

# 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

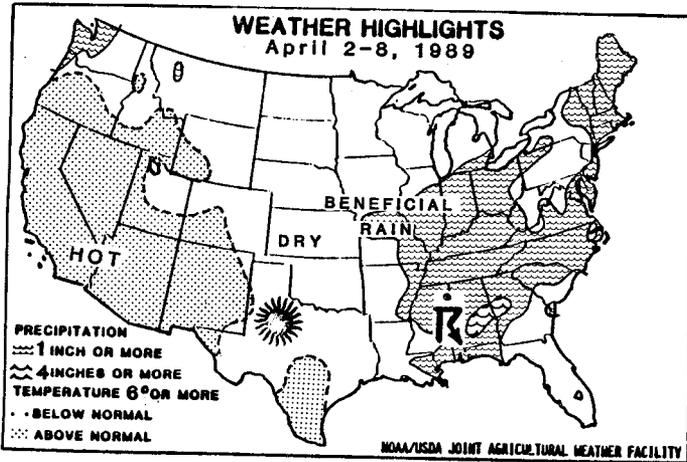
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## National Weather Summary

April 2-8, 1989



**HIGHLIGHTS:** Slow moving frontal systems brought widespread rain to the eastern half of the Nation. Severe thunderstorms produced heavy rain from the central Gulf coast into the lower Ohio Valley. The flow of moisture off the Pacific kept the Northwest wet during the first half of the week, while showers brought beneficial rain into the western Corn Belt toward the end of the week. The West remained warm as several record high temperatures for the month were broken in California. Cool weather prevailed over the middle Mississippi Valley and much of the Southeast.

**SUNDAY:** A large high pressure system centered over the eastern seaboard, pulled warm moist air from the Gulf of Mexico into the Central States, causing showers and thunderstorms to develop over the Corn Belt, Tennessee Valley, and eastern portions of the northern and central Plains. The flow of Pacific moisture across the Northwestern States brought continued rain with snow in the higher elevations. A developing frontal system caused heavy snow in the central Rockies.

**MONDAY:** Severe thunderstorms along and ahead of the frontal system in the Central United States produced heavy rain, hail, and tornadoes from the lower Mississippi Valley into the Tennessee and lower Ohio Valleys. Beneficial showers fell from the northern Plains and middle Mississippi Valley to the Atlantic coast. Rain and snow were scattered across the Pacific Northwest to the northern Rockies.

**TUESDAY:** The frontal system moved across the East, causing widespread rain. Thunderstorms roared across the Southeast, producing heavy rain, damaging wind, hail, and tornadoes. Rain extended

along the northern Pacific coast. Fair skies prevailed in the Great Plains and the Southwest.

**WEDNESDAY:** The front stretched down the Atlantic Coast States causing widespread rain and thunderstorms. Heavy rain fell in the Carolinas and New England. Showers were widely scattered across the northern tier of States and in the Missouri Valley. Fair skies and warm weather dominated the Southwest. Many record-high temperatures for the date were set in California.

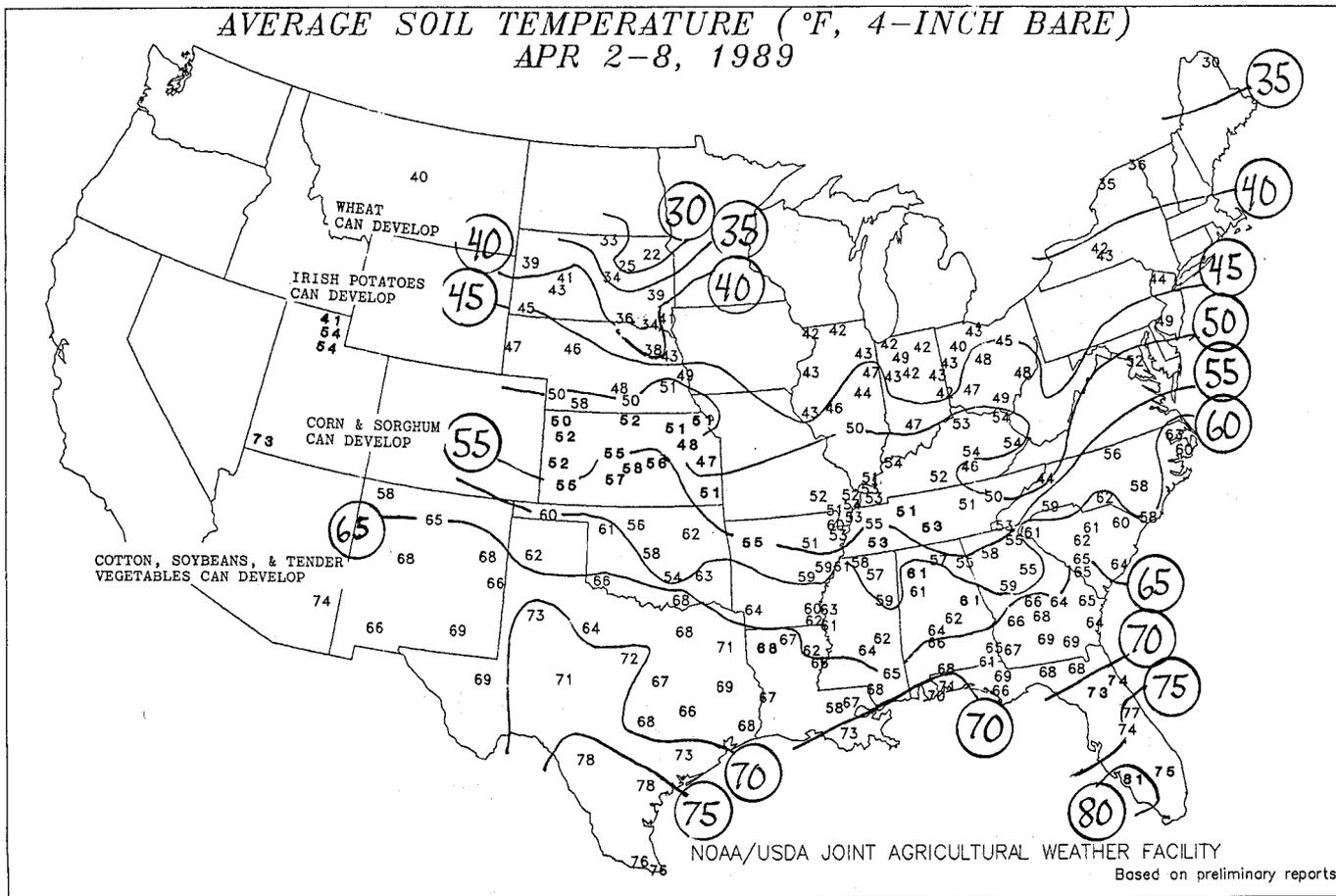
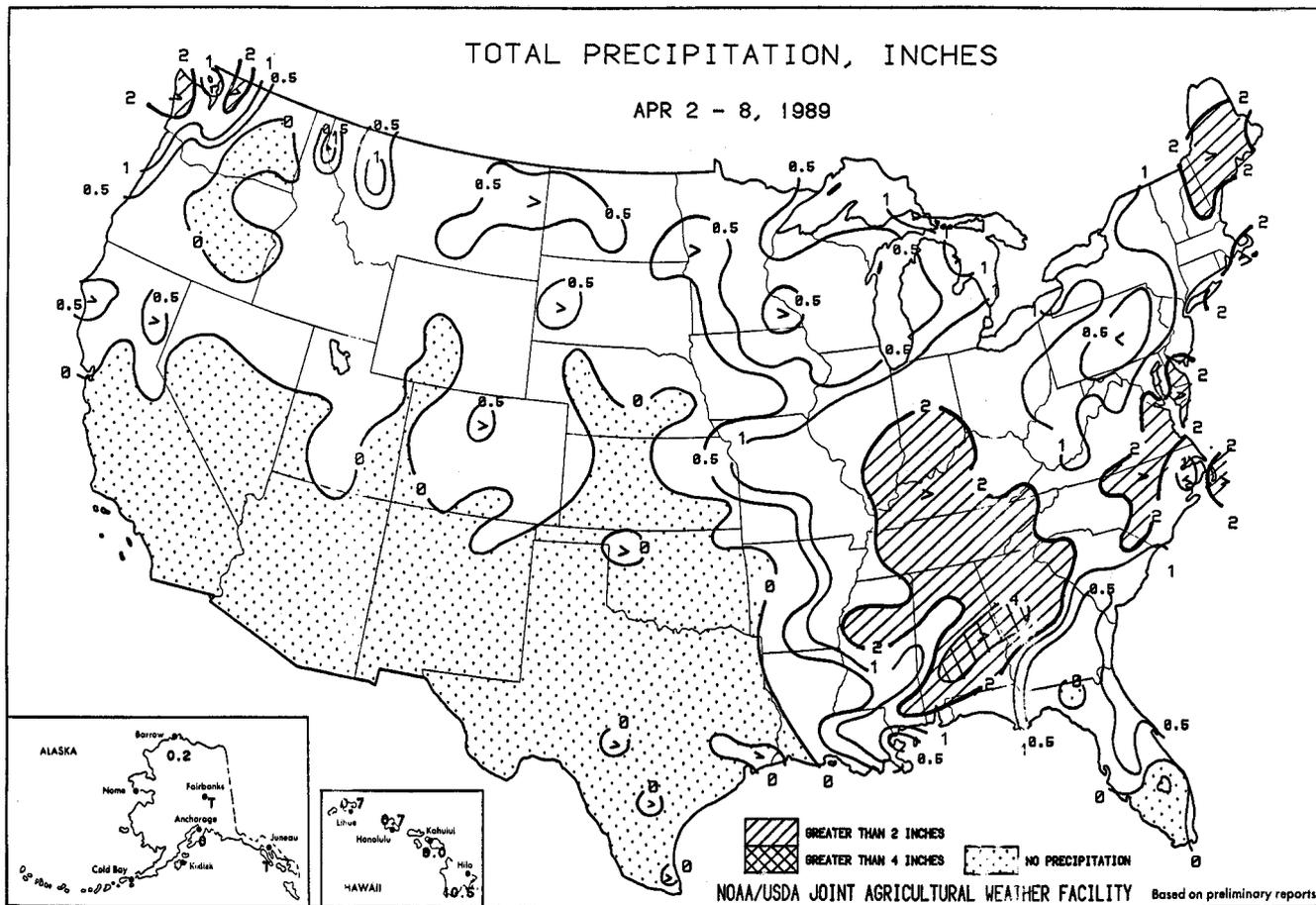
**THURSDAY:** Showers continued into the morning down the eastern seaboard as the frontal system moved into the Atlantic. Steady rains swelled rivers in New England. A developing frontal system brought scattered rain from the middle Mississippi Valley into the Southeast. Rain showers remained throughout the Missouri Valley. Hot weather prevailed in the West as temperatures climbed to over 100° in California. The mercury climbed to 106° at the Los Angeles Civic Center, breaking the all-time record high for April. Cooler air moved into the East.

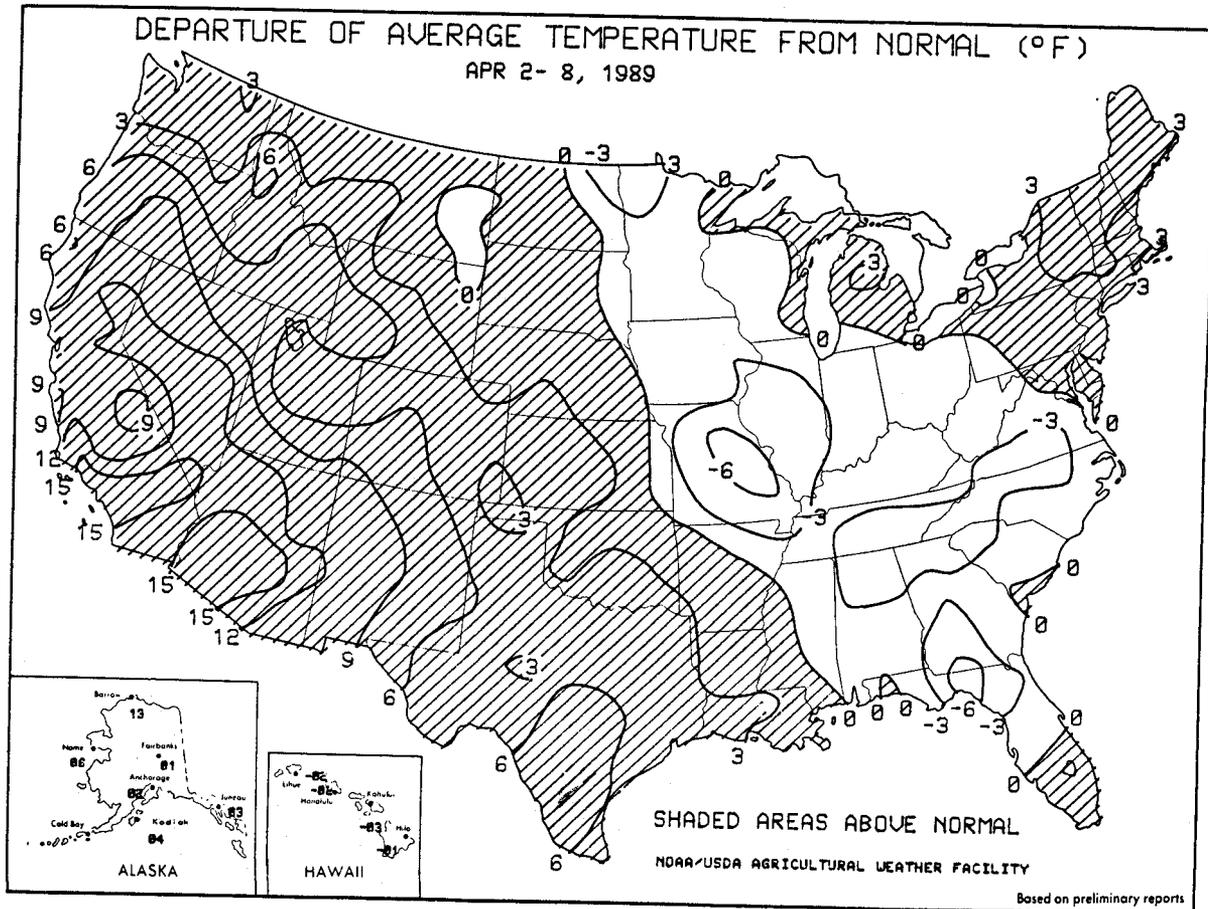
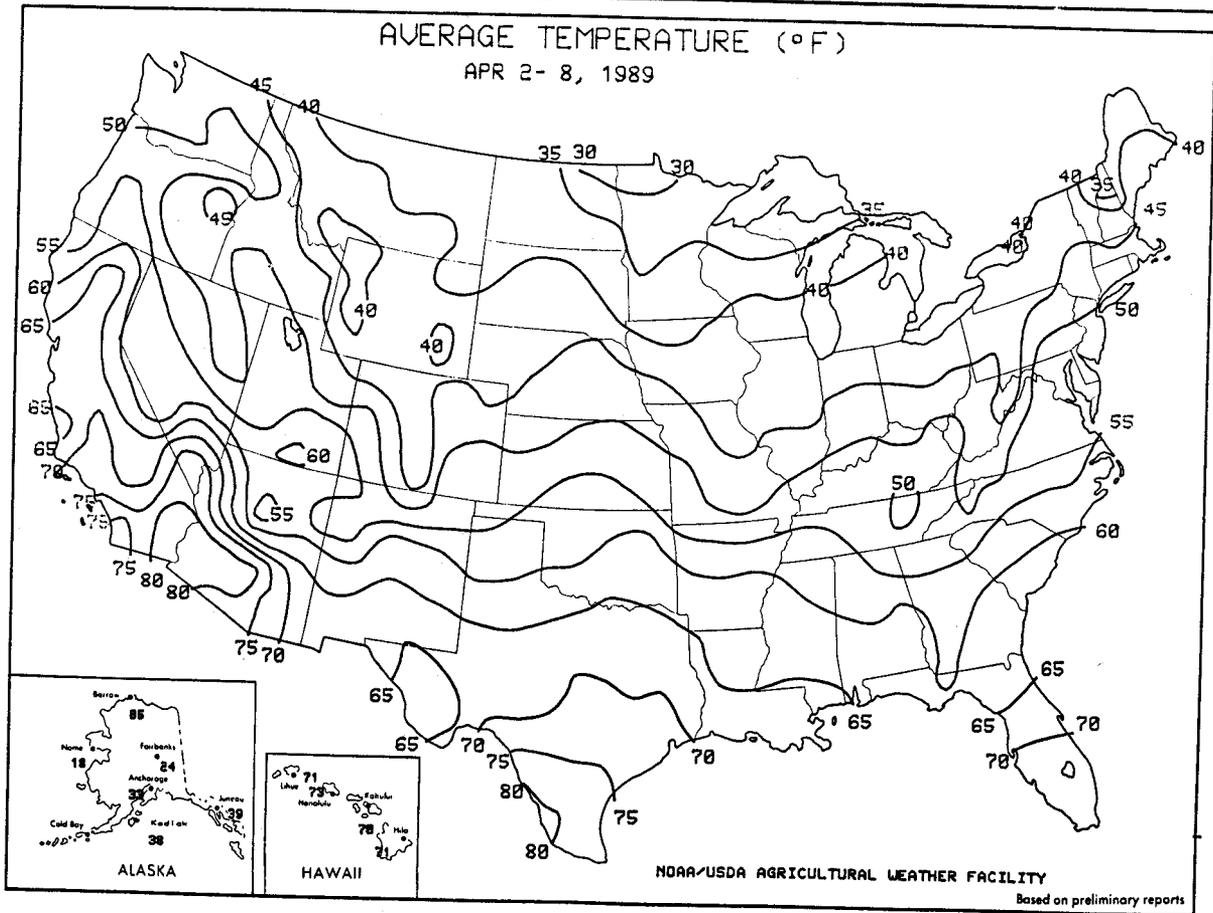
**FRIDAY:** A low pressure system in the Southeast moved northeastward through the middle Atlantic, causing widespread rain. A second low pressure system brought much needed rainfall into the western Corn Belt. Scattered showers remained over the Northeast and Missouri Valley. Warm, dry weather continued in the West.

**SATURDAY:** A frontal system moved into the East, producing thunderstorms and heavy rain across the Southeast and widespread rain over the Corn Belt to the mid-Atlantic coast. Snow fell over the northern Rockies into the Plains and across the Great Lakes. Triple-digit temperatures were again recorded in the desert Southwest.

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# National Weather Data for Selected Cities

Weather Data for the Week Ending April 8, 1989

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	72 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	67	46	74	35	56	-4	1.7	.4	.9	8.8	109	17.1	95	93	45	0	0	4	2	
MOBILE	76	53	82	42	64	-1	1.6	.3	1.1	7.2	90	10.8	62	96	47	0	0	2	2	
MONTGOMERY	75	46	86	36	60	-2	4.2	3.1	3.2	12.2	170	17.2	108	97	41	0	0	4	2	
AK ANCHORAGE	42	24	43	21	33	2	0	0	0	0	0	0	0	81	42	0	7	0	0	
BARROW	13	-2	31	-16	5	13	2.8	.2	.1	.3	31	.7	28	81	42	0	7	0	0	
FAIRBANKS	37	11	48	6	24	1	T	T	T	.2	32	1.6	114	83	42	0	7	1	0	
JUNEAU	47	31	51	25	39	3	T	T	T	1.0	24	7.8	68	93	44	0	4	1	0	
KODIAK	47	30	50	26	38	4	T	T	T	3.4	71	7.4	47	84	46	0	4	1	0	
NOME	27	11	33	-12	18	6	T	T	T	1.1	158	4.1	205	96	81	0	6	5	0	
AZ PHOENIX	98	66	104	62	82	17	0	-1	0	1.3	136	2.4	111	37	11	7	0	0	0	
PRESCOTT	81	43	86	39	62	15	0	-2	0	.6	32	2.2	44	48	11	0	0	0	0	
TUCSON	94	55	99	52	75	12	0	-1	0	.6	78	1.8	82	37	7	5	0	0	0	
YUMA	101	68	109	63	84	16	0	0	0	.1	72	.7	92	35	13	7	0	0	0	
AR FORT SMITH	75	46	88	41	60	2	T	T	T	.9	6.0	122	16.0	172	83	30	0	0	0	0
LITTLE ROCK	71	50	85	42	61	1	T	T	T	-1.2	8.7	144	20.5	149	72	36	0	0	2	0
CA BAKERSFIELD	87	53	96	45	70	10	0	-2	0	.9	80	1.8	59	79	28	4	0	0	0	0
EUREKA	61	48	64	44	55	6	.1	-8	.1	8.1	134	15.7	86	91	67	0	0	1	0	0
FRESNO	85	52	95	46	68	11	0	-3	0	2.3	115	3.9	67	95	32	3	0	0	0	0
LOS ANGELES	90	62	102	54	76	17	0	-3	0	.9	41	3.2	42	69	18	4	0	0	0	0
REDDING	82	50	93	38	66	8	.2	-6	.2	11.3	191	14.6	71	81	31	3	0	1	0	0
SACRAMENTO	81	56	90	49	69	12	0	-4	0	6.3	254	8.3	89	88	35	3	0	0	0	0
SAN DIEGO	85	61	98	57	73	13	0	-3	0	.7	34	1.8	31	73	28	4	0	0	0	0
SAN FRANCISCO	80	54	92	47	67	13	T	T	T	4.0	127	6.6	60	91	41	1	0	0	0	0
CO DENVER	62	36	79	29	49	5	T	T	T	.7	46	2.5	92	79	25	0	3	1	0	0
GRAND JUNCTION	69	37	81	29	53	5	T	T	T	.7	77	3.0	146	69	18	0	2	2	0	0
PUEBLO	70	34	89	24	52	4	.1	-1	.1	.3	29	1.4	99	82	22	0	3	1	0	0
CT BRIDGEPORT	54	40	60	30	47	2	1.4	-5	.2	3.2	65	7.0	63	85	62	0	1	1	0	0
HARTFORD	57	39	70	30	48	3	1.6	.6	.6	4.6	88	7.3	61	94	51	0	2	6	1	1
DC WASHINGTON	61	45	77	35	53	0	1.1	.4	.6	5.4	127	10.7	111	89	52	0	0	5	1	1
FL APALACHICOLA	74	53	78	46	64	-2	.3	-5	.3	6.3	126	9.5	78	88	55	0	0	1	0	0
DAYTONA BEACH	79	54	84	47	67	-1	.5	0	.5	2.5	70	10.0	110	89	43	0	0	2	0	0
JACKSONVILLE	78	50	86	38	64	-3	.7	0	.6	2.9	68	6.4	59	93	35	0	0	3	1	0
KEY WEST	82	71	86	64	76	0	0	-3	0	1.1	69	1.8	35	82	58	0	0	0	0	0
MIAMI	83	66	86	59	74	0	.2	-4	.1	1.1	42	2.4	37	86	45	0	0	2	0	0
ORLANDO	82	56	87	50	69	-1	T	-5	T	1.4	36	5.4	58	91	39	0	0	1	0	0
TALLAHASSEE	76	42	83	32	59	-6	.1	-1.0	.1	4.4	65	7.8	48	95	40	0	1	1	0	0
TAMPA	80	58	85	50	69	-1	T	-4	T	1.8	46	3.8	41	87	42	0	0	1	0	0
WEST PALM BEACH	82	64	87	58	73	1	T	-6	T	2.6	77	4.6	53	87	46	0	0	1	0	0
GA ATLANTA	67	48	76	41	57	-1	3.5	2.4	2.1	7.4	103	14.2	86	88	39	0	0	5	2	2
AUGUSTA	74	45	83	33	59	-1	.7	-2	.5	5.0	86	9.8	70	94	34	0	0	2	0	0
MACON	73	45	82	34	59	-4	2.6	1.7	1.1	7.5	121	14.0	93	96	38	0	0	4	2	2
SAVANNAH	76	50	87	38	63	0	1.1	.4	1.0	2.6	55	3.7	34	89	32	0	0	3	1	1
HI HILO	78	64	84	62	71	-1	10.5	7.3	4.0	18.2	106	52.2	130	97	66	0	0	7	4	4
HONOLULU	79	87	84	64	73	-2	.7	.2	.4	3.3	82	11.9	113	88	58	0	0	4	0	0
KAHULUI	76	84	84	62	70	-3	8.0	7.7	3.0	12.0	379	19.0	188	95	72	0	0	6	3	3
LHUE	76	66	80	64	71	-2	.7	-1	.2	9.5	173	27.9	182	84	60	0	0	7	0	0
ID BOISE	63	37	77	30	50	5	T	-3	T	3.5	269	5.8	146	81	32	0	1	1	0	0
LEWISTON	63	15	76	38	54	7	T	-3	T	1.7	130	3.5	97	68	33	0	0	0	0	0
POCATELLO	58	37	70	28	48	6	.1	-1	.1	3.1	259	5.1	163	79	32	0	1	2	0	0
IL CHICAGO	51	36	60	29	44	-1	.2	-7	.1	1.9	51	3.5	54	94	53	0	2	4	0	0
MOLINE	51	35	55	28	43	-3	.4	-4	.2	2.3	61	4.7	71	95	49	0	4	3	0	0
PEORIA	51	37	55	30	44	-3	1.9	1.1	.7	3.1	80	5.2	77	95	52	0	1	5	2	2
QUINCY	52	39	57	28	45	-3	1.2	.3	.9	2.3	57	3.6	53	92	54	0	2	4	1	0
ROCKFORD	52	35	56	28	43	0	.1	-9	.1	2.5	69	3.9	63	96	52	0	3	1	0	0
SPRINGFIELD	51	37	56	30	44	-5	1.9	1.0	1.0	3.6	88	5.7	78	97	56	0	2	5	1	1
IN EVANSVILLE	61	41	74	32	51	-2	3.3	2.3	2.9	9.7	170	20.0	171	93	48	0	1	4	1	1
FORT WAYNE	51	37	61	29	44	-1	1.3	.5	.8	2.7	70	5.8	73	93	58	0	2	4	1	1
INDIANAPOLIS	54	38	65	31	46	-2	2.3	1.4	.9	6.0	132	9.1	94	97	57	0	2	6	2	2
SOUTH BEND	50	37	62	28	43	-1	1.3	.4	.7	3.6	88	6.3	73	94	51	0	3	3	2	0
IA DES MOINES	54	33	64	23	43	-2	.4	-3	.3	.7	25	3.1	62	94	34	0	3	3	0	0
SIOUX CITY	55	32	67	24	44	0	.1	-3	.1	1.0	45	2.3	61	88	33	0	2	4	0	0
WATERLOO	52	28	61	22	40	-2	.4	-4	.3	1.4	45	2.7	57	98	37	0	5	2	0	0
KS CONCORDIA	64	38	80	32	51	2	.1	-4	0	.6	25	1.7	45	83	25	0	1	2	0	0
DODGE CITY	69	40	84	30	55	4	T	-4	T	.9	46	1.4	49	66	20	0	1	0	0	0
GOODLAND	64	33	83	20	49	4	.1	-1	.1	.3	26	.7	35	71	21	0	3	2	0	0
TOPEKA	60	40	66	36	50	0	.6	-1	.4	3.7	127	5.8	119	86	41	0	0	4	0	0
WICHITA	67	44	72	37	56	3	T	-5	T	2.4	90	3.6	86	78	27	0	0	0	0	0
KY BOWLING GREEN	60	43	69	35	51	-2	2.2	1.2	1.2	7.6	113	24.7	161	95	54	0	0	5	1	1
LEXINGTON	58	41	71	35	50	-2	1.7	.7	.7	7.8	131	21.9	171	90	40	0	0	6	1	1
LOUISVILLE	60	43	71	36	51	-2	3.6	2.6	2.5	9.1	155	21.7	175	89	45	0	0	7	1	1
LA ALEXANDRIA	75	53	82	44	64	0	.2	-1.0	.2	6.4	101	20.7	134	86	51	0	0	2	0	0
BATON ROUGE	80	58	86	44	69	3	1.4	-1	1.4	6.0	100	11.6	74	91	44	0	0	1	1	1
LAKE CHARLES	78	60	81	47	69	3	T	-8	T	5.0	124	10.2	85	87	55	0	0	0	0	0
NEW ORLEANS	78	58	84	45	68	2	.4	-6	.2	7.6	129	10.2	64	94	49	0	0	2	0	0

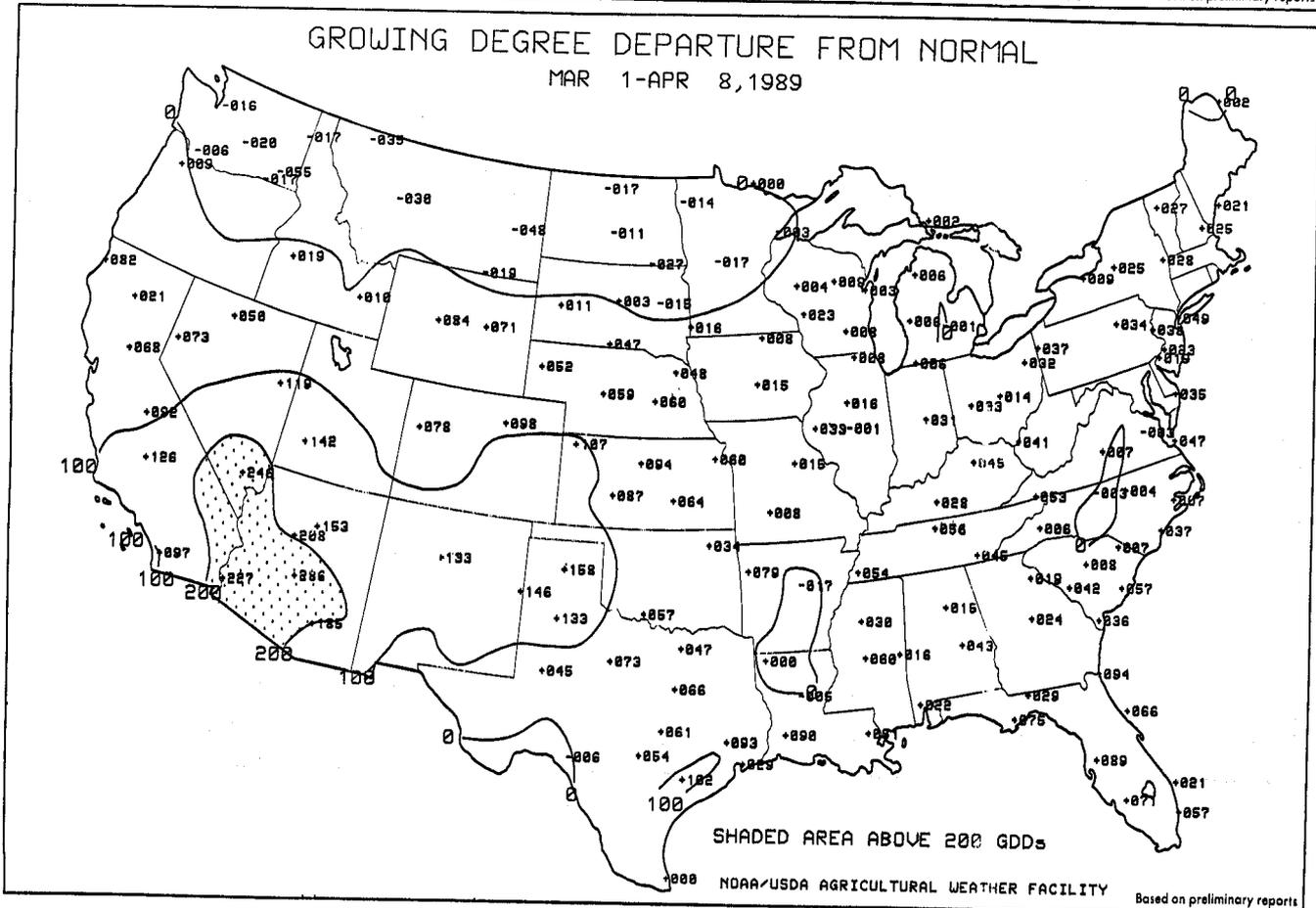
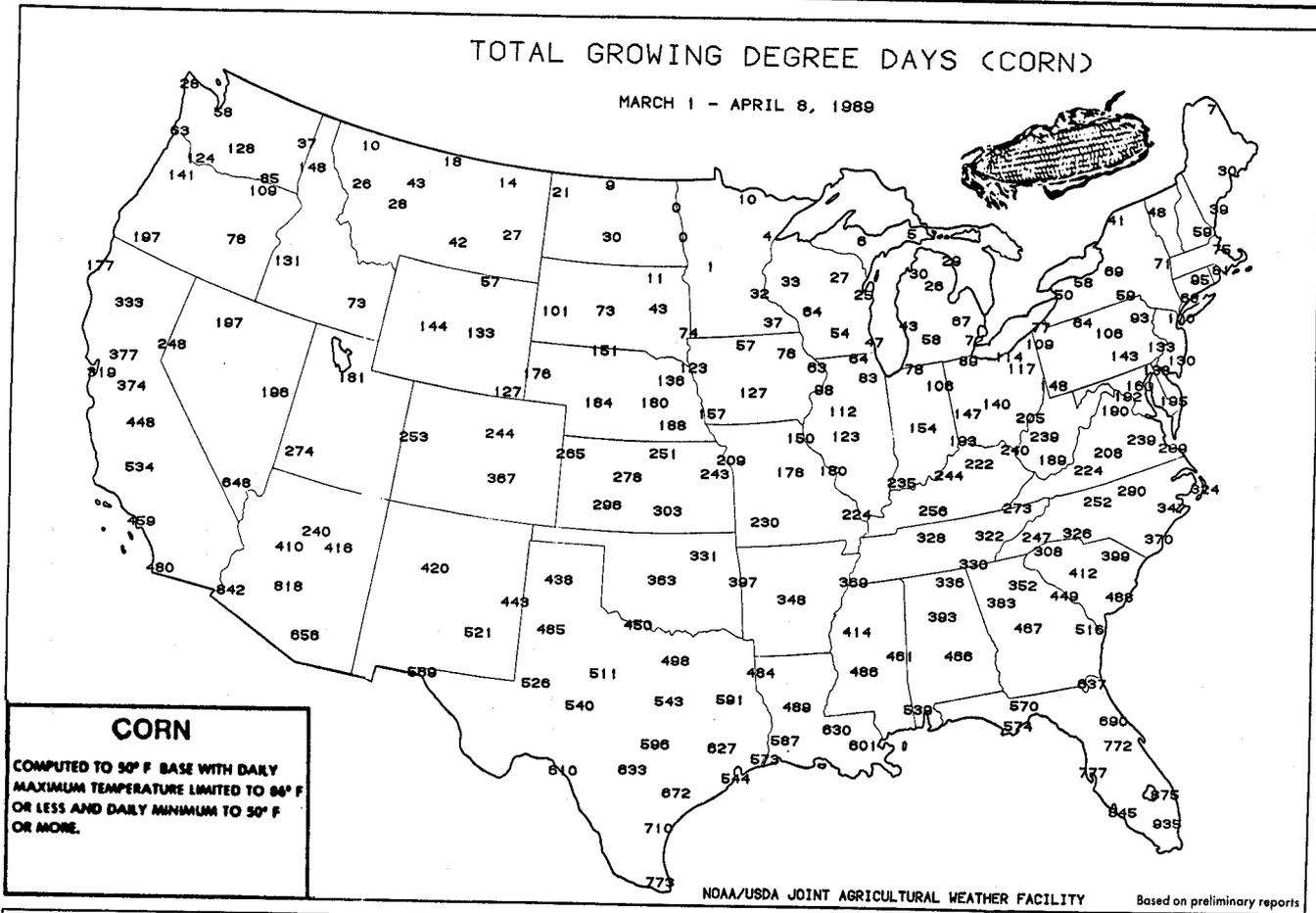
Based on 1951-80 normals

Weather Data for the Week Ending April 8, 1989

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
ME SHREVEFORT	78	54	88	41	66	3	T	-1.0	T	3.4	69	14.7	118	86	39	0	0	1	0
ME CARIBOU	44	31	55	20	38	5	1.0	.4	.6	2.4	79	5.7	76	98	67	0	4	6	1
ME PORTLAND	49	35	59	27	42	3	1.6	.7	.6	3.8	75	7.3	59	96	58	0	3	5	2
MD BALTIMORE	61	42	79	31	52	1	1.1	.3	.5	5.3	115	11.7	111	92	51	0	1	5	0
MD SALISBURY	62	42	78	30	52	1	2.4	1.6	1.0	9.1	182	13.6	116	93	48	0	1	5	2
MA BOSTON	54	39	60	33	46	2	1.3	.4	.6	4.4	85	7.5	58	91	58	0	0	6	1
MA CHATHAM	51	40	56	34	46	4	2.3	1.4	.8	7.0	133	12.2	90	95	74	0	0	6	2
MI ALPENA	48	29	60	20	39	2	1.3	.7	.4	4.0	159	6.0	109	98	60	0	4	5	1
MI DETROIT	51	37	62	31	44	1	1.0	.3	.5	3.2	96	5.3	77	96	58	0	2	5	1
MI FLINT	51	36	62	28	44	2	.9	.2	.4	3.0	104	4.8	82	89	49	0	1	4	0
MI GRAND RAPIDS	50	36	60	27	43	1	.6	-.2	.3	3.1	87	5.0	72	90	48	0	2	4	0
MI HOUGHTON LAKE	47	33	57	26	40	3	.5	-.1	.4	3.5	133	5.2	98	93	52	0	3	4	0
MI LANSING	50	34	62	25	42	1	.7	0	.3	2.9	90	4.7	76	94	54	0	3	4	0
MI MARQUETTE	40	22	47	6	31	-1	-.7	-.1	.4	3.6	97	7.0	92	94	52	0	7	5	0
MI MUSKOGON	48	34	58	26	41	0	.3	-.5	.2	2.2	65	4.8	66	95	55	0	3	4	0
MI SAULT ST. MARIE	41	28	46	19	34	1	1.2	.7	.9	3.5	136	7.6	118	97	62	0	5	6	1
MN ALEXANDRIA	42	26	52	13	34	-2	.6	.1	.2	1.7	97	2.6	79	97	62	0	7	5	0
MN DULUTH	42	26	52	11	34	1	.7	.3	.6	2.5	111	4.7	109	92	44	0	5	4	1
MN INT'L FALLS	40	21	53	2	31	-2	.3	0	.2	1.3	88	3.0	100	94	43	0	6	3	0
MN MINNEAPOLIS	49	29	59	18	39	-1	.4	-.1	.3	2.6	120	4.1	109	91	38	0	5	4	0
MN ROCHESTER	48	29	58	20	39	-1	.6	.1	.6	2.4	100	3.2	83	95	43	0	5	2	1
MS GREENWOOD	72	50	84	40	61	0	3.6	2.2	3.5	6.4	83	20.1	115	88	44	0	0	3	1
MS JACKSON	75	49	82	37	62	0	1.1	-.2	1.1	5.7	80	12.5	77	90	41	0	0	1	1
MS MERIDIAN	75	47	83	36	61	-1	.6	-.8	.5	10.4	126	17.4	98	93	44	0	0	3	0
MO CAPE GIRARDEAU	60	43	74	35	51	-	1.3	.2	.8	6.8	109	20.7	170	97	51	0	0	5	1
MO COLUMBIA	53	37	56	30	45	-6	1.5	.6	.8	4.4	103	7.3	92	95	53	0	1	4	1
MO KANSAS CITY	58	38	63	30	48	-3	1.4	.7	.9	3.5	103	5.1	87	88	42	0	1	5	1
MO SAINT LOUIS	54	40	57	35	47	-5	1.8	.9	1.0	6.3	150	10.3	128	93	52	0	0	3	2
MO SPRINGFIELD	61	38	73	33	50	-3	.1	-.8	.1	5.1	114	8.6	105	94	50	0	0	3	0
MT BILLINGS	51	33	63	27	42	1	.6	.2	.4	2.6	181	4.4	143	80	34	0	3	4	0
MT GLASGOW	46	30	56	23	38	0	.6	.4	.4	.9	209	2.2	199	93	51	0	5	5	0
MT GREAT FALLS	51	30	60	24	40	2	.3	0	.2	1.6	134	3.8	129	84	36	0	4	4	0
MT HAVRE	46	31	51	25	39	1	T	-.2	T	.5	62	1.3	70	85	48	0	4	1	0
MT HELENA	53	33	69	27	43	5	.1	-.1	0	1.4	154	3.6	179	82	34	0	4	3	0
MT KALISPELL	48	33	59	27	40	1	.5	.3	.3	1.9	179	4.6	124	85	44	0	4	5	0
MT MILES CITY	48	32	55	25	40	0	.3	.1	.2	1.5	169	2.8	136	77	42	0	4	3	0
MT MISSOULA	53	33	66	27	43	2	.2	0	.1	2.3	224	3.5	110	93	41	0	3	5	0
NE GRAND ISLAND	60	33	78	28	47	2	T	-.5	T	.4	19	1.8	52	80	26	0	3	0	0
NE LINCOLN	61	46	70	30	48	2	T	-.6	T	.2	9	2.2	52	79	26	0	1	0	0
NE NORFOLK	58	32	68	25	45	1	.3	-.1	.2	1.2	62	3.0	92	92	30	0	4	4	0
NE NORTH PLATTE	62	31	80	24	47	3	T	-.3	T	.4	26	1.7	71	84	22	0	4	0	0
NE OMAHA	57	33	67	24	45	-2	.2	-.4	-.1	.5	18	2.0	48	76	39	0	4	3	0
NE SCOTTSBLUFF	58	30	76	16	44	2	.3	-.1	.3	1.1	85	2.1	101	79	26	0	4	1	0
NE VALENTINE	56	30	72	23	43	2	T	-.3	T	.8	63	1.5	81	82	32	0	6	1	0
NV ELY	68	31	78	23	49	11	T	-.2	T	.6	56	1.6	61	69	19	0	4	0	0
NV LAS VEGAS	91	58	98	54	75	15	0	-.1	0	.1	11	.6	45	28	10	3	0	0	0
NV RENO	76	38	85	32	57	13	0	-.1	0	.5	54	1.5	49	67	16	0	1	0	0
NV WINNEMUCCA	71	33	82	26	52	10	.1	-.1	.1	1.0	114	1.9	79	84	20	0	4	1	0
NH CONCORD	51	33	70	22	42	2	2.2	1.5	.9	4.4	118	7.2	80	97	53	0	2	5	2
NJ ATLANTIC CITY	59	40	73	28	49	2	1.4	.6	.6	6.1	122	11.9	102	94	54	0	1	6	1
NM ALBUQUERQUE	78	45	85	38	62	10	0	-.1	0	.5	80	1.4	104	36	9	0	0	0	0
NM CLOVIS	76	43	88	35	60	7	0	-.1	0	.2	30	.9	57	57	16	0	0	0	0
NM ROSWELL	81	49	94	44	65	8	0	-.1	0	.2	49	1.0	80	39	14	1	0	0	0
NY ALBANY	55	38	65	29	46	4	1.2	.6	.6	3.9	105	6.0	72	92	49	0	2	4	1
NY BINGHAMTON	50	33	65	25	42	2	.8	.1	.4	5.0	134	8.5	100	93	54	0	3	4	0
NY BUFFALO	47	33	59	25	40	-1	1.0	.3	.4	4.1	110	8.5	93	96	64	0	3	5	0
NY NEW YORK	57	43	69	38	50	2	1.1	.2	.3	5.3	104	10.7	95	89	52	0	0	6	0
NY ROCHESTER	49	35	62	26	42	1	.6	0	.3	4.4	137	7.1	91	95	64	0	3	4	0
NY SYRACUSE	53	36	68	26	44	3	.8	.1	.3	4.0	101	6.8	74	94	53	0	3	5	0
NC ASHEVILLE	59	39	72	28	49	-4	1.7	.8	.8	4.6	79	10.8	89	92	47	0	3	5	2
NC CHARLOTTE	64	47	79	38	56	-2	1.3	.5	.5	6.3	109	12.6	94	88	50	0	0	6	0
NC GREENSBORO	60	43	77	32	51	-4	2.1	1.3	.9	7.8	164	13.2	114	93	52	0	1	5	2
NC HATTERAS	69	51	77	41	60	3	3.7	2.9	2.2	14.9	309	21.3	156	88	54	0	0	4	2
NC NEW BERN	67	47	81	35	57	-2	.8	.1	.5	5.9	134	12.5	101	92	54	0	0	4	1
NC RALEIGH	63	42	81	29	53	-3	2.1	1.4	1.0	7.5	166	15.2	133	94	56	0	1	6	2
NC WILMINGTON	68	47	78	35	58	-2	1.3	.5	.6	8.0	164	12.2	102	93	52	0	0	5	1
ND BISMARCK	48	27	56	20	38	1	.6	.3	.3	.9	86	1.7	87	95	46	0	5	4	0
ND FARGO	42	28	48	17	35	-2	.6	.2	.4	2.2	178	4.2	137	94	64	0	6	3	0
ND GRAND FORKS	37	23	44	14	30	-4	.1	-.2	.1	1.3	125	3.1	133	92	64	0	7	1	0
ND WILLISTON	46	28	53	22	37	0	.7	.4	.3	1.3	155	2.7	150	97	54	0	5	7	0
OH AKRON-CANTON	50	36	62	28	43	-1	1.1	.4	.5	5.0	120	9.3	105	94	58	0	3	5	1
OH CINCINNATI	55	40	69	34	48	-2	1.7	.9	1.0	8.2	167	16.1	150	94	52	0	0	5	1
OH CLEVELAND	51	37	60	29	44	0	1.4	.7	.9	4.9	128	8.7	103	98	60	0	3	5	1
OH COLUMBUS	53	37	64	32	45	-3	1.2	.5	.5	5.4	132	10.5	117	97	60	0	1	5	1

Weather Data for the Week Ending April 8, 1989

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 OF PRECIPITATION			
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	52	39	65	33	45	-2	1.8	1.1	.9	7.8	198	13.2	153	92	58	0	0	5	1
TOLEDO	51	36	61	27	43	0	1.9	1.2	.7	3.9	115	6.5	90	95	55	0	3	5	2
YOUNGSTOWN	50	35	62	22	43	-1	1.0	.5	.5	4.7	111	8.5	94	92	54	0	3	4	0
OK OKLAHOMA CITY	71	51	77	44	61	4	0	.5	0	2.6	97	6.0	121	69	32	0	0	0	0
TULSA	71	49	77	44	60	2	T	.9	T	3.1	76	8.3	116	72	31	0	0	0	0
OR ASTORIA	56	42	62	34	49	3	1.4	.1	.5	11.8	135	26.7	98	98	67	0	0	0	0
BURNS	63	32	77	28	47	7	0	.2	0	1.2	112	1.6	49	78	28	0	4	0	0
MEDFORD	72	43	83	39	57	9	0	.1	0	4.3	202	7.2	95	93	37	0	0	2	0
PENDLETON	62	41	75	35	52	4	T	.2	T	2.0	151	5.3	128	78	40	0	0	0	0
PORTLAND	62	44	73	33	53	5	.3	.3	.2	7.2	169	13.4	93	94	52	0	0	2	0
SALEM	64	42	72	34	53	6	.4	.3	.2	7.0	138	13.4	80	95	51	0	0	2	0
PA ALLENTOWN	59	39	75	29	49	2	.7	.3	.4	4.5	91	8.5	75	93	51	0	1	5	0
ERIE	50	36	60	29	43	1	.9	0	.4	5.6	147	10.5	128	92	60	0	2	4	0
HARRISBURG	60	39	73	29	49	1	.3	.5	.2	3.9	89	8.1	81	90	46	0	2	4	0
PHILADELPHIA	61	42	76	31	52	2	1.0	.1	.4	5.4	111	11.0	103	91	52	0	1	6	0
PITTSBURGH	53	37	65	29	45	-1	.7	.1	.3	6.3	140	11.7	121	94	52	0	2	5	0
SCRANTON	56	36	70	27	46	2	.4	.3	.2	2.6	77	5.4	70	89	47	0	3	3	0
RI PROVIDENCE	56	39	62	33	47	3	1.5	.6	.8	5.7	105	9.4	72	94	58	0	0	5	1
SC CHARLESTON	74	51	85	39	62	1	.9	.2	.3	3.7	73	6.9	59	91	39	0	0	4	0
COLUMBIA	71	44	82	33	58	-3	1.3	.4	.9	6.2	99	11.3	77	94	35	0	0	5	1
FLORENCE	70	47	83	36	59	-2	2.2	1.4	1.1	6.8	135	11.3	95	91	42	0	0	4	2
SD GREENVILLE	63	43	76	33	53	-4	2.0	.9	.9	6.5	89	12.9	81	95	43	0	0	6	1
ABERDEEN	46	31	54	22	39	0	.6	.2	.4	2.3	160	3.2	125	92	55	0	4	4	0
HUON	51	29	64	23	40	0	.4	0	.2	2.6	158	3.7	130	93	45	0	6	3	0
RAPID CITY	53	20	67	22	41	1	.5	.1	.2	1.5	103	1.9	76	89	36	0	6	6	0
ST LOUIS FALLS	50	28	63	20	39	-2	.4	.1	.3	1.5	72	2.3	64	91	39	0	6	4	0
TN CHATTANOOGA	64	44	72	35	54	-3	3.6	2.4	1.8	9.4	123	21.9	124	94	41	0	0	5	3
KNOXVILLE	62	43	72	34	53	-3	2.2	1.1	1.2	6.0	90	17.2	111	95	42	0	0	4	1
MEMPHIS	68	49	82	42	58	-1	1.6	.2	.6	7.3	106	25.8	162	88	41	0	0	5	1
NASHVILLE	65	44	71	33	53	-3	2.2	1.1	1.2	7.5	109	21.3	139	88	46	0	0	7	1
TX ABILENE	81	53	91	41	67	5	0	.4	0	1.7	109	5.3	150	63	20	2	0	0	0
AMARILLO	73	40	85	33	56	3	0	.2	0	.5	50	1.2	60	64	18	0	0	0	0
AUSTIN	85	59	91	52	72	6	T	.6	T	2.1	91	6.8	106	85	34	2	0	0	0
BEAUMONT	78	60	84	46	69	3	.1	.8	.1	3.5	85	10.4	84	89	57	0	0	1	0
BROWNSVILLE	86	65	89	51	76	3	0	.3	0	.2	21	2.2	62	95	48	0	0	0	0
CORPUS CHRISTI	89	62	99	50	76	5	0	.3	0	.2	19	3.1	75	94	42	2	0	0	0
DEL RIO	89	58	95	53	73	4	0	.4	0	.9	90	2.9	120	64	18	4	0	0	0
EL PASO	86	52	93	42	69	8	0	.1	0	.6	168	1.5	123	37	14	2	0	0	0
FORT WORTH	81	55	95	50	68	5	0	.8	0	3.7	113	10.0	145	74	28	1	0	0	0
GALVESTON	76	66	79	61	71	5	0	.6	0	2.4	86	8.8	109	89	61	0	0	0	0
HOUSTON	82	61	87	47	72	5	.1	.7	.1	4.1	115	9.8	95	89	47	0	0	1	0
LUBBOCK	78	47	88	38	63	6	0	.2	0	.7	65	2.2	112	54	14	0	0	0	0
MIDLAND	83	49	93	38	66	5	0	.1	0	.3	55	1.8	117	52	14	1	0	0	0
SAN ANGELO	82	49	91	39	66	2	0	.3	0	2.0	170	5.6	219	71	21	2	0	0	0
SAN ANTONIO	89	58	98	47	73	6	0	.5	0	1.2	66	4.5	85	86	25	3	0	0	0
SAN VICTORIA	85	64	89	54	74	0	0	.5	0	1.7	93	6.1	103	90	45	0	0	0	0
WACO	83	55	93	46	69	5	0	.7	0	2.4	86	7.1	110	88	32	1	0	0	0
WICHITA FALLS	77	51	85	45	64	4	0	.6	0	1.5	63	6.1	140	75	24	0	0	0	0
UT CEDAR CITY	72	37	82	29	54	10	0	.3	0	.8	50	2.0	73	65	16	0	2	0	0
SALT LAKE CITY	63	41	78	35	52	6	.3	.2	.2	2.1	93	4.1	84	79	33	0	0	3	0
VT BURLINGTON	51	35	63	25	43	5	1.3	.7	.6	4.0	139	5.1	79	93	50	0	2	5	1
VA NORFOLK	66	47	82	38	56	1	2.1	1.4	1.2	10.6	230	19.7	170	87	49	0	0	5	1
RICHMOND	63	42	81	30	52	-2	2.1	1.4	1.1	7.1	163	13.3	125	94	52	0	1	5	1
ROANOKE	60	40	77	31	50	-3	1.0	.2	.3	3.9	80	7.3	69	95	47	0	2	6	0
WA QUILLAYUTE	53	40	60	34	48	2	3.6	1.6	1.1	14.5	101	36.3	89	100	73	0	0	6	4
SEATTLE-TACOMA	54	42	61	36	48	1	1.7	1.1	.9	7.7	179	14.0	98	96	68	0	0	4	1
SPOKANE	55	36	63	30	45	3	.1	.1	.1	3.1	191	5.3	83	88	44	0	3	3	0
YAKIMA	65	32	80	22	48	2	T	.1	T	1.7	228	2.8	80	86	30	0	4	0	0
WV BECKLEY	55	36	69	28	46	-2	1.0	.2	.4	4.5	91	10.7	93	91	49	0	4	7	0
CHARLESTON	59	41	73	34	50	-2	.9	.5	.5	6.9	139	15.8	138	92	46	0	0	6	0
HUNTINGTON	59	43	73	35	51	-2	1.3	.5	.5	7.1	143	19.4	176	88	42	0	0	5	2
PARKERSBURG	57	40	70	32	48	-2	.7	.1	.3	6.3	140	14.4	145	91	48	0	1	4	0
WI GREEN BAY	48	29	57	20	39	0	.2	.4	.1	3.1	123	3.9	82	94	46	0	5	3	0
LACROSSE	51	30	61	22	41	-1	.3	.3	.3	2.7	105	3.5	81	90	36	0	4	1	0
MADISON	54	27	60	23	41	-1	.1	.8	0	1.8	62	2.9	59	93	38	0	7	3	0
MILWAUKEE	50	34	59	27	42	1	.2	.6	.1	3.2	94	4.8	75	96	52	0	2	4	0
WAUSAU	47	26	58	14	37	-1	.2	.4	.2	2.2	84	3.4	77	98	42	0	6	2	0
WY CASPER	57	28	71	19	42	3	.1	.2	.1	.6	44	2.1	91	78	22	0	5	1	0
CHEYENNE	53	30	69	23	42	4	.4	.1	.3	.8	68	2.4	118	80	31	0	5	2	0
LANDER	59	32	74	20	46	7	T	.4	T	.1	8	.9	34	56	17	0	3	0	0
SHERIDAN	49	31	61	27	40	1	.3	.1	.3	1.9	126	2.7	91	86	41	0	4	2	0
PR SAN JUAN	83	73	83	70	78	0	.3	.3	.2	3.9	132	8.3	103	86	66	0	0	3	0



## March Weather and Crop Summary

**HIGHLIGHTS:** A major, late-season winter storm came ashore in the Pacific Northwest and spread winter weather across much of the Nation during the first of the month. The storm triggered severe thunderstorms across the Southeast, freezing rain from the mid-section of the country to the mid Atlantic coast, and heavy snow from Texas to the middle Mississippi Valley and in the central Appalachians. Frigid air behind the storm dropped temperatures below zero in the northern and central Plains. The steady flow of moisture from the Pacific brought above-normal precipitation into the Northwestern States. During the latter part of the month, warm moist air from the Gulf of Mexico and slow moving frontal systems caused severe weather and heavy rain from the southern Plains to the middle and southern Atlantic Coast States. Much needed rain fell over winter wheat in the central Plains, while torrential rain caused flooding in northeastern Texas. Generally dry conditions again prevailed in the northern Corn Belt, Southwest, and southeastern Florida, which received the least amount of rainfall on record for the September to March period. The abnormally warm weather in the West spread over much of the United States at month's end and melted much of the snow cover across the Northern States.

**MARCH 1-4:** A slow moving cold front brought persistent rains to the Gulf Coast States and triggered thunderstorms across Florida early in the period. A major late-season winter storm spread precipitation across the Pacific Northwest and into the northern and central Plains. This storm also triggered severe thunderstorms in the lower Mississippi Valley and freezing rainfall throughout the mid-section of the country. Frigid air behind the storm sent temperatures below zero throughout the northern Plains.

**MARCH 5-11:** The major, late-season winter storm buffeted the eastern half of the country, bringing heavy snow from Texas through Missouri and also to Pennsylvania. Freezing rain associated with the storm fell from Arkansas through the Tennessee Valley and into the Mid-Atlantic States. As the storm moved slowly off the east coast it brought rain, sleet, and snow to the Carolinas. Bitter cold temperatures behind the storm were felt in the northern and central Plains. South Florida experienced showers and thunderstorms, the most widespread in several months. The Pacific Northwest and the northern half of California received plentiful rains during the week. The western half of the country began to warm up at midweek due to a high pressure ridge. Record-high temperatures were reported throughout the Southwest and central Plains the last 3 days of the week, and warm weather spread east of the Mississippi on Saturday.

**MARCH 12-18:** A series of frontal systems brought continued rain and snow across the northern third of the Nation. Heavy rain fell along the northern Pacific coast and heavy snow in the upper Mississippi Valley and upper Great Lakes. Strong cold fronts caused thunderstorms to develop across the middle and southern Atlantic Coast States during the latter half of the week. Dry and abnormally warm weather prevailed across much of the southern half of the country, including the winter wheat regions in the central Plains. Frigid air persisted over the North Central States.

**MARCH 19-25:** During the first half of the week, a frontal system spread soaking rain from the middle Mississippi Valley and Gulf Coast States to the mid-Atlantic coast and into the Northeast. During the latter half of the week, a low pressure system moved up the eastern seaboard, bringing more soaking rains, while a Pacific system spread moisture across the Western States. Generally dry weather remained in the Great Plains and western Corn Belt. Abnormally warm weather in the West spread across the Nation by week's end, as much of the heavy snow cover melted in the upper Mississippi Valley.

**MARCH 26-31:** Moisture laden southerly winds from the Gulf of Mexico and a slow moving frontal system were responsible for severe weather and soaking rains from the Gulf Coast States to the Northeast. Much needed rain fell across the central Plains into the middle Mississippi Valley, and torrential rain caused flooding in northeastern Texas. Pacific fronts brought persistent showers into the Northwest, while heavy rain caused local flooding in the Southwest at the first of the week. Unseasonably warm weather covered the Nation.

### MARCH FIELDWORK

Rain slowed fieldwork in the Delta and Southeast during most of March. Snow and muddy field conditions limited fieldwork to spreading fertilizer in the northern Great Plains and Corn Belt early in the month. By the end of March, spring small grain seedings and land preparation for spring planting were underway in the Great Plains and western Corn Belt.

Cotton planting was underway in Texas in early March. By the end of March, planting was 9 percent (%) complete, 1 percentage point ahead of the 5-year average. Planting began in Arizona and California about mid-month. By the end of the month, planting was 35% complete in Arizona. As March began, corn planting was underway in Arizona, Florida, and Texas and just beginning in Mississippi. By mid-month, corn planting was active in the Delta and Southeast as weather permitted. Planting lagged behind normal in portions of the Delta and Southeast at the end of the month. Planting began in Kansas the last week of March. As March began, sorghum planting was underway in Texas. By the end of the month, planting was 42% finished, 3 points behind normal. Planting was just beginning in Alabama. Rice planting began in Louisiana, Mississippi, and Texas about mid-month. Rain slowed planting in Louisiana and Mississippi. Tobacco bed preparation and seeding were active during March as weather permitted. Tobacco transplanting was underway by mid-month in Georgia and Florida.

### WINTER WHEAT

Early in March, warmer temperatures improved winter wheat growth in the central and southern Great Plains. Winter wheat was mostly very poor to poor in Kansas. Moisture was needed. In Oklahoma, winter wheat was mostly fair to good. About mid-month, winter wheat began heading in the Coastal Bend area of Texas. Near the end of March, rain improved winter wheat condition in the central and southern Great Plains. Earlier freeze damage became evident as fields broke dormancy in Kansas. Winter wheat was mostly good to fair in

## March Weather in Historical Perspective

Preliminary data for March 1989 indicate that precipitation averaged across the contiguous United States was slightly above the long-term mean (fig. 1). Areally averaged temperature for the Nation was also slightly above the long-term mean (fig. 2).

The temperature and precipitation rankings for March 1989 for the nine climatically homogeneous regions in the United States (see fig. 3, Weekly Weather and Crop Bulletin, March 7, 1989, p. 10) are listed in table 1. Most of the regions had midrange rankings, but extremes occurred in the western regions. The Northwest region experienced the third wettest March on record, while the Southwest region had the ninth

driest March since 1895. Temperatures were well above normal in parts of the Western United States, with March 1989 ranking as the third hottest March in the Southwest and seventh hottest March in the West.

October through March precipitation averaged across Kansas, which is a key wheat producing State, is shown in fig. 3. October 1988-March 1989 is the 16th driest such period since 1895 and the second consecutive period with precipitation below the long-term mean. The widespread rains in late March had a significant impact on the rankings, as cumulative precipitation through February was the 7th lowest of record.

National Climatic Data Center, NOAA

Figure 1

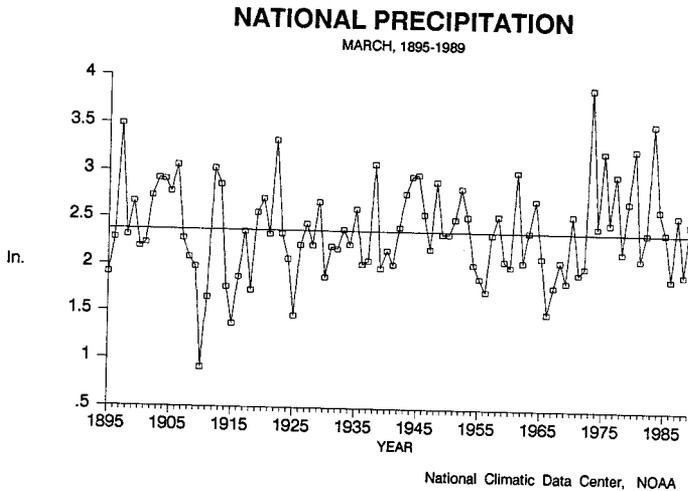


Figure 2

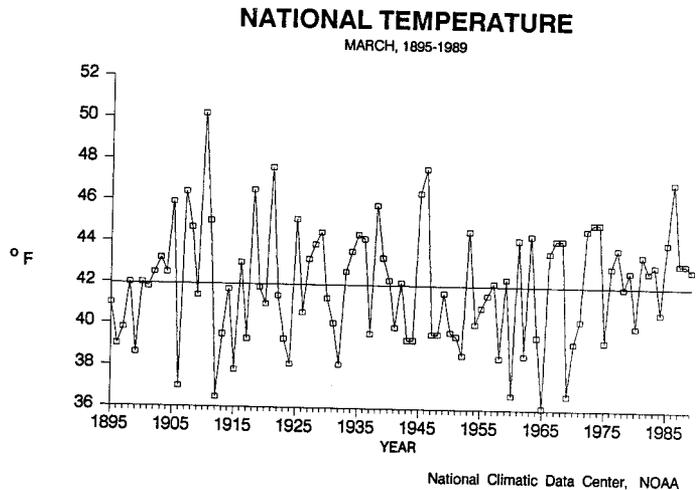


Figure 3

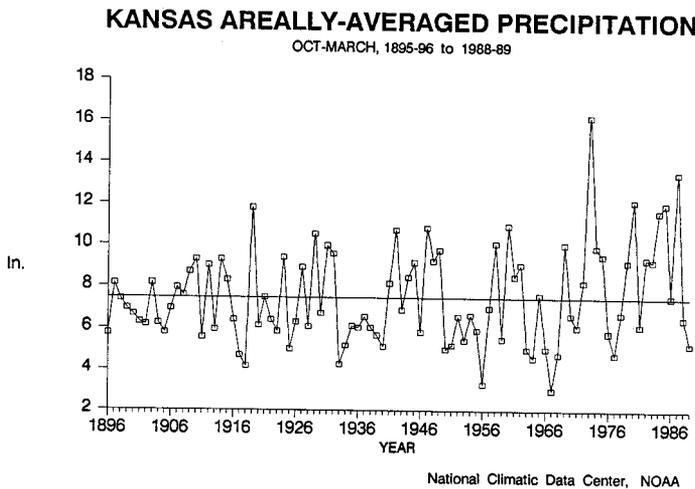
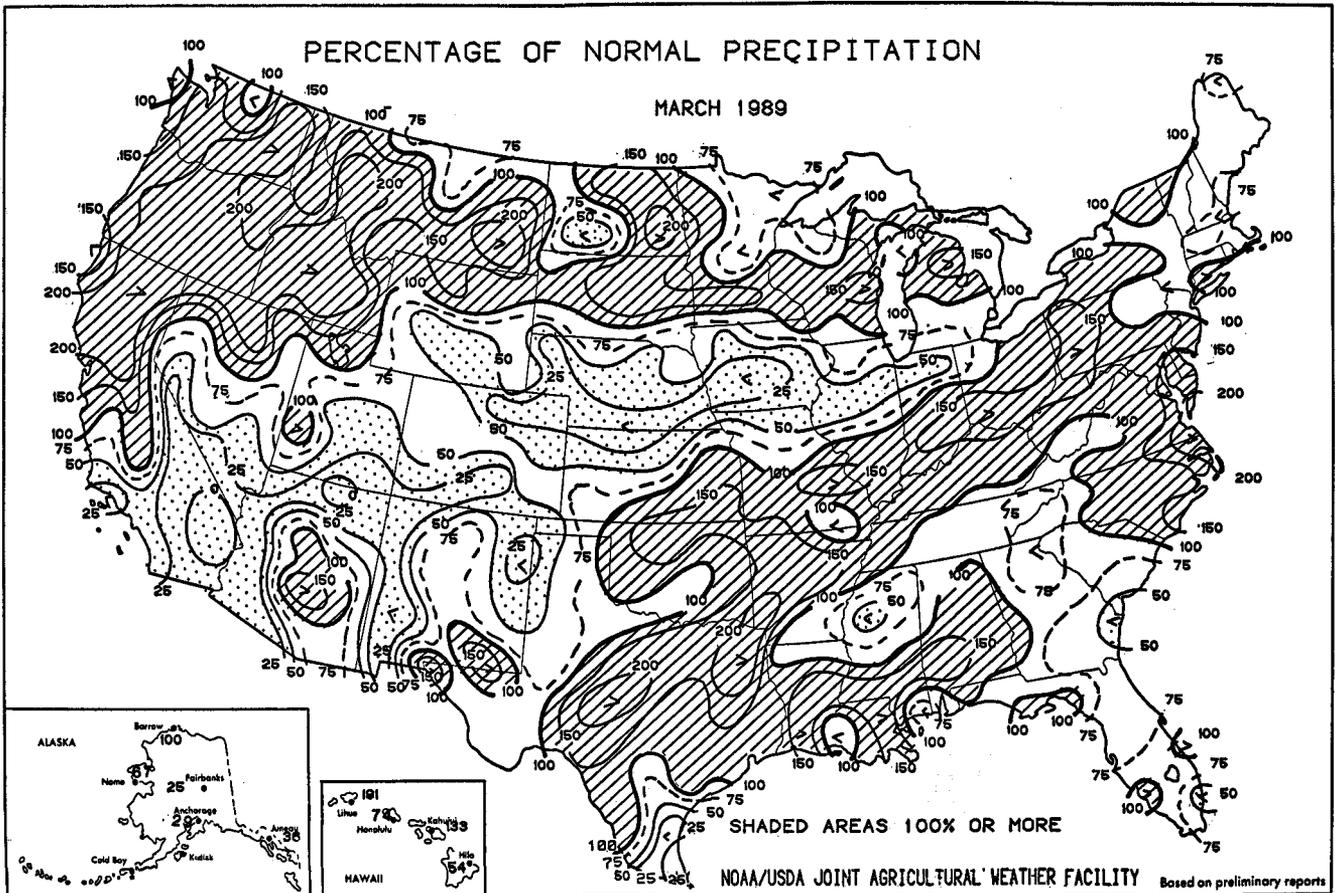
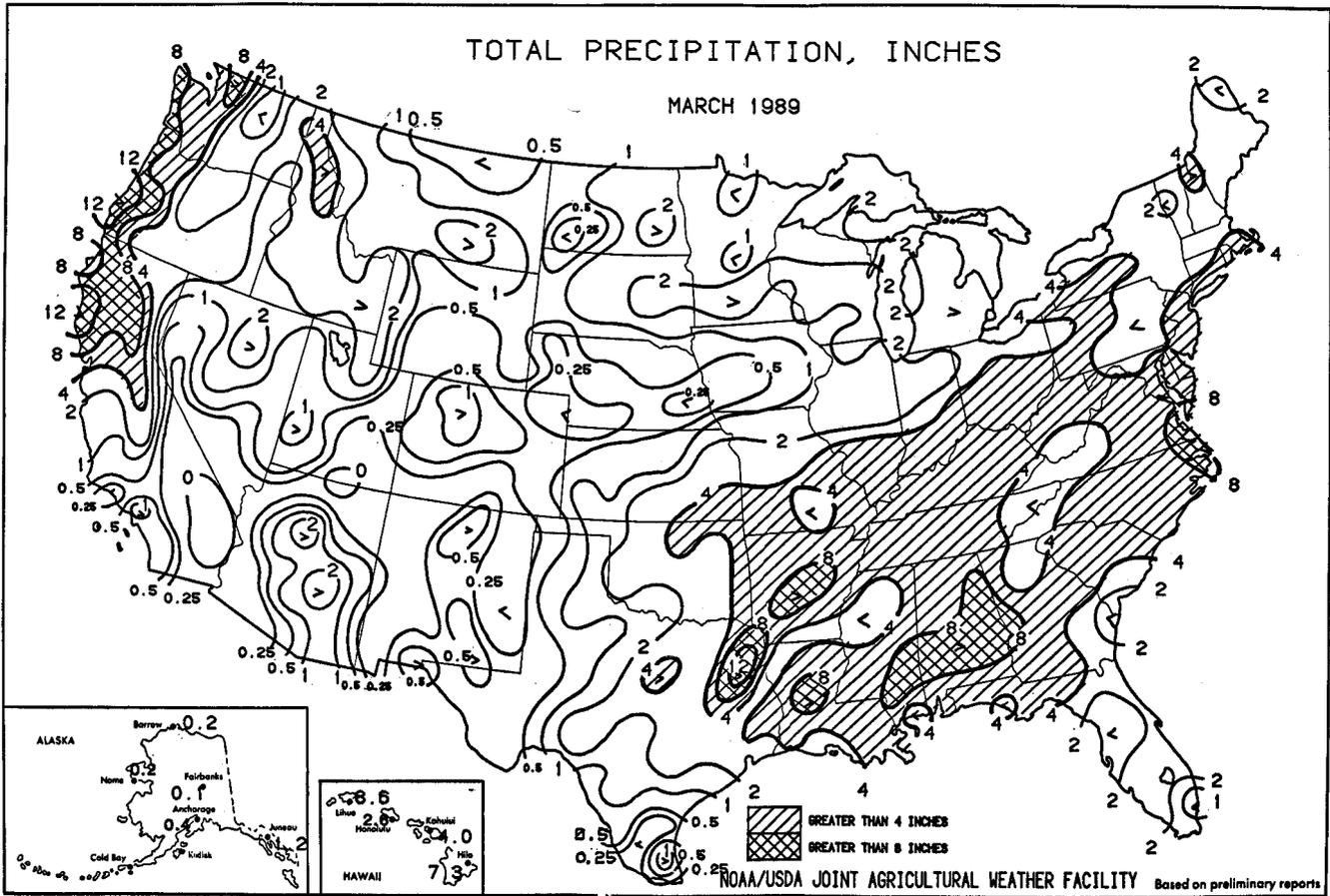
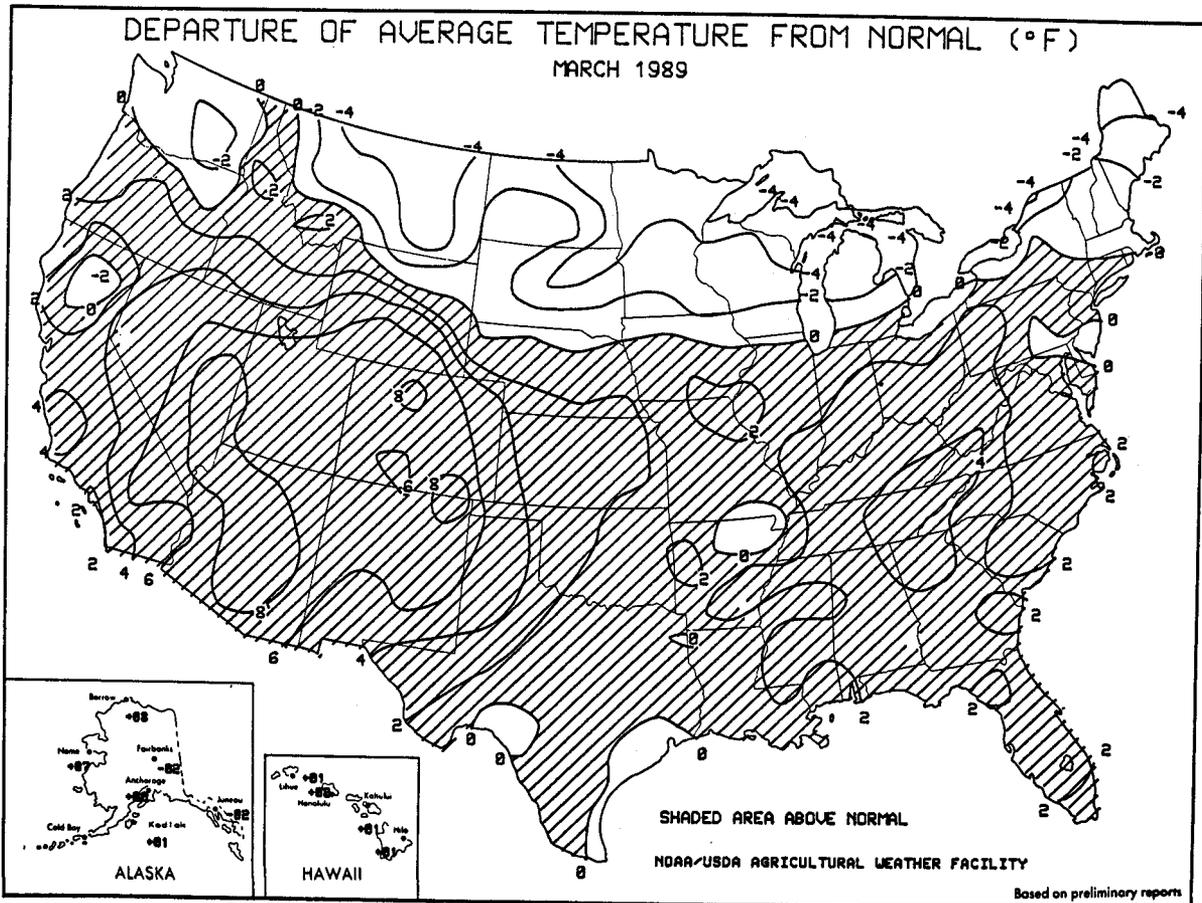
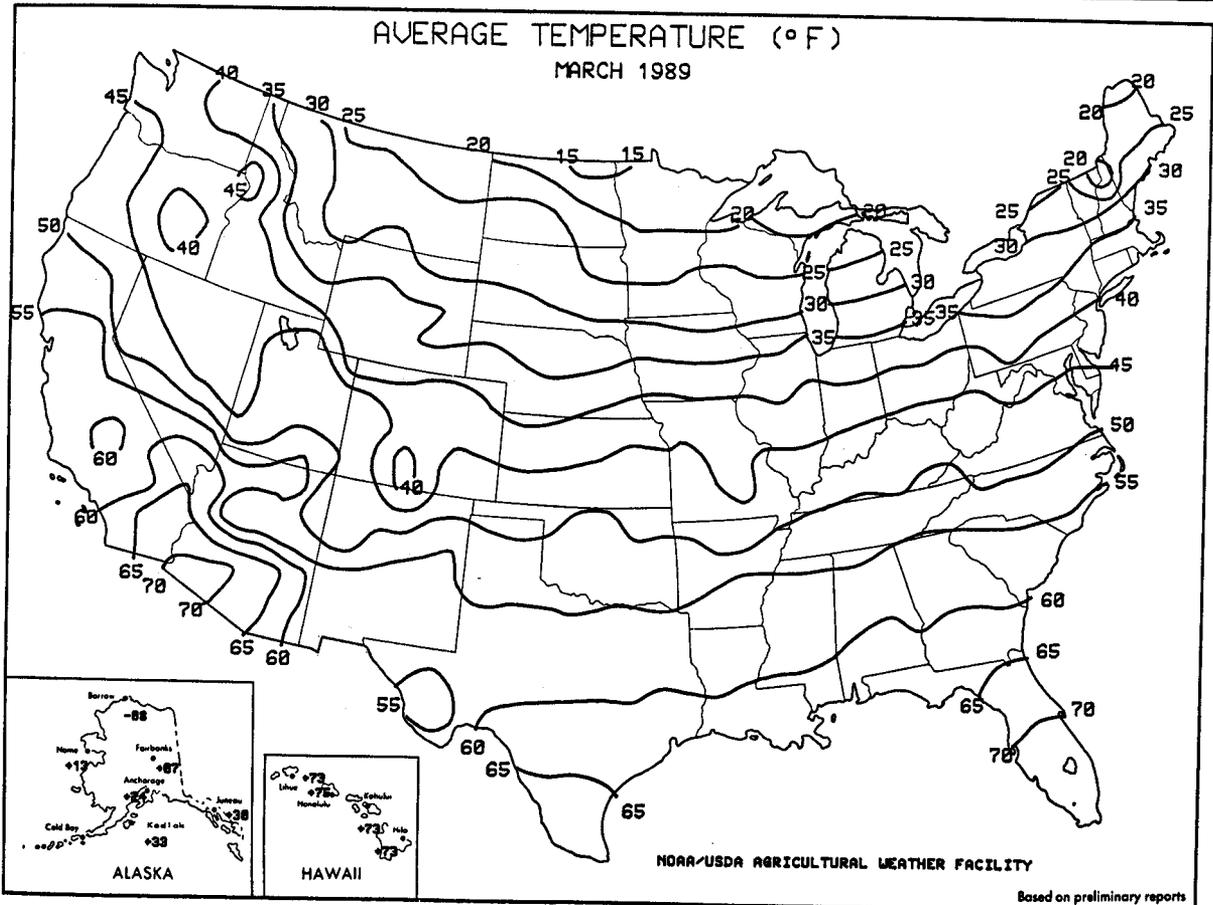


Table 1. Temperature and Precipitation Rankings for March 1989, based on the period 1895-1989. 1 = coldest/driest, 95 = warmest/wettest.

Region	Temperature	Precipitation
National	58	59
Northeast	44	47
East North Central	27	32
Central	62	54
Southeast	65	51
West North Central	26	24
South	57	46
Southwest	93	9
Northwest	46	93
West	89	65





Temperature and Precipitation Data for March 1989

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	56	2	7.2	0.6	BATON ROUGE	63	3	4.6	0.1	DAYTON	42	3	6.0	2.9
MOBILE	62	2	5.6	-0.9	LAKE CHARLES	61	0	5.0	1.8	TOLEDO	36	1	2.0	-0.6
MONTGOMERY	59	2	8.1	2.2	NEW ORLEANS	63	1	7.2	2.4	YOUNGSTOWN	38	3	3.6	0.4
AK ANCHORAGE	24	0	0.2	-0.5	SHREVEPORT	57	0	3.4	-0.4	OK OKLAHOMA CITY	51	2	2.6	0.5
BARROW	-8	8	0.2	0.0	ME CARIBOU	20	-5	1.4	-1.0	TULSA	49	0	3.1	0.0
FAIRBANKS	7	-2	0.1	-0.3	PORTLAND	31	-1	2.1	-1.8	OR ASTORIA	45	1	10.1	2.9
JUNEAU	30	-2	1.2	-2.1	MD BALTIMORE	44	1	4.2	0.5	BURNS	38	1	3.2	2.3
KODIAK	33	1	3.3	-0.6	SALISBURY	45	1	6.7	2.6	MEDFORD	48	2	3.9	2.1
NOME	14	7	0.4	-0.2	MA BOSTON	37	-1	3.1	-1.0	PENDELTON	42	-2	1.7	0.7
AZ FLAGSTAFF	42	7	2.1	0.0	CHATHAM	37	0	3.7	-0.3	PORTLAND	46	0	6.7	3.1
PHOENIX	70	9	1.3	0.5	MI ALPENA	23	-4	2.7	0.8	SALEM	47	2	6.5	2.2
PRESCOTT	51	8	0.6	-1.0	DETROIT	35	0	2.2	-0.4	PA ALLENTOWN	39	0	3.8	0.0
TUCSON	65	7	0.6	-0.1	FLINT	32	0	2.1	0.0	ERIE	35	1	4.7	1.8
WINSLOW	52	7	0.4	-0.1	GRAND RAPIDS	32	-2	2.5	-0.1	HARRISBURG	40	-1	3.6	0.1
YUMA	71	7	0.1	0.0	HOUGHTON LAKE	25	-2	3.0	1.1	PHILADELPHIA	42	0	4.4	0.6
AR FORT SMITH	53	2	6.0	2.1	LANSING	32	-1	2.1	-0.3	PITTSBURGH	41	2	5.5	2.0
LITTLE ROCK	52	0	8.7	4.0	MARQUETTE	18	-5	2.9	0.1	SCRANTON	37	1	2.2	-0.4
CA BAKERSFIELD	60	3	0.9	0.0	MUSKEGON	31	-2	1.9	-0.6	RI PROVIDENCE	37	0	4.1	-0.1
EUREKA	52	4	7.6	2.6	SAULT ST. MARIE	19	-5	2.4	0.4	SC CHARLESTON	59	3	2.9	-1.5
FRESNO	58	4	2.3	0.7	MN ALEXANDRIA	22	-3	0.9	-0.3	COLUMBIA	56	2	4.9	-0.3
LOS ANGELES	59	1	0.9	-0.9	DULUTH	19	-5	1.5	-0.3	FLORENCE	56	1	4.6	0.5
REDDING	52	-2	10.9	6.0	INT'L FALLS	17	-4	0.8	-0.3	GREENVILLE	53	2	4.5	-1.5
SACRAMENTO	56	3	6.2	4.2	MINNEAPOLIS	27	-3	2.2	0.5	SD ABERDEEN	23	-5	1.5	0.5
SAN DIEGO	60	1	0.7	-1.0	ROCHESTER	26	-3	1.7	-0.1	HURON	27	-3	2.2	1.0
SAN FRANCISCO	55	2	4.0	1.4	ST. CLOUD	24	-2	0.8	-0.6	RAPID CITY	31	-1	1.0	0.0
STOCKTON	56	2	2.2	0.4	MS GREENWOOD	56	2	2.8	-3.4	SIoux FALLS	30	-1	1.1	-0.5
CO DENVER	43	5	0.6	-0.6	JACKSON	59	3	4.5	-1.0	TN CHATTANOOGA	54	5	5.9	-0.5
GRAND JUNCTION	48	6	0.5	-0.2	MERIDIAN	58	2	9.8	3.2	BRISTAL	51	5	3.8	-0.5
PUEBLO	46	5	0.1	-0.6	TUPELO	55	3	3.7	-3.3	KNOXVILLE	53	4	3.8	-1.7
CT BRIDGEPORT	39	1	4.1	0.2	MO COLUMBIA	44	1	3.0	-0.4	MEMPHIS	54	2	5.8	0.4
HARTFORD	37	0	3.0	-1.1	KANSAS CITY	44	1	2.1	-0.5	NASHVILLE	53	4	5.3	-0.3
DC WASHINGTON	46	0	4.3	0.9	SAINT LOUIS	45	2	4.6	1.3	TX ABILENE	57	1	1.7	0.6
FL APALACHICOLA	64	3	6.0	2.0	SPRINGFIELD	46	1	5.0	1.5	AMARILLO	51	5	0.5	-0.3
DAYTONA BEACH	68	3	2.0	-1.0	MT BILLINGS	30	-4	2.0	1.0	AUSTIN	61	0	2.1	0.5
FT. MYERS	72	3	2.9	0.0	GLASGOW	23	-5	0.4	0.1	BEAUMONT	60	0	3.4	0.4
JACKSONVILLE	65	3	2.1	-1.3	GREAT FALLS	29	-3	1.4	0.5	BROWNSVILLE	67	-1	0.2	-0.3
KEY WEST	74	0	1.1	-0.2	HAVRE	25	-4	0.4	-0.1	CORPUS CHRISTI	65	-1	0.2	-0.6
MIAMI	74	2	0.9	-1.0	HELENA	28	-4	1.4	0.7	DEL RIO	62	-1	0.9	0.3
ORLANDO	70	3	1.4	-1.9	KALISPELL	31	-1	1.5	0.6	EL PASO	59	4	0.6	0.3
TALLAHASSEE	63	3	4.4	-1.2	MILES CITY	27	-4	1.2	0.6	FORT WORTH	57	1	3.7	1.4
TAMPA	70	3	1.8	-1.7	MISSOULA	33	-2	2.1	1.3	GALVESTON	60	-2	2.4	0.3
WEST PALM BEACH	72	2	2.6	-0.1	NE GRAND ISLAND	37	1	0.4	-1.1	HOUSTON	61	0	4.0	1.3
GA ATHENS	55	3	4.0	-1.8	LINCOLN	39	2	0.2	-1.7	LAREDO	68	1	0.7	0.3
ATLANTA	57	4	3.9	-2.0	NORFOLK	34	0	0.9	-0.6	LUBBOCK	55	4	0.7	-0.2
AUGUSTA	58	3	4.4	-0.5	NORTH PLATTE	36	1	0.4	-0.7	MIDLAND	57	2	0.3	-0.2
MACON	59	2	4.9	-0.3	OMAHA	37	0	0.3	-1.6	SAN ANGELO	58	1	2.0	1.2
SAVANNAH	60	2	1.4	-2.4	SCOTTSBLUFF	36	0	0.8	-0.2	SAN ANTONIO	62	0	1.2	-0.1
HI HILO	73	1	7.3	-6.2	VALENTINE	32	0	0.7	-0.1	VICTORIA	63	-1	1.7	0.4
HONOLULU	75	2	2.6	-0.9	NV ELKO	41	5	2.4	1.5	WACO	58	0	2.4	0.4
KAHULUI	73	1	4.0	1.2	ELY	42	9	0.6	-0.3	WICHITA FALLS	54	1	1.5	-0.3
LIHUE	73	1	8.6	4.1	LAS VEGAS	64	8	0.1	-0.3	UT CEDAR CITY	46	7	0.7	-0.3
ID BOISE	44	2	3.5	2.4	RENO	47	6	0.5	-0.3	MILFORD	45	7	1.2	0.2
LEWISTON	46	4	1.7	0.7	WINNEMUCCA	44	6	0.9	0.2	SALT LAKE CITY	46	5	1.8	0.1
POCATELLO	38	3	2.9	2.0	NH CONCORD	32	0	2.2	-0.8	VT BURLINGTON	28	-1	2.6	0.4
IL CAIRO	-	-	6.2	1.2	NJ ATLANTIC CITY	41	-1	4.7	0.6	VA LYNCHBURG	47	1	3.6	-0.1
CHICAGO	37	0	1.7	-1.0	NM ALBUQUERQUE	53	6	0.5	0.0	NORFOLK	50	1	8.5	4.7
MOLINE	37	1	1.8	-0.9	CLOVIS	52	6	0.2	-0.3	RICHMOND	48	1	5.0	1.4
PEORIA	39	2	1.1	-1.7	ROSWELL	57	6	0.2	-0.2	ROANOKE	47	1	2.9	-0.7
QUINCY	42	3	1.2	-2.0	NY ALBANY	33	-1	2.7	-0.3	WA COLEVILLE	33	-4	2.8	1.6
ROCKFORD	34	0	2.4	-0.2	BINGHAMTON	32	0	4.2	1.2	QUILLAYUTE	42	-1	10.0	-1.9
SPRINGFIELD	41	1	1.7	-1.4	BUFFALO	33	-1	3.2	0.2	SEATTLE-TACOMA	44	0	5.8	2.2
IN EVANSVILLE	47	2	6.4	1.8	NEW YORK	42	1	4.2	0.2	SPOKANE	37	-1	2.9	1.5
FORT WAYNE	38	2	1.4	-1.5	ROCHESTER	32	-1	3.7	1.2	YAKIMA	40	-2	1.7	1.1
INDIANAPOLIS	42	2	3.7	0.1	SYRACUSE	33	-1	3.1	0.0	WALLA WALLA	49	4	3.9	2.5
SOUTH BEND	37	1	2.3	-0.8	NC ASHEVILLE	50	4	2.9	-1.9	WV BECKLEY	46	5	3.4	-0.6
IA DES MOINES	37	2	0.4	-1.8	CHARLOTTE	53	3	4.9	0.1	CHARLESTON	48	3	5.8	1.8
DUBUQUE	32	0	1.9	-1.0	GREENSBORO	49	1	5.7	1.9	ELKINS	43	4	5.5	1.8
SIoux CITY	34	0	0.9	-0.9	HATTERAS	55	3	11.2	7.2	HUNTINGTON	47	2	5.8	1.8
WATERLOO	32	0	0.9	-1.3	NEW BERN	54	2	5.1	1.5	PARKERSBURG	45	2	5.5	2.0
KS CONCORDIA	43	3	0.6	-1.3	RALEIGH	51	1	5.4	1.7	WI GREEN BAY	25	-3	2.9	1.0
DODGE CITY	45	3	0.9	-0.6	WILMINGTON	55	1	6.7	2.7	LACROSSE	30	-2	2.4	0.5
GOODLAND	41	4	0.3	-0.8	ND BISMARCK	25	-1	0.3	-0.4	MADISON	30	-1	1.7	-0.4
TOPEKA	44	3	3.1	0.9	FARGO	20	-4	1.5	0.7	MILWAUKEE	32	0	3.0	0.5
WICHITA	47	3	2.4	0.3	GRAND FORKS	17	-5	1.1	0.3	WAUSAU	24	-3	1.9	0.0
KY BOWLING GREEN	49	3	5.4	-0.2	WILLISTON	23	-3	0.5	0.0	WY CASPER	36	4	0.5	-0.5
JACKSON	50	9	6.7	2.1	OH AKRON-CANTON	39	3	3.9	0.5	CHEYENNE	38	5	0.5	-0.5
LEXINGTON	47	3	6.1	1.3	CINCINNATI	45	3	6.4	2.5	LANDER	39	7	0.4	-0.7
LOUISVILLE	48	3	5.5	0.8	CLEVELAND	38	1	3.5	0.5	SHERIDAN	29	-3	1.6	0.6
LA ALEXANDRIA	59	0	6.2	1.3	COLUMBUS	42	2	4.2	1.0	PR SAN JUAN	76	-1	3.4	1.2

Based on 1951-80 normals

## Heating Degree Days (Base 65°) For March 1989

States and Stations	TOTAL	Depart	States and Stations	TOTAL	Depart	States and Stations	TOTAL	Depart
AL. Birmingham . . .	297	-71	MD. Baltimore . . .	663	-10	OK. Okla. City . . .	441	-65
AL. Mobile . . .	170	-21	MA. Boston . . .	853	28	OR. Tulsa . . .	487	-13
AK. Montgomery . . .	217	-67	MI. Chatham . . .	865	-9	OR. Astoria . . .	612	-27
AK. Anchorage . . .	1276	-4	MI. Alpena . . .	1268	84	PA. Burns . . .	831	-53
AK. Barrow . . .	2280	-228	MI. Detroit . . .	916	-14	PA. Medford . . .	537	-68
AK. Fairbanks . . .	1804	52	MI. Flint . . .	993	-27	PA. Pendleton . . .	691	37
AK. Nome . . .	1601	-209	MI. Grand Rapids . . .	1023	34	PA. Portland . . .	594	2
AZ. Flagstaff . . .	710	-236	MI. Houghton Lake . . .	1234	68	PA. Salem . . .	570	-56
AZ. Phoenix . . .	46	-141	MI. Lansing . . .	999	7	PA. Allentown . . .	798	-24
AZ. Tucson . . .	82	-164	MI. Marquette . . .	1412	116	PA. Erie . . .	906	-71
AZ. Winslow . . .	408	-215	MI. S. Ste. Marie . . .	1409	135	PA. Harrisburg . . .	760	4
AZ. Yuma . . .	21	-83	MN. Duluth . . .	1424	119	PA. Philadelphia . . .	700	-19
AR. Fort Smith . . .	376	-85	MN. Internatl Falls . . .	1490	110	PA. Pittsburgh . . .	739	-83
AR. Little Rock . . .	401	-16	MN. Minneapolis . . .	1184	74	PA. Scranton . . .	853	-43
CA. Bakersfield . . .	162	-93	NY. Rochester . . .	1190	43	RI. Providence . . .	847	-9
CA. Eureka . . .	403	-115	NY. St. Cloud . . .	1276	58	SC. Charleston . . .	220	-66
CA. Fresno . . .	213	-123	MS. Jackson . . .	239	-64	SC. Columbia . . .	289	-57
CA. Los Angeles . . .	189	-51	MO. Meridian . . .	248	-64	SD. Greenville . . .	386	-56
CA. Redding . . .	397	64	MO. Columbia . . .	660	-62	SD. Aberdeen . . .	1298	142
CA. Stockton . . .	268	-82	MO. Kansas City . . .	658	-71	SD. Huron . . .	1182	78
CA. San Diego . . .	158	-35	MO. St. Louis . . .	625	-51	SD. Rapid City . . .	1047	43
CA. San Francisco . . .	308	-70	MO. Springfield . . .	601	-39	SD. Sioux Falls . . .	1083	10
CO. Denver . . .	665	-172	MT. Billings . . .	1085	118	TN. Chattanooga . . .	333	-145
CO. Pueblo . . .	573	-183	MT. Glasgow . . .	1299	96	TN. Knoxville . . .	360	-123
CO. Bridgeport . . .	804	-27	MT. Great Falls . . .	1109	67	TX. Memphis . . .	370	-63
CO. Hartford . . .	847	-27	MT. Havre . . .	1224	89	TX. Nashville . . .	397	-113
DC. Washington . . .	596	1	MT. Helena . . .	1157	122	TX. Abilene . . .	310	-11
FL. Apalachicola . . .	88	-80	NE. Kalispell . . .	1045	19	TX. Amarillo . . .	429	-148
FL. Jacksonville . . .	111	-5	NE. Miles City . . .	1180	135	TX. Austin . . .	198	-5
FL. Key West . . .	3	-36	NE. Missoula . . .	1000	42	TX. Beaumont . . .	216	49
FL. Miami . . .	18	4	NE. Grand Island . . .	864	-38	TX. Brownsville . . .	104	51
FL. Orlando . . .	59	-9	NE. Lincoln . . .	811	-76	TX. Corpus Christi . . .	141	44
FL. W. Palm Beach . . .	26	8	NE. Norfolk . . .	956	-21	TX. Del Rio . . .	162	17
FL. Tallahassee . . .	135	-56	NE. North Platte . . .	902	-37	TX. El Paso . . .	208	-110
FL. Tampa . . .	45	-42	NE. Omaha . . .	861	-63	TX. Fort Worth . . .	294	-19
GA. Atlanta . . .	284	-116	NE. Valentine . . .	1013	-16	TX. Galveston . . .	200	40
GA. Augusta . . .	258	-74	NV. Ely . . .	718	-262	TX. Houston . . .	210	35
GA. Macon . . .	229	-58	NV. Las Vegas . . .	118	-195	TX. Lubbock . . .	341	-129
GA. Savannah . . .	193	-50	NV. Reno . . .	568	-188	TX. Midland . . .	279	-50
ID. Boise . . .	656	-76	NY. Winnemucca . . .	648	-167	TX. San Angelo . . .	264	-10
ID. Lewiston . . .	572	-113	NH. Concord . . .	1022	2	TX. San Antonio . . .	187	9
ID. Pocatello . . .	820	-95	NJ. Atlantic City . . .	751	7	TX. Victoria . . .	172	32
IL. Chicago . . .	882	-17	NM. Albuquerque . . .	373	-210	TX. Waco . . .	255	-2
IL. Moline . . .	863	-45	NY. Albany . . .	968	-5	TX. Wichita Falls . . .	391	3
IL. Peoria . . .	796	-63	NY. Binghamton . . .	1019	-23	UT. Milford . . .	601	-230
IL. Rockford . . .	954	-13	NY. Buffalo . . .	985	-7	UT. Salt Lake City . . .	587	-166
IL. Springfield . . .	749	-38	NY. New York . . .	719	-25	VT. Burlington . . .	1128	18
IL. Fort Wayne . . .	823	-57	NY. Rochester . . .	1009	26	VA. Lynchburg . . .	556	-42
IL. Indianapolis . . .	693	-82	NY. Syracuse . . .	989	6	VA. Norfolk . . .	486	-26
IL. South Bend . . .	865	-34	NC. Asheville . . .	454	-123	VA. Richmond . . .	546	-6
IA. Des Moines . . .	866	-61	NC. Charlotte . . .	378	-81	VA. Roanoke . . .	555	-31
IA. Dubuque . . .	1010	-13	NC. Greensboro . . .	492	-41	WA. Quillayute . . .	709	2
IA. Souix City . . .	956	-11	NC. Hatteras . . .	325	-112	WA. Seattle-Tacoma . . .	654	9
KS. Concordia . . .	676	-102	NC. Raleigh . . .	459	-37	WA. Spokane . . .	873	24
KS. Dodge City . . .	616	-94	NC. Wilmington . . .	312	-38	WA. Walla Walla . . .	724	129
KS. Goodland . . .	745	-117	ND. Bismark . . .	1239	30	WA. Yakima . . .	767	51
KS. Topeka . . .	641	-78	ND. Fargo . . .	1386	115	WV Beckley . . .	597	-147
KS. Wichita . . .	556	-100	ND. Williston . . .	1292	61	WV Charleston . . .	536	-90
KY. Lexington . . .	548	-113	OH. Akron-Canton . . .	784	-93	WV Huntington . . .	548	-69
KY. Louisville . . .	513	-111	OH. Cincinnati . . .	608	-111	WI. Green Bay . . .	1228	100
LA. Baton Rouge . . .	170	-17	OH. Cleveland . . .	831	-49	WI. Madison . . .	1076	28
LA. Lake Charles . . .	198	14	OH. Columbus . . .	711	-64	WI. Milwaukee . . .	1006	-14
LA. New Orleans . . .	155	-16	OH. Dayton . . .	700	-91	WY Casper . . .	905	-121
LA. Shreveport . . .	295	13	OH. Toledo . . .	869	-49	WY Cheyenne . . .	851	-169
ME. Caribou . . .	1402	140	OH. Youngstown . . .	837	-84	WY Lander . . .	797	-223
ME. Portland . . .	1028	8				WY Sheridan . . .	1094	68

## National Agricultural Summary

April 3-9, 1989

**HIGHLIGHTS:** Precipitation slowed fieldwork in the Corn Belt, Delta, and Southeast. Soil moisture was mostly surplus to adequate in the Delta and Southeast and mostly adequate in the Corn Belt. Soil moisture was mostly short to adequate in the Great Plains and mostly adequate in the Pacific Northwest. Days suitable for fieldwork averaged 2-3 in the Delta, Southeast, and Corn Belt and 4-5 in the Great Plains and the West.

Winter wheat was mostly fair. Winter wheat condition deteriorated in the central Great Plains and Pacific Northwest as fields broke dormancy. Cotton planting was 10 percent (%) complete, 2 percentage points behind the 5-year average. Rain continued to slow corn planting in the Delta and Southeast. Planting was 23 points behind normal in North Carolina. Rain benefited Florida citrus and vegetables in some producing areas. Peaches were mostly good in the Southeast. Above-normal temperatures accelerated vegetable planting and harvest in California.

**SMALL GRAINS:** Winter wheat was mostly fair. Winter wheat condition declined in the central Great Plains and Pacific Northwest as fields broke dormancy. In Kansas, winter wheat condition deteriorated and was mostly very poor to poor. As fields broke dormancy, winterkill continued to become more evident. Insect and disease problems, however, were below normal. In Oklahoma, winter wheat was mostly good to fair. Lack of moisture stressed fields in the northwest. In Texas, winter wheat was mostly fair to poor. Lack of moisture continued to stress fields in the Plains area. Nebraska's winter wheat was mostly fair. As fields broke dormancy, winterkill became more evident. Winter wheat was mostly good to fair in Idaho and South Dakota and mostly fair to good in Colorado, Montana, and Wyoming. In Oregon, winter wheat was mostly fair to good. Some reseeding occurred in the Columbia Basin. Winter wheat was mostly poor in Washington. Winterkill has been more widespread than anticipated in several counties. In California, winter wheat was mostly good to excellent. Winter wheat was mostly good in the Corn Belt. In the Delta and Southeast, winter wheat was mostly good to fair. Powdery mildew, rust, and septoria were problems in some areas.

Spring wheat planting was 1% complete, 3 points behind the average. In Idaho, planting was 23 points behind the 27% average. Spring small grain planting was active in the northern Great Plains and Corn Belt as weather permitted. Small grain planting lagged behind normal in the Pacific Northwest.

**OTHER FIELD CROPS:** Cotton planting was 10% complete, 2 points behind normal. Warm temperatures favored cotton planting in California. Planting lagged 14 points behind normal. In Arizona, planting was 65% complete, 5 points ahead of normal. In Texas, cotton planting was active in the Trans-Pecos area, but the lack of moisture slowed planting in the Rio Grande Valley and

Coastal Bend areas. Planting was 11% complete, slightly ahead of normal. Preplant herbicides were applied in Oklahoma.

Rain continued to slow corn planting in the Delta and Southeast. In North Carolina, planting lagged 23 points behind the 27% average. Planting was 13 points behind the 39% average in Mississippi. Planting progress was near normal in Georgia and Texas. Planting was 71% complete in Georgia and 63% complete in Texas.

Sorghum planting was 47% complete, 3 points behind normal in Texas. Planting was beginning in portions of the Delta. Land preparation continued in Oklahoma. Rice planting was 14% complete, 6 points ahead of last year but equal to the normal. Planting was ahead of normal in Louisiana and Texas and just beginning in Mississippi. Tobacco was in mostly good to fair condition. Tobacco transplanting was 75% complete, 12 points ahead of normal in Georgia. Peanut planting was just beginning in Alabama and Georgia.

**FRUIT AND NUTS:** Rain benefited some citrus areas in Florida, but irrigation was still active. Blooming was nearly complete. Valencia orange harvest increased. Grapefruit harvest was active. Tangerine harvest was nearly complete. Georgia peaches were mostly good, with bloom virtually complete. Peaches were mostly good to fair in North Carolina. Citrus harvest slowed seasonally in the San Antonio-Winter Garden areas of Texas. Peaches were good in the Hill Country. In the east, condition varied, depending on the amount of earlier freeze damage. Pecan trees were budding in many areas. A few grapefruit and valencia oranges were harvested in western Arizona. Citrus harvest was active in California. Grapes and kiwifruit leafed out.

**VEGETABLES:** Scattered showers benefited most vegetable producing areas in Florida, but irrigation was active. Winter crop harvests continued. Rain continued to slow Irish potato planting in North Carolina. Planting was 40% complete, 55 points behind normal. Vegetable planting lagged behind normal in South Carolina. Cabbage, carrot, and onion harvests continued in the Rio Grande Valley of Texas. Earlier heavy rains forced some replanting of tomatoes in east Texas. Spring vegetable crop plantings continued in the Trans-Pecos and High Plains areas. Harvest and shipment of vegetables continued on a limited scale in western Arizona. In the central area, mixed vegetable harvest continued. Above-normal temperatures accelerated vegetable plantings and harvests in California. In some areas, crops were showing signs of heat burn damage. Primary crops harvested were artichokes, asparagus, and broccoli. Spring potato planting was virtually complete in the southern areas. Vegetable planting lagged behind normal in Idaho and Oregon.

**PASTURES AND LIVESTOCK:** Livestock was in mostly good condition. Pastures were mostly good to fair.

CROP PROGRESS

FOR WEEK ENDING APRIL 9, 1989

	CORN % PLANTED		
	1989	1988	AVG.
COLO	0	NA	NA
GA	71	74	74
ILL	0	NA	NA
IND	0	0	0
IOWA	0	0	0
KANS	0	2	1
KY	1	6	6
MICH	0	0	0
MINN	0	0	0
MO	1	4	4
NEBR	0	1	0
N C	4	24	27
OHIO	0	0	0
PA	0	0	0
S DAK	0	0	NA
TEX	63	64	61
WIS	0	0	0

17 STATES 2 NA NA

EXCL. STATES WITH NA 3 4 4

THESE 17 STATES PRODUCED 94% OF THE 1988 CORN CROP.

NA - NOT AVAILABLE.

	COTTON % PLANTED		
	1989	1988	AVG.
ALA	1	9	7
ARIZ	65	55	60
ARK	0	0	0
CALIF	25	40	39
GA	0	3	3
LA	0	0	2
MISS	0	0	0
MO	0	0	0
N MEX	10	2	1
N C	0	0	0
OKLA	0	0	0
S C	0	2	4
TENN	0	0	0
TEX	11	11	10

14 STATES 10 12 12

THESE 14 STATES PRODUCED 100% OF THE 1988 COTTON CROP.

	GRAIN SORGHUM % PLANTED		
	1989	1988	AVG.
ARK	0	0	6
ILL	0	NA	NA
KANS	0	0	0
LA	8	2	11
MISS	1	2	0
MO	0	0	0
NEBR	0	0	0
OKLA	0	0	1
S DAK	0	0	NA
TENN	0	0	0
TEX	47	52	50

11 STATES 11 NA NA

EXCL. STATES WITH NA 12 13 13

THESE 11 STATES PRODUCED 96% OF THE 1988 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

	RICE % PLANTED		
	1989	1988	AVG.
ARK	0	0	3
CALIF	0	0	0
LA	36	15	31
MISS	1	3	8
TEX	51	39	46

5 STATES 14 8 14

THESE 5 STATES PRODUCED 97% OF THE 1988 RICE CROP.

	WINTER WHEAT % HEADED		
	1989	1988	AVG.
ARK	1	0	NA
CALIF	35	40	49
COLO	0	NA	NA
GA	60	17	33
IDAHO	0	0	0
ILL	0	NA	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	0
N C	2	0	NA
OHIO	0	0	0
OKLA	0	0	3
OREG	0	0	0
S DAK	0	NA	NA
TEX	3	6	12
WASH	0	0	0

20 STATES 2 NA NA

EXCL. STATES WITH NA 2 2 4

THESE 20 STATES PRODUCED 90% OF THE 1988 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

	SPRING WHEAT % PLANTED		
	1989	1988	AVG.
IDAHO	4	32	27
MINN	0	8	4
MONT	0	8	3
N DAK	0	3	1
S DAK	3	28	7

5 STATES 1 9 4

THESE 5 STATES PRODUCED 87% OF THE 1988 SPRING WHEAT CROP.

CROP CONDITION PERCENT FOR WEEK ENDING APRIL 9, 1989

STATE	WINTER WHEAT				
	VP	P	F	G	EX
ARK	0	0	47	45	8
CALIF	0	0	5	75	20
COLO	6	17	47	26	4
GA	4	18	52	26	0
IDAHO	3	10	29	43	15
ILL	0	0	14	76	10
IND	0	4	49	43	4
KANS	41	33	18	6	2
MO	0	7	40	49	4
MONT	3	9	44	41	3
NEB	0	19	54	27	0
N MEX	25	60	10	5	0
N C	0	4	19	68	9
OKLA	10	5	25	60	0
OREG	0	0	55	45	0
S DAK	0	0	45	53	2
TEX	7	32	46	14	1
WASH	20	41	32	7	0

18 STATE 14 19 34 31 2

PREV YEAR 0 8 30 49 13

THESE 18 STATES PRODUCED 86% OF THE 1988 WINTER WHEAT CROP.

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

## State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service.

**ALABAMA:** Rainfall mostly over 2.00 in.; 3.00 to 4.00 in. common. Temperatures 6° below normal.

Days suitable for fieldwork 2.0. Soil moisture 25% adequate, 75% surplus. Fieldwork progress 71% behind schedule, 27% on schedule, 2% ahead of schedule. Spring planting 47% prepared, 67% 1988, 65% avg. Corn 50% planted, 67% 1988, 56% avg. Sorghum 5% planted, 7% 1988, 4% avg. Cotton 1% planted, 9% 1988, 7% avg. Peanuts 5% planted, 6% 1988, 2% avg. Winter wheat 38% headed, 32% 1988, 24% avg.; 4% turning color, 7% 1988; 2% very poor, 5% poor, 40% fair, 51% good, 2% excellent. Livestock, pastures mostly good to fair. Pasture feed 11% short, 84% adequate, 5% surplus. Primary activities: Preparing land for spring planting; planting corn, sorghum, peanuts, vegetables, Irish potatoes; spraying fruit trees; repairing machinery, equipment; applying fungicides to winter wheat; general care of livestock, poultry.

**ARIZONA:** Warm air, sunny skies, 3rd to 8th. Record breaking temperatures statewide, 7th to 8th. Temperature 40 to 50°. No rain statewide. Temperatures 9 to 17° above normal.

Cotton planting active; 65% planted, 55% 1988, 60% avg. Wheat, barley progressed well statewide; 100% jointing stage, 75% heading. Last year's respective progress 96%, 45%. Irrigation continued as needed. Corn, sorghum progressed well, west. Alfalfa good. Second cuttings alfalfa underway, northwest. First cuttings nearly complete, central. Harvest, shipping broccoli, cauliflower, cabbage, boston, head, leaf, romaine lettuce continued small scale, west. Asparagus, artichoke harvest progressed well. Mixed vegetables including broccoli, cauliflower, greens, leaf lettuce, cabbage, bok choy, rapini, green onions, parsley, beets, turnips, spinach, leeks, carrots harvested, central. Spring lettuce harvest continued. Few grapefruit, valencia oranges harvested, west.

**ARKANSAS:** Temperatures near to slightly below normal. Temperature extremes 30°; 89°. Scattered showers early week. Rainfall none to 2.41 in.

Days suitable for fieldwork 4.0. Soil moisture supplies 39% adequate, 61% surplus. Main farming activities: Preparing land for planting; fertilizing wheat, pastures, hay; applying fungicides to wheat; planting corn, vegetables; controlling weeds; vaccinating, worming cattle. Corn 2% very poor, 11% poor, 28% fair, 59% good. Very little planting took place, ground too wet. Downy mildew, bacterial streak, septoria leaf blotch in wheat. Weevils in alfalfa hay. Peaches, other fruits good. Livestock good, still being fed some hay.

**CALIFORNIA:** Rain north half State first two days of week, strong high pressure built over west coast. Mid-week temperatures above normal, high temperatures set in southern region, San Francisco Bay area, Central Valley. Warm, open weather, rapid progress field activities. Small grains good growth, fields heading. Dryland fields, Riverside County maturing under moisture stress. Green-chopping grains active. Cotton seeding increased, soils warmed. Field corn planting active. Harvest overwintered sugarbeets active. Spring seeded good progress. Rice seeding preparations active. Alfalfa harvest active south. Some weevil controls. Chopping, discing, weed control, irrigation active. Nectarines treated for thrips.

Grapes, kiwifruit leafed out. Prunes bloomed. Citrus harvest active. New crop citrus bloomed. Vegetable activity full swing due to above normal temperatures. Some areas, crops showing evidence heat burn, other crops required additional irrigation. Broccoli Salinas-Watsonville heavy supply, variable quality. Supplies Santa Maria light, variable quality. Fields San Joaquin Valley showing good growth, nearing harvest. Spring potato planting virtually complete southern areas, fields Kern-Tulare excellent. Cauliflower Salinas-Watsonville, Santa Maria areas light, variable quality. Artichokes remained fairly heavy, good quality. Asparagus harvest continued Delta, north counties. Melons desert area full bloom. Strawberries light, Santa Maria. Crop quality variable due temperature extremes. Sugar peas, greenhouse cucumbers, tomatoes continued harvested Kingsburg-Dinuba area. Livestock good, statewide. Range, pasture grasses grew rapidly due to warm weather. Water supplies adequate most areas, short few Sacramento Valley, foothill areas due to lack of run-off. Livestock movement pasture light, some northern areas; active central valley. Poultrymen southern area busy keeping production houses cool in abnormally hot weather.

**COLORADO:** Unsettled weather conditions, high winds, little moisture dominated. Temperature 1 to 2° above normal. Precipitation confined to mountains except for weekend snow storm along front range, east which brought 0.25 in. to 0.75 in. moisture.

Days suitable for fieldwork 5.8. Soil moisture 22% very short, 51% short, 25% adequate, 2% surplus. Winter wheat 6% very poor, 17% poor, 47% fair, 26% good, 4% excellent. Barley 41% seeded, 13% emerged. Oats 29% seeded, 10% emerged. Dry onions 44% planted, sugarbeets 41% planted. Spring wheat 18% seeded, 3% emerged. Livestock, range fair to good. Cows calves 71%, ewes lambed 81%. Death losses average. Stored feed adequate.

**FLORIDA:** Temperatures 2° below normal extreme north to 2° above normal extreme south. Rains 1.00 to 2.00 in. common, Panhandle; only isolated totals 0.50 to 1.00 in. elsewhere. Several Peninsula areas less than 0.25 in.

Soil moisture Panhandle mostly adequate; Peninsula mostly short. Early corn planting about completed. Tobacco transplanting completed most areas; good growth. Farmers worked ground for soybeans, cotton. Rains, Panhandle, scattered showers elsewhere benefited forage growth, but most permanent pastures continued short. Cooler temperatures slowed growth. Many Peninsula areas need additional moisture to stimulate growth. Conditions varied widely poor to good, with some improvement upper Peninsula. Cattle continued generally good western Panhandle; mostly fair to good elsewhere. Some rain citrus areas, very beneficial; irrigation continued. Bloom almost complete, new crop fruit setting. Valencia harvest increased. White, colored grapefruit picking remained very active. Temple, honey tangerine harvest almost over. Caretakers active with spring grove care. Mild early, cool late week, vegetable producing areas. Scattered showers most areas. Irrigation continued active. Spring planting nearly complete. Harvest active. Volume leaders: Tomatoes, potatoes, peppers, cabbage, cucumbers, celery. Also available good volume: Squash, lettuce, radishes, sweet corn, snap beans, carrots, strawberries, escarole, endive, eggplant. Planting Everglades celery complete.

**GEORGIA:** Very wet for half of State; 3.00 in. common north, 2.00 in. central, 1.00 in. or less south. Rain 5 days. Temperatures 5° below normal. Readings above normal coast, extreme southeast. Extremes 30° Blairsville. 88° Jesup.

Days suitable for fieldwork 4.2. Soil moisture 1% very short, 22% short, 56% adequate, 21% surplus. Corn 1% poor, 24% fair, 72% good, 3% excellent planting active south, halted north. Peanut planting just beginning. Tobacco 43% fair, 54% good, 3% excellent; 75% transplanted, 59% 1988, 63% avg. Some blowing sand, wind damage. Watermelons fair to good; 72% planted, 81% avg.; germination slowed by cool temperatures. Diseases in wheat still prevalent, but spraying active where weather permitted. Rye, other small grains fair to good. Apple blooming ahead of average. Peach blooming virtually complete, condition improved. Cattle, hogs mostly good.

**HAWAII:** Unfavorable weather. Wet, cold, heavy showers, gusty winds. Crops fair to poor. Temperatures low 60s to mid 80s. Daily rainfall 0.25 to 3.04 in. Winds gusty 35 mph.

Days suitable for fieldwork 7.0. Weather disrupted planting, harvesting, field activities. Head cabbage output mostly steady, fair quality. Chinese cabbage production moderate. Tomato harvesting hampered by wet. Papaya production steady. Banana production seasonally low. Wet weather delayed watermelon planting, harvesting operations.

**IDAHO:** Temperatures near, above normal. Precipitation above normal with few stations south central Panhandle, southwest, east below normal.

Days suitable for fieldwork 4.0. Soil moisture 10% short, 60% adequate, 30% surplus. Spring wheat 4% planted, 32% 1988, 27% ave. Spring barley 3% planted, 23% 1988, 19% avg. Sugarbeets 5% planted, 45% 1988, 37% avg. Onions 5% planted, 85% 1988, 69% avg. Potato planting underway. Winter wheat fair, good; some winterkill, some stands may need thickening. Apricots in bloom stage; cold winter caused fruit tree damage. Other crop activities included plowing, fertilizing, preparing seedbeds, sorting, shipping seed potatoes. Calving, lambing wrapping up. Some livestock moved to summer ranges. Livestock good. Hay, roughage 11% very short, 20% short, 69% adequate.

**ILLINOIS:** Lows around 30s north to upper 30s south. High temperatures upper 40s, low 50s north to mid and upper 50s south. Precipitation 0.75 to 1.50 in. south to 0.10 to 0.50 in. far north. Cold temperatures weekend produced some snow.

Days suitable for fieldwork 1.3. Soil moisture 35% short, 33% adequate, 32% surplus. Oats 29% planted, 33% 1988, 43% avg. Alfalfa 38% fair, 60% good, 2% excellent. Pasture 3% poor, 43% fair, 51% good, 3% excellent; livestock roughage requirements 20%, 23% 1988, 23% avg.

**INDIANA:** Temperatures 4 to 7° below normal. Lows 30s to upper 30s, highs upper 40s to 60s. Precipitation 0.25 in. north to 2.00 in. south.

Days suitable for fieldwork 0.6. Topsoil moisture 35% adequate, 65% surplus. Subsoil moisture 10% short, 70% adequate, 20% surplus. Spring cropland 64% tilled, 73% 1988, 61% avg. Wheat 5 in. high, 5 in. 1988, 5 in. avg.; 6% jointed, 6% 1988, 5% avg. Oats 19% seeded, 30% 1988, 47% avg. Clover 50% seeded, 60% 1988, 61% avg. Pastures 2% very poor, 13% poor, 38% fair, 38% good, 3% excellent. Hay, roughage 1% surplus, 61% adequate, 32% short, 6% very short. Rain, wet soils halted field activities.

**IOWA:** Temperatures 2 to 6° below normal. Extremes

15°; 65°. Precipitation near to below normal; totals 0.04 to 1.03 in., average 0.33 in.

Days suitable for fieldwork 4.8. Topsoil moisture 77% short, 23% adequate; subsoil moisture 94% short, 6% adequate. Winter wheat 15% poor, 45% fair, 40% good. Pasture 10% very poor, 37% poor, 45% fair, 8% good. Oats 38% sown, 48% 1988, 35% avg. Seedbed preparation 56%. Fertilizer application 50%. Livestock mostly good. Calving full swing. Good weight gains.

**KANSAS:** Temperatures avg. 40° northwest to 50° central, south central, southeast. Rainfall just over 0.50 in. northeast, east, 0.25 in. central, 0.10 in. southeast. Elsewhere only trace amounts.

Days suitable for fieldwork 5.0. Topsoil moisture 66% short, 29% adequate, 5% surplus. Subsoil moisture 82% short, 18% adequate. Wheat crop continued to deteriorate, rated 41% very poor, 33% poor, and 18% fair, 6% good, 2% excellent. Wheat stands slowly greening-up making winterkill more evident. Insect, disease problems continue below normal. Farmers pre-watering, prepared, corn, milo planting. Oats, barley planted, some emergence. Few fields corn planted southeast, south central, central counties. Calving winding down. Warm weather, livestock making good gains in feedlots.

**KENTUCKY:** Temperatures 4 to 6° below normal; above normal first of week; highs 40s, 50s; lows 30s rest of week. Rainfall everyday except Sunday 1.50 to 3.50 in.

Days suitable for fieldwork 1.0. Fieldwork 5 days behind normal. Soil moisture 24% adequate, 76% surplus. Tobacco beds 86% seeded, 90% 1988, 85% avg.; plants up 34% seeded beds, 35% 1988, 27% avg.; 2% poor, 34% fair, 58% good, 6% excellent. Little corn planted. Wheat 1% poor, 24% fair, 62% good, 13% excellent. Farmers concerned alfalfa weevil populations but too wet to spray.

**LOUISIANA:** Temperatures 1 to 2° above normal. Extremes 37°; 88°. Rainfall 0.02 to 3.85 in.

Days suitable for fieldwork 4.3. Soil moisture supplies 78% adequate, 22% surplus. Spring plowing 57%, 39% 1988, 55% avg. Corn 55% planted, 30% 1988, 59% avg.; 40% emerged, 18% 1988, 44% avg. Rice 36% planted, 15% 1988, 31% avg.; 26% emerged, 7% 1988, 19% avg. Sorghum 8% planted, 2% 1988, 11% avg. Cotton none planted, none 1988, 2% avg. Wheat 61% headed, 43% 1988, 46% avg. Continued spraying for septoria blight, rust. Wheat, sugarcane, pastures, livestock, vegetables good to fair.

**MARYLAND & DELAWARE:** **MARYLAND:** Precipitation 1.07 in. Temperature 52°, normal 50°. Temperature extremes 18°; 81°.

Days suitable for fieldwork 2.1. Topsoil moisture surplus, subsoil moisture adequate. Acreage prepared for planting 23%. Wheat, oats, barley, rye good. Peaches 32% bloom, sweet corn 4%, 5% 1988. Spring oats 40%, 40% 1988.

**DELAWARE:** Precipitation 1.49 in. Temperature 54°, normal 50°. Temperature extremes 29°; 78°.

Days suitable for fieldwork 1.0. Topsoil surplus, subsoil adequate to surplus. Acreage prepared for planting 6%. Wheat, oats, barley, rye fair to good. Peaches bloom 92%, 88% 1988. Potatoes planting 30%, 60% 1988.

**MICHIGAN:** Temperatures 2° below to 3° above normal. Temperature extremes 5°; 64°. Precipitation 0.12 to 1.87 in.

Farm activity slowed by late week rain, freezing rain, snow. Activities: Fields too muddy for fieldwork down State. Upstate frost still in ground. Wheat beginning to green up. Livestock

good. Feed mostly adequate. Calving, lambing nearly finished.

**MINNESOTA:** Temperatures 2 to 6° below normal. Extremes 1°; 62°. Precipitation 0.34 in. above normal to 0.34 in. below normal. Precipitation 0.15 to 0.77 in. Greatest weekly total 1.03 in. Snowfall 1 to 4 in. north, trace elsewhere. Snow depth 4 to 8 in. north, trace elsewhere.

Cold temperatures continued to halt fieldwork. Farmers eagerly anticipating spring fieldwork, good crop year.

**MISSISSIPPI:** Cool, wet. Temperatures 60°; 1° below normal. Rainfall 1.71 in.; 0.36 in. above normal. Greatest 1 day rainfall 3.87 in.

Days suitable for fieldwork 1.8, 2.1 1988, 4.0 avg. Soil moisture 35% adequate, 40% surplus, 25% excessive. Wheat 88% jointing, 81% 1988, 84% avg.; 19% heading, 6% 1988, 12% avg.; 10% poor, 45% fair, 45% good. Sprayed for rust, septoria, mildew. Corn 26% planted, 30% 1988, 39% avg.; 15% emerged, 16% 1988, 22% avg. Rice 1% planted, 3% 1988, 8% avg. Sorghum 1% planted, 2% 1988. Watermelons 24% planted, 24% 1988, 28% avg. Pastures, livestock good. Too wet, cool to plant. Activities: Livestock chores, shopwork, paperwork.

**MISSOURI:** Temperatures near normal southeast, 3 to 6° below normal elsewhere. Precipitation very minor southwest, extreme north, 0.50 to over 2.00 in. other areas, heaviest southeast.

Days suitable for fieldwork 1.5. Topsoil moisture 29% short, 43% adequate, 28% surplus, shortage confined to northern area, surplus worst southeast, east central areas. Subsoil moisture 57% short, 31% adequate, 12% surplus. Oat 66% seeding, 70% 1988, 55% avg. Fieldwork delayed by rain, particularly Bootheel. Pasture 6% very poor, 13% poor, 41% fair, 37% good, 3% excellent. Livestock water still critically short extreme north.

**MONTANA:** Temperatures near normal southeast, above normal elsewhere. Most of State moisture 0.10 to 0.50 in.

Topsoil moisture 6% short, 83% adequate, 11% surplus. Subsoil moisture 53% short, 45% adequate, 2% surplus. Winter wheat 54% still dormant, 41% greening, 5% green and growing. Wind damage to winter wheat to date 24% none, 50% light, 23% moderate, 3% heavy. Winter freeze damage to winter wheat 30% none, 50% light, 18% moderate, 2% heavy. Field tillage work progress 86% none, 13% just started, 1% well underway. Cattle, calves 3% poor, 24% fair, 61% good, 12% excellent. Sheep, lambs 1% poor, 19% fair, 64% good, 16% excellent. Calving 69%, 75% 1988, 67% avg. Lambing 57%, 68% 1988, 58% avg.

**NEBRASKA:** Cool; widespread light rain, 0.10 to 0.20 in. Temperatures 2 to 3° below normal. Extremes: 15°; 80°.

Days suitable for fieldwork 6.0. Topsoil moisture 67% short, 33% adequate. Subsoil moisture 72% short, 28% adequate. Winter wheat 19% poor, 54% fair, 27% good. More evidence of winterkill, also crown rot statewide, limited populations of army cutworms Panhandle. Oats 45% planted, 50% 1988, 41% avg. Corn, sugarbeets, barley, alfalfa planting underway. Pasture, range feed short to adequate. Main activities: Preparing row crop seedbeds, applying fertilizer, machinery repair, calving livestock care.

**NEVADA:** Mostly dry with record or near record high temperatures. Rain early in mountains, no precipitation elsewhere. Temperatures 7 to 13° above normal. Record daily high temperatures set nearly all areas. Temperature extremes 21°; 106°.

Excellent progress fieldwork all areas. Alfalfa forage harvesting started extreme south. Cattle, sheep starting to drift summer ranges. Ranges mostly good to date.

**NEW ENGLAND:** Precipitation (rainfall, water equivalent of snow) 1.40 to 2.00 in. north, less than 1.40 in. south. Temperatures upper 40s south, northern coast to upper 30s, lower 40s interior north. Temperatures 5° above normal.

Major farm activities: Tending livestock, maple sugaring winding down, moving crops from storage.

**NEW JERSEY:** Temperatures near normal. Extremes 26°; 78°. Rainfall 1.08 in. north, 1.39 in. central, 1.99 in. south. Heaviest 24-hour total 1.30 in. on 7th, 8th. Estimated soil moisture percent field capacity 100% north, 99% central, south. Four inch soil temperatures 44° north, 48° central, 49° south.

Excess soil moisture delayed soil preparation, planting of spring crops. Very limited volumes of early spring greens, wintered-over spinach moved to market. Peach bloom progressed. Pastures limited growth, warmer temperatures needed.

**NEW MEXICO:** Primarily dry throughout week; temperatures 6 to 10° above normal.

Days suitable for fieldwork 6.8. Soil moisture 87% short, 13% adequate. Wheat 25% very poor, 60% poor, 10% fair, 5% good. Cotton 10% planted, 2% 1988. Cattle 7% poor, 57% fair, 36% good. Sheep 62% fair, 38% good. Ranges 29% poor, 64% fair, 7% good.

**NEW YORK:** Much needed rain. Most places 0.75 to 2.75 in. Rain heaviest Hudson, Champlain Valleys, Long Island. Totals 0.67 Massena to 1.74 Poughkeepsie; 2.09 Bridgehampton. Slow moving frontal system reached western areas 4th, didn't move out till 6th. Passage of system changed weather mild to cold. Temperatures near normal western areas where change came first. Eastern areas where mild weather hung on longer readings 3 to 5° above normal. On 7th coastal storm brushed extreme southeastern areas, Long Island; with rain, few thunderstorms.

Wet conditions continued to keep farmers out of fields. Maple syrup season neared completion. Producers tending livestock, preparing for upcoming season.

**NORTH CAROLINA:** Temperatures 2° below normal across State. Temperature extremes 22°; 83°. Precipitation 0.57 in. to 3.65 in.

Days suitable for fieldwork 2.4. Soil moisture 47% adequate, 53% surplus. Pasture 7% poor, 9% fair, 75% good, 9% excellent. Oat 4% poor, 19% fair, 69% good, 8% excellent. Barley 2% poor, 17% fair, 72% good, 9% excellent. Rye 4% poor, 13% fair, 73% good, 10% excellent. Wheat 4% poor, 19% fair, 78% good, 9% excellent. Tobacco plant beds 2% very poor, 2% poor, 43% fair, 51% good, 2% excellent. Supplies 12% short, 86% adequate, 2% surplus. Feed grains 2% very short, 9% short, 87% adequate, 2% surplus. Hay, roughage 7% short, 91% adequate, 2% surplus. Irish potatoes 40% planted, 100% 1988, 95% avg.; condition 5% poor, 40% fair, 55% good. Peach 4% very poor, 31% fair, 65% good. Truck crops 4% poor, 26% fair, 70% good. Major activities: General maintenance; tobacco plant bed maintenance, tending livestock; land preparation; topdress small grains. Other activities: Spraying for alfalfa weevil; pruning fruit trees; fertilizing pasture; planting corn, potatoes, cabbage; transplanting tobacco.

**NORTH DAKOTA:** Moist weather brought above normal precipitation statewide; 0.15 in. north central, 0.83 in. southeast. Temperatures near normal; 4°

below normal northeast, 2° above normal northwest, southwest, south central. Extremes: none northeast 8th; 59° west central 2nd.

Topsoil moisture remained relatively stable, while subsoil moisture improved. Topsoil 17% very short, 33% short, 50% adequate, none surplus, areas southwest.

**OHIO:** Temperatures above normal early period, below normal weekend; 3 to 6° subnormal. Lows 30s; highs upper 40s to mid 50s. Extremes teens; 60s. Precipitation above normal 0.75 to 1.50 in. Some snow, sleet.

Soil moisture adequate to surplus. Very little fieldwork accomplished because of periodic rain, wet soils. Peaches first pink or earlier, apples silver to green tip or earlier; temperatures not low enough to cause significant damage at these stages of development.

**OKLAHOMA:** Temperatures 2° below normal northeast to normal southeast. Precipitation none northeast, west central, southwest, south central, southeast to 0.21 in. Panhandle.

Days suitable for fieldwork 5.6. Topsoil moisture 13% short, 80% adequate, 7% surplus. Subsoil moisture 20% short, 80% adequate. Wheat 10% very poor, 5% poor, 25% fair, 60% good; 55% jointing 45% 1988, 60% avg.; none heading, none 1988, 3% avg. Condition suffered dry areas northwest. Some irrigated wheat plowed under due to recent freeze. Low nitrogen availability, thin stands southwest. Sorghum none planted, none 1988, 1% avg. Cotton none planted, none 1988, none avg. Preplant herbicides applied to cotton fields. Pastures fair, livestock good. Cattle marketings average, prices lower than last week.

**OREGON:** Week started cool, wet, beginning 5th turned dry, warmed, well above normal. Numerous daily maximum temperatures set or tied later in week. Fairly substantial precipitation fell early in week over State, but southeast. Trace amounts snow in central areas on 2nd.

Soil moisture 18% short, 39% adequate, 43% surplus. Barley 65% seeded, 81% 1988, 81% avg. Crop development, field activity slowed by wet, cool statewide. Winter wheat plants smaller than normal Columbia Basin; some reseeded due to winter kill; some aerial spraying, fertilizing. Russian wheat aphid mostly disappeared from wheat fields, growers fear infestations from CRP ground. Necessary fertilizing, spraying delayed Willamette Valley, applications started; septoria in fields too early to spray. Some spring grain seeding underway around State where conditions allow fieldwork. Grass seed fields mostly good west; hay shows spotty spring growth. Alfalfa 4 to 6 in. tall Hermiston-Boardman. Some dormant alfalfa herbicides applied southeast. Mint roots planted central area. Sugarbeet planting about 20% completed Malheur County, behind due to extra rains. Orchardists applied delayed dormant sprays to apples, cherries Milton-Freewater; Bing cherry bloom began 6th, 7th; pruning continued; new orchards planted. Pear bud development rapid with warmer temperatures Medford, no frost protection required this spring. Growers having difficulty finishing delayed dormant spraying Hood River, The Dalles; about finished pruning, fertilizing; some tree planting underway. Blossoming cherries delayed about 2 weeks The Dalles. Pear bloom 10 days to 2 weeks late Hood River. Dormant spraying slowed Willamette Valley, early bloom on peaches, cherry bloom about 1 week away. Caneberry pruning, tying finished west; herbicides applied. Hazelnuts showed green tips. Cranberries lost dormant color rapidly with warmer weather south coast, early varieties showing shoot growth. Onions planted, nearing emergence Hermiston-

Boardman. Onions only about 20% planted Malheur County due to extra rains. Just started spring onion planting Milton-Freewater. Early potato planting underway around Hermiston. Some broccoli sown Willamette Valley; green pea seeding schedules delayed 2-3 weeks. Green pea seeding finally underway Milton-Freewater, also planting asparagus. Garlic winter injury significant in central areas. Seed potato movement brisk out of Wallowa, Crook Counties. Livestock mostly good. Range, pasture improving warm weather west, mostly good. Eastern ranges mostly good, starting to green up high elevations.

**PENNSYLVANIA:** Rain every day somewhere in State. Mild temperatures start of week, cool weekend. Temperature 45°, 2° above normal. Temperature extremes 21°; 76°. Precipitation 0.67 in., 0.14 in. below normal.

Plowing 7%, 15% 1988, 5% avg. Corn none planted, none 1988, none avg. Oats 9% planted, 18% 1988, 7% avg. Activities: Plowing, spreading fertilizer, repairing fence, early spring activities, hauling manure, maintaining machinery, caring for livestock.

**PUERTO RICO:** Island rainfall 1.60 in. was 0.85 in. above normal. Highest weekly rainfall 7.04 in. at Pico Del Este-Luquillo followed by 6.00 in. at Hacienda Constanza, 4.41 in. at Lares. Highest 24-hour 3.07 in. at Pico Del Este-Luquillo. Accumulated rainfall since January 1 to April 7 is 14.10 in. which is 62% above normal. Saturday San Juan WSFO mean temperature 77.6 minus 0.4, rainfall 0.49 minus 0.18. Divisional temperature 75 to 77° coasts, 70 to 72° Interior with mean station temperatures 63° Pico Del Este-Luquillo, 80° Roosevelt roads. Lowest minimum 45° Adjuntas, highest maximum 93° Central Coloso.

**SOUTH CAROLINA:** temperatures 53° Upstate 62° eastern part. Rainfall 1.00 to 2.00 in. northwest to less than 1.00 in. along south coast.

Days suitable for fieldwork 3.6. Soil moisture 4% very short, 14% short, 66% adequate, 16% surplus. Corn good; 43% planted, 69% 1988, 55% avg. Tobacco good; 11% planted, 16% 1988, 15% avg. Watermelons fair to good; 63% planted 65% 1988, 58% avg. Tomatoes fair to good; 59% planted, 89% 1988, 89% avg. Spring cukes fair to good; 34% planted, 52% 1988, 60% avg. Wheat good; 19% headed, 3% 1988; 5% avg. Oats good; 16% headed, 9% 1988, 6% avg.

**SOUTH DAKOTA:** Temperatures 2° below to 4° above normal. Extremes 10°; 73°. Precipitation all stations. Heaviest precipitation west, northeast, north central.

Winter wheat mostly good to fair. Winterkill under 10%. Seeding small grains, equipment preparation major activities.

**TENNESSEE:** Wet; precipitation 1.60 in. above normal east, 0.50 in. above normal west. Most rain fell 3rd to 4th. Temperatures below normal. Departures 1° below normal west, 9° below normal east.

Fieldwork limited by wet soil. Most tobacco seeded. Very little corn planted. No cotton, sorghum planted. Some frost damage to peaches, pears. Pastures good shape.

**TEXAS:** Started warm, dry as next cold front approached. Front moved into Gulf midweek, producing heavy rains extreme northeast, none elsewhere. Midweek quite cool, warming 6 to 7th. Stronger cold front 8th. Upper air disturbance interacted to produce snow Panhandle, few showers coast. Temperatures above normal east, south, close to normal north, west, except below normal southern

High Plains. Precipitation below normal statewide.

**Crops:** Small grain progress good many areas with warmer weather. Dryland fields Plains continued to suffer from lack of rain. Insect problems increased. Additional plowing poor fields continued. Portions Blacklands, Cross-Timbers received more moisture, showing good progress, fields beginning to head out. Treatment for rust continued Blacklands. Fields heading central, south. Scattered rain helped some fields these areas. Wheat 3% headed, 6% 1988, 12% avg. Corn planting underway slowly Plains. Planting continued throughout Cross-Timbers, winding down Blacklands. Fields east emerged to good stands. Early progress good central; more rain needed soon. Conditions vary widely Coastal Bend, Valley because lack of rainfall. Irrigated fields look good. Planting continued south. Progress good along Upper Coast. Corn 63% planted, 64% 1988, 61% avg. Grain sorghum planting underway Low Plains. Planting continued Blacklands. Fields off to good start most central. Moisture very short Valley, Coastal Bend, conditions varied. Sorghum 47% planted, 52% 1988, 50% avg. Cotton planting good progress. Pre-emergence herbicide applications completed Plains. Planting full swing Trans-Pecos. Fields slow progress Valley, Coastal Bend. Cotton 11% planted, 11% 1987, 10% avg. Rice fields continued to emerge. Crop flushing continued. Producers spray weeds. Rice 51% planted, 39% 1988, 46% avg. Emerged 17%, 5% 1988, 9% avg. Other field crops: Peanuts none planted, 1% 1988, 1% avg. Sugarbeets 5% planted, 6% 1988, 18% avg.

**Commercial Vegetables:** Rio Grande Valley onion harvest continued. Melons slow progressed. Harvest cabbage, carrots continued. Irrigation steady. Some fruit drop citrus groves. Some blooming still occurred. San Antonio-Winter Garden limited harvest continued. Onions good progress. Watermelons progressed well. East some tomatoes hurt by heavy rain 2 weeks ago. Some replanting occurred. Sweetpotatoes bedded. High Plains irrigation necessary potatoes, onions. Trans-Pecos, melons, onions good progress. Peach producers expecting good crop Hill Country. East crop vary depending on damage from late frost. Elsewhere, fruit setting occurred. Pecan trees breaking bud many areas as temperatures warmed up.

**Range and Livestock:** Ranges, pastures continued green up many areas; growth slow drier portions. Pastures excellent progress east, feeding decreased. Producers continued supplemental feeding most other areas. Stockers continued sold off wheat pastures Plains.

**UTAH:** Precipitation light to none. Temperatures 3 to 8° above normal.

Days suitable for fieldwork 4.8. Soil moisture 29% short, 71% adequate. Land preparation 32%, 55% 1988, none avg. Spring wheat 17% planted, 74% 1988, none avg. Barley 17% planted, 66% 1988, none avg. Oats 12% planted, 56% 1988, none avg. Winter wheat 50% poor, 37% fair, 13% good. Freeze damage winter wheat 75% none to light, 13% moderate, 12% severe; winter barley 53% none to light, 16% moderate, 31% severe. Pastures, ranges greening. Cows calved 60%, 68% 1988, 67% avg. Ewes lambed farm flocks 64%, range flocks 22%, sheep sheared farm flocks 42%, range flocks 16%. Livestock mostly good. Major farm activities: Seeding spring grains, hauling manure, field preparation, land leveling, cleaning irrigation ditches, calving, lambing.

**VIRGINIA:** Temperatures very warm then very cool. Temperatures 24 to 82°. Precipitation moderate to heavy, ranged 3.00 in. east to 0.50 in. west. Some snow.

Day suitable for fieldwork 2.0. Topsoil moisture 4% short, 45% adequate, 51% surplus. Wet weather continued to delay most field activities. Tobacco plantbeds 94% seeded. Tobacco 16% poor, 67% fair, 17% good. Potatoes 45% planted. Wheat 7% poor, 19% fair, 70% good, 4% excellent. Wet soil delaying small grain topdressing. Pastures 3% poor, 20% fair, 52% good, 25% excellent. Peach 53% fair, 40% good, 7% excellent. Feeder cattle sales active.

**WASHINGTON:** Temperatures 1 to 2° above normal west; 2° below to 3° above normal east. Precipitation 1.25 to 2.35 in. west; none to 0.51 in. east.

Days suitable for fieldwork 3.6. Soil moisture 25% short, 65% adequate, 10% surplus. Range, pasture 49% short, 51% adequate. Hay, other roughage 20% short, 41% adequate, 39% surplus. Planting of spring crops behind west due to wet field conditions. Winterkill of winter wheat more widespread than originally anticipated several counties. Spring wheat planting underway. Hay fields broke dormancy. Seeding of potatoes, green peas, onions continued. Cattle on winter feed several areas due to poor pasture growth.

**WEST VIRGINIA:** Temperature 47°, 4° below to 3° above normal. Extremes 21° Greenbank; 80° Moorefield. Precipitation 0.75 in.; 0.46 in. below to 0.26 in. above normal.

Days suitable for fieldwork 2.0. Soil moisture 3% very short, 3% short, 70% adequate, 24% surplus. Wheat, barley fair to good. Oats 26% planted, 4% emerged. Hay good to fair. Tobacco beds good, 95% planted. Feed adequate to short. Cows calved 77%; ewes lambed 78%. Farm activities: General farm maintenance, livestock care, fence building, garden preparation, spreading fertilizer.

**WISCONSIN:** Temperatures 35°, 7° below normal. Extremes 2°; 64°. Precipitation 0.20 to 0.70 in.

Days suitable for fieldwork 0.3. Frost, cold temperatures, moisture delay fieldwork. Soil moisture 40% short, 58% adequate, 2% surplus. Spring plowing none, 2% 1988, 5% avg. Oats none seeded, 1% 1988, 4% avg. Winter wheat greening, poor low lying fields. Maple syrup season slow, sap sporadic.

**WYOMING:** Temperatures above normal. Precipitation below normal.

Days suitable for fieldwork 5.0. Topsoil moisture 44% short, 56% adequate. Subsoil moisture 79% short, 21% adequate. Spring wheat 10% planted, 10% 1988, 20% avg. Oats 10% planted, 10% 1988, 15% avg. Barley 35% planted, 50% 1988, 45% avg. Sugarbeets 10% planted, 5% 1988, 15% avg. Winter wheat 75% fair, 25% good, mostly none to light wind, freeze damage. Livestock mostly good. Spring calves born 70%, 65% 1988, 60% avg. Death losses light to normal. Farm Flock: Ewes lambed 65%, 75% 1988, 70% avg.; shorn 60%, 55% 1988, 60% avg. Range flock: Ewes lambed 30%, 35% 1988, 35% avg.; shorn 35%, 40% 1988, 35% avg. Death losses light to normal. Range, pasture poor to fair.

# International Weather and Crop Summary

April 2-8, 1989

## HIGHLIGHTS

**WESTERN USSR** ... Cooler weather prevails in the north while mild conditions in the south continue to prompt early growth. Widespread variable precipitation covers the region.

**EUROPE** ... Widespread heavy rain helps relieve dryness in the southwest. Rain and snow cover sections of the northwest.

**SOUTH ASIA** ... Dry weather benefits maturing winter wheat and favors harvest. Hot weather in the southeast stresses immature rice.

**EASTERN ASIA** ... Heavy rain and possible flooding cover sections of southeastern China and Taiwan.

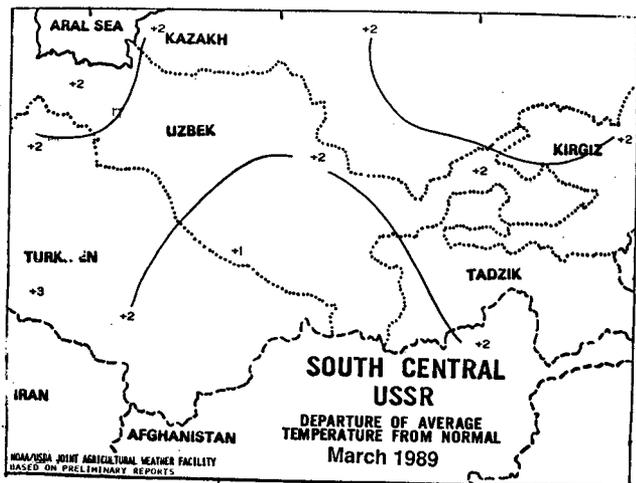
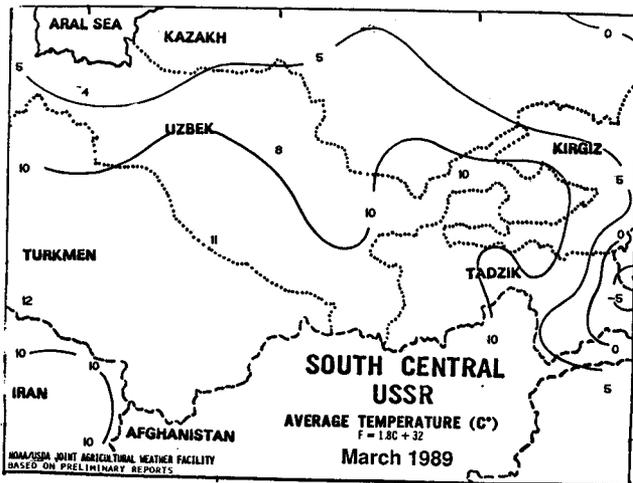
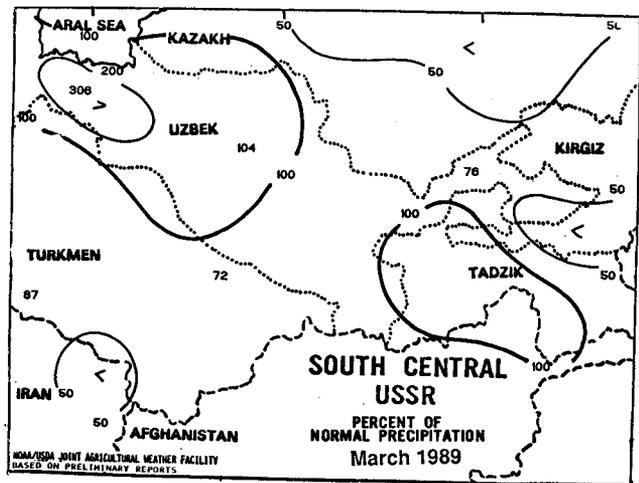
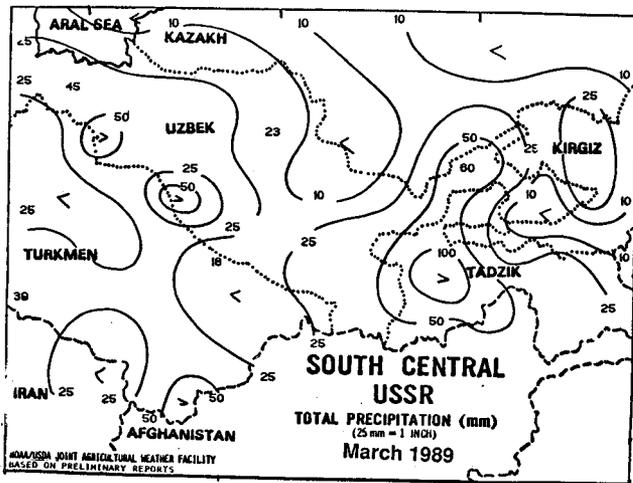
**SOUTHEAST ASIA** ... Showers continue over Malaysia and southern Indonesia. Dry, seasonably warm weather returns to most Thai main season rice areas.

**SOUTH AMERICA** ... In Argentina, dry weather favors corn and sorghum harvesting. In south-central Brazil, wetness continues to delay soybean harvesting in the south, while drier weather favors fieldwork in the north.

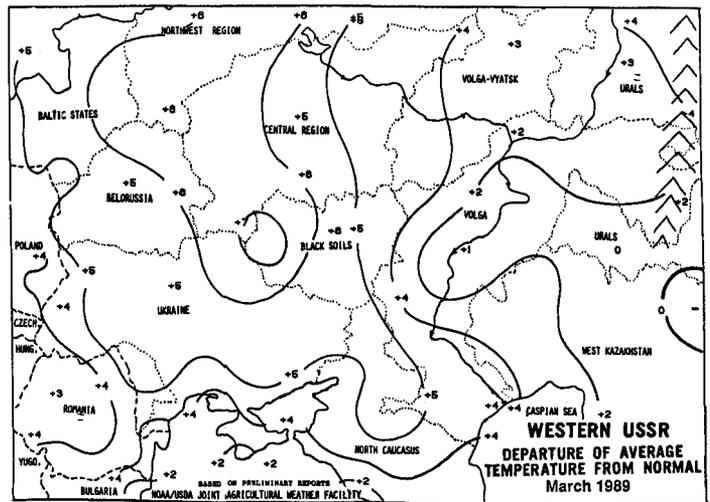
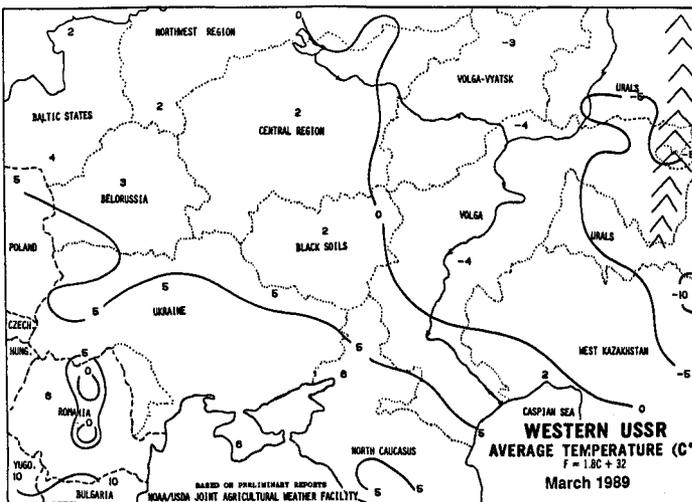
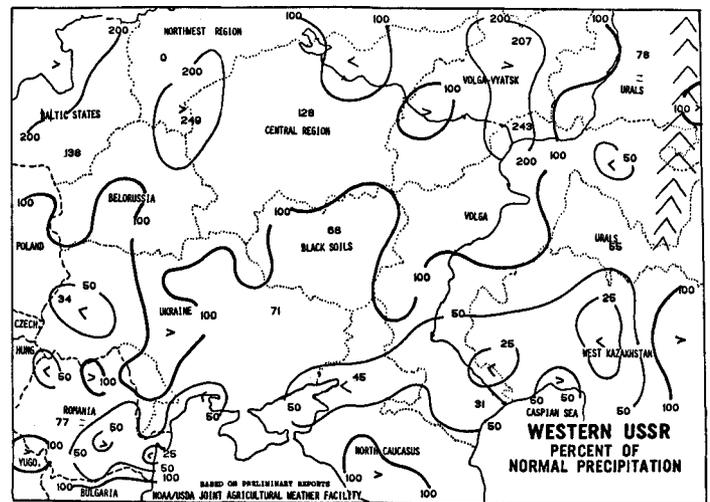
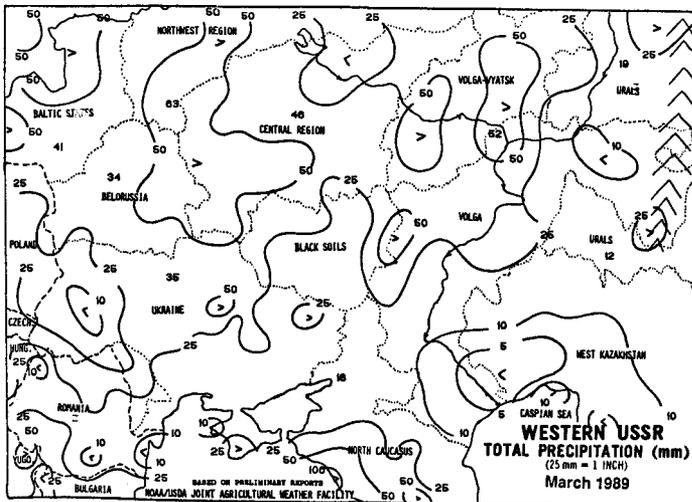
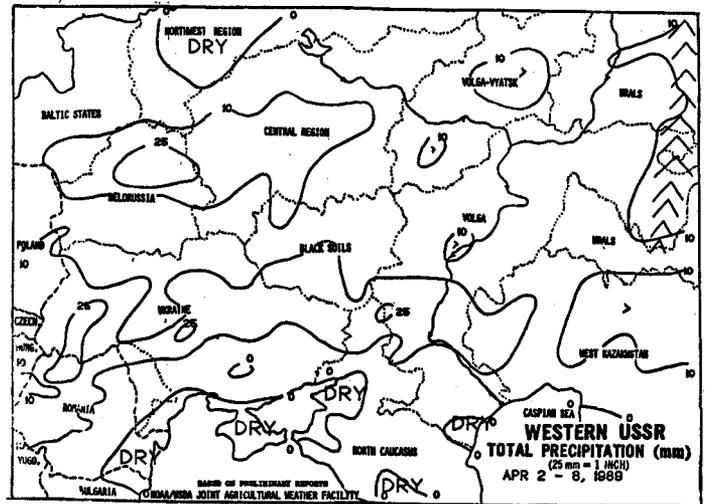
**AUSTRALIA** ... Tropical Cyclone Aivu strikes northeastern Queensland, causing localized damage to sugarcane.

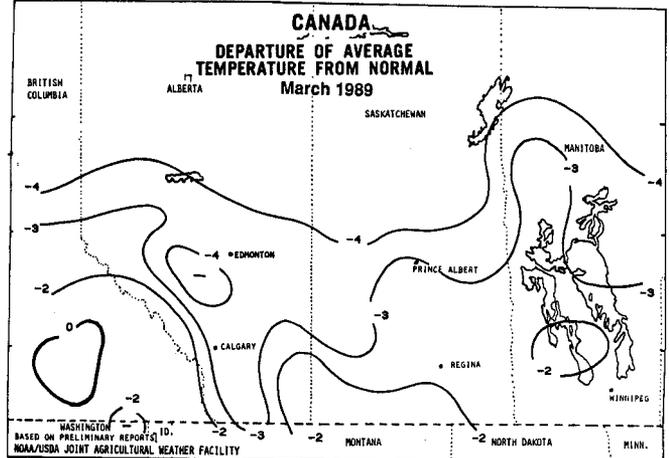
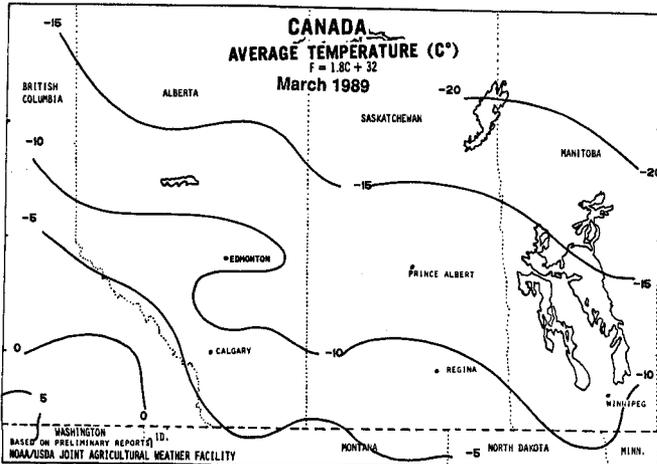
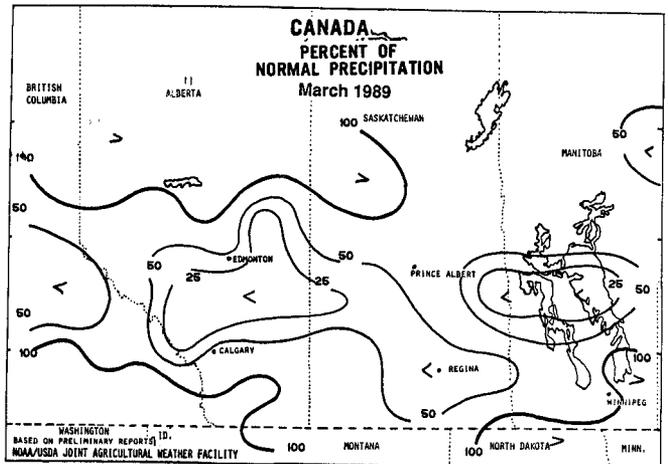
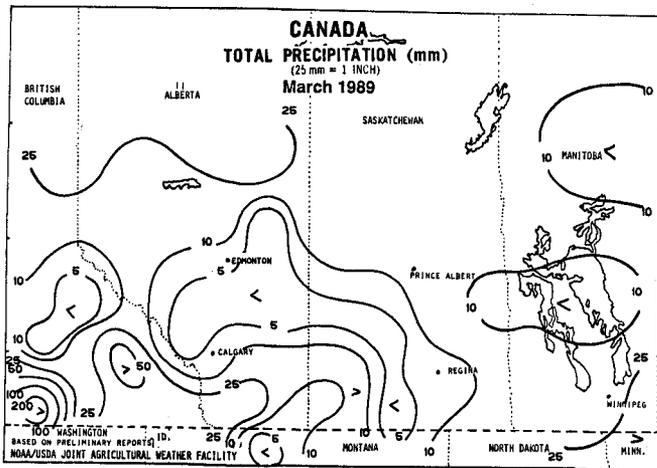
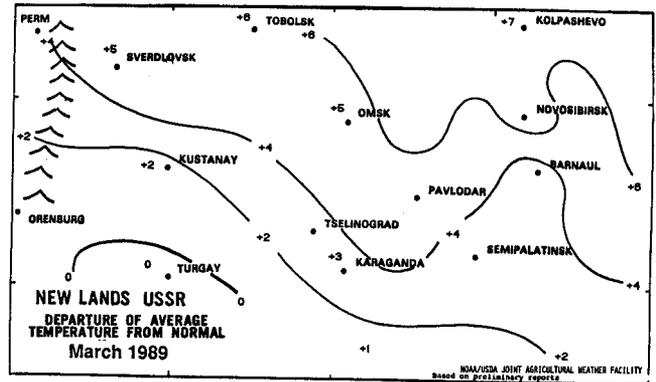
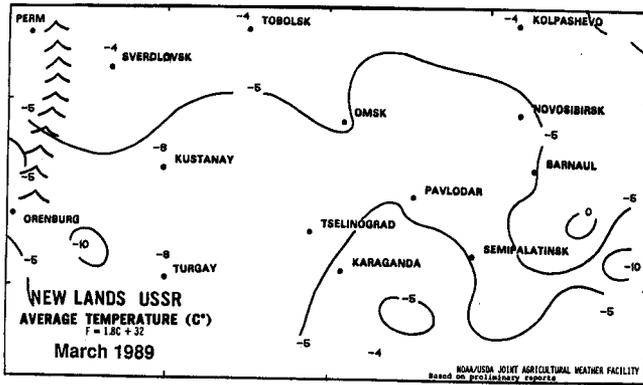
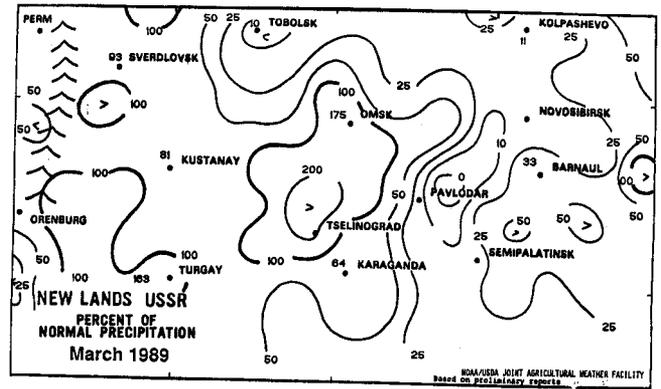
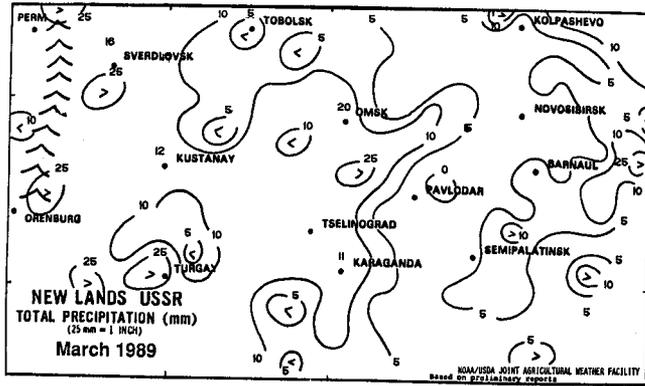
**SOUTH AFRICA** ... Dry, mild weather benefits maturing corn.

**NORTHWESTERN AFRICA** ... Beneficial rain falls in Morocco and central Algeria. Dryness persists in Tunisia.

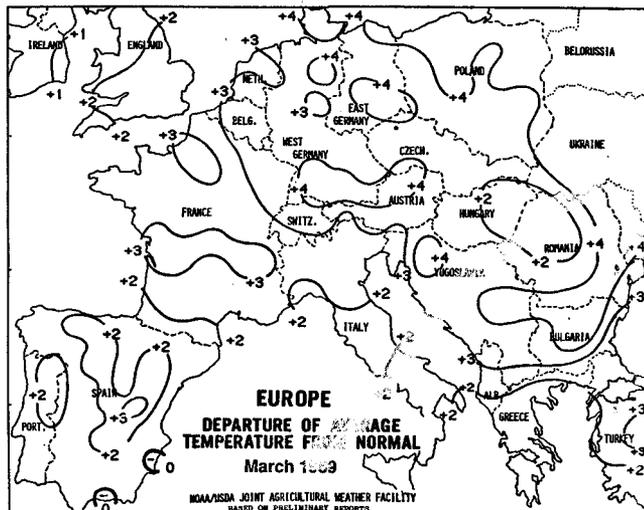
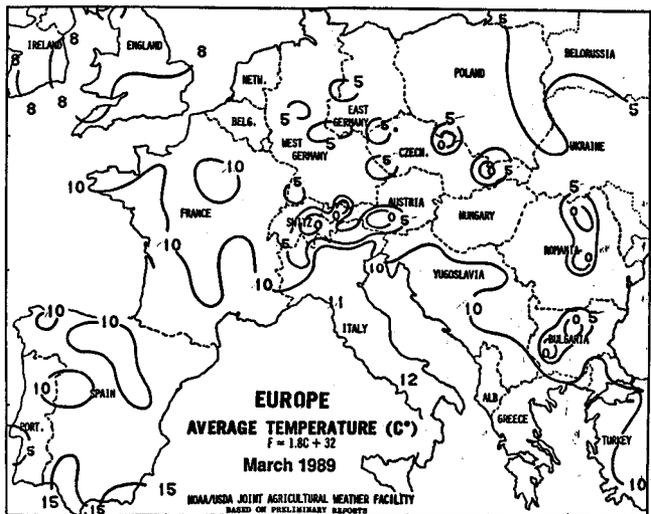
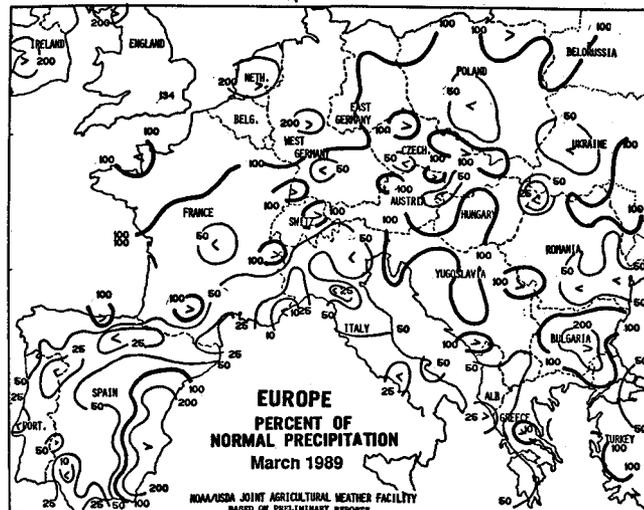
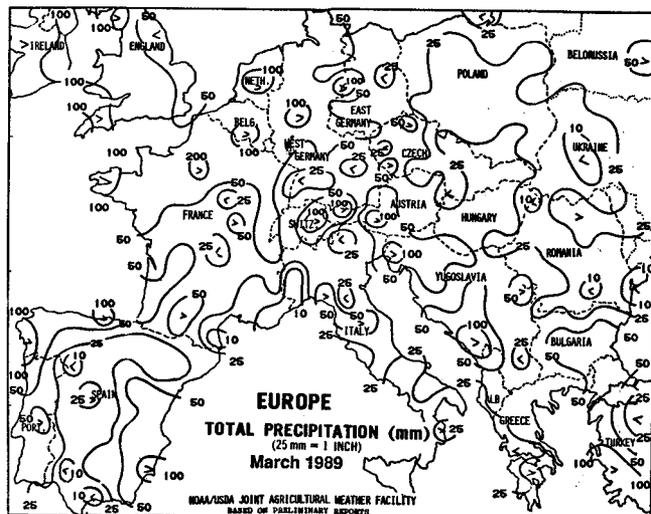
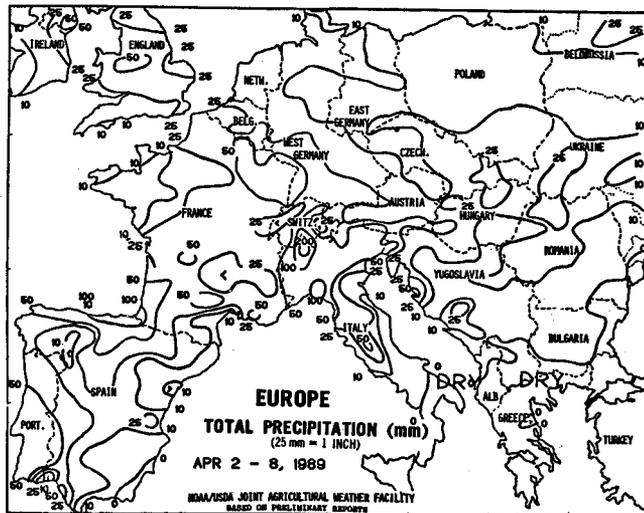


**WESTERN USSR** ... A cooling trend continued with weekly average temperatures dropping 1-2 degrees Celsius (C) below normal over the northern half of the region. Unseasonable warm weather continued over the Ukraine and North Caucasus where weekly average temperatures ranged from 1 to 2 degrees C above normal in the north and 3-6 degrees C above normal in the south. Minimum temperatures dropped to around -5 degrees C in Belorussia and the northwestern Ukraine from April 4-6, possibly burning some top growth of those winter grains which were greening. Widespread variable precipitation (4-27mm) covered much of the region, except in the extreme south where the weather was mostly dry. In March, the warmest weather in at least the last 40 years covered most winter grain areas, with average monthly temperatures ranging from 4 to 6 degrees C above normal. Winter grains began greening as far north as central Belorussia, the extreme northern Ukraine, and the northern North Caucasus, about 3-4 weeks earlier than usual. Below-normal precipitation over the Ukraine, Black Soils Region, the lower Volga, and the North Caucasus prompted early spring grain and sugarbeet planting 2-3 weeks earlier than normal planting dates.

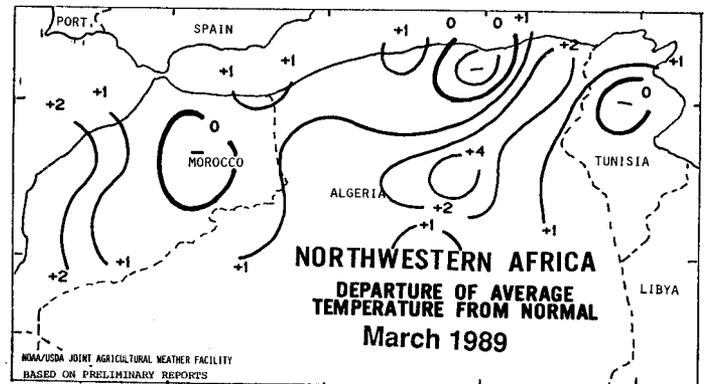
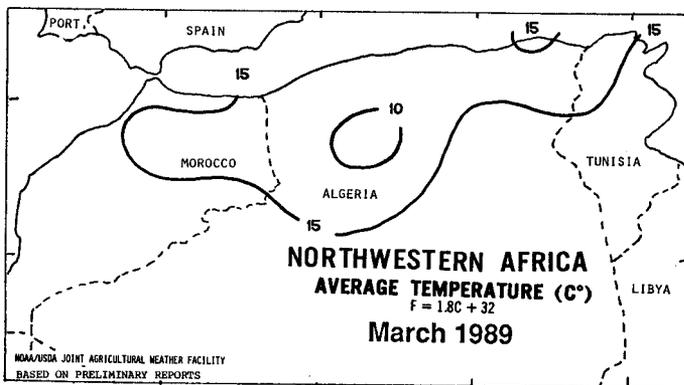
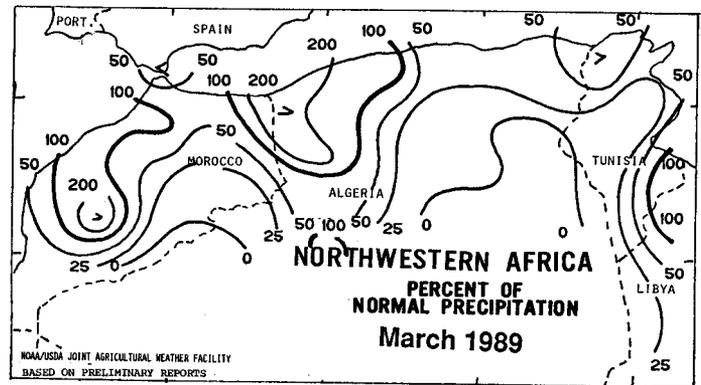
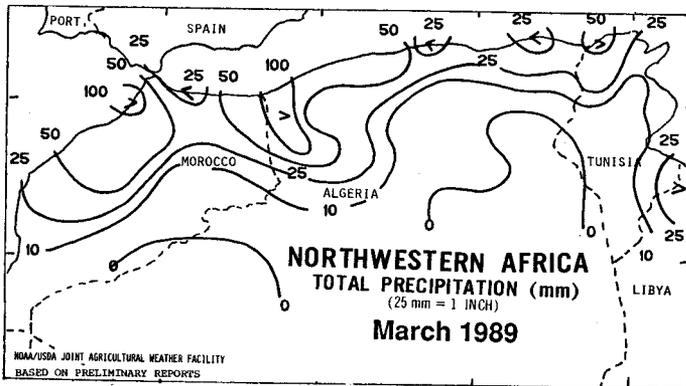
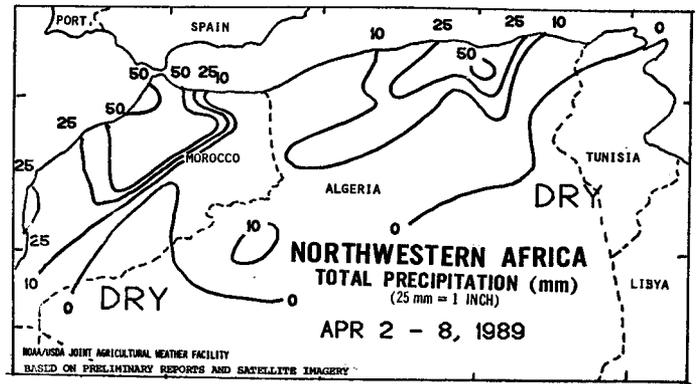




**EUROPE** ... Widespread rain (10-70mm, with isolated rainfall in excess of 70mm) fell over much of the Iberian Peninsula, southern France, and northern Italy, further easing dryness in winter grains. It was the heaviest, most widespread precipitation in Italy's Po Valley since last fall. However, only scattered, mostly light rain (less than 10mm) fell over the remainder of southern Europe, where unfavorably dry conditions continue. Frequent, timely rainfall over the next couple of months will be necessary to prevent reductions in yield potential of winter crops across southern Europe. In the north, a frontal system brought moderate to heavy rain and scattered wet snow (15-40mm, with scattered amounts in excess of 40mm) to sections of the United Kingdom, northern France, and southern West Germany. Cooler air behind the front moved into all but southeastern Europe by week's end, ending a persistent trend of above normal temperatures, which covered nearly all of the continent in March. Precipitation in March was below normal over most crop areas except for the northwest, eastern Spain, and scattered sections of the east, where it was normal to above normal.



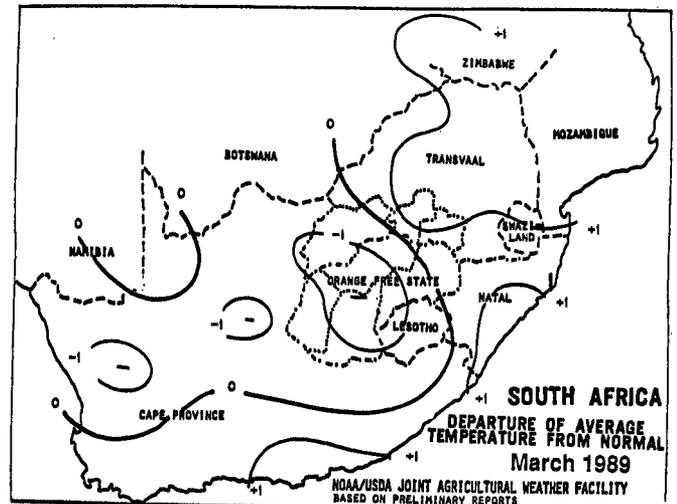
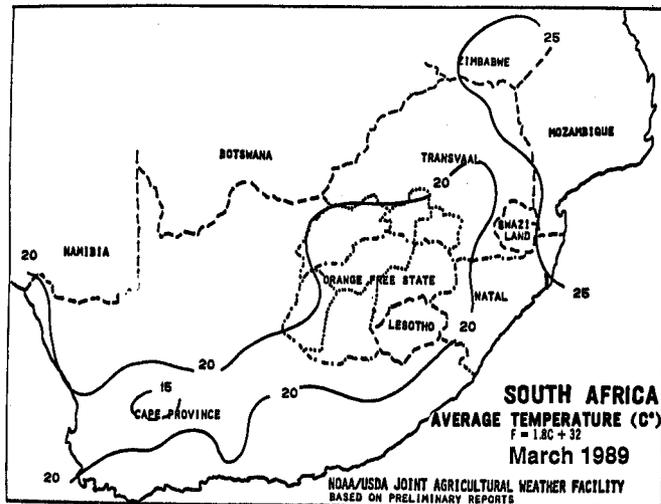
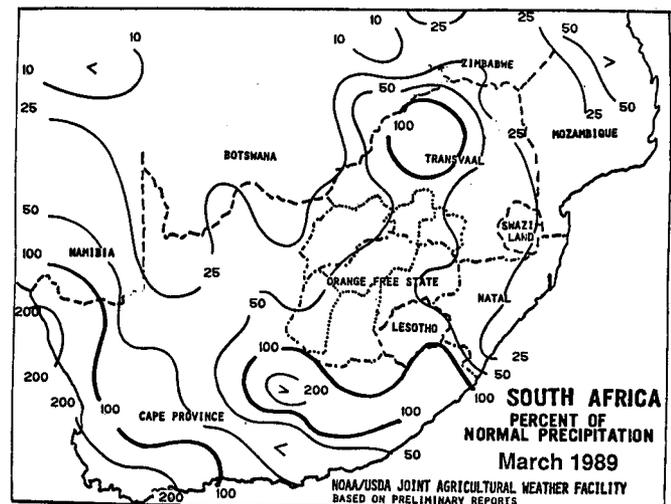
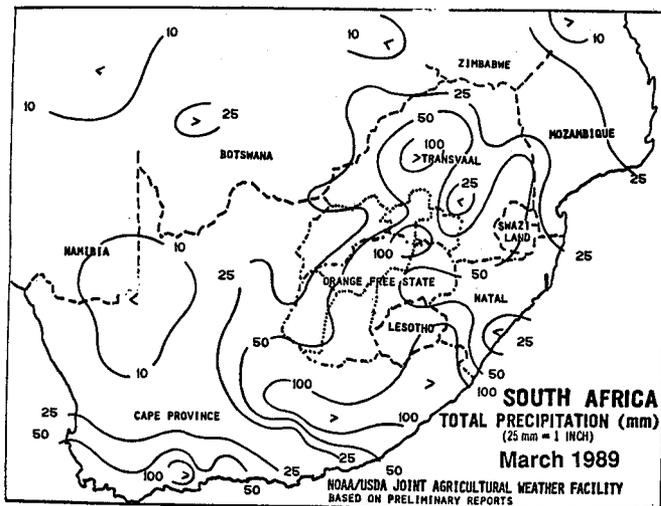
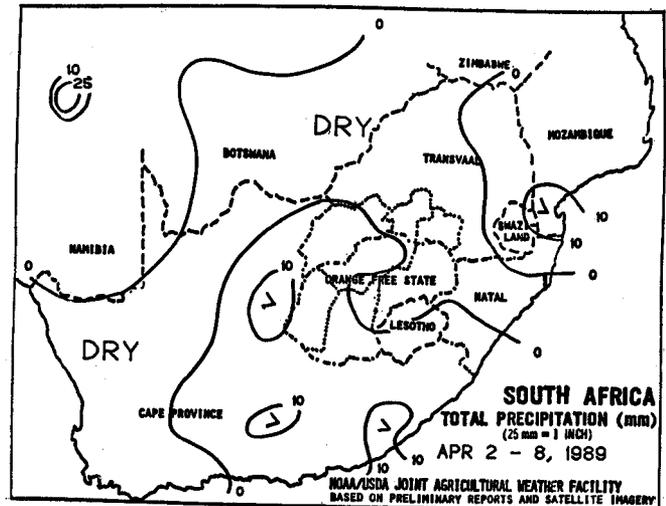
**NORTHWESTERN AFRICA** ... Widespread precipitation (20-50mm or more) continued over Morocco, benefiting winter stages grains in the reproductive-filling stages of development. Significant showers (10-51mm) also covered central Algeria helping to stabilize conditions for winter grains hurt by earlier dryness. Further east, continued unseasonably dry weather over winter grains in Tunisia caused crop conditions to deteriorate. In March, early month dry weather over Morocco, and western and central Algeria was followed by periodic showers which began on March 18 and continued until month's end. The rain in these areas helped to stabilize conditions for winter grains entering reproduction. Well below-normal precipitation in central Algeria and Tunisia reduced prospects for winter grains.



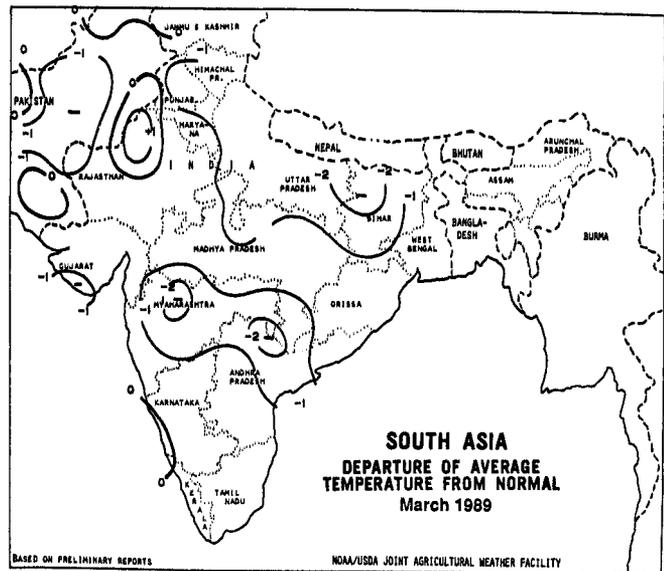
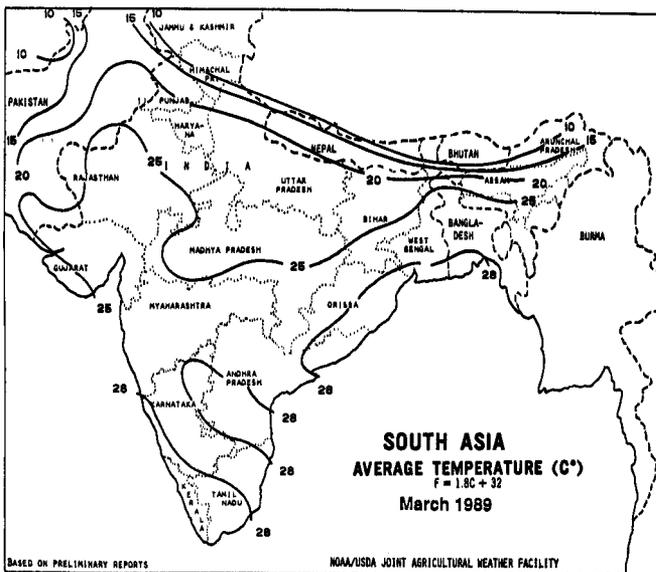
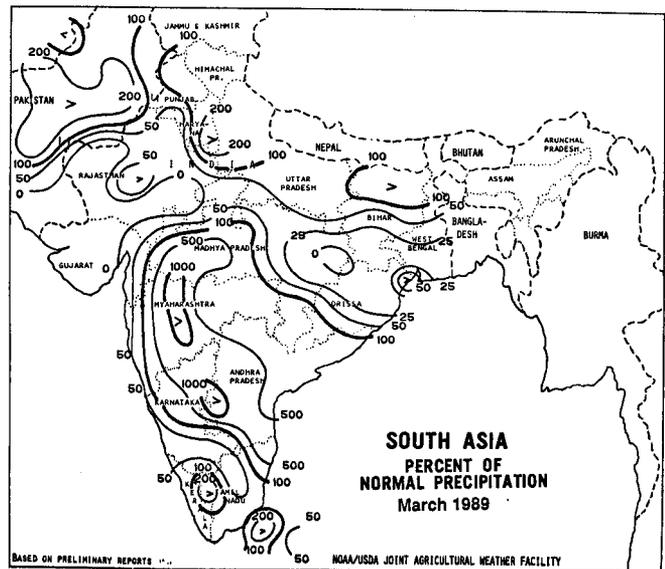
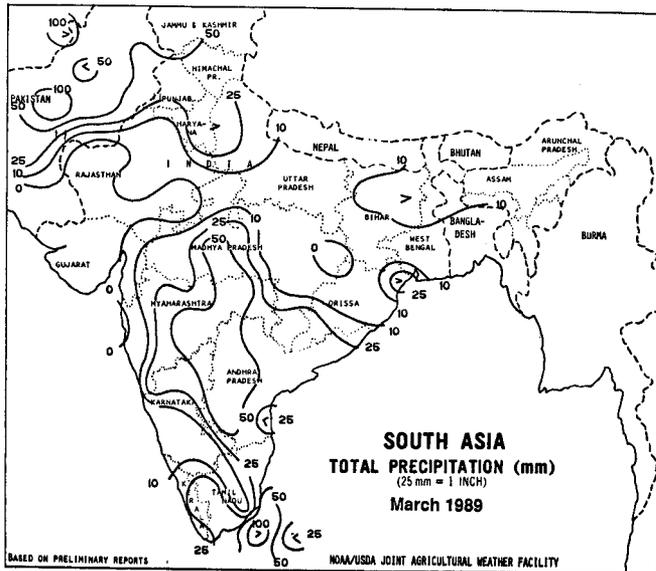
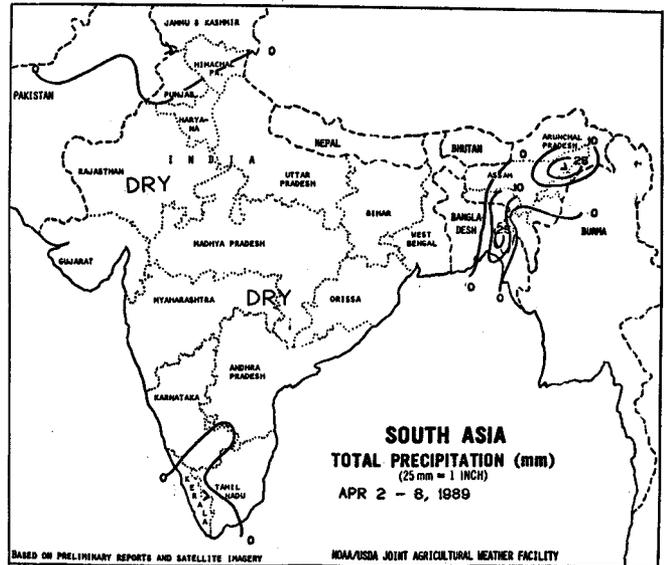
(Continued from p. 8)

Oklahoma and fair to poor in Texas. Snow cover was mostly adequate in the northern Great Plains early in the month. Winter wheat was mostly fair to good. Near the end of March, producers began reseeding freeze damaged fields in portions of Oregon and Washington. Winter wheat was mostly good to fair in Idaho, Montana, and South Dakota and fair to good in Colorado, Nebraska, and Wyoming. During March, winter wheat was mostly good in the Corn Belt and fair to good in the Delta and Southeast. At the end of March, powdery mildew and rust were problems in portions of the Delta.

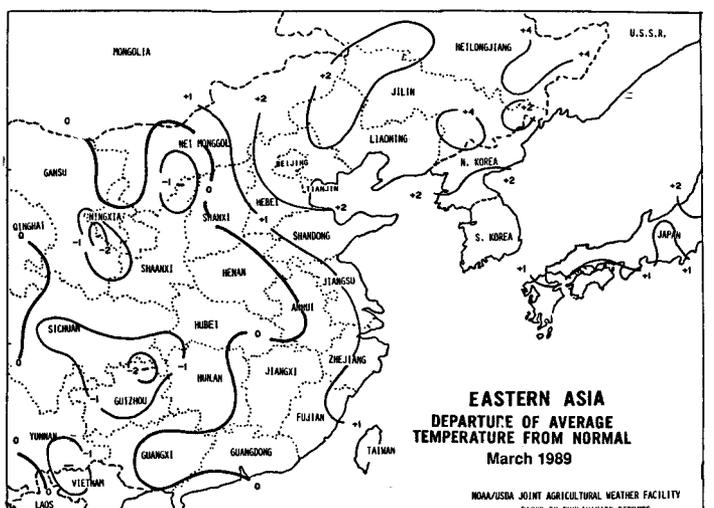
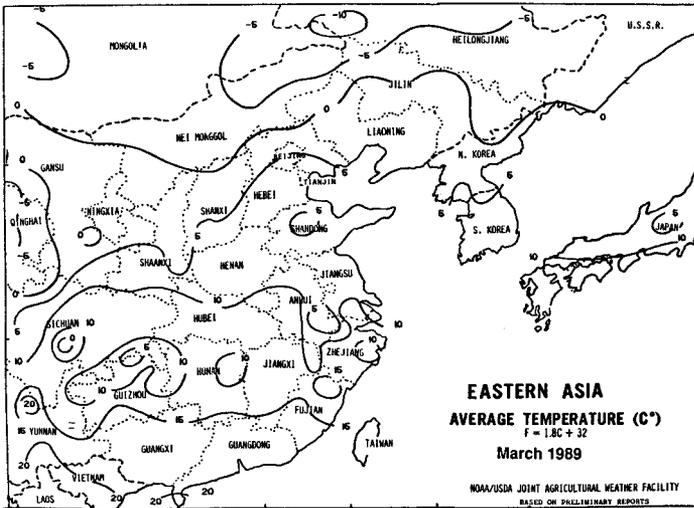
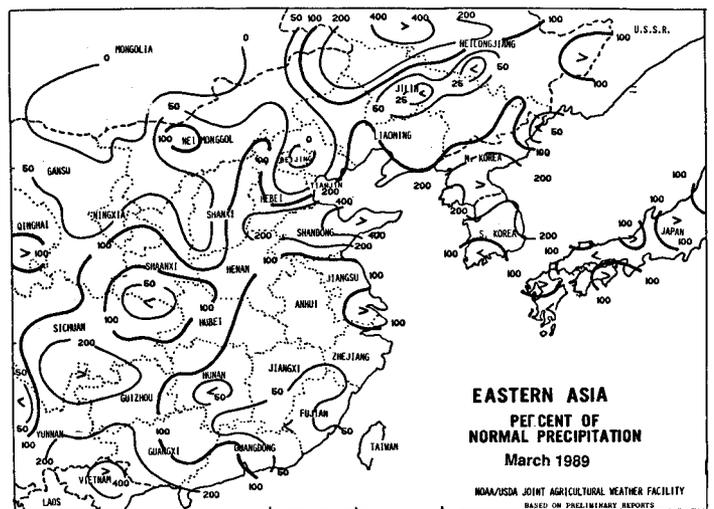
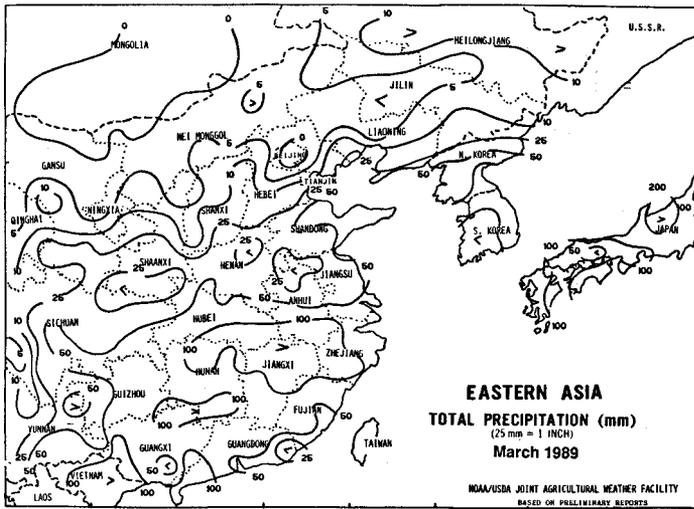
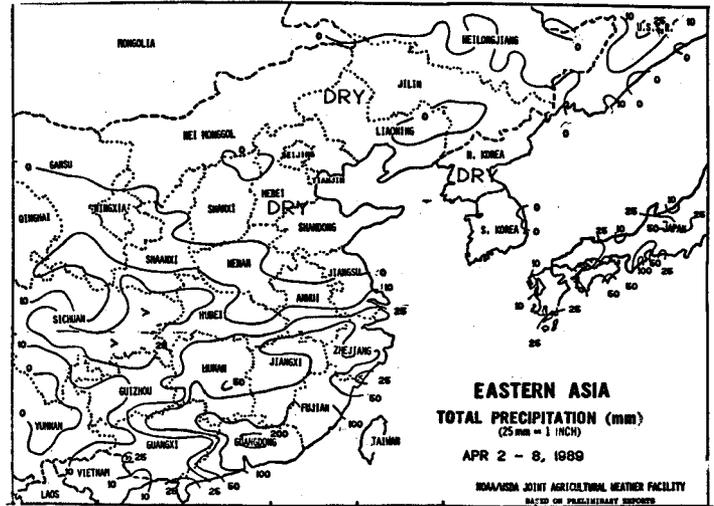
**SOUTH AFRICA** ... Dry, seasonably warm weather covered the major growing regions, benefiting maturing crops. The dry weather has continued since early March over sugarcane regions of Natal, reducing moisture reserves for vegetative growth. In March, near to below normal rainfall (17-65mm total accumulation) covered the Maize Triangle as temperatures averaged from below normal in the west to above normal in the east. Periods of dry weather favored corn maturation but the light rains maintained favorable moisture conditions for late planted crops. Beneficial rain over the southern Cape Province improved conditions for winter wheat planting.



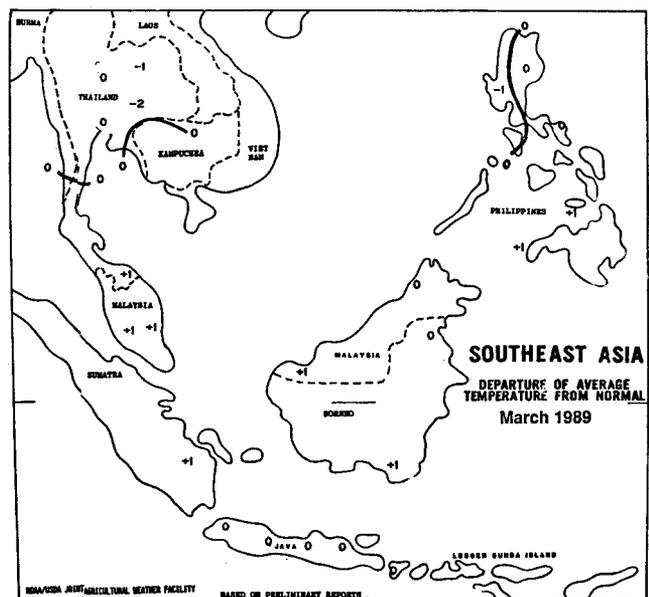
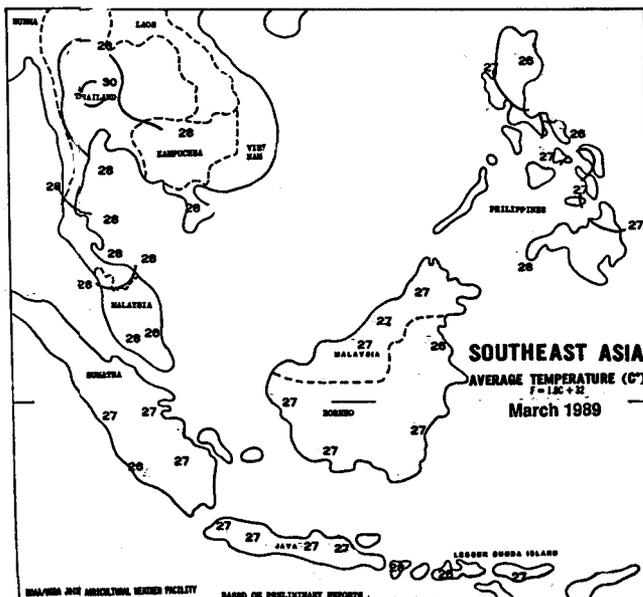
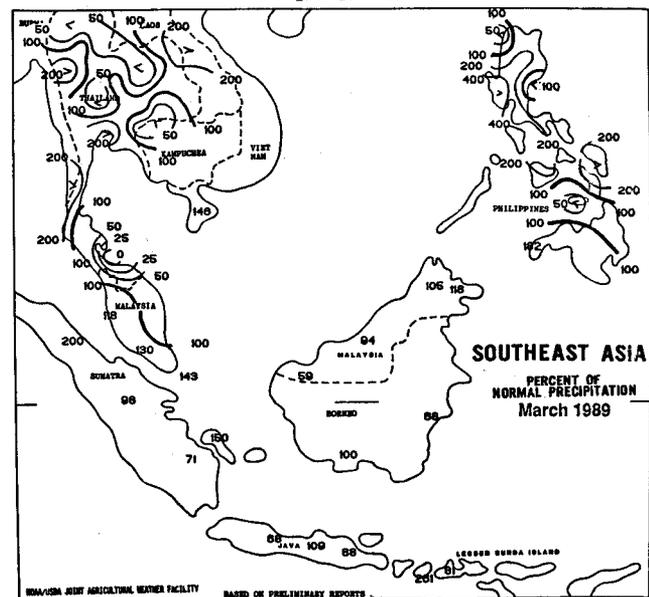
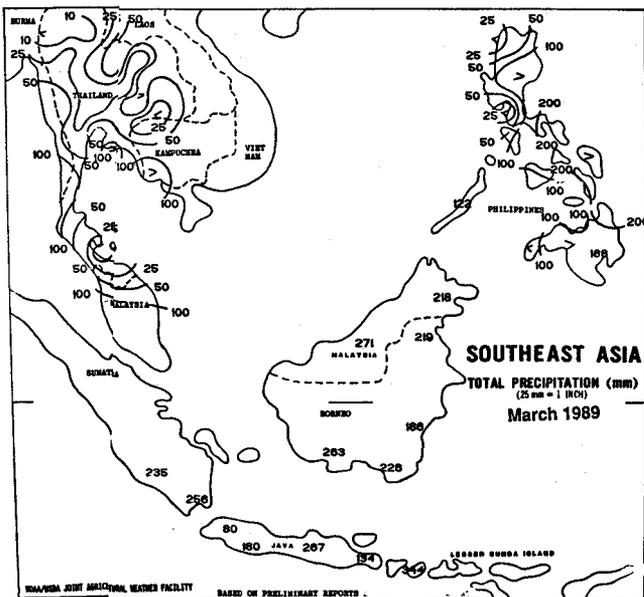
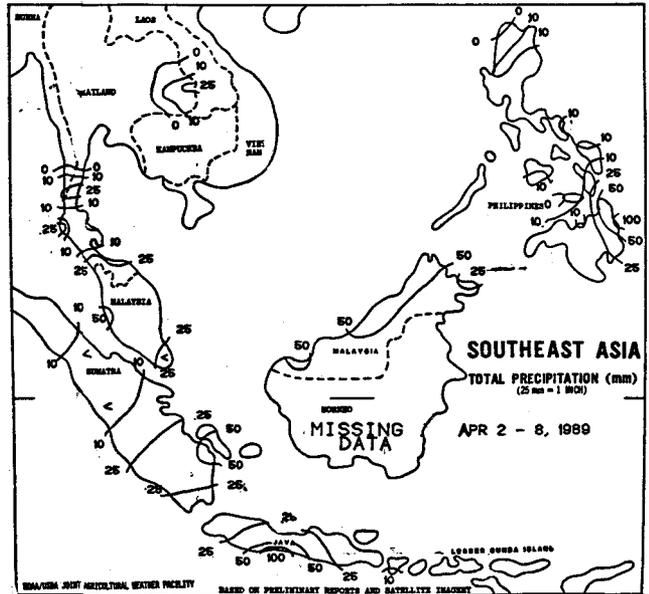
**SOUTH ASIA** ... Mostly dry weather covered wheat regions of Pakistan and India, benefiting maturing grains and harvest activities. Temperatures averaged 2-5 degrees C below normal but maximum temperatures averaged from the upper 20's to low 30's. Local showers (16-37mm) fell in far eastern India, boosting irrigation levels, but dry weather dominated central and southern growing areas. Maximum temperatures along the southeastern coast ranged from 35 to 41 degrees C, increasing evaporation rates and stressing immature rice. In March, near to above normal rainfall benefited immature rainfed wheat in Pakistan and north-central India. Temperatures across the north were mild, averaging 1-2 degrees C below normal. Unseasonably heavy showers fell over India's southern interior with above normal rainfall totals (10-49mm) from northern Tamil Nadu to southern Orissa, boosting irrigation reserves for reproductive rice. Temperatures averaged near to below normal but by month's end, hot weather moved in, stressing immature rice.



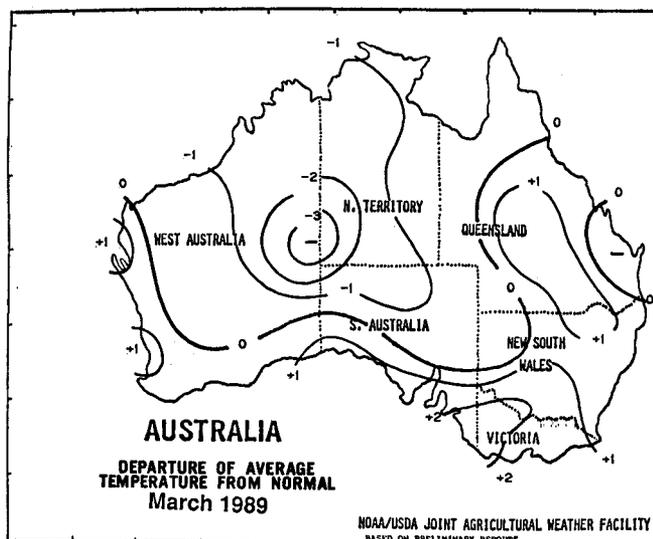
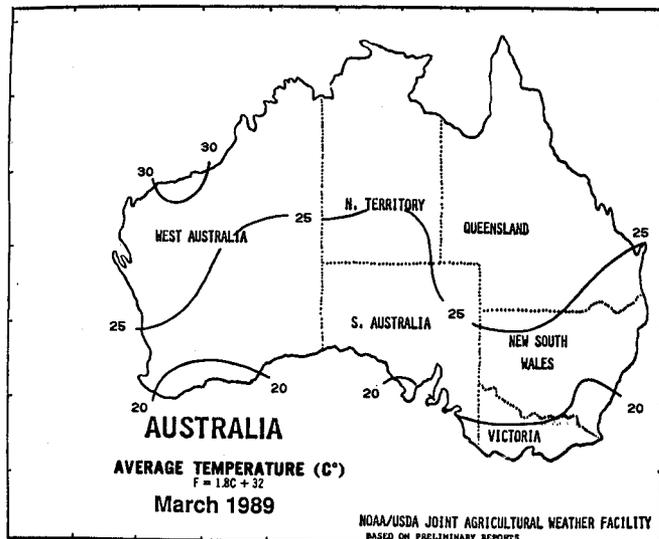
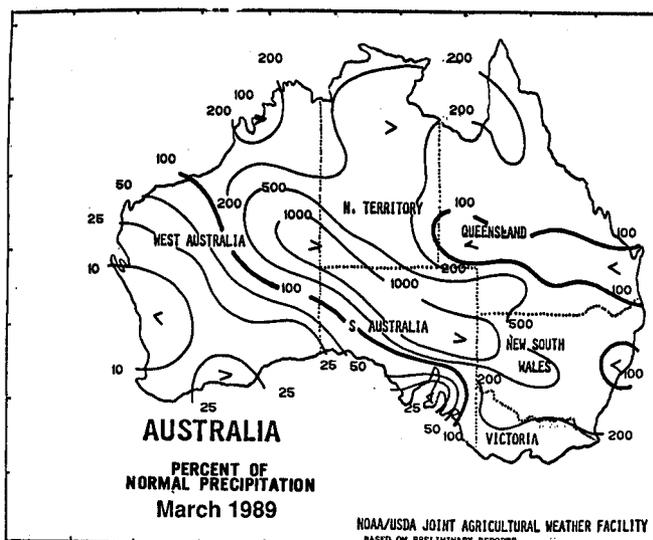
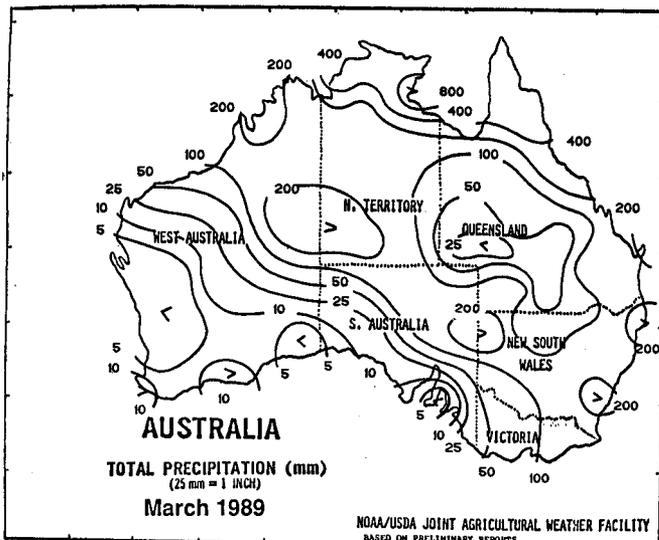
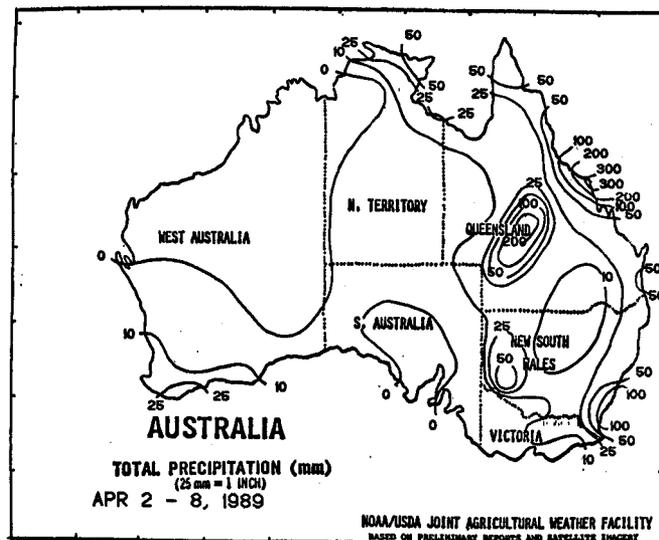
**EASTERN ASIA ...** Heavy rain (25-75mm, with scattered amounts in excess of 75mm) fell over much of southeastern China and Taiwan, benefiting vegetative early crop rice but causing delays in planting of summer crops. Very heavy rain (100-215mm) in sections of Guangdong, eastern Guaxi, and southern Fujian likely caused some flooding. The heavy precipitation reversed a trend of drier than normal weather in much of southern China during March. Elsewhere, scattered moderate to heavy rain fell over Japan, while most northern crop areas of China and the Korean Peninsula remained mostly dry. Mean temperatures were above normal in all but western Chinese growing areas, following a pattern that persisted during much of March.



**SOUTHEAST ASIA** ... Drier, warmer weather returned to most main season growing areas of central and eastern Thailand, although moderate rain (17-48mm) lingered over southeastern sections. Showers (10-25mm or more) continued from peninsular Thailand southward into western Malaysia as heavier rain (32-95mm) covered eastern Malaysia. Satellite imagery indicated scattered, variable showers over Indonesia, with heaviest activity over central Java, maintaining irrigation reserves for immature rice. In the Philippines, heavy rain (50-100mm or more) returned to northeastern Mindanao but only light rain fell elsewhere. In March, frequent rainfall maintained favorable irrigation reserves for immature crops in Indonesia and Malaysia. Near to above normal rainfall over Thailand's main season grain areas improved pre-planting conditions and boosted irrigation reserves for secondary rice near Bangkok. Frequent, above normal rainfall over the Philippines improved moisture conditions for immature secondary grains and main season plantings but caused local flooding.



**AUSTRALIA** ... Tropical Cyclone Aivu struck the northeastern coast of Queensland on the 4th, bringing high winds, heavy rain (50-200mm, with isolated amounts in excess of 200mm), and localized damage to vegetative sugarcane. Residual moisture from the storm benefited late maturing sorghum but caused harvest delays of other summer crops across much of central and southern Queensland. Elsewhere, scattered rain (10-20mm, with isolated amounts in excess of 50mm) increased pre-season soil moisture levels for winter grains across crop areas of New South Wales, Victoria, and Western Australia. South Australia was mostly dry. In March, precipitation was above normal in all eastern crop areas except southern Queensland, where it was below normal. Rainfall was also of below normal in crop areas of Western Australia and extreme southern South Australia.





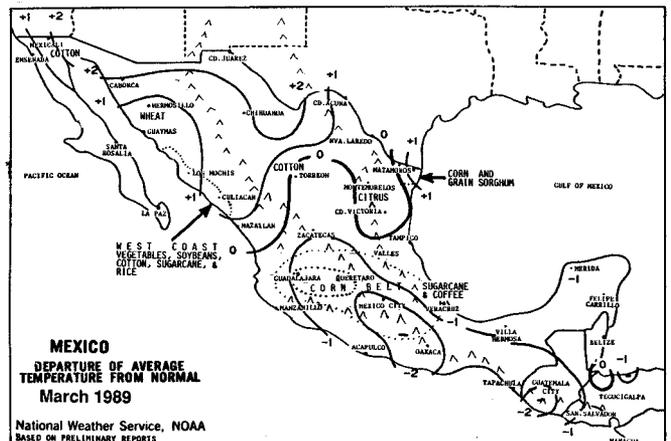
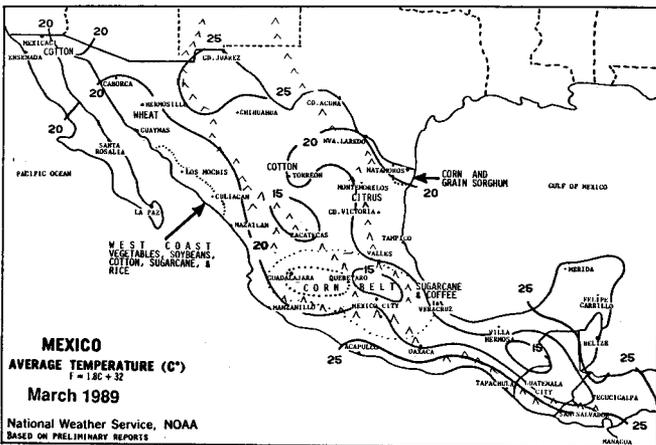
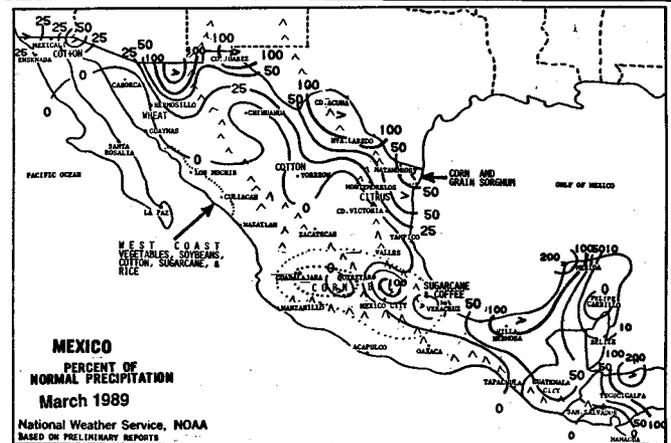
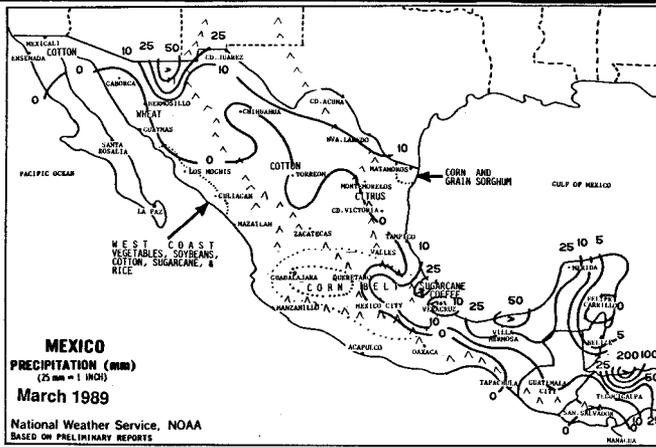
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