

# 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

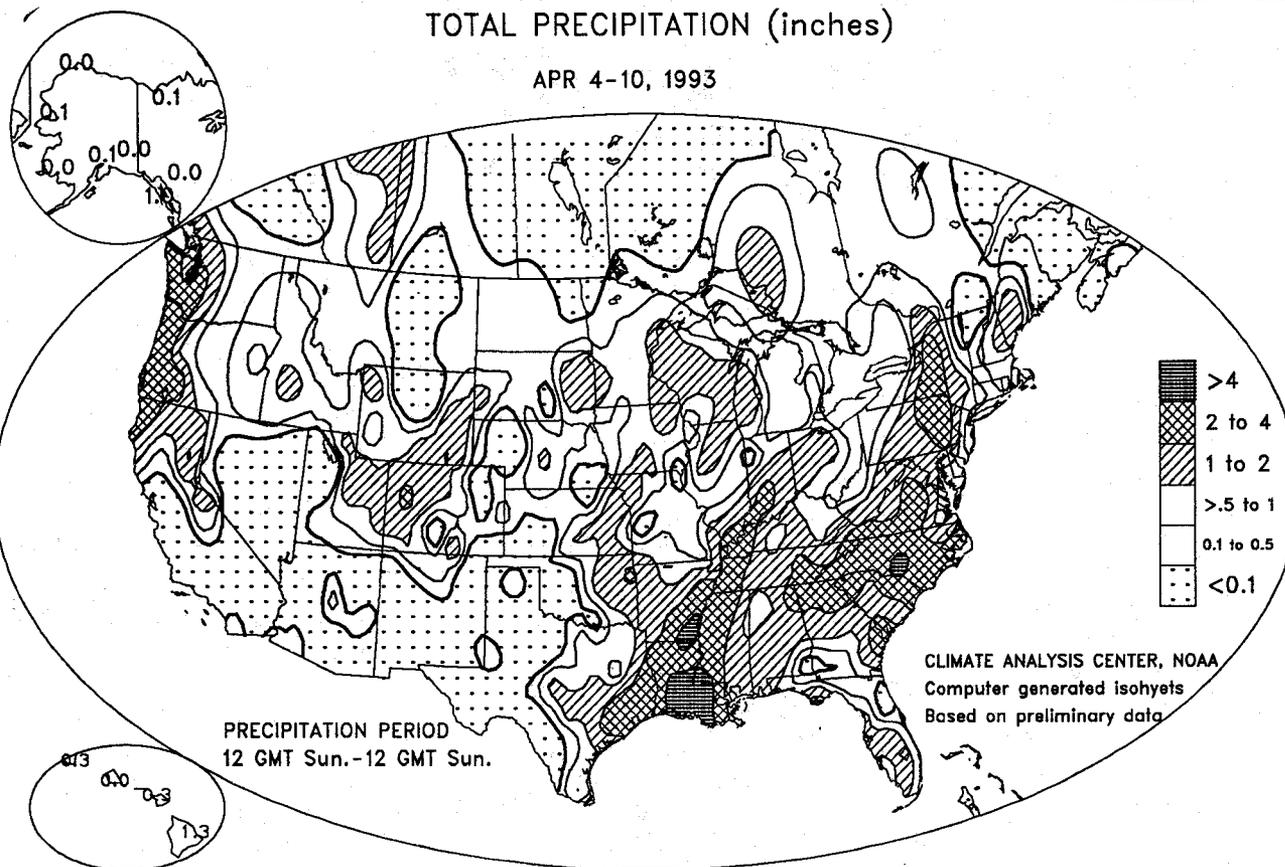
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Washington, D.C.

April 13, 1993

## TOTAL PRECIPITATION (inches)

APR 4-10, 1993



CLIMATE ANALYSIS CENTER, NOAA  
Computer generated isohyets  
Based on preliminary data

PRECIPITATION PERIOD  
12 GMT Sun.-12 GMT Sun.

## HIGHLIGHTS

April 4 - 10, 1993

A pair of vigorous storms marched across the Nation, inducing additional flooding in the East and the Midwest, and spawning severe weather across the Gulf Coast States. Early in the week, heavy rain covered the Southeast as a low pressure center journeyed from eastern Texas to the Outer Banks of North Carolina. Rainfall exceeded 2 inches at many locations in the Carolinas, including Beaufort, SC, and Fayetteville, NC. Farther south, the system's cold front tore across Florida's peninsula on Monday morning, touching off a dozen tornadoes. The storm also joined forces with a high pressure center over New England to produce gale-force northeasterly winds along the Middle Atlantic coast, and snow in the southern Appalachians. Winds gusted to 58 miles per hour on Cape Hatteras, NC, and nearly 1 foot of snow covered Mt. Mitchell, NC. Meanwhile, a new storm traversed the

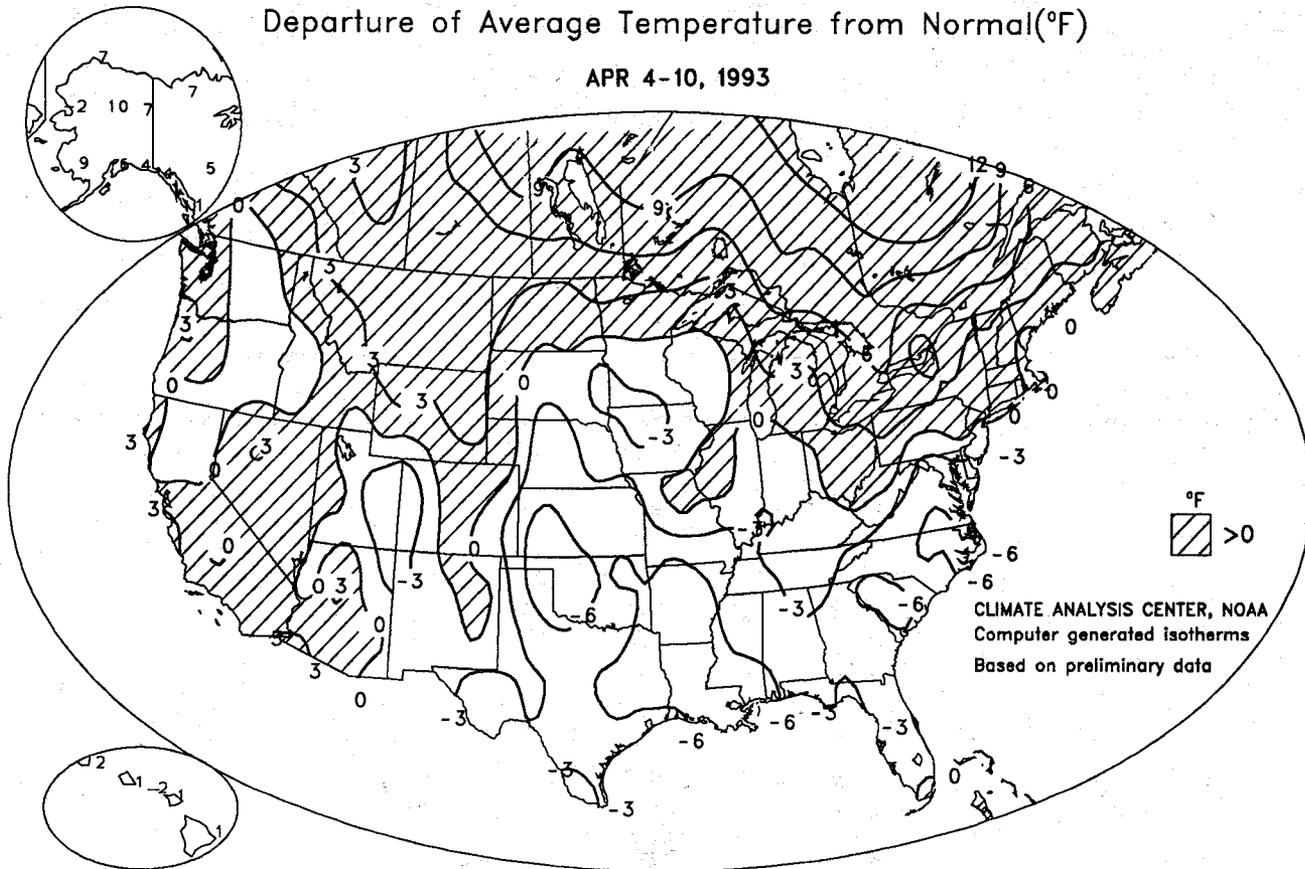
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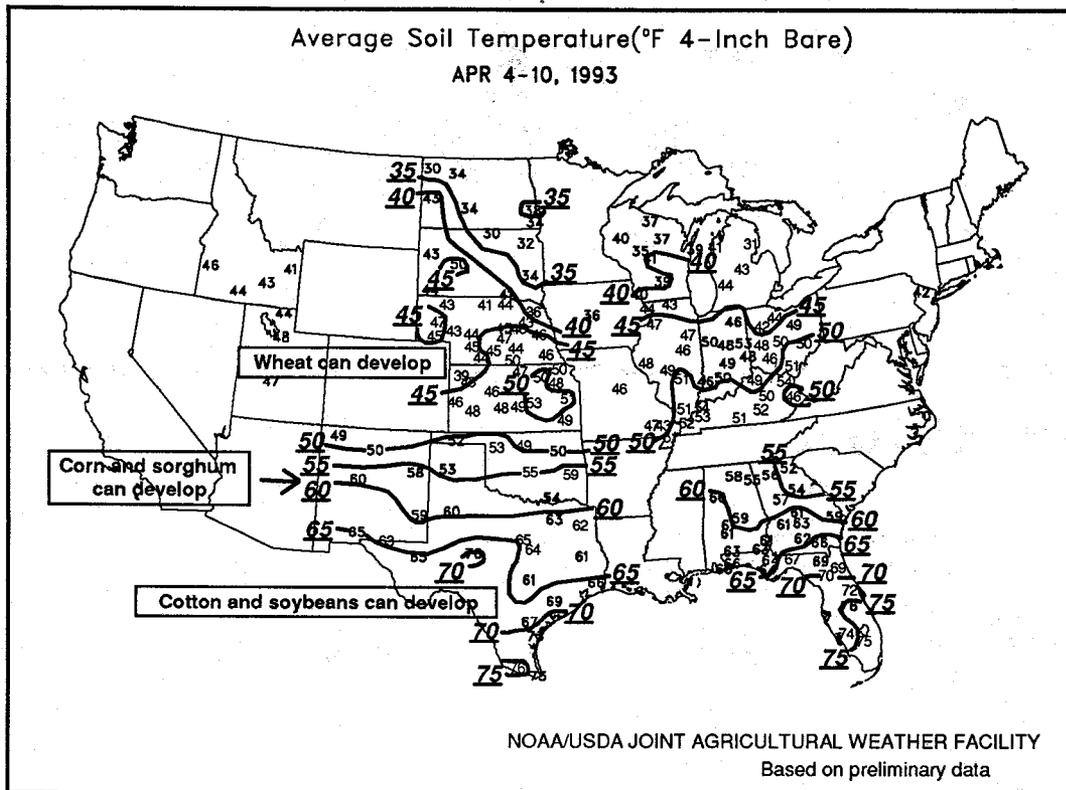
Departure of Average Temperature from Normal(°F)

APR 4-10, 1993



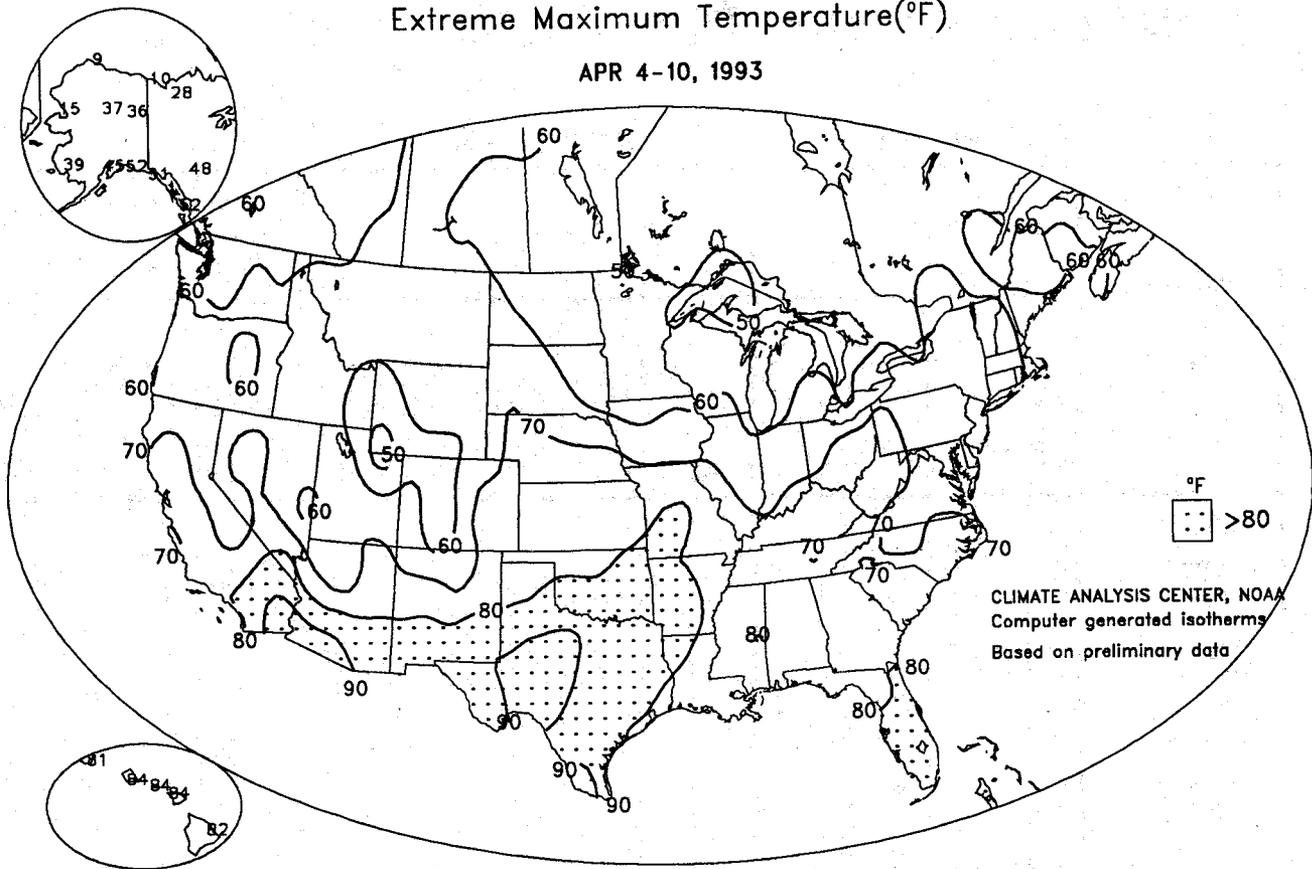
Average Soil Temperature(°F 4-Inch Bare)

APR 4-10, 1993



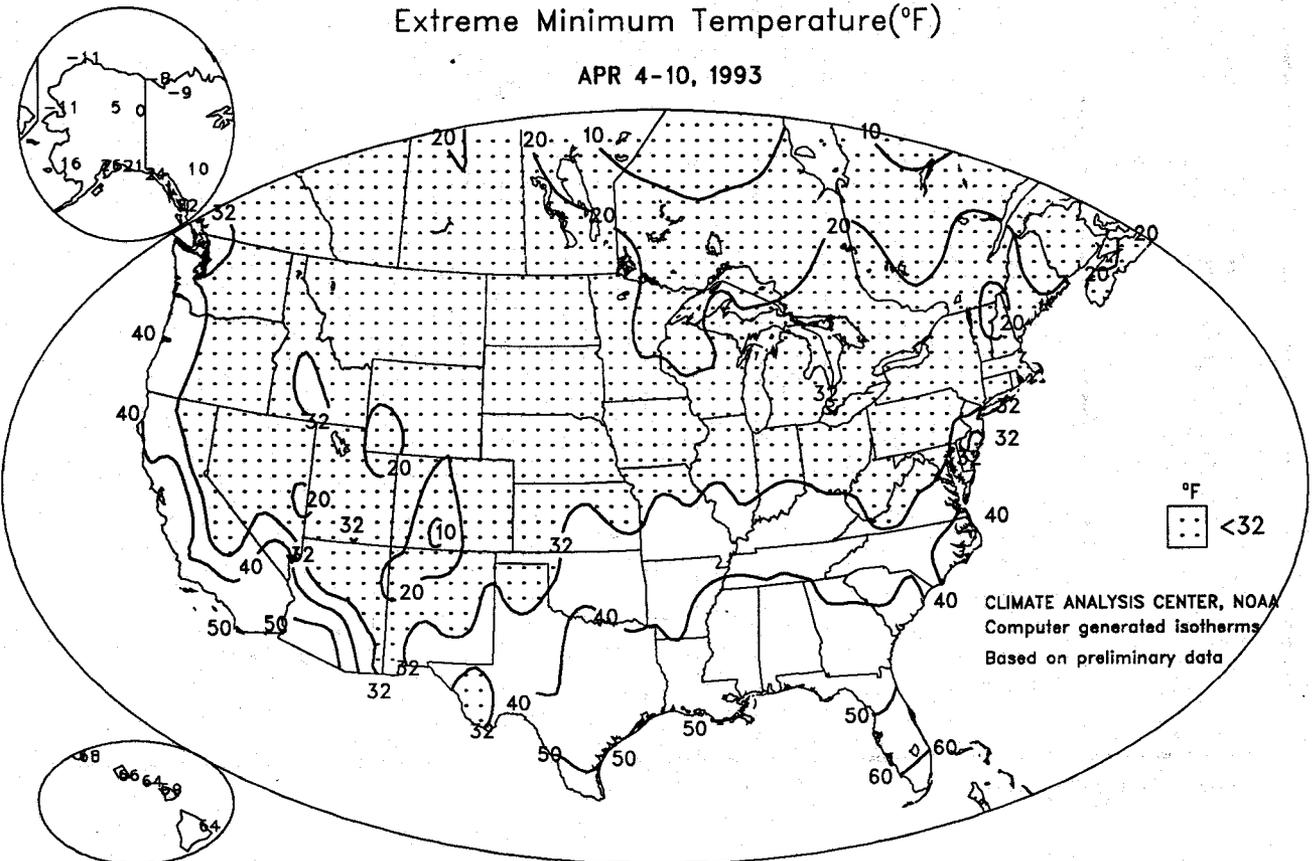
### Extreme Maximum Temperature(°F)

APR 4-10, 1993



### Extreme Minimum Temperature(°F)

APR 4-10, 1993



# National Weather Data for Selected Cities

Weather Data for the Week Ending April 10, 1993

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT	NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE Jan 1		PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE		32 AND BELOW
													90 AND ABOVE				32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	65	49	74	44	57	-3	.7	-.5	.5	5.1	64	13.4	75	90	52	0	0	0	0
MOBILE	68	49	78	45	59	-1	1.1	-.0	.7	11.5	145	24.1	132	96	62	0	0	0	0
MONTGOMERY	68	50	77	48	59	-2	1.3	-.2	.7	9.0	115	18.7	103	92	58	0	0	0	0
AK ANCHORAGE	46	29	48	25	38	5	.5	.7	.7	.3	32	2.4	96	82	45	0	0	0	0
BARROW	5	-5	9	-12	0	8	.7	-.1	.1	.1	55	.7	160	82	74	0	0	0	0
FAIRBANKS	48	25	52	20	37	12	.0	-.1	.0	.3	54	3.0	212	82	45	0	0	0	0
JUNEAU	49	33	52	27	41	4	.1	-.6	.1	3.7	89	21.9	175	95	55	0	0	0	0
KODIAK	44	35	49	33	40	4	1.6	-.6	.8	10.5	176	20.8	112	94	72	0	0	0	0
NOME	22	6	28	-4	14	1	.7	-.2	.0	1.7	222	4.0	184	80	69	0	0	0	0
AZ PHOENIX	82	57	87	52	69	2	.0	-.1	.0	1.6	157	8.6	361	46	14	0	0	0	0
PRESCOTT	65	37	71	29	51	4	.0	-.2	.0	2.5	113	10.9	207	67	21	0	0	0	0
TUCSON	81	47	89	42	64	0	.0	-.1	.0	.5	56	6.8	284	47	12	0	0	0	0
YUMA	87	60	93	55	74	4	.0	.0	.0	.4	127	3.3	383	34	13	3	0	0	0
AR FORT SMITH	64	43	84	39	54	-5	1.2	-.3	1.2	3.2	61	10.3	106	89	46	0	0	0	0
LITTLE ROCK	62	46	81	38	54	-7	1.1	-.1	.6	4.4	69	11.4	88	78	51	0	0	0	0
CA BAKERSFIELD	72	46	82	41	59	-2	.7	.2	.7	1.8	138	6.1	191	62	25	0	0	0	0
EUREKA	60	47	62	42	54	4	1.5	-.7	.5	7.7	118	20.8	120	88	60	0	0	0	0
FRESNO	71	49	79	42	60	1	.1	-.2	.1	1.9	82	9.5	157	84	38	0	0	0	0
LOS ANGELES	69	54	74	52	62	2	.0	-.2	.0	1.9	79	17.7	245	82	55	0	0	0	0
REDDING	64	45	72	38	55	-1	.3	-.3	.2	6.8	128	24.7	156	91	40	0	0	0	0
SACRAMENTO	68	47	74	42	58	1	.1	-.3	.1	2.5	81	16.2	167	96	47	0	0	0	0
SAN DIEGO	69	55	74	51	62	1	.0	-.3	.0	1.2	57	15.0	274	83	56	0	0	0	0
SAN FRANCISCO	64	51	69	48	58	3	.1	-.4	.0	2.4	65	18.3	163	86	59	0	0	0	0
CO DENVER	60	34	72	28	47	1	.6	-.2	.4	2.0	111	3.3	115	77	28	0	0	0	0
GRAND JUNCTION	58	36	66	30	47	-4	.8	.6	.8	2.6	183	5.0	204	82	37	0	0	0	0
PUEBLO	63	34	76	26	49	0	.3	-.1	.1	2.2	208	2.8	166	81	26	0	0	0	0
CT BRIDGEPORT	52	37	59	34	45	-1	.1	-.7	.1	8.2	163	13.4	119	78	46	0	0	0	0
HARTFORD	60	34	69	27	47	1	.7	-.2	.7	8.0	164	13.6	118	80	34	0	0	0	0
DC WASHINGTON	57	41	67	35	49	-5	.6	.0	.6	7.8	194	13.0	137	75	48	0	0	0	0
FL APALACHICOLA	70	55	75	48	63	-3	.4	-.3	.4	4.3	81	14.6	113	**	**	0	0	0	0
DAYTONA BEACH	74	56	82	53	65	-3	.2	-.3	.2	5.8	158	13.1	137	92	55	0	0	0	0
JACKSONVILLE	72	51	81	45	62	-5	.8	-.2	.6	6.8	151	13.5	117	90	55	0	0	0	0
KEY WEST	81	68	86	64	75	-1	.4	-.1	.3	2.0	90	10.2	170	78	62	0	0	0	0
MIAMI	82	67	87	63	74	0	.8	-.3	.4	6.8	216	14.0	193	83	54	0	0	0	0
ORLANDO	78	56	83	51	67	-3	.4	.0	.4	7.3	188	13.6	148	88	51	0	0	0	0
TALLAHASSEE	75	51	78	43	63	-1	.1	-.9	.1	7.0	91	21.1	117	85	49	0	0	0	0
TAMPA	78	57	82	51	68	-2	.4	-.2	.3	4.8	139	10.7	126	86	57	0	0	0	0
WEST PALM BEACH	79	64	85	59	72	-2	.9	-.3	.7	11.9	321	22.0	242	82	57	0	0	0	0
GA ATLANTA	64	47	73	41	56	-4	1.8	.7	.9	7.5	103	15.9	94	90	53	0	0	0	0
AUGUSTA	70	45	75	40	57	-3	1.4	.6	.9	8.9	153	18.1	128	85	44	0	0	0	0
MACON	69	47	75	43	58	-4	1.1	.3	.6	11.4	189	21.1	138	89	54	0	0	0	0
SAVANNAH	69	49	74	45	59	-5	3.1	2.4	2.6	11.1	230	19.9	171	88	52	0	0	0	0
HI HILO	81	66	82	65	74	1	1.3	-.4	.4	13.4	69	18.2	46	91	62	0	0	0	0
HONOLULU	84	70	85	67	77	2	.0	-.4	.0	.7	1	1.1	13	72	48	0	0	0	0
KAHULUI	84	67	85	59	75	1	.3	-.2	.3	1.6	45	4.0	38	76	54	0	0	0	0
LIHUE	81	71	81	68	76	2	.3	-.6	.2	1.6	11	1.8	12	77	64	0	0	0	0
ID BOISE	56	37	67	31	47	0	.8	.5	.5	3.5	202	6.1	144	89	40	0	0	0	0
LEWISTON	59	39	68	32	49	0	.5	-.2	.2	2.0	137	3.4	95	83	44	0	0	0	0
POCATELLO	53	34	59	30	43	1	.5	-.2	.3	2.5	150	6.8	188	84	39	0	0	0	0
IL CHICAGO	53	34	59	21	43	-2	.5	-.4	.4	5.5	141	10.1	149	90	49	0	0	0	0
MOLINE	50	33	68	22	46	-1	.6	-.2	.4	5.6	134	8.6	122	91	45	0	0	0	0
PEORIA	59	38	67	29	48	0	.9	.0	.8	5.2	125	10.4	147	87	49	0	0	0	0
QUINCY	59	39	72	29	49	-1	.1	-.7	.1	2.1	48	5.4	75	85	46	0	0	0	0
ROCKFORD	54	34	62	21	44	0	1.6	.8	1.4	5.6	155	8.9	147	95	52	0	0	0	0
SPRINGFIELD	60	41	69	33	51	1	.3	-.5	.3	2.9	65	8.3	108	85	47	0	0	0	0
IN EVANSVILLE	62	42	69	35	52	-3	2.0	1.0	1.7	5.4	85	11.6	90	87	53	0	0	0	0
FORT WAYNE	55	37	62	22	46	0	.9	.2	.8	5.0	126	12.1	155	87	50	0	0	0	0
INDIANAPOLIS	57	39	67	30	48	-1	1.3	.4	1.0	5.1	101	10.7	109	88	47	0	0	0	0
SOUTH BEND	54	36	60	23	45	0	.2	-.7	.1	2.9	67	8.5	99	88	48	0	0	0	0
IA DES MOINES	55	34	66	27	45	-2	1.4	.6	.7	4.6	142	7.8	148	88	47	0	0	0	0
SIoux CITY	55	34	64	25	44	-2	.4	-.1	.3	1.2	46	4.0	103	90	46	0	0	0	0
WATERLOO	54	31	63	23	43	-2	1.2	.4	.5	5.2	158	7.1	138	96	51	0	0	0	0
KS CONCORDIA	55	38	74	30	46	-3	.4	-.1	.3	3.6	124	6.1	146	94	59	0	0	0	0
DODGE CITY	54	37	75	31	45	-6	.1	-.4	.0	2.3	105	6.1	186	88	46	0	0	0	0
GOODLAND	53	34	76	31	43	-3	.3	.1	.2	1.1	74	2.5	111	88	41	0	0	0	0
TOPEKA	59	35	75	27	47	-5	2.1	1.5	1.1	6.1	180	9.6	178	98	45	0	0	0	0
WICHITA	58	41	74	35	50	-5	.6	.0	.5	2.5	71	5.4	98	87	55	0	0	0	0
KY BOWLING GREEN	62	43	72	37	53	-2	.6	-.4	.4	4.7	71	10.5	72	88	56	0	0	0	0
LEXINGTON	59	42	72	34	51	-2	.9	.0	.8	4.7	83	11.3	96	89	47	0	0	0	0
LOUISVILLE	62	44	75	41	53	0	1.3	.3	1.3	6.5	106	14.2	116	85	46	0	0	0	0
LA BATON ROUGE	67	50	79	44	59	-8	6.4	5.2	2.9	13.8	210	30.0	176	97	59	0	0	0	0
LAKE CHARLES	70	52	75	47	61	-5	3.4	2.7	2.1	10.3	243	21.5	174	92	66	0	0	0	0
NEW ORLEANS	69	52	76	46	60	-6	3.0	2.0	1.9	8.7	135	17.2	98	91	66	0	0	0	0
SHREVEPORT	66	46	84	40	56	-8	2.4	1.6	1.9	8.4	159	17.8	131	92	58	0	0	0	0

Based on 1961-90 normals.

Weather Data for the Week Ending April 10, 1993

STATES AND STATIONS	TEMPERATURE °F					PRECIPITATION							RELATIVE HUMIDITY, PERCENT			NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	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	54	25	60	20	40	6	7	-6	7	2.4	74	6.6	88	84	28	0	6	0	0	0	
PORTLAND	50	28	53	22	39	6	7	-3	7	7.9	157	14.5	122	87	37	0	6	1	1	1	
MD BALTIMORE	57	37	64	30	47	6	1.0	-3	8	9.7	220	15.3	144	78	43	0	2	2	2	1	
SALISBURY	57	36	66	32	47	6	1.0	-1	7	8.1	153	14.6	118	89	56	0	2	2	2	1	
MA BOSTON	49	37	53	33	43	6	1.1	-7	2	7.3	143	13.3	104	91	48	0	0	0	1	0	
CRATHAM	46	35	49	30	40	6	1.1	-7	2	7.3	143	13.3	104	91	48	0	0	0	1	0	
MI ALPENA	51	30	55	21	40	6	1.2	-3	3	1.0	36	3.2	55	94	47	0	5	5	1	0	
DETROIT	55	38	64	29	46	6	1.7	-3	3	105	8.9	127	79	48	0	1	2	2	0	0	
FLINT	54	34	64	27	44	6	1.3	-6	3	2.3	74	6.3	108	85	43	0	3	3	1	0	
GRAND RAPIDS	52	34	58	24	43	6	1.2	-4	1	3.0	79	8.3	119	91	46	0	2	2	2	0	
HOUGHTON LAKE	51	33	56	25	42	6	1.3	-3	1	1.0	36	3.6	67	88	43	0	3	3	3	0	
LANSING	55	32	63	22	44	6	1.2	-6	1	2.2	71	6.6	114	91	53	0	4	5	1	0	
MARQUETTE	44	27	47	17	36	6	1.3	-3	2	1.7	47	4.8	63	90	52	0	4	5	3	0	
MUSKEGON	52	35	57	20	43	6	1.3	-3	5	2.5	72	5.9	81	84	41	0	2	2	2	0	
SAULT ST. MARIE	48	31	52	23	39	6	1.7	-1	4	4.1	3.7	51	87	40	0	3	3	2	2	0	
MN ALEXANDRIA	46	30	52	24	38	6	1.8	-4	5	2.4	118	3.4	94	90	55	0	5	5	3	0	
DULUTH	44	30	47	20	37	6	1.8	-3	3	4.8	48	3.5	75	82	46	0	5	5	4	0	
INT'L FALLS	48	28	54	19	38	6	1.4	-1	3	1.3	46	1.5	49	82	37	0	4	2	2	0	
MINNEAPOLIS	50	31	55	22	41	6	1.6	-1	4	1.9	70	3.5	78	84	39	0	4	4	3	0	
ROCHESTER	48	32	56	25	40	6	1.9	-3	5	3.8	147	5.8	141	89	43	0	4	4	3	1	
MS GREENWOOD	65	49	77	46	57	6	2.4	1.2	1.9	6.7	88	12.4	73	97	59	0	0	5	5	1	
JACKSON	66	47	80	40	57	6	2.5	1.2	1.4	6.3	81	14.5	80	93	58	0	0	4	4	2	1
MERIDIAN	66	47	79	40	57	6	1.0	-4	6	9.4	96	22.9	118	91	50	0	0	4	4	1	0
MO CAPE GIRARDEAU	61	42	73	31	52	6	1.5	-5	8	5.1	78	13.7	108	91	57	0	1	5	5	2	0
COLUMBIA	62	40	81	32	51	6	1.2	-6	1	2.6	63	7.0	93	91	45	0	1	3	3	0	0
KANSAS CITY	59	37	77	29	48	6	1.2	-5	1.0	4.5	133	7.8	139	90	46	0	1	3	3	1	0
SAINT LOUIS	61	44	74	37	53	6	1.2	-6	1	3.7	77	10.0	115	86	48	0	0	3	3	0	0
SPRINGFIELD	58	40	80	33	49	6	1.4	-6	7	3.8	73	9.3	105	88	48	0	0	2	2	1	0
MT BILLINGS	61	37	69	31	49	6	1.1	-3	1	1.1	34	1.4	42	64	22	0	2	1	1	0	0
GLASGOW	60	32	69	28	46	6	1.1	-1	1	1.9	157	1.4	120	86	31	0	4	1	0	0	0
GREAT FALLS	55	33	62	27	44	6	1.6	-4	4	1.5	101	3.4	113	83	29	0	3	2	2	0	0
HAVRE	57	33	65	28	45	6	1.1	-1	1	1.2	26	2.9	49	91	36	0	3	1	0	0	0
HELENA	54	32	67	24	43	6	1.2	-0	2	1.1	107	2.9	142	74	30	0	4	2	0	0	0
KALISPELL	54	35	62	30	44	6	1.6	-4	4	1.4	110	3.7	94	90	39	0	2	4	0	0	0
MILES CITY	60	34	67	29	47	6	1.5	-3	7	1.8	79	1.7	86	82	31	0	3	0	0	0	0
MISSOULA	54	33	67	28	43	6	1.2	-6	5	1.9	150	3.4	103	91	38	0	4	6	0	0	0
NE GRAND ISLAND	55	35	73	24	45	6	1.4	-2	4	1.4	53	4.0	106	92	39	0	1	1	0	0	0
LINCOLN	58	34	74	23	46	6	1.4	-4	4	2.3	80	3.6	85	95	48	0	3	2	0	0	0
NORFOLK	54	33	68	23	44	6	1.1	-6	8	2.2	88	5.2	137	93	42	0	3	3	3	1	0
NORTH PLATTE	52	32	73	23	42	6	1.4	-0	2	2.9	57	3.1	123	89	44	0	3	2	0	0	0
OMAHA	56	36	70	28	46	6	1.4	-2	4	2.9	100	4.8	110	81	42	0	2	2	0	0	0
SCOTT'S BLUFF	57	34	69	28	45	6	1.4	-1	4	2.1	141	4.2	172	91	43	0	3	3	3	0	0
VALENTINE	50	31	67	25	41	6	1.7	-3	4	1.7	87	2.9	97	70	54	0	3	3	0	0	0
NV RLY	55	27	63	19	41	6	1.1	-1	1	1.2	98	4.7	179	75	25	0	5	5	0	0	0
LAS VEGAS	77	53	82	46	65	6	1.1	-1	7	2.2	29	4.3	298	63	16	0	0	0	0	0	0
RENO	59	35	67	27	47	6	1.1	-1	7	1.6	66	4.3	146	44	24	0	2	2	0	0	0
WINNEMUCCA	58	36	72	26	47	6	1.2	-0	1	1.6	154	4.2	171	81	30	0	4	4	0	0	0
NH CONCORD	56	26	64	20	41	6	1.5	-2	5	4.1	111	7.2	93	85	37	0	6	6	1	0	0
NJ ATLANTIC CITY	56	34	62	27	45	6	1.2	-6	1	9.9	205	14.9	132	81	44	0	2	2	0	0	0
NM ALBUQUERQUE	68	36	76	28	52	6	1.0	-1	1	1.1	0	2.8	170	58	15	0	2	2	0	0	0
CLOVIS	69	38	77	32	54	6	1.1	-1	7	1.4	43	1.2	73	62	17	0	0	0	0	0	0
ROSNELL	76	41	87	31	59	6	1.1	-1	7	1.4	43	1.2	73	62	17	0	0	0	0	0	0
ALBANY	60	33	68	24	46	6	1.1	-1	7	1.4	43	1.2	73	62	17	0	0	0	0	0	0
NY BINGHAMTON	53	33	64	26	43	6	2.7	-3	4	6.3	160	11.3	132	75	33	0	5	5	1	0	0
BUFFALO	59	37	72	27	48	6	1.9	-4	3	7.0	182	11.8	138	78	38	0	4	4	0	0	0
NEW YORK	57	40	65	37	49	6	1.3	-4	3	4.0	109	10.2	118	69	28	0	2	2	0	0	0
ROCHESTER	57	36	68	26	47	6	1.3	-3	3	8.6	176	14.9	139	75	47	0	3	3	0	0	0
SYRACUSE	57	33	68	25	45	6	1.5	-8	1.5	4.1	129	7.9	108	83	36	0	2	2	0	0	0
NC ASHEVILLE	57	40	66	31	49	6	2.4	1.4	1.5	161	11.7	140	80	33	0	5	5	1	1	2	1
CHARLOTTE	65	43	71	38	54	6	1.1	-4	4	8.5	123	14.4	93	95	44	0	1	1	0	0	0
GREENSBORO	62	41	70	36	51	6	1.1	-8	1.8	162	17.6	136	78	34	0	0	0	0	0	0	0
HATTERAS	56	47	66	42	51	6	2.3	1.7	1.0	10.6	229	17.7	158	77	37	0	0	0	0	0	0
NEW BERN	62	44	71	41	52	6	3.0	2.2	2.2	9.7	175	20.7	139	94	73	0	0	0	0	0	0
RALEIGH	61	39	70	35	50	6	1.7	-9	1.3	8.5	173	17.5	129	89	52	0	0	0	0	0	0
WILMINGTON	65	44	72	41	54	6	3.6	3.0	2.2	9.7	203	16.4	139	85	37	0	0	0	0	0	0
ND BISMARK	49	28	71	28	47	6	4.3	3.6	2.9	10.6	193	19.4	133	92	51	0	3	3	2	0	0
FARGO	48	33	52	27	41	6	1.6	-3	4	1.0	84	1.7	77	90	47	0	5	5	4	0	0
GRAND FORKS	49	31	53	26	40	6	1.3	-1	1	1.1	72	2.1	78	84	47	0	3	3	0	0	0
WILLISTON	57	30	62	24	44	6	1.1	-2	1	1.4	33	1.8	33	88	49	0	5	5	0	0	0
OH AKRON-CANTON	56	38	71	28	47	6	1.2	-0	2	1.2	113	1.6	81	88	36	0	4	2	2	0	0
CINCINNATI	58	41	72	31	50	6	1.1	-3	5	4.3	77	11.5	107	85	44	0	1	2	2	1	1
CLEVELAND	57	38	72	31	48	6	1.3	-1	7	5.1	130	12.1	149	83	41	0	2	2	1	1	1
COLUMBUS	59	40	75	29	49	6	1.7	-1	7	4.4	103	10.4	122	92	49	0	1	3	3	1	1
DAYTON	56	39	70	27	48	6	1.3	-5	1.2	5.4	117	12.0	136	86	49	0	1	2	2	1	1

Based on 1961-90 normals.

Weather Data for the Week Ending April 10, 1993

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		.01 INCH OR MORE	.50 INCH OR MORE
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE		
TOLEDO	56	37	67	27	47	2	.5	-.2	.4	4.5	123	9.4	132	88	49	0	0	1	2	2	0	0
YOUNGSTOWN	56	37	71	29	47	2	.3	-.5	.1	4.8	116	10.5	126	76	34	0	0	2	2	2	0	0
OK OKLAHOMA CITY	62	41	80	36	52	-6	.2	-.4	.2	3.0	86	7.5	122	85	46	0	0	0	0	1	2	0
TULSA	62	42	83	35	52	-7	.9	-.4	.2	3.6	80	8.6	106	86	50	0	0	0	0	1	1	0
OR ASTORIA	54	42	57	35	48	1	2.7	1.5	1.5	11.1	125	18.7	71	96	67	0	0	0	0	6	6	2
BURNS	49	31	56	27	40	-1	.5	.4	.3	2.5	203	4.9	164	91	42	0	0	7	5	5	2	0
MEDFORD	59	40	72	36	50	0	.6	.4	.3	2.2	97	6.2	90	97	47	0	0	0	0	5	5	0
PENDLETON	58	39	64	34	49	0	.7	.7	.5	2.7	173	5.3	126	81	42	0	0	0	0	4	4	0
PORTLAND	59	45	65	41	52	2	1.3	.7	.7	2.2	166	11.2	82	92	63	0	0	0	0	1	1	0
SALEM	60	44	68	41	52	5	2.2	1.5	.9	8.2	159	14.5	93	86	53	0	0	0	0	6	6	3
PA ALLENTOWN	59	37	68	32	48	1	1.7	.9	1.5	10.1	229	14.9	141	69	37	0	0	1	1	2	1	0
ERIE	58	40	72	32	49	6	.3	-.5	.3	4.1	102	9.5	111	80	45	0	0	2	2	1	1	0
HARRISBURG	57	38	65	30	47	-1	.0	-.7	.0	3.5	185	7.1	70	83	45	0	0	2	2	0	0	0
PHILADELPHIA	60	40	70	36	50	0	.9	-.4	.6	8.5	108	13.5	120	69	40	0	0	0	0	1	1	0
PITTSBURGH	59	39	74	32	49	2	.4	-.4	.3	3.2	108	10.8	115	67	32	0	0	2	2	2	2	0
SCRANTON	59	36	70	30	48	3	1.6	1.0	1.6	6.9	198	9.9	128	70	29	0	0	1	1	2	1	0
RI PROVIDENCE	58	35	65	29	46	2	.5	-.5	.5	9.1	167	16.6	129	82	38	0	0	4	4	1	1	0
SC CHARLESTON	66	47	74	44	57	-6	2.2	1.5	1.5	8.0	150	20.0	166	89	55	0	0	0	0	2	2	0
COLUMBIA	67	42	73	37	54	-7	1.5	.6	1.0	7.5	124	18.3	125	93	45	0	0	0	0	3	3	0
FLORENCE	68	45	73	42	56	-5	2.0	1.4	1.2	4.8	94	13.9	117	88	41	0	0	0	0	3	3	2
GREENVILLE	62	40	71	38	51	-6	2.0	1.0	1.1	12.3	181	23.0	150	86	38	0	0	0	0	2	2	0
SD ABERDEEN	49	33	56	28	41	1	2.1	1.7	1.6	2.5	155	3.6	127	90	53	0	0	3	4	2	1	0
HURON	49	34	58	27	41	-1	1.8	1.4	.7	3.4	147	4.3	126	92	43	0	0	2	2	6	2	0
RAPID CITY	55	32	69	29	44	1	1.0	.6	.7	1.8	115	3.1	126	91	45	0	0	5	5	3	3	1
STOIX FALLS	50	31	56	22	40	-3	1.0	.5	.5	3.1	129	4.6	130	89	41	0	0	4	4	3	3	1
TN CHATTANOOGA	65	47	73	42	56	-1	1.2	.1	.6	8.6	113	17.4	101	86	53	0	0	0	0	4	4	1
KNOXVILLE	63	44	71	38	54	-2	1.1	.2	.8	7.4	115	13.7	94	93	50	0	0	0	0	4	4	1
MEMPHIS	64	48	77	43	56	-4	2.1	.8	1.3	5.3	73	11.3	74	89	51	0	0	0	0	4	4	1
NASHVILLE	63	46	72	40	55	-2	.9	-.2	.4	6.5	103	12.3	90	84	57	0	0	0	0	4	4	0
TX ABILENE	72	45	92	38	59	-4	.4	-.4	.4	1.0	55	3.2	78	74	33	1	1	0	0	0	0	0
AMARILLO	65	35	75	29	50	-4	.4	-.2	.4	1.3	107	2.4	104	78	26	0	0	4	4	0	0	0
AUSTIN	73	51	85	47	62	-7	.7	-.2	.7	3.1	123	9.7	151	81	47	0	0	0	0	1	1	0
BEAUMONT	72	53	78	49	62	-5	3.5	2.8	2.1	11.6	270	25.6	206	94	59	0	0	0	0	3	3	0
BROWNSVILLE	81	60	85	54	71	-2	.2	-.1	.2	1.8	203	6.5	185	90	51	0	0	0	0	1	1	0
CORPUS CHRISTI	78	55	84	48	67	-4	.7	-.4	.5	3.6	263	5.7	113	91	47	0	0	0	0	3	3	0
DEL RIO	83	53	95	48	68	0	.0	-.4	.0	.5	29	1.9	44	68	27	1	1	0	0	1	1	0
EL PASO	77	47	85	38	62	1	.0	-.1	.0	T	3	1.7	142	38	14	0	0	0	0	0	0	0
FORT WORTH	69	49	88	45	59	-3	.6	-.2	.6	4.1	99	11.6	139	80	50	0	0	0	0	2	1	0
GALVESTON	70	58	76	53	64	-3	2.8	2.2	1.9	8.0	270	21.0	247	85	61	0	0	0	0	3	3	0
HOUSTON	72	52	83	46	62	-4	2.9	2.2	2.3	12.4	297	20.8	180	90	54	0	0	0	0	2	2	0
LUBBOCK	73	39	87	34	56	-2	.0	-.2	.0	.4	32	1.8	82	63	20	0	0	0	0	0	0	0
MIDLAND	77	43	90	36	60	-3	.0	-.1	.2	4	58	2.5	148	57	16	1	1	0	0	0	0	0
SAN ANGELO	78	48	95	37	63	-2	.2	-.1	.2	.5	35	2.2	70	67	28	1	1	0	0	1	1	0
SAN ANTONIO	77	48	88	43	63	-5	.4	-.1	.4	2.8	127	7.8	137	83	40	0	0	0	0	2	2	0
VICTORIA	76	52	82	46	64	-4	1.9	1.4	1.0	4.9	163	11.7	128	90	52	0	0	0	0	2	2	0
WACO	69	48	85	42	59	-6	.9	-.2	.9	5.8	178	12.1	173	88	53	0	0	0	0	3	3	1
WICHITA FALLS	68	44	89	42	56	-5	.4	-.2	.4	3.6	108	8.2	123	84	48	0	0	0	0	1	1	0
UT CEDAR CITY	57	31	63	24	44	-1	.9	-.7	.9	1.9	106	6.2	186	80	31	0	0	3	2	1	1	0
SALT LAKE CITY	57	36	62	32	47	-1	.9	-.7	.9	1.9	69	6.4	128	80	36	0	0	2	2	0	0	0
VT BURLINGTON	57	31	64	22	44	4	.4	-.5	.1	2.3	74	6.3	97	81	34	0	0	5	2	2	0	0
VA NORFOLK	56	44	71	41	50	-5	1.4	-.7	.8	7.6	161	14.9	124	85	59	0	0	0	0	4	1	0
RICHMOND	58	39	68	34	49	-6	1.5	-.8	.8	9.3	202	16.6	151	84	42	0	0	0	0	3	1	0
ROANOKE	58	37	67	29	47	-6	1.1	-.3	.5	9.2	203	16.4	161	85	38	0	0	1	4	1	1	0
WA QUILLAYUTE	52	41	54	34	47	2	3.6	1.6	1.9	15.1	105	23.8	58	98	57	0	0	0	0	7	2	0
SEATTLE-TACOMA	55	42	58	36	49	1	1.4	.8	.6	7.0	159	11.5	83	90	49	0	0	0	0	4	1	0
SPOKANE	52	36	59	31	44	0	.6	.3	.3	2.1	111	4.4	82	93	44	0	0	2	6	0	0	0
YAKIMA	59	33	63	28	46	-1	1.1	.0	.1	1.0	118	2.6	93	86	36	0	0	3	3	0	0	0
WV BECKLEY	58	38	70	31	48	-1	.7	.0	.5	7.3	163	11.7	113	84	44	0	0	1	3	3	1	0
CHARLESTON	64	42	82	31	53	1	.2	-.6	.1	7.0	149	11.9	112	84	34	0	0	1	3	0	0	0
HUNTINGTON	63	41	79	33	52	2	.3	-.5	.2	5.9	126	11.9	110	88	41	0	0	0	0	3	0	0
PARKERSBURG	63	41	77	27	52	1	.2	-.6	.2	8.6	170	13.0	118	90	39	0	0	1	2	0	0	0
WI GREEN BAY	49	31	57	21	40	0	1.0	.5	.7	1.8	63	3.5	70	92	50	0	0	3	2	1	1	0
LACROSSE	51	33	58	21	42	-2	1.7	1.1	1.0	4.2	146	6.6	140	92	45	0	0	3	4	1	1	0
MADISON	53	34	62	24	43	0	1.5	-.2	.3	4.3	137	7.1	133	87	50	0	0	3	2	0	0	0
MILWAUKEE	49	37	59	27	43	2	1.2	.4	1.0	4.7	123	8.3	121	88	50	0	0	3	4	0	0	0
WAUSAU	48	31	55	18	40	0	1.1	.5	.6	1.6	56	3.4	74	94	55	0	0	2	3	3	1	0
WY CASPER	56	35	65	28	45	5	.6	.3	.6	1.2	83	2.9	113	78	35	0	0	3	2	1	1	0
CHEYENNE	52	32	60	28	42	2	1.1	.8	.8	2.0	140	3.1	144	77	35	0	0	5	4	1	1	0
LANDER	55	33	62	27	44	3	.4	.0	.4	2.0	116	3.4	120	74	27	0	0	3	1	0	0	0
SHERIDAN	59	34	67	30	46	5	.3	-.1	.2	1.1	75	2.0	69	84	30	0	0	3	3	1	0	0

Based on 1961-90 normals.

## HEATING DEGREE DAYS (Base 65° F) April 4 - 10, 1993

(Cumulative totals and departures from normal are for the period July 1, 1992 - April 10, 1993)

STATES AND STATIONS	WEEKLY		CUMULATIVE		STATES AND STATIONS	WEEKLY		CUMULATIVE		STATES AND STATIONS	WEEKLY		CUMULATIVE				
	TOTAL	DEPARTURE	TOTAL	DEPARTURE		TOTAL	DEPARTURE	TOTAL	DEPARTURE		TOTAL	DEPARTURE	TOTAL	DEPARTURE			
AL BIRMINGHAM	52	13	2755	-22	197	ME SHREVEPORT	65	40	2304	73	346	DAYTON	118	2	5310	38	348
MOBILE	44	28	1573	-104	-71	MD CARIBOU	172	-48	8653	157	120	TOLEDO	130	-13	5746	-243	300
MONTGOMERY	41	15	2148	-87	03	PORTLAND	182	7	6763	157	448	YOUNGSTOWN	121	-23	5820	-110	300
AK ANCHORAGE	164	-67	8959	-408	165	MD BALTIMORE	124	27	4453	52	112	OK OKLAHOMA CITY	91	32	3734	134	772
BARROW	462	-42	16145	-569	-529	SALISBURY	127	33	4165	53	229	TULSA	94	38	3908	299	1065
FAIRBANKS	179	-107	12141	-791	-270	MA BOSTON	151	18	5322	264	350	OR ASTORIA	117	-14	4324	59	592
JUNEAU	141	-57	7121	-552	547	CHATHAM	170	12	5172	32	238	BURNS	173	3	7411	1377	1792
KODIAK	150	-49	7127	-51	185	MI ALPENA	167	-31	7429	26	413	MEDFORD	102	-13	3673	-521	360
NOME	316	-46	12017	32	620	DETROIT	128	-18	5795	-184	269	PENDLETON	113	-5	5352	653	1202
AZ FLAGSTAFF	147	-32	5710	-440	148	FLINT	141	-18	6316	-65	273	PORTLAND	92	-22	3927	-110	799
PHOENIX	0	-17	904	-514	128	GRAND RAPIDS	146	-10	6330	55	370	SALEM	86	-37	3951	-250	601
PRESCOTT	103	-20	3856	-491	11	HOUGHTON LAKE	161	-26	7241	-147	339	PA ALLENTOWN	120	-6	5370	18	428
TUCSON	14	-15	1410	-273	34	LANSING	147	-8	6453	124	308	ERIE	112	-50	5547	-452	230
WINSLOW	99	-2	4439	-47	-184	MARQUETTE	205	-17	8435	66	281	HARRISBURG	119	8	5004	49	385
YUMA	0	-14	698	-268	200	MUSKEGON	152	-10	6213	4	356	PHILADELPHIA	103	-2	4362	-251	205
AR FORT SMITH	81	31	3397	25	531	SAULT ST MARIE	174	-41	8147	24	223	PITTSBURGH	105	-20	5199	-258	168
LITTLE ROCK	83	41	3189	112	506	MN ALEXANDRIA	181	-15	8349	-39	822	SCRANTON	118	-21	5651	-137	120
CA BAKERSFIELD	38	-3	1808	-201	-110	DULUTH	198	-17	8548	-233	252	RI PROVIDENCE	136	-4	5353	23	458
EUREKA	79	-33	3130	-581	161	INT'L FALLS	191	-28	9278	-250	463	SC CHARLESTON	56	30	1853	-260	90
FRESNO	32	-22	2026	-454	-16	MN MINNEAPOLIS	167	3	7417	18	495	COLUMBIA	73	40	2676	104	299
LOS ANGELES	21	-22	995	-334	187	ROCHESTER	174	1	7913	326	741	FLORENCE	63	30	2324	-179	110
REDDING	68	3	2428	-56	242	SAINT CLOUD	177	-9	8192	-3	661	GREENVILLE	91	42	3400	281	509
SACRAMENTO	49	-14	2293	-236	112	MS GREENWOOD	57	23	2508	-149	174	SD ABERDEEN	157	-17	8009	147	1300
SAN DIEGO	7	-28	856	-239	185	JACKSON	57	27	2188	-160	81	HURON	158	-6	7581	128	1247
SAN FRANCISCO	50	-27	1973	-627	41	MERIDIAN	56	24	2200	-224	81	RAPID CITY	145	-22	7104	564	1652
STOCKTON	38	-22	2182	-313	17	MO CAPE GIRARDEAU	91	22	4251	36	631	ST LOUIS	171	12	7539	273	1148
CO DENVER	126	-17	5603	234	639	COLUMBIA	101	7	5102	204	766	TN CHATTANOOGA	63	10	3203	-228	78
GRAND JCT.	122	8	4958	-324	-169	KANSAS CITY	117	22	5311	325	903	KNOXVILLE	79	23	3623	124	223
PUEBLO	111	-8	5587	553	768	SAINT LOUIS	86	1	4608	-58	744	MEMPHIS	61	18	3033	-90	324
CT BRIDGEPORT	141	6	5036	69	301	SPRINGFIELD	117	34	4480	96	674	NASHVILLE	71	15	3527	-74	261
HARTFORD	130	-6	5847	176	464	MT BILLINGS	114	-52	6568	152	1438	TX ABILENE	51	15	2551	-10	51
DE WILMINGTON	119	11	4530	-102	281	GLASGOW	132	-56	8147	44	1735	AMARILLO	102	23	4409	426	644
DC WASHINGTON	108	30	4092	177	422	GREAT FALLS	146	-34	7251	396	1720	AUSTIN	21	4	1553	-192	127
FL APALACHICOLA	14	1	1047	-350	-257	HAVRE	137	-47	8039	242	1824	BEAUMONT	20	8	1270	-205	-16
DAYTONA BEACH	9	2	649	-250	-114	HELENA	148	-34	7596	416	1367	BROWNSVILLE	1	1	434	-175	-144
FORT MYERS	0	0	152	-288	-69	KALISPELL	143	-35	7537	224	1268	CORPUS CHRISTI	6	2	771	-199	-42
JACKSONVILLE	26	17	1224	-176	-103	MILES CITY	122	-45	7393	212	1830	DEL RIO	2	-5	1239	-268	-51
KEY WEST	0	0	20	-96	06	MISSOULA	146	-21	7263	391	1350	EL PASO	29	-4	2259	-363	-127
MIAMI	0	0	46	-152	-15	NE GRAND ISLAND	142	11	6625	373	1571	FORT WORTH	46	19	2277	7	238
ORLANDO	3	3	445	-213	-51	LINCOLN	132	8	6372	385	1437	GALVESTON	11	4	932	-317	-88
TALLAHASSEE	18	-1	1309	-322	-302	NORFOLK	151	9	6781	243	1340	HOUSTON	23	10	1317	-221	-45
TAMPA	0	0	445	-294	-113	NORTH PLATTE	156	11	6787	478	1527	LUBBOCK	62	5	3299	-91	185
W. PALM BEACH	0	0	105	-158	-53	OMAHA	131	14	6303	470	1120	MIDLAND-ODESSA	41	7	2620	18	-82
GA ATLANTA	63	17	2778	-136	313	SCOTTSBLUFF	136	-17	6777	728	1460	SAN ANGELO	29	5	2246	-28	-5
AUGUSTA	53	19	2399	-110	11	VALENTINE	170	10	7077	370	1253	SAN ANTONIO	20	7	1411	-188	54
MACON	48	25	2321	76	151	NV RLY	168	-18	6897	310	983	VICTORIA	10	3	1060	-208	22
SAVANNAH	40	22	1708	-199	62	LAS VEGAS	12	-28	2177	-262	120	WACO	46	19	2083	-13	282
ID BOISE	126	-6	5644	477	1105	RENO	123	-21	4864	-365	698	WICHITA FALLS	66	24	2950	8	360
LEWISTON	111	-9	4988	126	847	NH CONCORD	165	-4	6953	232	545	UT BLANDING	136	-7	4930	-571	258
POCATELLO	151	-10	6835	565	1228	NJ ATLANTIC CITY	142	25	4737	90	209	CEDAR CITY	141	-2	5210	-103	297
IL CHICAGO	148	12	6052	144	468	NM ALBUQUERQUE	86	-2	3872	-289	-43	SALT LAKE CITY	125	-4	5428	184	664
MOLINE	128	0	6120	67	730	CLOVIS	77	-2	3826	-22	96	VT BURLINGTON	146	-36	7160	-1	155
PEORIA	115	-5	5681	-116	511	ROSWELL	45	-1	2988	-62	-184	VA LYNCHBURG	112	33	4010	-64	260
QUINCY	112	3	5635	209	798	NY ALBANY	132	-21	6406	97	341	NORFOLK	107	42	3220	-52	236
ROCKFORD	145	0	6444	33	614	BINGHAMTON	145	-24	6852	274	675	RICHMOND	109	40	3701	-72	295
SPRINGFIELD	99	-6	5167	-129	440	SUFFALO	115	-45	6109	1	231	ROANOKE	121	42	4194	140	483
IN EVANSVILLE	86	6	4301	-175	274	NEW YORK	116	4	4597	59	479	WA COLVILLE	143	-6	6696	386	1256
FORT WAYNE	130	-3	5745	-58	390	ROCHESTER	125	-31	6401	337	370	QUILLAYUTE	127	-16	4700	-146	631
INDIANAPOLIS	114	3	5169	-89	493	SYRACUSE	130	-26	6397	265	330	SEATTLE-TACOMA	113	-13	4017	-316	604
SOUTH BEND	133	-5	5809	-16	353	NC ASHEVILLE	116	34	4023	28	375	SPOKANE	146	-6	6452	403	1312
IA DES MOINES	139	10	6328	189	938	CAPE HATTERAS	96	40	2273	-270	123	YAKIMA	128	1	5861	474	1268
DUBUQUE	146	-6	6943	150	722	CHARLOTTE	79	29	3064	-149	420	WV BECKLEY	121	7	-----	-----	-----
SIoux CITY	144	8	6866	361	1180	GREENSBORO	96	30	3802	117	522	CHARLESTON	82	-4	4271	-117	261
WATERLOO	155	2	6925	-56	714	NEW BERN	82	40	2550	-214	125	HUNTINGTON	87	3	4286	-80	245
KS CONCORDIA	126	17	5861	604	1470	RALEIGH-DURHAM	101	45	3344	-38	345	PARKERSBURG	89	-8	4651	33	126
DODGE CITY	132	35	5604	868	1445	WILMINGTON	71	37	2352	-65	96	WI GREEN BAY	173	-4	7162	-187	395
GOODLAND	147	10	6256	702	1406	ND BISMARCK	175	-13	8318	67	1336	LA CROSSE	160	6	7051	65	542
TOPEKA	126	30	5216	197	1032	FARGO	166	-27	8603	55	1071	MADISON	153	-7	6761	-214	456
WICHITA	105	22	4813	271	1014	GRAND FORKS	171	-32	8823	-153	924	MILWAUKEE	152	-13	6233	-311	476
KY BOWLING GREEN	83	10	4042	-60	320	WILLISTON	148	-45	8518	131	1560	WAUSAU	177	-6	7719	-53	328
LEXINGTON	97	7	4413	-97	309	OH AKRON-CANTON	119	-17	5671	-8	253	WY CASPER	138	-44	6581	-122	777
LOUISVILLE	82	3	4076	-202	395	CLEVELAND	116	-23	5529	-81	320	CHEYENNE	154	-30	6404	56	725
LA BATON ROUGE	42	28	1476	-187	35	COLUMBUS	105	-11	5053	-198	269	LANDER	145	-35	7625	648	1247
LAKE CHARLES	27	16	1408	-162	51	CINCINNATI	107	6	4895	2	447	SHERIDAN	129	-52	7274	363	1556
NEW ORLEANS	28	19	1246	-235	-146												

Based on 1961-90 normals.

Last Tabulation for Season

# March Weather in Historical Perspective

National climatic data for March 1993 indicate that temperatures were slightly below normal and precipitation was nearly normal. Although the nationally averaged temperature of 41.3°F was only 0.7°F below normal, it was the coldest March since 1984, and the 39th coldest on record (figure 1). Warmer-than-normal conditions covered most of the western half of the Nation, while cool weather blanketed the east. Regional rankings ranged from a 15th-coolest March in the Southeast to an 11th-warmest March in the West (table 1). Likewise, precipitation varied widely on a regional level. Exceptionally wet conditions in the Southeast (8th wettest March) and the Northeast (14th wettest) were offset by unusually dry weather in the West North Central region (8th driest). Nationally, the precipitation index, which is weighted so that typically wet areas do not dominate the index, was at its 49th wettest (51st driest) level during the 99-year period of record (fig. 2).

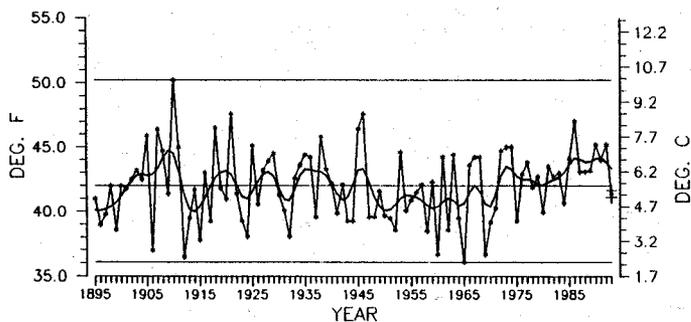
The normal progression from winter to spring was interrupted at mid-month in the East by a record-setting storm and its accompanying arctic outbreak. Adverse agricultural impacts were greatest across the Southern Atlantic and Gulf Coast States, with freeze damage reported to early-bloom peach varieties, jointing- to boot-stage winter wheat, and many ground

crops. In addition, the combination of heavy snow and high winds caused local power outages and damage to infrastructure. The storm delivered measurable snow as far south as the Gulf coast of Mississippi, Alabama, and extreme northwestern Florida. Snowfall topped 1 foot in a v-shaped wedge from Birmingham, AL, northeastward into southeastern Canada.

Storminess waned seasonally in California during March, but the State is already assured of its wettest water year (October 1 to September 30) since 1982-83. An average of more than 25 inches of precipitation has fallen on the State since October 1, 1992, which is approximately 140 percent of normal (fig. 3). On April 1, which is the traditional peak snowpack date, the water content of the high-elevation Sierra Nevada snow was greater than 40 inches, or 150 percent of normal. Warm weather during the month melted considerable snow below the 7,000-foot level, increasing the volume of the State's reservoir storage. As of April 1, California's largest 155 reservoirs contained 92 percent of their normal holdings for the date. Total storage has reached 7.98 trillion gallons (24.5 million acre feet), which represents a gain of 1.04 trillion gallons (3.2 million acre feet) from March 1, 1993. One year ago, reservoir storage stood at 6.00 trillion gallons (18.4 million acre feet), which was 69 percent of normal.

Figure 1

U.S. NATIONAL TEMPERATURE  
MARCH, 1895-1993



STRAIGHT HORIZONTAL LINES ARE:  
MAXIMUM VALUE (TOP),  
LONG-TERM AVERAGE (MIDDLE),  
MINIMUM VALUE (BOTTOM)

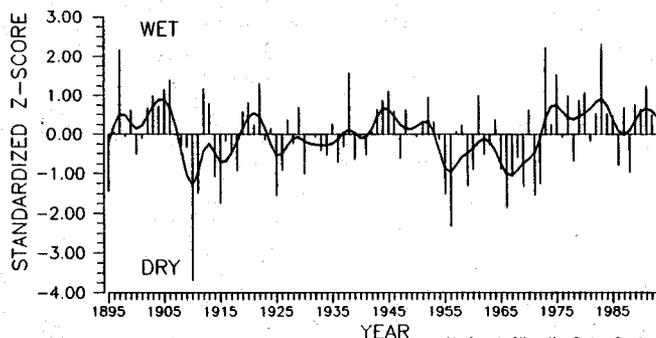
THICK SMOOTH CURVE  
IS 9-POINT BINOMIAL  
FILTER.

CONFIDENCE INTERVAL  
FOR CURRENT YEAR IS  
INDICATED BY \*.

National Climatic Data Center, NOAA

Figure 2

U.S. NATIONAL WEIGHTED MEAN PRECIPITATION INDEX  
MARCH, 1895-1993



THICK SMOOTH CURVE  
IS 9-POINT BINOMIAL  
FILTER.

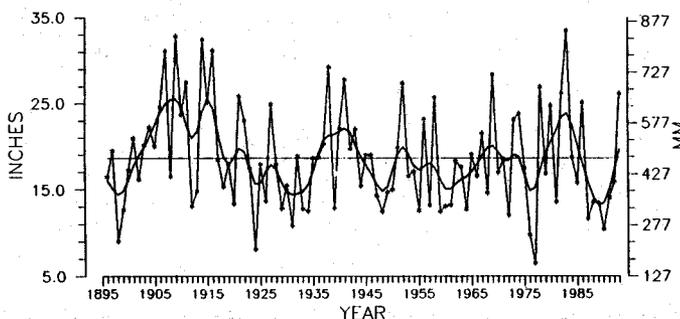
National Climatic Data Center, NOAA

TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR  
MARCH 1993, BASED ON THE PERIOD 1895-1993.  
1 = DRIEST/COLDEST, 99 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	86	21
EAST NORTH CENTRAL	36	39
CENTRAL	57	23
SOUTHEAST	92	15
WEST NORTH CENTRAL	8	63
SOUTH	54	28
SOUTHWEST	28	74
NORTHWEST	52	45
WEST	46	89
NATIONAL	51	39

Figure 3

CALIFORNIA STATEWIDE PRECIPITATION  
OCTOBER-MARCH, 1895-1993



THICK SMOOTH CURVE  
IS 9-POINT BINOMIAL  
FILTER.

National Climatic Data Center, NOAA

## National Agricultural Summary

April 5 - 11, 1993

**HIGHLIGHTS:** Heavy rains continued to fall across most of the Nation this past week, adding more moisture to fields that were already too wet. Temperatures remained below normal. The added moisture continued to delay spring fieldwork and to keep feedlots muddy and pastures soft. The cool weather delayed growth of pastures and newly emerged crops.

**SMALL GRAINS:** Winter wheat condition changed very little from the previous week and rated mostly good in the 19 major producing States. More than 30 percent (%) of the wheat rated excellent in California, Oregon, and Kansas. More than 10% of the wheat rated poor to very poor in Georgia. Heading of the winter wheat crop was at 1%, compared with 5% last year and the 5-year average of 3%. The crop needed more sunshine and dry weather. Some Texan fields had Russian wheat aphids, while hail damaged other fields. Some fields in Arkansas and Texas have rust. Cold weather impeded growth of the crop in Kansas. Only 5% of the Kansas crop had jointed, compared with 30% last year. The wet conditions have hampered the sowing of spring wheat. The spring wheat planting progress in the five major producing States was 1% planted, compared with 20% last year and 14% average. Planting progress was well behind last year and average in Idaho, Montana, and South Dakota. The wet conditions have also put the planting of spring oats, barley, and rye well behind normal.

**CORN:** Wet conditions continued to delay corn planting. Corn planting was 2% complete in the 17 major corn producing States, compared with 4% last year and 3% average. Planting was 2 weeks behind normal in Georgia, and further delayed by rainfall in Louisiana. Cut worms continued to plague some corn fields in the Texan Blacklands. Rains delayed planting in many regions of Texas. However, planting in the Rio Grande Valley was completed.

**COTTON:** Cotton planting was 7% completed, compared with 6% last year and 9% average. Planting progress was ahead of normal in Texas and New Mexico, but was delayed by rain in Arizona and California. Cotton planting progress in the South was equal to last year, but behind the average. Pre-planting activities were conducted in other States as weather permitted.

**SORGHUM:** Planting of the sorghum crop continued to be delayed in most areas by wet conditions. Planting progress in the 12 major States reached 16%, compared with 20% last year and 19% average. Some fields in Texas suffered damage from excessive rainfall. Planting in the Rio Grande Valley and south Texas neared completion. Seedbed preparation advanced in Oklahoma but remained behind average and normal.

**RICE:** Rice planting in the five major States, reached 8% complete, compared with 27% last year and 17% average. Planting progress advanced in the North and South Central and Upper Coast regions of Texas. Water mold infected some rice seedlings in Louisiana. Preparations for rice seeding continued in California. Arkansas rice planting continued where weather conditions allowed.

**OTHER FIELD CROPS:** Favorable weather conditions allowed the maple syrup harvest in New England and New York to

continue. Onion planting advanced in Colorado and Texas, but was delayed by rain in Oregon. Onion harvest in Texas continued but had not yet started in Georgia. Hail damaged some onion crops in Georgia. Potatoes were planted in Texas and in the San Jacinto District of California. In Idaho, planting progress reached 1% complete, compared with 7% last year and 4% average. Potato planting advanced in the Southeast where conditions allowed. Tobacco planting continued in the South, but has been delayed by wet conditions. In Kentucky, 59% of the beds were seeded, compared with 87% last year and 90% average. The cool conditions delayed plant progress in Tennessee and Kentucky. The tobacco crop nationally is in fair to good condition.

**FRUIT AND NUTS:** Apple trees in the Northwest and Southeast started to bud and bloom. Peaches bloomed in the Northwest. In northern Georgia, cold weather damaged some peaches. Rains in Idaho limited bee pollination and favored scab infections. Citrus harvests advanced slowly in western and central Arizona. In California, the navel orange harvest neared 75% completion. Producers reported that the crop had puff and rind problems. Lemon and Valencia orange harvests remained active. Almond growers expressed concern about possible jacket rot problems. Florida citrus groves remained in good to excellent condition with adequate moisture. Bloom continued in all stages with many trees in petal drop and fruit set. The Florida Valencia orange harvest gained momentum.

**VEGETABLES:** Vegetable planting in New Jersey and Maryland remained 2 weeks behind normal due to the continued wet conditions. In Georgia, cool and damp conditions also delayed planting and crop progress by 2 weeks. Watermelon planting in Georgia was only 56% completed, compared with 64% last year and 76% average. Vegetable areas in southwestern Florida received rain and strong winds. The south Florida vegetable harvest neared completion. The sweet corn harvest in the Everglades gained momentum. Tomato, pepper, cabbage, and celery harvests advanced in Florida. Vegetable planting advanced in the High Plains, Trans-Pecos, and eastern regions of Texas. Cabbage harvest in the Rio Grande Valley continued. Windy and dry conditions stressed watermelons in the Rio Grande Valley. In western Arizona, vegetable harvest neared completion. In central Arizona, broccoli, cabbage, carrot, and cauliflower harvests continued. Asparagus harvests in California, increased in the San Joaquin Delta, slowed in the westside area, and advanced in Yuba County. Broccoli, cauliflower, tomato, carrot, and lettuce harvests continued.

**PASTURE AND LIVESTOCK:** The cool, wet conditions continued to delay pasture growth in the South. Many pastures in the Nation needed higher temperatures and sunny, dry weather. Muddy feedlots from South Dakota to Indiana caused stress to livestock. Supplemental feeding continued for cattle in the northern Great Plains. Movement of Nevada livestock to summer pastures continued. Nationally, livestock are in fair to good condition.

### Crop Progress

for the Week Ending April 11, 1993

#### COTTON (Percent Planted)

	Current	Last Wk	1992	Avg.
AL	3	1	3	7
AZ	24	15	29	49
AR	0	0	0	0
CA	10	5*	25	30
GA	1	0	1	1
LA	0	0	3	1
MS	0	0	1	1
MO	0	0	0	0
NM	20	1	17	19
NC	0	0	0	0
OK	0	0	0	1
SC	0	0	0	0
TN	0	0	0	0
TX	13	12	11	11

14 States 7 6 8 9

\* Revised from last week.

These 14 States produced 99% of the 1992 cotton crop.

#### GRAIN SORGHUM (Percent Planted)

	Current	Last Wk	1992	Avg.
AR	6	4	24	8
CO	0	0	0	0
IL	0	0	0	0
KS	0	0	0	0
LA	2	1	10	15
MS	3	2	9	11
MO	0	0	0	0
NE	0	0	0	0
NM	0	0	0	NA
OK	1	0	1	1
SD	0	0	0	0
TX	42	36	51	48

12 States 16 13 20 NA

Excl. States with NA 16 14 20 19

These 12 States produced 99% of the 1992 grain sorghum crop.

#### RICE (Percent Headed)

	Current	Last Wk	1992	Avg.
AR	2	1	27	8
CA	0	0	0	0
LA	26	20	39	35
MS	3	1	18	11
TX	15	4	45	44

5 States 8 5 27 17

These 5 States produced 97% of the 1992 rice crop.

#### SPRING WHEAT (Percent Harvested)

	Current	Last Wk	1992	Avg.
ID	4	2	61	37
MN	0	0	7	8
MT	3	1	36	22
ND	0	0	6	5
SD	1	1	58	34

5 States 1 0 20 14

These 5 States produced 96% of the 1992 spring wheat crop.

#### WINTER WHEAT (Percent Headed)

	Current	Last Wk	1992	Avg.
AR	4	3	9	6
CA	50	20	50	43
CO	0	0	0	0
GA	10	4	18	39
ID	0	0	0	0
IL	0	0	0	0
IN	0	0	0	0
KS	0	0	0	0
MI	0	0	0	0
MO	0	0	0	0
MT	0	0	0	0
NE	0	0	0	0
NC	2	0	4	8
OH	0	0	0	0
OK	0	0	15	2
OR	0	0	0	0
SD	0	0	0	0
TX	4	2	14	9
WA	0	0	0	0

19 States 1 1 5 3

These 19 States produced 90% of the 1992 winter wheat crop.

#### CORN (Percent Planted)

	Current	Last Wk	1992	Avg.
CO	0	0	0	0
GA	45	28	75	77
IL	0	0	5	2
IN	0	0	0	0
IA	0	0	0	0
KS	0	0	10	5
KY	1	0	2	5
MI	0	0	0	0
MN	0	0	0	0
MO	2	0	11	7
NE	0	0	0	0
NC	5	2	28	22
OH	0	0	1	1
PA	0	0	0	0
SD	0	0	0	0
TX	41	37	52	60
WI	0	0	0	0

17 States 2 1 4 3

These 17 States produced 94% of the 1992 corn crop.

#### Crop Condition (Percent)

for the Week Ending April 11, 1993

#### WINTER WHEAT

State	VP	P	F	G	EX
AR	0	0	32	68	0
CA	0	0	5	45	50
CO	0	2	11	60	27
GA	0	12	61	27	0
ID	2	2	26	60	10
IL	0	1	13	77	9
IN	0	2	23	69	6
KS	0	1	2	55	42
MI	2	8	35	45	10
MO	1	4	53	41	1
MT	1	3	27	56	13
NE	0	0	20	66	14
NC	0	2	34	63	1
OH	2	8	27	54	9
OK	0	0	18	81	1
OR	0	1	3	48	48
SD	0	1	14	60	25
TX	0	2	44	48	6
WA	0	0	13	83	4
19 State	0	2	19	61	18
Prev Week	0	2	20	58	20
Prev Year	3	10	37	44	6

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

## 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 0.35 to 1.34 in. north; 0.32 to 0.89 in. central; none to 0.81 in. south. Temperatures 1 to 6° below normal north, central; 3 to 6° below normal south; Lows 35 to 46° north; 33 to 46° central; 40 to 48° south. Highs 77 to 82° north; 79 to 84° central; 76 to 83° south.

Days suitable for fieldwork 3.5. Soil moisture 38% adequate, 62% surplus. Acreage prepared 49%, 60% 1992, 59% avg. Corn planted 34%, 59% 1992, 61% avg. Sorghum planted 3%, 8% 1992, 10% avg. Peanuts planted 1%, 1% 1992, 4% avg. Wheat headed 18%, 30% 1992, 39% avg. Wheat turning color 3%, 2% 1992, 5% avg. Wheat condition 7% poor, 46% fair, 47% good. Pasture conditions 10% poor, 50% fair, 38% good, 2% excellent. Primary activities: harvesting timber; land preparation; planting corn, cotton, peanuts, and spring vegetables; applying fertilizer; spraying fruit; marketing cattle; ordering seed, other supplies; land-use planning and management; repairing damage from winter storm; general care of livestock, poultry, catfish.

**ARIZONA:** Rainfall limited, statewide. Scattered showers 5th, north, White Mountains. Clear skies, warming temperatures late-week statewide. Temperatures 3° below to 3° above normal. Extremes 20°; 87° higher elevations: 32°; 93° deserts.

Cotton field preparations active. Planting continued 18%, 29% 1992, 49% avg. Activities included: pre-irrigation, laser leveling, listing. Alfalfa condition mostly good. Harvest activities light to moderate all areas. Weed, insect infestations moderate to heavy; disease light. Small grains jointing 98%, 97% 1992, 98% avg. Heading 63%, 71% 1992, 71% avg. Fields in good to excellent condition. Vegetable harvest slowing western production areas. Broccoli, cauliflower, leaf, romaine, iceberg lettuce, available western areas. Also available west: anise, asparagus, broccoflower. Broccoli, cabbage, carrots, cauliflower, cilantro, dill, fava beans, mixed greens, kohlrabi, green onions, parsley, rapini, rutabagas, spinach, turnips available, central. Citrus harvest continued slow central, western areas. Valencia oranges, lemons, grapefruit, tangerines, tangelos available both areas.

**ARKANSAS:** Cool week, temperatures averaging a little below normal. Scattered showers beginning of week, heavy rain southeast middle of week. Temperatures 31°; 87°. Rainfall 0.50 to 4.35 in.

Days suitable for fieldwork 3. Soil moisture supplies 33% adequate, 67% surplus. Wheat condition fair to good, needs sunshine and dry weather. Producers applying fertilizer to wheat in dry areas. Some producers applying fertilizer by air. Septoria leaf blotch, rust in some wheat fields. Rice planting just underway. Corn 22% planted, 68% last year, 42% avg. Corn, sorghum planting ongoing as weather conditions allow. Livestock good condition. Pasture growth slow due to cool temperatures, damp conditions. Some fertilizer, lime applied. Pastures remain in good condition.

**CALIFORNIA:** Upper level systems moved over State during week, brought only light amounts of precipitation. The northwest coast saw the heaviest amounts, less than an inch for the entire week.

Light rain, wet soils interrupted field activities most areas. Small grains growing rapidly. Rice stubble burned where conditions, regulations allowed; some fields sprayed preplant herbicides. Limited progress cotton planting, San Joaquin Valley. Many growers awaiting higher soil temperatures. Desert area planting nearing completion. Alfalfa, oats, winter forages cut hay, green chopped. Established alfalfa treated weevils; sugar beets sprayed aphids, mites. Over-wintered sugar beet harvest underway. Few fields corn, safflower seeded. Cultural practices active; tree planting, suckering, cultivation, cutting and plowing of cover crops. Mildew, nematode treatment in grape vineyards. Asian pears, nectarines, peaches thinned. Apple trees in bloom, also treated for fireblight. Almond growers concerned about jacket rot. Navel orange harvest 75% complete; puff, rind problems plaguing the fruit. Valencia orange harvest slow. Crop picked to date mainly for export. Lemon harvest active in south coast area. San Joaquin Delta asparagus harvesting increased, westside slowed. Asparagus harvest Yuba County continued. Bell pepper transplants moved into beds, westside. Broccoli harvest Salinas-Watsonville areas was fairly heavy; moderate Santa Maria region. Quality was generally good both areas. Carrot harvesting continued Riverside desert region. Cauliflower harvest on the central coast moderate, variable quality. Fresh market tomato harvest reported in desert areas, San Joaquin Valley growers continued to plant. Head, leaf lettuce harvest continued central coast, westside, Riverside desert areas with good quality. Potatoes planting continued San Jacinto district. Processing tomatoes were thinned, weeded westside; planting continued Yuba County. A few growers on the westside began planting sweet corn. Other crops harvested included: eggplant, green beans, squash, turnips and oriental vegetables. Grazing conditions excellent. Cattle making good weight gains, new calves and lambs also doing well. Stocker cattle in high demand. Few alfalfa fields still being sheeped off. Movement to market near normal.

**COLORADO:** A fairly strong weather system affected the State on the 6th through the 8th. All areas received significant moisture with most major River Basins reporting 0.50 to 1.00 in. moisture. Mountain snow amounts were between 1 and 2 ft. in most locations. Fast-moving systems over the weekend produced 3 to 6 in. of new snow in the mountains but mostly less than 0.10 in. of moisture at lower elevations. Temperatures 2 to 3° above normal along Front Range, 2 to 3° below normal Eastern Plains, elsewhere normal.

Days suitable for fieldwork 2.1. Soil moisture 7% short, 66% adequate, 27% surplus. Spring barley seeded 28%, 34% 1992, 32% avg.; emerged 5%, 19% 1992, 13% avg. Oats seeded 21%, 46% 1992, 30% avg.; emerged 2%, 15% 1991, 11% avg. Spring wheat seeded 9%, 23% 1992, 14% avg. Sugarbeets planted 19%, 12% 1992, 23% avg. Dry onions planted 30%, 59% 1992, 44% avg. Winter wheat condition 2% poor, 11% fair, 60% good, 27% excellent. Cows calved 72%, 75% 1992, 70% avg.; ewes lambled 78%, 78% 1992, 75% avg. Livestock rated mostly good to excellent. Pasture, range feed condition good.

**FLORIDA:** Temperatures 4 to 6° below normal. Highs; low to mid 80s, upper 80s southeast. Lows; low to mid 40s north, upper 40s to low 50s central, interior south, mid 50s to low 60s southeast coast. Rain averaged 0.50 in. or less.

Soil moisture adequate to surplus. Grain corn planting virtually complete. Tobacco transplanting complete, cultivating fields. Peanut planting, cotton planting preparation delayed by rain. Sugarcane, winter wheat, good progress. Citrus groves, trees, fruit very good to excellent condition. Moisture adequate most areas. Some low volume irrigation on high sand hills. Bloom continues all stages. Many trees have had petal drop and fruit set. Early-mid orange harvest complete. Valencia movement increasing. Grapefruit movement active lower east coast. Temple and Honey tangerine harvest slowing. Caretakers cutting cover crops, post-bloom spraying, hedging, topping. Southwest vegetable area 5th strong wind, rain 1.00 to 2.00 in. Strong winds 0.50 in. rain 9th. Normal weather most of week. Harvest activity winding down south. Sweet corn picking increased Everglades. Volume leaders: Tomatoes, potatoes, peppers, cabbage, celery. Also available: Snap beans, carrots, chinese cabbage, sweet corn, cucumbers, eggplant, escarole, romaine lettuce, specialty lettuces, radishes, squash, cherry tomatoes. State's pastures poor to good. Pasture ratings, 10% poor, 55% fair, 35% good. State's cattle herds fair to good condition.

**GEORGIA:** Temperatures 3 to 6° below normal. Highs upper 70s northeast mountains to middle 80s south. Coolest lows middle 30s mountains to low 40s elsewhere. Rain 2 to 3 days. Rainfall under .50 in. central, south. Few isolated spots central over 1.00 in. North 1.00 to 2.00 in., some areas under 0.50 in.

Days suitable for fieldwork 3.0. Soil moisture 37% adequate, 63% surplus. Corn 10% poor, 62% fair, 26% good, 2% excellent; planting nearly two weeks behind normal. Cotton planting just underway. Sorghum 0% planted, 1% 1992, 4% avg. Peanuts 1% planted, 1% 1992, 2% avg. Tobacco 10% poor, 64% fair, 26% good; 36% transplanted, 60% 1992, 72% avg. Wheat 12% poor, 61% fair, 27% good; 90% jointing, 98% 1992, 97% avg.; 47% boot, 70% 1992, 76% avg.; disease reported more frequent south Georgia into central areas. Some additional freeze damage showing up also in south. Other small grains 12% poor, 73% fair, 15% good; disease in oats southeast areas. Onions 4% poor, 78% fair, 18% good; 0% harvested, 1% 1992, 2% avg.; some hail damage reported. Watermelons 16% poor, 71% fair, 13% good; 56% planted, 64% 1992, 76% avg. Other vegetables 17% poor, 59% fair, 24% good; planting, development 2 weeks behind normal. Apples 5% fair, 95% good; 8% blooming, 70% 1992, 63% avg. Peaches 7% very poor, 1% poor, 18% fair, 74% good; 92% blooming, 97% 1992, 98% avg.; some recent cold damage to peaches northern areas, extent unknown. Pasture 2% poor, 32% fair, 65% good, 1% excellent; Water-logged pasture slowing fertilizer, spraying application. Cattle, hogs good.

**HAWAII:** Showery weather returned to State during the Easter weekend interrupting prevailing sunny conditions. Higher elevations, windward areas received most rainfall. Temperatures high 50s to mid 80s. Rainfall none to 1.90 in.

Orchards crops benefited from mixture sunshine, showers. Irrigation remained essential for crop development many areas. Banana production continued at normal levels, while papaya output slightly lower. Watermelon plantings underway on Molokai, Oahu.

**IDAHO:** Temperatures 3° below normal to 3° above normal throughout State. Precipitation reported across the State.

Days suitable for fieldwork 3. Soil moisture 2% short, 73% adequate, 25% surplus. Winter wheat mostly good, some snow mold reported. Spring barley planted 4%, 55% 1992, 33% avg. Oats planted 2%, 46% 1992, 21% avg. Potatoes planted 1%, 7% 1992, 4% avg. Irrigation water supplies 2% very poor, 2% poor,

19% fair, 56% good, 21% excellent. Hay, roughage 12% short, 86% adequate, 2% surplus. Activities: Pasture, range condition 91% of normal. Calving completed 98%. Lambing completed 94%. Livestock reported in mostly good condition.

**ILLINOIS:** Temperatures within a few degrees of normal across the State. Highs mid 50s to lower 60s. Lows mid 30s to mid 40s. Precipitation was greatest south, 1.30 to near 2.00 in., while the rest of the State received less than 1.00 in., except for Rockford which received more than 1.50 in.

Days suitable for fieldwork 0.75. Soil moisture 14% adequate, 86% surplus. Oats planted 4%, 65% 1992, 46% avg. Alfalfa condition 70% good, 30% fair. Fieldwork remains minimal as farmers await drier conditions. Farm activities included machinery preparation, applying fertilizer, hauling grain, manure, tending livestock under continued muddy conditions. Pasture condition 87% of normal.

**INDIANA:** Temperatures within a few degrees of normal in most areas. Highs mid 50s north to mid 60s along the Ohio River. Lows in the upper 30s to middle 40s. Precipitation exceeded 1.00 in. over much of the southwest. Amounts were generally 0.50 in. or less across the north, except 0.80 to 1.00 in. northeast.

Wet weather continued to hinder any attempts at fieldwork. Livestock have suffered continued stress from wet, muddy conditions. Pastures only 77% of normal, 79% last week. Wheat crop ratings improved slightly from last week. Topsoil rated 34% adequate, 66% surplus. Subsoil moisture 1% short, 49% adequate, 50% surplus. Oats seeded 9%, 37% 1992, 38% avg. Spring tillage 41%, 68% 1992, 69% avg.

**IOWA:** Temperatures within 1° of normal. Extremes 25°; 70°. Precipitation 0.22 in. southeast to 1.74 in. central; average 0.76 in.

Farmers had no suitable days for fieldwork. Topsoil 5% adequate, 95% surplus. Subsoil 26% adequate, 74% surplus. Fertilizer application 21%, 53% 1992, 54% normal. Primary seedbed preparation completed 22%, 51% 1992, 57% normal. Oats sown 0%, 71% 1992, 55% normal. Winter wheat condition 2% very poor, 6% poor, 44% fair, 46% good, 2% excellent. Mud, cold weather causing higher calf losses.

**KANSAS:** Temperatures 3 to 8° below normal over State. Significant precipitation received all districts.

One-half day suitable fieldwork. State experienced below normal temperatures; precipitation fell on already saturated fields. Fieldwork progress behind normal. Little spring seedbed preparation completed because wet field conditions. State topsoil moisture 20% adequate, 80% surplus. Subsurface moisture 53% adequate, 47% surplus. Wheat condition 97% good to excellent, 2% fair, 1% poor. Cold past week continued impede wheat growth. Wheat progress behind normal. Only 5% of State's wheat acreage jointed, compared with avg. 30%. Mud remains problem for livestock, stockmen. Pastures providing about 20% cattle roughage requirements. Some shortages hay because high usage.

**KENTUCKY:** Temperatures near normal. Highs mid 70s to lower 80s. Lows, lower to mid 30s. Precipitation 0.25 to 0.50 in. below normal central, east. Northwest counties received 2.00 in, where weekend showers pushed averages 1.00 to 1.50 in. above normal.

Days suitable for fieldwork 2.5. Soil moisture 64% surplus, 35% adequate, 1% short. Wheat 2% poor, 21% fair, 68% good, 9% excellent. Barley 1% poor, 17% fair, 66% good, 16% excellent. Tobacco beds 59% seeded, 87% 1992, 90% avg. Tobacco plants 16% emerged, 40% 1992 and avg. Pastures good condition. Sunshine, warmer temperatures needed to stimulate grass growth.

**LOUISIANA:** Temperatures 6.0 to 8.8° below normal. Extremes 38°; 84°. Rainfall 1.94 in. northwest to 7.12 in. south central.

Days suitable for fieldwork 1.0. Soil moisture 2% adequate, 98% surplus. Corn 9% very poor, 22% poor, 69% fair; 53% planted, 86% 1992, 70% avg.; 37% emerged, 64% 1992, 52% avg. Planting behind schedule was further delayed. Cotton 0% planted, 3% 1992, 1% avg. Rice 26% planted, 39% 1992, 35% avg.; 15% emerged, 23% 1992, 21% avg. Water mold reported on some seedling rice. Sorghum 2% planted, 10% 1992, 15% avg.; 0% emerged, 2% 1992, 7% avg. Spring plowing 46% plowed, 67% 1992, 57% avg. Virtually no plowing done this week. Sweet potatoes 0% planted, 0% 1992, 1% avg. Planting off to a very slow start. Wheat 12% very poor, 28% poor, 51% fair, 9% good; 44% headed, 64% 1992, 66% avg.; 4% turning color, 1% 1992, 0% avg. Freeze damage continues to materialize. Sugarcane 1% poor, 79% fair, 10% good, 10% excellent. Wet conditions stopped all fieldwork. Livestock 2% poor, 58% fair, 40% good. Pastures 13% very poor, 1% poor, 11% fair, 75% good. Pasture growth slow. Vegetables 8% very poor, 22% poor, 65% fair, 5% good. Planting, replanting active, weather permitting.

**MARYLAND & DELAWARE:** MARYLAND: Precipitation 0.08 in. Temperature 46.2°, normal 52.1°. Extremes 23°; 70°.

Days suitable for fieldwork 2.1. Topsoil moisture 12% adequate, 88% surplus. Subsoil moisture 21% adequate, 79% surplus. Pastures, small grains growing well, most wet but need nitrogen. Potato, green pea planting behind; most other field crop planting just beginning. Fruit bloom 1 to 2 weeks behind.

DELAWARE: Precipitation 0.23 in. Temperature 45.3°, normal 52.3°. Extremes 30°; 68°.

Pastures, small grains beginning spring growth, most wet, need fertilizer. Potato, green pea planting beginning, usually mid point. Fruit bloom beginning, 1 to 2 weeks late. Some field preparation, most farmers anxious to start.

**MICHIGAN:** Extremes 25°; 67°. Precipitation 0.09 to 0.97 in. across the State. Corn harvested advanced to 97%. Winter wheat 2% very poor, 8% poor, 35% fair, 45% good, 10% excellent. A equal mix of overcast, sunny days, with mild temperatures from beginning to end. Fields were soft, muddy from melting snow, intermittent rainfall. Livestock were in good condition. Feed supplies remained adequate to short with overall quality poor. Major activities included hauling manure, pruning fruit trees, ordering seed, fertilizer, repairing machinery, spraying weeds.

**MINNESOTA:** Temperatures 3° below normal to 3° above normal for the State. Extremes 18°; 58°. Precipitation 0.18 to 1.45 in., 0.14 in. below normal to 0.80 in. above normal. Greatest weekly total 1.57 in.

Continued cool, wet weather has kept farmers out of the fields. Snow fell in many parts of the State over the weekend. No seeding has been reported as of 11th compared with 7% of the spring wheat seeded by this time last year, 8% seeded for the 5-year average.

**MISSISSIPPI:** Temperatures 56°, 6.0 below normal. Extremes 27°; 80°. State received above normal rainfall, averaging 1.77 in., 0.52 above normal. Soil temperature 56°.

Days suitable for fieldwork 1.0, 4.8 1992, 2.7 avg. Soil moisture 7% adequate, 66% surplus, 27% excessive. Corn 22% planted, 45% 1992, 43% avg.; 10% emerged, 26% 1992, 29% avg.; 36% poor, 57% fair, 7% good. Cotton 0% planted, 1% 1992, 1% avg. Peanuts 1% planted, 2% 1992, 5% avg. Rice 3% planted, 18% 1992, 11% avg.; 1% emerged, 1% 1992, 6% avg. Sorghum 3% planted, 9% 1992, 11% avg.; 2% emerged, 3% 1992, 4% avg. Watermelons

23% planted, 38% 1992, 40% avg. Wheat 72% jointing, 87% 1992, 90% avg.; 10% heading, 26% 1992, 32% avg.; 4% poor, 78% fair, 18% good. Peaches 20% very poor, 17% poor, 41% fair, 22% good. Livestock 14% fair, 85% good, 1% excellent. Pasture 86% of normal. Activities: Shopwork, some field preparation, fertilizer application.

**MISSOURI:** Temperatures below normal all areas; up to 8° below normal southwest. Precipitation 0.47 in., largest amounts 1.00 in. northwestern district, 1.63 in. southeastern district. Some rivers running full or over banks.

Days suitable for fieldwork 0.5. Topsoil 10% adequate, 90% surplus. Oats sown 11%, 75% 1992, 71% avg. Ground worked at least once for spring crops 31%, 60% 1992, 60% avg. Warm, dry weather needed before fieldwork becomes general. Pasture 1% very poor, 21% poor, 43% fair, 33% good, 2% excellent.

**MONTANA:** Temperatures above normal. Precipitation above normal west, up to 0.93 in., less than normal east ranging from light precipitation to up to 0.63 in.

Days suitable for fieldwork 4.4. Topsoil 12% short, 82% adequate, 6% surplus. Subsoil moisture 32% short, 64% adequate, 4% surplus. Field tillage work progress 47% none, 35% just started, 18% well underway. Winter wheat 13% still dormant, 65% greening, 22% green and growing. Barley planted 8%, 41% 1992, 23% avg. Oats planted 5%, 36% 1992, 27% avg. Sugarbeets planted 35%, 18% 1992, 20% avg. More than 91% of livestock receiving supplemental feed. Current rate of range grass growth compared to normal 38% slow, 57% average, 5% above average. Calving 72% complete, lambing 62% complete.

**NEBRASKA:** Temperatures near normal across the State. Scattered precipitation occurred throughout the week varying from 0.10 in. north central to 1.10 in. northeast.

Days suitable for fieldwork 0.7. Topsoil moisture 34% adequate, 66% surplus. Subsoil moisture 71% adequate, 29% surplus. Wheat 20% fair, 66% good, 14% excellent. Oat planting 2% complete, 71% 1992, 64% avg. Pasture, range condition 97% of normal. Spring calving 76% complete. Monitoring, working with farm-stored grain.

**NEVADA:** Precipitation generally light with most amounts 0.10 in. or less. Strong gusty winds latter part of week. High temperatures in 40s to low 50s across northern, central areas, 60s in south.

Fieldwork, spring planting making progress all areas. Producers using surface water for irrigation should have 100% of normal water allocations this year. Livestock movement to summer pastures underway.

**NEW ENGLAND:** Precipitation none to 1.60 in. north; 0.20 to 0.89 in. south; temperatures high 30s to mid 40s. Maximum temperatures mid 50s to mid 60s. Minimum temperatures low teens to low 30s.

Major farm activities: General repairs, maintenance, tending livestock, moving crops from storage. Maple sugaring improved with midweek cool nights, warm days. Less than ideal conditions by the weekend keeping overall progress behind last year.

**NEW JERSEY:** Temperatures below normal. Extremes 25°; 70°. Rainfall 0.55 in. north, 0.20 in. central, 0.58 in. south. Heaviest 24-hour total 1.15 in. on 10th, 11th. Estimated soil moisture, in percent field capacity, averaged 99% north, 96% central, 95% south. Four inch soil temperatures averaged 44° north, 45° central, 46° south.

Planting, ground preparation 2 to 3 weeks behind due to excessive topsoil moisture, rains. Some planting of various types of lettuce,

escarole, endive. Planting of other early vegetables about 2 weeks behind due to wet ground conditions. Limited supplies of vegetables from storage moving through markets. Fruits not yet in bloom due to cool temperatures.

**NEW MEXICO:** Temperatures close to normal. Extremes 10° northern mountains; 92° southeastern desert. Precipitation was heaviest in the north central mountains, light, spotty elsewhere.

Days suitable for fieldwork 6.4. Soil moisture 44% short, 55% adequate, 1% surplus. A few reports of light wind, freeze damage, mainly effecting apricot, peach trees. Crop conditions: Alfalfa 3% poor, 28% fair, 69% good; insect reports in various areas. Corn planting active in southern counties. Irrigated wheat 21% fair, 75% good, 4% excellent. Dryland wheat 10% very poor, 30% poor, 50% fair, 10% good with additional moisture needed. Chile 43% fair, 57% good; planting on the downside. Onions 13% fair, 87% good. Lettuce mostly good. Cattle, sheep fair to excellent condition. Range, pasture 79% of normal.

**NEW YORK:** Week started cool, warmed rapidly. Highs reached into the 60s at midweek while lows were in the mid 30s to mid 40s. Extremes 5°; 72°. Dry weather prevailed until weekend. Heavy rain occurred in central areas of the State. Rainfall 1.50 to 3.00 in. causing considerable flooding.

Major activities: Caring for livestock, spreading manure, maintenance, making maple syrup. Cool nights, warm days early in the week caused good sap flows. Producers were boiling sap from these runs.

**NORTH CAROLINA:** Temperatures 3 to 7° below normal. Precipitation 1.06 in. at Charlotte to 4.30 in. at Wilmington.

Days suitable for fieldwork 2.1. Soil moisture 22% adequate, 78% surplus. Crop condition: Pasture 6% poor, 29% fair, 63% good, 2% excellent. Winter wheat 2% poor, 34% fair, 63% good, 1% excellent. Oats 3% poor, 35% fair, 62% good. Barley 3% poor, 31% fair, 66% good. Rye 3% poor, 32% fair, 63% good, 2% excellent. Tobacco plant beds 3% very poor, 4% poor, 37% fair, 52% good, 4% excellent. Irish potatoes 4% very poor, 14% poor, 46% fair, 36% good. Peaches 4% poor, 17% fair, 75% good, 4% excellent. Truck crops 4% very poor, 8% poor, 57% fair, 31% good. Hay, roughage supplies 3% very short, 16% short, 79% adequate, 2% surplus. Tobacco plant bed supply 5% very short, 6% short, 87% adequate, 2% surplus. Feed grain supplies 1% very short, 3% short, 95% adequate, 1% surplus. Irish potatoes planted 81%, 97% 1992, 85% avg. Cabbage transplanted 76%, 90% 1992, 80% avg. Corn planted 5%, 28% 1992, 22% avg. Major activities: Tobacco plant bed maintenance, land preparation for planting. Other activities: Planting corn, potatoes, cabbage; tending livestock; general farm maintenance.

**NORTH DAKOTA:** Precipitation in the form of rain early in week, snow, rain at weekend. Temperatures 2° below normal southeast to 3° above normal northwest. Extremes 20° northwest, west central, southwest, south central; 63° southwest. Precipitation 0.06 in. northeast to 0.93 in. south central.

Topsoil 2% very short, 7% short, 84% adequate, 7% surplus. Subsoil 9% very short, 43% short, 46% adequate, 2% surplus. Expected starting date for fieldwork 17th, average 15th. Winter wheat 0% very poor or poor, 34% fair, 66% good, 0% excellent; 61% dormant, 39% green. Winter kill: 14% less than normal, 86% normal. Hard red spring wheat none planted, 6% 1992, 5% avg.; durum wheat none, 1% 1992, 1% avg.; barley none, 3% 1992, 4% avg.; oats none, 6% 1992, 3% avg. Livestock mostly good, nearly all received supplemental feed. Calving 70% complete, lambing

78%, shearing 85%. Hay, roughage supplies 13% short, 86% adequate, 1% surplus. Grain, concentrate supplies 95% adequate, 5% surplus. Pasture condition 80% of normal; 88% still dormant.

**OHIO:** Spring battled winter for control during the week with spring edging out a slight advantage. Warm sunshine was prevalent many days with a few periods of cloudy, cooler weather. Temperatures 2 to 4° above normal across the State with mean readings between the mid to upper 40s in the north to the mid 50s in the south. Daytime highs upper 50s to mid 60s with mean lows between 36 and 46°. The heaviest precipitation fell in a band over western areas where slightly more than 1.00 in. was noted from Dayton to Findlay. Another area of more than 1.00 in. of moisture occurred around Mansfield. Elsewhere most totals ranged between 0.25 to 0.75 in. with 0.60 in. on average except over the far southeast where amounts held closer to 0.30 in.

Days suitable for fieldwork 2.9. Soil moisture 36% adequate, 64% surplus. Oats planted 2%, tobacco beds sown 29%. Winter wheat, hay, pasture all rate mostly fair to good. Field activities included plowing, hauling manure, spreading fertilizer, applying anhydrous ammonia, planting oats, tobacco beds, sweet corn, cabbage, potatoes. However, wet conditions have delayed most fieldwork.

**OKLAHOMA:** Temperatures 2° below normal west central, south central, southeast to normal northeast, east central. Precipitation none many areas to 0.07 in. Panhandle, southeast.

Days suitable for fieldwork 3.1. Topsoil 32% adequate, 68% surplus. Subsoil 100% adequate. Wheat 18% fair, 81% good, 1% excellent; 66% jointing, 92% 1992, 66% avg. Oats 18% jointing, 65% 1992, 37% avg. Barley 23% jointing, 56% 1992, 44% avg. Corn 78% seedbed prepared, 83% 1992, 82% avg.; 18% planted, 20% 1992, 16% avg.; 7% up-to stand, 7% 1992, 3% avg. Sorghum 14% seedbed prepared, 38% 1992, 43% avg.; 1% planted, 0% 1992, 1% avg. Soybeans 17% seedbed prepared, 47% 1992, 36% avg.; 2% planted, 1% 1992, 1% avg. Peanuts 47% seedbed prepared, 42% 1992, 44% avg. Cotton 57% seedbed prepared, 51% 1992, 48% avg. Pastures 90% of normal. Livestock 35% fair, 64% good, 1% excellent. Prices for feeder steers and heifers \$1.00 to \$2.00 per cwt. lower. Marketings were average.

**OREGON:** Temperatures 1 to 3° above normal, western areas; eastside 1 to 3° below normal. Showers, thunderstorms almost daily across the State. Precipitation 2.00 to 4.00 in. coastal areas, 4.50 in. coastal mountains; 1.00 to 2.00 in. western interior. High river flow due to snow melt, Cascades and east.

Soil moisture mostly adequate across State. Cool weather delayed growth in higher elevations, east; crops growing well, behind normal, west. Bud development going well, Hood River Valley; rains favor scab infection; fruit tree development behind normal, Milton-Freewater; Willamette Valley. sweet cherries, pears, apples, prunes blooming, bee activity limited by rains, strawberries good, pruning, herb, spraying, liming, fertilizing continued on caneberries. Cranberries roughneck stage, southern areas coast. Onion planting delayed, sweet corn planting in 10 days, Jackson County; fava beans up, Lane County; early snap beans emerged, Marion County; field activity for potatoes, onions, green peas, Morrow County; potato, onion planting continuing, Hermiston area. Livestock good. Supplemental feeding, eastern areas, Klamath County. Calving winding down, branding starting statewide. Pastures need sunshine, warm weather, all areas.

**PENNSYLVANIA:** Above normal temperatures, precipitation. Temperature 49°, 6° above normal. Extremes: 23°; 74°. Precipitation 1.18 in., 0.37 in. above normal.

Days suitable for fieldwork 2. Soil moisture 22% adequate, 78% surplus. Plowing 2% complete, 20% 1992, 23% avg. Corn 0% planted, 0% 1992, 0% avg. Soybeans 0% planted, 0% 1992, 0% avg. Oats 0% planted, 15% 1992, 22% avg. Potatoes 0% planted, 1% 1992, 8% avg. Tobacco beds 3% planted, 57% 1992, 52% avg. Barley 100% pre-boot, 100% 1992, 100% avg.; 0% boot, 0% 1992, 0% avg.; 0% heading or headed, 0% 1992, 0% avg. Wheat 100% pre-boot, 100% 1992, 100% avg.; 0% boot, 0% 1992, 0% avg.; 0% heading or headed, 0% 1992, 0% avg. Wheat 8% very poor, 5% poor, 31% fair, 43% good, 13% excellent. Hay stands mostly fair to good. Peaches 100% pre-pink, 100% 1992, 100% avg.; 0% pink, 2% 1992, 20% avg.; 0% full bloom or past, 0% 1992, 5% avg. Cherries 100% pre-pink, 100% 1992, 100% avg.; 0% pink, 4% 1992, 13% avg.; 0% full bloom or past, 0% 1992, 3% avg. Apples 100% pre-pink, 100% 1992, 100% avg.; 0% pink, 3% 1992, 5% avg. Activities: Hauling manure; maintaining machinery; fixing fence; caring for livestock.

**PUERTO RICO:** Average island rainfall of 0.60 in. was 0.32 in. below normal. Highest weekly rainfall was 2.45 in. at Arecibo Ionospheric Obs. and 2.29 in. at Cerro-Gordo Ciales. Highest 24-hour total was 2.26 in. at Cerro-Gordo Ciales on April 9. Island temperatures 78 to 79° on the coasts and 70 to 71° in the interior with mean station temperatures ranging from 62.4° at Cerro Maravilla to 81.2° at Guayama. Extremes 53°; 92°.

**SOUTH CAROLINA:** Temperatures across the State 2 to 3° below normal. Average precipitation 1.70 in.

Days suitable for fieldwork 3.7. Soil moisture 75% adequate, 25% surplus. Tobacco fair to good; 8% planted, 17% 1992, 27% avg. Corn fair; 46% planted, 69% 1992, 67% avg. Cantaloupes fair to good; 33% planted, 41% 1992, 45% avg. Watermelons fair; 42% planted, 55% 1992, 62% avg. Cucumbers fair to good; 39% planted, 42% 1992, 52% avg. Snapbeans fair to good; 41% planted, 33% 1992, 32% avg. Tomatoes fair to good; 64% planted, 79% 1992, 78% avg. Oats fair to good; 6% headed, 15% 1992, 21% avg. Wheat fair to good; 2% headed, 5% 1992, 19% avg. Peaches fair to good. Pastures fair to good.

**SOUTH DAKOTA:** Temperatures mostly in the low 40s, within 5° of normal. Extremes 7°; 72°. It was a wet week with precipitation well above normal at all stations. Rainfall one-third of an inch to over 2.00 in. Maximum 2.06 in.

Days suitable for fieldwork 0.3. Topsoil 1% short, 54% adequate, 45% surplus. Subsoil 2% very short, 10% short, 64% adequate, 24% surplus. Rye 3% very poor, 0% poor, 12% fair, 71% good, 14% excellent. Due to continued wet conditions very little spring grain acreage has been seeded. Livestock 1% very poor, 0% poor, 7% fair, 77% good, 15% excellent. Cool wet weather, muddy feedlots continue to make conditions hard on livestock. Lambing was 66% complete, calving was 50% complete. Pasture conditions 88% of normal.

**TENNESSEE:** Temperatures near or below normal for the week. Memphis was the only exception with an average of 3° above normal. The high for the state was 82° at Chattanooga on 4th with the coolest temperature being 35° at Crossville on 7th, at the Tri-Cities airport on 4th. Rainfall near or above normal across all but the middle section. Jackson had the most rain with 2.37 in. while Nashville had the least with 0.83 in. recorded for the week.

Days suitable for fieldwork 1.4. Soil moisture 30% adequate, 70% surplus. Corn 1% planted, 14% 1992, 8% avg. Tobacco 80% seeded, 97% 1992, 95% avg.; 40% plants up, 67% 1992, 63% avg. Wheat 28% jointed, 57% 1992, 58% avg.; 0% poor, 27% fair, 71%

good. Apples 69% budding or beyond, 81% 1992, 77% avg.; 17% blooming or beyond, 44% 1992, 49% avg. Peaches 92% budding or beyond, 95% 1992, 88% avg.; 79% blooming or beyond, 90% 1992, 79% avg. Pastures 5% poor, 32% fair, 52% good, 11% excellent. Cattle 0% poor, 32% fair, 65% good, 3% excellent.

**TEXAS:** Strong weather system formed over High Plains mid-week, triggered extensive rains north-central, eastern portions. Cooler air followed, lowered temperatures West, North. Some cooling offset by warm, dry air over weekend. Drying rates shot upward at week's end. Temperatures slightly below normal Southern Low Plains, East Texas, South. Dry air flowing off higher elevations caused sharp warming over West Texas, offset earlier cool conditions. Heavy rains over eastern half State kept weekly rain totals ahead normal, while western half was relatively dry.

**Crops:** Corn planting continued Plains. Cut worms, water damage problems some fields Blacklands. Planting delayed by rains except Plains, Trans-Pecos. Planting complete Rio Grande Valley. Statewide corn condition 76% normal, 89% 1992. Sorghum planting slow most areas. High Plains, pre-plant irrigation taking place. Some fields Blacklands suffered damage excess rainfall. Planting South Texas, Rio Grande Valley nearing completion. Statewide sorghum condition 71% normal, 79% 1992. Land preparation activities cotton planting continued Plains, Cross Timbers. Warmer soil temperatures needed planting to begin. Planting Blacklands delayed by inclement weather. Coastal Bend, replanting fields completed. Rice planting activities increasing Central Texas, along Upper Coast, conditions allowing. Some early soybean planting Blacklands was underway, conditions allowing. Small grains Plains experienced increased insect activity, greenbug, Russian wheat aphid populations on rise. Most fields responding well dry, windy conditions. Several fields Low Plains destroyed by severe hail previous week. Rust problem Blacklands. Statewide wheat condition 77% normal, 87% 1992.

**Commercial Vegetables:** Rio Grande Valley, onion, cabbage harvests continued. Melons progressing well, some stress from high winds, dry conditions. High Plains, onions, potatoes, carrots planted. Land preparation cabbage planting continued. East Texas, squash, tomatoes planted. Watermelon planting continued. Trans-Pecos, chile pepper planting continued. Onion, melon planting began. Peaches doing well across most State. Spraying for brown rot continued Blacklands, Hill Country, East Texas. Pecan trees budded, looking good South Texas, Trans-Pecos, East Texas. Trees leafed out most areas, producers applying zinc.

**Range and Livestock:** Supplemental feeding limited most areas. Pastures continued green, provide forage. Low Plains, movement cattle off small grain pastures continued. Lice infestations increasing Blacklands, East Texas, Trans-Pecos. Overall livestock condition remained fair, good.

**UTAH:** Temperature maximums 2° below normal, minimums 2° above normal. Precipitation was heavy across eastern areas, moderate for central areas, light across western areas.

Days suitable for fieldwork 4.5. Soil moisture 1% short, 44% adequate, 55% surplus. Winter wheat condition 25% good, 75% adequate. Fall barley condition 18% good, 82% adequate. Spring wheat planted 14%, 86% 1992, 68% avg. Spring wheat 5% emerged. Barley planted 20%, 84% 1992, 65% avg. Barley 5% emerged. Oats planted 13%, 58% 1992. Apricots 13% full bloom or past. Sweet cherries 4% full bloom or past. Peaches 6% full bloom or past. Pears 4% full bloom or past. Apples 2% full bloom or past. Cows calved 68%, 77% 1992. Ewes lambled on farm 74%, 85% 1992. Ewes lambled on range 33%, 38% 1992. Sheep sheared on farm 53%, 73% 1992. Sheep sheared on range 25%, 58% 1992.

**VIRGINIA:** Temperatures 6° below normal. Extremes 23°; 77°. Precipitation near normal, ranging from a trace to 1.59 in.

Days suitable for fieldwork 1.5. Topsoil 32% adequate, 68% surplus. Pasture 8% poor, 39% fair, 49% good, 4% excellent. Alfalfa 5% poor, 39% fair, 56% good. Other hay condition 2% poor, 54% fair, 44% good. Wheat 4% poor, 62% fair, 32% good, 2% excellent. Barley 1% poor, 62% fair, 34% good, 3% excellent. Peach 7% poor, 29% fair, 64% good. Apple 7% poor, 27% fair, 60% good, 6% excellent. Tobacco planted 2% very poor, 34% poor, 44% fair, 20% good. Potato planting continued, hampered by wet field conditions. Corn planting just beginning with 1% planted, 4% 1991, 8% avg. Topdressing small grains, liming, fertilizing land, spraying fruit trees, overseeding pastures. Hay supplies in the west are reported as running short.

**WASHINGTON:** Temperatures 4 to 7° above normal west; 7 to 12° above normal east. Precipitation 0.73 in. to 2.36 in. west; 0.10 in. to 1.19 in. east.

Days suitable for fieldwork 3.3. Soil moisture 29% short, 71% adequate. Irrigation water supply 41% short, 59% adequate. Hay, other roughage 8% very short, 54% short, 38% adequate. Range, pasture 13% very poor, 7% poor, 42% fair, 38% good. Winter wheat dryland 15% fair, 80% good, 5% excellent; irrigated 100% good. Spring wheat dryland 4% fair, 96% good; irrigated 5% fair, 95% good. Barley dryland 20% fair, 80% good; irrigated 5% fair, 95% good. Warm, wet weather prevailed. Rain welcomed by dryland grain growers, many eastside fields still too wet to work. Some reseeding of winter wheat expected due to snow mold. Peaches, apricots blooming in early fruit districts; orchard insecticide, herbicide applications continued. Pastures, ranges exhibited strong growth; producers turned herds out to graze.

**WEST VIRGINIA:** Temperature 51°. Extremes 24°; 82°. Precipitation 0.77 in.

Days suitable for fieldwork 2.3. Soil moisture, 46% adequate, 54% surplus. Wheat, 18% fair, 82% good. Barley, 25% fair, 75% good. Hay, 11% poor, 54% fair, 35% good. Apples, good. Peaches, good. Soil prepared, 19%. Tobacco beds planted, 25%. Pastures, 3% very poor, 7% poor, 35% fair, 55% good; 5% still dormant, 95% growing; 85% of normal. Cattle, 12% fair, 88% good. Sheep, 6% fair, 94% good. Hay feed supplies, 38% short, 62% adequate. Other feed supplies, adequate. Farm activities: feeding livestock, bookkeeping.

**WISCONSIN:** Temperature 40°, 1° above normal. Extremes 16°; 65°. Heavy snow developed in parts of the north on the 11th. Greatest amounts occurred at Minoqua, Eagle River with 12 in. Other northern areas of the State received up to 8 in., southern areas received up to 1.00 in. of rain.

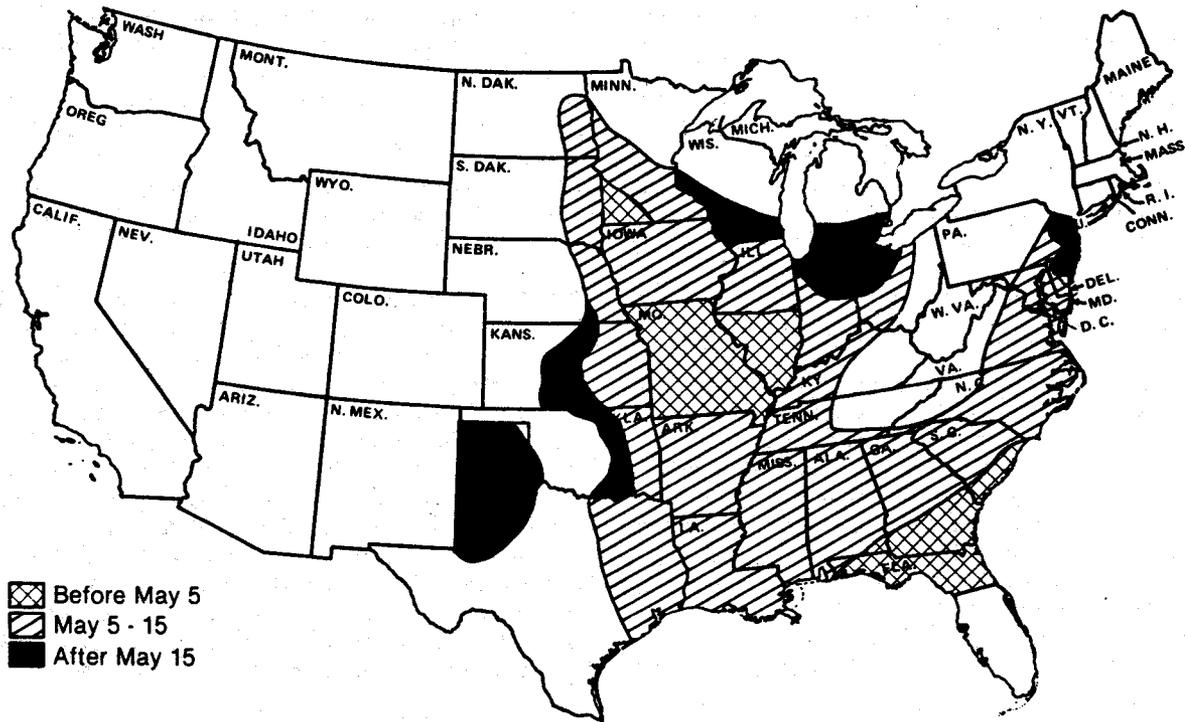
Days suitable for fieldwork 0.3. Soil moisture 40% adequate, 60% surplus. Intended spring tillage 5% complete, 5% in 1992, 5% avg. Oats 0% planted, 5% in 1992, 5% avg. 1992 corn for grain crop 93% harvested.

**WYOMING:** Cool, wet weather prevailed across State. Temperatures 1 to 5° above normal except the northeast 7° above normal. Precipitation was above normal with the exception of the northeast, north central areas where it was slightly below normal.

Days suitable for fieldwork 2.5. Topsoil 3% short, 80% adequate, 17% surplus. Spring wheat 6% planted, 31% 1992, 24% avg. Oats 4% planted, 23% 1992, 20% avg. Barley 25% planted, 59% 1992, 57% avg. Sugarbeets 5% planted, 30% 1992, 24% avg. Cattle, calves in fair to mostly good condition. Spring calves born 71%, 71% 1992, 72% avg. Calf death losses varied light to heavy. Sheep, lambs in fair to mostly good condition. Farm flock: Ewes lambed 78%, 79% 1992, 77% avg.; shorn 69%, 80% 1992, 72% avg. Range flock: Ewes lambed 19%, 32% 1992, 34% avg.; shorn 29%, 60% 1992, 47% avg. Lamb death losses light to mostly normal. Stockwater supplies 10% short, 82% adequate, 8% surplus. Pastures, ranges 65% still dormant, 35% growing.

### Soybeans for Beans

Usual Start of Planting, Principal Areas in the United States



## International Weather and Crop Summary HIGHLIGHTS

April 4 - 10, 1993

**FSU-WESTERN:** Light to moderate showers and continued unseasonably warm weather promoted early winter grain growth.

**EUROPE:** Variable showers across most crop areas helped greening winter grains and spring crop planting.

**NORTHWESTERN AFRICA:** Dry weather covered winter grains in Morocco, Algeria, and Tunisia.

**SOUTH AFRICA:** Dry, warm weather favored corn drydown. In the Cape Province, timely rain boosted topsoil moisture for winter wheat planting.

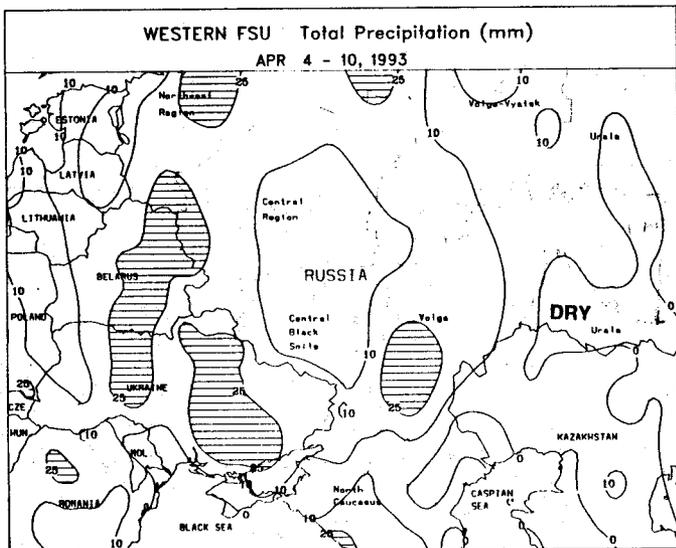
**SOUTH ASIA:** Winter crop harvests progressed. Rain benefited immature rice in the east.

**SOUTHEAST ASIA:** Showers continued over Indonesia and Malaysia. Variable rain brought relief to Thailand's immature rice.

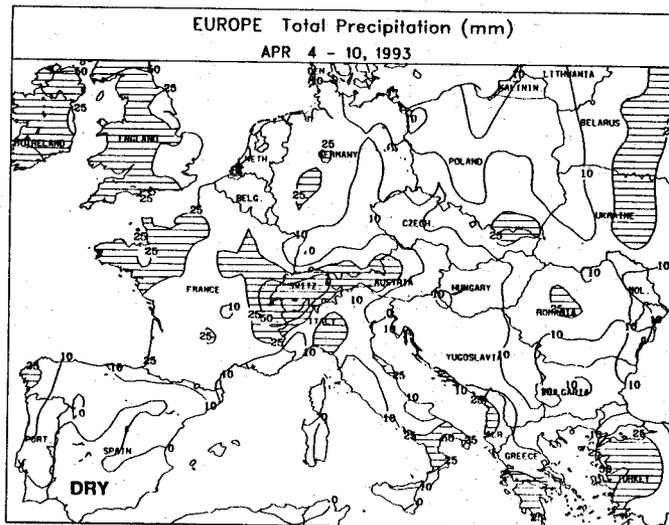
**EASTERN ASIA:** Cool weather slowed winter wheat development.

**AUSTRALIA:** Dry weather favored summer crop harvesting but limited sugarcane growth.

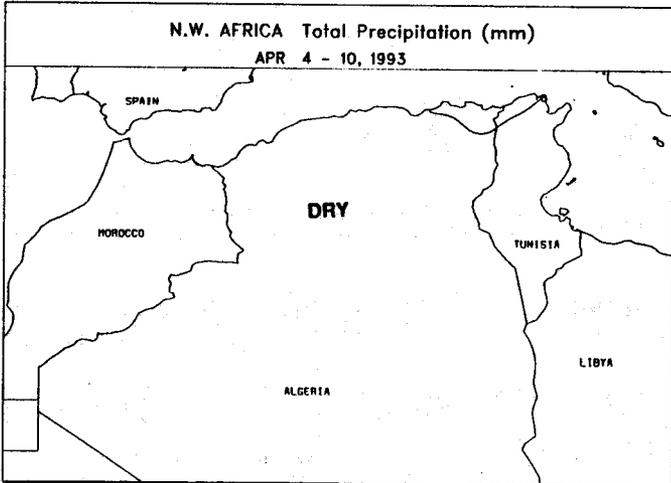
**SOUTH AMERICA:** Showers delayed summer crop harvesting early in the week.



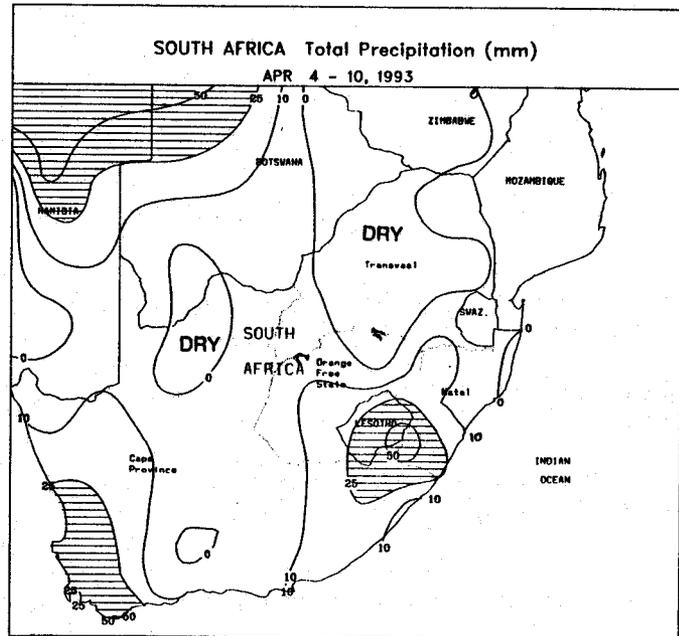
**FSU-WESTERN:** The third consecutive week of unseasonably warm weather continued to diminish snow cover in the north, and promote early growth in the south. Widespread variable precipitation covered the region, with greatest amounts of moisture (25-43 mm) falling over eastern Belarus, central Ukraine, and lower Volga. The rain provided favorable topsoil moisture for greening winter grains and spring grain planting. Average temperatures were 2-4 degrees Celsius (C) above normal in Central Region, southern Volga Vyatsk, central Black Soils Region, lower Volga, and North Caucasus, and 1-2 degrees C above normal in Lithuania, Belarus, and Ukraine.



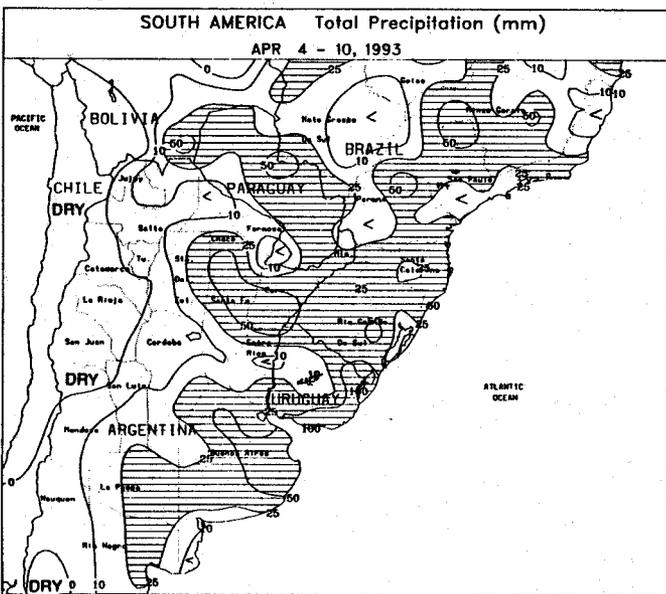
**EUROPE:** Substantial rain (15-45 mm) added topsoil moisture for winter crop growth and spring crop planting in the United Kingdom, France, the Benelux countries, and northwestern Germany. Rainfall of 10-46 mm also helped crop areas in Romania and Greece, where soil moisture is generally low. Highly variable rainfall in Italy, with 10-69 mm in the north, 15-72 mm in the far south, and 1-10 mm in the center, improved growing conditions. Variable, but beneficial showers, ranging from 1 to 32 mm, covered most other crop areas, with generally favorable spring conditions in Poland, the Czech Republic, and Slovakia. Additional spring rains are needed in Hungary, especially in eastern crop areas. Dry weather prevailed over most of the drought-stricken Iberian peninsula. Near-normal temperatures promoted early greening of winter grains in the north. Above-average temperatures aggravated drought in Spain. Below-normal temperatures (2-4 degrees C below average) were confined mostly to northern Italy.



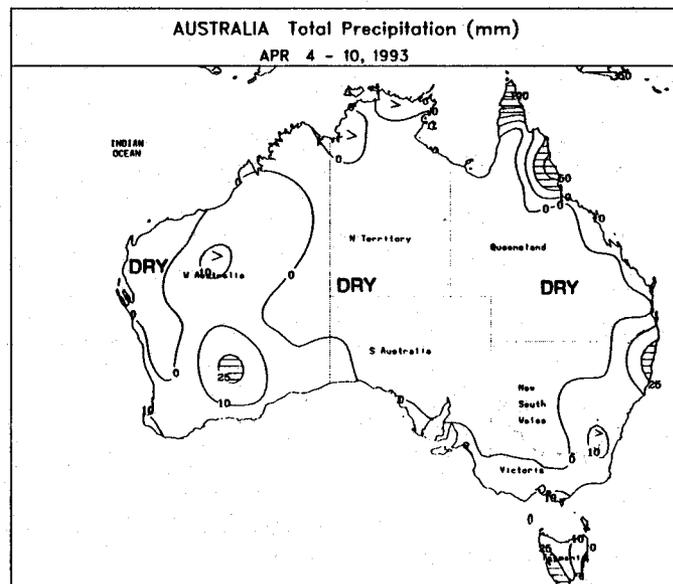
**NORTHWESTERN AFRICA:** Drought continued over Morocco and western Algeria, severely stressing winter grains in the filling stage and causing further deterioration in pasture and rangeland conditions. In addition, average temperatures were 2-4 degrees C above normal, exacerbating drought conditions. Further east, dry weather covered winter grains in eastern Algeria and Tunisia, increasing stress on winter grains in the reproductive-filling stages of development.



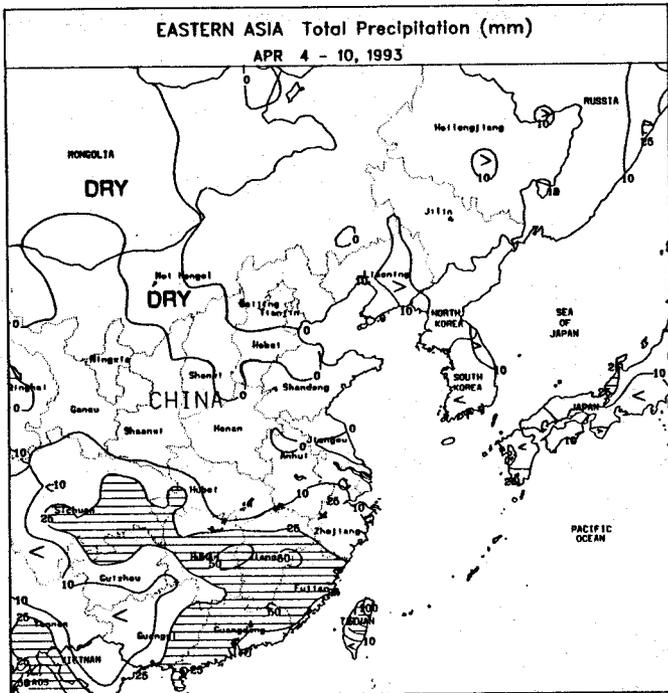
**SOUTH AFRICA:** Mostly dry, warm weather favored corn maturation over primary areas of Transvaal and Orange Free State. Light to moderate showers (5-29 mm) fell over eastern Cape Province and Natal, while further west, timely showers (10-36 mm) moved into winter wheat areas of southern Cape Province. The moisture improved planting conditions following about 6 weeks of unseasonably low rainfall.



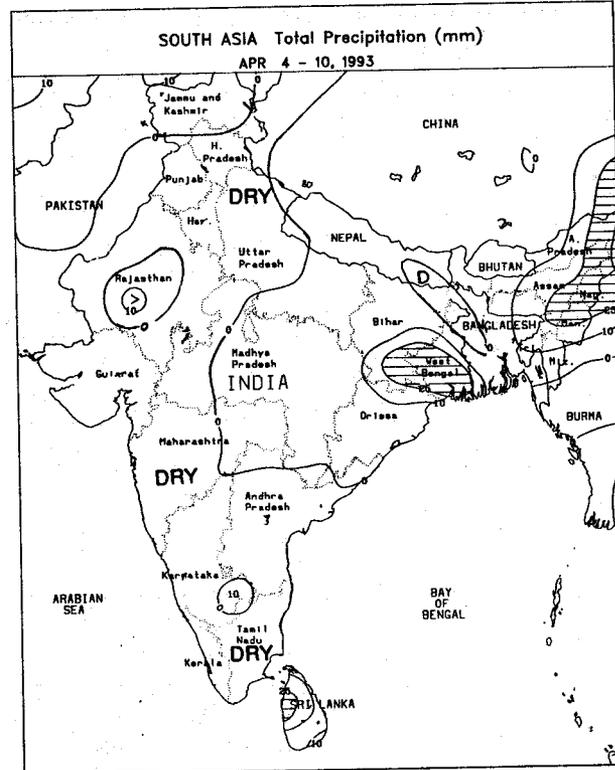
**SOUTH AMERICA:** Early-week moderate to heavy showers (15-60 mm) covered most of southern Santa Fe and Buenos Aires, delaying corn, sorghum, and sunflowerseed harvesting. Drier weather returned by midweek, allowing some fieldwork to resume. The rain aided late pod-filling soybeans, but drier weather is needed to aid maturation and harvesting for the majority of soybeans. Soybean yield prospects are similar to last year's favorable crop. Temperatures averaged slightly below normal across central Argentina. Moderate showers (18-75 mm) delayed soybean harvesting across most of southern Brazil (Sao Paulo southward into Rio Grande do Sul). Light showers (4-20 mm) fell across the remaining soybean areas, only slowing harvesting. Temperatures averaged 1-3 degrees C above normal across southern Brazil. Scattered showers (10-50 mm) brought some relief to northeastern Brazil, which had received below-normal rain since January. Rain is needed to stabilize cocoa yield prospects.



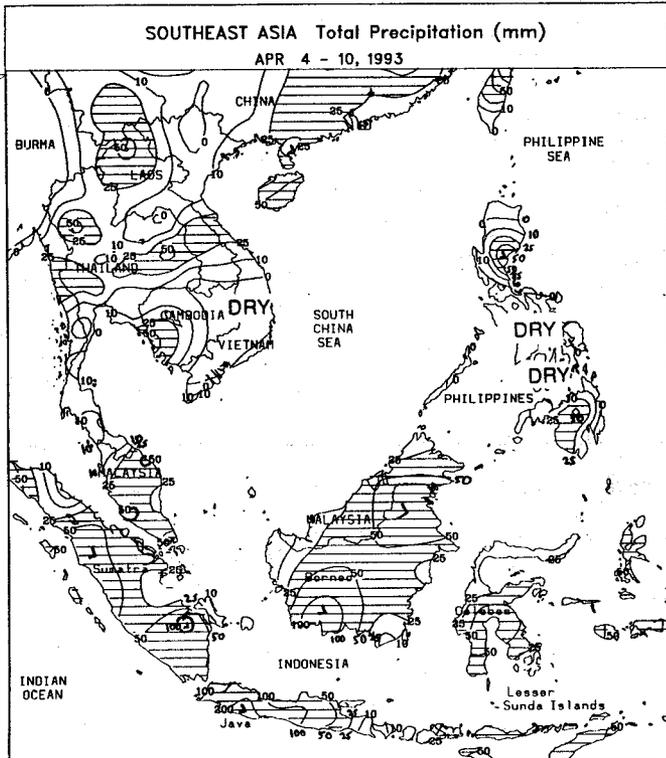
**AUSTRALIA:** Dry weather prevailed across the eastern summer crop areas, allowing cotton and sorghum harvesting to progress. Tropical showers (25-70 mm) fell across the extreme northern sugarcane region, while dryness continued to limit sugarcane growth in the remaining areas.



**EASTERN ASIA:** Cool weather slowed winter wheat development across the North China Plain, while the region received little or no rain. Widespread light to moderate rain (10-50 mm) fell across southern China, favoring rainfed winter grains and irrigation reserves for rice. Irrigation reserves should be near the normal levels due to abundant winter rains. Typically, single-crop rice transplanting begins during April, while early double-crop rice transplanting is already underway in March. Temperatures averaged 2-4 degrees C below normal across most of China.



**SOUTH ASIA:** Dry, seasonably warm weather favored maturing winter grains and oilseeds over Pakistan and north-central India. Further east, scattered showers (10-59 mm) improved local reservoir levels in rice areas from southern Bihar to Assam. The moisture also reduced irrigation demands of immature, dry season rice. Dry, seasonably hot weather continued over southern India, increasing moisture demand of immature winter crops. Highs reached the low 40's C over many locations of India's southern interior, although coastal areas, where rice is heavily concentrated, typically ranged in the mid to upper 30's C.



**SOUTHEAST ASIA:** Widespread showers (25-100 mm or more) continued over Indonesia and Malaysia, reaching most primary rice and oil palm areas. Local excessive rain (100-229 mm) brought more flooding to Java's rice areas. Further north, widely scattered showers (10-100 mm) covered Thailand's rainfed rice and corn areas, boosting topsoil moisture for upcoming plantings. The rain also brought some relief to reproductive to filling second-crop rice. Dry, warm weather returned to the Philippines following last week's beneficial showers.

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(Continued from front cover)

**Intermountain West**, delivering mountain snows and gusty valley winds. Snowfall included more than 1 foot at **Wolf Creek Pass, CO**, and 8 inches in **Casper, WY**. At midweek, rain spread across the **northern and central Plains**, while heavy rain and thunderstorms pounded the **western and central Gulf Coast States**. The additional rainfall was not welcomed in **eastern Iowa**, where river flooding was already in progress due to earlier snow melt and last week's heavy rain. On Wednesday, tornadoes ripped across **southern Louisiana**, including **Grand Isle**, and local flash flooding affected areas from **Beaumont, TX**, to **Baton Rouge, LA**. Farther west, cold air slipped southward in the storm's wake, lowering the temperature to 10°F in **Gallup, NM**, on Thursday morning. But a rapid warm-up ensued across the **Southern and Central States**, and by Saturday, highs reached 95°F in **San Angelo, TX**, and 81°F in **Columbia, MO**. However, farther east, another round of heavy rain brought renewed small-stream flooding and also maintained high river levels from the **Tennessee Valley** northward into **New England**. Local rainfall exceeded 2 inches in locations such as **Binghamton, NY**. Meanwhile, in the **Northwest**, several days of onshore flow brought significant rain and snow to areas from the **Cascades** westward. Precipitation spread eastward into the **northern Plains** by Saturday, resulting in a 7-inch snowfall in **Minot, ND**.

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