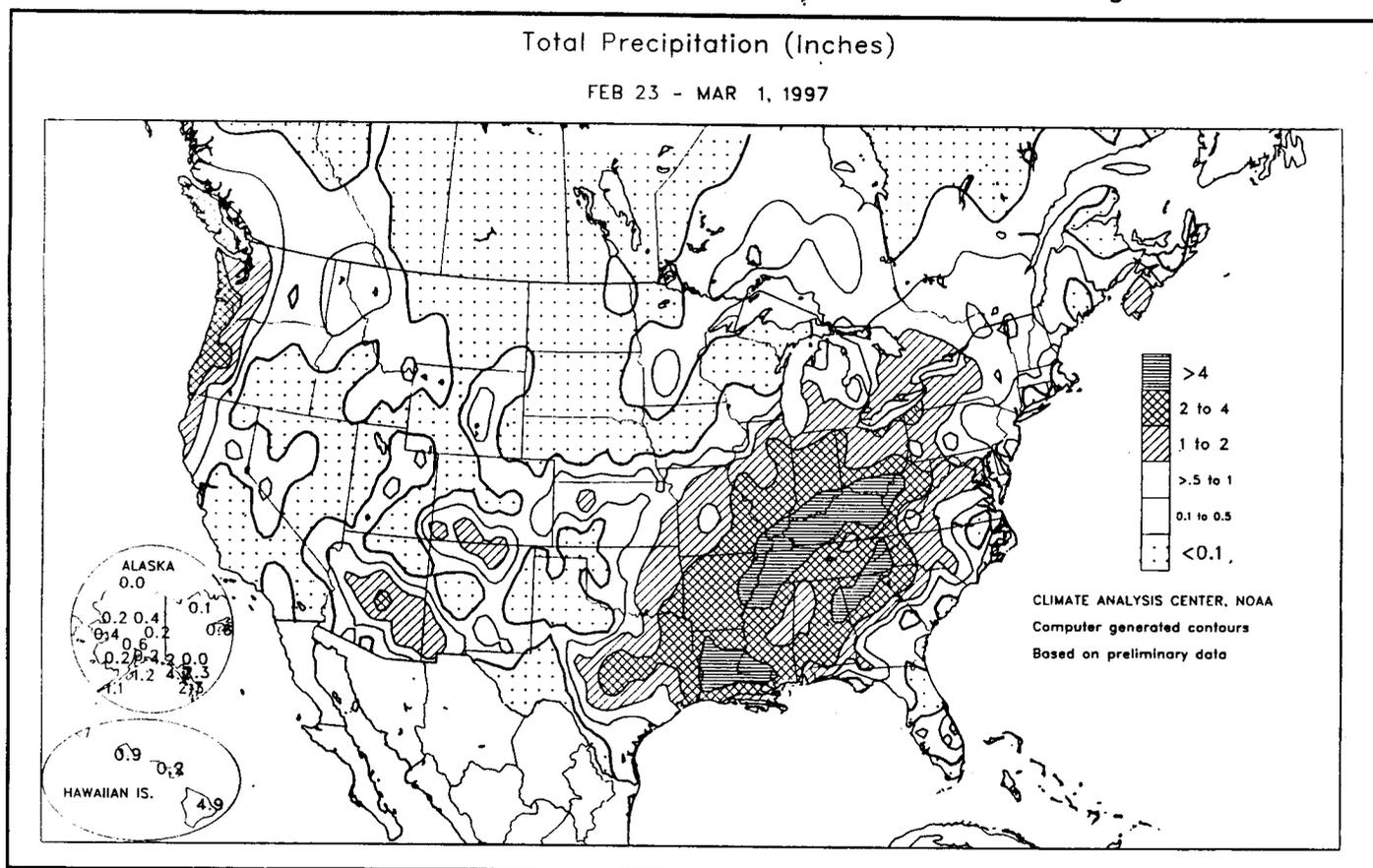


WEEKLY WEATHER AND CROP BULLETIN

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

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



HIGHLIGHTS

February 23 - March 1, 1997

Energetic and moisture-laden storms continued to traverse the southern branch of a split jet stream for the fourth consecutive week. Severe flooding developed in the lower and middle Ohio Valley, where 24-hour rainfall locally topped 10 inches at week's end. On March 1, a tornado outbreak left 24 people dead in Arkansas, equaling the U.S. tornado toll for all of 1996. Additional rainfall aggravated earlier flooding in parts of the Midwest and the central Gulf Coast States. Beneficial precipitation, however, further reduced the effects of nearly 3 months of dry weather on the central Plains. In the East, where weekly temperatures averaged 3 to 10°F above normal, warmth toppled nearly five dozen daily-record highs and a handful of February records. In contrast, temperatures averaged up to 10°F below normal

in the western half of the Nation. In the Southwest, sub-zero temperatures occurred at week's end in the wake of a major snowstorm. Cold weather also returned to the North Central States, maintaining the deep snowpack.

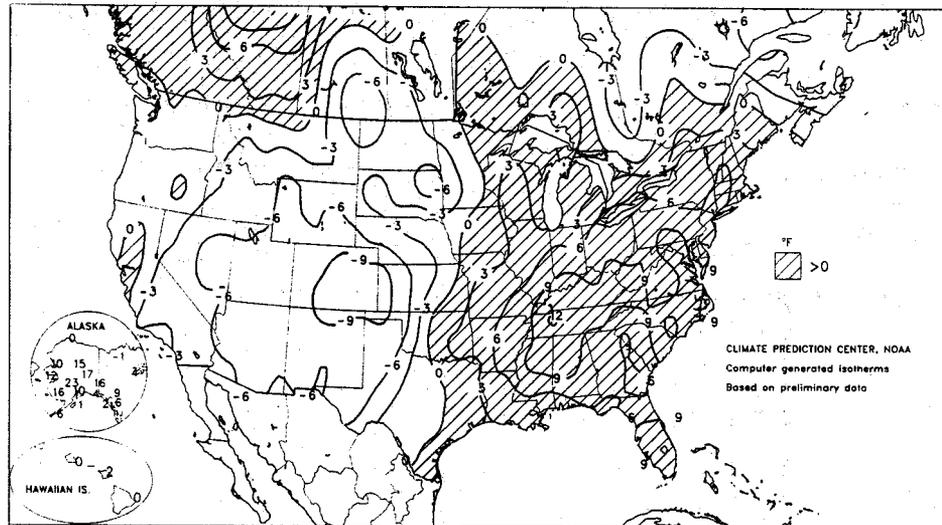
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Departure of Average Temperature from Normal (°F)

FEB 23 - MAR 1, 1997



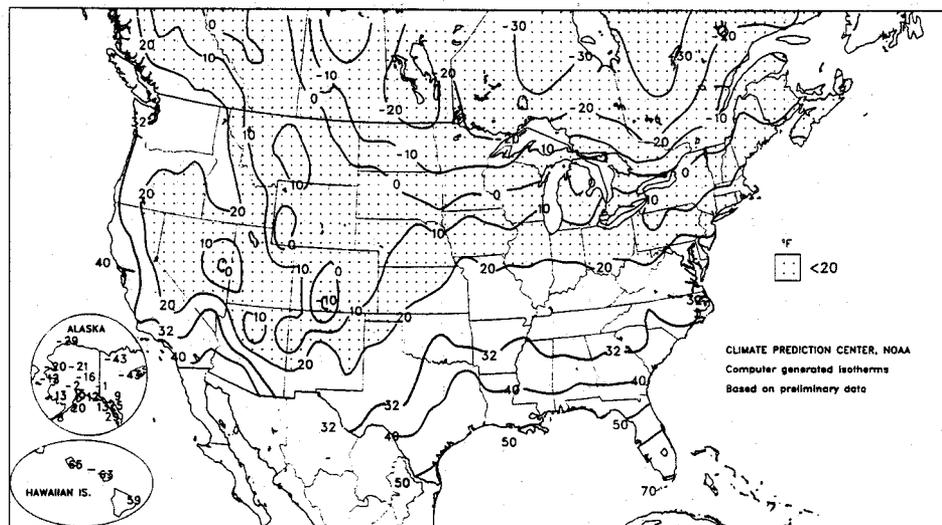
(Continued from front cover)

On Sunday, the **Rock River** at **Joslin, IL** crested at a record 6.77 feet above flood stage. In **Henry, IL**, the **Illinois River** crested at more than 6 feet above flood stage on Tuesday, only to rise again in the wake of back-to-back storms, finally leveling off at around 8.2 feet above flood stage on March 2. Farther west, snow blanketed formerly dry areas of the **central High Plains**, accumulating by Monday morning to a depth of 10 inches in **Goodland, KS**, 8 inches in **Lamar, CO**, and 6 inches in **McCook, NE**. Meanwhile, heavy rain developed across the **central Gulf Coast States** on February 24-25, resulting in 24-hour totals of 3.90 inches in **Leesville, LA** and 2.24 inches in **McComb, MS**.

At midweek, heavy rain returned to areas from the **middle Mississippi Valley** to the **northern Middle Atlantic region**, totaling 1 to 3 inches. In **Texas**, light rain padded February-record totals in **Waco** (7.91 inches), **Dallas-Ft. Worth** (7.40 inches), and **San Angelo** (4.54 inches). In **Peoria, IL**, monthly precipitation totaled 5.49 inches, 0.15 inches shy of their February record, set in 1900.

Extreme Minimum Temperature (°F)

FEB 23 - MAR 1, 1997



On Wednesday, **Ft. Myers, FL** notched their first of five consecutive daily-record highs (87, 89, 88, 89, and 89°F). A day later, warmth exploded across the East, resulting in February records in **Florence, SC** (86°F), **Harrisburg, PA** (78°F), and **Bridgeport, CT** (67°F). In **Philadelphia, PA**, a high of 74°F was their third warmest in February, and helped to put the finishing touches on their first February without sub-20°F weather since 1957. On Saturday, more than two dozen daily records were broken across the Southeast, including highs of 80°F in **Tupelo, MS**, **Huntsville, AL**, and **Atlanta, GA**. In **Bristol, TN** (81°F), the mercury surpassed 80°F on the earliest calendar date on record.

On February 27-28, a major snowstorm struck the Southwest. Twenty-four hour snowfall reached 33 inches on **Grand Mesa, CO**, near **Grand Junction**, and 30 inches on **Mt. Lemmon, AZ**, near **Tucson**. **Mt. Lemmon** also received 49 inches in 48 hours en route to a storm's-end snow depth of 69 inches. The storm boosted weekly snowfall to 66 inches at **Brian Head, UT**. On Saturday, the low in **Flagstaff, AZ** dipped to -10°F. As the storm progressed eastward, violent thunderstorms erupted on Saturday across the South. In addition to the **Arkansas** fatalities, which represented the State's greatest 1-day tornado death toll since May 15, 1968, there was one wind-related death in **Tennessee**, and two apiece in **Texas** and **Mississippi**.

An all-time-record, 24-hour total of 10.48 inches deluged **Louisville, KY** on Saturday, breaking a record that had stood since March 9, 1964. In **Lexington, KY**, the 5.56-inch total was second all-time, behind a 8.04-inch total on August 2, 1932. Storm-total rainfall ranged from 4 to 10 inches throughout the **lower and middle Ohio Valley**, causing serious flooding. By March 2 and 3, record flooding struck **Rolling Fork** at **Boston, KY**, and the **Little Kanawha River** from **Grantsville** to **Elizabeth, WV**, while major rises pushed the **middle Ohio River** well above flood stage from the **Ohio-West Virginia** border downstream. Meanwhile, snow developed across the **North Central States**, accumulating up to 10 inches in parts of **Minnesota**.

Very mild air encompassed **Alaska**, with weekly temperatures 23°F above normal in **McGrath**. **Cold Bay** posted three consecutive daily-record highs on February 24-26 (47, 46, and 46°F), but also clocked a February-record wind gust to 86 mph on Monday. In **Kodiak**, a streak of 35 days in a row with measurable precipitation, their third longest on record, ended on Thursday. Meanwhile in **Hawaii**, a westward-moving storm dumped heavy rain and high-elevation snow on the **Big Island**.

National Weather Data for Selected Cities

Weather Data for the Week Ending March 1, 1997

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	.01 INCH OR MORE	.05 INCH OR MORE
AL BIRMINGHAM	67	48	82	30	57	9	1.87	0.58	0.87	0.00	0	11.12	111	94	48	0	1	4	2
MOBILE	66	55	81	42	61	5	1.87	0.36	0.78	0.00	0	10.54	101	96	57	0	0	4	3
MONTGOMERY	67	52	82	39	56	9	2.77	1.34	2.20	0.00	0	12.94	124	92	52	0	0	4	1
AK ANCHORAGE	36	26	44	15	31	10	0.18	-0.01	0.08	0.00	0	0.84	41	87	67	0	7	2	0
BARROW	-12	-24	-7	-29	-18	0	0.00	-0.03	0.00	0.00	0	0.06	33	78	71	0	7	0	0
FAIRBANKS	28	9	37	-18	18	17	0.22	0.11	0.20	0.00	0	0.69	86	89	82	0	7	2	0
JUNEAU	40	32	62	25	36	6	-	-	-	-	-	-	-	98	78	0	4	-	-
KODIAK	40	26	43	20	33	2	1.21	0.04	0.74	0.00	0	16.91	132	96	96	0	7	3	1
NOME	23	11	34	-12	17	12	0.44	0.31	0.23	0.00	0	1.90	136	86	99	0	7	3	0
AZ PHOENIX	62	44	71	38	53	-6	0.62	0.32	0.37	0.00	0	1.46	104	78	33	0	0	3	0
PRESCOTT	43	23	62	18	33	-7	1.13	0.72	0.90	0.00	0	3.06	98	89	41	0	7	2	1
TUCSON	60	36	73	35	48	-8	0.61	0.44	0.56	0.00	0	1.80	102	79	28	0	0	2	1
YUMA	66	48	72	43	58	-4	0.13	0.07	0.13	0.00	0	0.47	82	68	20	0	0	1	0
AR FORT SMITH	56	41	63	30	50	4	1.76	0.87	0.66	0.66	591	7.71	167	91	63	0	1	4	2
LITTLE ROCK	-	-	-	-	-	-	2.19	1.14	-	1.17	836	8.44	122	-	-	-	-	-	-
CA BAKERSFIELD	62	38	86	33	50	-8	0.23	-0.04	0.23	0.00	0	2.41	123	81	28	0	0	1	0
EUREKA	56	39	85	34	48	-2	1.58	0.38	0.79	0.79	439	12.15	111	88	46	0	0	3	2
FRESNO	62	37	84	35	50	-3	0.07	-0.38	0.07	0.00	0	3.39	89	80	26	0	0	1	0
LOS ANGELES	65	50	86	46	58	0	0.00	-0.59	0.00	0.00	0	4.22	85	76	28	0	0	0	0
REDDING	66	42	72	36	54	2	0.04	-1.01	0.04	0.00	0	9.71	91	67	25	0	0	1	0
SACRAMENTO	65	43	72	37	54	2	0.00	-0.66	0.00	0.00	0	7.94	118	69	29	0	0	0	0
SAN DIEGO	62	51	86	45	58	-3	0.10	-0.30	0.08	0.00	0	3.26	95	78	30	0	0	2	0
SAN FRANCISCO	60	46	86	42	53	0	0.00	-0.74	0.00	0.00	0	7.78	102	77	50	0	0	0	0
CO DENVER	36	15	47	7	25	-10	0.13	-0.07	0.07	0.00	0	0.66	81	84	51	0	7	2	0
GRAND JUNCTION	41	22	47	13	32	-7	0.14	-0.01	0.14	0.00	0	0.72	67	84	39	0	6	1	0
PUEBLO	39	15	51	8	27	-10	0.12	0.00	0.07	0.00	0	0.55	86	91	54	0	7	2	0
CT BRIDGEPORT	48	31	67	18	38	6	0.03	-0.77	0.03	0.00	0	4.88	77	82	44	0	3	1	0
HARTFORD	47	28	65	13	37	6	0.08	-0.76	0.04	0.00	0	4.58	68	72	36	0	5	2	0
DC WASHINGTON	69	41	77	29	50	9	0.83	0.12	0.70	0.70	700	6.88	103	73	39	0	1	2	1
FL PANAMA CITY	66	57	77	46	62	6	-	-	-	-	-	-	-	94	71	0	0	-	-
DAYTONA BEACH	78	61	86	58	69	9	0.02	-0.78	0.02	0.00	0	2.28	38	98	69	0	0	1	0
JACKSONVILLE	74	55	87	45	64	8	0.37	-0.81	0.23	0.00	0	4.17	58	91	61	0	0	2	0
KEY WEST	82	75	84	72	79	7	0.03	-0.41	0.03	0.00	0	4.31	111	83	68	0	0	1	0
MIAMI	83	72	85	68	77	8	0.18	-0.36	0.18	0.00	0	3.22	77	85	61	0	0	2	0
ORLANDO	82	62	87	59	72	9	0.10	-0.71	0.07	0.00	0	0.01	0	94	57	0	0	2	0
TALLAHASSEE	69	54	81	48	61	5	0.31	-1.19	0.16	0.00	0	9.41	89	82	59	0	0	4	0
TAMPA	84	64	88	57	74	11	0.03	-0.79	0.03	0.00	0	1.80	31	91	57	0	0	1	0
WEST PALM BEACH	81	71	83	64	78	8	0.88	0.14	0.78	0.00	0	8.70	159	82	60	0	0	3	1
GA ATLANTA	66	49	80	35	57	9	3.82	2.53	2.04	0.00	0	12.85	130	90	54	0	0	4	2
AUGUSTA	70	46	85	32	58	8	0.63	-0.48	0.58	0.00	0	8.50	100	97	49	0	2	2	1
MACON	69	46	83	34	59	7	0.23	-0.87	0.21	0.00	0	10.48	111	94	48	0	0	2	0
SAVANNAH	71	52	85	37	61	7	0.27	-0.56	0.24	0.00	0	6.42	78	96	62	0	0	2	0
HI HILO	78	66	82	59	72	0	4.90	2.07	1.41	0.49	128	10.85	52	84	64	0	0	8	3
HONOLULU	80	67	85	65	74	0	0.70	0.20	-	0.01	14	7.88	136	78	60	0	0	-	-
KAHULUI	82	66	87	63	74	2	0.16	-0.50	0.11	0.00	0	3.44	46	80	51	0	0	2	0
LIHUE	-	-	-	-	-	-	-	-	-	-	-	-	-	80	65	-	-	-	-
ID BOISE	47	26	51	21	38	-3	0.06	-0.22	0.03	0.02	50	2.93	115	79	33	0	6	2	0
LEWISTON	46	30	51	26	38	-3	0.18	-0.06	0.18	0.00	0	3.24	146	89	63	0	5	1	0
POCATELLO	38	20	41	15	29	-3	0.01	-0.24	0.01	0.00	0	1.99	100	85	41	0	7	1	0
IL CHICAGO	38	26	55	13	32	3	0.97	0.54	0.57	0.12	200	5.91	200	94	89	0	3	4	1
MOLINE	40	28	58	15	33	4	-	-	-	-	-	-	-	95	70	0	6	-	-
PEORIA	42	27	59	14	35	4	1.86	1.20	1.26	0.11	157	6.38	212	92	89	0	4	5	1
QUINCY	44	29	59	21	38	3	-	-	-	-	-	-	-	92	60	0	5	-	-
ROCKFORD	37	24	58	13	30	3	0.59	0.22	0.24	0.08	133	3.81	162	94	67	0	7	4	0
SPRINGFIELD	46	29	63	20	38	5	1.95	1.38	1.82	0.21	282	4.28	127	92	57	0	5	3	1
IN EVANSVILLE	59	35	66	24	47	8	3.31	2.36	1.93	1.93	1379	8.50	150	95	58	0	3	4	3
FORT WAYNE	42	28	63	18	35	5	2.28	1.87	1.86	0.03	37	5.80	150	94	73	0	4	4	2
INDIANAPOLIS	59	31	66	19	42	8	3.06	2.33	2.15	0.36	327	7.78	159	91	56	0	4	4	1
SOUTH BEND	42	26	61	12	34	4	1.23	0.68	1.01	0.02	25	4.81	114	92	64	0	5	3	1
IA DES MOINES	38	21	48	14	30	0	0.10	-0.23	0.07	0.01	20	0.92	46	92	68	0	7	3	0
SIOUX CITY	36	21	43	12	28	0	0.14	-0.14	0.14	0.00	0	0.95	73	85	61	0	7	1	0
WATERLOO	34	21	42	11	28	3	0.21	-0.16	0.18	0.00	0	1.74	90	94	68	0	7	2	0
KS CONCORDIA	39	21	50	9	30	-5	0.41	0.10	0.36	0.00	0	1.54	112	94	71	0	7	4	0
DODGE CITY	40	23	58	18	32	-6	0.33	0.10	0.28	0.00	0	1.22	106	93	65	0	6	2	0
GOODLAND	33	15	37	9	24	-11	0.46	0.29	0.30	0.00	0	0.84	80	94	73	0	7	3	0
TOPEKA	44	27	54	22	36	-1	0.51	0.14	0.36	0.12	200	2.98	146	94	69	0	7	3	0
WICHITA	47	30	63	24	38	-1	0.37	-0.04	0.17	0.08	129	2.82	128	94	82	0	4	3	0
KY BOWLING GREEN	63	38	74	23	51	10	4.44	3.31	3.93	3.93	2458	11.04	136	92	49	0	3	4	1
LEXINGTON	57	36	66	24	47	9	7.02	6.11	5.92	5.92	4654								

Weather Data for the Week Ending March 1, 1997

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	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.05 INCH OR MORE
ME CARIBOU	25	7	37	-5	16	0	0.22	-0.28	0.19	0.03	43	5.88	133	88	61	0	7	2	0
ME PORTLAND	38	24	50	8	31	5	0.72	-0.12	0.65	0.07	64	5.11	73	75	44	0	4	2	1
MD BALTIMORE	57	36	76	23	46	8	1.07	0.27	0.91	0.91	827	5.98	95	78	43	0	4	2	1
MD SALISBURY	58	37	78	27	48	8	0.97	0.06	0.47	0.47	382	6.26	87	92	44	0	4	3	0
MA BOSTON	45	30	59	15	37	4	0.14	-0.76	0.11	0.00	0	3.52	48	75	48	0	4	2	0
MA CHATHAM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MI ALPENA	32	12	44	-6	22	1	1.25	0.88	1.08	0.13	217	6.04	202	91	68	0	7	3	1
MI DETROIT	42	26	63	13	34	6	1.44	0.94	0.69	0.13	186	5.74	161	89	61	0	5	4	2
MI FLINT	38	22	56	5	30	3	0.67	0.30	0.43	0.03	50	4.97	183	96	66	0	6	4	0
MI GRAND RAPIDS	36	21	51	4	28	1	0.75	0.32	0.35	0.23	383	6.98	210	94	66	0	6	4	0
MI HOUGHTON LAKE	31	14	41	-5	22	1	0.47	0.12	0.37	0.07	117	4.45	163	93	70	0	7	3	0
MI LANSING	38	20	58	1	29	4	0.73	0.37	0.44	0.07	117	4.81	176	94	67	0	6	3	0
MI MARQUETTE	28	4	41	-11	16	-1	0.15	-0.35	0.14	0.14	175	7.72	193	86	63	0	7	2	0
MI MUSKEGON	36	24	48	8	30	2	0.76	0.35	0.44	0.12	200	5.39	138	91	67	0	5	3	0
MI SAULT ST. MARIE	28	10	37	0	19	2	0.22	-0.23	0.12	0.12	171	3.35	79	82	61	0	7	3	0
MN ALEXANDRIA	24	7	34	-8	15	-3	-	-	-	-	-	-	-	93	74	0	7	-	-
MN DULUTH	26	9	40	-12	17	1	0.14	-0.12	0.14	0.14	280	1.65	80	85	82	0	7	1	0
MN INT'L FALLS	25	2	38	-26	14	1	0.15	-0.02	0.12	0.12	400	0.88	64	85	52	0	7	2	0
MN MINNEAPOLIS	30	14	39	-3	22	-1	0.16	-0.14	0.11	0.11	220	1.93	103	85	68	0	7	2	0
MN ROCHESTER	29	14	38	0	22	0	0.09	-0.17	0.06	0.04	100	2.48	160	90	69	0	7	2	0
MS GREENWOOD	68	50	82	36	59	9	-	-	-	-	-	-	-	91	52	0	0	-	-
MS JACKSON	66	51	81	37	58	8	1.28	0.02	0.80	0.00	0	11.20	107	91	58	0	0	5	1
MS MERIDIAN	67	51	81	38	59	7	1.32	-0.16	0.78	0.00	0	10.58	98	92	61	0	0	5	1
MO CAPE GIRARDEAU	60	38	85	30	49	9	4.27	3.28	2.47	2.47	1647	9.43	148	94	54	0	2	3	3
MO COLUMBIA	47	30	59	22	39	4	1.62	1.06	1.28	0.12	150	7.23	215	93	68	0	4	4	1
MO KANSAS CITY	42	27	53	22	35	-1	0.53	0.15	0.48	0.02	33	3.35	148	92	70	0	7	3	0
MO SAINT LOUIS	52	33	69	24	42	4	2.41	1.74	2.18	0.12	120	6.91	172	92	57	0	4	3	1
MO SPRINGFIELD	53	33	61	25	43	4	1.47	0.82	1.15	0.23	230	5.36	143	94	59	0	3	4	1
MT BILLINGS	37	22	48	13	29	-2	0.00	-0.18	0.00	0.00	0	0.96	60	86	49	0	7	0	0
MT GLASGOW	26	8	40	-4	17	-5	0.02	-0.06	0.02	0.00	0	0.35	54	88	69	0	7	1	0
MT GREAT FALLS	36	19	47	11	27	-2	0.19	0.02	0.17	0.00	0	0.44	29	92	65	0	7	3	0
MT HAVRE	38	17	52	12	27	2	0.06	-0.04	0.06	0.00	0	0.20	22	88	61	0	7	1	0
MT HELENA	36	21	41	19	29	-1	0.00	-0.11	0.00	0.00	0	0.37	35	91	58	0	7	0	0
MT KALISPELL	34	16	38	2	24	-5	1.42	1.17	1.00	0.11	275	3.28	123	95	71	0	7	4	1
MT MILES CITY	37	16	45	7	26	-1	0.03	-0.08	0.03	0.00	0	0.30	30	89	50	0	7	1	0
MT MISSOULA	35	21	39	13	28	-4	0.24	0.05	0.15	0.00	0	2.43	117	88	63	0	7	3	0
NE GRAND ISLAND	36	21	43	15	28	-3	0.27	-0.01	0.20	0.02	50	1.05	84	92	58	0	7	4	0
NE LINCOLN	37	20	47	10	28	-3	0.04	-0.24	0.04	0.00	0	0.93	72	93	62	0	7	1	0
NE NORFOLK	38	19	46	13	29	0	0.09	-0.20	0.07	0.02	40	0.98	74	87	53	0	7	2	0
NE NORTH PLATTE	39	18	50	10	27	-4	0.13	-0.03	0.08	0.00	0	0.68	80	89	49	0	7	3	0
NE OMAHA	38	22	45	17	30	-1	0.15	-0.14	0.07	0.00	0	1.16	74	86	63	0	7	4	0
NE SCOTTSBLUFF	38	14	51	4	26	-6	0.18	0.02	0.09	0.00	0	0.62	63	94	43	0	7	3	0
NE VALENTINE	40	16	56	4	28	0	0.03	-0.12	0.03	0.00	0	0.51	72	90	46	0	7	1	0
NV ELY	34	11	47	-9	22	-9	0.44	0.25	0.42	0.00	0	1.92	136	90	52	0	7	2	0
NV LAS VEGAS	58	42	84	38	50	-3	0.00	-0.11	0.00	0.00	0	0.20	21	45	18	0	0	0	0
NV RENO	48	27	57	17	38	-2	0.27	0.05	0.27	0.00	0	4.04	191	87	34	0	5	1	0
NV WINNEMUCCA	45	21	52	13	33	-5	0.02	-0.15	0.02	0.00	0	1.65	119	76	37	0	7	1	0
NH CONCORD	38	24	51	9	31	6	0.42	-0.22	0.41	0.01	12	5.44	106	81	49	0	5	2	0
NJ ATLANTIC CITY	54	32	73	19	43	7	0.69	-0.09	0.56	0.56	508	6.87	103	81	36	0	5	2	1
NM ALBUQUERQUE	47	30	53	27	38	-6	0.09	-0.02	0.05	0.00	0	0.67	74	74	34	0	6	2	0
NM CLOVIS	46	25	59	19	35	-8	-	-	-	-	-	-	-	97	53	0	6	-	-
NM ROSWELL	49	28	60	17	39	-9	-	-	-	-	-	-	-	94	53	0	5	-	-
NY ALBANY	43	22	61	8	32	5	0.59	-0.02	0.54	0.00	0	2.37	50	83	51	0	6	2	1
NY BINGHAMTON	41	21	62	5	31	5	0.93	0.32	0.79	0.01	12	2.89	60	82	50	0	6	3	1
NY BUFFALO	42	24	63	10	33	6	1.18	0.59	0.72	0.06	75	7.28	143	87	59	0	7	4	1
NY NEW YORK	51	34	73	20	43	7	0.24	-0.52	0.16	0.16	145	6.55	109	67	39	0	3	3	0
NY ROCHESTER	42	23	58	10	32	5	1.26	0.72	0.79	0.00	0	4.51	108	90	53	0	7	5	1
NY SYRACUSE	43	21	60	3	32	5	1.05	0.48	0.74	0.01	12	3.45	75	86	54	0	6	4	1
NC ASHEVILLE	59	42	73	25	51	8	1.81	0.55	1.22	0.16	89	9.78	114	91	54	0	2	4	1
NC CHARLOTTE	63	45	80	34	54	9	1.51	0.49	1.29	0.02	13	7.39	96	82	51	0	0	4	1
NC GREENSBORO	60	39	73	27	50	7	1.11	0.24	0.56	0.15	125	5.93	90	90	54	0	2	4	1
NC HATTERAS	61	48	70	36	54	7	0.41	-0.58	0.29	0.00	0	7.49	78	86	65	0	0	2	0
NC NEW BERN	70	48	84	31	59	11	0.64	-0.38	0.27	0.27	208	7.46	86	94	48	0	1	4	0
NC RALEIGH	66	41	82	27	53	9	0.27	-0.67	0.19	0.00	0	5.94	81	95	63	0	2	3	0
NC WILMINGTON	68	48	80	32	58	10	0.40	-0.69	0.40	0.00	0	7.05	78	98	53	0	1	1	0
ND BISMARCK	27	6	42	-4	17	-4	0.10	-0.02	0.09	0.00	0	1.41	153	82	65	0	7	2	0
ND FARGO	24	1	37	-15	13	-4	0.06	-0.08	0.06	0.00	0	0.65	56	85	69	0	7	1	0
ND GRAND FORKS	25	2	42	-18	13	-2	0.21	0.07	0.14	0.14	700	0.97	80	89	67	0	7	2	0
ND WILLISTON	23	1	36	-14	12	-9	0.09	-0.02	0.09	0.00	0	0.40	40	86	69	0	7	1	0
OH AKRON-CANTON	47	28	63	17	37	7	0.78	0.13	0.47	0.31	344	3.31	74	89	54	0	6	2	0
OH CINCINNATI	55	30	64	19	43	7	2.54	1.74	1.93	1.93	1808	6.44	119	90	54	0	4	4	1
OH CLEVELAND	47	31	66	19	39	8	2.57	1.96	1.03	0.52	650	5.12	119	85	58	0	3	3	3
OH COLUMBUS	53	30	65	19	41	8	1.32	0.68	1.00	1.00	1111	4.64	103	90	49	0	5	4	1
OH DAYTON	52	30	64	17	41	8	1.56	0.92	1.08	1.08	1200	5.19	118	93	58	0	4	4	1

Based on 1961-90 normals

Weather Data for the Week Ending March 1, 1997

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	82 AND BELOW	01 INCH OR MORE	06 INCH OR MORE
OK TOLEDO	46	26	65	11	36	7	1.88	1.38	1.03	0.03	43	6.63	187	92	61	0	4	3	2
OK YOUNGSTOWN	48	27	63	11	37	7	0.58	-0.01	0.40	0.17	189	1.55	98	85	48	0	5	3	0
OK OKLAHOMA CITY	53	37	60	32	45	1	0.10	-0.40	0.10	0.00	0	2.61	94	88	60	0	1	1	0
OK TULSA	55	36	65	30	46	2	1.02	0.39	0.95	0.05	58	3.71	103	91	60	0	2	3	1
OR ASTORIA	51	37	59	34	44	-1	2.58	0.81	1.97	1.97	821	18.13	102	94	66	0	0	5	1
OR BURNS	44	23	52	19	33	1	0.01	-0.19	0.01	0.00	0	2.82	158	93	43	0	7	1	0
OR MEDFORD	56	31	65	25	44	-1	0.55	0.11	0.37	0.37	617	4.92	105	86	36	0	4	2	0
OR PENDLETON	50	32	53	27	41	-1	0.29	0.02	0.29	0.29	725	1.88	63	87	46	0	5	1	0
OR PORTLAND	52	36	62	30	44	-1	1.37	0.49	1.01	1.01	842	9.79	105	95	53	0	3	5	1
OR SALEM	52	35	63	28	44	-1	1.70	0.64	1.25	1.25	833	12.17	115	92	58	0	3	4	1
PA ALLENTOWN	50	28	72	14	39	6	0.12	-0.82	0.07	0.07	70	4.06	65	78	40	0	5	2	0
PA ERIE	46	25	66	9	35	6	2.14	1.51	1.37	0.33	367	5.39	118	91	63	0	6	3	1
PA HARRISBURG	-	-	-	-	-	-	0.31	-0.45	0.20	0.20	182	3.67	62	72	34	-	-	-	-
PA PHILADELPHIA	54	34	74	22	44	8	0.35	-0.37	0.23	0.23	230	5.71	93	77	46	0	4	2	0
PA PITTSBURGH	50	28	67	14	39	7	0.57	-0.10	0.43	0.43	430	3.51	70	92	46	0	5	3	0
PA SCRANTON	46	27	70	12	37	7	0.05	-0.51	0.05	0.00	0	2.61	60	73	40	0	4	1	0
RI PROVIDENCE	46	29	60	15	38	6	0.02	-0.90	0.02	0.00	0	6.08	80	71	41	0	4	1	0
SC CHARLESTON	71	53	83	41	62	9	0.11	-0.80	0.09	0.00	0	4.88	71	84	45	0	0	2	0
SC COLUMBIA	69	46	84	30	58	8	0.86	-0.22	0.80	0.00	0	9.11	104	92	39	0	1	3	1
SC FLORENCE	71	50	86	34	61	10	-	-	-	-	-	-	-	-	-	-	-	-	-
SC GREENVILLE	62	44	76	31	53	7	2.80	1.40	1.40	0.08	47	10.97	126	94	54	0	2	4	2
SD ABERDEEN	23	1	33	-8	12	-9	0.04	-0.14	0.04	0.00	0	2.22	179	90	72	0	7	1	0
SD HURON	28	7	41	-3	17	-6	0.12	-0.13	0.06	0.06	150	1.41	127	89	72	0	7	2	0
SD RAPID CITY	39	16	53	6	28	-2	0.00	-0.17	0.00	0.00	0	0.88	97	85	45	0	7	0	0
SD SIOUX FALLS	28	10	41	-3	19	-5	0.36	0.13	0.32	0.04	100	1.83	154	89	70	0	7	2	0
TN CHATTANOOGA	63	46	79	29	54	10	2.12	0.81	0.98	0.03	16	11.41	115	93	52	0	2	4	2
TN KNOXVILLE	63	44	80	28	54	10	2.73	1.63	1.52	0.05	31	10.14	121	87	44	0	2	4	2
TN MEMPHIS	65	47	79	32	56	9	4.63	3.43	2.86	2.86	1787	14.86	180	84	43	0	1	4	3
TN NASHVILLE	65	43	81	23	54	10	1.37	0.33	0.41	0.17	113	7.28	96	88	42	0	2	4	0
TX ABILENE	59	38	75	30	49	-2	0.24	-0.06	0.10	0.09	225	3.67	165	91	50	0	1	3	0
TX AMARILLO	46	25	63	19	36	-7	0.05	-0.14	0.03	0.00	0	1.11	98	93	58	0	6	3	0
TX AUSTIN	62	49	83	44	55	-1	0.84	0.32	0.42	0.00	0	4.94	126	90	57	0	0	3	0
TX BEAUMONT	65	54	79	46	60	3	0.92	0.15	0.75	0.00	0	9.30	113	95	72	0	0	2	1
TX BROWNSVILLE	75	61	83	55	68	4	0.20	0.01	0.12	0.00	0	1.03	39	97	72	0	0	4	0
TX CORPUS CHRISTI	69	55	90	46	62	1	0.28	-0.12	0.14	0.00	0	1.35	36	98	63	1	0	5	0
TX DEL RIO	67	47	84	40	57	-1	0.04	-0.17	0.04	0.00	0	2.24	146	92	37	0	0	1	0
TX EL PASO	57	37	64	33	47	-4	0.13	0.04	0.11	0.11	1100	0.79	95	79	35	0	0	2	0
TX FORT WORTH	58	44	75	36	51	1	0.94	0.27	0.40	0.01	11	7.67	178	97	67	0	0	5	0
TX GALVESTON	64	55	71	48	60	2	0.90	0.38	0.72	0.00	0	6.96	125	98	81	0	0	3	1
TX HOUSTON	66	53	81	47	59	3	1.86	1.15	0.89	0.09	100	8.77	138	93	70	0	0	4	2
TX LUBBOCK	50	29	68	25	39	-7	0.03	-0.18	0.03	0.03	100	1.60	147	90	45	0	6	1	0
TX MIDLAND	55	35	73	30	45	-6	0.03	-0.10	0.03	0.00	0	1.90	179	91	52	0	3	1	0
TX SAN ANGELO	61	39	78	30	50	-2	0.30	0.05	0.19	0.19	633	5.09	288	93	47	0	1	3	0
TX SAN ANTONIO	63	48	84	41	56	-1	0.52	0.11	0.23	0.02	40	2.73	76	93	56	0	0	5	0
TX VICTORIA	65	53	81	47	59	1	0.22	-0.22	0.09	0.01	20	5.48	129	96	66	0	0	4	0
TX WACO	60	45	80	38	52	0	1.75	1.21	0.79	0.58	829	10.88	286	93	64	0	0	5	2
TX WICHITA FALLS	56	39	69	31	48	-1	0.07	-0.36	0.07	0.00	0	3.21	124	90	57	0	1	1	0
UT CEDAR CITY	40	18	49	9	29	-8	0.17	-0.10	0.09	0.00	0	2.41	149	89	39	0	7	2	0
UT SALT LAKE CITY	40	26	46	20	33	-4	0.30	-0.06	0.30	0.00	0	3.89	161	74	42	0	7	1	0
VT BURLINGTON	36	19	47	3	27	5	0.29	-0.15	0.29	0.00	0	2.89	83	81	53	0	7	1	0
VA NORFOLK	62	41	82	32	52	8	0.40	-0.47	0.39	0.00	0	4.89	67	87	54	0	1	2	0
VA RICHMOND	60	38	79	29	49	7	1.51	0.89	1.27	0.07	64	5.71	88	87	49	0	4	3	1
VA ROANOKE	57	39	70	31	48	7	0.27	-0.54	0.12	0.06	55	5.61	97	80	51	0	2	3	0
WA QUILLAYUTE	50	33	59	27	41	-1	2.87	-0.13	2.35	2.35	587	29.09	106	98	68	0	4	4	1
WA SEATTLE-TACOMA	48	35	55	30	42	-3	0.58	-0.33	0.43	0.43	331	9.44	99	97	63	0	3	4	0
WA SPOKANE	41	26	47	23	34	-2	0.52	0.16	0.32	0.32	640	3.39	96	95	61	0	7	2	0
WA YAKIMA	61	30	68	24	40	1	0.00	-0.17	0.00	0.00	0	1.34	68	87	47	0	5	0	0
WV BECKLEY	56	35	68	21	45	10	0.19	-0.58	0.10	0.03	27	4.56	78	86	41	0	4	3	0
WV CHARLESTON	61	38	74	28	49	10	2.99	2.18	2.76	2.76	2509	6.02	100	79	42	0	3	2	1
WV HUNTINGTON	59	36	68	26	47	11	3.42	2.82	3.13	3.13	2845	6.73	109	82	43	0	4	3	1
WV PARKERSBURG	55	30	67	18	42	6	2.67	1.90	2.34	2.34	2127	5.58	91	92	40	0	4	2	1
WI GREEN BAY	31	18	40	1	25	2	0.13	-0.20	0.10	0.10	200	2.70	121	90	65	0	6	2	0
WI LACROSSE	35	21	43	7	28	4	0.15	-0.15	-	0.05	125	3.01	181	88	55	0	7	-	-
WI MADISON	34	22	45	9	28	3	0.29	-0.04	0.15	0.09	180	3.48	154	90	66	0	7	3	0
WI MILWAUKEE	36	25	48	12	30	4	0.46	0.02	0.25	0.08	114	4.08	131	84	62	0	5	3	0
WI WAUSAU	33	17	42	-2	25	4	0.17	-0.13	0.17	0.17	340	2.58	139	83	51	0	7	1	0
WY CASPER	33	12	43	2	22	-7	0.30	0.13	0.18	0.00	0	1.09	94	91	53	0	7	3	0
WY CHEYENNE	31	13	44	8	22	-9	0.12	-0.03	0.06	0.00	0	0.70	87	92	54	0	7	3	0
WY LANDER	33	14	44	2	24	-5	0.23	0.06	0.17	0.00	0	0.59	55	88	45	0	7	3	0
WY SHERIDAN	34	14	45	0	24	-5	0.03	-0.14	0.03	0.00	0	0.91	64	91	52	0	7	1	0
PR SAN JUAN	-	-	-	-	-	-	0.27	-0.25	-	0.00	0	8.59	113	85	74	-	-	-	-

Based on 1961-90 normals

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

National Agricultural Summary

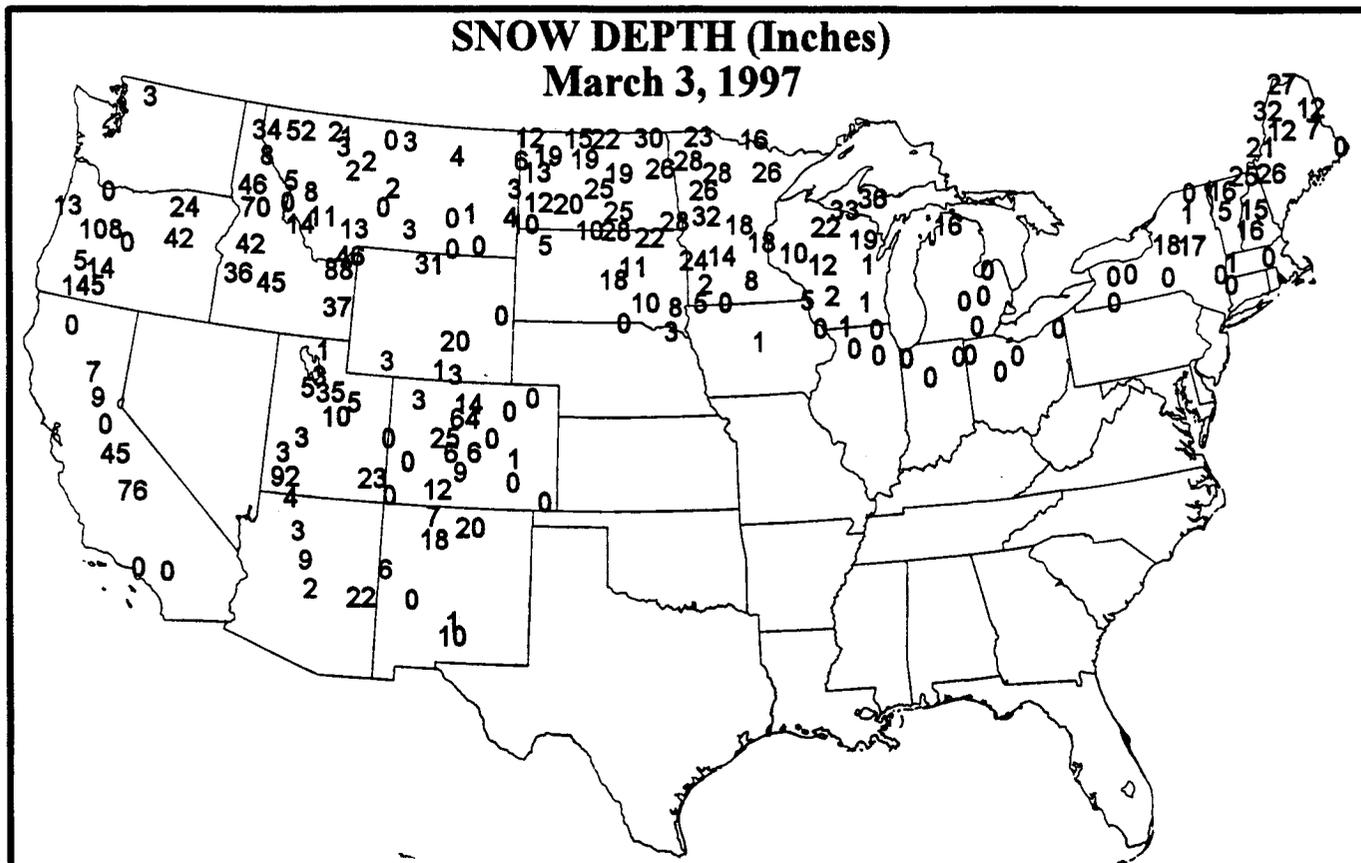
February 24 - March 2, 1997

HIGHLIGHTS

Heavy rains, the resulting flooding, and muddy fields delayed field activities in an area from the Texas coast to the Ohio Valley and most of the Southeast. The Ohio Valley was the hardest-hit area and received over 10 inches of rainfall, causing local flood damage. Farmers in the Dakotas and Minnesota continued to struggle with deep snow and cold weather. The deep snow pack generated concerns for the possibility of flooding when the spring thaw starts. The winter wheat areas of southern Nebraska, Kansas, and eastern Colorado

received beneficial moisture during the week, and producers were reporting the crop to be in mostly good to excellent condition. Very little winter damage has been reported. In Florida, field preparations for spring-planted crops were active, as most of last week's heavy rains missed the Florida peninsula. Livestock producers in most areas of the country have experienced either excessively wet or cold weather, adding pressure to short feed supplies and causing difficult birthing conditions.

SNOW DEPTH (Inches) March 3, 1997



The NWS co-operative observer network is the principal source of the snow depth reports. Gaps in data coverage will be disappearing as more data come online.

Experimental product based on preliminary data
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

State Agricultural Summaries

These summaries, issued weekly in April through November and monthly in the other months, 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/oc/waob/jawf>.

ALABAMA: Wet conditions hampered spring plowing, fertilizer applications in most areas. Soil moisture 19% adequate, 81% surplus. Wheat 5% poor, 39% fair, 53% good, 3% excellent. Peach bloom set was normal at this time of year. Most varieties are within 10 to 14 days of being in full bloom. Chill hour and temperatures are currently favorable as moderate weather should push development rates quickly.

ARIZONA: Taking advantage of early planting dates and warm weather during most of the month, western producers' cotton planting was well underway by late February. Pre-planting preparations were becoming active in all areas by month's end, although a cool, wet final week of the month delayed planting in the rest of the State. Small grain seedlings finished during the month, with condition at month's end being 4% fair, 50% good, and 46% excellent. All acreage had emerged. Eighty-two percent of the State's alfalfa acreage was not being cut at the beginning of the month but dormant fields began to show life. By the end of the month, haying activity was 6% light, 42% moderate, 26% active. Condition of the hay crop was 6% fair, 47% good, 47% excellent. Winter vegetables, with the generally normal to above-normal temperatures, were in many cases maturing ahead of schedule. Iceberg, Boston, leaf, romaine and specialty lettuces were available in good volume, throughout the month as well as cauliflower, endive, escarole, salad savoy from the western area. A continuous supply of carrots, leeks, Swiss chard, greens, green onions, radishes was available from the central area. In addition, both areas were supplying broccoli, cabbage, kale, napa, spinach. Navel orange harvest was complete by mid-month, just as the Valencia harvest was getting underway in the western area. Lemons, grapefruit, tangerines, tangelos were shipped throughout the month as was a light volume of honey mandarins. Virtually the entire State received significant precipitation in the form of rain and snow in late February, alleviating dry range and pasture conditions. Before the end of the month storm, grazing conditions were nearly the same as in January. Upper elevation pastures continued in poor to fair condition, while low to mid-elevation pastures remained varied from very poor to good, depending on location. Rangeland has started to green up in a few low to mid-elevation areas, but need a warm March to provide adequate spring feed. Supplemental feeding will still be necessary until then. Cattle and calves remain in mostly fair condition. Stock water and soil moisture supplies were rated short to adequate, but show promise since the month ending storm. Insect damage remained virtually nonexistent.

ARKANSAS: Main farming activity: Applying nitrogen to wheat. Surplus soil moisture continued to detained fieldwork. No ground preparation for row crop planting was done. Agent estimates that early planted row crop will fall approximately 2-3 weeks behind schedule due surplus soil moisture. A small amount of nitrogen was applied to some wheat across the State. Warm weather assisted cool season forage. Some trees have bloomed early. Livestock remain in good condition across the State. Hay shortage remains a concern in north-central areas.

CALIFORNIA: Field activities progressed normally under warm, dry conditions. Small growth improved as fields dried. Some Sacramento valley wheat fields still showed signs of stress from earlier flooding. Head development continued in southern counties. Some lodging was observed in Tulare County. A few dryland wheat, oat fields were planted in the San Joaquin Valley. Fertilizer, broadleaf herbicide applications were ongoing in wheat, barley, oat fields. Rice stubble was burned where conditions permitted. As the month ended, plowdown of harvested cotton fields for pink bollworm control was still ongoing in the San Joaquin Valley. Planting of new alfalfa was winding down. Safflower planting was underway in the northern San Joaquin Valley. Grain sorghum was harvested in Tulare County. Garbanzo beans showed good growth in Kings County. Ground preparation for spring planted corn, cotton, dry beans, safflower was in full swing in most

areas. Sugar beets were still being planted in Glenn County as February closed. Alfalfa, oats were cut for hay, winter forage was green chopped fruit growers were performing such cultural activities as pruning, weed control in orchards, vineyards. New trees were planted in February. By mid-month almonds and early variety stone fruit were in full bloom. Weather conditions were ideal for good pollination. Bees were active in plums, melons. Lemon, tangelo, navel orange picking was active. Grapefruit, lemons were in heavy bloom in southern counties. Ground was prepared for planting spring, summer vegetables. Ideal February weather enhanced the growth of early-planted spring vegetables. Cauliflower harvest progressed in the Salinas-Watsonville area. As the end of the month neared, broccoli harvest was underway in Fresno County. Lettuce harvest continued in the Imperial, San Joaquin valleys. Lettuce was thinned, weeded, treated to control aphids, mildew in the San Joaquin Valley. Carrot harvest progressed in Joaquin valleys. Cabbage was harvested in Imperial County. Cabbage transplanting was underway in Fresno County. Celery was harvested along south coast. Onion harvest continued in the Antelope Valley and Monterey County. Some processing tomato fields were fumigate in preparation for planting. Rangeland, pastures were still moist as March approached. Conditions were good to excellent, and improving. Supplemental feeding was in decline. Milk production improved as dairy cattle recovered from flood stress. Sheep were grazing in alfalfa, sudan grass. Livestock were in good condition.

COLORADO: Mountain areas continued to receive good snowfall. Most of the month was mild, dry across the Eastern Plains except for the last week when much needed moisture was received across the State. Up to two feet of snow was received in the mountain areas, anywhere from 4-8 inches fell over the Front Range, Eastern Plains. However, more moisture is needed over the winter wheat areas to promote plant development in the spring. Major farm activities include preparing tax information, attending producer meetings, and taking care of livestock as calving, lambing activities have started. Also, some early progress has been made in seeding small grain crops and planting onions.

DELAWARE: Small grains generally in fair to good condition. Warmer weather has spurred growth. Hay supplies adequate to above adequate. Livestock and poultry in good condition with no major problems. Slight rise in respiratory problems in poultry in some areas. Rainfall has been normal and temperatures have been mild, allowing fields to start drying to prepare for spring planting. Activities: Equipment maintenance and chores, application of fertilizer and lime, attending educational meetings, and preparation for spring planting.

FLORIDA: Topsoil moisture, adequate to surplus in Panhandle. Peninsula topsoil moisture, short to adequate with scattered areas very short moisture. Sugarcane harvest winding down. Growers preparing to start tobacco transplanting, field corn planting. Field preparations for spring planted crops active. Dry soils in many localities are increasing the need for irrigating vegetables. Warm weather is boosting vegetable growth. Vegetable volume leaders are tomatoes, cabbage, peppers, potatoes, strawberries. Dry most citrus areas except lower east coast. Growers irrigating all areas. Bloom showing on all types with Valencia, Navels near open. Some young tree groves full bloom with some petal drop. Harvest of early and mid oranges almost over. Freeze damaged Valencias going to processors rapidly. Grapefruit harvest very active on lower east coast. Temple, Honey tangerine harvest strong all areas. Caretakers cutting cover crops, hedging, topping. Pasture feed poor 25%, fair 40%, good 35%. Permanent pastures greening all areas. Moisture generally short except for isolated areas in Panhandle. Supplemental feeding still active. Small grain pastures in Panhandle continued to develop. Ranchers putting hay out. Condition of cattle herds poor 5%, fair 50%, good 45%.

GEORGIA: Soil moisture surplus at end of month. Temperatures are near to above normal. Most fieldwork behind normal because of wet conditions. Very little land preparation completed North, less than half most areas South. Corn planting underway extreme South. Wheat, rye mostly good to excellent, other small grains fair to mostly good. Small grain nitrogen applications behind schedule, around 50% for State average. Peaches good condition, all varieties with sufficient chill hours. Bloom near 50% some varieties extreme south, 30 to 45% central, 20 to 30% north. Tobacco bed plants good condition. Onions good. Pastures muddy, little feed, very poor to fair north, poor to good south. Main activities; pruning peach trees, feeding hay, top dressing small grains, limited field preparation.

HAWAII: No data available.

IDAHO: Heavy snowpack in the mountains may create spring floods. Winter wheat condition in North Idaho may be affected by the long period of snow cover in some areas. Increasing vole and pocket gopher activity has been observed in the Magic Valley. Some damage to alfalfa stands has been noted. Statewide, calving has progressed to 35% complete while lambing is now 48% complete. Hay and roughage supplies continue to be scarce with 16% adequate, 60% short, and 24% very short. Winter wheat 24% excellent, 55% good, 20% fair, 1% poor. Spring wheat is already being seeded in a few southern fields with light soil. Activities: Ground preparation, fertilizing, sorting potatoes, feeding livestock, lambing, calving, cleaning up flood damage, equipment repair, farm planning, attending educational meetings, tax preparation.

ILLINOIS: Topsoil 67% surplus, 29% adequate, 4% short. Heavy rains throughout the State have resulted in localized flooding, standing water in low lying spots. This resulted in scattered damage to the winter wheat crop. Reporters expressed some concerns about a possible shortage of hay if spring is late. Rains have also resulted in muddy feedlots causing stress in livestock. Other activities last week included applying fertilizer, hauling grain, attending chemical workshops, tending livestock. Winter wheat 12% excellent, 54% good, 32% fair, 2% poor. Hay supply 1% surplus, 58% adequate, 29% short, 12% very short.

INDIANA: Top dressing of winter wheat occurred on some fields, mostly in the northern areas of the State. Many farmers have moved grain to market as prices improved. Rainy weather and wet field conditions have prevented use of heavy equipment in most areas of the State. Recent heavy rain has caused flooding and erosion. Standing water remains in river bottom ground and low lying areas of fields. Some counties still have fields of corn, scattered fields of soybeans remaining for harvest. Most of the corn remaining for harvest is located in the eastern, southern areas of the State. Winter wheat is mostly in good condition, standing water may cause some damage. Snow cover helped protect wheat during the coldest weather. Very little nitrogen has been applied to the winter wheat. Wet, muddy conditions have placed stress on livestock. Hay supplies are very short, prices remain high. Major activities: Hauling manure, spreading fertilizer, lime, recordkeeping, tax preparation, purchasing supplies, attending meetings, trade shows, buying new equipment, hauling grain, refurbishing buildings, equipment repair, mending fence, soil testing, care of livestock.

IOWA: Soil erosion 70% light to none, 28% moderate, 2% severe. Despite muddy conditions and soft rural roads, grain movement increased from January. Grain movement rated 6% none, 44% light, 43% moderate, 7% heavy. Availability of hay and roughage for livestock feed short 19%, adequate 78%, surplus 3%. Quality of hay, roughage was rated the same as in January - poor 11%, fair 54%, good 35%. Utilization of stubble fields for grazing 32% none, 31% limited, 30% moderate, 7% extensive. Livestock health seemed to improve since January, while muddy feedlots and changing temperatures were still affecting the cattle in some areas. Hog and pig losses 10% below average, 86% average, 4% above average; cattle and calf losses 12% below average, 81% average, 7% above average.

KANSAS: Winter wheat received snow, rain during February and is ready to break dormancy in mostly good to excellent condition across the State. Wheat condition improved during the month, 17% excellent, 62% good, 18%

fair, only 3% poor. The crop appears to have received little damage during the winter from freeze, wind. Western one-third of State received a good snow cover during late February, potential blowing problems were diminished. Topsoil moisture was replenished with the snow, rain, is currently rated 7% short, 66% adequate, 27% surplus. Some areas of central, south-central, east-central, southeast areas have surplus moisture, field activity has been limited. During early February, top-dressing of wheat, pasture were accomplished in most areas. Spring calving and lambing are well underway. Feeding conditions have generally been good, although mud has been a problem in some areas. Feeder cattle movement has been strong, cattle are starting to come off wheat pasture in several southern, southwestern areas.

KENTUCKY: Early February provided generally mild temperatures as wet weather statewide maintained muddy field conditions. Soil moisture rated adequate to mostly surplus for the month. Below-normal temperature, wintery mix of precipitation spread across the State at mid-month increasing stress in livestock. Winter wheat showed only limited growth by the end of February, mainly from above-normal temperatures at month's end. Burley Tobacco markets closed for the season at the end of the month. State gross sales totaling 410.7 million pounds, averaged \$192.23 per hundred pounds. Pasture conditions were generally poor and most producers feed extra grain, hay. Cattle were in mostly fair condition.

LOUISIANA: Days suitable for fieldwork 6.3, ranging from no days suitable across the northern portion of the State to 21 days suitable in the extreme southeast corner of the State. Soil moisture supplies throughout the State were generally surplus. Heavy rains throughout month prevented most farmers from doing any fieldwork. A few, however, managed to plow some of their drier fields. Sugarcane producers finished draining fields, cleaning ditches. Rice water leveling in rice fields was in full swing. Wheat producers were busy applying nitrogen to their fields. Most applications were done by airplane due to wet conditions. A small amount of corn was planted between rains. Vegetable producers were busy planting cabbage and tomatoes. Livestock producers continued to feed more hay and supplemental feeds than usual due to short forage supplies. Many remained concerned about dwindling hay supplies. Crawfish harvest improved with warmer weather. Pasture growth picked up with warmer weather, but improvement was limited by excessive soil moisture.

MARYLAND: Small grain condition ranges from poor to good with most areas reporting good. Fruit trees have started to bud in some areas which is a little early. Wet weather was still causing problems in some areas due to standing water. Hay supplies are adequate to good. Quality hay is short in many areas. Livestock is in good condition due to continued mild weather. Calving is underway. The tobacco auction opens March 4. Activities: Tending livestock, trying to haul manure, equipment maintenance and chores, and preparing for spring planting.

MICHIGAN: Melting snow and rain caused flooding in fields. Some fields became ice covered when freezing returned. Farmers are concerned with potential damage of winter wheat, alfalfa. Some farmers had to postpone trimming orchards, other fieldwork because of wet conditions. Others have managed to side dress wheat, spread manure, clover seed. Some livestock were fairing well through this winter. Temperature swings have caused some health problems in cattle, calves. Lambing was in full swing. The shortage of hay continues. Farmers seek new sources for hay and are trying to secure sources for next year. Other feeds are in adequate supply.

MINNESOTA: February was a relatively dry, cold month over most of the State. Lack of much additional snow, combined with a few days of moderately above-normal thawing weather, somewhat reduced the snowpack. Quantities of moisture in snow cover are still higher than normal for this date over a large area, particularly in the northwest, west-central districts. Consequently there is potential for severe spring flooding. With thick drifts still to melt, spring fieldwork delays look inevitable. Access to livestock, feed, and forage supplies, market grain supplies has improved as the calmer weather gave farmers a chance to catch up on snow removal and go back to more normal routines. Snow removal has been expensive, as has the damage done by roof collapses and roof leaks. Hay supplies remain

tight; those who need hay are having difficulties finding it or paying for it. Livestock condition is generally good despite the difficult weather, but feeder livestock not fully housed have had to receive increased rations, even while showing poor gains, due to the cold and exposure they have gone through.

MISSISSIPPI: Main farming activities: Equipment maintenance, feeding, tending livestock. A small amount of ground preparation has begun. The wheat crop is in mostly fair to good condition. Farmers have been unable to fertilize due to the wet conditions. There was a report of some aerial spraying. Additionally, wheat in low-lying areas could potentially be lost. However, the relatively warm weather in February has been beneficial to cattle, which are in good condition. Unusually large amounts of hay are being fed due to the wet conditions prohibiting farmers from fertilizing winter grasses. Hay supplies are still adequate, tightening.

MISSOURI: Topsoil 21% adequate, 79% surplus. Farmers remained busy during February with tax work preparations, planning for spring planting intentions, while customary livestock chores kept many farmers busy as well. A very wet February prevented any significant preliminary fieldwork activities to be performed. Condition of winter wheat, 6% poor, 42% fair, 44% good, 8% excellent, with the most favorable ratings found east-central, southwest and southeast. Supply of hay and other roughage, 6% very short, 26% short, 63% adequate, 5% surplus. Some significant hay supply shortages are noted in the central, east-central, southwestern, south-central areas of the State. Stock water supplies, 1% short, 51% adequate, 48% surplus. General of livestock, 3% poor, 28% fair, 64% good, 5% excellent.

MONTANA: Mild temperatures were the norm for most of the State. Snow cover on winter wheat was rated much less than last month at 32% very poor, 32% poor, 18% fair, 13% good, 5% excellent. There was less wind damage reported with 32% of the acreage reporting no wind damage, 62% reporting light damage, 4% reporting moderate damage, 2% reporting heavy wind damage. Although difficult to rate, the winter wheat condition seemed to improve some, 5% poor, 51% fair, 39% good, 5% excellent. Snow melt around the State has opened up more of the grazing, grazing was still rated 32% difficult, 27% closed. Feed supplies are reported to be opening up since the cold weather has eased up and producers are more willing to sell their hay supplies. Calving and lambing are in full swing with 19% of calving and 11% of lambing completed.

NEBRASKA: Snow depth as of February 28th ranged from over 4 inches in the south-central district to a trace in the northern third of the State. Protective snow cover for the wheat crop as of last week of February was most favorable in central, south-central, southeastern counties. Most of the farm grain was reported in good condition. Winter wheat 1% very poor, 3% poor, 41% fair, 51% good, 4% excellent; some wheat growers in the west were chiseling fields to help control wind erosion. Green-up had not occurred but should begin within 2-4 weeks. Feed grain supplies 3% short, 91% adequate, 6% surplus. Hay, forage supplies 1% very short, 14% short, 81% adequate, 4% surplus. Cattle 19% cows calved since January 1, 31% 1996; cattle 1% very poor, 1% poor, 15% fair 77% good, 6% excellent, with minimal losses being reported. Activities during February; equipment maintenance, monitor new calves and lambs, tax preparations, delivering grain to elevators.

NEVADA: Frequent storms kept mountain snow packs well above normal. Potential for spring flooding, particularly in the Carson, Walker River watersheds, appears ominous. Repairs to ditches, levees damaged in January flooding were being hurriedly made. Surface irrigation water was to be delivered to the Smith, Mason valleys beginning March 1, damage has caused delay. Fields were being prepared for planting in the extreme south. Weed burning underway. Grazing of hay fields continued. Calving gaining momentum. Sheep shearing getting underway. Farm flock lambing underway; range flock lambing to begin soon. Main farm, ranch activities: Ditch repair, livestock feeding, equipment maintenance, ditch cleaning, attending meetings, preparing taxes.

NEW ENGLAND: Major farm activities: Farmers still attending winter meetings for information, planning, tax preparation. Farmers still

implementing winter programs for livestock, for maintenance, upgrades on equipment. Ground preparation for planting begins, as weather permits.

NEW JERSEY: Activities: Light snowfall during the month did not affect normal winter activities. Farmers' activities during the month included land clearing, brush removal, caring for livestock, maintaining equipment, digging nursery stock, pruning fruit trees. Marketing activity: Packing and shipping of winter squash and sweetpotatoes.

NEW MEXICO: February rains provided good soil moisture for spring planting. Precipitation totals remained well above normal throughout most of the State. Ranchers continued supplemental feeding of their livestock while farmers were busy preparing land for spring planting. Temperatures in the first week of the month were a few degrees below normal. Temperatures increased and remained slightly above normal throughout the State for the rest of the month. Fruit producers are attentively watching weather patterns as warm weather is bringing trees and plants out of dormancy.

NEW YORK: February temperatures were above normal, which made outside activities enjoyable. Producers were feeding livestock, pruning fruit trees. Mild temperatures reduced the chance of winter kill. Many meetings were attended during the month. Plans are being formulated for the upcoming season. Fruit, onions, potatoes were moved from storage to market.

NORTH CAROLINA: The first 2 weeks of month were cold, dry allowing farmers to continue preparing for spring plantings. The last 2 weeks have been warm with some rain causing a slight decrease in days suitable for fieldwork. Farmers are getting ready for spring planting by seeding tobacco plant beds (in greenhouses and outside), and preparing fields with fertilizers and pre-emergence herbicides. Small grains are progressing well with the warm weather, and many farmers are applying top dressings. Soil moisture 37% adequate, 63% surplus, statewide, 3.4 days were suitable for fieldwork. Activities: Top dressing small grains; seeding tobacco beds; preparing fields for spring planting; maintaining pastures; tending livestock; repairing equipment; general farm maintenance.

NORTH DAKOTA: February brought milder weather, allowing producers to transport grain and prepare for spring calving. State average snow depth at 14.6 inches, down from 17.9 inches last month, up from 7.3 inches 1996. Livestock condition improved from the previous month with moderate weather, though death loss rates rose significantly. Cattle: 3% very poor, 13% poor, 37% fair, 44% good, 3% excellent; sheep: 4% very poor, 14% poor, 35% fair, 44% good, 3% excellent. Cattle, calf death loss: 62% above normal; sheep and lamb death loss: 39% above normal. Spring calving began and reached 7% complete; lambing 12%. Hay, forage supplies: 11% very short, 30% short, 57% adequate, 2% surplus. Cattle sales: 5% below normal, 70% normal, 25% above normal.

OHIO: Temperatures have fluctuated above and below normal. Snow cover during this period was mostly nonexistent. Rain, particularly during the last week, has created some ponding, although reporters commented that most of the rain drained off the fields within a couple days. Some injury is expected due to the unusually wet weather; reporters cannot evaluate the crop very well at this time. Some top dressing occurred before the ground thawed and rains made fields muddy, but most farmers are waiting to see how their stands look before making the investment. Little or no green-up has been seen so far. Hay supplies are still very tight across most of the State. Flooding, muddy conditions in the southeast are making things miserable for livestock and livestock producers.

OKLAHOMA: Wheat is in mostly good condition with subsoil, topsoil moisture mostly adequate to surplus. Topsoil 5% very short, 7% short, 43% adequate, 45% surplus. Subsoil 8% short, 73% adequate, 19% surplus. Wheat 3% poor, 14% fair, 74% good, 9% excellent. Livestock 4% poor, 19% fair, 73% good, 4% excellent. Pasture, range 1% very poor, 9% poor, 41% fair, 46% good, 3% excellent. Feeder steers and heifers were steady to \$1/cwt higher.

OREGON: Activities: Nursery digging, container movement continued. Winter orchard pruning winding down statewide. Some fruit budding underway, Willamette Valley. Cattle, sheep good. Eastern cattle mostly in winter quarters, supplemental feed. Western pastures "green up" underway, supplemental feeding continued. Statewide hay supplies running short. Below-normal to normal precipitation improved conditions statewide.

PENNSYLVANIA: Major activities for January were hauling manure, fixing fences, caring for livestock, attending State Farm Show.

SOUTH CAROLINA: Soil moisture adequate to surplus. Wheat good to excellent, nitrogen, herbicides applied on schedule. Tobacco beds seeded, in good condition. Peach trees blooming. Pastures, livestock were in mostly good condition.

SOUTH DAKOTA: Conditions for February improved for the most part over the month of January. Cattle death losses since February 1 6% below normal, 65% normal, 27% above normal, and 2% severe. Calf death losses were 10% below normal, 62% normal, 27% above normal, and 1% severe. Sheep and lamb death losses were 4% below normal, 77% normal, 17% above normal, and 2% severe. Hay and roughage supplies were 3% very short, 26% short, 65% adequate, and 6% surplus. Grain and concentrate supplies were 1% very short, 14% short, 79% adequate, and 6% surplus. Accessibility to livestock feed supplies were 51% readily accessible, 36% difficult, and 13% inaccessible. Accessibility to stock water supplies were 71% readily accessible, 25% difficult, and 4% inaccessible. Most of the State's winter crops have sufficient snow cover, but there is concern in some areas of winterkill due to the presence of ice. The statewide average snow depth is 15.5 inches. Snow cover is sufficient to protect 71% of the alfalfa, 93% of the winter rye, and 72% of the winter wheat. Crop condition for winter wheat rated 5% very poor, 3% poor, 42% fair, 47% good, and 3% excellent. Winter rye rated 1% poor, 25% fair, 70% good, and 4% excellent.

TENNESSEE: Spurts of rainy weather have delayed farmers from top dressing wheat with nitrogen. However, this may have been an advantage given excessive rainfall at the end of the month. Flooding, especially along the Mississippi River, is a major concern. Some fields are under water and may be lost if the water does not recede soon. The wheat crop is in mostly good condition throughout the State due to favorable temperatures and adequate moisture. Moisture and temperatures have also caused grass to green and grow, which is beneficial due to the short supply of hay. February's weather has been characterized as mild and thus had no major effect on cattle. Overall, cattle are in good condition.

TEXAS: February was a very wet month in nearly all areas of Texas. Many parts of the State saw record rainfall for February. The month began with very mild weather. However, by mid-month, colder weather moved through, although it was short lived. Snow fell in the Plains. Land preparations were slow in most areas under very wet conditions. The Rio Grande Valley, extreme south Texas were the drier areas of the State; planting of corn, grain sorghum got underway nearly on schedule by the end of the month. The winter wheat crop responded to the increased moisture, with overall State condition improving from 60% early in the month to 75% by month's end. By the end of February, most areas needed open, sunny weather for further improvement. Supplemental feeding of livestock was very active for the month. Livestock conditions were good for the month. Calving, lambing activity increased during February. Some weather-related lamb deaths occurred around mid-month. Cattle markets improved during February. Small grain pastures provided good grazing in many areas.

UTAH: Major farm, ranch activities: Hauling manure, shipping onions, fertilizing, herbicide applications, calving, machinery maintenance. Hay is in

short supply and range and pasture are adequate. Cold weather has caused some livestock deaths. Fall seeded grains are in good condition. The State snow and water equivalent for the season is 66% above average, 54% above the average total precipitation.

VIRGINIA: Wet and muddy field conditions prevailed. Top dressing winter grains behind schedule, some root disease reported because of wet conditions. Other field operations slowed by wet fields. Scattered acres of corn, soybean fields remain unharvested due to wet conditions. Potato producers prepared fields, began planting. Tobacco growers plowed fields, fumigated plant beds. Greenhouses prepared for tobacco, vegetable seeding. Fruit growers pruned trees. Mild stretches of weather allowed some peach trees to bud, creating possible problems if cold weather follows in March. Livestock are doing well in the milder temperatures. Hay quantity is excellent; however, quality is poor because of increased moisture during the 1996 hay cropping season. Operators across the Old Dominion busy during February performing general farm, equipment repairs, tax preparation, fencing, attending producer meetings.

WASHINGTON: Topsoil 75% adequate, 25% surplus; subsoil 90% adequate, 10% surplus. Hay, other roughage supplies, 10% very short, 15% short, 75% adequate. Warm period during the middle of the month brought many early-spring activities to western Washington. Grays Harbor County reported harvesting of flower daffodils, replanting on harvested Christmas tree fields. Pacific County reported planting of vegetable seeds for greenhouse production, spring transplanting. Raspberry pruning, tying were completed in Lewis County. Pastures appear green, lush, still very wet, saturated conditions limited grazing. Wet soils limited early tillage of fields. Fruit tree pruning was a major activity in the central part of the State. Winter wheat is in good condition, rill erosion is heavy in some fields. Calving, lambing are underway. Pend Oreille and Stevens Counties report short hay supplies with some producers stretching supplies using lower quality straw.

WEST VIRGINIA: February was generally mild. Livestock feeding requirements continued to be less than normal. Heavy rains at times during the week ending March 2nd caused flooding in many low lying areas. For week ending March 2nd, winter wheat reported in fair to excellent condition with most being good condition. Cattle, sheep were mostly good condition. Calved was 38%. Lamed was 32%. Feed grain supplies mostly adequate. Hay, roughage supplies mostly adequate, some livestock producers looking for hay. Mud continues to be problem in some areas as farmers try to do fieldwork, feed livestock. Lice on cattle continue to be a problem in some areas. Some plowing has been done where field conditions allowed.

WISCONSIN: Spring weather came to visit the State for awhile in the later part of the month. Winter returned with cold weather and snowfall. The warmer conditions melted the snow cover leaving the ground bare in much of the southern third of the State. The snow that was left was mostly solid ice, or had crystallized due to warm weather, compacting, and melting snow. Most reporters commented that the soil moisture was good. Farmers continued general chores under muddy conditions in most areas during the month.

WYOMING: Topsoil 25% short, 62% adequate, 13% surplus. Subsoil 4% very short, 14% short, 71% adequate, 11% surplus. Average depth of snow cover 4.6 in. Winter wheat 77% fair, 23% good. Winter wheat wind damage 4% none, 81% light, 15% moderate. Winter wheat freeze damage 16% none, 81% light, 3% moderate. Spring grazing prospects 4% poor, 29% fair, 56% good, 11% excellent. Hay, roughage supplies 14% very short, 31% short, 55% adequate. Cattle, sheep in mostly good condition. Spring calves born 17%, 21% 1996. Farm flock ewes lambed 27%, 34% 1996; shorn 32%, 32% 1996. Calf and lamb losses were light to normal.

February 1997

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

International Weather and Crop Summary

February 23 - March 1, 1997

HIGHLIGHTS

FSU-WESTERN: Continued unusually warm weather melted protective snow cover in the west and south about 1 month earlier than usual.

EUROPE: Showers and mild weather benefited winter grains and oilseeds which continued to emerge out of dormancy in the northwest.

NORTHWESTERN AFRICA: Drought conditions worsened in Algeria and Tunisia.

AUSTRALIA: Rain returned to eastern Australia, keeping northern cotton areas unfavorably wet.

SOUTH AFRICA: Late-week showers stabilized immature corn.

SOUTHEAST ASIA: Lighter showers favored early main-season rice harvesting in Java. Showers favored oil palm across peninsular Thailand and Malaysia.

EASTERN ASIA: Unseasonably warm weather caused winter wheat to begin breaking dormancy across the North China Plain.

SOUTH AMERICA: Rain eased dryness in Santa Fe, Argentina, but more is needed for reproductive soybeans.

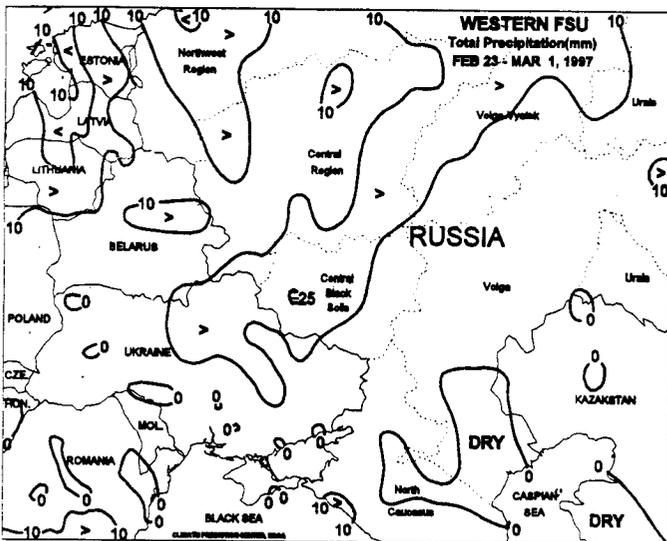
COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRMM	TOTAL	DPART F/NRMM
NORWAY	OSLO	1	-5	7	-19	-2	4.9	75	28
SWEDEN	STOCKHOLM	3	-3	8	-16	0	2.7	40	13
FINLND	HELSINKI	-1	-8	5	-21	-3	3.4	88	37
UKING	GLASGOW	9	3	12	-5	6	1.7	196	108
	EDINBURGH	9	3	12	-3	6	2.4	112	70
	BIRMINGHAM	10	4	14	-4	7	3.4	59	10
	LONDON	10	4	13	-5	7	2.8	83	32
IRELND	DUBLIN	9	4	13	-2	7	1.5	60	10
ICELND	REYKJAVIK	1	-3	7	-10	-1	-1.4	83	11
DENMRK	COPENHAGEN	5	0	9	-8	2	2.4	31	-6
LUXEMB	LUXEMBOURG	7	2	13	-4	4	3.1	123	54
SWITZL	ZURICH	8	2	14	-3	5	4.0	81	8
	GENEVA	10	2	15	-4	6	3.3	44	-38
FRANCE	PARIS/ORLY	11	4	18	-3	7	***	63	**
	STRASBOURG	10	2	15	-5	6	4.0	50	18
	BOURGES	12	3	19	-3	7	3.0	55	-2
	BORDEAUX	15	6	24	0	11	3.8	73	-8
	TOULOUSE	14	6	20	-1	10	3.4	27	-24
	MARSEILLE	15	5	19	-2	10	2.3	2	-52
SPAIN	VALLADOLID	14	4	23	0	9	3.2	5	-35
	MADRID	16	3	22	-2	9	2.9	1	-49
	SEVILLE	21	10	28	7	15	3.3	0	-63
PORTUG	LISBON	18	11	24	7	14	2.2	5	-94
GERMNY	HAMBURG	8	3	14	-7	5	4.0	76	35
	BERLIN	8	2	14	-8	5	3.9	67	33
	DUSSELDORF	9	4	17	-3	7	4.3	93	40
	LEIPZIG	8	2	14	-5	5	4.6	38	5
	DRESDEN	7	2	15	-7	4	5.1	44	8
	STUTTGART	9	1	15	-7	5	4.4	70	23
	NURNBERG	8	1	14	-8	5	4.1	72	32
AUSTRI	VIENNA	8	-1	18	-10	4	3.1	13	-17
	INNSBRUCK	9	-2	15	-7	4	3.0	41	-1
CZECH	PRAGUE	6	-1	16	-13	3	3.5	26	2
POLAND	WARSAW	5	-1	13	-12	2	3.8	21	-1
	LODZ	4	-1	12	-10	2	3.3	35	4
	KATOWICE	5	-1	18	-11	2	4.2	36	0
	PRZEMYSL	4	-1	13	-11	2	3.4	19	-11
HUNGAR	BUDAPEST	6	-1	18	-9	3	1.5	2	-30
F YUGO	BELGRADE	10	1	20	-6	6	2.7	49	5
ROMANI	BUCHAREST	7	-4	17	-11	2	2.1	17	-20
BULGAR	SOFIA	8	-2	15	-10	3	2.0	23	-14
ITALY	MILAN	13	2	18	-2	8	3.8	7	-54
	VERONA	10	1	18	-3	6	1.4	3	-44
	VENICE	9	2	15	-4	6	0.9	1	-61
	GENOA	14	9	18	5	12	2.8	12	-79
	ROME	16	4	18	-1	10	1.2	20	-53
	NAPLES	16	7	22	0	11	2.2	32	-65
GREECE	THESSALONIKA	12	2	18	-5	7	0.2	46	5
	LARISSA	13	-1	19	-8	6	-0.7	17	-23
	ATHENS	15	7	19	1	11	0.0	5	-29
TURKEY	ISTANBUL	8	3	18	-5	6	0.0	54	-16
	ANKARA	5	-8	14	-22	-2	-2.2	16	-14
CYPRUS	LARNACA	16	5	22	-1	11	-1.4	40	-21
ESTONI	TALLINN	0	-4	7	-18	-2	3.7	60	31
FSU	ST.PETERSBRG	-1	-6	6	-18	-4	3.2	30	0
LTHUA	KAUNAS	3	-2	9	-18	0	4.5	50	23
FSU	MINSK	1	-9	11	-18	-1	4.7	33	1
	KAZAN	-7	-13	1	-27	-10	1.3	26	-3
	MOSCOW	-2	-7	5	-21	-5	2.7	29	-7
	YEKATERINBURG	-6	-12	8	-25	-9	3.0	14	-5
	OMSK	-9	-17	2	-30	-13	3.5	9	-8
	KUSTANAY	-9	-16	3	-29	-12	2.7	19	6
	NOVOSTBIRSK	-9	-14	-1	-26	-12	6.1	19	4
	BARNAUL	-7	-14	1	-30	-10	4.5	30	6
	KHABAROVSK	-10	-20	3	-28	-15	2.0	11	0
	VLADIVOSTOK	-4	-10	5	-15	-7	3.6	8	-11
	KIEV	2	-4	9	-15	-1	3.4	23	-24
	LVOV	4	-3	12	-15	0	3.5	35	-10
	KIROVOGRAD	0	-8	7	-21	-3	1.8	25	-5
	ODESSA	4	-2	12	-14	1	1.7	19	-23

Based on Preliminary Reports

February 1997

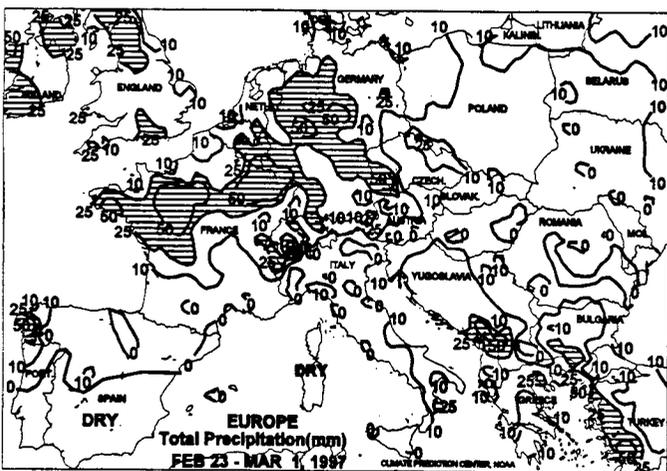
COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)					
	AVG MAX	AVG MIN	HI MAX	LO MIN	DPART AVG	F/NRM	TOTAL	DPART F/NRM		AVG MAX	AVG MIN	HI MAX	LO MIN	DPART AVG	F/NRM	TOTAL	DPART F/NRM			
FSU	YALTA	7	1	15	-6	4	0.4	115	55	KENYA	NAIROBI	30	12	31	6	21	0.9	0	-48	
	SARATOV	-5	-10	3	-20	-8	3.0	19	-4	TANZAN	DAR ES SALAAM	32	24	33	21	28	0.1	9	-48	
	KHARKOV	-1	-7	4	-22	-4	1.5	34	-1	GABON	LIBREVILLE	30	23	31	21	27	-0.4	184	-78	
	VOLGOGRAD	-4	-9	3	-25	-7	2.1	26	-2	TOGO	LOME	34	25	36	21	29	1.3	0	-32	
	ROSTOV	-1	-6	7	-20	-4	0.2	36	-27	B FASO	OUAGADOUGOU	34	19	37	16	26	-1.4	0	0	
	ASTRAKHAN	1	-8	11	-22	-4	1.0	15	8	IVRY C	ABIDJAN	32	28	34	22	29	1.3	11	-37	
	KRASNODAR	4	-3	14	-15	0	0.4	32	-23	MOZAMB	MAPUTO	30	**	38	20	**	**	127	-8	
	ORENBURG	-7	-13	3	-30	-10	3.1	13	-8	ZAMBIA	LUSAKA	**	**	27	16	**	**	**	**	
	TSELINOGRAD	-11	-18	-2	-31	-14	2.5	11	4	ZIMBAB	HARARE	25	16	28	14	21	0.5	155	8	
	KARAGANDA	-8	-17	1	-26	-12	0.7	23	3	S AFRI	PRETORIA	30	18	34	16	24	2.2	62	-16	
	TBILISI	6	-1	18	-7	3	-0.4	34	7		JOHANNESBURG	27	15	31	12	21	2.2	40	-55	
	TASHKENT	8	-2	18	-11	3	0.7	53	7		BETHAL	27	14	31	11	21	1.5	86	-33	
	ASHKHABAD	10	-1	24	-6	5	0.6	6	-20		DURBAN	28	21	31	16	24	0.7	90	-23	
SYRIA	DAMASCUS	13	-2	20	-8	6	-2.4	30	1		CAPE TOWN	26	16	31	11	21	0.6	8	-8	
ISRAEL	JERUSALEM	11	2	21	-7	7	-2.6	166	32	CANADA	TORONTO	1	-8	13	-21	-3	2.9	79	34	
PAKIST	KARACHI	29	15	34	10	22	1.5	0	-8		MONTREAL	-3	-13	8	-27	-8	0.9	96	39	
INDIA	AMRITSAR	22	7	26	3	15	0.4	17	-15		WINNIPEG	-8	-20	3	-32	-14	1.4	7	-8	
	NEW DELHI	24	9	32	6	17	-0.4	2	-17		REGINA	-8	-16	4	-28	-11	1.9	**	**	
	AHMEDABAD	31	13	38	8	22	-0.2	0	-2		SASKATOON	-8	-17	3	-27	-11	2.6	5	-8	
	INDORE	30	11	37	6	20	0.1	0	-3		LETHBRIDGE	5	-8	15	-17	-1	4.1	8	-5	
	CALCUTTA	28	16	33	11	22	-0.9	22	10		CALGARY	3	-8	13	-15	-1	3.3	3	-7	
	VERAVAL	29	17	33	13	23	0.2	0	-2		EDMONTON	1	-9	12	-13	-4	4.4	5	-12	
	BOMBAY	31	16	38	13	24	-0.8	0	-1		VANCOUVER	8	2	13	-3	5	0.3	102	-20	
	POONA	31	10	36	6	21	-1.6	0	-2	MEXICO	GUADALAJARA	**	**	30	2	**	**	4	-3	
	BEGAMPET	33	16	36	11	24	-0.5	0	-8		MEXICO CITY	24	11	29	6	17	3.3	4	-2	
	VISHAKHAPATNAM	29	22	30	19	26	**	1	**		ACAPULCO	**	**	33	20	**	**	0	0	
	MADRAS	32	21	33	18	28	0.1	0	-14		BERMUD	ST. GEORGES	21	17	23	11	19	0.9	80	-27
	MANGALORE	33	21	37	11	27	-0.2	0	-2	BAHAMA	NASSAU	28	20	31	13	24	2.8	18	-22	
H KONG	KINGS PEAK	18	14	26	10	16	**	112	**	JAMAIC	KINGSTON	31	23	33	21	27	1.5	6	-13	
S KREA	SEOUL	6	-3	15	-8	1	3.1	48	25	P RICO	SAN JUAN	**	**	**	**	**	**	109	55	
JAPAN	SAPORO	2	-5	10	-7	-2	2.1	128	32	GUADEL	RAIZET	29	22	31	20	26	1.5	33	-18	
	NAGOYA	11	1	18	-4	6	1.1	30	-38	MARTINQ	LAMENTIN	28	24	29	22	26	1.7	24	-115	
	TOKYO	11	3	17	-1	7	1.7	23	-38	BARBAD	BRIDGETOWN	29	23	30	21	26	0.6	35	-6	
	YOKOHAMA	11	3	17	-1	7	1.8	44	-28	TRINID	PORT OF SPAIN	29	23	31	21	26	0.9	84	28	
	KYOTO	10	1	19	-2	6	0.9	42	-28	COLOMB	BOGOTA	20	9	24	2	14	1.1	25	-14	
	OSAKA	10	3	18	-1	6	0.6	29	-32	VENEZUJ	CARACAS	29	23	38	21	28	0.9	29	14	
THAILN	PHETCHABUN	34	20	36	13	27	1.1	9	-17	F GUIA	CAYENNE	28	23	30	22	26	0.2	615	308	
	BANGKOK	34	25	35	23	30	1.5	39	15	BRAZIL	FORTALEZA	30	24	30	23	27	0.3	84	-124	
MALAYS	KUALA LUMPUR	33	24	35	23	28	1.8	163	6		RECIFE	29	24	31	21	28	-0.6	154	24	
VIETNM	HANOI	20	16	26	12	18	0.3	10	-18		BELO HORIZONTE	29	20	32	19	24	0.5	139	-56	
CHINA	HARBIN	-5	-16	5	-24	-10	5.6	0	-5		CAMPO GRANDE	31	21	35	19	26	1.1	196	30	
	HAMI	6	-11	9	-15	-3	1.8	0	-1		FRANCA	27	19	31	17	23	4.8	154	-74	
	LANCHOW	7	-4	14	-9	1	3.3	0	-2		RIO DE JANEIRO	**	**	31	22	**	**	**	**	
	BEIJING	7	-3	15	-8	2	3.2	0	-6		LONDRINA	**	21	33	19	**	**	320	141	
	TIENTSIN	6	-4	14	-9	1	2.3	10	4		SANTA MARIA	29	21	33	14	**	**	217	87	
	LHASA	9	-5	18	-10	2	0.5	1	0		PORTO ALEGRE	29	21	34	17	25	0.6	26	-78	
	KUNMING	16	5	20	1	10	0.6	23	9	PERU	LIMA	27	20	29	18	23	0.4	0	0	
	CHENGCHOW	10	-1	17	-6	5	2.4	12	-1	BOLIVI	LA PAZ	13	3	29	0	8	-0.5	122	18	
	YEHCHANG	12	5	20	0	8	1.9	23	-6	CHILE	SANTIAGO	30	11	35	9	21	0.9	0	0	
	HANKOW	11	5	18	0	8	3.1	67	9	ARGENT	IGUAZU	31	21	35	17	26	**	230	**	
	CHUNGKING	12	8	19	6	10	**	28	**		FORMOSA	33	24	38	17	28	1.1	205	96	
	CHIHKANG	10	5	20	0	7	1.4	58	10		CERES	30	19	36	9	24	-0.5	38	-81	
	WU HU	10	2	18	-3	6	**	42	**		CORDOBA	27	16	34	6	22	-0.6	93	-22	
	SHANGHAI	10	4	20	-1	7	**	14	**		RIO CUARTO	26	16	35	6	22	-0.1	42	-45	
	NANCHANG	11	8	23	1	9	2.1	63	-39		ROSARIO	26	17	35	9	23	-0.4	54	-64	
	TAIPEI	18	14	26	10	16	1.0	198	62		BUENOS AIRES	27	16	34	9	22	-0.5	58	-48	
	CANTON	18	11	27	7	14	0.2	104	40		SANTO ROSA	30	14	36	5	22	-0.7	16	-54	
	NANNING	18	12	28	7	15	1.2	20	-26		TRES ARROYOS	25	13	32	5	19	-1.4	204	136	
CNRY I	LAS PALMAS	23	18	28	15	20	2.8	0	-18	N CALD	NOUMEA	29	24	33	21	26	0.5	45	-78	
MOROCC	CASABLANCA	19	11	26	8	15	1.8	2	-52	FUJI	NAUSORI	31	24	32	20	27	0.8	148	-123	
	MARRAKECH	24	10	28	7	17	3.0	1	-35	SAMOA	PAGO PAGO	31	26	33	23	29	1.3	284	-60	
ALGERI	ALGER	19	6	24	2	12	0.9	26	-49	TAHITI	PAPEETE	31	24	33	21	27	0.3	113	-117	
	BATNA	16	1	24	-4	8	2.1	10	-20	AUSTRAL	DARWIN	30	26	32	24	28	-0.3	425	83	
TUNISI	TUNIS	18	9	26	4	14	1.8	33	-25		BRISBANE	28	21	31	18	25	-0.4	68	-80	
NIGER	NIAMEY	33	19	37	16	26	-1.5	0	0		PERTH	31	19	43	16	25	0.2	8	-6	
MALI	TIMBUKTU	32	18	35	13	25	1.0	0	0		CEDUNA	31	19	42	12	25	3.2	4	-10	
MAURIT	NOUAKCHOTT	35	22	36	18	28	0.2	0	0		ADELAIDE	30	19	39	12	25	3.0	27	-15	
SENEGL	DAKAR	29	20	38	18	25	4.0	0	-1		MELBOURNE	28	16	39	12	22	1.8	2	-45	
CHAG A	DIEGO GARCIA	30	27	31	24	28	0.6	123	-158		WAGGA	34	20	38	13	27	2.9	6	-28	
LIBYA	TRIPOLI	18	8	26	5	13	0.3	4	-32		CANBERRA	29	15	35	10	22	2.0	28	-29	
	BENGHAZI	16	9	21	6	13	-0.6	28	-15	INDONE	DJAKARTA	31	24	33	21	27	1.0	157	**	
EGYPT	CAIRO	19	9	24	5	14	-1.5	3	0	PHILIP	MANILA	30	24	33	22	27	0.6	25	16	
	ASWAN	22	8	27	4	15	-2.6	0	0											
ETHIOP	ADDIS ABABA	25	7	27	2	16	-1.1	0	-37											

Based on Preliminary Reports



FSU-WESTERN

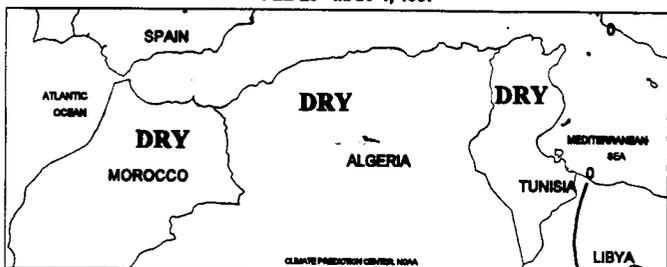
Unusually mild weather favored dormant winter grains but melted protective snow cover in Ukraine, southern Russia, the Baltics, and Belarus about 1 month earlier than usual. The mild weather and lack of snow cover in southern Ukraine and parts of southern Russia likely allowed some early-season fieldwork. Weekly temperatures averaged 5 to 10 degrees C above normal in northern Russia, northern and western Ukraine, Belarus, and the Baltics, and 1 to 5 degrees C above normal in southern Ukraine and southern Russia. Light, scattered precipitation fell in most areas, with greatest amounts of moisture (10-25 mm) falling mainly as rain in the Baltics and in a band that stretched northeastward from the northern Ukraine through the Central Black Soils Region in Russia.



EUROPE

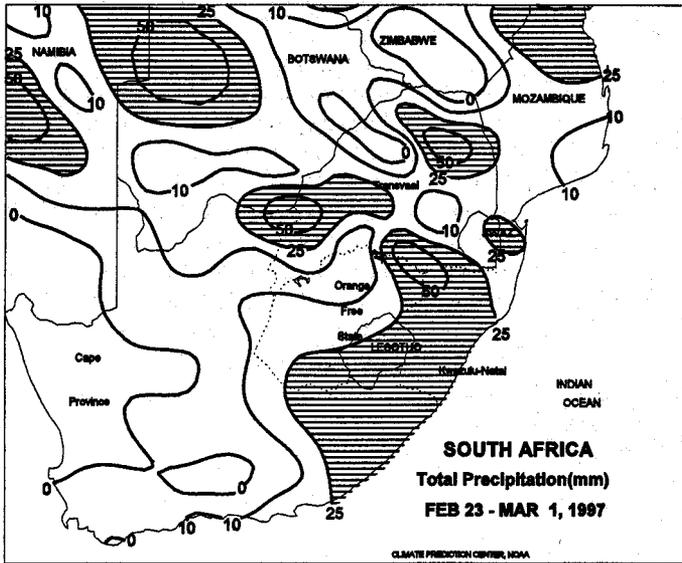
Widespread rain and continued unusually mild weather in the United Kingdom, France, the Benelux countries, and Germany benefited winter grains and oilseeds that continued to emerge out of dormancy. Precipitation amounts ranged from 10 to 25 mm in the United Kingdom and the Benelux countries, and 10 to 75 mm in the northern half of France and Germany. The mild weather spread into eastern Europe, accompanied by generally light precipitation (less than 10 mm). The exception was Bulgaria, where significant rain (10-25 mm) fell. The unusually mild weather in the east continued to cause winter grains to lose cold hardiness. In Spain, warm weather promoted rapid growth of winter grains and soil moisture was sufficient to sustain normal crop development. Weekly temperatures averaged 4 to 8 degrees C above normal in northern Europe and 2 to 4 degrees C above normal in the south.

**NORTHWEST AFRICA Total Precipitation (mm)
FEB 23 - MAR 1, 1997**



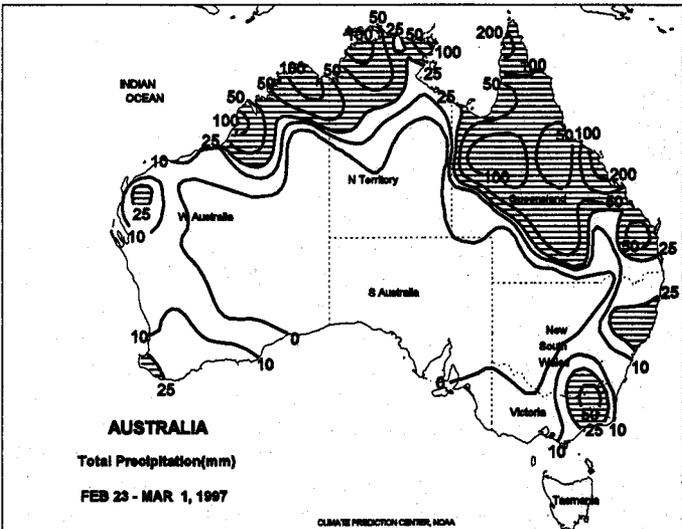
NORTHWESTERN AFRICA

Continued drought in Algeria and Tunisia worsened conditions for winter grains in the jointing stage, reducing crop prospects. In Morocco, although abundant moisture during the fall and early winter favored winter grain germination and early plant development, dry weather since late January has depleted soil moisture reserves and increased stress on crops approaching the heading stage. Weekly temperatures averaged 2 to 6 degrees C above normal over the entire region, further increasing evaporation rates.



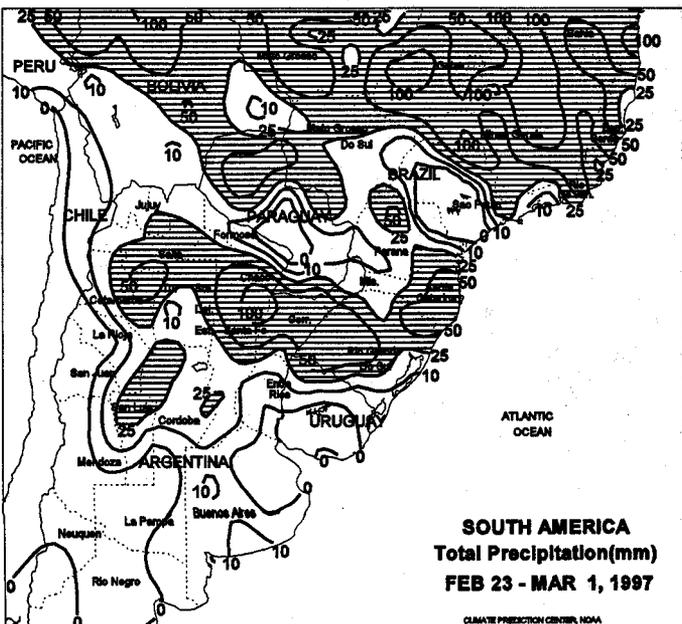
SOUTH AFRICA

Late-week showers (10-25 mm or more) broke a dry spell across the corn belt. The rain stabilized the condition of immature corn and brought temperatures down to more seasonable levels. However, most crops had already experienced some degree of stress while advancing through reproduction. Elsewhere, moderate rain (22-44 mm) covered a broad area of Eastern Cape and Kwazulu-Natal, benefiting sugarcane and other crops.



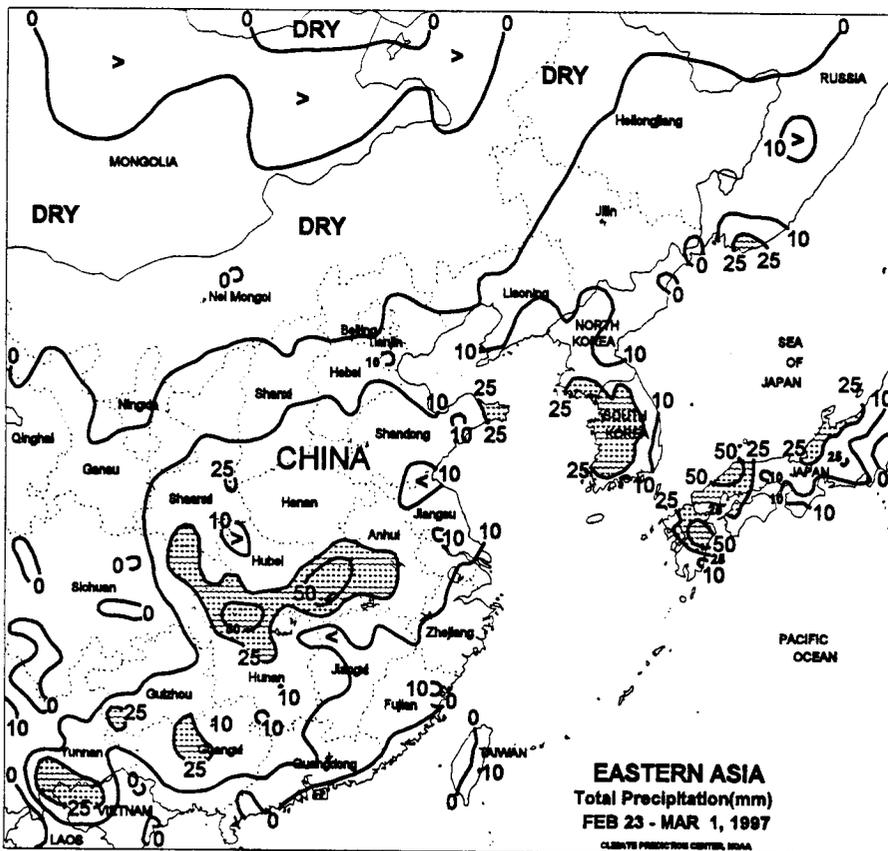
AUSTRALIA

Moderate to locally heavy showers (10-25 mm, exceeding 50 mm at a few locations) returned to Queensland's sorghum and cotton areas. While maintaining high moisture reserves for immature crops, the northern cotton zones remained unfavorably wet. Cotton harvesting typically begins in April, requiring warmer, drier weather to finish the crop. Along the east coast, moderate to heavy showers (25-50 mm or more) covered the main sugarcane region, with some flooding due to excessive rain (100-332 mm) in northern areas. Farther west, hot, dry weather reduced moisture for pastures and grazing land in western Queensland and New South Wales. In New Zealand, light to moderate rain (5-35 mm) covered the main pasture areas.



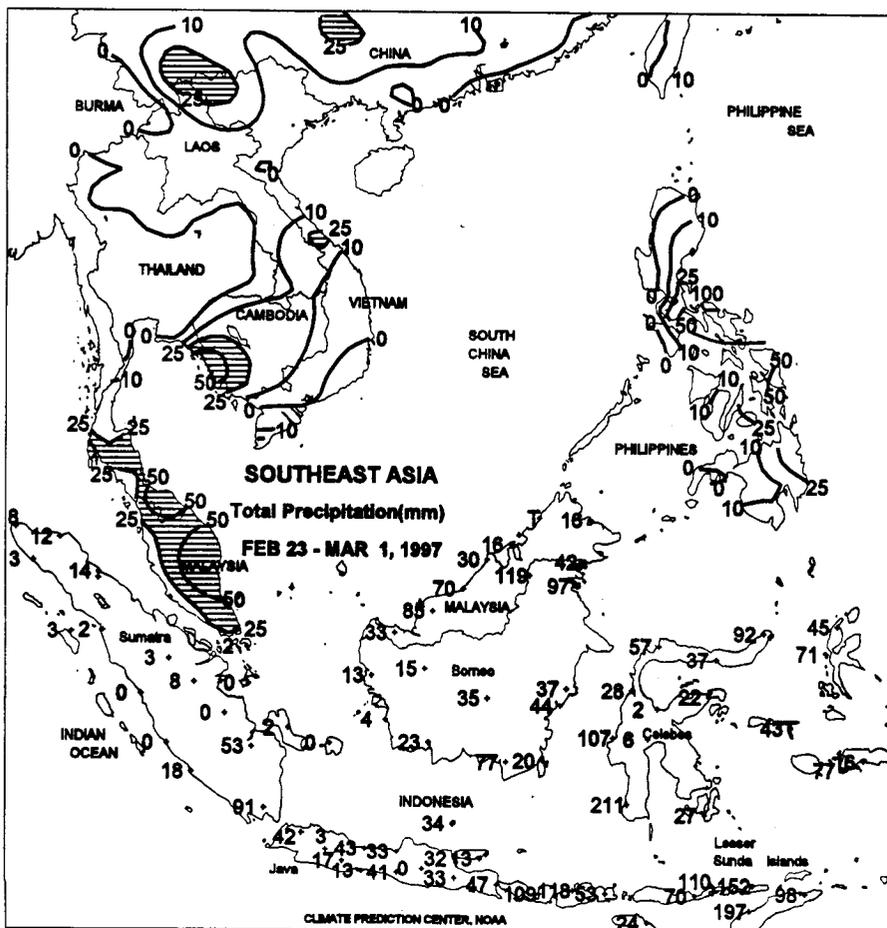
SOUTH AMERICA

In central Argentina, moderate showers (18-30 mm) eased dryness in southern Santa Fe. Temperatures averaged about 2 degrees C above normal, increasing crop water use. Rain is still needed to replenish soil moisture and maintain favorable yield prospects. Elsewhere in central Argentina, mostly dry weather prevailed, aiding sunflower and early corn harvesting. In northern Argentina, heavy rains (70-160 mm) again slowed early cotton harvesting and possibly reduced quality. In southern Brazil, moderate showers (20-60 mm) maintained soil moisture for filling soybeans, but slowed early harvesting. Temperatures averaged 1 to 3 degrees C above normal across southern Brazil.



EASTERN ASIA

Persistent unseasonably warm weather (3-5 degrees C above normal) caused winter wheat to begin breaking dormancy across the North China Plain. Light rain (7-20 mm) provided the greening wheat with favorable moisture for development. Moderate rain (20-60 mm) fell across the Yangtze Valley and southern China, favoring vegetative winter grains and oilseeds. Temperatures averaged 6 to 9 degrees C above normal across southern China, aiding transplanting of early double-crop rice, which is just beginning.



SOUTHEAST ASIA

Lighter showers (5-30 mm) fell across Java, favoring early main-season rice harvesting. Adequate irrigation supplies exist for filling rice. Widespread showers (25-90 mm) favored oil palm across peninsular Thailand and Malaysia. The northeast monsoon brought moderate showers (30-70 mm) to the eastern Philippines, slowing second-season crop harvesting but increasing moisture supplies for the upcoming main crop season. Heavier showers (100-150 mm) possibly caused flooding across southeastern Luzon.

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Record Flooding Anticipated in the North Central States

Record flooding is expected at a few gauging sites in the Red, James, and Missouri River basins this spring based solely upon the melting of existing snowpack, including:

River	Location	Snowmelt Level	Record Stage and Date
Turtle Creek	Redfield, SD	10.0 feet a.f.s.	8.9 feet on April 7, 1969
James River	Huron, SD	7.0 feet	5.9 feet on May 19, 1995
Sheyenne River	Harwood, ND	8.0 feet	6.7 feet on April 13, 1996
Floyd River	Sheldon, IA	2.5 feet	1.0 foot on March 28, 1962

Note: In the tables, "a.f.s." represents "above flood stage." Record stages are listed in terms of feet a.f.s.

Many more locations in the North Central States will endure unprecedented water levels if precipitation during the next few weeks equals or exceeds normal. In northeastern North Dakota, snowmelt and normal spring precipitation would raise the surface of Devils Lake an estimated 2.65 feet, to within a half-foot of the record set in 1830. The potential flood levels in the following table were calculated based upon runoff from existing snowpack and normal precipitation during the melt period:

River	Location	Potential Level	Record Stage and Date
Red River	Wahpeton, ND	8.5 feet a.f.s.	8.0 feet on April 5, 1989
	Fargo, ND	20.5 feet	20.3 feet on April 15, 1969
	Halstad, MN	15.5 feet	15.0 feet on April 22, 1979
	E. Gr. Forks, MN	21.0 feet	20.8 feet on April 26, 1979
	Oslo, MN	11.0 feet	10.6 feet on April 26, 1979
	Drayton, ND	12.0 feet	11.7 feet on April 28, 1979
	Pembina, ND	12.0 feet	11.8 feet on May 1, 1979
	Fargo, ND	6.0 feet	5.0 feet on July 26, 1993
	Harwood, ND	10.0 feet	6.7 feet on April 13, 1996
	Hallock, MN	8.0 feet	7.5 feet on April 23, 1996
Sheyenne River	Redfield, SD	11.0 feet	8.9 feet on April 7, 1969
	Huron, SD	8.0 feet	5.9 feet on May 19, 1995
	Forestburg, SD	5.5 feet	5.3 feet on April 22, 1995
	Ashton, SD	10.5 feet	9.4 feet on May 18, 1995
	Wakonda, SD	3.5 feet	3.5 feet on June 23, 1984
Two Rivers	Akron, IA	7.5 feet	7.0 feet on May 9, 1993
	Sheldon, IA	3.0 feet	1.0 foot on March 28, 1962
	Rock Valley, IA	4.5 feet	4.0 feet on May 9, 1993

Based on normal precipitation during the melt period, crests along the upper Mississippi River from Minneapolis, MN to Keokuk, IA are expected to range from 3 to 7 feet above flood stage, but remain well below records set in either April 1965 or July 1993. The National Weather Service will issue its next spring flood outlook on March 14.

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