

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

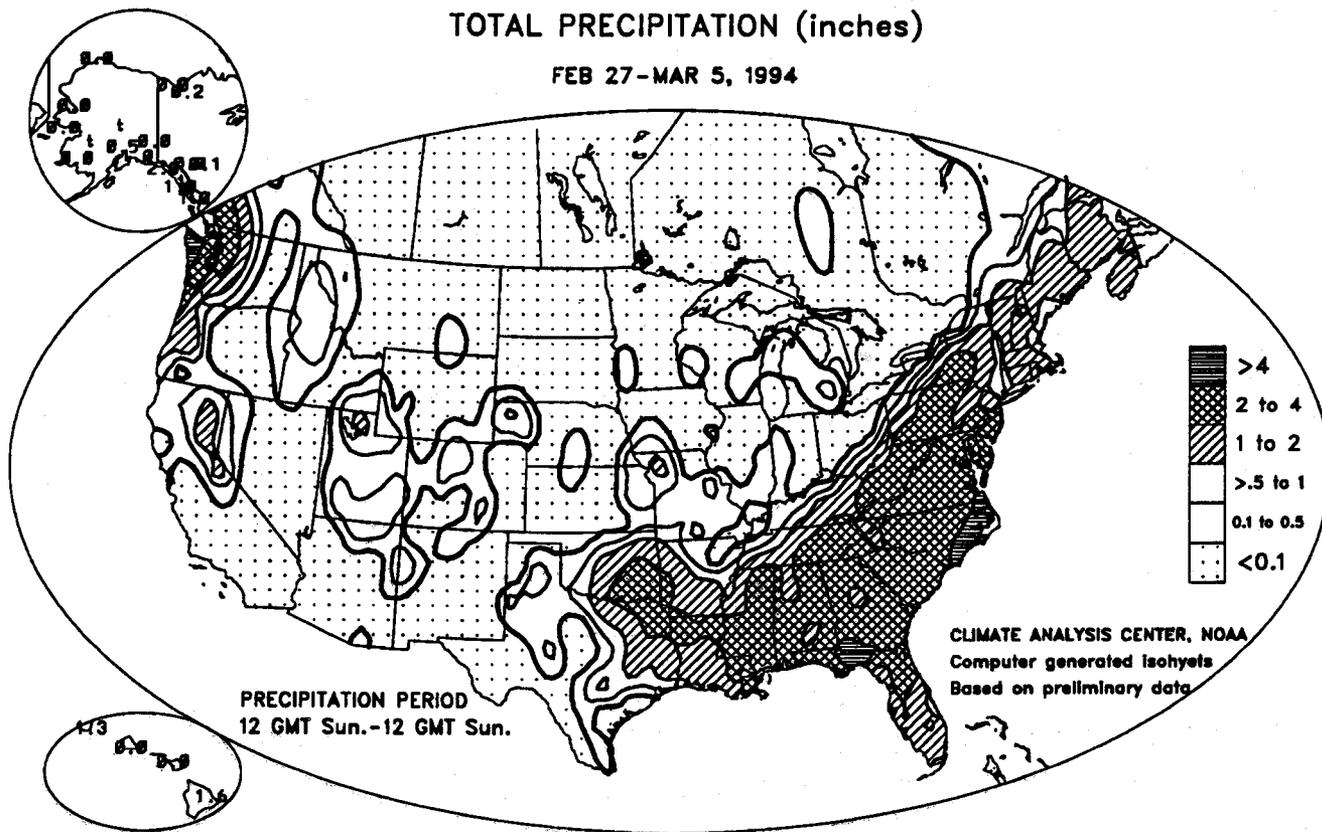
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Washington, D.C.

March 8, 1994

TOTAL PRECIPITATION (inches)

FEB 27 - MAR 5, 1994



HIGHLIGHTS

February 27 - March 5, 1994

A major winter storm tapped a reserve of arctic air and an ample supply of subtropical moisture, thrashing the Gulf Coast and Atlantic States with heavy precipitation and high winds. Early in the week, an arctic high pressure system covered the Nation's northeastern quarter. Among the 20 daily records on Sunday and Monday were lows of -15°F in Rockford, IL, and -2°F in Toledo, OH. On Sunday, Lansing, MI reported -20°F, a reading that has been attained so late in the season only once before (March 2, 1868). Watertown, NY registered -18°F on Monday. Meanwhile, warmth began to overspread the West, while a storm system gathered strength over the southern Plains. Oklahoma City, OK collected 2.0 inches of snow on Tuesday, but only 3 days later warmed to 78°F. More than 40 daily record highs were set across the western two-thirds of the Nation, including 69°F

(Continued to p. 14)

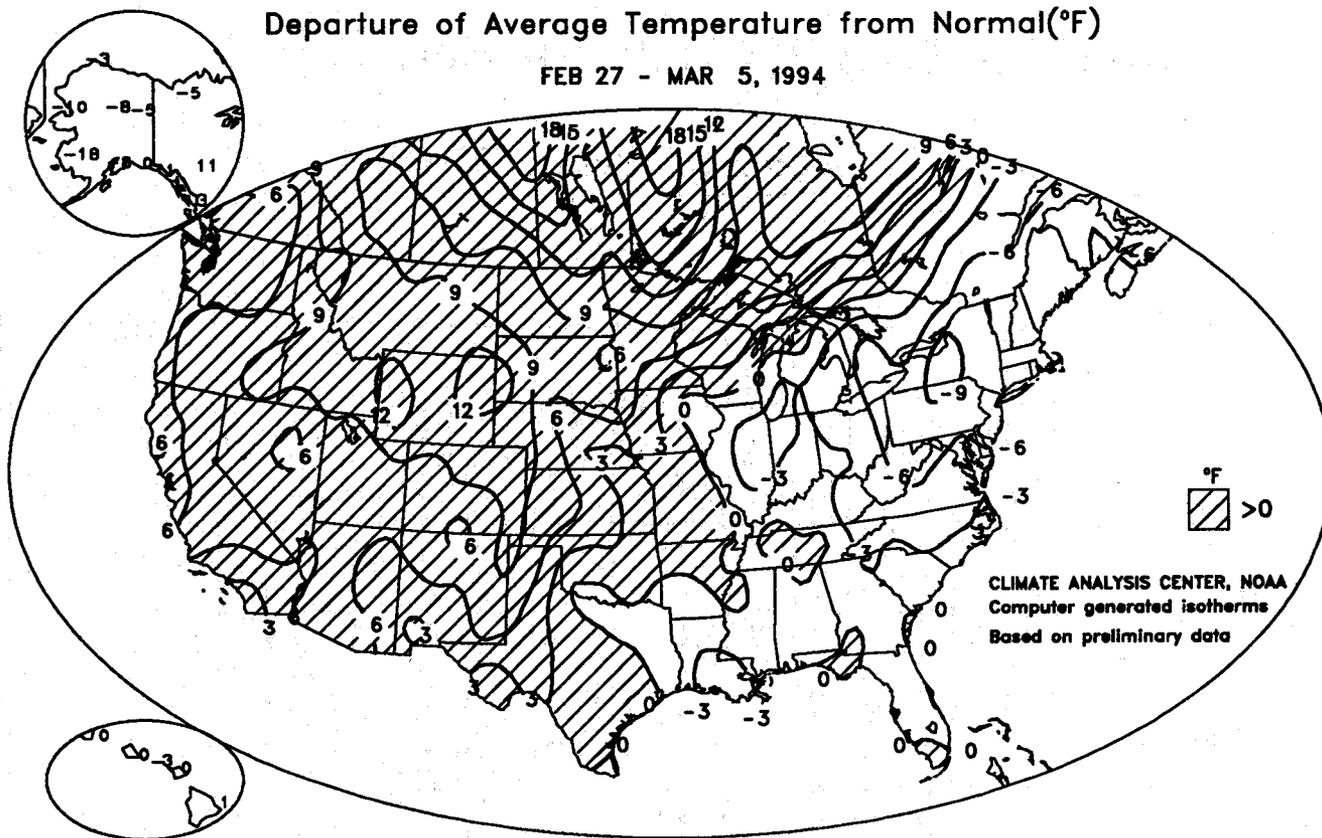
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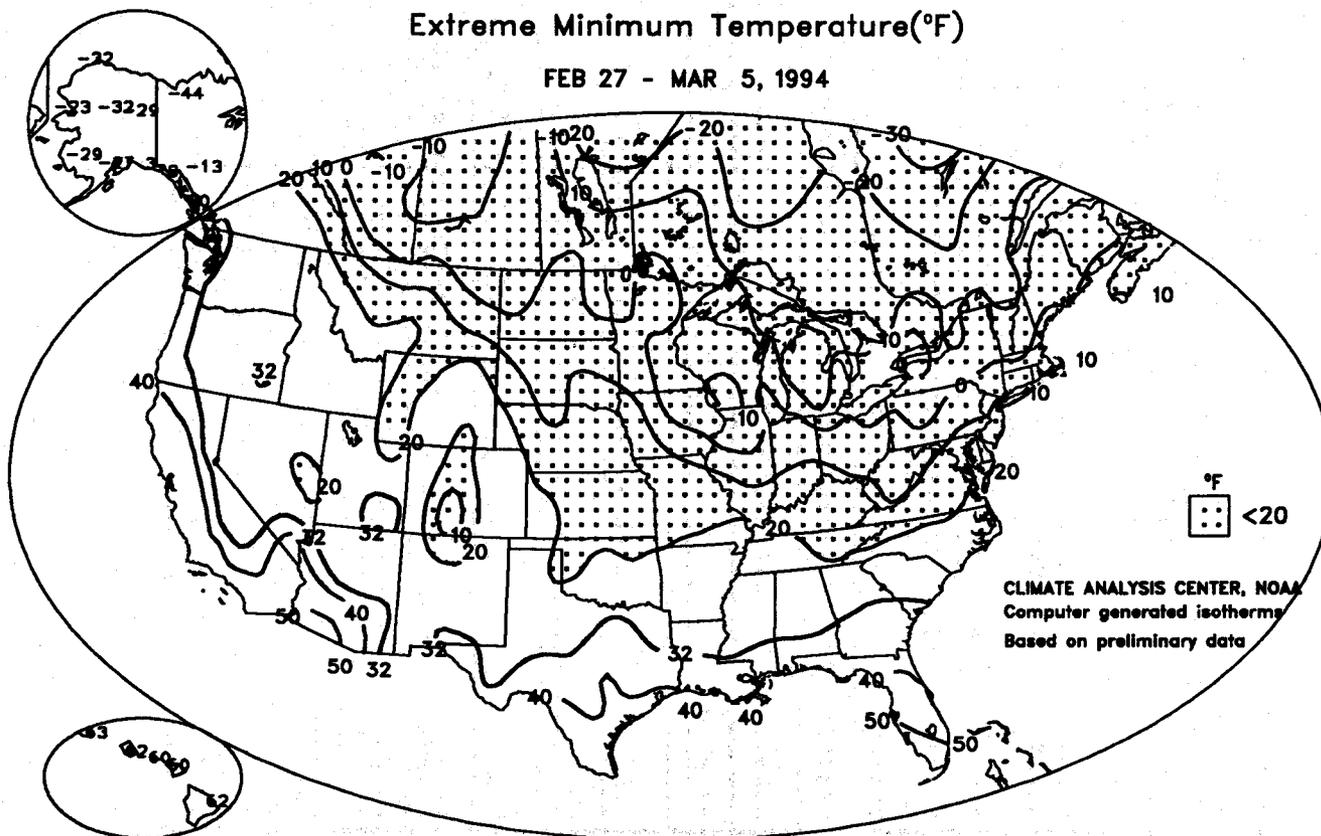
Departure of Average Temperature from Normal(°F)

FEB 27 - MAR 5, 1994



Extreme Minimum Temperature(°F)

FEB 27 - MAR 5, 1994



Weather Data for the Week Ending March 5, 1994

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	MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																			.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
ME CARIBOU	19	3	26	-8	11	-7	.7	.2	.7	.7	197	5.8	123	73	48	0	0	0	7	7	2	1
PORTLAND	30	13	41	4	22	-4	.5	-.3	.5	.5	91	7.2	96	73	41	0	0	0	7	7	2	1
MD BALTIMORE	41	26	56	14	33	-4	3.1	2.4	2.6	3.1	571	11.8	175	79	47	0	0	0	7	6	2	1
SALISBURY	47	29	58	18	38	-3	2.8	1.9	2.6	2.8	418	11.4	147	86	42	0	0	0	4	4	1	1
MA BOSTON	34	21	44	9	28	-7	1.4	.6	1.4	1.4	241	9.6	123	66	43	0	0	0	7	7	2	1
CHATHAM	35	22	45	10	28	-5	.4	-.5	.4	.4	68	9.7	117	76	47	0	0	0	7	7	2	1
MI ALPENA	34	5	43	-9	20	-3	T	-.4	T	T	0	3.0	93	93	56	0	0	0	7	7	2	1
DETROIT	38	17	48	-2	28	-3	-1.1	-.4	-1.1	-1.1	19	4.2	110	86	48	0	0	0	7	7	2	1
FLINT	35	8	43	-14	22	-7	-1.1	-.3	-1.1	-1.1	18	2.7	91	93	56	0	0	0	7	7	2	1
GRAND RAPIDS	36	12	46	-12	24	-5	.2	-.3	.1	.1	41	4.5	125	95	55	0	0	0	7	7	2	1
Houghton Lake	37	9	47	-17	23	0	T	-.4	T	T	0	3.3	113	89	52	0	0	0	7	7	2	1
LANSING	38	5	48	-20	21	-5	.2	-.2	.2	.2	79	3.2	108	95	49	0	0	0	7	7	2	1
MARQUETTE	36	15	47	-15	25	7	T	-.6	T	T	0	2.1	49	92	62	0	0	0	7	7	2	1
MUSKEGON	35	12	44	-11	23	-5	.3	-.2	.2	.2	70	5.5	133	95	59	0	0	0	7	7	2	1
SAULT ST. MARIE	32	11	45	-7	21	3	-1.1	-.4	-1.1	-1.1	21	3.2	71	87	53	0	0	0	7	7	2	1
MN ALEXANDRIA	36	19	47	1	28	8	T	-.2	T	T	0	1.0	55	97	72	0	0	0	7	7	2	1
DULUTH	37	19	49	1	28	10	T	-.3	T	T	0	2.5	110	90	59	0	0	0	7	7	2	1
INT'L FALLS	42	20	53	4	31	16	T	-.2	T	T	21	2.0	51	92	52	0	0	0	7	7	2	1
MINNEAPOLIS	40	21	53	2	31	6	T	-.3	T	T	0	2.0	95	90	59	0	0	0	7	7	2	1
ROCHESTER	35	14	52	-8	25	1	-1.1	-.2	-1.1	-1.1	19	2.0	113	95	49	0	0	0	7	7	2	1
MS GREENWOOD	63	41	76	29	52	1	1.3	.1	1.2	1.3	151	8.2	80	83	46	0	0	0	6	6	2	1
JACKSON	62	40	70	30	51	-1	2.2	.9	2.2	2.2	243	16.7	149	84	40	0	0	0	2	2	2	1
MERIDIAN	65	39	80	31	52	-1	2.4	.9	2.2	2.4	226	17.1	147	86	40	0	0	0	2	2	2	1
MO CAPE GIRARDEAU	53	30	74	21	42	0	.2	-.9	.2	.2	19	7.6	109	87	45	0	0	0	1	1	1	1
COLUMBIA	50	29	71	14	39	3	.2	-.4	.1	.1	12	3.0	81	92	55	0	0	0	5	5	2	1
KANSAS CITY	51	27	71	14	39	2	.5	-.1	.5	.5	3	2.1	84	90	52	0	0	0	5	5	2	1
SANIT LOUIS	50	29	68	17	40	0	.2	-.5	.1	.1	16	3.7	83	85	51	0	0	0	5	5	2	1
SPRINGFIELD	55	31	74	21	43	3	.7	-.1	.7	.7	13	4.3	101	85	45	0	0	0	5	5	2	1
MT BILLINGS	58	35	69	22	47	15	-1.1	-.1	-1.1	-1.1	0	0	43	71	34	0	0	0	2	2	2	1
GLASGOW	41	21	52	-3	31	7	.0	-.1	.0	.0	0	1.0	151	88	44	0	0	0	6	6	2	1
GREAT FALLS	54	32	65	17	43	13	-1.2	-.2	-1.2	-1.2	0	0	64	75	44	0	0	0	4	4	1	1
HAVRE	42	24	52	-3	33	7	.0	-.1	.0	.0	0	1.0	85	85	45	0	0	0	3	3	1	1
HELENA	54	27	67	13	41	10	T	-.1	T	T	0	.6	52	84	45	0	0	0	5	5	2	1
KALISPELL	45	27	52	18	36	6	-1.1	-.2	-1.1	-1.1	29	2.1	74	96	45	0	0	0	5	5	3	1
MILES CITY	49	29	62	6	39	10	-1.1	-.0	-1.1	-1.1	0	1.1	101	88	59	0	0	0	3	3	1	1
MISSOULA	54	31	66	26	42	10	-1.3	-.2	-1.3	-1.3	0	1.9	131	93	47	0	0	0	6	6	2	1
NE GRAND ISLAND	47	23	67	13	35	3	.0	-.1	.0	.0	133	1.0	46	94	53	0	0	0	5	5	3	1
LINCOLN	47	20	65	11	34	1	-1.1	-.3	-1.1	-1.1	0	1.9	131	93	47	0	0	0	6	6	2	1
NORFOLK	49	24	64	12	37	7	.0	-.3	.0	.0	0	.9	57	95	56	0	0	0	7	7	1	1
NORTH PLATTE	56	23	70	15	40	8	T	-.2	T	T	0	1.6	105	88	45	0	0	0	6	6	2	1
OMAHA	---	---	---	---	---	---	---	---	---	---	---	.8	86	93	45	0	0	0	7	7	0	0
SCOTTSBLUFF	57	29	68	24	43	10	-1.1	-.1	-1.1	-1.1	93	1.5	137	90	43	0	0	0	5	5	1	1
VALENTINE	53	20	69	3	36	5	T	-.2	T	T	0	.8	64	81	47	0	0	0	7	7	0	0
NV ELY	54	24	62	18	39	7	-1.1	-.1	-1.1	-1.1	0	1.7	110	88	35	0	0	0	7	7	1	1
LAS VEGAS	75	50	79	46	62	0	.0	-.1	.0	.0	0	.5	51	38	18	0	0	0	3	3	1	1
RENO	63	35	71	30	49	8	.4	-.2	.4	.4	286	1.1	49	82	28	0	0	0	0	0	0	0
WINNEMOCCA	60	30	69	25	45	15	-.3	-.2	-.3	-.3	283	1.6	105	91	37	0	0	0	5	5	2	1
NH CONCORD	30	7	40	-5	15	-6	.5	-.1	.4	.5	116	4.8	87	91	42	0	0	0	7	7	2	1
NJ ATLANTIC CITY	40	23	49	12	31	6	2.7	1.9	1.4	2.7	495	10.4	147	81	46	0	0	0	6	6	2	2
NM ALBUQUERQUE	64	35	72	29	50	6	T	-.1	T	T	.0	.3	28	59	21	0	0	0	1	1	1	1
CLOVIS	69	37	77	23	53	9	.2	-.1	.2	.2	0	.2	23	63	19	0	0	0	1	2	0	0
ROSWELL	73	36	82	26	55	7	T	-.1	T	T	0	T	2	79	31	0	0	0	2	2	0	0
NY ALBANY	31	13	39	1	22	-7	1.1	-.4	1.0	1.1	241	6.1	119	78	44	0	0	0	7	7	2	1
BINGHAMTON	27	11	37	2	19	-8	1.5	-.9	1.2	1.5	955	6.8	131	85	54	0	0	0	7	7	3	1
BUFFALO	32	16	40	3	24	-4	.1	-.5	.1	.1	20	4.4	81	81	43	0	0	0	7	7	3	1
NEW YORK	36	24	48	12	30	-7	1.0	-.2	.6	1.0	178	8.5	133	73	45	0	0	0	6	6	2	1
ROCHESTER	29	14	39	4	22	-11	.1	-.4	.1	.1	29	4.4	97	87	47	0	0	0	7	7	4	0
SYRACUSE	27	8	36	0	18	-11	.9	-.3	.8	.9	215	6.2	126	89	63	0	0	0	7	7	3	1
NC ASHEVILLE	52	30	70	18	41	1	1.3	.0	.7	1.3	138	11.7	126	83	39	0	0	0	5	5	2	2
CHARLOTTE	55	35	73	25	45	1	1.6	.6	1.0	1.6	222	7.8	94	73	37	0	0	0	2	2	2	2
GREENSBORO	50	30	70	20	40	7	1.7	.8	1.0	1.7	270	7.8	110	76	40	0	0	0	4	4	3	2
HATTERAS	53	40	66	32	47	2	2.9	1.9	2.2	2.9	416	13.3	132	80	54	0	0	0	1	2	2	2
NEW BERN	57	35	70	24	46	4	3.4	2.4	3.2	3.4	507	11.1	121	89	45	0	0	0	2	2	1	1
RALEIGH	51	31	72	20	41	-5	2.4	1.5	1.7	2.4	365	8.9	113	80	45	0	0	0	3	3	2	2
WILMINGTON	60	38	72	26	49	0	4.8	3.8	4.4	4.8	641	15.1	153	86	43	0	0	0	2	2	1	1
MD BISMARCK	41	18	52	4	29	7	T	-.1	T	T	12	1.0	106	98	70	0	0	0	7	7	1	1
FARGO	37	20	44	1	29	10	T	-.2	T	T	0	1.3	105	90	73	0	0	0	7	7	0	0
GRAND FORKS	36	16	47	-5	26	9	T	-.1	T	T	17	1.3	98	94	72	0	0	0	7	7	1	1
WILLISTON	37	20	49	-6	29	6	T	-.1	T	T	12	1.9	177	92	67	0	0	0	7	7	1	1
OH AKRON-CANTON	34	20	41	-1	27	-6	.1	-.6	.1	.1	14	5.2	107	92	57	0	0	0	6	6	2	0
CINCINNATI	44	26	59	12	35	-3	.1	-.8	.1	.1	11	5.0	85	87	48	0	0	0	6	6	1	0
CLEVELAND	35	18	44	-4	26	-6	T	-.6	T	T	0	3.4	73	89	52	0	0	0	6	6	0	0
COLUMBUS	41	23	54	5	32	-1	.1	-.6	.1	.1	15	5.4	117	89	51	0	0	0	7	7	2	0
DAYTON	40	23	55	5	32	-4	.1	-.6	.1	.1	22	5.2	108	87</								

Weather Data for the Week Ending March 5, 1994

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	MINIMUM	TEMP. °F		PRECIP.
													90 AND ABOVE					32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OHIO	35	16	46	-4	26	-5	T	-1.5	T	T	11	4.8	124	90	56	0	6	1	0	
YOUNGSTOWN	32	17	39	-4	24	-7	T	-1.2	T	T	38	4.4	96	90	54	0	7	3	0	
OKLAHOMA CITY	59	33	78	20	46	0	T	.8	T	T	113	3.2	104	94	49	0	4	2	0	
TULSA	59	33	78	19	46	1	T	.7	T	T	78	3.3	82	95	46	0	4	2	0	
OR ASTORIA	55	46	61	37	50	5	T	2.3	1.8	1.8	146	19.9	106	96	76	0	0	5	2	
BURNS	54	31	64	30	43	9	T	.2	T	T	81	.9	47	87	40	0	6	2	0	
MEDFORD	61	43	67	38	52	7	T	.2	T	T	10	2.3	47	94	53	0	0	2	0	
PENDLETON	57	37	69	28	47	5	T	.3	T	T	132	3.5	124	86	45	0	2	5	0	
PORTLAND	57	42	67	32	50	4	T	.5	T	T	38	8.7	89	91	42	0	1	4	0	
SALEM	60	48	67	34	54	9	T	.5	T	T	64	9.0	80	88	50	0	0	4	0	
PA ALLENTOWN	35	19	45	9	27	-7	T	1.6	1.6	1.6	322	10.5	158	75	44	0	7	2	2	
ERIE	31	15	39	-1	23	-6	T	.1	T	T	30	4.1	82	89	54	0	7	2	0	
HARRISBURG	35	26	45	13	31	-4	T	1.7	1.0	1.0	340	10.5	167	77	48	0	5	3	2	
PHILADELPHIA	38	26	49	14	32	-4	T	1.4	1.0	1.0	258	8.9	126	77	49	0	4	2	1	
PITTSBURGH	34	22	39	5	28	-6	T	.9	1.4	1.4	175	6.9	128	84	57	0	6	3	1	
SCRANTON	34	16	45	5	25	-7	T	.8	1.8	1.8	203	5.0	108	79	44	0	7	2	1	
RI PROVIDENCE	35	20	44	8	28	-5	T	1.1	1.1	1.1	173	8.7	108	70	43	0	7	2	1	
SC CHARLESTON	65	42	76	31	54	-1	T	3.2	2.2	1.9	450	11.9	160	77	44	0	1	3	2	
COLUMBIA	62	38	76	26	50	-1	T	1.7	1.7	1.7	219	10.0	107	82	39	0	2	2	2	
FLORENCE	61	38	74	28	50	-2	T	1.8	1.4	1.8	273	8.7	118	80	39	0	2	2	1	
GREENVILLE	58	35	79	24	46	-1	T	1.4	1.4	1.4	159	9.1	97	79	36	0	2	2	2	
SD AMERSEEN	38	19	50	8	29	6	T	T	T	T	14	1.3	95	92	63	0	7	2	0	
BURON	42	23	55	11	32	7	T	T	T	T	0	1.6	128	95	70	0	7	0	0	
RAPID CITY	55	30	68	14	42	12	T	T	T	T	0	1.1	111	82	43	0	3	0	0	
STOKE FALLS	44	23	58	13	34	7	T	.1	T	T	0	1.6	119	93	67	0	6	2	0	
TN CHATTANOOGA	56	35	73	23	46	-1	T	2.0	1.5	2.0	212	15.8	148	82	37	0	2	2	2	
KNOXVILLE	54	33	72	19	44	-1	T	2.4	1.3	2.4	294	18.3	202	84	44	0	2	2	2	
MEMPHIS	59	39	75	27	49	0	T	.6	1.4	1.4	71	10.4	117	73	39	0	1	2	0	
NASHVILLE	56	35	75	21	46	0	T	.8	1.4	1.4	100	11.3	139	80	41	0	3	2	0	
TX ABILENE	69	40	85	29	54	2	T	T	T	T	10	1.9	79	81	37	0	1	2	0	
AMARILLO	68	32	79	21	50	7	T	-1.2	T	T	0	1.1	89	71	24	0	3	1	0	
AUSTIN	71	48	89	43	60	2	T	.3	1.2	1.2	65	3.7	89	81	45	0	0	2	0	
BEAUMONT	68	46	75	40	57	-1	T	.9	1.9	1.9	162	9.1	104	90	51	0	0	1	1	
BROWNSVILLE	75	53	82	45	64	-2	T	.2	1.1	1.1	12	2.5	91	93	34	0	0	3	0	
CORPUS CHRISTI	74	51	81	41	63	0	T	T	T	T	0	2.0	53	92	36	0	0	1	0	
DEL RIO	73	50	85	43	62	4	T	.0	T	T	0	2.8	103	66	38	0	0	0	0	
EL PASO	72	44	78	37	58	7	T	T	T	T	0	.3	30	50	20	0	0	0	0	
FORT WORTH	62	42	74	35	52	1	T	1.1	.9	.9	58	3.7	79	85	52	0	0	2	1	
GALVESTON	66	52	71	45	59	0	T	.3	1.3	1.3	94	2.9	49	88	57	0	0	1	0	
HOUSTON	69	47	79	37	58	1	T	.1	1.1	1.1	11	5.0	62	87	51	0	0	2	0	
LUBBOCK	71	34	82	23	53	5	T	.1	1.1	1.1	21	.6	50	80	30	0	2	2	0	
MIDLAND	73	40	84	31	57	5	T	T	T	T	0	1.1	99	77	23	0	1	1	0	
SAN ANGELO	72	42	85	34	57	4	T	T	T	T	0	2.0	101	81	37	0	0	1	0	
SAN ANTONIO	73	46	88	37	59	2	T	.6	1.5	1.5	192	2.6	70	84	39	0	0	2	0	
VICTORIA	71	49	78	41	60	2	T	.1	1.1	1.1	5	2.3	35	88	50	0	0	2	0	
WACO	66	43	80	34	55	1	T	.4	1.2	1.2	6	4.7	115	89	57	0	0	2	0	
WICHITA FALLS	61	35	79	26	48	-1	T	.8	1.5	1.5	127	2.3	64	89	51	0	2	2	0	
UT CEDAR CITY	60	30	68	24	45	7	T	T	T	T	0	1.4	76	87	30	0	6	1	0	
SALT LAKE CITY	57	35	67	31	46	8	T	.4	1.0	1.0	19	2.2	84	91	48	0	2	2	0	
VT BURLINGTON	27	6	36	-10	17	-7	T	.8	.4	.7	18	4.2	112	90	45	0	7	3	1	
VA NORFOLK	51	34	67	25	43	-2	T	4.4	3.5	3.7	4.4	716	12.1	154	73	47	0	2	3	2
RICHMOND	49	29	66	16	39	-5	T	2.9	2.1	2.4	2.9	486	10.4	148	79	36	0	4	3	1
ROANOKE	46	28	64	17	37	-5	T	2.1	1.3	1.6	2.1	384	12.0	193	77	38	0	5	3	2
WA QUILLAYUTE	51	42	53	31	46	4	T	8.9	6.0	2.9	5.0	248	32.8	113	97	82	0	1	6	5
SEATTLE-TACOMA	55	45	59	36	50	5	T	1.6	.8	.4	1.4	223	8.4	84	90	70	0	0	7	0
SPOKANE	51	35	60	25	43	7	T	.1	1.3	1.1	T	15	2.3	61	92	58	0	3	3	0
YAKIMA	54	34	66	25	44	4	T	T	T	T	0	1.4	68	93	60	0	3	1	0	
WV BECKLEY	41	24	57	7	33	-5	T	1.6	.8	.7	1.6	294	11.4	178	84	51	0	5	3	2
CHARLESTON	45	27	64	11	36	-5	T	1.5	.7	1.1	1.5	265	13.5	207	90	47	0	4	3	1
HUNTINGTON	46	28	65	12	37	-1	T	1.4	.6	1.1	1.4	249	11.2	169	84	44	0	4	3	1
PARKERSBURG	40	25	52	7	33	-5	T	1.0	.2	.8	1.0	174	12.3	186	90	52	0	6	3	1
WI GREEN BAY	36	15	53	-5	26	2	T	.1	1.3	1.1	1.1	19	2.6	107	92	67	0	7	1	0
LACROSSE	39	15	51	-10	27	1	T	T	T	T	T	T	T	93	55	0	7	T	T	T
MADISON	38	16	52	-13	27	0	T	.1	1.3	.0	T	4	4.2	169	91	54	0	7	2	0
MILWAUKEE	39	19	53	6	29	1	T	.1	1.4	.0	T	6	5.7	169	95	55	0	7	2	0
WAUSAU	39	15	52	-6	27	4	T	.0	1.3	.0	T	0	1.5	72	89	52	0	7	0	0
WY CASPER	56	34	64	27	45	15	T	.2	.0	.2	T	0	1.4	114	75	46	0	4	1	0
CHEYENNE	54	31	65	24	43	12	T	.2	.0	.1	T	92	1.7	182	85	40	0	3	3	0
LANDER	53	29	62	23	41	11	T	T	T	T	0	1.3	111	76	35	0	6	0	0	
SHERIDAN	50	30	63	20	40	10	T	T	T	T	0	3.0	195	76	53	0	5	1	0	

Based on 1961-90 normals.

February Weather and Crop Summary

Weather

January's intense but quasi-stationary arctic front gave way to less-amplified but more rambunctious weather systems in February. As a result, the western half of the Nation experienced a dose of winter storminess, although previous months' moisture deficits were not entirely vanquished. Intrusions of arctic air continued, but were primarily confined to the Northern States. Nevertheless, enough cold air abounded to continue the winter's assault on the Northeast, not to mention a strip from eastern Texas to the Middle Atlantic region, which endured a severe ice storm between February 9-11.

Appreciable snowfall overspread California's Sierra Nevada on February 6, the onset of two stormy periods. The first round of precipitation tapered on February 10, while the second spanned February 16-21. Sierra Nevada snowpack stood at 80 percent of normal by month's end, a considerable improvement from 50 percent of normal at the end of January. California's reservoir storage (155 primary reservoirs) remains near normal (7.66 trillion gallons actual storage versus 7.98 trillion gallons normal March 1 storage), due to heavy precipitation during the winter of 1992-93. Numerous west coast locations, including Seattle, WA and Los Angeles, CA, received above-normal monthly precipitation for the first time this rainy season. In the Los Angeles basin, however, rain caused debris flows in canyons denuded by last autumn's fires.

As the first round of west coast storms spread eastward, an amazing east-west frontal boundary became established. Arctic air to the north of the front reached a core temperature of -52°F in Promise, SD on February 9, while sub-tropical air to the south reached a temperature of 87°F in McAllen, TX. Monthly record lows were set in locations such as Lansing, MI (-25°F) and Bismarck, ND (-43°F), which experienced its lowest temperature since 1967. Moisture overrunning the frigid surface air resulted in a damaging ice storm as far south as the northern Mississippi Delta region. The storm also dumped heavy rain in the west-central Appalachians, delivering the worst flooding since November 1985 to northern West Virginia. A February-record 6.51 inches of precipitation soaked Elkins, WV, 3.09 inches of which fell on February 8-9. Several storms thereafter dropped heavy precipitation on areas from eastern Texas to the Middle Atlantic States. The Tennessee Valley was the focus for the heaviest rainfall, with monthly records falling at Huntsville, AL (10.28 inches) and Knoxville, TN (8.82 inches). Heavy rain also plagued most of Hawaii. Hilo recorded more than 25 inches during the month, more than 20 inches of which fell between February 8 and 19.

But in the Midwest and Northeast, much of the precipitation fell in the form of snow. February-record snowfall blanketed many locations in the Rock River basin, including Moline, IL (20.6 inches), Rockford, IL (29.2 inches), and Madison, WI (36.0). For Madison it was the snowiest month ever. Buffalo, NY tallied a record 54th consecutive day of precipitation on February 9, of which 53 included at least a trace of snow. Newark, NJ not only had its snowiest month ever (33.4 inches), but also experienced its first 14-inch snowfall (on February 11) since 1983.

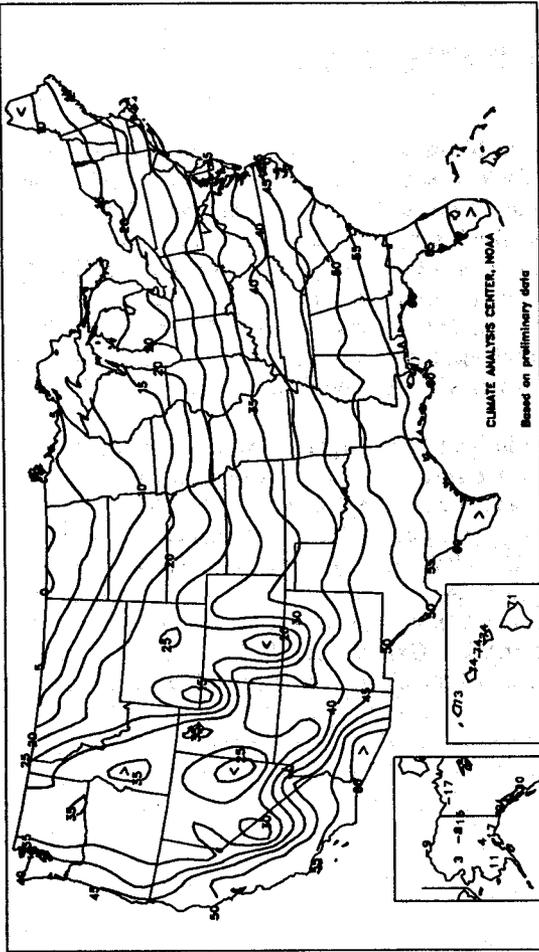
After mid-month, a temporary warm spell significantly reduced snowpack across the upper Midwest and the Northeast, although subsequent storms replenished it by month's end. Despite lingering snow cover, the warmth peaked with highs of 56°F in Flint, MI on February 19 and 61°F in Portland, ME on February 20. A late-month storm expanded snow coverage to its greatest extent on February 24, with an inch or more on the ground in most areas north of a Garden City, KS to St. Louis, MO to Baltimore, MD line. Although the storm provided needed moisture to the central and southern Plains, monthly precipitation was less than 25 percent of normal at locations such as Goodland and Wichita, KS, and Amarillo, TX.

Fieldwork

Warmer-than-normal weather occurred over the Southeast in February, while temperatures across the rest of the United States were below normal. Precipitation was well above normal over many parts of the country, which delayed spring fieldwork. In the southeastern half of the Nation, warm weather helped to dry fields so that field preparation and planting could begin. Freezing temperatures as far south as Texas hindered winter wheat growth, but no serious damage was reported. Cold, dry conditions prevailed through most of the month for the southern Great Plains, which slowed wheat development. Snow cover in the north-central region and the High Plains was adequate throughout the month to provide protection for the wheat. Temperature fluctuation and snow melt in the middle Mississippi and Ohio Valleys stressed the wheat crop, and exposed it to some wind damage. Later in the month, snow melt resulted in some reports of flooding in the Great Lakes region. A wet month for the Pacific coast delayed spring land preparation but benefited the small grains. The mid-month snow storm in the Atlantic States resulted in wet conditions which hindered fieldwork. By the end of the month, rain and warmer weather in the Texas High Plains benefited the wheat.

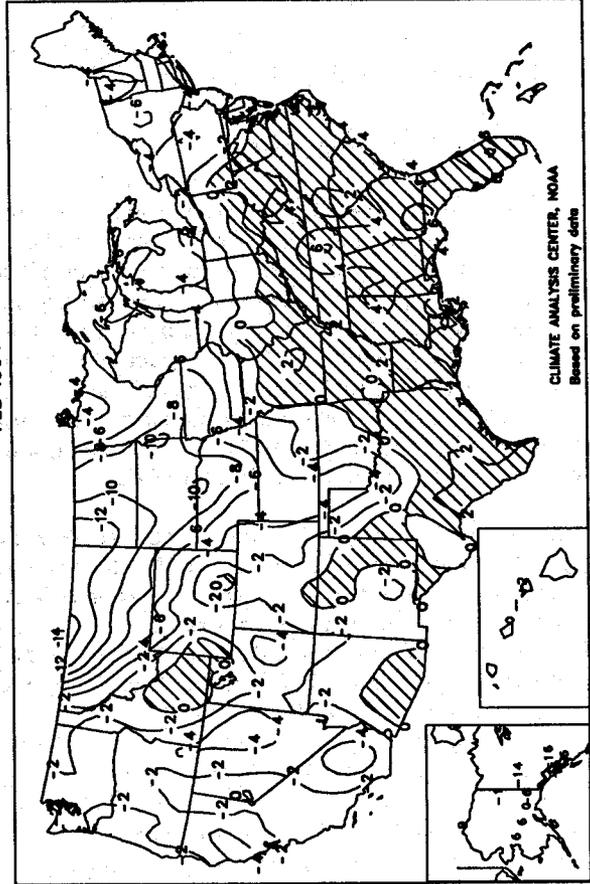
AVERAGE TEMPERATURE(°F)

FEB 1994



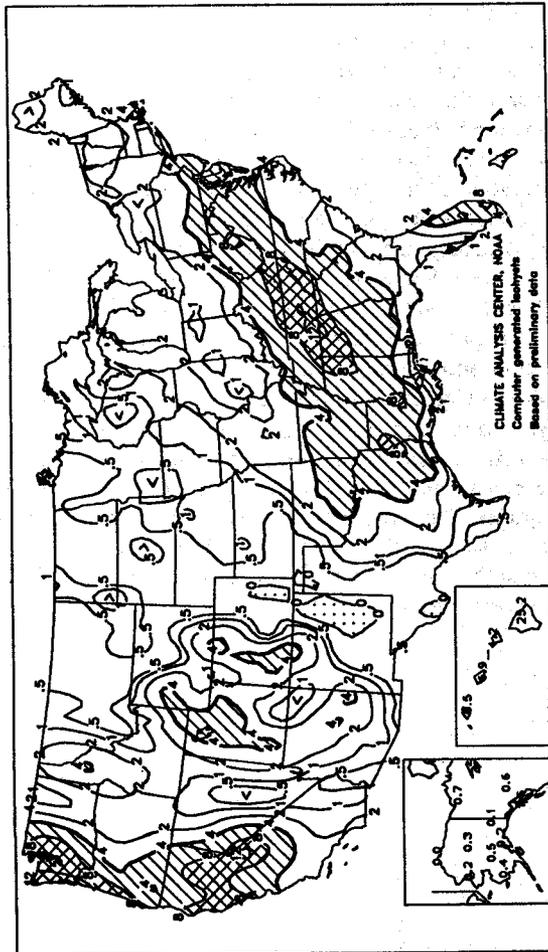
Departure of Average Temperature from Normal(°F)

FEB 1994



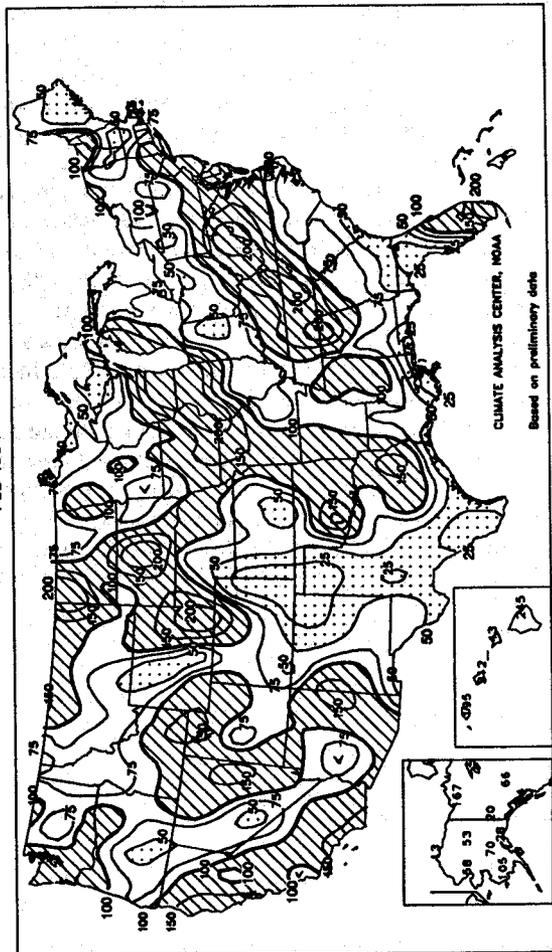
TOTAL PRECIPITATION (inches)

FEB 1994



PERCENT OF NORMAL PRECIPITATION

FEB 1994



TEMPERATURE AND PRECIPITATION SUMMARY February 1994

STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	49	3	4.8	0.1	LA BATON ROUGE	54	0	3.0	-2.6	OK YOUNGSTOWN	26	-1	1.5	-0.6
AL HUNTSVILLE	46	3	10.3	5.4	LA LAKE CHARLES	55	0	1.5	-2.1	OK OKLAHOMA CITY	37	-3	2.6	1.0
AL MOBILE	56	3	1.3	-4.1	LA NEW ORLEANS	57	0	0.5	-5.5	OK TULSA	39	-1	2.2	0.2
AL MONTGOMERY	54	6	6.3	1.0	ME BRIDGEPORT	51	0	5.0	0.9	OR ASTORIA	42	-2	11.3	3.7
AK ANCHORAGE	17	-1	0.2	-0.6	ME CARIBOU	8	-4	1.4	-0.5	OR BURNS	29	0	0.5	-0.3
AK BARROW	-9	9	T	-0.1	ME PORTLAND	19	-4	1.3	-2.0	OR MEDFORD	42	-1	1.2	-0.7
AK FAIRBANKS	-6	-2	0.3	-0.1	MD BALTIMORE	34	-1	4.1	1.0	OR PENDLETON	35	-4	1.7	0.6
AK JUNEAU	19	-10	2.6	-1.2	MA BOSTON	37	-1	5.1	1.6	OR PORTLAND	41	-3	4.9	1.1
AK KODIAK	30	0	4.6	-0.6	MA CHATHAM	29	-1	3.0	-0.7	OR SALEM	43	0	4.2	-0.3
AK NOME	13	9	0.8	0.2	MI ALPENA	11	-7	1.0	-0.2	PA ALLENTOWN	25	-4	3.1	0.2
AZ FLAGSTAFF	30	-1	2.5	0.4	MI DETROIT	23	-2	1.4	-0.4	PA ERIE	24	-2	1.4	-0.9
AZ PHOENIX	50	0	0.5	-0.1	MI FLINT	18	-5	0.9	-0.4	PA HARRISBURG	28	-3	3.2	0.3
AZ PRESCOTT	40	1	1.1	-0.5	MI GRAND RAPIDS	19	-5	1.7	0.3	PA PHILADELPHIA	33	1	3.3	0.2
AZ TUCSON	55	1	1.0	0.3	MI HOUGHTON LAKE	13	-5	1.4	0.3	PA PITTSBURGH	29	0	2.1	-0.3
AZ WINSLOW	38	-1	0.3	-0.2	MI LANSING	18	-3	1.1	-0.1	PA SCRANTON	24	-3	0.9	-1.2
AR YUMA	61	0	0.3	0.0	MI MARQUETTE	8	-6	0.5	-1.2	PA WILLIAMSPORT	24	-4	2.0	-0.8
AR FORT SMITH	43	1	4.0	1.4	MI MONTROVIE	20	-4	2.6	1.2	RI PROVIDENCE	26	-4	2.1	-1.5
AR LITTLE ROCK	45	2	3.4	-0.2	MN SAULT ST. MARIE	8	-6	1.0	-0.8	SC CHARLESTON	53	3	1.2	-2.1
CA BAKERSFIELD	52	-1	1.3	0.3	MN ALEXANDRIA	8	-6	0.5	-0.2	SC COLUMBIA	50	3	4.1	-0.1
CA BISHOP	39	-4	T	T	MN DULUTH	7	-6	0.6	-0.2	SC FLORENCE	51	4	2.6	-0.7
CA EUREKA	49	-1	7.1	2.4	MN DULUTH	5	-2	0.3	-0.3	SD GREENVILLE	45	1	3.5	-0.9
CA FRESNO	50	-1	1.9	0.1	MN INT'L FALLS	5	-2	0.3	-0.3	SD ABERDEEN	8	-8	0.4	-0.2
CA LOS ANGELES	57	0	4.4	1.8	MN MINNEAPOLIS	13	-5	0.8	-0.1	SD HURON	10	-9	0.7	0.0
CA REDDING	46	-3	6.4	2.0	MN ROCHESTER	11	-6	0.7	0.0	SD RAPID CITY	20	-7	0.7	0.1
CA SACRAMENTO	49	-2	1.7	-1.2	MN ST. CLOUD	9	-5	0.6	0.0	SD SIOUX FALLS	13	-7	0.6	0.0
CA SAN DIEGO	56	-2	2.8	1.2	MS GREENWOOD	50	3	4.0	-0.5	TN BRISTOL	41	4	7.8	4.3
CA SAN FRANCISCO	51	-2	5.3	2.1	MS JACKSON	49	2	6.1	1.4	TN CHATTANOOGA	46	4	7.4	2.6
CA STOCKTON	T	T	T	T	MS MERIDIAN	51	3	6.5	1.0	TN KNOXVILLE	43	3	8.8	4.8
CO ALAMOSA	23	1	T	-0.3	MO TEPIC	46	2	6.5	1.8	TN MEMPHIS	46	2	4.3	0.0
CO CO. SPRINGS	32	0	0.3	-0.1	MO CAPE GIRARDEAU	38	2	2.9	-0.4	TN NASHVILLE	44	4	6.2	2.4
CO DENVER	33	0	0.8	0.2	MO COLUMBIA	31	1	2.2	0.4	TX ABILENE	47	0	0.8	-0.4
CO GRAND JUNCTION	34	-2	0.6	0.0	MO KANSAS CITY	30	-1	1.5	0.4	TX AMARILLO	38	-2	0.1	-0.5
CO PUEBLO	32	-3	0.2	-0.1	MO SAINT LOUIS	35	1	1.5	-0.6	TX AUSTIN	55	3	2.1	0.0
CT BRIDGEPORT	26	-4	3.2	0.2	MT SPRINGFIELD	37	1	2.8	0.8	TX BEAUMONT	56	2	1.4	-2.0
CT HARTFORD	24	-4	3.4	0.2	MT BRIDGEMONT	23	-6	0.4	-0.3	TX BROWNSVILLE	64	1	0.4	-0.6
DC WASHINGTON	36	-1	4.2	1.5	MT GLASGOW	5	-12	0.3	0.1	TX CORPUS CHRISTI	60	1	1.0	-0.9
FL APALACHICOLA	59	4	2.4	-1.4	MT GREAT FALLS	18	-10	0.5	0.0	TX DEL RIO	57	4	0.4	-1.0
FL DAYTONA BEACH	64	5	2.7	-0.4	MT HAVRE	6	-15	0.7	0.3	TX EL PASO	50	3	0.2	-0.2
FL FT. MYERS	71	6	1.8	-0.4	MT HELENA	21	-6	0.4	0.0	TX FORT WORTH	49	2	2.0	-0.4
FL JACKSONVILLE	60	3	0.9	-3.0	MT KALISPELL	21	-6	0.9	-0.2	TX GALVESTON	57	2	0.5	-1.7
FL KEY WEST	75	4	2.3	0.5	MT MILES CITY	14	-10	0.3	-0.1	TX HOUSTON	55	2	2.8	-0.8
FL MIAMI	73	5	5.7	3.6	MT MISSOULA	26	-3	0.5	-0.3	TX LAREDO	T	T	T	T
FL ORLANDO	66	5	3.6	0.6	MT GRAND ISLAND	19	-8	1.2	0.5	TX LUBBOCK	44	1	0.2	-0.5
FL TALLAHASSEE	58	5	2.6	-2.9	MT LINCOLN	22	-5	0.4	-0.3	TX MIDLAND	48	0	0.1	-0.5
FL TAMPA	67	5	0.4	-2.6	MT NORFOLK	18	-6	0.8	0.1	TX SAN ANGELO	51	3	0.3	-0.7
FL WEST PALM BEACH	72	5	3.2	0.3	MT NORTH PLATTE	24	-4	0.3	-0.1	TX SAN ANTONIO	56	3	0.6	-1.2
GA ATHENS	48	2	3.3	-1.1	MT OMAHA	23	-3	1.0	0.2	TX VICTORIA	57	2	0.8	-1.9
GA ATLANTA	50	5	3.8	-1.0	MT SCOTTSBLUFF	27	-3	0.8	0.3	TX WACO	50	1	3.2	1.1
GA AUGUSTA	51	3	4.2	0.0	MT VALENTINE	17	-10	0.4	-0.1	UT WICHITA FALLS	41	-3	1.7	-0.3
GA MACON	52	3	4.5	-0.3	NV ELKO	27	-4	T	T	UT BLANDING	32	-2	0.4	-0.5
GA SAVANNAH	56	4	0.8	-2.4	NV ELY	24	-6	1.1	0.4	UT CEDAR CITY	33	-2	1.2	0.4
HI HILO	71	0	25.5	15.2	NV LAS VEGAS	49	-2	0.5	0.0	UT SALT LAKE CITY	35	1	1.5	0.3
HI HONOLULU	74	1	6.9	4.7	NV RENO	38	1	0.6	-0.4	VT BURLINGTON	15	-3	1.2	-0.4
HI KAHULUI	74	2	1.2	-1.6	NH WINDHAM	34	-2	0.8	0.2	VA LYNCHBURG	40	-3	4.6	1.6
HI LIHUE	73	1	6.5	3.2	NH CONCORD	17	-5	0.8	-1.7	VA NORFOLK	43	2	3.6	0.2
ID BOISE	35	-1	0.9	-0.2	NJ ATLANTIC CITY	32	-2	3.5	0.5	VA RICHMOND	40	1	4.4	1.2
ID LEWISTON	36	-3	0.7	-0.2	NM ALBUQUERQUE	41	1	0.3	-0.2	VA ROANOKE	39	2	5.3	2.3
ID POCATELLO	29	0	1.4	0.5	NM CLOVIS	42	1	0.2	-0.3	VA COLVILLE	31	0	1.4	-0.1
IL CAIRO	T	T	T	T	NM ROSWELL	45	1	T	-0.5	WA QUILLAYUTE	40	-2	19.0	5.4
IL CHICAGO	22	-3	2.8	1.5	NY ALBANY	19	-5	1.8	-0.5	WA SEATTLE-TACOMA	40	-3	4.5	0.5
IL MOLINE	23	-2	2.7	1.5	NY BINGHAMTON	20	-3	1.8	-0.5	WA SPOKANE	29	-4	0.8	-0.7
IL PEORIA	26	0	2.0	0.6	NY BUFFALO	22	-2	1.4	-0.9	WA WALLA WALLA	37	-3	1.5	-0.3
IL QUINCY	29	0	0.3	-1.1	NY NEW YORK	30	-3	2.8	0.0	WA YAKIMA	33	-3	1.0	0.3
IL ROCKFORD	17	-5	3.0	1.9	NY ROCHESTER	21	-4	1.6	-0.5	WV BECKLEY	36	4	5.2	2.3
IL SPRINGFIELD	29	1	1.0	-0.8	NY SYRACUSE	19	-5	1.9	-0.2	WV CHARLESTON	39	3	5.6	2.5
IN EVANSVILLE	37	1	2.3	-1.1	NC ASHEVILLE	41	1	5.1	0.6	WV ELKINS	33	3	6.5	3.6
IN FORT WAYNE	25	0	0.8	-1.1	NC CHARLOTTE	47	4	2.6	-1.2	WV HUNTINGTON	38	4	4.6	1.6
IN INDIANAPOLIS	30	0	1.4	-1.1	NC GREENSBORO	42	2	2.5	-0.8	WV PARKERSBURG	34	1	4.2	1.3
IN SOUTH BEND	22	-4	1.4	-0.4	NC HATTERAS	49	3	3.1	-1.0	WI GREEN BAY	14	-4	1.1	0.1
IA DES MOINES	21	-4	1.7	0.7	NC NEW BERN	48	2	1.8	-2.4	WI LACROSSE	15	-5	1.7	0.8
IA DUBUQUE	17	-4	2.4	1.1	NC RALEIGH	44	2	3.0	-0.7	WI MADISON	16	-5	2.8	1.7
IA SIOUX CITY	18	-6	0.6	-0.1	ND WILLINGTON	50	4	3.3	-1.1	WI MILWAUKEE	22	-1	3.5	2.1
IA WATERLOO	15	-5	0.9	-0.1	ND BISMARCK	5	-11	0.4	0.0	WI WAUSAU	13	-4	0.6	-0.2
KS CONCORDIA	27	-4	0.2	-0.5	ND FARGO	6	-6	0.6	0.2	WI CASPER	26	-1	0.8	0.2
KS DODGE CITY	31	-3	0.4	-0.2	ND GRAND FORKS	2	-9	0.5	0.0	WI CHEYENNE	27	-2	0.9	0.5
KS GOODLAND	26	-6	0.1	-0.3	ND WILLISTON	3	-13	0.9	0.5	WI LAMDER	22	-3	0.2	-0.3
KS TOPEKA	30	-2	0.8	-0.2	OH AKRON-CANTON	26	-1	1.6	-0.6	WI SHERIDAN	19	-7	1.1	0.5
KS WICHITA	34	-2	0.2	-0.9	OH CINCINNATI	33	1	1.7	-1.0	PR SAN JUAN	78	1	1.7	-0.4
KY BOWLING GREEN	40	3	6.5	2.4	OH CLEVELAND	26	-1	0.8	-1.4					
KY JACKSON	41	4	7.4	3.6	OH COLUMBUS	30	3	1.6	-0.6					
KY LEXINGTON	37	2	4.4	1.2	OH DAYTON	29	-1	1.3	-0.9					
KY LOUISVILLE	38	2	3.0	-0.3	OH MANSFIELD	25	-2	0.8	-1.2					
KY PADUCAH	40	3	2.7	-1.2	OH TOLEDO	23	-2	1.9	0.2					

Based on 1961-90 normals.

HEATING DEGREE DAYS (Base 65° F) February 1994

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL BIRMINGHAM	439	-101	PORTLAND	1270	102	BRADFORD	1251	22
AL HUNTSVILLE	514	-99	MD BALTIMORE	865	19	ERIE	1134	36
AL MOBILE	260	-84	MA BOSTON	1067	95	PHILADELPHIA	885	-11
AL MONTGOMERY	332	-94	MI ALPENA	1489	181	PITTSBURGH	997	-19
AK ANCHORAGE	1330	34	MI DETROIT	1160	51	SCRANTON	1133	63
AK BARRROW	2033	-285	MI FLINT	1302	140	WILLIAMSPORT	1146	110
AK BETHEL	1495	-157	MI GRAND RAPIDS	1274	118	RI PROVIDENCE	1094	106
AK COLD BAY	933	-120	MI LANSING	1310	131	SC CHARLESTON	327	-87
AK FAIRBANKS	1968	47	MI MUSKOGON	1247	110	COLOMBIA	425	-89
AK JUNEAU	1291	266	MI TRAVERSE CITY	1402	136	GREENVILLE	559	-46
AK KING SALMON	1398	-8	MN DULUTH	1612	136	SD ABERDEEN	1587	235
AK KOTzebue	1710	-244	MN INT'L FALLS	1652	48	HURON	1516	239
AK MCGRATH	1698	-205	MN MINNEAPOLIS	1441	122	PIERRE	1425	235
AK NOME	1453	-258	MI ROCHESTER	1503	162	RAPID CITY	1251	179
AK ST PAUL ISLAND	995	-198	MS JACKSON	438	-47	SIoux FALLS	1440	172
AK YAKUTAT	1215	179	MI MERIDIAN	379	-77	TN BRISTOL	667	-106
AZ FLAGSTAFF	977	39	MO COLUMBIA	929	8	CHATTANOOGA	529	-121
AZ PHOENIX	192	-35	KANSAS CITY	974	28	KNOXVILLE	605	-92
AZ TUCSON	270	-32	SAINT LOUIS	833	-38	MEMPHIS	522	-60
AR FORT SMITH	609	-38	SPRINGFIELD	790	-30	NASHVILLE	582	-107
AR LITTLE ROCK	541	-69	MT BILLINGS	1163	155	TX ABILENE	501	8
CA FRESNO	412	26	GLASCOW	1655	325	AMARILLO	763	41
CA LOS ANGELES	215	0	GREAT FALLS	1317	264	AUSTIN	287	-66
CA SACRAMENTO	448	48	HAYVE	1641	412	BROWNSVILLE	115	-20
CA SAN DIEGO	231	42	HELENA	1226	145	CORPUS CHRISTI	185	-28
CA SAN FRANCISCO	395	37	KALISPELL	1222	147	DALLAS FT WORTH	451	-33
CO COLORADO SPRINGS	928	4	MISSOULA	1072	70	EL PASO	397	-76
CO DENVER	881	-4	NE GRAND ISLAND	1273	217	HOUSTON	291	-31
CO GRAND JUNCTION	850	-4	NORTH PLATTE	1150	103	LUBBOCK	581	-32
CT HARTFORD	1163	113	OMAHA	1252	157	LUFKIN	372	-15
DE WILMINGTON	933	48	SCOTTSDALE	1055	81	MIDLAND ODESSA	468	-33
DC WASHINGTON	799	29	NV ELKO	1055	117	SAN ANGELO	392	-73
FL DAYTONA BEACH	100	-105	KLY	1156	162	SAN ANTONIO	273	-59
FL FORT MERS	28	-80	LAS VEGAS	449	60	VICTORIA	266	0
FL JACKSONVILLE	179	-117	RENO	729	-27	WACO	418	-23
FL KEY WEST	5	-25	WINNEBEOCCA	855	40	WICHITA FALLS	651	83
FL MIAMI	15	-36	NH CONCORD	1344	134	UT CEDAR CITY	893	42
FL ORLANDO	63	-101	NJ ATLANTIC CITY	937	41	SALT LAKE CITY	828	-37
FL PENSACOLA	219	-112	NEWARK	969	73	VT BURLINGTON	1384	74
FL TALLAHASSEE	217	-127	NM ALBUQUERQUE	676	-24	VA LYNCHBURG	714	-64
FL TAMPA	63	-97	NY ALBANY	1278	116	NORFOLK	601	-71
FL WEST PALM BEACH	14	-71	BINGHAMTON	1259	75	RICHMOND	690	-46
GA ATHENS	468	-78	BUFFALO	1179	45	ROANOKE	714	-62
GA ATLANTA	414	-152	MASSENA	1470	112	WA OLYMPIA	705	36
GA AUGUSTA	403	-90	NEW YORK	966	76	QUILLAYUTE	698	54
GA MACON	369	-85	ROCHESTER	1230	99	SEATTLE TACOMA	680	78
GA SAVANNAH	262	-116	SYRACUSE	1277	129	SPOKANE	994	106
ID BOISE	833	18	NC ASHEVILLE	676	-60	YAKIMA	866	65
ID POCATELLO	997	-8	CAPE HATTERAS	446	-100	WV BECKLEY	804	-117
IL CHICAGO	1195	86	CHARLOTTE	508	-122	CHARLESTON	738	-88
IL MOLINE	1178	52	GREENSBORO	637	-63	HUNTINGTON	766	-71
IL PEORIA	1076	-8	RALEIGH DURHAM	577	-67	WI EAU CLAIRE	1470	106
IL ROCKFORD	1323	144	WILMINGTON	419	-77	GREEN BAY	1405	97
IL SPRINGFIELD	992	-24	ND BISMARCK	1669	289	MADISON	1369	126
IN EVANSVILLE	768	-89	FARGO	1629	145	MILWAUKEE	1210	34
IN FORT WAYNE	1101	6	MINOT	1662	256	CASPER	1098	20
IN INDIANAPOLIS	991	0	WILLISTON	1712	343	WY CHEYENNE	1048	48
IN SOUTH BEND	1190	109	OH AKRON CANTON	1084	31	LANDER	1198	89
IA DES MOINES	1218	90	CLEVELAND	1078	20	ROCK SPRINGS	1230	90
IA MASON CITY	1454	158	COLUMBUS	975	-16	SHERIDAN	1265	184
IA SIOUX CITY	1316	157	CINCINNATI	887	-43			
IA WATERLOO	1393	136	DAYTON	1012	15			
KS CONCORDIA	1050	98	TOLEDO	1176	62			
KS DODGE CITY	958	118	YOUNGSTOWN	1102	7			
KS GOODLAND	1080	162	OK OKLAHOMA CITY	766	91			
KS RUSSELL	1000	93	TULSA	717	25			
KS TOPEKA	974	56	OR ASTORIA	630	48			
KS WICHITA	862	16	EUGENE	644	62			
KY LEXINGTON	786	-68	MEDFORD	640	18			
KY LOUISVILLE	754	-66	NORTH BEND	536	40			
LA BATON ROUGE	331	-14	PENDLETON	836	114			
LA LAKE CHARLES	292	-36	PORTLAND	666	67			
LA NEW ORLEANS	263	-53	REDMOND	889	77			
LA SHERVEPORT	391	-57	SALEM	609	-13			
ME BANGOR	1372	106	PA ALLENTOWN	1102	102			

Based on 1961-90 normals.

National Agricultural Summary

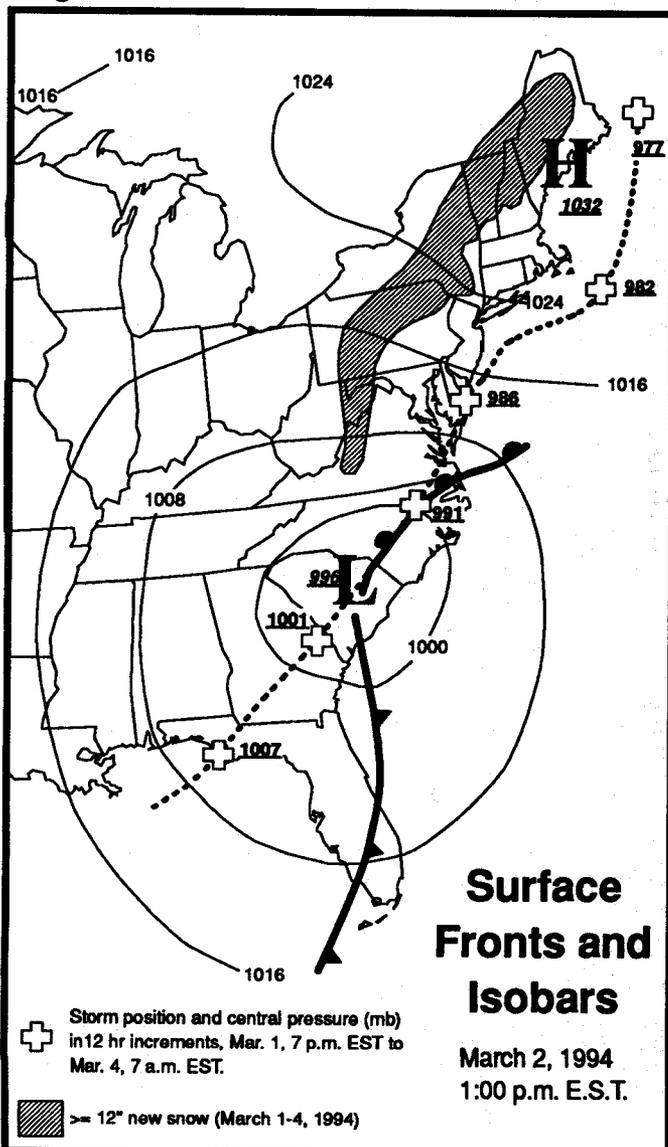
February 28 - March 6, 1994

A major storm system crossed the Atlantic Seaboard States, depositing significant amounts of snow in the central Appalachians and Northeastern region. The widespread storm system left fields too wet to be worked in the first half of the week. In the later part of the week, a warming trend starting in the Pacific pushed eastward to the Great Lakes, greatly reducing the snow pack for winter wheat. The warming trend caused rapid snow melt, with some reports of flooding and soil erosion. The spring-like conditions allowed field preparation for planting in the Southeastern States to continue. Wheat in the southern Great Plains responded well to moisture and warmer weather.

Some disease and insect problems were reported in Kansas and Texas. In the northern High Plains, the snow cover was adequate with wind damage reported to be light. Rain in the early part of the week prevented field preparation in the Mississippi Valley. Extensive snow melt in the Mississippi Valley brought rivers to flood stage in some areas. Field preparation was behind schedule in the Ohio Valley due to the snowstorm. Warm weather in the Ohio Valley, later in the week, triggered wheat growth. The warm, mild weather permitted rice fields to be leveled in preparation for planting in the Gulf Coast States. The sugarcane harvest was virtually complete in Florida.

East Coast Storm, March 1 - 4, 1994

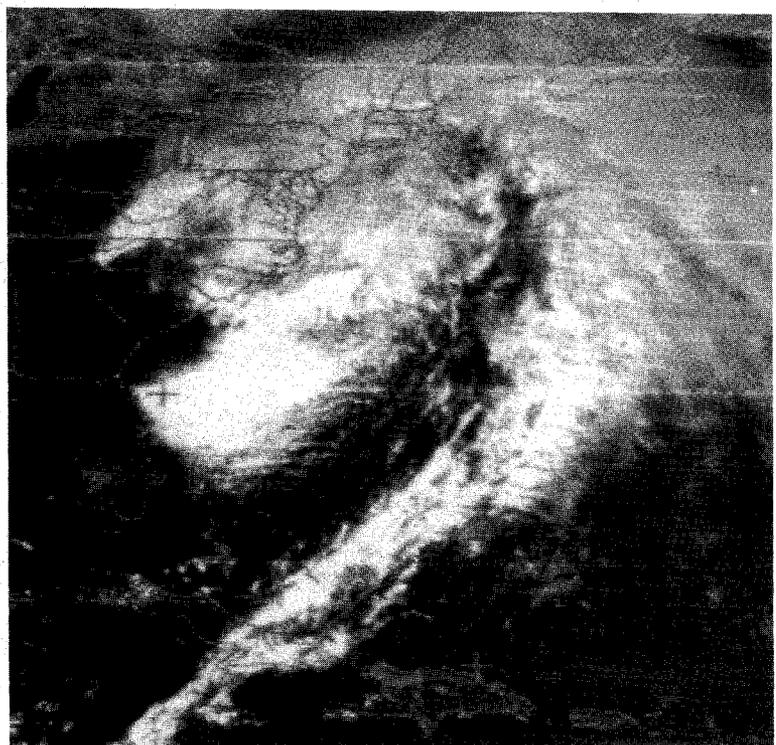
Figure 1



On March 2, an intensifying pressure gradient squeezed gale-force northeasterly winds between a developing low-pressure center over South Carolina and a high-pressure center in northern New England (fig. 1). In addition, heavy snow developed in the central Appalachians and spread northeastward. A day later, the storm continued to intensify east of New York City, generating a comma-shaped cloud shield that extended in broad arc from the central Appalachians to the Canadian Maritimes, then southward into Cuba (fig. 2).

--Brad Rippey; graphics by Jeff Savadel

Figure 2 March 3, 1:30 p.m. E.S.T.



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 1.22 to 2.80 in. north; 1.16 to 3.24 in. central; 1.33 to 4.45 in. south. Temperatures 1° below normal to 6° above normal north; 1° below normal to 5° above normal central; 1° below normal to 4° above normal south. Lows 29 to 36° north, central; 30 to 40° south. Highs 74 to 81° north; 79 to 83° central; 77 to 82° south.

Primary activities: Spring plowing; general care of livestock, poultry, catfish.

ARIZONA: Temperatures above normal; 4 to 7° above. Extremes 19°; 77° higher elevations; 34°; 88° deserts. Very little precipitation across the State. Rainfall none to 0.24 in.

Fieldwork continues. Small grain established 100%, 100% 1993, 100% avg. Alfalfa condition fair to good. Harvest progress moderate. Sheeping off activities light; stand renovation, new stand establishment below normal to normal. Citrus harvest continues. Grapefruit, navel, sweet oranges, lemons available central, western areas. Also, valencia oranges available western areas. Tangerines, tangelos available central area. Winter vegetable harvest continues active. Available from western, central areas: Bok choy, broccoli, cauliflower, cilantro, kale, leaf, romaine lettuces, napa, parsley, spinach. Western harvest also included: Anise, artichokes, asparagus, broccoflower, celery, endive, escarole, iceberg, boston lettuces, salad savoy. Central crops available included beets, cabbage, carrots, dill, fava beans, green onions, kohlrabi, leeks, mixed greens, radishes, rutabagas, rappini, swiss chard, turnips, watercress. Tomatoes remain available eastern areas. Pasture, range conditions improved; 72% of normal, 10% points higher than January. Cattle, calves fair to good condition. Stockwater supplies mostly adequate. Soil moisture short to adequate. Feed supplies remained available. Insect damage very light.

ARKANSAS: Temperatures a few degrees above normal for the week. Extremes 21°; 86°. Rainfall first part of week, heaviest in south. Dry rest of week. Rainfall 0.07 to 2.06 in.

Soil moisture supplies remain adequate to surplus. Wheat condition mostly fair, some good. There was continued aerial nitrogen application on wheat which is beginning to come out of dormancy. Fescue also beginning to green up. Very little fieldwork due to wet field conditions. Livestock, pastures good. Scattered hay shortages continue in south west.

CALIFORNIA: Scattered precipitation northern areas. Temperatures 5° above normal.

Field activities resumed, soils dried. Small grains, forage crops, seedling alfalfa, sugarbeets excellent growth, development. Fertilizer, herbicide applications ongoing. Sugarbeets irrigated, hand weeded. Cotton fields pre-irrigated, bedded up, sprayed weeds San Joaquin Valley. Planting underway desert counties. Seedbed preparation corn, dry beans, safflower, other row crops gained momentum. Some green chopped small grain fields disced, seeded dry beans desert areas. Alfalfa hay harvest progressed slowly southern counties; not started elsewhere. Stone fruit, nut orchards in full bloom. Fungicide application active deciduous orchards. Some vineyards, apple trees pruned. Bees active. Avocado harvest continued. Navel orange, lemon harvests continued. Strawberry harvest active southern areas, underway central coast. Asparagus harvest continued central valley, completed Imperial Valley. Broccoli harvest continued San Joaquin Valley, while planting along central coast. Harvest cabbage Fresno, Riverside counties. Carrots packed Kern County. Cucumbers planted under hot caps Tulare County. Head lettuce fields thinned, treated for mildew, irrigated San Joaquin Valley. Harvest head lettuce fields central, desert valleys. Earliest melon fields Palo Verde Valley germinated. Winter potato harvest Riverside County

completed. Sweet potatoes planted hotbeds Merced County. Peppers, squash planted under hot caps Tulare County. Fresh market tomatoes transplanted prepared fields central valley. Processing tomato beds planted, treated pre-emergent herbicides, irrigated central valley. Other crops being harvested: Taro root, turnips, various oriental vegetables. Grass growth very good due to above normal temperatures. Rangeland rated good to excellent. Little supplemental feeding. Cattle, calves in good shape. Some late calves still arriving.

COLORADO: Cold front pushed across the plains on the 28th, bringing a short period of wet, heavy snow to the front range, northeast late in the afternoon. Snow showers were scattered over the high country both the 28th, 1st. High pressure moved into State late on the 1st, remained through the 4th, bringing above normal temperatures, no precipitation statewide. Late on the 4th, moisture-laden upper level flow brought clouds, the return of scattered mountain snow showers. Cloudiness covered most of the State through the weekend with scattered showers over the high country, widespread light rain showers over the northern half of the plains. Temperatures 7 to 10° above normal except in the San Luis Valley where readings were 5 to 10° above normal.

Calving, lambing activities are well underway, main activities for the week. Limited fieldwork has been accomplished in preparation for seeding spring grains, onions.

FLORIDA: Temperatures 1 to 2° above normal Panhandle, 1 to 3° below normal over Peninsula except for few places along east coast, which were slightly above normal. Highs; low, middle 80s Panhandle, Big Bend, near 80° elsewhere. Lows; middle, upper 30s across north, lower 40s central, middle 40s south. Weekly rainfall totals; 3.00 to 5.00 in. common Panhandle, Big Bend, with local amounts over 7.00 in. western half of Peninsula; 1.00 to 2.00 in. rain common. Eastern half most totals under 1.00 in. except for heavier amounts in few local areas.

Soil moisture mostly adequate with scattered areas of surplus moisture. Sugarcane harvest virtually complete. Maintaining tobacco beds. Making preparations for tobacco transplanting. Corn planting starting. Making preparations for spring planted crops. All citrus trees very good condition, new growth, bloom progressing, moisture adequate. Early, mid orange harvest slowing as supplies are low. Grapefruit movement active for fresh, processing. Early Valencia harvest underway. Tangelo, Dancy tangerine harvest almost complete. Movement of Temples, Honey tangerines continues most areas. Caretakers cutting cover crops, hedging, topping all areas. Fertilizing on schedule. Plant damage, scarring of fruit in south Florida's major vegetable producing areas from last week's storm. Sweet corn, tomato, squash, watermelon plants most affected. Also, harvesting delayed somewhat due to storm. Leading vegetable shipments: tomatoes, cabbage, peppers, celery, potatoes. Also available: snap beans, carrots, chinese cabbage, sweet corn, cucumbers, eggplant, escarole, iceberg lettuce, leaf lettuce, romaine, specialty lettuces, strawberries, radishes, squash, cherry tomatoes. Pasture 35% fair, 50% good, 15% excellent. Cattle herds mostly good condition.

GEORGIA: Temperatures 1 to 3° above normal. Warmest over the weekend 5th, 6th. Maximums in low 70s mountains upper 70s to low 80s elsewhere. Coldest in 30s, varied from upper 20s mountains to low 40s coast. Widespread rain, thunderstorms first part of week, dry weather latter half. Rain 1.00 to 3.00 in. common, local totals near 5.00 in. south central, southwest areas.

Soil moisture adequate to surplus, mostly surplus. Rain at the beginning of week limited field activity most areas. Small grains good, topdressing continues, some fields too wet to support machinery. Peaches good condition. Early peach bloom slowed north

due to the cooler weather beginning of week. Bloom near 100% south, about 20% central. Corn planting well underway south. Tobacco plants, onions good. Pastures poor to fair, mostly fair. Cattle, hogs fair to good, mostly good.

HAWAII: Mostly sunny, dry. Warm days, cool nights. Most farming activities back to normal. Rainfall none to 2.20 in. Temperatures low 60s to mid 80s.

Spraying activities intensified to control insects, disease. Warm weather benefitted crops progress. Banana shipments moderate. Papaya output expected to decline slightly.

IDAHO: Temperatures 5 to 12° above normal. Precipitation 0.16 to 1.26 north, 0.03 to 0.23 in. southwest, none to 0.38 in. south central, 0.05 to 0.80 in. east.

Soil moisture adequate. Hay, roughage supplies adequate. Activities: Marketing, educational, commodity meetings, shop activities, livestock care. Planting of sugarbeets, mint has begun in southwestern areas. Livestock reported in good condition with calving, lambing active in most areas.

ILLINOIS: Drier, milder than normal weather occurred last week, with spring like weather over the weekend. Temperatures 1 to 6° above normal. Highs 40s to 50s. Lows 20s to lower 30s. Precipitation close to normal. Over the northern, southern areas precipitation was around 0.30 in., while the central area averaged 0.25 to 0.60 in.

Farmers continued to monitor wheat, livestock conditions.

INDIANA: Temperatures across the State 1 to 4° above normal for the past week. Highs were in the lower 40s to around 55°. Mean lows lower 20s to middle 30s. Precipitation, liquid equivalent, was recorded at 0.10 in. or less in most southern locations. Rain 6th night 0.25 to 0.75 in. fell across much of the north. Daily average four-inch soil temperatures were in the 30s for the week.

Wheat condition poor to fair. Hay supplies adequate to good. Livestock condition continues to be good. Manure hauling reported as main activity. Other activities include: Fertilizer, lime spreading, farm meetings, general farm maintenance.

IOWA: Sunny, mild week with temperatures averaging 3° above normal, east to 9° above normal west. Extremes 2° northeast 1st; 68° south central 5th. Few light thundershowers south one-quarter of State on 6th, otherwise dry. Precipitation up to 0.33 in. far south; State average 0.03 in. (normal 0.36 in.). Snow melt brought rivers to near or slightly above flood stage in many areas. Snowcover now gone, excepting scattered areas of the far north with a few inches remaining.

Cow/calf producers welcomed the warmer weather as many have started the calving season. However for cattle feeders, warmer weather is making lots very muddy.

KANSAS: Temperatures 1 to 5° above normal, except 1° below normal north central, southeast. Precipitation very light central, light east, none west.

Days suitable for fieldwork 2.0. Topsoil 34% short to very short, 35% adequate, 31% surplus. Subsurface moisture 15% short to very short, 71% adequate, 14% surplus. Southwest 6.0 days suitable. Elsewhere, melting snow, rain kept farmers from fields. Major activities: Spring tillage, prep. for irrigation, application of fertilizer, pesticides, rebuilding terraces. Wheat jointing 2%, 0% 1992, 1% avg. Small wheat west, central. Some light wind damage mid February. Light wheat streak mosaic, greenbugs infestations southwest, south central. Wheat 48% good to excellent, 52% fair. Oats planted 40%, 0% 1993, 30% avg. Spring barley planted 35%, 0% 1993, 20% avg. Calving started or full swing. Weather has been conducive to calving, cows are in better shape than last year. Pasture, ranges good to excellent. Cool-season grasses coming on southern areas.

KENTUCKY: Rainfall around 0.50 in. on 1st. Heaviest rainfall southern most portion of State, amounts 1.00 to 2.00 in.

Temperatures relatively mild, unseasonably warm by weekend. Air temperatures 2 to 4° above normal. Highs 55 to 60°, average lows lower 30s. Highest daily temperatures occurred on 6th, maximum temperatures mostly in low to mid 70s.

Soil moisture adequate. Field activity increased. Applying fertilizer, preparing tobacco beds, some tobacco bed seeding, plowing for corn. Abnormal warmth stimulated winter wheat growth. Burley tobacco markets holding final sales.

LOUISIANA: Temperatures 1.9 to 4.1° below normal. Extremes 25°; 82°. Rainfall 0.92 in. southwest to 2.01 in. northwest.

Days suitable for fieldwork 2.2. Soil moisture 30% adequate, 70% surplus. Corn 1% planted, 4% 1993, 2% avg. Planting was limited because of wet conditions. Rice 0% planted, 0% 1993, 0% avg. Fields were leveled in preparation for planting. Wheat 9% poor, 77% fair, 14% good; 1% headed, 0% 1993, 1% avg. Spring plowing 18% plowed, 14% 1993, 9% avg. Sugarcane 12% poor, 88% fair. Shaving off-barring, herbicide applications gained momentum. Livestock 4% poor, 70% fair, 26% good. Cattlemen tended newborn, young calves while marketing cull cows, bulls. Pasture 5% very poor, 6% poor, 17% fair, 68% good, 4% excellent. Some pastures were top-dressed in the northern parishes. Vegetables 4% very poor, 4% poor, 74% fair, 18% good.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 2.69 in., normal 0.77 in. Temperature 31.9°, normal 37.5°. Extremes -6°; 62°.

Activities: Caring for livestock. General farm chores. Machinery maintenance.

DELAWARE: Precipitation 1.96 in., normal 0.83 in. Temperature 31.3°, normal 38.1°. Extremes 13°; 50°.

Activities: Caring for livestock. General farm chores. Machinery maintenance. Much activity cleaning broken tree limbs from the recent freezing rain.

MICHIGAN: Extremes -11°; 61°. Precipitation none to 0.38 in. across the State. After a cold start to the week, a general warming trend moved into the State for the remainder of the week.

Most livestock are in good condition. Feed supplies remain adequate. Major activities: Caring for livestock, hauling manure, spreading fertilizer, pruning fruit trees, repairing machinery, buildings.

MINNESOTA: Temperatures 5 to 15° above normal for State. Extremes -3°; 59°. Precipitation 0.10 to 0.28 in. below normal for the State. Precipitation none to 0.10 in. for State. Greatest weekly total 0.50 in. Snowfall less than 1 in. Snow depth at week's end averaged a trace to 2 in. for the southern half of the State, and 5 to 10 in. elsewhere.

Farmers are busy ordering seed, chemical supplies in preparation for the field season.

MISSISSIPPI: Temperatures 1.3° below normal. Extremes 20°; 81°. Precipitation was heavy in the coastal district with over 2.50 in. Rainfall 1.79 in. across the State, 0.42 in. above normal. Soil temperature 50°.

Days suitable for fieldwork 0.6, 0.8 1993, 1.5 avg. Soil moisture 14% adequate, 57% surplus, 29% excessive. Hay supply 50% short, 50% adequate. Livestock 37% fair, 63% good. Pasture 75% of normal. Activities: Feeding livestock, fertilizing crops.

MISSOURI: Temperatures about normal across State, 3° below normal in southeast to 4° above normal northeast, weekend warmer. Precipitation across State averaged 0.44 in. Largest precipitation amounts in southwestern district, 1.26 in., smallest amounts west central 0.24 in., southeast 0.23 in.

Topsoil moisture 40% adequate, 60% surplus. Subsoil moisture 58% adequate, 42% good. Winter wheat 4% very poor, 29% poor, 56% fair, 11% good. Southwestern district no winter wheat reported in poor condition. Livestock condition 28% fair, 72% good. Supply of hay and roughage 5% short, 89% adequate, 6% surplus. Pasture 2% very poor, 20% poor, 57% fair, 21% good.

MONTANA: Temperatures well above normal. Precipitation little to none, except northwest, southeast near normal amounts.

Protectiveness of snow cover for winter wheat is diminishing. Livestock in most regions are receiving supplemental feed. Calving, lambing progressing under mild conditions.

NEBRASKA: Temperatures 3 to 10° above normal. Precipitation less than 0.10 in. across the State except 0.80 in. Panhandle.

Producer activities included machinery repair, calving, livestock care, records keeping, crop season planning.

NEVADA: Light precipitation north, west, central areas beginning, end of period. Temperatures 6 to 7° above normal. Record or near-record highs north and central. Extremes -6°; 84°.

Mild weather allowing some early fieldwork central areas. Alfalfa, winter wheat fields greening up. Major activities: Cleaning irrigation ditches, preparing for spring planting, general maintenance, care, feeding of livestock.

NEW ENGLAND: Precipitation 0.40 to 1.52 in. regionwide. Temperatures 9 to 21° north; 13 to 22° south. Maximum temperatures 26 to 41° north; 32 to 48° south. Minimum temperatures -25 to 4° north; -9 to 24° south.

Major farm activities: Sugaring starting up throughout region. Tending livestock. Removing snow. Repairing equipment.

NEW JERSEY: Temperatures were much below normal; 28° north, 33° south, 35° coastal. Extremes 6°; 50°. Precipitation was above normal; 1.35 in. north, 1.90 in. south, 1.65 in. coastal. Heaviest 24 hour total 2.80 in. on 2nd, 3rd. Heaviest 24-hour snowfall 9 in. on the 2nd, 3rd. Snow on ground on 7th: little in south, 1 to 10 in. central, north.

Farmers busy caring for livestock, tending to other winter chores.

NEW MEXICO: State got a preview of spring this past week as temperatures for the State 7° above normal. Some patchy light precipitation fell early in the week with higher totals not quite reaching 0.25 in.

Days suitable for fieldwork 6.4. Soil moisture 85% short, 13% adequate, 2% surplus. Crop conditions: Alfalfa 19% poor, 58% fair, 23% good with growth beginning in the south, mostly dormant in the north. Irrigated wheat 20% poor, 55% fair, 25% good with 65% being grazed. Dryland wheat 60% very poor, 30% poor, 10% fair with most cattle being pulled off. Onions fair to good. Cattle, sheep poor to mostly good with continued supplemental feeding. Range feed condition 60% of normal.

NEW YORK: Cold, wet week. Temperatures near or below normal each day. Temperatures 5 to 10° below normal. Snow or rain fell from night of 2nd to morning of 4th. Storm produced well-above-normal precipitation amounts for week. Snow fell in all areas except the southeast where snow, rain was received. Highest precipitation was 2.32 in. at Utica. Extremes -18°; 48°.

Major activities: Tending livestock, maintenance, attending meetings, general chores, snow removal. Cold, stormy weather continued to make outside activities difficult.

NORTH CAROLINA: Average temperatures 40° at Greensboro to 47° at Hatteras. Rainfall 1.27 in. at Asheville to 4.81 in. at Wilmington.

Days suitable for fieldwork 2.9. Soil moisture 2% short, 57% adequate, 41% surplus. Crop conditions: Wheat 4% poor, 44% fair, 51% good, 1% excellent; oats 8% poor, 50% fair, 42% good; barley 2% poor, 55% fair, 43% good; rye 2% poor, 45% fair, 51% good, 2% excellent; pasture 7% very poor, 22% poor, 54% fair, 17% good; tobacco plant bed; 6% poor, 47% fair, 47% good; irish potatoes; 14% poor, 72% fair, 14% good; hay, roughage supplies 16% very short, 40% short, 44% adequate. Feed grain supplies 6% very short, 18% short, 75% adequate, 1% surplus. Activities included: Topdressing small grains, tobacco plant bed maintenance, preparing land for planting. Other activities included: Tending livestock; equipment repair, general farm maintenance.

NORTH DAKOTA: Temperatures 4 to 7° above normal. Extremes -27° west central; 59° southwest. Snow depth 7.2 in. compared to 16.9 in. last month, 5.2 in. 1993. Snow cover was sufficient to protect 88% winter wheat, 92% rye and 83% alfalfa. Winter wheat 13% fair, 80% good, 7% excellent. Rye 8% fair, 84% good, 8% excellent. Calving, lambing were underway in several areas. Calving 18% complete, lambing 25%, shearing 40%. Cattle 3% poor, 23% fair, 68% good, 6% excellent. Sheep 2% poor, 18% fair, 73% good, 7% excellent. All livestock were receiving supplemental feed. Supplies of hay, forage were rated 3% short, 97% adequate. Secondary roads were 72% open, 28% difficult while the condition was rated 4% drifted, 24% icy, 55% muddy, 17% dry.

OHIO: An east coast snow storm brushed southeastern sections of the State early in the period. High pressure dominated from mid- to late week with temperatures slowly rising with each day. On the last day of the period, an approaching front brought some rain to the far northwest. Temperatures averaged above normal, especially west, with near to slightly below normal temperatures far south, east. Deviations of +3 to -1° were noted with mean readings from the low 30s to low 40s. Maximums were in the 40s with mean lows upper teens, 20s north to low 30s south. Except for the southeast, far northwest, minimal precipitation was noted. Liquid amounts 0.10 in. or less for most of the State, except 0.50 to 1.00 in. southeast, slightly less than 0.50 in. in the Toledo area.

Normal heaving of winter wheat occurred in southern sections with little or no damage reported. Livestock remained in good condition with no unusual calving losses reported.

OKLAHOMA: Temperatures 5° above normal south central to 10° above normal north-central. Precipitation none Panhandle to 2.18 in. southeast.

Topsoil 25% short, 52% adequate, 23% surplus. Subsoil 30% short, 70% adequate. Wheat 42% good, 51% fair, 7% poor. Rains fell statewide during the month. The Panhandle remains dry. Feeder steers, heifers steady to \$1.00 lower, stocker cattle, calves \$1.00 to \$3.00 higher.

OREGON: Temperatures 5 to 10° above normal statewide. Precipitation coastal areas 1.50 to 2.50 in., Willamette Valley 0.60 to 1.50 in., northeastern sections 0.50 to 0.90 in., Cascades 1.50 to 2.50 in., elsewhere 0.25 in. or less. Eastern rivers swollen; rains, melting snowpack.

Soil moisture: adequate. Winter orchard pruning continued. Dormant sprays being applied, caneberreries. Some ground preparation underway, vegetables; northern Willamette Valley. Fertilizer being applied to wheat. Livestock good to excellent. Lambing, calving winding down statewide. Supplemental feeding continued, statewide.

PENNSYLVANIA: Major mid-week storm brought 1 to 2 feet of snow. Blowing drifting snow closed many rural roads. Temperature 27°, 2° below normal. Extremes -13°; 49°. Precipitation 1.44 in., 0.77 in. above normal.

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

PUERTO RICO: Rainfall 0.88 in. was 0.34 in. above normal. Highest rainfall 3.65 in. Maricao 2 SSW, 2.32 in. Pico del Este, 2.12 in. Aibonito. Island temperatures 76° on coasts, 70 to 73° interior with mean station temperature 77.9° at San Juan WSFO to 63.3° Pico Del Este-Luquillo. Extremes 52°; 91°.

SOUTH CAROLINA: Temperatures 2 to 5° above normal. Rainfall 1.60 in.

Farm activities: Small grain conditions remained good, growing well. Producers continued to apply nitrogen, herbicides to the fields. Land preparations across the State were slowed by scattered showers during the middle of the week. Livestock good.

SOUTH DAKOTA: Temperatures 5 to 15° above normal last week. Extremes 4°; 69°. Precipitation variable, heaviest west central, south west. Maximum 0.62 in.

Topsoil moisture 41% adequate, 59% surplus. Subsoil moisture 61% adequate, 39% surplus. Winter rye 1% fair, 50% good, 49% excellent. Winter wheat 25% fair, 66% good, 9% excellent. Snow cover reduced substantially, isolated reports of wind erosion in open fields. Livestock 8% fair, 83% good, 9% excellent. Icy, muddy feedlots have stressed pregnant cows, correlate to reports of abortions. Feed supply 13% short, 61% adequate, 26% surplus. Water supply 53% adequate, 47% surplus. Ranchers busy caring for livestock. Calving, lambing underway in most areas. Other farm activities: Hauled grain, prepared equipment for fieldwork.

TENNESSEE: Temperatures near normal in east, around 5° above normal in middle, west. Temperatures were cool early in the week; readings averaged 10 to 15° above normal 4th to the 6th. Precipitation about 0.50 in. below normal in middle, west, almost an inch above normal along the Plateau, east. Most rain fell on the 1st, 2nd.

Wheat is still in good condition, wet fields are delaying fertilizer applications. Surplus soil moisture is also putting field preparation behind normal. Vegetable plantings are way behind schedule in middle. Livestock are in good condition.

TEXAS: Early in week, a storm system brought rain with amounts greatest over eastern sections. Cool temperatures prevailed early to middle part of week. Then strong warming trend took place late in week which resulted in highs reaching into low 90s over parts of western South Texas. Temperatures above normal with departure of +12° on Northern High Plains. All districts reported precipitation: totals below normal in southern half of State as well as Northern High Plains; amounts near to slightly above normal elsewhere.

Crops: Corn producers were plowing, bedding land in Northern High Plains. Blacklands producers were planting where conditions allowed. Planting was in full swing along Upper Coast, in Central Texas. Sorghum land was being plowed, bedded in Northern High Plains. Planting was in full swing along Coastal Bend, Rio Grande Valley. Limited planting occurred in Blacklands. Small Grains: Northern High Plains were in need of more moisture to promote growth of small grains. In most areas, wheat fields were responding well to recent moisture, sunny, warm conditions. Greenbugs continued to be active in Southern Low Plains, Cross Timbers. Wheat 60% normal, 73% 1993.

Commercial Vegetables: Rio Grande Valley onion tops looked good and producers were preparing for harvest. Carrot harvest continued. Melon planting was winding down. High Plains land preparation was hampered due to cold temperatures, some rain early week. San Antonio-Winter Garden harvest of cabbage, greens and spinach continued. East Texas land preparation, planting of onions, potatoes resumed where conditions allowed. Trans-Pecos onions continued to make good progress. Land preparation for other vegetables continued. Peach trees continued to bloom across State. Spraying, pruning were winding down.

Range and Livestock: Livestock were in fair to good condition. In most areas, pastures, ranges were greening up from recent rains, warm temperatures. Supplemental feeding continued. In East Texas where conditions allowed, some producers were sprigging pastures. Spring calving continued across State. In High Plains, cattle continued to be moved off of wheat fields that will be cut for grain.

UTAH: Temperature maxima 10° above normal, minima averaged 7° above normal. Precipitation light to moderate across entire State. Major farm, ranch activities were: Machinery repairs, building maintenance, preparing for spring work. Calving, lambing nearly completed in all areas. Spring tillage started in some areas.

VIRGINIA: Temperatures fluctuated. Extremes 6°, 71°. Precipitation above normal with heavy snow, ice, flooding. Snow up to 27 in., rainfall up to 4.32 in.

Days suitable for fieldwork 0.9. Topsoil 20% adequate, 80% surplus. Barley 4% poor, 81% fair, 15% good. Wheat 7% poor, 75% fair, 18% good. Tobacco plantbeds 25% seeded. Forage from pastures, winter grazing crops; dairy 1%, beef cattle 5%, sheep 6%. Some hay shortages. Ice storm caused outage, some livestock injuries reported. Calving, lambing in full swing.

WASHINGTON: Temperatures 5 to 10° above normal west; 3 to 10° above normal east. Precipitation 0.63 to 2.62 in. west; 0.04 to 0.80 in. east.

Days suitable for fieldwork 2.5. Soil moisture 45% short, 54% adequate, 1% surplus. Hay, other roughage supplies 20% short, 75% adequate, 5% surplus. Range, pasture 20% very poor, 20% poor, 30% fair, 15% good, 15% excellent. Winter wheat dryland 5% poor, 50% fair, 44% good, 1% excellent; irrigated 6% fair, 90% good, 4% excellent. Barley dryland 3% poor, 92% fair, 5% good; irrigated 15% fair, 85% good. Precipitation, warmer weather dominated across the State. Rains heavy in the west, flooding, standing water was reported in some areas while the east half of the State experienced rain or snow. Rapid snow melting caused some erosion damage in eastern areas wheat fields. Early pea planting was underway. Pruning continued in orchards, berry fields. Pastures western part of the State were greening up with the warmer temperatures, the moisture. Conditions were muddy for calving, lambing, favorable overall.

WEST VIRGINIA: Temperature 36°. Extremes 0°, 76°. Precipitation 1.50 in. Temperatures 3° below normal to 1° above normal. Precipitation 0.42 to 0.96 in. above normal. Greatest total 2.34 in. Morgantown.

Farm activities: Calving, lambing, feeding livestock, bookkeeping.

WISCONSIN: Temperature 32°. Extremes -7°, 56°. Weather was mild with very little precipitation received.

Some flooding occurred during snow melt this past week. Surface thawing has turned barn yards to mud. Spring planting plans, meetings, final tax work are keeping farmers busy.

WYOMING: Temperatures were above normal this past week with the warmest areas being the north west, south central. Moran, Rawlins were the warmest averaging 14° above normal. Precipitation was near normal to slightly below normal across the State. Border received the largest amount of precipitation with 1.88 in.

Winter wheat mostly good. Snow cover protection continued to be short to adequate. Wind damage to winter wheat was mostly light. Cattle, sheep were in good condition. Grazing prospects were mostly good. Hay, roughage supplies were mostly adequate. Spring calving was in progress. Farm flock lambing, shearing were in progress.

(Continued from front cover)

in Pendleton, OR on Tuesday (only 5 days after 16.1 inches of snow), 80°F in Bakersfield, CA on Wednesday, 65°F in Cheyenne, WY on Thursday, and 80°F in Wichita, KS on Friday. Warm weather from the northern Plains to the Midwest resulted in considerable snow melt for the second time in less than a month. Repeated freeze-thaw cycles are the most effective means of reducing deep snow pack without engendering significant flooding. Meanwhile, a vicious storm took methodical aim on the East. Strong easterly winds preceded the system as it encroached upon residual arctic air over New England. Winds gusted above 50 miles per hour along the entire northern Atlantic coastline.

Strong winds also raked Florida, where a squall line produced wind gusts to 64 miles per hour at Fort Myers on Wednesday morning. Tallahassee, FL recorded its sixth-heaviest 24-hour deluge (8.22 inches) on record. The storm produced a massive shield of greater than 2 inches of precipitation from northeastern Texas to northern Florida, northward into central New York. In the central and northern Appalachians, 1 to 2 feet of snow fell, with local totals near 3 feet in northeastern Pennsylvania and south-central New York. Late in the week, the storm slowly exited New England, while a new disturbance approached California, producing hail near Stockton and Fresno. Unseasonably warm air spread eastward, with highs on Saturday reaching 80°F in Ponca City, OK and Shreveport, LA.

February 1994
MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
***** = DATA NOT AVAILABLE**

International Weather and Crop Summary
HIGHLIGHTS

February 27 - March 5, 1994

FSU-WESTERN: Widespread precipitation benefited dormant winter grains.

EUROPE: Mild weather promoted greening of winter crops in the south.

AUSTRALIA: Extremely heavy rains lowered cotton quality and possibly caused crop damage in portions of Queensland.

SOUTH ASIA: Dry, mild weather benefited reproductive to filling winter grains and oilseeds.

SOUTHEAST ASIA: Showers returned to Malaysia's rice and oil palm areas.

EASTERN ASIA: Mild weather helped wheat break dormancy across the southern wheat belt.

SOUTH AMERICA: More rain is needed across portions of Argentina, while wet weather continued across Brazil.

NORTHWESTERN AFRICA: Beneficial rain covered Moroccan winter grains.

SOUTH AFRICA: Rain benefited southern corn and sugarcane crops, as sunnier skies favored well-watered corn in the north.

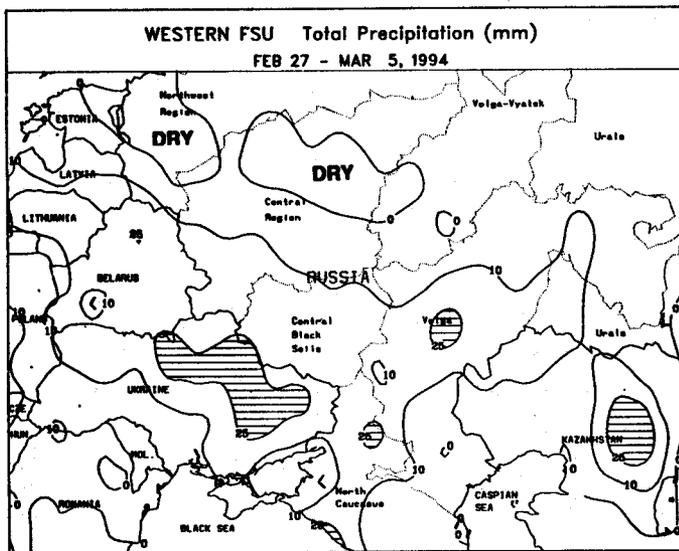
COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG	AVG	HI	LO	AVG	DPART	TOTAL	DPART
		MAX	MIN	MAX	MIN	AVG	F/NRM	F/NRM	F/NRM
NORWAY	OSLO	-8	-16	-3	-28	-12	-5.2	39	-10
SWEDEN	STOCKHOLM	-4	-10	0	-15	-7	-3.9	5	-21
FINLAND	HELSINKI	-9	-17	-1	-27	-13	-6.1	2	-29
U KING	GLASGOW	5	1	9	-10	3	-1.2	85	-3
	EDINBURGH	6	0	9	-8	3	-0.8	77	35
	BIRMINGHAM	6	1	13	-4	3	-0.4	59	11
	LONDON	7	1	11	-4	4	0.0	59	8
IRELAND	DUBLIN	7	3	10	-1	5	-0.1	99	49
ICELND	REYKJAVIK	3	-1	8	-7	1	0.8	104	33
DENMRK	COPENHAGEN	1	-2	7	-6	-1	-0.8	32	-7
LUXEMB	LUXEMBOURG	4	-1	12	-10	2	0.5	32	-37
SWITZL	ZURICH	5	0	13	-7	3	1.5	41	-33
	GENEVA	8	1	17	-6	4	1.9	59	-23
FRANCE	PARIS/ORLY	8	2	16	-8	5	***	63	**
	STRASBOURG	6	0	15	-7	3	0.8	57	24
	BOURGES	9	3	18	-3	6	1.5	95	38
	BORDEAUX	12	5	19	-1	9	2.0	107	28
	TOULOUSE	11	4	19	-1	8	1.3	69	18
	MARSEILLE	13	5	19	0	9	1.3	108	54
SPAIN	VALLADOLID	11	1	16	-4	6	0.3	38	-2
	MADRID	12	2	18	-5	7	0.5	24	-26
	SEVILLE	18	7	23	0	12	0.3	51	-12
PORTUG	LISBON	15	8	18	3	12	-0.4	123	23
GERMNY	HAMBURG	2	-3	9	-11	-1	-1.6	18	-23
	BERLIN	2	-3	12	-12	0	-1.1	6	-28
	DUSSELDORF	6	-1	15	-11	3	0.2	24	-29
	LEIPZIG	2	-3	13	-11	0	-0.6	19	-12
	DRESDEN	3	-2	14	-13	0	0.9	27	-9
	STUTTGART	6	-1	16	-9	2	1.5	14	-33
	NURNBERG	5	-2	18	-14	2	1.0	24	-15
AUSTRI	VIENNA	5	-3	13	-18	1	0.8	12	-18
	INNSBRUCK	6	-2	18	-9	2	1.4	12	-30
CZECH	PRAGUE	2	-4	14	-15	-1	0.1	9	-13
POLAND	WARSAW	0	-5	10	-18	-2	-0.5	10	-12
	LODZ	1	-5	12	-16	-2	-0.1	6	-25
	KATOWICE	3	-4	15	-16	-1	1.2	11	-26
	PRZEMYSL	1	-4	13	-20	-2	0.2	33	4
HUNGAR	BUDAPEST	5	-1	17	-9	2	1.2	10	-21
F YUGO	BELGRADE	8	1	21	-10	5	1.7	22	-22
ROMANI	BUCHAREST	6	-3	21	-14	2	2.4	2	-36
BULGAR	SOFIA	5	-2	18	-12	2	0.3	14	-23
ITALY	MILAN	8	1	16	-6	4	0.4	26	-35
	VERONA	9	1	14	-6	5	0.7	15	-33
	VENICE	8	2	14	-6	5	0.2	40	-12
	GENOA	11	6	15	-2	9	0.2	85	-6
	ROME	14	5	18	0	10	0.6	71	-2
	NAPLES	14	5	19	1	10	0.8	102	5
GREECE	THESSALONIKA	10	4	20	-1	7	0.5	47	6
	LARISSA	11	3	19	-3	7	0.1	35	-4
	ATHENS	14	8	19	3	11	-0.1	36	3
TURKEY	ISTANBUL	9	4	15	-1	6	0.9	50	-20
	ANKARA	5	-4	10	-18	0	-0.6	29	-1
CYPRUS	LARNACA	17	8	19	3	12	0.4	31	-30
ESTONI	TALLINN	-8	-14	-1	-22	-11	-5.2	7	-22
FSU	ST. PETERSBURG	-9	-15	-2	-26	-12	-5.1	10	-20
LITHUA	KAUNAS	-4	-10	1	-23	-7	-2.7	28	2
FSU	MINSK	-5	-11	2	-24	-8	-1.9	23	-9
	KAZAN	-14	-20	-3	-35	-17	-5.8	16	-12
	MOSCOW	-9	-14	-1	-28	-11	-3.8	19	-17
	YEKATERINBURG	-14	-21	-1	-30	-18	-5.3	10	-10
	OMSK	-18	-25	-8	-40	-22	-5.0	25	10
	KUSTANAY	-16	-24	-2	-40	-20	-4.7	21	8
	KRASNOYARSK	-10	-19	-1	-29	-14	0.7	6	-7
	NOVOSIBIRSK	-15	-21	-3	-33	-18	-0.5	24	9
	BARNAUL	-13	-21	-2	-31	-17	-2.0	17	-7
	KHABAROVSK	-9	-18	0	-31	-13	3.7	19	8
	VLADIVOSTOK	-5	-11	2	-20	-8	2.7	6	-12
	KIEV	-3	-9	4	-25	-6	-1.7	14	-33
	LVOV	1	-5	13	-22	-2	1.1	38	-7
	KIROVOGRAD	-2	-8	12	-26	-5	-0.5	12	-18

Based on Preliminary Reports

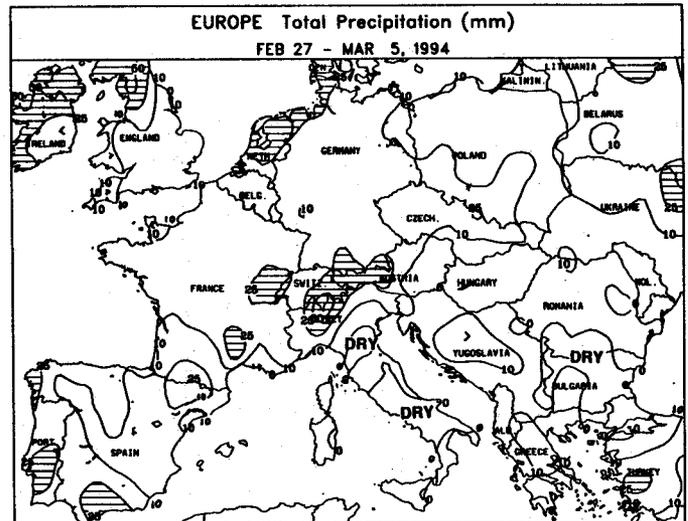
February 1994

COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG	AVG	HI	LO	DPART	TOTAL	DPART	AVG		AVG	HI	LO	DPART	TOTAL	DPART		
	MAX	MIN	MAX	MIN	AVG			F/NRM		F/NRM	MAX	MIN	AVG			F/NRM	F/NRM
FSU ODESSA	1	-4	10	-19	-2	-0.7	0	-41	KENYA NAIROBI	29	12	30	7	20	0.3	86	37
FSU YALTA	6	0	13	-7	3	-1.1	24	-36	TANZAN DAR ES SALAAM	32	25	36	23	28	0.6	93	36
FSU VORONEZH	-9	-16	2	-32	-12	-4.2	15	-18	GABON LIBREVILLE	**	**	32	21	**	***	**	**
FSU SARATOV	-12	-17	-3	-31	-15	-4.1	18	-6	TOGO LOME	32	26	33	23	29	1.0	27	-5
FSU KHARKOV	-6	-11	3	-27	-9	-3.0	6	-29	B FASO OUGADOUGOU	36	19	39	16	28	-0.1	0	0
FSU VOLGOGRAD	-10	-17	-1	-32	-14	-5.0	23	-5	IVRY C ABIDJAN	32	26	33	22	29	1.4	48	0
FSU ROSTOV	-2	-10	9	-26	-6	-2.2	38	-25	MOZAMB MAPUTO	30	22	33	20	26	0.0	19	-114
FSU ASTRAKHAN	-5	-15	7	-29	-10	-5.0	19	10	ZAMBIA LUSAKA	26	**	30	15	**	***	115	-74
FSU KRASNODAR	4	-7	16	-21	-2	-1.5	20	-34	ZIMBAB HARARE	26	16	30	13	21	0.8	112	-35
FSU ORENBURG	-15	-23	-6	-40	-19	-6.3	16	-5	S AFRI PRETORIA	26	17	31	14	22	-0.1	167	90
FSU TSELINOGRAD	-15	-23	-2	-36	-19	-2.2	19	13	JOHANNESBURG	23	13	27	11	18	-0.7	189	95
FSU KARAGANDA	-14	-21	0	-33	-18	-4.4	22	3	BETHAL	25	13	28	8	19	-0.5	93	-6
FSU TBLISI	**	**	**	**	**	***	**	**	DURBAN	29	21	31	16	25	1.1	37	-77
FSU TASHKENT	5	-4	17	-14	0	-2.2	54	8	CAPE TOWN	28	15	37	12	22	1.3	0	-16
FSU ASHKHABAD	7	-2	22	-10	3	-1.7	20	-6	CANADA TORONTO	-4	-13	13	-24	-8	-2.3	21	-25
SYRIA DAMASCUS	15	2	20	-4	9	0.5	8	-21	MONTREAL	-7	-17	10	-28	-12	-3.0	66	10
ISRAEL JERUSALEM	13	5	19	1	9	-0.4	143	9	WINNIPEG	-13	-23	3	-35	-18	-2.8	5	-9
PAKIST KARACHI	28	13	32	8	21	0.3	2	-6	REGINA	-14	-24	1	-41	-19	-6.5	10	-3
INDIA AMRITSAR	21	8	25	5	15	0.8	14	-18	SASKATOON	-15	-26	0	-43	-21	-6.9	11	-1
INDIA NEW DELHI	24	10	28	7	17	0.1	5	-14	LETHBRIDGE	-7	-18	10	-37	-13	-7.8	21	8
INDIA AHMEDABAD	30	14	37	10	22	-0.3	0	-2	CALGARY	-8	-19	12	-33	-14	-7.4	10	0
INDIA INDORE	28	11	33	1	20	-0.8	0	-3	EDMONTON	-13	-22	4	-37	-17	-8.3	16	0
INDIA CALCUTTA	28	16	33	12	22	-0.8	61	49	VANCOUVER	7	1	12	-7	4	-1.0	108	-14
INDIA VERAVAL	30	17	35	14	23	0.7	0	-2	MEXICO GUADALAJARA	24	9	31	5	17	-0.2	0	-7
INDIA BOMBAY	31	18	36	14	24	-0.1	0	-1	MEXICO CITY	**	11	27	7	**	***	1	-5
INDIA POONA	31	12	34	8	21	-1.0	0	-2	ACAPULCO	32	23	33	21	27	1.1	0	0
INDIA BEGAMPET	32	19	35	15	25	0.5	9	1	BERMUD ST. GEORGES	22	18	24	14	20	2.1	102	-6
INDIA VISHAKHAPATNAM	29	23	33	20	26	***	2	**	BAHAMA NASSAU	27	20	29	17	24	2.3	22	-18
INDIA MADRAS	31	22	35	21	27	0.5	26	13	CUBA HAVANA	28	21	32	19	24	2.2	51	-1
INDIA MANGALORE	33	22	34	21	27	0.5	0	-2	JAMAIC KINGSTON	31	23	32	21	27	1.0	9	-9
H KONG KINGS PEAK	19	15	27	11	17	***	38	**	P RICO SAN JUAN	30	22	31	21	26	0.5	44	-11
N KREA PYONGYANG	2	-10	8	-26	-4	1.5	8	-3	GUADEL RAIZET	30	21	31	18	25	1.2	24	-25
S KREA SEOUL	6	-3	11	-11	2	3.4	16	-5	MARTINQ LAMENTIN	29	22	30	19	26	1.2	32	-106
JAPAN SAPPORO	1	-4	7	-9	-1	2.5	229	134	BARBAD BRIDGETOWN	29	23	30	22	26	0.6	19	-22
JAPAN NAGOYA	10	1	16	-3	5	0.6	81	16	TRINID PORT OF SPAIN	31	22	33	20	27	1.6	15	-21
JAPAN TOKYO	10	3	16	-2	7	1.2	91	30	COLOMB BOGOTA	**	**	21	2	**	***	**	**
JAPAN YOKOHAMA	10	3	15	-1	7	1.3	88	16	VENEZU CARACAS	27	19	36	17	23	-1.6	4	-11
JAPAN KYOTO	9	2	15	-1	5	0.7	78	11	F GUIA CAYENNE	29	23	29	21	26	0.4	221	-85
JAPAN OSAKA	10	3	16	0	7	1.0	55	-6	BRAZIL FORTALEZA	29	24	30	22	26	-0.4	214	6
THAILN PHEICHABUN	37	22	38	17	29	3.3	30	5	RECIFE	30	24	32	21	**	***	46	-84
THAILN BANGKOK	34	25	36	17	30	1.5	0	-24	BELO HORIZONTE	31	21	33	19	26	2.1	92	-103
MALAYS KUALA LUMPUR	33	24	35	22	28	1.6	210	53	CAMPO GRANDE	31	21	34	20	26	1.1	108	-59
VIEI NM HANOI	21	18	29	12	20	2.3	50	22	FRANCA	29	20	32	18	25	3.2	197	-23
CHINA HARBIN	-7	-21	0	-31	-14	1.8	1	-4	LONDRINA	**	21	33	19	**	***	152	-26
CHINA HAMI	5	-11	10	-15	-3	1.5	0	-1	SANTA MARIA	28	19	33	15	23	-1.1	255	114
CHINA LANCHOW	7	-4	15	-8	1	3.3	1	-2	PORTO ALEGRE	29	21	35	17	25	0.2	257	153
CHINA BEIJING	6	-4	11	-7	1	2.7	4	-2	PERU LIMA	27	20	29	19	24	0.5	0	0
CHINA TIENHSIN	6	-5	12	-8	1	1.6	1	-5	BOLIVI LA PAZ	14	4	18	3	9	0.3	88	-17
CHINA LHASA	9	-6	17	-10	2	0.1	0	-1	CHILE SANTIAGO	29	11	33	8	20	0.0	0	0
CHINA KUNMING	19	5	22	2	12	2.1	39	25	ARGENT IGUAZU	30	21	34	18	26	***	145	***
CHINA CHENGCHOW	9	-2	16	-8	4	1.3	7	-6	FORMOSA	31	22	39	18	26	-0.6	289	180
CHINA YEHCHANG	10	3	20	-1	7	0.2	35	6	CERES	29	17	34	10	23	-1.9	160	41
CHINA HANKOW	9	2	17	-1	6	1.0	93	35	CORDOBA	27	16	32	11	21	-1.3	87	-28
CHINA CHUNGKING	14	8	19	5	11	***	10	**	RIO CUARTO	27	16	32	11	22	-0.5	41	-46
CHINA CHIHKIANG	10	4	20	0	7	1.0	55	8	ROSARIO	29	17	33	8	23	-0.3	71	-47
CHINA WU HU	8	2	19	-3	5	***	74	**	BUENOS AIRES	29	17	33	9	23	0.3	50	-54
CHINA SHANGHAI	8	4	15	0	6	***	55	**	SANTA ROSA	29	15	36	4	22	-0.4	62	-8
CHINA NANCHANG	10	5	20	1	7	0.7	114	12	TRES ARROYOS	27	15	33	7	21	0.7	97	30
CHINA TAIPEI	19	15	25	13	17	1.7	239	103	N CALD NOOMEA	29	23	33	20	26	0.2	172	49
CHINA CANTON	18	13	26	8	16	1.4	74	10	FIJI NAUSORI	30	24	32	22	27	0.6	310	39
CHINA NANNING	18	12	29	7	15	1.5	50	4	SAMOA PAGO PAGO	32	26	33	24	29	1.6	173	-151
CNRY I LAS PALMAS	21	14	26	8	17	-0.2	0	-18	TAHITI PAPEETE	32	25	33	23	28	1.3	113	-117
MOROCC CASABLANCA	17	9	25	6	13	-0.3	104	49	N ZEAL AUCKLAND	23	17	26	14	20	0.4	0	-78
MOROCC MARRAKECH	20	8	31	5	14	0.7	37	1	WELLINGTON	22	16	28	9	19	***	8	**
ALGERI ALGER	18	6	29	2	12	1.0	41	-33	PA N G PORT MORESBY	29	24	33	22	27	-0.6	138	-55
ALGERI BATNA	**	**	26	-3	**	***	14	-16	AUSTRL DARWIN	30	25	33	23	28	-0.5	547	205
TUNISI TUNIS	17	8	24	3	13	0.6	70	12	MOREE	30	20	35	18	25	-0.9	130	68
NIGER NIAMEY	35	19	38	15	27	-0.3	0	0	BRISBANE	27	20	29	18	23	-1.6	153	6
MALI TIMBUKTU	33	15	38	9	24	-0.3	0	0	PERTH	29	17	35	12	23	-1.9	0	-14
MALI BAMAKO	35	22	39	16	29	0.6	0	0	CEDUNA	26	15	37	8	20	-1.4	15	1
MAURIT NOUAKHOTT	32	16	37	11	24	1.2	0	0	ADELAIDE	26	15	33	11	20	-1.6	19	-24
SENEGL DAKAR	25	16	32	15	21	0.0	0	-1	MELBOURNE	24	15	31	10	19	-1.1	81	35
CHAG A DIEGO GARCIA	29	25	32	23	27	-0.4	342	61	WAGGA	29	18	38	13	24	-0.2	125	92
LIBYA TRIPOLI	20	7	30	3	14	0.8	5	-30	CANBERRA	27	14	34	9	21	0.7	65	7
LIBYA BENGHAZI	17	10	23	8	14	0.4	29	-14	INDONE DJAKARTA	31	23	34	21	27	0.7	334	**
EGYPT CATRO	21	10	28	7	16	0.2	0	-2	PHILLIP MANILA	31	26	33	21	29	2.0	8	0
EGYPT ASWAN	25	10	32	5	18	-0.1	0	0									
ETHIOP ADDIS ABABA	25	8	27	1	17	-0.1	0	-37									

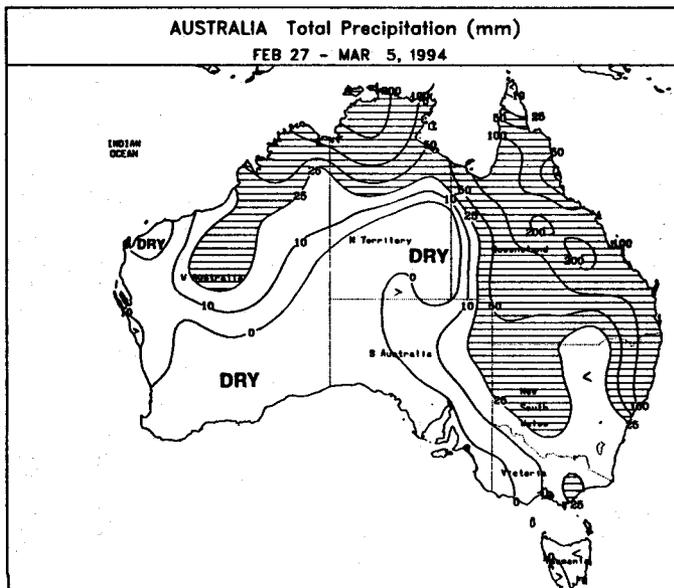
Based on Preliminary Reports



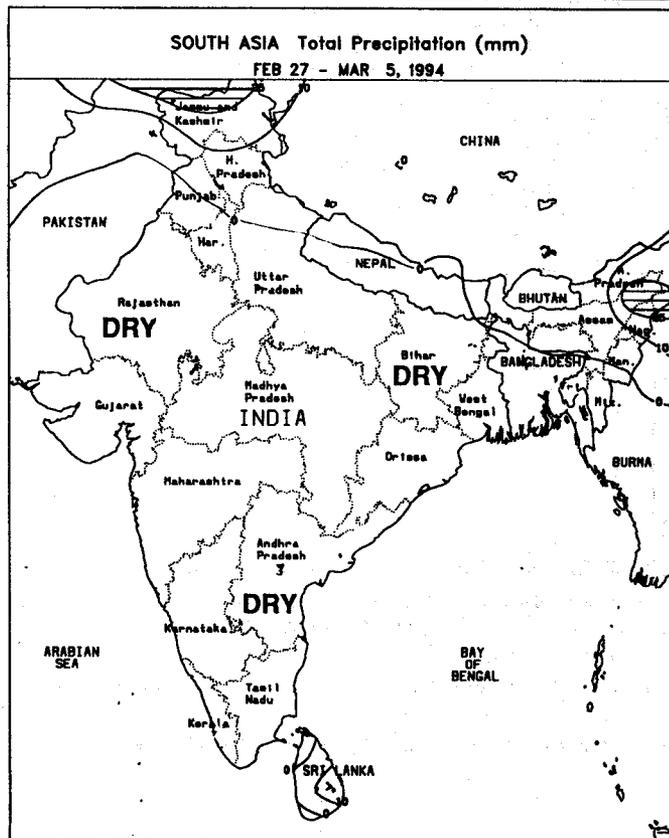
FSU-WESTERN: Storm systems produced unsettled weather over most of the region. A mixture of rain, sleet, and locally heavy snow fell over Ukraine and North Caucasus, Russia, providing beneficial moisture for dormant winter grains. Precipitation amounts generally ranged from 10-25 mm, with locally heavier amounts in excess of 25 mm covering northern and eastern Ukraine. Further north, light to moderate snow (10-25 mm) fell over Lithuania, Belarus, and Central Russia (Black Soils Region and middle Volga Valley), increasing snow cover. Unseasonably cold, dry weather prevailed over Estonia and northern Russia (Northwest Region, Central Region, Volga Vyatsk, and upper Volga Valley). Weekly average temperatures ranged from 2 to 4 degrees Celsius (C) below normal in the north and 2-4 degrees C above normal in the south. Lowest temperatures ranging from -26 to -15 degrees C were confined to Baltic States, Belarus, and northern Russia, where a moderate to deep snow cover provided adequate protection for winter grains.



EUROPE: Frequent storms swept across western and northern Europe, maintaining adequate moisture for winter crops. Rainfall averaged 10-38 mm from western portions of the Iberian peninsula across France to Germany and the Czech Republic. Only light showers (1-8 mm) fell in eastern Spain, and the drying trend continued over southeastern Europe, where unseasonably warm weather prevailed. Average maximum temperatures of 15-18 degrees C in southern Romania and Bulgaria came just 2 weeks after bitter cold weather stressed dormant crops. Winter grains lost cold hardiness, with temperatures averaging 5-8 degrees C above normal in Romania. Mild weather in western Europe induced early growth of winter crops, with average maximum temperatures ranging from 15 to 20 degrees C in southern France, Spain, and Italy, and from 10 to 15 degrees C in northwestern Europe. Winter crops are still dormant in northeastern Europe, where high temperatures generally averaged 1-8 degrees C.

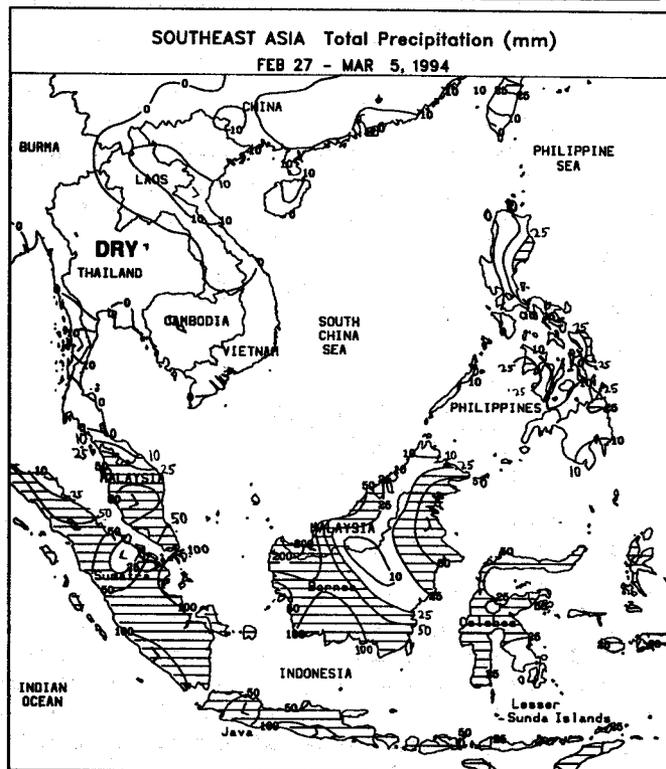


AUSTRALIA: Extremely heavy rain (100-230 mm), most of which fell on March 2 and 3, soaked northern portions of the Queensland cotton growing areas (near the city of Emerald), lowering cotton quality and possibly causing crop damage. This region typically accounts for about 5-10 percent of Australia's total cotton production. The remaining summer crop area received 16-53 mm of rain, aiding late-planted sorghum but coming too late for main-season cotton and sorghum. Extensive tropical showers (20-139 mm) covered the northeast coast of Queensland, benefiting sugarcane. Due to widespread cloudiness, temperatures averaged 2-4 degrees C below normal across eastern Australia.

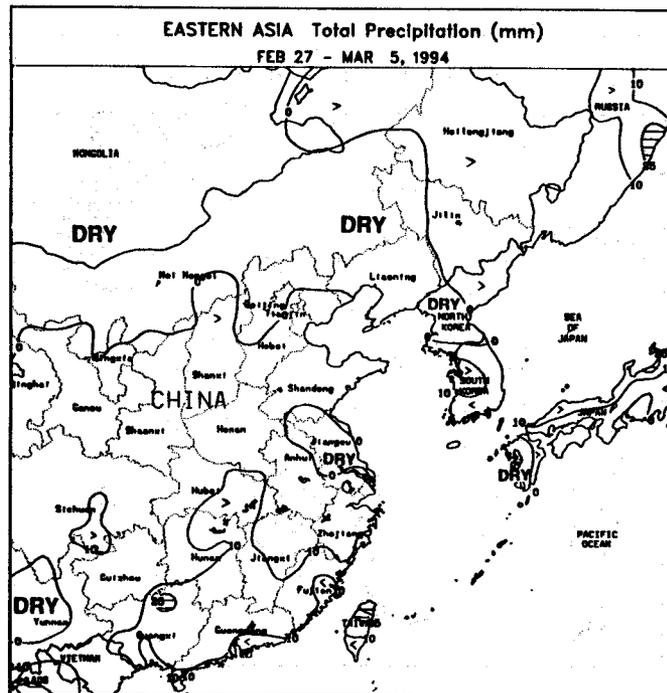


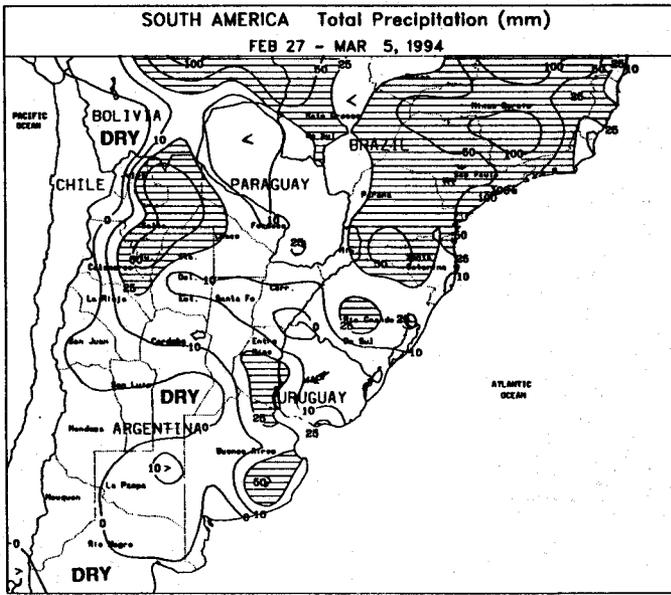
SOUTH ASIA: Dry weather dominated the region. Temperatures averaged 1-2 degrees C above normal in the northwest and near to below normal elsewhere, with highs in the primary winter crop areas averaging from the upper 20's to low 30's C. Winter grains and oilseeds typically range from reproductive to filling across the north, with harvests likely underway in central and southern India.

EASTERN ASIA: Weekly temperatures averaged 5-8 degrees C across the southern winter wheat belt (southern Henan, northern Anhui, and northern Jiangsu), prompting wheat to break dormancy. Wheat remained dormant elsewhere across the North China Plain, as very light rain (1-5 mm) fell across the region. Light to moderate rain (5-20 mm) covered southern China, favoring vegetative winter grains.

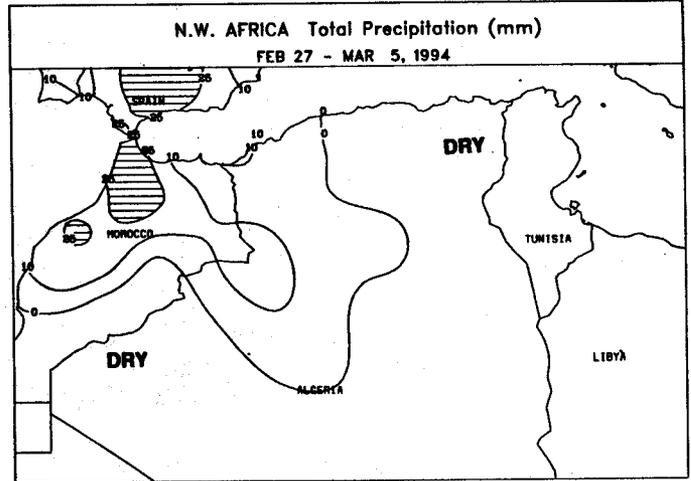


SOUTHEAST ASIA: Moderate to heavy showers (25-93 mm) returned to Malaysia, benefiting oil palm and rice. Continued moderate to heavy showers (25-115 mm) maintained adequate to abundant moisture reserves over Indonesia's primary rice areas. In contrast, unseasonably warm weather (1-2 degrees C above normal) persisted along the Chao Phraya River, the primary production area for Thailand's dry-season rice. While dry weather is expected this time of year over most of Indochina, the combination of hot weather and low reservoir levels has raised concern for the second rice crop, which accounts for about 10 percent of Thailand's total production. In the Philippines, light to moderate rain (13-42 mm) covered most crop areas, benefiting immature grains. The summer rainy season begins in April and May, from the southern to northern Philippines, respectively, marking the beginning of main-season rice plantings.

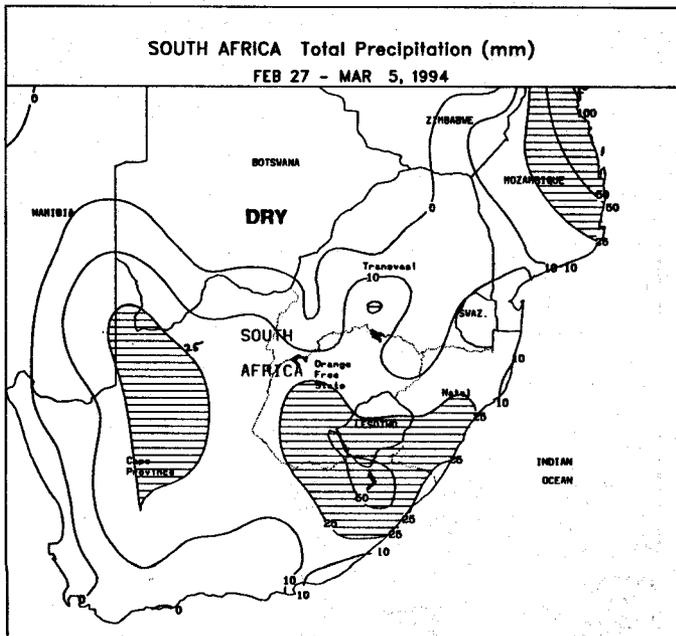




SOUTH AMERICA: Scattered, light showers (2-20 mm, with a single station reporting 75 mm) fell across central Argentina aiding summer crops, but more rain is needed, especially for second-crop soybeans. While the main corn and soybean region (southern Santa Fe and northern Buenos Aires) has received scattered rain the past few weeks, the last widespread rain occurred on February 16. Temperatures averaged 1-3 degrees C above normal across the region, increasing moisture demands on reproductive to filling main-season summer crops and vegetative second-crop soybeans. Light to moderate rain (5-20 mm) fell across northern Argentina, causing only minor cotton harvesting delays. In southern Brazil, midweek showers (10-60 mm), along with several days of dry weather, favored filling soybeans in Rio Grande do Sul and Parana. However, moderate to heavy showers (20-100 mm) slowed soybean harvesting in Mato Grosso and Goias. Heavy showers (60-140 mm) favored coffee across southeastern Minas Gerais, which was becoming dry. Temperatures averaged near normal across the main summer crop areas of Brazil.



NORTHWESTERN AFRICA: Significant rain (10-25 mm, with local amounts in excess of 25 mm) covered Morocco, benefiting winter grains in the jointing stage. Further east, dry weather continued over most of Algeria and Tunisia. Moisture reserves were unfavorably low in these areas. As a result, yield prospects for the winter grain crop will be highly dependent on frequent rains in upcoming weeks as crops progress through reproduction.



SOUTH AFRICA: Scattered showers (10-25 mm or more) returned to the region at midweek, after only 5 days of dry weather. Heaviest rain (25-64 mm) was concentrated over southern corn and sugarcane areas of Orange Free State and Natal, as well as most crop areas of eastern Cape Province. The rainfall benefited filling crops, especially in sugarcane areas that have been trending dry for much of the season. Further north, showers were generally light (15 mm or less) across the primary corn areas of Transvaal and Orange Free State, which needed drier weather for normal crop development. Despite continued below-normal temperatures (1-2 degrees C below normal), sunnier weather aided filling corn.

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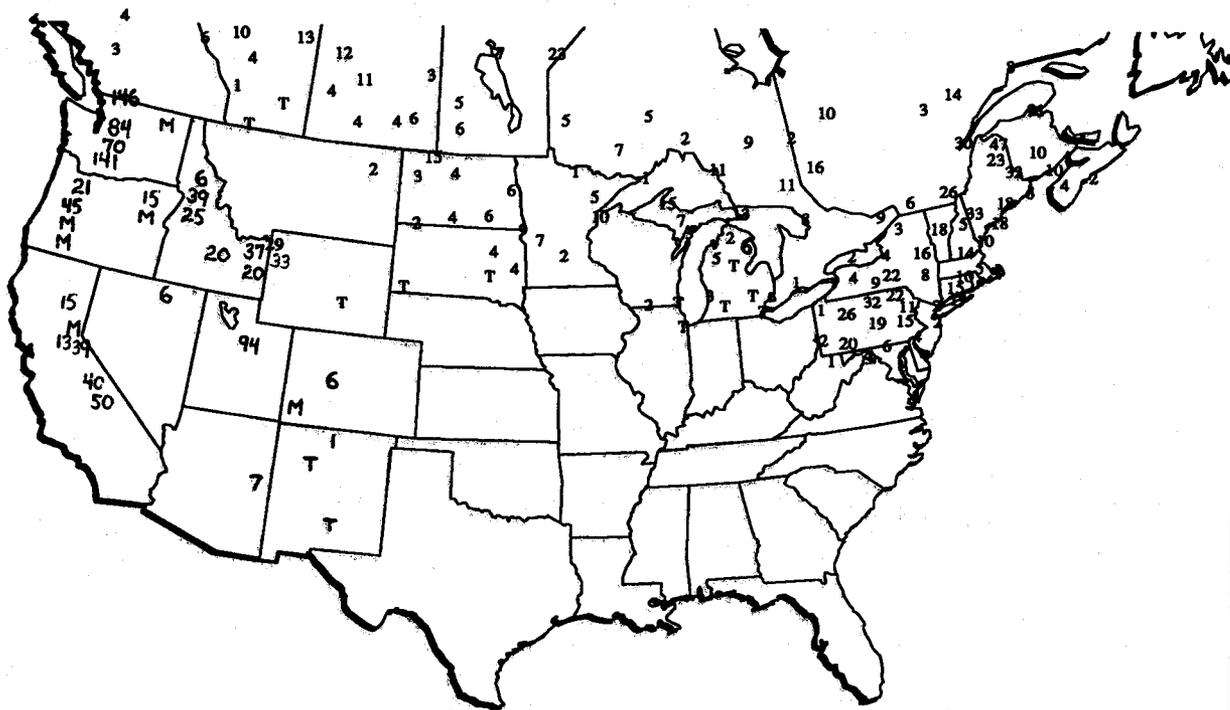
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