed planting progress in most areas.

**Rice:** Seven percent of the rice crop was planted, 1 percentage point behind last year and equal to the 5-year average. Rice planting progressed well in Louisiana, advancing 16 % for the week. Despite the progress made last week, planting remained behind that of last year and the 5-year average. Wet weather delayed planting in interior areas of the Mississippi Delta. Planting progressed in Texas, but wet field conditions delayed some producers.

**Sorghum:** Ten percent of the sorghum acreage was planted, compared with 12 % at this time last year, and 1 percentage point behind the average for this date. In Texas, land preparations continued in drier locations, but were slowed in areas with rain. Planting continued in parts of the Valley and in southern and central Texas. Early-planted fields continued to emerge and benefited from good moisture levels.

# Crop Progress and Condition

Week Ending March 30, 2003

Weekly U.S. Crop Progress and Condition Tables provided by USDA/NASS

Winter Wheat Crop Condition by Percent					
	VP	P	F	G	EX
AR	1	10	27	49	13
CA	0	0	5	45	50
CO	6	13	33	45	3
ID	0	1	14	81	4
IL	0	2	26	55	17
IN	0	2	32	56	10
KS	4	14	38	37	7
MI	0	10	40	40	10
MO	1	4	30	56	9
MT	2	9	58	26	5
NE	8	20	41	30	1
NC	3	15	38	43	1
OH	2	4	20	56	18
OK	0	4	25	58	13
OR	0	17	54	27	2
SD	6	17	41	31	5
TX	6	15	36	37	6
WA	2	9	40	42	7
18 Sts	3	11	35	43	8
Prev Wk	NA	NA	NA	NA	NA
Prev Yr	NA	NA	NA	NA	NA

National crop conditions for selected States are weighted based upon the year 2001 planted acres.

Oats Percent Planted				
	Mar 30 2002	Prev Week	Prev Year	5-Yr Avg
IA	0	NA	11	12
MN	0	NA	0	0
NE	10	NA	13	22
ND	0	NA	0	0
OH	1	NA	5	11
PA	2	NA	9	4
SD	1	NA	0	3
WI	0	NA	1	4
8 Sts	1	NA	3	4

These 8 States planted 53% of last year's oat acreage.

Rice Percent Planted				
	Mar 30 2002	Prev Week	Prev Year	5-Yr Avg
AR	2	NA	0	0
CA	0	NA	0	0
LA	23	NA	32	29
MS	0	NA	0	1
MO	0	NA	0	0
TX	37	NA	42	28
6 Sts	7	NA	8	7

These 6 States planted 100% of last year's rice acreage.

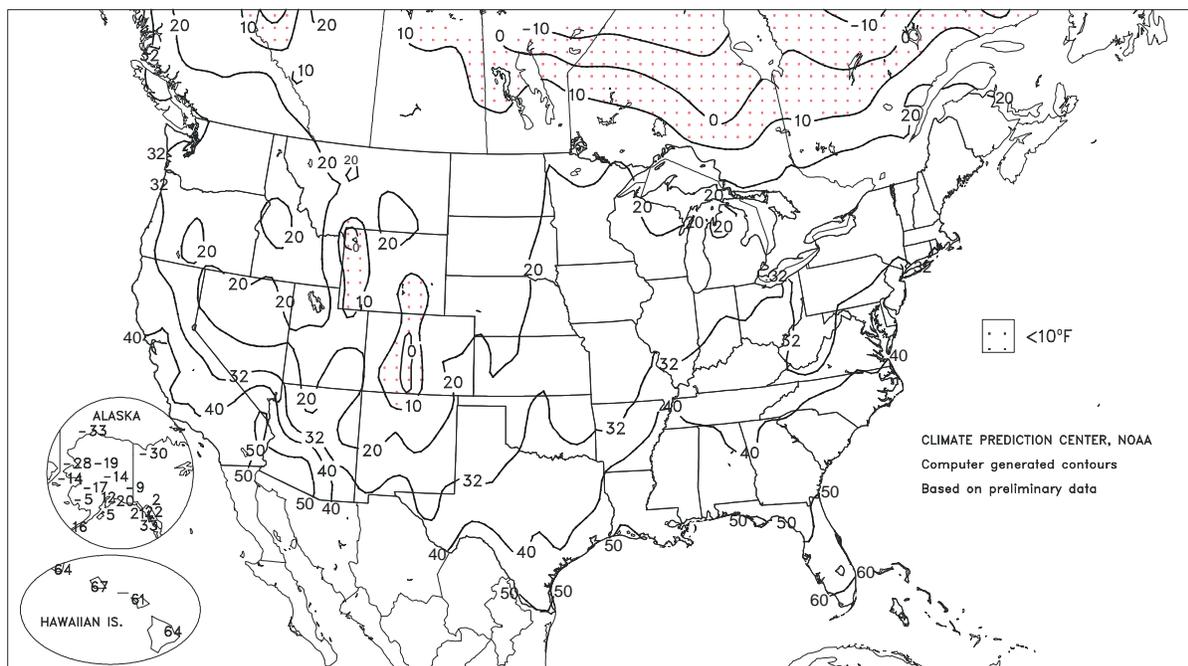
Sorghum Percent Planted				
	Mar 30 2002	Prev Week	Prev Year	5-Yr Avg
AR	2	NA	0	1
CO	0	NA	0	0
IL	0	NA	0	0
KS	0	NA	0	0
LA	0	NA	2	0
MO	0	NA	0	0
NE	0	NA	0	0
NM	0	NA	0	0
OK	0	NA	0	0
SD	0	NA	0	0
TX	29	NA	34	31
11 Sts	10	NA	12	11

These 11 States planted 97% of last year's sorghum acreage.

**VP - Very Poor**  
**P - Poor**  
**F - Fair**  
**G - Good**  
**EX - Excellent**

Extreme Minimum Temperature (°F)

MAR 23 - 29, 2003



## State Agricultural Summaries

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

**ALABAMA:** Days suitable for fieldwork 5.3. Corn planted 18%, 11% 2002, 12% avg. Winter wheat 2% poor, 30% fair, 62% good, 6% excellent. Pasture feed 3% very poor, 5% poor, 38% fair, 42% good, 12% excellent. Livestock 4% very poor, 9% poor, 25% fair, 50% good, 12% excellent. Peach growers worried about recent cold weather while maintaining insect, disease control spray schedules. Farmers are spreading lime, fertilizer, chicken litter. Activities: Ground preparation for planting, fertilizing, spraying pastures, general care of livestock, poultry, catfish.

**ALASKA: DATA NOT AVAILABLE**

**ARIZONA:** Temperatures for most of the state were above average for the week. Alfalfa conditions ranged from fair to mostly good. Sheep continued to graze on alfalfa fields for winter pasture. Small Grains emergence is virtually completed, while heading is underway. Range, Pasture feeds have improved due to the recent precipitation. There were 17 of the 17 reporting stations above normal percentage levels

**ARKANSAS: DATA NOT AVAILABLE**

**CALIFORNIA:** Cotton planting began in several locations. Pre-plant irrigation, herbicide applications to new planting beds continued in areas where cotton planting had not yet started. Preparation of corn fields for planting continued. Fields of wheat, barley, oats and winter forage were thriving. Seed head development in small grain fields was widespread as crop maturity advanced. There were reports of rust in a number of wheat fields. Grain planted for hay or silage was cut, windrowed, and dried or green chopped. Alfalfa for hay and seed continued to make good progress. Pesticide applications were made to control weevils. Alfalfa hay fields continued to be cut, windrowed and baled in many areas. Vigorous growth continued in sugar beet fields, as irrigation and cultivation were in progress in several locations. Conditions were good for the continued planting of safflower and sunflower. New shoots and leaves were growing rapidly in raisin, wine, and table grape vineyards. Growers cultivated, irrigated, and treated vineyards to prevent disease and insect damage. Fruit continued to develop in early variety stone fruit orchards. A light fruit set was reported in some locations due to early season rains. A few growers in the Central Valley began thinning fruit in apricot and plum orchards. Girdling activities commenced in a few plum orchards to improve fruit size. Cherry and apple trees continued to bloom. Irrigation, cultivation, herbicide application, and treatments to prevent disease and insect damage continued in many tree fruit orchards. Many growers released predatory insects to combat insect pests using biological control methods. Ground preparation and planting of new tree fruit orchards continued in several areas. Strawberry fields were full of blooms. Heavy fruit set and rapid berry growth were reported. Irrigation was underway in many citrus orchards. Open flowers became evident in orange orchards in the Central Valley. Picking and packing of Navel and Valencia oranges, lemons, and grapefruit continued. Puff and rind breakdown continued to lower Navel orange packouts. Minneola harvesting was winding down. Fruit began to show in almond orchards. Early variety walnut orchards started to leaf out and develop flower clusters. Blight spray treatments continued in walnut orchards. Growers irrigated, cultivated, and applied treatments to control diseases, insect pests, and weeds. Winter vegetable harvesting was winding down. Preparation of new fields for planting of tomatoes, sweet corn, melons, and other warm season vegetables continued. Warm weather vegetables growing under hot caps or plastic row covers were thriving as daytime temperatures increased and skies remained clear. Some asparagus fields were tilled for other crops in response to unfavorable market conditions. Plantings of onions and garlic continued to thrive. Irrigation and weed control activities took

place in many onion and garlic fields. New fields of tomatoes were planted for both fresh and processing use. Previously planted tomato fields were thriving. Broccoli, leaf lettuce, head lettuce and asparagus continued to thrive in the San Joaquin Valley. Weeding crews were at work in some unharvested lettuce fields. Harvesting of broccoli, lettuce, and asparagus continued. The following vegetables were also harvested: carrots, cabbage, cauliflower, celery, cilantro, green onions, mustard greens, parsley, radishes, radicchio, and spinach. Rangeland conditions were good overall, and continued to improve. However, some supplemental feeding of cattle still took place. Cattle and sheep grazed on foothill rangeland and fallow fields in the Central Valley. Some sheep were still grazing on alfalfa pastures. In the southern desert area, sheep grazed in alfalfa, sudan, and post-harvest vegetable fields. Bees were active in blooming cherry and apple orchards. Some hives were being placed in orange groves in the Central Valley.

**COLORADO:** Days suitable for field work 4.1. Topsoil 10% very short, 22% short, 66% adequate, 2% surplus. Subsoil 36% very short, 37% short, 26% adequate, 1% surplus. Temperatures were seasonal for the week. The front range received additional moisture totaling up to half an inch. Spring barley 18% seeded, 14% 2002, 25% avg.; 2% emerged, NA% 2002, NA% avg. Dry onions 21% planted, 23% 2002, 37% avg. Sugar beets 6% planted, 5% 2002, 9% avg. Spring wheat 13% planted, 8% 2002, 15% avg.; 2% emerged, NA% 2002, 1% avg. Winter wheat 5% pastured 3% 2002, 7% avg.

**DELAWARE:** Rain and melting snow resulted in fields being too wet and muddy to begin spring preparations. This has delayed the planting of some early season vegetables and topdressing of small grains. Hay is in short supply but feed supplies is fair. Small grains are in fair condition. Livestock and poultry wintered well. Spring activities include spreading manure and fertilizer, spraying small grains, planting peas and potatoes, and preparing fields for spring plantings.

**FLORIDA:** Temperature average: normal to 4 deg. above. Daytime highs: 70s, 80s. Nighttime lows: 50s, 60s; several reports of 40s on at least one day. Rainfall range: less than 0.10 in. at Marianna to over 3.50 in. at Pierson. A cold front crossing on March 30-31 caused both highs, lows to fall well below normal; Crestview low 28, West Palm Beach low 50 on Monday, March 31. Topsoil moisture: 1% very short, 9% short, 80% adequate, 10% surplus. Subsoil moisture: 10% short, 80% adequate, 10% surplus. Some short soil moisture supplies in pockets of southeastern Peninsula, in a few northern Peninsula localities. Some surplus moisture conditions in central Peninsula, Big Bend area. Producers in Panhandle, northern Peninsula preparing land for field crop planting. Sugarcane harvesting continues, Everglades. Growers assessing recent cold temperature damage to tomatoes around Quincy. Okra harvesting underway Dade County; very light supplies available. Other vegetables available: cabbage, carrots, celery, cucumbers, sweet corn, lettuce, peppers, potatoes, radishes, squash, tomatoes; very light supplies of blueberries, eggplant, endive, escarole. Lettuce harvesting virtually finished. Rain two or more days this week, citrus areas. Bloom almost over. However, a few older trees still have open bloom. Warm temperatures hastening the completion of this year's bloom cycle. Valencia harvest increasing for both fresh, processing. Movement of white, colored grapefruit active with most of fruit coming from lower east coast. Tangelo harvest about over for season. Some Honey tangerines, Temples still going to fresh trade, juice plants. Caretakers cutting cover crops, spraying, hedging, topping and pushing out dead trees. Pasture feed: 5% poor, 40% fair, 55% good. Cattle condition: 40% fair, 55% good, 5% excellent. Pasture condition improved from last week all areas. Panhandle: cattle condition, pasture mostly good, however ground quite wet. North: pastures greening up, but grass growth slow; some low lying pastures damaged by standing water.

Central: warmer weather caused forages to green up. Southwest: cattle condition mostly good, pasture condition mostly fair. Statewide: cattle condition good.

**GEORGIA:** Days suitable for field work 4.0. Soil moisture 3% short, 58% adequate, 39% surplus. Corn 5% very poor, 13% poor, 39% fair, 34% good, 9% excellent; 20% planted, 44% 2002, 42% avg; 9% emerged, 23% 2002, 22% avg. Cotton 0% planted, 0% 2002, 0% avg. Hay 1% very poor, 9% poor, 41% fair, 47% good, 2% excellent. Sorghum 0% planted, 1% 2002, 1% avg. Tobacco 55% fair, 40% good, 5% excellent; 3% transplanted, 16% 2002, 13% avg. Wheat 85% jointing, 58% 2002, 66% avg.; 42% boot, 27% 2002, 32% avg.; 6% headed, 5% 2002, 9% avg. Onions 12% poor, 36% fair, 52% good. Watermelons 2% very poor, 4% poor, 61% fair, 32% good, 1% excellent; 14% planted 24% 2002, 21% avg. Apples 25% fair, 25% good, 50% excellent; 2% blooming, 0% 2002, 0% avg. Peaches 4% fair, 96% good; 83% blooming, 69% 2002, 61% avg. This past week was spent drying out from the previous week's rains. Recent rains have replenished soil moisture in most areas throughout the State. Temperatures for the week were near normal to slightly above normal, until a cold front moved through the State during the weekend. Spring planting preparations advanced despite previous weeks rains. Corn planting and tobacco transplanting have been delayed due to wet fields. Growers applied fertilizer and sprayed for weeds in pastures and hay fields. Fungicides were being applied to the onion crop. Some disease reported in wheat. Other activities included preparing land for vegetables, row crops and applying the first spray to pecan trees and routine care of livestock and poultry.

**HAWAII:** The tail of a storm system brought some showers to parts of the State during the past week. East Hawaii banana harvest remained steady. Lower Puna papaya orchards were in fair condition due to lack of moisture. Vegetables remained in mostly fair to good condition with beneficial showers and heavy irrigation.

**IDAHO: DATA NOT AVAILABLE**

**ILLINOIS:** Farmers have begun seeding oats in the north and anhydrous ammonia was being applied recently in central Illinois. Oat seeding advanced to nine percent complete as of March 30, compared to 12 percent last year and the average of 22 percent. Average temperature departure from normal for the month was plus or minus one and one-half degrees. Precipitation for the month ranged from one and one-half inches to nearly three inches. In the Southwest and Southeast Districts, more than half of the topsoil moisture is rated surplus. Farmers in this area have begun spreading nitrogen on their wheat crop with four wheelers as the topsoil is very saturated. As of March 30, topsoil moisture statewide was rated as seven percent very short, 29 percent short, 53 percent adequate and 11 percent surplus. Warmer weather and rain showers during the month have combined to help the wheat crop begin its spring "green up". Other activities during the month included finalizing farm program signup, preparing income taxes, hauling grain, spreading fertilizers and chemicals, planting peas and potatoes, and preparing equipment for spring field work.

**INDIANA:** Temperatures warmed up early in the week allowing for some drying of soils. Temperatures averaged 4° to 10° above normal for the week. Rain and wet soil conditions prevented field activities in most areas of the state during the week. Precipitation averaged 0.07 to 1.92 inches. Dry subsoil conditions exist in some of the northwestern regions of the state. Tillage was underway in some fields, primarily on the well drained lighter type soils. Some fertilizer and pre-plant anhydrous ammonia was applied on fields dry enough to support heavy equipment. Farmers were moving grain to market and preparing equipment for spring planting. Winter wheat is in mostly good condition. Wheat is greening up in the central and northern areas. Some top dressing of wheat occurred. Livestock are in mostly good condition. Spring calving and lambing active. Hay supplies are in short supply, most areas. Hay prices remain high. Good, quality hay difficult to find. Pastures are improving in the southern counties. Lambing and calving continued. Major activities: hauling manure, repairing machinery, visiting

FSA offices, purchasing supplies, soil testing, seeding clover, tiling fields, spreading lime and taking care of livestock.

**IOWA: DATA NOT AVAILABLE**

**KANSAS:** Days suitable for fieldwork 4.2. Most of significant moisture fell in Southeast Kansas. Subsoil moisture in Western and North Central Kansas remains quite low. Topsoil moisture 6% very short, 22% short, 67% adequate, 5% surplus. Subsoil moisture 30% very short, 35% short, 35% adequate. Wheat condition is rated 4% very poor, 14% poor, 38% fair, 37% good, and 7% excellent. Winterkill of wheat is 4%. Wheat jointed is 15%. Most wheat looks pretty good to date, but considerable precipitation will be needed to sustain wheat in our drier areas. Range and pasture conditions are 21% very poor, 30% poor, 34% fair, 14% good, and 1% excellent. Stockwater supplies are 20% very short, 30% short, 50% adequate. Hay and forage supplies are 13% very short, 39% short, 47% adequate, and 1% surplus. Feed grain supplies are 5% very short, 20% short, 73% adequate, and 2% surplus. Calving is winding down and preparation for corn planting is underway.

**KENTUCKY:** March went out like a lion as two storm systems produced periods of showers and thunderstorms on two days. The second of the two systems resulted in temperature fluctuations rarely seen as the strength of its cold front was highlighted by a 30 degrees fluctuation of highs on the weekend. Statewide 3 to 5 days had temperatures at or above 70 degrees earlier in the week. Temperatures hovered near freezing at the weeks end, many parts of northern and eastern Kentucky saw rain change over to light-to-moderate snowfall. Temperatures averaged 54 degrees which was 5 degrees above normal. Precipitation totaled 0.76 in. statewide which was 0.27 in. below normal. Soil moisture was rated adequate statewide. Rain received helped maintain adequate soil moisture. Farmers actively applied fertilizer and prepared fields for seeding. Winter wheat was rated fair to good and was greening with the warmer weather. Pasture growth increased due to the warmer temperatures and sufficient moisture. Livestock condition was considered fair to mostly good after enduring a very wet, muddy and cold winter. Some farmers spent time preparing equipment for spring fieldwork. Tobacco farmers were preparing traditional and float plant beds and seeded flats in their greenhouse.

**LOUISIANA:** Days suitable for fieldwork 4.1. Soil moisture 50% adequate, 50% surplus. Rice 23% planted, 7% last week, 32% 2002, 29% avg. Sorghum 0% planted, 0% last week, 2% 2002, 0% avg.

**MARYLAND:** Livestock and poultry are in good condition. The snow in early March hampered beef calving. Hay supplies are very short. Rain and melting snow left many fields wet and delayed preparations for the coming crop year. Small grains are starting to grow. Peaches are in good condition and beginning to bloom. Spring activities include topdressing nitrogen on wheat, preparing tobacco beds, spreading manure, and preparing fields for spring plantings.

**MICHIGAN:** Warmer weather arrived with the beginning of spring in March. Snow has melted in most areas of the State. Soil moisture levels remain low even with the addition of the snow melt. Feed supplies are variable throughout the State. Some western Upper Peninsula cattle farmers are purchasing hay from Wisconsin to get them through to spring green up. Livestock made it through the winter well. Calving on beef operations and lambing is in full force. Sheep operations are preparing to shear. Grape growers in the northwest Lower Peninsula reported a damaging freeze on March 2; temperatures bottomed out at 14 below zero. The scope of the damage remains unknown. Wheat conditions are variable depending on the amount of winter snow cover. Weather conditions have been poor for maple syrup production. Growers continued to ready equipment for spring planting and pay taxes. Greenhouse work continued.

**MINNESOTA:** Conditions for the month have been relatively mild with minimal precipitation and few cold days. Most of the snow cover is gone. Erosion and frost are concerns. Winter injury to alfalfa and other

perennial crops is a concern. Farmers are preparing for spring field work. Feed supplies and livestock conditions are good overall.

**MISSISSIPPI:** Days suitable for fieldwork 4.2. Soil moisture, 57% adequate, 43% surplus. Corn 27% planted, 22% 2002, 37% avg.; 2% emerged, NA 2002, 14% avg. Wheat 58% jointing, 41% 2002, 59% avg.; 1% very poor, 6% poor, 47% fair, 43% good, 3% excellent. Hay Supply 18% short, 74% adequate, 8% surplus. Feed Grain 13% short, 83% adequate, 4% surplus. Cattle 3% very poor, 7% poor, 29% fair, 51% good, 10% excellent. Pasture 3% very poor, 17% poor, 34% fair, 39% good, 7% excellent. Watermelons 22% planted, 8% 2002, 15% avg. Corn planting made good progress last week as farmers were able to work around the scattered showers.

**MISSOURI:** Days suitable for fieldwork, 4.1, ranging from 2.5 days northeast district to 6.0 days northwest. Topsoil moisture 18% very short, 22% short, 57% adequate, 3% surplus. The northwest and north-central districts are indicated as having the least topsoil moisture, with ratings of 92% and 85% short or very short. Many reporters are also concerned about a shortage of subsoil moisture. Weather in most areas permitted tillage operations and fertilizer application but most farmers have not begun planting. Field activities have been most active in the west-central, northwest and north-central districts. Wheat condition is reported lowest in the northwest district where 36% is rated poor or very poor, while most other areas show large majorities of fair or good condition. Pasture condition is rated as 14% very poor, 24% poor, 37% good, and 3% excellent, with mostly poor or very poor condition in the northwest, north-central and southwest districts. Rainfall for the week averaged 0.53 inches.

**MONTANA:** For the week ending March 30, there were 2.7 days suitable for field work. Topsoil moisture ratings were 5% very short, 21% short, 68% adequate, and 6% surplus. Subsoil moisture was rated 26% very short, 37% short, 36% adequate, and 1% surplus. Field tillage was 93% not started, 5% just started and 2% well under way. The winter wheat crop was rated 2% very poor, 9% poor, 58% fair, 26% good, and 5% excellent ahead of last year's rating of 30% very poor, 31% poor, 29% fair, 9% good, and 1% excellent. Winter wheat is breaking dormancy and is rated 40% dormant, 53% greening, and 7% green, and growing. The state's barley crop is 2% planted compared to last year's crop at 1%. Range and pasture feed conditions are rated 22% very poor, 21% poor, 33% good, and 1% excellent. Currently, 97% of the cattle and sheep are receiving supplemental feed compared to last year when 98% of cattle and 96% sheep were receiving supplemental feed. Calving and lambing are at 56% and 36% complete, compared to 58% and 28% last year.

**NEBRASKA:** Moisture received improved topsoil to 11% very short, 37% short, and 52% adequate. Subsoil moisture supplies remained at last fall levels with 87% short and very short. Cattle on stalk fields continued to find grazing potential, with some supplemental feeding continuing. Producer activities included spring fieldwork, planting preparations, and livestock care.

**NEVADA:** Much needed rains fell across the State, but accumulated precipitation for the season remains sorely lacking. Rains were generally heaviest in north-central Nevada with Winnemucca recording .44 inch. Reno and Las Vegas recorded on traces. Temperatures averaged near normal for the week with some days warmer than normal and some cooler. Mild weather was good for calving which was in full swing and lambing which was beginning. Sheep shearing was getting underway. Livestock movement to Spring ranges was beginning. Pastures and ranges lacked water and most rated just fair in condition. Onion planting was underway and garlic was in good condition. Main farm and ranch activities: calving, lambing, field preparation, spring grain seeding, onion planting, equipment maintenance, fence repairs, crop marketing, ditch burning, irrigation.

**NEW ENGLAND: DATA NOT AVAILABLE**

**NEW JERSEY:** Days suitable for field work were 4.1. Wet soil conditions limited field access. Heavy rain occurred in parts of the state

on March 29, 2003, producing rainfall amounts of over 1.0 inch in southern New Jersey. Top soil moisture was rated 66% adequate and 34% surplus. Winter wheat and barley were rated mostly in fair condition and some top dressing of small grains was done. Some planted fields showed evidence of goose damage. There was some winter kill in hay fields and regrowth is slow. First oats and alfalfa seedings are just starting. Vegetable producers tended greenhouse plants and laid plastic mulch. Planting of cabbage, sweet corn, lettuce, and peas has begun. Some orchard operators applied fertilizer and lime, pruned peaches and apples, sprayed fruit with oil sprays, and planted trees. The late snow melt and high soil moisture has delayed pasture growth. Cattle are being held inside due to wet pastures.

**NEW MEXICO:** After a warm start to the week, some unseasonably cold air pushed into New Mexico from the northwest on Thursday and covered much of the state for the remainder of the week. Consequently, the statewide average temperature was close to normal. Lower elevation spots in the south hit the 80's during the afternoons the first half of the week, but cooled down by as much as 20 degrees or more late in the week. Red River dipped to one below on the 29th. Measurable precipitation fell at half the stations, but amounts were generally light. Red River reported the greatest total with .47". Topsoil moisture was 19% very short, 40% short, 38% adequate and 3% surplus. There were 6.2 days suitable for fieldwork. Wind damage was 13% light, 1% moderate, and 5% severe. Freeze damage was 8% light, 12% moderate, and 13% severe. Farmers spent the week preparing fields, irrigating, and planting chile. Alfalfa conditions dropped slightly from last week and are now listed as 16% very poor, 10% poor, 43% fair, 29% good, and 2% excellent. Total wheat condition also declined since last week, primarily due to the effect the drought is having on the dryland crop. Total wheat is now listed as 7% very poor, 28% poor, 50% fair, 14% good, and 1% excellent, with 27% still being grazed. Lettuce, chile, and onions continue to do well, with all three crops listed in fair to excellent condition. Chile planting is moving along with 46% complete. Ranchers were busy calving and lambing, shearing, hauling water, and heavily supplementing feed. Cattle conditions remained about the same at 8% very poor, 13% poor, 41% fair, 37% good, and 1% excellent. Sheep, on the other hand, saw some decline in conditions and are listed at 11% very poor, 22% poor, 40% fair, and 27% good. Pasture and range saw little change at 26% very poor, 25% poor, 45% fair, and 4% good.

**NEW YORK:** Spring fieldwork was stalled by snow cover throughout most of the month. As snow melted, fields became wet and work was further delayed. Storage crops such as onions, potatoes, apples and cabbage continued moving to market after grading and packing. Maple producers contended with deep snow depths as they struggled to tap trees and maintain sap lines. Sap began flowing as weather conditions turned favorable for maple syrup production. Early reports indicate higher than usual sugar content for the sap. Tending livestock, spreading manure, machinery repair and maintenance, and attending meetings and trade shows were some of the other major activities.

**NORTH CAROLINA:** Warm, spring like conditions dominated North Carolina weather, allowing field work to resume. Great progress was made applying fertilizer and pesticides and preparing fields for corn and tobacco planting. Pastures are rebounding nicely, nursery stock is budding strongly, and many fruit trees are in full bloom. Some fruit crops may have been damaged by a late weekend winter blast which brought colder temperatures and snow to higher elevations. More instances of cereal leaf beetle were reported and treatment for alfalfa weevil and pasture weeds has begun. There were 4.3 days suitable for field work, compared with 1.7 days the previous week. Statewide, soil moisture levels are rated at 0% very short and short, 58% adequate and 42% surplus. Other activities for the week included equipment and fence maintenance; tending to tobacco greenhouses; planting potatoes, cabbage, sweet corn, and snap beans; discing in last year's cotton stalks; and completing Agricultural Census forms.

**NORTH DAKOTA:** Below normal temperatures were recorded early in the month, warming to the upper 50's to low 70's by the end of the month. The average snow cover for the state was 0.4 inches. Hay and forage supplies were rated 5% very short, 21% short, 72% adequate,

and 2% surplus. Grain and concentrate supplies were rated 1% very short, 8% short, 88% adequate, and 3% surplus. Cattle conditions were rated 1% very poor, 4% poor, 26% fair, 63% good, and 6% excellent. Calf conditions were rated 0% very poor, 3% poor, 19% fair, 67% good, and 11% excellent and calving was 39% complete. Sheep conditions were rated 1% very poor, 4% poor, 25% fair, 62% good, and 8% excellent. Lamb conditions were rated 2% very poor, 4% poor, 20% fair, 67% good, and 7% excellent. Lambing was 55% and shearing was 73% complete. Ninety seven percent of the pastures and ranges were still dormant. Road conditions for travel were rated 98% open, 2% difficult, and 0% closed. One percent of the roads were drifted, 1% were icy, 13% were muddy, and 85% were dry.

**OHIO:** Day suitable for fieldwork 2.4. Topsoil moisture 0% very short, 3% short, 64% adequate, 33% surplus. Corn planted 0%, 1% 2002, 0% avg. Oats planted 1%, 5% 2002, 11% avg. Tobacco beds seeded 20%. Tobacco beds having plants up 6%, 1% 2002, 2% avg. Winter Wheat jointed 1%, 4% 2002, 4% avg. Livestock condition 0% very poor, 2% poor, 22% fair, 66% good, 10% excellent. Pasture condition 1% very poor, 9% poor, 36% fair, 49% good, 5% excellent. Winter wheat condition 2% very poor, 4% poor, 20% fair, 56% good, 18% excellent. Farmers in Ohio began prepping their equipment for the spring planting season. Most tillage work was put on hold until the fields have dried out. However, Amish farmers were seen plowing their fields. Producers reported purchasing seed and chemicals. Some began seeding cover crops, planting vegetables, fertilizing fields and spreading manure. Farmers continued removing stored grain and hauling it to local elevators.

**OKLAHOMA:** Days suitable for fieldwork 5.4. Subsoil moisture 6% very short, 25% short, 67% adequate, 2% surplus. Topsoil moisture 9% very short, 22% short, 67% adequate, 2% surplus. Winter Wheat 72% jointing, 53% last week, 31% last year, 54% avg; Rye 1% very poor, 3% poor, 20% fair, 64% good, 12% excellent; Oats 0% very poor, 5% poor, 40% fair, 52% good, 3% excellent; 15% jointing, 5% last week, 13% last year, 24% avg; Corn 58% seedbed prepared, 38% last week, 45% last year, 43% avg; 14% planted, 10% last week, 13% last year, 8% avg; Sorghum 22% seedbed prepared, 20% last week, 18% last year, 20% avg; Soybeans 31% seedbed prepared, 20% last week, 22% last year, 28% avg; Peanuts 21% seedbed prepared, 17% last week, 37% last year, 25% avg; Cotton 49% seedbed prepared, 37% last week, 45% last year, 42% avg; Livestock 1% very poor, 5% poor, 33% fair, 54% good, 7% excellent; Pasture & Range 3% very poor, 14% poor, 40% fair, 40% good, 3% excellent; Livestock: Livestock condition decreased slightly from the previous week with 87 percent rated fair to good. Cattle auctions reported marketings were average. The price for feeder steers less than 800 pounds increased from last week and averaged \$82.35 per cwt. The average price for feeder heifers less than 800 pounds were unchanged from last week and averaged \$75.46 per cwt.

**OREGON:** Days suitable for fieldwork: 5.4. Topsoil 0% very short, 18% short, 70% adequate, 12% surplus. Subsoil 10% very short, 28% short, 58% adequate, 4% surplus. Barley planted: 22%, 55% 2002. Barley emerged: 4%, 20% 2002. Barley condition: 4% very poor, 9% poor, 65% fair, 22% good, 0% excellent. Spring wheat planted 43%, 65% 2002. Spring wheat emerged 10%, 12% 2002. Winter wheat condition 0% very poor, 17% poor, 54% fair, 27% good, 2% excellent. Range & Pasture: 0% very poor, 23% poor, 41% fair, 33% good, 3% excellent. Activities: Dry conditions across state eased somewhat by mid-month rainfall. Decreases in snowpack reported toward middle and end of month, ranging from 1% to 18% of average, according to the Natural Resources Conservation Service (NRCS). Wasco County reported 12 inches of rainfall since last fall. 26 days of rain reported in Clackamas County. Heavy winds reported in Lake County, depleting topsoil in some areas. Cranberries mostly dormant in Coos County, with blueberry flowers opening up there. Apples are showing leaf and color in Josephine County. D'Anjou pears at first white to full white in Hood River Valley. In Jackson County, first bloom on Bartlett and Anjou apples, with onion seeding beginning. Also in Jackson County, greenhouses and nurseries busy with early flowers, fruit trees and decorative trees. Sugar beets 60% planted in Malheur County, some emerged. In Baker County, shipping of bedding plants to begin soon.

Wheat farmers in Wasco County began first chemical spraying on stubble fields to prevent weed & volunteer grain growth.

**PENNSYLVANIA:** Days suitable for field work 2.0. Soil moisture was rated as 2% short, 47% adequate, 51% surplus. Winter wheat crop condition 2% very poor, 11% poor, 32% fair, 41% good, 14% excellent. Pasture conditions 17% very poor, 16% poor, 45% fair, 15% good, 7% excellent. Principal farm activities included hauling and spreading manure; spreading lime and fertilizer; fixing fences; trimming brush; caring for livestock; repairing equipment and buildings; preparing and finishing income taxes; and attending farm meetings.

**SOUTH CAROLINA: DATA NOT AVAILABLE**

**SOUTH DAKOTA:** Topsoil moisture 19% very short, 37% short, 44% adequate. Subsoil moisture 31% very short, 38% short, 30% adequate, 1% surplus. Feed Supplies 22% very short, 35% short, 42% adequate, 1% surplus. Stock water supplies 18% very short, 34% short, 46% adequate, 2% surplus. Winter Rye rated 10% very poor, 14% poor, 41% fair, 31% good, 4% excellent. Winter Wheat rated 6% very poor, 17% poor, 41% fair, 31% good, 5% excellent. Barley 1% planted. Oats 1% planted. Spring Wheat 1% planted. Winter rye breaking dormancy 54%. Cattle condition 1% very poor, 3% poor, 26% fair, 58% good, 12% excellent. Sheep condition 1% poor, 27% fair, 66% good, 6% excellent. Range and pasture 33% very poor, 30% poor, 24% fair, 12% good, 1% excellent. Winter wheat breaking dormancy by percent of acreage 75%. Cattle deaths 27% below normal, 71% normal, 2% above normal. Calving 35%. Lambing 44%. Calf deaths 28% below average, 70% average, 2% above average. Sheep and lamb deaths 16% below average, 83% average, 1% above average. Expected date to start spring field work statewide (Julian date) 98. March brought fairly average weather to South Dakota. Western parts of the state received the most moisture in March, but still have a need for more. Major farm activities include working on machinery, hauling grain, calving and lambing, and feeding livestock.

**TENNESSEE: DATA NOT AVAILABLE**

**TEXAS:** Agricultural Summary: Weather conditions fluctuated drastically during the week. The week began with warm, wet and windy conditions. By mid-week, some parts of the Plains and the Trans-Pecos saw snow flurries, while other areas experience light rainfall. Heavy rains, hail and thunderstorms were reported in Central and East Texas. By late week, cooler temperatures were seen in many areas, dropping into the twenties in some areas of the state. The week's precipitation helped small grains and reduced the amount of pre-irrigation water producers will need for row crops. More rain was needed in the Plains to fill the soil profile. In areas where conditions remained mostly dry, small grains continued to be stressed from a lack of moisture. Planting of spring crops continued at a moderate rate where soil moisture and temperatures were adequate. The high cost of fuels remains a concern. Wind problems delayed application of fertilizers and herbicides in some areas. Green bugs continued to be a problem in some areas. In East Texas, fire ants and Texas leaf ants were very active. Peach and pecan trees were blooming. Warm temperatures and plenty of sunlight allowed pasture and range conditions to improve. Supplemental feeding of livestock continued to be necessary in some areas. In some areas where rains have fallen many stock tanks were now full. Small Grains: Condition of small grains varied throughout the state. Small grains continue to benefit in areas where rain and snow fell. Cold temperatures, along with high winds, caused some stress in many areas, especially drier locations. Some producers in the Plains have delayed irrigating wheat because of high fuel prices. In South Texas, small grains continued to develop with some leaf rust reported. Statewide, wheat condition was rated at 66 percent of normal compared with 43 percent last year. Corn: Planting and land preparations moved ahead in drier locations, activities were slowed in the wettest areas. Early planted fields were emerging with good stands. Corn planting was nearly complete in most southern areas, but remained active in the North and Central Texas. Some growers were switching to sorghum because of the late date. Cotton: Land preparations continued in drier locations. Some producers were finishing up

herbicides applications. Planting conditions were enhanced by recent rains. In the Coastal Bend some cotton may have to be replanted due to heavy rains during the week. In the High Plains, pre-irrigation of cotton fields continued. Sorghum: Land preparations continued in drier locations, but remained slow in areas where rains fell. Planting continued in parts of the Valley, South and Central Texas. Earlier planted fields continued to emerge and benefitted from good moisture levels. Peanuts: Land preparations and field work were active where conditions allowed. Preparations were interrupted by rain and high winds in a few areas. Rice: Planting progressed, but wet ground caused delays for some growers. Soybeans: Planting made some progress. Groundwork continued to be slow in the Upper Coast, where conditions remained wet. Commercial Vegetables, Fruit and Pecans in the Rio Grande Valley, producers continued to harvest sugarcane, citrus, greens, carrots, and cabbage. Preparations continued for spring onion harvest. Melon crops were progressing. Some operations delayed harvest due to wet fields. In the San Antonio-Winter Garden, recent rainfall has been beneficial. Seed bed preparations had began for planting watermelons. Harvest of carrots and onions continued slowly. In Trans Pecos Region, pecan trees and grape vines made good progress in budding and leafing. The onion crop continued to progress. In East Texas, planting of cool season vegetables continued, and fruit trees were blooming. Blueberries were starting to bloom. Land preparation and planting of watermelons continued where conditions allowed. Peaches & Pecan: Early and mid-season orchards were blooming in many areas. Some orchards were affected by hail during the week. Range and Livestock: Weather condition were hard on livestock as a sudden drop in temperatures and additional precipitation were experienced. Additional supplemental feeding was required in varied location across the state. On the Plains, high winds and rain fell early in the week. In other areas of the state, warm, drier weather made a welcome appearance. Range and pasture conditions improved due to rainfall and warmer temperatures. Spring grasses continued turning green and emerging in more locations. Lice were a major problem for cattle herds in some areas. Spring calving, lambing, and kidding continued in many locations.

**UTAH:** Days suitable for field work 5, according to the Utah Agricultural Statistics Service. Topsoil moisture 2 % very short, 12 % short, 80 % adequate, 6 % surplus. Subsoil moisture 7 % very short, 31 % short, 58 % adequate, 4 % surplus. Winter wheat condition 5 % poor, 45 % fair, 36 % good, 14 % excellent. Winter wheat freeze damage 93 % none, 7 % light. Spring wheat 56 % planted. Barley 55 % planted. Barley freeze damage 87 % none, 11 % light, 2 % moderate. Oats 27 % planted. Cattle/Calves 57 % cows calved. Sheep 51 % sheared on farm, 32 % sheared on range, 50 % Ewes lambed on farm, 30 % Ewes lambed on range. Range and Pasture condition 20 % very poor, 14 % poor, 42 % fair, 24 % good. It has been a busy week for farmers in Utah. Activities included planting spring grains, applying fertilizer and herbicides to fall grains, calving and lambing. The mild weather has allowed farmers to plant ahead of schedule. Low temperatures were in the 20's and 30's while high temperatures ranged from the mid 30's to upper 50's last week. Several areas in Utah received much needed precipitation last week with Cache county reporting an inch of rain. Farmers have been planting oats, barley and spring wheat. Frost damage to winter wheat and fall barley has been minimal. Many farmers are spraying to control infestations of army and cutworms. Some growers have planted shorter season crops in anticipation of a water shortage later this year. Weber county reported that apricot trees are in bloom. The weather has been ideal for lambing and calving. Most reporters have indicated livestock are in good condition. However, some livestock are in poor condition due to shortages of winter feed.

**VIRGINIA:** Days suitable for fieldwork 3.8. Pasture 4% very poor, 14% poor, 40% fair, 36% good, 6% excellent. Topsoil moisture 4% short, 58% adequate, 38% surplus. Subsoil moisture 6% short, 70% adequate, 24% surplus. Livestock 2% very poor, 11% poor, 31% fair, 51% good, 5% excellent. Other Hay 6% poor, 43% fair, 47% good, 4% excellent. Alfalfa Hay 1% poor, 41% fair, 53% good, 5% excellent.

Corn 1% planted, 2% 2002, 2% 5-yr avg. Winter Wheat 3% very poor, 16% poor, 41% fair, 37% good, 3% excellent. Barley 2% very poor, 13% poor, 41% fair, 39% good, 5% excellent. Greenhouse Tobacco 8% fair, 44% good, 48% excellent. Greenhouse Tobacco 92% seeded. Tobacco Plantbeds 44% fair, 56% good. Tobacco Plantbeds 89% seeded. Summer Potatoes 45% planted. Portions of Virginia experienced heavy rainfall during the latter part of the week. On Sunday night areas of Virginia experienced cold weather, with temperatures dropping to the low 20's and upper teens. Days suitable for fieldwork were 3.8. In some areas, the wet ground delayed planting and prevented fertilizer applications. Several farmers are slightly behind on their preparations for the growing season. In general, the grass has greened up with the rainfall. Several farmers were still looking for hay to supply early spring needs. A few farmer started light field work preparing tobacco land for planting. Other farm activities include tillage for full season beans, beef cows calving, and farmers signing up for the 2002 farm bill.

**WASHINGTON:** Days suitable for fieldwork averaged 5.8. Topsoil moisture was 16% short, 83% adequate, and 1% surplus. Subsoil moisture was 19% short and 81% adequate. Irrigation water supplies were 34% short and 66% adequate. The highest temperature in the state was 80 degrees in Pasco. The lowest temperature in the state was 22 degrees in Omak and Stampede Pass. Above normal rainfall improved the cropping outlook across the State. Fuel prices rivaled weather conditions as the main component for stalling fieldwork. Winter wheat condition was 2% very poor, 9% poor, 40% fair, 42% good, and 7% excellent. Spring wheat was 27% planted and 3% emerged. Barley was 7% planted. Spring wheat and barley seeding was underway. Winter wheat conditions continued to look good in Whitman County. Christmas tree growers almost completed planting. Potatoes were 5% planted. Hay and other roughage supplies were 11% short and 89% adequate. Livestock producers were tending newly born calves and lambs while also fencing pastures for rotational grazing. Cattle producers in the Okanogan and Ferry County area were running short of hay and looked to turn cattle out on rangeland early. In central Washington, orchard and vineyard pruning and cleanup neared completion.

**WEST VIRGINIA:** For the week ending March 30: Topsoil moisture 3% short, 79% adequate, and 18% surplus; Winter wheat reported 13% poor, 36% fair, and 50% good, 1% excellent. Cattle and calves 7% poor, 41% fair, 49% good, 3% excellent, calving 72%. Sheep and Lambs 14% poor, 48% fair, 38% good; lambing 71%. Hay and roughage supplies were 6% very short, 63 % short, and 31% adequate. Feed grain supplies were reported as 1% very short, 14% short, and 85% adequate. March was characterized by above normal temperatures and below average precipitation. A late season snow storm struck parts of the state the last weekend of March, resulting in up to a foot of snow in the mountains. Hay supplies running short in some areas of state as some farmers are looking for hay to purchase. Calving and lambing problems were reduced from February until the snow storm of the 29<sup>th</sup> and 30<sup>th</sup>. Spring calf and lamb losses are higher than normal due to these conditions. Farm activities included calving, lambing, feeding livestock, purchasing and moving of hay and early spring activities.

**WISCONSIN:** Northern Wisconsin ground is snow covered in many places and much is still frozen. Southern Wisconsin has bare ground and very little frost left. Fieldwork has not begun in Wisconsin due to wet ground conditions at this time. Temperatures were 4-7 degrees above normal for the week. Freezing conditions occur at night with temperatures mostly around 50 degrees during the day. High temperatures in the upper 60's were reported during the week. Precipitation ranged from .25 inch to 1.25 inch during the week. Southeastern Wisconsin remains behind season to date totals.

**WYOMING:** DATA NOT AVAILABLE

## State Agricultural Summaries

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

**ALABAMA:** Rains, warm weather greened pastures, hayfields. Farmers across the state performed cover-crop burn-down for minimum till cotton planting. Conditions were favorable for land preparation in areas where rain was not a factor. Activities: General care of livestock, poultry, catfish.

**ALASKA: DATA NOT AVAILABLE**

**ARIZONA:** Temperatures for most of the state were above average for the week. Alfalfa conditions ranged from fair to mostly good. Sheep continued to graze on alfalfa fields for winter pasture. Small Grains emergence is virtually completed, while heading is underway. Range and Pasture conditions have improved due to the recent precipitation. There were 17 of the 17 reporting stations above normal percentage levels.

**ARKANSAS:** The first days of March continued with wintery weather. Snow and ice covered most of the northern two thirds of the state. After a brief warmup period another arctic cold front dropped temperatures back below normal around the 10<sup>th</sup> of the month. At that time precipitation for the year had dropped below normal despite all of the snow in February. Mid-month temperatures were well below normal with scattered rains throughout most of the state. The latter part of the month again saw arctic air move in and keep temperatures several degrees below normal. Most of the state, except for the southwestern portion of the state, also had a minimum of half an inch of rain. The last weekend of the month had a minor cold front move across the state lowering the temperatures once again after several days of warm sunshine. Producers were able to get into the fields for planting. Corn planting is in full swing, and some producers began planting rice. Wheat fields and pastures are beginning to be fertilized and have herbicide applied. Ground is being prepared for sorghum, soybean, cotton planting. Cattle are reported as being in good condition with some producers reported working cattle for vaccination purposes.

**CALIFORNIA:** At the beginning of March, rainfall improved soil moisture for many crops. Fields of wheat, oats, barley, winter forage were exhibiting good growth due to the greater soil moisture, mild weather that followed the early rains. However, wet conditions slowed field work in many areas. Preparations for planting of corn, cotton were largely completed by early March, growers awaited proper conditions for planting to begin. Fields of alfalfa hay, seed thrived under good growing conditions. Burning of rice stubble fields continued into mid-March in a few areas. Pre-plant herbicide treatment of rice fields got underway later in the month. Sweet potato hotbed fumigation was completed, planting began. By mid-March, the hotbeds began to emerge. Cool temperatures caused freeze damage in some tree fruit orchards early in the month. Fruit trees continued to bloom through the first half of March. By the end of the month, developing fruit were visible in many early variety orchards. Irrigation, cultivation, herbicide applications continued. Ground preparation and planting of new tree fruit orchards continued. Swelling buds, newly opened green shoots were present in many grape vineyards by mid-March. Growers irrigated, cultivated, applied disease, insect control treatments to their vineyards. Strawberry plants in the Central Valley bloomed and by the end of the month were showing a heavy fruit set. Citrus groves were irrigated, pruned, treated for weed control. Open flowers were evident in many orange orchards in late March. Lemon harvesting was winding down in most desert areas by early March. Navel orange harvesting continued, but packouts decreased as crop quality diminished. Tangelos, mandarins, grapefruit were also picked, packed. Almond tree bloom continued through early March. By mid-month, new leaves began to appear. Blossoms were sprayed to protect them from disease, insects. Early variety walnut trees were leafing out, developing flower clusters in late March. Walnut, almond trees were treated with herbicides. Walnut trees were treated with blight spray. Ground preparation, planting continued in orchards that had previously undergone removal. Wet conditions slowed vegetable harvesting in southern areas early in the month. Ground preparation, planting of tomatoes, sweet corn, melons, squash, cucumbers, other warm season vegetables continued. Previously planted fields of fresh, processing tomatoes showed good growth, were irrigated, treated to control insects, disease. Fields of onions, garlic exhibited vigorous growth. Hot caps, plastic row covers were placed in many summer vegetable fields. By the end of the month, the vegetables growing under the hot caps, row covers were making good progress. Broccoli, lettuce, asparagus were harvested in the San Joaquin Valley. Artichoke harvesting was underway in late March. The following

vegetables were also harvested: bok choy, cabbage, carrots, cauliflower, celery, cilantro, green onions, mustard greens, parsley, radicchio, radishes, spinach. Periodic rainfall, generally mild temperatures kept most pastures in good condition throughout the State. Livestock were in good condition. Ranchers cut back on supplemental feeding as the availability of new vegetation increased. Cattle weight gain was reported to be good in some areas. Cattle, sheep grazed on foothill rangeland, fallow fields. Sheep grazed on alfalfa fields in the Central Valley. Later in the month, many sheep were removed from alfalfa fields in preparation for the start of harvesting. Sheep shearing was in full swing in the southern San Joaquin Valley in late March. Bees were active in many stone fruit orchards early in the month. By the end of the month, some hives were being moved to orange orchards.

**COLORADO:** Temperatures for March started the month below average, then finished out the month on average to slightly above average. Late March snowstorms dumped over 3 feet of snow along the Front Range which had a moisture equivalent of about 3.0 to 4.0 inches. The Eastern Plains also received some welcome moisture in the form of rain with totals up to an inch in some areas. The high country saw snow totals of up to 7 feet. The late season snow dramatically improved snowpack ratings to 95% of normal statewide. Although ample moisture fell nearly statewide, drought conditions remain a serious concern for the state. Winter wheat condition has improved to mostly good with the recent moisture. Lambing, calving activities progressed under mostly good conditions. Activities: Center around care and feeding of livestock, planting spring crops.

**DELAWARE:** The area received a large amount of snow during the month of February. This resulted in some damage to barns, sheds, poultry houses. Pastures, hay are in short supply. Small grains are in good condition due to the snow, rain. Livestock are in fair condition. Activities: Snow removal, repairing damaged barns, machine buildings, feeding livestock, working on farm equipment.

**FLORIDA:** During March 2003 wetter weather, mostly warmer temperatures spurred the growth of small grains, pastures in the Panhandle and northern counties with oats forage, damaged by a virus, recovering well. Central, southwestern grazing remained mostly poor due to drier weather while, Statewide, pastures were only in fair condition. The ample rains replenished stock ponds but flooded some pastures, delayed the preparation of fields for corn, soybean, cotton, peanut planting in the Panhandle and northern Peninsula. Some pine seedlings in the Big Bend region were lost to flooding during the month. The wet conditions delayed the application of fertilizers to some ryegrass, small grain forage. Soggy soils slowed potato digging, caused some rot in some fields with most acreage adequately draining off the excess moisture. The wet fields slowed the preparation of land for watermelon, other vegetable planting in the Panhandle, northern Peninsula. Cabbage cutting neared the usual seasonal peak in mid March as growers met the increased demand for the St. Patrick's Day holiday. Drier conditions for most of the month around Palmetto-Ruskin, Immokalee, Homestead permitted vegetable planting, harvesting to proceed with few delays. Strawberry picking slowed about mid month as supplies from other states increased. Some snap bean growers stopped picking due to a poor market. The March storms reduced the quality, yield prospects of some vegetables. Sugarcane harvesting remained active in the Everglades throughout the month with the rains causing only minor delays. The warmer temperatures helped flush a lot of new growth on citrus trees of all ages with most groves reaching full open bloom around mid month. Most young citrus trees lost bloom petals by mid March. The bloom cycle neared the end in late March with most trees showing a lot of petal drop except for a few older grapefruit and tangerine trees that still had significant amounts of open bloom. Activities: Rotating irrigation to provide ample moisture during the bloom cycle; increased harvesting of Valencias, decreased picking of Temples, Honey tangerines as supplies dwindled; some picking of grapefruit; mowing, chopping, discing of cover crops to reduce the fire danger; pushing, burning of dead trees, especially those with sour orange root stock; planting of resets; application of post-bloom nutritional sprays; hedging; topping. Temperatures plunged well below normal at the end of the month with Panhandle producers assessing any crop damage that the near freezing weather caused.

**GEORGIA:** Topsoil moisture was adequate to surplus during the month of March. Overall, rainfall was well above normal for the month. Temperatures were near normal during March, although the last weekend of the month was much colder than normal. Peaches began to bloom, the overall condition was good. Planting of corn was delayed due to heavy rains in south state. Top dressing of rye neared completion. Tobacco conditions were mostly good; limited transplanting was reported. Harvest of carrots continued. Fertilizing, spraying for weeds in pastures was reported. Small grain condition was good. Land preparation for spring planting has been slowed due to wet conditions. Livestock producers continue to feed hay to animals.

**HAWAII: DATA NOT AVAILABLE**

**IDAHO:** Days suitable for fieldwork 4.0. Topsoil 8% very short, 23% short, 63% adequate, 6% surplus. Irrigation Water Supply is 6% very poor, 31% poor, 40% fair, and 23% good. March spring rain has been well received. Idaho growers are eager to capitalize on good soil moisture and seedbed conditions for a successful spring planting season. Hay, Roughage Supply is 1% very short, 2% short, 76% adequate, 21% surplus. Lambing is 82% complete. Calving is 83% complete. Sugarbeets Planted 25%, 2% 2002, 8% avg. Oats Planted 23%, 0% 2002, 2% avg. Onions Planted 68%, 12% 2002, 29% avg. Dry Peas Planted 5%, 0% 2002, 4% avg. Activities: Preparing taxes, machine maintenance, marketing, feeding livestock, planting spring wheat, barley, oats, sugarbeets, onions, dry peas.

**ILLINOIS:** As of March 30, Topsoil 7% very short, 29% short, 53% adequate, 11% surplus. Farmers have begun seeding oats in the north, anhydrous ammonia was being applied recently in central state. Oat seeding advanced to 9% complete as of March 30, compared to 12% last year, the average of 22%. Average temperature departure from normal for the month was plus or minus one and one-half degrees. Precipitation for the month ranged from one, one-half inches to nearly three inches. In the Southwest, Southeast Districts, more than half of the topsoil moisture is rated surplus. Farmers in this area have begun spreading nitrogen on their wheat crop with four wheelers as the topsoil is very saturated. Warmer weather, rain showers during the month have combined to help the wheat crop begin its spring "green up". Activities: Finalizing farm program sign up, preparing income taxes, hauling grain, spreading fertilizers, chemicals, planting peas, potatoes, preparing equipment for spring field work.

**INDIANA:** Dry subsoil conditions exist in most of the northern regions of the state. Warmer weather arrived the last week of March. Temperatures averaged 1.4° above normal for the state during the month. Cooler than normal weather existed in the northern regions. Precipitation averaged about 2.44 inches for March. This was 0.82 inches below normal. Fieldwork has been minimal thus far this year. Some tillage has taken place on some of the well drained lighter type soils. Farmers continued to prepare reports for the FSA farm program, sign into the DCP program. Some fertilizer, pre-plant anhydrous ammonia was applied on fields where soils were dry enough to support heavy equipment. Activities: Hauling manure, moving grain to market, cleaning out ditches, fence rows. Winter wheat is in mostly good condition. Wheat is greening up in the central, northern areas, growing in the south. Some top dressing was accomplished during the month. Livestock are in mostly good condition. Farm ponds remain low, most areas. Hay supplies are in short supply. Hay prices remain high. Good, quality hay difficult to find. Pastures improving. Lambing, calving continued. Activities: Repairing equipment, attending meetings, FSA offices, purchasing seed, fertilizer, soil testing, seeding clover, tiling fields, spreading lime, taking care of livestock.

**IOWA:** It appears that some snow, rain slightly improved soil moisture availability as 42% of the state was reported as being adequately supplied. State livestock producers had a great month for calving due to March's mild temperatures, relatively dry conditions. This level increased from 37% of the state being reported as adequate at the end of February. On average, there was no snow cover across area at the end of March, compared to 1 inch last month, no snow cover last year at this time. The average depth of frost penetration for the state was 4 inches, compared to 17 inches last month, 1 inch at the same time last year. Movement of grain for the state was 16% none, 37% light, 40% moderate, 7% heavy. Hog, pig losses in March were 18% below avg.; 73% avg.; 9% above avg. Cattle, calf losses were 28% below avg.; 70% avg.; 2% above avg.

**KANSAS:** Widespread precipitation improved topsoil moisture Statewide in March, but subsoil moisture in Western, North Central Kansas remains quite low. Topsoil 6% very short, 22% short, 67% adequate, 5% surplus. Subsoil 30% very short, 35% short, 35% adequate. Wheat 4% very poor, 14% poor, 38% fair, 37% good, 7% excellent. Winterkill of wheat is 4%. Wheat jointed is 15%. Most wheat looks pretty good to date, but

considerable precipitation will be needed to sustain wheat in our drier areas. Range, pasture feeds 21% very poor, 30% poor, 34% fair, 14% good, 1% excellent. Stockwater supplies 20% very short, 30% short, 50% adequate. Hay, forage supplies 13% very short, 39% short, 47% adequate, 1% surplus. Feed grain supplies are 5% very short, 20% short, 73% adequate, 2% surplus. Calving is winding down, preparation for corn planting is underway.

**KENTUCKY:** Soil moisture was rated adequate statewide. March went out like a lion as two storm systems produced periods of showers, thunderstorms on two days. The second of the two systems resulted in temperature fluctuations rarely seen as the strength of it's cold front was highlighted by a 30° fluctuation of highs on the weekend. Statewide 3 to 5 days had temperatures at of above 70° earlier in the week. Temperatures hovered near freezing at the weeks end, many parts of northern, eastern state saw rain change over to light-to-moderate snowfall. Temperatures averaged 54° which was 5° above normal. Precipitation totaled 0.76 in. statewide which was 0.27 in. below normal Rain received helped maintain adequate soil moisture. Farmers actively applied fertilizer, prepared fields for seeding. Winter wheat was rated fair to good and was greening with the warmer weather. Pasture growth increased due to the warmer temperatures, sufficient moisture. Livestock condition was considered fair to mostly good after enduring a very wet, muddy, cold winter. Some farmers spent time preparing equipment for spring fieldwork. Tobacco farmers were preparing traditional, float plant beds and seeded flats in their greenhouse.

**LOUISIANA:** Extremely wet conditions continued to slow field activities. State has received 3.46 inches of rain over the last 4 weeks. Planting of corn, rice got off to a slow start but should begin to increase as weather conditions began improving at the end of the month. Sugarcane farmers were applying herbicides, destroying old stubble, draining fields. Wheat had begun to reach the headed stage in a few areas of the state. Crawfish harvest continued doing well. Harvesting of strawberries, greenhouse tomatoes also continued. Cattle producers were culling cows, testing bulls, preparing for spring breeding. Pasture feeds were beginning to show improvements from the favorable weather received in the later part of the month.

**MARYLAND:** Livestock, poultry are in good condition. The snow in early March hampered beef calving. Hay supplies are very short. Rain, melting snow left many fields wet, delayed preparations for the coming crop year. Small grains are starting to grow. Peaches are in good condition and beginning to bloom. Activities: Topdressing nitrogen on wheat, preparing tobacco beds, spreading manure, preparing fields for spring plantings.

**MICHIGAN:** Warmer weather arrived with the beginning of spring in March. Snow has melted in most areas of the State. Soil moisture levels remain low even with the addition of the snow melt. Feed supplies are variable throughout the State. Some western Upper Peninsula cattle farmers are purchasing hay from Wisconsin to get them through to spring green up. Livestock made it through the winter well. Calving on beef operations, lambing is in full force. Sheep operations are preparing to shear. Grape growers in the northwest Lower Peninsula reported a damaging freeze on March 2; temperatures bottomed out at 14 below zero. The scope of the damage remains unknown. Wheat conditions are variable depending on the amount of winter snow cover. Weather conditions have been poor for maple syrup production. Growers continued to ready equipment for spring planting and pay taxes. Greenhouse work continued.

**MINNESOTA:** Conditions for the month have been relatively mild with minimal precipitation, few cold days. Most of the snow cover is gone. Erosion, frost are concerns. Winter injury to alfalfa, other perennial crops is a concern. Farmers are preparing for spring field work. Feed supplies, livestock conditions are good overall.

**MISSISSIPPI:** Days suitable for fieldwork 4.2. Soil 57% adequate, 43% surplus. Corn 27% planted, 22% 2002, 37% avg.; 2% emerged, NA 2002, 14% avg. Wheat 58% jointing, 41% 2002, 59% avg.; 1% very poor, 6% poor, 47% fair, 43% good, 3% excellent. Hay Supply 18% short, 74% adequate, 8% surplus. Feed Grain 13% short, 83% adequate, 4% surplus. Cattle 3% very poor, 7% poor, 29% fair, 51% good, 10% excellent. Pasture 3% very poor, 17% poor, 34% fair, 39% good, 7% excellent. Watermelons 22% planted, 8% 2002, 15% avg. Corn planting made good progress last week as farmers were able to work around the scattered showers.

**MISSOURI:** Cool weather during much of March kept fieldwork to a minimum until late in the month when tillage was begun in many areas. Farmers have been getting ready for planting but actual acreage planted is minor. Winter wheat, pastures are green, growing but need warm

weather, more moisture. Although rainfall for the State for the past 2 months has been above normal, many areas are still relatively dry. Farmers are concerned about subsoil moisture for the new crop season as well as water for stock ponds. A majority of western, northern counties are 10 inches or more below normal precipitation for the June through February period. Livestock are mostly in good condition, hay supplies are generally adequate.

**MONTANA:** March, precipitation has been normal to above normal. Topsoil 5% very short, 21% short, 68% adequate, 6% surplus. Subsoil 26% very short, 37% short, 36% adequate, 1% surplus. The winter wheat 2% very poor, 9% poor, 58% fair, 26% good, 5% excellent which is higher than last month's ratings of 4% very poor, 18% poor, 60% fair, 16% good, 2% excellent. Wind damage to the winter wheat crop is currently rated at the following levels: 55% none, 29% light, 14% moderate, 2% heavy. Freeze, drought damage for the crop 57% none, 26% light, 15% moderate, 2% heavy. Winter wheat is breaking dormancy 40% still dormant, 53% greening, 7% green, growing. Livestock grazing 72% open, 10% difficult, 18% closed, compared to last year when 63% open, 10% difficult and 27% closed. Currently, 97% of the cattle and sheep are receiving supplemental feed compared to last year when 98% of cattle, 96% sheep were receiving supplemental feed. Calving, lambing are at 56%, 36% complete, compared to 58%, 28% last year.

**NEBRASKA:** Statewide, moisture occurred during the last week of March with largest amounts in the western half of the state. March temperatures averaged above normals the second, third weeks but below normals the first, fourth weeks of the month. Wheat 8% very poor, 20% poor, 41% fair, 30% good, 1% excellent. Hay, forage supplies were mostly adequate to short. Cattle were in mostly good condition with calving 67% done. Calf losses are mostly average to below average. Stalk fields continued to provide grazing potential, with some supplemental feeding continuing. Activities: Spring fieldwork, planting preparations, livestock care.

**NEVADA:** Mild weather persisted through March, heightening concerns over seasonal water supplies. Precipitation totals were generally less than an inch across the State, .2 to .6 inch below normal. Temperatures average 1 to 2° above normal. Snotel measurements showed the water content of the winter snow pack at 55 to 85% of normal with the eastern part of the State in the worse shape. The mild weather was good for calving, lambing which picked up during the month. Calving was in full swing during March, branding was getting underway. Some sheep flocks were shorn, lambing began. Notable bull sales were held during the month, marketing of yearling cattle was active. Shipping of baled, cubed hay continued. Potato processing was ongoing. Fall seeded grains and garlic were in good condition. Field preparations, spring grain planting got underway. Onions were planted, sprinkler irrigation was underway. Activities: Calving, lambing, field preparation, spring grain seeding, onion planting, equipment maintenance, fence repairs, crop marketing, ditch burning, irrigation.

**NEW ENGLAND:** Temperatures in state rose above normal during the latter half of March, a welcomed change from the frigid temperatures which occurred earlier in the month. The warmer days were conducive to maple sap flow, causing many maple producers to begin tapping trees. Activities: Nursery/greenhouse work, tending livestock, tapping maple trees, performing general maintenance, preparing for the spring planting season.

**NEW JERSEY:** Below normal temperatures continued through the first half of March in state. The highest recorded temperature during the first two weeks of the month was 52° on March 15. The lowest recorded temperature was 13° on March 3 and March 4. Warmer temperatures arrived for the second half of the month, with a high temperature of 68° on March 17 and March 26. There were small amounts of snow in south coastal regions of the state the beginning of the month. Heavy rain occurred in parts of the state on March 20, 2003 producing rainfall amounts of over 1.0 inch in central state.

**NEW MEXICO:** The first full week of March was dry and mild, with the statewide average temperature within 1° of normal. The second week brought warmer weather, a statewide average of 9° above normal. Lower elevations on the east hit 80° for a couple of days. Late in the week a complex storm system brought precipitation that lingered into the following week, bringing soaking rain across much of state. Areas receiving the most moisture during the third week of March were the north-central, northeast counties. Red River recorded 1.66 inches, Tucumcari reported 1.47 inches. Temperatures were mild due to the cloud cover. The last week of March began on the warm side, but some unseasonably cold air pushed into state from the northwest on Thursday, covered much of the state for the remainder of the week. Lower elevation spots in the south hit the 80's on afternoons the first half of the week, but cooled down

by as much as 20° or more late in the week. Red River dipped to one degree below zero on the 29<sup>th</sup>. Measurable precipitation fell at over half the stations, but amounts were generally light. Farmers spent the month preparing fields, cleaning ditches, combating army worms, planting chile, onions. The onion planting was completed by the end of the month. Winter wheat being grazed continues to decline as cattle are being moved off of fields. Fruit trees started to bloom early due to the warm weather early in the month, have so far been free from freeze damage. Ranchers were busy calving, branding, shearing, hauling water. Supplemental feeding is increasing, many ranchers continue to reduce their herds.

**NEW YORK:** Spring fieldwork was stalled by snow cover throughout most of the month. As snow melted, fields became wet, work was further delayed. Storage crops such as onions, potatoes, apples, cabbage continued moving to market after grading and packing. Maple producers contended with deep snow depths as they struggled to tap trees and maintain sap lines. Sap began flowing as weather conditions turned favorable for maple syrup production. Early reports indicate higher than usual sugar content for the sap. Tending livestock, spreading manure, machinery repair, maintenance, attending meetings and trade shows were some of the other major activities.

**NORTH CAROLINA:** Days suitable for field work 4.3. Soil 0% very short, short, 58% adequate, 42% surplus. Warm, spring like conditions dominated state weather, allowing field work to resume. Great progress was made applying fertilizer, pesticides, preparing fields for corn, tobacco planting. Pastures are rebounding nicely, nursery stock is budding strongly, many fruit trees are in full bloom. Some fruit crops may have been damaged by a late weekend winter blast which brought colder temperatures, snow to higher elevations. More instances of cereal leaf beetle were reported, treatment for alfalfa weevil, pasture weeds has begun. Activities: Equipment, fence maintenance; tending to tobacco greenhouses; planting potatoes, cabbage, sweet corn, snap beans; discing in last year's cotton stalks; completing Agricultural Census forms.

**NORTH DAKOTA:** Below normal temperatures were recorded early in the month, warming to the upper 50's to low 70's by the end of the month. The average snow cover for the state was 0.4 inches. Hay, forage supplies 5% very short, 21% short, 72% adequate, 2% surplus. Grain, concentrate supplies 1% very short, 8% short, 88% adequate, 3% surplus. Cattle conditions 1% very poor, 4% poor, 26% fair, 63% good, 6% excellent. Calf conditions 0% very poor, 3% poor, 19% fair, 67% good, 11% excellent, calving 39% complete. Sheep conditions 1% very poor, 4% poor, 25% fair, 62% good, 8% excellent. Lamb conditions 2% very poor, 4% poor, 20% fair, 67% good, and 7% excellent. Lambing was 55% and shearing was 73% complete. Ninety seven percent of the pastures, ranges were still dormant. Road conditions for travel 98% open, 2% difficult, 0% closed. One percent of the roads were drifted, 1% were icy, 13% were muddy, 85% were dry.

**OHIO:** The average temperature for the State was 40.9° during the month of March, 1.4° below normal. Precipitation across the state averaged 2.26 inches, 0.7 inches below normal. Livestock remains in good condition with spring calving proceeding as normal. Some producers continue to feed hay until pasture feeds improve.

**OKLAHOMA: DATA NOT AVAILABLE**

**OREGON:** Warm temperatures and mild conditions at the beginning of the month advanced the development for wheat and native pastures. However, there was minimal rainfall during the month and precipitation levels were below normal for the month. A cold front at the end of the month did bring some freezing temperatures to parts of the State. Additional rain is needed to improve crop conditions. Wheat development was ahead of the five year average and was rated in mostly good to excellent condition by month's end. Most producers who plan to harvest their wheat for grain has cattle pulled off the wheat by mid month. Range and pasture conditions were in mostly fair to good condition and livestock producers were starting to cut back on supplement feeding.

**PENNSYLVANIA:** Temperatures across state were below normal during the first two weeks of March, while the second half of the month brought milder temperatures. Overall, the average temperature was approximately 38.6 ° 1.2° below normal. The high temperature was 71° on the 25th, the low temperature was 5°, observed on the 7th. In western state precipitation levels were between 26, 75% below normal, while central areas were 25% below or at normal levels. Eastern state precipitation levels still tended to be greater, most at normal to 25° above normal. Activities: Hauling, spreading manure, fixing fences, trimming brush, caring for livestock, repairing equipment, buildings.

**SOUTH CAROLINA:** The weather for the month consisted of heavy showers, scattered thunderstorms occurring throughout the month. The showers have the streams, rivers around the state at or above flood stage level. Fortunately, there were also several clear days with windy conditions throughout the state. The state enjoyed springlike conditions before the official start of spring. The warm conditions have sparked the growth in budding trees and flowers. Pollen from these trees, flowering plants painted a yellow color on everything from porches to vehicles. A cold front moved in at the end of the month bringing scattered showers, much cooler temperatures. The scattered showers washed away some of the pollen and further delayed corn planting in several areas. The showers, the warm temperatures helped add some length to the forage grasses in pastures.

**SOUTH DAKOTA:** Topsoil 19% very short, 37% short, 44% adequate. Subsoil 31% very short, 38% short, 30% adequate, 1% surplus. Feed Supplies 22% very short, 35% short, 42% adequate, 1% surplus. Stock water supplies 18% very short, 34% short, 46% adequate, 2% surplus. Winter Rye 10% very poor, 14% poor, 41% fair, 31% good, 4% excellent. Winter Wheat 6% very poor, 17% poor, 41% fair, 31% good, 5% excellent. Barley 1% planted. Oats 1% planted. Spring Wheat 1% planted. Winter rye breaking dormancy 54%. Cattle condition 1% very poor, 3% poor, 26% fair, 58% good, 12% excellent. Sheep condition 1% poor, 27% fair, 66% good, 6% excellent. Range, pasture 33% very poor, 30% poor, 24% fair, 12% good, 1% excellent. Winter wheat breaking dormancy by percent of acreage 75%. Cattle deaths 27% below normal, 71% normal, 2% above normal. Calving 35%. Lambing 44%. Calf deaths 28% below average, 70% average, 2% above average. Sheep and lamb deaths 16% below average, 83% average, 1% above average. Expected date to start spring field work statewide (Julian date) 98. March brought fairly average weather to South Dakota. Western parts of the state received the most moisture in March, but still have a need for more. Activities: Working on machinery, hauling grain, calving, lambing, feeding livestock.

**TENNESSEE:** At the beginning of March, weather was rather unsettled as several storm systems moved through the region. Temperatures ranged from slightly below normal in the East to well below normal elsewhere in the state. High pressure brought mostly cool, mild, dry conditions to the state during the next two weeks. Precipitation averaged below normal statewide, while temperatures averaged above normal. Towards the end of the month temperatures averaged near normal although two cold fronts moved across the state bringing temperatures near freezing in most areas. During the last week of the month precipitation ranged from an half an inch in the Plateau, Eastern parts to around a tenth of an inch above normal in the Middle, Western parts of the state. Winter wheat was rated in mostly fair to good condition across the state, while livestock, hay supplies were rated as mostly adequate, normal elsewhere in the state. High pressure brought mostly cool, mild, dry conditions to the state during the next two weeks. Precipitation averaged below normal statewide, while temperatures averaged above normal. Towards the end of the month temperatures averaged near normal although two cold fronts moved across the state bringing temperatures near freezing in most areas. During the last week of the month precipitation ranged from an half an inch in the Plateau, Eastern parts to around a tenth of an inch above normal in the Middle, Western parts of the state. Winter wheat was rated in mostly fair to good condition across the state, while livestock, hay supplies were rated as mostly adequate.

**TEXAS:** In March, state welcomed the arrival of spring but winter still lingered as cold fronts made weekly appearances. The Panhandle experienced generally normal temperatures of 60's and 70's for daytime highs, lows in the 30 to 40 degree range. When cold fronts moved through lows dropped to the 20's and teens in some locations. Precipitation was mostly in liquid form, amounted to one-half to three-quarters of an inch across the Panhandle region. There were a few areas west and north of Amarillo that received an inch or more of rain. The rest of the state recorded high temperatures from the high 50's when cold fronts moved in, up to the low 80's. Lows were generally in the 40's and 50's. North, Central, and South state received rainfall ranging from one inch to an inch and a half with most falling in the form of light drizzle. Many locations in East state recorded about two inches of precipitation. The Edwards Plateau, Trans Pecos received a trace to an inch of rain. Western sections were drier than eastern locations. The Rio Grande Valley recorded an inch of rain with some very isolated regions receiving up to three inches. There were some occurrences of heavy downpours in Central, East state, the Upper Coast. Soil moisture was still short in the Panhandle, Trans Pecos, much of the Edwards Plateau. Moisture remained adequate in the Rio Grande Valley. As for the rest of the state, soils had dried out enough to plant corn, sorghum as producers raced against the clock. By month's end, most corn was planted in Central, Southern areas. For those producers that were too late with corn planting, sorghum became an adequate substitute. The wheat crop was varied across the state. Areas that received rain or snow were benefitting but much of the crop was short on moisture. Some producers were delaying irrigation because of high fuel prices. There was some frost damage in

locations where wheat had come out of dormancy. In South state leaf rust became a problem. Land preparation continued in cotton fields and pre-watering occurred in the Panhandle. Some fields in the Coastal Bend required replanting after heavy rain. Rice planting began where conditions allowed. Crawfish harvest continued in extreme Southeast state. Range, Pasture improved with the warmer temperatures but still suffered in drier locations. Cattle producers contended with lice infestations. Spring calving, lambing, kidding continued.

**UTAH:** The warm weather which has characterized this winter continued throughout March. Increased precipitation in March helped raise water, snowpack levels. However, snowpack levels are still running between 65%-90% of normal. The mild weather has been good for planting, many growers have planted ahead of schedule. Potential water shortfalls have prompted some producers in Cache county who typically plant corn for silage to plant cereal forages instead. In Weber county, fruit trees are about 2 weeks ahead of normal, apricot trees have already started to bloom. Some areas have seen infestations of cut worms but with only weeds to feed on, they have not yet become a problem. Calving, lambing have been going well as a result of the mild weather.

**VIRGINIA:** Pasture 4% very poor, 22% poor, 45% fair, 26% good, 3% excellent. Livestock 1% very poor, 7% poor, 36% fair, 52% good, 4% excellent. Small Grain, Winter Grazing Crops 11% very poor, 22% poor, 40% fair, 23% good, 4% excellent. March brought on more rain for many parts of state. While some parts of the state reported little field work done, some areas were able to do more field work than last month. Almost all counties are reporting sufficient moisture to begin the growing season. However, some sections of the state are concerned that the wet weather could delay some planting, harvesting activities. The grass is beginning to green up in pastures, fields. The recent rains, snow have refilled many ponds, streams. Spring lambing, calving got underway during March. Hay is still being fed, supplies are very tight. Several farmers have been unable to get in their fields to topdress small grains, pastures due to the wet weather. The winter weather seems to have slowed small grain progress. As for the other farmers, fertilizer applications were in full swing. Activities: Building fence, preparing for spring planting, monitoring tobacco greenhouses, reconditioning machinery for planting, top-dressing, planting cabbage, potatoes, seeding spring pastures, tilling fields, top-dressing small grains, attending educational programs, taking soil samples, planning for the upcoming growing season. Temperatures for the month of March were chilly during the first couple of weeks, but warmed up a little towards the end of the month. However, during the last week in March, some counties received snowfall as temperatures fell. Rain continued to moisten the soil during most of the month in much of state.

**WASHINGTON:** Mild temperatures, above normal rainfall received during March has improved the overall cropping outlook for state. Snowpack for state continued to be below average. Winter wheat in Whitman County was enhanced by the soil moisture, was in good condition. Pastures in the eastern portion of the state have improved due to the moisture, but many remain in poor condition from the past drought conditions. In western state, persistent rainfall throughout the month resulted in two minor flood events, had most ag producers several weeks behind in field cultivation. Christmas tree growers finished tree planting, prepared equipment for herbicide applications.

**WEST VIRGINIA:** For the week ending March 30. Topsoil 3% short, 79% adequate, 18% surplus; Winter wheat 13% poor, 36% fair, 50% good, 1% excellent. Cattle, calves 7% poor, 41% fair, 49% good, 3% excellent, calving 72%. Sheep, Lambs 14% poor, 48% fair, 38% good; lambing 71%. Hay roughage supplies 6% very short, 63% short, 31% adequate. Feed grain supplies 1% very short, 14% short, 85% adequate. March was characterized by above normal temperatures, below average precipitation. A late season snow storm struck parts of the state the last weekend of March, resulting in up to a foot of snow in the mountains. Hay supplies running short in some areas of state as some farmers are looking for hay to purchase. Calving, lambing problems were reduced from February until the snow storm of the 29<sup>th</sup> and 30<sup>th</sup>. Spring calf, lamb losses are higher than normal due to these conditions. Activities: Calving, lambing, feeding livestock, purchasing, moving of hay, early spring activities.

**WISCONSIN:** Fieldwork has not yet begun in state. Weather for March was fairly uneventful. Temperature swings were from freezing temperatures to 70° F. Overall, the average temperature departure from the mean was 0-5° below normal for most of the month. Precipitation in the north was normal to .5 inch above normal, while southern state continued drier than normal with precipitation .5-1.0 below normal. A late season snowstorm covered northwestern state with snow, while most of the state had bare ground.

**WYOMING: DATA NOT AVAILABLE**

## International Weather and Crop Summary

March 23 - 29, 2003

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

### HIGHLIGHTS

**EUROPE:** Across western Europe, rain was needed to maintain adequate topsoil moisture for vegetative winter crops and spring planting, while crops started breaking dormancy across eastern Europe.

**FSU-WESTERN:** Unseasonably cold weather continued to prevail across the region, keeping winter grains dormant and delaying early spring fieldwork.

**MIDDLE EAST:** Widespread rain boosted moisture supplies for winter crops across Turkey, western Iran, and the eastern Mediterranean, although unseasonably cold weather slowed crop development in Turkey.

**NORTHWESTERN AFRICA:** Timely rain favored reproductive winter grains across northern Morocco, but additional rain was needed for crops in central Algeria and southern Morocco.

**SOUTH AFRICA:** Although dry weather in the corn belt stressed filling summer crops in the east, moisture supplies remained adequate for crop development in the west.

**EASTERN ASIA:** Unseasonable warmth spurred development of winter wheat and newly planted summer crops.

**SOUTHEAST ASIA:** Weather conditions were generally favorable for rice harvesting throughout the region.

**AUSTRALIA:** Showers boosted moisture supplies in Queensland and northern New South Wales but hampered summer crop harvesting.

**SOUTH AMERICA:** Summer crop harvesting progressed well in Argentina and southern Brazil.

## March 2003

### MONTHLY DATA FROM SELECTED FOREIGN CITIES CLIMATE PREDICTION CENTER-NCEP-NWS-NOAA

\*\*\* DATA NOT AVAILABLE

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
NORWAY	OSLO	5	-4	12	-17	1	2.0	21	-37
SWEDEN	UPPSALA	6	-1	14	-9	3	2.6	2	-36
FINLAN	HELSINKI	3	-5	11	-19	-1	0.9	11	-25
UKINGD	ABERDEEN	11	2	16	-4	7	1.5	18	-42
	MANCHESTER	13	4	17	-2	8	1.7	39	-23
	CARDIFF	14	6	19	2	10	1.9	36	-38
	LONDON	14	5	19	1	9	1.4	16	-26
IRELAN	DUBLIN	11	3	14	-2	7	0.4	27	-28
ICELAN	REYKJAVIK	6	2	10	-9	4	3.5	77	-6
DENMAR	COPENHAGEN	8	-1	15	-4	4	0.6	6	-30
LUXEMB	LUXEMBOURG	13	3	20	-2	8	3.3	46	-20
SWITZE	ZURICH	13	3	20	-2	8	3.1	25	-43
	GENEVA	14	2	20	-2	8	2.4	18	-47
FRANCE	PARIS/ORLY	16	5	23	-1	10	2.5	5	-37
	STRASBOURG	15	2	22	-2	9	2.2	2	-34
	BOURGES	16	5	22	0	11	3.3	3	-50
	BORDEAUX	18	7	24	2	13	3.6	11	-60
	TOULOUSE	17	7	21	1	12	2.9	11	-42
	MARSEILLE	17	6	22	1	12	1.1	2	-41
SPAIN	VALLADOLID	16	5	23	-1	11	2.3	31	7
	MADRID	17	5	25	0	11	0.6	39	23
	SEVILLE	22	12	30	7	17	1.0	49	23
PORTUG	LISBON	18	11	24	8	15	0.8	78	-3
GERMAN	HAMBURG	10	1	18	-4	5	0.9	13	-51
	BERLIN	10	1	18	-5	5	0.3	15	-27
	DUSSELDORF	14	4	21	-4	9	1.8	17	-50
	LEIPZIG	10	1	18	-5	5	1.0	8	-28
	DRESDEN	9	1	18	-5	5	0.8	4	-37
	STUTTGART	13	1	20	-4	7	1.9	12	-31
	NURNBERG	12	0	20	-5	6	1.4	7	-37
	AUGSBURG	12	0	19	-5	6	1.2	6	-36
AUSTRI	VIENNA	11	1	21	-8	6	0.6	9	-31
	INNSBRUCK	14	0	21	-4	7	1.9	17	-42
CZECHR	PRAGUE	10	0	18	-7	5	1.3	6	-23
POLAND	WARSAW	6	-2	16	-9	2	-0.5	12	-18
	LODZ	7	-2	17	-9	3	-0.5	18	-19
	KATOWICE	8	-2	19	-11	3	-0.6	30	-14
HUNGAR	BUDAPEST	11	1	20	-7	6	0.0	2	-25
YUGOSL	BELGRADE	12	3	22	-6	7	-0.1	11	-36
ROMANI	BUCHAREST	8	-3	21	-10	3	-2.4	15	-24
BULGAR	SOFIA	10	-2	20	-9	4	-1.0	3	-32
ITALY	MILAN	17	4	21	-1	11	1.8	4	-60
	VERONA	16	4	21	2	10	1.5	5	-47
	VENICE	14	3	17	-2	9	0.2	5	-44
	GENOA	16	9	20	6	13	0.8	14	-70
	ROME	15	5	17	0	10	-0.9	23	-37
	NAPLES	16	5	21	0	11	-0.5	4	-73
GREECE	THESSALONIKA	13	3	19	-3	8	-1.8	2	-38
	LARISSA	13	2	20	-4	7	-1.9	23	-15
	ATHENS	14	6	20	2	10	-1.9	29	-26
TURKEY	ISTANBUL	9	3	14	-3	6	-2.0	26	-30
	ANKARA	7	-4	15	-12	2	-2.0	12	-28
CYPRUS	LARNACA	18	7	24	5	13	-0.7	66	24
ESTONI	TALLINN	3	-4	13	-16	0	0.8	10	-24
RUSSIA	ST.PETERSBURG	2	-5	11	-22	-1	0.0	29	-4
LITHUA	KAUNAS	5	-3	15	-13	1	0.6	9	-28
BELARU	MINSK	3	-4	14	-13	0	0.0	29	-14
RUSSIA	KAZAN	-3	-10	4	-21	-6	-1.6	5	-18
	MOSCOW	2	-7	11	-16	-3	-1.1	20	-13
	YEKATERINBURG	1	-8	9	-19	-4	0.5	5	-11
	OMSK	-4	-14	3	-28	-9	-0.9	7	-7
KAZAKH	KUSTANAY	-3	-15	2	-23	-9	-0.9	10	-5
RUSSIA	BARNAUL	-3	-12	7	-27	-7	0.5	14	-2
	KHABAROVSK	1	-9	11	-19	-4	2.5	2	-17
	VLADIVOSTOK	4	-3	11	-11	0	2.3	4	-19
UKRAIN	KIEV	3	-3	12	-9	0	-1.1	26	-9
	LVOV	5	-3	17	-9	1	-0.6	21	-17
	KIROVOGRAD	1	-4	9	-15	-2	-2.7	20	-14
	ODESSA	4	-1	13	-7	1	-1.8	31	2
	YALTA	7	2	11	-3	4	-1.5	29	-22

Based on Preliminary Reports

March 2003

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM			AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
RUSSIA	SARATOV	-3	-9	5	-21	-6	-1.9	9	-11	TANZAN	DAR ES SALAAM	34	25	37	22	29	2.3	77	-56
UKRAIN	KHARKOV	1	-6	7	-14	-2	-2.4	26	-3	GABON	LIBREVILLE	31	25	32	22	28	0.7	185	-220
RUSSIA	VOLGOGRAD	0	-8	10	-19	-4	-2.9	11	-12	TOGO	LOME	34	27	36	22	30	2.5	79	9
	ASTRAKHAN	5	-5	12	-15	0	-1.3	19	4	BURKIN	OUAGADOUGOU	38	24	42	20	31	-0.1	4	-1
	KRASNODAR	7	-2	16	-8	3	-2.2	38	-2	MOZAMB	MAPUTO	32	23	40	20	28	1.8	35	-62
	ORENBURG	-4	-14	1	-24	-9	-3.0	10	-9	ZAMBIA	LUSAKA	26	18	30	15	22	-1.3	165	23
KAZAKH	TSELINOGRAD	-5	-14	2	-28	-10	-1.4	25	-5	ZIMBAB	KADOMA	26	17	32	14	21	-2.5	122	30
	KARAGANDA	-4	-13	5	-29	-9	-1.5	59	42	S AFRI	PRETORIA	29	16	34	9	23	1.5	77	-16
GEORGI	TBILISI	9	1	16	-4	5	-1.7	36	6		JOHANNESBURG	25	12	31	4	19	0.7	92	-9
UZBEKI	TASHKENT	14	5	26	-5	9	0.8	118	53		BETHAL	27	11	31	3	19	0.5	37	-54
TURKME	ASHKHABAD	13	5	24	-4	9	-0.9	56	14		DURBAN	29	21	34	14	25	0.9	96	-29
SYRIA	DAMASCUS	16	4	22	-1	10	-0.7	36	15		CAPE TOWN	26	16	34	9	21	1.5	39	19
ISRAEL	JERUSALEM	13	7	22	1	10	-1.1	151	56	CANADA	TORONTO	5	-6	19	-25	-1	-0.4	50	-6
PAKIST	KARACHI	32	21	37	15	27	2.0	0	-11		MONTREAL	1	-9	14	-27	-4	-1.5	87	18
INDIA	AMRITSAR	26	11	31	3	18	-0.5	22	-18		WINNIPEG	-2	-14	15	-37	-8	-2.3	20	-2
	NEW DELHI	30	16	34	9	23	0.2	2	-13		REGINA	-2	-14	13	-37	-8	-3.0	6	-13
	AHMEDABAD	36	20	40	12	28	0.4	0	***		SASKATOON	-3	-15	13	-38	-9	-3.2	18	3
	INDORE	35	17	39	8	26	0.2	0	-1		LETHBRIDGE	5	-9	20	-33	-2	-2.1	34	8
	CALCUTTA	32	21	37	13	26	-1.0	171	130		CALGARY	1	-11	20	-32	-5	-3.0	16	-1
	VERAVAL	33	20	40	13	26	1.2	0	***		EDMONTON	-2	-11	11	-34	-7	-4.1	17	2
	BOMBAY	33	22	37	19	27	0.1	0	***		VANCOUVER	10	4	14	-2	7	0.7	130	16
	POONA	36	15	38	10	26	0.3	0	-1	MEXICO	GUADALAJARA	***	***	33	4	***	***	0	-6
	BEGAMPET	36	22	39	18	29	0.1	15	1		TLAXCALA	23	8	31	3	15	-0.5	2	-3
	VISHAKHAPATNAM	31	25	33	21	28	-0.1	63	53		ORIZABA	24	16	33	8	20	1.8	6	-28
	MADRAS	34	24	37	21	29	0.2	15	10	BERMUD	ST GEORGES	22	17	24	13	19	0.6	115	10
	MANGALORE	34	24	37	22	29	0.6	0	-5	BAHAMA	NASSAU	30	23	33	17	26	4.0	105	55
HONGKO	HONG KONG INT	23	18	29	10	21	1.6	21	-55	CUBA	HAVANA	30	20	33	13	25	2.2	183	134
N KORE	PYONGYANG	9	0	21	-7	4	0.8	27	-3	JAMAIC	KINGSTON	31	25	33	24	28	1.6	1	-24
S KORE	SEOUL	11	3	21	-5	7	0.9	30	-22	P RICO	SAN JUAN	30	23	33	21	27	1.2	14	-41
JAPAN	SAPORO	4	-2	13	-10	1	0.8	68	-13	GUADEL	RAIZET	30	21	30	19	25	0.4	70	3
	NAGOYA	13	4	19	-1	9	0.1	113	-2	MARTIN	LAMENTIN	30	26	31	21	28	2.6	17	-61
	TOKYO	12	5	20	1	9	0.0	162	47	BARBAD	BRIDGETOWN	30	23	31	20	26	0.4	31	-6
	YOKOHAMA	12	5	22	0	9	-0.3	173	24	TRINID	PORT OF SPAIN	33	23	35	20	28	1.4	7	-23
	KYOTO	13	4	21	0	8	-0.9	112	-10	COLOMB	BOGOTA	20	9	24	5	14	0.8	58	-1
	OSAKA	13	5	20	1	9	-0.3	121	22	VENEZU	CARACAS	31	24	35	20	28	2.3	0	-13
THAILA	PHITSANULOK	35	22	37	19	28	-1.5	54	25	F GUIA	CAYENNE	30	23	32	21	27	0.7	140	-203
	BANGKOK	34	26	36	23	30	0.2	135	103	BRAZIL	FORTALEZA	29	24	31	23	27	-0.8	292	-18
MALAYS	KUALA LUMPUR	34	25	35	23	30	2.2	300	64		RECIFE	30	26	31	23	28	-1.1	205	7
VIETNA	HANOI	25	20	37	14	23	2.1	13	-33		CAMPO GRANDE	33	23	36	20	28	2.3	143	-5
CHINA	HARBIN	6	-6	14	-13	0	3.2	8	-1		FRANCA	27	19	30	16	23	0.5	217	10
	HAMI	12	-2	23	-8	5	0.7	0	-1		RIO DE JANEIRO	32	24	38	21	28	1.5	175	40
	LANCHOW	13	2	28	-7	8	2.2	6	-3		LONDRINA	32	20	36	16	26	2.4	20	-129
	BEIJING	11	2	21	-3	6	0.3	33	25		SANTA MARIA	29	20	33	13	24	1.2	343	204
	TIENTSIN	12	3	23	-3	7	0.7	8	1		TORRES	29	21	32	15	25	-0.8	43	-65
	LHASA	12	-1	19	-7	6	0.4	3	0	PERU	LIMA	26	20	27	18	23	-0.2	0	0
	KUNMING	21	9	24	5	15	1.7	9	-9	BOLIVI	LA PAZ	14	4	16	2	9	0.0	127	18
	CHENGCHOW	13	4	25	-5	9	0.8	33	4	CHILE	SANTIAGO	27	10	33	6	19	1.1	0	-5
	YEHCHANG	15	7	31	0	11	0.7	120	61	ARGENT	IGUAZU	31	20	37	15	25	0.8	108	-22
	HANKOW	15	8	30	1	12	1.1	189	99		FORMOSA	32	22	37	14	27	1.0	134	-19
	CHUNGKING	19	12	34	5	15	1.8	20	-18		CERES	28	18	34	10	23	0.4	276	136
	CHIHKIANG	15	8	31	-1	11	0.6	68	-10		CORDOBA	26	16	34	7	21	0.8	193	72
	WU HU	15	7	31	0	11	1.4	164	70		RIO CUARTO	27	16	35	9	21	1.3	48	-67
	SHANGHAI	14	7	29	2	10	1.4	96	9		ROSARIO	27	17	33	8	22	0.9	150	18
	NANCHANG	15	8	29	0	12	0.9	126	-50		BUENOS AIRES	27	17	32	7	22	1.0	71	-22
	TAIPEI	21	16	29	12	19	-0.1	85	-111		SANTA ROSA	29	15	40	5	22	2.4	49	-38
	CANTON	22	16	28	7	19	1.1	65	-21		TRES ARROYOS	27	14	36	6	20	2.1	33	-48
	NANNING	22	15	32	9	19	1.1	45	-12	MARSHA	MAJURO	30	27	30	26	28	1.0	37	-167
CANARY	LAS PALMAS	22	16	25	14	19	0.2	4	-12	NEW CA	NOUMEA	29	24	34	20	26	0.8	204	56
MOROCC	CASABLANCA	20	13	31	9	17	1.8	39	-1	FIJI	NAUSORI	32	24	34	22	28	1.4	424	35
	MARRAKECH	25	13	32	8	19	2.3	30	-10	SAMOA	PAGO PAGO	32	26	33	25	29	1.5	220	-63
ALGERI	ALGER	20	7	28	2	14	0.7	7	-53	TAHITI	PAPEETE	32	25	33	23	28	0.9	127	-51
	BATNA	17	4	23	-2	10	0.9	17	-44	PNEWGU	PORT MORESBY	30	25	33	24	28	0.8	116	-72
TUNISI	TUNIS	19	9	25	5	14	0.4	39	-2	NZEALA	AUCKLAND	23	16	27	12	19	***	142	***
NIGER	NIAMEY	38	23	41	19	30	-0.6	0	-2		WELLINGTON	21	14	27	9	17	***	28	***
MALI	TIMBUKTU	37	20	41	16	28	1.2	0	0	AUSTRA	DARWIN	31	25	34	23	28	-0.1	182	-192
	BAMAKO	39	25	45	20	32	1.0	0	-3		BRISBANE	26	19	31	15	23	-1.2	98	-25
MAURIT	NOUAKCHOTT	34	18	39	14	26	2.0	0	-1		PERTH	31	16	44	8	24	0.9	62	48
SENEGA	DAKAR	26	19	38	17	22	1.4	0	0		CEDUNA	25	11	37	7	18	-1.7	4	-10
CHAGOS	DIEGO GARCIA	30	26	32	23	28	-0.4	235	34		ADELAIDE	24	12	34	8	18	-1.9	6	-16
LIBYA	TRIPOLI	19	9	28	4	14	-1.5	13	-20		MELBOURNE	23	14	35	8	19	0.4	21	-10
	BENGHAZI	18	10	25	7	14	-1.2	26	2		WAGGA	28	13	33	6	20	-0.2	1	-40
EGYPT	CAIRO	21	12	26	5	16	-1.1	5	-1		CANBERRA	24	10	28	3	17	-0.7	59	9
	ASWAN																		



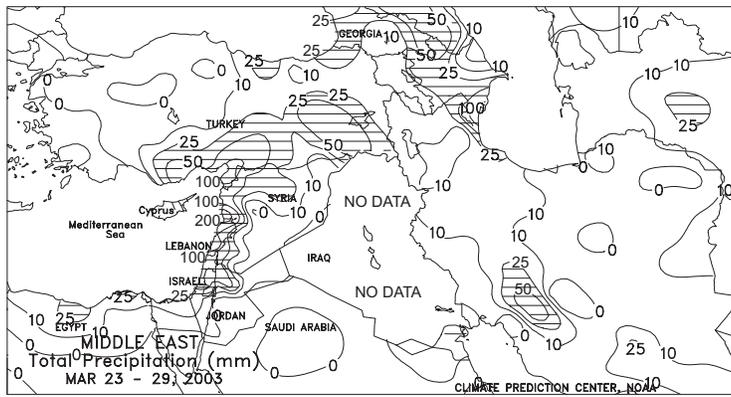
**EUROPE**

Across western Europe, unseasonably warm, dry weather continued to reduce topsoil moisture for vegetative winter crops, but favored field preparations for summer crop planting. Across England, France, the Low Countries, northern Italy, and most of Germany, winter grains and oilseeds were vegetative, and rain was needed to maintain adequate moisture supplies for rainfed winter crops and summer crop planting. In eastern and southeastern Europe, warmer weather prompted winter grains and oilseeds to start breaking dormancy. In these regions, the week started with minimum temperatures below -5 degrees C, and by week's end, minimum temperatures were 0 to 5 degrees C. The only significant rain (10-50 mm or more) in Europe fell across the Iberian Peninsula, maintaining favorable moisture supplies for vegetative winter crops. Temperatures averaged 3 to 6 degrees C above normal from northern Spain and England eastward into Poland and Hungary. Maximum temperatures exceeded 20 degrees C across most of France, the Low Countries, northern Italy, and portions of southeastern Europe. Temperatures averaged near normal across the rest of the Iberian Peninsula and Italy and averaged slightly below normal in the southern Balkans.



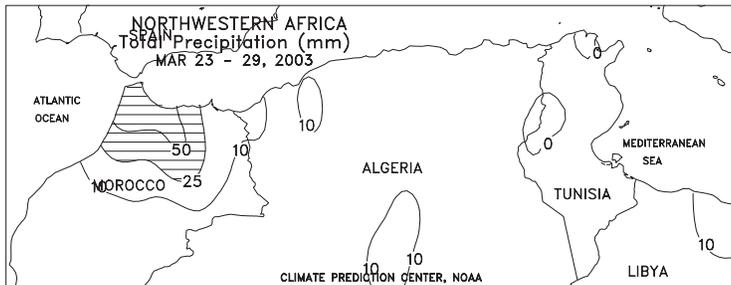
**FSU-WESTERN**

Unseasonably cold weather continued across most of Ukraine and Russia. Light to moderate snow (2-29 mm of liquid equivalent) fell across northern Russia, while dry weather prevailed elsewhere. Early in the week, bitterly cold weather (-18 to -10 degrees C) was observed as far south as northeastern Ukraine and the northern portions of the Southern Region in Russia. A later-than-usual snow cover in these areas provided protection from potential freeze damage. Weekly temperatures averaged 1 to 7 degrees C below normal in most of Ukraine and Russia. The combination of unseasonably cold weather and an unusually late snow pack in Ukraine and the Southern Region in Russia kept winter grains dormant and delayed early spring fieldwork. Typically, winter grains begin breaking dormancy in Moldova, southern Ukraine, and the southern portion of the Southern Region in Russia by the end of March. During the latter half of the week, temperatures moderated in northeastern Ukraine and the northern portion of the Southern Region in Russia, causing some melting of the snow cover. Farther west, milder air from Europe spread eastward into extreme western Ukraine, Belarus, and the Baltics, melting most of the snow cover at usual dates.



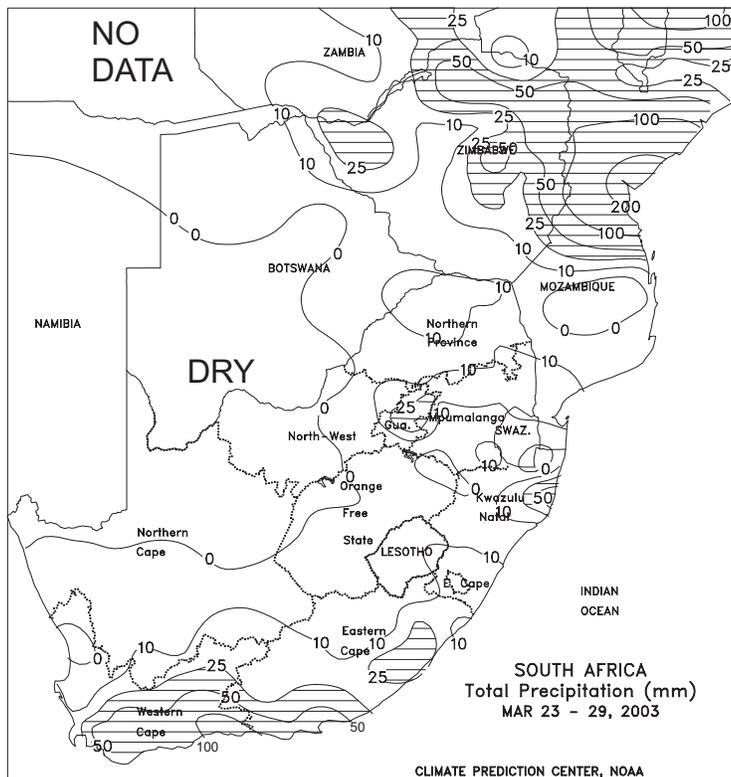
**MIDDLE EAST**

A significant low-pressure system moved across the region, bringing widespread precipitation and unseasonably colder weather to most of the region. Widespread rain (10-50 mm or more; snow in the higher elevations) covered south-central and eastern Turkey, maintaining favorable moisture supplies for winter grains. The western third of Turkey was mostly dry. In central Turkey, unseasonably cold weather (temperatures 5-7 degrees C below normal and minimum temperatures -13 to -7 degrees C) stressed winter grains and continued to prevent them from greening. In western Iran, widespread rain (10-20 mm) greatly favored greening, rained winter crops. Across the coastal eastern Mediterranean, moderate to heavy rain (50-100 mm) continued to boost irrigation supplies for vegetative to reproductive winter grains, but caused local flooding. Based on weather reports from neighboring countries, moderate rain possibly fell across northern Iraq. Temperatures averaged near normal across the eastern Mediterranean and 1 to 3 degrees C above normal across western Iran.



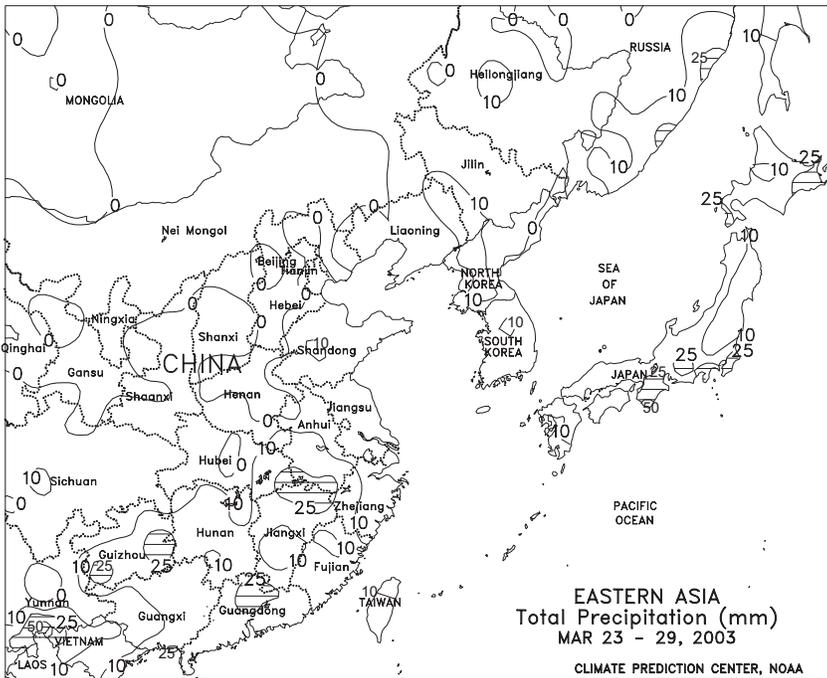
**NORTHWESTERN AFRICA**

In northern Morocco and extreme western Algeria, widespread rain (10-50 mm or more) continued to cover the winter grain areas, providing timely rain for reproductive winter grains. Elsewhere, in southern Morocco, Algeria, and Tunisia, mostly dry weather reduced soil moisture levels for vegetative to reproductive winter grains. Soil moisture was adequate in Tunisia, but more rain was needed in central Algeria and southern Morocco. In higher elevations of eastern Algeria and western Tunisia, freezing to near-freezing minimum temperatures stressed vegetative winter grains. Temperatures averaged 1 to 2 degrees C above normal across most of Morocco and coastal Algeria and 1 to 2 degrees C below normal across Tunisia and the inland areas of eastern Algeria.



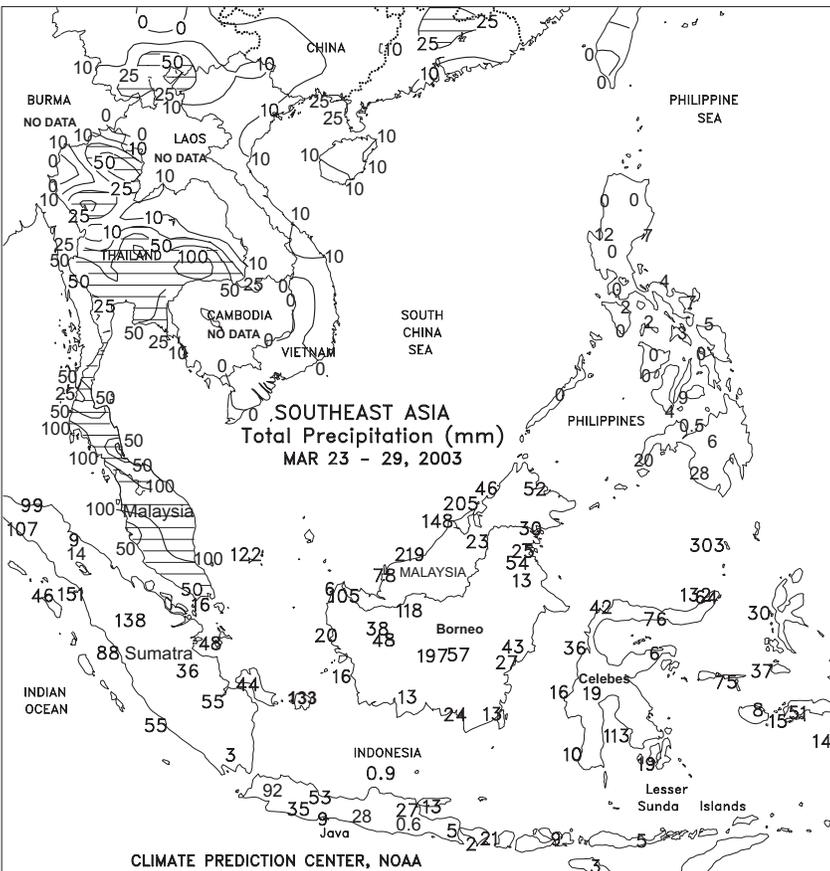
**SOUTH AFRICA**

Mostly dry weather (less than 5 mm) prevailed across the corn belt. Nevertheless, following soaking rains last week, moisture supplies likely remained adequate for filling summer crops in the western and central corn belt. Farther east, where showers were much lighter last week and dryness has been more of a problem throughout the growing season, the mostly dry weather continued to stress filling corn in eastern Free State, southern Mpumalanga, and western KwaZulu Natal. Unseasonably cool weather in the corn belt helped reduce this stress, with temperatures averaging about 1 to 2 degrees C below normal in the east and 3 to 4 degrees C below normal in the west. Maximum temperatures were generally in the upper 20s degrees C.



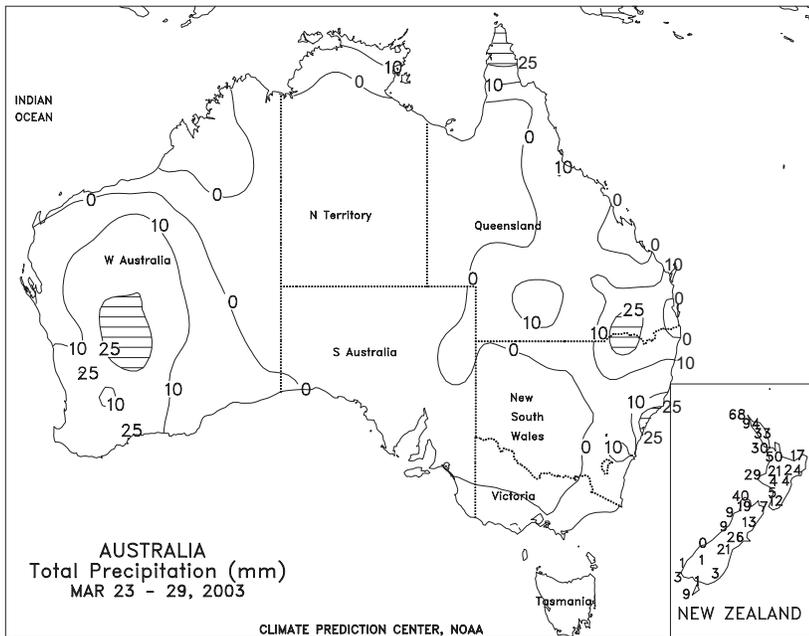
**EASTERN ASIA**

Warmer-than-normal weather spurred winter wheat growth throughout China's main growing areas, with lows staying above freezing in most major growing areas. On the North China Plain, temperatures averaging 2 to 4 degrees C above normal (with highs reaching the middle 20s degrees C) increased moisture demands of vegetative crops. Although beneficial rain has fallen in recent weeks, additional rain will be needed in upcoming weeks to support normal development. Farther south, light showers (2-10 mm) benefited crops in most areas from the Sichuan Basin to Jiangsu, where highs approached 30 degrees C. Crops were nearing the heading phase in these warmer growing areas, which have received near- to above-normal precipitation in recent weeks. In southern China, scattered showers (10-25 mm or more) maintained favorable moisture reserves for emerging rice and other newly planted summer crops. Elsewhere, warmer-than-normal weather continued across Manchuria, the Korean Peninsula, and Japan, raising topsoil temperatures for pre-planting fieldwork. The highs ranged in the middle to upper teens degrees C, but lingering cold weather (lows below -5 degrees C) precluded early planting in most areas. Light to moderate precipitation (5-10 mm or more) covered Manchuria and the Korean Peninsula, with more moderate showers (10-25 mm or more) across Japan.



**SOUTHEAST ASIA**

Scattered showers (10-50 mm) continued to boost moisture reserves but caused only minor delays for early rice harvesting in Java, Indonesia. In the Philippines, mostly dry weather favored second-season rice harvesting. Warm, dry weather favored early harvest activities of winter-spring rice in southern Vietnam. Showers increased (25-100 mm) throughout Thailand, boosting irrigation supplies for reproductive to maturing second-season rice. Heavy showers (50-150 mm) increased moisture supplies for oil palm in peninsular Malaysia and Sumatra.



**AUSTRALIA**

Showers (5-35 mm or more) in Queensland and northern New South Wales hampered sorghum and other early summer crop harvesting, but boosted topsoil moisture and reservoir levels. Much more rain was needed, however, to end the severe drought gripping this region. Farther south, dry weather prevailed across southern New South Wales, northern Victoria, and South Australia. In contrast, light showers (3-33 mm) in Western Australia brought limited drought relief to winter grain areas. Winter grain planting typically begins in May around the southern and eastern rim of the country. However, soaking rains were still needed to condition topsoils for planting and to recharge drought-depleted moisture supplies. Temperatures in major crop-producing areas were generally seasonable, with maximum temperatures in the upper 20s to lower 30s degrees C.



**SOUTH AMERICA**

In Argentina, summer crop harvesting progressed well until moderate showers (10-25 mm or more) overspread primary corn, soybean, and sunflower areas late in the week. In Buenos Aires, the rainfall will help increase moisture reserves for winter wheat planting, usually underway by late April. Warm, dry weather favored cotton harvesting in northern growing areas (Chaco and Formosa). According to independent reports from within Argentina, corn, soybean, and sunflowers were 44, 20, and 73 percent harvested, respectively, as of March 29. In Brazil, mostly dry, seasonably warm weather favored summer crop harvesting and preparations for winter wheat planting in southern growing areas (Rio Grande do Sul to Parana). However, scattered showers (25-50 mm or more) continued in most other major growing areas (Mato Grosso and Mato Grosso do Sul to western Minas Gerais). Beneficial showers also continued in crop areas in Brazil's northeastern interior, supporting normal development of newly planted corn and cotton. According to independent reports from within Brazil, soybeans were 38 percent harvested as of March 28.

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