

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

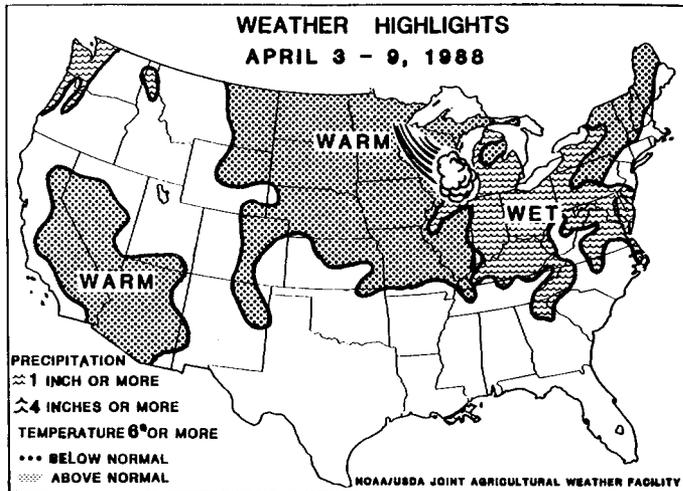
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Apr. 12, 1988

National Weather Summary

April 3 - 9, 1988



HIGHLIGHTS: Temperatures averaged above normal almost everywhere except the Pacific Northwest. Beneficial rains fell in eastern Washington, the Montana winter wheat region, and the central winter wheat belt of Kansas and Nebraska, but some areas remain too dry. Heaviest rains were reported in the Great Lakes region, the Ohio Valley, and the Middle Atlantic States.

SUNDAY...Thunderstorms developed over Illinois, Indiana, and Michigan as a cold front advanced eastward into the Ohio Valley. Another storm system moved through the northern Plateau region bringing rain, snow, and strong winds to the Pacific Northwest. Thunderstorms occurred in Wisconsin, lower Michigan, Indiana, and Ohio. Rain showers were widespread from the eastern Great Lakes to the Tennessee Valley. Showers and thunderstorms continued along the central gulf coast and became scattered during the morning in Georgia and the Carolinas.

MONDAY...Showers were scattered along the east coast ahead of a cold front extending from the eastern Great Lakes to the southern Appalachians. Rain showers were widely scattered over much of the Pacific Northwest, the Plateau region, and the central Great Plains. Much of the Nation enjoyed fair weather. Temperatures climbed into the seventies and eighties in the lower Missouri Valley and middle Mississippi Valley as well as the Tennessee Valley and the Middle Atlantic States.

TUESDAY...High temperature records for April 5 were broken at numerous locations east of the Mississippi River. Severe thunderstorms developed over the central Great Plains and the upper Mississippi Valley during the afternoon. Showers and thunderstorms continued during the evening,

reaching from Wisconsin across southeastern Minnesota, Iowa, Illinois, Missouri, eastern Kansas, eastern Oklahoma, northwestern Arkansas, and northeastern Texas. Showers and thunderstorms also spread over Mississippi and Louisiana.

WEDNESDAY...Strong gusty winds ushered cooler air into the Great Lakes region. Showers and a few thunderstorms were scattered from the Great Lakes through the Ohio Valley into the southern Atlantic States and the Florida Panhandle. Thunderstorms with gusty winds moved through the Carolinas. Rain showers were scattered across the Pacific Northwest.

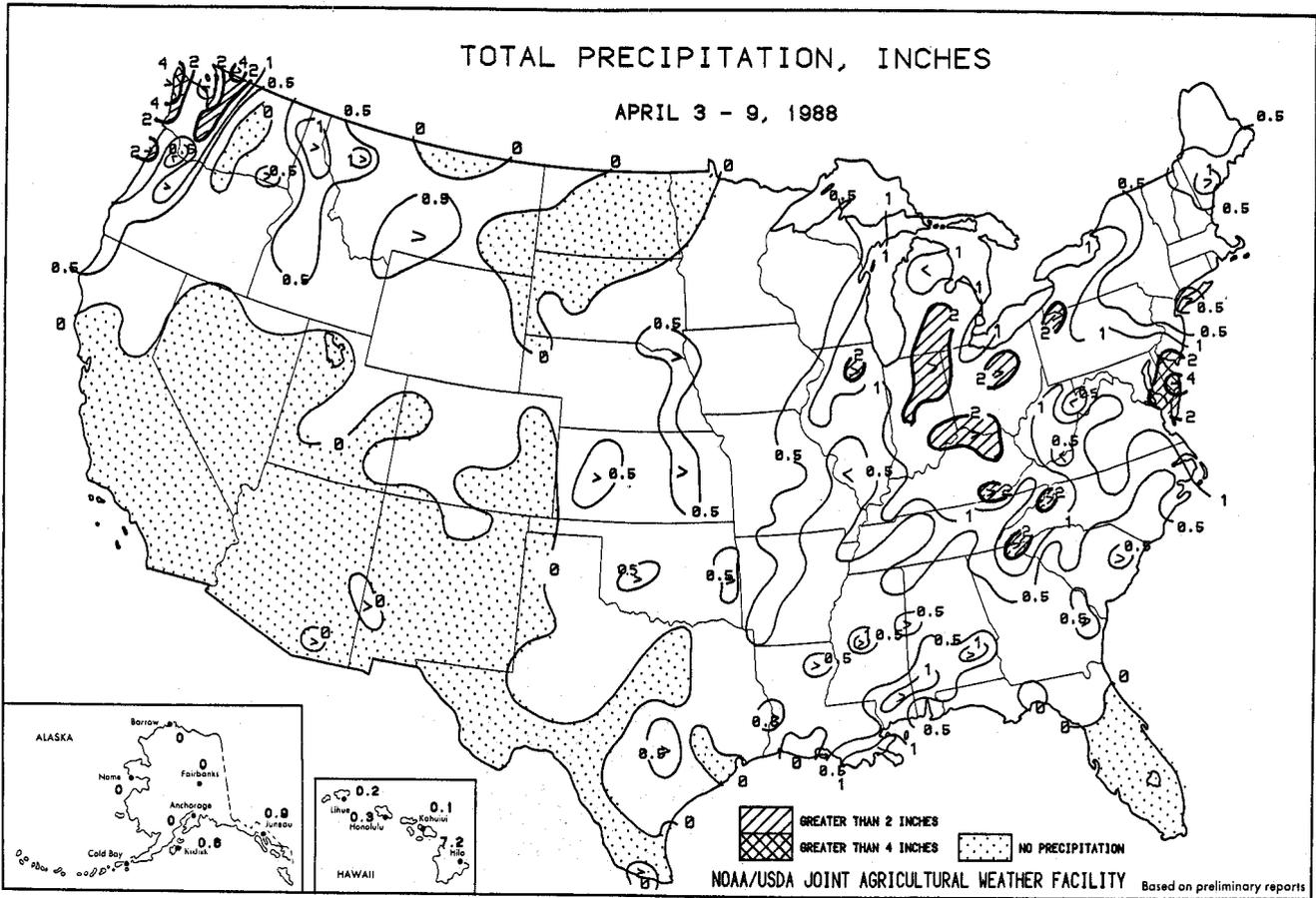
THURSDAY...Gale-force winds raked the Southeast and the Atlantic seaboard from Georgia to New Jersey. Rain was widespread across Maryland, Pennsylvania, Delaware, and New Jersey. Warm air covered the Great Plains. Windy, hot weather dominated the desert Southwest. Two dozen high temperature records for April 7 were broken or tied at stations in the Midwest and Southwest. By evening, snow was scattered over the higher elevations of Idaho and Oregon, with rain over northwestern Oregon and western Montana. Rain also reached from New England across the Carolinas, and from northern Georgia over eastern Ohio and southern New York.

FRIDAY...Showers and thunderstorms developed along a cold front extending from the upper Mississippi Valley to the central Great Plains. Temperatures dropped dramatically after the frontal passage. Showers and thunderstorms were also scattered across Oklahoma and Texas. Rain diminished in the Northeast. Skies were mostly clear along the Pacific coast, where high temperatures ranged from the fifties in the Pacific Northwest to the upper nineties in southern California.

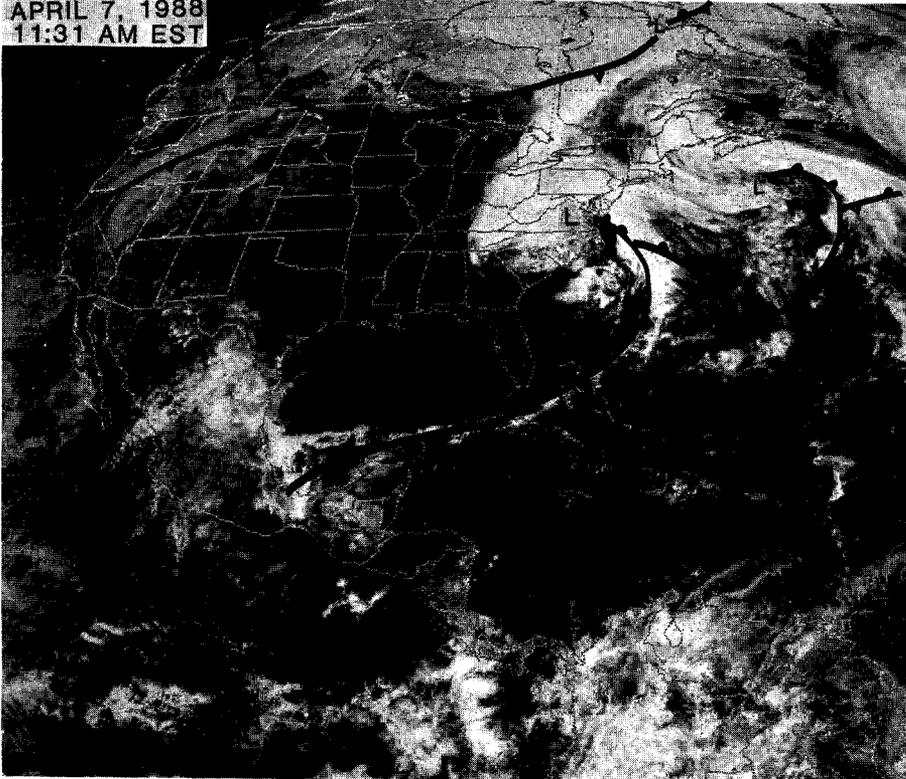
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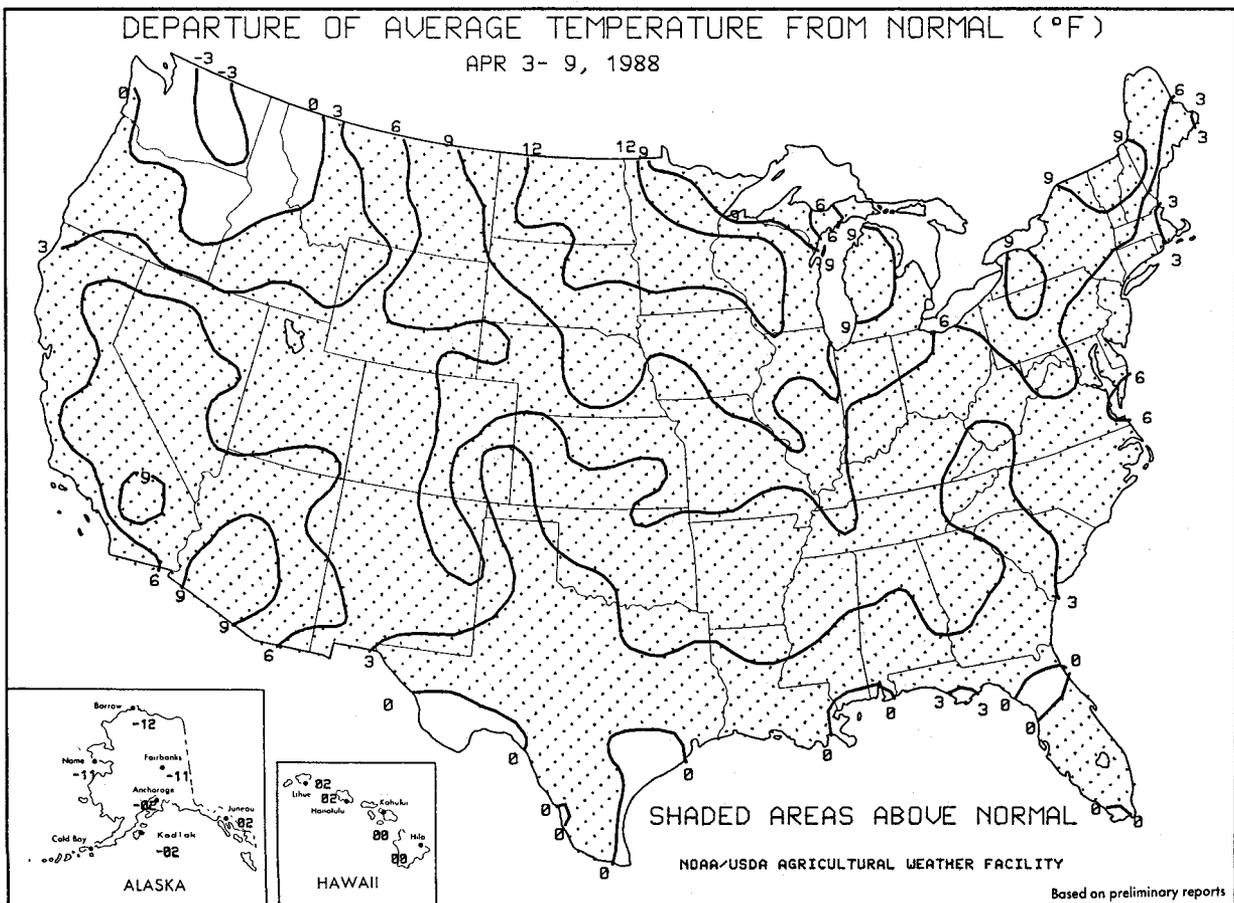
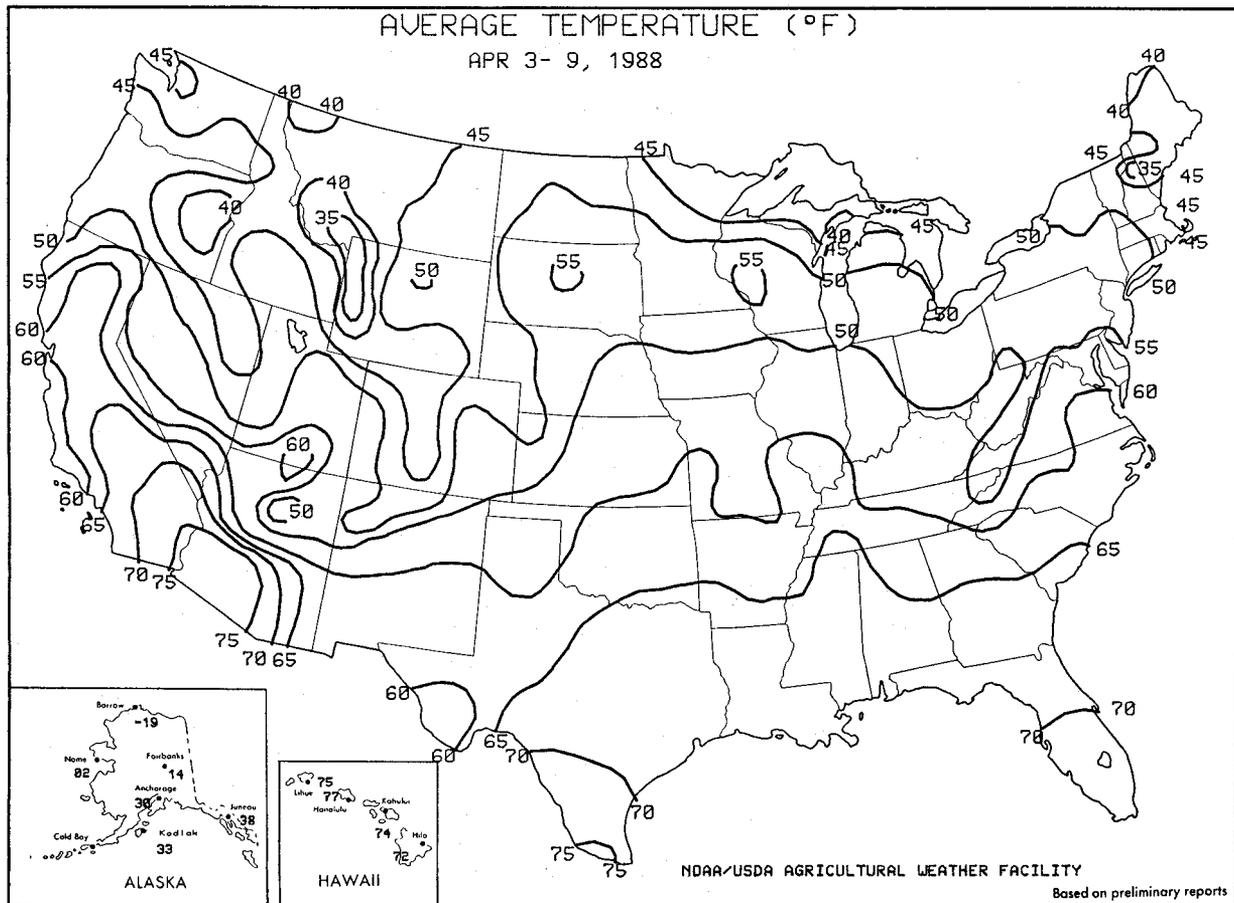
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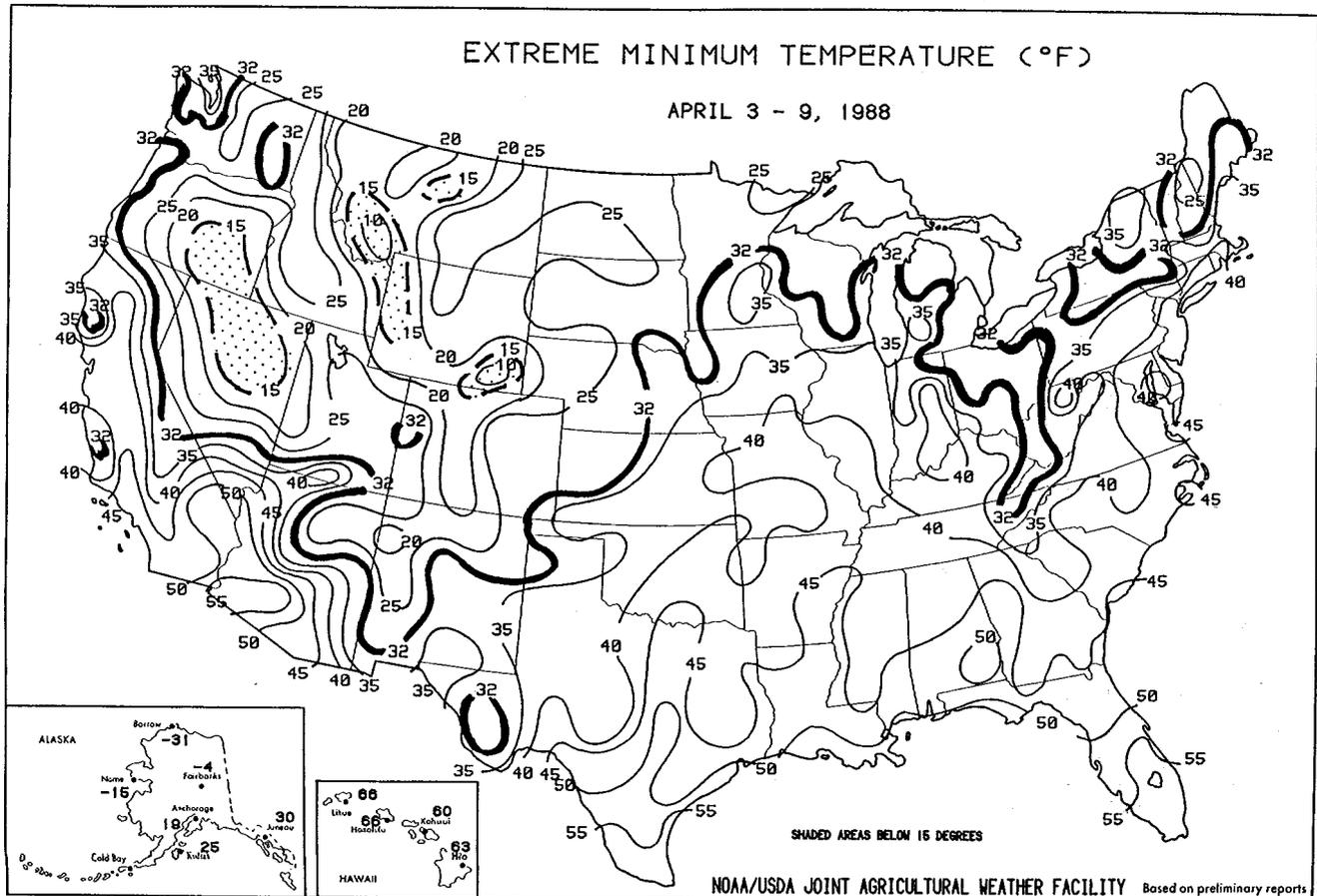
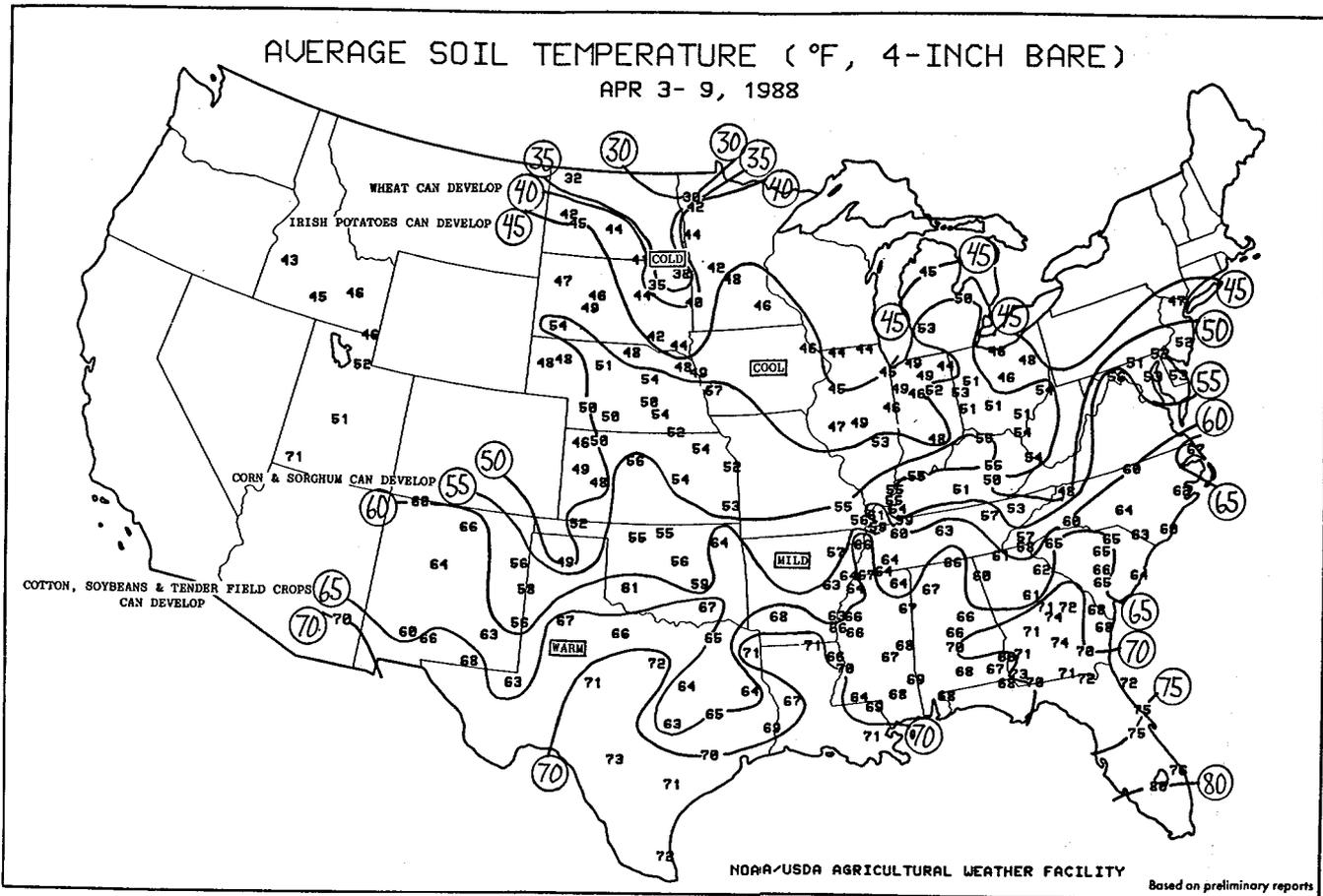


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 APRIL 7, 1988
 11:31 AM EST



A SPRING STORM BRINGS BENEFICIAL RAIN TO THE UPPER OHIO VALLEY, APPALACHIANS, AND THE MIDDLE ATLANTIC COAST.





National Weather Data for Selected Cities

Weather Data for the Week Ending April 9, 1988

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	TEMPERA- TURE		PRECIPI- TATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	77	50	87	41	64	3	.1	-1.1	.1	3.9	48	11.5	63	87	37	0	0	1	0
MOBILE	78	53	85	47	66	0	.3	-1.1	.2	10.6	130	21.5	121	90	39	0	0	2	0
MONTEGOMERY	79	53	91	46	66	3	.4	-1.7	.2	5.9	80	17.3	107	85	33	1	0	2	0
AK ANCHORAGE	38	22	42	19	30	-2	.3	-1.1	.1	.7	79	1.4	55	75	44	0	7	0	0
BARRON	-12	-25	-9	-31	-19	-12	.1	-1.1	.1	.1	50	.1	24	78	67	0	7	0	0
FAIRBANKS	25	3	34	-4	14	-11	.1	-1.1	.1	.1	26	.6	39	70	43	0	7	0	0
JUNEAU	43	34	46	30	38	2	.2	-1.2	.4	5.7	137	14.7	126	99	59	0	1	4	0
KODIAK	39	28	42	25	33	-2	.2	-1.2	.2	9.5	193	26.6	168	90	53	0	7	5	0
NOME	13	-8	17	-15	2	-11	.1	-1.1	.1	.9	118	2.7	134	72	53	0	7	0	0
AZ PHOENIX	94	63	100	56	78	12	.0	-1.1	.0	.2	19	1.3	59	30	10	5	0	0	0
PRESCOTT	76	38	80	33	57	10	.0	-1.2	.0	.3	17	2.1	41	38	9	0	0	0	0
TUCSON	90	55	93	47	73	10	.0	-1.1	.0	.4	44	1.3	58	35	9	5	0	0	0
YUMA	93	63	102	57	78	9	.0	-1.0	.0	.7	17	.4	50	27	9	4	0	0	0
AR FORT SMITH	81	47	90	39	64	6	.4	-1.6	.4	8.8	173	12.5	131	89	28	1	0	1	0
LITTLE ROCK	75	53	85	49	64	4	.3	-1.9	.3	5.2	83	11.4	81	62	36	0	0	1	0
CA BAKERSFIELD	84	50	93	45	67	6	.0	-1.2	.0	.4	38	1.6	50	74	25	2	0	0	0
EUREKA	59	44	68	38	52	3	.5	-1.3	.3	1.7	28	9.4	51	83	56	0	0	4	0
FRESNO	81	48	88	44	65	7	.0	-1.3	.0	.3	14	2.6	44	77	22	0	0	0	0
LOS ANGELES	71	55	75	51	63	4	.0	-1.3	.0	.1	4	3.5	45	95	57	0	0	0	0
REDDING	77	48	86	38	63	4	.0	-1.8	.0	.5	9	7.9	38	60	17	0	0	1	0
SACRAMENTO	78	48	85	41	63	6	.0	-1.4	.0	.2	7	4.7	50	78	29	0	0	0	0
SAN DIEGO	72	56	79	52	64	4	.0	-1.3	.0	.6	29	2.9	50	90	55	0	0	0	0
SAN FRANCISCO	70	47	84	44	59	5	.5	-1.4	.0	.1	2	4.4	39	88	39	0	0	0	0
CO DENVER	66	37	80	29	51	7	.1	-1.3	.1	1.4	83	2.4	83	72	21	0	2	2	0
GRAND JUNCTION	68	38	80	32	53	4	.4	-1.2	.4	.7	77	2.0	94	54	13	0	0	0	0
PUEBLO	70	34	85	27	52	4	.4	-1.2	.4	1.2	133	2.2	152	84	18	0	2	0	0
CT BRIDGEPORT	56	44	70	41	50	4	.2	-1.7	.1	1.7	33	8.0	70	88	62	0	0	2	0
HARTFORD	58	44	67	40	51	6	.3	-1.7	.2	2.4	45	9.8	80	91	54	0	0	2	0
DC WASHINGTON	67	49	79	42	58	4	1.2	.5	1.0	3.4	79	9.1	93	95	56	0	0	5	1
FL APALACHICOLA	78	59	83	52	69	3	.2	-1.6	.1	5.4	105	16.7	135	95	50	0	0	2	0
DAYTONA BEACH	81	55	89	50	68	0	.0	-1.5	.0	4.6	125	11.6	126	96	39	0	0	0	0
JACKSONVILLE	80	55	88	45	68	1	.1	-1.6	.1	2.7	64	15.1	139	89	37	0	0	1	0
KEY WEST	81	69	84	59	75	-2	.0	-1.3	.0	1.7	108	6.9	131	84	56	0	0	0	0
MIAMI	83	67	88	59	75	1	.1	-1.6	.0	.4	15	2.9	43	88	42	0	0	0	0
ORLANDO	83	59	89	53	71	1	.0	-1.5	.0	6.1	154	10.6	113	90	34	0	0	0	0
TALLAHASSEE	82	51	91	44	67	1	.1	-1.0	.0	7.4	108	18.0	108	91	34	1	0	0	0
TAMPA	80	61	87	52	71	1	.0	-1.4	.0	4.1	103	8.3	90	90	43	0	0	0	0
WEST PALM BEACH	83	65	91	57	74	1	.0	-1.6	.0	5.5	159	11.9	135	88	41	1	0	0	0
GA ATLANTA	77	54	89	46	65	6	.6	-1.5	.4	3.5	48	11.5	68	72	31	0	0	2	0
AUGUSTA	80	47	89	36	64	3	.3	-1.5	.3	3.5	58	11.1	78	92	33	0	0	1	0
MACON	80	51	91	44	66	3	.2	-1.7	.1	3.4	54	11.3	74	84	32	1	0	2	0
SAVANNAH	79	55	90	47	67	3	.1	-1.6	.1	2.2	47	9.8	87	79	37	1	0	2	0
HI HILO	79	65	80	63	72	0	7.2	4.0	3.0	20.6	117	40.9	100	94	68	0	0	6	4
HONOLULU	85	69	89	66	77	2	.3	-1.2	.2	1.1	27	5.4	51	83	48	0	0	2	0
KAHULUI	80	67	84	60	74	0	.1	-1.2	.1	1.0	32	9.7	95	87	57	0	0	2	0
LIHUE	80	70	80	66	75	2	.2	-1.6	.2	1.8	32	13.2	85	85	65	0	0	1	0
ID BOISE	60	35	78	26	47	1	.6	-1.3	.4	2.0	151	3.8	93	81	30	0	4	2	0
LEWISTON	58	37	66	29	47	-1	.0	-1.2	.0	1.1	80	2.2	60	65	29	0	2	1	0
POCATELLO	57	31	74	23	44	2	.4	-1.2	.4	1.2	100	2.5	79	85	26	0	5	3	0
IL CHICAGO	67	42	85	36	55	9	1.1	-1.2	.7	3.7	93	6.8	101	88	40	0	0	3	1
MOLINE	71	44	81	35	57	11	.7	-1.2	.3	3.3	84	6.1	89	86	36	0	0	3	0
PEORIA	69	43	83	36	56	8	1.0	-1.1	.5	3.9	98	6.6	93	88	37	0	0	3	1
QUINCY	72	44	82	40	58	9	.7	-1.1	.4	2.6	61	4.2	59	86	39	0	0	3	0
ROCKFORD	67	41	82	35	54	10	1.8	-1.8	1.0	4.6	119	7.6	117	86	42	0	0	3	2
SPRINGFIELD	69	44	86	41	57	6	.9	-1.0	.6	3.7	86	7.2	95	81	35	0	0	3	1
IN EVANSVILLE	73	46	87	39	59	6	.8	-1.1	.8	4.1	70	11.3	95	85	35	0	0	2	1
FORT WAYNE	67	41	83	34	54	8	2.2	-1.4	1.5	5.6	138	9.1	111	88	44	0	0	3	2
INDIANAPOLIS	68	42	84	37	55	6	1.9	-1.1	1.8	5.6	119	11.0	111	84	41	0	0	2	1
SOUTH BEND	66	41	82	32	54	8	1.8	-1.8	1.3	4.9	113	9.1	103	91	42	0	1	3	1
IA DES MOINES	70	43	82	38	57	10	.1	-1.6	.1	1.2	37	2.1	40	82	35	0	0	2	0
SIoux CITY	70	40	88	32	55	9	.5	-1.0	.3	2.1	89	3.2	82	89	35	0	1	2	0
WATERLOO	68	40	81	31	54	11	.3	-1.5	.2	1.9	59	3.0	60	90	40	0	1	2	0
KS CONCORDIA	72	43	84	35	57	8	.2	-1.2	.2	1.5	60	2.8	71	82	33	0	0	3	0
DODGE CITY	73	39	84	33	56	5	.3	-1.1	.2	2.0	104	3.0	104	83	24	0	0	2	0
GOODLAND	63	35	84	30	49	3	.0	-1.2	.0	1.8	140	3.6	179	83	30	0	3	1	0
TOPEKA	71	43	82	37	57	6	.4	-1.3	.3	3.1	99	5.6	110	88	42	0	0	3	0
WICHITA	72	41	81	34	57	4	.2	-1.3	.2	4.8	177	5.5	129	90	40	0	0	2	0
KY BOWLING GREEN	73	46	86	39	60	5	1.1	-1.1	1.0	4.0	58	11.2	72	86	34	0	0	2	1
LEXINGTON	68	44	85	35	56	4	2.0	-1.0	1.2	4.6	75	10.6	81	87	42	0	0	2	2
LOUISVILLE	72	46	87	41	59	5	1.9	-1.9	1.2	5.3	88	12.9	101	85	34	0	0	3	2
LA ALEXANDRIA	78	56	85	47	67	3	.2	-1.1	.2	10.8	164	15.9	100	85	39	0	0	2	0
BATON ROUGE	80	56	85	48	68	2	.0	-1.3	.0	10.6	169	27.0	170	90	40	0	0	1	0
LAKE CHARLES	79	57	84	49	68	2	.0	-1.8	.0	7.3	175	15.5	127	96	46	0	0	0	0
NEW ORLEANS	77	57	82	52	67	0	.1	-1.9	.1	17.1	284	32.1	197	96	50	0	0	1	0

Based on 1951-80 normals

Weather Data for the Week Ending April 9, 1988

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	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	82	52	88	43	67	3	.3	-1.8	.3	6.3	123	12.0	94	90	31	0	0	1	0
ME CARIBOU	50	33	58	30	42	8	.3	-1.3	.3	1.6	49	6.9	90	90	58	0	0	4	0
PORTLAND	52	38	63	33	45	5	.7	-1.3	.6	2.5	49	7.8	62	94	69	0	0	4	1
MD BALTIMORE	65	48	77	41	56	5	1.1	.3	.9	3.4	72	9.9	92	91	53	0	0	4	1
SALISBURY	64	48	73	40	56	5	4.0	3.2	3.3	8.4	165	16.5	138	98	62	0	0	4	2
MA BOSTON	52	42	67	38	47	2	1.1	.1	.1	3.9	74	10.3	79	95	59	0	0	5	0
CHATHAM	48	40	61	38	44	1	1.1	.8	.3	3.4	65	11.3	82	98	84	0	0	5	0
MI ALPENA	55	33	68	25	44	7	1.1	.6	.6	4.0	155	6.6	116	94	58	0	0	3	1
DETROIT	64	41	78	30	52	8	.9	.2	.5	2.1	61	5.4	77	89	48	0	1	3	0
FLINT	62	39	79	28	51	9	1.3	.6	.7	2.8	91	5.6	91	90	48	0	2	2	2
GRAND RAPIDS	64	40	81	31	52	10	1.1	.2	.6	3.8	102	7.3	100	92	47	0	2	2	1
HOUGHTON LAKE	62	37	76	29	49	11	.9	.3	.6	3.3	125	6.2	112	92	46	0	2	2	1
LANSING	64	39	81	28	51	9	2.5	1.9	2.2	4.4	132	7.0	110	93	44	0	2	2	1
MARQUETTE	54	34	62	25	44	8	.7	.1	.3	4.4	154	9.3	152	94	47	0	2	3	0
MUSKEGON	63	40	79	33	52	10	1.2	.5	.7	3.4	97	7.9	105	89	41	0	3	3	0
SAULT ST. MARIE	50	34	54	26	42	8	1.5	.9	1.1	4.4	163	8.4	128	87	59	0	3	4	1
MN ALEXANDRIA	64	36	83	28	50	13	1.1	.3	.1	2.6	147	3.8	114	92	45	0	2	2	0
DULUTH	52	34	66	29	43	8	.4	-1.1	.3	3.0	125	3.9	87	83	50	0	2	3	0
INT'L FALLS	52	33	63	28	43	9	.2	-2.2	.1	1.9	126	2.5	81	86	46	0	4	2	0
MINNEAPOLIS	65	43	77	37	54	13	1.1	-1.3	.1	1.7	77	3.4	87	79	42	0	4	1	0
ROCHESTER	64	39	73	33	51	11	.3	-1.3	.2	2.0	82	3.4	85	87	39	0	0	2	0
MS GREENWOOD	79	51	87	43	65	4	.2	-1.1	.2	4.9	61	9.3	52	90	30	0	0	1	0
JACKSON	81	50	88	42	66	3	.1	-1.3	.1	9.6	131	15.7	94	95	32	0	0	1	0
MERIDIAN	79	51	91	45	65	3	.2	-1.2	.1	7.1	84	14.1	77	95	37	1	0	0	0
MO CAPE GIRARDEAU	74	47	80	41	61	1	.1	-1.0	0	4.3	67	9.6	77	87	32	0	0	2	0
COLUMBIA	73	44	85	42	59	6	.4	-1.5	.3	5.0	113	8.8	108	82	35	0	0	3	0
KANSAS CITY	71	45	81	39	58	6	.1	-1.6	.1	3.3	93	5.5	90	80	39	0	0	3	0
SAINT LOUIS	73	48	91	42	61	8	.5	-1.4	.1	5.4	125	11.0	133	77	30	1	0	2	0
SPRINGFIELD	73	45	81	37	59	6	.4	-1.5	.3	8.3	178	11.8	139	81	35	0	0	1	0
MT BILLINGS	58	35	75	29	47	5	.5	.1	.5	1.2	77	2.4	73	73	26	0	3	3	0
GLASGOW	61	34	77	24	48	9	.3	.2	.2	.5	109	1.2	107	68	18	0	2	2	0
GREAT FALLS	55	32	73	23	43	4	.2	-1.1	.2	.6	46	1.8	61	72	25	0	6	1	0
HAVRE	58	32	75	22	45	6	0	-2.2	0	.5	55	1.0	52	60	20	0	4	0	0
HELENA	55	30	75	20	42	3	.4	.2	.4	.8	87	1.6	77	82	29	0	5	4	0
KALISPELL	50	29	65	18	40	0	.2	0	.1	1.0	87	2.8	73	88	34	0	4	4	0
MILES CITY	63	36	78	26	49	8	T	-1.3	T	.3	29	.7	31	53	20	0	0	0	0
MISSOULA	54	28	72	19	41	0	.2	-1.1	.1	1.2	111	2.5	77	88	34	0	2	3	0
NE GRAND ISLAND	72	41	86	32	56	10	.3	-2.2	.2	1.6	70	3.0	85	81	27	0	1	2	0
LINCOLN	72	40	87	34	56	9	.5	-1.1	.4	1.4	51	2.0	45	85	33	0	0	3	0
NORFOLK	71	41	88	33	56	11	.5	0	.2	1.5	74	2.7	81	85	32	0	0	3	0
NORTH PLATTE	71	34	88	26	53	9	T	-1.3	T	1.6	104	2.4	96	85	21	0	3	1	0
OMAHA	70	42	84	32	56	8	.3	-1.3	.2	1.3	49	1.9	44	78	42	0	1	2	0
SCOTT'S BLUFF	67	29	84	19	48	5	T	-1.3	T	1.1	85	2.0	94	70	18	0	5	1	0
VALENTINE	69	33	87	24	51	9	.1	-1.3	.1	1.3	98	2.7	137	76	20	0	4	1	0
NV ELY	63	26	73	15	45	6	0	-2.2	0	.3	25	1.6	63	53	15	0	5	0	0
LAS VEGAS	83	53	90	49	68	7	0	-1.1	0	0	0	.9	65	27	13	1	0	0	0
RENO	68	36	78	26	52	8	0	-1.1	0	T	0	.5	17	53	13	0	3	0	0
WINNEMUCCA	65	32	76	13	49	6	T	-2.2	T	.1	11	1.5	62	51	15	0	4	0	0
NH CONCORD	54	38	66	30	46	6	.2	-1.5	.2	1.6	40	5.8	63	96	62	0	2	4	0
NJ ATLANTIC CITY	59	45	73	40	52	4	.7	-1.1	.5	3.0	59	9.8	82	94	66	0	0	4	1
NM ALBUQUERQUE	74	42	81	35	58	5	0	-1.1	0	1.4	226	1.6	117	55	10	0	0	0	0
CLOVIS	78	43	87	39	60	6	T	-1.1	T	.7	103	1.2	76	55	15	0	0	0	0
ROSWELL	80	42	90	34	61	4	T	-1.1	T	T	8	1.7	134	48	14	1	0	0	0
NY ALBANY	62	41	71	35	51	8	.2	-1.5	.1	1.9	49	6.8	80	95	53	0	0	2	0
BINGHAMTON	57	41	67	31	49	8	.3	-1.4	.1	2.2	58	7.6	87	97	63	0	2	3	0
BUFFALO	60	42	76	33	51	9	1.4	.7	1.1	4.4	113	10.0	107	95	56	0	0	5	1
NEW YORK	58	46	69	42	52	3	.7	-2.2	.5	2.7	51	8.7	76	90	61	0	0	3	1
ROCHESTER	61	43	76	31	52	9	1.2	.6	1.0	2.8	85	5.7	71	95	57	0	1	4	1
SYRACUSE	59	43	74	33	51	8	1.1	.3	.6	2.9	71	6.5	69	94	59	0	0	4	1
NC ASHEVILLE	66	45	81	37	55	2	1.2	.3	1.1	2.6	44	7.1	58	90	41	0	0	3	1
CHARLOTTE	73	51	86	44	62	4	.7	-1.1	.5	4.0	68	8.5	63	78	37	0	0	3	1
GREENSBORO	71	49	84	41	60	4	.7	-1.1	.3	2.6	53	6.2	52	83	44	0	0	4	0
HATTERAS	68	53	77	41	60	3	1.1	.3	.8	4.1	84	13.9	100	98	61	0	0	6	1
NEW BERN	75	54	87	45	64	5	.3	-1.4	.3	3.6	80	10.8	86	92	49	0	0	3	0
RALEIGH	71	49	83	38	60	3	1.0	.4	.7	2.8	62	8.4	72	95	48	0	0	4	1
WILMINGTON	75	53	85	43	64	4	.2	-1.5	.2	4.2	86	11.6	96	96	47	0	0	2	0
ND BISMARCK	67	33	85	23	50	12	T	-1.3	T	.9	86	2.0	99	73	24	0	4	0	0
FARGO	65	35	80	27	50	12	T	-1.4	T	1.0	77	2.9	126	83	36	0	2	0	0
GRAND FORKS	64	34	75	30	49	13	0	-1.3	0	.9	80	1.7	71	88	41	0	3	0	0
WILLISTON	62	34	74	27	48	10	.2	-1.1	.1	.8	88	1.8	97	72	24	0	4	2	0
OH AKRON-CANTON	61	41	79	29	51	5	1.6	.9	1.4	3.8	87	7.6	83	95	57	0	1	3	1
CINCINNATI	67	42	84	36	55	4	2.1	1.3	1.3	5.9	118	13.6	124	87	42	0	0	3	2
CLEVELAND	60	41	81	33	51	6	1.8	1.1	1.1	4.1	104	8.0	92	95	53	0	0	3	2
COLUMBUS	63	42	82	33	53	4	1.9	1.1	1.4	4.5	106	10.9	118	91	50	0	0	3	1

Based on 1951-80 normals

Weather Data for the Week Ending April 9, 1988

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	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	65	42	83	30	54	5	1.2	.5	.6	4.5	109	9.7	110	87	48	0	1	3	1
TOLEDO	65	39	82	30	52	8	.9	.2	.5	2.6	75	5.1	70	94	46	0	1	3	0
YOUNGSTOWN	62	41	81	27	51	7	1.5	.7	1.2	3.1	72	6.8	73	95	56	0	1	3	0
OK OKLAHOMA CITY	76	47	86	41	62	4	.5	-.1	.5	9.2	331	10.8	213	78	27	0	0	1	0
TULSA	79	48	87	42	63	5	.2	-.7	.2	8.3	192	10.4	140	79	28	0	0	1	0
OR ASTORIA	55	37	71	30	46	0	1.4	.2	.9	10.3	117	20.4	74	94	56	0	2	5	0
BURNS	56	24	70	14	40	-1	.2	0	.2	.8	66	2.1	49	82	25	0	5	2	0
MEDFORD	66	37	83	25	52	3	.2	-.1	.1	.7	34	3.5	45	92	31	0	2	3	0
PENDLETON	57	36	65	31	47	-2	.1	-.1	.1	1.1	84	3.1	74	75	34	0	2	2	0
FORTLAND	56	39	68	32	47	-1	.4	-.2	.2	4.4	100	10.5	72	95	50	0	1	5	0
SALEM	58	37	73	28	48	0	.5	-.2	.3	4.4	87	12.0	71	91	46	0	1	4	0
PA ALLENTOWN	60	44	73	39	52	5	.3	-.7	.2	2.9	56	8.9	77	90	58	0	1	2	0
ERIE	58	43	76	34	51	8	1.6	.8	1.3	4.1	104	8.1	95	93	59	0	0	3	1
HARRISBURG	63	44	77	38	54	4	1.3	.6	1.0	3.3	74	8.8	85	90	55	0	0	2	1
PHILADELPHIA	63	46	74	41	54	4	1.2	.4	1.1	3.5	70	10.3	94	90	62	0	0	2	1
PITTSBURGH	64	44	80	34	54	7	1.3	.5	.6	3.8	84	8.8	89	97	56	0	0	5	1
SCRANTON	59	43	71	35	51	6	.3	-.4	.2	2.4	67	6.1	78	87	55	0	0	3	0
RI PROVIDENCE	53	42	66	40	48	3	.1	-.8	.1	4.2	77	12.2	91	94	67	0	0	1	0
SC CHARLESTON	78	54	87	45	66	4	.2	-.5	.1	1.9	38	7.1	59	89	41	0	0	3	0
COLUMBIA	78	49	89	36	64	2	.2	-.7	.2	2.2	34	8.3	56	84	31	0	0	1	0
FLORENCE	76	52	88	43	64	3	.2	-.6	.1	2.9	58	7.0	58	88	37	0	0	3	0
GREENVILLE	72	48	86	37	60	2	.5	-.6	.4	4.2	57	9.9	61	83	37	0	0	3	0
SD ABERDEEN	69	36	86	24	52	12	0	-.4	0	.4	25	1.0	39	78	22	0	1	0	0
HURON	68	38	82	27	53	11	T	-.4	T	1.7	94	2.6	88	83	30	0	2	2	0
RAPID CITY	67	34	85	25	51	9	T	-.4	T	.6	37	1.1	42	67	16	0	3	1	0
STOIX FALLS	68	38	86	31	53	10	.4	-.1	.3	2.0	90	3.8	103	85	36	0	1	2	0
TN CHATTANOOGA	74	49	88	41	62	4	.2	-.9	.1	2.6	33	11.6	65	91	32	0	0	2	0
KNOXVILLE	70	45	86	32	57	0	.7	-.3	.6	3.4	50	10.6	67	95	42	0	1	3	1
MEMPHIS	77	52	85	45	64	4	.4	-1.0	.4	4.8	67	12.6	77	80	33	0	0	1	0
NASHVILLE	73	47	85	40	60	3	.4	-.7	.3	3.4	49	9.2	59	84	30	0	0	2	0
TX ABILENE	82	48	92	39	65	2	.2	-.2	.2	.8	46	1.2	33	61	18	1	0	1	0
AMARILLO	73	40	83	32	56	3	.2	0	.1	1.9	173	2.2	104	68	23	0	1	2	0
AUSTIN	78	56	87	50	67	1	.8	.1	.7	3.6	144	4.1	63	80	42	0	0	2	1
BEAUMONT	79	57	83	48	68	1	.1	-.8	.1	5.7	135	14.0	111	95	47	0	0	1	0
BROWNSVILLE	79	64	85	57	72	-2	T	-.3	T	1.4	165	6.9	190	95	60	0	0	0	0
CORPUS CHRISTI	80	59	89	52	69	-2	T	-.3	T	.9	77	2.9	67	92	45	0	0	0	0
DEL RIO	81	58	90	52	70	0	0	-.4	0	.2	13	.4	15	58	21	1	0	0	0
EL PASO	81	47	86	35	64	2	0	-.1	0	.1	27	1.1	88	35	11	0	0	0	0
FORT WORTH	81	51	86	45	66	3	0	-.9	0	2.5	71	4.6	64	80	28	0	0	0	0
GALVESTON	75	61	80	54	68	1	0	-.6	0	4.4	155	8.3	100	91	52	0	0	0	0
HOUSTON	81	54	84	44	67	0	T	-.8	T	4.9	135	7.5	71	93	40	0	0	1	0
LUBBOCK	78	43	86	36	60	3	T	-.2	T	1.1	95	1.7	84	64	22	0	0	0	0
MIDLAND	80	46	89	37	63	2	.1	-.1	.1	.8	126	1.3	79	55	17	0	0	1	0
SAN ANGELO	83	47	93	37	65	1	.1	-.2	.1	.8	70	1.3	47	74	19	1	0	2	0
SAN ANTONIO	79	55	90	46	67	0	.3	-.2	.3	1.2	57	2.5	45	84	38	1	0	1	0
VICTORIA	78	57	86	47	68	-2	.2	-.3	.2	2.0	101	4.8	78	93	47	0	0	2	0
WACO	81	53	87	47	67	2	0	-.8	0	3.3	111	5.4	81	86	34	0	0	0	0
WICHITA FALLS	81	47	94	41	64	3	.2	-.4	.2	5.7	222	7.5	166	76	24	1	0	1	0
UT BLANDING	66	35	75	29	51	6	T	-.2	T	.1	5	2.6	77	67	16	0	3	1	0
CEDAR CITY	67	31	74	20	49	5	0	-.3	0	1.1	79	2.7	95	61	16	0	3	0	0
SALT LAKE CITY	63	37	80	27	50	3	T	-.5	T	.9	39	2.1	42	60	21	0	2	0	0
VT BURLINGTON	56	41	66	38	49	10	.4	-.3	.2	1.9	64	4.3	65	95	52	0	0	4	0
VA NORFOLK	69	53	85	45	61	6	1.3	.6	.6	3.4	73	9.2	79	93	49	0	0	5	2
RICHMOND	70	51	84	43	60	5	1.6	.9	.7	3.6	80	9.2	84	94	47	0	0	4	1
ROANOKE	69	48	84	38	59	5	.8	0	.4	1.9	41	4.8	45	83	43	0	0	3	0
WA QUILLAYUTE	52	35	64	31	43	-1	4.3	2.3	2.6	19.9	138	37.6	91	98	60	0	2	6	2
SEATTLE-TACOMA	54	38	68	36	46	-1	1.5	.9	.6	6.0	138	10.8	73	96	56	0	0	5	2
SPOKANE	51	32	54	27	41	-2	1.1	.8	1.0	3.1	188	5.2	91	86	38	0	5	2	1
YAKIMA	58	29	64	23	44	-3	T	-.1	T	.2	28	.9	31	84	26	0	5	0	0
WV BECKLEY	62	41	78	32	52	3	.8	-.1	.3	3.4	67	7.3	62	91	46	0	1	5	0
CHARLESTON	68	45	85	34	57	4	.9	.1	.5	3.7	72	7.8	66	91	42	0	0	1	5
HUNTINGTON	68	44	86	34	56	3	1.1	.3	.5	4.2	82	8.6	76	94	42	0	0	4	1
PARKERSBURG	66	43	82	30	55	4	1.5	.7	.8	5.1	112	7.9	78	96	45	0	1	4	1
WI GREEN BAY	60	38	65	34	49	9	.7	-.1	.4	2.5	93	5.0	102	90	52	0	0	3	0
LACROSSE	69	43	77	34	56	13	.2	-.5	.1	2.6	95	3.8	82	85	33	0	0	2	0
MADISON	67	39	78	29	53	11	.6	-.1	.3	2.4	79	4.7	90	90	40	0	1	3	0
MILWAUKEE	59	41	70	34	50	9	1.5	.7	.8	3.6	99	8.1	123	94	53	0	0	3	2
WAUSAU	64	38	69	31	51	12	.3	-.4	.2	2.4	90	2.9	62	91	38	0	1	3	0
WY CASPER	61	31	77	21	46	7	T	-.3	T	.7	54	1.8	75	67	18	0	4	1	0
CHEYENNE	59	31	75	18	45	6	.2	-.1	.1	1.5	116	2.7	128	70	22	0	3	2	0
LANDER	61	34	76	25	47	8	.1	-.4	.1	1.5	85	1.9	66	66	18	0	3	2	0
SHERIDAN	60	35	76	24	47	8	.4	-.1	.2	1.0	61	2.4	77	78	27	0	4	2	0
PR SAN JUAN	86	73	91	71	80	2	.1	-.6	.1	1.8	59	7.9	97	85	69	2	0	1	0

Based on 1951-80 normals

Heating Degree Days Summary Table

CLIMATE ANALYSIS CENTER-NHC-NWS-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NESDIS-NOAA

LAST DATE OF DATA COLLECTION PERIOD IS 4-9-1988
ACCUMULATIONS ARE FROM JULY 1
** = NORMAL LESS THAN 100 OR RATIO UNCALCULATE

STATE CITY	CALL	WEEK	WEEK	WEEK	CUM	CUM	CUM	CUM	CUM	STATE CITY	CALL	WEEK	WEEK	WEEK	CUM	CUM	CUM	CUM	CUM
		TOTAL	DEV	DEV	DEV	DEV	DEV	DEV	DEV			TOTAL	DEV	DEV	TOTAL	DEV	DEV	DEV	DEV
		FROM	FROM	FROM	FROM	FROM	FROM	FROM	FROM			FROM	FROM	FROM	FROM	FROM	FROM	FROM	FROM
		NORM	L YR	NORM	L YR	NORM	L YR	NORM	L YR			NORM	L YR	NORM	L YR	NORM	L YR	NORM	L YR
AL BIRMINGHAM	BHM	17	-24	-99	2818	41	139	1	5	MT MILES CITY	MIS	108	-62	-27	6262	-919	184	-13	3
AL MOBILE	MOB	5	-12	-76	1794	12	95	7	6	MT MISSOULA	MSS	169	-1	44	6471	-401	-277	-6	-4
AL MONTGOMERY	MOB	6	-21	-69	2247	12	104	7	6	NE GRAND ISLAND	GRI	61	-74	-74	5863	-189	593	-3	11
AK ANCHORAGE	ANC	244	10	56	8329	-1038	396	-11	5	NE LINCOLN	LAK	64	-64	-60	5481	-506	385	-8	8
AK BARROW	BRW	579	71	33	16073	-641	285	-4	2	NE NORFOLK	NFK	64	-62	-62	6154	-384	609	-6	11
AK FAIRBANKS	FAI	358	67	103	11508	-1424	17	-11	0	NE NORTH PLATTE	NPT	85	-64	-69	6276	-33	764	-6	11
AK JUNEAU	JNU	185	-16	24	6324	-1349	-200	-18	-3	NE OMAHA	OMA	65	-56	-38	5640	-193	465	-3	9
AK KODIAK	ADQ	220	20	49	6880	-298	503	-4	8	NE SCOTTSDALE	BFF	118	-38	-20	6220	171	404	3	7
AK NOME	OME	438	73	143	11524	-461	914	-4	9	NE VALENTINE	VIN	95	-69	-42	6740	33	736	0	12
AZ FLAGSTAFF	FLG	119	-62	-61	5850	-300	-416	-5	-7	NV LAS VEGAS	LAS	140	-48	-14	6316	-271	-199	-4	-3
AZ PHOENIX	PHX	0	-18	-4	939	-479	53	-34	6	NY LAS VEGAS	LVS	1	-40	-22	2236	-203	2	-8	0
AZ PRESCOTT	PRC	0	-12	-4	3783	-564	-473	-13	-11	NY RENO	RNO	89	-57	-1	4466	-763	-315	-15	-7
AZ TUCSON	TUS	0	-31	-22	1331	-352	-175	-21	-12	NV WINDHECCA	WNC	113	-44	-12	5237	-346	-403	-6	-7
AZ WINSLOW	WIN	59	-44	-22	4243	-243	-129	-5	-3	NH CONCORD	CON	130	-2	-10	6683	-38	0	-1	0
AZ YUMA	YUM	0	-14	-2	692	-274	25	-28	4	NH CONCORD	CON	130	-2	-10	6683	-38	0	-1	0
AR FORT SMITH	FSM	15	-37	-78	3252	-120	90	-4	3	NJ ATLANTIC CITY	ACY	90	-29	-43	4685	39	-13	-8	-14
AR LITTLE ROCK	LML	12	-33	-69	3090	13	142	0	5	NM ALBUQUERQUE	ABQ	47	-43	-88	3812	-349	-641	-9	-10
CA BAKERSFIELD	BFL	7	-35	-22	1914	-95	-202	-5	-10	NM CLOVIS	CVS	34	-48	-105	3484	-364	-396	-9	-10
CA EUREKA	EKA	92	-20	22	2982	-729	-74	-20	-2	NM ROSWELL	ROW	30	-18	-92	3246	196	-224	6	-10
CA FRESNO	FAT	9	-46	-17	2205	-275	156	-11	8	NY ALBANY	ALB	94	-62	-35	6232	-77	-47	-1	-1
CA LOS ANGELES	LAX	12	-32	-19	992	-337	-11	-25	-1	NY BINGHAMTON	BGM	110	-62	-41	6480	-98	321	-1	5
CA SACRAMENTO	SAC	21	-43	-17	1943	-586	-381	-23	-16	NY BUFFALO	BUF	97	-66	-57	5702	-406	-131	-7	-2
CA SAN DIEGO	SAN	7	-34	-4	920	-175	-56	-16	-6	NY NEW YORK	LGA	88	-27	-21	4387	-151	81	-3	2
CA SAN FRANCISCO	SFO	43	-34	-4	1914	-686	-302	-26	-14	NY ROCHESTER	ROC	90	-69	-64	5986	-178	-101	-1	-2
CA STOCKTON	SKT	23	-38	-13	2144	-351	-201	-14	-9	NY SYRACUSE	SYR	92	-42	-42	5986	-146	-102	-2	-2
CO DENVER	DEN	95	-51	-50	5474	105	229	2	4	NC ASHEVILLE	AVL	66	-18	-104	4206	211	225	5	6
CO GRAND JUNCTION	GJT	82	-35	-23	5538	256	412	5	8	NC CAPE HATTERAS	HAT	35	-23	-47	2505	38	109	-2	5
CO PUEBLO	PUB	87	-35	-59	5443	409	325	8	6	NC CHARLOTTE	CLT	29	-23	-78	3148	-65	27	-2	1
CT BRIDGEPORT	BDR	103	-35	-14	5066	39	105	1	2	NC GREENSBORO	GSO	41	-28	-87	3729	44	15	1	0
CT HARTFORD	BDL	97	-42	-27	5632	-39	-36	-1	-1	NC NEW BERN	BNB	25	-19	-53	2505	-259	-140	-9	-5
DE WILMINGTON	DCA	70	-41	-56	4481	-151	-59	-3	-1	NC RALEIGH DURHAM	RDU	45	-13	-64	3413	31	23	1	1
DC WASHINGTON	DCA	50	-31	-70	3969	54	11	1	0	NC WILMINGTON	ILM	23	-13	-59	2435	18	27	1	1
FL APALACHICOLA	ACQ	3	-11	-5	1448	51	309	4	27	ND BISMARCK	BIS	106	-86	-11	7565	-686	330	-8	5
FL DAYTONA BEACH	DAB	5	-3	-45	323	-117	98	-7	28	ND FARGO	FAR	107	-90	-7	7923	-625	641	-7	9
FL FORT MEYER	FMY	0	0	-28	323	-117	98	-7	28	ND GRAND FORKS	GFK	112	-96	-11	8294	-682	339	-8	6
FL JACKSONVILLE	JAX	10	0	-49	1559	159	233	11	18	ND WILLISTON	WIL	117	-96	-11	7559	-828	369	-10	5
FL KEY WEST	EZW	0	0	-1	63	-53	22	-12	44	ND AKRON-CANTON	CAK	98	-41	-82	5587	-92	140	-2	3
FL MIAMI	MIA	0	0	-18	147	-51	14	-26	11	OH CLEVELAND	CLE	98	-43	-79	5494	-116	127	-2	3
FL ORLANDO	MCO	0	0	-44	612	-46	140	-7	30	OH COLUMBUS	CMH	86	-33	-79	5083	-168	229	-3	5
FL TALLAHASSEE	TLH	8	-12	-72	1864	233	279	14	18	OH CINCINNATI	CVG	74	-30	-81	4851	-42	213	-1	5
FL TAMPA	TPA	3	3	-38	678	-61	224	-8	49	OH DAYTON	DAY	82	-37	-78	5198	-74	179	-1	4
FL WEST PALM BEACH	PBI	0	0	-27	224	-39	39	-15	21	OH TOLEDO	TOL	89	-57	-69	5794	-195	207	-3	4
GA ATLANTA	ATL	14	-33	-110	2644	-270	-105	-9	-4	OH YOUNGSTOWN	YNG	93	-54	-78	5746	-184	95	-3	2
GA AUGUSTA	AGS	18	-38	-72	2548	39	187	2	8	OK OKLAHOMA CITY	OKC	31	-31	-62	3543	-57	41	-2	1
GA MACON	MCN	8	-16	-83	2371	126	143	6	6	OK TULSA	TUL	139	-2	-22	4004	-261	194	-2	0
GA SAVANNAH	SAV	7	-12	-60	1923	16	181	1	10	OR ASTORIA	AST	139	-2	-22	4004	-261	194	-2	0
HI HILO-HAWAII	IHO	0	0	0	0	0	0	**	**	OR BURNS	BBW	174	2	55	6152	118	125	2	2
HI HONOLULU-OAHU	HNL	0	0	0	0	0	0	**	**	OR MEDFORD	MFR	92	-24	11	3482	-712	-448	-17	-11
HI KAHULUI-MAUI	OGG	0	0	0	0	0	0	**	**	OR PENDELTON	PDT	127	7	34	4558	-141	-183	-3	-4
HI LIHUE-KAUAI	LII	0	0	0	0	0	0	**	**	OR PORTLAND	PDJ	122	7	27	3609	-428	8	-11	0
ID BOISE	BOI	124	-10	32	4939	-228	-251	-4	-5	OR SALEM	SLE	121	-3	12	3904	-297	-49	-7	-1
ID LEWISTON	LWS	122	0	46	4380	-482	-164	-10	-4	PA ALLENTOWN	ABE	88	-41	-39	5350	-2	96	0	2
ID POCAHONTO	PCH	147	-16	31	5991	-279	-232	-4	-4	PA ERIE	ERI	100	-65	-69	5478	-521	-52	-9	-1
IL CHICAGO	MDW	63	-63	-81	5826	-82	435	-1	8	PA HARRISBURG	HAR	79	-34	-56	5063	-108	67	2	1
IL MAQUON	MLI	54	-77	-80	1835	-214	435	-4	8	PA PHILADELPHIA	PHL	73	-35	-43	4477	-136	27	-3	1
IL PEORIA	PIA	61	-62	-61	5575	-222	299	-5	6	PA PITTSBURGH	PIT	73	-54	-96	5219	-238	28	-4	0
IL QUINCY	UNI	47	-66	-73	5147	-279	293	-4	6	PA SCRANTON	AVP	95	-47	-42	5793	5	-17	0	0
IL ROCKFORD	RFD	74	-75	-64	6383	-28	575	0	10	RI PROVIDENCE	PVD	119	-23	-11	5185	-145	81	-3	-2
IL SPRINGFIELD	SEI	60	-48	-62	5140	-156	228	-3	5	SC CHARLESTON	CHS	18	-10	-56	2091	-22	138	-1	7
IN EVANSVILLE	EVV	47	-36	-86	4344	-132	80	-3	2	SC COLUMBIA	CBE	18	-17	-78	2787	215	187	8	7
IN FORT WAYNE	FWA	79	-57	-73	5676	-127	183	-2	3	SC FLORENCE	FLO	24	-11	-61	2532	29	27	1	1
IN INDIANAPOLIS	IND	73	-40	-70	5161	-97	191	-2	4	SC GREENVILLE	GSP	38	-13	-80	3296	177	55	6	2
IN SOUTH BEND	SNB	82	-59	-77	5847	-22	250	0	4	SD ABERDEEN	ABR	88	-90	-33	7303	-559	604	-7	9
IA DES MOINES	DSM	57	-76	-53	5813	-328	443	-5	8	SD HURON	HON	83	-85	-29	7135	-318	918	-4	15
IA DUBUQUE	DBQ	76	-63	-81	6651	-142	576	-2	9	SD RAPID CITY	RAP	101	-69	-28	6041	-499	32	-8	1
IA SIoux CITY	SUX	73	-67	-45	6166	-339	545	-5	10	SD SIOUX FALLS	SFD	85	-78	-55	7020	-246	760	-3	12
IA WATERLOO	ALO	75	-82	-53	6644	-337	477	-5	8	TN CHATTANOOGA	CHA	25	-30	-110	3352	-79	208	-2	7
KS CONCORDIA	CKS	54	-58	-62	4973	-284	354	-5	8	TN KNOXVILLE	TYS	54	-4	-101	3730	231	155	7	4
KS DODGE CITY	DDC	61	-39	-66	4674	-62	196	-1	4	TN MEMPHIS	MEM	17	-29	-74	3013	-110	93	-4	3
KS GOODLAND	GLD	111	-29	-41	5498	-56	438	-1	9	TN NASHVILLE	BNA	37	-22	-89	3568	-33	101	-1	3
KS TOPEKA	TOP	58	-41	-61	4700	-319	175	-6	4	TX ABILENE	ABI	16	-22	-83	2644	83	-128	3	-5
KS WICHITA	ICT	56	-29	-58	4531	-11	195	0	4	TX AMARILLO	AMA	58	-24	-84	4292	309	40	8	1
KY BOWLING GREEN	BWG	38	-38	-98	4065	-37	142	-1	4	TX AUSTIN	AUS	7	-11	-57	1688	-57	14	-3	1
KY LEXINGTON	LEX	64	-28	-88	4368	-142	34	-3	1	TX BROWNSVILLE	BRO	0	0	-31	708	99	15	16	2
KY LOUISVILLE	SEP	45	-67	-89	4148	-130	74	-3	2	TX CORPUS CHRISTI	CRP	0	-5	-57	1042	72	-39	7	-4
LA ALEXANDRIA	AEX	8	-14	-64	1872	-92	-111	-5	-6	TX DEL RIO	DRP	0	-7	-66	1644	137	49	9	3
LA BATON ROUGE	BTR	1	-14	-64</															

March Weather and Crop Summary

HIGHLIGHTS: Most of the Nation experienced above-normal temperatures. The northern Plains had the largest positive temperature anomalies--all the more remarkable because the winter of 1987-88 (December through February) was the third in a row with such anomalies in this region. The deep South had near-normal or slightly below-normal temperatures. The dryness in the West continued, but it was more extreme in the Southwest, while less extreme in the Northwest. The most significant areas of wetness were in Oklahoma, east Texas, southern Missouri, Arkansas, Louisiana, and northern Florida.

MARCH 1-5...Temperatures averaged above normal across virtually the entire Nation. However, colder-than-normal conditions prevailed in the Ohio Valley and the Northeast in general, where snow and freezing rain fell late in the period. Wettest areas included Oklahoma, east Texas, the lower Mississippi Valley, the Gulf Coast States, and the Ohio Valley.

MARCH 6-12...A storm developed on the 6th over the Rockies, spreading snow across the northern Plains and rain across the southern Plains on the 7th and 8th. Rain continued east of the Mississippi River on the 9th, followed by gradual clearing on the 10th. A major winter storm developed over the central and northern Plains on the 10th, and produced blizzard conditions over much of the north-central United States on the 11th and 12th.

MARCH 13-19...Cold weather prevailed from the Rockies eastward. Freezing weather penetrated into the deep South, threatening some fruits and tender vegetables. Snow fell at midweek in the central Plains, and snow showers occurred almost daily in parts of the Northeast. Heavy downpours accompanied severe thunderstorms in the Gulf States during the latter half of the week.

MARCH 20-26...Unseasonably warm weather replaced the cold pattern of the previous week. A major spring storm brought beneficial rains to the eastern third of the Nation, while another storm produced copious rainfall in parts of the Pacific Northwest.

MARCH 27-31...A storm system, moving through the Nation's midsection, produced substantial rains in the Mississippi valley. A second storm developed over New Mexico and Colorado on the 30th and 31st, causing heavy snowfall in the central and southern Great Plains and severe thunderstorms with heavy rain in the lower Mississippi Valley.

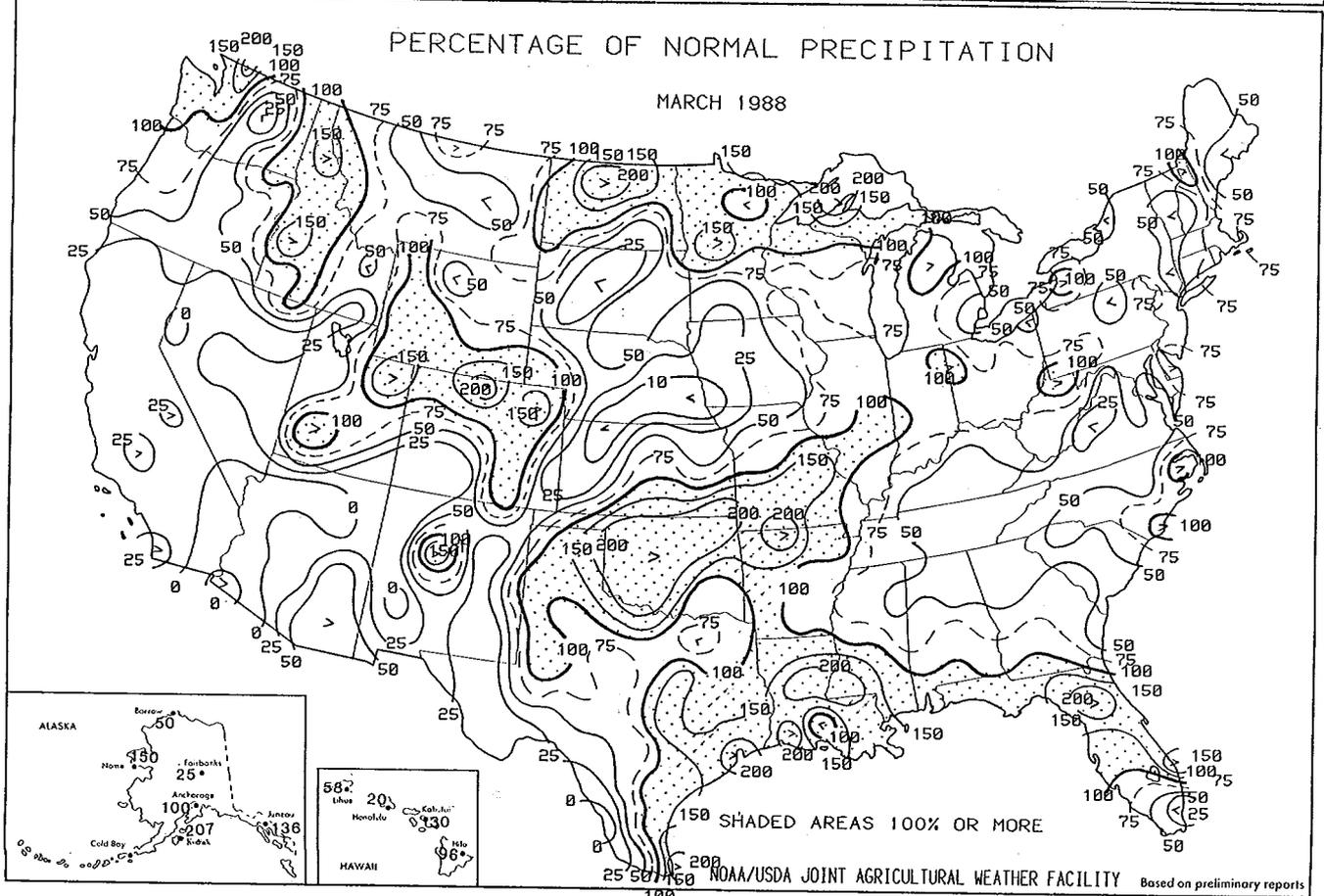
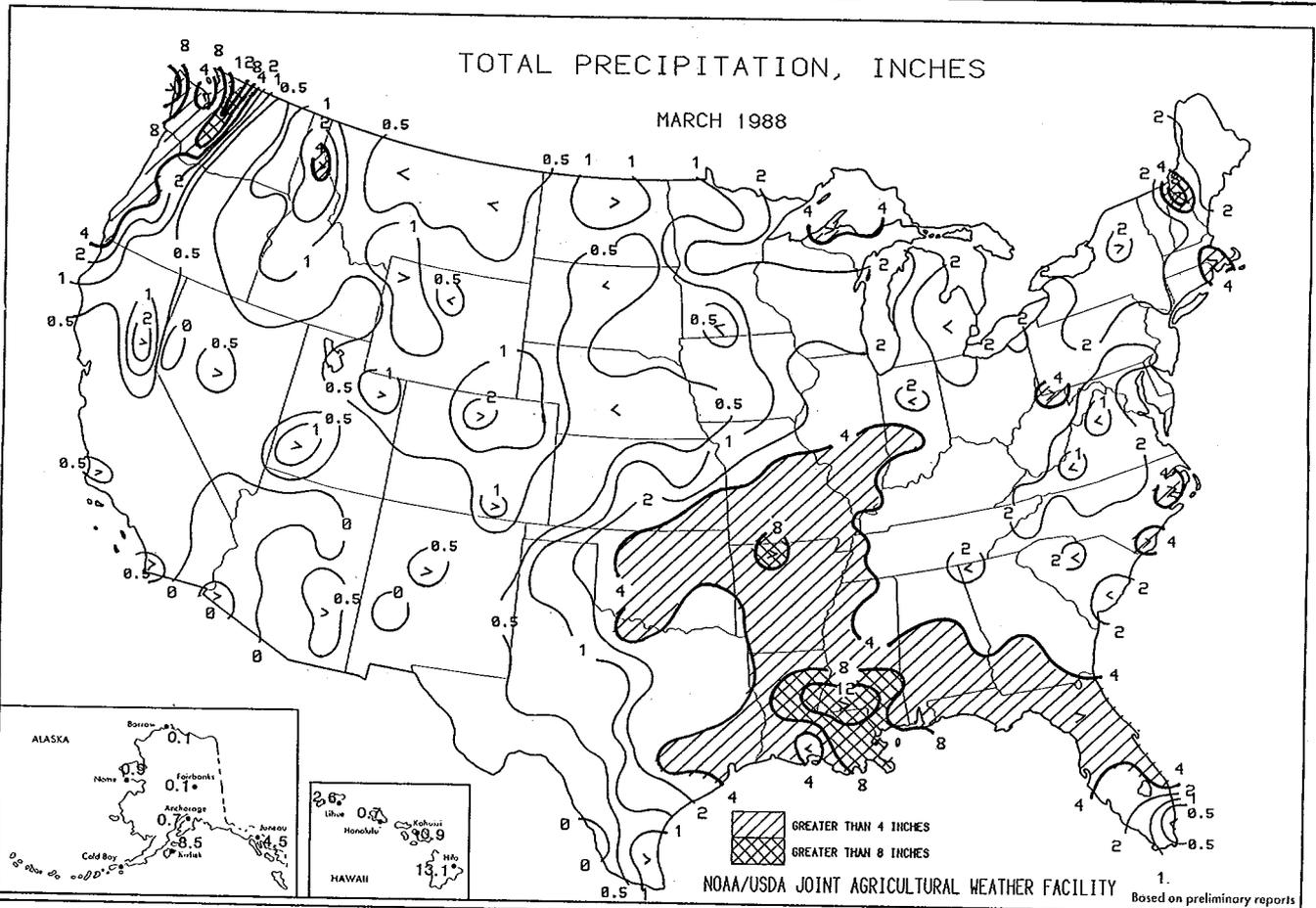
Fieldwork

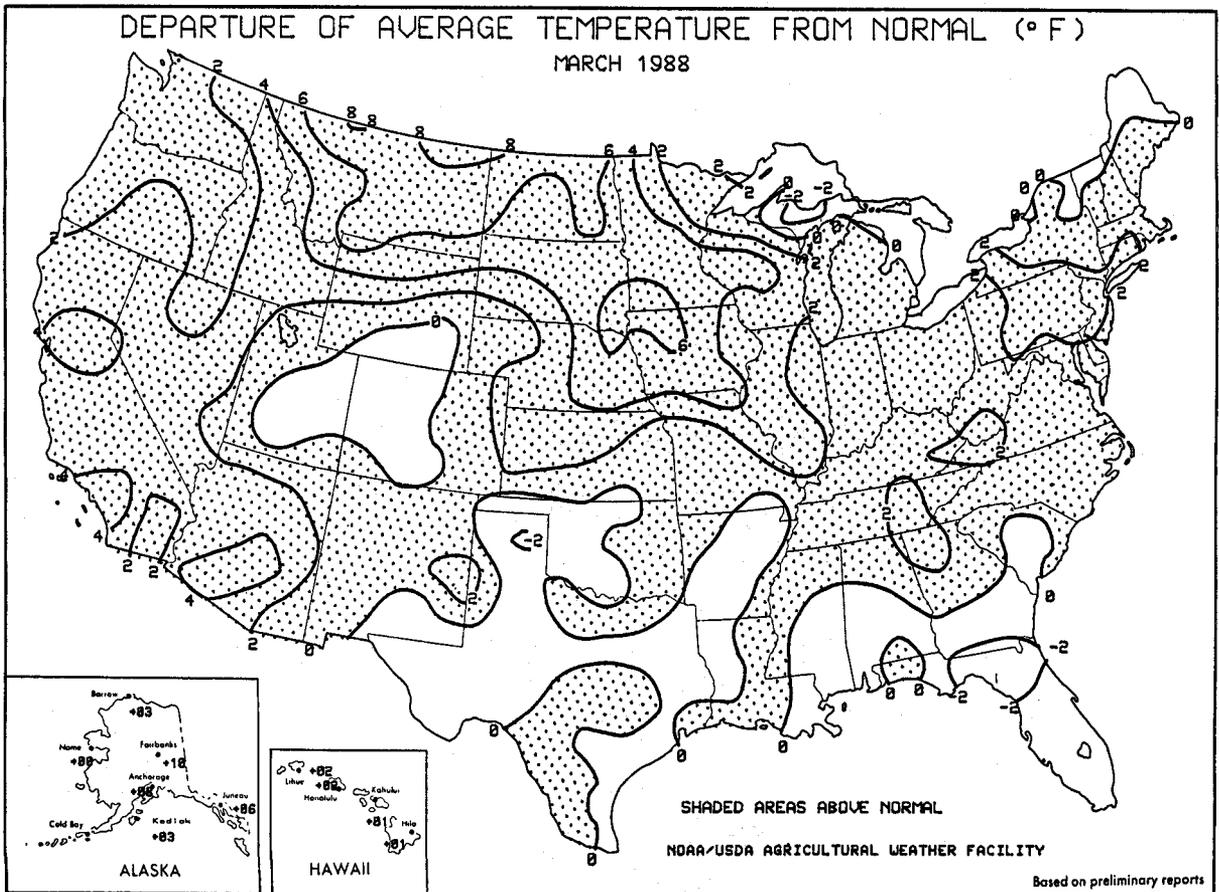
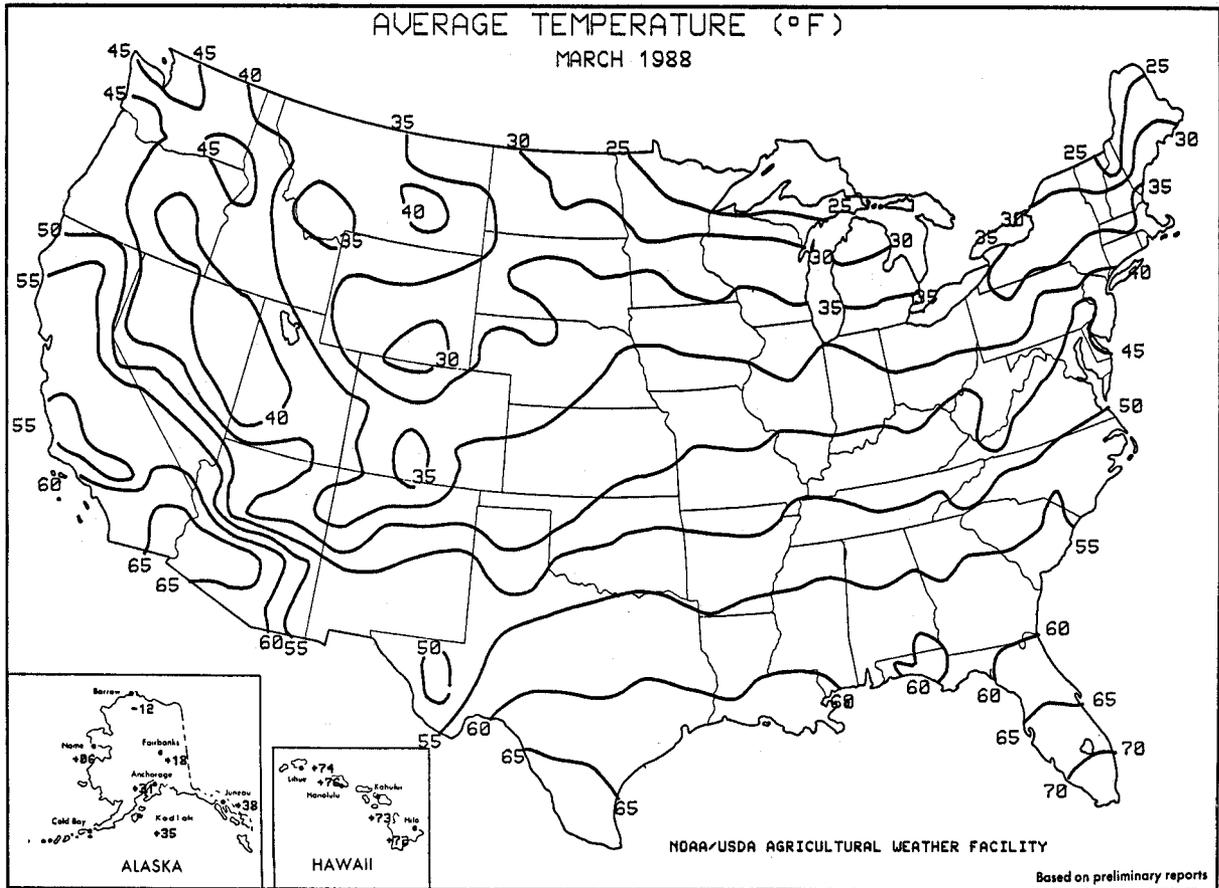
Rain and snow limited fieldwork to mostly spreading fertilizer in the Central and Northern Great Plains, Rocky Mountain, and Corn Belt States during most of March. Rain periodically slowed fieldwork in the Delta and Southeast. Dry soils accelerated land preparation and seeding Arizona and California.

Cotton planting was underway at the beginning of March in Arizona and Texas. Planting progressed rapidly, ending the month 35 percent finished in Arizona. Texas seedings were 10 percent finished compared with 7 percent normally. Planting began in California around midmonth and progressed well the rest of March. March started with corn planting underway in Arizona, Georgia, Louisiana, Mississippi, and Texas. Planting was just beginning in Georgia, Louisiana, and Mississippi but was 22 percent finished in Texas. By the end of the month planting had moved as far North as Kansas and Missouri. Planting spread across the Southeast as the month progressed but lagged behind normal in most States. North Carolina's acreage was 17 percent seeded on April 3, compared with 22 percent normally. Georgia's seeding trailed 9 points behind normal at 34 percent completion. Seeding was 12 points ahead of normal in Alabama. Sorghum seeding was restricted to Texas with 49 percent of the acreage planted. Planting started in Alabama as the month drew to a close. Wet weather slowed rice planting in Louisiana and Texas. By the end of March, seeding was 15 points behind normal in Louisiana and 4 points behind normal in Texas. Tobacco transplanting was underway by midmonth in Georgia and Florida. Tobacco bed preparation and seeding was active from Virginia to Tennessee.

Winter Wheat

Winter wheat was mostly good to fair during March except in the northern and central Great Plains where condition ranged from poor to good. Temperatures were mostly above normal during March but intermittent periods of snow and cold temperatures kept wheat from getting off to a fast start throughout the eastern half of the Nation. The snow provided much needed moisture but wheat suffered from inadequate moisture in some areas of the northern and central Great Plains. By midmonth, greening was underway as far north as Montana. Jointing was underway in Oklahoma, Arizona, and California. Wheat began heading in California and Arizona shortly after midmonth. Before the month ended, wheat heading was underway in Alabama, South Carolina, Louisiana, and Texas. Kansas' wheat suffered disease and insect problems during the month.





Temperature and Precipitation Data for March 1988

States and Stations		Temperature °F		Precipitation Inches		States and Stations		Temperature °F		Precipitation Inches		States and Stations		Temperature °F		Precipitation Inches		
		Average	Departure	Total	Departure			Average	Departure	Total	Departure			Average	Departure	Total	Departure	
AL	BIRMINGHAM	55	1	3.1	-3.5	LA	ALEXANDRIA	58	0	9.6	4.7	OK	COLUMBUS	40	0	2.5	-0.7	
	MOBILE	59	-1	7.8	1.3		BATON ROUGE	61	0	9.0	4.4		DAYTON	40	1	3.0	0.0	
	MONTGOMERY	56	0	5.2	-0.7		LAKE CHARLES	60	0	6.3	3.2		TOLEDO	37	2	1.7	-0.9	
AK	ANCHORAGE	31	8	0.7	0.0		NEW ORLEANS	61	0	8.9	4.2		YOUNGSTOWN	36	1	1.6	-1.7	
	BARROW	-12	3	0.1	-0.1	ME	SHREVEPORT	56	-1	3.9	0.1		OKLAHOMA CITY	50	0	7.9	5.8	
	FAIRBANKS	18	10	0.1	-0.3		CARIBOU	24	-1	1.2	-1.2		TULSA	49	0	6.5	3.4	
	JUNEAU	38	6	4.5	1.2	MD	PORTLAND	34	2	1.9	-2.1	OR	ASTORIA	46	1	7.9	0.7	
	KODIAK	35	3	8.5	4.5		BALTIMORE	45	2	2.4	-1.4		BURNS	38	1	0.6	-0.3	
	NOME	7	0	0.9	0.3		SALISBURY	45	1	3.4	-0.7		MEDFORD	48	2	0.6	-1.3	
AZ	FLAGSTAFF	37	2	0.1	-2.0	MA	BOSTON	39	1	3.5	-0.6		PENDLETON	45	1	1.0	-0.1	
	PHOENIX	66	6	0.2	-0.6		CHATHAM	38	1	2.9	-1.1		PORTLAND	47	1	3.1	-0.5	
	PRESCOTT	46	3	0.3	-1.2	MI	ALPENA	27	0	2.7	0.9		SALEM	46	1	3.3	-1.0	
	TUCSON	62	4	0.4	-0.3		DETROIT	37	2	1.2	-1.4	PA	ALLENTOWN	41	2	2.6	-1.3	
	WINSLOW	45	0	T	-0.5		FLINT	34	1	1.5	-0.7		ERIE	35	2	2.4	-0.4	
	YUMA	68	4	T	-0.1		GRAND RAPIDS	34	1	2.1	-0.5		HARRISBURG	42	1	2.0	-1.5	
AR	FORT SMITH	52	1	5.0	1.2		HOUGHTON LAKE	28	0	2.4	0.5		PHILADELPHIA	45	3	2.2	-1.6	
	LITTLE ROCK	52	0	4.2	-0.5		LANSING	34	1	1.5	-0.9		PITTSBURGH	39	0	2.6	-1.0	
CA	BAKERSFIELD	59	2	0.4	-0.4		MARQUETTE	23	-5	3.7	1.6		SCRANTON	38	2	2.0	-0.6	
	EUREKA	50	2	1.2	-3.9		MUSKEGON	34	1	2.0	-0.6	RI	PROVIDENCE	39	2	4.1	-0.2	
	FRESNO	57	3	0.3	-1.3		SULLY ST. MARIE	23	-1	2.9	0.9	SC	CHARLESTON	57	1	1.8	-2.6	
	LOS ANGELES	62	5	0.1	-1.7	MN	ALEXANDRIA	29	5	2.2	1.0		COLUMBIA	54	0	2.0	-3.2	
	REDDING	57	2	0.5	-4.4		DULUTH	24	1	2.6	0.8		FLORENCE	56	1	2.8	-1.4	
	SACRAMENTO	58	5	0.2	-1.9		INT'L FALLS	22	1	1.7	0.6		GREENVILLE	51	0	3.7	-2.3	
	SAN DIEGO	62	3	0.6	-1.1		MINNEAPOLIS	34	5	1.3	-0.4	SD	ABERDEEN	33	5	0.4	-0.6	
	SAN FRANCISCO	57	4	0.1	-2.6		ROCHESTER	32	3	1.6	-0.2		HURON	35	5	0.9	-0.3	
	STOCKTON	57	3	0.2	-1.6		ST. CLOUD	31	5	1.4	0.0		RAPID CITY	35	3	0.5	-0.5	
CO	DENVER	39	1	1.3	0.1	MS	GREENWOOD	55	0	3.9	-2.4		ST. LOUIS	36	6	0.6	-0.9	
	GRAND JUNCTION	41	0	0.7	0.0		JACKSON	56	0	7.5	1.9	TN	BRISTAL	48	2	1.5	-2.8	
	PUEBLO	40	-1	0.9	0.2		MERIDIAN	55	-1	5.0	-1.7		CHAITANOOGA	52	2	1.8	-4.5	
CT	BRIDGEPORT	40	2	1.5	-2.4	MO	COLUMBIA	44	1	4.1	0.8		KNOXVILLE	50	0	2.4	-3.1	
	HARTFORD	38	1	2.1	-2.1		KANSAS CITY	43	1	1.4	-1.2		MEMPHIS	53	1	4.2	-1.2	
DC	WASHINGTON	47	1	2.3	-1.2		SAINT LOUIS	45	2	4.7	1.5	TX	NASHVILLE	49	0	2.2	-3.4	
FL	APALACHICOLA	59	-1	5.1	1.1	MT	SPRINGFIELD	45	1	5.9	2.4		ABILENE	55	0	0.5	-0.6	
	DAYTONA BEACH	63	-1	4.6	1.6		BILLINGS	40	6	0.7	-0.4		AMARILLO	44	-2	1.2	0.3	
	FT. MEYERS	64	-5	2.6	-0.3		GLASGOW	36	8	0.2	-0.1		AUSTIN	60	0	2.7	1.0	
	JACKSONVILLE	60	-2	2.7	-0.8		GREAT FALLS	37	6	0.4	-0.5		BEAUMONT	61	1	5.5	2.5	
	KEY WEST	72	-2	1.7	0.5		HAVRE	37	7	0.5	-0.1		BROWNSVILLE	67	-2	1.4	0.9	
	MIAMI	71	-1	0.4	-1.5		HELENA	36	5	0.5	-0.2		CORPUS CHRISTI	64	-2	0.9	0.1	
	ORLANDO	66	-1	6.1	2.8		KALISPELL	38	6	0.8	0.0		DEL RIO	63	0	0.2	-0.5	
	TALLAHASSEE	58	-3	7.4	1.8		MILES CITY	38	7	0.3	-0.3		EL PASO	54	-2	0.1	-0.2	
	TAMPA	66	-1	4.1	0.7	NE	MISSOULA	38	4	1.0	0.2		FORT WORTH	56	0	2.0	-0.3	
	WEST PALM BEACH	69	-1	5.5	2.8		GRAND ISLAND	40	4	0.1	-1.4		GALVESTON	62	0	4.4	2.3	
GA	ATLANTA	55	2	2.6	-3.3		LINCOLN	41	5	0.1	-1.8		HOUSTON	61	0	4.9	2.2	
	AUGUSTA	55	1	3.1	-1.8		NORFOLK	40	6	0.2	-1.3		LUBBOCK	50	0	0.8	-0.1	
	MACON	56	0	3.2	-2.0		NORTH PLATTE	38	3	0.4	-0.7		MIDLAND	54	-1	0.7	0.2	
	SAVANNAH	58	0	2.1	-1.7		OMAHA	41	4	0.1	-1.8		SAN ANGELO	57	-1	0.7	-0.1	
HI	HILO	72	1	13.1	-0.5		SCOTTSDRUFF	36	1	1.1	0.1		SAN ANTONIO	61	0	0.9	-0.5	
	HONOLULU	76	2	0.7	-2.8	NV	VALLENTINE	35	2	0.6	-0.3		VICTORIA	63	-1	1.7	0.3	
	KAHULUI	73	1	0.9	-1.8		ELKO	37	1	T	-0.9		WACO	58	0	3.1	1.1	
	LIHUE	74	2	2.6	-1.9		ELY	36	2	0.3	-0.6	UT	WICHITA FALLS	53	0	5.2	3.4	
ID	BOISE	43	1	1.5	0.4		LAS VEGAS	58	3	0.0	-0.4		BLANDING	39	0	T	-0.8	
	LEWISTON	45	2	1.0	0.0		RENO	44	4	T	-0.7		CEDAR CITY	39	0	1.1	0.0	
	POCATELLO	38	2	0.8	-0.1		WINNEMUCCA	41	2	0.1	-0.6		MILFORD	38	0	1.1	0.1	
IL	CAIRO	-	-	4.0	-1.0	NH	CONCORD	33	1	1.3	-1.6		SALT LAKE CITY	42	1	0.9	-0.8	
	CHICAGO	38	1	2.2	-0.6		ATLANTIC CITY	42	1	2.2	-1.8	VT	BURLINGTON	30	0	1.6	-0.6	
	MOLINE	39	3	2.4	-0.4	NM	ALBUQUERQUE	47	1	0.9	0.4		LYNCHBURG	48	2	1.6	-2.1	
	PEORIA	40	3	2.8	0.0		CLOVIS	51	4	0.6	0.1		NORFOLK	49	1	2.1	-1.7	
	QUINCY	42	3	1.6	-1.6		ROSWELL	51	0	T	-0.4		RICHMOND	48	0	2.0	-1.6	
	ROCKFORD	36	2	2.2	-0.4	NY	ALBANY	34	1	1.6	-1.4		ROANOKE	47	2	0.9	-2.8	
	SPRINGFIELD	42	2	2.7	-0.4		BINGHAMTON	33	1	1.6	-1.3	WA	QUILLAYUTE	44	2	128	0.9	
IN	EVANSVILLE	45	1	2.9	-1.7		BUFFALO	35	2	3.0	0.0		SEATTLE-TACOMA	46	1	3.8	0.2	
	FORT WAYNE	38	2	3.1	0.2		NEW YORK	43	2	2.0	-2.1		SPOKANE	40	2	1.6	0.2	
	INDIANAPOLIS	41	1	3.2	-0.4		ROCHESTER	35	1	1.6	-0.9		WALLA WALLA	48	3	2.0	0.6	
	SOUTH BEND	37	1	3.0	0.0		SYRACUSE	34	1	1.8	-1.3	WV	YAKIMA	42	1	0.2	-0.4	
IA	DES MOINES	40	5	0.7	-1.5	NC	ASHEVILLE	47	0	1.3	-3.5		BECKLEY	44	3	2.5	-1.5	
	DUBUQUE	36	4	2.3	-0.6		CHARLOTTE	53	2	3.3	-1.5		CHARLESTON	46	1	2.7	-1.3	
	STIOUX CITY	39	6	0.6	-1.1		GREENSBORO	49	1	1.9	-2.0		ELKINS	39	0	2.9	-0.8	
	WATERLOO	36	4	1.4	-0.9		HATTERAS	52	0	3.1	-0.9		HUNTINGTON	46	1	3.0	-1.0	
KS	CONCORDIA	43	3	0.6	-1.3		NEW BERN	53	1	3.3	-0.4		PARKERSBURG	43	0	3.7	0.1	
	DODGE CITY	44	2	0.5	-0.9		RALEIGH	51	1	1.8	-1.9	WI	GREEN BAY	32	3	1.1	-0.8	
	GOODLAND	39	2	0.4	-0.6		WILMINGTON	54	0	4.1	0.0		LACROSSE	35	4	1.9	0.0	
	TOPEKA	43	2	0.7	-1.5	ND	BISMARCK	30	4	0.9	0.2		MADISON	35	3	1.2	-0.9	
	WICHITA	44	0	2.9	0.9		FARGO	30	5	1.0	0.2		MILWAUKEE	35	2	1.3	-1.3	
KY	BOWLING GREEN	47	1	2.1	-3.4		GRAND FORKS	27	5	0.9	0.1		WAUSAU	31	4	1.8	-0.1	
	JACKSON	48	7	3.1	-1.5		WILLISTON	33	7	0.6	0.1	WY	CASPER	32	0	0.7	-0.3	
	LEXINGTON	45	1	2.3	-2.5	OH	AKRON-CANTON	37	0	2.1	-1.2		CHEYENNE	33	1	1.3	0.4	
	LOUISVILLE	46	1	3.0	-1.7		CINCINNATI	42	0	3.4	-0.5		LANDER	33	1	1.4	0.3	
							CLEVELAND	37	1	2.2	-0.8		SHERIDAN	37	5	0.6	-0.4	
													FR	SAN JUAN	78	0	1.7	-0.5

Based on 1961-1980

Heating Degree Days (Base 65° F)

March 1988

ALA. Birmingham . . .	328	MAINE, Caribou . . .	1289	OKLA. Okla. City . . .	473
Mobile	214	Portland	950	Tulsa	483
Montgomery	283	MD. Baltimore	613	OREG. Astoria	601
ALASKA, Anchorage . . .	1039	MASS. Boston	792	Burns	848
Barrow	2416	Chatham	845	Medford	544
Fairbanks	1455	MICH. Alpena	1149	Pendleton	637
Nome	1812	Detroit	864	Portland	544
ARIZ. Flagstaff	848	Flint	954	Salem	595
Phoenix	60	Grand Rapids	950	PA. Allentown	747
Tucson	161	Houghton Lake	1140	Erie	883
Winslow	612	Lansing	955	Harrisburg	693
Yuma	33	Marquette	1295	Philadelphia	624
ARK. Fort Smith	414	S. Ste. Marie	1295	Pittsburgh	792
Little Rock	404	MINN. Duluth	1253	Scranton	823
CALIF. Bakersfield . . .	192	Internatl Falls	1337	R.I. Providence	787
Eureka	453	Minneapolis	962	S.C. Charleston	239
Fresno	251	Rochester	1020	Columbia	322
Los Angeles	127	St. Cloud	1057	Greenville	417
Red Bluff	257	MISS. Jackson	292	S. DAK. Aberdeen	983
Stockton	234	Meridian	308	Huron	924
San Diego	125	MO. Columbia	653	Rapid City	905
San Francisco	259	Kansas City	668	Sioux Falls	878
COLO. Denver	811	St. Louis	610	TENN. Chattanooga	396
Grand Junction	741	Springfield	601	Knoxville	458
Pueblo	777	MONT. Billings	775	Memphis	392
CONN. Bridgeport	787	Glasgow	903	Nashville	485
Hartford	816	Great Falls	852	TEX. Abilene	324
D.C. Washington	544	Havre	860	Amarillo	633
FLA. Apalachicola	181	Helena	889	Austin	193
Ft. Myers	--	Kalispell	832	Beaumont	171
Jacksonville	176	Miles City	862	Brownsville	65
Key West	17	Missoula	820	Corpus Christi	126
Miami	26	NEBR. Grand Island	761	Del Rio	142
Orlando	71	Lincoln	728	El Paso	360
W. Palm Beach	39	Norfolk	783	Fort Worth	301
Tallahassee	228	North Platte	837	Galveston	135
Tampa	85	Omaha	734	Houston	171
GA. Atlanta	310	Valentine	936	Lubbock	459
Augusta	294	NEV. Ely	896	Midland	338
Macon	272	Las Vegas	225	San Angelo	280
Savannah	218	Reno	643	San Antonio	179
IDAHO, Boise	686	Winnemucca	769	Victoria	144
Lewiston	634	N.H. Concord	971	Waco	256
Pocatello	843	N.J. Atlantic City	698	Wichita Falls	376
ILL. Cairo	--	N. MEX. Albuquerque	551	UTAH, Milford	836
Chicago	828	N.Y. Albany	946	Salt Lake City	723
Moline	807	Binghamton	981	VT. Burlington	1088
Peoria	772	Buffalo	916	VA. Lynchburg	538
Rockford	887	New York	674	Norfolk	474
Springfield	720	Rochester	933	Richmond	527
IND. Evansville	602	Syracuse	942	Roanoke	535
Fort Wayne	816	N.C. Asheville	545	WASH. Colville	--
Indianapolis	726	Charlotte	378	Quillayute	632
South Bend	851	Greensboro	478	Seattle-Tacoma	592
IOWA, Des Moines	764	Hatteras	386	Spokane	775
Dubuque	892	Raleigh	444	Walla Walla	526
Soix City	786	Wilmington	330	Yakima	699
KANS. Concordia	663	N. DAK. Bismarck	1071	W. VA. Beckley	644
Dodge City	964	Fargo	1092	Charleston	577
Goodland	797	Williston	980	Huntington	584
Topeka	662	OHIO. Akron-Canton	853	WIS. Green Bay	1012
Wichita	637	Cincinnati	699	Madison	939
KY. Lexington	620	Cleveland	848	Milwaukee	930
Louisville	580	Columbus	762	WYO. Casper	1016
LA. Baton Rouge	186	Dayton	759	Cheyenne	1008
Lake Charles	179	Toledo	845	Lander	981
New Orleans	166	Youngstown	878	Sheridan	870
Shreveport	278				

Based on 1951-80 normals.

National Agricultural Summary

April 4 to 10, 1988

HIGHLIGHTS: Above-normal temperatures helped to improve small grains and pastures over much of the Nation. Limited but beneficial rains fell in eastern Washington, the Montana winter wheat area, and the central winter wheat belt of Kansas and Nebraska. Precipitation fell in most other areas except in the Southwest, southern Florida, and most of North Dakota. Days suitable for fieldwork ranged from 3 to 6 days in the West, 3 to 5 days in the East, and 1 to 4 days in the remainder of the Nation.

Winter wheat was mostly good to fair with 2 percent (%) of the crop headed. Spring wheat was 8% seeded, 4 percentage points ahead of 1987 and the 5-year average. Corn was 3% planted, with planting reported as far north as Nebraska. Cotton was 13% planted, 1 point higher than the average. California and Texas were 3 and 2 points ahead of normal, respectively. Sorghum planting was on schedule with 14% completed. Texas had 53% of its areas planted, 1 point ahead of the average. Rice plantings lagged behind normal with 8% of the area seeded, compared to the 14% average. Livestock was mostly good.

SMALL GRAINS: Small grains were mostly good to fair as above-normal temperatures helped crop development in the midsection of the nation. Winter wheat was 2% headed, 1% behind last year and 2% behind the average. Texas winter wheat, with 6% headed, was 7 points behind the average; Georgia, was 17% headed, 16 points below normal; and Louisiana and Mississippi was 48 and 33% headed, respectively. California's wheat was 40% headed and limited moisture has stressed the crop. In Kansas, moisture helped the wheat crop. Some light-freeze damage was reported in the Northwest, South-central, and Southeast areas. Light-wind damage was recorded in the West-central, Southwest, and South-central areas. Ten percent of the wheat was jointed in Kansas, compared to 45% last year and the 20% average. Wheat was mostly good in Oklahoma with 45% of the crop jointing, 15 points behind the average. Wheat development was about a week behind normal because of cool spring temperatures. Precipitation helped winter wheat in Nebraska. In Montana, 12% of the winter wheat remains dormant. Wind damage has been moderate to light, and moisture is needed to improve the crop. Warmer weather and moisture improved Washington's winter wheat.

Spring wheat was 8% planted, compared to 4% for last year and the average. Planting in the five major spring wheat States were ahead of normal. South Dakota had 23% of its area seeded, 15 points above the average, and Idaho had 34% of the area planted, 8 points above normal.

OTHER CROPS: Corn planting was 3% complete, compared to 2% last year and the average of 3%. Plantings in the southeast continued to advance with Georgia 74% planted, 20 points ahead of last year and 5 points more than the average. Alabama was 68% planted, 14 points ahead of 1987 and 20 points higher than the average. North Carolina, at 26% planted, was 5 points below the average. In Texas, area planted was 65% complete, 6 points ahead of last year and the average. Planting in the major Midwest corn producing States has not begun, except in Nebraska, where 1% of the area has been planted.

Cotton planting was 13% complete, 1% above last year and the average. Texas was 11 percent

complete, 2 points more than the average. California, with 40% planted was 3 points ahead of normal. Arizona's cotton planting was 55% complete, 2 points behind normal, while New Mexico planting was 2% complete. Cotton planting in Alabama was 10% completed; Georgia, 3%; South Carolina, 2%, and Tennessee 1%.

Rice planting was 8% complete, 5 points behind last year and 6 points below the average. Texas has 41% of the area seeded, 5 points less than last year. Louisiana, with 14% seeded, was 19 points below normal. Mississippi and Arkansas had 3 and 1% planted, respectively.

Sorghum planting was on schedule with 14% planted, 1 point ahead of last year and equal to the average. Planting in Texas was 53% complete, 1 point ahead of normal. Planting was behind schedule in Arkansas, Louisiana, and Mississippi.

Tobacco in Georgia was good to fair with some wind and blowing sand damage. Transplanting is 59% complete, compared to 36% last year and the 60% average. South Carolina's tobacco was fair to good with 18% planted, 1 point behind the average. In Kentucky and Tennessee, tobacco plants were 35% and 52% emerged, respectively. In North Carolina tobacco plantbeds were good to fair. Burley tobacco plantbed seeding was virtually complete in Virginia.

Peanut planting was underway in Georgia and Florida. In Alabama, 6% of the peanuts were planted, 5 points ahead of the average.

FRUITS AND NUTS: Georgia peaches were mostly good, with bloom nearly complete. Peaches were mostly fair to good in South Carolina and in full bloom in Virginia. In Texas, late variety peaches were progressing well. Florida citrus groves were being irrigated to offset dryness. The trees were good with the bloom mostly over. Harvest of valencia oranges increased. The Texas citrus harvest was winding down. The set for next season's citrus crop is very heavy. In Arizona, grapefruit and valencia orange harvest continued. Citrus harvest in California continues as grapefruit, lemons, tangerines, and oranges were packed. The navel oranges picked were below-average quality. Avacado harvest remained steady. In the Coachella Valley, table grapes were thinned and gibberellic acid applied, while warm temperatures promoted rapid growth to San Joaquin Valley grapes.

VEGETABLES: In Florida, crops were mostly fair to good as harvest increased for tomatoes, potatoes, peppers, cabbage, strawberries, cucumbers, and celery. Squash, sweetcorn, snapbeans, carrots, lettuce, radishes, escarole, and endive were also being harvested. The Texas onion harvest was steady in the Rio Grande Valley. Melons, peppers, and tomatoes progressed well as cabbage and carrot supplies showed seasonal declines. In the San Antonio-Winter Garden area, onions progressed well as the harvest of other vegetables was about over. Most vegetables in east Texas showed good progress, but some replanting was necessary because of freeze damage. In the High Plains, onions were being irrigated. Most transplanting of onions and potatoes were complete. Chili planting was underway in the Trans-Pecos area. Onions were doing well under irrigation. In Arizona, head lettuce, romaine, leaf lettuce, cauliflower, cabbage, napa, asparagus, and

(Continued to back cover)

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 totals mostly under 0.25 in.; over 0.50 in. local areas north. Temperatures averaged 2 to 4° above normal.

Days suitable for fieldwork 4.3. Soil moisture 31% short, 69% adequate. Acreage intended for spring planting 68% prepared, 53% 1987. Corn 68% planted, 54% 1987, 48% avg. Sorghum 8% planted, 6% 1987, 4% avg. Cotton 10% planted, 12% 1987, 5% avg. Peanuts 6% planted, 2% 1987, 1% avg. Wheat 33% headed, 27% 1987, 21% avg.; 8% turning color; 37% fair, 58% good, 5% excellent. Livestock mostly good. Pastures mostly fair. Pasture feed supplies 38% short, 62% adequate. Primary activities: Land preparation; planting row crops, vegetables; controlling weeds in hay fields; applying fertilizer, pre-plant herbicides to cropland; spraying fruit trees; general care livestock, poultry.

ARIZONA: Sunny, warm conditions 3rd, 4th. High clouds, gusty winds northern half 4th. High pressure 5th, 6th; sunny skies, further warming continued. Phoenix 100° 6th set record for date. Moisture increased southeast 7th, set off light showers, few brief thunderstorms. Dry cold front 8th, wind gusts 45 mph north. Average temperatures 3 to 13° above normal.

Planting of cotton continued; 55% planted statewide, 10% above 1987, 2% below average. Unseasonably warm weather encouraged planting. Western area early plantings progressed well; first leaves appeared earlier planted fields. Some boll weevil activity south central. Planting, irrigation dominated weeks activities. Statewide alfalfa fair to good. Curing conditions favorable west. First cuttings nearly complete northwest with spraying for alfalfa weevils. Alfalfa weevils southeast. Irrigation continued other producing areas of State. Wheat, barley stands good to excellent. Statewide 96% jointing, 45% heading, 8% turning color. Very good progress west. Weevils south, southeast, west. Irrigation continued as needed. Corn planting neared completion central, continued southeast. Western area head lettuce harvest, shipping continued, starting to taper off. Other vegetables shipped include romaine and leaf lettuce, cauliflower, cabbage, napa, asparagus. Artichokes shipped out of Parker area. Melons continued good progress. Grapes good. Central area head lettuce harvest, shipping continued. Other mixed vegetables also shipped from area. Grapefruit, valencia orange harvest, shipping continued central, west. Apple trees good east. Some insect control activity.

ARKANSAS: Mild, temperatures slightly above normal. Temperature extremes 34°; 90°. Light showers midweek all sections. Rainfall totals 0.10 to 0.58 in.

Land preparation continued. Major farming activities: Fertilizing wheat, pastures; planting corn, sorghum, rice; spring gardening. Treating for garlic, onions in wheat eastern counties; septoria leaf blotch, rust east central, southwestern counties. Fruits good. Livestock good, parasite control measures being taken, still being fed supplemental feeds.

CALIFORNIA: High pressure brought another very warm week. Cold front northern third early week dropped little rain. Temperatures above normal over all areas.

Rapid progress field activities, warm, dry weather. Low moisture stress increased, dryland

grains. Much no harvest expected. Irrigation other grain active. Many fields headed. Seeding preparations active rice. Applied weevil controls. Began flooding, few early fields seeded. Cotton seeding full swing. Seeding corn, sugarbeets active. Harvest overwintered beets normal pace. Alfalfa, small grains harvest hay, green-chop. Some seed alfalfa mowed, other sheeped-off. Fertilization, weed control, thinning, irrigation, fungicide, pesticide applications active most fruit crops. Avocado harvest steady. Dates pollinated, table grapes thinned, gibberellic acid applied Coachella Valley. Rapid growth in San Joaquin Valley grapes, warm temperatures. Excess fruit thinned stone fruit orchards. Grapefruit, lemons, tangerines packed. Navel oranges picked, below average quality. Most valencia oranges harvested export. Despite winds vegetable activity accelerated. Artichoke movement heavy good quality Salinas. Asparagus harvested Sacramento Valley, Delta. Broccoli supplies heavy good quality Salinas Santa Maria. Broccoli harvested Merced-Atwater, Riverside. Cauliflower volume moderate to light good quality Salinas, Santa Maria. Carrot harvest active Riverside. Celery moved south coast. Lettuce supplies very heavy good quality central San Joaquin Valley. Strawberry harvest south coast, movement light to moderate good quality Salinas, Santa Maria. Fresh processing tomatoes planted Delta, Merced-Atwater; grew well Sacramento Valley. Emerged plants required irrigation. Tomato blooms appeared Riverside. Livestock fair to good. Rangeland pastures poor, drying rapidly. Cattle moved to foothills, grass growth also slow lack rainfall. Movement to market active due to worsening rangeland. Supplemental feeding heavy. Water supplies low, feed supplies continued to be depleted.

COLORADO: Weak frontal systems during. Precipitation none to 0.70 in. Average temperature 2 to 10° above normal.

Days suitable for fieldwork 3.4. Soil moisture 12% short, 64% adequate, 24% surplus. Winter wheat good. Small grains began to emerge. Livestock good. Death losses average, cows calved 65%, ewes lambled 58% since January 1st. Stored feed supplies adequate.

FLORIDA: Warm, moist southeast to southerly flow prevailed 2nd to 4th with showers confined to north. By 7th, cool front pushed through State with light rainfall remained mostly north. Ahead of front on 6th, temperatures several locations reached 90°. Temperatures several degrees lower behind front. Weak high pressure, sunshine allowed for coastal sea breezes weekend with thunderstorms interior 10th.

Soil moisture short entire east coast; mostly adequate other areas. Corn, tobacco, wheat good. Planting peanuts underway. Land preparation cotton, soybeans, sorghum active. Sugarcane good growth. Pastures declined to only fair, especially many areas eastern, southern Peninsula little or no recent rainfall. Light to moderate showers Peninsula, 17th very timely. Cattle, calves remained fair to mostly good. Calving continued active. Movement of calves to market mostly light. Citrus groves irrigated to offset dryness. Groves very good. Bloom mostly over. Valencia harvest increased. Mild early week, cool late week, vegetable producing areas. Minimal rainfall. Crops fair to good. Irrigation continued active.

Harvest increased. Volume leaders: Tomatoes, potatoes, peppers, cabbage, strawberries, cucumbers, celery. Also good volume available squash, sweet corn, snap beans, carrots, lettuce, radishes, escarole, endive. First belle glade sweet corn picked.

GEORGIA: Rain light most areas, under 0.33 in. Temperatures 2 to 4° above normal, record high 5th. Maximum temperatures mid 80s mountains, upper 80s, low 90s elsewhere. Minimum temperatures upper 20s to mid 30s mountains, 40s elsewhere. Daily pan evaporation 0.25 to 0.30 in.

Days suitable for fieldwork 5.3. Soil moisture 4% very short, 50% short, 44% adequate, 2% surplus. Corn 20% fair, 67% good, 13% excellent. Cotton, sorghum grain, peanut planting underway. Tobacco: Wind, blowing sand damage; 33% fair, 57% good, 10% excellent; 59% transplanted, 36% 1987, 60% avg. Watermelons: Wind damage, some replanted, down from 1987. Wheat 93% jointing, 93% 1987, 92% avg.; 57% boot, 58% 1987, 65% avg. Other small grains fair to mostly good; 20% fair, 75% good, 5% excellent. Apples good. Peaches good, bloom near complete; 97% good, 3% excellent. Pastures fair to good. Livestock fair to good, mostly good. Main activities: Planting corn, transplanting tobacco. Preparing land for row crops, applying fertilizer.

HAWAII: Favorable weather. Mostly sunny. Light to moderate showers mostly overnight. Temperatures upper 60s to upper 80s. Rainfall none to 6.30 in. Trade winds 10 to 25 mph.

Days suitable for fieldwork 7.0. Crops improved condition. Most crop yields higher. Papaya production seasonally light; upturn expected soon. Banana production steady. Head cabbage output heavy, good quality. Chinese cabbage production heavy, good quality. Shipments to west coast continued. Ginger root harvesting steady, planting slowed due to wet conditions. Head lettuce output steady, reoccurrence of some disease.

IDAHO: Temperatures near normal north, otherwise above normal. Precipitation below normal east, otherwise above normal.

Days suitable for fieldwork 4.0. Soil moisture 12% very short, 52% short, 36% adequate. Irrigation water supplies fair. Spring wheat 34% seeded, 38% 1987, 26% avg.; 8% emerged. Winter wheat good. Barley 24% planted, 32% 1987, 19% avg. Emergence 11%, 6% 1987, 5% avg. Oats 12% seeded, 25% 1987, 17% avg. Minimal emergence. Sugarbeets 46% planted, 62% 1987, 39% avg.; 20% emerged. Onions 92% planted, 95% 1987, 61% avg.; 32% emergence. Dry peas 4% planted, 4% 1987, 12% avg. Potatoes 2% planted, 2% 1987, 4% avg. Fruit trees breaking dormancy cooler areas, full bloom warm locations. Calving 86%, 87% 1987, 80% avg. Lambing near 100%, 92% 1987, 88% avg. Hay, roughage supplies; livestock good.

ILLINOIS: Temperatures averaged 1 to 4° above normal south, 4 to 8° north. Precipitation totals greater than 1.00 in. north, few east central locations; 0.50 to 0.75 in. south, west.

Days suitable for fieldwork 1.3. Soil moisture 4% short, 56% adequate, 40% surplus. Oats 35% planted, 72% 1987, 43% avg. Alfalfa 10% fair, 81% good, 9% excellent. Pastures 2% poor, 22% fair, 67% good, 9% excellent. Livestock roughage requirement 25%, 28% 1987, 24% avg.

INDIANA: Temperatures averaged 2 to 7° above normal. Lows 30s, highs 70s to low 80s. Precipitation above average. Nearly all areas 1.00 in. or more. Average 4 in. soil temperatures in 50s.

Days suitable for fieldwork 0.8. Topsoil moisture 18% adequate, 82% surplus. Subsoil moisture 6% short, 46% adequate, 48% surplus.

Spring cropland 76% tilled, 77% 1987, 61% avg. Wheat 5 in. high, 5 in. 1987, 4 in. avg. Wheat 7% jointed, 2% 1987, 5% avg. Oats 30% seeded, 72% 1987, 49% avg. Clover 61% seeded, 82% 1987, 61% avg. Pastures 1% very poor, 12% poor, 52% fair, 33% good, 2% excellent. Heavy rain halted tilling, planting activities.

IOWA: Temperatures averaged 10° above normal. Precipitation below normal statewide. Precipitation 5th to 6th less than 0.52 in. Temperature extremes 88° Sioux City 7th, 8th to 26° Estherville, Algona 10th.

Days suitable for fieldwork 3.9. Topsoil moisture 27% short, 73% adequate; subsoil moisture 20% short, 80% adequate. Winter wheat 3% poor, 33% fair, 56% good, 8% excellent. Pastures 1% very poor, 13% poor, 29% fair, 46% good, 11% excellent. Oats 50% sown, 41% 1987, 28% avg. Seedbed preparation 60%. Oats 5% emerged, 2% 1987, 5% avg.; fertilizer application 50%, 43% 1987, 38% avg.; fertilizer availability 98% adequate, 2% surplus. Livestock mostly good to excellent. Good weight gains, excellent calving, lambing.

KANSAS: Temperatures averaged 52° northwest to 59° southeast; 6 to 7° above normal northern third, east central, 3° above normal southwest, south central. Precipitation light 0.25 in. or less; 0.08 in. south central to 0.25 in. east central.

Days suitable for fieldwork 2.5. Topsoil moisture 11% short, 69% adequate, 20% surplus. Subsoil 24% short, 66% adequate, 10% surplus. Snow west, rain east hampered fieldwork. Moisture helped wheat crop condition, improved all areas. Light freeze damage wheat northwest, south central, southeast. Light wind damage west central, southwest, south central. Moisture stopped blowing soil these areas. Wheat 10% jointing, 45% 1987, 20% avg. Main insect Russian wheat aphid, mostly light levels western third. Wheat streak mosaic most of State, mainly light, some moderate to severe. Wheat spindle streak north central to south central. Oats, barley 95% seeded. Preparing ground for spring planting where moisture allowed. Other activities fertilizing wheat, weed spraying, range burning, livestock care. Range, pasture good statewide; best conditions east, worst southwest, northwest. Condition improved all areas due to moisture. Pastures supplying 20% cattle roughage requirements. Feed grains, hay, forage adequate supply. Calving continued across State.

KENTUCKY: First half of week warmer than normal with record highs in 80s many areas 5th. Temperatures normal rest of week. Substantial rain 6th, 7th. Amounts averaged slightly more than 1.00 in. Central, southeast locations 2.00 to 3.00 in.

Days suitable for fieldwork 2.5. Soil moisture 1% very short, 5% short, 74% adequate, 20% surplus. Tobacco plantbeds 90% seeded, 91% 1987, avg. 85%. Plants 35% emerged. Corn planting underway. Winter wheat good, average height 8 in. Fruit trees 60% budding or in bloom. Pastures fair to good. Alfalfa weevil heavy some areas.

LOUISIANA: Temperatures 1 to 4° above normal. Temperature extremes 41°; 88°. Rainfall averaged 0.03 to 0.68 in.

Days suitable for fieldwork 2.1. Soil moisture 32% adequate, 68% surplus. Spring plowing 37%, 40% 1987, 59% avg. Corn 29% planted, 38% 1987, 64% avg.; 18% emerged, 14% 1987, 51% avg. Rice 6% emerged, 15% 1987, 21% avg. Winter wheat fair to good; 48% headed, 41% 1987, 43% avg. Pastures, livestock, sugarcane fair to good. Vegetables fair. Harvesting strawberries. Main activities: Spring plowing, topdressing pastures, wheat; harvesting crawfish; planting corn, rice.

MARYLAND & DELAWARE: Maryland: Average temperature 60°, normal 50°. Lowest temperature 35°, highest temperature 83°. Precipitation averaged 1.42 in.

Days suitable for fieldwork 3.4. Topsoil, subsoil moisture adequate. Acreage 30% prepared for planting, 35% 1987. Wheat, oats, barley, rye good. Peaches 60% bloom, 45% 1987. Apples 15% bloom, 10% 1987. Potatoes 45% planted.

Delaware: Average temperature 62°, normal 50°. Precipitation averaged 1.84 in.

Days suitable for fieldwork 3.0. Topsoil moisture adequate to surplus. Subsoil moisture mostly adequate to short. Acreage 15% prepared for planting, 15% avg. Wheat, barley, rye good. Peaches 80% bloom, 40% 1987. Potatoes 60% planted, 65% 1987. Green peas 60% planted, 50% avg.

MICHIGAN: Temperatures ranged 6 to 11° above normal. Temperature extremes 25°; 82°. Precipitation ranged 0.10 to 2.54 in. across State. Heavy rains southern areas midweek.

Winter wheat, pastures greening. Most fields too wet for tillage. Activities: Sowing oats, attending auctions, marketing crops, livestock; repairing machinery, spreading fertilizer. No corn planted. Calving, lambing active. Feed supplies abundant. Good weather helped livestock.

MINNESOTA: Temperatures averaged 7 to 13° above normal for State. Extremes 18°; 87°. Precipitation averaged 0.17 to 0.46 in. below normal. Precipitation totals averaged trace to 0.30 in. Greatest weekly total 0.53 in. Snowfall averaged trace or less. Snow depth weeks end averaged trace or less.

Livestock good. Fieldwork, land preparation, spreading manure, repairing equipment main activities. Small grain plantings underway west central.

MISSISSIPPI: Average temperatures 1° below normal to 6° above normal. Extremes 36°; 91°. Fair, warm, dry. Greatest 24-hour total rainfall 0.45 in. Greatest weekly rainfall 0.45 in.

Days suitable for fieldwork 2.1, 5.0 1987, 3.9 avg. Soil moisture declined to 45% adequate, 55% surplus. Corn 31% planted, 28% 1987, 38% avg. Wheat mostly good; 83% jointing, 88% 1987, 82% avg.; 7% heading, 6% 1987, 17% avg. Hay, feed supplies slightly less than adequate. Planting just begun for rice, sorghum. Peanuts, sweetpotatoes still less than 5% planted. Watermelons 25% planted, 31% 1987, 27% avg. No cotton planting.

MISSOURI: Temperatures averaged 3 to 8° above normal. Rainfall widespread, light 0.25 to 0.50 in. Some damaging winds, hail 5th.

Days suitable for fieldwork 2.4. Topsoil moisture 10% short, 65% adequate, 25% surplus. Oats 73% sown, 75% 1987, 54% avg. Tillage for spring crops 57%, 46% 1987, 40% avg. Alfalfa weevil damage showed southern counties. Pasture 1% very poor, 4% poor, 36% fair, 53% good, 6% excellent.

MONTANA: Temperatures near normal west, 2 to 10° above elsewhere. Midweek temperatures northeast, southeast 80°. Weekend low temperatures in teens. Precipitation varied widely; 1.00 to 3.00 in. moisture parts of northwest, extreme west of north central. Parts of south central received over 1.00 in. Mostly scattered showers over rest of State.

Topsoil moisture 80% short, 15% adequate, 5% surplus. Subsoil moisture 60% short, 40% adequate. Major crop areas in shortest supply. Wind damage to winter wheat 49% light, 50% moderate, 1% heavy. Winter wheat 12% dormant, 66% greening, 22% green and growing. Field tillage none 40%, just started

45%, well underway 15%. Barley 8% planted, 1% 1987, 5% avg. Oats 6% planted, none 1987, 2% avg. Sugarbeets 8% planted, none 1987, none avg. Calving 75%, 62% 1987, 65% avg. Lambing 68%, 51% 1987, 55% avg.

NEBRASKA: Warm, ended cool. Temperatures averaged 2 to 10° above normal. Scattered showers at beginning, end of week. Rainfall amounts ranged trace to 1.00 in. across State. Extremes 13°; 88°.

Days suitable for fieldwork 4.0. Winter wheat 42% fair, 54% good, 4% excellent. Rain improved soil moisture supplies, benefited growth. Field checks continued for Russian wheat aphids west, southwest. Conditions allowed some fieldwork, mainly fertilizer applications, discing, small grain seeding. Oats 50% planted, 38% 1987, 32% avg. Corn 1% planted, none 1987, none avg. Sugarbeet, alfalfa seeding active. Topsoil, subsoil moisture adequate. Pasture, range feed adequate. Calving, lambing continued; began to wind down.

NEVADA: Prolonged drought continued. Series low pressure systems brushed northern half with strongest last half. Trace amounts extreme west, 1 in. snow northeast. Winds 60 to 75 mph numerous areas with considerable blowing sand, topsoil. Temperature extremes 8°; 96°.

Excellent progress fieldwork most areas. Winds depleted soil moisture supplies rapidly. Alfalfa forage harvesting started extreme south. Cattle, sheep started to drift to summer ranges. Ranges extremely dry.

NEW ENGLAND: Average precipitation ranged 0.50 to 0.70 in. Maine and New Hampshire, 0.20 to 0.50 in. remainder. Average temperature ranged 40° near Canadian Border to 50° southern coast. Temperatures slightly above normal.

Major farm activities: Pruning fruit trees, tending livestock, moving crops from storage.

NEW JERSEY: Temperatures averaged near normal. Extremes 32°; 74°. Rainfall averaged 0.17 in. north, 0.48 in. central, 1.50 in. south. Heaviest 24-hour total 1.12 in. on 7th, 8th. Estimated soil moisture percent field capacity averaged 92% north, 90% central, 94% south. Four inch soil temperatures averaged 47° north, 49° central, south.

Soil preparation, planting active. Cool temperatures slowed early growth. Peach bloom progressing. Harvest of early season greens began. Pasture grazing began.

NEW MEXICO: Average weekly temperatures 5° above normal. No measurable precipitation, moderate wind, light freeze damage.

Days suitable for fieldwork 6.3. Soil moisture 73% short, 27% adequate. Barley 60% fair, 20% good, 20% excellent. Wheat 28% poor, 50% fair, 18% good, 4% excellent; none heading. Cotton 2% planted, soil temperatures still fairly cool but planting well underway. Onions 33% fair, 67% good; lettuce 100% fair. Cattle 55% fair, 45% good. Sheep 44% fair, 56% good. Range 82% fair, 18% good.

NEW YORK: Temperatures well above normal early week, returning to normal weekend. Precipitation varied but generally light.

Some fieldwork began on well drained soil. No seeding yet. Producers thinking about fertilizer, feed needs.

NORTH CAROLINA: Temperatures averaged 2 to 7° above normal across State. Temperature extremes 22°; 88°. Precipitation ranged 0.03 to 3.08 in. across State.

Days suitable for fieldwork 5.0. Soil moisture 2% very short, 36% short, 59% adequate, 3% surplus. Wheat 2% poor, 24% fair, 64% good, 10% excellent. Oats 2% poor, 27% fair, 64% good, 7% excellent. Barley 27% fair, 71% good, 2% excellent. Rye 4% poor, 24% fair, 67% good, 5% excellent. Pasture 10% poor, 37% fair, 51% good, 2% excellent. Hay and roughage supplies 10% short, 85% adequate, 5% surplus. Feed grains supplies 12% short, 84% adequate, 4% surplus. Tobacco plantbeds 2% very poor, 22% fair, 76% good. Irish potatoes 26% fair, 74% good. Major farm activities: Preparing land for spring planting; care of tobacco plantbeds; transplanting cabbage; planting potatoes, corn; fertilizing Christmas trees; spraying alfalfa weevils; applying lime; feeding livestock; general farm maintenance.

NORTH DAKOTA: Warm, dry statewide. Temperatures averaged 13 to 15° above normal. Extremes 18° west central 9th; 88° west central 7th. Precipitation below normal; heaviest 0.35 in. southeast.

Topsoil moisture below normal; 52% very short, 43% short, 5% adequate. Subsoil moisture below normal; 30% very short, 45% short, 25% adequate. Small grain seeding underway. Spring wheat 4% planted, none 1987, 1% avg.; durum 1%, none 1987, none avg.; barley 3%, none 1987, 1% avg.; oats 2%, none 1987, 1% avg. Winter wheat 59% green; 2% very poor, 35% poor, 49% fair, 14% good. Livestock good; calving 72%, lambing 84%, shearing 83%. Pastures poor to fair, 92% open for grazing.

OHIO: Average temperatures 1 to 5° above normals ranging mid 30s to mid 60s. Extremes mid 20s to mid 80s. Precipitation subnormal ranging 0.20 to 1.00 in. Soil temperatures averaged mid 40s to mid 50s; 3 to 6° above normal.

Days suitable for fieldwork 1.0. Soil moisture 3% short, 45% adequate, 52% surplus. Farm activities: Fertilizing wheat; planting earliest corn, carrots, potatoes, oats; maintaining fences, equipment; hauling manure; planting tobacco plantbeds. Grasslands, wheat greening. Hay, pasture fair to mostly good. Winter wheat good. Fruit good; 1 week ahead of normal.

OKLAHOMA: Temperatures averaged 2° above normal southwest to 5° above normal northeast, east central. Precipitation averaged 0.12 in. north central to 0.65 in. east central.

Days suitable for fieldwork 4.0. Topsoil moisture 5% short, 70% adequate, 25% surplus. Subsoil moisture 100% adequate. Wheat 10% fair, 80% good, 10% excellent; 45% jointing, 75% 1987, 60% avg.; none heading, none 1987, 3% avg. Wheat development lagging 1 week behind normal due to early-year cold snap. Favorable weather aided farmers spraying weeds, insects. Sorghum 1% planted, none 1987, 1% avg. Cotton none planted, none 1987, none avg. Persistently wet fields hindered row crop activity. Pastures fair to good. Cattle marketing average, prices down from preceding week.

OREGON: Normal to slightly above normal temperatures across State as record warm readings middle, end of period offset cool minimum temperatures. Along Columbia Basin, plateau, northeast temperatures slightly below normal. Rainfall amounts western area 0.75 to 1.50 in., up to 3.00 in. northern Cascades, coastal range. Southwest interior about 0.10 in. Portions extreme eastern, northeast 0.33 to 0.50 in. with 0.10 in. or less elsewhere.

Soil moisture 65% short, 28% adequate, 7% surplus. Barley 81% seeded, 86% 1987, 81% avg. Dryland winter wheat slight improvement east from recent moisture; stands still spotty. Some spring grain seeding started extreme east. Other areas east waiting for moisture to plant grains. Potato

planting started Hermiston area. Some onion seeding Milton-Freewater area. Field preparation continued for spring planting south central. Fertilizer applications on western grass seed, grain fields. Grains began to show moisture stress west. Barley growth slow due to dry soil, recent cool weather. Some spring oats emerged. Irrigation supplies limited central area. Klamath County irrigation ditches recently filled. Western strawberry fields receiving irrigation water for frost control. Other berry crops later blooming, should miss frost season. Pears in bloom, susceptible to frost. Cherries, other tree fruits flowering. Cranberries good; receiving fertilizer applications. Vegetable seed producers cutting, shipping seed. Grass started to grow east; higher elevation forage in best condition. Western range, forage grasses adequate shape and greening up. Cattle, sheep continued supplemental feeding east. Most western livestock good to excellent.

PENNSYLVANIA: Week began warm, wet; ended cold, dry. Average temperature 51°, 8° above normal. Temperature extremes 25°, 81°. Average precipitation 1.08 in., 0.27 in. above normal.

Planting none, 4% 1987, 10% avg. Corn none planted, none 1987, none avg. Oats none planted, 8% 1987, 6% avg. Activities: Fence repair; early spring activities; hauling manure; machinery maintenance; caring for livestock; spreading fertilizer.

PUERTO RICO: Island rainfall averaged 0.44 in., 0.31 in. below normal. Highest weekly total rainfall 3.55 in. Pico Del Este-Luquillo, 1.33 in. Cayey, 1.22 in. Gurabo. Highest 24-hour total 2.20 in. Pico Del Este-Luquillo. Accumulated total rainfall since January 1 9.21 in., 6% above normal. San Juan WSFO mean temperature 79°, 1° above normal. Total rainfall 0.13 in., 0.55 in. above normal. Divisional temperature averaged 76 to 77° on coasts, 71 to 73° interior divisions. Mean station temperature ranged 63° Pico Del Este-Luquillo to 79° Roosevelt Roads. Lowest minimum temperature 49° Adjuntas. Highest maximum temperature 91° San Sebastian.

SOUTH CAROLINA: Rainfall averaged less than 0.25 in. except 0.80 in. northwest corner; high winds, low humidity dried soil quickly. Temperatures 2 to 4° above normal.

Days available for fieldwork 5.6. Soil moisture 13% very short, 74% short, 13% adequate. Corn fair to good; 73% planted, 33% 1987, 50% avg. Tobacco fair to good; 18% planted, 7% 1987, 19% avg. Cotton fair; 2% planted, none 1987, none avg. Watermelons fair to good; 68% planted, 64% 1987, 59% avg. Tomatoes fair to good; 92% planted, 91% 1987, 91% avg. Spring cukes fair to good; 57% planted, 55% 1987, 64% avg. Wheat good; 3% headed, 2% 1987, 9% avg. Oats fair to good; 10% headed, 9% 1987, 9% avg. Peaches fair to good.

SOUTH DAKOTA: Average temperatures 4 to 14° above normal. Extremes 17°, 91°. Precipitation confined mostly to southeast, small amount east central part of State.

Spring seeding in progress. Topsoil moisture mostly short. Livestock good. Calving well underway, lambing near completion.

TENNESSEE: Cold front entered west 5th; crossed middle, east 6th. Front brought rain statewide 6th, east 7th. High pressure dominated through 9th. Cold front crossed State from west 10th with no rain. Temperatures 2 to 5° above normal; warmest along southern border, west. Precipitation averaged 0.25 to 0.33 in. statewide; plateau, east valley averaged 0.75 in.

Days suitable for fieldwork 3.3. Soil moisture 1% very short, 26% short, 67% adequate, 6% surplus. Corn 9% planted, 11% 1987, 11% avg. Cotton 1% planted, 1% 1987, 1% avg. Tobacco beds seeded 95%, 89% 1987, 90% avg.; 52% plants up, 45% 1987. Wheat 40% jointed, 40% 1987, 31% avg. Fruit trees, small grains, early vegetables progressed well. Feed supplies adequate. Cattle mostly good. Pastures fair to good. Primary activities: Plowing, topdressing small grains, spraying insecticides on pastures to control alfalfa weevils.

TEXAS: Dry, hot temperatures southwest, warm elsewhere. Cool front brought milder temperatures midweek, triggered some thunderstorms east. Cold front generated spotty rains weekend, amounts light. Front ushered very strong surge cold air spread across State weekend. Freezing temperatures Panhandle morning of 10th. Rainfall below normal, except near to slightly above normal Trans-Pecos, Lower Valley. Temperatures near, slightly above normal northern High Plains, north central, east, slightly below normal elsewhere.

Crops: Small grain condition improved Plains. Recent moisture, last week warmer temperatures helped conditions improve. Spraying aphids some fields. Fields Blacklands, central, south, east heading. Blacklands rust increased, spraying for control. Most fields look good. Additional moisture helped some fields central, south. Wheat 6% headed, 10% 1987, 13% avg. Most corn planted Blacklands southward, eastward completed. Growth good planted fields, scattered fields still need additional moisture. First plantings underway Plains majority begin couple weeks. Most land preparation, prewatering completed. Growth Rio Grande Valley slowed by cloudy, cooler weather. Progress Upper Coast good. Cultivation increased many areas. Corn 65% planted, 59% 1987, 59% avg. Grain sorghum fields good progress Blacklands, central. Some fields could use additional rain. Increase insects scattered fields. Progress Valley, Coastal Bend, Upper Coast good. Winds further depleted soil moisture. Land preparation winding down Plains. Sorghum 53% planted, 47% 1987, 52% avg. Cotton planting continued Blacklands, central. Early fields emerging to good stands. Planting began Trans-Pecos. Herbicide treatment about over Plains, planting to begin soon. Cotton 11% planted, 11% 1987, 9% avg. Rice planting Upper Coast increased once again after previous week rain. Many producers winding down planting operations. Rice 41% planted, 39% 1987, 46% avg. High winds slowed sugarbeet planting Plains. Other field crops: Sugarbeets 6% planted, 1% 1987, 25% avg.

Commercial Vegetables: Rio Grande Valley onion harvest remained steady. Melons, peppers, tomatoes good progress. Cabbage, carrot supplies declined seasonally. Harvest citrus winding down. Set for next season very heavy. Irrigation remained steady. San Antonio-Winter Garden onion good progress. Growth melons increased. Harvest of other vegetables about over. East most vegetables good progress. Some replanting because late freeze. High Plains irrigation steady onions. Most transplanting onions, potatoes completed. Trans-Pecos chili planting underway. Early cantaloups emerging. Onions doing well under irrigation. Late variety peaches good progress. Harvest commercial crop Rio Grande Valley to begin couple of weeks. Pecan trees breaking buds more areas. Zinc spraying underway.

Range and Pasture: Ranges, pastures greening up many areas; amount forage available varied by amount rainfall. East best condition, good growth pasture grasses. Producers fertilizing many areas. Livestock fair to good. Some losses Plains because late season snow storm 2 weeks ago. Producers Hill Country marking lambs, shearing goats.

UTAH: Precipitation light northern mountains, rest of State none. Temperatures 4 to 5° above normal.

Days suitable for fieldwork 6.1. Soil moisture 36% short, 64% adequate. Land preparation 55%, none 1987, none avg. Spring wheat 74% planted, none 1987, none avg.; barley 66% planted, none 1987, none avg. Oats 56% planted, none 1987, none avg. Winter wheat 26% fair, 74% good. Freeze damage winter wheat 13% none, 87% light; winter barley 27% none, 73% light. Pastures, ranges greening. Cows calved 68%, 75% 1987, 65% avg. Ewes lambed farm flocks 83%, range flocks 39%. Sheep sheared farm flocks 71%, 64% 1987, none avg. Sheep sheared range flocks 44%, 36% 1987, none avg. Livestock good to excellent. Major farm activities: Seeding spring grains, hauling manure, field preparation, land leveling, cleaning irrigation ditches, calving, lambing.

VIRGINIA: Temperatures well above normal most of period, well below normal later part period; range 30 to 80°. Precipitation averaged 0.83 to 1.42 in.

Days suitable for fieldwork 3.6. Topsoil moisture 11% short, 80% adequate, 9% surplus. Fieldwork limited by much needed rain. Following rain, crop conditions good to excellent. Burley tobacco plantbed seeding virtually complete. Corn 17% planted, 9% 1987, 14% avg. Some hay cut. Sprayed to control alfalfa weevil. Overseeded, fertilized hayland. Peaches in full bloom. Small grain development slow to normal, some topdressing active. Planted vegetables east. Cattle sales active. Some lambing, calving. Sheared sheep.

WASHINGTON: Several disturbances crossed State bringing copious amounts rainfall west coast, lighter rains inland. Temperatures generally below normal with warmer weather occurring towards end of period. Strong gusty winds occasionally.

Rainfall western, northeastern areas improved soil moisture; central area moisture remained short. Snow storms in Cascade area improved irrigation water situation for Kittitas Valley, but supplies still low. Columbia Basin irrigation water supplies adequate. Cold temperatures slowed crop growth. Minor frost damage to winter wheat Douglas County. Moisture, sunshine improved most crop conditions. Winter wheat 15% poor, 55% fair, 30% good. Potato planting continued Benton, Franklin Counties. Green peas emergence stage Cowlitz County. Cold temperatures threatened fruit tree blossoms central. Orchardists busy implementing frost protection measures. Frost damaged apple, cherry, buds, flowers isolated areas Chelan County. Strawberry plants showed growth. Raspberry, blueberry bushes budding out. Vegetable growers King, Pierce Counties delayed lettuce because wet weather. Range, pasture condition short most central, east areas; adequate west. Many eastern stockmen feeding hay pasture deficiency. Lambing, calving later stages continued.

WEST VIRGINIA: Average temperature 53°; 3 to 7° above normal. Extremes 89° Creston, 22° Greenbank. Average precipitation 0.84 in.; above normal northeast, near normal elsewhere.

Days suitable for fieldwork 3.0. Soil moisture 8% very short, 21% short, 65% adequate, 6% surplus. Wheat good to fair; barley fair to good. Tobacco beds adequate to good; 34% planted. Feed supplies adequate to short. Cows calved 81%; ewes lambed 90%. Farm activities: General farm maintenance, plowing, spreading fertilizer, planting, tobacco bed preparation, livestock care.

WISCONSIN: Temperatures averaged 50°, 8° above normal. Extremes 19°; 80°. Precipitation 0.10 to 1.50 in. Heaviest southeast.

Days suitable for fieldwork 1.7. Soil moisture 5% short, 69% adequate, 26% surplus. Spring

plowing 2%, 10% 1987, 6% avg. Oats 1% seeded, 7% 1987, 4% avg. Potato planting started central. Maple syrup season good, nearly over.

10% 1987, 15% avg. Barley 50% planted, 40% 1987, 40% avg. Sugarbeets 10% planted, 10% 1987, 15% avg. Winter wheat fair to good, light to moderate wind, freeze damage. Livestock mostly good. Spring calves born 70%, 55% 1987, 60% avg. Death losses light to normal. Farm flock: Ewes lambed 75%, 70% 1987, 70% avg.; shorn 55%, 60% 1987, 65% avg. Range flock: Ewes lambed 35%, 30% 1987, 35% avg.; shorn 40%, 35% 1987, 35% avg. Death losses light to normal. Range, pasture fair to good.

WYOMING: Dry, warm week. Temperatures 1 to 11° above normal.

Days suitable for fieldwork 5.0. Topsoil moisture 52% short, 48% adequate. Subsoil moisture 45% short, 53% adequate, 2% surplus. Spring wheat 10% planted, 10% 1987, 20% avg. Oats 10% planted,

CROP PROGRESS
FOR WEEK ENDING APRIL 10, 1988

RICE
% PLANTED

	1988	1987	AVG.
ARK	1	6	3
CALIF	0	0	0
LA	14	29	33
MISS	3	1	9
TEX	41	39	46

5 STATES 8 13 14

THESE 5 STATES PRODUCED 97% OF THE 1987 RICE CROP.

SPRING WHEAT
% PLANTED

	1988	1987	AVG.
IDAHO	34	38	26
MINN	4	11	3
MONT	8	1	5
N DAK	4	0	1
S DAK	23	6	8

5 STATES 8 4 4

THESE 5 STATES PRODUCED 95% OF THE 1987 SPRING WHEAT CROP.

WINTER WHEAT
% HEADED

	1988	1987	AVG.
ARK	1	5	NA
CALIF	40	55	51
COLO	0	0	0
GA	17	14	33
IDAHO	0	0	0
ILL	0	0	NA
IND	0	0	0
KANS	0	0	0
MICH	0	0	0
MO	0	0	0
MONT	0	0	0
NEBR	0	0	0
N MEX	0	0	NA
N C	0	0	NA
OHIO	0	0	0
OKLA	0	0	3
OREG	0	0	0
S DAK	0	0	0
TEX	6	10	13
WASH	0	0	0

20 STATES 2 2 NA

EXCL. STATES WITH NA 2 3 4

THESE 20 STATES PRODUCED 91% OF THE 1987 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

COTTON
% PLANTED

	1988	1987	AVG.
ALA	10	12	5
ARIZ	55	45	57
ARK	0	0	0
CALIF	40	35	37
GA	3	0	3
LA	0	0	2
MISS	0	0	NA
MO	0	0	0
N MEX	2	0	0
N C	0	0	1
OKLA	0	0	0
S C	2	0	0
TENN	1	1	1
TEX	11	11	9

14 STATES 12 11 NA

EXCL. STATES WITH NA 13 12 12

THESE 14 STATES PRODUCED 100% OF THE 1987 COTTON CROP.

NA - NOT AVAILABLE.

CROP CONDITION PERCENT
FOR WEEK ENDING APRIL 10, 1988

CORN
% PLANTED

	1988	1987	AVG.
COLO	0	0	0
GA	74	54	69
ILL	0	0	0
IND	0	1	1
IOWA	0	0	0
KANS	1	2	2
KY	1	4	2
MICH	0	0	0
MINN	0	0	0
MO	4	5	4
NEBR	1	0	0
N C	26	6	31
OHIO	0	0	0
PA	0	0	0
S DAK	0	0	0
TEX	65	59	59
WIS	0	0	0

17 STATES 3 2 3

THESE 17 STATES PRODUCED 94% OF THE 1987 CORN CROP.

GRAIN SORGHUM
% PLANTED

	1988	1987	AVG.
ARK	1	8	9
ILL	0	NA	NA
KANS	0	0	0
LA	1	4	13
MISS	2	2	6
MO	0	0	0
NEBR	0	0	0
OKLA	1	0	1
S DAK	0	0	0
TENN	0	0	0
TEX	53	47	52

11 STATES 14 NA NA

EXCL. STATES WITH NA 14 13 14

THESE 11 STATES PRODUCED 96% OF THE 1987 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

WINTER WHEAT

STATE	VP	P	F	G	EX
ARK	0	0	8	78	14
CALIF	0	5	20	70	5
COLO	0	4	25	55	16
GA	0	0	18	75	7
IDAHO	0	2	32	53	13
ILL	0	0	6	73	21
IND	0	8	44	47	1
KANS	0	12	31	32	25
MO	0	1	25	67	7
MONT	1	7	25	60	7
NEBR	0	0	42	54	4
N MEX	0	28	50	18	4
N C	0	2	24	64	10
OHIO	0	2	18	63	17
OKLA	0	0	10	80	10
OREG	0	0	60	40	0
S DAK	0	21	38	41	0
TEX	1	17	44	29	9
WASH	0	15	55	30	0

VP - VERY POOR P - POOR
G - GOOD EX - EXCELLENT
F - FAIR

International Weather and Crop Summary

April 3-9, 1988

HIGHLIGHTS:

UNITED STATES ... Above-normal temperatures help to improve small grains and pastures over much of the nation. Limited but beneficial rains fall in eastern Washington, the Montana winter wheat area, and the central winter wheat belt of Kansas and Nebraska.

WESTERN U.S.S.R. ... Continued unseasonable, warm weather promotes early winter grain growth.

EUROPE ... Beneficial dry weather develops across northern Europe. Moderate to heavy rains benefit winter crops across the south.

SOUTH ASIA ... Hot, dry weather continues, stressing immature grains.

NORTHWESTERN AFRICA ... Light precipitation in eastern Algeria and Tunisia brings temporary relief to winter grains stressed by prolonged dryness. Rain benefits filling crops in northern Morocco and western Algeria.

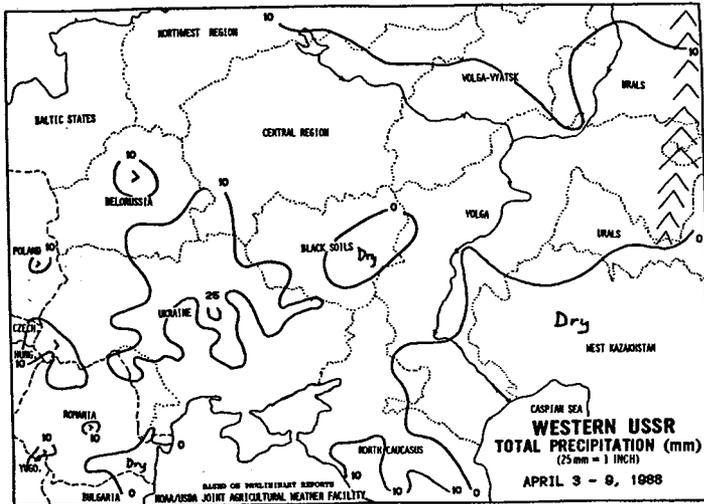
SOUTH AFRICA ... Showers interrupt corn harvesting.

SOUTHEAST ASIA ... Showers continue throughout Indonesia and Malaysia, finally reaching persistently dry regions of western Malaysia. Beneficial showers cover the Philippines.

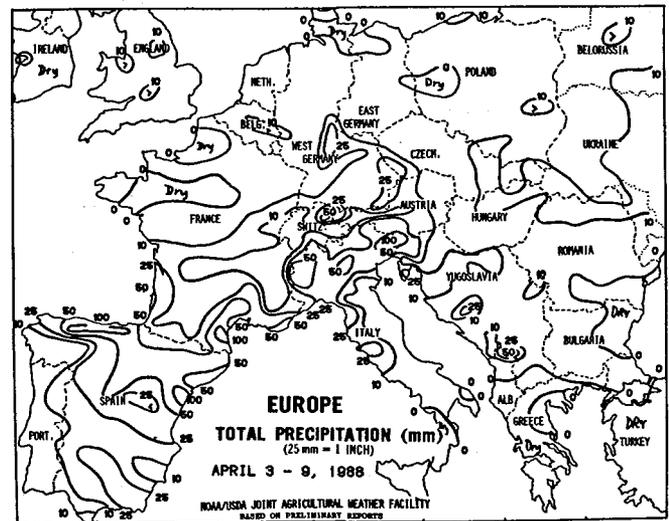
EASTERN ASIA ... Cooler-than-normal temperatures slow crop growth over most growing areas.

SOUTH AMERICA ... Moderate to heavy rain causes harvest delays across crop areas of Brazil. In Argentina, mostly dry weather favors progress in fall harvest.

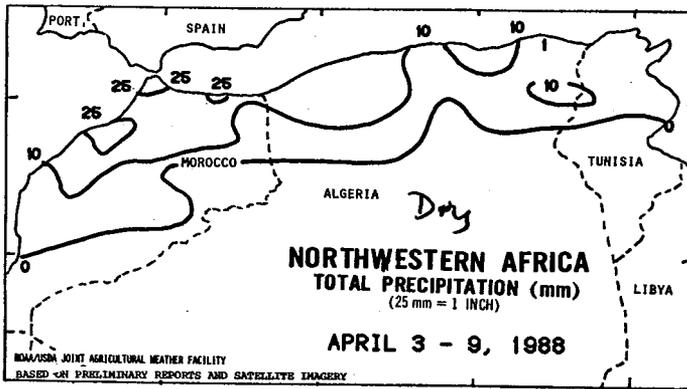
AUSTRALIA ... Heavy rain and flooding continue in southeastern Queensland and northeastern New South Wales.



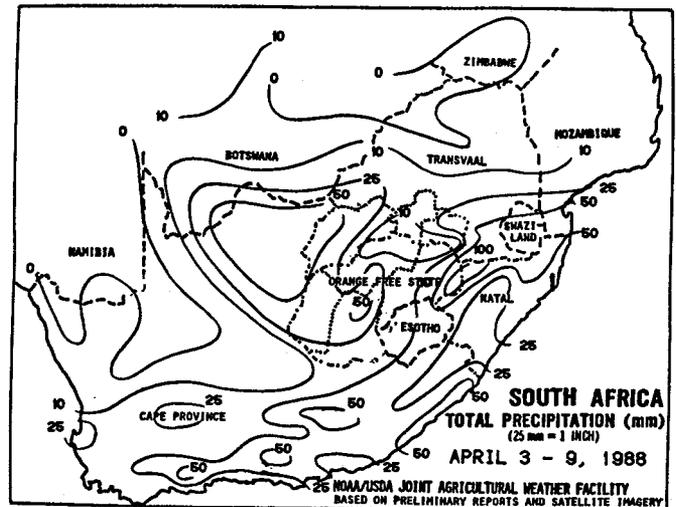
WESTERN U.S.S.R. ... Unseasonable warm weather continued over the Baltic States, Belorussia, the Ukraine, the North Caucasus, the Black Soils Region, the Central Region, and the Volga Vyatsk and spread eastward into the Volga Valley. Weekly average temperatures were 2-4 degrees Celcius above normal over most areas. By week's end, winter grains were likely greening south of a line which stretched southeastward from the Baltic States and Belorussia, through the Black Soils Region, into the lower Volga. Moisture conditions for early winter grain growth were abundant in most areas. Precipitation amounts over the region were mostly less than 10mm except for crop areas in the northern Ukraine which received rainfall ranging from 10 to 25mm.



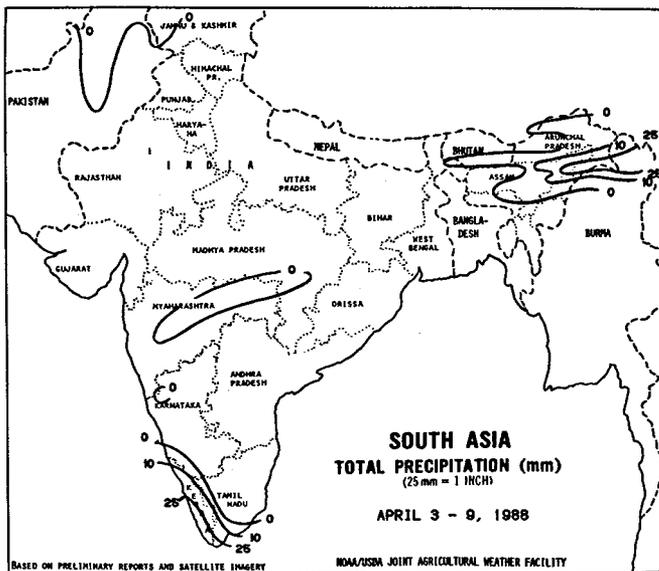
EUROPE ... Beneficial drier weather developed across northern Europe, allowing for spring fieldwork and summer crop planting to begin in many areas. The dry weather followed several consecutive weeks of above-normal rainfall and flooding which have kept soils unfavorably wet. In southern Europe, heavy rain (greater than 25mm) continued to reverse a dry trend in Spain and northern Italy, benefiting vegetative to heading winter grains. Very heavy rain, (greater than 100mm), in northern Spain and southern France may have caused flooding. In eastern Europe, mostly light rain (less than 10mm) favored vegetative winter grains. Temperatures were above normal in all of Europe except for the extreme west, where they were normal to below normal.



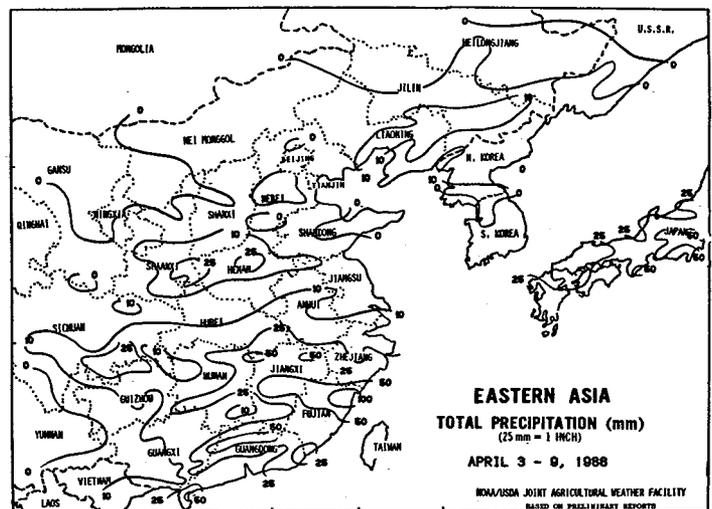
NORTHWESTERN AFRICA ... Following several weeks of dry weather, widespread showers (10 to 25mm) covered northern Morocco and western Algeria, benefiting winter grains in the filling stage. Further east, light precipitation (mostly less than 10mm) over eastern Algeria and Tunisia brought temporary relief to winter grains stressed by prolonged dryness during much of the growing season.



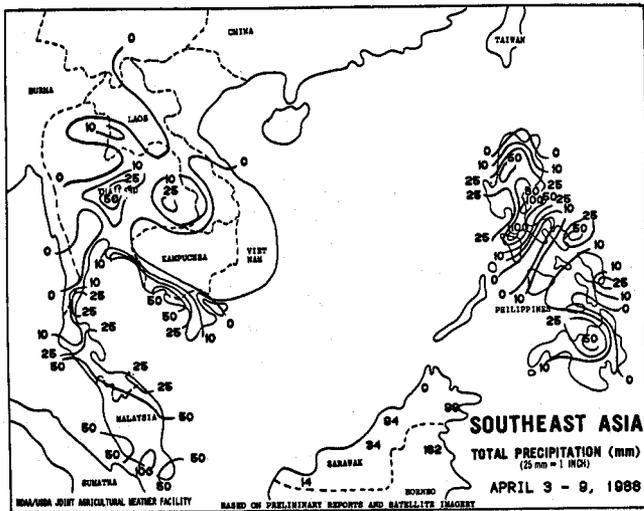
SOUTH AFRICA ... Moderate to heavy rain (15-64mm) returned to crop regions of the Cape Province, Natal, and the western half of the Maize Triangle, causing delays in corn harvesting. Lighter rain (less than 14mm) caused minor harvest delays in the central Transvaal and the eastern half of the Triangle but improved soil conditions for late filling crops and the upcoming planting of wheat which usually begins in May. Corn harvesting usually lasts through July but is currently underway in many regions.



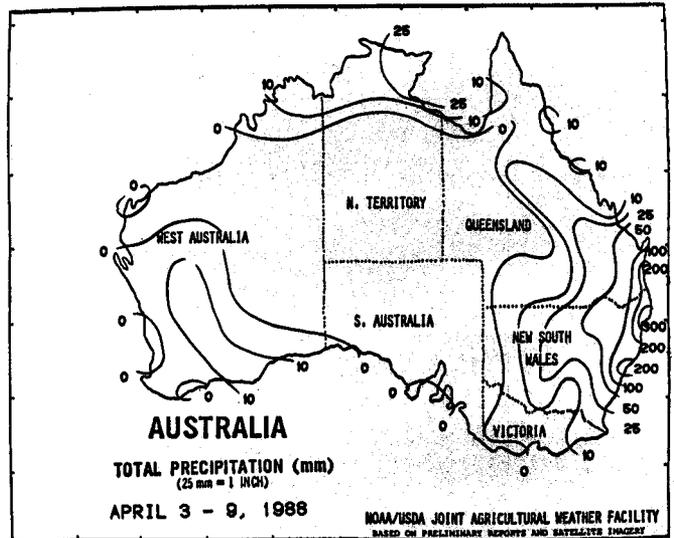
SOUTH ASIA ... Dry, hot weather continued over most grain regions of India and Pakistan, stressing immature wheat and rice. Winter wheat, planted late due to drought, is still in early filling over parts of north-central India and Pakistan but mature elsewhere. Light to moderate rain (10-38mm) over the southern tip of India boosted irrigation supplies for filling rice in Kerala.



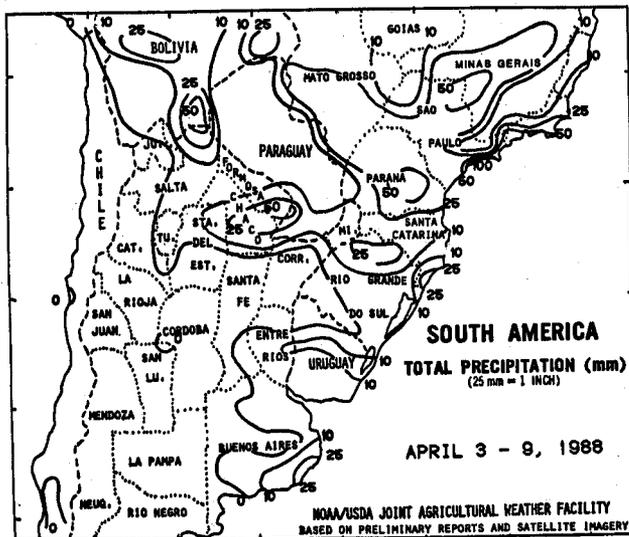
EASTERN ASIA ... A large area of high pressure over central China brought below-normal temperatures to much of eastern Asia. The cold weather slowed winter crop growth and development across northern and central growing areas. Heavy rain (greater than 25mm) continued across southeastern China and southern Japan, with very heavy rain and possible flooding in northern Guangdong and northern Fujian early in the week. Drier weather by week's end favored a resumption of fieldwork and rice planting, however. Scattered, mostly light rain and snow fell over northern and central winter grain areas, with the exception of eastern Shaanxi and northern Henan, where moderate to heavy (greater than 15mm) precipitation favored vegetative crops.



SOUTHEAST ASIA ... Widespread showers (25-100mm or more) continued throughout Indonesia and Malaysia, finally reaching the east coast of western Malaysia after 3 weeks of drier-than-normal weather. Light to moderate showers (10-50mm or more) covered most of the Malay Peninsula and returned to central Thailand. Showers (10-50mm or more) continued in western Kampuchea and rice regions of northern Vietnam. In the Philippines, widespread showers covered the islands, boosting moisture reserves for irrigated grains and the upcoming planting of summer grains, usually well underway by May.



AUSTRALIA ... Heavy rain (greater than 25mm) continued across southeastern Queensland and northeastern New South Wales, with very heavy rain (greater than 100mm) and flooding along coastal areas. The rain caused harvest delays for summer crops, but improved moisture levels for winter grains, which will be planted in the next several weeks. While recent rainfall has improved prospects for winter grains planting across most northern growing areas, sections of southern New South Wales and northern Victoria remain too dry. Elsewhere, scattered mostly light (less than 10mm) rain fell over southern wheat areas of Western Australia and Victoria, while South Australia remained dry.



SOUTH AMERICA ... Widespread moderate to heavy rain (greater than 25mm) caused delays in summer crop harvest across Brazilian growing areas of Mato Grosso do Sul, Parana, Sao Paulo, and Minas Gerais. Heavy rain also caused harvest delays in northern Rio Grande do Sul. Above-normal temperatures during most of the week increased evaporative drydown rates for maturing grain and lessened fieldwork delays. In Argentina, scattered light rain fell (less than 10mm) in eastern crop areas, causing only minor harvest delays while most other growing areas remained dry. The dry weather favored a resumption of harvest and allowed soils in Buenos Aires to dry after several consecutive weeks of heavy rainfall. Weekly average temperatures dropped to normal or below normal values over all crop areas.

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(Continued from front cover)

SATURDAY...A band of clouds and rain showers extended along the cold front which stretched from the upper Mississippi Valley to the southern Plains. Snow fell in the central Great Plains. While cold air invaded the central United States, unseasonably warm weather continued in the Southeast. Cloudy, windy conditions prevailed in the Northeast, as a few showers lingered along the coast.

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artichokes were being harvested. Onions were mostly good to fair, and lettuce was fair in New Mexico. California vegetable harvest continued to accelerate. Artichoke, asparagus, broccoli, carrots, cauliflower, celery, and lettuce harvests were active. Tomatoes were being planted in the Delta and Merced-Atwater areas.

PASTURES AND LIVESTOCK: Livestock was mostly good to fair as calving and lambing continued. Pastures were fair to good and showing improvement with warmer temperatures, but supplemental feeding was still necessary in many areas. Rangelands were drying rapidly in California and Nevada.

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