

# 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

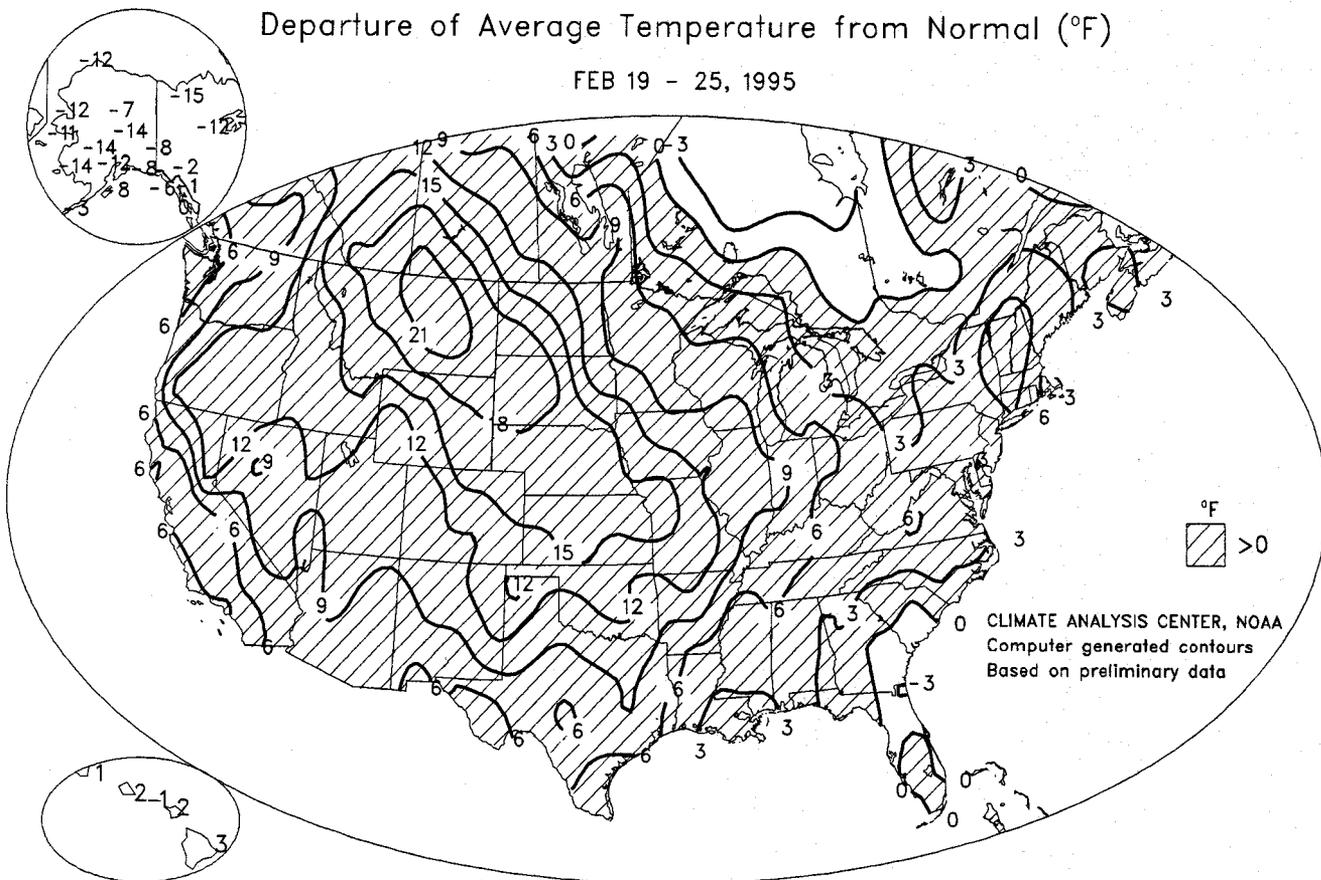
Volume 82, No. 9

Washington, D.C.

February 28, 1995

Departure of Average Temperature from Normal (°F)

FEB 19 - 25, 1995



## HIGHLIGHTS

February 19 - 25, 1995

Incredible warmth encompassed the **Western and Central States**, setting or tying about 200 daily records and a dozen all-time February records. Temperatures averaged above normal virtually nationwide, with weekly departures reaching +23°F in **Havre, MT**.

Winter wheat broke dormancy in the **central Plains**, as highs rose into the 70's on February 20-22 and 25, and weekly temperatures averaged from the upper 40's to middle 50's. Average soil temperatures (4-inch depth) climbed to 50°F into **southern Kansas** at **Garden City** and **St. John**, and to 40°F into **southern Nebraska** at **McCook** and **Lincoln**. Farther north, **Great Falls, MT** recorded 63°F on Sunday, 6 days after a low of -18°F, and **Spokane, WA** registered a February-record of 63°F on Monday, 6 days after a low of 2°F.

### Contents

Page

Highlights & Temperature Departure Map .....	1
Extreme Maximum & Minimum Temperature Maps ...	2
National Weather Data for Selected Cities ....	3
National Agricultural Summary & Total Precipitation Map .....	6
State Summaries of Weather and Agriculture ...	7
International Weather and Crop Summary .....	11
Unusually Mild Weather in Winter Grain Areas .	14
Subscription and Mailing Permit Information & Snow Cover Map .....	16

(Continued to p. 2)

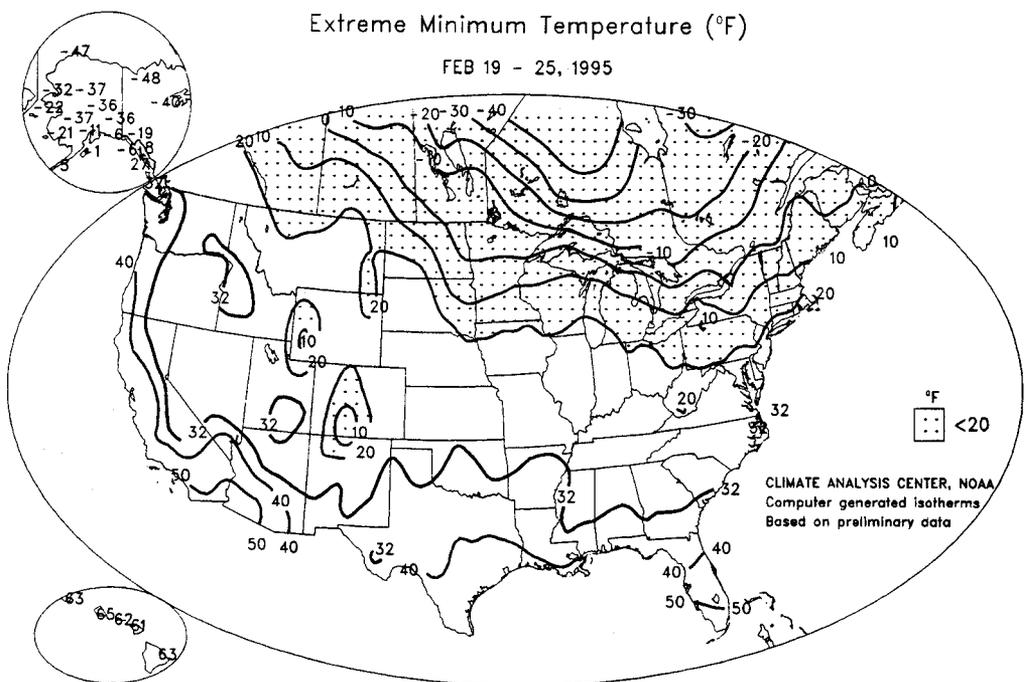
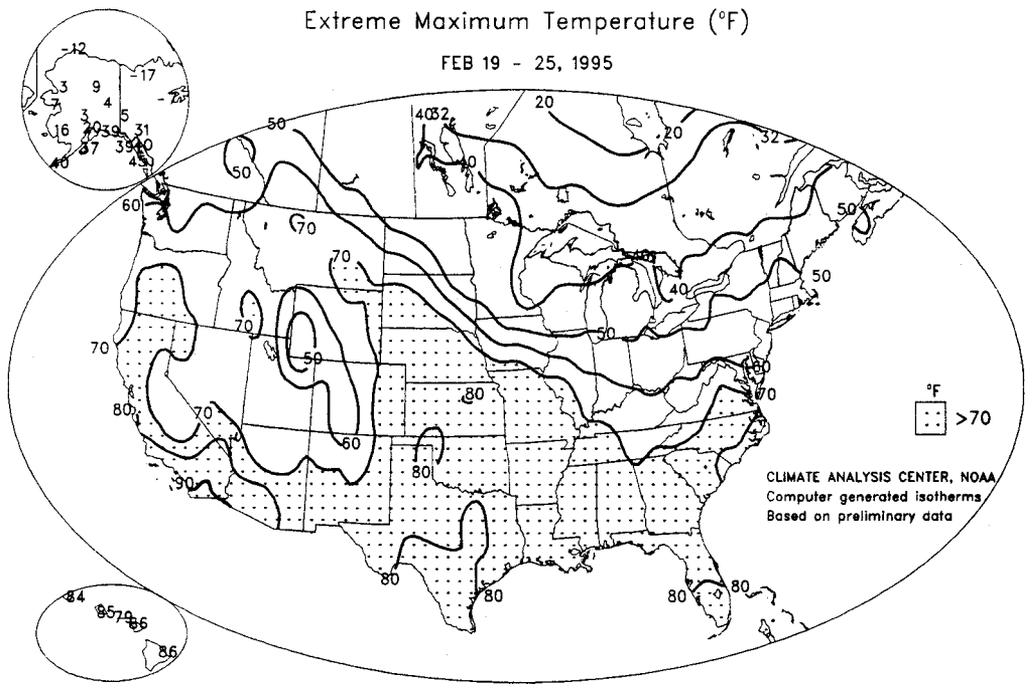
(Continued from front cover)  
 Early in the week, a high-pressure system over the **Great Basin** induced westerly (chinook) winds across the **northern High Plains** and easterly (Santa Ana) winds across **southern California**. On Sunday, **San Diego, CA** measured its first-ever 90-degree day in February, eclipsing the standard (89°F) that had stood since February 24, 1921. A day later, the temperature hit 95°F at **Los Angeles (Civic Center), CA**, breaking the record of 94°F that was most recently attained on February 3, 1995. Farther north, the last in a series of storms moved ashore in **western Washington**, allowing river flooding to abate by midweek. Meanwhile, a front crossed **southern Florida**, igniting locally severe thunderstorms on Monday.

Nearly 80 daily records were set or tied on Monday and Tuesday as warmth spread from the **West** into the **northern and central Plains**. On Monday, highs included 89°F in **Yuma, AZ** and 79°F in **Las Vegas, NV**. **Santa Barbara, CA** (85°F) broke its daily record by 9°F. A day later, the high of 74°F in **Norfolk, NE** was a February record, 38°F above the normal high for February 21. Other highs on Tuesday included 71°F in **Denver, CO** and 62°F in **Huron, SD**.

The warmth and accompanying parade of records continued through week's end, briefly shifting into the **Northwest** before returning to the **northern and central Plains**. On Thursday, the high of 70°F in **Klamath Falls, OR** was a February record, while the high of 66°F in **Burns, OR** was their fifth consecutive daily record. February records were tied on Friday in **Butte, MT** (61°F), **Helena, MT** (69°F), and **Rapid City, SD** (75°F). The high in **Missoula, MT** (66°F) toppled a February record that had endured since February 14, 1921. On Saturday, daily records were set as far east as **Springfield, IL** (71°). Highs soared to 80°F into **Nebraska** at **Grand Island** (a February record) and **Hastings** (tied a February record). **Norfolk, NE** (74°F) tied its February record, established 4 days earlier.

In contrast, temperatures plunged below normal across **Alaska**, with weekly departures to -15°F. Along the **Arctic coast**, **Barrow** logged a low of -47°F on February 25.

After Monday, organized precipitation was confined to the **Northeast, Arizona**, and **south-central Texas**. Local rainfall approached 1 inch in **Arizona** on Tuesday and Wednesday. Snowfall in **northern Maine** reached a half-foot on Friday. A day later in **Michigan**, a 9.5-inch snowfall at **Negaunee** pushed their monthly snowfall to 57.4 inches, a February record. Meanwhile, thunderstorms in **Texas** dumped more than an inch of rain in **Austin** and **San Angelo**.



**Record-High February Temperatures**

Date	Location	High (°F)	Former Record / Date
Feb. 19	San Diego, CA	90	89 in 1921 (24th)
Feb. 20	Los Angeles, CA	95	94 in 1995 (2nd, 3rd) *
	Spokane, WA	63	61 in 1958 (19th)
Feb. 21	Norfolk, NE	74	73 in 1992 (29th) **
Feb. 23	Klamath Falls, OR	70	68 on several occasions
Feb. 24	Rapid City, SD	75	75 in 1988 (27th)
	Helena, MT	69	69 in 1932 (27th)
	Missoula, MT	66	65 in 1921 (14th)
	Butte, MT	61	61 in 1921 (24th)
Feb. 25	Grand Island, NE	80	77 in 1977 (28th)
	Hastings, NE	80	80 in 1972 (29th)
	Norfolk, NE	74	74 in 1995 (21st)

\* also on Feb. 24, 1986  
 \*\* also on Feb. 25, 1946

# National Weather Data for Selected Cities

Weather Data for the Week Ending February 25, 1995

STATES AND STATIONS	TEMPERATURE °F							PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	MINIMUM	TEMP. °F		PRECIP.	
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	64	39	72	28	52	4								83	34		0	2	0	0
MOBILE	70	46	73	34	58	3								87	31		0	0	1	0
MONTGOMERY	67	42	73	34	55	5								83	32		0	0	1	0
AK ANCHORAGE	16	-1	20	-11	8	-12								103	10.8	112	83	32	0	0
BARROW	-25	-35	-12	-47	-30	-12								118	1.5	103	82	60	7	3
FAIRBANKS	-3	-28	4	-36	-15	-15								74	.1	41	71	68	7	0
JUNEAU	35	23	40	8	29	-8								59	.5	61	76	60	7	1
KODIAK	30	17	37	-1	23	-7											96	67	6	2
WOME	2	-15	7	-22	-7	-11											80	58	7	3
AZ PHOENIX	77	55	85	50	66	7								181	2.2	161	77	55	7	0
PRESOTT	64	35	69	32	50	10								89	2.7	93	79	32	3	2
TOCSON	75	49	82	44	62	7								59	2.7	93	79	32	3	2
YUMA	83	60	90	56	72	10								180	76	26	76	26	0	1
AR FORT SMITH	71	36	78	30	54	9								307	66	25	1	0	0	0
LITTLE ROCK	68	43	74	39	56	10								81	4.8	81	75	21	4	0
CA BAKERSFIELD	67	48	74	42	58	3								169	83	30	0	0	0	0
SURREA	57	48	63	45	53	3								140	96	55	0	0	2	0
FRESNO	65	48	71	40	56	4								179	97	33	0	0	1	0
LOS ANGELES	71	57	90	52	64	6								228	13.3	287	76	46	1	0
REDDING	73	44	80	38	58	6								191	24.2	241	96	46	0	0
SACRAMENTO	64	45	72	42	55	3								12.5	202	100	70	0	0	0
SAN DIEGO	71	58	90	51	64	5								314	83	43	1	0	1	0
SAN FRANCISCO	64	50	72	46	57	4								127	96	51	0	0	0	0
CO DENVER	67	32	71	29	50	15								85	73	20	0	4	0	0
GRAND JUNCTION	64	32	67	30	48	9								113	74	24	0	6	0	0
FUEBLO	70	23	73	19	47	10								7	76	17	0	7	0	0
CT BRIDGEPORT	43	30	47	24	37	5								85	4.3	73	81	46	5	2
HARTFORD	44	25	53	18	35	5								102	83	43	0	6	3	0
DC WASHINGTON	52	31	62	27	42	2								83	81	42	0	4	0	0
FL PANAMA CITY	67	48	74	40	58	3								38	94	43	0	0	2	0
DAYTONA BEACH	69	48	76	41	59	-1								49	96	50	0	0	1	1
JACKSONVILLE	65	42	77	33	54	-4								60	95	53	0	0	1	0
KEY WEST	76	64	83	60	70	-1								119	81	56	0	0	1	0
MIAMI	78	60	83	53	69	0								116	85	50	0	0	1	0
ORLANDO	73	52	79	44	63	0								46	89	45	0	0	1	0
TALLAHASSEE	69	41	76	30	55	1								60	90	39	0	2	2	0
TAMPA	72	52	79	43	62	0								118	93	50	0	0	1	1
WEST PALM BEACH	77	57	81	47	67	-1								57	93	55	0	0	2	0
GA ATLANTA	62	41	73	34	52	5								92	74	32	0	0	1	0
AUGUSTA	63	37	70	27	50	1								120	88	33	0	2	0	0
MACON	62	38	71	28	50	0								123	88	34	0	2	1	0
SAVANNAH	63	43	71	35	53	-1								102	86	51	0	0	2	0
HI HILO	84	65	86	63	75	3								29	89	58	0	0	0	0
HONOLULU	83	66	85	65	75	2								24	43	95	69	0	0	0
KAHULUI	83	64	86	61	74	1								52	90	57	0	0	0	0
LIHUE	80	65	84	63	73	1								76	88	65	0	0	3	1
ID BOISE	64	37	67	34	51	13								107	83	32	0	0	0	0
LEWISTON	61	42	70	35	52	11								95	84	48	0	0	0	0
POCATELLO	59	28	63	25	43	12								102	91	38	0	6	0	0
IL CHICAGO	44	29	51	24	37	9								121	83	47	0	7	2	0
MOLINE	48	29	55	24	39	11								126	82	49	0	6	0	0
PEORIA	52	29	64	24	41	12								110	81	43	0	7	0	0
QUINCY	53	31	69	25	42	11								117	75	42	0	4	0	0
ROCKFORD	44	27	49	21	35	10								77	95	50	0	7	0	0
SPRINGFIELD	55	31	71	25	43	12								143	80	41	0	4	0	0
IN EVANSVILLE	59	32	70	28	45	7								79	79	37	0	5	0	0
FORT WAYNE	46	25	55	20	36	8								72	91	49	0	7	4	0
INDIANAPOLIS	51	29	58	25	40	8								65	82	43	0	6	2	0
SOUTH BEND	43	28	50	25	35	7								87	88	56	0	7	3	0
IA DES MOINES	52	29	69	20	41	13								82	82	42	0	6	0	0
SIoux CITY	55	28	63	23	41	15								39	91	48	0	7	0	0
WATERLOO	42	26	49	23	34	11								48	88	58	0	7	0	0
KS CONCORDIA	66	35	77	24	50	17								66	74	32	0	3	0	0
DODGE CITY	70	35	78	26	53	16								77	75	25	0	2	0	0
GOODLAND	67	31	73	26	49	15								59	81	27	0	4	0	0
TOPEKA	66	34	78	22	50	15								82	77	26	0	3	0	0
WICHITA	67	37	75	29	52	14								21	76	28	0	2	0	0
KY BOWLING GREEN	60	33	70	24	47	7								68	88	42	0	5	0	0
LXINGTON	53	29	59	22	41	4								119	87	44	0	4	2	0
LOUISVILLE	57	32	63	29	45	7								83	72	32	0	5	1	0
LA BATON ROUGE	70	44	75	36	57	3								70	95	40	0	0	1	0
LAKE CHARLES	73	47	77	41	60	5								80	91	43	0	0	1	0
NEW ORLEANS	70	46	76	38	58	2								66	90	36	0	0	2	0
SHREVEPORT	73	44	78	37	59	8								92	78	24	0	0	1	1

Based on 1961-90 normals.

Weather Data for the Week Ending February 25, 1995

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS							
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																			.01 INCH OR MORE	.50 INCH OR MORE		
ME CARIBOU	27	8	41	0	17	3	.8	.3	.8	11.1	151	8.1	196	78	50	0	7	1	1	1		
PORTLAND	36	22	43	9	29	4	.6	.2	.4	12.7	115	6.6	101	82	48	0	7	2	0	0		
MD BALTIMORE	51	30	59	22	40	4	.1	.8	.4	5.2	57	3.3	56	80	43	0	4	0	0	0		
SALISBURY	55	33	65	25	44	5	.1	.8	.1	5.1	49	3.5	51	85	39	0	3	1	0	0		
MA BOSTON	41	28	55	20	34	3	.5	.4	.1	11.3	104	5.9	87	94	51	0	6	1	5	0		
CHATHAM	40	30	48	22	34	2	.2	.4	.1	2.7	23	1.1	15	86	49	0	4	1	0	0		
MI ALPENA	30	12	40	5	21	1	.3	.1	.1	2.7	57	2.4	85	85	61	0	7	5	0	0		
DETROIT	42	24	52	18	33	6	.1	.4	.1	5.2	85	2.8	84	81	52	0	7	1	0	0		
FLINT	36	20	45	14	28	3	.2	.2	.1	4.1	89	2.4	95	86	64	0	7	3	0	0		
GRAND RAPIDS	38	24	47	16	31	5	.2	.2	.1	4.5	77	3.4	112	83	63	0	7	3	0	0		
HOUGHTON LAKE	32	17	44	11	25	5	.1	.2	.0	3.3	74	2.8	110	83	61	0	7	4	0	0		
LANSING	37	22	45	16	30	7	.5	.1	.4	4.5	99	3.0	118	93	63	0	7	3	0	0		
MARQUETTE	29	14	38	4	21	6	.6	.1	.3	4.5	72	4.2	113	91	73	0	7	4	0	0		
MUSKEGON	37	24	46	17	30	4	.3	.1	.3	4.9	73	3.9	106	92	62	0	7	2	0	0		
SAULT ST. MARIE	25	7	37	-3	16	0	.2	.2	.1	4.2	61	3.6	92	85	50	0	7	4	0	0		
MN ALEXANDRIA	35	13	47	3	24	8	.7	.1	.1	1.4	61	1.0	66	93	66	0	7	1	0	0		
DULUTH	31	11	39	-2	21	6	.2	.1	.1	2.7	86	2.4	127	86	62	0	7	2	0	0		
INT'L FALLS	30	3	44	-7	17	6	.7	.1	.7	2.2	97	1.6	109	86	56	0	7	3	0	0		
MINNEAPOLIS	36	21	40	15	29	8	.7	.2	.7	1.1	41	.6	35	86	56	0	7	1	0	0		
ROCHESTER	35	21	37	17	28	9	.7	.2	.7	1.1	44	.4	30	89	65	0	7	0	0	0		
MS GREENWOOD	67	39	71	32	53	4	.0	-1.2	.0	6.8	46	4.2	48	89	28	0	1	0	0	0		
JACKSON	67	39	72	31	53	4	.1	-1.1	.1	8.1	51	4.8	49	91	33	0	1	1	0	0		
MERIDIAN	68	40	76	31	54	4	.4	-1.0	.4	12.9	80	5.9	60	89	31	0	1	1	0	0		
MO CAPE GIRARDEAU	60	34	67	30	47	8	.0	-.9	.0	8.5	83	6.2	107	77	31	0	4	0	0	0		
COLUMBIA	60	31	76	23	46	12	.7	-.5	.7	6.7	119	5.8	192	76	30	0	4	0	0	0		
KANSAS CITY	63	34	77	22	48	15	.7	-.3	.7	3.4	95	1.7	82	71	25	0	3	0	0	0		
SAINT LOUIS	61	35	78	30	48	12	.0	-.6	.0	6.9	103	5.4	148	66	31	0	2	0	0	0		
SPRINGFIELD	64	35	76	25	50	12	.0	-.6	.0	6.1	100	5.0	147	69	29	0	2	0	0	0		
MT BILLINGS	65	41	71	26	53	22	.7	-.2	.7	.8	35	.6	38	52	23	0	1	0	0	0		
GLASGOW	56	27	63	19	42	21	.0	-.1	.0	.1	13	.7	0	77	38	0	5	0	0	0		
GREAT FALLS	62	37	68	20	49	20	.7	-.2	.7	.3	12	.1	6	66	27	0	3	0	0	0		
HAVRE	61	32	73	16	47	23	.0	-.1	.0	.6	40	.1	6	68	30	0	4	0	0	0		
HELENA	61	30	69	22	46	17	.7	-.1	.7	.1	6	.7	1	79	33	0	4	0	0	0		
KALISPELL	56	31	64	24	44	15	.3	.1	.2	2.2	53	1.5	60	91	48	0	5	2	0	0		
MILES CITY	64	31	72	19	48	22	.7	-.1	.7	.2	13	.2	17	72	21	0	4	0	0	0		
MISSOULA	57	30	66	23	44	13	.1	-.1	.1	1.8	59	1.2	63	88	48	0	5	2	0	0		
NE GRAND ISLAND	66	28	80	21	47	17	.0	-.2	.0	1.2	65	.6	54	82	31	0	5	0	0	0		
LINCOLN	64	27	77	19	45	16	.0	-.2	.0	2.1	107	1.1	96	88	25	0	6	0	0	0		
NORFOLK	63	25	74	20	44	17	.0	-.3	.0	1.9	102	.9	79	86	36	0	7	0	0	0		
NORTH PLATTE	68	26	76	21	47	17	.0	-.1	.0	.8	67	.1	19	81	23	0	6	0	0	0		
OMAHA	61	26	74	20	44	14	.0	-.2	.0	2.2	91	1.0	71	91	34	0	7	0	0	0		
SCOTTSBLUFF	65	29	73	22	47	15	.0	-.1	.0	2.4	163	1.4	161	87	25	0	6	0	0	0		
VALENTINE	65	28	76	21	46	17	.0	-.2	.0	.8	58	.2	21	77	22	0	5	0	0	0		
NV ELY	61	26	62	25	43	12	.7	-.2	.7	2.1	104	1.5	112	85	25	0	7	0	0	0		
LAS VEGAS	75	51	79	47	63	10	.7	-.2	.7	4.1	328	3.0	343	61	22	0	0	0	0	0		
RENO	70	30	71	29	50	11	.0	-.2	.0	3.7	124	3.5	177	81	20	0	7	0	0	0		
WINNEMCCA	67	24	68	23	46	8	.0	-.2	.0	1.9	89	1.4	110	89	23	0	7	0	0	0		
NH CONCORD	40	20	51	9	30	7	.4	-.2	.3	8.9	112	4.7	99	89	49	0	7	3	0	0		
NJ ATLANTIC CITY	49	28	58	18	38	4	.2	-.6	.1	6.5	68	4.3	70	88	47	0	5	3	0	0		
NM ALBUQUERQUE	67	39	72	34	53	12	.3	-.2	.3	1.5	109	.9	99	60	23	0	0	1	0	0		
CLOVIS	70	40	76	37	55	13	.7	-.1	.7	.9	67	.5	63	64	22	0	0	0	0	0		
ROSWELL	72	42	78	32	57	11	.7	-.1	.7	.1	--	--	--	73	32	0	1	0	0	0		
NY ALBANY	40	23	52	12	32	6	.3	-.3	.1	6.1	83	3.5	79	85	49	0	7	4	0	0		
BINGHAMTON	38	20	49	10	29	5	.6	.0	.3	7.1	95	4.0	91	91	53	0	7	6	0	0		
BUFFALO	36	20	46	10	28	2	.5	-.1	.2	9.7	115	7.0	147	92	56	0	7	4	0	0		
NEW YORK	45	31	55	23	38	3	.4	-.4	.3	8.5	94	5.7	103	80	41	0	4	2	0	0		
ROCHESTER	40	22	55	11	31	5	.2	-.3	.1	5.5	82	3.1	79	90	57	0	7	3	0	0		
SYRACUSE	37	16	50	-2	27	1	.5	-.1	.2	5.7	76	3.2	74	87	58	0	7	4	0	0		
NC ASHEVILLE	57	32	68	24	44	3	.7	-1.2	.7	12.5	102	9.5	121	82	35	0	5	0	0	0		
CHARLOTTE	58	35	72	26	47	3	.7	-1.0	.7	9.2	87	7.3	103	77	32	0	2	0	0	0		
GREENSBORO	57	33	71	24	45	4	.0	-.9	.0	5.9	62	5.3	86	71	37	0	4	0	0	0		
HATTERAS	53	41	60	33	47	1	.7	-1.0	.7	19.3	142	14.3	160	89	54	0	0	1	0	0		
NEW BERN	61	40	69	28	50	3	.7	-1.1	.7	4.9	42	3.6	45	83	39	0	2	0	0	0		
RALEIGH	59	36	73	27	48	4	.0	-.9	.0	9.6	96	8.3	123	78	28	0	3	0	0	0		
WILMINGTON	60	39	68	30	49	2	.7	-1.0	.7	16.2	128	9.3	108	89	42	0	2	1	0	0		
ND BISMARCK	45	26	58	21	35	17	.7	-.1	.7	.8	60	.5	60	90	59	0	7	0	0	0		
FARGO	35	14	41	1	25	10	.1	.0	.1	1.5	88	1.3	120	89	67	0	7	3	0	0		
GRAND FORKS	32	12	40	-2	22	9	.2	.1	.1	.8	43	.7	65	91	70	0	7	2	0	0		
WILLISTON	45	26	50	19	35	16	.7	-.1	.7	2.1	139	1.1	118	85	56	0	7	0	0	0		
OH AKRON-CANTON	42	23	52	16	33	3	.1	-.5	.1	8.3	118	5.3	130	87	52	0	7	2	0	0		
CINCINNATI	51	27	59	22	39	5	.1	-.6	.1	8.0	99	5.1	104	84	40	0	6	2	0	0		
CLEVELAND	45	25	55	16	35	6	.4	-.2	.2	9.7	137	6.7	170	91	60	0	6	4	0	0		
COLUMBUS	46	24	57	20	35	6	.2	-.5	.1	7.7	112	5.5	142	86	47	0	6	3	0	0		
DAYTON	48	27	57	22	37	5	.1	-.5	.0	6.0	87	3.3	81	81	45	0	6	3	0	0		

Based on 1961-90 normals.

Weather Data for the Week Ending February 25, 1995

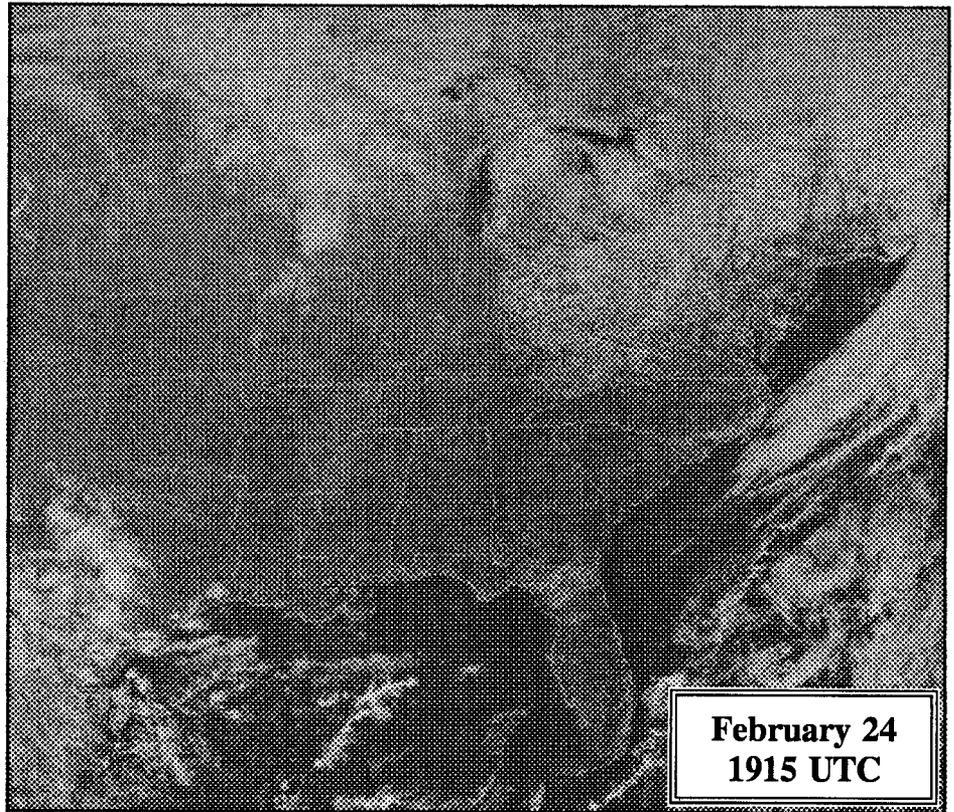
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	44	25	52	22	35	7	.7	-.5	.8	6.2	100	3.1	97	88	52	0	7	0	0
YOUNGSTOWN	42	22	53	16	32	5	.3	-.3	-.1	6.4	93	3.1	80	90	58	0	6	5	0
OK OKLAHOMA CITY	70	41	76	35	55	12	.0	-.5	.0	3.0	76	1.3	54	69	28	0	0	0	0
TULSA	69	39	76	29	54	12	.0	-.6	.0	2.2	41	1.0	30	64	23	0	1	0	0
OR ASTORIA	57	43	60	35	50	5	1.8	.0	1.5	30.9	113	16.1	96	96	79	0	0	4	1
BURNS	63	29	66	27	46	15	.0	-.2	.0	.0	.0	3.3	199	86	30	0	7	0	0
MEDFORD	70	37	73	35	54	10	.0	-.5	.0	5.4	70	4.4	99	95	31	0	0	0	0
PENDLETON	63	42	68	36	52	12	.0	-.3	.0	4.5	108	3.6	143	82	30	0	0	0	0
FORTLAND	61	43	67	35	52	7	.6	-.3	.6	13.5	90	8.6	98	98	40	0	0	1	1
SALEM	61	43	67	34	52	8	.4	-.6	.4	17.9	106	13.0	130	95	39	0	0	2	2
PA ALLENTOWN	45	26	55	19	36	4	.4	-.3	.2	8.1	88	5.1	87	87	46	0	6	3	0
ERIE	38	21	49	10	30	2	.4	-.2	.2	7.5	96	4.3	101	92	62	0	6	5	0
HARRISBURG	45	28	53	23	36	3	.2	-.6	.1	7.5	86	4.5	83	84	51	0	5	4	0
PHILADELPHIA	48	30	58	21	39	5	.2	-.6	.1	7.1	72	5.0	80	89	47	0	4	3	0
PITTSBURGH	45	23	57	18	34	3	.1	-.5	.1	5.5	73	3.5	75	82	49	0	6	3	0
SCRANTON	44	25	56	19	34	6	.3	-.3	.1	5.9	90	3.6	90	87	44	0	6	3	0
RI PROVIDENCE	44	27	54	21	35	4	.4	-.5	.2	10.3	90	5.8	81	91	44	0	7	2	0
SC CHARLESTON	61	42	72	32	52	0	.4	-.5	.4	14.2	150	7.9	125	90	36	0	1	2	0
COLUMBIA	62	36	69	26	49	1	T	-1.0	T	16.6	142	10.7	133	85	36	0	2	1	0
FLORENCE	62	39	70	31	50	2	.0	-.8	T	20.0	210	10.7	167	81	52	0	2	0	0
GREENVILLE	59	36	72	26	47	2	T	-1.2	T	14.4	119	10.5	131	72	33	0	2	0	0
SD ABERDEEN	40	18	43	3	29	10	T	-.2	T	1.3	78	.9	80	93	58	0	7	0	0
BURON	48	24	62	16	36	14	T	-.2	T	1.3	87	.7	71	91	61	0	7	0	0
RAPID CITY	65	32	75	26	48	20	.0	-.2	T	.8	61	.5	55	71	23	0	3	0	0
SIOUX FALLS	48	25	58	16	36	14	T	-.2	T	.6	33	.3	25	93	56	0	7	0	0
TN CHATTANOOGA	60	36	70	27	48	4	.1	-1.2	.1	14.4	101	10.6	116	76	34	0	3	2	0
KNOXVILLE	58	36	69	24	47	5	.1	-.9	.1	10.7	87	8.7	112	76	38	0	4	3	0
MEMPHIS	64	40	70	35	52	6	.0	-1.2	.0	14.3	107	8.2	108	68	29	0	0	0	0
NASHVILLE	61	35	71	26	48	6	.1	-.9	.1	10.1	87	7.4	106	80	32	0	3	1	0
TX ABILENE	70	44	76	37	57	7	.1	-.3	.1	2.7	88	1.7	82	77	34	0	0	1	0
AMARILLO	70	38	79	30	54	13	.0	-.2	.0	.6	40	.3	27	67	25	0	1	0	0
AUSTIN	72	53	80	48	62	8	1.1	.6	.7	8.0	144	2.3	64	78	45	0	0	2	1
BEAUMONT	72	49	78	44	61	5	T	-.7	T	9.0	72	4.9	62	97	41	0	0	1	0
BROWNSVILLE	78	56	82	48	67	3	T	-.2	T	2.3	60	.7	29	92	37	0	0	0	0
CORPUS CHRISTI	76	53	81	44	65	4	T	-.4	T	9.5	200	1.5	43	90	39	0	0	1	0
DEL RIO	77	52	86	44	65	9	.3	-.1	.1	3.5	100	.3	14	73	39	0	0	2	0
EL PASO	71	46	75	37	58	9	T	-.1	T	2.7	196	1.1	139	73	25	0	0	2	0
FORT WORTH	74	47	82	41	60	11	T	-.7	T	5.0	82	2.5	64	70	31	0	0	0	0
GALVESTON	68	58	73	53	63	6	T	-.5	T	6.0	68	1.1	20	89	55	0	0	1	0
HOUSTON	74	51	80	42	62	8	.4	-.5	.2	11.7	98	6.7	96	94	39	0	0	3	0
LUBBOCK	71	41	79	34	56	11	T	-.2	T	.7	49	.6	59	73	30	0	0	0	0
MIDLAND	72	44	78	37	58	8	T	-.1	T	1.6	109	1.2	119	77	30	0	0	1	0
SAN ANGELO	71	44	79	34	57	7	1.2	-.9	.9	3.0	117	1.8	99	81	35	0	0	2	1
SAN ANTONIO	75	49	83	43	62	7	1.0	.6	.9	4.7	98	1.5	44	84	40	0	0	2	1
VICTORIA	75	51	80	43	63	6	.3	-.4	.2	6.1	69	1.1	18	92	48	0	0	2	0
WACO	72	47	81	35	59	8	.2	-.3	.2	7.0	130	1.9	55	88	40	0	0	1	0
WICHITA FALLS	72	43	77	39	58	11	T	-.5	T	1.8	39	1.0	31	67	26	0	0	0	0
UT CEDAR CITY	64	31	70	28	47	11	.1	-.2	.1	1.3	60	1.1	73	83	30	0	5	1	0
SALT LAKE CITY	59	32	63	30	46	9	.0	-.3	.0	4.3	119	2.9	131	89	35	0	4	0	0
VT BURLINGTON	36	20	45	5	28	7	.1	-.4	.0	4.4	78	2.8	85	76	49	0	7	3	0
VA NORFOLK	56	38	73	34	47	5	.0	-.9	.0	6.1	60	4.9	71	74	42	0	0	0	0
RICHMOND	58	33	70	23	46	5	T	-.8	T	5.1	54	4.1	68	70	26	0	3	0	0
ROANOKE	58	34	71	26	46	7	.0	-.8	.0	11.1	134	8.7	164	63	28	0	4	0	0
WA QUILLAYUTE	54	42	62	37	48	6	3.2	.1	1.4	45.1	110	25.1	98	98	80	0	0	4	2
SEATTLE-TACOMA	55	46	60	40	50	6	1.7	.8	1.4	17.6	118	9.5	105	95	70	0	0	4	1
SPOKANE	57	39	63	29	48	13	.2	-.1	.2	5.6	98	4.0	121	90	57	0	2	2	0
YAKIMA	62	34	63	28	48	10	T	-.2	T	3.6	108	2.3	123	86	44	0	3	1	0
WV BECKLEY	48	29	63	19	39	5	.1	-.6	.1	9.5	109	7.6	138	80	47	0	4	2	0
CHARLESTON	52	30	62	21	41	3	.3	-.5	.2	10.8	120	8.2	148	89	43	0	5	2	0
HUNTINGTON	54	29	60	21	42	6	.1	-.7	.1	9.8	106	6.8	118	87	39	0	6	3	0
PARKERSBURG	50	27	60	21	38	4	.4	-.3	.4	7.3	85	4.6	80	88	39	0	6	2	0
WI GREEN BAY	36	22	41	15	29	8	.2	-.1	.1	1.4	39	1.1	51	79	57	0	7	2	0
LACROSSE	38	23	43	19	31	8	T	-.3	T	1.4	48	.7	43	92	53	0	7	0	0
MADISON	41	25	48	20	33	10	T	-.3	T	3.3	88	2.2	106	84	54	0	7	3	0
MILWAUKEE	41	27	49	21	34	9	.1	-.3	.1	3.4	66	2.3	81	83	57	0	7	2	0
WAUSAU	33	20	41	12	27	7	.2	-.1	.2	1.1	34	.7	44	83	51	0	7	2	0
WY CASPER	57	33	62	28	45	17	.0	-.2	.0	2.0	115	1.6	152	83	45	0	3	0	0
CHEYENNE	61	30	67	24	45	15	.0	-.1	.0	1.5	136	1.0	134	76	26	0	5	0	0
LANDER	55	30	60	24	43	15	.0	-.2	.0	1.5	95	1.2	122	74	35	0	6	0	0
SHERIDAN	63	33	72	26	48	20	.0	-.2	.0	1.2	58	1.0	76	64	28	0	2	0	0
PR SAN JUAN	85	70	87	68	78	0	2.5	2.0	1.2	9.8	104	6.8	142	91	62	0	0	4	2

Based on 1961-90 normals.

# National Agricultural Summary

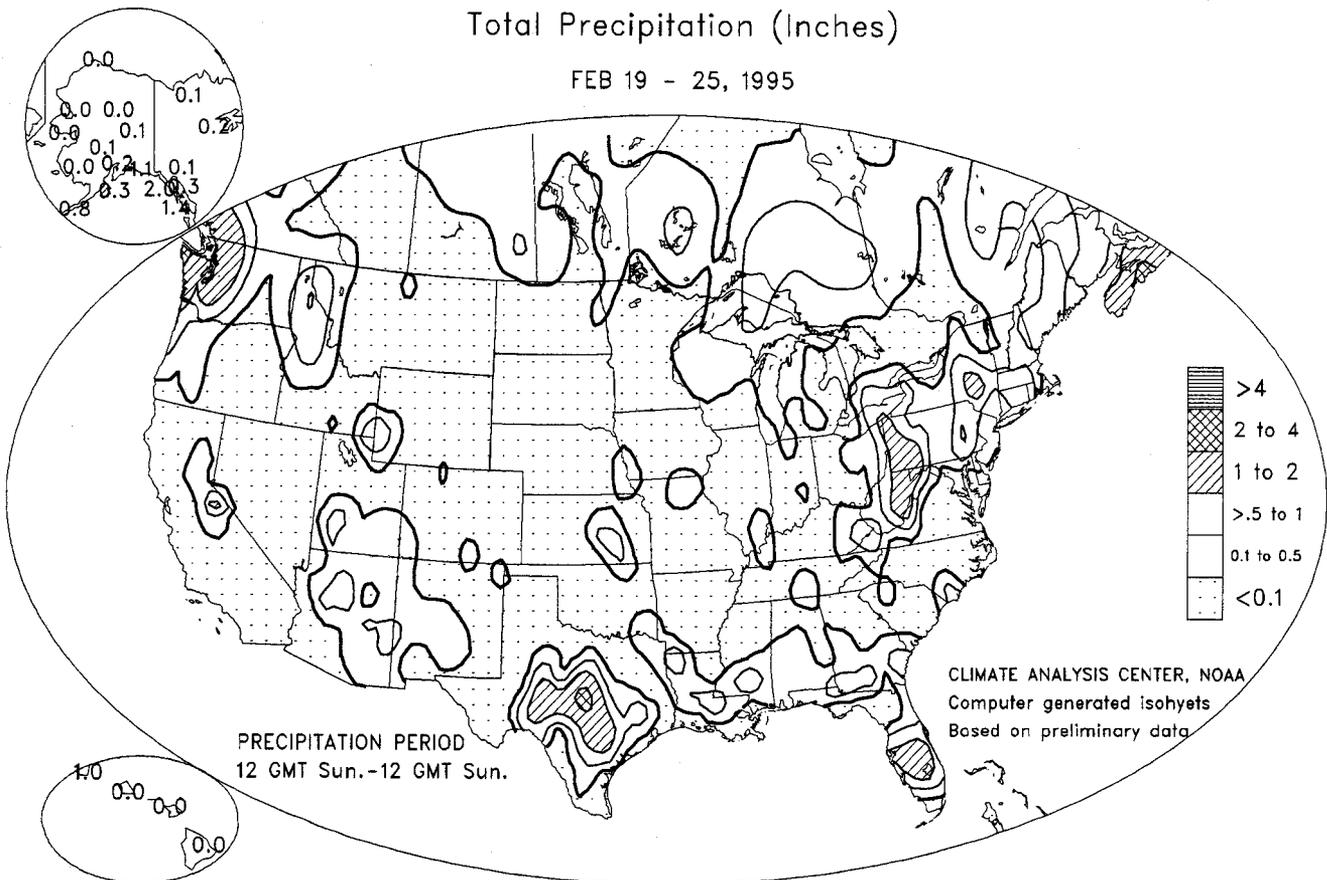
February 20 - 26, 1995

**HIGHLIGHTS:** Wheat broke dormancy and is greening up rapidly from the southern to the central Great Plains. The recent warm weather and moisture caused the winter wheat to lose cold hardiness and to green quickly. Wheat across the Nation has wintered well so far, with wheat condition generally reported as mostly good to fair. Temperatures well above normal have depleted most of the snow cover in the Northern States. In the Midwest, the warm weather and lack of significant precipitation allowed farmers to begin tilling and topdressing of winter wheat. Late-week rain in the middle Mississippi Valley helped activate recently applied top-dressed fertilizer. Rains in the Ohio Valley have left fields too muddy for farm equipment. In the Southeastern States, land preparation and fertilizer application were active in dried fields. Peaches were reported to have started to bloom in Georgia. Irrigation of small grains continued in Texas, where most dryland fields showed little growth and remained in need of moisture. Rain in the Southwestern States again slowed field preparation, but farmers continued to prepare for spring planting where possible. Drier conditions in California allowed field activities to gain headway. Row crop fields in California were sprayed with pre-plant herbicides, while small grains received aerial weed treatment. Rainstorms and blowing sand scarred some plant leaves and young fruit in south Florida's vegetable crop.



## Total Precipitation (Inches)

FEB 19 - 25, 1995



## State Summaries of Weather and Agriculture

These summaries 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.

**ALABAMA:** Rainfall none to 0.23 in. north; none to 0.20 in. central; none to 0.13 in. south. Temperatures 1° below normal to 7° above normal statewide. Lows 22 to 30° north; 24 to 34° central; 25 to 38° south. Highs 70 to 73° north; 69 to 75° central; 72 to 76° south.

Activities: Weaning calves, selling cattle, other seasonal chores.

**ARIZONA:** Temperatures 1 to 10° above normal. Extremes 23°; 76° higher elevations; 38°; 91° deserts. All stations but Yuma reported precipitation; 0.06 in., 0.66 in.

Rain once again slows field preparation for 1995 crops. Small grains 66% jointing, 50% 1994, 40% avg. Condition good to excellent. Alfalfa condition mostly good. Harvest light. Sheeping off moderate. Stand renovation, stands established mostly normal. Weed, insect, disease pressure light to moderate. Grapefruit, lemons, tangelos, tangerines, Valencia oranges available western, central Arizona. Head lettuce, romaine, leaf lettuce, broccoli, cauliflower, celery, spinach, salad savoy, broccoflower, artichokes, kale, endive, escarole, asparagus, cabbage, fava beans, turnips, bok choy (in order of volume) shipped western areas. Vegetables available central areas: Spinach, carrots, mixed greens, broccoli, cabbage, green onions, cauliflower, kale, leaf lettuce, rapini, romaine, parsley, leeks, turnips, bok choy, swiss chard, kohlrabi. Tomatoes continue available eastern areas.

**ARKANSAS:** Temperatures averaging well above normal with isolated showers at the end of the week. Extreme 24°; 79°. Precipitation none to 0.37 in.

Wheat in good condition. Producers preparing fields for spring planting. Feeding hay to cattle. Livestock in good condition.

**CALIFORNIA:** High pressure dominated the weather pattern. Dense fog Central Valley, kept temperatures above normal. Temperatures above normal southern areas with abundant sunshine, weak Santa Ana winds. Extremely dry week few stations reporting measurable precipitation. Progress field activities gradually improved, drier conditions most areas. Growth small grains, forage crops, new alfalfa slowed persistent fog, overcast skies northern San Joaquin Valley. Elsewhere, growth, development excellent. Small grains, forages, sugarbeets received ground, aerial weed treatments. Oats greenchopped some areas. Alfalfa treated aphids, weeds, weevils. Corn, cotton fields sprayed pre-plant herbicides, prepared planting. Small grain planting neared completion Riverside County, just underway north, higher elevations. Pruning, orchards, vineyards slowing. Brush shredding, weed control, as weather, soil conditions permitted. Dormant spraying slowing. Grapes, central, southern Central Valley budding, leafing out. Pollination, almonds, northern Central Valley. Central, southern Central Valley almond bloom nearly complete. Early peaches, prunes, plums, apricots, nectarines in bloom. Fuji, Granny Smith apples packed, cold storage, export to Taiwan, Mexico, Canada, export demand slowing. Kiwis exported. Navel orange, lemon harvests slowed, reduced domestic demand. Harvest over half complete. Orange, lemon exports, Australia, New Zealand, Argentina, Japan, South Korea, Hong Kong, Philippines. Orange grade out increasing, rind break-down noted. Fruit drop noticeable, many orchards. Valencia orange harvest started. Avocado, desert grapefruit harvest continued. Minneola tangerines, good demand, price. Strawberry fields prepared for berry picking, production slow. Harvest artichokes continued Monterey County. Asparagus harvest took

place Stockton delta, Imperial, San Joaquin Valleys. Broccoli, cauliflower harvest took place Monterey County, Imperial, Coachella, San Joaquin Valleys. Harvest carrots continued Kern County, Imperial Valley. Harvest celery continued Monterey, Ventura, Riverside Counties. Winter head, leaf lettuce fields harvested Imperial, Coachella Valleys. Spring head lettuce fields treated mildew, thinned San Joaquin Valley. Garlic, onions progressed well Tulare County. Melons planted Riverside County. Harvest winter potatoes Kern County, spring potatoes planted Kern County. Sweet potato hot beds prepared Merced County. Planting spinach fields Stanislaus County, while harvest Kern County. Fresh market tomatoes planted with hot cap protection Tulare County. Processing tomato planting began Sacramento, San Joaquin Valleys. Other crops harvested: Oriental vegetables, ginger root, green onions, radishes, bok choy, turnips. Cattle, sheep condition good. Range, pasture conditions continued good to excellent. Pastures thrived. Lush rangeland conditions benefitted livestock. Excellent feed nutritional values, most areas. Supplemental feeding ongoing, few areas. More rain needed some areas, to continue grass growth, extend feeding season. Sheep grazed alfalfa fields. Livestock movement light. Calves branded, castrated. Water supplies remained excellent.

**COLORADO:** Entire week was unseasonably warm across the eastern plains with temperatures 20° above normal. Dry weather prevailed through 24th as some light rain showers during the weekend over the southern foothills, southeast plains.

Major farm activities: Care, feeding of livestock with calving, lambing active in numerous localities. Seeding of spring barley, oats is just beginning and some onions have also been planted. Seedbed preparation active in several areas. Wheat has broken dormancy in most areas, is greening up rapidly with recent moisture, warm temperatures.

**FLORIDA:** Temperatures mostly 1 to 3° below normal, except 3 to 5° above normal, Panhandle. Highs; around 80°. Two or less rain days with most amounts under 1.00 in.

Soil moisture adequate throughout State, scattered areas of short or surplus. Sugarcane harvest active. Tobacco growers tending beds, making preparations to plant. Farmers making preparations to plant corn. General rain on 20th provided adequate moisture all citrus areas. New growth, bloom on hold due to mild days, cool nights. Early, mid orange harvest all but over for this year. Valencia harvest increasing slowly. Grapefruit movement increasing with additional picking crews. Tangelos almost over. Temples, honey tangerines moving well. Caretakers cutting cover crops, hedging, topping, removing debris. Warm temperatures boosting vegetable growth, in central, southern fields. Blowing sand caused by winds accompanying rain storms on 20th in west central, southwestern regions, Dade County scarred some plant leaves, young fruit. Volume leaders: Tomatoes, peppers, cabbage, squash, potatoes, carrots, celery, strawberries, snap beans, sweet corn. Pasture feed very poor 5%, poor 25%, fair 45%, good 25%. Cattle condition fair to good.

**GEORGIA:** Dry week. Rain less than 0.25 in. Temperatures 3 to 7° above normal north and west central. Temperatures east, southern areas within a degree or two of normal. Warmest near 70° extreme north to upper 70s extreme south. Coldest upper 20s to low 30s north, colder central locations to mid 30s south, low 20s in northeast mountains.

Soil moisture adequate to surplus, mostly surplus. Milder, drier conditions prompted field activity. Increased applications of fertilizer to small grains. Peach tree pruning nearing completion some areas. Peaches began blooming in a few locations extreme south. Corn planting underway in few southern areas. Cattle, hogs generally good, pastures mostly fair. Small grains mostly good condition. Routine care of livestock, poultry.

**HAWAII:** Weather mostly sunny, dry. Showers light, generally over windward areas, except Hawaii. Emergency declaration Island of Hawaii due to prolonged dry conditions. Winds were light to moderate. Temperatures mid 60s to low 80s. Rainfall 0.10 to 11.30 in.

Pastures, grazing areas Hawaii island most affected at present by several months of dry weather. Cattlemen feeding supplements to livestock. Although orchards are stressed by the dry weather, rain in the next several weeks can still trigger flowering in Kona coffee area. Banana, papaya production light. Insect infestations generally light. Vegetable farmers asked to voluntarily restrict irrigation. Soil moisture levels very short for crops, pastures.

**IDAHO:** Temperatures 10 to 17° above normal. Precipitation 0.04 to 2.13 in. north, none to 0.01 in. southwest, none to 0.01 in. south central, none to 0.07 in. southeast. Extremes 8°; 81°.

Unseasonably warm temperatures, dry weather provided ideal lambing, calving conditions throughout southern areas. Conditions were muddier in northern areas, where substantial precipitation was recorded. Hay, roughage supply 1% very short, 12% short, 86% adequate, 1% surplus. Calving completed 35%. Lambing completed 57%. Activities: Beginning spring fieldwork, preparing taxes, attending training, apply pesticides, fertilizer, making planting decisions, purchasing seed.

**ILLINOIS:** Weather systems marched in a steady stream across the country producing up and down temperatures, periodic chances of precipitation across State. Temperatures 6 to 14° above normal. Highs in the 40s to 50s, to around 60° far south, southwest. Lows were mostly in the mid 20s to mid 30s, to about 40° in the far southwest. Precipitation was generally below normal for the week. Rainfall varied 0.10 in. to nearly 0.50 in. Except for the southern tip of State, precipitation has been below normal in most areas for the past 4 weeks.

Farm activities concentrated on livestock care, completing farm program applications, applying dry fertilizer, general equipment repair.

**INDIANA:** Weather systems marched in a steady stream across the country producing up and down temperatures, periodic chances of light precipitation across State. Cold fronts moved through the State late 20th, late 22nd, then a warm front towards the weekend. Precipitation was not that great, however, with most of the rain coming 26th night. Often, precipitation was a few hundredths inch or less. Temperatures 5 to 12° above normal for the week. Highs were in the 40s to 50s with average lows mostly in the mid 20s to mid 30s. Precipitation was below normal for the week. Some areas picked up about 0.33 in., most amounts around 0.10 in. or less. State has had below normal precipitation for the past 4 weeks.

Fieldwork minimal, tilling underway some areas. Soils remain soft, most areas of the State. Some winter wheat was topdressed. Fertilizer spread on some fields. Winter wheat mostly good condition. Livestock mostly good condition. Feedlots remain muddy. Other activities; hauling manure, attending farm meetings, signing up for farm programs, cleaning fence rows, calving, lambing, purchasing seed, fertilizer, tax preparation, repairing equipment, mending fence, care of livestock. Hay supplies short some areas.

**IOWA:** Very mild, dry week until 26th when freezing rain caused travel problems on secondary roads over south two thirds. Temperatures 9 to 14° above normal. Extremes 16° Leon 24th; 76° Sidney, 25th. Record highs southwest, 22nd, 25th. Precipitation none far north to 0.63 in. at Burlington; State average 0.09 in., normal 0.29 in. 1995 will rank among driest February on record north two-thirds of State.

Activities: Care, feeding of livestock, machinery repair, tax preparation.

**KANSAS:** Temperatures were well above normal during the week in State. Temperatures 16° above normal, 17° above normal over the central district to 13° above over the southwest district. No precipitation was reported across the State for the week.

Temperatures continued mild to quite warm during the week, ranging from the upper 50s to the upper 70s. Warm weather elevated the soil temperatures at the 4 inch depth to the mid to upper 30s. Morning lows in the upper teens to low 20s prevented a greater warm up in the soil. Widespread rain on 26th provided needed moisture for the winter wheat, especially in the eastern half of the State. It also helped activate the top-dressed fertilizer recently applied.

**KENTUCKY:** Mild, dry conditions. Maximum temperatures generally 10 to 12° above normal west, 5 to 9° above normal east. Minimum temperatures 3 to 7° above normal. Precipitation minimal, deficits 0.50 to 1.00 in.

Soils dried considerably, moisture supply generally adequate. Early field activity beginning. Final burley sales held 23rd Carrollton, Lexington. Gross Belt Sales 597.2 million lbs., avg. price 184.12 per cwt. Wheat appears to have wintered well to date. Livestock satisfactory condition.

**LOUISIANA:** Scattered showers early in the week limited fieldwork. Temperatures 50s to mid 70s for the high.

Main activities: Spring plowing, rowing up in preparation for planting where dry enough, livestock feeding, parasite control, soil samples, analyzation, liming, fertilizing winter pastures, wheat fertilization near complete, rice water leveling, harvesting crawfish, plowing up sugarcane stubble, off-barring active, harvesting strawberries, farmers attending grower meetings, repairing equipment.

**MARYLAND & DELAWARE:** MARYLAND: Precipitation 0.13 in., normal 0.75 in. Temperature 40.0°, normal 35.6°. Extremes 16°; 67°. Temperatures were back to above normal with small amounts of precipitation reported statewide.

Livestock, pasture, small grains all remain in good condition. Hay supplies adequate. Activities include preparations for spring planting, general maintenance of equipment, machinery.

DELAWARE: Precipitation 0.23 in., normal 0.76 in. Temperature 41.8°, normal 36.5°. Extremes 23°; 62°. Temperatures were again above normal with small amounts of precipitation reported in most areas.

Small grains, pasture, and livestock all remain in good condition. Hay supplies adequate. Activities include preparations for spring planting, general maintenance of equipment, machinery.

**MICHIGAN:** Extremes -8°; 52°. Precipitation none to 0.52 in. across the State. Most of the week, the temperatures were mild, 3° above average. Snow cover was minimal until the weekend. Snow started to fall on 25th, by 26th there was between 6 to 10 in.

Most livestock are in good condition, feed supplies remain adequate. Major activities included hauling manure, pruning fruit trees, attending meetings, purchasing seed, chemicals, paying bills.

**MINNESOTA:** Temperatures 4 to 13° above normal for the State. Extremes -7°; 52°. Precipitation near normal in north to 0.20 in. below normal in south.

Seasonably mild temperatures were reported statewide last week. Livestock feed needs eased with the warmer weather, supplies remain adequate.

**MISSISSIPPI:** Temperatures 3.5° above normal. Extremes 23°; 77°. Soil temperature 53°. Precipitation 0.13 in., 1.16 below normal. Rainfall was minimal, from none throughout most of the State to 0.42 in. south central.

Days suitable for fieldwork 4.3. Soil moisture 73% adequate, 27% surplus. Wheat jointing 33%; 93% fair, 7% good. Livestock 27% fair, 67% good, 6% excellent. Pasture feed 84% of normal. Feed, hay supply is adequate. Drier conditions made it possible for producers to get some nitrogen out on winter crops, collect soil samples, begin land preparation.

**MISSOURI:** Temperatures 8° above normal at Caruthersville to 14° above normal Kansas City, St. Joseph. Precipitation 0.50 in., varying from around 0.25 in. north central, east central to 0.79 in. south central.

Farmers worked on equipment maintenance, other outside activities during the warmer weather.

**MONTANA:** Dry conditions, temperatures well above normal across the State. Only exception was in the northwest where more than 1.25 in. precipitation at Thompson Falls.

Winter wheat condition remains mostly fair to good. Conditions favorable as calving, lambing continues.

**NEBRASKA:** Temperatures 13 to 18° above normals. Only trace amounts of precipitation occurred in scattered locations across the State.

Producer activities included livestock care, monitoring grain in on-farm storage, obtaining supplies for the 1995 crop year.

**NEVADA:** High pressure over the State resulted in fair weather, much above normal temperatures. Maximum temperatures were at record or near record levels for the week statewide. Temperatures were 9° above normal northwest to 12° above normal northeast. Extremes 4° Wildhorse Reservoir; 85° Overton. The only precipitation came from a few isolated thunderstorms in the extreme south.

Continued fair weather allowed some farmers to begin fieldwork. Some fields plowed or cultivated. Ditch cleaning underway some areas, in preparation for irrigation water delivery in April. Early calving was beginning. Some sheep shearing was commencing much earlier than usual. Main farm, ranch activities: livestock feeding, hay marketing, field preparation, ditch cleaning.

**NEW ENGLAND:** Precipitation none to 0.78 in. regionwide. Temperatures 15 to 33° north; 27 to 36° south. Maximum temperatures 41 to 59° north; 43 to 56° south. Minimum temperatures -22 to 23° north; 4 to 29° south.

Major farm activities: Caring for livestock, moving crops out of storage, getting greenhouses cleaned, geared up for production. Sugaring has begun in the southern States.

**NEW JERSEY:** Temperatures near normal. Temperature 32° north, 36° south, 37° coastal. Extremes 11°; 59°. Rainfall 0.40 in. north, 0.31 in. south, 0.33 in. coastal. Heaviest 24 hour total was 0.35 in. on the 23rd to 24th. Heaviest 24 hour snowfall total was 1 in. on the 26th to 27th.

Farmers caring for livestock, preparing farm equipment for spring planting. Farmers owning greenhouses are growing spring flowers, planting vegetable seeds.

**NEW MEXICO:** Unseasonably warm winter weather continued as the jet stream pattern kept Arctic intrusions well north, east of

State. Statewide temperature between 9 and 10° above normal, positive anomalies were as great as +14° at Clayton, Farmington. A weak low pressure system drifted across State, providing some showers, thunderstorms for most areas of the State. Greatest precipitation 0.58 in. at Gallup, 0.34 in. at Silver City.

Farmers continue to prepare for spring planting. Fruit, nut trees in southern areas are blooming due to the warm weather. Ranchers are still supplementally feeding, watering their livestock.

**NEW YORK:** Mild early in week, seasonable at midweek, below normal by weekend. Extremes -24°; 57°. Dry week. Most places had less than 0.50 in. precipitation. Lake effect snows east of Lakes Ontario, Erie produced 1 to 2 in. of precipitation.

Major activities: Tending livestock, spreading manure, attending meetings, planning for upcoming season. Winter pruning active in apple orchards. Coldness hindered outside activities.

**NORTH CAROLINA:** Mean temperature 44° at Asheville to 50° at New Bern. Rainfall departure from normal -0.86 in. at Greensboro to -1.06 in. at New Bern.

Days suitable for fieldwork 3.0. Soil moisture 33% adequate, 67% surplus. Crop conditions: Wheat 36% fair, 68% good, 36% excellent; oats 25% fair, 50% good, 25% excellent; barley 33% fair, 34% good, 33% excellent; rye 20% fair, 60% good, 20% excellent; pasture feed 50% fair, 25% good, 25% excellent; hay, roughage supplies 100% adequate; feed grains supplies 100% adequate. Activities included: Preparing land; tending livestock; repairing equipment, general farm maintenance.

**NORTH DAKOTA:** Above normal temperatures, minimal precipitation. District temperatures 4° above normal east central to 15° above normal southwest. Extremes -5° northeast; 68° south central.

Warmer temperatures depleted snow cover in many areas. Feed supplies remained mostly adequate and livestock conditions were mostly good to excellent. Calving is underway in some areas. Grain marketing was normal.

**OHIO:** Unseasonably mild weather resulted in temperatures 4 to 8° above normal across most of State. Daytime readings around 40° northwest to over 50° in south. Lows in the 20s, on the coldest mornings, lows were in the teens at only a few locations. Precipitation neared 0.50 in. at a few locations, were generally less than 0.20 in. No precipitation was recorded at Caldwell, Marion, Oxford. Soil temperatures at the 4 in. level averaged above freezing over nearly all of the State with daytime readings into the 40s at some sites.

Recent rains have made fields very muddy. Above normal temperatures have prompted wheat to green quickly.

**OKLAHOMA:** Temperatures 10.2° above normal southeast to 16.3° above normal Panhandle district. Precipitation none west-central, central, southwest, southcentral district to 0.26 in. east-central district.

Prices for feeder steers and heifers were steady to \$1.00/cwt. lower.

**OREGON:** Temperatures well above normal, statewide. Coast 6° above normal, Willamette Valley 9° above normal, southwestern valleys 11° above normal, eastern sections 11 to 14° above normal. Precipitation little or none, statewide.

Soil moisture surplus to adequate. Some ground preparation underway. Cheatgrass infestation required preparations for significant replanting of wheat, Columbia Basin of State. Blackberry, raspberry, blueberry frost damage assessment continued, Marion blackberry damage mostly on primary buds, Willamette Valley. Nurseries balling, burllapping deciduous, evergreens. Supplemental feeding continued statewide.

**PENNSYLVANIA:** Beginning of week very warm. Many areas in mid 50s. Temperature 34°, 6° above normal. Extremes 8°; 60°. Precipitation 0.38 in., 0.27 in. below normal.

Activities: Hauling manure; fixing fence; caring for livestock.

**PUERTO RICO:** Island rainfall 1.48 in. was 0.93 in. above normal. Highest rainfall 3.62 in. at Rio Piedras Aes, 3.16 in. at Trujillo Alto Aes, 2.74 in. at Juncos, Corral Viejo. Highest 24 hour total 2.00 in. at Rio Piedras Aes. Island temperatures 74 to 76° on coasts, 69 to 72° interior with mean station temperature 78.4° at Roosevelt Roads to 62.6° at Pico del Este-Luquillo. Extremes 50°; 91°.

**SOUTH CAROLINA:** Rainfall 0.40 in. Temperatures 4° above normal Upstate, 2° above normal Midlands, 1° above normal along Coast.

Farm activities: Small grain condition fair to good; fertilizer application active where fields dried enough to get equipment in. Land preparation for spring planting active in drier areas. Tobacco beds good condition; pastures fair to good; livestock good.

**SOUTH DAKOTA:** Temperatures 10 to 20° above normal. Extremes 11°; 78°. No precipitation except for extreme north where there was 0.40 to 0.50 in. melted precipitation. Heaviest melted precipitation 0.56 in. Pollock.

Major farm activities: Calving, lambing, routine chores, feeding livestock.

**TENNESSEE:** Temperatures between 4 to 10° above normal. Extremes 22° Bristol; 73° Nashville. Precipitation 0.10 in. statewide, more than 1.00 in. below normal.

**TEXAS:** Upper level high pressure resulted in dry weather, spring like temperatures for State early to middle part of week. A front brought some cooling to north, west late in week. Overrunning rain developed in the central sections. For the week, temperatures ran above to much above normal, with 16° above normal northern high plains. All districts reported precipitation, amounts were below normal except for the Edwards Plateau, south central, southern State.

Crops: Small grains: Irrigation of winter wheat field continued across the Plains. Most dryland fields showed little sign of growth, remain in need of significant moisture. In the Plains, some cattle were being moved off of wheat fields due to lack of forage. Elsewhere, grazing conditions varied. Producers in the Cross Timbers, Blacklands, eastern areas continued to topdress fields. Winter wheat 64% normal, 59% 1994. Corn: Planting increased in Rio Grande Valley, Coastal Bend. Dry, open weather conditions allowed producers throughout much of southern areas to get planting activities started. Some fields were also planted in the Blacklands. Land preparations remained active across rest of State. Corn 5% planted, 4% 1994. Grain sorghum: Planting got underway along Upper Coast, Coastal Bend. Producers continued planting in Rio Grande Valley. Land preparation continued in other areas. Sorghum 3% planted, 2% 1994. Cotton 1% planted, 10% 1994.

Commercial Vegetables: Rio Grande Valley: Harvest of cabbage, carrots increased. Citrus harvest continued. Peppers, tomatoes, onions made good progress. Planting of melons increased, warm temperatures promoted germination in some fields. San Antonio Winter Garden: Land preparations, fertilizer applications increased. Some melons were planted. Eastern area producers were applying herbicide, making other land preparations for planting of spring vegetables. Planting of potatoes, onions

continued. Earlier planted potatoes, onions made good progress. Trans-Pecos: Preparations for cantaloupe planting got underway. Some cabbage was planted, onions were transplanted. High Plains: Land preparations for onion, potato planting continued. Peach: Trees were beginning to bloom on a limited basis. Some producers were still pruning orchards across eastern areas.

Range and Livestock: Range, pasture forage remained short, dry. Range, pastures across southern areas continued to turn green. Most livestock remained in good condition. Supplemental feeding continued across the State. Lice, tick infestation increased in herds in Cross Timbers.

**UTAH:** Temperature maximums 15° above normal; minimums 8° above normal. Precipitation light with only north central, south central receiving measurable precipitation.

Major farm, ranch activities: spring planting preparation, cleaning corrals, hauling manure, repairing machinery, spraying alfalfa for weeds, pruning fruit trees, calving, lambing, feeding, caring for livestock, preparing farm records. Calving, lambing proceeding normally.

**VIRGINIA:** Temperatures above normal. Extremes 19°; 73°. Precipitation below normal.

Days suitable for fieldwork 2.3. Topsoil moisture 1% short, 79% adequate, 20% surplus. Pasture feed 2% very poor, 33% poor, 47% fair, 18% good. Livestock 5% poor, 19% fair, 76% good. Small grain, grazing crop condition 2% poor, 30% fair, 68% good. Forage from pastures, winter grazing crops dairy cattle 3%, beef cattle 10%, sheep 11%. Growers are seeding tobacco plantbeds, liming, fertilizing grassland, pruning fruit trees. Calving season is reported almost complete. Usual activities such as topdressing of small grains, fence mending, tax preparation, equipment repair still in progress.

**WASHINGTON:** Temperatures 4 to 10° above normal west; 11 to 17° above normal east. Precipitation 0.35 to 3.45 in. west; none to 0.67 in. east.

Days suitable for fieldwork 2.3. Soil moisture 19% short, 79% adequate, 2% surplus. Hay, other roughage supplies 3% very short, 12% short, 85% adequate. Range, pasture feed 15% very poor, 45% poor, 26% fair, 14% good. Winter wheat, dryland 2% very poor, 9% poor, 52% fair, 37% good; irrigated, 4% fair, 75% good, 21% excellent. Pastures were turning green. Minor damage reported on stone fruit, wine grapes due to recent cold weather. Early potatoes were being planted. Calving, lambing seasons continued.

**WEST VIRGINIA:** Temperature 39°. Extremes 12°; 73°. Precipitation 0.31 in.

Farm activities: General farm maintenance, bookkeeping, feeding livestock, fencing, calving, lambing.

**WISCONSIN:** Temperature 26°. Extremes -2°; 53°. Precipitation trace to 0.40 in. Snow depth as of February 24: 1.9 in., 8.7 in. 1994, 8.8 in. 33-yr avg. Frost depth as of February 24: 19.3 in., 18.9 in. 1994, 17.6 in. 33-yr avg.

Manure spreading was the main farming activity with the warmer weather. Farmers are finishing up their book work for tax season.

**WYOMING:** Temperatures normal to 21° above normal. Extremes low 3° Riverton; 72° Sheridan, Torrington. Colony was the hot spot 21° above normal. Precipitation 0.10 to 0.30 in. below normal. Heaviest precipitation 0.40 in. reported in Moran.

Livestock are in mostly good condition, warm weather ideal for lambing, calving.

# International Weather and Crop Summary

## HIGHLIGHTS

February 19 - 25, 1995

**FSU-WESTERN:** The fifth consecutive week of unusually warm weather was accompanied by light to moderate precipitation.

**NORTHWESTERN AFRICA:** Drought continued to adversely affect winter grains in Morocco, while only light rain fell in eastern Algeria.

**EUROPE:** Cooler, showery weather hampered early-season fieldwork in the west, but drought persisted in Spain.

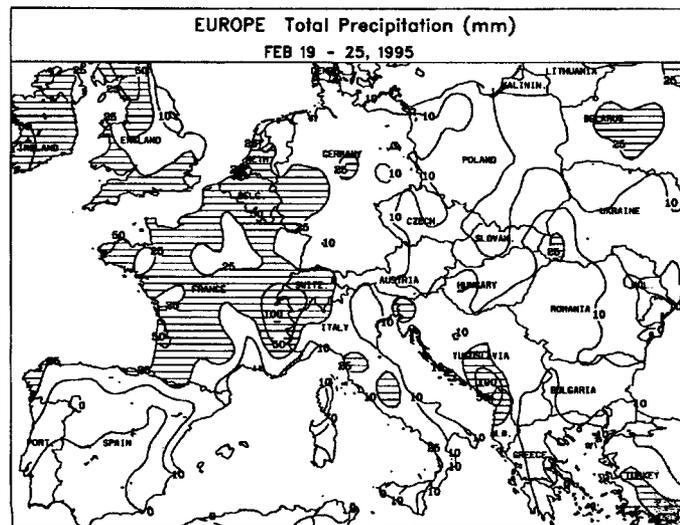
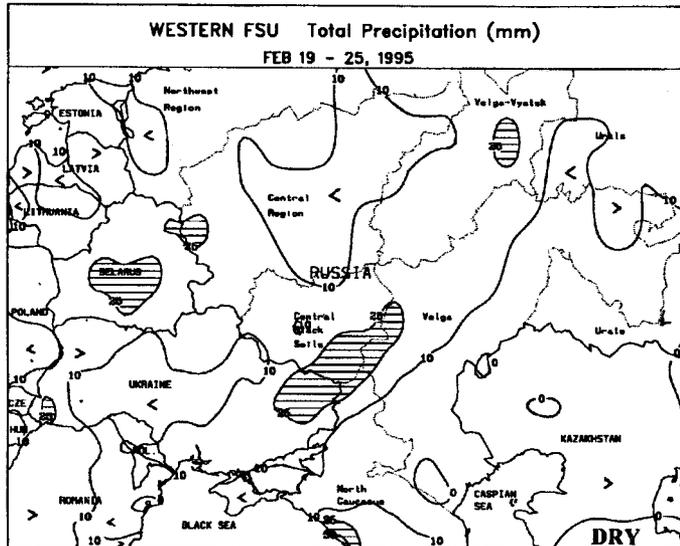
**SOUTHEAST ASIA:** Showers covered major oil palm and rice areas of Indonesia and Malaysia, including excessively wet rice areas in Java.

**SOUTH AFRICA:** Showers brought relief to immature eastern corn, but unfavorable dryness continued to plague the western corn belt.

**EASTERN ASIA:** Winter wheat continued to break dormancy across the central and southern wheat areas of the North China Plain.

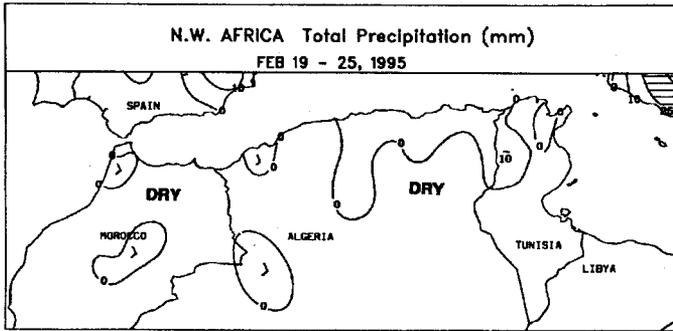
**AUSTRALIA:** Drier weather prevailed across the eastern summer crop areas, while showers benefited coastal sugarcane.

**SOUTH AMERICA:** Showers benefited reproductive soybeans in central Argentina as widespread showers continued to provide excellent yield prospects for soybeans across southern Brazil.

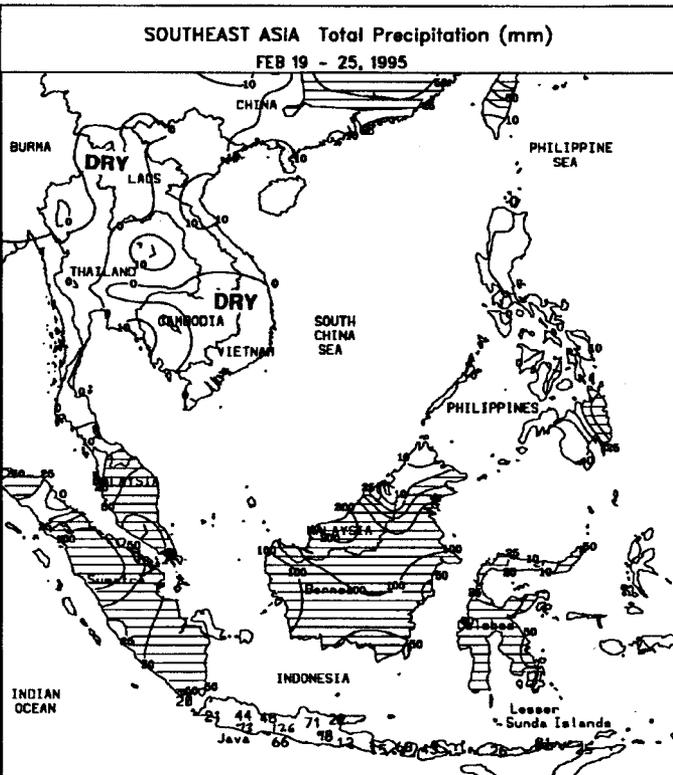


**FSU-WESTERN:** The fifth consecutive week of unseasonably warm weather covered the region. Weekly average temperatures ranging from 6 to 10 degrees Celsius (C) above normal continued to cause winter grains to lose hardiness. Although winter grains remained dormant over most of the region, the continued mild weather may have prompted some greening in crops along the Black Sea Coast. In Ukraine, southern Russia, Belarus, and the Baltics, warm weather and a lack of snow cover provided a window of opportunity for early season fieldwork. Precipitation was widespread, however, with greatest amounts of moisture (25-50 mm) covering crop areas in eastern Ukraine, and parts of Russia (northern North Caucasus, eastern Black Soils Region, and the western Volga). Wet soils would prevent any significant fieldwork.

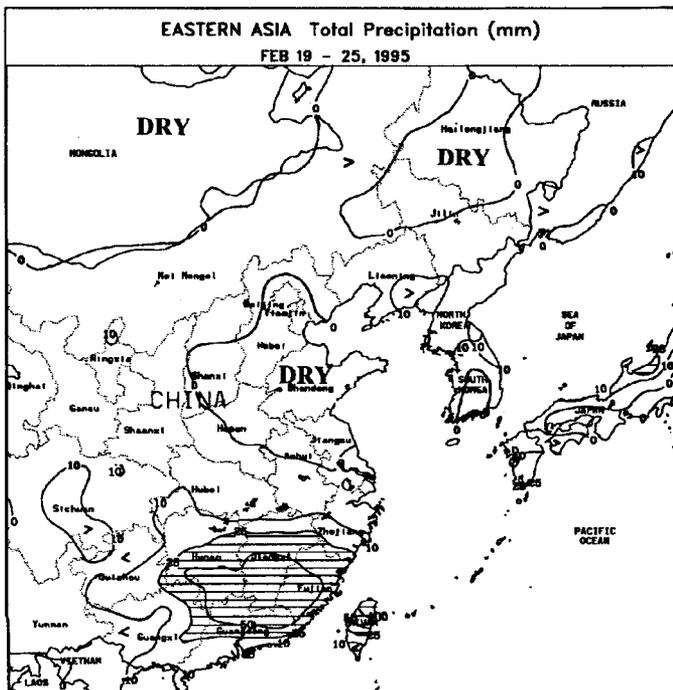
**EUROPE:** Temperatures returned to more seasonable levels late in the week in western Europe, but weekly temperatures still averaged 2-3 degrees Celsius above normal. Further east, temperatures averaged 4-8 degrees Celsius above normal, with highs averaging 6-9 degrees Celsius in Poland and 10-16 degrees Celsius in the Balkans. The unseasonably mild weather continued to cause winter crops to lose cold hardiness across the north and to promote early greening across the south. Dry weather over Spain prolonged the winter drought, resulting in unseasonably low water reserves. However, showery weather over the remainder of western Europe maintained wet field conditions. Rainfall averaged 20-50 mm over much of France, England, Belgium and west-central Germany, preventing early spring fieldwork. Variable showers (5-20 mm) covered the remainder of Europe.



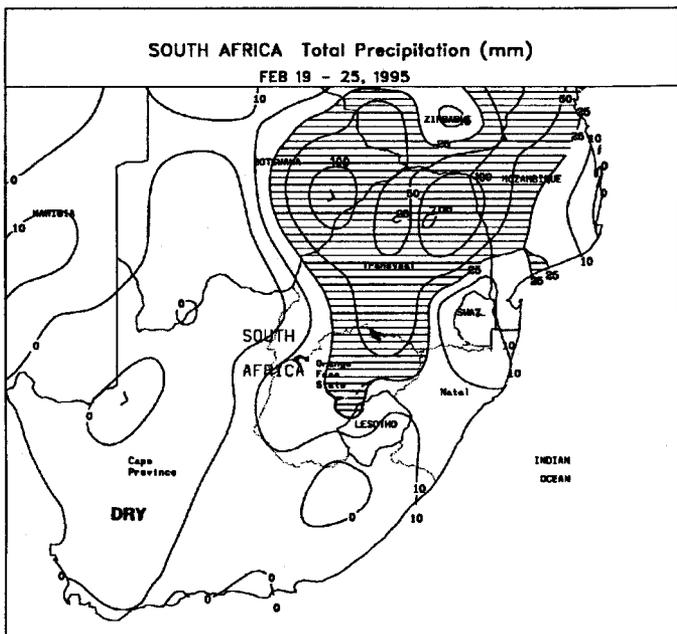
**NORTHWESTERN AFRICA:** Light rain (1-8 mm) fell over winter grain areas of eastern Algeria, with only scattered light showers elsewhere. The rain brought little relief to winter grains approaching the heading stage. In Morocco, drought continued to adversely affect winter grains nearing reproduction. In addition, weekly average temperatures over Morocco ranged from 3 to 5 degrees C above normal, aggravating the severe water shortage over the country.



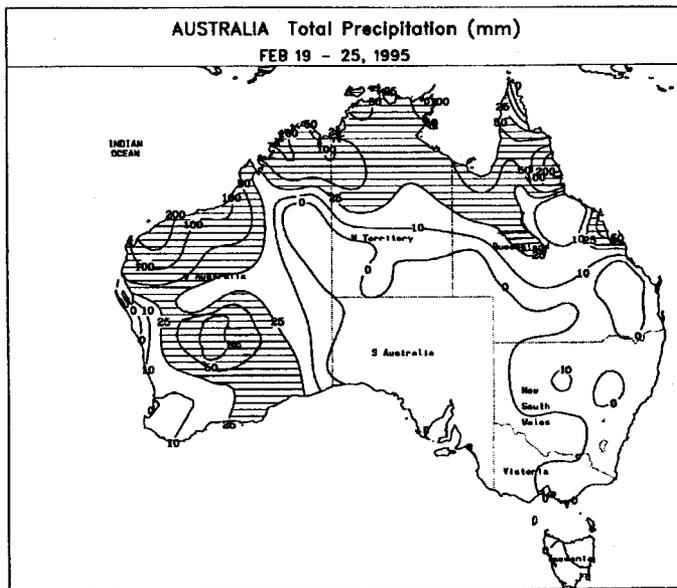
**SOUTHEAST ASIA:** Widespread moderate to heavy showers (25-50 mm or more) covered Indonesia and Malaysia, including most major rice and oil palm areas. In Java, heavy rain (50-129 mm) continued over southern and eastern rice areas, maintaining unfavorably wet conditions for rice. Sections of Sarawak, Malaysia, and Sumatra, Indonesia also received inundating rain (100-251 mm), resulting in some flooding. Further north, scattered, mostly light rain (25 mm or less) fell from northeastern Thailand to northern Vietnam. Some rain is expected this time of year in Vietnam, but drier-than-normal conditions since February 1 have reduced moisture for winter rice establishment, especially in central Vietnam where much of the rice is rainfed. In the Philippines, dry, warm weather continued, reducing moisture for immature grains and sugarcane.



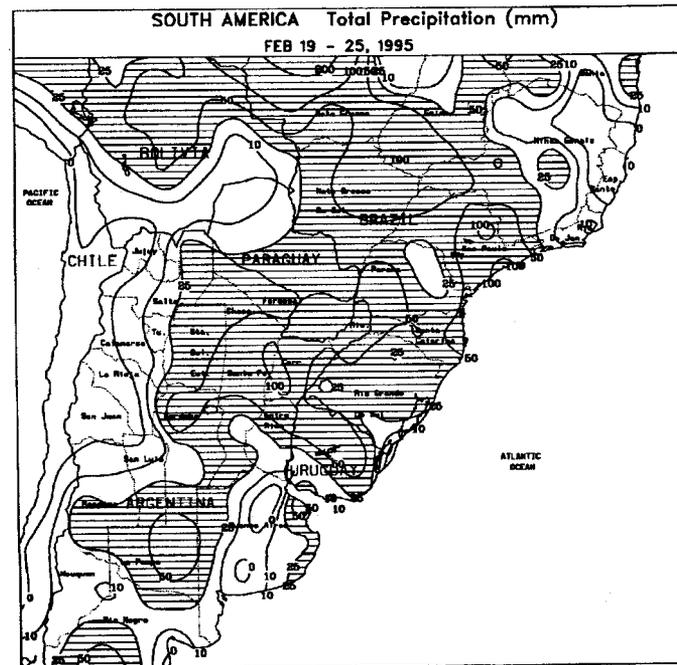
**EASTERN ASIA:** Unseasonably warm weather (temperatures averaging 2-4 degrees C above normal) continued across northern China, causing winter wheat to break dormancy across the central and southern wheat areas of the North China Plain. Due to the warm weather, the wheat crop is about 1-3 weeks ahead of schedule. Dry weather prevailed across the North China Plain, where winter wheat should have adequate irrigation supplies for early spring growth. A majority of the winter wheat crop is irrigated across the North China Plain. Light to moderate rain (20-70 mm) covered southern China, increasing irrigation supplies and favoring winter crops. Temperatures averaged 2-4 degrees C below normal across southwest China.



**SOUTH AFRICA:** Heavy showers (25-71 mm) brought relief to immature crops over a large section of the eastern corn belt. The rain came mostly from the remnants of a tropical disturbance that struck Mozambique and moved westward into Botswana. Unfortunately, showers from the storm failed to reach chronically dry western corn areas (western crop areas of North West Province and Orange Free State). Since February 1, these crop areas have received only 10-60 percent of their normal rainfall and temperatures have averaged 2-4 degrees C above normal, depleting moisture reserves for late-planted crops currently in or nearing reproduction. Rainfed sugarcane areas of southern Kwazulu-Natal have fared no better, receiving 30-60 percent of their normal rainfall (25-68 mm total accumulations) since February 1. In contrast, rainfall is near to above normal for the same period over much of the eastern corn belt, including the traditionally highest yielding crop areas, although a drying trend continued in some of the fringe corn areas.



**AUSTRALIA:** Drier weather (scattered light rain less than 8 mm) prevailed across the eastern summer crop areas. Heavier rain (5-30 mm) fell across east-central Queensland, benefiting sorghum. Rainfall the past few weeks has greatly improved yield prospects for summer crops. Moderate to heavy showers (20-80 mm) fell across the northeastern coast of Queensland, benefiting sugarcane. Torrential showers (150-350 mm) caused local flooding across the extreme northern sugarcane areas (near Cairns). Tropical Cyclone Bobby made landfall on the 24th across northwestern Western Australia with sustained winds of 90-100 knots (104-115 mph). The remnants of the storm brought widespread heavy showers (60-100 mm, with isolated amounts greater than 150 mm) to interior Western Australia but only light rain (5-15 mm) to the southwestern wheat areas. Temperatures averaged 2-3 degrees C below normal across the eastern summer crop area. In New Zealand, light to moderate rain (8-50 mm) fell across the central North Island as heavier rain (60-110 mm) was reported across the northwestern South Island.



**SOUTH AMERICA:** In Argentina, light to moderate rain (10-45 mm) fell across most of the primary summer crop area, benefiting reproductive soybeans and filling corn. Drier weather (less than 10 mm of rain) prevailed across northeastern and south-central Buenos Aires, aiding maturing sunflowerseed. Temperatures averaged 2-3 degrees C below normal, reducing crop water use. Heavy showers (50-125 mm) fell across northern Argentina, causing possible quality problems for maturing cotton. Across southern Brazil, widespread showers (25-80 mm, with isolated amounts greater than 100 mm) continued to provide excellent yield prospects for soybeans. Drier weather will be needed during March to forestall quality problems as the soybean and cotton crops mature. Dryness continued across coastal Espirito Santo, while eastern Bahia received beneficial showers (20-50 mm) for cocoa. Temperatures averaged near normal across southern Brazil. Southern Paraguay received heavy rain (60-100 mm), aiding soybeans but causing quality problems for maturing cotton.

# Unusual Warmth in Several Major Winter Grain Areas

**INTRODUCTION:** A period of cold-induced dormancy is essential for winter crops to meet chilling requirements, called vernalization, for initiation of flowering. Cold hardening of winter grains begins in the autumn when average temperatures fall below 10 degrees C, and growth ceases as average daily temperatures drop below 5 degrees C over a period of time with accompanying shorter day lengths. Fully-hardened winter grains in the dormant state are adapted to withstand harsh winters of the Northern Hemisphere as long as sufficient snow cover provides adequate insulation from temperature extremes.

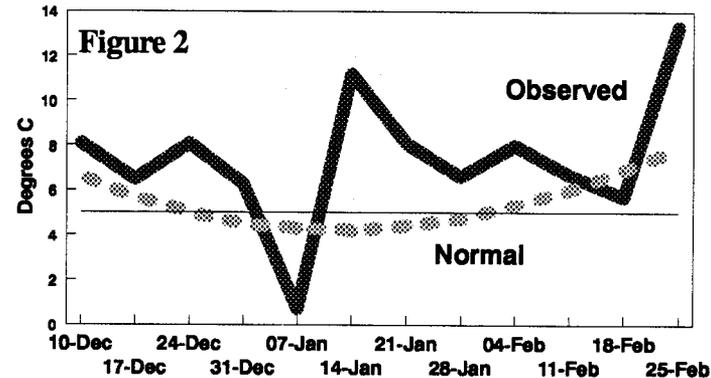
The degree of winter damage that wheat can incur depends on the physiological conditions that evolve from autumn planting through dormancy. Winterkill can result from a number of environmental factors, including alternating freeze-thaw conditions, ice encasement, and lack of snow cover during periods of temperature extremes. The impact of weather is ultimately realized during spring growth.

An increase in spring day length and temperatures induces winter crops out of dormancy. When temperatures rise above a minimum threshold level, cold hardiness is lost and spring greening begins. For winter wheat, weekly average temperatures greater than 5 degrees C for two consecutive weeks can be used as a rough estimate of wheat breaking dormancy and the beginning of spring greening. If winter crops lose hardiness earlier than usual, they become more vulnerable to damage caused by spring freezes. The effect of freeze or frost is especially damaging to plants that are advancing phenologically into the weather-sensitive reproductive phases of development.

Several major winter grain areas around the world have experienced unseasonably mild winter weather. A summary of conditions in these areas is presented without any speculation of possible reasons regarding atmospheric flow patterns or spring weather predictions.

**UNITED STATES:** Unusual warmth overspread winter wheat areas of the United States in mid-December, only a week after the first widespread cold outbreak and snow storm of the season. From December 16-27, daily high temperatures routinely soared above 10 degrees C in the central High Plains. The warm spell climaxed on December 24, with highs reaching 16 degrees C in Goodland, Kansas, and 13 degrees C in Great Falls, Montana. Nevertheless, average temperatures remained low enough to permit wheat to remain dormant (fig. 1). Farther south, on the Texas Plains, temperatures were high enough--including a maximum of 19 degrees C in Amarillo, Texas, on December 19--to induce some mid-winter growth (fig. 2).

**Texas Plains Winter Wheat  
Weekly Average Temperature**

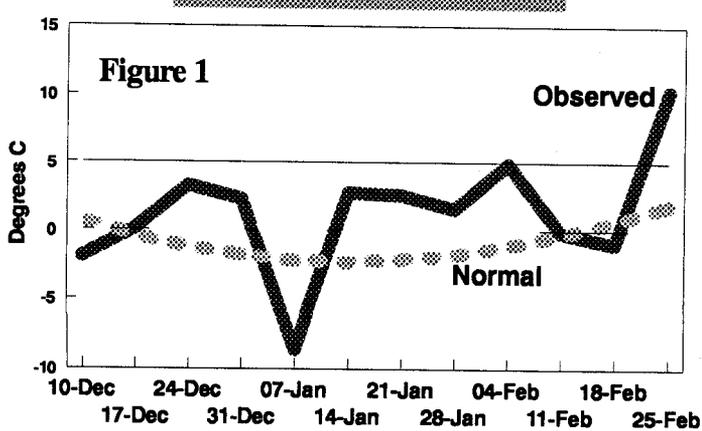


The first week of 1995 proved to be the coldest week of the winter across the Plains, with temperatures dropping below -18 degrees C into central Kansas on the coldest morning, January 4. Temperatures dipped to -30 degrees C in north-central Montana. A period of light snow preceded the chill, with depths reaching 2.5 centimeters in both Great Falls and in Wichita, Kansas.

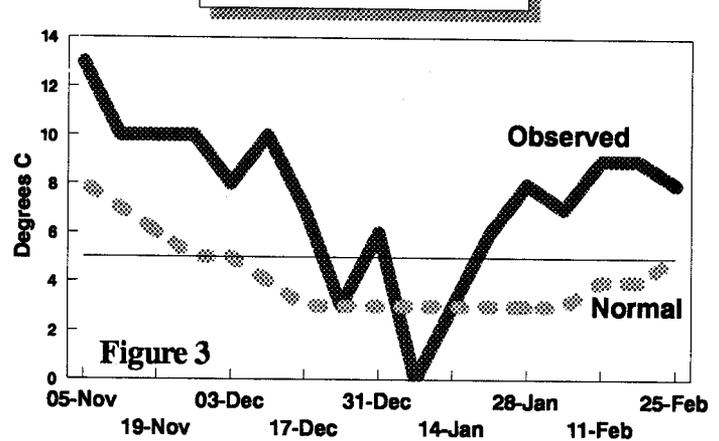
Warm weather returned during the second week of January and has continued through February 25, broken by only a short-lived cold spell across the Pacific Northwest and Montana in mid-February. On February 13, Great Falls reported a low of -28 degrees C, and a day later, Spokane, Washington, noted a low of -17 degrees C; only patchy snow covered these areas. But in the past week, warmth returned and intensified, with highs from February 19-25 rising into mid 10's to lower 20's C in the Pacific Northwest and in Montana. From Kansas southward, highs surged into the 20's C on February 20-22 and 25. For the week ending February 25, average temperatures topped 10 degrees C as far north as central Kansas, reducing the crop's tolerance to future cold spells. Pockets of short-term dryness have added to the warm weather concerns. Precipitation since January 1 is running as low as 19 percent of normal in North Platte, Nebraska, 21 percent of normal in Wichita and 27 percent of normal in Amarillo.

**EUROPE:** Above-normal temperatures were prevalent over most of Europe in November, and continued through December in France and Germany, promoting late autumn winter crop establishment prior to winter hardening (fig. 3). Arctic air plunged into Europe in early January, with snow prior to the front providing a protective cover for winter crops. An unusually persistent warming trend

**Central Plains Winter Wheat  
Weekly Average Temperature**



**Northern France  
Weekly Average Temperature**

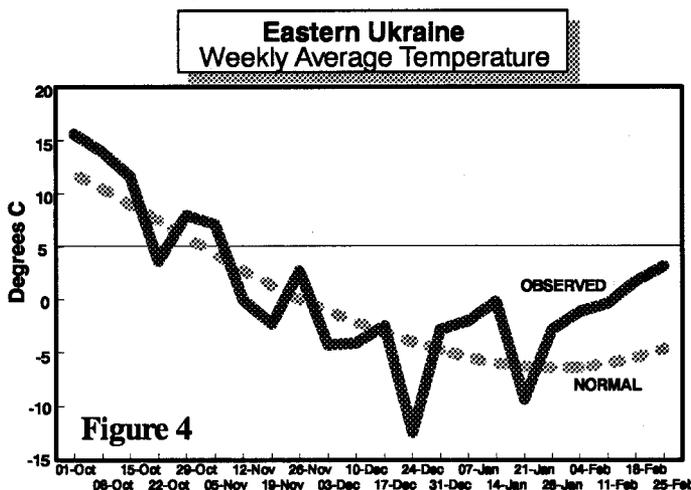


developed during the second week in January 1995 in the northwest and spread across most of the region later in the month. Snow melt at higher elevations and unusually heavy rainfall caused widespread flooding in France, the Benelux countries, and Germany in late January (see *WWCB*, Vol. 82, No. 6, p. 19). While floodwaters receded in early February, above-normal temperatures persisted into the latter half of the month. By February 20, daytime highs in western Europe averaging near or above 10 degrees C, with minimum temperatures generally around 5-8 degrees C, prompted some early greening of winter crops well ahead of normal. Weekly temperatures continued to average above normal through February 25, 1995, but somewhat cooler, showery weather prevailed late in the week. Since the average date of the last spring freeze normally occurs during March in western Europe, the crops are more susceptible to potential damage. In addition, wet soils may be delaying fertilizer application and are conducive to increased disease potential, especially if wetness persists.

In the east, above-freezing temperatures have caused winter crops to begin losing cold hardiness. The unusually mild weather, which continued through February 25, could promote both early spring growth of winter crops and early spring crop plantings given favorable field conditions. However, crops are still vulnerable to Arctic air outbreaks for the next several weeks. The average date of the last spring freeze in eastern Europe is later than in the west, usually around early to mid April.

Given favorable spring growing conditions, winter crop prospects are still good in Europe. However, crops in the northwest, most notably in France, Belgium, the Netherlands, and southern England, are especially vulnerable to continued wetness and late-season cold weather. Further south, Spain continues to suffer from well below normal winter rainfall, adversely affecting winter crop development.

**UKRAINE AND RUSSIA:** In traditional winter wheat growing areas of Ukraine and southern Russia, the combination of fall drought and unseasonable cold in November caused poor autumn establishment, making the crop more vulnerable than usual to weather extremes during the winter. During the winter, there were two cold episodes, occurring from December 18-24 and January 18-23 (fig. 4). In both cases, extreme cold was confined to northernmost wheat areas, where snow cover protected crops from significant damage. However, given the limited establishment of plants in the fall, some damage was likely.

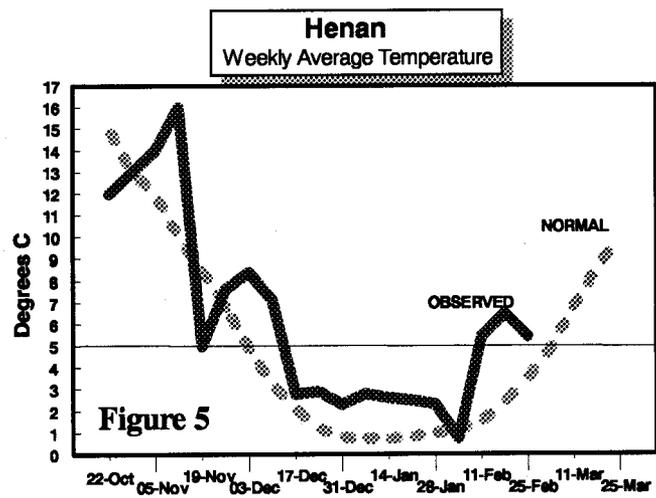


Since January 24, storm systems from the Atlantic ushered in unseasonably warm weather and widespread mixed precipitation. Temperatures averaged 4-8 degrees C above-normal over most of

Ukraine and Russia. Winter wheat still remained dormant over most areas and typically breaks dormancy in Ukraine and southern Russia in early April. The persistent warmth created mixed conditions for the winter wheat crop. The warm weather over Ukraine and southern Russia diminished protective snow cover earlier than usual and caused winter wheat to lose cold hardiness, leaving the crop vulnerable to extreme cold. However, the lack of snow cover and warm weather provides a window of opportunity for early season fieldwork. Top dressing crops with fertilizer early in the spring invigorates early growth of weakened crops.

The autumn drought in winter wheat areas of Ukraine and southern Russia was more widespread and severe than last year, but winter weather has been more favorable. January and early-February precipitation was near to above normal across most of the drought-affected areas, partially replenishing soil moisture reserves. Due to poor crop establishment in the fall, current prospects for winter wheat in Ukraine and Russia are below average. However, winter wheat is resilient, and given favorable temperatures and timely spring rains during the remainder of the growing season, prospects for the winter wheat crop could improve.

**CHINA:** Across the North China Plain, mild winter temperatures have limited the duration of winter wheat dormancy (fig. 5). Winter wheat did not enter dormancy until about mid-December, 2-3 weeks later than normal. During the rest of December and January, while temperatures remained cool enough to keep wheat dormant, temperatures nonetheless were above normal. Since early February, weekly temperatures have been 3-5 degrees C above normal, prompting wheat to lose winter hardiness across most of the wheat belt. Across the southern wheat areas (central and southern Henan, northern Anhui and Jiangsu), average temperatures have been above 5 degrees C for 2 weeks, causing wheat to begin breaking dormancy. This region historically accounts for about 40 percent of winter wheat production. Typically, winter wheat breaks dormancy during early March in the southern areas and mid-March in the northern areas (Shandong and Hebei).



Rainfall was favorable for crop establishment in the fall. Below normal September rainfall allowed planting to progress, while above normal rainfall during October through December aided wheat establishment and boosted irrigation supplies. A majority of the crop is irrigated. The warm temperatures, coupled with adequate rainfall, have promoted early spring growth. The incidence of disease and pests will probably be higher than normal. However, given the normal to above normal moisture supplies, and barring any cold air intrusions, yield prospects look good for China's winter wheat crop. Across the North China Plain, the average date of the last spring freeze is mid- to late-March.

