

# 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

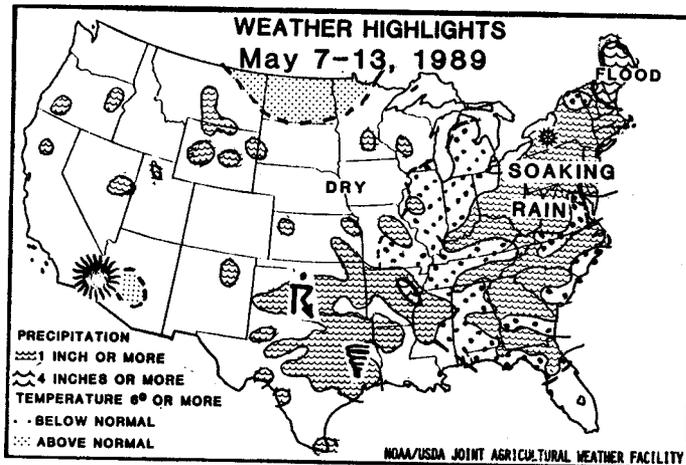
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## National Weather Summary

May 7-13, 1989



**HIGHLIGHTS:** A stagnant weather pattern during the last half of the week caused persistent rain from the Northeast into the Ohio Valley. Flooding resulted from the steady rain in northern New England. This pattern also brought cool air into the East, dry weather over the western Corn Belt, and scattered showers and thunderstorms from the northern Rockies to the western Gulf coast. Intense thunderstorms produced severe weather and heavy rain across the southern Plains into the Southeast.

**SUNDAY:** Showers lingered in the Appalachians and Northeast behind a large weather system which moved into the Atlantic. Heavy wet snow fell across western New York as both Buffalo and Rochester set May snowfall records with amounts of 7.2 and 10.7 inches, respectively. Cold air poured over the Great Lakes into the Corn Belt, while southerly winds brought a swift return of warmth and moisture to the Central States during the afternoon.

**MONDAY:** The rapid inflow of warm, moist air into the Mississippi Valley caused widespread rain. Thunderstorms produced severe weather and locally heavy rain across the northern Delta into the Southeast. By evening, rain spread into the Ohio and Tennessee Valleys, while thunderstorms reached from the northern Rockies to the central High Plains. It was another hot day in the Southwest and southern Plains.

**TUESDAY:** Rain and severe weather covered much of the East as a frontal system developed in the lower Mississippi Valley and moved northeastward. Showers and thunderstorms were widespread down the Pacific coast and scattered in the Great Basin and Rockies.

## APRIL WORLD RAINFALL AND TEMPERATURE SUMMARIES

**WEDNESDAY:** Rain drenched the Northeast as a low pressure system became stationary over the mid-Atlantic coast. Showers and thunderstorms continued down the Atlantic, along the Gulf coast, and across Texas. Scattered rain remained in the West and across the Rockies. Cool, dry weather moved into the central portions of the Nation.

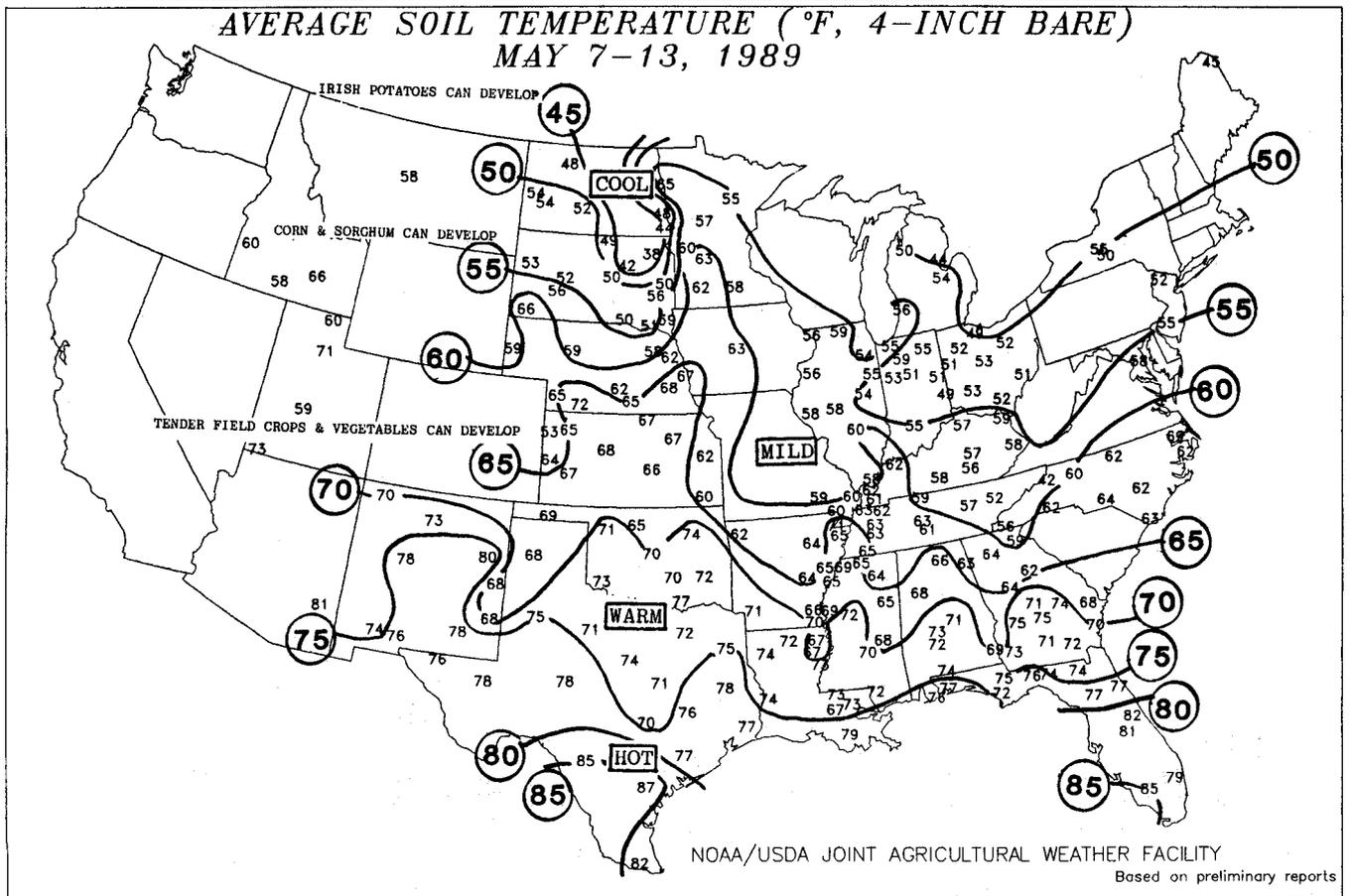
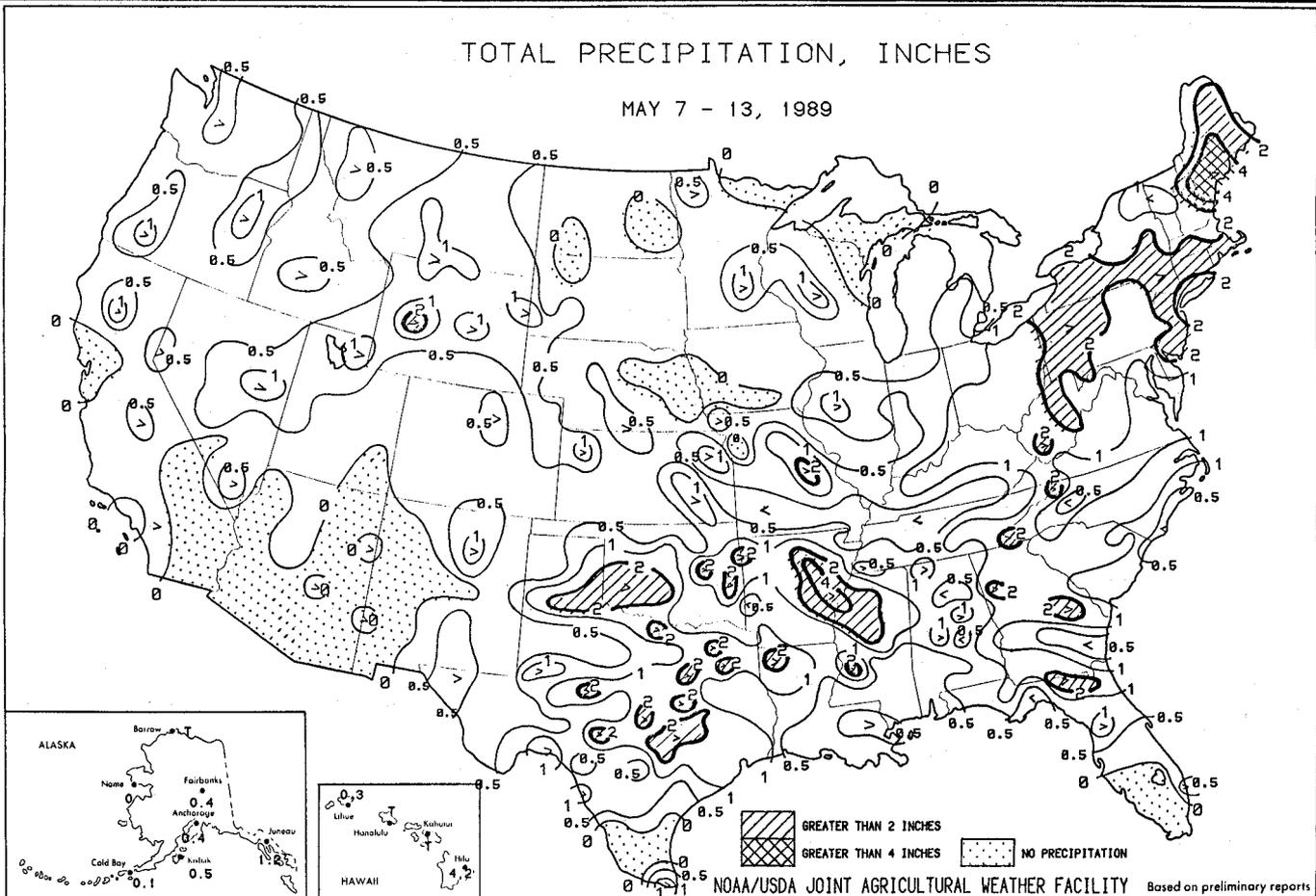
**THURSDAY:** The low pressure system continued to bring widespread rain across the Northeast, with heavy amounts along the New England coast. Intense thunderstorms developed over the Rockies and High Plains. Rain was widely scattered in the West. Cool air spread over the Eastern States, while record-high temperatures were again set in southern Florida.

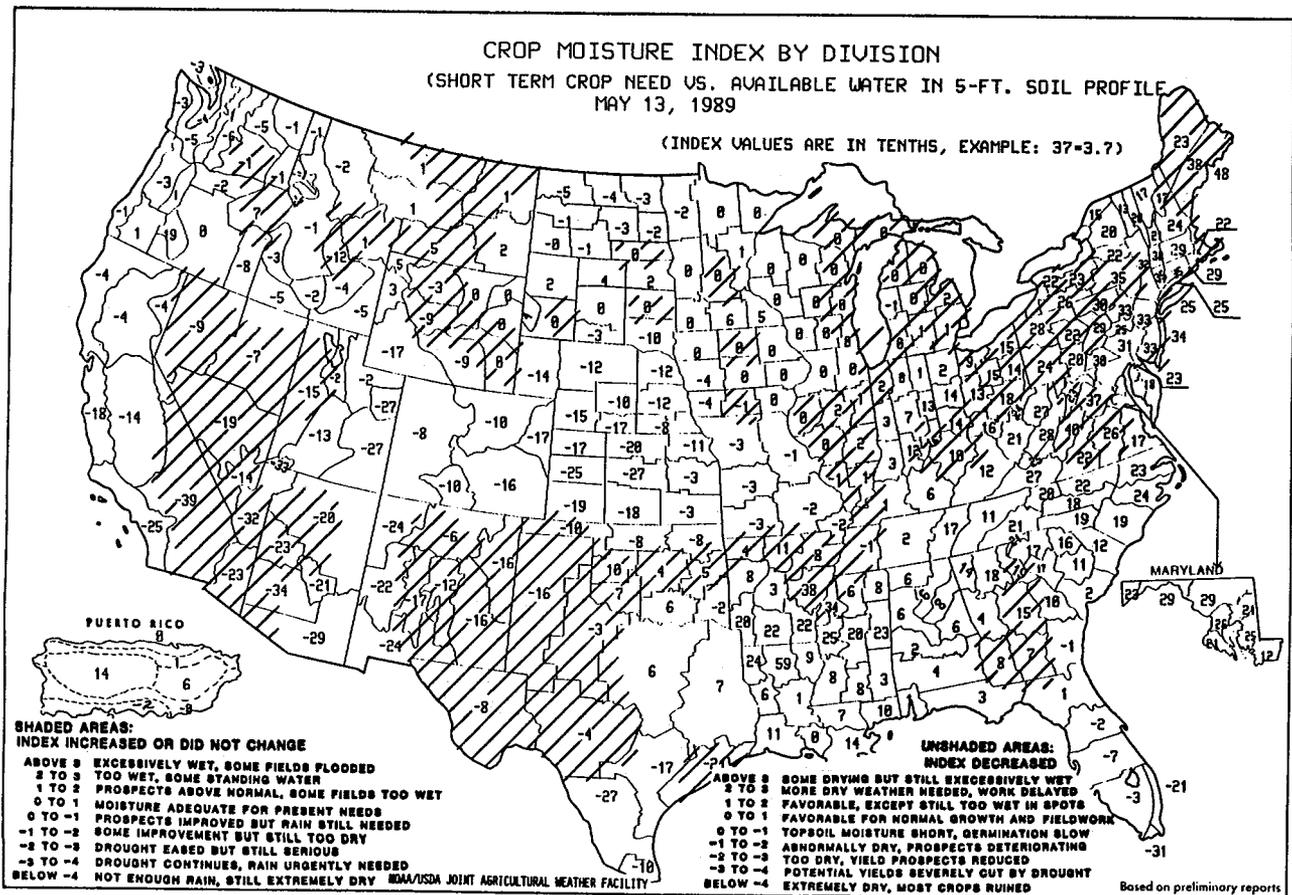
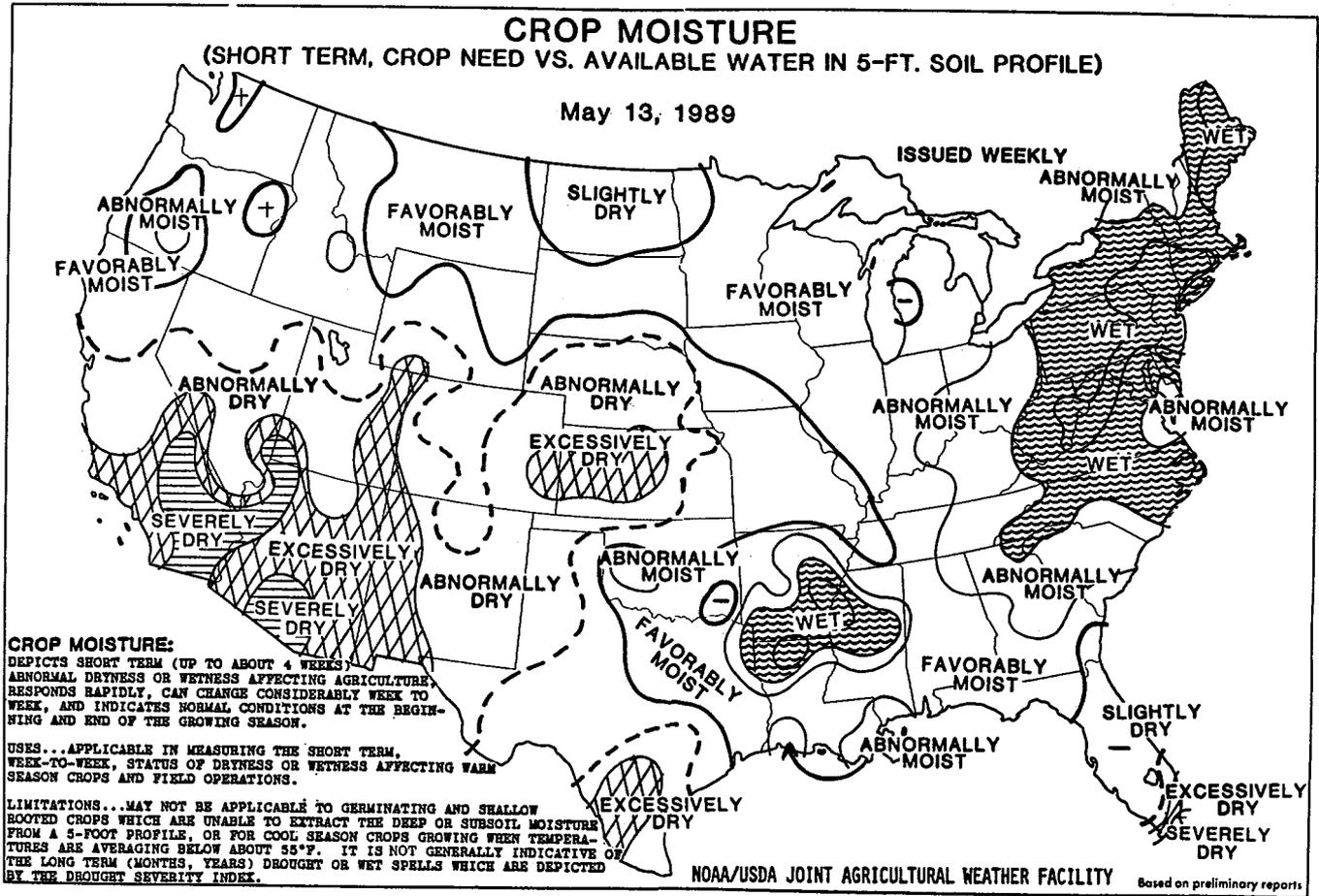
**FRIDAY:** The moist pattern continued over the Northeast and eastern portions of the Corn Belt and Great Lakes. The persistent rains caused flooding in Maine. Showers extended from the northern Rockies and northern High Plains to eastern Texas and the Delta. Thunderstorms were severe across northern Texas and Oklahoma.

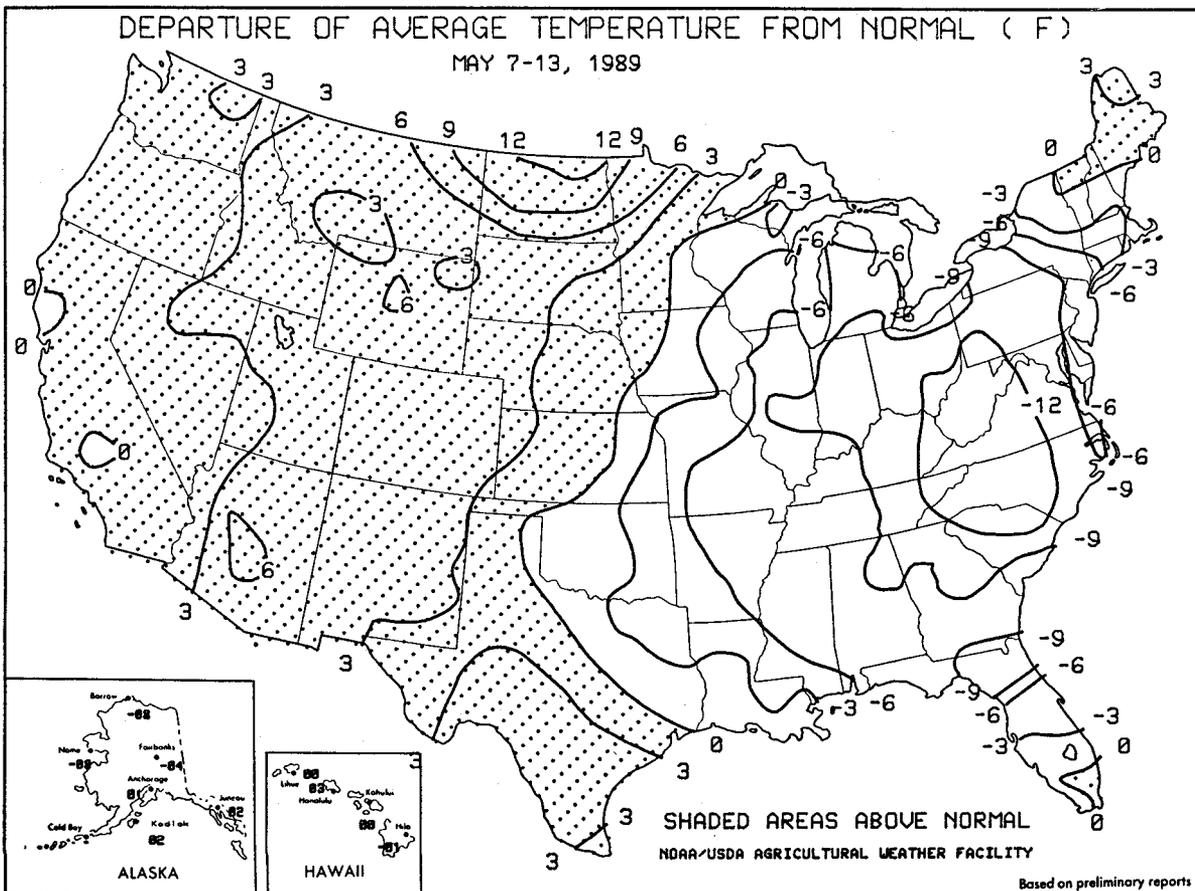
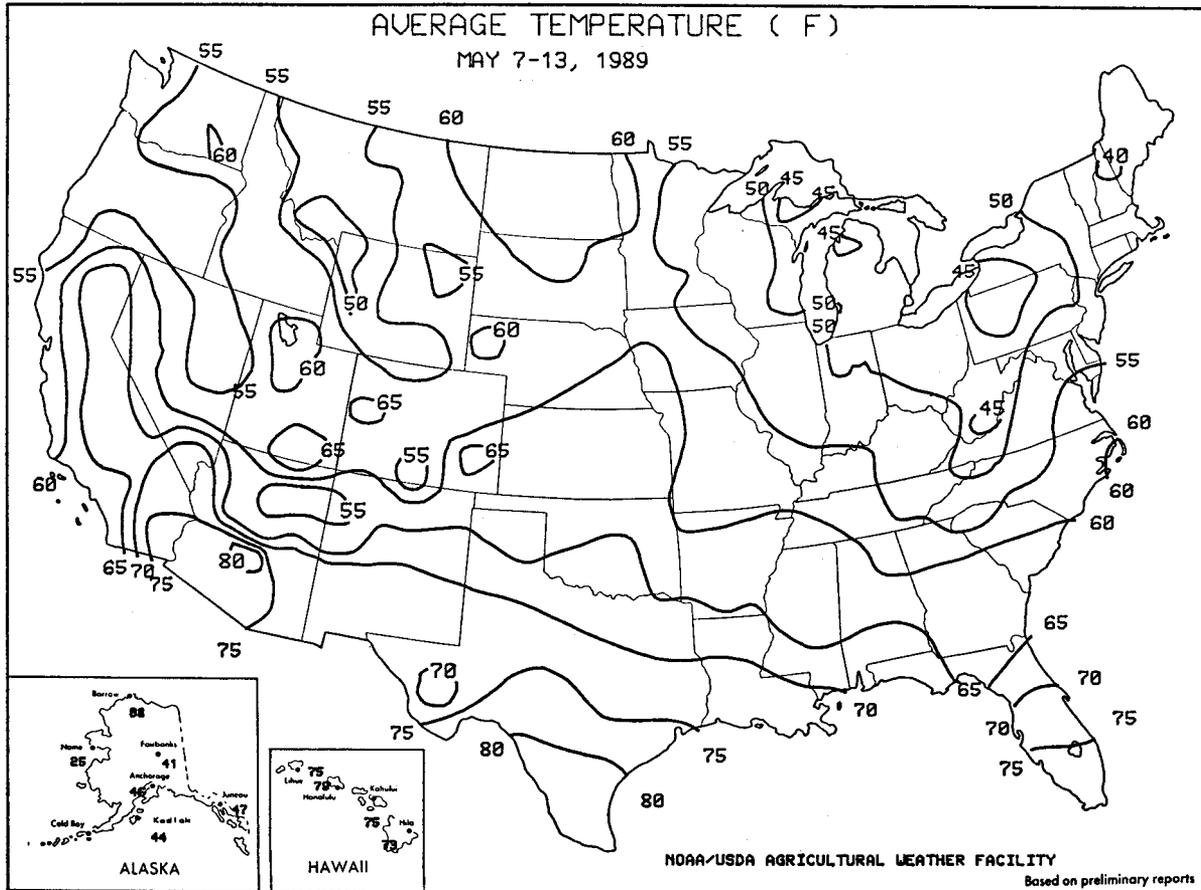
**SATURDAY:** Intense thunderstorms rumbled across the southern Plains into the Delta, with tornadoes, large hail, and heavy rain. Rain continued from New England to the lower Great Lakes. Pittsburgh, PA, experienced the thirteenth straight day of rain. Showers were widely scattered over the central Plains, northern and central Rockies, Great Basin, and the Southwest.

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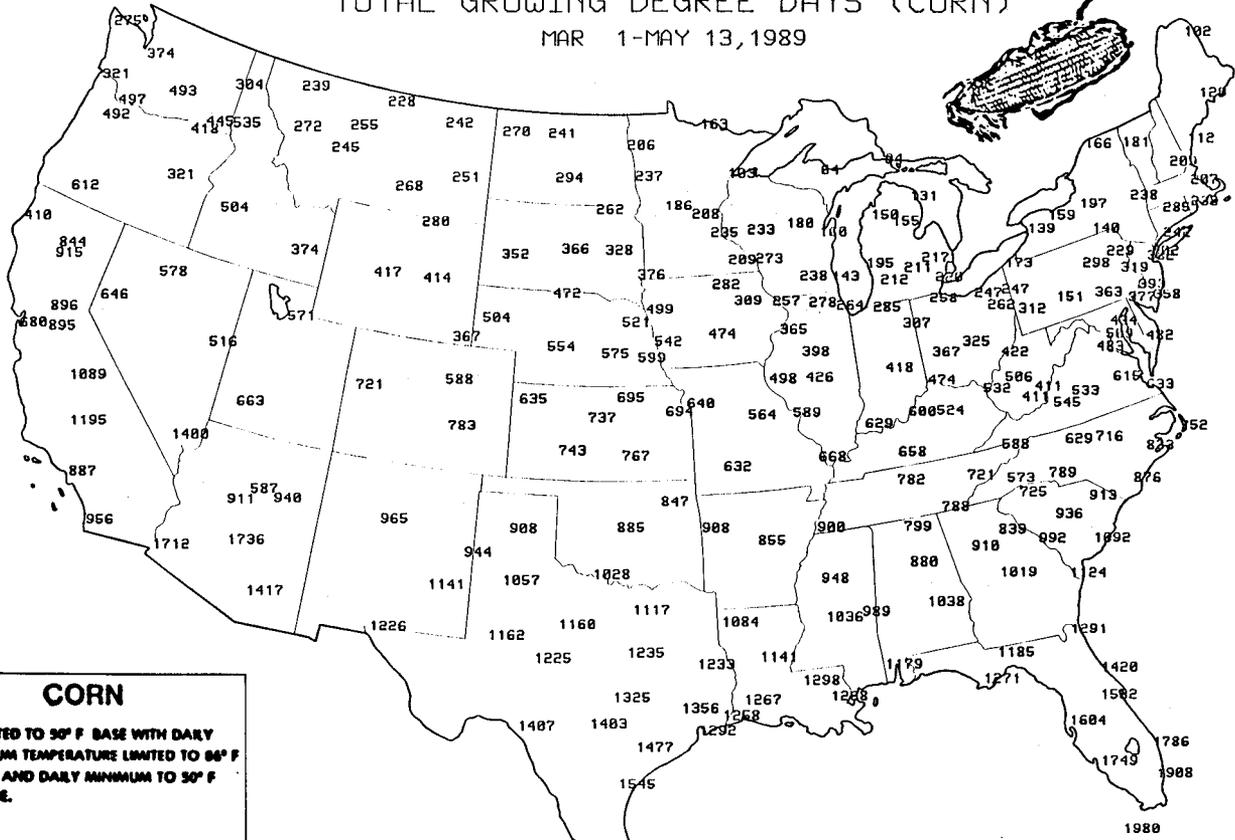
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TOTAL GROWING DEGREE DAYS (CORN)  
MAR 1-MAY 13, 1989

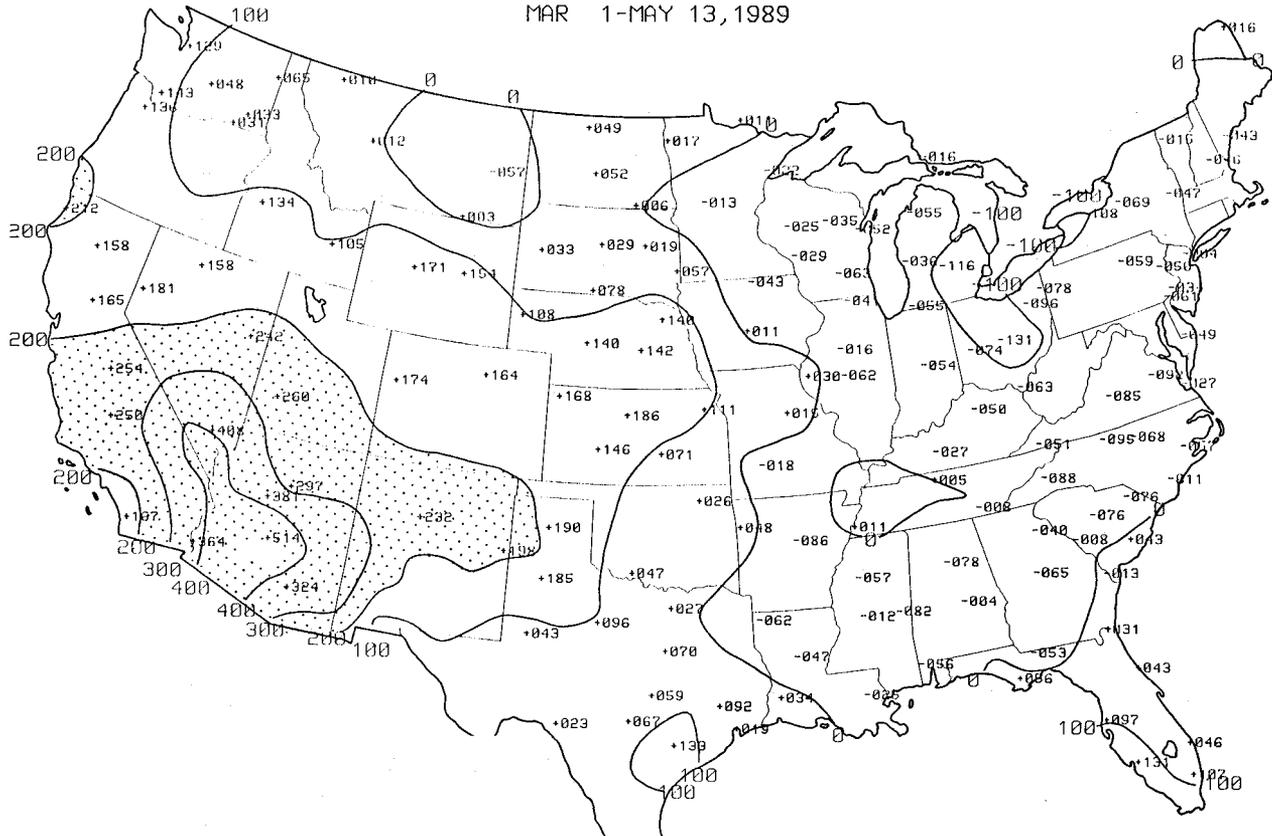


**CORN**

COMPUTED TO 30° F BASE WITH DAILY  
MAXIMUM TEMPERATURE LIMITED TO 86° F  
OR LESS AND DAILY MINIMUM TO 50° F  
OR MORE.

NOAA/USDA AGRICULTURAL WEATHER FACILITY Based on preliminary reports

GROWING DEGREE DEPARTURE FROM NORMAL  
MAR 1-MAY 13, 1989



NOAA/USDA AGRICULTURAL WEATHER FACILITY Based on preliminary reports

# National Weather Data for Selected Cities

Weather Data for the Week Ending May 13, 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		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	72	47	77	40	60	-9	.1	-9	0	12.5	92	20.8	88	96	38	0	0	3	0
MOBILE	79	54	84	46	67	-7	.3	-1.0	.2	11.0	78	14.6	62	94	40	0	0	2	0
MONTGOMERY	77	50	80	43	64	-7	.3	-6	.3	15.9	133	20.8	101	93	37	0	0	2	0
AK ANCHORAGE	53	38	57	30	46	1	.4	.3	.1	1.9	130	2.4	76	88	47	0	1	5	0
BARROW	15	1	24	-9	8	-8	T	T	T	.6	159	.9	117	87	74	0	7	1	0
FAIRBANKS	50	33	61	26	41	-4	.4	.3	.4	.7	87	2.2	122	76	40	0	4	2	0
JUNEAU	51	43	56	37	47	-4	1.2	.5	.4	3.7	48	10.5	70	97	73	0	0	6	1
KODIAK	52	36	59	30	44	-8	.5	-7	.3	8.2	84	12.1	59	89	50	0	1	3	0
NOME	33	17	37	11	25	8	0	-1	0	2.7	198	5.6	214	81	57	0	7	0	0
AZ PHOENIX	95	70	110	61	82	7	T	T	T	1.1	101	2.3	97	30	13	4	0	0	0
PRESCOTT	76	48	92	38	62	7	.1	0	.1	.7	28	2.4	41	52	16	2	0	1	0
TUCSON	92	60	106	48	76	5	T	T	T	.6	59	1.8	73	32	9	4	0	0	0
YUMA	91	64	107	55	78	1	1	0	0	.1	45	.7	81	47	18	3	0	0	0
AR FORT SMITH	75	50	85	38	63	-5	1.9	.8	1.4	10.4	104	20.4	142	97	46	0	0	3	1
LITTLE ROCK	72	53	78	48	63	-6	1.0	-2	1.0	12.1	98	23.9	119	81	46	0	0	2	1
CA BAKERSFIELD	79	56	97	49	68	-1	.5	.4	.4	1.4	80	2.3	63	83	37	2	0	3	0
EUREKA	58	51	62	49	55	3	.2	-2	.2	9.9	113	17.5	84	88	72	0	0	3	0
FRESNO	79	58	96	53	69	2	.6	.6	.6	2.9	100	4.6	67	78	34	2	0	2	1
LOS ANGELES	67	56	75	52	62	0	T	T	T	.9	31	3.2	38	88	57	0	0	0	0
REDDING	78	55	93	48	66	-1	.6	.3	.4	15.3	181	18.5	80	82	36	1	0	2	0
SACRAMENTO	78	52	93	44	65	1	T	T	T	6.4	181	8.4	81	88	39	1	0	0	0
SAN DIEGO	68	59	71	56	63	0	T	T	T	.9	32	1.9	30	81	57	0	0	1	0
SAN FRANCISCO	65	52	70	48	58	1	T	T	T	4.8	110	7.3	60	90	60	0	0	0	0
CO DENVER	72	47	87	42	60	4	.7	.1	.3	2.3	58	4.1	80	82	35	0	0	6	0
GRAND JUNCTION	79	51	90	39	65	5	.1	-1	.1	.8	47	3.2	109	49	15	1	0	1	0
PUEBLO	79	48	93	43	64	5	.1	-2	.1	.4	18	1.5	54	75	26	2	0	1	0
CT BRIDGEPORT	59	47	64	41	53	-4	1.3	.5	.9	9.5	104	13.4	87	85	62	0	0	2	1
HARTFORD	62	45	68	40	53	-4	2.4	1.6	1.7	11.6	121	14.3	88	95	53	0	0	5	2
DC WASHINGTON	62	47	68	44	54	-4	.8	0	.4	12.0	154	17.2	132	90	53	0	0	4	0
FL APALACHICOLA	78	56	82	51	67	-6	.4	-2	.4	7.5	89	10.7	69	93	44	0	0	1	0
DAYTONA BEACH	81	56	89	52	69	-5	.7	0	.7	6.5	102	13.9	118	92	39	0	0	1	1
JACKSONVILLE	79	51	88	48	65	-9	.6	-3	.6	6.4	80	9.9	68	90	34	0	0	1	1
KEY WEST	85	71	87	67	78	-2	0	-7	0	3.2	83	3.9	52	80	48	0	0	0	0
MIAMI	89	67	93	61	78	0	T	-1.3	T	3.1	41	4.4	39	82	34	3	0	0	0
ORLANDO	84	61	88	57	72	-4	.1	-6	.1	3.9	58	7.9	66	88	32	0	0	1	0
TALLAHASSEE	80	46	85	42	63	-9	.4	-7	.4	10.1	86	13.5	63	96	32	0	0	1	0
TAMPA	84	60	87	55	72	-4	T	-6	T	2.7	43	4.7	40	87	35	0	0	1	0
WEST PALM BEACH	86	67	92	59	77	-1	T	-2	T	8.7	108	10.6	80	81	42	1	0	1	0
GA ATLANTA	71	49	75	44	60	-8	1.8	.9	1.8	14.2	118	21.0	98	83	37	0	0	3	1
AUGUSTA	74	45	79	36	60	-10	1.0	.2	.6	12.4	128	17.1	97	94	38	0	0	2	1
MACON	74	48	80	42	61	-10	1.6	.7	1.5	14.3	139	20.8	109	95	37	0	0	2	1
SAVANNAH	77	51	80	43	64	-6	1.4	.5	1.3	7.3	83	8.4	56	87	31	0	0	2	1
HI HILO	79	67	82	65	73	0	4.2	1.9	1.4	49.1	158	83.0	154	97	71	0	0	6	4
HONOLULU	87	71	88	69	79	3	T	-3	T	3.9	70	12.4	104	82	50	0	0	0	0
KAHULUI	84	65	85	63	75	0	T	-1	T	18.6	457	25.5	232	89	55	0	0	0	0
LIHUE	79	71	80	68	75	0	.3	-4	.3	11.0	121	29.4	155	91	75	0	0	1	0
ID BOISE	71	46	84	35	59	3	T	-2	T	4.0	148	6.3	117	79	30	0	0	2	0
LEWISTON	71	50	82	40	61	4	.7	.4	.5	3.1	116	5.0	99	72	35	0	0	2	0
POCATELLO	69	45	83	35	57	4	.2	-1	.1	3.4	132	5.4	120	89	34	0	0	5	0
IL CHICAGO	60	38	63	29	49	-8	T	-7	T	3.4	43	5.0	47	77	36	0	1	1	0
MOLINE	67	37	71	29	52	-7	.8	-2	.5	6.9	81	9.3	82	89	35	0	1	2	1
PEORIA	66	38	69	29	52	-7	.8	-1	.6	6.5	78	8.7	76	82	34	0	1	2	1
QUINCY	70	42	76	33	56	-6	.1	-9	0	3.4	38	4.7	40	74	29	0	0	2	0
ROCKFORD	65	38	69	28	52	-6	T	-8	T	3.7	45	5.2	47	76	36	0	1	1	0
SPRINGFIELD	65	39	70	34	52	-10	.8	0	.7	8.2	96	10.4	88	85	36	0	0	2	1
IN EVANSVILLE	68	43	76	38	56	-8	.6	-4	.6	12.1	114	22.4	135	89	41	0	0	1	1
FORT WAYNE	59	39	65	28	49	-9	.6	-2	.3	5.9	74	9.0	75	89	48	0	1	4	0
INDIANAPOLIS	61	39	66	33	50	-10	.8	-1	.4	9.6	110	12.7	92	90	47	0	0	4	0
SOUTH BEND	59	37	63	28	48	-9	.1	-5	.1	5.4	65	8.0	63	87	38	0	1	2	0
IA DES MOINES	73	44	78	34	58	-1	T	-9	T	3.2	46	5.5	61	76	28	0	0	1	0
STOUK CITY	76	43	80	31	60	0	T	-7	T	1.9	37	3.3	48	68	22	0	1	0	0
WATERLOO	69	38	73	28	54	-4	.2	-8	.1	3.8	51	5.1	56	90	31	0	1	2	0
KS CONCORDIA	76	49	89	40	63	1	.3	-6	.2	1.7	30	2.8	40	74	31	0	0	2	0
DODGE CITY	74	52	94	46	63	1	.2	-5	.1	1.9	41	2.4	43	84	38	2	0	4	0
GOODLAND	74	48	91	44	61	4	.7	0	.4	1.8	56	2.2	55	83	42	1	0	4	0
TOPEKA	75	45	83	32	60	-2	1.8	1.0	1.8	6.1	90	8.2	94	93	35	0	1	1	1
WICHITA	75	51	97	39	63	-1	.3	-6	.2	3.1	51	4.2	57	87	39	1	0	2	0
KY BOWLING GREEN	69	43	79	38	56	-8	.6	-4	.6	10.0	87	27.1	135	94	46	0	0	2	1
LEXINGTON	62	42	67	33	52	-11	1.1	.1	1.1	10.6	100	24.7	142	90	47	0	0	1	1
LOUISVILLE	65	44	71	36	54	-9	1.2	.3	1.1	12.4	117	25.1	146	83	42	0	0	3	1
LA ALEXANDRIA	81	61	87	55	71	-2	.6	-6	.5	10.7	84	25.0	115	86	48	0	0	2	1
BATON ROUGE	80	59	86	51	70	-4	.5	-7	.4	11.4	92	16.9	77	85	44	0	0	2	0
LAKE CHARLES	82	63	86	56	72	-1	.2	-1	.1	9.2	99	14.4	83	92	49	0	0	2	0
NEW ORLEANS	80	63	84	58	71	-2	.4	-8	.4	11.3	100	13.9	65	88	49	0	0	1	0

Based on 1951-80 normals

Weather Data for the Week Ending May 13, 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
SHREVEPORT	78	57	87	51	68	-4	1.4	.3	.5	10.0	95	21.2	118	93	49	0	0	3	1
ME CARIBOU	62	45	68	35	53	5	1.5	.9	.6	6.3	102	9.6	90	98	65	0	0	5	1
PORTLAND	55	44	62	37	50	-1	5.1	4.3	3.4	13.4	145	17.0	102	98	68	0	0	4	2
MD BALTIMORE	60	45	68	40	53	-6	.6	-1	.5	11.5	136	17.9	124	94	68	0	0	4	0
SALTSBURY	64	46	72	40	55	-9	.9	.2	.9	12.6	146	17.2	112	94	48	0	0	2	1
MA BOSTON	60	47	68	44	53	-3	1.9	1.1	1.4	9.7	104	12.8	75	94	60	0	0	3	1
CHATHAM	57	46	62	44	52	0	2.8	1.9	2.0	13.9	145	19.1	105	99	86	0	0	5	1
MI ALPENA	56	35	60	28	45	-5	.5	-1	.4	5.4	97	7.4	86	89	41	0	0	2	0
DETROIT	57	42	64	32	50	-7	.3	-3	.3	4.9	73	7.0	68	89	51	0	0	3	0
FLINT	56	38	64	30	47	-7	.7	-1	.6	4.4	70	6.2	67	95	53	0	1	1	0
GRAND RAPIDS	60	37	67	27	49	-7	.2	-1	.2	4.4	60	6.4	59	86	39	0	2	2	0
HOUGHTON LAKE	57	35	67	26	46	-6	.1	-5	.1	4.1	74	5.8	69	81	38	0	3	2	0
LANSING	57	36	63	23	47	-8	.5	0	0	4.1	66	5.9	65	88	46	0	1	1	0
MARQUETTE	55	31	60	25	43	-5	0	-9	0	4.5	55	7.9	66	83	34	0	5	0	0
MUSKEGON	61	38	70	29	50	-5	.1	-5	.1	2.9	43	5.5	51	78	35	0	2	1	0
SAULT ST. MARIE	58	36	68	30	47	-1	T	-6	T	4.5	82	8.6	91	85	33	0	5	0	0
MN ALEXANDRIA	71	41	76	30	56	3	.3	-3	.3	3.2	72	4.1	69	77	25	0	1	1	0
DULUTH	63	32	66	27	48	0	T	-6	T	4.3	83	6.4	90	77	26	0	4	1	0
INT'L FALLS	73	37	78	28	55	6	0	-5	0	1.6	44	3.3	65	76	19	0	1	0	0
MINNEAPOLIS	68	42	74	32	55	-1	.9	-2	.9	6.0	123	7.6	116	85	30	0	1	1	0
ROCHESTER	66	38	71	27	52	-3	.1	-7	.1	5.5	97	6.3	88	82	33	0	1	1	0
MS GREENWOOD	74	51	81	43	63	-8	2.1	1.0	1.3	10.9	78	24.6	104	95	42	0	0	3	1
JACKSON	77	51	86	42	64	-7	.5	-7	.3	10.8	80	17.7	78	98	44	0	0	2	0
MERIDIAN	76	49	82	40	63	-8	T	-8	T	14.5	104	21.5	92	98	41	0	0	2	0
MO CAPE GIRARDEAU	72	44	76	37	58	-1	.2	-9	.1	8.4	73	22.3	128	92	40	0	0	2	0
COLUMBIA	70	43	75	36	57	-6	1.0	0	1.0	6.1	66	9.0	70	87	38	0	0	2	1
KANSAS CITY	75	44	81	34	60	-4	0	-1.0	0	4.1	53	5.7	56	79	29	0	0	0	0
SAINT LOUIS	70	46	78	40	58	-6	.3	-5	.2	7.0	85	11.0	91	80	32	0	0	2	0
SPRINGFIELD	70	41	73	31	55	-8	.2	-8	.2	5.6	60	9.1	70	95	41	0	1	1	0
MT BILLINGS	66	47	82	39	56	3	1.0	.4	.6	5.6	142	7.4	133	91	49	0	0	5	1
GLASGOW	71	48	82	44	60	7	.9	.6	.4	3.1	197	4.3	196	83	43	0	0	3	0
GREAT FALLS	63	46	79	39	54	3	.3	-2	.1	4.6	138	6.7	134	88	45	0	0	4	0
HAVRE	67	49	85	43	58	5	.4	-1	.2	2.5	108	3.3	99	74	38	0	0	3	0
HELENA	64	45	79	39	55	4	.2	-2	.1	2.4	103	4.7	134	83	37	0	0	5	0
KALISPELL	65	41	75	28	53	3	.8	.4	.8	4.3	172	7.0	136	84	34	0	1	1	1
MILES CITY	69	48	82	44	59	4	.4	-1	.4	5.4	192	6.7	168	77	42	0	0	2	0
MISSOULA	67	42	81	28	54	4	.5	-2	.4	3.7	153	4.9	107	87	34	0	1	4	0
NE GRAND ISLAND	75	47	85	36	61	2	.1	-7	.1	.8	15	2.2	32	73	28	0	0	1	0
LINCOLN	77	44	85	29	60	0	0	-9	0	.8	13	2.8	35	75	25	0	1	0	0
NORFOLK	76	43	80	29	59	1	T	-8	T	2.2	44	4.0	63	81	24	0	1	0	0
NORTH PLATTE	73	45	90	36	59	3	.1	-6	.1	1.4	33	2.7	53	82	34	1	0	2	0
OMAHA	75	48	80	39	62	1	T	-1.0	T	2.9	44	1.4	54	64	32	0	0	0	0
SCOTTSBLUFF	75	46	87	41	61	6	.9	.4	.8	2.4	70	3.4	81	80	32	0	0	3	1
VALENTINE	74	44	86	33	59	3	.1	-5	0	1.5	39	2.3	50	72	28	0	0	4	0
NV ELY	65	35	84	28	50	2	1.1	.8	.6	1.7	73	2.6	71	75	32	0	0	3	4
LAS VEGAS	85	61	102	49	73	2	.6	.6	.6	.7	97	1.3	77	49	21	3	0	1	1
RENO	70	49	86	42	59	6	.6	.5	.4	1.1	77	2.1	59	76	29	0	0	3	0
WINNEMUCCA	69	44	87	32	57	4	.2	-1	.1	1.4	77	2.2	68	78	31	0	1	2	0
NH CONCORD	61	41	69	30	51	-2	1.1	.4	.9	9.6	134	12.4	100	99	53	0	2	4	0
NJ ATLANTIC CITY	60	42	65	38	51	-7	2.0	1.3	1.9	12.5	147	18.4	120	98	60	0	0	2	1
NM ALBUQUERQUE	83	53	93	47	68	5	T	-1	T	.5	44	1.4	77	39	11	2	0	0	0
CLOVIS	80	53	92	46	66	2	.1	-4	.1	.4	17	1.1	35	87	35	2	0	1	0
ROSWELL	87	57	101	48	72	5	T	-1	T	.3	32	1.1	61	64	20	2	0	1	0
NY ALBANY	61	44	67	37	53	-2	1.8	1.0	.9	9.7	134	11.8	99	95	52	0	0	4	1
BINGHAMTON	50	40	60	32	45	-8	2.1	1.3	1.2	9.9	136	13.4	111	100	69	0	1	6	1
BUFFALO	51	39	64	32	45	-9	2.8	2.2	1.2	9.6	132	13.9	110	98	61	0	1	5	2
NEW YORK	60	48	68	44	54	-6	1.6	.8	1.5	10.7	115	16.1	104	90	54	0	0	2	1
ROCHESTER	53	39	63	33	46	-9	2.2	1.6	1.1	9.2	149	11.9	110	99	69	0	0	5	2
SYRACUSE	56	43	66	36	50	-6	1.3	.6	.5	7.7	100	10.4	81	99	66	0	0	7	1
NC ASHEVILLE	59	38	69	28	49	-13	.6	-3	.6	10.0	101	16.2	100	94	46	0	2	1	1
CHARLOTTE	66	45	73	35	55	-12	1.4	.5	1.4	12.1	127	18.4	108	91	38	0	0	1	1
GREENSBORO	62	40	70	32	51	-14	.6	-2	.5	14.5	173	19.9	131	94	45	0	1	2	1
HATTERAS	69	53	74	47	61	-4	.7	-2	.5	23.2	265	29.6	168	87	44	0	0	4	1
NEW BERN	70	48	74	38	59	-9	.9	0	.7	13.6	164	20.2	124	91	41	0	0	3	1
RALEIGH	65	42	72	36	54	-12	.7	-1	.7	13.7	170	21.5	143	95	44	0	0	3	1
WILMINGTON	72	47	78	38	59	-10	.4	-5	.3	15.4	179	19.6	125	95	39	0	0	2	0
ND BISMARK	77	46	85	38	61	8	T	-4	T	2.3	76	3.1	79	74	30	0	0	1	0
FARGO	76	47	80	38	62	8	T	-5	T	2.5	71	4.6	102	61	21	0	0	0	0
GRAND FORKS	78	44	82	37	61	9	T	-4	T	1.6	55	3.3	81	65	20	0	0	1	0
WILLISTON	76	49	87	41	62	10	T	-4	T	2.0	81	3.4	99	79	34	0	0	1	0
OH AKRON-CANTON	52	42	58	33	47	-10	1.7	.9	.5	8.9	110	13.1	103	95	43	0	0	6	1
CINCINNATI	61	42	66	33	52	-10	1.2	.3	1.0	13.8	152	21.7	146	90	41	0	0	3	1
CLEVELAND	53	44	60	35	49	-8	1.7	1.0	.9	10.6	138	14.4	117	90	41	0	0	6	1
COLUMBUS	54	42	60	32	48	-12	1.4	.6	.8	9.7	120	14.8	114	94	41	0	1	6	1

Weather Data for the Week Ending May 13, 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
DAYTON	59	42	67	34	50	-7	1.0	1.0	.2	.4	189	18.9	160	91	48	0	0	5	0
TOLEDO	57	41	64	31	49	-7	.6	0	.3	6.9	101	9.4	89	90	52	0	1	3	0
YOUNGSTOWN	51	41	59	33	46	-9	1.7	1.0	.7	8.0	100	11.9	92	97	68	0	0	6	1
OK OKLAHOMA CITY	77	54	92	50	66	-1	1.7	.5	1.7	4.9	69	8.3	88	86	42	1	0	2	1
TULSA	75	53	90	45	64	-4	.1	-1.1	.1	4.1	44	9.3	75	87	45	1	0	1	0
OR ASTORIA	60	44	64	36	52	1	.2	-5	.2	12.5	94	27.4	86	94	60	0	0	2	0
BURNS	63	38	77	30	51	0	.2	.1	.2	4.4	228	4.9	110	82	35	0	2	2	0
MEDFORD	70	47	83	36	58	2	.7	.4	.7	7.1	209	10.0	112	89	43	0	0	2	1
PENDLETON	67	46	78	38	57	0	.7	.4	.4	4.2	170	7.5	142	83	40	0	0	2	0
PORTLAND	67	48	76	42	58	2	.1	-4	.1	8.9	132	15.1	90	89	40	0	0	2	0
SALEM	67	43	79	34	55	2	T	-4	T	7.6	101	14.0	73	93	44	0	0	4	0
PA ALLENTOWN	56	43	65	38	49	-9	1.4	.6	1.2	10.2	110	14.2	91	95	65	0	0	1	1
ERIE	52	41	65	34	47	-7	2.3	1.6	.9	9.7	126	14.7	121	95	64	0	0	6	2
HARRISBURG	57	44	64	41	51	-10	1.5	.6	.0	10.3	126	14.5	105	94	60	0	0	3	1
PHILADELPHIA	61	45	73	43	53	-8	1.5	.8	1.4	11.9	138	17.6	121	91	57	0	0	3	1
PITTSBURGH	51	42	59	34	46	-11	2.6	1.9	1.4	11.3	136	16.7	123	94	70	0	0	6	2
SCHANTON	53	41	62	37	47	-10	1.6	.9	.8	9.3	134	12.0	107	97	64	0	0	6	2
RI PROVIDENCE	61	45	66	38	53	-3	2.7	1.9	1.4	13.9	143	17.7	101	97	58	0	0	3	2
SC CHARLESTON	75	52	77	45	63	-8	.8	-1	.7	9.8	116	13.0	86	86	38	0	0	2	1
COLUMBIA	71	45	76	35	58	-12	1.1	.3	.7	13.1	127	18.2	97	97	37	0	0	2	1
FLORENCE	70	46	74	36	58	-12	.7	.0	.4	11.9	143	16.4	108	94	41	0	0	2	0
GREENVILLE	65	41	73	31	53	-14	1.0	.1	1.0	10.4	87	16.8	82	92	45	0	1	1	1
SD ABERDEEN	73	46	78	35	59	5	.1	-5	.1	5.0	129	5.9	118	77	29	0	0	1	0
HURON	73	41	77	33	57	2	.1	-5	.1	4.1	97	5.1	96	76	32	0	0	1	0
RAPID CITY	72	45	86	36	58	5	.3	-3	.1	2.8	70	3.1	64	82	42	0	0	3	0
SIOUX FALLS	74	42	77	29	58	2	.1	-6	.1	2.9	57	3.7	56	71	26	0	1	1	0
TN CHATTANOOGA	70	45	75	38	57	-9	.8	-1	.7	12.4	98	24.9	111	95	38	0	0	3	1
KNOXVILLE	66	42	74	34	54	-12	.6	-3	.6	10.0	92	21.2	108	99	47	0	0	1	1
MEMPHIS	74	52	79	44	63	-7	.3	-9	.2	8.3	62	26.7	120	82	38	0	0	2	0
NASHVILLE	71	46	75	41	58	-8	.2	-9	.1	9.3	78	23.2	113	83	37	0	0	2	0
TX ABILENE	83	62	100	56	72	1	.5	-2	.4	3.0	63	6.6	98	80	42	2	0	3	0
AMARILLO	76	52	92	49	64	0	.2	-3	.2	2.1	74	2.8	72	89	37	1	0	2	0
AUSTIN	83	65	90	60	74	0	2.6	1.6	1.4	8.6	132	13.3	125	98	63	2	0	3	2
BEAUMONT	82	64	86	58	73	-1	1.1	0	1.1	8.3	90	15.3	87	94	55	0	0	1	1
BROWNSVILLE	87	73	88	71	80	1	1.0	.6	1.0	5.0	175	7.0	126	95	60	0	0	1	1
CORPUS CHRISTI	88	73	91	70	80	3	T	-7	T	3.8	97	6.7	96	97	61	1	0	0	0
DEL RIO	91	69	101	67	80	4	.7	.3	.6	1.8	55	3.8	81	77	34	3	0	3	1
EL PASO	89	57	100	53	73	2	.5	.4	.3	1.1	195	1.9	141	48	11	3	0	2	0
FORT WORTH	77	60	86	57	68	-3	.3	-7	.3	9.6	115	15.9	133	88	51	0	0	2	0
GALVESTON	80	72	83	68	76	1	1.4	.6	1.4	5.1	83	11.5	100	89	66	0	0	2	1
HOUSTON	83	64	89	59	74	0	1.6	.5	1.4	8.7	104	14.4	95	94	53	0	0	3	1
LUBBOCK	83	55	102	49	69	2	.1	-5	0	.8	28	2.4	62	86	33	2	0	2	0
MIDLAND	88	59	106	54	74	3	.9	.4	.9	1.3	61	2.8	91	82	29	2	0	2	1
SAN ANGELO	87	63	99	58	75	3	.1	-5	.1	3.7	104	7.3	147	85	39	3	0	1	0
SAN ANTONIO	88	68	96	63	78	4	T	-8	T	3.8	69	7.1	79	90	48	3	0	1	0
VICTORIA	87	70	90	68	79	3	.2	.1	.1	3.0	52	7.3	75	92	54	2	0	2	0
WACO	81	63	89	55	72	-1	1.3	.2	1.1	8.9	114	13.6	119	93	57	0	0	2	1
WICHITA FALLS	78	58	94	50	68	-2	1.2	.2	1.2	5.4	83	10.0	117	93	51	1	0	1	1
UT CEDAR CITY	70	44	87	31	57	2	.4	.2	.2	1.2	49	2.5	64	66	25	0	1	3	0
SALT LAKE CITY	74	51	87	41	62	6	.7	.4	.4	3.1	66	5.1	70	80	32	0	0	4	0
VT BURLINGTON	63	45	72	41	54	1	.7	0	.3	6.8	112	7.9	82	91	48	0	0	5	0
VA NORFOLK	67	47	72	38	57	-8	.6	-3	.3	13.8	168	22.9	151	93	43	0	0	4	0
RICHMOND	66	45	72	38	55	-9	.7	-1	.6	13.4	170	19.6	138	94	47	0	0	2	1
ROANOKE	59	42	68	35	50	-13	1.4	.7	1.4	11.2	136	14.5	102	92	51	0	0	2	1
WA QUILLAYUTE	60	41	65	33	51	1	.3	-9	.2	16.3	75	38.2	79	97	52	0	0	4	0
SEATTLE-TACOMA	65	46	73	39	55	1	.1	-3	.1	8.7	130	15.0	88	95	50	0	0	2	0
SPOKANE	68	42	80	33	55	2	.3	0	.2	4.0	136	6.2	88	87	33	0	0	2	0
YAKIMA	71	41	82	33	56	0	.1	0	.1	2.0	159	2.9	85	85	29	0	0	1	0
WV BECKLEY	51	36	62	29	44	-15	1.2	.4	.8	11.4	129	17.7	114	95	54	0	2	4	1
CHARLESTON	55	41	66	33	48	-14	1.2	.3	.8	14.0	155	23.0	147	97	62	0	0	6	1
HUNTINGTON	58	42	68	34	50	-13	1.0	.1	.9	11.8	128	24.0	158	93	49	0	0	4	1
PARKERSBURG	55	43	63	35	49	-13	1.4	.6	.7	12.9	155	21.1	153	95	64	0	0	6	1
WI GREEN BAY	62	36	69	28	49	-4	0	-7	0	3.7	63	4.4	55	75	34	0	1	0	0
LACROSSE	69	39	75	34	54	-3	.1	-7	.1	4.6	73	5.4	67	81	25	0	0	1	0
MADISON	63	34	68	24	49	-7	T	-7	T	3.6	55	4.7	55	86	33	0	3	1	0
MILWAUKEE	56	39	60	29	47	-5	.2	-4	.2	4.9	69	6.4	64	78	41	0	1	1	0
WAUSAU	65	36	71	27	50	-3	T	-8	T	2.9	47	4.2	51	86	29	0	1	1	0
WY CASPER	70	41	80	37	56	5	1.6	1.1	1.3	3.0	89	4.5	103	88	35	0	0	3	1
CHEYENNE	68	42	81	38	55	5	.2	-3	.1	1.2	39	2.8	70	90	37	0	0	6	0
LANDER	69	44	79	34	56	6	1.7	1.0	.6	3.1	70	3.9	70	78	31	0	0	4	2
SHERIDAN	66	43	83	39	54	3	.9	.4	.8	4.8	119	5.7	102	94	53	0	0	2	1
PR SAN JUAN	-999	73	-999	70	-999	--	0	-1.3	0	6.1	74	10.4	79	89	66	0	0	0	0

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

STATION	HDD	DEP	STATION	HDD	DEP	STATION	HDD	DEP
AL. Birmingham . . .	189	79	MD. Baltimore . . .	374	40	OK. Okla. City . . .	140	-44
Mobile . . .	81	38	MA. Boston . . .	565	76	Tulsa . . .	155	-13
Montgomery . . .	146	74	Chatham . . .	614	2	OR. Astoria . . .	399	-123
AK. Anchorage . . .	765	-123	MI. Alpena . . .	769	28	Burns . . .	530	-127
Barrow . . .	1772	-229	Detroit . . .	591	63	Medford . . .	225	-216
Fairbanks . . .	859	-185	Flint . . .	626	50	Pendleton . . .	354	-87
Nome . . .	1206	-207	Grand Rapids . . .	625	64	Portland . . .	263	-175
AZ. Flagstaff . . .	432	-270	Houghton Lake . . .	711	18	Salem . . .	308	-175
Phoenix . . .	0	-52	Lansing . . .	637	76	PA. Allentown . . .	489	39
Tucson . . .	9	-77	Marquette . . .	902	74	Erie . . .	651	48
Winslow . . .	156	-204	S. Ste. Marie . . .	835	241	Harrisburg . . .	433	49
Yuma . . .	0	-37	MN. Duluth . . .	839	38	Philadelphia . . .	371	8
AR. Fort Smith . . .	160	13	Internatl Falls . . .	863	59	Pittsburg . . .	532	85
Little Rock . . .	154	30	Minneapolis . . .	583	13	Scranton . . .	575	74
CA. Bakersfield . . .	42	-95	Rochester . . .	620	8	RI. Providence . . .	557	44
Eureka . . .	309	-159	St. Cloud . . .	669	9	SC. Charleston . . .	121	52
Fresno . . .	52	-135	MS. Jackson . . .	135	58	Columbia . . .	165	78
Los Angeles . . .	80	-100	Meridian . . .	148	63	Greenville . . .	229	75
Redding . . .	140	-70	MO. Columbia . . .	356	40	SD. Aberdeen . . .	597	-15
Stockton . . .	94	-212	Kansas City . . .	319	5	Huron . . .	529	-53
San Diego . . .	37	-87	St. Louis . . .	293	14	Rapid City . . .	586	-26
San Francisco . . .	162	-144	Springfield . . .	303	24	Sioux Falls . . .	574	13
CO. Denver . . .	432	-96	MT. Billings . . .	595	-17	TN. Chattanooga . . .	220	49
Pueblo . . .	378	-43	Glasgow . . .	641	-34	Knoxville . . .	257	76
CO. Bridgeport . . .	505	13	Great Falls . . .	642	-27	Memphis . . .	173	47
Hartford . . .	553	67	Havre . . .	661	-8	Nashville . . .	258	72
DC. Washington . . .	297	40	Helena . . .	610	-71	TX. Abilene . . .	116	18
FL. Apalachicola . . .	41	11	Kalispell . . .	605	-67	Amarillo . . .	219	-52
Jacksonville . . .	63	42	Miles City . . .	626	23	Austin . . .	64	23
Key West . . .	0	0	Missoula . . .	600	-33	Beaumont . . .	60	37
Miami . . .	0	0	NE. Grand Island . . .	393	-54	Brownsville . . .	9	9
Orlando . . .	4	4	Lincoln . . .	374	-43	Corpus Christi . . .	25	18
W. Palm Beach . . .	0	0	Norfolk . . .	417	-72	Del Rio . . .	39	24
Tallahassee . . .	89	41	North Platte . . .	426	-96	El Paso . . .	52	-41
Tampa . . .	7	7	Omaha . . .	380	-58	Fort Worth . . .	102	17
GA. Atlanta . . .	160	27	Valentine . . .	523	-53	Galveston . . .	38	19
Augusta . . .	153	61	NV. Ely . . .	477	-246	Houston . . .	56	24
Macon . . .	148	88	Las Vegas . . .	23	-108	Lubbock . . .	132	-46
Savannah . . .	110	68	Reno . . .	321	-237	Midland . . .	102	0
ID. Boise . . .	356	-136	Winnemucca . . .	419	-172	San Angelo . . .	101	28
Lewiston . . .	260	-184	NH. Concord . . .	703	76	San Antonio . . .	55	27
Pocatello . . .	469	-143	NJ. Atlantic City . . .	464	44	Victoria . . .	37	19
IL. Chicago . . .	540	54	NM. Albuquerque . . .	133	-169	Waco . . .	82	11
Moline . . .	461	23	NY. Albany . . .	607	55	Wichita Falls . . .	123	5
Peoria . . .	442	31	Binghamton . . .	698	77	UT. Milford . . .	359	-202
Rockford . . .	537	24	Buffalo . . .	687	99	Salt Lake City . . .	313	-161
Springfield . . .	405	51	New York . . .	402	9	VT. Burlington . . .	691	22
Fort Wayne . . .	522	48	Rochester . . .	682	112	VA. Lynchburg . . .	317	54
Indianapolis . . .	419	37	Syracuse . . .	639	72	Norfolk . . .	282	63
South Bend . . .	528	33	NC. Asheville . . .	331	48	Richmond . . .	293	67
IA. Des Moines . . .	417	-18	Charlotte . . .	189	3	Roanoke . . .	339	71
Dubuque . . .	549	15	Greensboro . . .	279	124	WA. Quillayute . . .	437	-133
Souix City . . .	428	-35	Hatteras . . .	192	-23	Seattle-Tacoma . . .	340	-149
KS. Concordia . . .	310	-57	Raleigh . . .	257	76	Spokane . . .	473	-103
Dodge City . . .	270	-61	Wilmington . . .	187	93	Walla Walla . . .	325	-56
Goodland . . .	435	-54	ND. Bismark . . .	621	-54	Yakima . . .	383	-91
Topeka . . .	296	-25	Fargo . . .	677	-10	WV Beckley . . .	441	36
Wichita . . .	238	-37	Williston . . .	640	-56	Charleston . . .	367	69
KY. Lexington . . .	351	45	OH. Akron-Canton . . .	583	91	Huntington . . .	340	47
Louisville . . .	291	27	Cincinnati . . .	380	30	WI. Green Bay . . .	687	48
LA. Baton Rouge . . .	68	36	Cleveland . . .	585	78	Madison . . .	602	26
Lake Charles . . .	62	33	Columbus . . .	499	91	Milwaukee . . .	649	37
New Orleans . . .	60	35	Dayton . . .	445	40	WY Casper . . .	597	-90
Shreveport . . .	93	24	Toledo . . .	578	62	Cheyenne . . .	615	-81
ME. Caribou . . .	841	10	Youngstown . . .	618	90	Lander . . .	531	-150
Portland . . .	708	42				Sheridan . . .	618	-57

## National Agricultural Summary

MAY 8-14, 1989

**HIGHLIGHTS:** Rain slowed fieldwork in the eastern Corn Belt, the Delta, and the East. Soil moisture was mostly adequate to surplus in those areas. In the Great Plains, soil moisture remained mostly short to adequate. Soil moisture was mostly short in Nebraska, Colorado, and Kansas. The average number of days suitable for fieldwork ranged from less than 1 in the eastern Corn Belt to over 6 in the Great Plains and the West.

Winter wheat was mostly fair to poor with 51 percent (%) of the acreage headed, 8 percentage points ahead of the 5-year average. Harvest was underway in California, Georgia, and Texas. Cool, wet weather improved winter wheat condition in Oklahoma. Spring wheat planting was 77% complete, 3 points behind normal. Thirty-six percent of the acreage was emerged, 16 points behind normal. Corn planting was 68% complete, 4 points behind normal. Rain continued to slow planting in the eastern Corn Belt and the Southeast. Soybean planting was 14% complete, 10 points behind normal. Cotton planting was 54% complete, 2 points behind normal. Planting was behind normal in the Southeast. Sorghum planting was 29% complete, equal to the average. Light rains benefited Florida citrus groves but irrigation continued.

**SMALL GRAINS:** Winter wheat was mostly fair to poor, with 51% of the acreage headed, 8 points ahead of normal. Heading was ahead of normal in Kansas and Oklahoma, behind normal in Illinois and Indiana, and near normal in the other major producing States. Heading had not begun in Idaho, Michigan, Montana, Ohio, and South Dakota. Harvest was underway in California, Georgia, and Texas. In the Pacific Northwest, Corn Belt, and Southeast, winter wheat was mostly good to fair. In the Great Plains, winter wheat was mostly fair to poor.

In Kansas, winter wheat condition remained mostly very poor to poor. Seventy percent of the acreage was headed, 25 points ahead of normal. Cool, wet weather improved winter wheat condition in Oklahoma, where condition was mostly fair to good. Heading was 95% complete, 20 points ahead of normal. In Nebraska, winter wheat was mostly fair to poor. Wheat streak mosaic was a problem in the Panhandle and southwestern area.

Powdery mildew and wheat streak mosaic were problems in Missouri. In Texas, small grain fields were turning color in the Blacklands and Cross Timbers areas. Harvest continued in the southern area. Producers continued to destroy poorer fields in the Plains area.

Spring wheat planting was 77% complete, only slightly behind the 80% normal. Thirty-six percent of the crop was emerged, 16 points behind normal. Crusty soil hampered emergence in South Dakota. Warm, dry weather allowed producers to plant roughly one-third of their acreage in North Dakota and Minnesota during the week. Crop emergence was behind normal in all the major producing States except Idaho.

**CORN:** Corn planting was 68% complete, 4 points behind normal. Producers planted over one-third of their acreage in Iowa, Michigan, Minnesota, and South Dakota during the week. Rain continued to slow planting in the eastern Corn Belt and Southeast. In Ohio, planting was 13% complete, 62 points behind normal. Planting was 30 points and 37 points behind normal in Indiana and North Carolina, respectively.

**SOYBEANS:** Soybean planting was 14% complete, 10 points behind normal. Planting lagged behind normal in the eastern Corn Belt. Planting was 23 points and 35 points behind normal in Indiana and Ohio, respectively. In Illinois, planting was 24% complete, 18 points behind normal.

**COTTON:** Cotton planting was 54% complete, 2 points behind normal. Rain slowed planting in the Southeast. Planting was 44 points behind normal in both North and South Carolina. In Georgia, blowing sand damaged some emerged fields and was expected to force some replanting. Cool temperatures slowed germination and growth in Arkansas, Georgia, and Mississippi. Hail and heavy rain may force some replanting in Arkansas, Louisiana, and Texas. Fields were squaring and beginning to set bolls in the Rio Grande Valley and Coastal Bend area of Texas. Some producers were waiting for rain before planting in the Cross Timbers area. Planting was nearly complete in Arizona and California. Forty percent of the acreage was squaring in Arizona. Thinning and cultivation were active in California.

**SORGHUM:** Sorghum planting was 29% complete, equal to the average. In Texas, planting was 67% complete, slightly ahead of normal. Fields were beginning to head in the Rio Grande Valley and Coastal Bend area. Planting progress was near normal in Kansas and Nebraska. In Tennessee, planting was 24 points behind the 48% average.

**OTHER FIELD CROPS:** Rice planting was 80% complete, 3 points ahead of normal. Fifty-three percent of the acreage was emerged, 4 points behind normal. In Arkansas, planting was 9 points ahead of the 73% average. Planting was nearly complete in Texas. Peanut planting lagged behind normal in North Carolina and Virginia. In Georgia, planting was 80% complete, 6 points ahead of normal. Tobacco plant set was underway in Kentucky. Tobacco transplanting was 6% complete, 9 points behind normal in Tennessee. Tobacco was mostly fair to good in North Carolina.

**FRUIT AND NUTS:** Light rains benefited Florida citrus groves but irrigation continued. Water supplies were low in some areas. Valencia orange harvest was active but grapefruit harvest slowed. Peach harvest began in Alabama and Georgia. Peaches were fair to good in South Carolina and

fair to poor in Virginia. Early variety peach harvest began in east Texas. Pecans were blooming in the central and southern areas. Valencia orange and grapefruit harvests continued in Arizona. In western Arizona, grape harvest began and peach harvest was completed. In central Arizona, peach, apricot, and nectarine harvests were active. In California, table grape harvest began in the Coachella Valley. Early apricot and cherry harvests continued in the San Joaquin Valley. Cherries were sizing well in Oregon. In Washington, blooming for major fruit crops was complete in Chelan, Okanogan, and Lewis Counties.

**VEGETABLES:** In Florida, vegetable harvest was active in the central area and nearly complete in the south. Irrigation was active in all areas. Harvest volume leaders were potatoes, tomatoes, watermelons, sweet corn, cucumbers, peppers, and celery. In Georgia, cool temperatures and blowing sand damaged watermelons and other vegetables. Watermelons were fair to good in South Carolina. In Texas, cantaloup harvest was beginning in the Rio Grande Valley. Melon planting was underway. In western Arizona, honeydew melon harvest was active. Dry onion and potato harvests continued in the central area. In California, asparagus harvest was nearly complete in the Sacramento Valley. Broccoli harvest continued in the Salinas and Santa Maria areas. Cantaloups were blooming in the Westside area. Spring potato harvest was underway in Kern County.

**PASTURES AND LIVESTOCK:** Livestock was in mostly good condition. Pastures were mostly good to fair in the east and fair to poor in the Great Plains and the West.

## Winter Wheat

Production is forecast at 1.43 billion bushels as of May 1, 1989. This is down 8 percent from the 1.56 billion bushels produced in 1988 and is the lowest production level since 1978. Harvested area, at 41.0 million acres, is up 3 percent from last year. However, the current harvested-to-planted ratio of 75.0 percent is the lowest since the 1951 ratio of 71.4 percent. Yield prospects are for an average of 34.9 bushels per acre, down 4.3 bushels from last season. This would be the lowest average yield since 1978.

Conditions point to lower yields than last season in the central and southern Plains, the Southeast and along the Pacific Coast States. Harvested acreage levels are above 1988 with a few exceptions, most notably, Kansas, Montana, New Mexico, Texas, and Washington.

April rainfall in Kansas was 20 percent of normal; the accumulated July '88 - April '89 precipitation total is the lowest since 1976. Much of the wheat in central and western Kansas is heading out at 10-14 inches. Lack of adequate moisture has the Nebraska crop stressed. Conditions in Texas have declined through the spring due to lack of moisture and freeze damage. Wheat in central Texas and the Blacklands did benefit from some recent rainfall.

SPRING WHEAT  
% PLANTED

	1989	1988	AVG.
IDAHO	93	89	85
MINN	81	99	80
MONT	62	95	82
N DAK	75	88	75
S DAK	92	100	91

5 STATES 77 93 80

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

WINTER WHEAT  
% HEADED

	1989	1988	AVG.
ARK	98	97	NA
CALIF	97	96	97
COLO	5	1	13
GA	100	100	99
IDAHO	0	0	0
ILL	25	53	49
IND	10	18	23
KANS	70	45	45
MICH	0	0	0
MO	62	59	60
MONT	0	0	0
NEBR	10	8	13
N MEX	100	96	NA
N C	94	84	NA
OHIO	0	0	0
OKLA	95	80	75
OREG	6	5	5
S DAK	0	0	5
TEX	77	53	75
WASH	3	2	1

20 STATES 53 42 NA

EXCL. STATES WITH NA 51 39 43

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

NA - NOT AVAILABLE.

CORN  
% PLANTED

	1989	1988	AVG.
COLO	81	78	80
GA	97	98	98
ILL	83	97	84
IND	40	91	70
IOWA	88	94	79
KANS	85	80	60
KY	62	81	68
MICH	65	75	65
MINN	57	87	63
MO	93	92	76
NEBR	82	80	70
N C	53	96	90
OHIO	13	87	75
PA	17	39	43
S DAK	52	61	37
TEX	98	96	97
WIS	44	68	54

17 STATES 68 86 72

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

Crop Progress

FOR WEEK ENDING MAY 14, 1989

SPRING WHEAT  
% EMERGED

	1989	1988	AVG.
IDAHO	69	72	66
MINN	39	85	56
MONT	13	69	54
N DAK	30	54	43
S DAK	68	90	74

5 STATES 36 68 52

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

GRAIN SORGHUM  
% PLANTED

	1989	1988	AVG.
ARK	72	77	70
ILL	15	44	24
KANS	10	10	10
LA	75	70	76
MISS	58	74	59
MO	40	48	33
NEBR	13	21	15
OKLA	10	10	10
S DAK	4	5	5
TENN	24	56	48
TEX	67	64	66

11 STATES 29 31 29

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

RICE  
% PLANTED

	1989	1988	AVG.
ARK	82	82	73
CALIF	50	53	50
LA	83	89	89
MISS	89	95	85
TEX	99	100	97

5 STATES 80 83 77

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

COTTON  
% PLANTED

	1989	1988	AVG.
ALA	89	93	82
ARIZ	98	96	97
ARK	59	79	67
CALIF	98	95	98
GA	51	65	68
LA	67	72	75
MISS	62	84	72
MO	75	92	70
N MEX	95	87	77
N C	23	56	67
OKLA	25	20	15
S C	38	75	82
TENN	80	86	72
TEX	32	31	33

14 STATES 54 58 56

THESE 14 STATES PRODUCED 99% OF THE 1988 COTTON CROP.

SOYBEANS  
% PLANTED

	1989	1988	AVG.
ALA	23	20	16
ARK	7	11	10
GA	11	17	20
ILL	24	62	42
IND	7	50	30
IOWA	18	38	26
KANS	15	15	10
KY	10	17	12
LA	7	12	18
MICH	10	20	15
MINN	16	45	26
MISS	9	10	12
MO	23	30	21
NEBR	16	25	12
N C	6	9	12
OHIO	3	52	38
S C	3	7	6
S DAK	9	20	10
TENN	10	11	10

19 STATES 14 35 24

THESE 19 STATES PRODUCED 95% OF THE 1988 SOYBEANS CROP.

RICE  
% EMERGED

	1989	1988	AVG.
ARK	44	38	48
CALIF	10	15	17
LA	72	74	80
MISS	65	63	65
TEX	94	98	88

5 STATES 53 52 57

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

Crop Condition Percent

FOR WEEK ENDING MAY 14, 1989

WINTER WHEAT

STATE	VP	P	F	G	EX
ARK	0	7	50	43	0
CALIF	0	0	5	75	20
COLO	15	25	36	22	2
GA	5	20	47	26	2
IDAHO	7	5	36	44	8
ILL	0	0	9	77	14
IND	0	0	29	61	10
KANS	62	23	11	2	2
MICH	2	8	30	45	15
MO	5	9	58	27	1
MONT	23	18	29	24	6
NEB	32	27	34	7	0
N MEX	40	45	10	5	0
N C	0	10	30	57	3
OHIO	1	8	29	54	8
OKLA	15	20	35	30	0
OREG	0	0	17	67	16
S DAK	2	12	44	42	0
TEX	19	38	37	6	0
WASH	0	0	85	15	0
20 STATE	24	20	31	22	3
PREV YEAR	2	13	31	46	8

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

## State Summaries of Weather and Agriculture

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

**ALABAMA:** Rainfall 0.50 to 1.00 in. Temperatures 5 to 7° below normal; 9° below normal extreme northeast.

Days suitable for fieldwork 4.5. Soil moisture 13% short, 74% adequate, 13% surplus. Fieldwork progress 43% behind schedule, 55% on schedule, 2% ahead of schedule. Spring planting acreage 89% prepared, 96% 1988, 92% avg. Corn 94% planted, 97% 1988, 95% avg.; 1% poor, 37% fair, 55% good, 7% excellent. Sorghum 44% planted, 36% 1988, 33% avg. Cotton 89% planted, 93% 1988, 82% avg.; 13% poor, 66% fair, 21% good. Soybeans 23% planted, 20% 1988, 16% avg. Peanuts 68% planted, 77% 1988, 63% avg.; 1% poor, 11% fair, 88% good. Winter wheat 95% headed, 98% 1988, 95% avg.; 60% turning color, 45% 1988, 43% avg.; few fields harvested; 1% very poor, 9% poor, 53% fair, 33% good, 4% excellent. Peach harvest underway Chilton county. Livestock, pastures mostly good to fair. Primary activities: Land preparation; planting, cultivating row crops, vegetables; cutting, baling hay; controlling pests on pecans, fruits, vegetables; monitoring catfish ponds; general care of livestock, poultry.

**ALASKA:** NO DATA AVAILABLE

**ARIZONA:** Very warm temperatures 7th to 8th. Bullhead City, 111°. Isolated rain showers, gusty winds 9th, 10th. Cooling trend 11th, temperatures 20 to 32° lower than 8th. Cool air continued 12th to 13th. Temperatures normal to 7° above normal.

Cotton 98% planted, 96% 1988; mostly good; 40% nearly squaring. Weeds, insects, diseases minimal. Small grains 100% headed, 99% 1988; 75% turning color, 70% 1988. Alfalfa harvest statewide; mostly good. Alfalfa weevil, aphids spraying. Grape harvest, shipping began west. Melon harvest expected. Artichoke, peach harvest, shipping completed west. Honeydew harvest, shipping continued west. Dry onion, potato harvest, shipping central. Peaches, apricots, nectarines picked central. Vegetables shipped central included broccoli, cabbage, parsley, turnips, summer squash, carrots. Head lettuce harvest continued east. Valencia orange, grapefruit harvest continued west, central.

**ARKANSAS:** Unseasonably cold weather. Temperatures remained well below normal. Moderate to heavy rains most sections, damaging hail, slight flooding east central. Extremes 34°; 85°. Rainfall 0.40 to 5.72 in.

Days suitable for fieldwork 4.0. Soil moisture 15% short, 65% adequate, 20% surplus. Main farming activities: Rice, corn, cotton, sorghum, some soybean planting, hay cutting, fertilizer, herbicide applications, scouting for diseases; construction of levee gates. Cotton 32% emerged; 39% 1988; 39% avg. Hail damage severe east central counties. Cool nights, cold ground retarded crop growth. Rice 44% emerged, 38% 1988, 48% avg.; 13% poor, 51% fair, 30% good, 6% excellent. Sorghum 50% emerged, 51% 1988.; 63% fair, 33% good, 4% excellent. Corn planted 97%, 98% 1988, 91% avg.; 48% fair, 52% good. Tomato crop continued to set blooms. Strawberry harvest progressing. Alfalfa, fescue harvest underway. Pastures, meadows ample feed. Livestock good.

**CALIFORNIA:** High pressure over west coast brought above normal temperatures to State, first part of week. Midweek, cut off low pressure system moved

over area, bringing showers, isolated thundershower activity to some areas.

Cool weather, little precipitation encouraged field activities. Small grain, winter forage hay, greenchop, silage harvests active. Rice seeding full swing. Weed, weevil controls applied. Winter wheat harvest began Riverside County, sheep still grazing dryland grain. Seeding corn, sugarbeets ongoing. Cotton thinning, cultivation active. Mite controls applied. Overwintered sugarbeet harvest continued. Harvests alfalfa, grass hay active. Scattered rain showers San Joaquin Valley, delayed some activity. Apricot harvest continued, early varieties southern San Joaquin Valley. Early San Joaquin Valley cherry shipments continued. Coachella Valley table grape harvest began. Prune crop development normal Sacramento Valley. Desert grapefruit harvest continued. Valencia harvest accelerated San Joaquin Valley. Pistachio nut set light San Joaquin Valley. Artichoke volume Salinas, fairly heavy, good quality. Asparagus cutting nearly completed Sacramento Valley. Snap beans continued being picked Coachella Valley; planting active Delta. Broccoli harvest heavy Salinas variable quality, moderate Santa Maria, good quality; harvest nearly completed Westside. Cauliflower movement moderate, Salinas, good quality. Celery Santa Maria increased seasonally, variable quality. Sweet corn harvest active Coachella Valley. Planting continued Westside, Kern-Tulare. Lettuce movement heavy, increased south Salinas, Santa Maria, variable quality. Slight mildew problems south Salinas. Cantaloup melons Westside, began bloom, early planted areas. Watermelon planting slowed, desert. Plantings Palo Verde Valley made good progress. Green peas harvested, Delta. Green pepper picking active, Coachella Valley; planting progressed, Merced-Atwater. Fall potato movement from storage cellars, Tullake-Butte Valley, continued to decline. Spring potato harvest Kern County. Summer potato fields, good stands Hemet. Sweetpotato planting Westside. Tomato crop ground preparation, planting continued Sacramento, San Joaquin Valley; Westside fields in bloom, some fruit set, desert fields ready for harvest. Livestock, good. Ranges, pastures drying, movement to summer ranges. Feedlots, half full. Sheep, lambs good. Lambing completed. Water adequate, could deteriorate rapidly.

**COLORADO:** Upslope in the east produced rain most of State. Precipitation across Eastern Plains 0.50 to 1.50 in. Temperatures 4 to 8° above normal.

Days suitable for fieldwork, 6.1. Soil moisture 47% very short, 47% short, 6% adequate. Winter wheat 15% very poor, 25% poor, 36% fair, 22% good, 2% excellent. Corn 81% planted; 30% emerged. Barley, oats 78% emerged. Spring wheat 80% emerged; 1% very poor, 19% poor, 30% fair, 47% good, 3% excellent. Summer potatoes 78% planted; 38% emerged. Fall potatoes 55% planted. Sorghum 9% planted. Livestock fair to good. Range, pasture poor to fair.

**FLORIDA:** Scattered thunderstorms brought much needed rains. Few areas received 1.00 to 3.00 in., most areas had under 0.50 in. Rain only 1 to 2 days. Cool north; temperatures 6 to 8° below normal; 4° below, central to near normal extreme south. Minimums 40s over north late week. Weekend highs reached into low, mid 90s over Peninsula.

Soil moisture adequate Panhandle, northern Peninsula; central, southern Peninsula short to adequate. Corn, sugarcane, tobacco good. Cotton, peanut planting active. Blowing sand damaged cotton, peanuts; damaged cotton replanted. Farmers started harvesting winter wheat, planting soybeans. Pastures improved most of Panhandle, northeastern coastal areas with ratings good or better. Elsewhere, pastures declined; poor to fair. Slight improvement shown, extreme lower Peninsula. Most of Peninsula needs additional rain to promote grass growth, raise water tables. Cattle improved to mostly good, Panhandle, upper east coast; fair to good lower Peninsula, elsewhere, generally fair. Calf marketings picked up gradually. Light rains improved citrus tree. Irrigation continued; some water sources low. New growth most young trees. Little softening of mature fruit. Valencia harvest continued active, grapefruit movement slowed. Caretakers cultivating, spraying, irrigating. Precipitation limited over major vegetable producing areas. Irrigation active. Temperatures near normal, cooler weekend. Harvest nearly complete southern areas, active central. Volume leaders: Potatoes, tomatoes, watermelons, sweet corn, cucumbers, peppers, celery. Also available: Squash, snap beans, cabbage, eggplant. Initial harvest Zellwood sweet corn underway.

**GEORGIA:** Rain 1.00 in. Rain 4 days north, 1 day south. Temperatures 10° below normal extreme north, east, 6 to 8° below normal elsewhere. Extremes 32° Blairsville, Clayton; 86° Valdosta.

Days suitable for fieldwork 4.0. Soil moisture 4% short, 77% adequate, 19% surplus. Corn 5% poor, 22% fair, 73% good; wet soils stopped planting north. Cotton 19% poor, 44% fair, 37% good; damage from blowing sand, some replanting necessary, cool temperatures slowing germination. Sorghum fair to good, planting week behind. Peanuts 31% fair, 61% good, 8% excellent; 72% planted, 80% 1988, 74% avg.; excellent planting progress late in week, cool temperatures slowing germination. Soybeans 45% fair, 55% good; planting slowed north by wet soils. Tobacco 3% poor, 39% fair, 58% good; Spotted tomato wilt virus spreading. Watermelons, other vegetables hurt by blowing sand, cool temperatures. Wheat harvest beginning extreme south, Hessian fly causing some lodging. Other small grains 8% poor, 63% fair, 28% good, 1% excellent; Rye, other small grains fair to good. Apples fair to good. Peaches variable, harvest beginning central. Aphids infesting pecans. Hay, pastures good. Cattle, hogs good.

**IDAHO:** Temperatures near normal 5° above normal. Precipitation below normal most locations. Severe thunderstorms some areas.

Days suitable for fieldwork 6.0. Soil moisture 4% very short, 16% short, 69% adequate, 11% surplus. Spring wheat 93% planted; 69% emerged, 72% 1988, 66% avg. Spring barley 92% planted; 67% emerged, 72% 1988, 54% avg. Oats 85% planted, 82% 1988, 73% avg.; 59% emerged, 56% 1988, 53% avg. Potatoes 68% planted, 67% 1988, 55% avg. Sugarbeets 84% emerged, 95% 1988, 75% avg. Virtually all onions emerged. Field corn 60% planted, 76% 1988, 65% avg. Dry peas 94% planted, 46% emerged. Lentils 93% planted, 45% emerged. Rape fields in 90% bloom, Sugarbeets starting to green, some blocking. Fruit setting in south west area. Winter wheat fair, good; 46% joint stage, 4% boot stage or beyond. Calving, lambing completed nearly all areas. Ranchers continue livestock movement to ranges. Ranges need for rain, warmer nights for good development. Hay, roughage mostly adequate. Some very short, short.

**ILLINOIS:** Temperatures 1 to 4° below normal west, 4 to 8° east. Minimum lows 30s to 40s north, 40s to mid 40s south. Precipitation 0.25 to 0.85.

Days suitable for fieldwork 4.5. Soil moisture 50% short, 45% adequate, 5% surplus. Corn 7% poor, 66% fair, 25% good, 2% excellent. Winter wheat filled 4%, 6% 1988, 9% avg.; 1% poor, 19% fair, 76% good, 4% excellent. Alfalfa 8% 1st cut, 15% 1988, 11% avg.; 4% poor, 32% fair, 61% good, 3% excellent. Red clover none 1st cut, 10% 1988, 6% avg.; 2% poor, 30% fair, 65% good, 3% excellent. Oats 1% poor, 19% fair, 76% good, 4% excellent. Pasture 32% fair, 65% good, 3% excellent.

**INDIANA:** Temperatures 5 to 10° below normal. Highs low to mid 60s, lows upper 30s to mid 40s. Precipitation frequent, scattered. Rainfall 0.25 in. north to 1.50 in. elsewhere.

Days suitable for fieldwork 2.6. Topsoil moisture 6% short, 57% adequate, 37% surplus. Subsoil moisture 7% short, 78% adequate, 15% surplus. Spring cropland 92% tilled, 98% 1988, 92% avg. Wheat 16 in., 16 in. 1988, 16 in. avg. Wheat 87% jointed, 87% 1988, 82% avg. Oats 5 in., 5 in. 1988, 6 in. avg. Pastures 31% fair, 57% good, 12% excellent. Wet fields slowed field activities.

**IOWA:** Temperatures 5° below normal extreme east to 3° above normal west. Extremes 30°; 83°. No rain west, light to moderate rain eastern one-third. Rainfall none to 0.92 in., 0.11 average.

Days suitable for fieldwork 6.4. Topsoil moisture 61% short, 39% adequate. Subsoil moisture 92% short, 8% adequate. Oats 1% very poor, 7% poor, 41% fair, 46% good, 5% excellent. Hay 3% very poor, 23% poor, 53% fair, 21% good. Pasture 14% very poor, 30% poor, 46% fair, 10% good. Corn 22% emerged, 42% 1988, 37% avg. Oats 99% emerged, 94% 1988, 91% avg. Livestock mostly good to excellent. Some pneumonia in calves. Cow culling continues south. Water hauling continues ponds remain low.

**KANSAS:** Temperatures 3° above normal northwest, west central; 3° below normal southeast. Remaining areas 2° each side of normal. District 60° northwest to 64° central, south central. Light rains across State less than 0.25 in. except Topeka (1.84 in), Fort Scott (1.14 in.).

Days suitable for fieldwork 6.0. Topsoil moisture 99% short, 1% adequate. Subsoil moisture 100% short; 62% very poor, 23% poor, 11% fair, 2% good, 2% excellent. Wheat jointing stage 99%, ahead of last year. Percent of stands headed 70%, ahead last year. Corn planting 85% complete. Feed grain 70% adequate, 30% short; range, pasture 11% adequate, 89% short.

**KENTUCKY:** Unseasonably cool, normal rainfall. Lows 40s, 5 to 10° below mean; highs 60s about 10° below normal. Rainfall around 1.00 in., near normal.

Days suitable fieldwork 2.8. Soil moisture 1% very short, 7% short, 67% adequate, 25% surplus. Corn 43% emerged. Emerged corn 2% very poor, 6% poor, 34% fair, 53% good, 5% excellent. Soybean planting lags normal. Tobacco 1% set, 5% 1988, 3% avg. Plant height 16% greater than 4 in., 40% 2 to 4 in. Winter wheat 77% headed, equal 1988, 73% avg.; 21% fair, 69% good, 10% excellent. Hay crops 1% very poor, 6% poor, 35% fair, 49% good, 9% excellent. Pastures 3% poor, 25% fair, 56% good, 16% excellent.

**LOUISIANA:** Temperatures 4 to 5° below normal. Extremes 44°; 93°. Rainfall 0.32 to 2.05 in.

Days suitable for fieldwork 4.3. Soil moisture 5% short, 75% adequate, 20% surplus. Spring plowing 95%, 98% 1988, 96% avg. Corn 99% planted, 99% 1988, 98% avg.; 98% emerged, 94% 1988, 95% avg.; 3% poor, 28% fair, 69% good. Cotton 67% planted, 72% 1988, 75% avg.; 52% emerged, 52% 1988, 59% avg.; 10% poor, 55% fair, 35% good. Many acres being replanted due to hail, heavy rain damage. Hay 20%

1st cutting, 34% 1988, 31% avg. Rice 83% planted, 89% 1988, 89% avg.; 72 emerged, 74% 1988, 80% avg.; 5% poor, 27% fair, 68% good. Sorghum 75% planted, 70% 1988, 76% avg.; emerged 60%, 49% 1988, 62% avg.; 5% poor, 43% fair, 52% good. Soybeans 7% planted, 12% 1988, 18% avg.; emerged 2%, 4% 1988, 8% avg. Spring plowing 95%, 98% 1988, 96% avg. Sugarcane 18% fair, 82% good. Fertilization near complete. Sweetpotatoes planted 15%, 20% 1988, 31% avg.; 8% poor, 42% fair, 50% good. Wheat 70% turning color, 76% 1988, 76% avg.; 4% harvested, 4% 1988, 5% avg.; 12% poor, 36% fair, 50% good. Vegetable 2% poor, 37% fair, 59% good, 2% excellent. Pasture 26% fair, 74% good. Livestock 17% fair, 80% good, 3% excellent.

**MARYLAND & DELAWARE:** **MARYLAND:** Precipitation 2.52 in. Temperature 54°, normal 61°. Extremes 30°; 75°.

Days suitable for fieldwork 1.6. Topsoil moisture none short, 17% adequate, 83% surplus. Subsoil moisture 57% adequate, 43% surplus. Corn 27% planted, 65% 1988, 65% avg. Soybeans none planted, 5% 1988, 5% avg. Wheat, barley, rye good. Wheat 41% headed, 35% 1988, 35% avg. Barley 90% headed, 95% 1988, 95% avg.

**DELAWARE:** Precipitation 1.73 in. Temperature 55°, normal 61°. Extremes 38°; 74°.

Days suitable for fieldwork 1.8. Topsoil moisture 57% adequate, 43% surplus. Subsoil moisture 71% adequate, 29% surplus. Corn 33% planted, 75% 1988, 72% avg. Soybeans 2% planted, 5% 1988, 6% avg. Wheat, barley, rye good. Barley 99% headed, 95% 1988, 90% avg.

**MICHIGAN:** Temperatures 8° below normal to normal. Extremes 25°; 71°. Precipitation none to 0.74 in. across state.

Days suitable for fieldwork 6.5. Soil moisture 65% short, 35% adequate. Corn 65% planted, 75% 1988, 65% avg. Potatoes 40% planted, 65% 1988, 50% avg. Soybeans 10% planted, 20% 1988, 15% avg. Winter wheat 2% very poor, 8% poor, 30% fair, 45% good, 15% excellent. Activities: Spring tillage, corn, oats, barley, potato, soybean planting. Cold weather slowed fruit development, poor for pollination. Asparagus harvest was set back by freeze damage destroyed a full week picking.

**MINNESOTA:** Temperatures none to 12° above normal. Extremes 28°; 84°. Precipitation 0.03 to 0.83 in. Weekly total 1.18 in.

Days suitable for fieldwork 5.1. Topsoil moisture 1% very short, 18% short, 78% adequate, 3% surplus. Subsoil moisture 26% very short, 50% short, 23% adequate, 1% surplus. Spring wheat 81% planted, 99% 1988, 80% avg. 39% emerged, 85% 1988, 56% avg. Oats 89% planted, 99% 1988, 87% avg.; 63% emerged, 85% 1988, 68% avg. Barley 75% planted, 99% 1988, 76% avg.; 26% emerged, 80% 1988, 52% avg. Corn 80% land prepared, 94% 1988, 76% avg.; 57% planted, 87% 1988, 63% avg. Soybeans 38% land prepared, 72% 1988, 48% avg.; 16% planted, 45% 1988, 26% avg. Sunflowers 13% planted, 46% 1988, 27% avg. Flax 12% planted, 40% 1988, 31% avg. Sugarbeets 99% planted, 99% 1988, 83% avg. Potatoes 35% planted, 65% 1988, 48% avg. Dry edible beans 12% planted, 36% 1988, 24% avg. Green peas 67% planted, 83% 1988, 70% avg. Sweet Corn 30% planted, 51% 1988, 37% avg.

**MISSISSIPPI:** Cool statewide. Extremes 36°; 86°. Above normal rain north, below south. Maximum precipitation 4.90 in. Precipitation 1.03 in., 0.15 below normal.

Days suitable for fieldwork 2.3, 6.3 1988, 5.0 avg. Soil moisture 40% adequate, 50% surplus, 10% excessive. Corn fair; 88% planted, 94% 1988, 90% avg. Cotton 62% planted, 84% 1988, 72% avg. Cool temperatures hurting cotton. Hay 12% harvested, 19% 1988, 15% avg. Rice fair; 89% planted, 95%

1988, 85% avg. Sorghum 58% planted, 74% 1988, 59% avg. Soybeans 9% planted, 10% 1988, 12% avg. Sweetpotatoes 24% planted, 54% 1988, 37% avg. Wheat fair; 8% mature, 14% 1988, 11% avg. Pastures, livestock good. Peaches 25% very poor, 50% poor, 20% fair, 5% good. Activities: Shopwork, some planting, haying. Rains, temperatures may force some replanting.

**MISSOURI:** Temperatures 3° below normal northwest to 9° below normal southeast. Rainfall less than 0.25 in. except some central counties 0.75 to 1.00 in.

Days suitable for fieldwork 5.8. Topsoil moisture 83% short, 17% adequate. Subsoil moisture 75% short, 24% adequate, 1% surplus. All areas need rain for crop germination, growth. Northern areas driest. Tillage spring crops 94%, 94% 1988, 84% avg. Corn planting nearing completion all areas. Corn 10% very poor, 17% poor, 60% fair, 13% good. Sorghum 13% planting complete north central to 59% southeast. Powdery mildew, wheat streak mosaic. Alfalfa 26% 1st cutting, 20% 1988, 16% avg. Pasture 17% very poor, 33% poor, 39% fair, 11% good. Concerned over limited feed. Livestock water still critically short many northern counties.

**MONTANA:** Rain over entire State. West, northeast driest. Rainfall 0.09 to 2.55 in. Temperatures 2 to 7° above normal.

Days suitable for fieldwork 4.4. Topsoil moisture 5% short, 90% adequate, 5% surplus. Subsoil moisture 21% short, 78% adequate, 1% surplus. Barley 61% planted, 93% 1988, 82% avg. Corn 31% planted, 60% 1988, 49% avg. Dry beans 30% planted, 35% 1988, 48% avg. Oats 49% planted, 89% 1988, 75% avg. Potatoes 18% planted, 20% 1988, 19% avg. Sugarbeets 75% planted, 100% 1988, 80% avg. Nearly 40% cattle, sheep have been moved to summer pastures, 50% 1988, 50% avg.

**NEBRASKA:** Temperatures 1 to 4° above normal. Extremes 32°; 85°. Rain in Panhandle, extreme southwest 0.50 to 1.50.

Days suitable for fieldwork 6.8. Topsoil moisture 98% short, 2% adequate. Subsoil moisture 81% short, 19% adequate. Winter wheat 78% jointed, 76% 1988, 73% avg. Moderate to severe infestations wheat streak mosaic Panhandle, southwest. Chinch bugs southeast. Drought stress Statewide. Crop may not recover with rain. Corn 27% emerged, freeze damage central counties. Alfalfa hay 13% very poor, 28% poor, 45% fair, 14% good. Freeze damage. Spraying alfalfa weevils. Wild hay 8% very poor, 28% poor, 62% fair, 2% good. Pasture, range feed 90% short, 10% adequate. Cattle moved to summer pastures. Hay fed pasture supplement. Hay growing short. Farmers selling cattle, cow calf pairs at an above rate. Pastures will not be grazed this year if rain is not received soon. Main activities: Planting corn, sorghum, soybeans, seed beds, irrigating.

**NEVADA:** Dry week. Low pressure system developed midweek, dominated all areas. Periods showers, thunderstorms common, mainly afternoons, evenings. Greatest amounts central areas. Above normal temperatures early, dropped about 20° with cooler air mass, showers. Extremes 21°; 107°.

Planting spring crops delayed by rainy, windy weather. Range areas improved slightly.

**NEW ENGLAND:** Wet week. Precipitation 3.00 to 5.00 in. scattered areas of Maine, 2.00 to 3.00 in. remainder Maine, 1.00 to 2.00 in. remainder north, 2.00 to 2.50 in. south with scattered areas receiving up 3.10 in. Temperatures lower 50s north, upper 50s south. Temperatures near normal.

Days suitable for fieldwork 3.0. Soil moisture 25% adequate, 75% surplus. Grazing 14% very short, 21% short, 58% adequate, 7% surplus. Fieldwork 6.0 days behind. Maine potatoes planted less than 5%, 25% 1988, 20% avg. Connecticut River Valley potatoes 55% planted, 60% 1988, 58% average. Field corn 10% planted, 20% 1988, 22% avg. Sweet corn 15% planted, 30% 1988, 29% avg.; fair. Apples bud stage north; early bloom south. Peaches early bloom. Hay condition good. Pears bud stage. Strawberries bud north, early bloom south. Blueberries early bud. Cranberries dormant stage. Major farm activities: Fixing fences, spreading manure, limited planting.

**NEW JERSEY:** Temperatures much below normal. Extremes 33°; 74°. Rainfall 2.07 in. north, 2.56 in. central, 2.15 in. south. Heaviest 24-hour total 2.60 in. 10th to 11th. Estimated soil moisture percent field capacity 99% north, 97% central, 96% south. Four inch soil temperatures 52° north, 54° central, 55° south.

Fieldwork limited by frequent rain. Soil moisture adequate to excessive. Many planting behind normal. Boston, bibb, leaf harvest underway. Cool, wet weather slowed asparagus growth. Radishes, spinach, greens continued to be marketed. Peaches, strawberries continued to size. Fall sown grains full head. Rain delayed early hay cutting. Pasture growth good.

**NEW MEXICO:** Moderate to heavy rain north central, east; unseasonably warm temperatures beginning of week replaced by cooler air.

Days suitable for fieldwork 7.0. Soil moisture 83% short, 17% adequate. Some light to moderate wind, freeze damage. Wheat 40% very poor, 45% poor, 10% fair, 5% good. Cotton 20% fair, 60% good, 20% excellent. Cattle 9% poor, 55% fair, 36% good. Sheep 56% fair, 44% good. Range 44% poor, 56% fair.

**NEW YORK:** Wet week. Rainfall 1.00 to 2.50 in. Extremes 0.50 to 3.67 in. Temperatures mild. Extremes 28° Newcomb to 74° Massena.

Days suitable for fieldwork 2.0. Soil moisture mostly surplus to excessive. Heavy rains slowed, halted planting throughout State. Pastures mostly good, hay fair to mostly good, wheat mostly good. Corn 12% planted, 23% 1988, 23% avg. Oats 74% planted, 64% 1988, 63% avg. Orange County onions planting near completion. Heavy rain, cool weather slowed growth, delayed vegetable planting. Rain, windy not favorable for pollination Hudson Valley fruit areas. McIntosh apples 10% full bloom. Peaches, pears, sweet cherries, tart cherries full bloom.

**NORTH CAROLINA:** Temperatures 9 to 2° below normal across State. Extremes 27°; 80°. Precipitation 0.27 to 2.06 in.

Days suitable for fieldwork 2.0. Soil moisture 22% adequate, 78% surplus. Pasture 1% very poor, 1% poor, 15% fair, 76% good, 7% excellent. Oat 7% poor, 29% fair, 63% good, 1% excellent. Barley 3% poor, 32% fair, 63% good, 2% excellent. Rye 4% poor, 27% fair, 66% good, 3% excellent. Tobacco plantbeds 3% very poor, 21% poor, 44% fair, 32% good; 34% short, 57% adequate, 9% surplus. Transplanted 44%, 72% 1988, 70% avg. Field tobacco 2% very poor, 12% poor, 52% fair, 34% good. Irish potato 13% poor, 39% fair, 48% good. Sweet potatoes less than 5% transplanted, 17% 1988, 16% avg. Peaches 4% very poor, 21% poor, 29% adequate, 46% good. Truck crops 3% very poor, 18% poor, 42% fair, 37% good. Sorghum 15% planted, 39% 1988, 35% avg. Peanuts 8% planted, 31% 1988, 52% avg. Hay 6% poor, 24% fair, 64% good, 6% excellent; 13% 1st cutting. Major activities: Planting corn, transplanting tobacco. Other activities: Spraying crops, tobacco

plant bed maintenance, harvesting small grain silage, planting truck crops, cotton, peanut, tending livestock, general farm maintenance. Late spring frost damaged fruits, tobacco, small grains, vegetables. Cereal leaf beetle problems in small grain fields.

**NORTH DAKOTA:** Warm, windy statewide. Temperatures 6° above normal southeast to 12° above normal northwest. Extremes 17° central; 87° northwest. Scattered, light precipitation 0.01 in. west central, south central to 0.12 in. northeast.

Days suitable for fieldwork 6.7. Warm, strong winds deteriorated topsoil moisture significantly while subsoil also diminished. Topsoil 11% very short, 69% short, 20% adequate. Subsoil 24% very short, 67% short, 9% adequate. Warm weather facilitated planting progress. Hard red spring wheat 75% planted, 88% 1988, 75% avg.; durum 58%, 73% 1988, 63% avg.; oats 65%, 83% 1988, 72% avg.; barley 74%, 88% 1988, 77% avg.; corn 24%, 37% 1988, 33% avg.; flax 11%, 21% 1988, 25% avg.; potatoes 39%, 42% 1988, 42% avg.; sugarbeets 97%, 100% 1988, 87% avg.; soybeans 4%, 16% 1988, 16% avg.; dry edible beans 2%, 6% 1988, 8% avg.; sunflower 3%, 5% 1988, 6% avg.; winter wheat 88% emerged, 66% 1988, 65% avg. Pastures 25% very poor, 34% poor, 33% fair, 8% good; furnished 54% roughage requirements. Stockwater 2% very short, 12% short, 86% adequate; mostly fair to good.

**OHIO:** Temperatures 50s to low 60s; 10 to 15° subnormal. Lows remained above freezing. Overall readings 5 to 10° subnormal. Soil temperatures upper 40s to low 50s. Rainfall 0.70 in. northwest; 1.00 to 2.00 in. elsewhere.

Days suitable for fieldwork 0.5. Soil moisture 25% adequate, 75% surplus. Corn, soybean planting very slow; some progress northwest; elsewhere almost none. Emerging corn yellow, unhealthy. Crops need dry, sun. Winter wheat mostly good; concern for leaf blight, mildew if weather turns warm, wet. Grasslands fair to mostly good, slowly deteriorating. Some weevil infestations in alfalfa. Hay not ready to cut. Processing tomato planting slow, may need new plants, first plants not fit to transplant.

**OKLAHOMA:** Temperatures 3° below normal west central to 1° below normal Panhandle. Precipitation 0.05 in. northeast to 3.41 in. west central.

Days suitable for fieldwork 5.1. Topsoil moisture 60% short, 40% adequate. Subsoil moisture 60% short, 40% adequate. Wheat 15% very poor, 20% poor, 35% fair, 30% good; 95% heading, 80% 1988, 75% avg.; 15% soft dough, 20% 1988, 25% avg. Heavy hail damage sustained south. Sorghum 10% planted, 10% 1988, 10% avg. Cotton 25% planted, 20% 1988, 15% avg. Soybeans 25% planted, 15% 1988, 15% avg. Peanuts 5% planted, 15% 1988, 15% avg. Corn 80% up to stand, 60% 1988, 55% avg. Row crop activity halted by rains. Pastures fair. Cattle good; marketings average, prices up slightly.

**OREGON:** Temperatures above normal statewide; rainfall nearly all the state. Much of east had minimum temperatures below freezing at least one night during week. Greatest precipitation fell east of the Cascades; most of northeastern mountains had over 100% of normal May rainfall during first two weeks. Soil moisture 17% short, 67% adequate, 16% surplus. Barley 91% seeded, 98% 1988, 98% avg. Spring grain seeding, fieldwork delayed by rains Klamath County, other areas of southeast, northeastern mountains. Russian wheat aphids beginning to move into spring grains Umatilla, Morrow counties; some fields sprayed. Cool, cloudy weather has helped crop conditions east of Cascades. Some yellow dwarf virus noted in winter wheat Willamette Valley; septoria spraying

completed. Grass seeds maturing ahead of last year; some rust starting to show; growers fertilizing, irrigating. Alfalfa, red clover cut for hay, silage Willamette, Tualatin Valleys. Crimson clover in full bloom. Nursery crops planted northwest, drier than usual helped disease, insect control. Sugarbeets 33% thinned Malheur County. No frost damage to fruit Hood River, The Dalles. Good fruit set Hood River, apple thinning sprays applied. Cherries sizing well, look good The Dalles. Started first cover sprays Medford pear orchards, development slowed slightly by cooler temperatures, crop looks very good. Very good apple set Willamette Valley, codling moth spray applied; peach set moderate; aphids in hazelnuts. First bloom on raspberries, loganberries, irrigation continued on strawberries. Potato planting started central area; slowed by rain Klamath Basin. Potatoes 10% emerged Malheur County; onion stands good; still planting sweet corn, snap beans. Snap beans planted Willamette Valley; table beets emerging, rhubarb 25% harvested; vegetables irrigated. Livestock, range, pasture mostly good. Rains helped grass growth Columbia Basin, still shorter than normal due to dry autumn. Rangeland production 1 to 2 weeks ahead of normal central mountains. Forage in desert southeast better than normal; cattle recovering from rough winter. Pasture growth expected to slow earlier than usual at coast, inland valleys due to dry, except southwest where moisture is better. Seasonal movement of cattle continued southeast.

**PENNSYLVANIA:** Cool, soggy. Low pressure dominant throughout week. Rain fell nearly everyday. Temperature 7° to 4° below normal. Extremes 31°; 73°. Precipitation 1.76 in., 0.94 in. above normal.

Days suitable for fieldwork 1.0. Soil moisture none short, 37% adequate, 63% surplus. Plowing 73%, 84% 1988, 80% avg. Corn 17% planted, 39% 1988, 43% avg. Soybeans 3% planted, 10% 1988, 16% avg. Oats 81% planted, 92% 1988, 88% avg. Potatoes 53% planted, 74% 1988, 70% avg. Barley 49% pre-boot, 45% 1988, 45% avg.; 26% boot, 28% 1988, 25% avg.; 25% heading or headed, 27% 1988, 30% avg. Wheat 78% pre-boot, 77% 1988, 74% avg.; 22% boot, 23% 1988, 23% avg. none heading or headed, none 1988, 3% avg.; none very poor, 5% poor, 24% fair, 52% good, 19% excellent. Oats none very poor, 6% poor, 24% fair, 53% good, 17% excellent. Hay fair to good. Pasture feed average. Peaches 13% pre-pink, 17% 1988, 5% avg.; 12% pink, 15% 1988, 12% avg.; 75% full bloom or past, 68% 1988, 83% avg. Cherries 19% pre-pink, 12% 1988, 5% avg.; 12% pink, 18% 1988, 9% avg.; 69% full bloom or past, 70% 1988, 86% avg. Apples 28% pre-pink, 18% 1988, 13% avg.; 28% pink, 26% 1988, 18% avg.; 44% full bloom or past, 56% 1988, 69% avg. Activities: Spring plowing; planting corn, soybeans, oats, potatoes, hay, vegetables, fruit trees, repairing fence, hauling manure, spreading fertilizer, maintaining machinery, caring for livestock.

**PUERTO RICO:** Rainfall 0.77 in., 0.74 in. below normal. Highest rainfall 2.89 in. Rio Blanco, lower 2.47 in. Dos Bocas, 2.44 in. Pico Del Este-Luquillo. Highest 24-hour total 1.98 in. Rio Blanco Lower. Accumulated rainfall since January 1 to May 12, 17.56 in. is 18% above normal. San Juan WSFO mean temperatures 79° minus 1.40 rainfall 0.73 minus 0.53. Divisional temperatures 79° Coast, 72 to 74° Interior with mean station temperature 81° San Juan City 64° Pico Del Este-Luquillo. Lowest minimum temperature 59° several locations, highest maximum temperature 90° several locations.

**SOUTH CAROLINA:** Temperatures 12° below normal Upstate to 6° below normal along south coast. Rainfall 0.75 to 1.25 in. across State.

Days suitable for fieldwork 4.0. Soil moisture 9% short, 80% adequate, 11% surplus. Corn fair to good; 95% planted, 100% 1988, 98% avg. Cotton 12% poor, 67% fair, 21% good; 38% planted, 75% 1988, 82% avg. Tobacco fair to good; 93% planted, 100% 1988, 97% avg. Soybeans 3% planted, 7% 1988, 6% avg. Watermelons fair to good; 89% planted, 87% 1988, 90% avg. Tomatoes good; 95% planted, 98% 1988, 100% avg. Peaches fair to good. Wheat good; 98% headed, 97% 1988, 95% avg.; 30% turning color, 23% 1988, 36% avg. Oats good; 35% turning color, 29% 1988, 39% avg.

**SOUTH DAKOTA:** Weekly temperatures normal to 10° above normal. Extremes 25°; 26°. Precipitation below normal. More than 1 in. precipitation parts of Black Hills. Growing season precipitation above normal in north, below normal in south.

Winter wheat good to fair; 18% Winter-kill. Crusty soil hampering sprouting of spring seeded grain. Row crop field preparation, planting, fencing, moving cattle major activities.

**TENNESSEE:** Low pressure brought widespread rains 9th to 10th. Few showers 13th to 14th. Below normal temperatures statewide, East, Plateau, 15°. Precipitation below normal, 0.20 in. Nashville, 1.17 in. Crossville.

Days suitable for fieldwork 2.7. Soil moisture 5% short, 81% adequate, 14% surplus. Corn 80% planted, 85% 1988, 74% avg. Tobacco 6% transplanted, 18% 1988, 15% avg. Wheat 86% headed, 95% 1988, 88% avg.; 4% turning color, 10% 1988, 2% avg. Main activities: Planting cotton, corn, sorghum, soybeans, transplanting tobacco, cutting alfalfa. Strawberry picking underway, good quality. Pastures, livestock good.

**TEXAS:** Unsettled weather across State past week. General weather pattern steered Pacific storms toward State while gulf moisture pumped northward. West central, far west, Rolling Plains above normal precipitation. Other areas slightly below normal. Temperatures below normal north, east.

Crops: Small grain harvest made some progress south last week. Producers trying to get harvest started south central. Fields rapidly turning color Blacklands, Cross Timbers, warmer temperatures prevailed early week. Stands remained short Plains with heavy plow up, baling poorer fields. Irrigated fields fair; many now declining. Wheat none harvested; none 1988; 1% avg. Corn planting Plains beginning wind down. Irrigation steady, fields good progress. High winds, blowing sand damaged some fields. Isolated hail damage parts central, Blacklands. Fields good growth with additional moisture. Fields silking Coastal Bend, Rio Grande Valley. Corn 1% silked; 4% 1988; 9% avg. None doughing; none 1988; 1% avg. Grain sorghum planting some progress Plains early week. Producers Blacklands some cultivating before midweek rains. Progress good central. Fields beginning head Coastal Bend, Valley. Some hail damage occurred isolated parts. Grain sorghum 4% headed; 2% 1988; 8% avg. Cotton planting continued through midweek Plains. Some producers Cross Timbers beginning to plant, others waiting for rain. Hail damage widespread Blacklands, some replanting necessary. Fields emerging after some showers Trans-Pecos. Fields squaring, beginning to set bolls Coastal Bend, Valley. Development good Upper Coast. Cotton 3% squaring; 8% 1988; 5% avg. Rice planting winding down Upper Coast. Some replanting necessary on fields that were heavily flushed then received heavy rains. Most fields

good progress. Peanut planting increased south. Thrips showing up early fields. Producers Cross Timbers start planting soon. Recent rain should help planting. Some soybeans Upper Coast could use good rain. Planting continued. Planting continued northeast. Sugarbeet fields hurt some by blowing sand. Planting virtually complete. Other field crops: Oats none harvested; 8% 1988; 5% avg. Peanuts 7% planted; 11% 1988; 14% avg. Soybeans 25% planted; 13% 1988; 18% avg. Sugarbeets 100% planted; 100% 1988, 99% avg. Sunflowers 3% planted; 3% 1988; 11% avg.

**Commercial Vegetables:** Rio Grande Valley, cantaloup harvest just beginning. Onion harvest winding down. Other crops good progress. Citrus normal progress with some mites showing up. Sets varied across Valley. San Antonio-Winter Garden, onion, cabbage harvest continued until showers slowed progress. Carrot harvest underway. East Texas, melon planting continued as weather allowed. Sweetpotato planting underway. Disease problems showing up some melon fields. High Plains, onions, potatoes making good progress. Carrots good progress. Trans-Pecos, onion harvest continued Presidio area. Cantaloups continued to good progress. Some early peaches picked east last week. Thinning operations about complete Hill Country, good crop expected. Pecans blooming parts central, south some nuts set already. High winds additional damage to trees some areas.

**Range and Livestock:** Ranges, pastures continued to improve many areas as late spring rains fell. Some hay cutting east before rain. Pastures being fertilized. Livestock steady. Many stock tanks filling up.

**UTAH:** Precipitation moderate to heavy northeast third, light rest of State. Temperatures 7 to 10° above normal.

Days suitable for fieldwork 6.2. Soil moisture 67% short, 33% adequate. Winter wheat 47% jointed, 62% 1988, none avg.; 16% boot, 19% 1988, 13% avg. Spring wheat 80% emerged, 97% 1988, 78% avg. Barley 86% emerged, 95% 1988, 76% avg. Oats 76% emerged, 82% 1988, 55% avg. Corn 80% planted, 65% 1988, 47% avg.; 39% emerged, 40% 1988, 24% avg. Winter wheat 9 in., alfalfa 13 in. Potatoes 44% planted, 44% 1988, 37% avg. Livestock good. Range, pastures short. Major farm activities: Corn planting, irrigating grains, alfalfa, spraying orchards, grain, alfalfa, moving livestock to summer ranges.

**VIRGINIA:** Very cool temperatures with continued rainfall. Temperatures 28° southwest to 80° southeast. Rainfall 0.90 in. southwest to 6.00 in. central.

Days suitable for fieldwork 0.6. Topsoil moisture 7% adequate, 93% surplus. Corn 39% planted, 60% 1988, 60% avg. Peanuts 5% planted, 18% 1988, 46% avg. Soybeans 2% planted, 4% 1988, 5% avg. Cotton 35% planted. Flue-cured tobacco 4% transplanted, 7% 1988, 11% avg. Sun-cured tobacco transplanting underway. Extreme wetness delayed fieldwork. Corn 6% very poor, 42% poor, 44% fair, 8% good. Wheat 2% poor, 42% fair, 50% good, 6% excellent. Barley 5% poor, 34% fair, 53% good, 8% excellent, some lodging. Pastures 1% poor, 10% fair, 43% good, 46% excellent. Alfalfa 4% poor,

26% fair, 60% good, 10% excellent. Other hay 28% fair, 46% good, 26% excellent. Hay cutting delayed by wetness. Potatoes good. Apple 5% very poor, 15% poor, 45% fair, 35% good. Peaches 21% very poor, 31% poor, 32% fair, 16% good.

**WASHINGTON:** Temperatures 1 to 5° above normal across State. Precipitation 0.03 to 0.37 in., west; 0.01 to 1.62 in., east.

Days suitable for fieldwork, 5.8. Soil moisture 15% short, 85% adequate. Range, pasture 15% short, 85% adequate. Hay, other roughage 5% very short, 35% short, 60% adequate. Planting of spring barley 97%, 99% 1988, 100% avg. Some spring wheat reseeded in Adams, Douglas, Lincoln Counties. First cutting alfalfa hay. Silage, green chopping in progress. Dry pea planting 98%. Seeding of potatoes 90%, 98% 1988, 95% avg. Several hundred acres alfalfa, orchard grass frozen out Ferry County. Bloom period for major fruits complete Chelan, Okanogan, Lewis Counties. Sheep shearing began. Cattle, sheep moved to irrigated pastures, Kittitas County, due to dry.

**WEST VIRGINIA:** Temperature 48°, 7 to 12° below normal. Extremes 72° Gary, Williamson; 25° Flat Top. Precipitation 1.48 in., 0.42 to 1.00 in. above normal.

Days suitable for fieldwork 0.2. Soil moisture 19% adequate, 81% surplus. Wheat, barley fair. Oats fair to good, 84% planted; 52% emerged. Corn 19% planted; 4% emerged. Tobacco beds 92% emerged. Hay good. Apples fair. Peaches poor. Feed adequate to short. Cattle, sheep good. Farm activities: Livestock care, fence building, machinery repair, chopping rye.

**WISCONSIN:** Temperatures 52°, 4° below normal. Extremes: 22°; 82°. Precipitation trace to 0.40 in., most northwest.

Days suitable for fieldwork 6.3. Soil moisture 61% short, 38% adequate, 1% surplus. Spring plowing 78%, 88% 1988, 80% avg. Oats 89% seeded, 95% 1988, 89% avg. Most oats up south, central. Corn 44% planted, 68% 1988, 54% avg.; emergence slow. Peas emerging, potatoes planted. Apple trees blossoming south.

**WYOMING:** Temperatures above normal. Moisture 0.10 to 1.75 in. across State.

Days suitable for fieldwork 5.0. Topsoil moisture 44% short, 53% adequate, 3% surplus. Subsoil moisture 84% short, 16% adequate. Spring wheat 75% planted, 85% 1988, 85% avg.; 40% emerged, 60% 1988, 60% avg. Oats 70% planted, 75% 1988, 80% avg.; 35% emerged, 45% 1988, 50% avg. Barley 90% planted, 90% 1988, 90% avg.; 65% emerged, 70% 1988, 70% avg. Sugarbeets planted, 50% emerged, 60% 1988, 60% avg. Corn 45% planted, 50% 1988, 60% avg.; 5% emerged, 5% 1988, 10% avg. Potatoes 60% planted, 25% 1988, 45% avg.; 15% emerged, 15% 1988. Dry beans 5% planted, small amount 1988, 15% avg. Winter wheat fair to good. Livestock good. Spring calves born 95%, 95% 1988, 95% avg. Death losses light to normal. Branding starting. Farm flock: Ewes lambed 95%, 95% 1988, 95% avg.; shorn 95%, 90% 1988, 90% avg. Range flock: Ewes lambed 65%, 75% 1988, 75% avg.; shorn 80%, 90% 1988, 85% avg. Death losses light to normal. Range, pasture poor to fair. Stock water short two-thirds of State.

## International Weather and Crop Summary

May 7-13, 1989

### HIGHLIGHTS

**USSR** ... Widespread, timely rain in the southern Ukraine and the central North Caucasus benefits winter grains entering the heading stage. Spring grain planting begins in crop areas east of the Urals, where adequate topsoil moisture reserves favor emergence.

**EUROPE** ... Rain falls over nearly all the continent. Dry weather prevails in Italy and Greece.

**SOUTH ASIA** ... Wheat harvesting progresses across the north. Dry, hot weather covers most eastern rice areas.

**EASTERN ASIA** ... Widespread rain favors planting in the north but soaks southern crop areas.

**SOUTHEAST ASIA** ... Showers cover main season grain regions from northern Thailand to Bangkok, improving planting conditions.

**SOUTH AMERICA** ... Dry weather favors summer crop harvesting throughout Argentina and south-central Brazil. Topsoil moisture is needed in Argentina's wheat areas for planting.

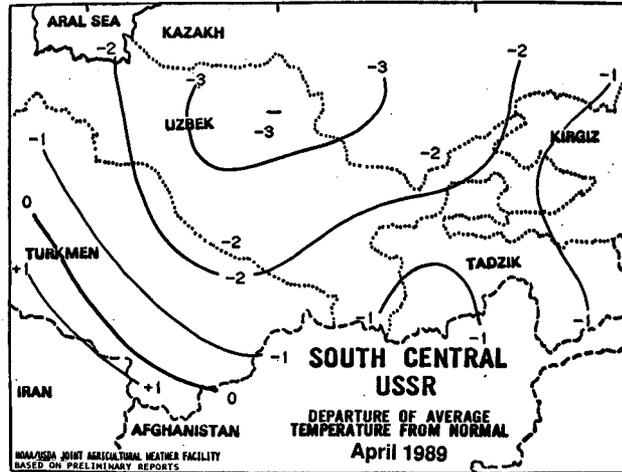
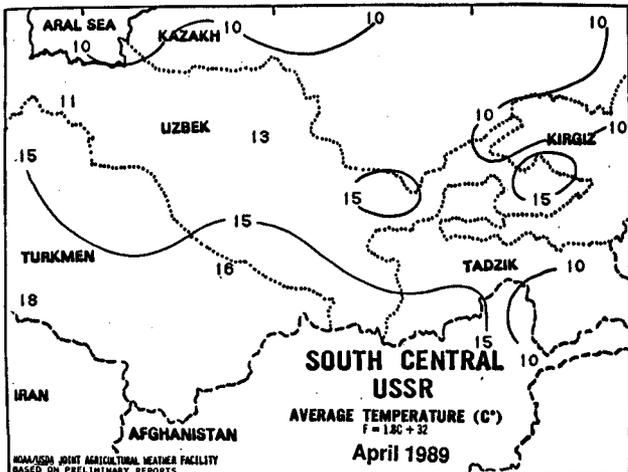
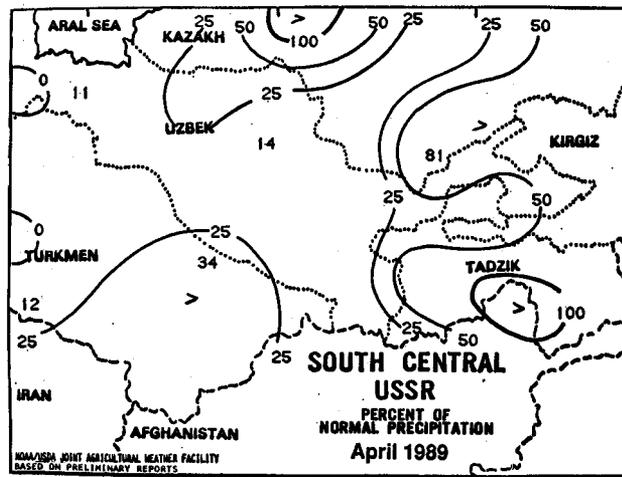
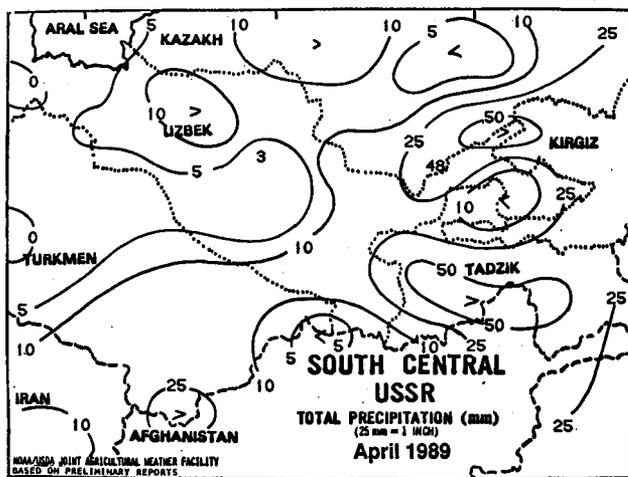
**AUSTRALIA** ... Moderate to heavy showers cover the east, improving preplanting moisture levels.

**SOUTH AFRICA** ... Much needed dry, seasonably warm weather covers maturing corn.

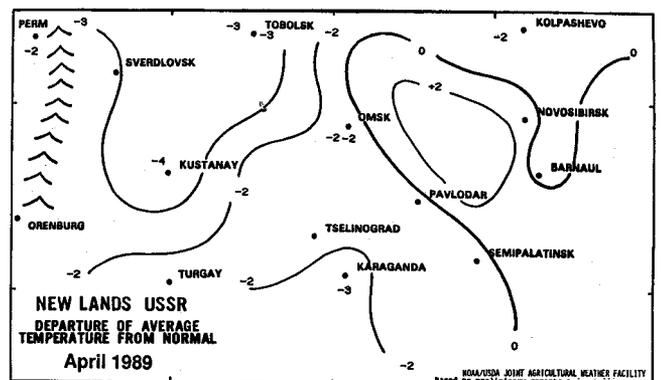
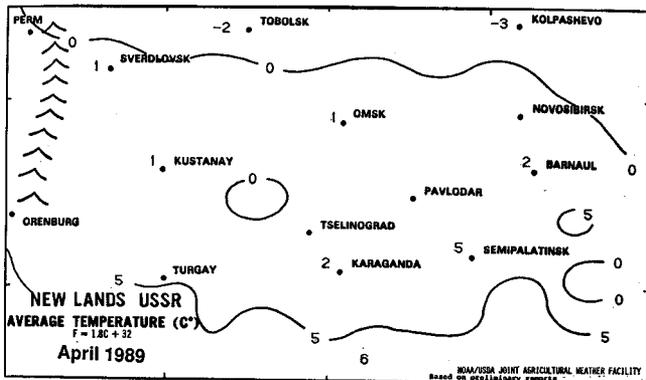
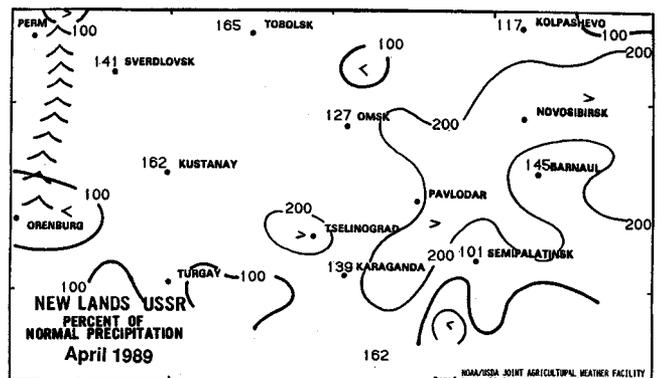
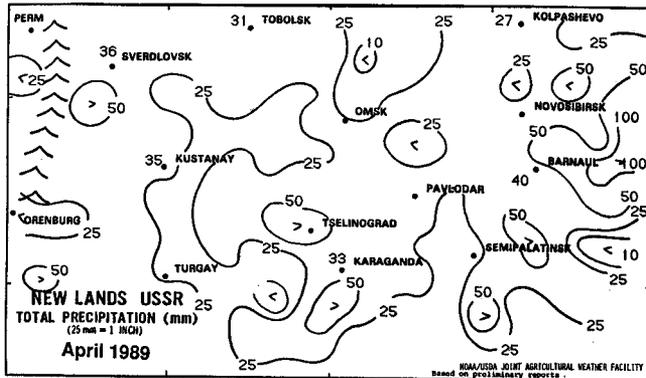
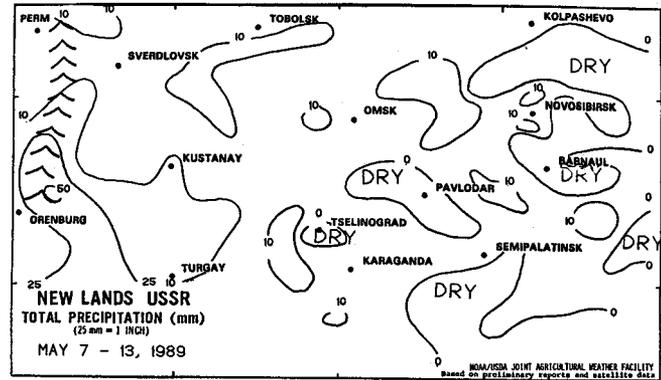
**NORTHWESTERN AFRICA** ... Dry weather favors winter grain maturation and helps early harvesting.

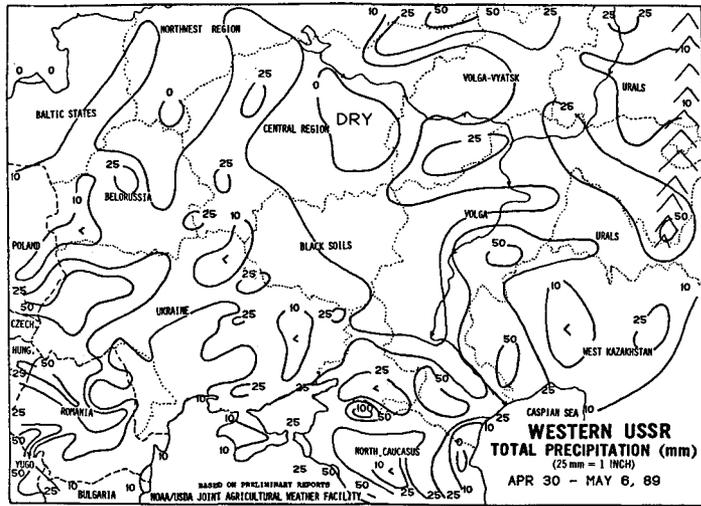
**CANADA** ... Beneficial showers cover the central Prairies, improving moisture conditions for spring plantings.

**MEXICO** ... Scattered showers in the northeast help crop growth.

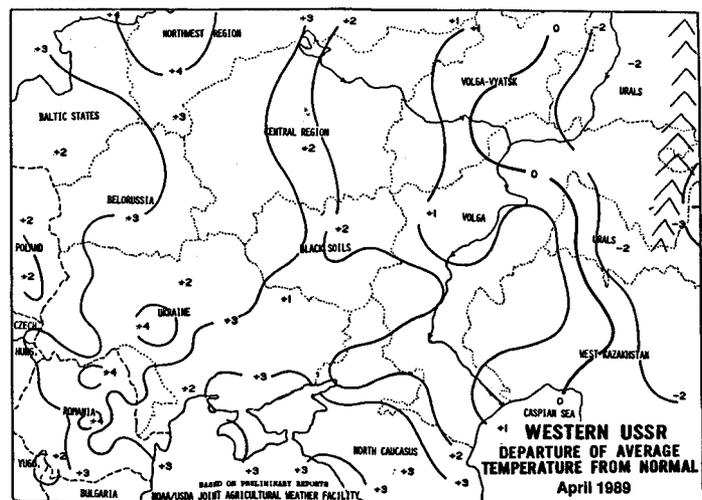
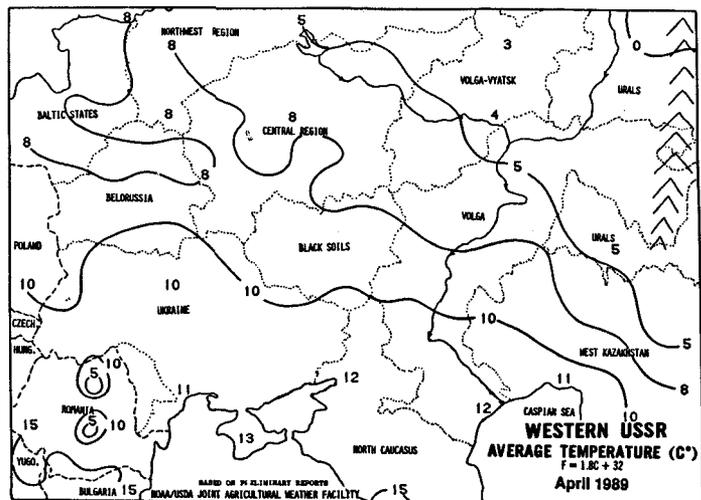
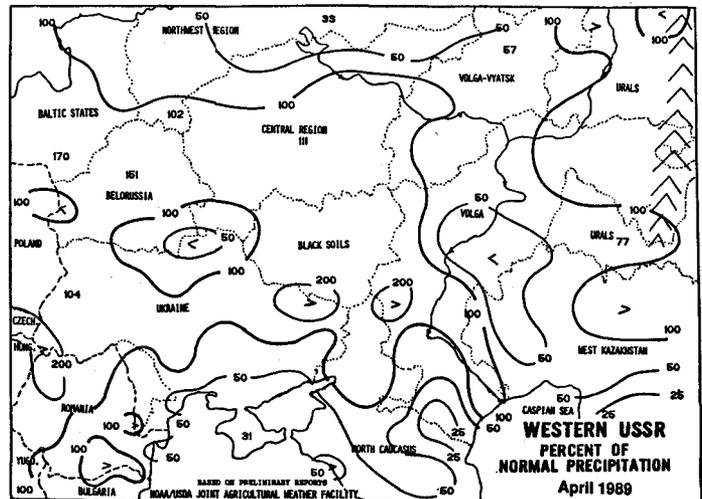
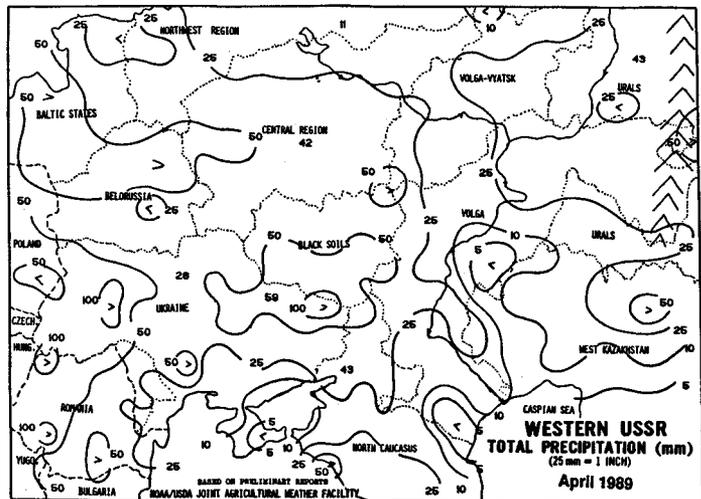


**NEW LANDS** ... Spring grain planting usually begins in mid-May. Showers and thunderstorms covered the extreme eastern Volga and the southern Urals, where rainfall ranging from 16 to 38mm helped to increase topsoil moisture needed for emergence and early plant establishment. Light, scattered precipitation (2-10mm) covered Kazakhstan, while mostly dry weather covered eastern crop areas in West Siberia. Since February, near-to-above normal precipitation in most areas has provided favorable topsoil moisture for planting. Subsoil moisture reserves, however, likely remain limited, especially in eastern areas. In South Central USSR cotton areas, following last week's unseasonably cold weather, gradual warming occurred over much of the region favoring emergence and plant establishment. Widespread rain (14-47mm) in eastern areas, however, continued the potential for local flooding. Cotton planting usually extends through the end of May.

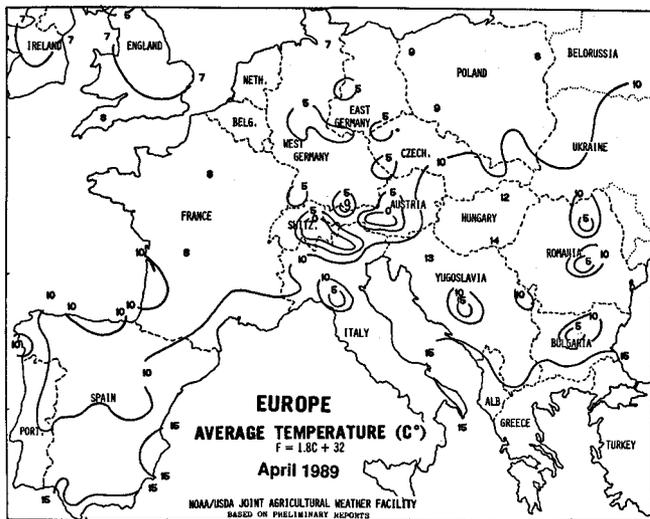
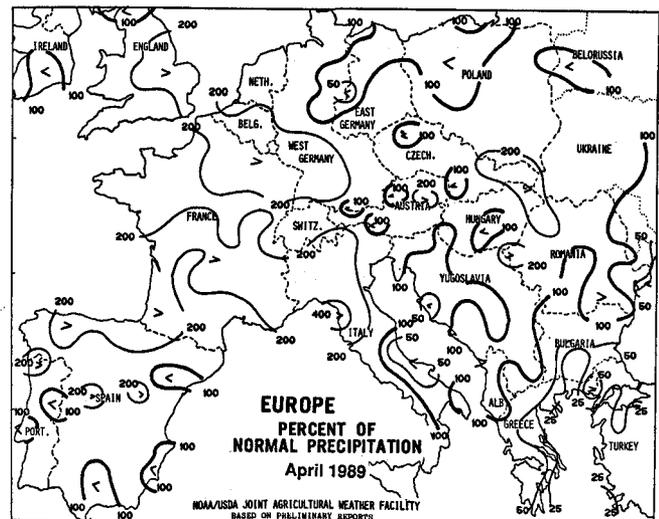
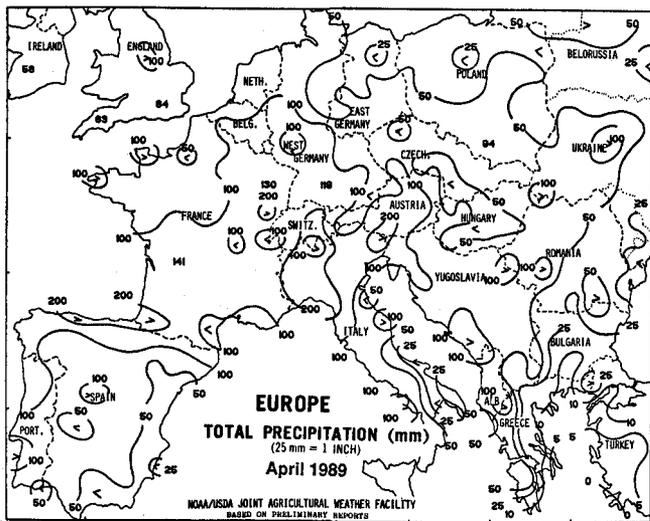
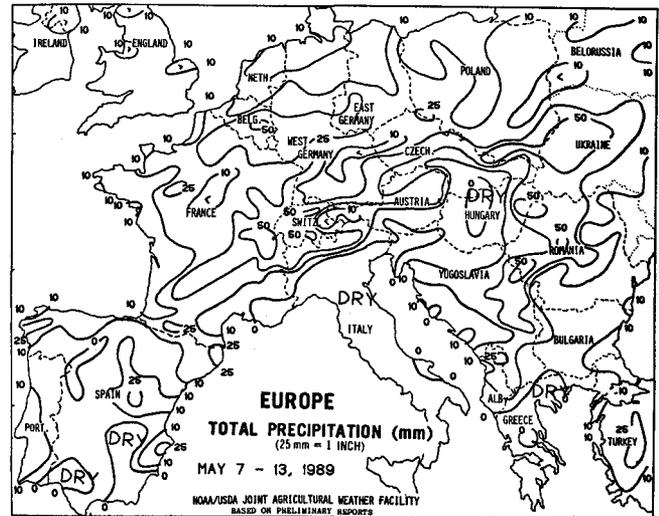


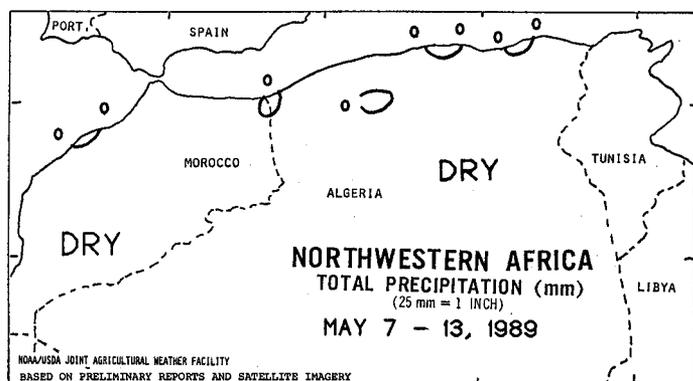


**WESTERN USSR ...** Winter grains were entering the reproductive phase in the southern Ukraine and the central North Caucasus and were jointing over the remainder of the region. Spring grains were mostly tillering in the south and emerging in the north. Reports indicate 95 percent of the sugarbeet crop had been planted by May 10, with planting scheduled to be completed by May 15. Showers and thunderstorms were widespread, covering most of the region. Heaviest amounts of rain covered the western Ukraine, the North Caucasus, and the eastern Volga, where precipitation generally ranged from 33 to 54mm. Isolated, heavy rain (75-100mm) likely caused local flooding, however, in some of the areas. Widespread, timely rain (10-25mm) in the southern Ukraine reversed April's well-below-normal precipitation pattern. In April, above-normal precipitation covered the northern two-thirds of European USSR, benefiting winter grains and providing favorable topsoil moisture for spring planting. Crop areas in the southern Ukraine and the central North Caucasus received well-below-normal rainfall, continuing a drying trend which began in mid-January. The weather continued unusually mild, accelerating winter grains' growth and development.

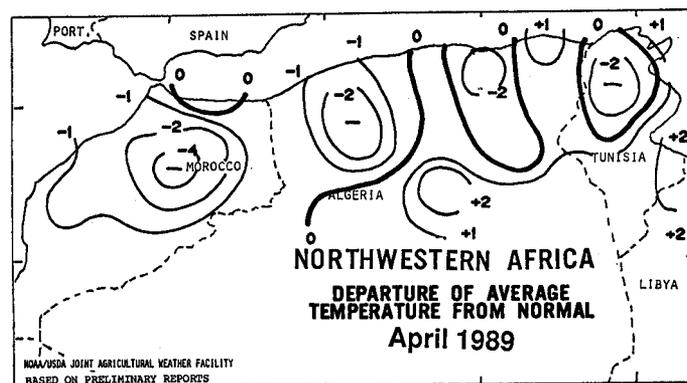
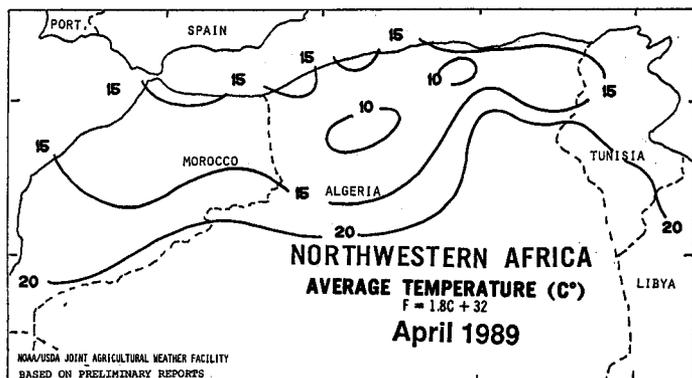
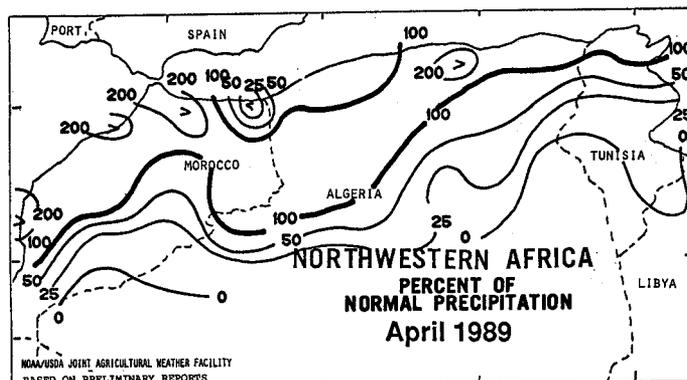
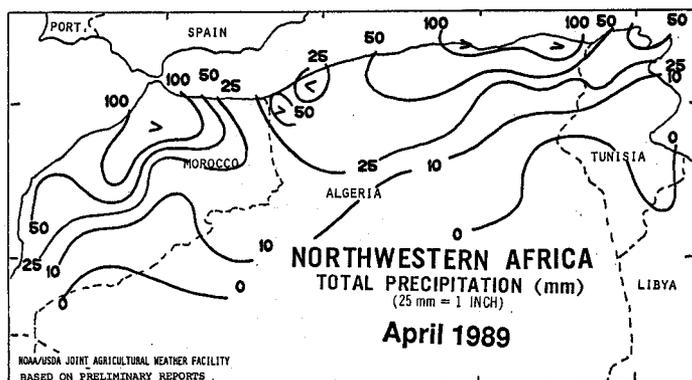


**EUROPE** ... Rain fell throughout the continent, except for dry weather in Spain, Italy, Greece, and small areas of extreme southeastern France, northwestern Yugoslavia, and central Hungary. The heaviest rain (20-50mm or more) fell over central Europe, from eastern France, through southern West Germany, Czechoslovakia into western Romania, and eastern Yugoslavia. Rainfall generally averaged 15mm or less throughout northern Europe and the remainder of the Balkans. April rainfall averaged well above normal in western Europe, and near to above normal in much of the east. Less-than-normal April rain was confined to northern East Germany, northwestern Poland, and northeastern Yugoslavia. Well-below-normal rainfall prevailed only in Bulgaria and Greece. Thus, early-season moisture conditions are mostly adequate to abundant throughout most of the continent.

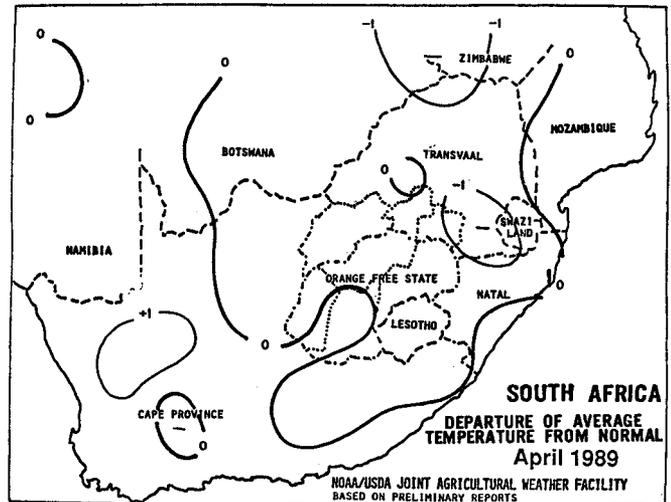
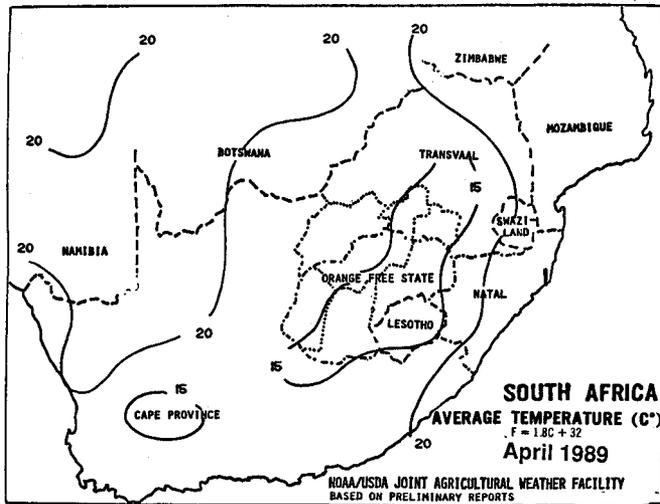
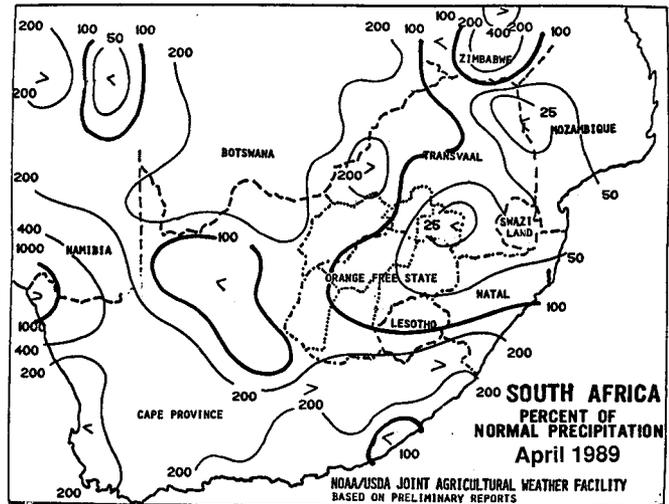
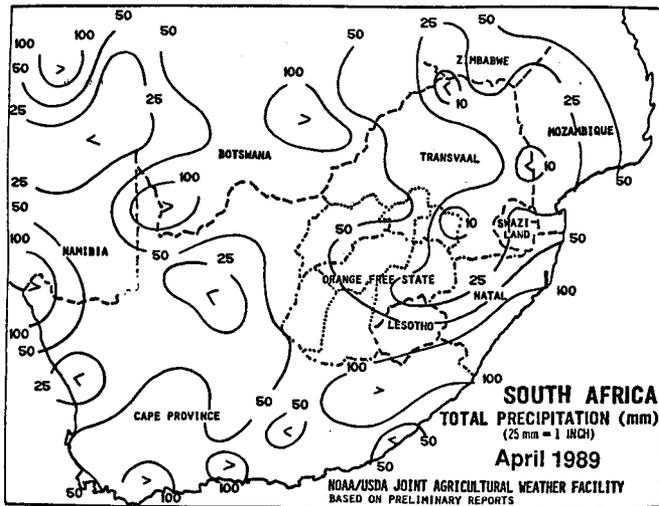
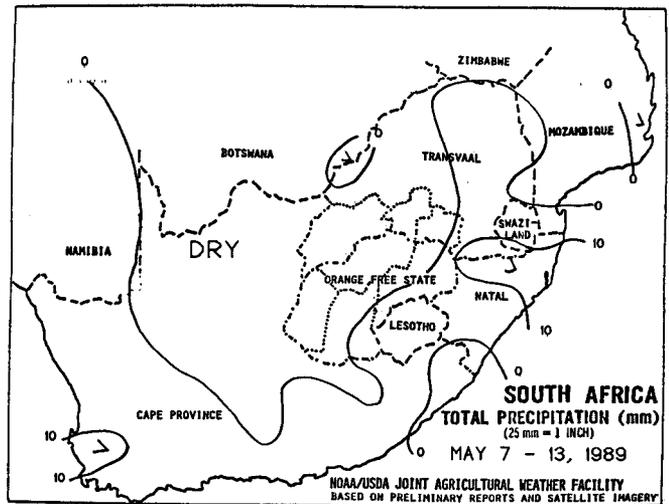


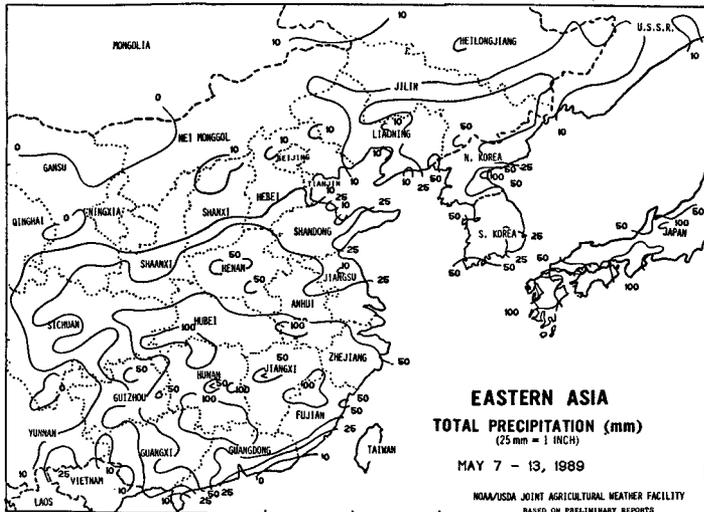


**NORTHWESTERN AFRICA** ... Dry weather covered winter grains over most of the region, favoring crop maturation and helping early harvest activities. Reviewing the season, adequate moisture in November favored emergence of Moroccan winter grains. Minimal rain in December and January caused some decline in crop condition, especially later planted crops. Periodic, timely rain from March 18 through April, however, improved yield prospects for winter grains, which progressed through the reproductive and filling stages of development. In Algeria and Tunisia, winter grains experienced the second consecutive year of unfavorable dryness during the growing season. Weather conditions were the driest in western Algeria. Although early April showers helped to stabilize conditions for filling winter grains, the rain came too late to improve yield prospects because of earlier irreversible damage. Weekly summaries for northwestern Africa will be discontinued until the beginning of next year's growing season in November.

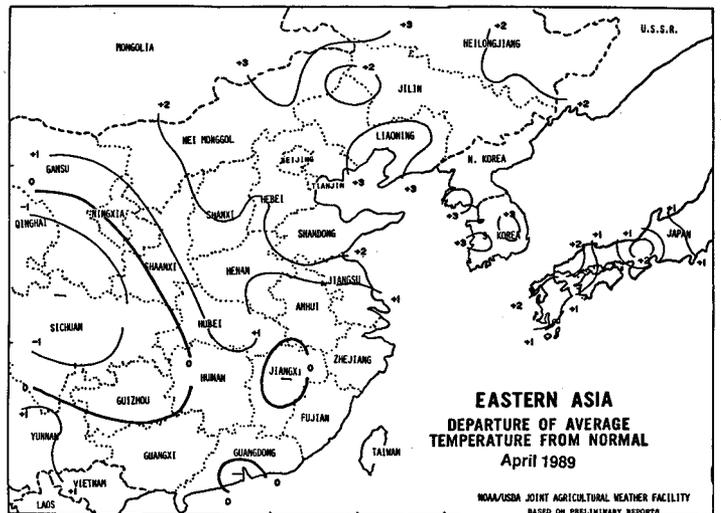
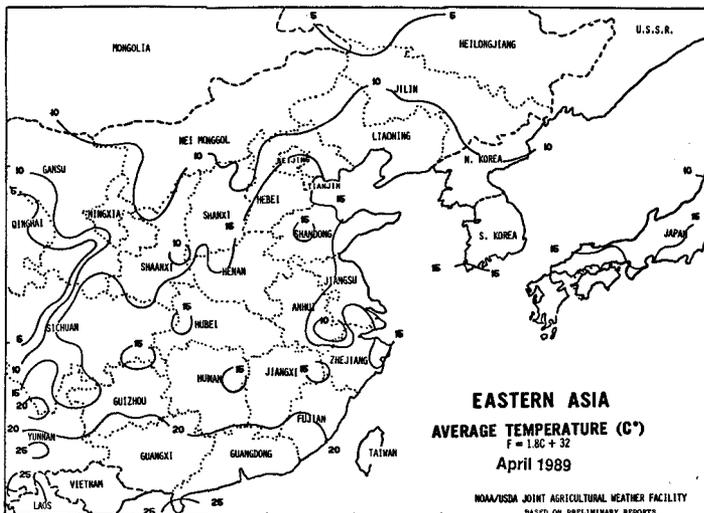
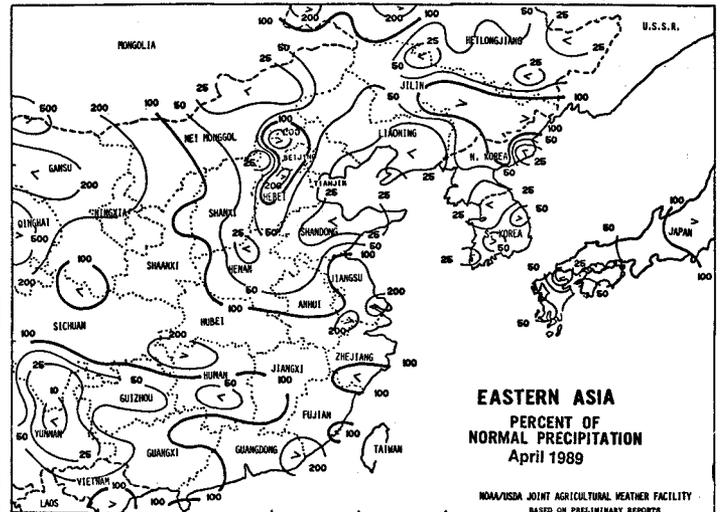
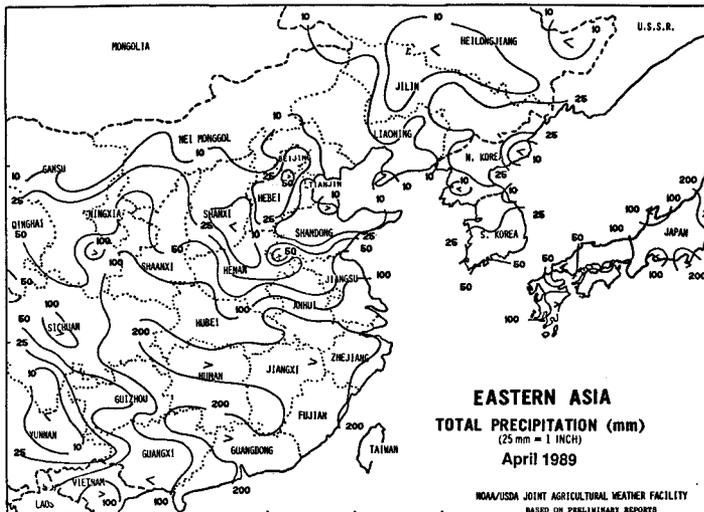


**SOUTH AFRICA** ... Dry, seasonably warm weather covered the Maize Triangle, bringing much needed relief to maturing corn in central and western areas soaked by recent weeks of unseasonable rainfall. Light rain (10mm or less) covered most crop areas of the Cape Province and Natal. In April, rainfall totaled below normal over much of the eastern half of the Maize Triangle and above normal to the west, with temperatures averaging from near to as much as 1 degree C below normal. The wet, cooler-than-normal weather in late April and early May created unfavorable conditions for maturing crops. Above-normal April rainfall over the Cape Province improved moisture conditions for the upcoming winter wheat planting. This is the last weekly summary for the season. Coverage will begin again in October, coinciding with the usual start of the corn growing season.

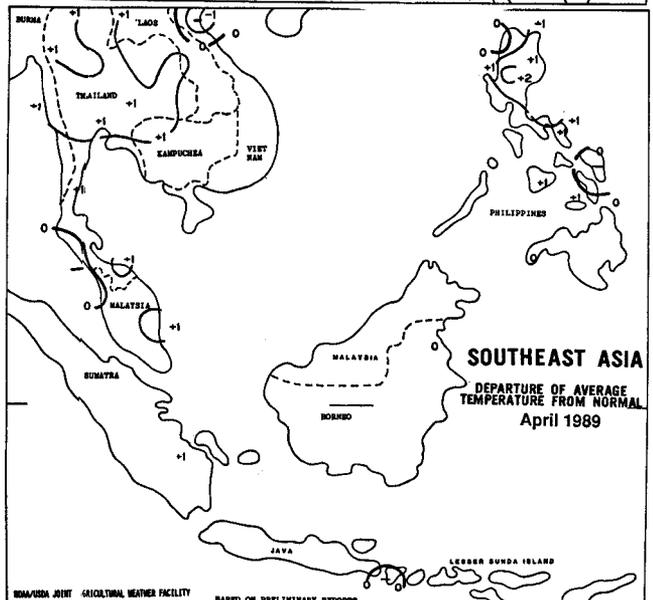
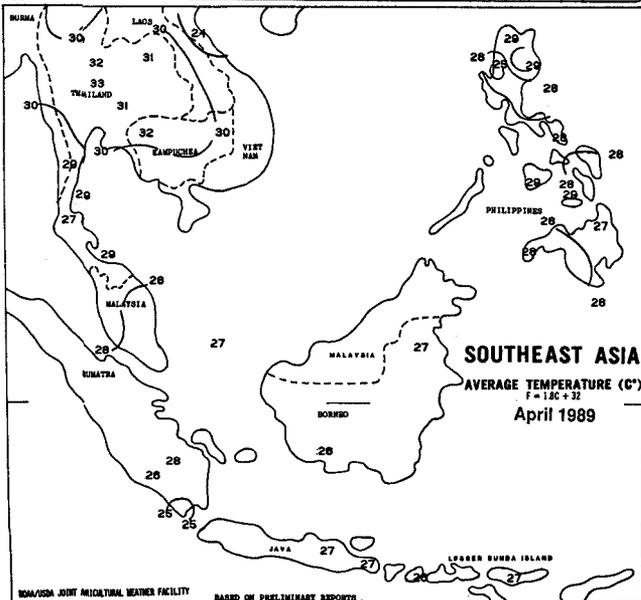
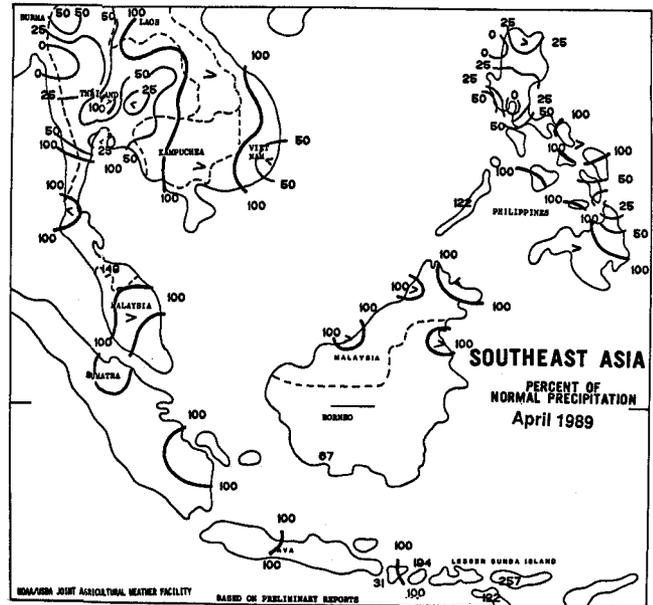
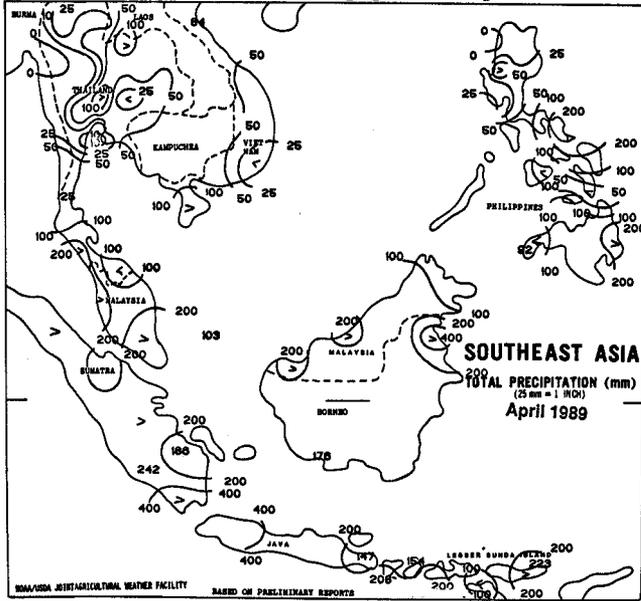
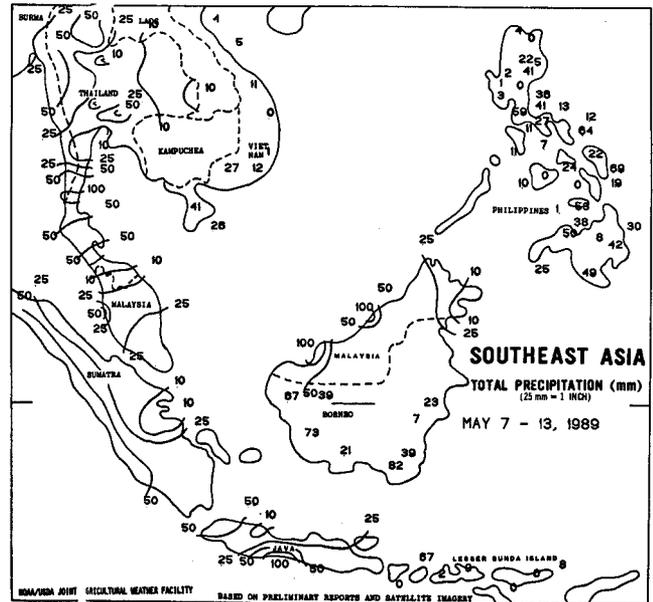


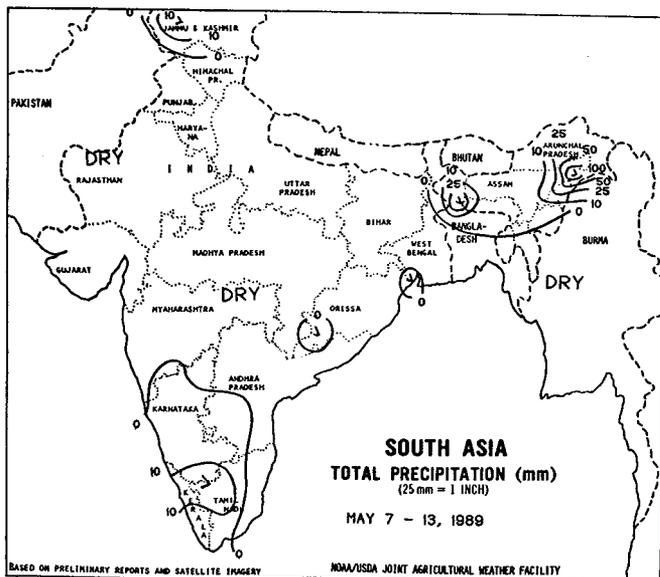


**EASTERN ASIA ...** Widespread, substantial rain fell over central and southern China, producing 50-100mm or more south of the Yangtze Valley and 25-50mm to the north. Near- to above-normal April rainfall in the southeast, throughout the Yangtze Valley, and the northwest provided ample moisture. Persistent wetness has delayed planting and caused flooding in the southern half of the country. Beneficial showers (10-48mm) fell in Shandong province, where April rainfall averaged less than 50 percent of normal in most areas. Light showers (mostly less than 10mm) fell in northern portions of the North China Plain. Widespread rain (10-40mm) moistened topsoils in the northeast, however, benefiting crop areas of Liaoning and southern Jilin. Soaking rain also covered the Korean peninsula and Japan.

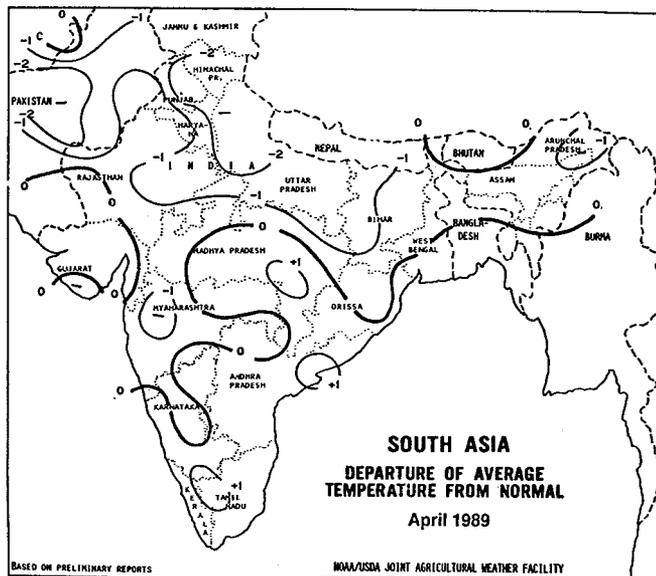
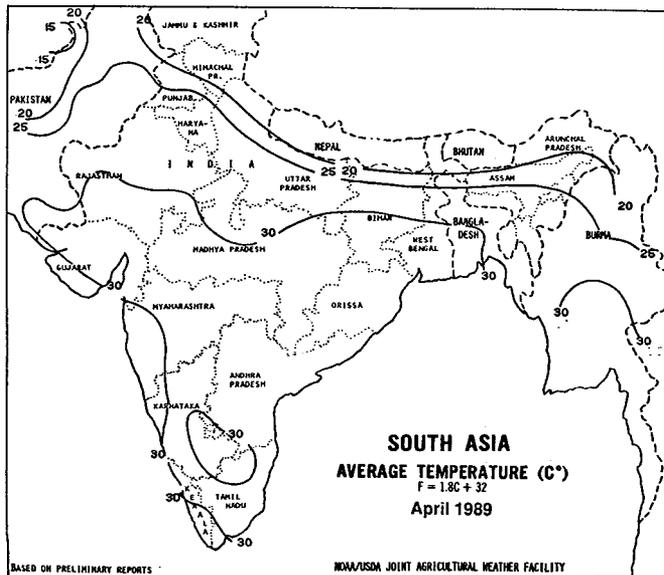
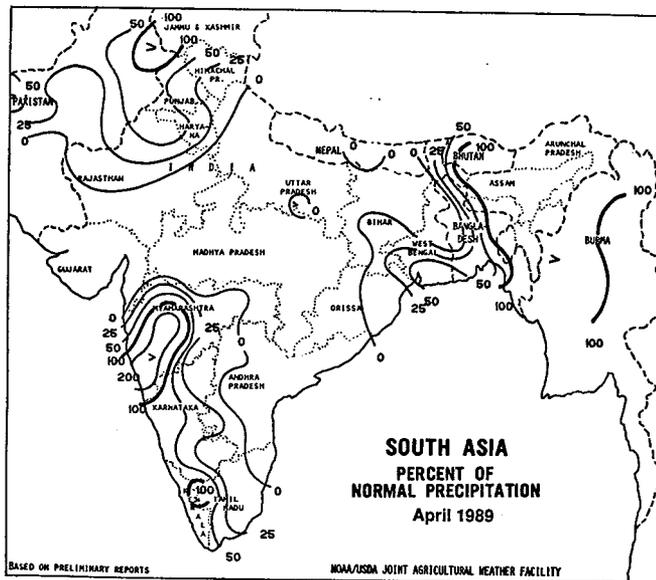
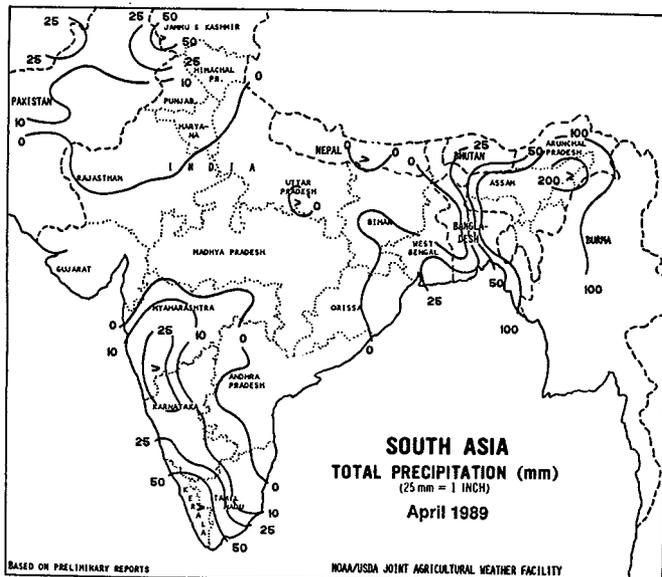


**SOUTHEAST ASIA** ... Moderate to heavy showers (25-50mm or more) covered a large portion of Thailand's northern rice regions as well as local areas of the central corn region and rice areas near Bangkok, improving planting conditions. Lighter rain fell elsewhere, including a large portion of the northeast which received less than 10mm. Moderate to heavy rain (25-50mm or more) continued over peninsular Thailand and Malaysia as variable rain continued over Indonesia, maintaining irrigation levels for immature crops. In April, drier and warmer-than-normal weather covered most of Thailand's main season grain region, although the late-month showers improved moisture conditions in central and northeastern areas. Rainfall was above normal over most of peninsular Thailand, with local flooding likely in southern areas. Near- to above-normal rainfall maintained generally favorable conditions for immature crops in Malaysia and Indonesia. In the Philippines, variable, mostly light to moderate rain (10-69mm) covered most main season grain areas, reflecting the recent trend of widespread shower activity which has improved preplanting conditions since mid-April. Dry, warm weather returned to northern Luzon, however, reducing moisture reserves for newly planted grains.

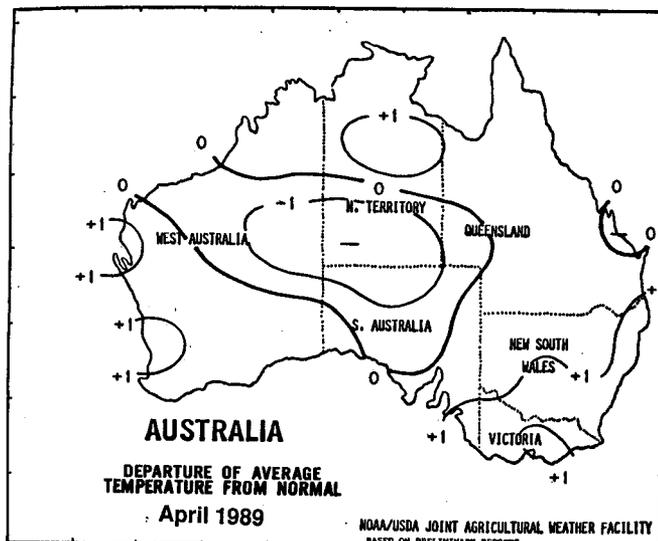
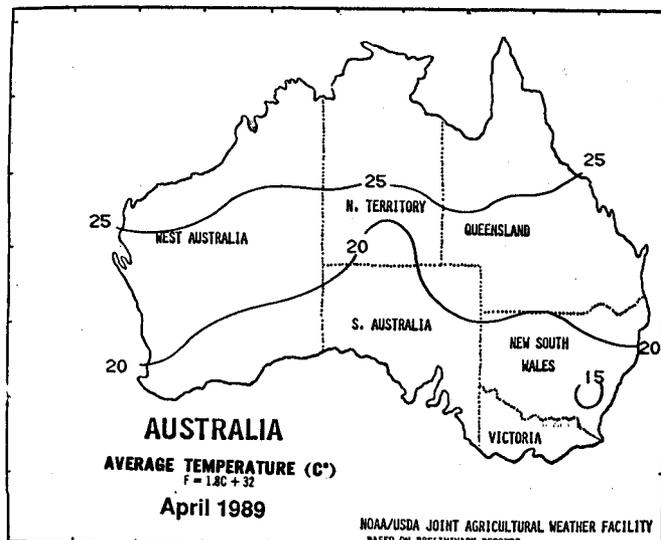
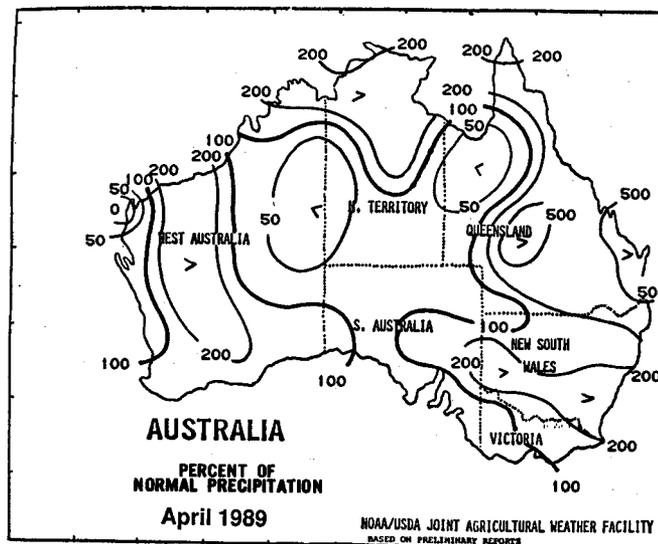
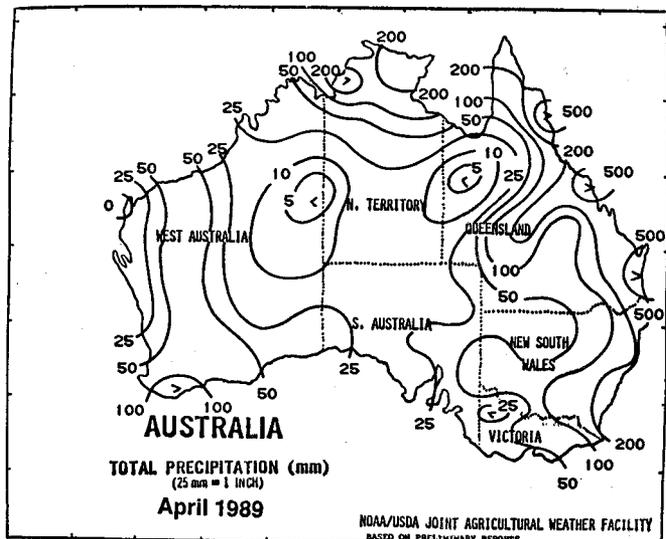
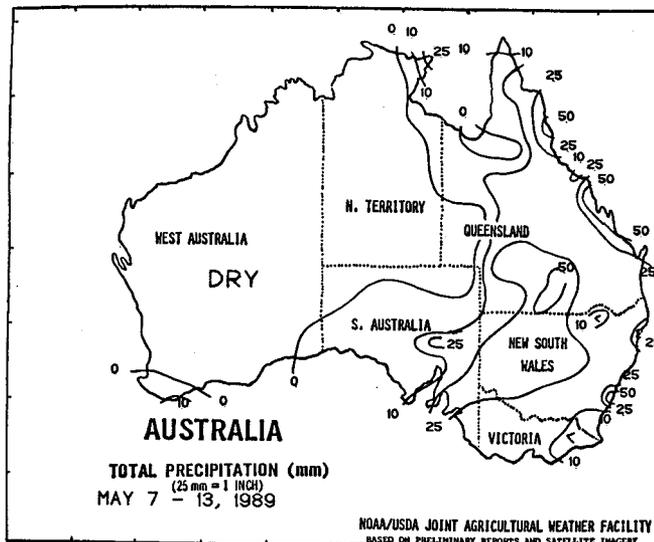


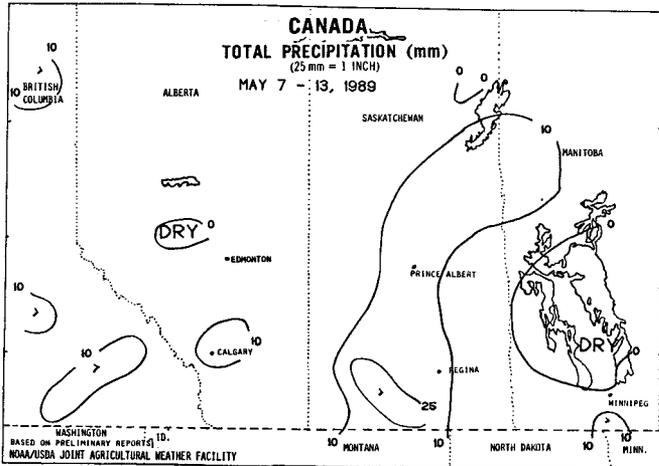


**SOUTH ASIA ...** Dry, warm weather continued across the primary winter wheat regions, promoting harvesting. Drier weather returned to eastern India and Bangladesh, though local heavy showers (28-118mm) fell over northern Bangladesh and far eastern Assam. Temperatures in the east continued hot, stressing immature crops. Rainfall also tapered off in the southwest, with amounts ranging from 1 to 24mm from northern Karnataka to Kerala. In April, scattered, mostly light rain was limited to northernmost wheat areas of Pakistan and India, benefiting immature crops but causing no harvest delays across the primary production areas. In the east, rainfall was above normal from easternmost Bangladesh through India's eastern states, but elsewhere, infrequent, generally light rain and hot weather stressed immature crops. Showers the last half of April in the southwest, from Maharashtra to Kerala, benefited immature rice, while mostly dry weather over the southeast favored maturing rice. April temperatures averaged 1-3 degrees Celsius (C) below normal over Pakistan and much of northern India and 1 degree C above normal along the southeast coast.

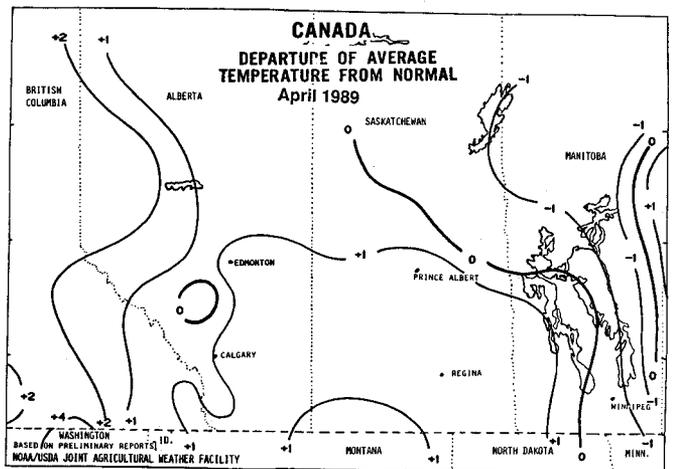
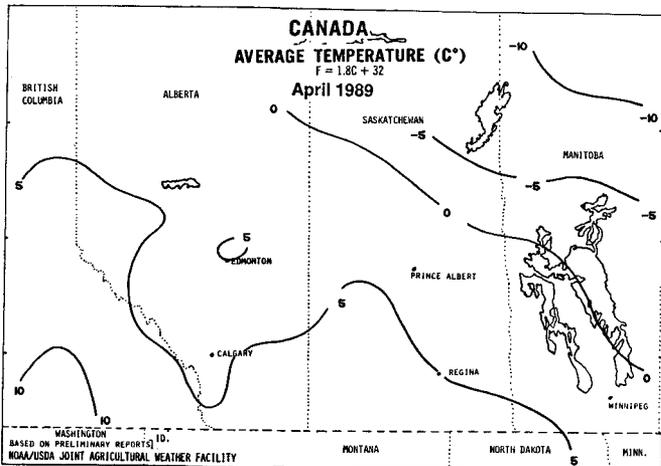
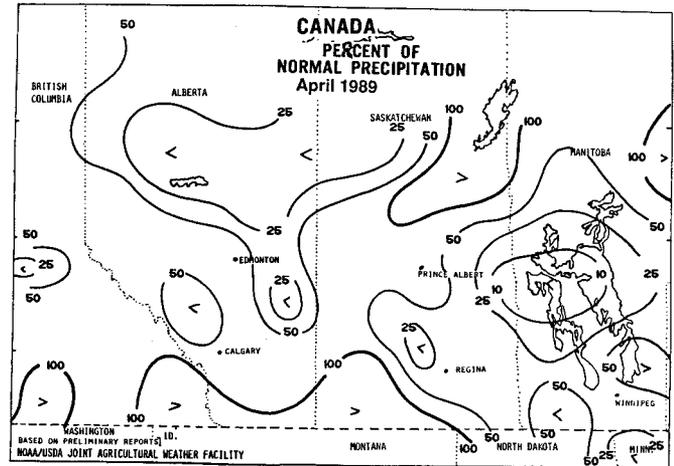
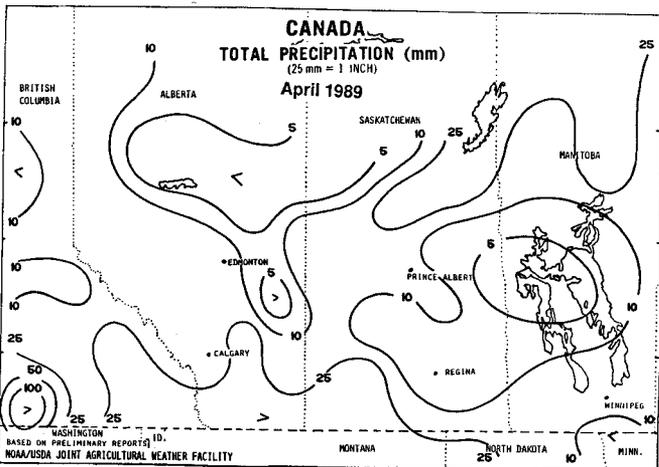


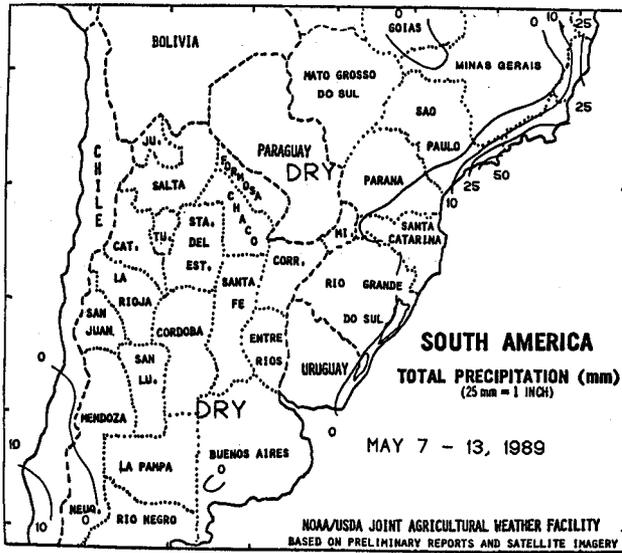
**AUSTRALIA** ... Beneficial rain (7-31mm) covered most winter grain areas in the east from southeastern South Australia to southeastern Queensland, improving preplanting moisture reserves. Rainfall averaged less than 10mm, however, over northeastern New South Wales for the fourth consecutive week. Elsewhere in the east, unseasonably heavy rain (25-95mm) covered a large area from southwestern New South Wales to central Queensland, improving pasture conditions but possibly causing local flooding. Variable, mostly moderate to heavy rainfall (25-50mm or more) covered the east coast, including Queensland's sugar region. In Western Australia, mostly dry weather covered the primary wheat areas, with light rain (8-10mm) limited to southeast coastal areas. In April, frequent, above-normal rainfall covered most winter grain regions of eastern Australia, improving preplanting moisture reserves but leaving some local areas too wet for fieldwork. The showers also delayed summer crop harvesting. In early April, Tropical Cyclone Aivu hit northeast Queensland, causing localized sugarcane damage. In Western Australia, April rainfall totaled near to above normal due mainly to the remnants of Tropical Cyclone Orson. Temperatures averaged near to 2 degrees C above normal throughout Australia's major crop regions.



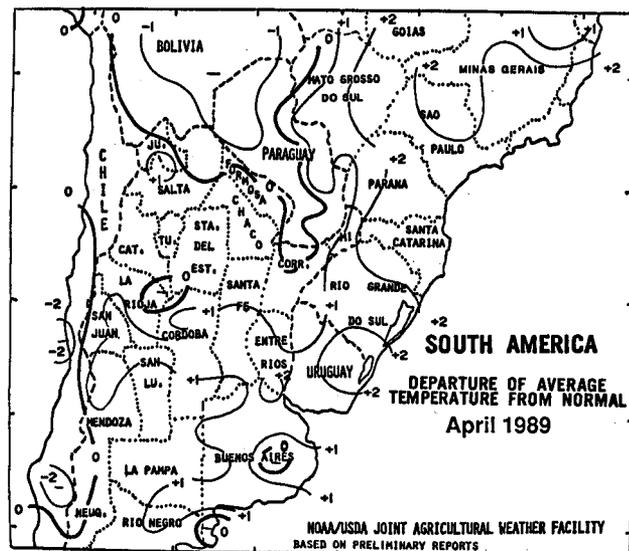
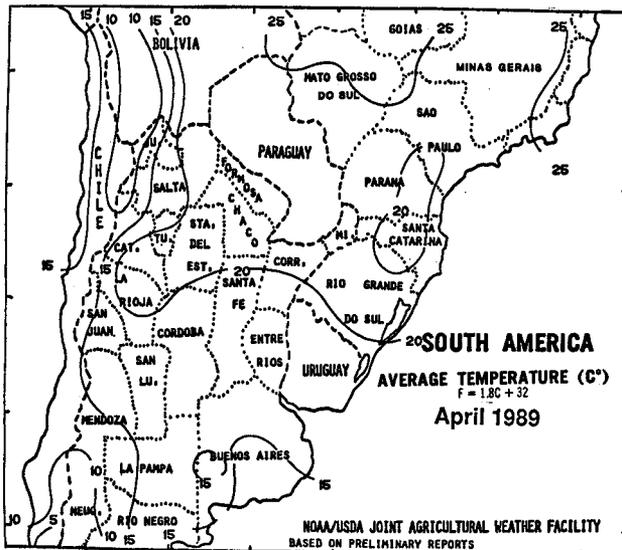
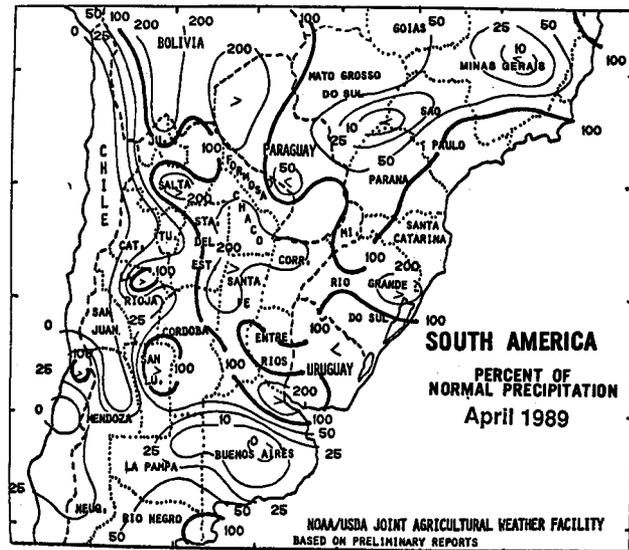
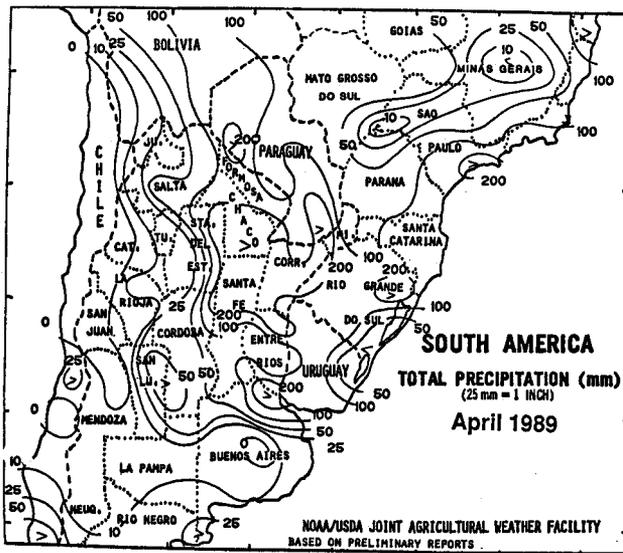


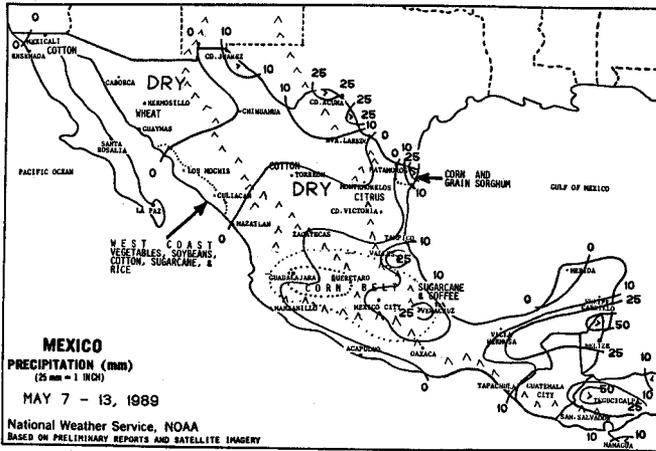
**CANADA** ... Much needed rain moved into central Saskatchewan late in the week, improving moisture conditions for spring wheat and rapeseed planting. Moderate rain (10-39mm) covered a large area from Prince Albert, Saskatchewan, southward to the United States border, with lighter rain (3-14mm) covering crop areas of westernmost Saskatchewan and Alberta. Minimal rain, however, persisted over most of the eastern one-third of Saskatchewan and northern Manitoba. Early in the week, light rain (4-11mm) covered the southern half of Manitoba's spring wheat region. Temperatures averaged 3-8 degrees C above normal across the wheat belt, increasing evaporative losses but warming soils in the north for planting. In April, precipitation was below normal over all but the southwestern growing regions. Large portions of northern Alberta, central and eastern Saskatchewan, and Manitoba received less than half their normal rainfall, reducing preplanting moisture reserves. Temperatures averaged 1-2 degrees C above normal across the Prairies.



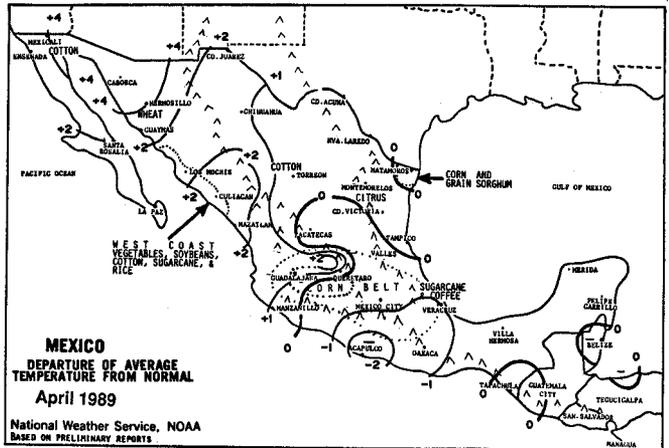
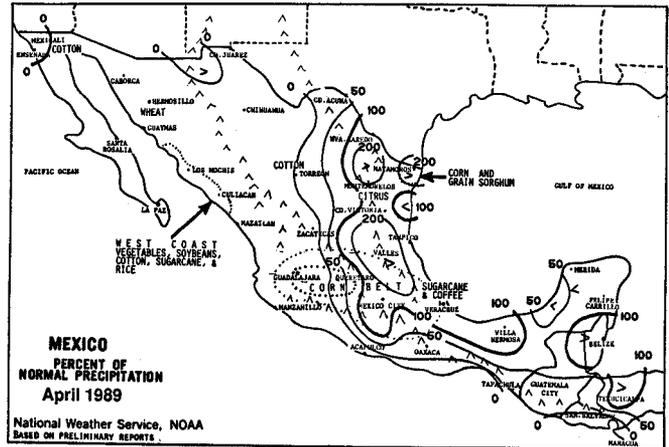
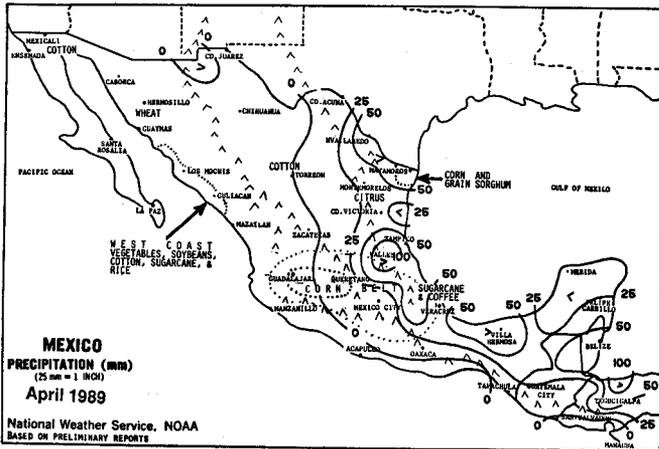


**SOUTH AMERICA** ... Dry weather prevailed over nearly all crop areas of Argentina and south-central Brazil, accelerating summer crop harvesting throughout the region. In Argentina, corn harvesting reached nearly 90 percent, while the soybean harvest advanced to about 20 percent. The persistent dryness, however, in southern Buenos Aires, La Pampa, and more isolated areas of southern Cordoba and Santa Fe slowed field preparations for wheat planting. Well-below-average April rainfall continued a drying trend especially in southern wheat areas. There is still ample time for planting, but topsoil moisture is needed. In south-central Brazil, soybean harvesting advanced toward completion, reaching nearly 90 percent with the favorable harvest weather. Generally, near-normal April rainfall in the south provided adequate moisture for wheat planting, while early-May rain dampened Parana's topsoils for crop establishment.





**MEXICO** ... Showers in the extreme northeast provided some much needed moisture for sorghum and other crops following earlier hot, dry weather. Periodic episodes of high temperatures reaching the mid-30's C since early March throughout northern Mexico hampered grain planting and emergence. Increased rainfall since late April has brought some improvement in topsoil moisture. Seasonably dry weather prevailed in the west, where improved irrigation supplies will help crop plantings. Reservoir levels are reportedly about 60 percent of capacity for the primary growing areas of Sinaloa and Sonora. The reservoirs are double the levels of last year at this time. Elsewhere, April rainfall averaged near to above normal in the Southern Plateau's eastern Corn Belt, while dryness prevailed in the west. Early May showers continued in the east. The wet season, from May to October, normally produces about 75-80 percent of the annual rainfall.



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U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
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Managing Editor . . . . . Douglas Le Conte  
Meteorologists . . . . . Tom Heddinghaus  
Vilhelm Bjerknes, Bob Stefanski, Wes Byrd, and Eyad Atallah

Subscriptions (202) 447-7917 . . . Jeanette Hill

U.S. DEPARTMENT OF AGRICULTURE  
Economics Management Staff  
Editor . . . . . Sharon Lee  
National Agricultural Statistics Service  
Agricultural Statistician . . . Tom Kurtz (202) 447-2157  
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