

# 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

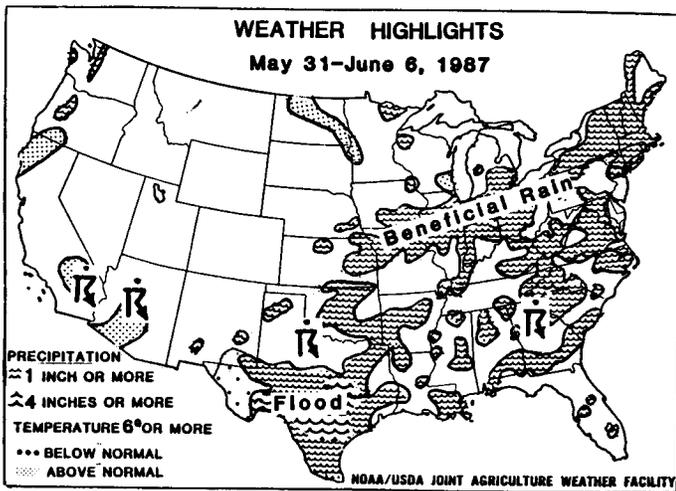
Volume 74, No. 23

Washington, D.C.

June 9, 1987

## National Weather Summary

May 31 to June 6, 1987



**TUESDAY...**Thunderstorms redeveloped in most of Texas but the heaviest rain was in southeastern Texas. Severe storms with heavy rain developed from central Oklahoma to the western Great Lakes and southern New England. It was much cooler in the northern Plains, western Great Lakes, and New England, but it was in the nineties in the Southeast.

**WEDNESDAY...**Thunderstorms reached from eastern New Mexico and Colorado across the South and through the East Coast States. Heavy rain fell from southeastern Texas into Louisiana and in scattered parts of the East Coast. Cooler weather spread through most of the Plains, the Great Lakes, and the Northeast to the Mid-Atlantic States.

**THURSDAY...**Showers and thunderstorms were triggered along the leading edge of a cooler air mass and were concentrated through the East Coast States, the gulf coast, and southern Texas. Heavy rain fell in the Mid-Atlantic Coast, the New England coast, and parts of the Southeast. Hot weather continued in the Southwest and began moving across the northern and central Rockies.

**FRIDAY...**Most of the Nation was free of thunderstorms. However, storms continued in Florida and southern Texas with flooding in Texas. A few showers fell in the eastern Great Lakes and New England. Southerly, moist flow into the Southwest triggered showers in the Intermountain region.

**SATURDAY...**Thunderstorms continued in Florida and southern Texas. Flooding was serious in southern central Texas. Showers and rain fell in the eastern Great Lakes and New York. Showers and a few thunderstorms were spread through the Southwest, the central Plateau, and the northern Rockies. Temperatures rose to the high nineties in the northern Plains.

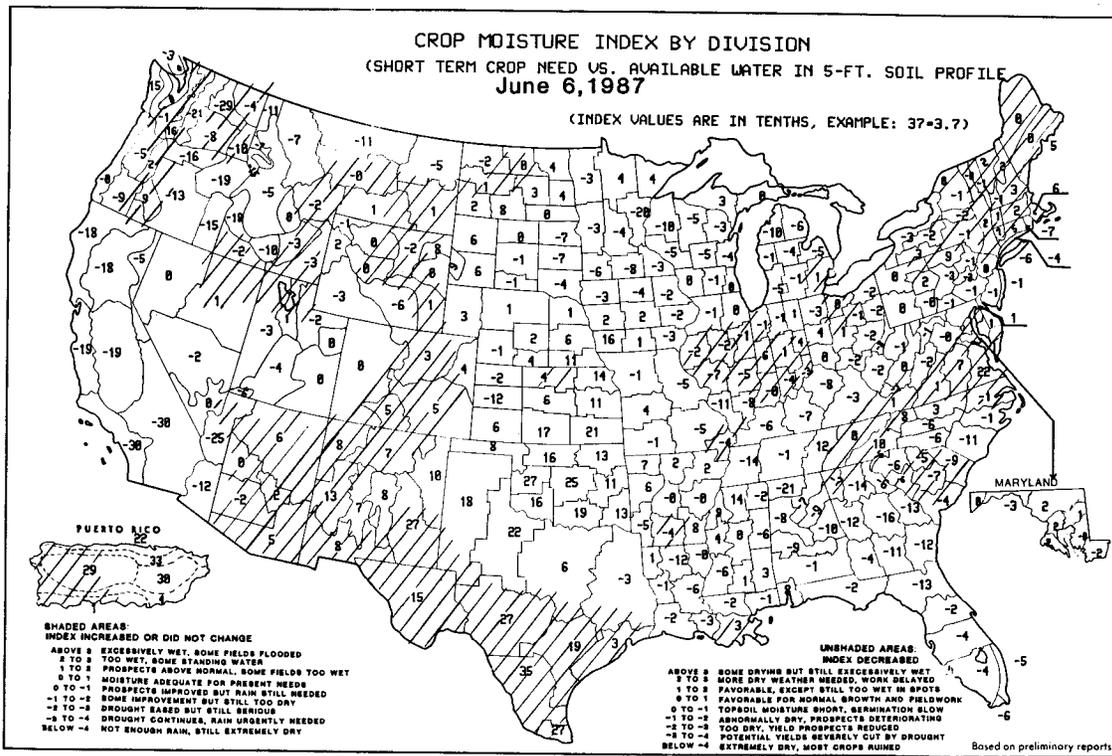
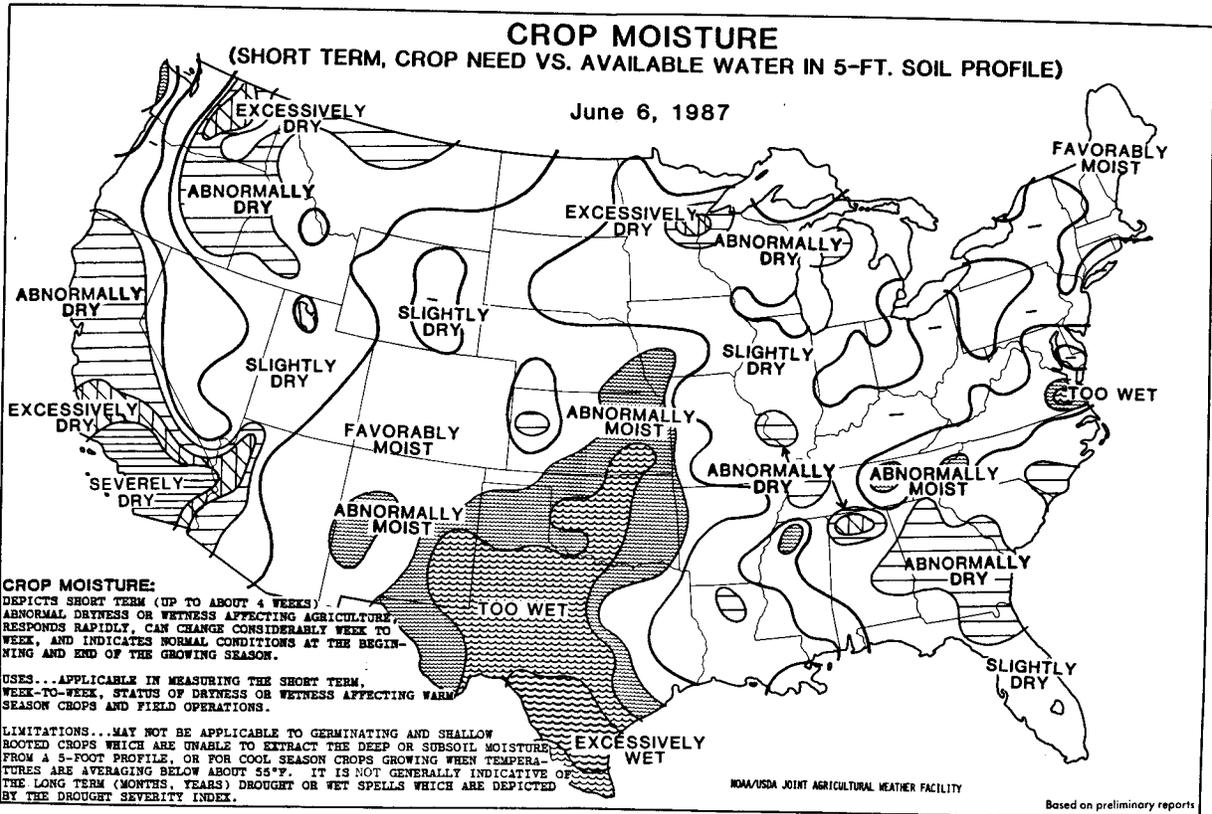
**HIGHLIGHTS:** Thunderstorms were widespread from the central and southern Great Plains to the Great Lakes and eastward to the Atlantic Ocean. Heavy downpours were almost a daily occurrence in southern Texas where serious flooding ensued. Heavy rain was scattered in the central Plains, the Midwest, and the East Coast States. Most of the Midwest had one or more inches of rain but southern and northern Illinois, the middle Ohio Valley, and western Iowa had less. Minnesota and much of Wisconsin along with the northern Plains remained nearly dry. Showers moved across the Northwest early in the week and showers and thunderstorms developed in the Southwest later in the week. Temperatures were warmer than normal in the East early in the week, all week in the Southwest, and across the northwest and northern Plains late in the week.

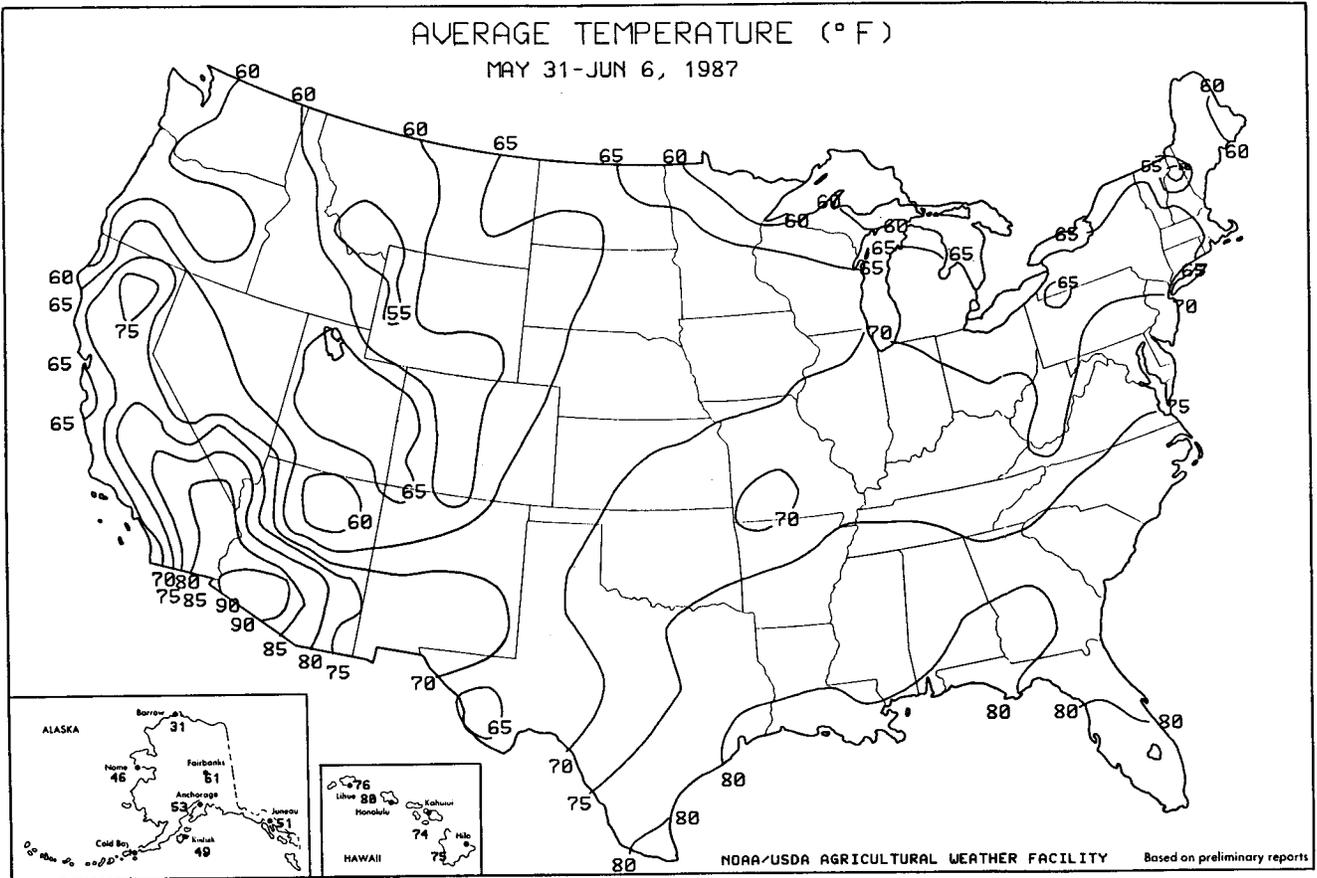
**SUNDAY...**Flooding continued in southwestern Texas but the thunderstorms shifted to southern Texas and extended northeastward to New England. Showers covered the Northwest and southern Canada and moved onto the northern Great Plains. It was hot and humid east of the Rockies. Temperatures in the nineties covered the Southeast and the East Coast.

**MONDAY...**Most of Texas was free of thunderstorms but a portion of South Texas had scattered severe storms. Showers and thunderstorms were widespread in the northeastern quarter of the Nation and reached through Iowa to the Northern Plains. Heavy rain fell in parts of South Carolina and western North Carolina and moderate showers were scattered throughout the Northeast. Hot weather dominated most of the East and the Southwest while it was relatively cool in the West and upper Lakes region.

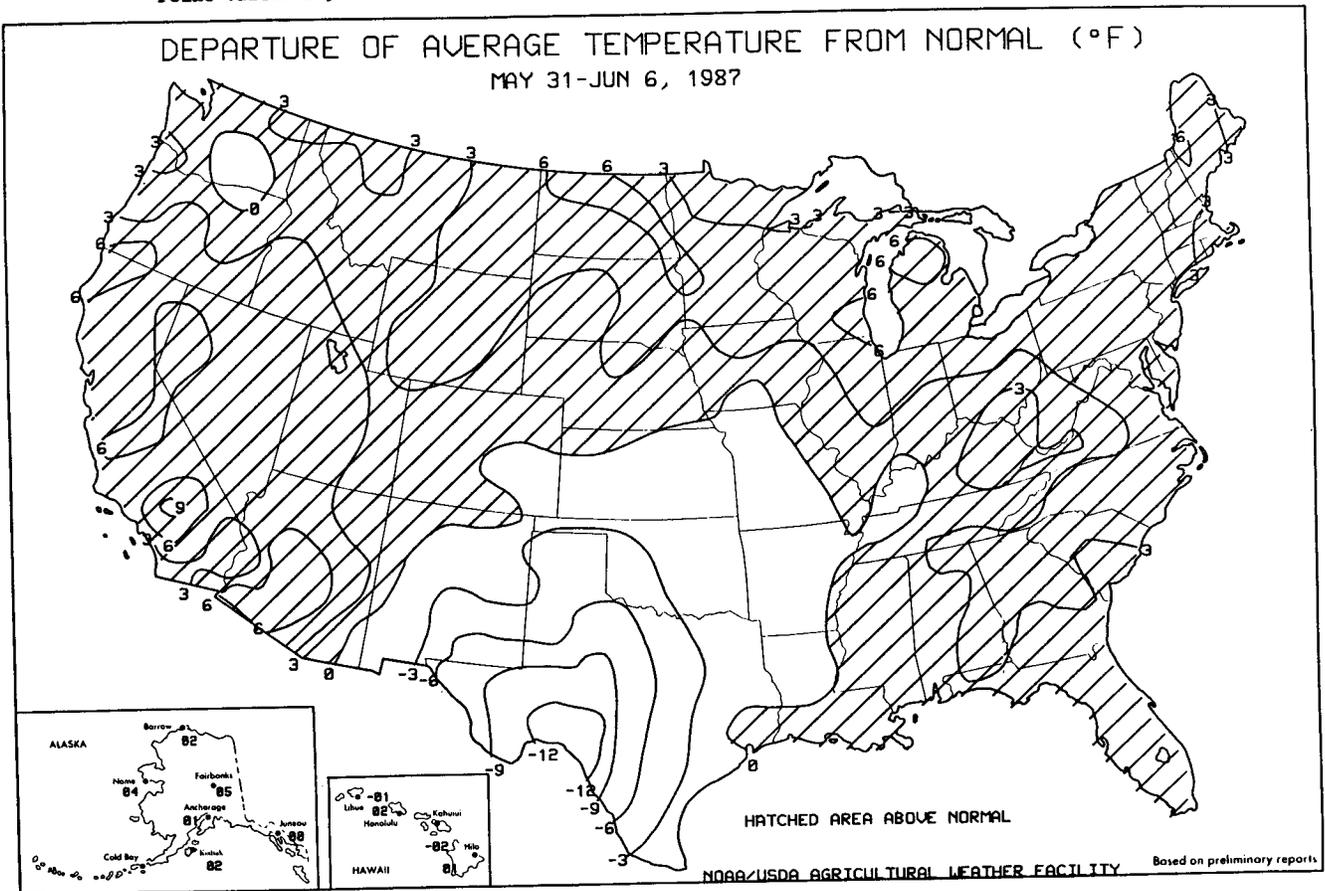
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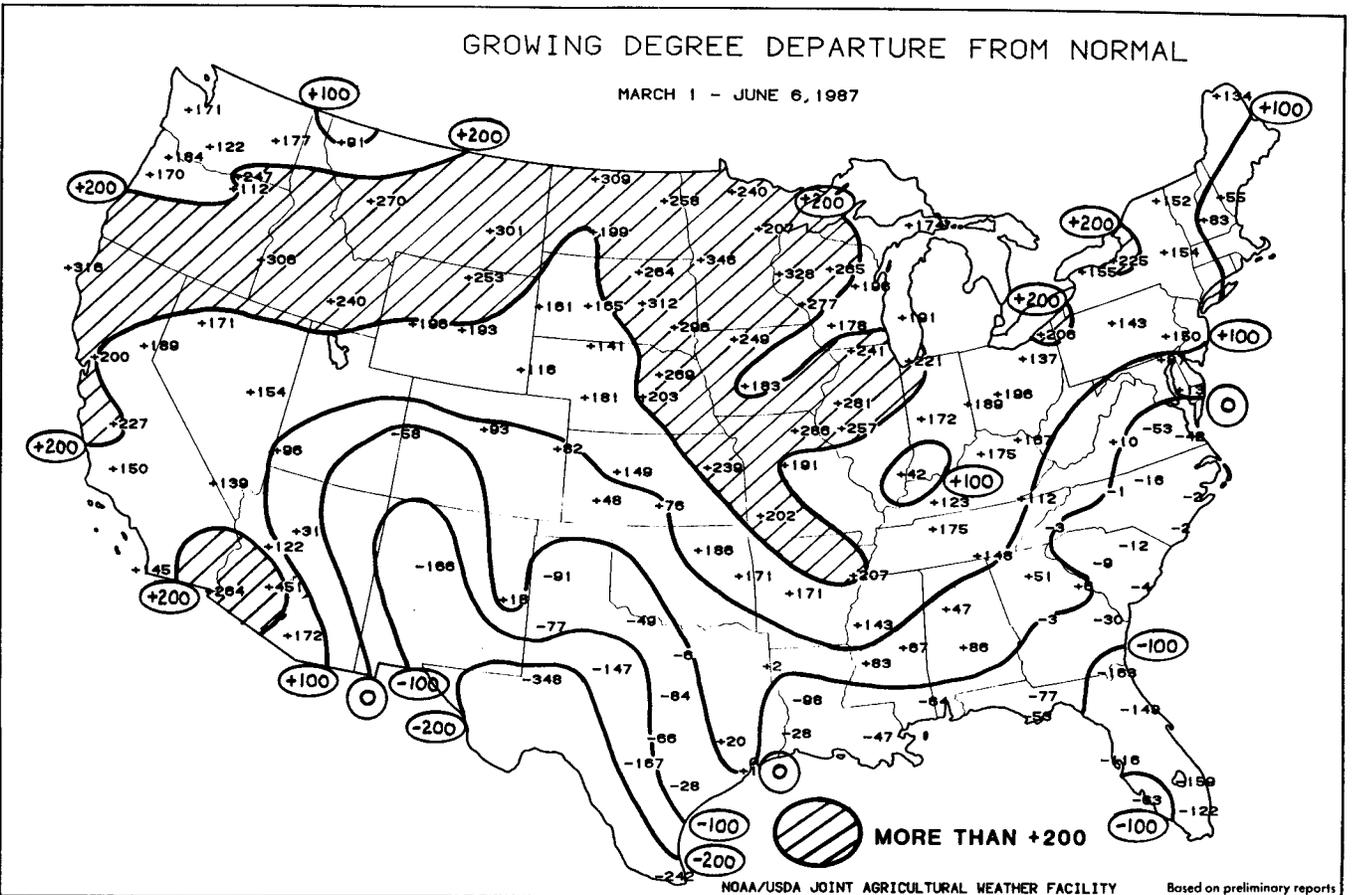
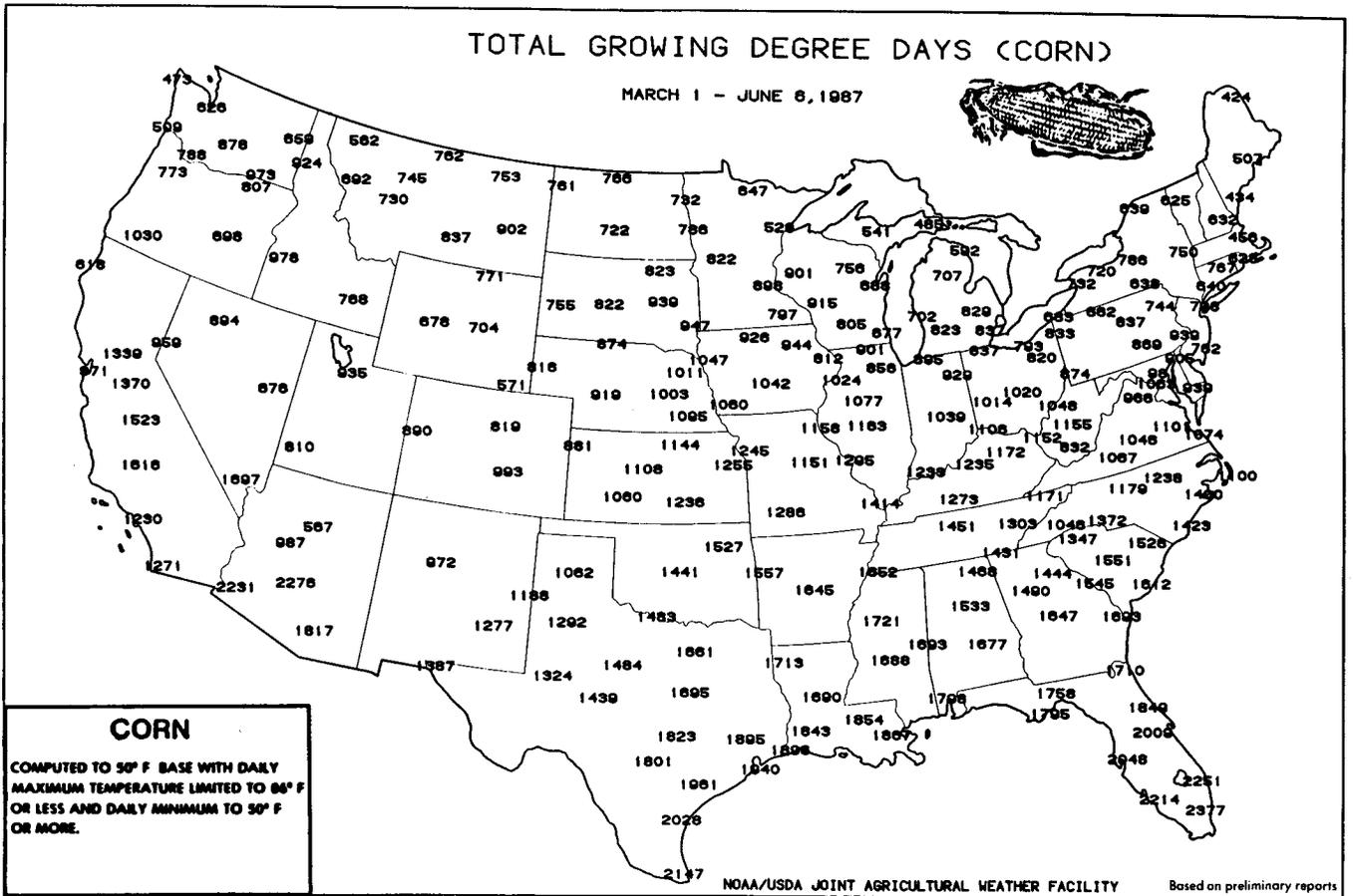






Point values may differ on these computerized maps from the reported values in the tables.





# National Weather Data for Selected Cities

Weather Data for the Week Ending June 6, 1987

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 JUNE	PCT. NORMAL SINCE JUNE	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	89	64	92	54	76	2	.7	-.1	.5	.2	26	20.8	78	94	47	3	0	2	1
MOBILE	90	69	94	67	79	1	.9	-.2	.9	.9	97	33.2	120	98	48	3	0	1	1
MONTGOMERY	92	68	94	65	80	3	T	-.8	T	T	0	27.3	116	92	45	7	0	0	0
AK ANCHORAGE	60	47	67	42	53	2	.3	-.2	.3	.3	213	4.0	112	83	53	0	0	2	0
BARROW	35	28	37	24	31	3	T	-.1	T	T	0	.4	41	95	81	0	7	0	0
FAIRBANKS	71	51	77	49	61	5	.2	0	.1	.2	80	1.2	49	78	34	0	0	5	0
JUNEAU	57	45	64	39	51	0	.9	.2	.5	.9	153	15.4	88	90	53	0	0	6	1
KODIAK	56	43	66	35	49	3	.7	-.4	.3	.7	71	29.8	122	91	61	0	0	5	0
NOME	55	36	69	27	46	3	T	-.2	T	T	0	2.4	77	85	53	0	2	0	0
AZ PHOENIX	103	78	110	71	91	8	T	0	T	T	0	3.2	129	33	15	7	0	1	0
PRESCOTT	87	52	94	48	70	7	.1	.1	.1	.1	0	4.6	77	51	16	2	0	1	0
TUCSON	97	68	105	62	83	3	.2	.2	.1	.2	0	4.8	187	50	15	7	0	2	0
YUMA	105	76	108	68	90	7	0	0	0	0	0	.4	49	45	13	7	0	0	0
AR FORT SMITH	85	62	90	56	74	-1	.9	-.1	.8	.9	111	18.4	102	99	46	1	0	2	1
LITTLE ROCK	85	65	89	60	75	-1	1.6	0	1.6	0	0	17.3	72	77	50	0	0	1	1
CA BAKERSFIELD	93	63	104	56	78	3	.1	0	.1	.1	300	3.7	98	61	27	3	0	1	0
EUREKA	66	53	75	49	60	6	T	-.2	T	T	6	17.4	80	89	64	0	0	1	0
FRESNO	94	61	104	54	78	5	T	0	T	T	50	6.6	96	79	26	4	0	1	0
LOS ANGELES	72	59	76	58	66	1	.1	.1	.1	.1	0	2.9	35	96	67	0	0	1	0
REDDING	92	63	102	57	78	4	0	-.2	0	0	0	19.1	80	54	15	5	0	0	0
SACRAMENTO	89	57	99	55	73	4	T	0	T	T	0	8.8	83	77	25	3	0	0	0
SAN DIEGO	72	61	79	59	67	2	T	0	T	T	0	5.1	83	87	71	0	0	0	0
SAN FRANCISCO	75	55	93	52	65	5	T	0	T	0	0	8.5	69	85	43	1	0	0	0
CO DENVER	81	51	89	46	66	3	0	-.4	0	0	0	8.9	128	70	24	0	0	0	0
GRAND JUNCTION	87	52	91	47	69	1	0	-.1	0	0	0	5.4	157	45	11	2	0	0	0
PUEBLO	83	47	91	44	65	-2	.2	-.1	.2	.2	73	5.0	129	86	22	2	0	1	0
CT BRIDGEPORT	75	61	91	57	68	4	.7	0	.5	.7	117	16.6	93	91	60	1	0	3	1
HARTFORD	79	60	95	47	70	4	1.9	1.1	1.3	1.9	278	20.5	108	90	46	1	0	3	2
DC WASHINGTON	84	67	90	61	76	4	.9	.1	.8	.9	138	14.3	90	94	50	1	0	3	1
FL APALACHICOLA	88	71	93	67	80	1	.4	-.5	.4	.4	52	23.4	128	96	59	2	0	1	0
DAYTONA BEACH	86	70	87	68	78	0	.9	-.4	.8	.8	71	20.5	135	94	61	0	0	2	1
JACKSONVILLE	91	67	95	62	79	1	T	-.1	T	T	2	17.8	97	99	46	4	0	1	0
KEY WEST	87	79	87	78	83	1	T	-.1	T	0	0	13.7	128	85	69	0	0	0	0
MIAMI	88	77	89	74	83	2	.2	-.1	.1	.1	6	12.9	74	82	57	0	0	2	0
ORLANDO	92	71	95	70	81	2	.2	-.1	.2	.2	20	16.5	105	97	45	6	0	2	0
TALLAHASSEE	92	68	95	62	80	2	1.0	-.3	.8	1.0	89	29.6	116	98	44	5	0	2	1
TAMPA	91	72	93	70	81	2	.1	-.9	.1	.1	15	20.2	138	96	54	4	0	2	0
WEST PALM BEACH	87	76	88	72	82	2	T	-.8	T	T	1	18.4	98	85	57	0	0	1	0
GA ATLANTA	89	69	93	64	79	5	.4	-.3	.4	.4	66	21.5	89	87	39	4	0	1	0
AUGUSTA	93	65	97	58	79	4	1.1	.2	.9	1.1	149	23.9	116	98	37	6	0	3	1
MACON	93	68	97	58	80	3	.1	-.7	.1	.1	17	21.8	99	96	39	6	0	2	0
SAVANNAH	91	68	96	63	80	3	.4	-.8	.4	.4	41	23.1	122	94	45	3	0	1	0
HI HILO	83	67	86	64	75	1	2.8	1.3	2.6	2.8	214	45.9	76	93	61	0	0	3	1
HONOLULU	89	71	91	66	80	2	.1	-.1	.1	.1	69	2.7	21	84	49	4	0	1	0
KAHULUI	84	66	85	62	75	-2	.1	0	.1	.1	180	12.3	109	91	59	0	0	1	0
LIHUE	81	70	83	61	76	-1	T	-.4	T	T	11	10.8	51	90	64	0	0	1	0
ID BOISE	81	49	97	36	65	3	.1	-.2	.1	T	0	5.1	81	70	17	2	0	1	0
LEWISTON	79	51	93	41	65	3	T	-.4	T	0	0	3.6	58	66	24	2	0	0	0
POCATELLO	77	45	90	36	61	2	T	-.3	T	T	8	5.1	94	76	25	2	0	1	0
IL CHICAGO	83	59	88	52	71	6	.6	-.4	.5	.6	67	9.3	70	96	42	0	0	2	0
MOLINE	83	58	87	48	70	2	.6	-.4	.4	.2	24	9.5	65	88	39	0	0	2	0
PEORIA	83	59	88	51	71	3	1.9	1.1	1.9	1.9	253	9.7	68	93	42	0	0	3	1
QUINCY	82	59	87	52	70	1	1.4	.4	.9	1.2	149	9.9	66	88	43	0	0	3	1
ROCKFORD	81	57	86	47	69	4	.2	-.8	.1	.2	19	9.5	68	88	41	0	0	2	0
SPRINGFIELD	84	60	91	52	72	2	1.1	.3	.7	1.1	157	8.5	59	94	38	1	0	2	1
IN EVANSVILLE	82	61	86	53	72	0	1.7	.8	1.1	1.7	229	14.3	72	99	55	0	0	3	2
FORT WAYNE	80	59	84	47	70	3	1.2	.3	1.0	1.2	160	10.7	73	91	47	0	0	2	1
INDIANAPOLIS	82	60	88	50	71	2	1.9	1.0	1.9	1.9	251	11.0	66	98	45	0	0	1	1
SOUTH BEND	80	59	85	51	70	4	.7	-.2	.4	.6	86	11.7	78	92	43	0	0	4	0
IA DES MOINES	81	56	86	47	68	0	.3	-.7	.3	T	5	11.5	94	85	41	0	0	2	0
SIOUX CITY	83	55	93	46	69	1	T	-.9	T	T	0	11.3	116	82	33	2	0	0	0
WATERLOO	83	56	89	43	70	4	T	-.1	T	T	0	8.4	67	77	30	0	0	0	0
KS CONCORDIA	82	58	87	52	70	0	.3	-.8	.2	.2	25	19.0	182	83	39	0	0	2	0
DODGE CITY	81	55	85	49	68	-3	T	-.7	T	T	0	9.8	121	83	37	0	0	0	0
GOODLAND	82	52	90	47	67	1	T	-.7	T	T	0	7.8	123	78	26	1	0	0	0
TOPEKA	83	58	88	51	71	0	.6	-.5	.6	.6	63	16.6	136	92	44	0	0	1	1
WICHITA	84	58	88	52	71	-1	.7	-.3	.7	.7	84	18.1	171	94	41	10	0	1	1
KY BOWLING GREEN	83	62	88	53	72	1	.5	-.5	.5	.5	60	16.4	70	94	48	0	0	1	1
LEXINGTON	83	62	87	50	72	3	.8	-.1	.8	.8	100	12.9	62	93	49	0	0	2	1
LOUISVILLE	83	63	88	56	73	2	.7	-.2	.4	.7	90	12.9	64	91	47	0	0	2	0
LA ALEXANDRIA	88	66	90	58	77	-2	T	-.1	T	T	2	26.6	96	87	51	2	0	1	0
BATON ROUGE	89	70	91	67	80	1	T	-.7	T	T	4	26.7	106	93	52	3	0	1	0
LAKE CHARLES	88	71	91	69	80	1	1.4	.3	1.1	1.1	124	22.0	103	93	56	2	0	3	1
NEW ORLEANS	88	71	90	68	79	-1	3.5	2.5	2.3	3.5	405	29.8	118	99	58	2	0	4	2

Based on 1951-80 normals.

Weather Data for the Week Ending June 6, 1987

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 JUNE 1	PCT. NORMAL SINCE JUNE 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
ME SHREVEPORT	88	66	91	61	77	0	.9	0	.9	.9	115	19.5	91	93	47	1	0	1	1
ME CARIBOU	71	52	80	47	61	4	1.5	.9	.8	.7	122	9.5	74	91	49	0	0	3	2
ME PORTLAND	72	53	94	48	63	4	.9	.2	.5	.8	127	19.3	102	98	57	1	0	4	1
MD BALTIMORE	83	64	93	57	73	5	1.2	.4	1.1	1.2	168	16.3	95	95	51	2	0	2	1
MD SALISBURY	85	64	91	56	74	6	.2	-.6	.2	.2	28	18.5	102	99	48	2	0	2	0
MA BOSTON	70	57	92	50	64	-1	1.9	1.2	1.5	1.9	302	25.4	130	92	62	1	0	4	1
MA CHATHAM	68	54	82	50	61	-3	.2	-.5	.2	.2	33	26.6	128	95	77	0	0	2	0
MI ALPENA	77	50	86	39	63	5	.9	.2	.8	.9	144	6.5	60	97	43	0	0	5	1
MI DETROIT	80	59	86	49	69	4	2.7	2.0	2.0	2.7	415	12.4	98	95	54	0	0	3	2
MI FLINT	79	57	84	47	68	5	.3	-.4	.1	.3	48	7.5	65	96	54	0	0	3	0
MI GRAND RAPIDS	80	57	86	47	69	5	.1	-.7	-.1	.1	15	5.7	43	89	36	0	0	2	0
MI HOUGHTON LAKE	78	58	85	48	68	8	T	-.7	T	T	7	5.0	48	80	40	0	0	1	0
MI LANSING	80	57	86	47	68	5	.6	-.3	.5	.6	77	5.8	51	90	40	0	0	3	0
MI MARQUETTE	73	48	84	32	61	4	.7	-.1	.6	.7	103	12.0	104	95	46	0	1	4	1
MI MUSKOGON	74	57	80	48	65	3	.5	-.1	.2	.4	82	9.5	75	91	51	0	0	4	0
MI SAULT ST. MARIE	72	46	82	37	59	4	.4	-.4	.2	.4	59	7.4	63	96	46	0	0	4	0
MN ALEXANDRIA	80	55	92	49	68	6	.1	-.9	.1	.1	8	6.8	78	77	32	1	0	1	0
MN DULUTH	71	47	83	39	59	4	T	-.8	T	T	5	5.7	58	91	44	0	0	3	0
MN INT'L FALLS	73	46	85	34	59	2	.5	-.2	.4	.5	78	5.5	75	92	42	0	0	2	0
MN MINNEAPOLIS	83	56	95	43	70	5	T	-.9	T	T	0	3.5	37	74	30	2	0	0	0
MN ROCHESTER	81	53	89	38	67	4	.1	-.8	0	.1	7	5.3	54	84	36	0	0	2	0
MS GREENWOOD	89	67	91	61	78	1	.2	-.7	.2	.2	26	22.7	84	90	42	4	0	1	0
MS JACKSON	89	66	93	58	78	1	T	-.8	T	T	3	26.6	102	94	44	5	0	1	0
MS MERIDIAN	90	65	93	60	77	1	.4	-.4	.2	.4	62	31.1	117	94	43	4	0	2	0
MO CAPE GIRARDEAU	84	61	89	55	73	—	.7	-.2	.7	.7	96	12.8	61	94	50	0	0	1	1
MO COLUMBIA	82	58	87	53	70	0	.8	-.2	.7	.7	90	10.2	63	93	44	0	0	2	1
MO KANSAS CITY	82	59	87	52	71	-1	1.1	0	.9	.9	93	13.7	100	89	44	0	0	2	1
MO SAINT LOUIS	85	62	90	56	74	2	1.0	-.2	1.0	1.0	140	10.3	69	88	36	1	0	1	1
MO SPRINGFIELD	83	56	86	49	69	-1	.2	-.9	.2	.2	26	19.1	116	95	44	0	0	2	0
MT BILLINGS	78	50	93	43	64	4	.1	-.4	.1	.1	21	6.2	83	57	23	1	0	2	0
MT GLASGOW	80	51	94	45	66	5	.1	-.5	.1	0	0	3.7	98	73	25	2	0	1	0
MT GREAT FALLS	75	47	89	41	61	3	.7	0	.5	.5	74	5.8	81	65	24	0	0	2	0
MT HAVRE	77	46	91	34	61	1	.2	-.3	.2	0	0	2.7	55	78	21	1	0	1	0
MT HELENA	73	44	87	35	58	2	.2	-.3	.1	.1	33	4.0	81	85	32	0	1	3	0
MT KALISPELL	72	41	85	30	56	1	.4	-.2	.2	.2	47	6.4	95	92	31	0	1	2	0
MT MILES CITY	81	51	94	43	66	4	.1	-.6	.1	0	0	5.2	87	64	22	2	0	1	0
MT MISSOULA	74	40	89	32	57	1	.4	-.1	.4	T	0	3.6	61	89	30	0	1	1	0
NE GRAND ISLAND	83	54	91	48	69	1	T	-.9	T	T	4	13.7	139	79	32	1	0	1	0
NE LINCOLN	83	57	88	49	70	1	.7	-.3	.3	.4	55	13.8	125	90	39	0	0	3	0
NE NORFOLK	82	55	93	46	69	1	0	-1.0	0	0	0	14.6	153	81	33	1	0	0	0
NE NORTH PLATTE	82	49	91	43	66	1	0	-.9	0	0	0	7.6	96	84	26	2	0	0	0
NE OMAHA	81	59	87	52	70	1	.9	-.1	.8	.8	94	14.3	123	79	43	0	0	3	1
NE SCOTTSBLUFF	82	48	94	41	65	2	T	-.7	T	T	0	11.5	177	80	21	2	0	0	0
NE VALENTINE	84	50	99	43	67	3	0	-.7	0	0	0	8.3	120	72	23	2	0	0	0
NV ELY	79	41	86	31	60	5	T	-.2	T	T	6	5.0	112	70	21	0	1	1	0
NV LAS VEGAS	97	68	104	64	83	3	.1	-.1	.1	.1	1	3.3	192	34	12	6	0	1	0
NV RENO	83	48	90	41	66	7	.1	0	.1	.1	89	5.0	120	66	15	1	0	1	0
NV WINNEMUCCA	82	47	92	32	65	5	T	-.2	T	T	5	6.3	159	73	17	1	1	1	0
NH CONCORD	75	54	93	38	65	3	1.2	.5	.7	1.2	205	13.5	91	94	52	1	0	5	1
NJ ATLANTIC CITY	80	61	92	51	70	5	.8	.1	.5	.8	146	20.7	118	99	57	2	0	2	0
NM ALBUQUERQUE	83	55	88	53	69	-2	0	-.1	0	0	0	2.9	134	60	21	0	0	0	0
NM CLOVIS	81	57	91	55	69	-2	.3	-.3	.2	.3	63	5.6	116	80	32	2	0	2	2
NM ROSWELL	83	58	94	56	71	-5	2.1	1.9	1.3	2.1	6.3	257	89	37	2	0	0	2	1
NY ALBANY	78	59	89	45	68	5	1.4	-.6	.9	1.4	206	13.7	94	98	55	0	0	3	1
NY BINGHAMTON	73	57	81	49	65	4	1.1	-.3	.6	1.1	165	12.3	84	98	58	0	0	4	1
NY BUFFALO	77	59	85	48	68	5	.3	-.4	.2	.3	52	12.4	84	92	50	0	0	2	0
NY NEW YORK	79	64	96	59	72	4	1.0	-.3	1.0	1.0	160	17.6	98	90	61	2	0	2	1
NY ROCHESTER	78	57	87	47	68	5	.7	-.1	.5	.7	128	10.0	78	97	50	0	0	4	0
NY SYRACUSE	77	59	87	49	68	5	.9	-.1	.5	.9	135	11.2	72	96	53	0	0	4	0
NC ASHEVILLE	82	58	86	50	70	2	4.6	3.7	3.9	4.6	601	22.7	117	99	52	0	0	5	2
NC CHARLOTTE	88	67	95	63	77	5	.8	-.1	.2	.5	73	17.7	89	91	42	2	0	4	0
NC GREENSBORO	86	63	93	56	75	4	.5	-.4	.3	.5	66	22.8	127	93	47	1	0	2	0
NC HATTERAS	83	67	89	59	75	4	.7	-.2	.5	.7	90	30.9	148	99	63	0	0	3	0
NC NEW BERN	90	68	95	63	79	5	2.2	1.1	1.2	2.2	239	23.1	116	94	45	4	0	2	2
NC RALEIGH	87	64	93	57	76	4	.1	-.7	.1	.1	15	21.0	117	96	47	2	0	2	0
NC WILMINGTON	89	67	93	60	78	3	.5	-.7	.4	.5	48	18.0	93	98	50	3	0	2	0
ND BISMARCK	80	51	97	44	65	4	T	-.7	T	T	2	7.5	126	87	34	1	0	1	0
ND FARGO	80	52	91	45	66	4	T	-.6	T	T	0	5.2	82	84	35	1	0	1	0
ND GRAND FORKS	80	52	90	46	66	5	.1	-.6	.1	.1	9	5.9	102	81	32	1	0	1	0
ND WILLISTON	81	50	95	43	66	5	.3	-.3	.2	.2	6	4.5	88	87	25	2	0	3	0
OH AKRON-CANTON	77	57	83	48	67	2	.2	-.6	.1	.2	27	11.9	77	99	60	0	0	3	0
OH CINCINNATI	81	60	86	53	71	2	1.5	.5	.8	1.5	186	14.2</							

Weather Data for the Week Ending June 6, 1987

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 JUNE ●	PCT. NORMAL SINCE JUNE ●	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	79	60	84	50	70	2	1.7	.8	1.6	1.7	217	11.9	76	91	53	0	0	3	1
TOLEDO	80	56	84	42	68	3	1.0	.3	.6	1.0	152	9.3	72	99	51	0	0	4	1
YOUNGSTOWN	78	57	85	44	68	4	1.6	.8	1.3	1.6	236	12.8	82	99	56	0	0	2	1
OK OKLAHOMA CITY	82	63	87	58	73	-1	1.2	.2	1.1	1.1	122	22.3	165	89	44	0	0	2	1
TULSA	84	62	88	57	73	-1	1.2	.1	1.0	.2	22	20.2	123	91	42	0	0	3	1
OR ASTORIA	66	49	84	39	58	3	.4	.1	.3	.1	38	30.9	232	91	54	0	0	2	0
BURNS	76	39	86	26	57	1	T	-2	T	T	0	5.1	90	***	***	0	2	0	0
MEDFORD	86	49	100	39	68	6	.2	-1	.2	0	0	7.9	81	85	20	3	0	1	0
PENDLETON	75	45	87	37	60	-3	T	-2	T	T	6	4.8	79	81	31	0	0	1	0
PORTLAND	75	51	91	45	63	3	.2	-3	.2	T	0	18.0	98	86	41	1	0	1	0
SALEM	73	47	90	41	60	2	.2	-2	.2	T	6	19.0	92	89	43	1	0	2	0
PA ALLENTOWN	78	62	90	56	70	4	.7	0	.5	.7	112	14.6	80	93	53	1	0	3	0
ERIE	75	59	83	50	67	5	1.1	.3	.9	1.1	146	12.2	83	95	58	0	0	3	1
HARRISBURG	79	63	89	55	71	3	.3	-6	.2	.3	38	13.6	81	95	57	0	0	3	0
PHILADELPHIA	81	65	90	60	73	5	.8	-1	.6	.8	104	14.5	85	92	55	1	0	3	1
PITTSBURGH	79	59	82	46	69	4	.2	-6	.1	.2	32	13.4	82	94	49	0	0	3	0
SCRANTON	75	60	85	52	68	3	.3	-5	.2	.3	41	11.4	83	91	55	0	0	4	0
RI PROVIDENCE	77	60	94	52	68	5	.2	-5	.2	.2	39	19.7	98	93	55	2	0	2	0
SC CHARLESTON	88	69	95	64	78	3	1.1	-3	1.1	1.1	93	22.1	116	96	51	3	0	2	1
COLUMBIA	92	66	97	57	79	4	2.2	1.2	1.3	2.2	263	22.8	105	95	37	5	0	2	2
FLORENCE	91	67	96	61	79	4	.8	-1	.7	.8	99	17.5	97	94	39	4	0	2	1
GREENVILLE	90	63	95	57	77	4	1.3	.3	1.2	1.3	157	21.9	92	99	39	4	0	2	1
SD ABERDEEN	81	51	97	44	66	3	T	-7	T	T	0	5.3	74	87	36	2	0	0	0
HURON	83	52	98	47	67	4	T	-8	T	T	0	8.9	115	84	33	2	0	0	0
RAPID CITY	78	48	89	40	63	2	T	-7	T	T	2	6.3	87	79	32	0	0	2	0
SIOUX FALLS	81	54	94	46	68	3	T	-9	T	T	0	6.9	74	77	35	2	0	0	0
TN CHATTANOOGA	87	65	91	58	76	4	.9	.2	.5	.9	145	26.2	103	100	47	2	0	3	0
KNOXVILLE	86	61	90	52	73	1	.4	-5	.4	.4	47	19.4	86	98	45	1	0	1	0
MEMPHIS	88	67	91	61	78	2	T	-9	T	T	0	17.6	68	84	42	2	0	0	0
NASHVILLE	86	64	89	54	75	2	.4	-5	.2	.4	47	13.4	56	93	46	0	0	3	0
TX ABILENE	80	61	85	55	71	-7	.4	-3	.4	.4	74	11.5	125	90	45	0	0	1	0
AMARILLO	78	54	84	48	66	-6	1.1	.3	1.1	1.1	156	9.0	140	94	40	0	0	1	1
AUSTIN	82	67	86	64	74	-5	3.8	2.9	2.0	3.6	486	15.9	116	92	63	0	0	4	3
BEAUMONT	88	71	90	70	80	1	.6	-5	.4	.6	62	22.0	103	92	57	1	0	2	0
BROWNSVILLE	88	73	91	67	81	-1	.3	-3	.2	.3	54	8.5	114	95	59	2	0	2	0
CORPUS CHRISTI	86	70	88	66	78	-3	3.0	2.1	1.4	1.7	204	15.6	158	97	65	0	0	4	2
DEL RIO	80	64	87	62	72	-10	3.6	3.2	1.5	3.6	997	14.0	225	91	68	0	0	5	3
EL PASO	87	57	97	50	72	-6	T	-1	T	T	0	1.6	101	69	24	2	0	0	0
FORT WORTH	84	65	88	60	75	-4	.2	-5	.1	.2	32	12.8	86	94	43	0	0	2	0
GALVESTON	85	76	87	74	80	1	.2	-6	.2	.2	27	13.4	95	82	60	0	0	1	0
HOUSTON	88	71	89	67	80	1	.6	-5	.5	.5	56	14.0	74	92	56	0	0	3	0
LUBBOCK*	81	58	87	53	69	-5	1.0	.3	1.0	0	0	5.8	97	96	40	0	0	1	1
MIDLAND*	80	58	86	54	69	-8	1.0	.6	.9	T	3	8.1	175	94	45	0	0	2	1
SAN ANGELO	78	60	83	54	69	-10	1.2	.7	.9	.3	70	19.7	286	95	57	0	0	3	1
SAN ANTONIO	81	66	87	64	74	-6	6.4	5.6	2.4	4.2	604	25.5	217	93	64	0	0	4	4
VICTORIA	86	69	87	67	77	-3	4.1	3.0	1.8	4.0	401	16.0	119	98	65	0	0	7	3
WACO	85	63	88	59	74	-5	.7	-1	.5	.7	106	13.1	88	100	55	0	0	2	0
WICHITA FALLS	84	62	87	56	73	-4	T	-8	T	T	0	18.3	157	91	43	0	0	0	0
UT BLANDING	84	52	87	46	68	5	0	-1	0	0	0	5.0	112	45	17	0	0	0	0
CEDAR CITY	83	46	89	39	65	2	T	-1	T	T	0	4.8	108	66	17	0	0	0	0
VT SALT LAKE CITY	81	53	89	45	67	4	.1	-1	.1	.1	64	7.8	95	57	20	0	0	1	1
VA BURLINGTON	77	58	88	42	67	6	2.5	1.7	1.3	1.2	173	9.0	75	94	53	0	0	5	1
NORFOLK	84	68	92	62	76	5	2.2	1.4	1.5	2.2	335	24.1	134	94	59	1	0	3	2
RICHMOND	85	64	90	58	75	4	4.0	3.2	1.5	3.7	561	23.7	140	98	51	2	0	4	3
ROANOKE	85	61	89	52	73	3	.1	-7	.1	.1	19	27.4	162	95	49	0	0	2	0
WA COLVILLE	68	50	79	42	57	-1	.7	.3	.4	.3	85	8.6	110	88	55	0	0	2	0
QUILLAYUTE	65	44	84	35	54	1	1.0	.2	.7	.3	45	51.4	100	96	53	0	0	3	1
SEATTLE-TACOMA	68	50	79	46	59	1	.1	-2	.1	T	3	18.6	103	87	49	0	0	2	0
SPOKANE	74	46	88	36	60	2	T	-3	T	T	0	6.6	81	79	25	0	0	1	0
YAKIMA	78	42	92	32	60	-1	T	-1	T	T	0	3.8	100	82	23	1	1	0	0
WV BECKLEY	77	56	80	48	66	3	.9	0	.6	.9	119	19.8	108	97	54	0	0	4	1
CHARLESTON	83	60	85	52	72	3	.8	.1	.7	.8	137	15.2	83	100	52	0	0	3	1
HUNTINGTON	82	61	84	53	71	2	.5	-3	.2	.5	71	17.1	94	99	58	0	0	3	0
PARKERSBURG	82	60	84	52	71	2	.4	-5	.3	.4	48	10.9	66	98	51	0	0	3	0
WI GREEN BAY	77	54	83	41	65	4	.2	-5	.1	.1	19	7.4	71	92	44	0	0	2	0
LACROSSE	82	58	89	44	70	5	.3	-7	.2	.3	35	10.8	97	84	39	0	0	2	0
MADISON	79	57	83	42	68	5	.1	-7	.1	.1	19	9.8	86	85	43	0	0	2	0
MILWAUKEE	81	61	86	51	71	10	.4	-4	.3	.1	14	12.3	101	86	46	0	0	3	0
WAUSAU	77	53	85	40	65	4	.2	-8	.1	.2	21	6.1	54	92	38	0	0	3	0
WY CASPER	79	42	91	33	61	2	.1	-3	0	T	13	6.1	103	72	14	1	0	2	0
CHEYENNE	74	47	83	40	61	2	0	-5	0	0	0	7.3	126	72	22	0	0	1	0
LANDER	78	47	88	38	63	4	.3	-2	.3	.3	69	8.8	118	56	20	0	0	1	0
SHERIDAN	77	45	89	35	61	3	T	-6	T	T	0	5.7	76	76	25	0	0	0	0
PR SAN JUAN	88	76	89	74	82	1	1.3	.1	.9	1.2	111	30.5	172	93	75	0	0	3	1

Based on 1951-80 normals.

Cooling Degree Day Summary Table

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

LAST DATE OF DATA COLLECTION PERIOD IS 6-6-1987  
ACCUMULATIONS ARE FROM JANUARY 1  
\*\* = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

STATE CITY	CALL	WEEK TOTAL	WEEK DEV FROM NORM	WEEK DEV L YR	CUM TOTAL	CUM DEV FROM NORM	CUM DEV FROM L YR	CUM DEV FROM PRCT	CUM DEV FROM L YR	STATE CITY	CALL	WEEK TOTAL	WEEK DEV FROM NORM	WEEK DEV L YR	CUM TOTAL	CUM DEV FROM NORM	CUM DEV FROM L YR	CUM DEV FROM PRCT	CUM DEV FROM L YR
AL BIRMINGHAM	BHM	81	14	-1	398	69	34	21	18	MT KALISPELL	ECA	2	2	-23	2	2	-64	**	**
AL MOBILE	MOB	102	7	-8	553	-37	40	-6	8	MT MILES CITY	MLS	34	20	-12	118	88	27	**	**
AL MONTGOMERY	MGM	106	24	8	477	37	42	8	10	MT MISSOULA	MSO	8	7	-28	8	7	-65	**	**
AK ANCHORAGE	ANC	0	0	0	0	0	0	**	**	MT GRAND ISLAND	GRI	33	0	-16	157	79	73	**	**
AK BARROW	BRW	0	0	0	0	0	0	**	**	NE LINCOLN	LAK	36	1	-17	291	106	87	**	**
AK FAIRBANKS	FAI	0	-3	0	0	-3	0	**	**	NE NORFOLK	NFK	35	5	1	179	108	114	**	**
AK JUNEAU	JNU	0	0	0	0	0	0	**	**	NE NORTH PLATTE	NPT	20	-1	6	81	38	53	**	**
AK KODIAK	KDK	0	0	0	0	0	0	**	**	NE OMAHA	OMA	38	-2	-9	217	96	109	79	101
AK NOME	ONE	0	0	0	0	0	0	**	**	NE SCOTTSBLUFF	SFB	23	6	1	46	18	23	**	**
AZ FLAGSTAFF	FLG	0	0	0	0	0	0	**	**	NE VALENTINE	VNT	33	15	20	96	66	63	**	**
AZ PHOENIX	PHX	180	55	5	1194	496	-53	71	-4	NE WY	ELY	3	3	-2	3	3	-2	**	**
AZ PRESCOTT	PRC	35	21	11	36	11	-36	**	**	NV LAS VEGAS	LAS	126	25	-33	565	101	-146	22	-21
AZ TUCSON	TUS	125	24	-2	605	137	-157	29	-21	NV RENO	RNO	12	8	-25	48	28	-38	**	**
AZ WINSLOW	INW	47	16	11	174	101	82	**	**	NV WINNEMUCCA	WNC	20	13	21	53	31	-18	**	**
AZ YUMA	YUM	180	50	9	1142	286	-96	33	-8	NH CONCORD	CON	26	20	23	58	45	13	**	**
AR FORT SMITH	FSM	62	-4	-17	423	143	123	51	41	NJ ATLANTIC CITY	ACY	41	20	-11	110	68	-30	**	**
AR LITTLE ROCK	LRL	72	-2	1	514	194	160	61	45	NM ALBUQUERQUE	ABQ	29	-12	1	44	-49	-35	**	**
CA BAKERSFIELD	BFL	93	16	20	498	138	202	39	70	NM CLOVIS	CVS	29	-17	4	147	35	18	31	14
CA EUREKA	EKA	0	0	0	0	0	0	**	**	NM ROSWELL	ROW	41	-36	-5	161	-128	-137	-44	-46
CA FRESNO	FAT	89	36	6	441	219	89	99	25	NY ALBANY	ALB	34	21	21	87	56	26	**	**
CA LOS ANGELES	LAX	7	-2	2	87	23	-2	**	**	NY BINGHAMTON	BNM	16	13	6	56	47	11	**	**
CA RED BLUFF	RBL	76	17	19	357	125	118	54	49	NY BUFFALO	BFB	38	28	25	108	78	62	**	**
CA SACRAMENTO	SAC	60	27	46	259	126	139	95	116	NY NEW YORK	LGA	55	30	8	133	64	-15	**	**
CA SAN DIEGO	SAN	9	-5	1	73	-2	-11	**	**	NY ROCHESTER	ROC	36	22	33	108	73	59	**	**
CA SAN FRANCISCO	SFO	14	14	14	48	48	45	**	**	NY SYRACUSE	SYR	32	20	17	102	69	34	**	**
CA STOCKTON	SKN	59	15	35	289	132	146	84	102	NC ASHEVILLE	AVL	36	8	4	133	48	56	**	**
CO DEVER	DEI	16	1	4	33	7	8	**	**	NC CAPE HATTERAS	HAT	73	28	-1	204	44	-28	27	-12
CO GRAND JUNCTION	GJT	3	-1	-25	68	-20	-25	**	**	NC CHARLOTTE	CLT	87	30	7	330	97	-9	42	-3
CO PUEBLO	PUB	14	-16	-9	43	-23	2	**	**	NC GREENSBORO	GSO	70	24	8	233	42	8	22	4
CT BRIDGEPORT	BDR	32	21	7	64	37	-8	**	**	NC NEW BERN	BNB	99	36	20	342	72	23	27	7
CT HARTFORD	HDF	44	27	16	101	62	7	**	**	NC RALEIGH DURHAM	RDU	75	25	11	242	48	-9	25	-4
DE WILMINGTON	ILG	60	33	1	139	72	-33	**	**	NC WILMINGTON	ILM	90	24	6	325	7	-91	2	-22
DC WASHINGTON	DCA	76	31	5	211	65	-20	45	-9	ND BISMARCK	BIS	19	10	-3	60	41	26	**	**
FL APALACHICOLA	AQQ	104	12	-2	526	-29	41	-5	8	ND FARGO	FAR	22	8	-8	98	67	39	**	**
FL DAYTONA BEACH	DAB	92	2	-17	544	-172	-50	-24	-8	ND GRAND FORKS	GFK	23	9	-5	77	38	1	**	**
FL FORT MEYER	FMY	124	19	-4	1031	-52	-75	-5	-7	ND WILLISTON	ISN	27	20	-1	63	45	18	**	**
FL JACKSONVILLE	JAX	97	10	-11	459	-83	-79	-15	-15	OH AKRON-CANTON	CAK	26	8	-5	109	57	25	**	**
FL KEY WEST	KEY	127	8	-2	1396	-203	-32	-13	-2	OH CLEVELAND	CLE	33	16	10	139	90	70	**	**
FL MIAMI	MIA	125	20	0	1267	-54	158	-4	14	OH COLUMBUS	CVG	37	7	-2	180	91	32	**	**
FL ORLANDO	MCO	117	13	-4	748	-208	-75	-22	-9	OH CINCINNATI	CVG	41	6	2	235	119	86	103	58
FL TALLAHASSEE	TLH	105	16	-7	502	-43	21	-8	4	OH DAYTON	DAY	38	5	-2	182	81	36	80	25
FL TAMPA	TPA	117	14	-11	773	-151	-83	-16	-10	OH TOLEDO	TOL	27	6	12	128	76	73	**	**
FL WEST PALM BEACH	PBI	117	16	-3	1066	-59	-29	-5	-3	OH YOUNGSTOWN	YNG	30	16	6	113	73	45	**	**
GA ATLANTA	ATL	98	34	21	403	133	47	49	13	OK OKLAHOMA CITY	OKC	55	-6	-15	374	122	80	48	27
GA AUGUSTA	ACS	99	25	5	432	74	-1	23	0	OK TULSA	TUL	60	-6	-13	443	161	143	57	48
GA MCON	MKN	109	27	7	488	50	8	11	2	OR ASTORIA	AST	6	6	6	8	6	**	**	
GA SAVANNAH	SAV	103	20	-9	491	17	-99	4	-17	OR BURNS	BRN	3	0	-28	5	-5	-74	**	**
HI HILO-HAWAII	HLO	72	9	-2	1138	19	-274	2	-19	OR MEDFORD	MEF	35	26	-27	111	87	-14	**	**
HI HONOLULU-OAHU	HNL	103	7	3	1499	-41	-247	-3	-14	OR PENDLETON	PEN	7	7	-5	57	31	-81	**	**
HI KAHULUI-MAUI	OGG	68	-16	-8	1123	-195	-227	-15	-17	OR PORTLAND	PDX	13	10	-12	54	45	0	**	**
HI LIHUE-MAUI	LII	77	-7	-4	1079	-175	-342	-14	-24	OR SALEM	SLE	3	1	-22	31	29	-12	**	**
ID BOISE	BOI	32	19	-43	117	88	-46	**	**	PA ALLENTOWN	ABE	39	28	-7	106	56	-35	**	**
ID LEWISTON	LWS	29	18	-48	138	81	-57	**	**	PA ERIE	ERI	29	23	18	115	101	58	**	**
ID POCATELLO	PIT	13	-15	-1	21	10	-22	**	**	PA HARRISBURG	CXY	43	14	1	129	47	18	**	**
IL CHICAGO	ORD	42	18	27	153	91	87	**	**	PA PHILADELPHIA	PHL	61	33	-5	153	71	-32	**	**
IL MOLINE	MLI	42	10	18	214	124	106	**	**	PA PITTSBURGH	PIT	35	15	-2	126	73	12	**	**
IL PEORIA	PIA	41	6	4	215	114	73	113	51	PA SCRANTON	AVP	27	13	-5	84	52	-16	**	**
IL QUINCY	UIN	40	0	-18	235	113	61	93	35	PA PROVIDENCE	PRO	24	12	7	60	34	10	**	**
IL ROCKFORD	RFD	36	12	21	156	91	88	**	**	SC CHARLESTON	CHS	95	19	-8	439	56	-94	15	-18
IL SPRINGFIELD	SPI	50	7	-6	274	122	62	82	30	SC COLUMBIA	CAE	102	29	9	449	64	23	17	5
IN EVANSVILLE	EVV	47	-5	-17	281	89	43	46	18	SC FLORENCE	FLO	99	27	7	407	29	-87	8	-18
IN FORT WAYNE	FWA	39	12	19	156	76	76	**	**	SC GREENVILLE	GSP	82	27	15	316	89	37	39	13
IN INDIANAPOLIS	IND	48	3	-3	190	77	65	68	52	SD ABERDEEN	ABR	23	8	2	91	58	55	**	**
IN SOUTH BEND	SNB	42	16	17	165	97	86	**	**	SD HURON	HON	32	15	19	138	194	120	**	**
IA DES MOINES	DSM	30	-4	-5	175	79	75	**	**	SD RAPID CITY	RAP	14	4	-8	59	43	28	**	**
IA DUBUQUE	DBQ	17	0	2	101	54	57	**	**	SD SIOUX FALLS	SFD	33	13	13	148	101	114	**	**
IA SIOUX CITY	SUX	37	5	-1	196	116	126	**	**	TN CHATTANOOGA	CHA	79	22	3	357	128	69	56	24
IA WATERLOO	ALO	40	17	17	153	97	92	**	**	TN KNOXVILLE	TYS	59	6	-9	279	61	45	28	19
KS CONCORDIA	CKK	35	-8	-13	210	89	103	74	96	TN MEMPHIS	MEM	90	14	1	529	181	98	52	23
KS DODGE CITY	DDC	25	-22	-14	136	-11	12	-7	10	TN NASHVILLE	BNA	72	13	8	363	121	81	50	29
KS GOODLAND	GLD	24	-1	7	83	31	42	**	**	TN ABILENE	ABI	43	-45	-24	368	-85	-193	-19	-34
KS TOPEKA	TOP	42	-22	-22	284	123	14	76											

## May Weather Summary and Crop

### MAY WEATHER SUMMARY

**HIGHLIGHTS:** Spring thunderstorms provided ample moisture to most of the Nation, but some significant areas had much less than normal rain. The area from eastern Missouri through central Illinois and the Ohio Valley had below normal rain, but showers late in the month provided surface moisture for most newly planted crops. Another relatively dry area reached from southeastern Georgia through the Carolinas and from western Virginia to the Ohio Valley. Too much rain plagued parts of Oklahoma and Texas as heavy downpours caused flooding and almost daily showers slowed work. Most of the Nation was warmer than normal. The warmest areas were across the Corn Belt and in the northern Great Plains.

Showers and thunderstorms were scattered throughout the East on the first day of the month. On the second day a Pacific storm triggered severe weather over the High Plains from Kansas and Colorado northward.

**FIRST WEEK...** Severe weather with heavy downpours shifted to eastern Texas and Oklahoma and into Arkansas. Another line of severe storms developed from the Texas Panhandle into Missouri. Lesser storms were through most of the Great Plains, across the South, and along the East Coast. It was relatively dry in the West, the upper Mississippi Valley, and through much of the Corn Belt. Most of the Nation was warmer than normal, but the southern Rockies and High Plains, most of the Ohio Valley, and the East Coast States were warmer than normal.

**SECOND WEEK...** Scattered, light showers in the upper Mississippi Valley and from Illinois eastward provided needed surface moisture. Severe weather continued to plague much of Texas. Showers and thunderstorms reached across the South and Southeast. Heavy rain showers fell in parts of Texas and in southern Alabama. Light showers were scattered over the Rockies and Intermountain area. Nearly all the Nation was warmer than normal. The Gulf and East Coast States were near normal, but parts of the northern Plains and Corn Belt were 12 to 15 degrees warmer than normal.

**THIRD WEEK...** Showers and thunderstorms were widespread in nearly all the Nation. Showers, or thunderstorms, occasionally accompanied by severe weather occurred almost daily in all the States east of the Rocky Mountains. Severe weather was most frequent in the southern Plains and the Southeast. Moderate to heavy showers covered much of the Corn Belt, but parts of the lower Ohio Valley into Tennessee had only light rain. Cool weather covered much of the West and, after midweek, pushed through the Great Lakes to New England. Freezing temperatures were in the higher elevations of the Rockies.

**FOURTH WEEK...** Warm, moist air from the Gulf of Mexico moved through the Plains and then slowly eastward. As the air heated further during the day, intense thunderstorms and heavy rain resulted. The heaviest downpours occurred from central Texas to southeast Nebraska, but the heaviest rain fell west of the Appalachians. Pacific Storms brought thundershowers to the Northwest and northern Rockies. Temperatures were as much as 9 degrees warmer than normal in the upper Ohio Valley and 9 degrees cooler than normal in the central Rockies.

### MAY FIELDWORK

Rain interrupted planting in the central Great Plains and Corn Belt during May but seeding still

progressed at a rapid pace. Dryness early in the month and wetness later caused planting to lag behind normal. Rain alleviated much of the dryness in the northern Great Plains, Rocky Mountain, Delta, and Southeast but these areas and most Western States needed additional moisture as the month ended.

At the beginning of May, corn was 48 percent seeded, 23 points ahead of normal and 13 points ahead of 1986. Planting jumped 28 points the next week and by mid-May planting was 93 percent finished. This was 26 points ahead of the average pace. Planting was near completion in all major producing States except Colorado, Kentucky, Pennsylvania, South Dakota, and Wisconsin. By month's end, corn reached the soft-dough stage in Texas. Silking was becoming more prevalent in the Southeast. Indiana and Illinois corn was two times taller than normal.

Sorghum planting reached 58 percent completion by the end of May, 9 points ahead of the 49 percent 5-year average. Heavy rain virtually halted planting in Texas and Oklahoma the last week of May leaving seeding 9 and 25 points behind normal, respectively. Some early planted sorghum was heading in Texas.

Soybeans were 75 percent seeded, 23 points ahead of the average on May 31. Planting lagged behind normal in the Southeast and Delta during most of May because of dryness.

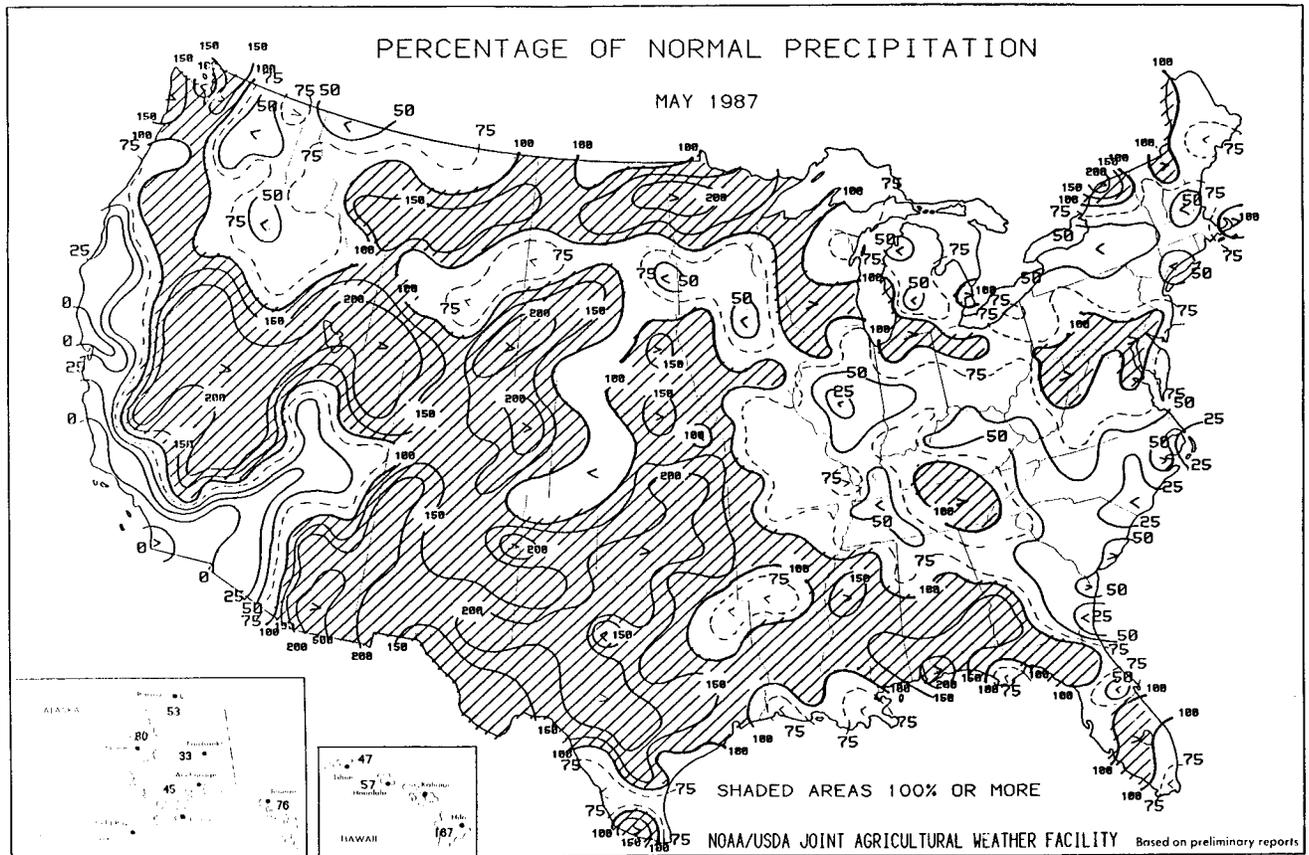
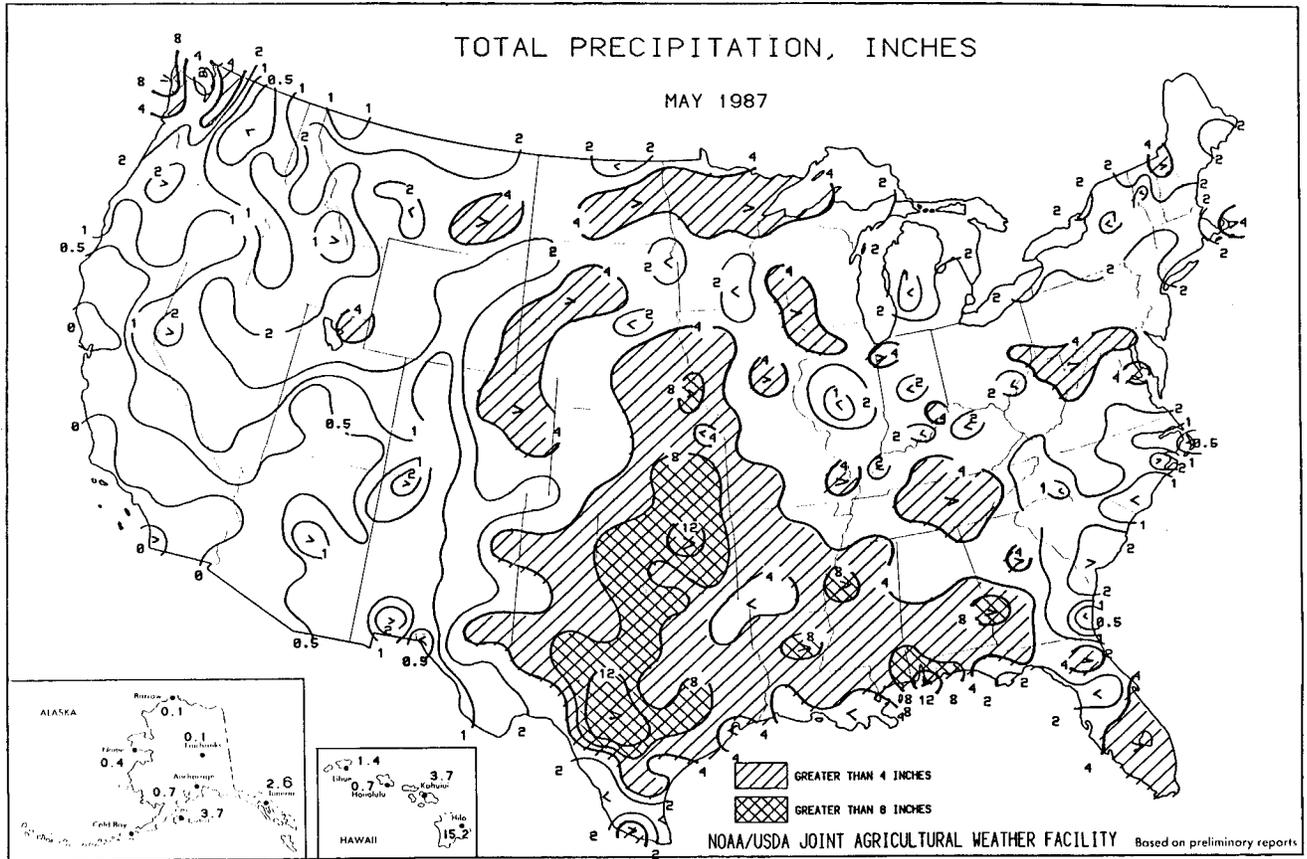
Cotton planting ended the month 4 points below normal and trailed behind normal in the Southeast and southern Great Plains States. Seeding was 71 percent finished compared with 75 percent normally and 72 percent in 1986. Dryness hampered planting in the Delta and Southeast during most of May. Heavy rain forced planting to fall 10 points behind normal in Oklahoma and 8 points in Texas. The crop was mostly good but needed moisture in Louisiana, South Carolina, Georgia, Alabama, and Tennessee. Cotton was setting bolls in Arizona by the end of May. Squares were present in California, Texas, and Georgia.

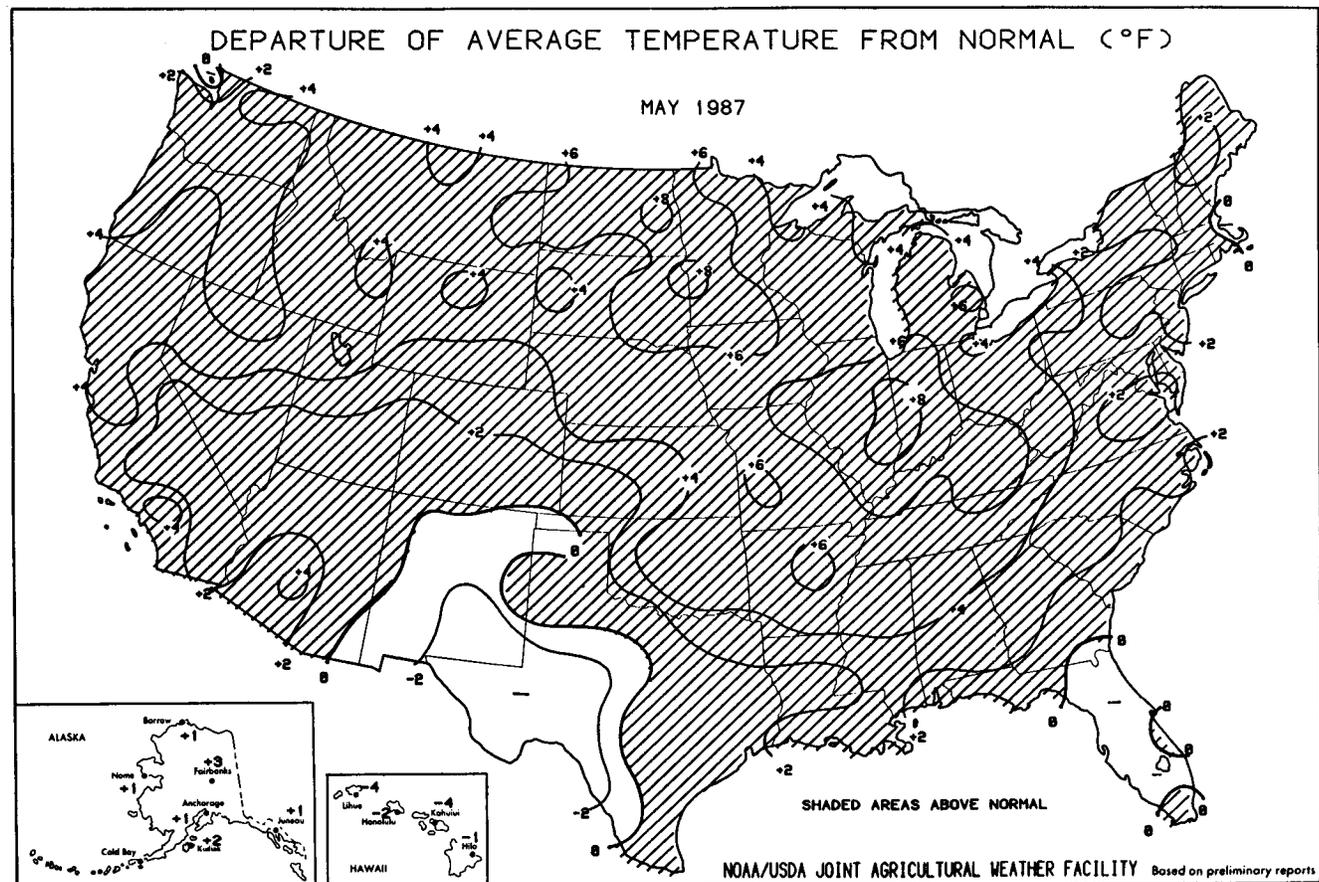
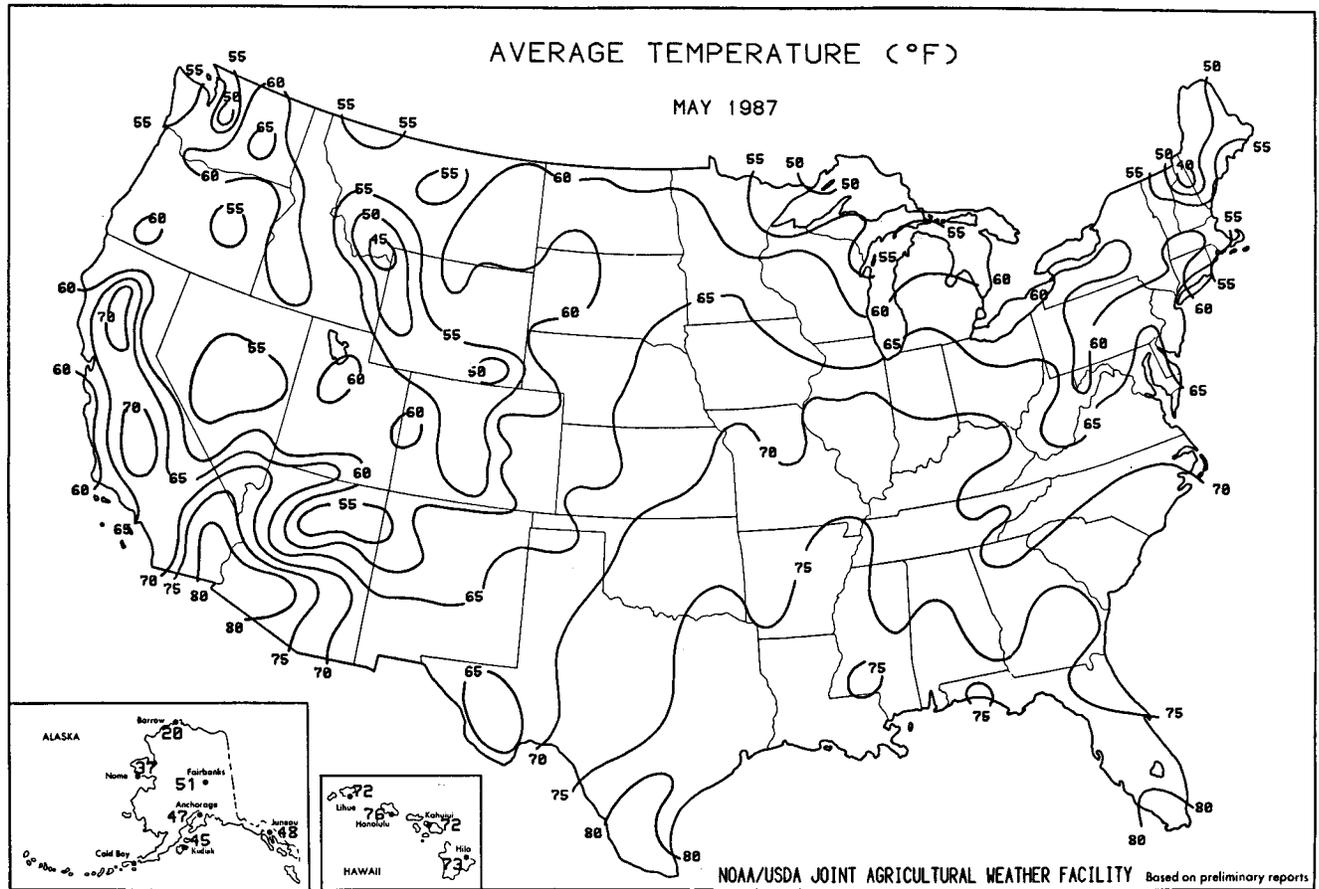
Spring wheat was mostly planted by midmonth. Planting was completed about two weeks sooner than normal. Dryness hampered germination and growth the first half of May but timely precipitation spurred development the last half of the month. As the month closed, spring wheat was jointing in Minnesota.

Winter wheat was mostly good except in the Delta and Southeast where conditions were fair to good during May. The crop was 86 percent headed compared with 81 percent in 1986 and 74 percent normally. As the month ended, harvest was underway in the Southeast and climbed as far north as Arkansas, and stretched to California. Wheat turned color as far north as Illinois.

Rice planting was virtually completed the third week of May. However, 10 percent of California acreage remained to be planted. Dryness caused uneven emergence in Arkansas which presented problems when herbicides were applied. Emergence neared completion except in California on May 31.

Peanut planting lagged behind normal during May in the major producing States. Planting approached completion in the Southeast at the end of May. Dryness caused most of the seeding delays.





Temperature and Precipitation Data for May 1987

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
AL BIRMINGHAM	74	4	3.1	-1.5	BATON ROUGE	77	2	4.3	-0.6	DAYTON	66	4	2.6	-1.1
MOBILE	76	1	10.7	5.5	LAKE CHARLES	77	2	3.5	-2.2	TOLEDO	62	4	2.3	-0.5
AK MONTGOMERY	75	3	4.8	0.9	NEW ORLEANS	77	2	3.5	-1.6	YOUNGSTOWN	62	4	2.6	-0.7
ANCHORAGE	47	1	1.5	0.9	SHREVEPORT	75	2	6.6	1.9	OK OKLAHOMA CITY	73	4	11.9	6.5
BARROW	20	1	0.2	0.1	ME CARIBOU	51	1	2.4	-0.4	TULSA	74	5	10.2	4.9
FAIRBANKS	51	3	0.2	-0.4	MD PORTLAND	54	2	2.7	-0.5	OR ASTORIA	55	3	3.8	2.7
JUNEAU	48	2	2.6	-0.8	MA BOSTON	65	2	4.2	0.7	BURNS	54	2	0.6	-0.2
KODIAK	45	2	3.7	-1.6	MD SALISBURY	65	2	2.1	-1.2	MEDFORD	62	5	1.0	-0.2
NOME	37	1	0.4	-0.2	MA CHATHAM	57	-1	1.8	-1.8	PENDLETON	60	1	0.8	-0.2
AZ FLAGSTAFF	51	1	0.7	-0.1	MI ALPENA	52	-1	4.4	-0.7	PORTLAND	60	4	1.7	-0.4
PHOENIX	83	6	0.1	-0.1	MI DETROIT	63	5	2.5	-0.3	SALEM	58	3	1.5	-0.4
PRESOTT	60	3	0.3	-0.2	FLINT	63	6	2.3	-0.5	PA ALLENTOWN	61	1	2.3	-1.2
TUCSON	74	1	0.8	0.6	GRAND RAPIDS	62	5	0.9	-1.9	ERIE	60	5	1.8	-1.3
WINSLOW	62	0	0.5	0.2	HOUGHTON LAKE	58	5	1.6	-1.0	HARRISBURG	63	1	3.7	0.0
YUMA	81	3	T	0.0	LANSING	62	5	1.3	-1.0	PHILADELPHIA	64	1	3.2	0.0
AR FORT SMITH	74	4	6.5	1.7	MARQUETTE	53	2	3.9	1.0	PITTSBURGH	63	3	2.4	-1.1
LITTLE ROCK	76	5	5.3	0.0	MUSKEGON	61	4	2.6	0.0	SCRANTON	60	1	2.2	-0.9
CA BAKERSFIELD	72	2	T	-0.2	MN SAULT ST. MARIE	53	3	2.0	-0.9	RI PROVIDENCE	59	1	1.8	-1.7
EUREKA	57	4	0.4	-1.2	SC CHARLESTON	62	6	3.9	1.0	SC CHARLESTON	73	1	2.3	-2.1
FRESNO	72	4	0.9	0.6	COLUMBIA	62	6	3.9	0.8	COLUMBIA	74	3	1.1	-2.7
LOS ANGELES	64	2	0.0	-0.1	DULUTH	53	3	3.9	0.8	FLORENCE	73	1	0.5	-2.9
REDDING	72	3	T	-1.3	INT'L FALLS	56	5	3.1	0.7	GREENVILLE	71	2	1.3	-2.6
SACRAMENTO	69	4	0.0	-0.3	MINNEAPOLIS	63	5	1.9	-1.3	SD ABERDEEN	62	5	2.0	-0.6
SAN DIEGO	65	1	T	-0.2	ROCHESTER	61	4	2.1	-1.3	HURON	65	7	2.3	-0.4
SAN FRANCISCO	62	4	0.1	-0.2	ST. CLOUD	60	4	2.2	-1.1	RAPID CITY	60	4	3.4	0.8
STOCKTON	70	4	T	-0.3	MS GREENWOOD	76	4	6.5	1.7	STOUX FALLS	65	7	2.9	-0.3
CO DENVER	60	3	4.6	2.2	JACKSON	76	3	5.0	0.1	TN CHATTANOOGA	73	5	5.0	1.0
GRAND JUNCTION	61	-1	1.6	0.8	MERIDIAN	75	3	5.7	1.5	KNOXVILLE	71	4	4.6	0.9
PUEBLO	62	1	2.1	0.6	MO COLUMBIA	69	4	2.8	-1.8	MEMPHIS	77	5	3.0	-2.1
CT BRIDGEPORT	59	1	1.2	-2.2	KANSAS CITY	71	5	4.7	0.3	NASHVILLE	73	5	4.4	-0.1
HARTFORD	61	1	2.2	-1.2	SAINT LOUIS	73	7	2.0	-1.5	TX ABILENE	72	0	4.6	1.3
DC WASHINGTON	67	1	2.5	-0.9	SPRINGFIELD	71	6	5.4	1.1	AMARILLO	65	-1	4.3	1.5
FL APALACHICOLA	75	0	2.0	-1.0	MT BILLINGS	60	5	3.8	1.4	AUSTIN	76	1	6.8	2.6
DAYTONA BEACH	74	-1	2.7	-0.7	GLASGOW	60	5	1.7	0.2	BEAUMONT	77	2	4.4	-0.5
FT. MYERS	79	1	4.1	0.0	GREAT FALLS	58	5	2.6	0.1	BROWNSVILLE	80	0	1.5	-0.6
JACKSONVILLE	73	-2	0.8	-3.5	HAVRE	59	4	1.0	-0.7	CORPUS CHRISTI	78	0	4.2	0.8
KEY WEST	80	0	2.4	-0.9	HELENA	56	4	1.9	0.2	DEL RIO	75	-2	3.9	1.9
MIAMI	79	0	5.0	-1.5	KALISPELL	55	3	0.8	-0.9	EL PASO	69	-4	0.2	0.0
ORLANDO	77	-1	1.4	-2.3	MILES CITY	63	6	4.1	1.8	FORT WORTH	75	2	5.9	1.6
TALLAHASSEE	75	1	6.2	1.0	MISSOULA	56	4	1.3	-0.3	GALVESTON	77	2	3.8	0.4
TAMPA	78	1	2.9	-0.5	NE GRAND ISLAND	66	5	4.9	1.2	HOUSTON	77	2	5.4	0.6
WEST PALM BEACH	78	0	5.6	-0.4	LINCOLN	67	5	4.0	0.2	LUBBOCK	69	0	3.3	0.7
GA ATLANTA	73	4	2.8	-1.3	NORFOLK	66	5	5.6	1.9	MIDLAND	69	-3	4.1	2.1
AUGUSTA	73	2	1.6	-2.1	63	5	3.2	-0.2	SAN ANGELO	71	-3	11.2	8.7	
MACON	75	2	2.8	-1.0	OMAHA	67	4	6.2	1.9	SAN ANTONIO	76	0	12.8	9.2
SAVANNAH	74	1	3.8	-0.8	SCOTTSBLUFF	60	3	7.2	4.6	VICTORIA	77	1	5.0	0.5
HI HILO	73	-1	15.7	6.3	VALENTINE	63	5	3.8	0.8	WACO	75	1	5.1	0.4
HONOLULU	76	-1	0.7	-0.5	NV ELKO	56	4	1.8	0.8	WICHITA FALLS	73	1	10.2	5.9
KAHULUI	73	-3	3.7	3.2	ELY	52	2	2.3	1.3	UT BLANDING	58	2	0.4	-0.2
LIHUE	72	-3	1.9	-1.1	LAS VEGAS	75	1	0.9	0.7	CEDAR CITY	57	0	0.9	0.1
ID BOISE	62	5	0.7	-0.5	RENO	60	5	2.3	1.6	MILFORD	57	1	0.2	-0.5
LEWISTON	62	4	0.8	-0.6	WINNEMUCCA	59	4	3.4	2.6	SALT LAKE CITY	63	4	2.4	1.0
POCATELLO	58	4	2.0	0.8	NH CONCORD	56	1	1.1	-1.9	VT BURLINGTON	55	0	2.7	-0.2
IL CAIRO	76	7	4.0	-0.9	NJ ATLANTIC CITY	61	1	3.0	-0.1	VA NORFOLK	68	2	2.7	-1.1
CHICAGO	63	4	2.2	-0.9	NM ALBUQUERQUE	63	-2	0.6	0.1	RICHMOND	67	1	3.0	-0.6
MOLINE	67	5	3.4	-0.8	CLOVIS	67	2	2.9	0.8	ROANOKE	67	2	2.7	-0.8
PEORIA	68	7	1.7	-2.2	ROSWELL	68	-2	1.5	0.8	WA COLVILLE	59	5	1.6	0.0
QUINCY	69	6	3.2	-1.2	NY ALBANY	60	2	1.5	-1.8	QUILLAYUTE	53	2	8.5	3.3
ROCKFORD	64	5	3.7	0.0	BINGHAMTON	58	2	1.3	-1.9	SEATTLE-TACOMA	57	2	2.4	0.8
SPRINGFIELD	71	7	0.5	-2.9	BUFFALO	60	4	1.4	-1.5	SPOKANE	57	3	0.9	-0.5
IN EVANSVILLE	72	6	3.9	-0.5	63	1	1.1	-2.3	WALLA WALLA	64	4	1.2	-0.2	
FORT WAYNE	64	4	3.4	-0.1	ROCHESTER	60	3	1.2	-1.4	YAKIMA	60	3	0.1	-0.4
INDIANAPOLIS	68	6	1.8	-1.9	SYRACUSE	60	3	1.4	-1.7	WV BECKLEY	64	5	2.5	-1.1
SOUTH BEND	65	6	3.6	0.8	NC ASHEVILLE	67	3	2.0	-2.1	CHARLESTON	68	4	2.5	-1.2
IA DES MOINES	67	5	3.8	-0.2	CHARLOTTE	72	3	1.0	-2.6	ELKINS	61	3	3.9	0.1
DUBUQUE	62	4	5.2	0.8	GREENSBORO	69	2	2.5	-0.9	HUNTINGTON	69	4	3.6	-0.3
SIoux CITY	66	5	4.2	0.8	HATTERAS	68	1	0.4	-3.6	PARKERSBURG	66	3	1.9	-1.6
WATERLOO	65	6	3.1	-1.1	NEW BERN	71	2	2.4	-2.1	WI GREEN BAY	59	4	2.6	-0.5
KS CONCORDIA	68	4	6.1	2.1	RALEIGH	69	2	1.2	-2.5	LACROSSE	64	4	4.6	1.0
DODGE CITY	65	1	2.6	-0.7	WILMINGTON	71	0	0.9	-3.3	MADISON	61	4	3.9	0.6
GOODLAND	63	4	3.5	0.6	ND BISMARCK	60	5	4.2	2.0	MILWAUKEE	60	5	3.8	1.1
TOPEKA	70	6	3.9	-0.1	FARGO	62	6	3.5	1.3	WAUSAU	60	4	2.9	-0.9
WICHITA	70	4	8.0	4.2	GRAND FORKS	61	6	3.8	1.8	WY CASPER	58	5	1.5	-0.7
KY BOWLING GREEN	71	4	4.6	0.5	WILLISTON	60	5	2.0	0.2	CHEYENNE	54	2	4.4	2.0
JACKSON	70	8	2.3	-1.2	OH AKRON-CANTON	62	3	2.6	-0.9	LANDER	58	5	2.3	-0.4
LEXINGTON	70	6	1.8	-2.4	CINCINNATI	69	6	2.8	-1.1	SHERIDAN	58	5	2.8	0.4
LOUISVILLE	71	6	1.6	-2.5	CLEVELAND	63	4	2.4	-0.9	PR SAN JUAN	82	2	12.2	6.3
LA ALEXANDRIA	75	0	5.5	-0.7	COLUMBUS	66	4	2.9	-0.9					

BASED ON 1951-80 NORMALS.

## Heating Degree Days (Base 65° F)

## May 1987

ALA. Birmingham . . . . .	0	MAINE, Caribou . . . . .	442	OKLA. Okla. City . . . . .	3
Mobile . . . . .	0	Portland . . . . .	343	Tulsa . . . . .	0
Montgomery . . . . .	0	MD. Baltimore . . . . .	106	OREG. Astoria . . . . .	306
ALASKA, Anchorage . . . . .	871	MASS. Boston . . . . .	285	Burns U. . . . .	331
Barrow . . . . .	1380	Nantucket . . . . .	291	Medford . . . . .	144
Fairbanks . . . . .	428	MICH. Alpena . . . . .	332	Pendleton . . . . .	201
Juneau . . . . .	525	Detroit . . . . .	158	Portland . . . . .	173
Nome . . . . .	863	Flint . . . . .	174	Salem . . . . .	237
ARIZ. Flagstaff . . . . .	435	Grand Rapids . . . . .	178	PA. Allentown . . . . .	178
Phoenix . . . . .	0	Houghton Lake . . . . .	271	Erie . . . . .	225
Tucson . . . . .	0	Lansing . . . . .	114	Harrisburg . . . . .	142
Winslow . . . . .	87	Marquette U . . . . .	387	Philadelphia . . . . .	129
Yuma . . . . .	0	S. Ste. Marie . . . . .	393	Pittsburgh . . . . .	145
ARK. Fort Smith . . . . .	0	MINN. Duluth . . . . .	376	Scranton . . . . .	208
Little Rock . . . . .	0	Internatl Falls . . . . .	299	R. I. Providence . . . . .	228
CALIF. Bakersfield . . . . .	24	Minneapolis . . . . .	134	S. C. Charleston . . . . .	7
Eureka U. . . . .	260	Rochester . . . . .	173	Columbia . . . . .	5
Fresno . . . . .	26	St. Cloud . . . . .	221	Greenville . . . . .	15
Los Angeles U . . . . .	44	MISS. Jackson . . . . .	0	S. DAK. Aberdeen . . . . .	134
Redding . . . . .	13	Meridian . . . . .	0	Huron . . . . .	96
Sacramento . . . . .	37	Vicksburg U . . . . .	0	Rapid City . . . . .	199
San Diego . . . . .	21	MO. Columbia . . . . .	19	Sioux Falls . . . . .	96
San Francisco . . . . .	128	Kansas City . . . . .	15	TENN. Chattanooga . . . . .	0
COLO. Denver . . . . .	170	St. Louis . . . . .	10	Knoxville . . . . .	13
Grand Junction . . . . .	143	Springfield . . . . .	1	Memphis . . . . .	0
Pueblo . . . . .	119	MONT. Billings . . . . .	183	Nashville . . . . .	6
CONN. Bridgeport . . . . .	232	Glasgow . . . . .	185	TEX. Abilene . . . . .	1
Hartford . . . . .	191	Great Falls . . . . .	246	Amarillo . . . . .	70
D. C. Washington . . . . .	68	Havre . . . . .	226	Austin . . . . .	0
FLA. Apalachicola . . . . .	0	Helena . . . . .	276	Beaumont . . . . .	0
Ft. Myers . . . . .	0	Kalispell . . . . .	309	Brownsville . . . . .	0
Jacksonville . . . . .	0	Miles City . . . . .	148	Corpus Christi . . . . .	0
Key West . . . . .	0	Missoula . . . . .	273	Dallas . . . . .	--
Lakeland U. . . . .	--	NEBR. Grand Island . . . . .	68	Del Rio . . . . .	0
Miami . . . . .	0	Lincoln . . . . .	51	El Paso . . . . .	5
Orlando . . . . .	0	Norfolk . . . . .	81	Fort Worth . . . . .	0
Pensacola U . . . . .	--	North Platte . . . . .	102	Galveston U. . . . .	0
Tallahassee . . . . .	0	Omaha . . . . .	72	Houston . . . . .	0
Tampa . . . . .	0	Valentine . . . . .	124	Lubbock . . . . .	25
GA. Atlanta . . . . .	6	NEV. Ely . . . . .	408	Midland . . . . .	14
Augusta . . . . .	5	Las Vegas . . . . .	1	San Angelo . . . . .	0
Macon . . . . .	2	Reno . . . . .	182	San Antonio . . . . .	0
Savannah . . . . .	5	Winnemucca . . . . .	221	Victoria . . . . .	0
IDAHO, Boise . . . . .	140	N. H. Concord . . . . .	296	Waco . . . . .	0
Lewiston . . . . .	138	N. J. Atlantic City . . . . .	190	Wichita Falls . . . . .	1
Pocatello . . . . .	231	Trenton U . . . . .	--	UTAH, Milford . . . . .	236
ILL. Cairo U. . . . .	1	N. MEX. Albuquerque . . . . .	81	Salt Lake City . . . . .	123
Chicago . . . . .	162	Roswell . . . . .	22	VT. Burlington . . . . .	328
Moline . . . . .	101	N. Y. Albany . . . . .	210	VA. Lynchburg . . . . .	55
Peoria . . . . .	53	Binghamton . . . . .	260	Norfolk . . . . .	58
Rockford . . . . .	143	Buffalo . . . . .	213	Richmond . . . . .	57
Springfield . . . . .	34	New York . . . . .	148	Roanoke . . . . .	58
IND. Evansville . . . . .	19	Rochester . . . . .	234	WASH. Colville . . . . .	205
Fort Wayne . . . . .	128	Syracuse . . . . .	211	Omak . . . . .	--
Indianapolis . . . . .	51	N. C. Asheville . . . . .	40	Quillayute . . . . .	380
South Bend . . . . .	139	Charlotte . . . . .	9	Seattle-Tacoma . . . . .	253
IOWA, Burlington . . . . .	--	Greensboro . . . . .	34	Spokane . . . . .	253
Des Moines . . . . .	58	Hatteras R. . . . .	42	Walla Walla U. . . . .	113
Dubuque . . . . .	149	Raleigh . . . . .	29	Yakima . . . . .	189
Sioux City . . . . .	76	Wilmington . . . . .	25	W. VA. Beckley . . . . .	92
KANS. Concordia . . . . .	37	N. DAK. Bismarck . . . . .	189	Charleston . . . . .	63
Dodge City . . . . .	63	Fargo . . . . .	163	Huntington . . . . .	53
Goodland . . . . .	111	Williston U . . . . .	190	Parkersburg U. . . . .	--
Topeka . . . . .	16	OHIO. Akron-Canton . . . . .	160	WIS. Green Bay . . . . .	240
Wichita . . . . .	14	Cincinnati U. . . . .	52	Madison . . . . .	192
KY. Lexington . . . . .	39	Cleveland . . . . .	170	Milwaukee . . . . .	236
Louisville . . . . .	21	Columbus . . . . .	103	WYO. Casper . . . . .	235
LA. Baton Rouge . . . . .	0	Dayton . . . . .	98	Cheyenne . . . . .	321
Lake Charles . . . . .	0	Toledo . . . . .	173	Lander . . . . .	239
New Orleans . . . . .	0	Youngstown . . . . .	185	Sheridan . . . . .	219
Shreveport . . . . .	0				

Preliminary reports from airport locations, except those marked U for urban and R for rural.

\*Estimated.

## National Agricultural Summary

June 1 to 7, 1987

**HIGHLIGHTS:** Rain across the Corn Belt spurred crop development and growth. Excessive moisture in Oklahoma and Texas hindered planting and promoted crop diseases. Scattered precipitation interrupted planting in the Southeast but provided much needed moisture. Soil moisture was generally adequate in the eastern half of the Nation but was becoming short in the northern Corn Belt and northern Great Plains. Inadequate moisture supplies existed in the Appalachian States. Fieldwork averaged 5 to 6 days in most areas but dropped below 5 days in the central and eastern Corn Belt and southern Great Plains.

Winter wheat was 93 percent (%) headed, 7 percentage points ahead of normal. Harvest was 4% finished, compared with the 5% 5-year average. Wheat turned color rapidly in the central Plains and some Corn Belt States. Corn was mostly good. Development and growth were about 2 weeks ahead of schedule in most areas. Silking was prevalent in the Delta and Southeast. Corn reached the soft-dough stage in Texas and Georgia. Soybeans were 85% seeded, 10 points above the previous week and 17 points above the average. Sorghum seeding reached 70% completion. Seeding continued lagging behind normal in Oklahoma and Texas. Cotton planting trailed 3 points behind normal at 81% completion. Rain halted seeding in Oklahoma. Significant acreage may be replanted in some areas of Texas because of seedling disease. Squares were present on 14% of the acreage. Livestock was mostly good.

**SMALL GRAINS:** Winter wheat was mostly good, except the condition was fair to good in the Delta and southern Great Plains. Rain aided growth and development across the Corn Belt. Winter wheat was 93% headed, compared with 90% in 1986 and the 86% average. Heading was finished or neared completion in all States except Idaho, Montana, and South Dakota. Harvest was 4% finished but was limited to the southern half of the Nation. Wheat continued turning color in the central Plains and Corn Belt. Test cutting was underway in extreme southern Kansas. Leaf rust was the most prevalent disease in Kansas. Nebraska's wheat was turning color about 2 weeks ahead of normal. Russian aphids were still a problem. Spring wheat was mostly good to fair. Sixty-four percent of Minnesota's spring wheat reached the jointing stage and 5% was heading. This compares with 18% jointing and none heading normally. About half of North Dakota's acreage was jointing.

**CORN:** Corn was mostly good and even excellent in some central Plains States. Rain provided additional moisture for growth and development throughout most of the central and eastern Corn Belt. Moisture was becoming a little short in northern Corn Belt, but crop condition remained good. Corn development was nearly twice the norm in Illinois. First generation European corn borers were evident in eastern Kansas and east-central Nebraska. Silking was becoming more prevalent throughout the Delta and Southeast. Corn was tasseling in the Blackland and southern and eastern Texas. Many fields reached dough stage at Coastal-Bend and in the Rio Grande Valley. In Georgia some acreage was in the dough stage.

**SOYBEANS:** In the 19 major producing States, soybeans were 85% planted, 17 points ahead of the average and 14 points above 1986. Seeding continued its rapid pace, gaining 10 points from the previous week. Planting almost caught up in the Southeast with South Carolina and North

Carolina only 3 and 6 points behind normal, respectively. Planting neared completion in the Corn Belt. Planting was 35 points ahead of normal in Michigan and was ahead of normal by at least 15 points in all the Corn Belt and central and northern Plain States.

**SORGHUM:** Sorghum planting in the 11 major producing States was 70% finished, up 12 points from the previous week and 11 points ahead of the average. Seeding surpassed the average in all States except Oklahoma and Texas. Despite a 10-point gain in Oklahoma, seeding still lagged 25 points behind the average. Texas planting was 75% finished compared with 83% normally. Planting was virtually finished except in the Plain States. Sorghum was heading from central Texas to the Valley. Rain slowed planting in the Plains and at Cross Timbers. Considerable replanting may be necessary in the hill country of Texas.

**COTTON:** Cotton was 81% seeded, 3 points below average but 2 points above 1986. Most acreage in the Nation was seeded except in Oklahoma and Texas. Planting remained at 30% completion in Oklahoma and fell 20 points behind normal. Planting progressed slowly in Texas, bringing the week's completion to 67%, 6 points below the average. Squares were present on 14% of the acreage, compared with 10% normally. Cotton developed normally in California. Insecticides were applied to control mites and lygus. Hail-damaged cotton in Pima County Arizona began recovering. Pin bollworm infestation was monitored. Seedling disease may cause extensive replanting in the Plains and Cross Timbers areas of Texas. Cotton was setting bolls at Coastal Bend, in the Rio Grande Valley, and in southern Texas.

**OTHER CROPS:** Peanut planting drew to a close in the Southeast. Peanuts were pegging in Alabama and pegging and blooming in Georgia. Rain slowed planting in Texas. Thirty-four percent of the acreage was seeded, 6 points behind normal. Early planted peanuts were up to good stands in the Low Plains.

Flue-cured tobacco was virtually transplanted. Burley tobacco was 82 and 90% transplanted in Tennessee and Kentucky, respectively. Black shank disease, cut worms, and beetles were present in Tennessee. Transplanting reached 84% completion in Virginia.

**FRUIT AND NUTS:** Peach harvest was active in the Southeast. Twenty percent of Georgia's crop was harvested. Peaches were 8% harvested in Louisiana.

Dryness existed throughout Florida's citrus producing area. Irrigation continued, but more rain is needed. New crop fruit was very good. Valencia orange harvest slowed.

Split fruit, droppage, and small fruit size plagued southern California valencia orange growers. San Joaquin Valley vineyard growth was rapid. Apricots, avocados, Bing cherries, early variety stonefruit, lemons, and Coachella Valley table grapes were harvested. Grapes sized, colored, and matured normally in Arizona. Central Valley orange and grapefruit shipments were limited.

**VEGETABLES:** Dryness forced irrigation in Florida's northern vegetable producing area. Harvest neared completion in the south and declined rapidly for many crops in the central areas. Watermelons,

(Continued to back cover)

## CROP PROGRESS

FOR WEEK ENDING JUNE 7, 1987

	COTTON % PLANTED		
	1987	1986	AVG.
ALA	100	98	99
ARIZ	100	100	100
ARK	100	99	100
CALIF	100	100	100
GA	97	90	96
LA	98	100	98
MISS	100	100	100
MO	100	100	100
N MEX	95	85	84
N C	100	100	100
OKLA	30	55	50
S C	100	100	100
TENN	100	98	98
TEX	67	61	73
14 STATES	81	79	84

THESE 14 STATES PRODUCED 100%  
OF THE 1986 COTTON CROP.

	COTTON % SQUARING		
	1987	1986	AVG.
ALA	15	5	5
ARIZ	70	75	60
ARK	22	0	0
CALIF	7	5	5
GA	9	9	20
LA	20	25	10
MISS	25	18	11
MO	0	0	0
N MEX	0	25	5
N C	0	0	0
OKLA	1	0	0
S C	11	5	10
TENN	0	0	0
TEX	11	12	10
14 STATES	14	13	10

THESE 14 STATES PRODUCED 100%  
OF THE 1986 COTTON CROP.

	SOYBEANS % PLANTED		
	1987	1986	AVG.
ALA	70	56	59
ARK	70	49	47
GA	63	46	60
ILL	97	92	82
IND	95	67	69
IOWA	95	80	78
KANS	60	60	35
KY	68	42	41
LA	70	77	70
MICH	95	75	65
MINN	99	83	84
MISS	65	43	57
MO	81	63	55
NEBR	90	92	72
N C	53	57	59
OHIO	94	85	78
S C	51	51	54
S DAK	98	49	74
TENN	60	40	45

19 STATES 85 71 68

THESE 19 STATES PRODUCED 96%  
OF THE 1986 SOYBEANS CROP.

	RICE % EMERGED		
	1987	1986	AVG.
ARK	98	96	86
CALIF	90	80	68
LA	97	99	96
MISS	100	100	90
TEX	100	100	99
5 STATES	97	95	87

THESE 5 STATES PRODUCED 97%  
OF THE 1986 RICE CROP.

	WINTER WHEAT % HEADED		
	1987	1986	AVG.
ARK	100	100	NA
CALIF	100	100	100
COLO	88	91	80
GA	100	100	100
IDAHO	37	0	14
ILL	100	100	97
IND	99	98	93
KANS	100	100	96
MICH	95	70	45
MO	100	100	95
MONT	27	56	50
NEBR	99	90	80
N MEX	100	100	NA
N C	100	100	NA
OHIO	99	94	84
OKLA	100	100	100
OREG	90	82	71
S DAK	82	51	54
TEX	100	100	99
WASH	90	56	53
20 STATES	93	90	NA

EXCL. STATES WITH NA 93 90 86

THESE 20 STATES PRODUCED 91%  
OF THE 1986 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

	WINTER WHEAT % HARVESTED		
	1987	1986	AVG.
ARK	32	11	14
CALIF	10	10	7
COLO	0	0	0
GA	48	59	50
IDAHO	0	0	0
ILL	0	0	0
IND	0	0	0
KANS	0	0	0
MICH	0	0	0
MO	0	0	0
MONT	0	0	0
NEBR	0	0	0
N MEX	0	5	NA
N C	8	14	12
OHIO	0	0	0
OKLA	10	10	5
OREG	0	0	0
S DAK	0	0	0
TEX	9	34	26
WASH	0	0	0
20 STATES	4	7	NA

EXCL. STATES WITH NA 4 7 5

THESE 20 STATES PRODUCED 91%  
OF THE 1986 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

	GRAIN SORGHUM % PLANTED		
	1987	1986	AVG.
ARK	96	91	NA
ILL	90	76	57
KANS	55	50	30
LA	96	98	94
MISS	98	90	81
MO	88	71	66
NEBR	80	86	70
OKLA	30	45	55
S DAK	81	49	57
TENN	88	80	75
TEX	75	79	83

11 STATES 71 69 NA

EXCL. STATES WITH NA 70 68 59

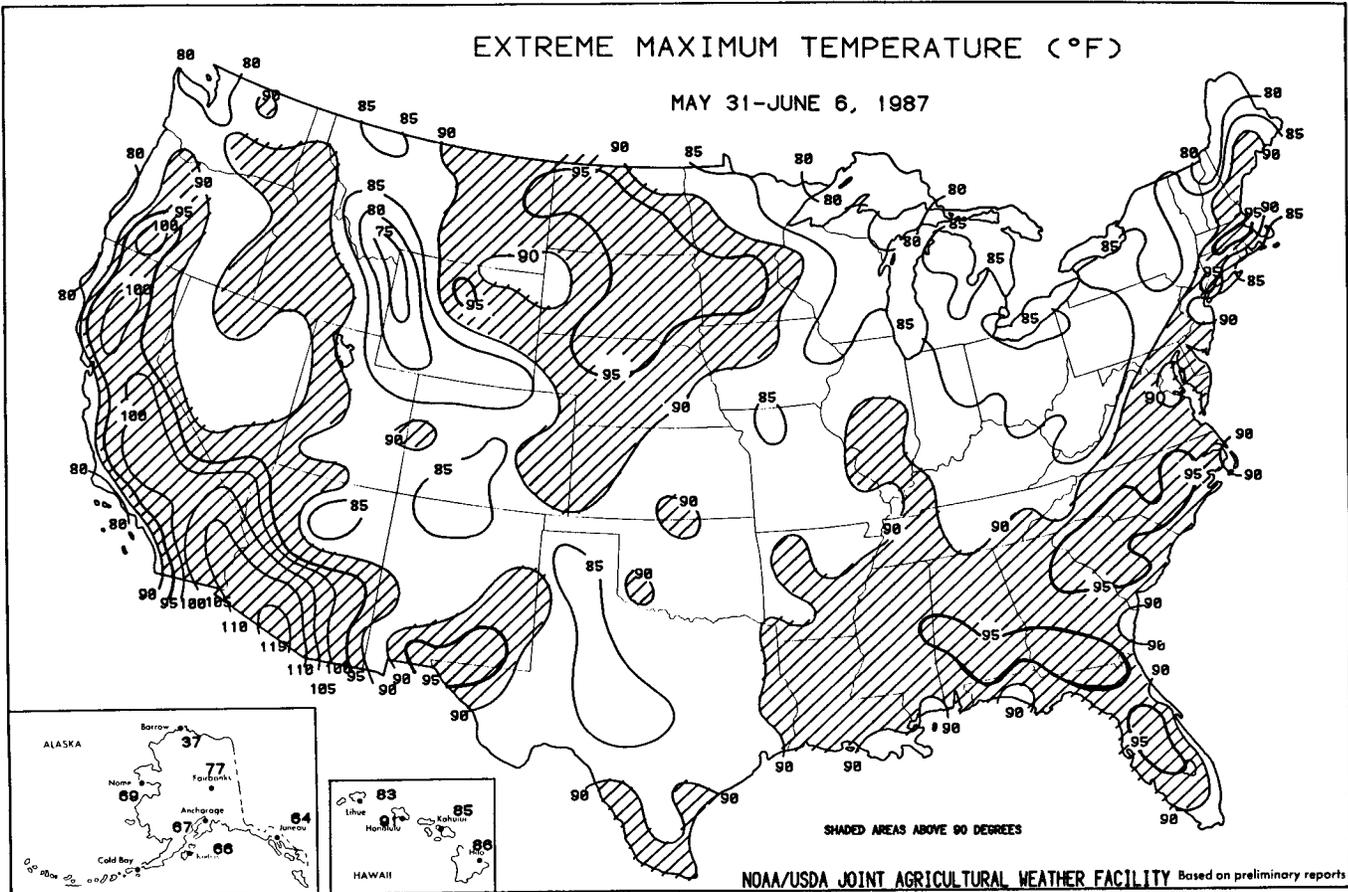
THESE 11 STATES PRODUCED 96%  
OF THE 1986 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

CROP CONDITION PERCENT  
FOR WEEK ENDING JUNE 7, 1987

WINTER WHEAT						CORN						COTTON					
STATE	VP	P	F	G	EX	STATE	VP	P	F	G	EX	STATE	VP	P	F	G	EX
ARK	1	24	53	16	6	COLO	0	3	34	43	20	ALA	0	0	51	49	0
CALIF	0	5	10	80	5	GA	0	3	49	48	0	ARIZ	0	0	5	85	10
COLO	1	4	17	54	24	ILL	0	0	10	65	25	ARK	0	7	30	59	4
GA	0	2	36	62	0	IND	0	1	20	70	9	CALIF	0	0	0	40	60
IDAHO	0	0	19	72	9	IOWA	0	1	13	74	12	GA	0	5	29	66	0
ILL	0	0	21	62	17	KANS	1	0	6	16	77	LA	0	0	39	61	0
IND	0	1	18	77	4	KY	0	0	33	58	9	MISS	0	2	34	54	10
KANS	0	2	6	46	46	MICH	1	4	20	50	25	MO	0	0	40	60	0
MICH	2	8	30	45	15	MINN	0	4	41	46	9	N MEX	0	0	33	67	0
MO	0	10	66	23	1	MO	0	1	32	65	2	N C	0	4	31	65	0
MONT	0	0	3	84	13	NEBR	0	0	12	71	17	OKLA	0	1	60	20	19
NEBR	0	0	20	76	4	N C	0	1	37	61	1	S C	0	0	29	71	0
N MEX	0	0	0	100	0	OHIO	0	3	14	61	22	TENN	2	4	51	42	1
N C	0	0	19	73	8	PA	0	2	10	52	36	TEX	7	17	54	21	1
OHIO	0	2	20	64	14	S DAK	0	3	19	69	9	RICE					
OKLA	0	8	65	27	0	TEX	0	4	19	49	28	STATE	VP	P	F	G	EX
OREG	0	0	16	56	28	WISC	0	1	5	61	33	ARK	0	0	51	49	0
S DAK	3	10	45	38	4	SPRING WHEAT						CALIF	0	0	0	50	50
TEX	0	10	54	23	13	STATE	VP	P	F	G	EX	LA	0	1	21	78	0
WASH	0	0	15	75	10	IDAHO	0	4	37	53	6	MISS	0	0	34	60	6
						MINN	0	3	29	62	6	TEX	0	0	16	79	5
						MONT	0	0	10	67	23						
						N DAK	0	0	21	77	2						
						S DAK	2	4	33	57	4						

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 totals mostly under 0.50 in; local amounts 1.00 to 3.00 in. Temperatures averaged 1 to 3° above normal.

Days suitable for fieldwork 5.8. Soil moisture 39% short, 61% adequate. Scattered showers benefitted few areas; additional moisture needed. Corn 25% silked, 22% 1986, 24% avg.; 6% poor, 45% fair, 49% good. Cotton 15% squaring, 5% 1986, 5% avg.; 51% fair, 49% good. Sorghum 68% planted, 56% 1986, 63% avg. Peanuts 99% planted, 94% 1986, 98% avg.; 3% pegging, 2% avg.; 47% fair, 53% good. Soybeans 70% planted, 56% 1986, 59% avg.; 44% fair, 56% good. Wheat 30% harvested, 34% 1986, 33% avg.; 57% fair, 43% good. First hay 65% harvested, 37% 1986, 54% avg. Primary activities: Planting soybeans, sorghum, peanuts; cultivating, applying herbicides to row crops; harvesting wheat, hay, vegetables, fruits; harvesting, marketing early crop peaches; applying fungicides to peanuts; spraying orchards; maintaining fish ponds; routine care of livestock, poultry.

**ALASKA:** Warm with mostly dry conditions Tanana Valley; almost daily shower activity elsewhere in Railbelt. Temperature lows from 1 to 7° warmer than normal; highs from 3° below normal to 3° above normal. Seasonal precipitation totals from 0.65 in. drier than normal to 0.77 in. wetter than normal.

Days suitable for fieldwork 6.0. Topsoil moisture 15% short, 81% adequate, 4% surplus. Subsoil moisture 6% short, 90% adequate. Most areas continued to be 7 to 10 days ahead of schedule. Barley, oats for grain emergence averaged over 90%. Small grain seeding for hay, silage over 50% complete Matanuska Valley. Commercial potato emergence just beginning on most farms to 40% on earlier fields. Crop growth mostly moderate. Prospects for hay fields, pastures averaged good.

**ARIZONA:** Warming trend continued through 3rd. Temperatures peaked 110° lower southwestern deserts, 90s at 5,000 ft., 80s mountains. High pressure shifted eastward 2nd, allowed moisture into southeast, caused showers, thunderstorms 3rd. Strong, gusty winds peaked 52 mph Douglas, 43 mph Safford, with areas of blowing dust. Southerly flow continued through 6th with scattered showers, thunderstorms statewide. Rain amounts ranged from little or none to locally over 0.50 in. Temperatures 2° below normal to 8° above.

Cotton progress good. Pink bollworm infestations monitored. Hail damaged cotton Pima County beginning to recover. Cultivation, irrigation continued. Watergrass, ground cherry reported some fields. Small grains 55% harvested, 75% 1986, 65% avg. Wheat, barley maturing rapidly, combining continued large scale, except southeast just underway. Land preparation for next crops active. Alfalfa mostly excellent. High temperatures, no rainfall accelerated drying. Isolated scalding reported. Sudan grass harvest continued Yuma County. Grapes sizing, coloring, maturing normally. Perlettes, flame seedless shipped. Plums picked. Limited shipments valencia oranges, grapefruit central valley. Groves good. Spring lettuce movement advanced Willcox, volumes light. Sweet corn, cabbage, greens, carrots shipped central valley. Dry onion harvest tapered off. Fresh potato harvest continued western Maricopa County, processing active. Cantaloups picked

Parker-Poston; honeydew harvest expected 12th. Cantaloups expected by 12th Aguila, Harquahala.

**ARKANSAS:** Warm, humid first part with scattered showers. Cooler latter part. Temperature extremes 49°; 94°. Rainfall 0.09 to 3.03 in.

Days suitable for fieldwork 5.0. Cotton 99% emerged. Some acreage damaged by herbicide residual. Soybeans 56% emerged. Replanting on poorly drained fields. Sorghum 93% emerged. Major activities: Wheat harvesting; planting pastures, soybeans; applying fertilizer, herbicides; flooding rice fields; cutting hay.

**CALIFORNIA:** High pressure redeveloped, weakened, replaced by low. Result, temperatures above normal much of State. Showers develop mountains, southern areas.

Crop progress about normal, open weather, near normal temperatures. Small grain harvest, hay, grain, increased. Rice progress normal, most emerged, good stands. Cotton developed normal. Early fields squaring. Controls mites, lygus applied. Sugarbeet harvest good progress. Applied controls aphids, leafhoppers. Seeded silage corn. Alfalfa harvest hay, green-chop active. Seed sets appear good. Harvest active for apricots, avocados, Bing cherries, Coachella Valley table grapes, early variety stonefruits, lemons, valencia oranges. Rapid growth in San Joaquin Valley vineyards. Southern valencia orange growers suffering from split fruit, droppage, small fruit sizes. Limb breakage occurred from heavy almond crop. Artichokes moderate, good quality, Salinas. Broccoli fairly heavy, Salinas; moderate, Santa Maria; quality variable, good, respectively. Carrots light but increasing Salinas, good quality. Harvest practically finished Imperial-Coachella Valley. Cauliflower moderate Salinas, Santa Maria, good quality. Celery fairly light, good quality, Santa Maria-Oceano area. Packing Salinas-Watsonville, very light but increasing, good quality. Sweet corn fields, Westside, tasseling. Harvest expected to start mid-June. Coachella Valley harvest continued, good quality, fair demand. Lettuce moderate Salinas, Santa Maria, variable quality appearance, weight. Melon fields progressed normally statewide with some still being planted, Modesto-Turlock. Watermelon harvest started Palo Verde Valley, continued Imperial-Coachella Valley. Cantaloup movement at peak Imperial Valley; picking up Blythe, good quality. Honeydew melon light, Imperial Valley should start 12th, Palo Verde Valley. Red, yellow onion digging continued, Fresno. Dry onion harvest continued, Perris-Hemet. Fields Tulalake-Butte Valley, Westside up and progressing normally. Pepper planting continued Delta. Bell pepper harvest active Westside. Fall potato planting completed, Tulalake-Butte Valley, earlier varieties emerged, looking good. Digging spring crop continued, Kern County, harvesting summer crop, Riverside County, begin by mid-June. Packing sheds continued to move 1986 crop full-time. Sweetpotato plantings doing very well, statewide. Tomatoes processing, fresh market progressed well, statewide; some planting still going on, Delta. Westside area, table tomato harvest active, good quality, cannery tomato harvesting expected to start 12th. Range feed extremely dry due hot, dry winds. Fires continued problem due tinder dry conditions. Stock ponds dry many areas or very low levels. Movement cattle feedlots, summer pastures remained active.

**COLORADO:** Temperatures 10° below to 30° above normal. Scarce rainfall; no precipitation most of State, up to 0.29 in. scattered areas.

Days suitable for fieldwork 6.0. Soil moisture adequate. Small grains, livestock good. Corn planting complete. Alfalfa 1st cutting 25% complete. Dry beans 71% planted.

**FLORIDA:** Tropical depression approached east coast beginning of month but weakened, moved south of Keys, produced only minimal increase in winds, little rain south. Elsewhere, general afternoon thunderstorms. Isolated rains exceeding 1.00 in. occurred with totals under 0.50 in. far more common. Temperatures averaged near to slightly above normal.

Topsoil moisture mostly short, upper southern Peninsula northward through Panhandle; generally adequate extreme lower Peninsula. Nonirrigated crops stressed Panhandle, northern Peninsula. Soybean planting delayed, dry areas. Dry weather benefited winter wheat harvest, haymaking. Pastures declined as hot, drying weather reduced topsoil moisture. Grazing mostly fair upper southern Peninsula through Panhandle; elsewhere, continued generally good to excellent. Scattered, late week showers some areas beneficial; more rain needed. Weed control, fertilization underway some sections. Cattle mostly good southern Peninsula; fair to good elsewhere. Marketing calves continued active. Rain needed citrus areas. Few isolated showers, irrigation continued. New crop fruit very good. Old crop valencias good with irrigation; harvest slowed. Grapefruit movement almost over. Caretakers very busy with summer activities. Hot days, warm nights, widely scattered showers predominated, vegetable areas. Irrigation became active north. Harvest nearly complete south; declining rapidly many crops, central. Volume leaders: Watermelons, tomatoes, potatoes, sweet corn, cucumbers, celery, peppers. Also available: Squash, carrots, radishes, eggplant.

**GEORGIA:** Overall warm week, significant rainfall only local areas. Temperatures 2 to 30° above normal. Extreme lows 40s northeast mountains, 50s elsewhere north, around 60s central and south. Extreme highs in low 90s mountains, upper 90s central and south. Rainfall varied. Most totals 0.50 in., local areas 1.00 to 3.00 in.

Days suitable for fieldwork 5.7. Soil moisture 16% very short, 52% short, 31% adequate, 1% surplus. Corn 16% silked, 41% 1986, 41% avg.; 1% dough, 10% 1986, 14% avg. Sorghum grain 1% poor, 48% fair, 50% good, 1% excellent; 73% planted, 63% 1986, 65% avg. Peanuts 37% fair, 63% good; 98% planted, 95% 1986, 98% avg.; 10% blooming, 9% 1986, 25% avg.; 1% pegging, 1% 1986, 6% avg. Soybeans 7% poor, 38% fair, 55% good. Tobacco 5% poor, 49% fair, 46% good. Watermelons 12% poor, 50% fair, 38% good; none harvested, 3% 1986, 2% avg. Wheat 48% harvested, 59% 1986, 50% avg. Rye 4% poor, 41% fair, 55% good. Other small grains 1% poor, 36% fair, 63% good. Apples 4% poor, 10% fair, 66% good, 20% excellent. Peaches 1% poor, 63% fair, 36% good; 20% harvested, 30% 1986, 24% avg. Pasture 9% poor, 36% fair, 54% good, 1% excellent. Hay 1% very poor, 4% poor, 38% fair, 56% good, 1% excellent. Cattle 1% very poor, 27% fair, 72% good. Hogs 19% fair, 79% good, 2% excellent. Main activities: Harvesting small grains, hay, peaches. Planting cotton, grain sorghum, soybeans active. Peanut planting neared completion. Weed control operations active.

**HAWAII:** Mostly sunny, light to moderate showers. Irrigated crops good progress. Record high temperatures 2nd, 4th to 6th. Heavy irrigation, increased spraying. Crops mostly good. Trade winds 5 to 20 mph. Temperatures ranged mid 60s to low 90s. Rainfall ranged none to 2.90 in.

Days suitable for fieldwork 7.0. Banana production steady. Papaya production increased. Chinese cabbage harvesting continued active. Watermelon production continued to increase.

**IDAHO:** Temperatures near normal southwest, south central 1 to 6° above normal. Southerly flow brought showers, thundershowers 1st and 2nd. Midweek high pressure, sunny. Southwesterly flow returned weekend brought more precipitation.

Days suitable for fieldwork 6.2. Potatoes 100% planted, 86% 1986, 92% avg. Potatoes 82% emerged, 42% avg. Spring wheat 4% poor, 37% fair, 53% good, 6% excellent. Winter wheat 37% headed, 14% avg.; 19% fair, 72% good, 9% excellent. First cutting alfalfa hay well underway. Livestock good.

**ILLINOIS:** Temperatures averaged 1 to 20° above normal. Precipitation 1.00 in. central, elsewhere 0.50 in.

Days suitable for fieldwork 4.5. Soil moisture 34% short, 61% adequate, 5% surplus. Corn height average all fields 21 in., 18 in. 1986, 11 in. avg.; most advanced fields 32 in., 28 in. 1986, 19 in. avg. Soybeans 28% fair, 60% good, 12% excellent. Wheat 97% filled, 89% 1986, 71% avg.; 80% turning yellow, 49% 1986, 26% avg.; 5% ripe, 5% 1986, 3% avg. Oats 75% headed, 48% 1986, 38% avg.; 40% filled, 18% 1986, 13% avg.; 18% fair, 66% good, 16% excellent. Sorghum 30% fair, 70% good. Alfalfa hay 1st crop 82% cut, 66% 1986, 56% avg.; 14% fair, 69% good, 17% excellent. Red clover crop 72% cut, 49% 1986, 43% avg.; 11% fair, 75% good, 14% excellent. Pasture 4% poor, 23% fair, 59% good, 14% excellent.

**INDIANA:** Temperatures averaged 7 to 10° warmer than usual. Lows upper 50s to low 60s, highs 80s to low 90s. Precipitation over 1.00 in. central, south; north under 0.50 in.

Days suitable for fieldwork 3.0. Topsoil moisture 4% short, 70% adequate, 26% surplus. Subsoil moisture 22% short, 64% adequate, 14% surplus. Corn, soybeans, wheat mostly good. Corn 100% emerged, 96% 1986, 82% avg. Corn 18 in. high, 12 in. 1986, 8 in. avg. Soybeans 93% emerged, 72% 1986, 56% avg. Soybeans 5 in. high, 3 in. 1986, 1 in. avg. Wheat 35% turning color, 14% 1986, 13% avg. Alfalfa hay 75% cut, 43% 1986, 48% avg. Clover 57% cut, 30% 1986, 25% avg. Pastures 2% poor, 24% fair, 67% good, 7% excellent. Tobacco 70% set, 50% 1986, 33% avg. Rains slowed fieldwork statewide.

**IOWA:** Warm, dry week. Spotty showers. Temperature extremes 40° 4th; 96° 7th. Rest of week cool early, warm over weekend. Average daily pan evaporation 0.30 in. Extreme northwest reported tornado 7th.

Days suitable for fieldwork 4.9. Topsoil moisture 16%, short, 72% adequate, 12% surplus; subsoil moisture 3% short, 84% adequate, 13% surplus. Oats 2% poor, 22% fair, 60% good, 16% excellent; 50% headed, 7% 1986, 12% avg. Winter wheat mostly good. Hay 3% poor, 22% fair, 58% good, 17% excellent. First crop alfalfa harvested 45%, 29% 1986, 31% avg. First crop clover harvested 15%, 6% 1986, 8% avg. Corn cultivated 1st time 45%, 17% 1986, 20% avg.; average corn height 11 in. Soybeans 80% emerged, 52% 1986, 52% avg.; 2% poor, 30% fair, 61% good, 7% excellent. Soybeans cultivated 1st time 10%, 1% 1986, 8% avg. Livestock good to excellent with few reports of insect problems. Pastures mostly good.

**KANSAS:** Temperatures averaged 67° northwest to 73° southwest; 30° below to 20° above normal. Rainfall averaged 0.25 to 0.50 in. eastern two-thirds, little to none western third.

Days suitable for fieldwork 4.5. Soil moisture 5% short, 73% adequate, 22% surplus. Wheat 75%

turning, 75% 1986, 30% avg. Test cutting extreme south. Armyworms some damage south central. Leaf rust most prevalent disease, on flag leaves all areas. Corn 100% planted, 99% 1986, 90% avg. First generation European corn borers evident east. Sorghum 1% very poor, 1% poor, 12% fair, 20% good, 66% excellent. Soybean 5% fair, 32% good, 63% excellent. Alfalfa 1st cutting 90% complete, some 2nd cutting started. Range, pasture good to excellent.

**KENTUCKY:** Scattered precipitation amounts less than 0.10 to as much as 1.50 in. Temperature lows upper 50s and lower 60s, highs averaged low to mid 80s. Temperatures averaged 30 above seasonal normals.

Days suitable for fieldwork 4.6. Soil moisture 19% very short, 47% short, 34% adequate. Corn growing rapidly, average height 19 in. Soybean planting most advanced since 1977. Emerged beans fair to good, poor germination some areas because dry soil. Burley tobacco 90% set, 64% 1986, 60% avg. Dark tobacco 80% set. Tobacco 6% poor, 40% fair, 49% good, 5% excellent. Barley harvest 60% complete, wheat starting soon. Pasture deteriorating, 14% poor, 36% fair, 44% good, 6% excellent.

**LOUISIANA:** Temperature 10 below to 10 above normal. Temperature extremes 56°; 96°. Rainfall averaged 0.08 to 1.47 in.

Days suitable for fieldwork 5.6. Soil moisture 33% short, 61% adequate, 6% surplus. Corn fair to good; 23% silked, 69% 1986, 49% avg. Cotton 98% planted, 100% 1986, 98% avg.; 95% emerged, 100% 1986, 95% avg.; 20% squaring, 25% 1986, 10% avg. Rice 99% planted, 100% 1986, 98% avg.; 97% emerged, 99% 1986, 96% avg. Sorghum 96% planted, 98% 1986, 94% avg.; 87% emerged, 96% 1986, 91% avg. Soybeans 70% planted, 77% 1986, 70% avg.; 53% emerged, 69% 1986, 60% avg. Sweetpotatoes 62% planted, 77% 1986, 75% avg. Winter wheat fair to good; 64% harvested, 69% 1986, 67% avg. Peaches 8% harvested, 33% 1986, 15% avg. Hay 1st cutting 65%, 68% 1986, 68% avg. Sugarcane, pastures, livestock good. Vegetables fair to good. Main activities: Planting sorghum, soybeans, sweetpotatoes; harvesting hay, peaches, vegetables, wheat; applying fertilizer, pesticides. Insect problems reported in corn, rice, sorghum.

**MARYLAND & DELAWARE:** Maryland: Temperatures averaged 75°, 68° normal; lowest temperature 43°; highest temperature 97°. Precipitation averaged 1.00 in., ranging from 0.08 in. Hagerstown to 2.14 in. Upper Marlboro. Scattered thundershowers.

Days suitable for fieldwork 6.0. Topsoil moisture adequate. Subsoil moisture adequate. Wheat, oats good. Barley, rye good to excellent. Corn 96% planted, 96% avg. Soybeans 50% planted, 45% avg. Tobacco 50% transplanted, 55% avg. Sweet corn 90% planted, 97% avg. Alfalfa 85% 1st cut, 70% avg.

Delaware: Temperatures averaged 76°, 69° normal. Precipitation averaged 1.10 in., ranging from 0.79 in. Wilmington to 1.76 in. Milford.

Days suitable for fieldwork 6.0. Topsoil moisture adequate. Subsoil moisture adequate. Wheat, barley, rye good. Corn 100% planted, 97% avg. Soybeans 50% planted, 50% avg.

**MICHIGAN:** Temperatures ranged 2 to 70 above normal. Temperature extremes 32°; 88°. Precipitation ranged from none to 1.96 in. across State.

Days suitable for fieldwork 5.5. Soil moisture 50% short, 45% adequate, 5% surplus. Corn 1% very poor, 4% poor, 20% fair, 50% good, 25% excellent. Planted acres 95% emerged. Soybeans 95% planted, 75% 1986, 65% avg. Wheat 95% headed, 70% 1986, 45%

avg.; 2% very poor, 8% poor, 30% fair, 45% good, 15% excellent. Dry beans 45% planted, 20% 1986, 20% avg. Major activities: Dry bean, soybean planting, haying, cultivating, applying anhydrous ammonia, fruit thinning, asparagus, strawberry harvesting.

**MINNESOTA:** Temperatures averaged 2 to 80 above normal. Temperature extremes 34°; 100°. Precipitation averaged 0.37 to 0.98 in. below normal. Precipitation totals averaged 0.01 to 0.45 in. Greatest weekly total 1.17 in.

Days suitable for fieldwork 5.7. Topsoil moisture 13% very short, 32% short, 51% adequate, 4% surplus. Spring wheat 64% jointing, 7% 1986, 18% avg.; 5% heading, none 1986, none avg. Oats 72% jointing, 13% 1986, 20% avg.; 17% heading, 1% 1986, 1% avg. Barley 53% jointing, 5% 1986, 16% avg.; 2% heading, none 1986, none avg. Corn 100% emerged, 80% 1986, 81% avg.; 47% cultivated, 18% 1986, 17% avg. Soybeans 99% planted, 83% 1986, 84% avg.; 88% emerged, 51% 1986, 49% avg.; 17% cultivated, 1% 1986, 4% avg. Sunflowers 99% planted, 82% 1986, 83% avg. Potatoes 98% planted, 93% 1986, 92% avg. Flax 99% planted, 76% 1986, 79% avg. Dry beans 99% planted, 87% 1986, 89% avg. Sweet corn 86% planted, 81% 1986, 76% avg. Alfalfa hay 1st crop 36% cut, 33% 1986, 22% avg. Field corn 4% poor, 41% fair, 46% good, 9% excellent. Soybeans 2% poor, 45% fair, 51% good, 2% excellent. Spring wheat 3% poor, 29% fair, 62% good, 6% excellent.

**MISSISSIPPI:** Temperatures 20 below to 20 above normal; extremes 50°; 95°. Rain 1 to 2 days. Greatest 24-hour total 3.02 in.

Days suitable for fieldwork 5.3, 1.7 1986, 5.0 avg. Soil moisture 7% short, 59% adequate, 30% surplus, 4% excessive. Corn 16% silking, 24% 1986, 17% avg.; 3% poor, 22% fair, 70% good, 5% excellent. Wheat 80% mature, 90% 1986, 73% avg.; 33% harvested, 27% 1986, 27% avg.; 5% poor, 45% fair, 43% good, 7% excellent. Sweetpotatoes 76% planted, 70% 1986, 69% avg. Peanuts 85% planted, 80% 1986, 84% avg. Watermelons 100% planted, 90% 1986, 92% avg. Hay 33% harvested, 24% 1986, 34% avg. Rice 34% fair, 60% good, 6% excellent. Sorghum 98% planted, 90% 1986, 81% avg.; 92% emerged, 87% 1986; 25% fair, 71% good, 4% excellent. Cotton 25% squaring, 18% 1986, 11% avg.; 2% poor, 34% fair, 52% good, 10% excellent. Soybeans 65% planted, 43% 1986, 57% avg.; 47% emerged, 37% 1986, 38% avg.; 12% poor, 30% fair, 58% good.

**MISSOURI:** Temperatures averaged 10 above normal. Precipitation averaged 0.50 in. for State. Higher amounts southeast.

Days suitable for fieldwork 4.4. Topsoil moisture 35% short, 60% adequate, 5% surplus. Winter wheat 92% turning color, 80% 1986, 45% avg. Alfalfa hay 1st cutting 86%, 67% 1986, 60% avg. Other hay 51% harvested, 31% 1986, 25% avg. Pasture 10% poor, 58% fair, 32% good.

**MONTANA:** Rainfall generally light. Some rain most of State early week. Scattered showers late week, hail and heavy wind with some thunderstorms. Temperatures near normal southwest, 6° above normal northeast. Cool first few days, below freezing west, southwest, south central.

Days suitable for fieldwork 5.1. Topsoil moisture 13% short, 84% adequate, 3% surplus. Subsoil moisture 16% short, 81% adequate, 3% surplus. Barley 15% fair, 74% good, 11% excellent. Sugarbeet 13% fair, 72% good, 15% excellent. Corn 95% planted, 98% 1986, 97% avg. Potatoes 98% planted, 82% 1986, 96% avg. Spring wheat 97% emerged, insect damage to crops 33% light, 62% moderate, 5% severe. Cattle, sheep 91% moved to summer ranges.

**NEBRASKA:** Warm, dry week. Precipitation southeast ranged up to 1.00 in., remainder of State dry. Average temperatures ranged 1 to 4° above normal. Extremes 38°; 99°.

Days suitable for fieldwork 6.3. Topsoil moisture 19% short, 70% adequate, 11% surplus. Subsoil moisture 4% short, 87% adequate, 9% surplus. Winter wheat 20% turned color, 2 weeks ahead of normal. Russian aphids still problem. Rust, mosaic, tan spot, yellow dwarf virus reported. No major problems yet. Corn 98% emerged, 98% 1986, 78% avg. Cultivation active, some replanting. European corn borer reported east central. Soybeans 68% emerged, 66% 1986, 58% avg. Sorghum 60% emerged, 80% 1986, 45% avg. Alfalfa good; 75% harvested, 52% 1986, 38% avg. Wild hay fair to good. Quality down due to poor drying conditions. Range, pasture feeds adequate.

**NEVADA:** Summertime weather pattern, dry, warm for most part. Isolated thunderstorms midweek, surge of moisture end of week brought totals 0.10 to 0.25 in. widely scattered areas. Maximum temperatures 80 to lower 90s north, 95 to 105° south.

-Alfalfa hay generally good. First cutting well along northern areas, considerable amount cut hay rained on. Southern areas 2nd cuttings neared completion, some 3rd cuttings just beginning. Irrigation requirements decreased by rains. Ranges generally good, benefitted from rains.

**NEW ENGLAND:** Precipitation averaged 0.50 to 1.00 in. northern and southern interior Maine, eastern Vermont, coastal Connecticut, 1.00 to 1.50 in. New Hampshire, western and central Massachusetts, 1.50 to 2.00 in. coastal Maine, eastern Massachusetts, interior Connecticut, 2.00 to 2.50 in. western Vermont. Temperatures averaged 1 to 3° above normal. Light frost over north.

Days suitable for fieldwork 5.5. Soil moisture 3% very short, 14% short, 66% adequate, 17% surplus. Grazing availability 9% short, 91% adequate. Fieldwork 1 day behind. Maine potatoes 99% planted, 93% 1986, 88% avg. Maine potatoes 15% emerged, 19% 1986, 12% avg. Rhode Island potatoes 61% emerged, 99% 1986, 92% avg. Field corn 90% planted, 90% 1986, 81% avg. Field corn 71% emerged, 70% 1986, 59% avg. Maine oats 97% planted, 100% 1986, 85% avg. Sweet corn 76% planted, 79% 1986, 77% avg. Sweet corn 54% emerged, 75% 1986, 62% avg. Major farm activities: Harvesting hay, spraying, planting, picking strawberries.

**NEW JERSEY:** Temperatures averaged near normal north, central, above normal south. Extremes 44°; 92°. Rainfall averaged 1.14 in. north, 1.28 in. central, 0.60 in. south. Heaviest 24-hour total 1.40 in. on 4th, 5th. Estimated soil moisture percent field capacity averaged 74% north, 65% central, 52% south. Four inch soil temperatures averaged 68° north, 71° central, 72° south.

Soil moisture adequate most areas. Crops good to excellent. Early summer crop harvest increased. Irish potatoes bloomed. Strawberry harvest peak volume. Blueberries made good growth; early harvest begins next week. Apples, peaches continued to size well. Hay, straw making continued as weather conditions permitted. Some early corn up over 1 ft. Soybean planting active.

**NEW MEXICO:** Temperatures over State ranged from 21° western mountains to 95° southern desert. Precipitation ranged from none northwestern plateau to 2.53 in. southeastern plains.

Days suitable for fieldwork 5.9. Soil moisture 14% short, 86% adequate. Hail damage eastside, southern desert. Cotton fair to good; cool temperatures delayed growth. Barley, wheat, grain sorghum 100% good; planting of grain sorghum continued. Wheat, barley harvest to begin next

week. Corn good. Pecan nut set reported average. Onions good, harvesting continued. Lettuce harvest virtually over.

**NEW YORK:** Wet week, frequent showers through middle week. Rainfall topped 1.00 in. over much of area from Susquehanna region to Adirondacks. Heavy rain southeast. Temperatures averaged 1 to 4° above normal.

Days suitable for fieldwork 4.5. Soil moisture mostly adequate, some short. Pastures fair to good. Corn 88% planted, 90% 1986, 85% avg. Oats growing well. Wheat heading out. Alfalfa hay 1st cutting 18% complete, 18% 1986, 9% avg. Clo-tim 5% harvest complete, 11% 1986, 6% avg. Dry bean planting started. Fruit crops good to excellent.

**NORTH CAROLINA:** Temperatures averaged 2 to 3° above normal except near normal mountains. Temperature extremes 41°; 97°. Precipitation ranged from 0.11 to 4.62 in. across State.

Days suitable for fieldwork 5.3. Soil moisture 4% very short, 31% short, 62% adequate, 3% surplus. Irish potatoes 23% fair, 73% good, 4% excellent. Pasture fair to mostly good. Tobacco plantbeds 3% very poor, 5% poor, 35% fair, 57% good. Tobacco plant supplies 9% short, 84% adequate, 7% surplus. Flue-cured tobacco 100% planted, 100% 1986, 100% avg. Tobacco in field 1% poor, 34% fair, 62% good, 3% excellent. Peanuts 97% planted, 98% 1986, 98% avg. Peanuts 10% fair, 90% good. Soybeans 6% poor, 33% fair, 58% good, 3% excellent. Hay 2% poor, 17% fair, 75% good, 6% excellent. Hay 77% harvested. Oats 21% harvested, 19% 1986, 19% avg. Barley 24% harvested, 25% 1986, 21% avg. Rye 15% harvested, 24% 1986, 19% avg. Sorghum 69% planted, 70% 1986, 66% avg. Sweetpotatoes 65% planted, 61% 1986, 60% avg. Sweetpotatoes 20% fair, 80% good. Fruit, truck crops fair to mostly good. Major farm activities: Planting soybeans, transplanting flue-cured tobacco, burley tobacco; cutting and baling hay; transplanting sweetpotatoes; cultivating tobacco; planting corn, peanuts, sorghum, truck crops, cotton; sidedressing corn; harvesting small grains; herbicide applications to corn and peanuts; tending livestock; general farm maintenance.

**NORTH DAKOTA:** Temperatures averaged 6 to 8° above normal. Extremes 35° northeast; 99° central. Scattered showers across State. Heaviest north central 0.66 in.

Days suitable for fieldwork 6.9. Topsoil moisture normal, 2% very short, 31% short, 67% adequate. Subsoil moisture above normal, 6% short, 94% adequate. Small grains progressed well ahead of 1986 and average. Spring wheat 49% jointing and beyond, 21% 1986, 24% avg.; durum wheat 30%, 11% 1986, 15% avg.; oats 51%, 27% 1986, 26% avg.; barley 51%, 19% 1986, 26% avg.; winter wheat 65% heading and beyond, 15% 1986, 15% avg. Row crop planting ahead of normal. Corn 98%, 91% 1986, 90% avg.; soybeans 97%, 93% 1986, 96% avg.; sunflower 94%, 80% 1986, 80% avg.; dry edible beans 97%, 94% 1986, 92% avg. Pasture 4% poor, 32% fair, 58% good, 6% excellent. First cutting of hay begun, 13% alfalfa, 2% other hay cut. Grasshopper problems some areas.

**OHIO:** Average temperatures low 70s to high 60s, up to 5° above normal. Precipitation averaged 1.00 in. or more with some northwest areas receiving substantially more. Accumulated precipitation since April 1 subnormal. Growing degree days 15 to 20% ahead of normal for season.

Days suitable for fieldwork 3.5. Soil moisture 4% short, 70% adequate, 26% surplus. Corn emergence complete, 98% 1986; maturity 4 leaves emerged. Corn good. Soybeans 86% emerged, 75% 1986; some soils too wet to finish planting. Soybeans good. Winter wheat began turning color on 15% of acreage. Heavy rains caused some lodging.

Wheat good. Hay cutting far ahead of normal because of early, mild season. Rains hampered curing. Grasslands good. Grapes full bloom; 1 week earlier than usual. Strawberry picking 35% complete.

**OKLAHOMA:** Temperatures averaged 3° below normal southeast to 1° above normal northeast. Precipitation averaged 0.01 in. southwest to 0.63 in. west central.

Days suitable for fieldwork 3.3. Topsoil moisture 45% adequate, 55% surplus. Subsoil moisture 3% short, 97% adequate. Wheat 8% poor, 65% fair, 27% good; 100% heading, 100% 1986, 100% avg.; 10% harvested, 10% 1986, 15% avg. Warm, dry weather advanced harvest. Weeds, armyworm problems north. Sorghum 30% planted, 45% 1986, 55% avg. Cotton 1% poor, 60% fair, 20% good, 19% excellent; 30% planted, 55% 1986, 50% avg.; 1% squaring, none 1986, none avg. Producers replanted washed out row crops. Pastures, livestock good. Cattle marketings, prices steady.

**OREGON:** First of week temperatures well below normal. South coast led warming trend with 100° high on 2nd. Western interior temperatures ranged 80 to 100° by 3rd. Eastern areas high temperatures in 80s, 90s. Nearly all of State precipitation beginning of period. Greatest precipitation Cascade Range.

Soil moisture 57% short, 43% adequate. Crop development continued ahead of normal. Alfalfa cutting about 2 weeks ahead of normal most locations; some frost damage high elevations east, some rain damage scattered around State. Barley turning color, neared harvest Columbia Basin, Medford. Other grain crops fair to excellent; shallow eastern soils show moisture stress. Early grass seed varieties pollinating Willamette Valley. Strawberry harvest full swing Willamette Valley, excellent quality, large crop, harvest labor hard to find. Red raspberry picking set to begin this week. Cherries ripening Wasco County, Willamette Valley, Malheur County; quality, crop size good. Hood River District tree fruits good, thinning continued, some fire blight in pears. Medford District tree fruits also good, thinning started, labor supply short. Cranberry bloom continued south coast, minor disease problems, some insect infestations, overall crop look good. Willamette Valley vegetable crops maturing ahead of normal despite recent cool weather, irrigation requirements ahead of normal. Early peas set pods. Growers still planting corn, beans, squash. Seed potato seeding full swing northeast. Field potatoes all planted Klamath, central area; fields hilled up for frost protection. Livestock mostly good. Range, pastures fair to good, maturing ahead of normal. Rains improved grass condition somewhat. Still hauling stockwater southeast.

**PENNSYLVANIA:** Warm, sticky weather early week, more seasonal later. Average temperature 68°, 4° above normal. Temperature extremes 41°; 91°. Average precipitation 0.80 in., 0.07 in. below normal.

Days suitable for fieldwork 4.0. Soil moisture 8% short, 88% adequate, 4% surplus. Corn 92% planted, 94% 1986, 86% avg. Corn 2% poor, 10% fair, 52% good, 36% excellent. Average corn height 7 in., 7 in. 1986, 5 in. avg. Soybeans 64% planted, 76% 1986, 59% avg. Soybean 1% poor, 8% fair, 62% good, 29% excellent. Barley 4% boot, 2% 1986; 69% heading or headed, 69% 1986; 27% turning yellow, 29% 1986. Wheat 2% boot, 6% 1986; 96% heading or headed, 86% 1986; 2% turning color, 8% 1986. Wheat 2% poor, 13% fair, 59% good, 26% excellent. Oats 2% poor, 14% fair, 55% good, 29% excellent. First cutting alfalfa 41% complete; 52% 1986. First cutting clover-timothy 22% complete; 24% 1986. Hay stands mostly fair to good. Feed from pastures

average to above average. Activities: Planting corn, potatoes, soybeans, vegetables; transplanting tobacco; harvesting hay, haylage, strawberries; weed control; machinery maintenance; caring for livestock.

**PUERTO RICO:** Island average rainfall 1.60 in., 0.22 in. above normal. Highest weekly total rainfall 4.00 in. Dos Bocas followed by 3.28 in. Jayuya, 2.68 in. Yauco. Highest 24-hour total 2.60 in. Jayuya. San Juan mean temperature 82°, 1° above normal. Total rainfall 1.29 in., 0.08 in. above normal.

**SOUTH CAROLINA:** Rainfall plentiful across Midland, Coastal Plains while northwest received little or none. Amounts totaled near 5.00 in. Temperatures averaged below seasonal level.

Days suitable for fieldwork 5.3. Soil moisture 3% very short, 57% short, 40% adequate. Soybeans fair to good; 51% planted, 51% 1986, 54% avg. Cotton 100% planted, 100% 1986, 100% avg.; 29% fair, 71% good. Tobacco improved with rain. Peanuts fair to good; 97% planted, 94% 1986, 93% avg. Wheat fair to good with good yields. Small grains fair to good.

**SOUTH DAKOTA:** Average temperatures normal to 7° above normal. Extremes 37°; 103°. Black Hills low 28°.

Days suitable for fieldwork 5.6. Topsoil moisture mostly adequate west, mostly short central; 4% critical, 36% short, 5% adequate, 2% surplus. Main activities haying, cultivating, working fallow ground. Some reports of small grain diseases, poor stands. Cattle moved to pastures; 97%. Livestock good to excellent. Range, pastures mostly good. Feed, stockwater adequate to surplus.

**TENNESSEE:** Widespread scattered showers, trace to 1.13 in. Temperatures averaged 2 to 6° above normal west, 1 to 4° below normal east. Extremes 50°; 91°.

Days suitable for fieldwork 4.9. Soil moisture 10% very short, 37% short, 50% adequate, 3% surplus. Corn 3% tasseled, 7% 1986, 1% avg. Corn 2% very poor, 4% poor, 51% fair, 42% good, 1% excellent. Tobacco 82% transplanted, 70% 1986, 75% avg. Black shank, cut worms, flea beetles reported. Tobacco 1% very poor, 2% poor, 64% fair, 33% good. Wheat 50% ripe, 55% 1986, 25% avg. Wheat 6% harvested, 1% 1986, 2% avg. Wheat 14% poor, 55% fair, 29% good, 2% excellent. Alfalfa 1st cutting 98%, 90% 1986, 91% avg. Alfalfa 2nd cutting 8%, 7% 1986, 9% avg. Alfalfa 7% poor, 52% fair, 39% good, 2% excellent. Cattle mostly good. Hot weather reduced gains. Pastures 5% poor, 50% fair, 41% good, 4% excellent.

**TEXAS:** Heavy rains southern half of State. Clouds, rain kept daytime temperatures down south. Cooler temperatures north, west. Rainfall much above normal southern half State, near normal amounts southeast. Plains, most north below normal. Temperatures below normal, except near to slightly above normal east.

**Crops:** Corn High Plains excellent growth. Scattered fields damaged by hail. Fields tasseled Blacklands, south, east. Rains timely for growth. Many fields dough stage Coastal Bend, Rio Grande Valley; few central. Corn 38% silked, 59% 1986, 51% avg.; 3% dough, 34% 1986, 27% avg.; none dent, 4% 1986, 4% avg. Grain sorghum planting slow Plains, Cross-Timbers. Moisture conditions good for germination, growth planted fields. Fields Blacklands started to head. Some yellowing. Considerable amount replanting may be necessary Hill Country. Fields heading central to Valley. Drier weather needed. Growth, progress rapid. Sorghum 19% headed, 48% 1986, 38% avg.; 2% turning color, 20% 1986, 12% avg.; none mature, 1% 1986, 1%

avg. Cotton planting slow progress Plains, Cross-Timbers because scattered showers. Large amount replanting may be necessary because seedling disease. Fields squaring Blacklands, central, east, Upper Coast. Fields setting bolls Coastal Bend, south, Valley 4%, 6% 1986, 5% avg. Small grain harvest couple weeks away High Plains, recent rain helped to fill heads. Many fields beginning to turn color. Harvesting beginning Low Plains above average test weights. Some lodging. Harvest full swing Cross-Timbers, Blacklands as ground dries. Some remaining fields central, south may be lost because excessive moisture. Wheat 67% turning color, 94% 1986, 80% avg. Rice fields Upper Coast could use open weather. Most fertilization operations completed. Some permanent flooding continued. Rice none headed, 1% 1986, 1% avg. Soybean planting slow High Plains. Acreage may increase because of replanting to soybeans instead of cotton. Fields Upper Coast suffering excessive moisture. Peanut planting slow. Many early planted fields good stands Low Plains. Drier weather needed for planting. Other crops planted: Peanuts 34%, 42% 1986, 40% avg. Soybeans 44%, 57% 1986, 50% avg. Sunflowers 30%, 45% 1986, 50% avg. Other crops harvested: Oats 29%, 41% 1986, 39% avg.

Commercial Vegetables: Rio Grande Valley, wet weather hampered melon harvest. Prolonged moisture reduced yields melon fields. Citrus trees excellent. San Antonio-Winter Garden, watermelon, onion harvest slowed. Heavy disease problems onion fields, producers may abandon some fields. Some vegetable rotting in fields. Trans-Pecos, onion harvest started. Cantaloups slow progress, tomatoes good progress. East harvest truck crop farms slow. Disease problems increased melons. Some sweetpotatoes transplanted. Growth good planted fields. High Plains, onions, potatoes good progress only minor problems from weather. Peppers good growth. First spraying pecans for casebearers completed many southern, central areas.

Range and Pasture: Range, pasture grasses improved with moisture. Weed populations increased; many producers spraying. Growth active. Hay cutting slowed. Livestock improved. Markets down. Movement off wheat pastures still occurred; fields not used for grain.

UTAH: Precipitation light. Temperatures normal to 20° above normal.

Days suitable fieldwork 6.1. Soil moisture 35% short, 65% adequate. Winter wheat 76% booting, 83% 1986, 59% avg.; 56% headed, 34% 1986, 42% avg. Spring wheat 62% booting, 32% 1986, 14% avg.; 25% headed, 5% 1986, 3% avg. Barley 66% booting, 37% 1986, 28% avg.; 36% headed, 23% 1986, 11% avg. Oats 75% jointed, 34% 1986, 20% avg.; 41% booting, 7% 1986, 7% avg. Corn 10 in. high, 4 in. 1986, 2 in. avg. Alfalfa 1st cutting 44% complete, 30% 1986, 17% avg. Scattered hail damage north. Livestock movement to summer ranges normal. Ranges, pastures improved with rain. Livestock good to excellent. Major farm activities: Cultivating corn, hay harvest, spraying insects alfalfa, small grains, moving livestock, branding, fencing.

VIRGINIA: Hot, hazy first half. Cooler, less humid end period. Thunderstorms common until late period. Heavy rains many locations. Tornado activity, damaging winds on 3rd. Temperature range 44 to 97°. Precipitation well above normal, range 0.57 to 4.66 in.

Days suitable for fieldwork 3.3. Topsoil moisture 63% adequate, 37% surplus. Frequent thunderstorms slowed planting, hampered hay curing. Field crops good to mostly excellent. Corn 94%

planted, 96% 1986, 96% avg. Soybeans 44% planted, 51% 1986, 54% avg. Flue-cured tobacco 93% transplanted, 95% 1986, 96% avg. Burley tobacco 84% transplanted, 50% 1986, 65% avg. Fire-cured tobacco 81% transplanted, 78% 1986, 84% avg. Oat, barley harvest began. Barley 10% harvested, 25% 1986, 27% avg. Small grains maturing more slowly due to cool, wet spring. Small grain lodging severe some locations. Hay yields excellent, curing difficult with evening thunderstorms. Excellent pastures. Potatoes excellent.

WASHINGTON: Showers, moderate temperatures statewide. Precipitation largest amount 1.36 in. Temperature extremes 30°; 94°.

Soil moisture 20% short, 80% adequate. Winter wheat 90% headed, 56% 1986, 53% avg. Minor frost, hail damage to winter wheat reported; crop remained mostly good. Spring wheat, barley heading. First cutting alfalfa in progress; showers disrupted curing in some locations. Turf farmers seeding new acres. Strawberry harvest continued, farmers concerned about labor shortage. Raspberry, blueberry crops progressing well. Cherry harvest in progress. Minor damage from frost, hail reported. Apple, pear thinning underway; progress limited by labor shortage. Sweet corn planting complete. Grasshopper population low from cool temperatures since spring hatch. Asparagus harvest winding down. Range, pasture feed improved; 20% short, 70% adequate, 10% surplus. Additional rainfall needed, livestock continue grazing.

WEST VIRGINIA: Average temperature 69°, 2 to 5° above normal. Extremes 38° Greenbank; 92° Creston, Romney. Precipitation averaged 0.65 in.; above normal southern, northeastern; below elsewhere.

Days suitable for fieldwork 4.5. Wheat, barley, oats, corn, good to fair. Oats 100% emerged. Corn 94% planted. Tobacco beds fair to good, 88% set. Hay, good to fair. Pasture, fair to good. Feed supplies adequate to short. Farm activities: Harvesting hay, planting corn, farm maintenance. Soil moisture 5% very short, 31% short, 59% adequate, 5% surplus.

WISCONSIN: Temperatures averaged 67°, 3° above normal. Extremes 29°; 97°. Rainfall 0.10 to 0.80 in. Since April 1, precipitation north 44 to 55% of normal.

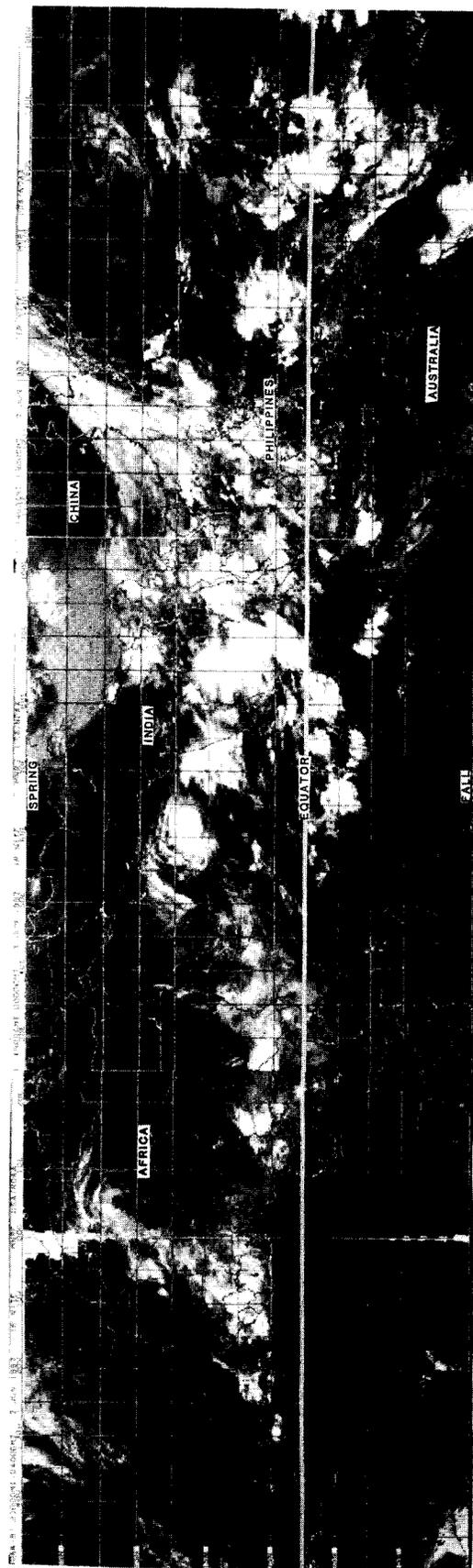
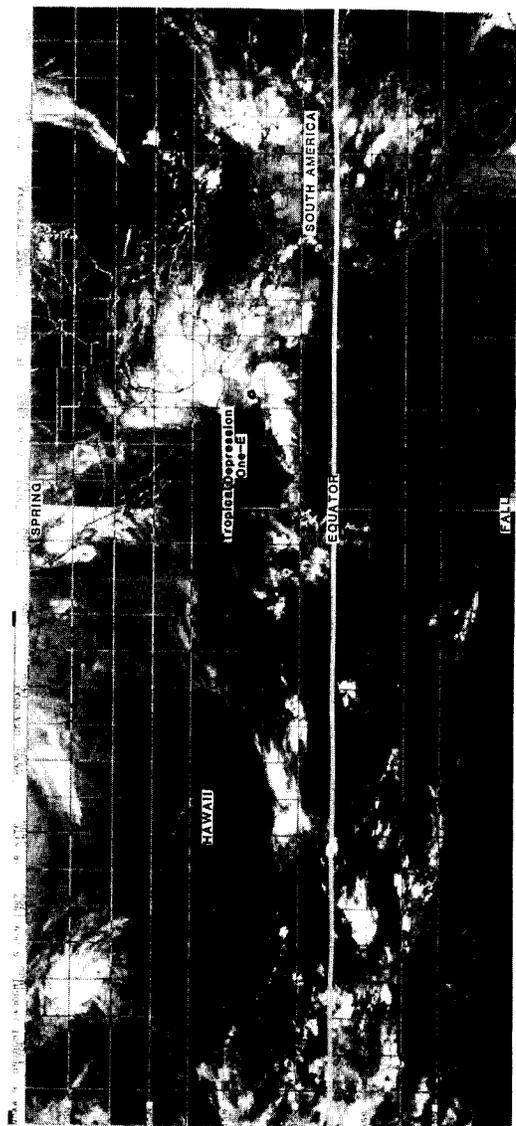
Days suitable for fieldwork 6.2. Soil moisture 25% short, 65% adequate, 10% surplus. Crops 1% very poor, 22% fair, 68% good, 9% excellent. Corn 1% poor, 5% fair, 61% good, 33% excellent. Average height 9 in., 5 in. 1986, 3 in. avg. Soybeans 87% planted, 82% 1986, 73% avg. Soybeans up, look good. Oats 8% headed, 2% 1986, 1% avg. First crop hay 25% cut, 41% 1986, 25% avg. Yields, quality down north, central. South yields good, quality down. Vegetable crops good. Tobacco being transplanted. Strawberries ripe. Pastures good.

WYOMING: Temperatures above normal. Precipitation below normal.

Days suitable for fieldwork 6.0. Topsoil moisture 17% short, 80% adequate, 3% surplus. Spring wheat 95% emerged, 95% 1986. Oats 90% emerged, 85% 1986, 85% avg. Barley 95% emerged, 90% 1986. Corn 90% planted, 90% 1986, 95% avg.; 80% emerged, 70% 1986, 75% avg. Potatoes 80% planted; 60% emerged, 55% 1986, 60% avg. Dry beans 60% planted, 65% 1986, 70% avg.; 35% emerged, 25% 1986. Sugarbeets 95% emerged, 55% 1986; 35% thinned, 35% 1986. Winter wheat mostly good. Livestock good to excellent, losses light to normal. Ranges, pastures mostly good. Cattle moved to summer ranges 55%, sheep 50%.

# Global Weather Satellite Image

June 7, 1987



The tropical depression in the eastern Pacific became Tropical Storm Adrian on June 8.

## International Weather and Crop Summary

May 31 to June 6, 1987

**HIGHLIGHTS:**

**UNITED STATES** ... Rain across the Corn Belt spurs crop development and growth. Excessive moisture in Oklahoma and Texas hinder planting and promotes crop diseases. Scattered precipitation interrupts planting in the southeast but provides much needed moisture.

**U.S.S.R.** ... Variable showers maintain adequate moisture conditions for winter grains, entering the heading stage and spring sown crops in the vegetative stage.

**EUROPE** ... Showers benefit heading and filling wheat in western and central Europe. Periodic dry weather in the southeast favors summer crop planting.

**SOUTH ASIA** ... Showers benefit emerging and vegetative rice in southwestern and eastern India. Summary crop planting begins.

**SOUTHEAST ASIA** ... Moderate to heavy showers benefit vegetative corn and rice in Thailand. Variable showers benefit emerging grains in the Philippines.

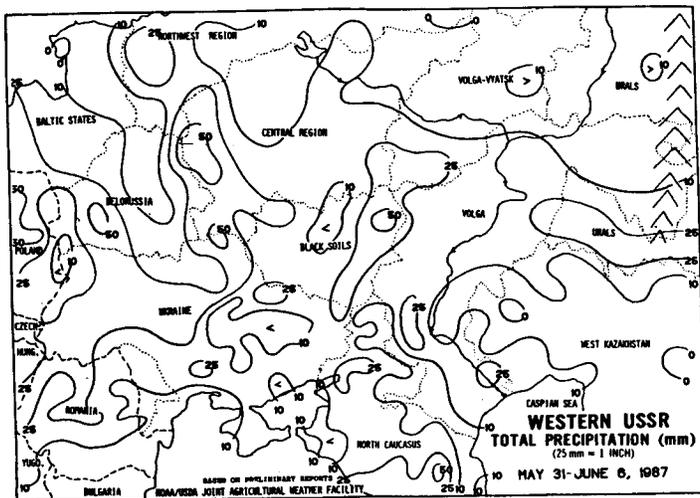
**EASTERN ASIA** ... Moderate to heavy showers cover most agricultural areas.

**SOUTH AMERICA** ... Heavy showers slow completion of soybean harvest in southern Brazil, but dry weather helps Brazil's coffee harvest and Argentina's fieldwork.

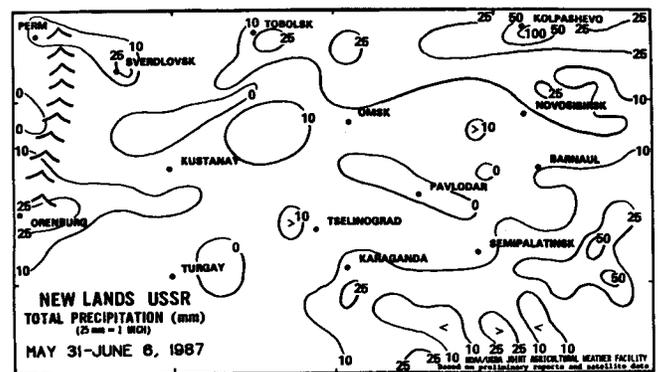
**AUSTRALIA** ... Dry weather covers eastern Australia's vegetative winter grains. Light rain improves moisture reserves in western grain areas.

**MEXICO** ... Widespread, beneficial rain covers eastern and southern Mexico.

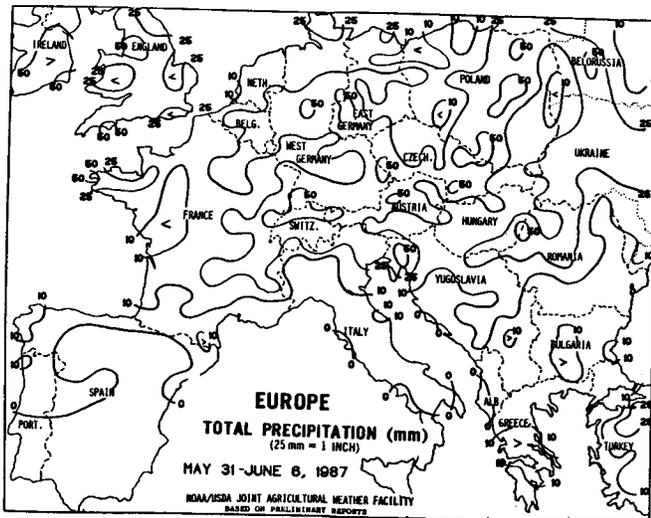
**CANADA** ... Showers benefit crop emergence in the east and northwest but dryness hampers development in the southwest.



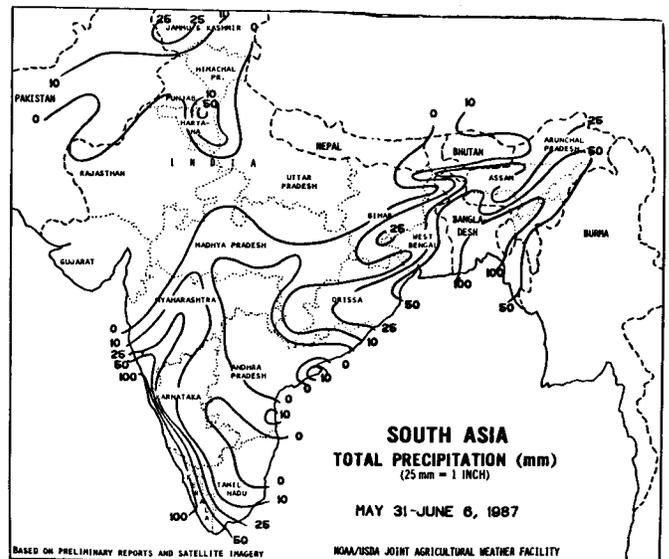
**U.S.S.R.** ... In western U.S.S.R., showers covered most agricultural areas, but rainfall amounts were highly variable. Wet weather (25-50mm) covered western Belorussia, the western Ukraine, the northern Ukraine, and the western portion of the Central Region, benefiting winter grains in the jointing stage and summer crops in the early vegetative stage. Light showers over the southern Ukraine, North Caucasus, and lower Volga maintained favorable moisture for winter wheat in the heading stage. Significant rain (20-29mm) reversed a drying trend over the upper Volga and the southern Urals, improving prospects for spring crop emergence and early plant establishment. Weekly temperatures were 2 to 3 degrees C below normal over much of the region. In the Central Region, although temperatures were below normal, they were significantly higher than last week.



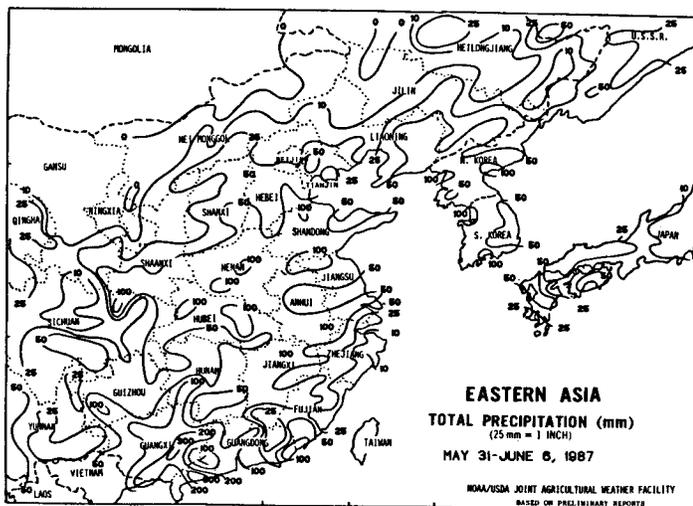
In the New Lands, significant precipitation (25-50mm) covered the northern fringe of the spring wheat region, the marginal producing areas south of Karaganda and Semipalatinsk, as well as spring wheat areas in the southern Urals. Mostly dry weather covered major spring wheat areas, allowing planting to progress northward with few delays. Topsoil moisture in most areas is adequate for crop emergence and early plant establishment. A cooling trend occurred over much of the region during the week.



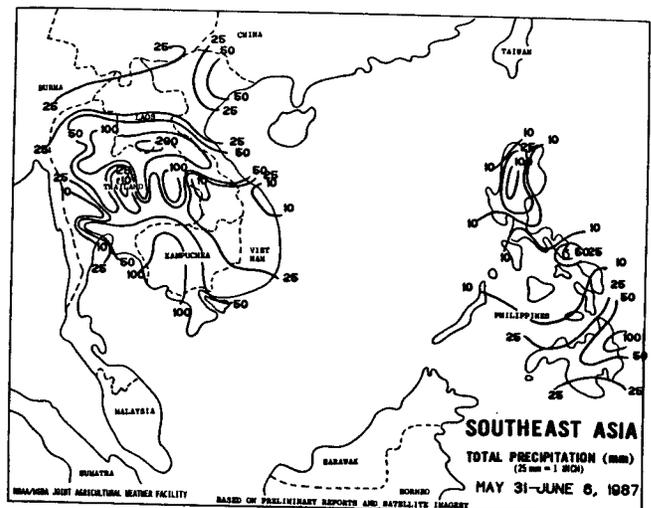
**EUROPE** ... Moderate to heavy showers (10 to more than 50mm) spread eastward from England and eastern France into northern Romania, benefiting winter wheat in the heading to filling stages. The rain boosted moisture reserves for vegetative wheat from northern West Germany to Poland. Drier weather (less than 10mm) covered most grain areas of central and southern France, Spain, and Italy, benefiting maturing winter grains. Moisture is becoming limited, however, in southern France for vegetative corn. Periodic dryness in Hungary, Romania, and Yugoslavia allowed continued summer crop planting. Moisture is adequate in the southeast for winter wheat, in the heading to filling stages of development.



**SOUTH ASIA** ... Moderate to heavy tropical showers (25-186mm) benefited emerging and vegetative rice in southwestern and eastern India and in Bangladesh. Cotton and groundnut planting is likely underway in southern India in response to recent, seasonable showers. Mostly light rain (2-13mm) fell in northern India and northern Pakistan, maintaining favorable irrigation reserves for rice and cotton.



**EASTERN ASIA** ... Widespread moderate to heavy showers covered most agricultural areas in China and Korea. Rainfall from 21 to 116mm over Shanxi, Hebei, Henan, and Shandong benefited filling wheat as well as early corn, early soybeans, and cotton in the vegetative stage. Continued heavy rain over rice areas in Guangxi and Guangdong increased the likelihood for widespread flooding. Following early-week fair weather, moderate to heavy showers over the Yangtze Valley continued to provide ample moisture for rice. In the Manchurian Valley, light to moderate rain in Liaoning and Jilin increased moisture conditions for summer crops. Spotty showers covered crops in Heilongjiang.



**SOUTHEAST ASIA** ... Moderate to heavy showers (25-178mm) in Thailand's rainfed crop areas maintained ample moisture reserves for vegetative corn and rice. Pockets of below-normal rainfall (less than 25mm), however, persisted in some Thai corn areas. Heavy rain (greater than 50mm) improved moisture reserves in western Kampuchea and in parts of Laos and Vietnam but light rain (less than 25mm) persisted over large rainfed rice areas. In the Philippines, moderate to heavy showers (35-178mm) continued in rainfed grain areas of Mindanao and western and southern Luzon. Light rain (less than 10mm) returned to eastern Luzon and continued in the central islands.



The Weekly Weather and Crop Bulletin (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Chronicle. It is issued under general authority of the Act of January 12, 1895 (44-usc 213), 53d Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the bulletin. The contents may be reprinted freely, with proper credit.

Annual subscriptions: domestic \$25, foreign \$33 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

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(Continued from p. 15)

tomatoes, potatoes, sweet corn, cucumbers, celery, and peppers were volume leaders.

Prolonged moisture reduced melon yields and hampered harvest in the Rio Grande Valley. The wet weather slowed vegetable harvest and promoted disease.

California vegetable harvest consisted mostly of broccoli, celery, lettuce, carrots, cauliflower, and sweet corn. Cantaloupe movement peaked in the Imperial Valley.

PASTURES AND LIVESTOCK: Pastures were mostly good. Condition continued deteriorating in the Appalachian States. Livestock was mostly good.

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**WEEKLY NEWS BULLETIN**  
**SECOND CLASS**

**SECOND CLASS MAIL**  
**POSTAGE AND FEES PAID**  
**NOAA PERMIT NO.**  
**ISSN 0043 1974**