

# 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

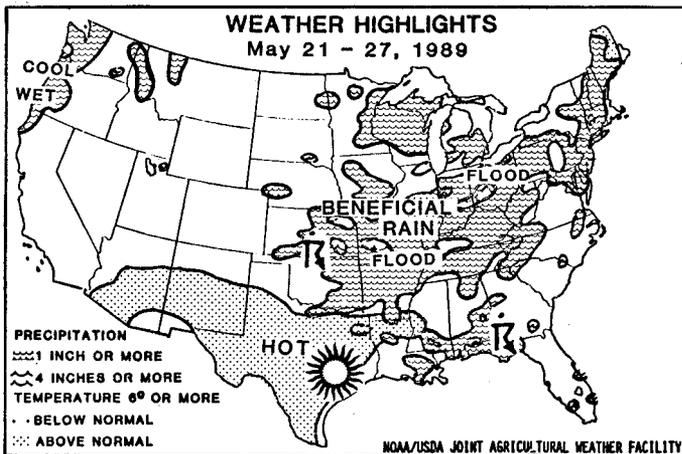
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## National Weather Summary

May 21-27, 1989



**WEDNESDAY:** Thunderstorms roared across the middle and upper Mississippi Valley and the Great Lakes, around and ahead of an eastward moving frontal system. These storms spawned tornadoes but brought much needed rain to the western Corn Belt. Rain showers continued along the northern Pacific coast, with snow across the Cascade Mountains. Locally heavy rain fell in the Northern and Middle Atlantic Coast States.

**THURSDAY:** Thunderstorms continued to bring severe weather and heavy rain to the lower Great Lakes and middle Mississippi and Ohio Valleys as the frontal system edged eastward. Cool air moved into the North Central States behind the system, while the Southern States remained hot.

**FRIDAY:** The frontal system shifted southeastward as drenching rain spread across the Ozarks, Ohio, and Tennessee Valleys, and into New England. Cool, wet weather prevailed in the Northwest, while hot, humid conditions continued to plague the South-central and Southeastern States.

**SATURDAY:** The front swept through the northern and middle Atlantic seaboard, causing locally heavy rain and high winds. Cool, wet conditions spread from the Northwest into the Intermountain Plateau, while a large high pressure area gave cool, dry weather to central portions of the Nation. Above-normal temperatures remained across the southern tier of States.

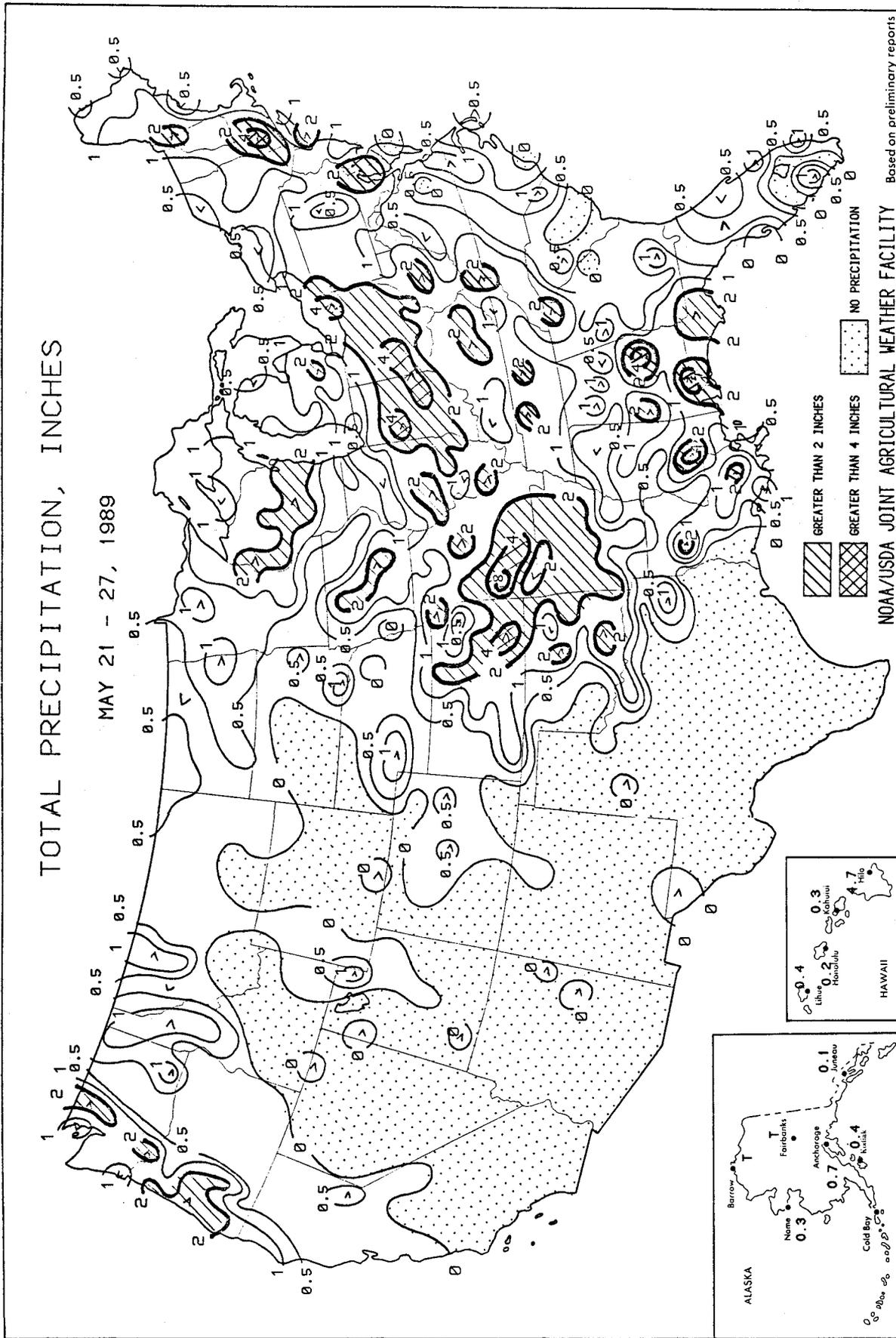
**HIGHLIGHTS:** Severe thunderstorms brought soaking rains to the central Plains and much of the eastern half of the Nation. Rainfall was especially beneficial in the dry central Plains and western Corn Belt, but heavy amounts caused flooding in the Ozarks and Ohio Valley. The South suffered from hot, humid conditions, while cool air covered the Northwest and moved into the Central States behind a strong cold front during the latter half of the week.

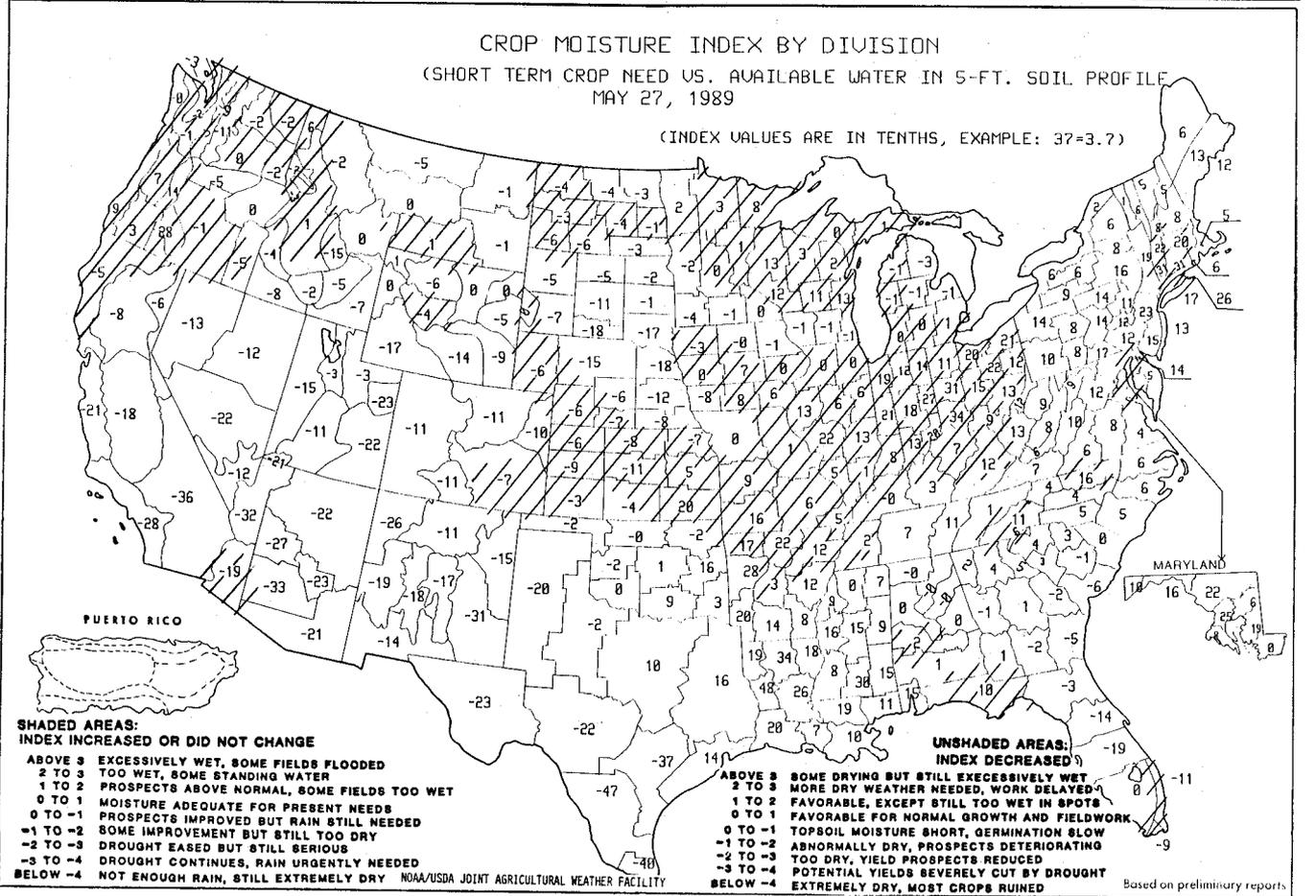
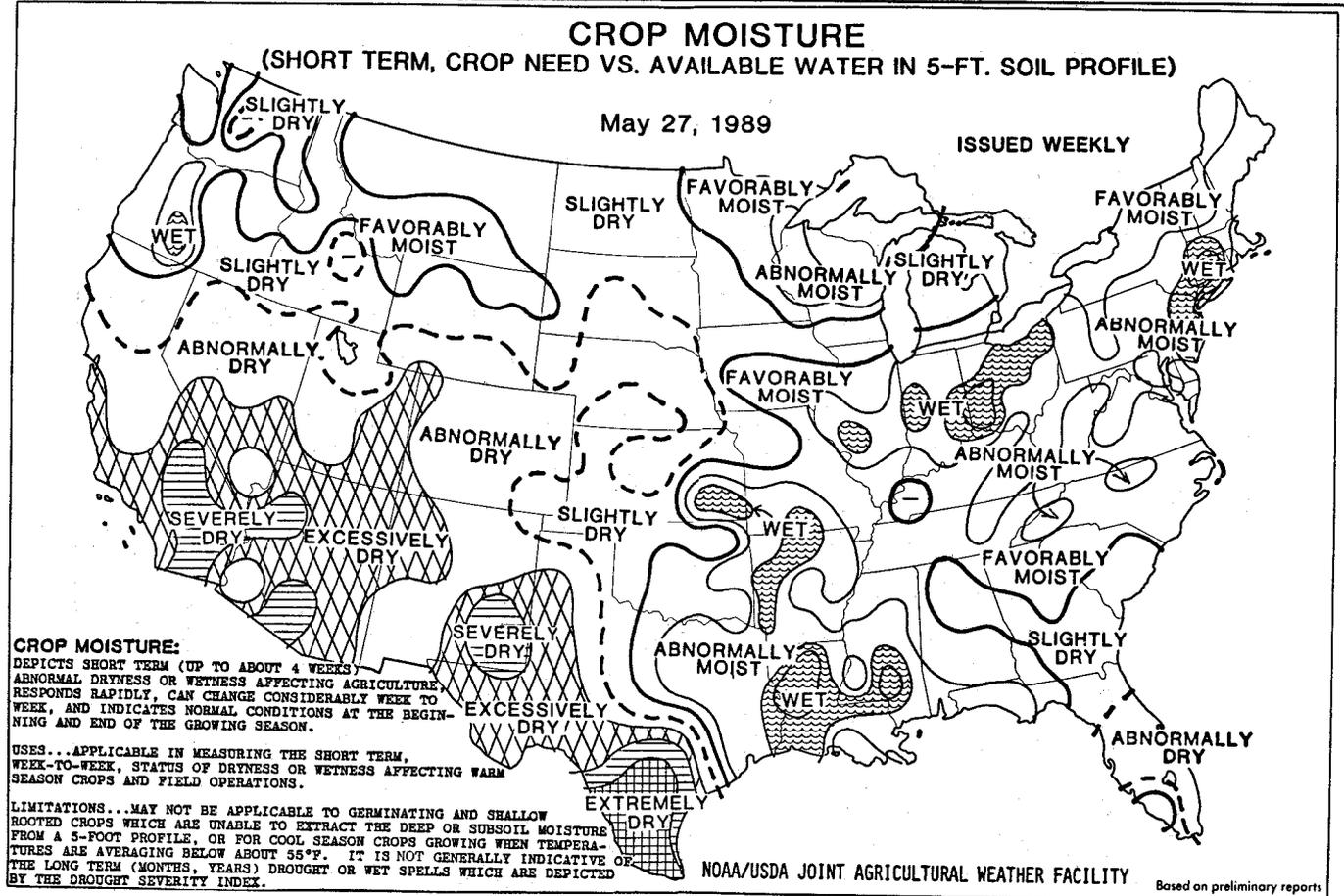
**SUNDAY:** Thunderstorms dumped heavy rain along the Gulf coast and across northern Florida and brought severe weather but more beneficial rain to the central Plains. Scattered showers covered the Northwest.

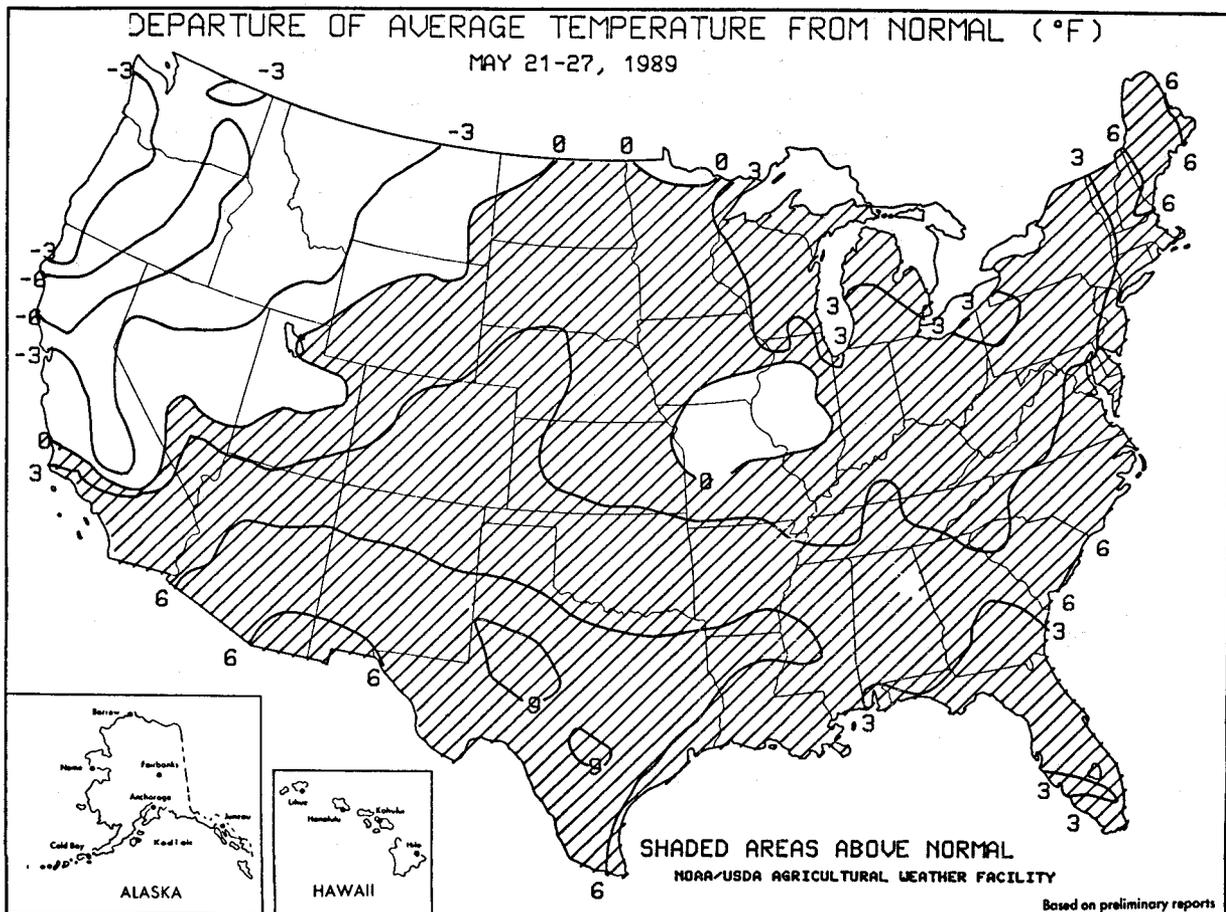
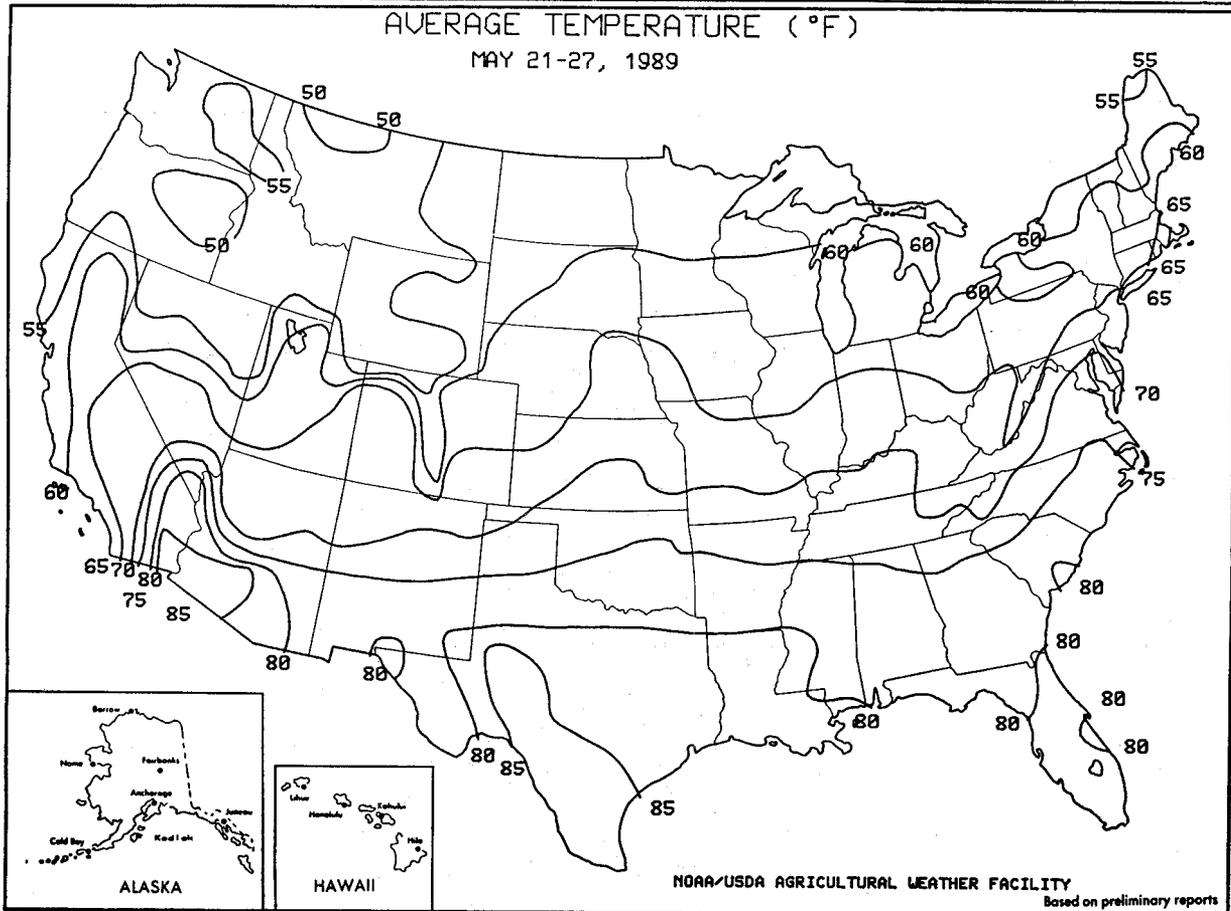
**MONDAY:** Thunderstorms rumbled over the central Plains and across the Southeast. Heavy rain caused flooding in southwestern Missouri. Rain showers were scattered in the middle Missouri Valley. By evening, rain spread over the Ohio and Tennessee Valleys and along the central and northern Pacific coast.

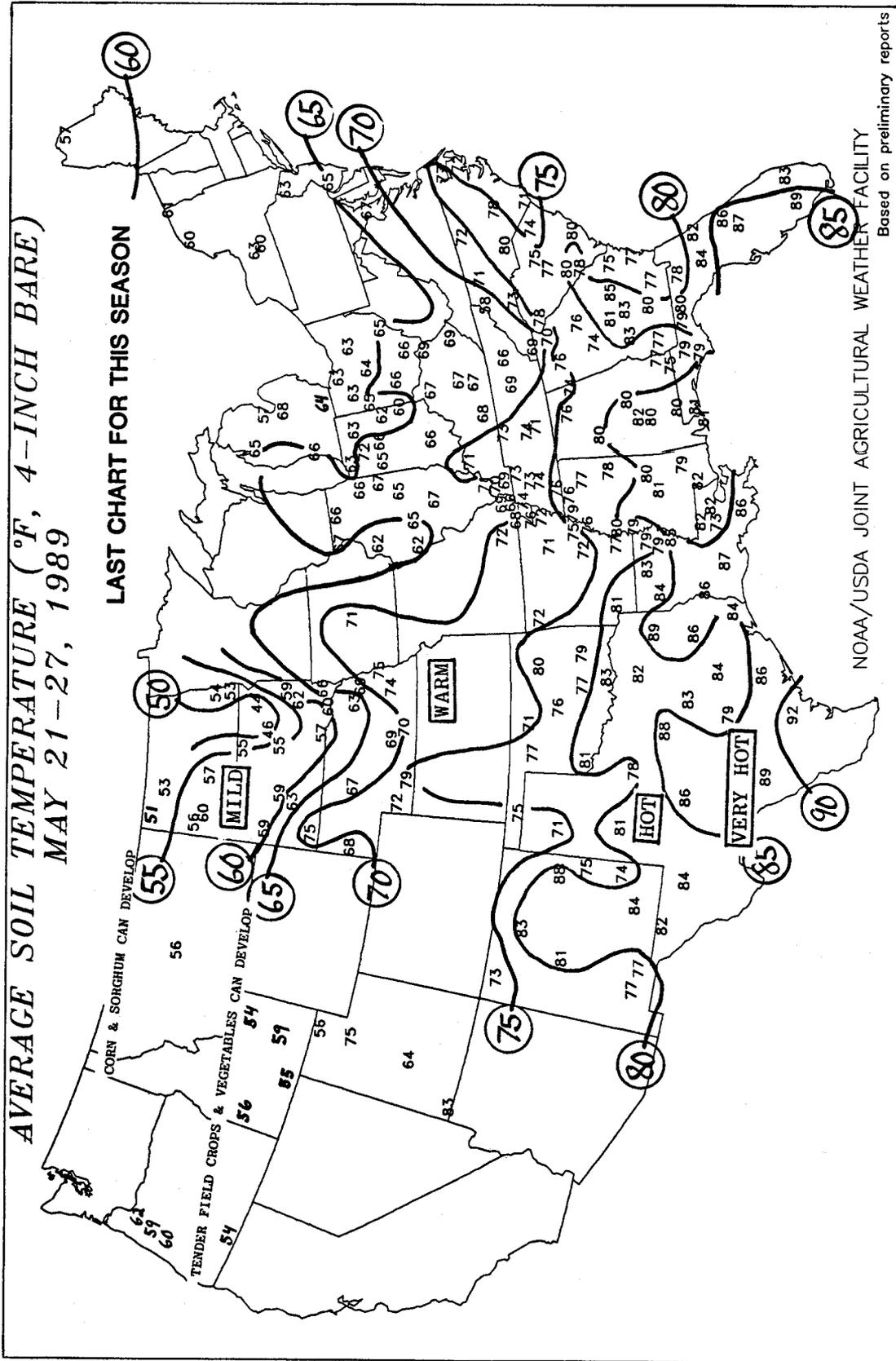
**TUESDAY:** Severe thunderstorms, developing ahead of a cold front crossing the northern Plains and upper Mississippi Valley, produced large hail and damaging winds. Severe thunderstorms with heavy rain also moved across the upper Ohio Valley and Middle Atlantic Coast States and along the eastern Gulf coast. A Pacific front brought widespread rain into the Northwest.

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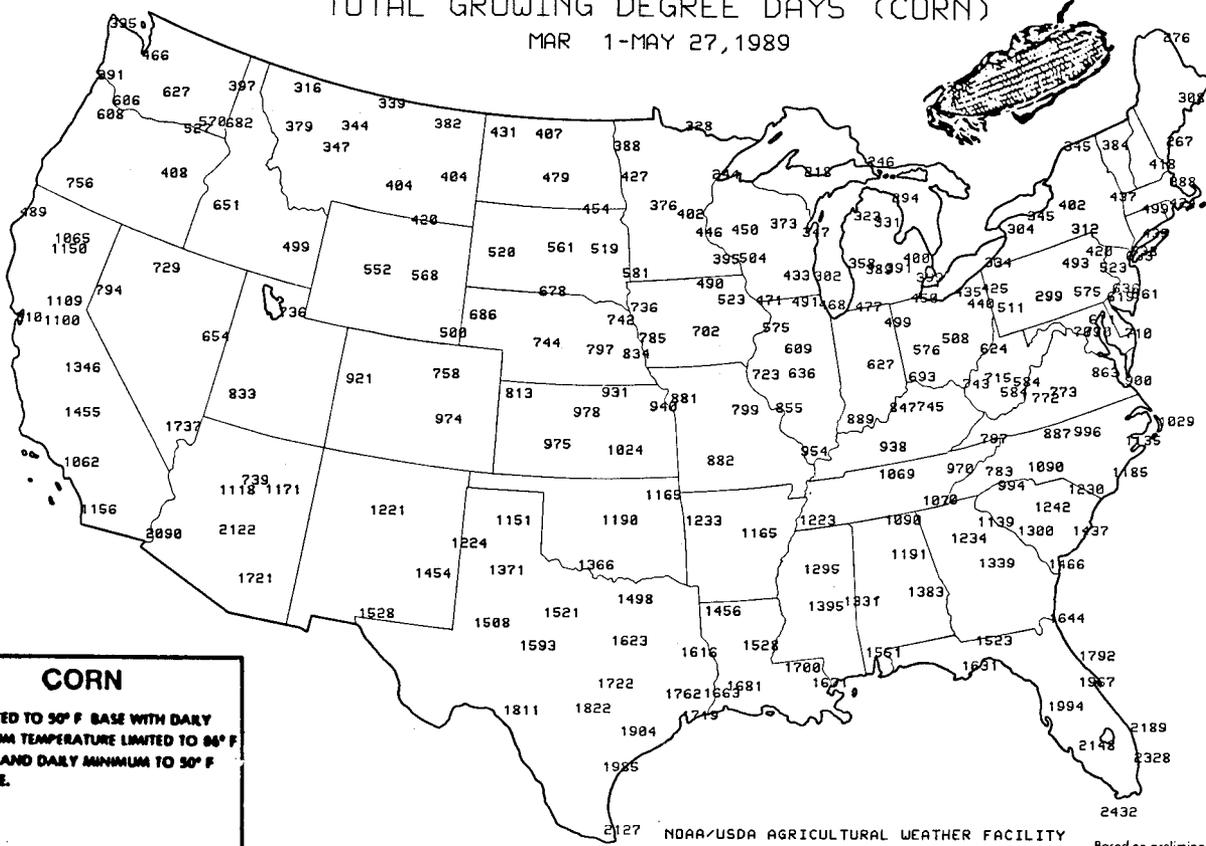








TOTAL GROWING DEGREE DAYS (CORN)  
MAR 1-MAY 27, 1989



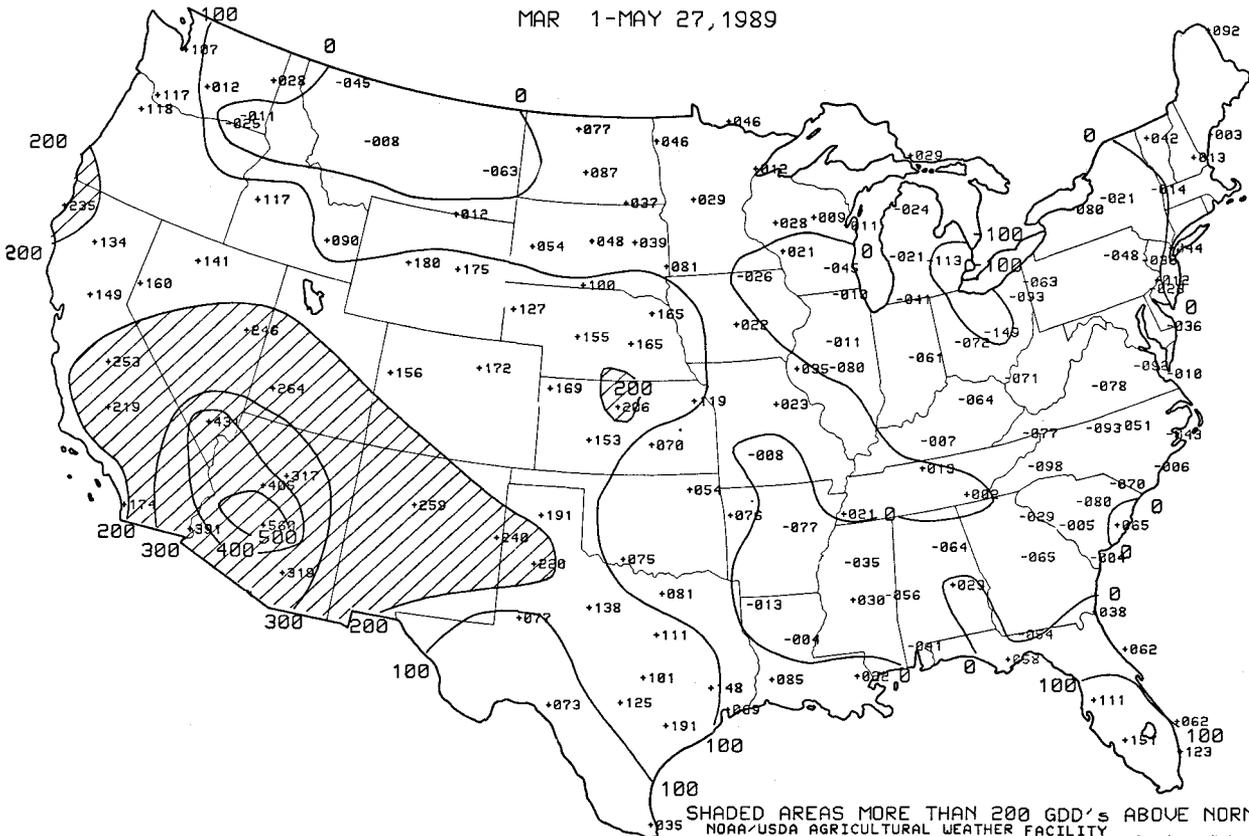
**CORN**

COMPUTED TO 50° F BASE WITH DAILY  
MAXIMUM TEMPERATURE LIMITED TO 84° 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 27, 1989



SHADED AREAS MORE THAN 200 GDD'S ABOVE NORMAL  
NOAA/USDA AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

# National Weather Data for Selected Cities

Weather Data for the Week Ending May 27, 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	86	66	89	60	76	4	.8	-2	.8	14.7	94	22.9	90	94	52	0	0	1	1
MOBILE	88	71	92	68	79	3	1.3	0	.7	15.6	94	19.2	74	98	62	2	0	2	2
MONTGOMERY	89	68	93	62	79	3	2.3	1.5	1.7	18.3	133	23.2	104	98	53	4	0	3	2
AK ANCHORAGE	57	40	59	36	49	0	.7	.5	.5	3.0	172	3.4	101	91	41	0	0	2	0
BARROW	31	20	43	11	26	0	.7	0	0	.6	140	.9	111	95	79	0	0	7	1
FAIRBANKS	61	40	70	35	50	0	.2	-.1	0	1.0	93	2.5	121	82	37	0	0	0	1
JUNEAU	61	43	71	39	52	0	.1	-.7	0	4.5	49	11.3	68	95	41	0	0	0	3
KODIAK	53	40	57	34	47	0	.4	-.8	.3	8.9	74	12.9	56	89	51	0	0	0	3
NOME	40	31	47	24	36	0	.3	-.2	.3	3.9	247	6.9	240	94	69	0	0	5	3
AZ PHOENIX	102	72	106	68	87	8	0	0	0	1.1	96	2.3	95	23	7	7	0	0	0
PRESCOTT	84	51	89	44	68	8	0	0	0	1.1	42	2.8	47	32	7	0	0	0	0
TUCSON	101	63	105	60	82	6	0	0	0	.8	68	2.0	77	22	6	7	0	0	0
YUMA	100	72	104	69	86	6	0	0	0	.1	45	.7	81	32	12	7	0	0	0
AR FORT SMITH	86	66	92	60	76	4	2.8	1.7	1.8	16.8	137	26.8	161	98	59	3	0	2	2
LITTLE ROCK	84	67	91	61	76	4	2.8	1.6	1.2	15.5	105	27.3	122	87	58	1	0	3	3
CA BAKERSFIELD	83	52	89	46	67	0	0	0	0	1.4	77	2.3	61	74	27	0	0	0	0
EUREKA	61	49	65	46	55	0	1.1	-.8	.7	11.0	117	18.6	86	85	62	0	0	4	1
FRESNO	81	53	87	50	67	0	-.3	0	0	3.2	106	4.8	70	73	22	0	0	0	0
LOS ANGELES	69	56	70	54	62	0	-.1	0	0	.9	33	3.2	39	88	54	0	0	0	0
REDDING	76	49	86	42	63	0	.1	-.1	.1	15.4	172	18.6	79	78	23	0	0	1	0
SACRAMENTO	77	48	87	43	63	0	.1	0	-.1	6.5	179	8.5	81	91	29	0	0	1	0
SAN DIEGO	71	58	73	57	64	0	0	0	0	.9	31	1.9	30	87	58	0	0	0	0
SAN FRANCISCO	66	50	68	49	58	0	0	0	0	4.8	109	7.4	60	91	47	0	0	1	0
CO DENVER	78	49	93	38	63	4	.3	-.2	.3	4.5	88	6.3	100	67	22	1	0	1	0
GRAND JUNCTION	82	52	89	43	67	0	0	-.2	0	1.3	64	3.7	113	30	10	0	0	0	0
PUEBLO	85	48	98	38	67	0	.1	-.2	.1	1.0	33	2.1	61	80	21	3	0	1	0
CT BRIDGEPORT	73	56	78	47	65	4	2.6	1.9	2.0	14.8	138	18.6	110	80	56	0	0	2	2
HARTFORD	77	54	82	49	65	3	5.7	4.9	4.4	17.7	160	20.4	115	97	46	0	0	4	3
DC WASHINGTON	81	61	87	58	71	3	1.8	1.0	1.6	14.9	159	20.2	137	94	46	0	0	4	1
FL APALACHICOLA	86	70	93	63	78	2	3.6	2.9	2.3	11.1	113	14.3	84	100	76	1	0	2	2
DAYTONA BEACH	91	68	93	65	80	3	.2	-.7	.2	6.7	83	14.1	105	95	48	5	0	1	0
JACKSONVILLE	91	68	98	64	80	3	.1	-1.0	.1	6.4	64	10.0	60	96	44	4	0	1	0
KEY WEST	90	77	91	73	83	2	1.7	-.8	1.1	5.0	91	5.8	63	84	55	4	0	2	2
MIAMI	91	74	94	70	82	3	.1	-1.5	.1	3.8	36	5.2	36	87	44	6	0	1	0
ORLANDO	93	70	97	66	81	3	0	-1.0	0	5.4	63	9.4	68	94	38	7	0	1	0
TALLAHASSEE	89	67	96	62	78	2	2.9	1.7	1.8	13.0	92	16.3	69	100	50	3	0	4	2
TAMPA	92	71	96	69	82	3	0	-.9	0	2.7	34	4.7	35	92	45	6	0	0	0
WEST PALM BEACH	91	71	95	68	81	2	.1	-1.5	.1	9.3	84	11.2	69	91	46	6	0	2	0
GA ATLANTA	88	66	91	58	77	5	.4	-.5	.4	15.5	112	22.3	97	91	45	1	0	1	0
AUGUSTA	91	62	96	55	76	3	0	-.9	0	12.5	109	17.2	89	96	42	4	0	0	0
MACON	88	66	95	62	77	2	.4	-.5	.4	14.9	124	21.3	103	97	48	3	0	1	0
SAVANNAH	91	67	98	63	79	4	0	-1.1	0	8.0	73	9.1	53	96	46	3	0	2	0
HI HILO	80	68	83	63	74	0	4.7	2.8	1.9	60.7	173	94.6	163	96	68	0	0	7	3
HONOLULU	87	73	89	71	80	3	.2	0	.2	4.1	68	12.7	102	80	50	0	0	1	0
KAHULUI	85	70	89	67	77	2	.3	-.2	.2	18.9	443	25.9	231	88	56	0	0	2	0
LIHUE	81	72	83	70	77	1	.4	-.2	.3	11.5	111	30.0	148	90	71	0	0	3	0
ID BOISE	70	41	82	32	56	0	-.4	0	-.3	4.1	129	6.4	109	70	20	0	1	0	0
LEWISTON	68	47	76	42	58	0	.3	-.4	.1	3.6	107	5.4	96	72	36	0	0	3	0
POCATELLO	69	37	81	33	53	0	-.3	0	-.3	3.5	114	5.5	109	75	22	0	0	1	0
IL CHICAGO	77	54	86	46	65	4	.3	-.4	.3	4.0	43	5.6	47	85	40	0	0	1	0
MOLINE	75	51	86	44	63	0	-.1	.6	-.4	7.9	76	10.3	78	92	45	0	0	2	1
PEORIA	75	53	86	45	64	0	.7	-.2	.5	7.6	76	9.8	75	95	49	0	0	3	0
QUINCY	75	53	85	46	64	0	-.2	.9	-.1	6.4	43	6.0	44	91	46	0	0	3	1
ROCKFORD	77	52	87	44	65	3	1.0	-.2	1.0	5.4	54	6.8	54	89	39	0	0	1	1
SPRINGFIELD	75	54	83	46	64	0	2.3	1.5	2.0	10.7	106	12.8	96	95	50	0	0	3	1
IN EVANSVILLE	79	60	84	51	69	1	1.2	-.2	.6	14.1	113	24.4	132	95	52	0	0	3	1
FORT WAYNE	76	52	81	45	64	2	1.5	-.7	1.4	8.4	88	11.4	84	93	42	0	0	3	1
INDIANAPOLIS	76	56	81	48	66	1	3.5	2.7	2.2	13.7	131	16.7	108	94	47	0	0	3	2
SOUTH BEND	76	52	81	43	64	2	.4	-.2	.4	6.5	69	9.2	66	93	39	0	0	1	0
IA DES MOINES	75	53	84	44	64	0	1.2	-.2	1.2	5.1	58	7.4	69	83	41	0	0	1	1
SIoux CITY	81	51	90	40	66	2	1	-.8	.1	2.2	31	3.5	41	75	29	1	0	1	0
WATERLOO	76	50	81	37	63	1	.1	-.9	0	4.6	49	6.0	54	88	39	0	0	1	0
KS CONCORDIA	78	57	89	43	67	1	2.3	1.3	2.1	4.9	65	6.0	67	82	39	0	0	2	1
DODGE CITY	82	58	94	46	70	3	.6	-.2	.6	4.7	76	5.2	74	85	34	2	0	1	1
GOODLAND	77	51	91	44	64	3	.2	-.6	.1	3.7	79	4.1	76	90	34	1	0	2	0
TOPEKA	78	56	90	41	67	0	.3	-.6	.3	7.6	87	9.7	91	96	45	1	0	3	0
WICHITA	81	60	93	48	71	2	1.6	-.7	1.3	6.6	84	7.7	83	89	41	1	0	2	1
KY BOWLING GREEN	81	62	89	54	72	3	.9	-.1	.6	13.3	100	30.4	139	95	55	0	0	4	1
LEXINGTON	77	58	82	54	68	1	1.9	1.0	1.0	14.1	112	28.2	145	92	46	0	0	4	2
LOUISVILLE	78	61	83	54	70	2	1.1	-.2	.6	14.8	119	27.5	145	91	47	0	0	3	1
LA ALEXANDRIA	89	73	93	70	81	5	.5	-.7	.5	17.9	119	32.2	133	97	58	3	0	1	0
BATON ROUGE	91	74	95	69	83	6	1.9	-.9	1.9	21.2	146	26.7	111	99	55	6	0	1	1
LAKE CHARLES	89	76	93	72	82	6	0	-.3	0	14.8	124	20.0	101	95	61	2	0	0	0
NEW ORLEANS	89	73	93	68	81	5	.2	-1.0	.2	12.6	93	15.3	64	98	59	2	0	1	0

Based on 1951-80 normals

Weather Data for the Week Ending May 27, 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	52 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	91	73	93	69	82	7	T	-1.0	T	13.5	107	24.8	123	97	56	6	0	0	0
ME CARIBOU	71	52	78	43	61	8	T	.5	T	6.8	91	10.2	85	99	54	0	0	3	0
PORTLAND	72	52	79	47	62	7	T	.4	T	13.9	130	17.4	97	96	53	0	0	5	0
MD BALTIMORE	78	58	87	53	68	2	T	2.3	1.6	15.1	151	21.5	135	95	50	0	0	0	2
SALISBURY	81	56	88	50	69	3	T	1.5	T	12.7	125	17.3	102	93	45	0	0	3	0
MA BOSTON	75	57	82	53	66	5	T	1.5	1.3	10.2	94	13.3	72	87	50	0	0	0	0
CHATHAM	67	52	73	50	60	4	T	.7	1.1	14.6	130	19.8	100	93	69	0	0	3	0
MI ALPENA	73	46	77	37	60	5	T	1.2	1.4	6.0	88	8.1	82	92	35	0	0	5	0
DETROIT	76	51	81	47	64	3	T	.8	1.2	6.1	76	8.2	71	90	45	0	0	2	0
FLINT	77	49	84	43	63	4	T	.4	1.1	5.7	76	7.5	71	89	35	0	0	1	1
GRAND RAPIDS	76	49	83	40	62	2	T	.9	1.1	5.9	68	7.8	65	91	35	0	0	1	1
HOUGHTON LAKE	74	50	85	40	62	2	T	.7	1.1	5.0	74	6.7	70	81	32	0	0	1	1
LANSING	76	49	82	41	62	2	T	.7	1.1	5.4	74	7.2	70	89	36	0	0	1	1
MARQUETTE	70	44	80	36	57	4	T	1.5	1.2	6.2	63	9.6	70	89	35	0	0	2	1
MUSKOGON	73	48	83	42	61	2	T	.9	1.2	4.1	52	6.7	57	89	38	0	0	1	1
SAULT ST. MARIE	70	43	79	33	56	4	T	.7	1.0	6.0	88	10.1	94	93	34	0	0	4	0
MN ALEXANDRIA	72	47	79	39	60	1	T	.5	1.3	4.5	77	5.4	73	94	42	0	0	3	0
DULUTH	68	45	80	34	56	4	T	1.8	1.8	6.8	103	9.0	104	86	39	0	0	1	0
INT'L FALLS	67	40	76	30	53	1	T	.3	1.2	2.4	52	4.2	66	95	36	0	1	3	0
MINNEAPOLIS	74	50	82	39	62	2	T	1.0	1.2	7.6	118	9.1	113	85	41	0	0	4	0
ROCHESTER	73	47	81	38	60	0	T	.3	1.2	6.9	95	7.7	88	86	43	0	0	3	0
MS GREENWOOD	88	69	91	63	79	0	T	1.2	1.2	13.1	82	26.8	104	91	55	3	0	2	1
JACKSON	89	71	92	67	80	0	T	.3	1.3	14.6	93	21.5	86	98	59	3	0	1	0
MERIDIAN	89	69	91	65	79	0	T	1.4	1.4	20.1	128	27.2	107	97	58	3	0	1	1
MO CAPE GIRARDEAU	81	62	88	53	72	0	T	1.3	1.2	10.0	73	23.9	122	90	52	0	0	2	0
COLUMBIA	77	56	84	46	66	1	T	2.1	1.0	9.4	84	12.3	83	96	57	0	0	4	2
KANSAS CITY	76	56	86	44	66	1	T	1.8	1.1	8.1	83	9.6	79	94	49	0	0	3	2
SAINT LOUIS	78	59	84	54	69	0	T	1.0	1.1	8.8	89	12.8	93	89	44	0	0	4	1
SPRINGFIELD	80	58	88	47	69	2	T	5.8	4.8	12.0	107	15.6	104	97	54	0	0	3	2
MT BILLINGS	70	43	81	38	57	1	T	1.1	1.2	6.0	120	7.9	118	67	22	0	0	0	0
GLASGOW	69	44	83	34	57	1	T	.2	1.2	3.7	159	5.0	166	78	31	0	0	2	0
GRGAT FALLS	63	38	72	34	51	1	T	.3	1.2	5.2	115	7.4	118	80	30	0	0	3	0
HAVRE	66	40	72	38	53	1	T	.1	1.2	2.6	83	3.4	82	66	27	0	0	2	0
HELENA	66	37	74	29	52	1	T	.1	1.3	2.8	88	5.0	117	73	25	0	1	2	0
KALISPELL	60	39	72	30	49	1	T	.4	1.1	5.1	150	7.7	129	89	40	0	1	3	0
MILES CITY	72	48	88	37	60	0	T	1.6	1.3	5.5	139	6.8	133	55	22	0	1	0	0
MISSOULA	65	38	74	31	51	1	T	1.3	1.2	4.2	132	5.4	101	84	29	0	1	2	0
NE GRAND ISLAND	79	53	89	44	66	2	T	.2	1.2	2.3	32	3.7	43	86	35	0	0	2	0
LINCOLN	82	52	93	39	67	2	T	1.1	1.1	1.4	17	3.3	34	85	34	2	0	1	0
NORFOLK	80	50	93	38	65	1	T	1.1	1.4	3.1	45	4.9	60	87	30	1	0	0	0
NORTH PLATTE	80	48	95	39	64	3	T	1.1	1.1	3.3	56	4.6	68	87	25	1	0	1	1
OMAHA	80	56	90	50	68	2	T	1.0	1.1	3.1	36	4.6	45	74	37	1	0	0	0
SCOTT'SBLUFF	79	47	91	38	63	3	T	1.1	1.1	3.0	63	4.0	72	66	15	1	0	0	0
VALENTINE	82	46	99	35	64	3	T	1.7	1.8	1.8	36	2.6	45	68	19	2	0	0	0
NV ELY	72	34	79	21	53	0	T	1.7	1.7	1.7	61	2.6	64	54	13	0	3	0	0
LAS VEGAS	92	67	96	59	79	0	T	1.7	1.7	1.7	90	1.3	75	19	9	5	0	0	0
RENO	71	40	78	33	55	1	T	1.7	1.7	1.7	92	2.7	67	60	16	0	0	0	0
WINNEMUCCA	71	36	82	30	54	1	T	1.7	1.7	1.7	92	2.7	67	60	16	0	0	0	0
NH CONCORD	76	51	86	43	64	5	T	1.0	1.4	10.7	125	13.5	98	99	43	0	0	3	1
NJ ATLANTIC CITY	78	55	85	50	67	4	T	1.0	1.3	13.9	140	19.7	118	95	50	0	0	4	1
NM ALBUQUERQUE	91	56	96	53	73	6	T	1.0	1.3	13.9	140	19.7	118	95	50	0	0	4	1
CLOVIS	91	59	100	52	75	7	T	1.0	1.3	13.9	140	19.7	118	95	50	0	0	4	1
ROSWELL	97	64	104	61	81	9	T	1.0	1.3	13.9	140	19.7	118	95	50	0	0	4	1
NY ALBANY	72	51	80	44	62	2	T	1.3	1.3	11.2	128	13.2	99	96	51	0	0	6	1
BINGHAMTON	68	51	77	46	59	2	T	1.7	1.3	10.9	125	14.4	106	92	52	0	0	5	0
BUFFALO	67	51	73	44	59	0	T	1.3	1.3	10.9	128	15.3	110	93	51	0	0	2	1
NEW YORK	77	60	83	58	68	4	T	1.8	1.3	15.5	144	20.9	123	94	47	0	0	4	1
ROCHESTER	72	51	77	43	61	2	T	1.4	1.3	10.0	136	12.7	106	91	46	0	0	2	0
SYRACUSE	74	52	81	48	63	3	T	1.8	1.3	8.5	93	11.3	79	96	50	0	0	6	0
NC ASHEVILLE	81	54	88	49	68	2	T	1.3	1.3	11.7	99	17.9	99	95	44	0	0	4	1
CHARLOTTE	87	63	91	56	75	5	T	1.2	1.2	12.9	115	19.2	103	86	44	1	0	2	0
GREENSBORO	85	59	89	56	72	4	T	1.6	1.2	15.3	154	20.7	124	90	41	0	0	2	0
HATTERAS	81	65	85	53	73	4	T	1.6	1.3	25.8	243	32.2	166	99	55	0	0	2	1
NEW BERN	89	65	96	57	77	5	T	1.3	1.3	14.8	143	21.4	117	94	45	3	0	1	0
RALPHIGH	87	61	91	55	74	5	T	1.2	1.2	14.2	146	22.0	131	93	41	2	0	2	0
WILMINGTON	90	66	96	60	78	5	T	1.0	1.2	17.9	169	22.1	125	98	43	2	0	0	0
ND BISMARCK	73	43	84	39	58	0	T	1.7	1.7	3.1	77	3.9	79	86	30	0	0	3	1
FARGO	72	45	82	40	59	0	T	1.3	1.7	4.8	104	6.8	124	87	41	0	0	4	1
GRAND FORKS	71	45	82	41	57	1	T	1.5	1.7	3.2	84	4.9	98	85	36	0	0	4	0
WILLISTON	71	43	85	37	57	1	T	1.9	1.5	3.4	101	4.8	110	88	34	0	0	3	0
OH AKRON-CANTON	73	53	80	47	63	2	T	2.3	1.5	12.3	127	16.5	115	94	48	0	0	4	2
CINCINNATI	77	58	82	50	67	2	T	1.7	1.7	16.2	150	24.1	145	93	46	0	0	4	2
CLEVELAND	76	54	84	47	65	3	T	3.8	3.0	15.2	166	19.0	138	96	41	0	0	3	3
COLUMBUS	74	52	81	47	63	1	T	2.0	1.2	12.2	124	17.2	117	97	51	0	0	4	2

Weather Data for the Week Ending May 27, 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	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	76	56	82	50	66	1	5.9	5.0	2.9	21.0	217	26.3	184	93	45	0	0	4	3
TOLEDO	77	50	83	44	64	2	1.1	.5	1.1	8.2	101	10.7	90	92	38	0	0	2	1
YOUNGSTOWN	73	52	82	42	63	3	1.7	.9	.9	10.3	107	14.1	98	96	45	0	0	2	2
OK OKLAHOMA CITY	85	65	93	57	75	5	.1	-1.2	.1	6.6	68	9.9	83	89	45	2	0	1	0
TULSA	86	65	91	53	75	4	1.0	-1.2	.8	7.4	63	12.6	85	91	51	1	0	2	0
OR ASTORIA	59	45	61	42	52	-1	.9	.3	.3	15.2	105	30.1	91	92	59	0	0	2	1
BURNS	60	34	69	29	47	-7	.1	-1.1	0.0	4.4	195	5.0	103	80	31	0	3	2	0
MEDFORD	66	44	73	38	55	-4	.3	0	.1	7.4	188	10.2	109	87	39	0	0	2	0
PENDLETON	63	43	71	40	53	-8	.4	.1	.1	4.7	157	8.0	138	79	41	0	0	4	0
PORTLAND	61	48	66	46	54	-4	2.5	2.0	.9	11.7	152	17.9	101	96	57	0	0	6	2
SALEM	63	46	68	43	54	-2	.9	.5	.3	8.6	102	14.9	75	93	54	0	0	5	0
PA ALLENTOWN	76	53	81	48	64	2	1.2	.5	1.0	13.1	121	17.1	99	96	48	0	0	2	1
ERIE	71	53	77	48	62	4	2.1	1.3	.8	12.1	134	17.1	126	91	46	0	0	2	2
HARRISBURG	76	56	84	52	66	2	.4	.4	.3	13.5	136	17.7	114	92	46	0	0	3	0
PHILADELPHIA	79	57	86	52	68	3	1.0	.2	.6	13.5	134	19.1	120	92	48	0	0	3	0
PITTSBURGH	75	55	82	48	65	3	1.6	.8	.6	13.4	135	18.8	124	89	42	0	0	3	1
SCHRANTON	73	51	82	45	62	1	.6	-1.1	.4	11.0	131	13.7	109	96	47	0	0	4	2
RI PROVIDENCE	75	54	82	53	65	5	.5	-1.2	.4	14.5	129	18.3	96	93	48	0	0	3	0
SC CHARLESTON	92	69	98	64	81	7	T	-1.1	T	9.9	93	13.0	75	94	40	6	0	2	0
COLUMBIA	91	62	95	54	77	3	0	-1.9	T	13.5	112	18.6	91	94	37	4	0	0	0
FLORENCE	91	64	95	56	78	4	.1	-1.7	.1	12.1	122	16.6	99	96	38	4	0	1	0
GREENSVILLE	86	59	90	49	73	2	.4	-1.5	.4	11.2	81	17.6	79	96	46	1	0	2	0
SD ABERDEEN	76	46	85	36	61	2	T	-1.6	T	5.7	113	6.6	107	85	34	0	0	1	0
HURON	76	44	85	37	60	0	T	-1.6	T	4.7	86	5.7	86	88	40	0	0	1	0
RAPID CITY	75	42	87	34	59	0	T	-1.6	T	3.5	68	3.9	63	70	24	0	0	0	0
SIoux FALLS	78	46	88	36	62	1	.1	-1.7	.1	3.6	54	4.3	54	85	31	0	0	2	0
TN CHATTANOOGA	85	62	89	53	73	4	.9	0	.6	14.4	100	26.9	110	96	49	0	0	2	0
KNOXVILLE	82	57	86	50	70	0	.7	-2.2	.3	12.0	96	23.2	109	98	51	0	0	3	1
MEMPHIS	87	67	92	59	77	4	1.1	0	.7	9.8	62	28.2	115	92	53	3	0	3	1
NASHVILLE	83	63	88	56	73	3	1.3	.3	1.1	12.6	90	26.5	118	91	48	0	0	3	1
TX ABILENE	95	70	102	63	83	8	0	-1.7	0	5.5	88	9.1	111	81	34	6	0	0	0
AMARILLO	87	57	98	49	72	4	0	-1.9	0	3.3	77	4.0	76	82	24	3	0	0	0
AUSTIN	93	73	94	66	83	6	0	-1.1	0	11.5	136	16.1	129	97	53	7	0	0	0
BEAUMONT	88	75	93	72	82	5	0	-1.1	0	14.8	128	21.8	110	96	62	1	0	0	0
BROWNSVILLE	92	77	94	76	84	4	0	-1.5	0	5.0	130	7.0	107	93	56	7	0	0	0
CORPUS CHRISTI	92	75	93	73	84	5	0	-1.8	0	3.9	70	6.8	79	99	60	7	0	0	0
DEL RIO	99	75	101	74	87	8	0	-1.4	0	2.5	60	4.5	80	73	29	7	0	0	0
EL PASO	97	63	101	55	81	6	T	0	T	1.3	190	2.1	143	31	11	7	0	1	0
FORT WORTH	90	72	94	69	81	6	T	-1.9	T	15.2	147	21.4	155	90	55	4	0	0	0
GALVESTON	86	79	87	78	82	5	0	-1.8	0	5.8	76	12.2	94	93	73	0	0	0	0
HOUSTON	91	75	93	74	83	6	0	-1.1	0	19.0	180	24.7	143	95	54	6	0	0	0
LUBBOCK	95	64	104	56	79	8	T	-1.6	T	1.1	27	2.7	53	76	21	5	0	1	0
MIDLAND	101	68	108	66	85	10	0	-1.5	0	1.3	43	2.8	70	71	15	7	0	0	0
SAN ANGELO	100	71	107	65	86	10	0	-1.6	0	4.1	87	7.7	126	84	26	7	0	0	0
SAN ANTONIO	99	74	103	68	87	9	0	-1.8	0	4.1	57	7.4	70	87	33	7	0	0	0
VICTORIA	92	75	93	72	84	6	0	-1.1	0	3.5	45	7.9	66	94	53	7	0	0	0
WACO	92	73	94	65	83	7	0	-1.0	0	13.3	134	18.0	132	91	53	6	0	0	0
WICHITA FALLS	88	70	96	62	79	5	.1	-1.9	.1	6.4	75	10.9	104	95	47	4	0	1	0
UT CEDAR CITY	77	45	83	34	61	2	0	-2.0	0	1.4	51	2.7	64	41	11	0	0	0	0
SALT LAKE CITY	77	47	89	40	62	1	0	-1.3	0	3.4	64	5.4	68	52	14	0	0	0	0
VT BURLINGTON	70	54	78	44	62	3	.8	.1	.3	7.6	102	8.7	79	93	50	0	0	5	0
VA NORFOLK	86	62	92	58	74	6	.8	-1.1	.8	14.9	151	24.0	142	93	44	2	0	1	1
RICHMOND	85	59	90	53	72	4	0	-1.8	0	14.2	149	20.4	129	93	44	1	0	0	0
ROANOKE	82	56	88	48	69	2	.6	-1.2	.6	12.0	122	15.3	97	91	39	0	0	3	1
WA QUILLAYUTE	57	40	62	33	49	-4	1.4	.3	.5	19.1	80	40.9	81	98	59	0	0	5	1
SEATTLE-TACOMA	61	46	62	42	53	-3	1.3	.9	.5	10.7	146	17.0	97	94	53	0	0	3	2
SPOKANE	61	41	69	37	51	-5	.7	.4	.4	5.1	141	7.2	95	83	40	0	0	3	0
YAKIMA	67	41	73	30	54	-6	.4	.3	.3	2.5	165	3.3	92	87	32	0	0	2	0
WV BECKLEY	75	52	81	47	64	2	.5	-1.3	.2	12.0	115	18.3	107	91	44	0	1	2	0
CHARLESTON	78	55	87	49	67	1	2.1	1.3	.8	16.7	157	25.7	149	96	48	0	0	5	3
HUNTINGTON	78	55	89	46	67	0	1.2	.3	.7	13.5	124	25.8	152	95	45	0	0	4	1
PARKERSBURG	76	55	85	49	66	0	1.5	.7	.8	15.3	154	23.4	152	95	51	0	0	4	2
WI GREEN BAY	74	49	82	43	62	4	2.1	1.3	2.1	5.9	82	6.7	71	84	37	0	0	1	1
LACROSSE	78	52	87	41	65	3	.7	-1.1	.7	5.4	68	6.2	64	87	33	0	0	2	1
MADISON	77	48	85	41	62	2	.6	-1.2	.6	4.4	55	5.6	55	84	34	0	0	1	1
MILWAUKEE	74	52	84	46	63	6	.6	0	.4	5.5	68	7.1	64	83	38	0	0	2	0
WAUSAU	75	50	84	40	62	4	1.4	.6	1.4	4.5	56	5.8	58	91	33	0	0	2	1
WY CASPER	74	39	86	29	57	1	0	-1.5	0	3.2	74	4.7	89	58	11	0	1	0	0
CHEYENNE	72	44	85	35	58	3	T	-1.6	T	1.8	41	3.3	65	57	18	0	0	0	0
LANDER	71	40	81	31	56	1	0	-1.6	0	4.4	77	5.2	76	51	13	0	1	0	0
SHERIDAN	71	37	84	32	54	-1	T	-1.5	T	4.9	96	5.8	87	77	24	0	0	1	0
PR SAN JUAN	-999	79	-999	74	-999	--	0	-1.4	0	6.1	56	10.4	65	86	64	0	0	1	0

## National Agricultural Summary

May 22-28, 1989

**HIGHLIGHTS:** Rain continued to slow fieldwork in the eastern Corn Belt and portions of the Delta. The number of days suitable for fieldwork was less than 2 in Indiana and Ohio. Soil moisture was mostly surplus to adequate in the eastern Corn Belt. Days suitable for fieldwork averaged 3-4 in the Delta, where soil moisture was mostly adequate to surplus. Rain improved soil moisture in Kansas and Oklahoma. Soil moisture was mostly adequate to short in the Great Plains and the West.

Winter wheat was mostly fair to poor with 74 percent (%) of the acreage headed, 3 percentage points ahead of the 5-year average. Harvest continued in California, Georgia, Oklahoma, and Texas. Spring wheat was mostly good to fair and planting was 98% complete, 1 point ahead of normal. Eighty-three percent of the acreage was emerged, 1 point behind normal. Corn planting was 89% complete, 4 points behind normal. Soybean planting was 55% complete, 3 points behind normal. Rain slowed planting of corn and soybeans in the eastern Corn Belt and portions of the Delta. Cotton planting was 73% complete, 3 points behind the average. Sorghum planting was 52% complete, 3 points ahead of normal. Florida's citrus groves remained dry. Irrigation was being restricted in some areas.

**SMALL GRAINS:** Winter wheat was mostly fair to poor with 74% of the acreage headed, 3 points ahead of normal. Heading had begun in all the major producing States except Montana. Heading lagged behind normal in the eastern Corn Belt and northern Great Plains. In Kansas, heading was 18 points ahead of the 80% average. Harvest continued in California, Georgia, Oklahoma, and Texas.

In Kansas, rain again improved winter wheat condition, but it was still mostly very poor to poor. Heading was 18 points ahead of normal. Harvest continued in south-western Oklahoma. In Texas, harvest continued in the central and southern Plains and began in the Blacklands and Cross Timbers areas. In the High Plains, producers baled poorer fields. In Nebraska, wheat streak mosaic and Russian wheat aphids were problems in the Panhandle area. In Arkansas, hail damaged winter wheat in some east-central counties.

Spring wheat planting was 98% complete, slightly ahead of the 97% average. Eighty-three percent of the acreage was emerged, 1 point behind normal. In Montana, emergence was 22 points behind normal. Spring wheat condition was mostly good to fair.

**CORN:** Corn planting was 89% complete, 4 points behind normal. Planting was complete in Georgia, Iowa, Missouri, and Texas and nearly complete in Illinois, Kansas, Michigan, and Nebraska. Rain slowed planting progress in the eastern Corn Belt. Planting was 20 points and 62 points behind normal in Indiana and Ohio, respectively. Planting progress advanced 17 points but was still 37 points behind normal in Pennsylvania. In North Carolina, planting advanced 15 points but was still 16 points behind normal.

**SOYBEANS:** Soybean planting was 55% complete, 3 points behind normal. Planting progress was near or ahead of normal in the major producing States except in Indiana, Louisiana, Mississippi, North Carolina, and Ohio. Rain slowed planting in the eastern Corn Belt and portions of the Delta. Planting was 30 points and 58 points behind normal in Indiana and Ohio, respectively. In Louisiana, recent flooding forced producers to replant some acreage. In Nebraska and South Dakota, producers planted over one-third of their acreage during the

week. Planting was 75% and 92% complete in Illinois and Iowa, respectively.

**COTTON:** Cotton planting was 73% complete, slightly behind the 76% average. Planting lagged behind normal in the Delta and Southeast. Heavy rains forced producers to replant some acreage in Arkansas, Louisiana, and Oklahoma. In Texas, lack of moisture slowed germination in the Plains and Cross Timbers areas. Planting was complete in Arizona, California, New Mexico, and Tennessee and nearly complete in Alabama and Missouri.

**SORGHUM:** Sorghum planting was 52% complete, 3 points ahead of normal. Planting progress was near or ahead of normal in the major producing States except Louisiana and Mississippi. In Texas, dry soil conditions slowed planting progress and emergence in the Plains and Cross Timbers areas. Sorghum was heading in the Blacklands and central areas and turning color in the Rio Grande Valley and Coastal Bend areas.

**OTHER FIELD CROPS:** Rice planting was 95% complete, equal to the average. Planting progress lagged behind normal in Louisiana and Mississippi. Eighty-four percent of the acreage was emerged, equal to the average. In Georgia, peanut planting was 97% complete, 3 points ahead of normal. Peanuts were mostly good to fair in Georgia and mostly good to excellent in Alabama. Peanut planting lagged behind normal in North Carolina and Texas. In North Carolina, tobacco was mostly fair to good, and transplanting lagged behind normal. In Kentucky, burley tobacco was mostly good to fair. Transplanting lagged behind normal in both Kentucky and Tennessee.

**FRUIT AND NUTS:** Florida's citrus groves remained dry. Irrigation was restricted in some areas. Valencia orange harvest slowed and grapefruit harvest was limited to the lower east coast. In Georgia, peaches were mostly good to fair and harvest was 16% complete, 5 points ahead of normal. Peaches were fair to good in North and South Carolina. In Texas, peaches continued to ripen in the Hill Country, but harvest was limited to early varieties in the east. Pecan sets were good in most areas. In Arizona, grape harvest continued in the Salt River Valley and the west. In California, table grape harvest was active in the Coachella Valley. Olive bloom was complete. San Joaquin Valley harvests included apricots, cherries, peaches, plums, nectarines, and oranges. Lemon harvest was active in the southern coastal region. In Oregon, apple and cherry crops were good, but pear set was below normal in the Hood River Valley.

**VEGETABLES:** Vegetable harvests were active in central and northern Florida. Watermelons were good to fair in Georgia and fair to good in South Carolina. In Texas, cucumber harvest was underway in the Rio Grande Valley. In the San Antonio-Winter Garden area, carrot and onion harvests continued, and cabbage harvest was nearly complete. In western Arizona, melon harvests were active. Watermelon harvest began in the central area. In California, asparagus harvest continued in the Delta area. Tomato harvest was expected to begin soon in the Los Angeles-Orange County area. In Oregon, sweet corn, broccoli, and cauliflower planting was active in the Willamette Valley.

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

Crop Progress

FOR WEEK ENDING MAY 28, 1989

	RICE % PLANTED		
	1989	1988	AVG.
ARK	94	97	93
CALIF	95	95	93
LA	93	98	97
MISS	91	100	98
TEX	100	100	100
5 STATES	95	98	95

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

	RICE % EMERGED		
	1989	1988	AVG.
ARK	82	79	81
CALIF	70	65	65
LA	86	89	93
MISS	86	90	91
TEX	100	100	97
5 STATES	84	83	84

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

	CORN % PLANTED		
	1989	1988	AVG.
COLO	91	93	96
GA	100	100	100
ILL	97	100	96
IND	72	100	92
IOWA	100	100	99
KANS	97	96	90
KY	85	95	89
MICH	95	98	95
MINN	93	99	92
MO	100	100	92
NEBR	97	98	95
N C	82	100	98
OHIO	30	99	92
PA	36	60	73
S DAK	92	90	76
TEX	100	100	100
WIS	92	95	90

17 STATES 89 98 93

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

	SPRING WHEAT % PLANTED		
	1989	1988	AVG.
IDAHO	100	100	96
MINN	99	99	95
MONT	92	100	96
N DAK	98	98	97
S DAK	100	100	99
5 STATES	98	99	97

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

	SPRING WHEAT % EMERGED		
	1989	1988	AVG.
IDAHO	98	91	86
MINN	94	98	84
MONT	61	88	83
N DAK	81	88	81
S DAK	98	100	94
5 STATES	83	92	84

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

	SOYBEANS % PLANTED		
	1989	1988	AVG.
ALA	46	43	41
ARK	28	30	34
GA	48	40	46
ILL	75	95	76
IND	32	88	62
IOWA	92	95	72
KANS	30	45	25
KY	33	52	34
LA	32	27	49
MICH	65	75	50
MINN	78	89	74
MISS	20	33	40
MO	55	66	48
NEBR	78	69	51
N C	21	38	36
OHIO	10	86	68
S C	25	37	31
S DAK	64	74	46
TENN	34	34	33
19 STATES	55	72	58

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

	WINTER WHEAT % HEADED		
	1989	1988	AVG.
ARK	100	100	NA
CALIF	99	99	100
COLO	51	25	56
GA	100	100	100
IDAHO	4	5	7
ILL	92	97	86
IND	65	80	73
KANS	98	95	80
MICH	3	20	20
MO	100	100	91
MONT	0	24	8
NEBR	58	62	61
N MEX	100	100	NA
N C	99	96	NA
OHIO	20	64	64
OKLA	100	99	97
OREG	48	37	42
S DAK	12	17	23
TEX	96	94	96
WASH	17	17	20
20 STATES	75	76	NA
EXCL. STATES WITH NA	74	74	71

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

NA - NOT AVAILABLE.

	COTTON % PLANTED		
	1989	1988	AVG.
ALA	99	99	96
ARIZ	100	99	99
ARK	90	97	98
CALIF	100	100	100
GA	89	92	91
LA	82	91	95
MISS	77	97	98
MO	99	100	99
N MEX	100	96	91
N C	79	91	95
OKLA	45	45	30
S C	86	97	97
TENN	100	98	95
TEX	55	57	56
14 STATES	73	77	76

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

	GRAIN SORGHUM % PLANTED		
	1989	1988	AVG.
ARK	89	90	89
ILL	55	84	52
KANS	25	35	25
LA	80	84	91
MISS	74	89	84
MO	74	78	64
NEBR	66	71	57
OKLA	45	40	30
S DAK	38	25	28
TENN	70	77	73
TEX	74	72	74
11 STATES	52	56	49

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

**Crop Condition Percent**

FOR WEEK ENDING MAY 28, 1989

WINTER WHEAT					
STATE	VP	P	F	G	EX
ARK	0	7	47	46	0
CALIF	0	0	5	75	20
COLO	13	21	43	21	2
GA	5	17	54	24	0
IDAHO	9	10	29	49	3
ILL	0	0	6	66	28
IND	1	3	24	64	8
KANS	55	25	15	3	2
MICH	1	4	25	50	20
MO	1	9	47	41	2
MONT	6	10	34	43	7
NEB	20	47	31	2	0
N MEX	50	35	10	5	0
N C	0	8	50	41	1
OHIO	1	7	29	52	11
OKLA	15	5	40	40	0
OREG	0	0	45	47	8
S DAK	0	16	52	30	2
TEX	19	34	40	7	0
WASH	0	0	50	50	0
20 STATE	21	18	32	26	3
PREV YEAR	2	15	34	44	5

SPRING WHEAT					
STATE	VP	P	F	G	EX
IDAHO	0	6	23	61	10
MINN	0	1	15	73	11
MONT	0	1	17	60	22
N DAK	0	0	17	79	4
S DAK	0	2	22	65	11
5 STATE	0	1	18	72	9
PREV YEAR	4	16	46	32	2

RICE					
STATE	VP	P	F	G	EX
ARK	0	0	59	41	0
CALIF	0	0	10	80	10
LA	0	9	43	48	0
MISS	0	10	45	45	0
TEX	0	2	1	83	14
5 STATE	0	3	39	55	3
PREV YEAR	0	8	39	47	6

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

## State Summaries of Weather and Agriculture

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

**ALABAMA:** Rainfall 0.25 in. or less, 1.00 to over 3.00 in. local areas. Temperatures 3 to 5° above normal.

Days suitable for fieldwork 4.7. Soil moisture 10% short, 80% adequate, 10% surplus. Fieldwork progress 37% behind schedule, 61% on schedule, 2% ahead of schedule. Spring planting acreage 96% prepared, 100% 1988, 97% avg. Corn 99% planted, 100% 1988, 99% avg.; 35% silked, 25% 1988, 13% avg.; 10% fair, 70% good, 20% excellent. Sorghum 60% planted, 56% 1988, 54% avg.; 18% fair, 74% good, 8% excellent. Cotton 99% planted, 99% 1988, 96% avg.; 16% poor, 56% fair, 28% good. Soybeans 46% planted, 43% 1988, 41% avg.; 1% poor, 17% fair, 79% good, 3% excellent. Peanuts 96% planted, 97% 1988, 86% avg.; 73% good, 27% excellent. Winter wheat 88% turning color, 87% 1988, 87% avg.; 43% harvested, 45% 1988, 22% avg.; 2% very poor, 17% poor, 41% fair, 40% good. First hay 55% harvested, 63% 1988, 41% avg. Livestock, pastures good to excellent. Primary activities: Planting soybeans, sorghum, peanuts; controlling weeds, insects in row crops, vegetables; cutting, baling hay; harvesting peaches, early vegetables; spraying pecan trees; general care of livestock, poultry, catfish.

**ALASKA:** Periods of wind, sunshine, showers, cloudiness traded off during week. Lows 1° below normal to 5° warmer than normal. Highs 1° cooler than normal to 1° warmer than normal. Seasonal precipitation all above normal, 0.10 in. at Homer to 1.61 in. wetter than normal at Wasilla.

Days suitable for fieldwork 6.0. Topsoil 1% short, 89% adequate, 10% surplus. Subsoil 1% short, 87% adequate, 12% surplus. Progress of fieldwork generally on schedule. Small grain seeding nearly complete. Commercial potato progress equalled a year ago at nearly 75% nearly complete. Commercial vegetable planting, transplanting continuing. Prospects for new growth to hayfields, pastures good.

**ARIZONA:** High pressure 21st, 23rd; considerable sunshine, dry, very warm air. Temperatures 100 to 107° lower deserts, lower 80s higher elevations. Dry cold front moved across State 24th, temperatures down 2 to 9°. Additional cooling 25th. No rain anywhere. Temperatures 1 to 7° above normal.

Cotton 100% planted, 99% 1988, 99% avg.; 65% squaring, 40% 1988, 48% avg.; 12% setting bolls; good; irrigating, cultivating, applying herbicides, fertilizer. Small grains good; 97% turning color, 87% 1988; 35% harvested, 25% 1988. Alfalfa harvest active; good. Honeydew, watermelon, cantaloupe harvest continued west. Dry onions, assorted vegetables harvested Salt River Valley. Table, chipper potatoes harvested central. Watermelon harvest began central. Grape harvest continued Salt River Valley west. Sweet corn harvested central. Lettuce harvested east. Valencia orange, grapefruit harvest continued west, central. Cattle, calves fair. Ranges dry, soil moisture short; below normal rainfall statewide; stockwater remains adequate. Ranges 68% normal. Light insect damage.

**ARKANSAS:** Warm week. Temperatures 1 to 7° above normal. Scattered showers first, latter part of

week, heaviest northern areas. Extremes 50°; 93°. Rainfall none to 3.86 in.

Days suitable for fieldwork 4.0. Soil moisture 71% adequate, 29% surplus. Main farming activities: Cotton planting, replanting; sorghum, soybean planting; rice seeding, weed control; hay cutting; preparing combines for wheat harvest. Cotton 73% emerged, 83% 1988, 88% avg.; 4% very poor, 26% poor, 66% fair, 4% good. Many fields replanted in southeastern counties. Sorghum 77% emerged, 75% 1988; 5% poor, 63% fair, 32% good. Soybeans 18% emerged, 16% 1988, 23% avg. Rains helped early fields to germinate. Corn 40% fair, 60% good; most fields sidedressed with nitrogen. Extensive hail damage will reduce wheat yields in a few east central counties. Blueberry harvest expected next few days. Watermelons showing signs of cool weather, cutworm damage. Grapes making good progress. Tomatoes producing small first, second clusters of fruit, tying had begun. Showers improved pastures. Hay fair, several acres ruined due to wet conditions. Few cattle killed by lightning, otherwise good.

**CALIFORNIA:** Extremely cold low pressure system brought significant cooling. Spotted areas of rain shower activity. Later in week, high pressure began to build for slight warming, drying.

Field activities slowed three days northern half. Winter wheat grain harvest increased southern California, got underway southern San Joaquin Valley. Frost mid May resulted replanting occasional grain field high elevations. Small grain, winter forage harvest, hay green chop, silage continued active. Rice seeding neared completion. Controls water weevil, water grass, broadleaf weeds, shrimp applied. Cotton thinning, cultivation active. Mite controls applied. Overwintered sugarbeet harvest progressed. Seeding current crop continued. Grass, sudan hay, alfalfa harvests seasonally active. San Joaquin Valley apricot, Bing cherry harvests active. Coachella Valley table grape harvest continued. Grape growers treated vineyards, pests, mildew. Olive bloom complete. Freestone peaches, plums, nectarines harvested, San Joaquin Valley. Cling peach growers thinned fruit to improve sizing. Lemon harvest progressed, southern coastal region. Valencia oranges harvested, San Joaquin Valley, south coast. Almond orchards treated for mite control. Asparagus harvest continued Delta area. Broccoli, cauliflower harvest, Salinas, Santa Maria area continued. Supplies heavy, varying quality. Celery increasing seasonally with variable quality. Tomatoes in Los Angeles-Orange County area nearing harvest, fields Kingsburg-Dinuba being weeded, treated for mites, mildew. Processing tomato fields Sacramento, San Joaquin Valley continued to progress. Earlier varieties blooming, setting fruit. Potato planting delayed Tulalake-Butte Valley. Planting nearing completion. Potato harvest Kern-Tulare area continued. Melon harvest Palo Verde underway excellent quality. Cantaloupe, melon fields progressed, Westside area. Strawberry harvest continued Sacramento Valley, Santa Maria area. Santa Maria remained light, variable quality. Cucumber, squash, green onion, sugar pea, green bean harvest active throughout State. Livestock good. Range, pasture grasses dry, except foothills, some northern areas. Livestock

movement to summer grazing areas heavy. Supplemental feeding light. Water good northern areas, foothills, approached critical valley areas.

**COLORADO:** Hot, dry weather. First 100<sup>0</sup> days in southeast. Precipitation 0.50 in. rain, some small hail on 26th northeast, along Front Range. Windy with temperatures near normal west to 5<sup>0</sup> above San Luis Valley, east.

Days suitable for fieldwork 5.8. Soil moisture 25% very short, 41% short, 34% adequate. Winter wheat 13% very poor, 21% poor, 43% fair, 21% good, 2% excellent; 89% jointed; 51% headed. First cutting alfalfa 7%. Barley 97% emerged; 6% headed. Corn 91% planted; 73% emerged. Oats 90% emerged; 6% headed. Dry beans 7% planted. Summer potatoes 87% planted; 69% emerged. Fall potatoes 94% planted. Sorghum 20% planted; 3% emerged. Sugarbeets 25% thinned. Spring wheat 96% emerged. Range, pasture fair to good. Livestock good.

**FLORIDA:** Hot, temperatures 2 to 4<sup>0</sup> above normal. Maximum readings in 90s common; hottest 100<sup>0</sup> Inverness; several areas high, upper 90s. Coolest readings in 60s. Scattered thunderstorms 1.00 to 3.00 in., Peninsula under 0.50 in.

Soil moisture adequate Panhandle; elsewhere short. Tobacco flowering. Early corn tasseling. Soybean planting active. Cotton, peanut planting nearly complete. Winter wheat, hay harvests active. Pastures became somewhat more uniform, improving, those areas receiving sufficient rainfall. Rains most of Panhandle gave pastures much needed boost as conditions improved to fair to good. Upper Peninsula pastures poor to fair; pastures continued severely dry, many western Peninsula areas. Interior, eastern Peninsula areas poor. Southeast Peninsula pastures fair to good. Cattle good Panhandle, most east coast areas; fair to good elsewhere except west coast where some herds only poor to fair. Citrus groves hot, dry. Few rains, many more needed. Some irrigation restrictions. Some picking crews through for season. Some fruit softening. Valencia orange movement slowed. Grapefruit harvest limited to lower east coast. Caretakers very active all areas cultivating, spraying, repairing irrigation equipment. Hot days, warm nights continued over major vegetable producing areas. Scattered showers, thunderstorms, weekend. Harvest active central, gaining northern areas. Volume leaders: Watermelons, tomatoes, potatoes, sweet corn, cucumbers, peppers, celery. Also available squash, snap beans, cabbage, radishes, eggplant, carrots. Harvest Hastings potatoes past peak.

**GEORGIA:** Rain varied, under 0.20 in., isolated areas 1.00 to 2.00 in. Temperatures 1 to 3<sup>0</sup> above normal north, 2 to 5<sup>0</sup> above normal central, south. Highs mid to upper 80s mountains, mid to upper 90s central, south. Lows low to mid 40s northeast, low 60s central, mid 60s south.

Days suitable for fieldwork 5.6. Soil moisture 4% very short, 40% short, 56% adequate. Corn 40% fair, 56% good, 4% excellent; 6% silked, 19% avg.; dry in some areas, irrigation more active. Cotton 6% poor, 35% fair, 59% good. Sorghum 32% fair, 68% good; 55% planted, 60% 1988, 61% avg. Peanuts 2% poor, 23% fair, 58% good, 17% excellent; 97% planted, 92% 1988, 94% avg.; 2% blooming, 5% 1988, 11% avg.; some spraying for thrips. Soybeans 38% fair, 61% good, 1% excellent; planting progressing on schedule. Tobacco 60% fair, 40% good. Watermelons 26% fair, 74% good. Wheat 20% harvested, 14% 1988, 26% avg.; Yields variable. Rye, other small grains fair to good. Apples 57% fair, 42% good, 1% excellent. Peaches 12% poor, 14% fair, 73% good, 1% excellent; 16% harvested,

7% 1988, 11% avg. Pastures, hay good, baling hay very active. Cattle, hogs good.

**HAWAII:** Mixed weather throughout State. Leeward sectors remained warm, dry while windward areas experienced overcast skies, light to moderate rainfall. Increased disease, insect infestation. Crops fair to good. Trade winds 15-25 mph. Temperatures mid 60s to mid 80s. Rainfall none to 9.20 in.

Days suitable for fieldwork 7.0. Papaya production steady. Sugar, pineapple production active. Watermelon output expected to increase. Ginger root harvesting slowed due to continued wet weather.

**IDAHO:** Temperatures up to 8<sup>0</sup> below normal. Precipitation below normal except northern most area of Panhandle.

Days suitable for fieldwork 6.0. Soil moisture 5% very short, 12% short, 80% adequate, 3% excellent. Spring wheat all planted; 98% emerged, 91% 1988, 86% avg. Spring wheat good. Spring barley all planted; 98% emerged, 91% 1988, 76% avg. Oats 81% emerged, 92% 1988, 77% avg. Potatoes 88% planted; 20% emerged, 29% 1988, 30% avg. Virtually all sugarbeets emerged, 35% thinned. Dry pea, lentil fields nearly all emerged. Dry beans 26% planted. Some replanting underway due to frost damage. Corn 88% planted, 94% 1988, 91% avg. Frost damage on grains, potatoes, alfalfa hay. First cutting alfalfa hay 9% harvested, 6% 1988, 5% avg. Winter wheat 40% boot; 4% headed, 5% 1988, 7% avg.; fair, good. Branding, sheep shearing primary livestock activities. Early lamb weaning underway. Pasture short in cooler areas. Livestock good.

**ILLINOIS:** Temperatures 5 below to 2<sup>0</sup> above normal, 80s high to 30s low. Precipitation 1.00 to 3.00 in., some central areas over 3.00 in.

Days suitable for fieldwork 3.5. Soil moisture 37% short, 46% adequate, 17% surplus. Corn height 5 in., 9 in. 1988, 7 in. avg.; most advanced 8 in., 14 in. 1988, 13 in. avg.; 1% poor, 21% fair, 73% good, 5% excellent; corn 88% full stand; replanted 3%. Soybeans 1% poor, 27% fair, 66% good, 6% excellent. Winter wheat filled 35%, 61% 1988, 49% avg. Alfalfa 1st cut 35%, 65% 1988, 46% avg.; 4% poor, 43% fair, 49% good, 4% excellent. Red clover 1st cut 24%, 50% 1988, 35% avg.; 1% poor, 26% fair, 64% good, 9% excellent. Oats 5% headed, 16% 1988, 19% avg.; 9% fair, 82% good, 9% excellent. Pasture 35% fair, 50% good, 5% excellent.

**INDIANA:** Temperatures 1 to 2<sup>0</sup> above normal. Highs upper 70s to low 80s, lows low 40s to low 50s. Precipitation light to heavy, 1.00 to 5.00 in.

Days suitable for fieldwork 1.9. Topsoil 1% short, 30% adequate, 69% surplus. Subsoil 5% short, 59% adequate, 36% surplus. Corn fair to good. Corn 65% emerged, 90% 1988, 84% avg. Corn 3 in. high, 5 in. 1988, 5 in. avg. Alfalfa hay 20% cut, 52% 1988, 35% avg. Alfalfa weevil problems. Pasture 1% poor, 15% fair, 61% good, 23% excellent. Heavy rains central areas.

**IOWA:** Temperatures 2<sup>0</sup> normal. Extremes 34<sup>0</sup>; 92<sup>0</sup>. Rainfall above normal except northeast third, extreme southwest, northwest; 0.07 to 3.47 in., average 1.18 in.

Days suitable for fieldwork 5.2. Topsoil 54% short, 44% adequate, 2% surplus. Subsoil 91% short, 9% adequate. Oats 2% very poor, 9% poor, 35% fair, 48% good, 6% excellent. Winter wheat fair to good. Hay 2% very poor, 22% poor, 52% fair, 23% good, 1% excellent. First crop alfalfa 10% harvested, 14% 1988, 13% avg. Corn 95%

emerged, 98% 1988, 87% avg., 10% cultivated first time, 18% 1988, 9% avg. Soybeans 50% emerged, 62% 1988, 38% avg. Livestock good to excellent. Tornados caused some losses in livestock midweek. Pasture 10% very poor, 32% poor, 45% fair, 12% good, 1% excellent.

**KANSAS:** No weather narrative available.

Days suitable for fieldwork 3.0. Topsoil 28% short, 64% adequate, 8% surplus. Subsoil 82% short, 18% adequate. Wheat crop improved over last week with 55% very poor, 40% fair to poor, 5% good to excellent. Feed grains 1% surplus, 75% adequate, 24% short; range, pasture 22% adequate, 78% short.

**KENTUCKY:** Near normal temperatures, above normal rainfall. Highs around 80. Lows upper 50s. Rainfall 1.50 in.

Days suitable fieldwork 2.9. Soil moisture 1% very short, 7% short, 59% adequate, 33% surplus. Corn 80% emerged; 4% poor, 28% fair, 64% good, 4% excellent. Soybean 31% emerged, 4% poor, 39% fair, 56% good, 1% excellent. Tobacco set 25%, 53% 1988, 40% avg.; 1% very poor, 4% poor, 34% fair, 60% good, 1% excellent. Wheat 1% poor, 15% fair, 76% good, 8% excellent. Hay 1% very poor, 2% poor, 26% fair, 59% good, 12% excellent. Pastures 3% poor, 20% fair, 61% good, 16% excellent.

**LOUISIANA:** Temperatures 5° above normal. Extremes 65°, 96°. Rainfall none to 0.62 in.

Days suitable for fieldwork 3.4. Soil moisture none very short, 2% short, 50% adequate, 48% surplus. Spring plowing 98%, 100% 1988, 99% avg. Corn 99% emerged, 100% 1988, 99% avg.; silked 6%, 4% 1988, 14% avg.; 8% poor, 29% fair, 60% good, 3% excellent. Cotton 82% planted, 91% 1988, 95% avg.; 75% emerged, 73% 1988, 88% avg.; none squaring, 3% 1988, 3% avg.; 4% very poor, 23% poor, 68% fair, 5% good. Spot planting occurring in areas destroyed by floods. Hay first cutting 33%, 60% 1988, 56% avg. Peaches 1% harvested, 6% 1988, 6% avg. Rice 93% planted, 98% 1988, 97% avg.; 74% emerged, 71% 1988, 93% avg.; 9% poor, 43% fair, 48% good. Sorghum 80% planted, 84% 1988, 91% avg.; 74% emerged, 71% 1988, 83% avg.; 13% poor, 61% fair, 26% good. Soybeans 32% planted, 27% 1988, 49% avg.; 22% emerged, 21% 1988, 36% avg.; 3% very poor, 22% poor, 47% fair, 28% good. Many acres being replanted due to recent floods. Sugarcane none very poor, none poor, 18% fair, 76% good, 6% excellent. Spring potatoes 30% planted, 28% 1988, 52% avg.; 6% poor, 38% fair, 56% good. Wheat 99% turning color, 98% 1988, 98% avg.; harvested 31%, 49% 1988, 37% avg.; 2% very poor, 19% poor, 40% fair, 39% good. Low wheat yields continued due to late freeze, recent hail, heavy rains, high winds.

**MARYLAND & DELAWARE:** **MARYLAND:** Precipitation 1.34 in. Temperature 69°, normal 65°. Extremes 90°, 42°.

Days suitable for fieldwork 4.3. Topsoil 7% short, 50% adequate, 43% surplus. Subsoil 57% adequate, 43% surplus. Corn 68% planted, 84% 1988, 90% avg. Soybeans 13% planted, 28% 1988, 28% avg. Tobacco 8% transplanted, 41% 1988, 32% avg. Wheat, barley, rye good. Wheat 84% headed, 93% 1988, 88% avg. Barley 41% turned color, 49% 1988, 55% avg.

**DELAWARE:** Precipitation 0.72 in. Temperature 69°, normal 65°. Extremes 89°, 49°.

Days suitable for fieldwork 5.8. Topsoil 14% short, 72% adequate, 14% surplus. Subsoil 86% adequate 14% surplus. Corn 82% planted, 95% 1988, 87% avg. Soybeans 9% planted, 21% 1988, 31% avg. Wheat, barley, rye good. Barley 27% turned color, 41% avg. Wheat 98% headed, 96% 1988, 87% avg.

**MICHIGAN:** Temperatures 2 to 6° above normal. Extremes 31°; 86°. Precipitation 0.20 to 1.93 in.

Days suitable for fieldwork 5.0. Soil moisture 18% short, 80% adequate, 2% surplus. Corn 95% planted, 98% 1988, 95% avg.; 65% emerged; 5% poor, 15% fair, 55% good, 25% excellent. Soybeans 65% planted, 75% 1988, 50% avg. Wheat 3% headed, 20% 1988, 20% avg.; 1% very poor, 4% poor, 25% fair, 50% good, 20% excellent. Dry beans 3% planted, 3% 1988, 4% avg. Field activities: Corn, soybean, potato, dry bean planting, herbicide application, hay harvesting. Vegetable planting, asparagus harvest continue. Fruit development aided by rains.

**MINNESOTA:** Temperatures near normal to 3° above normal. Extremes 28°; 89°. Precipitation 0.35 to 1.56 in. Greatest weekly total 1.81 in.

Days suitable for fieldwork 4.5. Topsoil 4% very short, 22% short 67% adequate, 7% surplus. Subsoil 24% very short, 51% short, 24% adequate, 1% surplus. Spring Wheat 94% emerged, 98% 1988, 84% avg.; 6% jointing, 12% 1988, 10% avg. Oats 90% emerged, 99% 1988, 90% avg.; 11% jointing, 23% 1988, 14% avg. Barley 96% emerged, 98% 1988, 82% avg.; 4% jointing 17% 1988, 8% avg. Corn 99% land prepared, 99% 1988, 96% avg.; 93% planted, 99% 1988, 92% avg.; 76% emerged, 85% 1988, 69% avg. Soybeans 92% land prepared, 99% 1988, 86% avg.; 78% planted, 89% 1988, 74% avg.; 33% emerged, 50% 1988, 31% avg. Sunflowers 53% planted, 86% 1988, 62% avg. Flax 57% planted, 85% 1988, 68% avg. Potatoes 77% planted, 93% 1988, 82% avg. Dry Edible Beans 69% planted, 88% 1988, 72% avg. Green peas 90% planted, 96% 1988, 92% avg. Sweet Corn 72% planted, 78% 1988, 67% avg.

**MISSISSIPPI:** Hot, dry. Temperatures 4° above normal. Extremes 54°, 96°. Rainfall 0.72 in., 0.31 below normal.

Days suitable for fieldwork 3.2, 4.8 1988, 4.1 avg. Soil moisture 40% adequate, 55% surplus, 5% excessive. Corn good; 86% emerged, 95% 1988, 93% avg. Cotton fair; 77% planted, 97% 1988, 98% avg. Hay 22% harvested, 27% 1988, 27% avg. Rice fair to good; 91% planted, 100% 1988, 98% avg. Sorghum good; 74% planted, 89% 1988, 84% avg. Soybeans 20% planted, 33% 1988, 40% avg. Sweet potatoes 53% planted, 71% 1988, 58% avg. Wheat fair; harvest beginning, 4% 1988, 5% avg. Pastures, livestock good. Peaches 30% very poor, 35% poor, 25% fair, 10% good. Activities: Planting cotton, beans, hay harvest, insect control on cotton, preparing for wheat harvest, replanting cotton, tillage, some wheat, peach harvest southern area.

**MISSOURI:** Temperatures near normal, precipitation about normal.

Days suitable for fieldwork 3.1. Topsoil 32% short, 63% adequate, 5% surplus. Subsoil 54% short, 45% adequate, 1% surplus. Planting, haying delayed by rain, crops improving. Corn 2% very poor, 9% poor, 57% fair, 32% good. Sorghum 92% planted southeast, 53% to 75% other districts. Wheat 14% turning color, 24% 1988, 35% avg. Alfalfa first cutting 55%, 65% 1988, 54% avg. Other hay 20% cut, 32% 1988. Cotton 7% poor, 57% fair, 36% good. Pasture 8% very poor, 19% poor, 55% fair, 18% good. Livestock water 19% critically short, 25% short, 56% adequate.

**MONTANA:** Temperatures cool west. East near normal to slightly above. Moisture most areas heavier in west, extreme northeast. Rainfall below 0.25 in.

Days suitable for fieldwork 4.6. Topsoil 8% short, 85% adequate, 7% surplus. Subsoil 22% short, 78% adequate. Barley 91% planted, 100% 1988, 96% avg. Barley 48% emerged. Corn 65% planted, 82% 1988, 83% avg. Corn 24% emerged.

Dry beans 49% planted, 98% 1988, 92% avg.; 15% emerged. Oats 83% planted, 100% 1988, 92% avg.; 39% emerged. Potatoes 54% planted, 78% 1988, 61% avg.; 2% emerged. Pasture, range feed 1% very poor, 5% poor, 21% fair, 61% good, 12% excellent. Cattle moved to summer ranges 66%, 67% 1988, 64% avg. Sheep moved to summer ranges 66%, 84% 1988, 81% avg.

**NEBRASKA:** Temperatures 2 to 4° above normal except, northeast near normal. Extremes: 35°; 99°. Scattered light precipitation at beginning, weekend. Rainfall traces up to 0.67 in.

Days suitable for fieldwork 6.1. Topsoil 78% short, 22% adequate. Subsoil 90% short, 10% adequate. Winter wheat 100% jointed, 97% 1988, 94% avg. Winter streak mosaic, Russian wheat aphids in Panhandle; chinch bugs in southeast. Corn 7% poor, 50% fair, 35% good, 8% excellent; 83% emerged, 85% 1988, 73% avg. Sorghum 25% emerged, 41% 1988, 32% avg. Soybeans 2% very poor, 3% poor, 72% fair, 23% good, 35% emerged; 42% 1988, 33% avg. Some farmers waiting rain before planting. Bean leaf beetles east central. Alfalfa hay 7% very poor, 35% poor, 43% fair, 15% good; 15% first cutting, 27% 1988, 26% avg. Below average yields due to the dry conditions. Some crown rot central counties. Wild hay 3% very poor, 63% poor, 33% fair, 1% good. Pasture, range feed 77% short, 23% adequate. Producers in southern areas continue to sell or move cattle due to tight feed, poor pastures. Strong winds in Panhandle caused erosion, ground to dry out and crust. Some sugarbeets lost, will replant with dry beans. Moderate to severe hail damage in few Panhandle, north central counties. Main activities: Planting corn, soybeans, sorghum; cutting alfalfa hay; cultivating.

**NEVADA:** Near normal temperatures early changed to below normal midweek, remainder. Light precipitation northern half end of period. Extremes 19°; 99°.

Freezing temperatures end of period slowed growth most crops. Ranges improved from scattered precipitation. Potato marketing still active, prices encouraging.

**NEW ENGLAND:** Heavy precipitation Connecticut River Valley. Windsor Locks, Connecticut with 4.81 in. most rainfall in May in 24 hr. period. Precipitation 2.00 to 3.00 in. Connecticut, western Massachusetts, 0.75 to 1.50 in. remainder. Temperatures 50s north, lower 60s central, mid 60s coastal south. Temperature 3 to 5° above normal.

Days suitable for fieldwork 5.5. Fieldwork progress 5.0 behind normal. Soil moisture 12% short, 40% adequate, 48% surplus. Grazing availability 80% adequate, 20% surplus. Maine potatoes 75% planted, 83% 1988, 72% avg.; 5% emerged. Rhode Island potatoes 95% planted, 99% 1988, 97% avg.; 25% emerged, 55% 1988; good. Connecticut River Valley potatoes 95% planted, 97% 1988, 93% avg.; 60% emerged, 90% 1988, 67% avg.; fair. Maine oats 50% sown, 87% 1988, 78% avg.; good. Field corn 57% planted, 62% 1988, 64% avg.; 19% emerged, 33% 1988, 31% avg.; good. Sweet corn 57% planted, 70% 1988, 66% avg.; 36% emerged, 48% 1988, 40% avg.; fair to good. Hay good. Shade tobacco 45% transplanted; fair to good. Outdoor tobacco 5% transplanted; fair. Apples full bloom to petal fall; peaches petal fall to fruit set; strawberries full bloom; blueberries full bloom south, early bloom north. Lowbush Maine blueberries 50% bud, 30% early bloom, 20% full bloom. Cranberries new growth stage; no blooms yet. Major farm activities: Planting, fertilizing, turning cattle out to pasture.

**NEW JERSEY:** Temperatures near normal. Extremes 38°; 88°. Rainfall 1.54 in. north, 1.61 in. central, 1.24 in. south. Heaviest 24-hour total 1.47 in. 23rd, 24th. Soil moisture 95% north, 93% central, 79% south. Four inch soil temperatures 64° north, 65° central, 67° south.

Fieldwork very active between rainy periods; planting, crop growth continue behind schedule. Peaches, apples sizing. Grapes in bloom. Few strawberries harvested. Hay cut, behind schedule. Rye cut for straw, livestock feed. Field corn, soybean planting delayed. Early planted field corn up 4 to 6 in. Pasture growth very good.

**NEW MEXICO:** Temperatures above normal; scattered precipitation over southeastern part of State.

Days suitable for fieldwork 6.9. Soil moisture 85% short, 15% adequate. Hail, wind damage. Wheat 50% very poor, 35% poor, 10% fair, 5% good. Cotton 100% planting complete, 9 points above average; 33% fair, 67% good. Cattle 8% poor, 76% fair, 8% good, 8% excellent. Sheep 10% poor, 60% fair, 20% good, 10% excellent. Ranges, pastures 50% poor, 50% fair.

**NEW YORK:** Near normal temperatures. Highs 70s. Cooler at weekend. Precipitation abundant, heaviest in eastern areas. Poughkeepsie received 2.28 in.

Days suitable for fieldwork 4.4. Soil moisture surplus. Wet fields continued to delay planting progress. Corn 39% planted, 56% 1988, 60% avg. Emergence slow. Oats 88% seeded, 82% 1988, 82% avg. Pasture, hay, wheat good. Hudson Valley fruit in petal fall stage. Fruit set on apples, peaches, pears good. Thinning done on pears. Lake Ontario region McIntosh apples in full bloom. Crop potential remained good. Vegetable planting behind schedule due to heavy rains. Barley windrows in onion fields growing rapidly, need to be killed soon. Orange County strawberries in full bloom.

**NORTH CAROLINA:** Temperatures 2 to 5° above normal. Extremes 44°; 100°. Precipitation none to 3.63 in.

Days suitable for fieldwork 5.1. Soil moisture 1% short, 87% adequate, 12% surplus. Pasture 20% fair, 71% good, 9% excellent. Oat 5% poor, 40% fair, 54% good, 1% excellent. Barley 4% poor, 40% fair, 54% good, 2% excellent. Rye 2% poor, 38% fair, 56% good, 4% excellent. Tobacco plantbeds 30% poor, 44% fair, 26% good. Supply 4% very short, 47% short, 49% adequate. Flue-cured transplanted 82%, 98% 1988, 93% avg. Burley transplanted 16%, 50% 1988, 39% avg. Field tobacco 2% poor, 54% fair, 44% good. Irish potato 2% poor, 60% fair, 38% good. Sweet potatoes 19% transplanted, 40% 1988, 39% avg. Peaches 10% very poor, 15% poor, 48% fair, 27% good. Truck crops 5% poor, 53% fair, 40% good, 2% excellent. Sorghum 30% planted, 57% 1988, 53% avg. Peanuts 63% planted, 82% 1988, 91% avg. Hay 26% fair, 69% good, 5% excellent; 1st cutting 50% complete. Major activities: Planting corn, transplanting tobacco; cutting hay. Other activities: Spraying crops; cultivating tobacco, harvesting small grain silage, planting truck crops, cotton, peanuts, sorghum, soybeans; tending livestock; general farm maintenance.

**NORTH DAKOTA:** Temperatures normal west central to 2° above normal south central, southeast. Extremes 35°; 87°. Precipitation 0.45 in. northeast to 1.03 in. east central.

Days suitable for fieldwork 5.0. Soil moisture improved. Topsoil none very short, 18% short, 82% adequate. Subsoil 6% very short, 83% short, 11% adequate. Small grain planting virtually

completed. Spring wheat 81% emerged, 4% jointing and beyond; durum 68%, 3%; oats 77%, 5%; barley 85%, 4%. Winter wheat 55% jointing, 3% boot and beyond. Row crop planting near normal pace. Corn 82% planted, 83% 1988, 78% avg.; flax 66%, 71% 1988, 71% avg.; potatoes 94%, 91% 1988, 89% avg.; soybeans 63%, 80% 1988, 73% avg.; dry edible beans 56%, 73% 1988, 65% avg.; sunflower 51%, 61% 1988, 52% avg. Pastures 22% poor, 56% fair, 22% good; furnished 79% roughage requirements. Stockwater supplies 1% very short, 9% short, 90% adequate; fair to good. Broadleaf spraying 12% completed; wild oats 25%.

**OHIO:** Temperatures close to normal except clear, cold 27th, 28th. Minimum temperatures upper 30s to lower 40s; maximums lower 80s. Rainfall 1.25 to 6.00 in. causing flooding in many areas.

Days suitable for fieldwork 1.9. Soil moisture 19% adequate, 81% surplus. Fieldwork done early in period, then rains shut down operations. Good drying weather 27th, 28th. Very little planting or hay harvest; activities 2-3 weeks behind schedule. Farmers may switch from corn to soybeans. Administrative deadlines approaching for crop insurance, government programs. Winter wheat mostly good; sprays to control powdery mildew applied. Grasslands fair to mostly good; weevil infestations serious south.

**OKLAHOMA:** Temperatures 4° above normal north central to 6° above normal southwest. Precipitation none northwest third to 1.01 in. east central.

Days suitable for fieldwork 4.1. Topsoil 75% adequate, 25% surplus. Subsoil 10% short, 90% adequate. Wheat 15% very poor, 5% poor, 40% fair, 40% good; 100% heading, 99% 1988, 97% avg.; 70% soft dough, 60% 1988, 55% avg.; 2% harvested, none 1988, 2% avg. Harvest confined to southwest. Weeds, diseases northern areas. Cotton 45% planted, 45% 1988, 30% avg. Rain washout caused replanting. Sorghum 45% planted, 40% 1988, 30% avg. Soybeans 50% planted, 30% 1988, 40% avg. Peanuts 45% planted, 55% 1988, 50% avg. Corn 97% up to stand, 95% 1988, 75% avg. Pastures good. Cattle good; marketings stable, prices down slightly from preceding week.

**OREGON:** Cooler than normal. Coldest central area. Temperature 8° below normal, overnight lows mid 20° to mid 30°. Remainder of State 2 to 5° below normal. Some precipitation all areas nearly 2.40 in. high plateau; 1.00 to 2.00 in. all western areas, north Cascades; remainder of east received about 0.20 in.

Soil moisture 30% short, 69% adequate, 1% surplus. Barley 94% seeded, 100% 1988, 100% avg. Winter wheat, other grains, grass seeds stressed by lack of moisture all areas. Recent moisture should improve conditions, increases chance for diseases west. Spraying broadleaf weeds Willamette County. Russian wheat aphid present winter wheat, spring grains not enough to spray Columbia Basin. Spring grain seeding continued southeastern high desert. Making hay most lower elevation locales; some rain damage west, Hermiston-Boardman area; some frost damage to alfalfa Klamath Basin, Willamette Mountains. Cutting silage between rains Willamette Valley. Crop progress slowed by cool weather east. Strawberry harvest started early varieties, most harvesting will begin by June 5, availability of harvest labor a concern. Fruit forming on caneberries. Cranberry bloom underway south coast, frost damage from late April showing on small percentage of acres, some hail damage occurred 23rd. Good crops of apples, cherries Hood River; pear set below normal. Planting sweet corn, broccoli, cauliflower Willamette Valley; irrigated all vegetables, crop progress slowed by

cool weather. Watermelons planted Hermiston area, potatoes all emerged, growing well. Potato planting well along central area. Last of potato planting slowed by cold, wet weather Klamath County. Livestock good to excellent. Range, pastures fair to good. Grasses are too dry, maturing early most western areas, low elevations east. Higher elevation grasses growing slowly due to cool conditions east.

**PENNSYLVANIA:** General rainfall midweek. Showers at beginning of holiday weekend, end of weekend was clear. Temperature 3°; 62° above normal. Extremes 33°; 86°. Precipitation 1.04 in., 0.22 in. above normal.

Days suitable for fieldwork 3.0. Soil moisture none short, 31% adequate, 69% surplus. Plowing 85%, 92% 1988, 91% avg. Corn 36% planted, 60% 1988, 73% avg. Soybeans 13% planted, 24% 1988, 38% avg. Oats 93% planted, 99% 1988, 97% avg. Potatoes 64% planted, 83% 1988, 86% avg. Barley 27% pre-boot, 10% 1988, 11% avg.; 13% boot, 19% 1988, 18% avg.; 60% heading or headed, 71% 1988, 71% avg. Wheat 36% pre-boot, 8% 1988, 23% avg.; 41% boot, 42% 1988, 31% avg. 23% heading or headed, 40% 1988, 46% avg.; none very poor, 3% poor, 22% fair, 56% good, 19% excellent. Oats 1% very poor, 4% poor, 28% fair, 50% good, 17% excellent. Hay good to fair. Feed from pastures average. Peaches 1% pre-pink, none 1988, none avg.; 5% pink, none 1988, none avg.; 94% full bloom or past, 100% 1988, 100% avg. Cherries 1% pre-pink, none 1988, none avg.; 7% pink, none 1988, none avg.; 92% full bloom or past, 100% 1988, 100% avg. Apples 2% pre-pink, none 1988, none avg.; 15% pink, none 1988, none avg.; 83% full bloom or past, 100% 1988, 100% avg. Activities: Spring plowing; planting corn, soybeans, oats, potatoes, hay, vegetables; harvesting alfalfa haylage, ryelage; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

**PUERTO RICO:** Rainfall 0.20 in. was 1.32 in. below normal. Highest rainfall 1.50 in. Sabana Grande, 1.28 in. Toro Negro, 1.26 in. Adjuntas. Highest 24-hour total 1.50 in. Sabana Grande. Accumulated rainfall for Puerto Rico since January 1 to May 26 is 18.48 in., 3% above normal. San Juan WSFO mean temperature 82° plus 1.30 total rainfall 0.65 minus 0.66. Temperature 78 to 82° on coast, 75 to 76° interior. Mean Station 68° Adjuntas to 85° San Juan City. Lowest minimum 48° Adjuntas, maximum 95° Arecibo, San Juan WSFO.

**SOUTH CAROLINA:** Rainfall less than usual, 0.75 in. northwestern counties to none eastern counties. Temperatures 3° above normal Upstate to 7° higher near the coast.

Days suitable for fieldwork 5.6. Soil moisture 2% very short, 62% short, 36% adequate. Corn fair to good. Tobacco fair to good. Cotton 68% fair, 32% good; 86% planted, 97% 1988, 97% avg. Soybeans 25% planted, 37% 1988, 31% avg. Peanuts fair to good; 76% planted, 93% 1988, 86% avg. Sorghum 21% planted, 41% 1988, 45% avg. Watermelons fair to good; 91% planted, 90% 1988, 96% avg. Sweet potatoes fair to good; 34% planted, 39% 1988, 41% avg. Tomatoes good. Peaches fair to good. Wheat good; 88% turning color, 79% 1988, 84% avg.; 45% ripe, 24% 1988, 33% avg.; 6% harvested, 10% 1988, 7% avg. Oats good; 81% turning color, 78% 1988, 81% avg.; 47% ripe, 32% 1988, 35% avg.

**SOUTH DAKOTA:** Temperatures 1° below to 5° above normal. Extremes 24°; 95°. Precipitation below normal, maximum at 0.50 in. Growing season precipitation mostly below normal.

Winter wheat fair. Spring wheat good to fair. Windy, dry conditions slowed herbicide spraying, blew soil. Row crop planting, spraying, fallow preparation, working, moving cattle, fencing major activities.

**TENNESSEE:** Weather 22nd, 26th brought scattered showers statewide. High pressure dominated midweek. Temperatures above normal west, near or below normal east, 66° Crossville, 76° Memphis. Extremes 47° Bristol, Crossville; 92° Memphis. Precipitation above normal west, below normal east, over 1.00 in. occurred Plateau westward, lesser amounts east.

Days suitable for fieldwork 4.1. Soil moisture 4% short, 91% adequate, 5% surplus. Corn 98% planted, 95% 1988, 91% avg.; 3% poor, 28% fair, 66% good, 3% excellent. Tobacco 40% transplanted, 58% 1988, 53% avg. Wheat 24% turning color, 44% 1988, 60% avg.; 1% very poor, 3% poor, 25% fair, 67% good, 4% excellent. Hay 2% poor, 23% fair, 67% good, 8% excellent. Peaches 43% very poor, 26% poor, 18% fair, 12% good, 1% excellent. Main activities: Sorghum, soybean planting; tobacco transplanting; alfalfa cutting; strawberry picking.

**TEXAS:** Hot, dry weather prevailed over State, strong upper level ridge produced hot conditions. Very hot reading, some record breaking, developed west during midweek. Ridge weakened 25th enough to allow shallow pool of cooler air to filter into northwest. Front weakened as moved through central, warm southerly winds. Spotty showers accompanied front. Temperatures above normal most State. Very little precipitation, northern, eastern areas received spotty amounts.

**Crops:** Small grain harvest resumed many central, southern areas, beginning Blacklands, Cross Timbers. Yields below average very poor some fields. Fields rapidly turning color Low Plains with hot weather. Conditions High Plains not change much, even with recent rains. Baling poor dryland fields resumed. Wheat 4% harvested, 8% 1988, 13% avg. Corn good progress. High winds, hail two weeks ago did knock some plants down; good. Dryland fields Valley, Coastal Bend dough stage, moisture stressed. Fields south to Blacklands, east along Upper Coast silking. Progress good Plains irrigation steady. Corn 25% silked, 25% 1988, 30% avg. Corn 2% doughing, 4% 1988, 6% avg. Grain sorghum planting continued slow pace Plains, Cross Timbers because dry conditions. Moisture rapidly taken up by hot, drying winds. Cultivating Blacklands, fields head. More fields central heading. More rain needed. Fields turning color Valley, Coastal Bend. Fields Upper Coast slow to emerge. Grain sorghum 24% headed, 19% 1988, 22% avg. Turning color 1%, 2% 1988, 3% avg. Cotton planting resumed Plains, Cross Timbers; operations slow because dry conditions. Some replanting. Dry planted fields slow to germinate. Cultivating resumed Blacklands, central. Fields Coastal Bend, Valley continued moisture stressed. Conditions vary widely. Spraying Upper Coast. Cotton 8% squaring, 11% 1988, 9% avg. Setting bolls 5%, 2% 1988, 2% avg. Fertilizing, flooding rice fields. Fields look good. Peanut planting Cross Timbers, Blacklands. Fields central, south look good; some disease problems. Moisture needed. Some planting resumed. Soybean planting began Plains. Fields blooming northeast. Fields Upper Coast need rain, planting continued. Other field crops: Oats 10% harvested, 26% 1988, 22% avg. Peanuts 16% planted, 29% 1988, 31% avg. Soybeans 42% planted, 40% 1988, 38% avg. Sunflowers 15% planted, 9% 1988, 23% avg.

**Commercial Vegetables:** Rio Grande Valley, cucumber harvest. Melon harvest increasing. Tomatoes maturing. Citrus continued size,

irrigation heavy. San Antonio-Winter Garden, cabbage harvest winding down. Carrots, onions being harvested. Hot, dry weather slowed watermelon progress. East Texas, some additional weather damage identified. Sweetpotato planting continued. High Plains, potatoes, onions fine, scattered hail damage. Carrots, peppers good progress. Trans-Pecos, thrips increasing onions. Onion harvest continued Presidio area, cantaloupes start soon. Peaches ripen Hill Country. Early varieties picked east. Pecan producers spraying casebearers. Sets good most areas. Heat, water stress the Low Plains.

**Range and Livestock:** Ranges, pastures increased greening after rain; hot, drying winds slow progress. Livestock good, forage low. Haying operations increased as conditions opened. Yields east good.

**UTAH:** Precipitation zero. Temperatures near normal.

Days suitable fieldwork 6.9. Soil moisture 88% short, 12% adequate. Winter wheat 78% booting, 78% 1988, 48% avg.; 27% headed, 28% 1988, 28% avg. Spring wheat 35% booting, 28% 1988, none avg.; 8% headed, 9% 1988, none avg. Barley 43% booting, 40% 1988, none avg.; 11% headed, 18% 1988, none avg. Oats 35% jointed, 53% 1988, 31% avg.; 10% boot, 29% 1988, 10% avg. Corn 4 in. high, 4 in. 1988, 3 in. avg. Alfalfa harvest 25% 1st cutting, 4% 1988, 8% avg. Movement to spring range 35% cattle, 27% sheep. Livestock good. Range, pastures dry lower elevations. Major farm activities: Irrigation, harvesting alfalfa, moving livestock, working dryland for summer fallow.

**VIRGINIA:** Above normal temperatures normal rainfall. Temperatures 40° to 91°. Rainfall none in. central to 1.60 in. north.

Days suitable for fieldwork 5.2. Topsoil 90% adequate, 10% surplus. Corn 75% planted, 81% 1988, 83% avg. Soybeans 19% planted, 19% 1988, 19% avg. Peanuts 92% planted, 70% 1988, 93% avg. Cotton 95% planted. Flue-cured tobacco 60% transplanted, 49% 1988, 56% avg. Fire-cured tobacco 38% transplanted, 27% 1988, 36% avg. Burley tobacco 40% transplanted, 35% 1988, 22% avg. Corn 20% poor, 74% fair, 6% good. Wheat 43% fair, 57% good. Pastures 2% fair, 90% good, 8% excellent. Alfalfa 3% poor, 41% fair, 46% good, 10% excellent. Other hay 18% fair, 77% good, 5% excellent. Hay cutting active.

**WASHINGTON:** Temperatures below normal, 4° below normal to 1° above normal across State. Precipitation 0.58 to 1.06 in., west; none to 0.40 in., east.

Days suitable for fieldwork, 6.0. Soil moisture 5% short, 95% adequate. Range, pasture 10% short, 90% adequate. Hay, other roughage 5% short, 95% adequate. First cutting hay continued. Cutting silage, green chop in progress. Pastures improved. Range continued dry. Ermine, codling moths, in fruit trees in Chelan, Okanogan, Skagit Counties. Berry plants in bloom, west.

**WEST VIRGINIA:** Temperature 64° within 3° of normal. Extremes 34° Greenbank; 92° Moorefield. Precipitation 1.12 in., 0.20 in. below normal southern, 0.05 to 0.90 in. above normal elsewhere.

Days suitable for fieldwork 3.2. Soil moisture 3% short, 65% adequate, 32% surplus. Wheat, oats good to fair. Oats 91% planted, 81% emerged. Corn good to fair; 58% planted, 41% emerged. Hay good to fair. Apples fair. Peaches poor. Livestock good. Feed supplies adequate to short. Farm activities: Corn planting, general farm maintenance, livestock care, repairing fence, fertilizing, plowing.

**WISCONSIN:** Temperature 62°, 1° above normal. Extremes 28°; 89°. Precipitation 0.40 to 2.40 in., more rain in northern, central.

Days suitable for fieldwork 4.4. Soil moisture 59% short, 38% adequate, 3% surplus. Pasture 69%, 65% 1988, 82% avg. Crops 7% poor, 38% fair, 55% good. Winter wheat 1% poor, 34% fair, 63% good, 2% excellent. Corn 2% poor, 28% fair, 64% good, 6% excellent; 92% planted, 95% 1988, 90% avg.; 3 in. high, 3 in. 1988, 1 in. avg. Soybeans 64% planted, 82% 1988, 58% avg. First cut hay 1% completed, 13% 1988, 7% avg.

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

Days suitable for fieldwork 7.0. Topsoil 73% short, 27% adequate. Spring wheat 95% planted; 75% emerged, 85% 1988, 85% avg. Oats 90% planted, 95% 1988, 95% avg.; 65% emerged, 75% 1988, 75% avg. Barley 95% planted; 85% emerged, 90% 1988, 90% avg. Sugarbeets 80% emerged, 90% 1988, 95% avg., replanting in southeastern area due to poor stands. Corn 75% planted, 85% 1988, 90% avg.; 30% emerged, 40% 1988, 60% avg. Potatoes 85% planted, 65% 1988, 75% avg.; 50% emerged, 45% 1988, 40% avg. Dry beans 25% planted, 25% 1988, 40% avg.; none emerged, none 1988, 15% avg. Winter wheat, 75% fair, 25% good. Livestock good. Branding, calving, lambing, shearing continues. Calf, lamb losses light to normal. Ranges, pastures 15% poor, 60% fair, 25% good. Livestock moved to summer pasture: cattle 30%; sheep 35%. Stockwater 60% short.

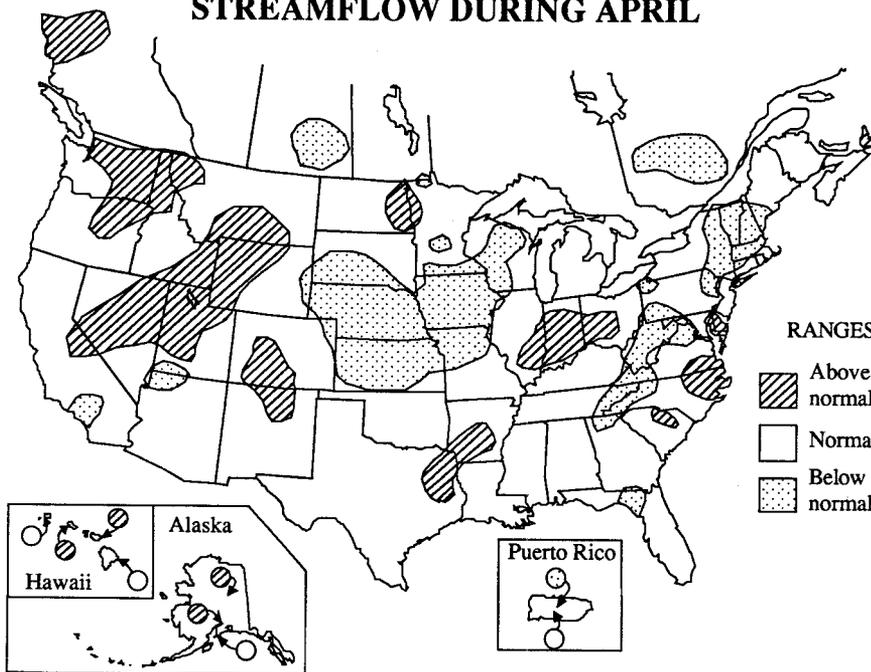
# National Water Conditions

## APRIL 1989

UNITED STATES  
Department of the Interior  
Geological Survey

CANADA  
Department of the Environment  
Water Resources Branch

### STREAMFLOW DURING APRIL



Flooding occurred along the Red River of the North during early April. Peak flood stage at Wahpeton, North Dakota, exceeded that of the 1897 flood of record, but peak discharge was less than in 1897.

Streamflow was in the normal to above-normal range at 76 percent of the reporting index stations in southern Canada, the United States, and Puerto Rico during April, compared with 75 percent of the stations in those ranges during March. Total April flow for the index stations in the conterminous United States and southern Canada was 2 percent above median after an 8 percent increase in streamflow from March to April. Below-normal range streamflow occurred in 13 percent of southern Canada and the conterminous United States during April compared with 12 percent during March.

April streamflow ranged from 15 to 41 percent above median in five areas affected by the drought of 1988. Flow decreased from that during March in California and the Southeast, but increased from that during March in the other areas.

The combined flow of the 3 largest rivers in the lower 48 States--Mississippi, St. Lawrence, and Columbia--was in the normal range and 6 percent above median during April. Flow of the St. Lawrence River was in the below-normal range.

Monthend index reservoir contents were in the below-average range at 30 of 100 reporting sites. Usable storage in Quebec's Allard reservoir increased from none at the end of March to 90 percent of the average for the month at the end of April. Storage in Lake Tahoe increased to 20 percent of the normal maximum, a significant improvement over previous months. Contents of the New York City reservoir system were only 71 percent of the April average.

Mean April elevations at the four master gages on the Great Lakes were in the normal range except on Lake Ontario, where the mean was in the below-normal range for the fourth consecutive month.

Utah's Great Salt Lake declined 0.15 foot during the month and was 2.80 feet lower than at the end of April 1988.

## International Weather and Crop Summary

May 21-27, 1989

### HIGHLIGHTS

**USSR** ... In Western USSR, frost and subfreezing temperatures briefly cover crop areas as far south as the northern North Caucasus. In the New Lands, cold, wet weather delays spring grain planting in the west, while unseasonably warm and mostly dry weather helps fieldwork in the east.

**EUROPE** ... Dryness continues in the northeast. Widespread rain falls across much of the south.

**SOUTH ASIA** ... A tropical cyclone hits eastern India late in the week, bringing beneficial rainfall but likely causing some lodging of mature rice.

**EASTERN ASIA** ... Heavy rain and flooding continue over southern and eastern China.

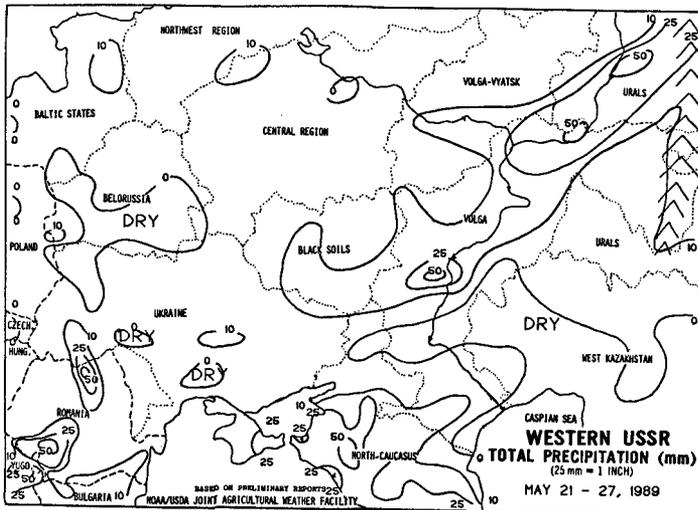
**SOUTHEAST ASIA** ... Widespread showers continue over Thailand, improving moisture reserves for grain planting and establishment but causing local flooding.

**SOUTH AMERICA** ... Mostly dry weather in Argentina favors late summer crop harvesting and wheat planting. Scattered showers help emerging wheat in southern Brazil, while dry weather favors coffee and citrus harvesting.

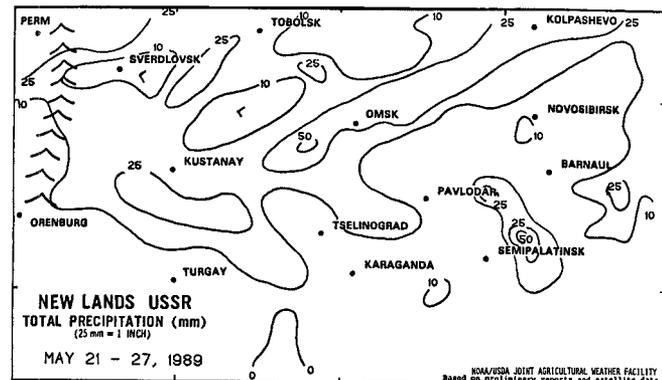
**AUSTRALIA** ... Heavy rain continues in Western Australia, providing beneficial soil moisture for fall establishment of winter grains.

**CANADA** ... Beneficial showers continue across the Prairies, improving soil conditions for germination and establishment.

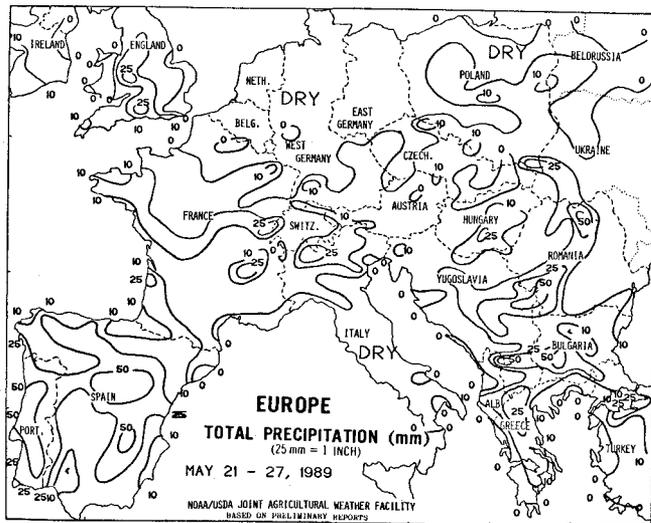
**MEXICO** ... Dry weather promotes wheat harvesting in the northwest, while beneficial showers help emerging cotton in north-central Mexico.



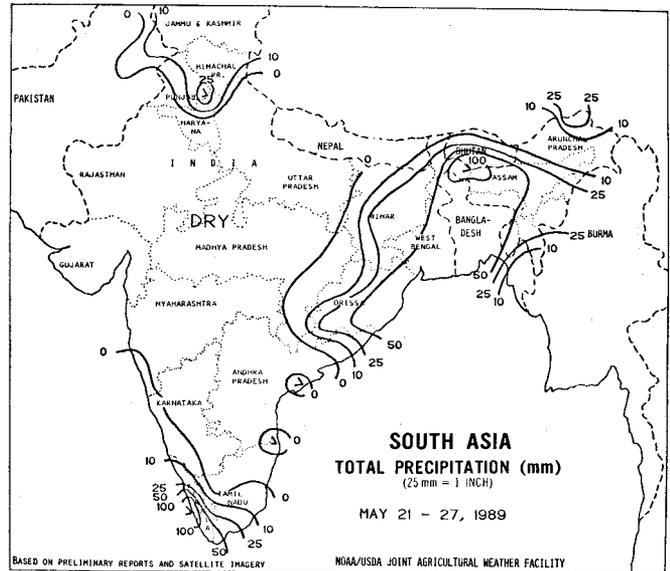
**USSR** ... In Western USSR, unseasonably cold weather covered most crop areas. The coldest weather occurred on May 23-24, when local frost and subfreezing temperatures (minimum temperatures ranging from 2 to -2 degrees Celsius (C)) reached as far south as the northern tip of the North Caucasus. Most locations, however, experienced frost or subfreezing temperatures on only one night. Minimum temperatures near to slightly below 0 degrees C covered the extreme eastern Ukraine and the northern North Caucasus, where winter grains were in the most vulnerable heading to flowering stages. Winter wheat in these areas historically account for about 5 percent of total winter wheat production. A light frost can cause sterility in wheat that is heading or about to head. The overall impact, however, on yield cannot be ascertained until later stages of crop development. Highly beneficial precipitation (20-60mm) covered filling winter grains in the Crimea and the central North Caucasus, while generally light precipitation (around 10mm) covered crops over the remainder of the region.



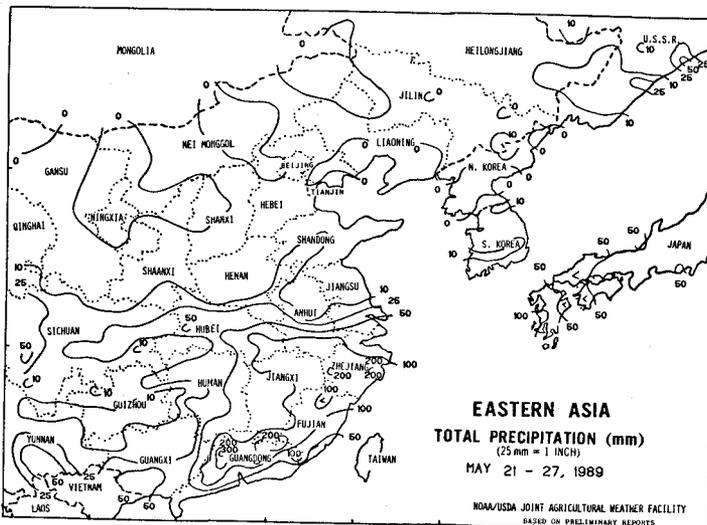
In the New Lands, spring grain planting continued to progress. Widespread precipitation (15-40mm) over the northern Urals, central Kazakhstan, and the western portion of West Siberia provided favorable topsoil moisture but likely caused some delays in fieldwork. In addition, the weather was unseasonably cold, which likely slowed germination. Weekly average temperatures in these areas ranged from 3 to 7 degrees C below normal, with extreme minimum temperatures ranging from 0 to -3 degrees C. Further east, unseasonably warm weather over the eastern portion of West Siberia and eastern Kazakhstan was accompanied by light, scattered precipitation, which allowed planting to progress without delay. Extreme maximum temperatures in these eastern areas ranged from 29 to 33 degrees C.



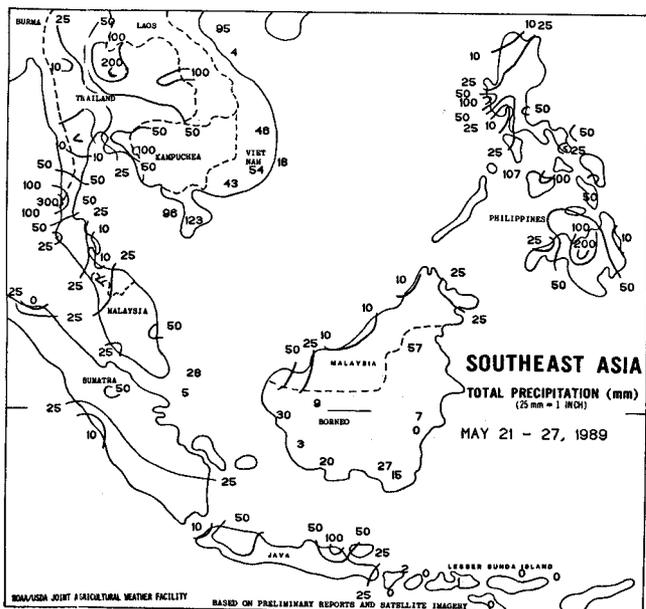
**EUROPE** ... Mostly dry weather continued from Benelux eastward to Poland, favoring progress in fieldwork but causing some well drained soils to become too dry, especially in northeastern growing areas. Further west, scattered light to moderate showers (5-15mm, with isolated amounts in excess of 25mm) favored heading to reproductive winter grains across France and the United Kingdom. Crop evapotranspiration losses were accelerated by above-normal temperatures (as much as 7 degrees C in western France) in western and northern crop areas. In the south, widespread rain (10-50mm, with scattered amounts in excess of 50mm) fell across the Iberian Peninsula, northern Italy, and the Balkans, while central and southern Italy remained mostly dry. Below-normal temperatures slowed growth of winter grains that are mostly filling.



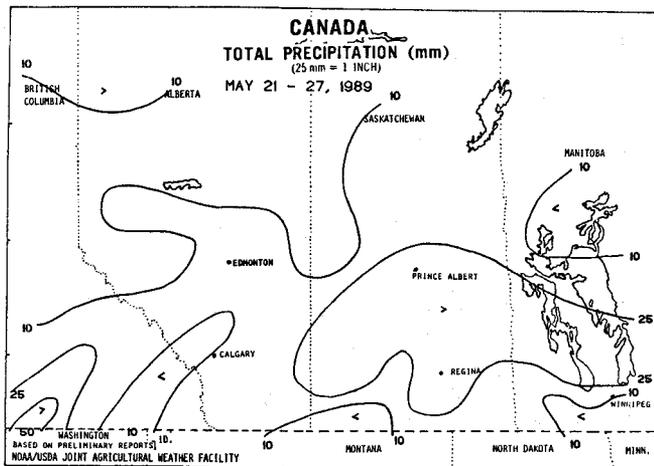
**SOUTH ASIA** ... A tropical cyclone moved onshore over eastern India on May 27, bringing moderate to heavy rain (25-50mm or more) to a large area from eastern Orissa and Bihar to western Bangladesh. Maximum sustained winds from the storm reached 55 knots, possibly causing lodging of mature rice in coastal areas. Scattered, variable showers continued from eastern Bangladesh eastward, but dry weather covered most growing areas to the south, allowing some early fieldwork. Local heavy showers (71-174mm), however, fell over central Kerala. Scattered showers (10-25mm) dotted north-central India and northern Pakistan, possibly slowing wheat harvesting in northernmost areas. Temperatures averaged below normal in eastern areas affected by the cyclone and over local areas in the north and India's southern tip. Temperatures continued near to above normal elsewhere.



**EASTERN ASIA** ... Remnants of both Typhoons Brenda and Cecil caused a continuation of heavy rain (25-100mm) over much of southern China and the Yangtze Valley. Scattered, very heavy rain (100-200mm, with isolated amounts in excess of 200mm) likely caused flooding in sections of Guangdong, northern Jiangxi, Fujian, southern Anhui, and Zhejiang. Heavy rain (25-100mm) also fell in central and southern sections of Honshu, Japan, causing continued delays in rice planting. Elsewhere, light to moderate rain (5-20mm) favored growth of establishing summer crops across South Korea, while scattered, mostly light rain covered the North China Plain and Manchuria. Mean temperatures were above normal in the Korean Peninsula and southern Manchuria, below normal in southeastern China, and near normal elsewhere.

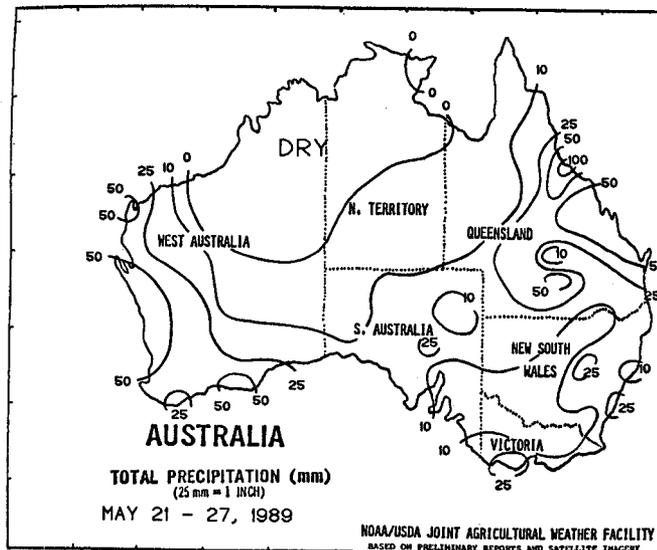


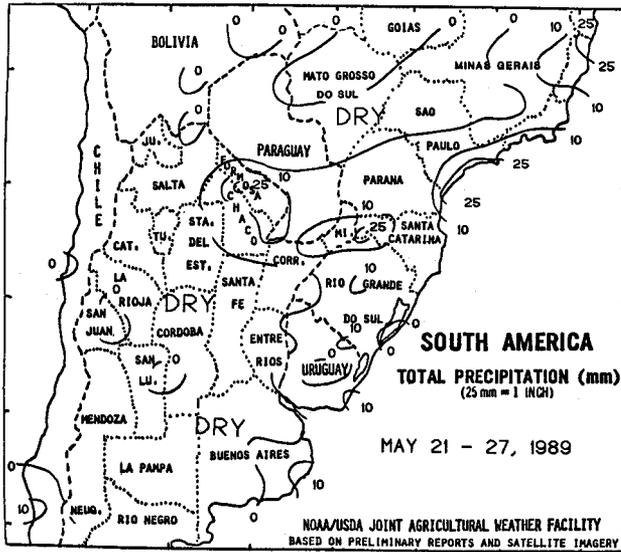
**SOUTHEAST ASIA** ... Widespread, moderate to heavy showers (50-100mm or more) covered a large portion of Thailand's main season grain region, increasing moisture reserves for germination and establishment but causing local flooding. The rainfall was due in part to the remnants of Typhoon Cecil that struck Vietnam's central coast at midweek with maximum sustained wind of 65 knots, then moved westward and dissipated. Variable showers also continued southward along the Malay Peninsula, with local flooding along the west coast. In the Philippines, showers (25-50mm or less) continued over most primary crop regions, although light rain (25mm or less) persisted over rice areas of northwestern Luzon.



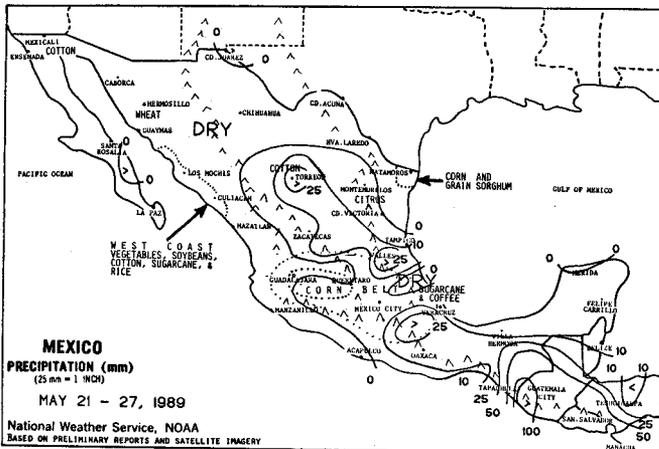
**CANADA** ... Beneficial rain (10-25mm or more) continued over most spring crop regions of the Prairie Provinces, improving moisture levels for germination and establishment. Heaviest rainfall (25-43mm) covered much of the northern half of Saskatchewan's growing areas and local areas of east-central Alberta and northern Manitoba. Rainfall averaged less than 10mm, however, over much of southeastern Manitoba and portions of southern and northwestern Alberta and southwestern Saskatchewan. Temperatures averaged 1-2 degrees C below normal over eastern Saskatchewan and Manitoba and 3-6 degrees C below-normal to the west, slowing germination and emergence of recently sown crops. Low minimum temperatures ranged from 0 to -4 degrees C over much of central and northern Alberta and northwestern Saskatchewan. Spring wheat and rapeseed planting is progressing and usually lasts until early June.

**AUSTRALIA** ... A strong frontal system brought heavy rain (25-75mm) to nearly all crop areas of Western Australia, causing delays in winter grain planting but providing beneficial reserve soil moisture for later fall establishment of the crop. Scattered heavy rain (25-60mm, with isolated amounts in excess of 60mm) also favored recently planted winter grains across sections of Queensland and northern New South Wales, although delays in late harvesting of summer crops continued. Elsewhere, light to moderate rain (5-15mm) fell over winter crop areas of South Australia, Victoria, and southern New South Wales. Mean temperatures were below normal in southwestern growing areas and normal to above normal elsewhere.





**SOUTH AMERICA** ... Dry weather prevailed throughout the week over nearly all of Argentina's crop areas, favoring late summer crop harvesting and wheat planting. Very light showers (1-6mm) were confined to southeastern Buenos Aires, although one coastal station reported 15mm. Weekly rainfall averaged 10-48mm in Formosa, and in the extreme northeast, extending into southern Brazil, where 10-53mm of rain fell in extreme northern Rio Grande do Sul and western Santa Catarina. The moisture helped germination and emergence of recently sown wheat. Light showers (1-11mm) fell over the remainder of Rio Grande do Sul and most of Parana, where wheat is in vegetative growth. Dry weather prevailed over coffee and citrus areas, favoring early harvesting.



**MEXICO** ... Dry, hot weather in northwestern Mexico hastened late wheat maturity and favored harvesting. Beneficial, but scattered showers (10-40mm) helped emerging cotton and rangeland growth in north-central regions extending southeastward to Ciudad Valles. Mostly light showers (1-7mm) fell over the Southern Plateau corn belt, except in the far southeast where 10-26mm of rain promoted vegetative growth of corn. Substantial tropical showers (50-125mm) fell in extreme southern Mexico, along the border with Guatemala. Elsewhere in Mexico, mostly dry weather prevailed along the Yucatan peninsula, the northeast grain and vegetable area, and along the entire west coast.

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