

WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration, National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service and World Agricultural Outlook Board

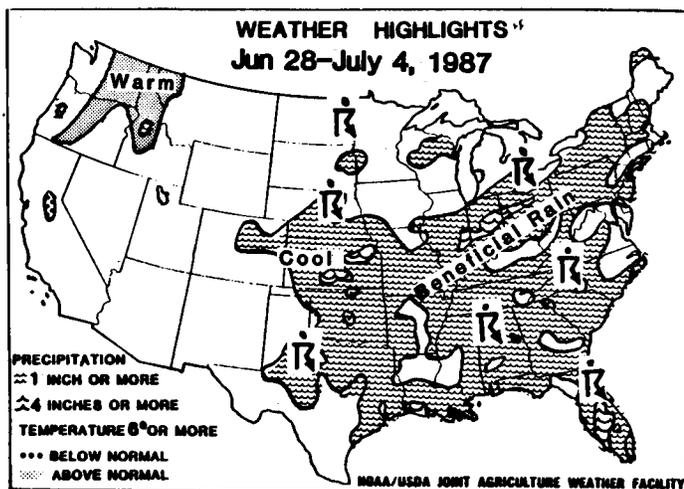
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July 7, 1987

National Weather Summary

June 28 to July 4, 1987



HIGHLIGHTS: Showers and thunderstorms covered nearly all of the Nation. Only the desert Southwest and most of California were without precipitation. Heavy downpours occurred from Texas to Nebraska, from southern Missouri to the upper Ohio Valley, and in parts of the Mid-Atlantic States and the Southeast. Flooding was a problem in parts of the Ohio Valley. Most of the Corn Belt had ample rain but parts of the western end had only light rain. Mild temperatures prevailed in most of the Nation but the Northwest was warmer than normal.

SUNDAY... Severe weather lingered into the morning in Kansas and Nebraska. Later thunderstorms developed in the central and northern Great Plains, the middle and upper Mississippi Valley, the Great Lakes region, and the Rocky Mountains. Thunderstorms were intense in the lower parts of Florida and showers fell in New York. Unusually cool weather pushed through the Great Lakes and to the Appalachians.

MONDAY... Thunderstorms caused heavy downpours from west central Texas into Kansas and Colorado. Thunderstorms ahead of a cold front produced moderate, occasionally heavy showers as the front moved eastward from a line from Colorado to Michigan. Thundershowers were all along the gulf coast and in Florida. Cooler weather moved into the Northeast and the Appalachians and another cool surge pushed into the northern Rockies.

TUESDAY... Thunderstorms were widespread from Texas to the Northeast and eastward to the Atlantic Ocean. Scattered storms dotted the Rockies and from the northern Plains into Canada. Somewhat cooler weather covered the East Coast States and

it was much cooler in the Rockies and northern Plains.

WEDNESDAY... Thunderstorms were widespread from the lower Mississippi Valley into the Northeast. Heavy showers fell through the eastern Corn Belt and Tennessee Valley and along the central gulf coast. Temperatures were generally moderate but were unusually cool in the upper Lakes region and upper Mississippi Valley.

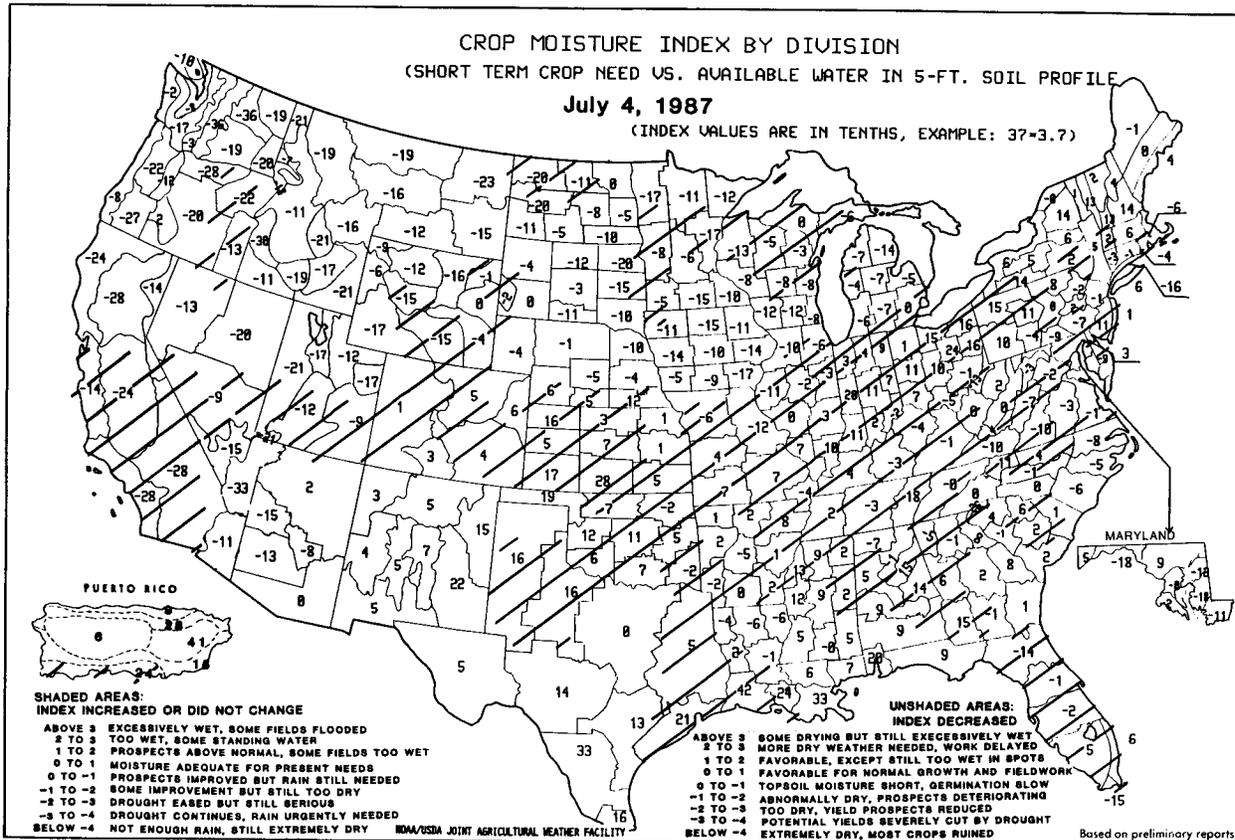
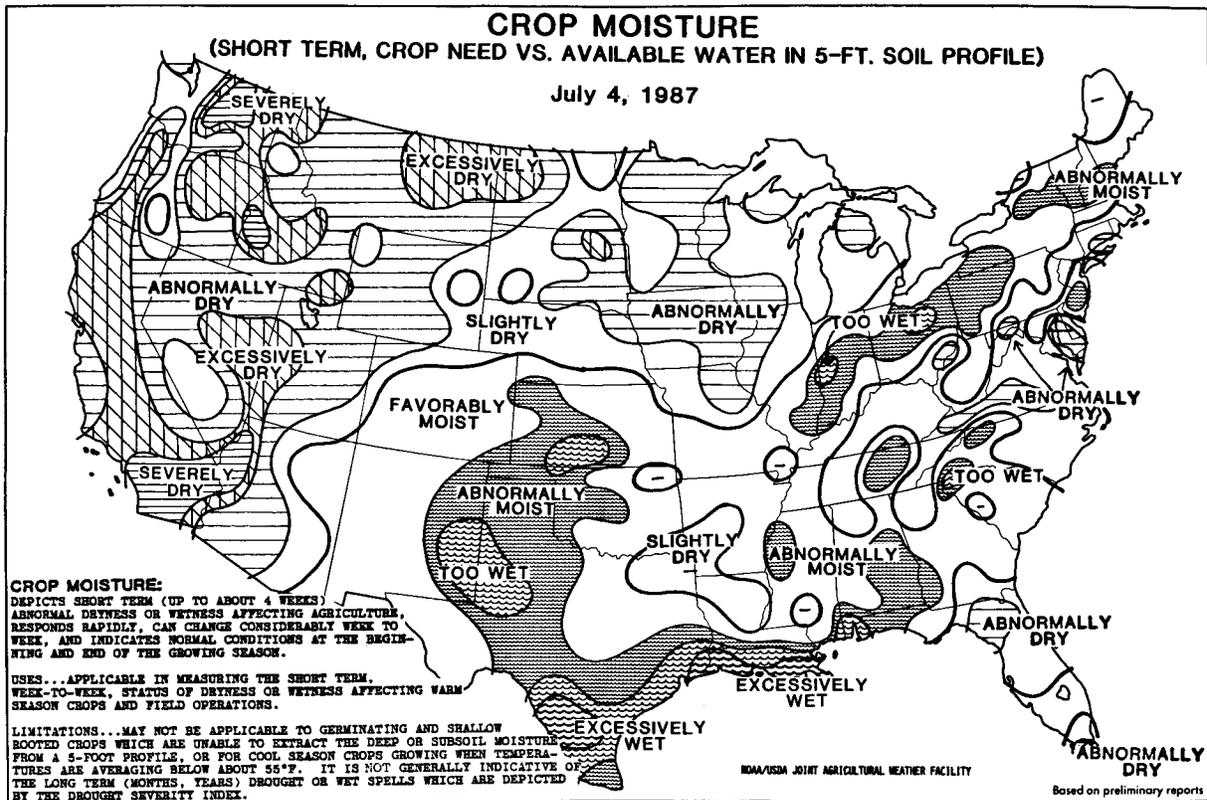
THURSDAY... Thunderstorms caused moderate, occasionally heavy showers from eastern Texas and Oklahoma to New England. Persistent heavy rain threatened flooding in the upper Ohio Valley. Showers and thunderstorms were scattered through the Northwest and northern Rockies. Mild temperatures prevailed over most of the Nation.

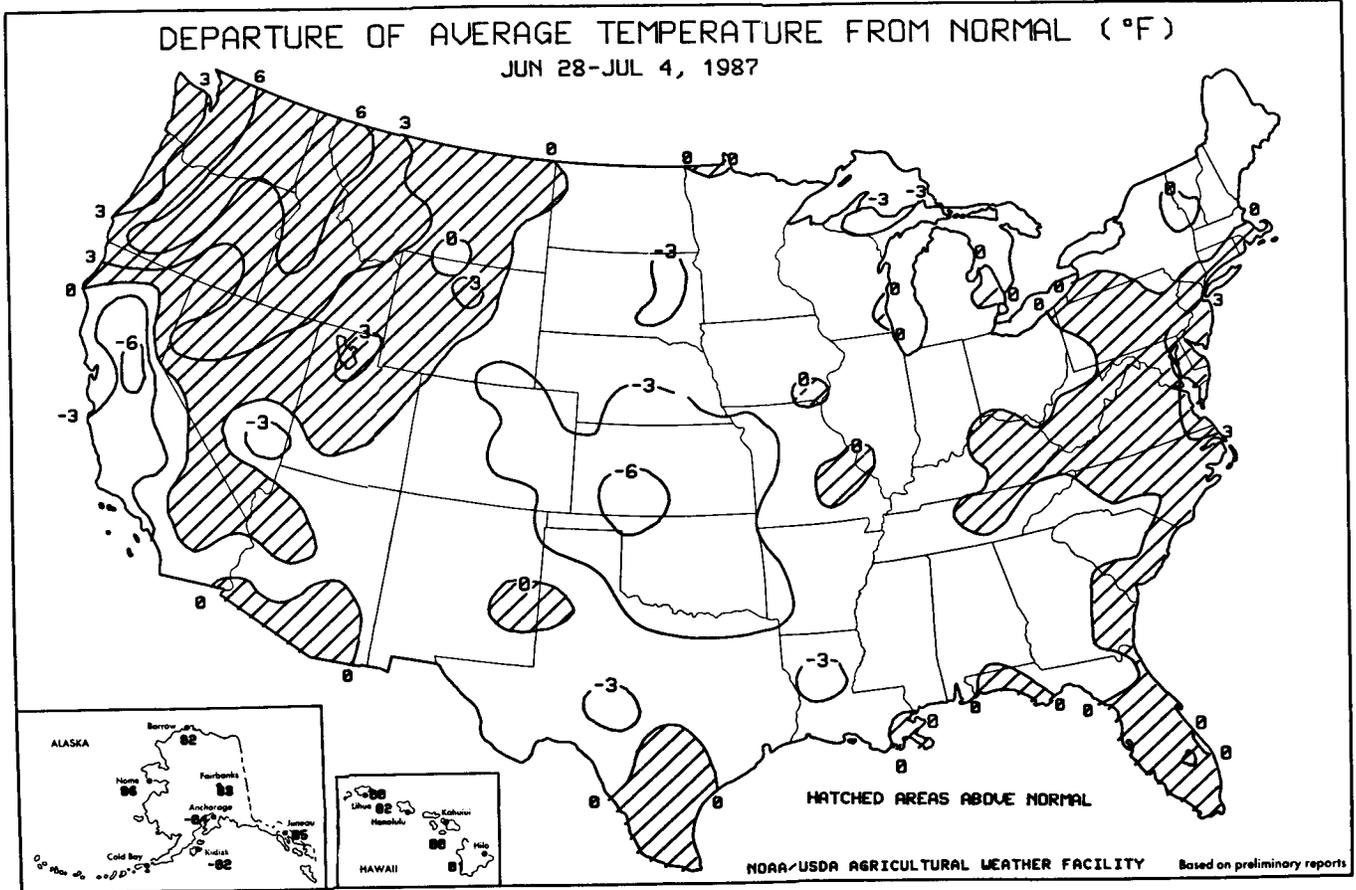
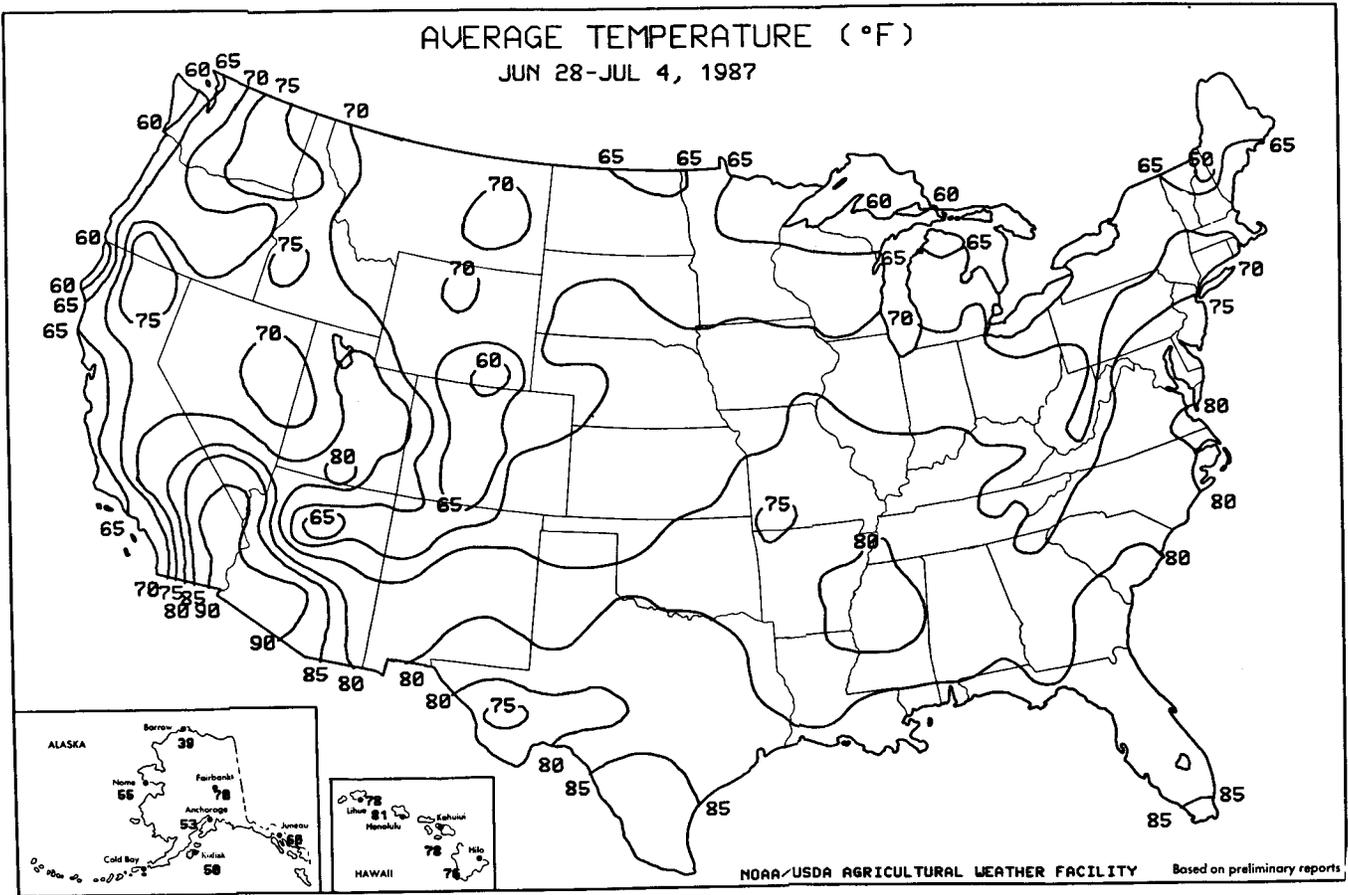
FRIDAY... Showers and thunderstorms were again widespread from Alabama to Kentucky and eastward through Virginia to the Atlantic and Florida. Showers were scattered from the central Plains to the northern Rockies. Severe weather hit in Kansas, Colorado, and Nebraska. Relatively mild temperatures prevailed in most of the Nation. Normally hot weather covered most of the South and Southwest.

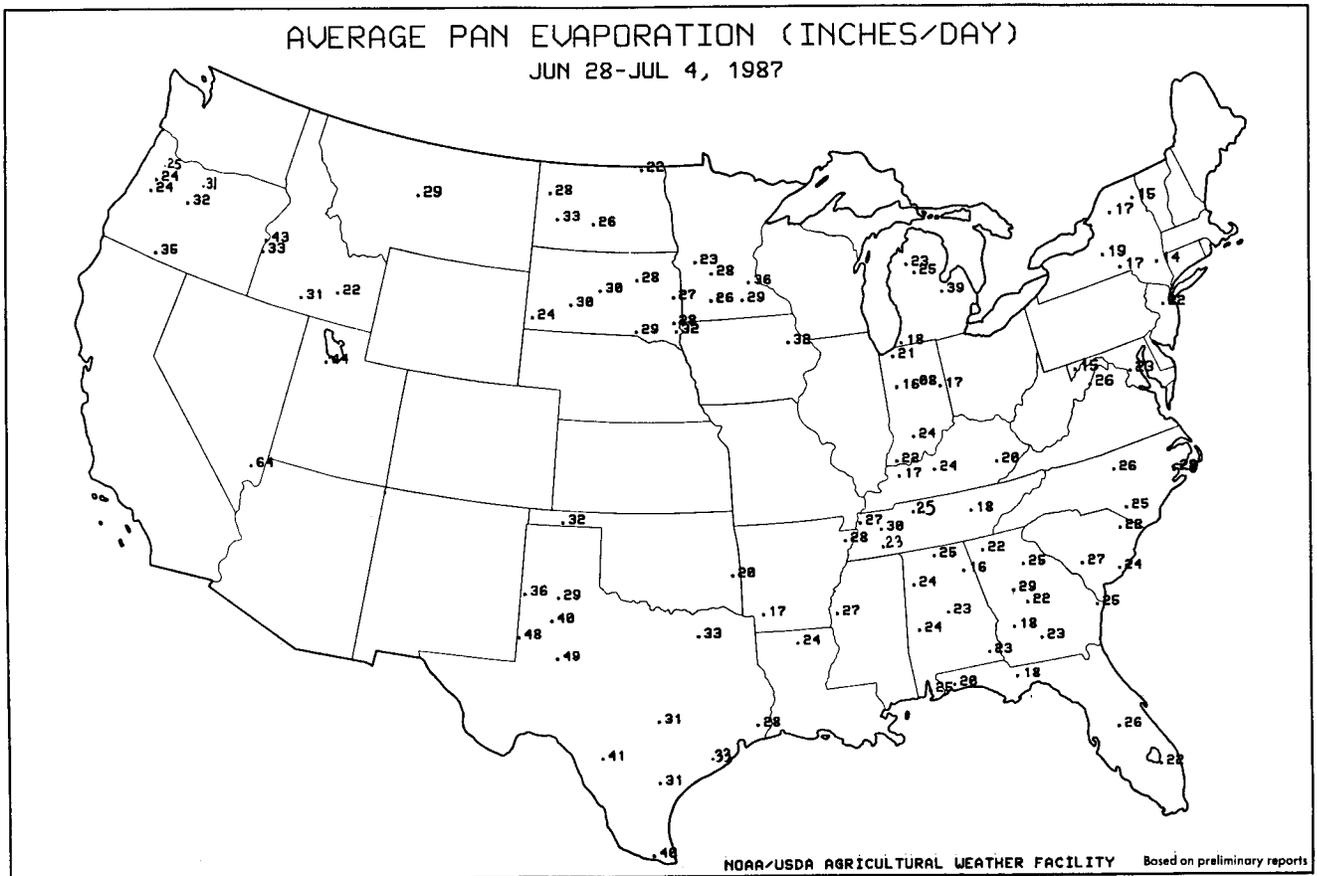
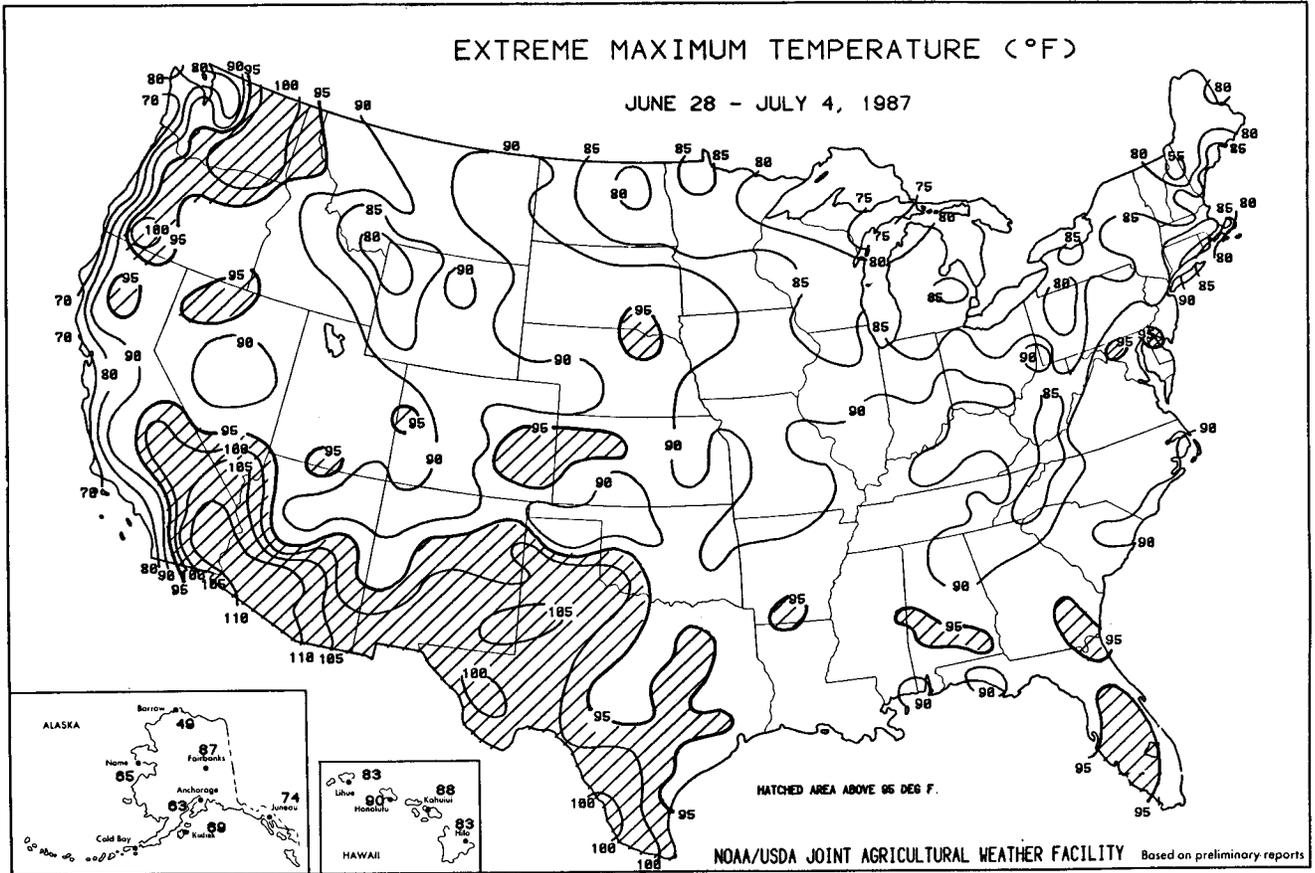
SATURDAY... Natural pyrotechnics on the Fourth provided flash and bang with severe thunderstorms from the central Plains to the upper and middle Mississippi Valley and in the Southeast. A few showers continued in New England and another group moved across the Northwest.

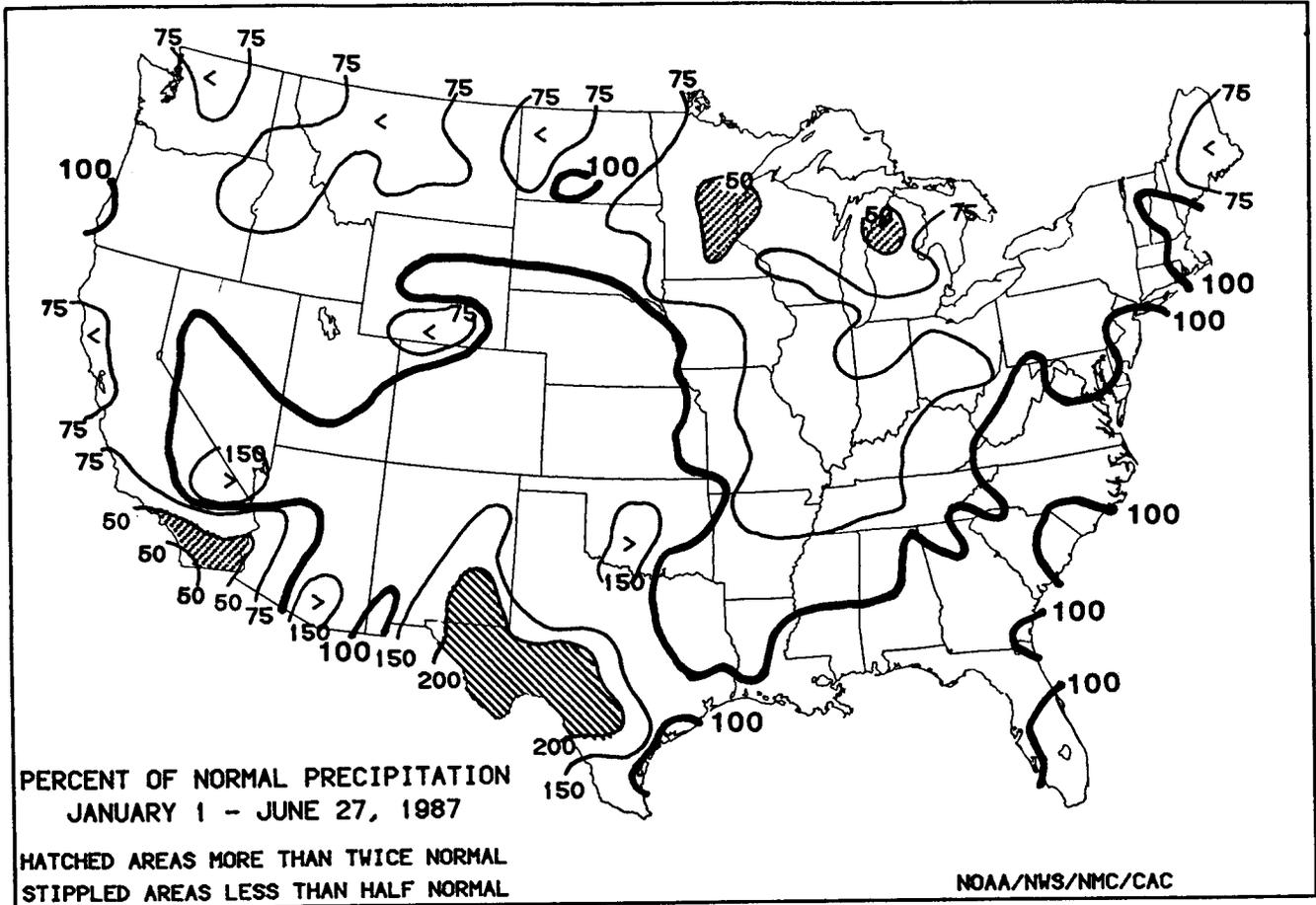
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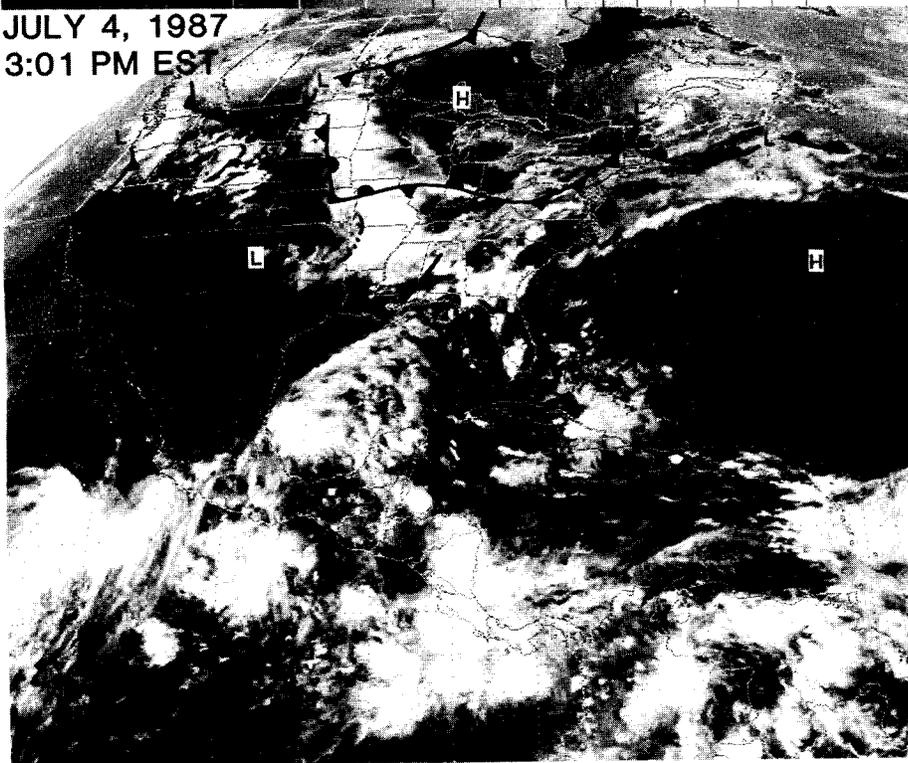






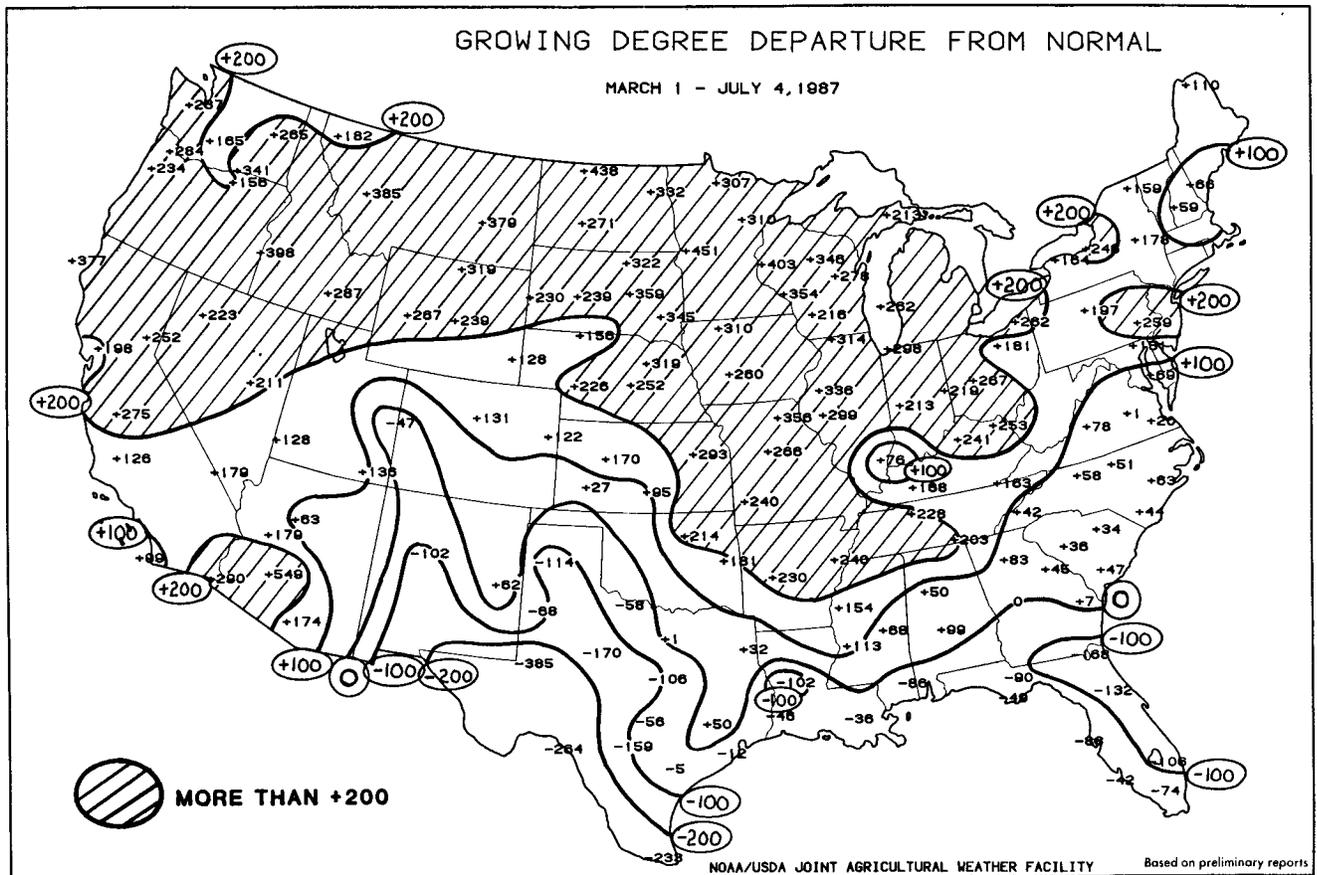
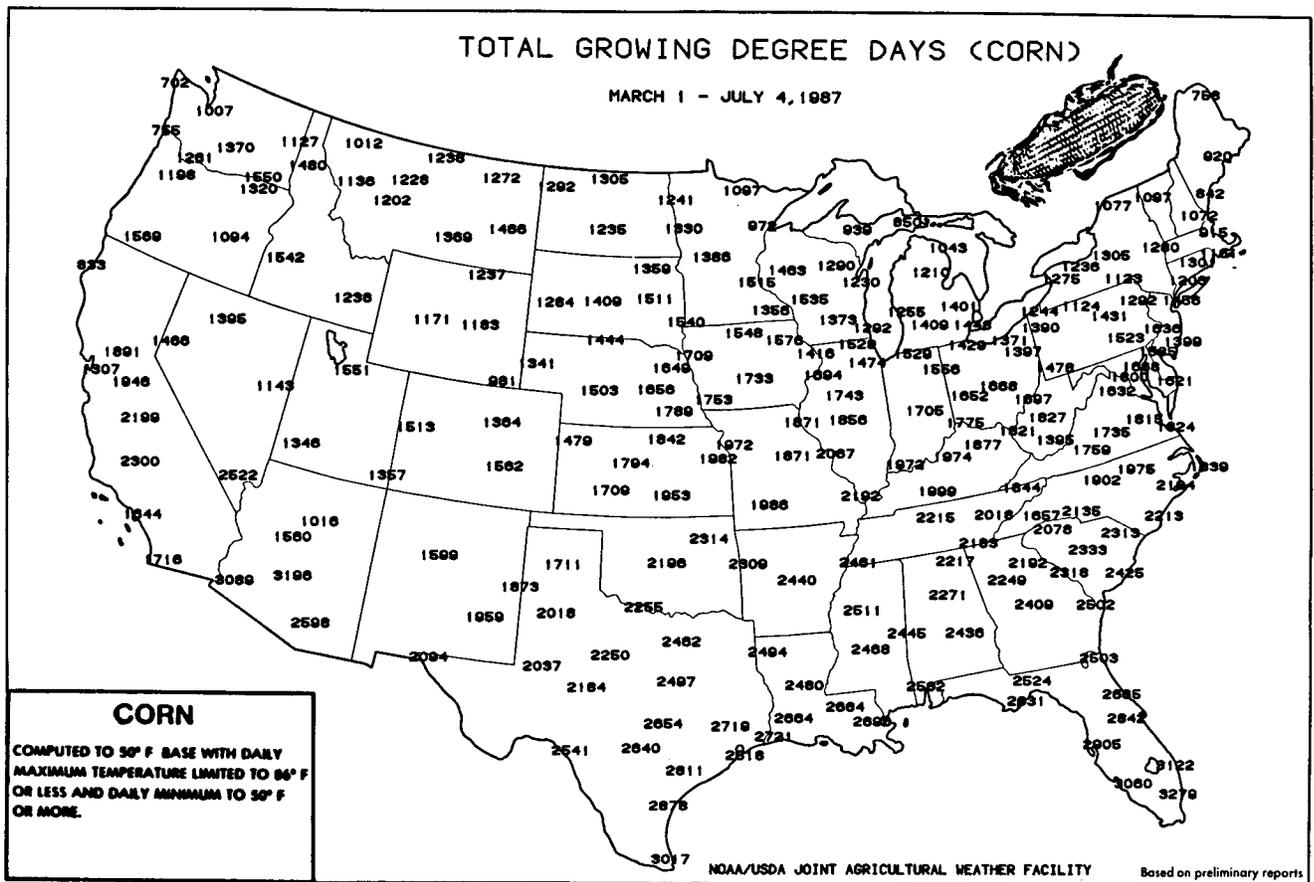
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JULY 4, 1987
3:01 PM EST



NATURE PUTS ON HER OWN FIREWORKS DISPLAY ON INDEPENDENCE DAY AS THUNDERSTORMS EXTEND FROM NORTH DAKOTA TO NORTHERN MISSISSIPPI TO EASTERN GEORGIA. THUNDERSTORMS ARE ALSO OVER THE CENTRAL AND SOUTHERN APPALACHIANS.

THE BOTTOM PART OF THE SATELLITE IMAGERY SHOWS AN ACTIVE INTERTROPICAL CONVERGENCE ZONE.



National Weather Data for Selected Cities

Weather Data for the Week Ending July 4, 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 6	PCT. NORMAL SINCE JUNE 6	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	87	68	89	59	77	-2	1.5	.4	.7	6.0	142	26.6	88	93	56	0	0	3	2
MOBILE	89	70	90	63	80	-2	1.1	-.4	.8	8.8	149	41.2	126	97	57	4	0	3	1
MONTGOMERY	90	68	93	58	79	-1	1.6	-.6	1.3	8.9	220	36.2	134	99	55	4	0	4	1
AK ANCHORAGE	60	47	63	41	54	-4	.2	-.1	.2	1.1	84	4.8	101	92	59	0	0	3	0
BARROW	43	34	49	31	39		.1	0	.1	.2	41	.6	43	89	62	0	1	2	0
FAIRBANKS	82	58	87	51	70	8	.1	-.4	T	1.1	71	2.1	56	65	27	0	0	0	0
JUNEAU	68	51	74	44	60	5	T	-.8	T	5.9	172	20.4	100	85	53	0	0	0	0
KODIAK	54	46	69	45	50	-2	3.0	2.2	2.3	16.9	374	46.0	164	97	76	0	0	5	2
NOME	60	50	65	47	55	6	.4	0	.2	.8	54	3.2	73	94	61	0	0	5	0
AZ PHOENIX	107	78	110	75	93	2	.1	-.1	0	0	T	5	118	24	9	7	0	0	0
PRESCOTT	90	55	92	50	73	2	0	-.4	0	.3	38	4.9	71	29	6	4	0	0	0
TUCSON	107	69	109	67	88	2	0	-.3	0	.2	32	4.8	156	20	7	7	0	0	0
YUMA	107	76	109	74	92	0	0	0	0	0	0	.4	49	29	11	7	0	0	0
AR FORT SMITH	88	67	92	63	77	-.4	.7	0	.4	3.1	77	20.6	97	55	4	2	0	0	0
LITTLE ROCK	88	72	91	69	80	-1	.5	-.3	.5	3.4	81	20.6	76	80	58	6	0	0	0
CA BAKERSFIELD	91	63	95	57	77	-5	0	0	0	.1	100	3.7	97	65	26	6	0	0	0
EUREKA	62	54	68	53	58	-.3	T	0	T	.3	46	17.7	88	74	79	4	0	0	0
FRESNO	91	61	95	57	76	-.3	0	0	0	T	14	6.6	95	72	24	4	0	0	0
LOS ANGELES	70	60	73	58	65	-.3	0	0	0	.1	T	2.9	35	93	64	0	0	0	0
REDDING	93	64	97	59	79	-.3	0	-.1	0	T	0	19.1	78	68	27	5	0	0	0
SACRAMENTO	83	53	87	52	68	-1.6	0	0	0	T	0	8.8	82	92	38	0	0	0	0
SAN DIEGO	71	62	72	62	67	-.2	0	0	0	T	0	5.1	83	80	63	0	0	0	0
SAN FRANCISCO	68	56	72	55	62	0	T	0	T	0	8.5	69	85	58	0	0	0	0	0
CO DENVER	82	55	91	52	68	-.3	1.3	1.0	.8	3.5	195	12.4	148	89	35	2	0	4	1
GRAND JUNCTION	89	60	95	57	75	-2	.2	-.1	.2	.2	49	5.6	148	56	19	4	0	2	0
PUEBLO	88	56	97	50	72	-.3	.5	-.2	.5	1.4	108	6.2	126	90	28	5	0	3	0
CT BRIDGEPORT	79	64	84	60	72	0	.3	-.4	.2	1.8	55	17.8	86	92	53	0	0	3	1
HARTFORD	81	61	91	56	71	-1	1.0	.3	.9	4.7	124	23.2	106	97	51	1	0	3	1
DC WASHINGTON	89	69	92	59	79	1	T	-.8	T	4.0	104	17.3	91	89	49	4	0	1	0
FL APALACHICOLA	89	75	91	70	82	1	1.2	-.2	.8	5.6	100	28.6	124	94	61	2	0	3	1
DAYTONA BEACH	88	73	91	71	81	0	1.7	.3	1.1	4.3	60	24.0	113	97	68	2	0	2	1
JACKSONVILLE	92	73	95	69	82	1	.8	-.6	.5	4.9	76	22.7	96	99	52	4	0	2	2
KEY WEST	90	79	90	73	84	0	4.2	3.2	3.5	4.3	76	18.0	118	85	66	4	0	4	0
MIAMI	90	78	93	74	84	2	.9	-.8	.5	6.0	60	18.7	73	91	60	4	0	6	3
ORLANDO	93	73	96	72	83	1	4.2	2.3	1.7	5.0	62	21.3	94	99	55	6	0	2	1
TALLAHASSEE	90	69	94	63	79	-1	1.1	-.7	1.0	13.6	178	12.1	131	98	74	5	0	6	1
TAMPA	91	75	94	73	83	1	1.8	.3	1.1	4.6	76	24.7	124	94	60	6	0	6	2
WPST PALM BEACH	89	75	93	73	82	1	3.2	1.6	1.6	7.9	89	26.3	101	96	65	1	0	6	1
GA ATLANTA	87	67	90	58	77	0	2.3	1.4	1.1	8.5	214	29.5	107	93	51	1	0	5	1
AUGUSTA	91	68	93	60	79	0	.3	-.7	.3	6.0	137	28.8	119	96	58	4	0	2	0
MACON	89	68	91	57	78	-2	.3	-.7	.2	5.3	123	26.9	106	97	52	2	0	2	0
SAVANNAH	90	72	93	66	81	1	.8	-.7	.7	8.9	135	31.6	129	95	55	3	0	3	1
HI HILO	83	69	83	67	76	0	3.1	1.5	.7	14.4	204	57.6	87	95	64	0	0	7	4
HONOLULU	88	74	90	73	81	2	T	-.1	T	.4	83	3.1	23	76	46	1	0	0	0
KAHULUI	85	71	88	69	78	0	T	0	T	.1	41	12.4	107	85	54	0	0	1	0
LIHUE	83	74	83	71	78	0	.1	-.3	0	.4	22	11.2	50	82	61	0	0	2	0
ID BOISE	92	63	94	55	77	6	T	-.1	T	.6	59	5.7	51	61	18	5	0	0	0
LEMISTON	92	63	99	56	78	6	.2	0	.2	.5	36	4.1	56	62	19	4	0	1	0
POCATELLO	86	54	90	50	70	2	.3	.1	.2	.9	76	5.9	94	87	26	1	0	2	0
IL CHICAGO	81	63	88	60	72	0	.1	-.8	1	2.2	46	11.0	64	92	7	0	0	2	0
MOLINE	85	62	88	58	73	-1	.3	-.8	.3	1.6	32	10.8	58	94	45	0	0	1	0
PEORIA	83	63	89	54	73	-.1	.2	-.7	2	3.3	74	11.1	62	97	76	0	0	1	0
QUINCY	84	65	89	56	75	-1	1.1	-.1	.8	3.1	67	11.8	63	94	51	0	0	4	1
ROCKFORD	81	61	83	56	71	-1	.8	-.3	.8	3.1	60	12.4	68	93	48	0	0	2	1
SPRINGFIELD	84	64	89	55	74	-2	3.9	3.1	2.9	7.0	177	14.5	82	95	56	0	0	4	2
IN EVANSVILLE	86	66	91	55	76	-2	.7	-.1	.4	6.4	159	19.0	82	95	55	1	0	2	0
FORT WAYNE	80	62	85	50	71	-2	2.2	1.4	.8	6.3	154	15.8	87	96	63	0	0	5	2
INDIANAPOLIS	83	63	89	51	73	-1	5.8	4.8	5.1	9.2	203	18.3	90	96	58	0	0	5	1
SOUTH BEND	80	62	84	57	71	-1	.4	-.5	.2	3.6	81	14.6	78	93	56	0	0	2	0
IA DES MOINES	84	63	87	59	74	-1	.1	-.7	.1	2.2	48	13.7	86	88	45	0	0	2	0
SIOUX CITY	84	59	91	53	72	-3	.5	-.4	.5	3.0	68	14.4	107	91	43	2	0	0	0
WATERLOO	84	58	89	52	71	-1	T	-.1	T	2.7	54	11.0	67	85	77	0	0	2	0
KS CONCORDIA	84	63	91	56	74	-4	1.8	-.9	1.3	3.5	75	22.3	156	89	47	1	0	3	1
DODGE CITY	83	60	89	57	72	-7	1.7	1.1	1.5	5.4	158	15.2	140	93	30	0	0	1	0
GOODLAND	84	57	95	54	71	-4	2.4	1.8	1.4	8.8	290	16.6	188	96	39	1	0	2	0
TOPEKA	83	65	88	62	74	-4	.7	-.4	.4	4.9	85	20.9	123	94	59	0	0	4	1
WICHITA	84	65	95	59	75	-5	3.4	2.5	2.4	5.8	128	23.2	162	93	55	1	0	4	1
KY BOWLING GREEN	85	67	88	55	76	-1	1.9	.8	1.5	4.7	92	20.6	75	97	56	0	0	4	1
LEXINGTON	85	66	89	54	75	0	.9	-.2	.6	7.4	152	19.5	79	91	52	0	0	5	1
LOUISVILLE	87	68	91	55	77	1	.8	-.1	.6	4.4	106	16.6	70	90	49	1	0	2	1
LA ALEXANDRIA	89	68	93	63	79	-4	1.2	.2	.7	3.6	81	30.2	97	91	64	3	0	3	1
BATON ROUGE	90	72	92	65	81	-1	2.1	.9	.8	5.4	139	32.0	113	95	57	3	0	5	2
LAKE CHARLES	89	72	91	68	80	-1	6.8	5.8	5.1	16.1	340	37.0	147	95	64	4	0	3	2
NEW ORLEANS	90	73	92	68	81	0	3.6	2.3	1.4	15.8	292	42.1	141	97	64	4	0	6	2

Based on 1951-80 normals.

Weather Data for the Week Ending July 4, 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 6	PCT. NORMAL SINCE JUNE 6	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
SHREVEPORT	91	69	93	63	80	-.2	.6	-.2	.5	5.6	141	24.2	98	96	50	5	0	3	1
ME CARIBOU	72	53	76	45	63	-1.1	1.0	-.2	.6	4.1	112	12.9	81	97	59	0	0	4	1
PORTLAND	75	56	86	53	66	-.2	.3	-.4	.2	5.3	155	23.8	109	91	57	0	0	3	0
MD BALTIMORE	88	67	93	55	78	2.3	3.5	2.6	3.2	5.9	141	21.0	102	98	50	1	0	3	1
SALISBURY	88	68	91	58	78	2.3	.7	-.2	.3	3.3	83	21.6	101	95	52	3	0	2	0
MA BOSTON	77	60	86	57	69	-.3	.7	.1	.7	3.3	102	26.9	121	92	52	0	0	1	1
CHATHAM	74	59	78	56	66	-.3	1.2	.6	1.1	2.6	83	28.9	124	96	75	0	0	2	1
MI ALPENA	78	50	81	44	64	-1.1	.3	-.5	.3	3.4	95	9.0	66	96	45	0	0	1	0
DETROIT	79	62	84	51	70	-1.1	1.6	-.8	1.0	7.3	193	17.0	108	92	57	0	0	4	1
FLINT	81	59	88	50	70	-1	.1	-.6	.1	1.6	45	8.8	61	99	49	0	0	3	0
GRAND RAPIDS	80	59	82	55	69	-1	.8	.1	.8	3.6	87	9.2	55	91	48	0	0	2	0
HOUGHTON LAKE	79	52	81	45	65	0	.3	-.4	.2	1.0	29	6.0	45	93	42	0	0	2	0
LANSING	80	59	84	53	69	0	.5	-.3	.3	3.3	77	8.5	57	92	49	0	0	2	0
MARQUETTE	71	48	76	42	59	-.5	.7	0	.4	2.4	66	13.7	95	96	51	0	0	2	0
MUSKOGON	78	59	81	55	69	0	.2	-.4	.1	1.3	46	10.4	69	94	51	0	0	2	0
SAULT ST. MARIE	70	48	75	43	59	-.3	.3	-.4	.2	3.0	82	10.0	68	98	57	0	0	2	0
MN ALEXANDRIA	78	57	80	52	68	-1	.6	-.2	.3	2.0	45	8.7	71	86	38	0	0	2	0
DULUTH	76	49	79	42	62	-1	.7	-.2	.7	1.5	35	7.2	54	96	42	0	0	2	1
INT'L FALLS	76	49	82	41	62	-.3	.6	-.4	.4	1.6	40	6.6	61	93	40	0	0	2	0
MINNEAPOLIS	82	58	88	54	70	-.2	.7	-.2	.7	2.0	43	5.4	42	84	36	0	0	2	1
ROCHESTER	80	55	84	50	67	-.3	.4	-.5	.4	3.7	88	9.0	67	95	49	0	0	2	0
MS GREENWOOD	89	71	92	64	80	-.2	2.0	1.1	.8	5.1	131	27.6	91	94	52	3	0	3	3
JACKSON	91	70	94	62	81	-1	.3	-.6	.1	6.3	173	32.9	113	95	50	5	0	3	0
MERIDIAN	90	68	92	58	79	-1	2.1	1.0	1.4	7.5	181	38.2	128	96	52	4	0	3	1
MO CAPE GIRARDEAU	87	69	93	65	78	-1	3.4	2.6	1.9	7.0	176	19.1	79	96	57	3	0	4	2
COLUMBIA	85	66	90	61	76	-1	.7	-.1	.3	2.8	67	12.2	62	92	54	2	0	4	0
KANSAS CITY	84	65	90	62	75	-.4	.8	-.3	.4	4.9	93	17.7	98	95	56	1	0	4	0
SAINT LOUIS	87	69	92	64	78	0	1.3	-.4	.4	4.4	103	13.6	74	94	52	2	0	4	0
SPRINGFIELD	85	65	89	63	75	-.2	3.0	2.0	2.2	6.2	119	25.0	121	98	55	0	0	4	1
MT BILLINGS	84	57	88	53	70	1	T	-.3	T	1.0	47	7.1	78	88	25	0	0	2	0
GLASGOW	84	54	91	48	69	1	.2	-.3	.1	1.2	44	4.9	81	86	27	1	0	3	0
GREAT FALLS	83	53	87	47	68	1	.3	-.1	.2	1.6	55	7.0	73	81	25	0	0	2	0
HAVRE	81	54	89	45	68	0	T	-.4	T	1.4	57	4.0	59	88	29	0	0	1	0
HELENA	85	53	93	47	69	4	.3	-.1	.3	1.7	78	5.6	83	78	22	2	0	1	0
KALISPELL	86	53	92	42	69	7	T	-.3	T	1.2	51	7.4	86	78	24	1	0	0	0
MILES CITY	85	59	91	50	72	0	T	-.5	T	.8	27	6.0	71	67	25	1	0	1	0
MISSOULA	87	53	94	46	70	6	.1	-.2	.1	1.6	80	5.2	69	82	27	2	0	1	0
NE GRAND ISLAND	86	58	93	50	72	-.3	.1	-.6	.1	1.4	34	15.1	114	91	37	2	0	2	0
LINCOLN	85	61	89	53	73	-.3	.6	-.2	.5	4.9	115	18.3	126	94	44	0	0	2	1
NORFOLK	85	59	94	48	72	-2	.1	-.7	.1	.7	14	15.3	113	89	39	2	0	1	0
NORTH PLATTE	84	57	89	49	70	-2	1.3	-.5	.7	4.5	109	12.1	107	94	42	0	0	4	1
OMAHA	84	63	90	58	74	-.3	.3	-.6	.3	1.9	41	15.4	100	84	50	1	0	2	0
SCOTTSBLUFF	85	55	91	50	70	-2	.3	-.3	.1	4.3	132	15.8	173	93	31	2	0	4	0
VALENTINE	85	54	92	43	70	-.3	.2	-.4	.2	2.5	78	10.8	114	86	33	1	0	2	0
NV ELY	86	43	88	39	65	0	.1	-.1	.1	.1	16	5.1	99	58	17	0	0	1	0
LAS VEGAS	103	74	107	69	89	0	0	-.1	0	.1	130	3.3	182	21	6	7	0	0	0
RRNO	89	52	94	45	71	4	.2	-.2	.2	1.2	319	6.0	138	61	15	3	0	2	0
WINNEMUCCA	91	54	96	47	72	3	.1	0	.1	.5	51	6.7	144	72	16	5	0	3	0
NH CONCORD	78	57	87	52	67	-1	1.6	-.9	1.4	7.3	221	19.6	112	94	52	0	0	2	1
NJ ATLANTIC CITY	86	68	94	60	77	4	2.5	1.8	2.2	4.7	146	24.6	122	94	47	1	0	2	1
NM ALBUQUERQUE	92	60	96	55	76	-2	T	-.2	T	.1	21	3.0	111	49	11	5	0	2	0
CLOVIS	90	64	98	61	77	0	.4	-.3	.3	4.4	148	9.6	132	93	34	4	0	2	0
ROSWELL	97	64	104	60	81	0	0	-.3	0	3.8	324	8.0	232	74	26	5	0	0	0
NY ALBANY	80	60	86	55	70	0	1.3	-.6	.9	4.5	122	16.8	96	98	57	0	0	4	1
BINGHAMTON	75	59	81	51	67	-1	1.5	.7	1.2	5.0	126	16.2	90	94	60	0	0	4	1
BUFFALO	76	62	84	56	69	-1	.8	-.2	.4	8.7	286	20.9	121	96	57	0	0	4	0
NEW YORK	83	68	91	62	75	0	1.6	-.8	.7	7.5	211	24.1	115	80	46	1	0	4	2
ROCHESTER	77	60	85	55	69	-1	.4	-.2	.2	4.0	130	13.4	85	97	59	0	0	3	0
SYRACUSE	77	61	86	57	69	-1	1.1	-.2	.6	5.7	141	16.0	85	93	53	0	0	4	1
NC ASHEVILLE	82	59	84	48	71	-2	1.3	-.4	.7	10.2	244	28.3	124	98	56	0	0	4	0
CHARLOTTE	89	68	91	60	78	1	.7	-.1	.3	3.9	96	21.0	90	90	44	4	0	4	0
GREENSBORO	88	66	90	57	77	1	3.7	2.7	2.0	4.8	108	27.1	125	93	49	1	0	3	2
HATTERAS	85	70	87	61	77	1	.8	-.3	.8	3.7	76	33.9	136	97	64	0	0	1	1
NEW BERN	88	71	91	65	80	2	1.5	-.2	1.1	7.7	130	28.4	115	92	58	3	0	2	1
RALEIGH	89	68	91	57	78	2	.5	-.5	.3	2.5	61	23.4	109	94	49	2	0	4	0
WILMINGTON	88	72	89	65	80	1	.2	-.4	.1	5.1	77	22.6	91	95	58	0	0	3	0
ND BISMARCK	80	52	84	43	66	-2	.1	-.5	.1	1.5	46	9.0	104	95	38	0	0	1	0
FARGO	79	55	83	49	67	-2	.5	-.2	.3	1.0	28	6.2	67	93	41	0	0	3	0
GRAND FORKS	79	51	83	44	65	-2	.2	-.5	.1	1.6	48	7.5	87	93	40	0	0	3	0
WILLISTON	81	54	92	47	68	-1	.1	-.5	0	.6	21	5.1	68	86	32	1	0	3	0
OH AKRON-CANTON	78	60	82	48	69	-2	3.6	2.7	1.5	6.3	169	18.1	98	100	65	0	0	4	3
CINCINNATI	84	64	89	50	74	0	2.7	1.7	1.8	6.4	139	19.2	88	96	53	0	0	4	2
CLEVELAND	77	62	84	51	70	-2	3.6	2.8	1.2	9.7	248	21.4	118	99	68	0	0	5	3
COLUMBUS	82	63	89	49	73	0	2.6	1.7	2.4	6.0	132	14.6	74	94	61	0	0	3	1

Based on 1951-80 normals.

Weather Data for the Week Ending July 4, 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 6	PCT. NORMAL SINCE JUNE 6	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE °F		PRECIPI- TATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	82	63	91	52	73	-1	3.5	2.6	2.4	6.0	141	16.2	85	95	54	1	0	4	2
TOLEDO	79	60	85	50	70	-1	1.6	.8	1.1	5.9	151	14.1	87	97	65	0	0	5	1
YOUNGSTOWN	78	60	83	52	69	0	2.7	1.8	1.2	8.4	209	19.6	104	99	67	0	0	4	3
OK OKLAHOMA CITY	85	68	90	64	76	-4	3.6	2.8	1.9	7.8	184	29.0	172	94	55	1	0	4	2
TULSA	85	70	92	66	78	-4	2.7	1.7	1.2	4.6	90	24.6	120	86	66	1	0	3	2
OR ASTORIA	64	55	67	52	59	1	.1	-.3	.1	.8	29	31.6	88	97	75	0	0	2	0
BURNS	84	50	90	41	67	2	T	-.1	T	.9	116	6.0	96	67	**	1	0	0	0
MEDFORD	93	60	100	54	77	7	0	-.1	0	.1	17	8.0	79	77	20	6	0	1	0
PENDLETON	91	62	101	52	76	5	.1	0	.1	.5	68	5.3	80	63	20	4	0	0	0
PORTLAND	82	59	94	57	71	5	T	-.2	T	.2	10	18.2	93	87	44	1	1	2	0
SALEM	83	53	95	49	68	4	.1	-.1	.1	.3	26	19.3	90	92	44	2	2	0	0
PA ALLENTOWN	83	63	90	54	73	1	1.2	-.3	.7	5.6	142	19.4	90	93	54	1	0	1	1
ERIE	76	64	84	57	70	1	2.4	1.6	1.1	6.4	146	17.5	95	94	65	0	0	5	3
HARRISBURG	85	65	92	56	75	1	.3	-.5	.2	3.8	93	17.1	85	92	49	1	0	2	0
PHILADELPHIA	87	69	92	58	78	3	2.1	1.2	1.7	4.1	93	17.8	86	95	53	2	0	4	1
PITTSBURGH	79	61	83	50	70	-1	3.0	2.1	1.2	7.9	199	21.0	108	96	60	0	0	4	3
SCRANTON	79	63	85	54	71	1	1.3	.5	1.2	5.6	143	16.7	98	92	57	0	0	2	1
RI PROVIDENCE	82	62	89	56	72	1	.9	.3	.5	2.3	73	21.8	96	97	50	0	0	3	0
SC CHARLESTON	89	73	91	67	81	1	2.2	.5	1.8	6.1	81	27.1	107	97	58	2	0	3	1
COLUMBIA	91	68	94	59	80	0	1.7	.6	.7	8.2	161	28.8	111	94	46	5	0	4	2
FLORENCE	90	70	93	60	80	0	.5	-.7	.3	4.6	85	21.3	94	94	54	5	0	3	0
GREENVILLE	87	65	89	54	76	-2	1.1	.1	.6	7.8	157	28.4	102	99	53	0	0	4	1
SD ABERDEEN	81	52	85	44	66	-4	T	-.6	T	.8	22	6.1	60	92	36	0	0	3	0
HURON	81	55	91	47	68	-4	.6	0	.5	1.6	45	10.5	98	98	41	1	0	3	1
RAPID CITY	83	55	92	47	69	-1	T	-.6	T	1.4	39	7.7	76	78	33	1	0	0	0
STOUX FALLS	82	56	92	49	69	-3	.4	-.3	.2	2.0	50	8.9	71	94	41	1	0	3	0
TN CHATTANOOGA	88	68	90	55	78	0	.5	-.4	.5	5.7	146	31.0	108	100	56	2	0	3	0
KNOXVILLE	88	64	91	51	76	-1	1.8	.8	1.0	4.5	99	23.5	89	98	50	2	0	3	2
MEMPHIS	88	72	92	69	80	-1	1.2	.3	.5	4.3	106	21.9	75	89	56	4	0	4	0
NASHVILLE	87	68	91	56	78	-1	1.5	.6	.4	3.7	90	16.8	62	96	58	2	0	5	0
TX ABILENE	92	71	97	65	81	-2	.9	.4	.8	1.8	66	12.9	113	84	42	5	0	2	1
AMARILLO	86	64	93	60	75	-3	.6	-.1	.6	3.3	85	11.2	117	98	48	2	0	1	1
AUSTIN	93	74	95	69	84	0	.2	-.3	.2	11.1	332	23.4	143	93	52	6	0	1	0
BEAUMONT	90	72	91	70	81	-1	3.2	1.9	1.6	13.2	238	34.6	137	98	4	5	0	3	2
BROWNSVILLE	94	77	95	74	86	2	T	-.4	T	4.8	164	13.0	132	94	52	7	0	1	0
CORPUS CHRISTI	92	76	93	72	84	0	.2	-.5	.2	4.9	117	18.9	142	95	61	7	0	2	0
DEL RIO	93	72	97	68	83	-3	.3	-.1	.2	5.7	297	16.2	207	82	43	6	0	0	0
EL PASO	100	65	103	62	83	-1	0	-.3	0	2.2	315	3.8	172	60	13	7	0	0	0
FORT WORTH	91	72	95	69	81	-3	.8	.3	.7	4.1	158	16.7	99	90	47	5	0	3	1
GALVESTON	88	78	90	69	83	0	.9	0	.8	4.1	101	17.3	99	83	62	1	0	3	1
HOUSTON	92	72	96	68	82	-1	2.5	1.6	1.1	10.9	221	24.3	106	95	55	6	0	4	2
LUBBOCK	93	68	105	61	80	1	.9	.3	.5	2.7	87	8.5	100	94	42	5	0	4	0
MIDLAND	94	67	102	61	81	-1	T	-.4	T	3.0	186	11.1	188	89	39	5	0	0	0
SAN ANGELO	92	69	96	64	80	-3	1.2	.9	.8	3.3	162	22.7	268	87	44	5	0	2	1
SAN ANTONIO	94	75	96	65	85	1	0	-.5	0	7.6	230	28.8	201	89	42	7	0	0	0
VICTORIA	92	76	93	70	84	1	.5	-.3	.5	11.7	237	23.7	136	96	53	6	0	1	1
WACO	95	72	97	70	83	-1	.7	.3	.7	6.6	233	19.0	112	91	48	7	0	1	1
WICHITA FALLS	90	70	96	66	80	-4	2.0	1.5	1.3	4.4	141	22.7	161	90	50	3	0	3	2
UT BLANDING	87	55	90	50	71	0	.1	-.1	.1	.1	16	5.1	104	52	19	2	0	1	0
CEDAR CITY	89	53	93	50	71	0	T	-.1	.1	.1	22	4.9	101	48	12	2	0	1	0
SALT LAKE CITY	90	63	93	61	77	3	T	-.2	T	.2	18	7.8	87	59	21	5	0	0	0
VT BURLINGTON	77	59	83	54	68	0	.7	-.2	.5	5.6	139	13.5	87	91	51	0	0	0	0
VA NORFOLK	90	72	94	64	81	4	.8	-.2	.6	3.8	93	25.6	120	84	46	6	0	3	1
RICHMOND	89	68	93	58	78	2	.5	-.5	.3	6.8	164	26.9	137	95	9	4	0	2	0
ROANOKE	89	63	93	53	76	1	1.7	.9	1.3	2.4	63	29.6	148	96	50	4	0	4	1
WA COLVILLE	88	60	97	54	74	8	.2	0	.2	2.1	135	10.5	117	68	37	2	0	0	0
QUILLAYUTE	66	51	80	44	59	1	.6	0	.5	2.3	73	53.4	99	99	72	0	0	5	0
SEATTLE-TACOMA	77	56	92	53	66	3	.1	-.2	.1	.2	16	18.8	98	97	50	1	0	1	0
SPOKANE	88	58	96	50	73	6	.3	-.1	.2	.9	67	7.4	81	73	21	4	0	2	0
YAKIMA	91	57	100	50	74	5	T	-.1	T	.1	17	3.9	91	80	25	4	0	0	0
WV BECKLEY	80	60	84	50	70	2	1.2	-.2	.6	5.4	119	24.3	110	89	57	0	0	4	1
CHARLESTON	85	64	89	52	75	1	2.6	1.6	1.7	6.0	154	20.4	95	98	60	0	0	4	2
HUNTINGTON	85	63	89	51	74	-1	.3	-.7	.1	2.8	71	19.5	91	97	52	0	0	3	0
PARKERSBURG	83	62	89	51	73	-1	.3	-.7	.2	2.5	56	13.0	64	97	44	0	0	2	0
WI GREEN BAY	79	54	82	48	67	-1	1.6	-.8	1.1	2.3	63	9.6	71	97	47	0	0	2	1
LACROSSE	83	58	89	53	71	-1	.6	-.3	.6	2.6	55	13.1	88	94	38	0	0	1	0
MADISON	82	55	84	49	68	-2	.3	-.6	.2	1.4	32	11.0	73	95	40	0	0	2	0
MILWAUKEE	80	63	85	60	71	2	.4	-.5	.4	2.2	55	14.4	93	90	52	0	0	2	1
WAUSAU	78	55	81	50	67	-2	1.6	-.7	1.3	3.3	75	9.2	62	94	43	0	0	5	0
WY CASPER	84	52	89	47	68	0	.3	-.1	.1	1.0	72	7.0	101	81	22	0	0	7	0
CHEYENNE	74	52	80	48	63	-3	1.0	-.5	.5	1.8	82	9.2	120	90	41	0	0	4	0
LANDER	81	55	87	52	68	0	.3	-.1	.2	1.2	77	9.8	113	77	26	0	0	4	0
SHERIDAN	83	53	87	44	68	1	.1	-.2	.1	1.2	51	6.9	73	82	28	0	0	1	0
PR SAN JUAN	87	76	88	74	81	0	1.8	.8	.9	8.0	147	37.4	169	93	76	0	0	6	1

Based on 1951-80 normals.

Cooling Degree Days Summary

Table with columns: STATE CITY, CALL WEEK, TOTAL, DEV FROM, DEV FROM, CUM FROM, CUM FROM, CUM FROM, CUM FROM, CUM FROM, STATE CITY, CALL WEEK, TOTAL, DEV FROM, DEV FROM, CUM FROM, CUM FROM, CUM FROM, CUM FROM, CUM FROM. Includes sub-headers for COOLING DEGREE DAY DATA WEEKLY SUMMARY and LAST DATE OF DATA COLLECTION PERIOD IS 7-4-1987.

June Weather and Crop Summary

JUNE WEATHER SUMMARY

HIGHLIGHTS: Widespread thunderstorms across the Nation produced intermittent moderate to heavy downpours in most areas. Rainfall accumulated normal or better amounts from most of the eastern Corn Belt to central New England. The western Corn Belt and from the eastern Great Lakes through the northern Great Plains had less than normal rain. However, timely showers through most of the areas kept crops supplied with needed moisture. Heavy rain in parts of southern Texas caused serious flooding problems, while parts of the panhandle were too dry. Thunderstorms and severe weather were almost daily occurrences across the South. Most of the Nation was warmer than normal. The warmest average temperatures were near the west coast, across the northern Great Plains to the Great Lakes region.

FIRST WEEK...Thunderstorms were widespread from the central and southern Great Plains to the Great Lakes and to the Atlantic Ocean. Heavy downpours in southern Texas caused serious flooding. Heavy rain was scattered in the central Plains; the Midwest had over an inch of rain, but southern and northern Illinois, the middle Ohio Valley, and western Iowa had less. Minnesota, much of Wisconsin, and the northern Plains remained dry. Showers moved across the Northwest, and thunderstorms developed in the Southwest. Eastern temperatures were warmer than normal early in the week, all week in the Southwest, and late in the week in the Northwest and northern Plains.

SECOND WEEK...Severe thunderstorms caused heavy rain and intermittent flooding across southeastern Texas. Scattered rain fell over the Corn Belt. Scattered thunderstorms were widespread in the Southeast, while hot, dry weather covered most of the West and northern Great Plains at week's end.

THIRD WEEK...Thunderstorms covered most of the area from the Rocky Mountains to the east coast. Only small amounts of rain fell in the northern Rockies and Great Plains, but heavy thunderstorms covered the High Plains from Texas to Nebraska. Heavy showers fell from the Great Lakes to New England, the upper Ohio Valley to New England, along the east coast, and through the Southeast. Other areas of moderate showers were from Arkansas to Iowa and in southern Illinois. Seasonal temperatures covered the East, except for the upper Mississippi Valley where it was warmer than normal. Unusually warm weather developed over the west coast at mid-week and spread eastward to the Great Plains by week's end.

FOURTH WEEK...Moisture flowed northward into the area east of the Rocky Mountains triggering widespread thunderstorms. The part of this area with the least rain was western Texas where rivers were already running full. Much of the Corn Belt got beneficial rain, but some area had little or none. Heavy thunderstorms and severe weather wreaked havoc across the South. Showers also covered the Northwest and spread over the northern Plains and into Canada. Maximum temperatures were unusually warm early in the week but cooled by week's end. High temperatures exceeded 95 degrees from the central Plains to the lower Great Lakes and northward into Canada.

JUNE CROP PROGRESS

Dry weather persisted in northern Great Plains and Rocky Mountain States during most of June. The inadequate moisture concerned wheat producers,

but timely rains were enough to keep soil moisture from becoming critically short. Excessive wetness stalled planting in the southern Great Plains during most of the month. Dryness the first half of June and wetness the second half curtailed planting in the Southeast.

Corn planting was finished by June 1, except in a few northern producing areas. Development and growth was considerably ahead of normal, especially in the Corn Belt. By June 28, 7 percent of the acreage was silking, compared with 6 percent in 1986 and 4 percent normally. Silking reached as far north as Illinois and was underway in 8 of the 17 major-producing States. Denting and doughing began spreading across the Delta and Southeast by the end of June. Forty percent of Georgia's corn acreage was in the dough stage, and 7 percent reached the dent stage. Doughing was 40 percent finished in Texas, and 5 percent was in the dent stage. Corn reached the denting and doughing stage in Alabama and Mississippi.

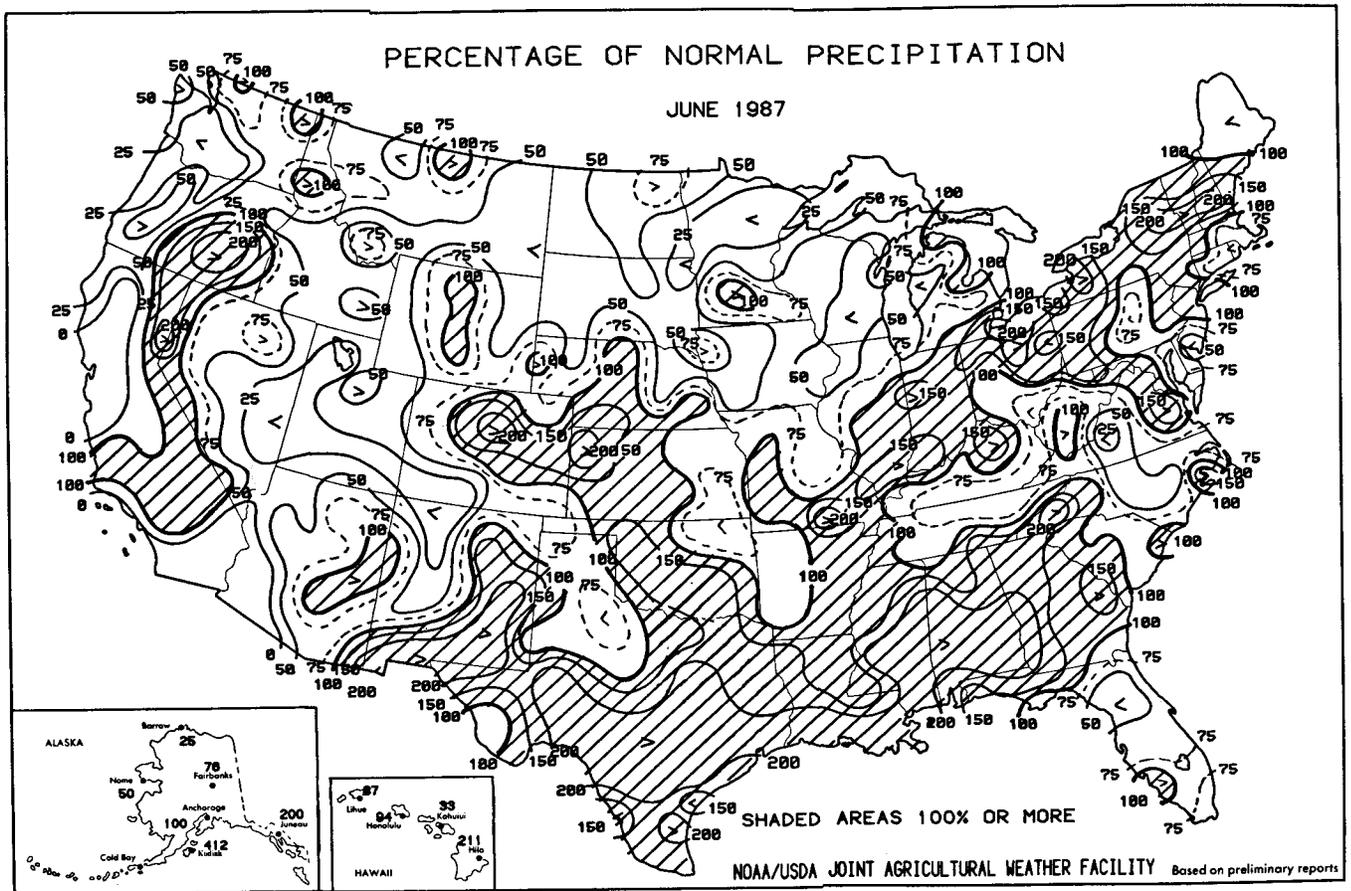
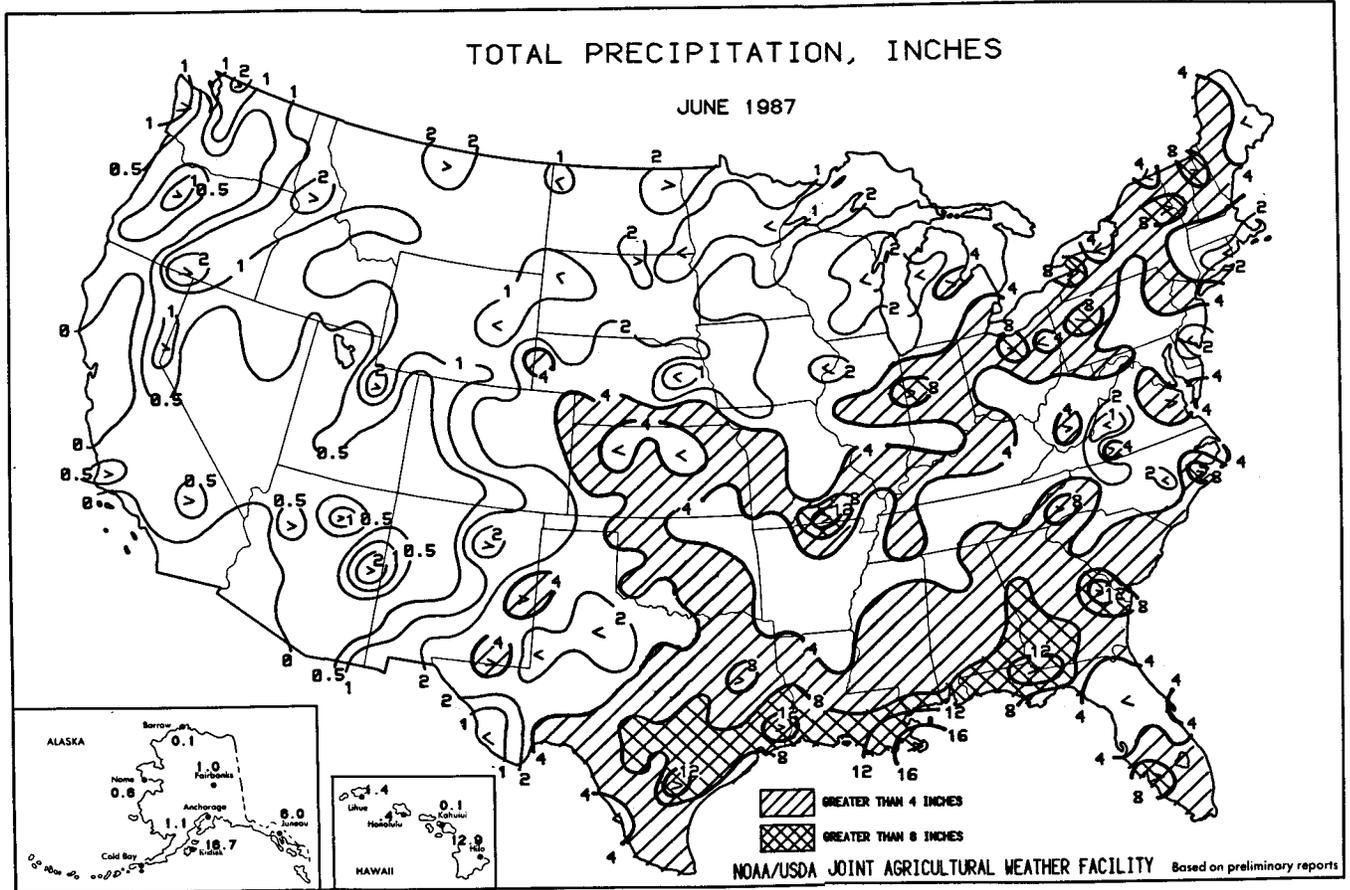
Virtually all soybeans were planted in the Corn Belt and central Great Plains by the end of June. Dryness, then wetness hampered planting in Southeast during most of the month. In the 19 major-producing States, 97 percent of the acreage was planted by June 28, 3 points ahead of the 5-year average. Soybeans were blooming in Georgia, Iowa, Missouri, Nebraska, and Kansas.

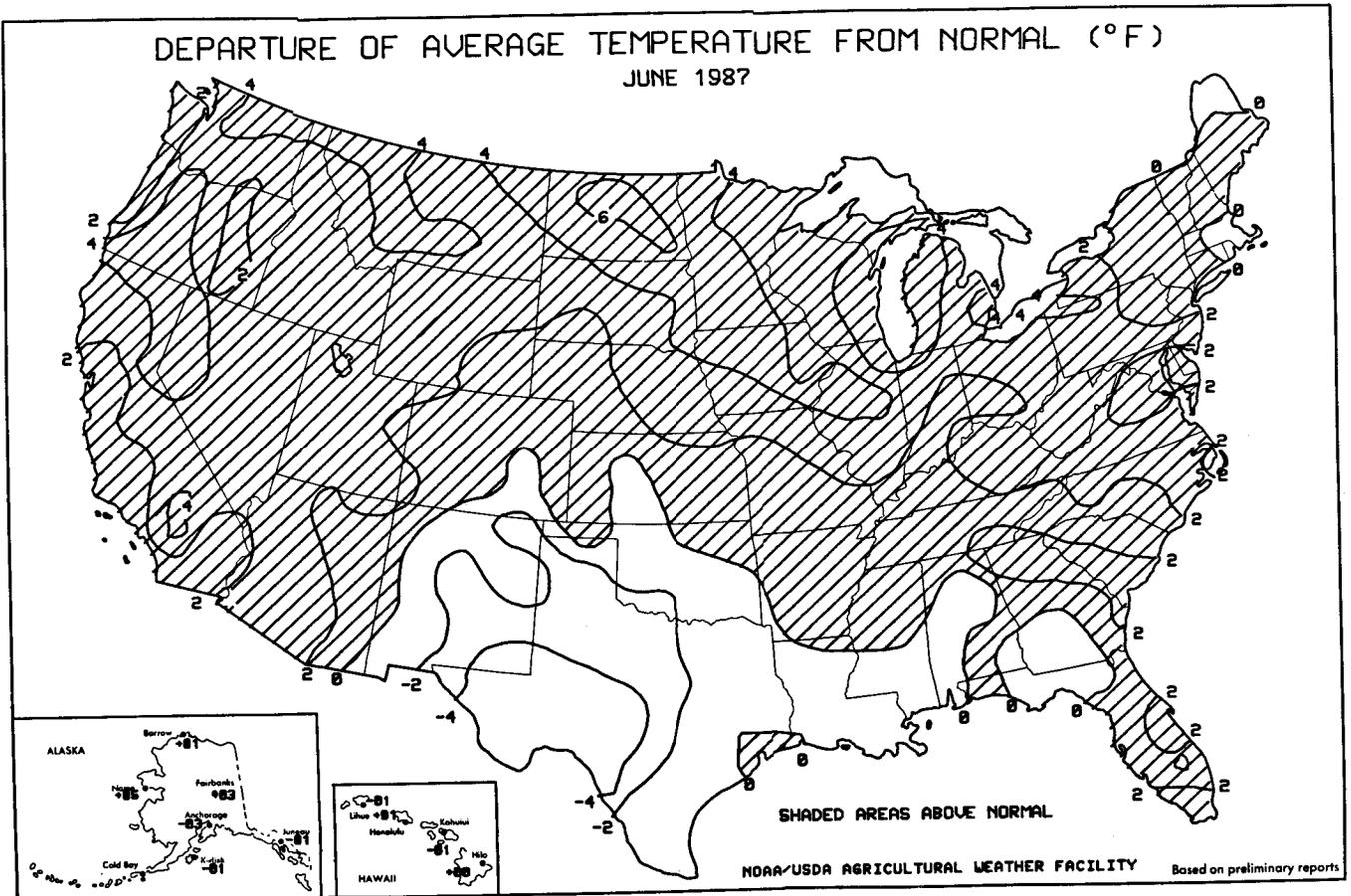
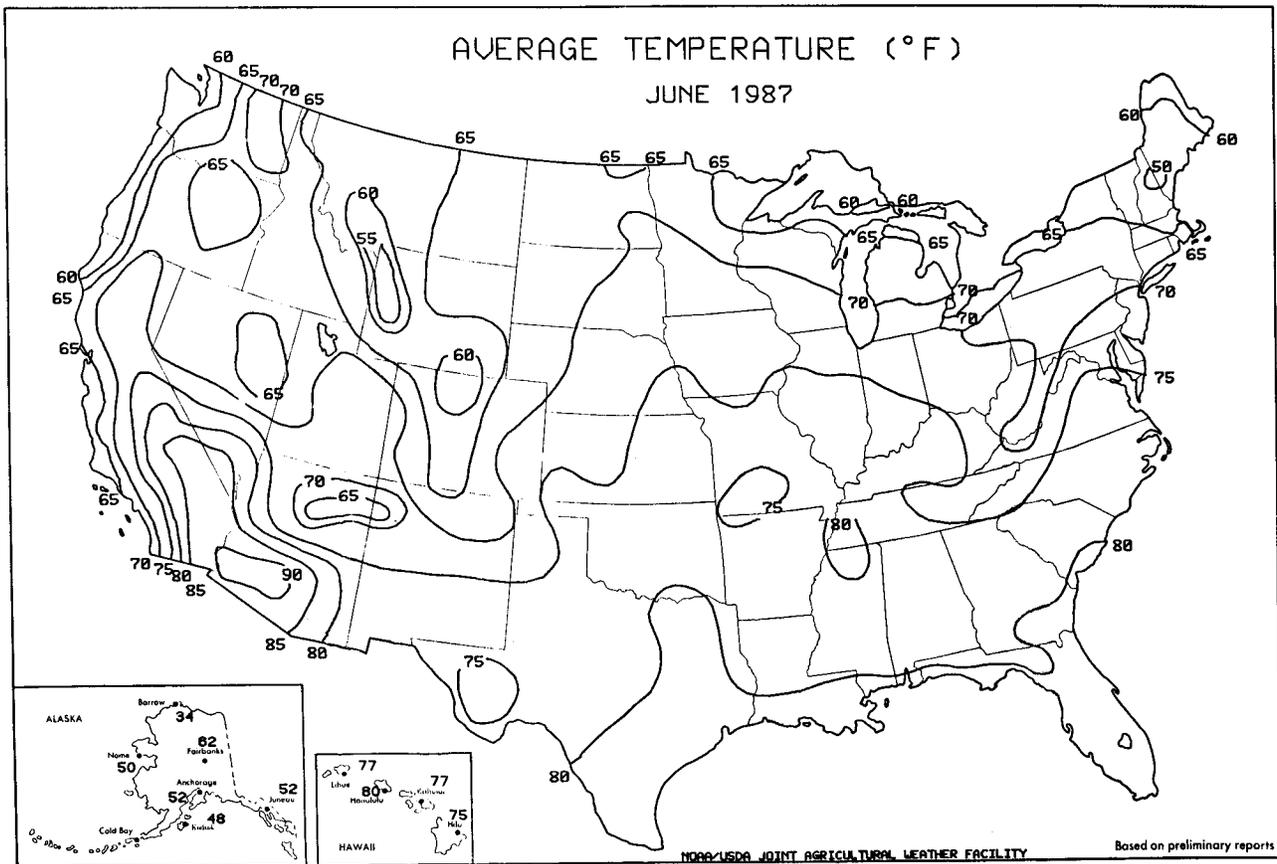
By mid-June, cotton was planted in all cotton producing States, except in Georgia, Oklahoma, and Texas. At month's end, planting was still underway in Oklahoma and Texas. In Texas, planting, squaring, setting boll, and harvesting were underway all at the same time. Heavy rain slowed planting in both States during most of June. Planting was 85 percent finished in Oklahoma and 99 percent finished in Texas. Cotton began squaring and setting bolls earlier than normal. By June 29, squaring was 13 points ahead of the 36-percent average. Eleven percent of the acreage was setting bolls, 3 points above normal.

The 11 major sorghum-producing States seeded 97 percent of their acreage by June 28, compared with 89 percent normally. Planting was finished, except in Kansas, Oklahoma, South Dakota, Tennessee, and Texas. Sorghum was heading in Louisiana and Oklahoma and heading and turning color in Texas.

Rice was 3 percent headed, compared with 8 percent headed normally by June 28. Heading was underway in Louisiana and Texas but behind normal by 11 and 17 points, respectively. Normally, heading would be underway in Mississippi by this date.

Winter wheat harvest progressed rapidly the last 2 weeks of June. In the 20 major-producing States, 22 percent of the acreage was harvested during those weeks. Combining was 48 percent finished, compared with the 33 percent average. Harvest was underway in all major producing States, except Idaho, Montana, South Dakota, and Washington. Kansas wheat harvest more than doubled the average at 65-percent completion on June 28. Illinois wheat was 85 percent harvested, nearly four times greater than normal. Nebraska's harvest was 11 points above normal. Winter wheat harvest neared completion in Arkansas, Oklahoma, and most Delta and Southeast States. Spring wheat was 64 percent headed, compared with 31 percent normally. Crop condition was mostly good, but the lack of moisture showed in South Dakota at month's end.





Temperature and Precipitation Data for June 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	77	0	3.8	0.2	BATON ROUGE	80	-1	4.5	0.8	DAYTON	72	1	3.2	-0.6
MOBILE	79	0	7.7	2.7	LAKE CHARLES	80	0	11.0	6.9	TOLEDO	71	2	5.6	2.2
MONTGOMERY	79	0	7.8	4.3	NEW ORLEANS	80	0	15.0	10.4	YOUNGSTOWN	69	2	6.5	3.0
AK ANCHORAGE	52	-3	1.1	0.0	SHREVEPORT	79	-1	5.4	2.0	OK OKLAHOMA CITY	77	0	6.5	2.7
BARROW	34	1	0.1	-0.3	ME CARIBOU	61	0	3.6	0.4	TULSA	79	1	2.3	-2.3
FAIRBANKS	62	3	1.1	-0.2	PORTLAND	64	1	5.0	2.0	OR ASTORIA	58	1	0.7	-1.9
JUNEAU	52	-1	5.9	2.9	MD BALTIMORE	74	2	2.6	-1.1	BURNS	61	1	1.5	0.9
KODIAK	48	-1	16.7	12.7	MD SALISBURY	74	2	2.7	-0.9	MEDFORD	71	5	0.1	-0.5
NOME	50	4	0.5	-0.7	MA BOSTON	65	-3	2.6	-0.3	PORTLAND	67	1	0.4	-0.3
AZ FLAGSTAFF	61	2	0.3	-0.3	MA CHATHAM	62	0	1.5	-1.2	PORTLAND	67	4	0.1	-1.3
PHOENIX	93	6	T	-0.2	MI ALPENA	65	3	3.4	0.3	SALEM	64	3	0.3	-1.0
PRESCOTT	72	5	0.3	-0.2	MI DETROIT	71	3	7.1	3.6	PA ALLENTOWN	71	2	4.4	1.0
TUCSON	86	3	0.2	-0.1	FLINT	70	4	1.6	-1.6	ERIE	69	4	5.2	1.5
WINSLOW	73	1	0.3	-0.1	GRAND RAPIDS	71	3	3.6	-0.1	HARRISBURG	73	2	3.5	-0.1
YUMA	90	3	0.0	0.0	HUGHTON LAKE	68	5	1.0	-2.1	PHILADELPHIA	75	3	2.0	-1.9
AR FORT SMITH	78	0	2.8	-0.9	LANSING	70	4	3.3	-0.6	PITTSBURGH	71	3	6.1	2.6
LITTLE ROCK	79	0	3.3	-0.3	MARQUETTE	63	3	2.0	-1.3	SCRANTON	69	1	4.4	0.9
CA BAKERSFIELD	78	0	0.3	0.2	MUSKEGON	69	3	1.2	-1.4	RI PROVIDENCE	68	1	1.9	-0.9
EUREKA	58	3	0.3	-0.3	SAULT ST. MARIE	61	3	2.9	-0.4	SC CHARLESTON	80	2	5.6	-0.9
FRESNO	78	3	T	-0.1	MN ALEXANDRIA	70	5	1.7	-2.4	COLUMBIA	79	2	6.5	2.1
LOS ANGELES	65	-1	0.1	0.1	DULUTH	63	4	0.8	-3.2	FLORENCE	79	2	4.0	-0.6
REDDING	79	3	0.0	-0.8	INT'L FALLS	64	3	1.1	-2.6	GREENVILLE	77	1	6.7	2.3
SACRAMENTO	73	1	T	-0.1	MINNEAPOLIS	73	5	1.9	-2.1	SD ABERDEEN	69	3	0.8	-2.4
SAN DIEGO	66	0	T	-0.1	ROCHESTER	70	3	3.7	-0.1	HURON	71	3	1.5	-1.8
SAN FRANCISCO	63	2	T	-0.1	ST. CLOUD	68	3	2.1	-2.4	RAPID CITY	67	2	1.4	-1.9
STOCKTON	74	1	T	-0.1	MS GREENWOOD	79	0	3.7	0.3	SIoux FALLS	71	3	1.8	-1.9
CO DENVER	69	2	3.5	1.9	JACKSON	79	0	6.2	3.1	TN CHATTANOOGA	77	2	5.2	1.8
GRAND JUNCTION	74	1	0.2	-0.2	MERIDIAN	78	-1	7.6	4.1	KNOXVILLE	75	1	2.7	-1.3
PUEBLO	71	0	1.3	0.1	MO COLUMBIA	76	2	2.2	-1.5	MEMPHIS	80	1	3.7	0.1
CT BRIDGEPORT	69	1	1.6	-1.3	KANSAS CITY	76	1	4.8	0.1	NASHVILLE	78	2	2.6	-1.0
HARTFORD	69	0	3.8	0.4	SAINT LOUIS	78	3	3.6	-0.1	TX ABILENE	77	-3	1.8	-0.7
DC WASHINGTON	76	2	3.9	0.6	SPRINGFIELD	75	1	5.8	1.2	AMARILLO	72	-3	3.3	-0.2
FL APALACHICOLA	80	0	4.4	-0.4	MT BILLINGS	68	4	1.0	-1.0	AUSTIN	80	-1	10.9	7.8
DAYTONA BEACH	80	1	3.8	-2.6	GLASGOW	68	4	1.1	-1.4	BEAUMONT	81	0	12.3	8.3
FT. MYERS	83	2	9.3	0.6	GREAT FALLS	66	4	1.3	-1.5	BROWNSVILLE	83	0	4.8	2.1
JACKSONVILLE	80	0	4.2	-1.6	HAVRE	65	2	2.4	0.3	CORPUS CHRISTI	81	-1	4.9	1.1
KEY WEST	85	2	4.3	-0.8	HELENA	65	4	1.4	-0.6	DEL RIO	79	-5	5.7	4.0
MIAMI	84	3	5.5	-3.7	KALISPELL	62	4	1.2	-1.0	EL PASO	78	-3	2.2	1.7
ORLANDO	83	2	3.5	-3.5	MILES CITY	70	3	1.1	-1.7	FORT WORTH	80	-2	3.5	1.1
TALLAHASSEE	79	-1	12.5	6.0	MISSOULA	63	4	1.5	-0.3	GALVESTON	82	0	6.9	3.4
TAMPA	83	2	3.4	-1.9	NE GRAND ISLAND	74	2	1.3	-2.4	HOUSTON	81	0	9.4	4.9
WEST PALM BEACH	82	2	6.6	-1.3	LINCOLN	76	3	4.4	0.6	LUBBOCK	76	-1	2.4	-0.4
GA ATLANTA	78	2	6.5	3.1	NORFOLK	73	2	0.5	-3.8	MIDLAND	76	-4	3.0	1.6
AUGUSTA	79	2	5.7	1.9	NORTH PLATTE	70	2	4.0	0.3	SAN ANGELO	76	-5	3.3	1.4
MACON	79	0	5.0	1.3	OMAHA	75	2	1.9	-2.2	SAN ANTONIO	80	-1	7.6	4.6
SAVANNAH	81	2	8.1	2.4	SCOTTSBLUFF	68	1	4.1	1.2	VICTORIA	81	-1	11.7	7.2
HI HILO	75	1	12.9	6.5	VALENTINE	70	2	3.0	0.0	WACO	80	-2	5.8	3.3
HONOLULU	80	2	0.4	0.0	NV ELKO	64	3	0.7	-0.2	WICHITA FALLS	78	-3	3.7	0.9
KAHULUI	77	0	0.1	-0.1	ELY	62	3	0.1	-0.6	UT BLANDING	70	3	0.1	-0.3
LIHUE	77	-1	1.4	0.2	LAS VEGAS	86	3	0.1	0.1	CEDAR CITY	69	3	0.1	-0.3
ID BOISE	70	4	0.6	-0.4	RENO	68	6	1.1	0.8	MILFORD	68	2	T	-0.4
LEWISTON	70	4	1.4	0.0	WINNEMUCCA	67	3	0.5	-0.5	SALT LAKE CITY	72	4	0.2	-0.8
POCATELLO	65	3	0.7	-0.4	NH CONCORD	64	-1	5.8	2.9	VT BURLINGTON	66	1	4.4	0.8
IL CAIRO	80	2	3.2	-1.2	NJ ATLANTIC CITY	72	3	2.2	-0.6	VA NORFOLK	77	3	3.0	-0.5
CHICAGO	72	4	2.2	-2.1	NM ALBUQUERQUE	73	-2	0.1	-0.4	RICHMOND	76	2	6.3	2.7
MOLINE	75	4	1.6	-2.7	CLOVIS	74	0	4.3	1.7	ROANOKE	75	3	0.7	-2.6
PEORIA	74	3	3.3	-0.6	ROSWELL	76	-2	3.8	2.8	COLVILLE	66	5	1.9	0.4
QUINCY	75	3	2.3	-1.8	NY ALBANY	68	1	3.5	0.3	QUILLAYUTE	56	0	1.7	-1.1
ROCKFORD	73	4	3.1	-1.5	BINGHAMTON	66	2	3.8	0.3	SEATTLE-TACOMA	63	2	0.2	-1.2
SPRINGFIELD	75	3	4.1	0.6	BUFFALO	69	3	8.4	5.7	SPOKANE	65	3	0.6	-0.6
IN EVANSVILLE	77	2	6.0	2.5	NEW YORK	73	2	6.4	3.2	WALLA WALLA	71	3	0.6	-0.3
FORT WAYNE	72	2	5.3	1.7	ROCHESTER	68	1	3.8	1.1	YAKIMA	66	2	0.1	-0.5
INDIANAPOLIS	74	2	4.1	0.1	SYRACUSE	68	2	5.0	1.4	WV BECKLEY	69	3	4.2	0.2
SOUTH BEND	73	4	3.6	-0.4	NC ASHEVILLE	71	1	8.9	5.2	CHARLESTON	73	2	3.4	0.1
IA DES MOINES	75	3	2.1	-2.1	CHARLOTTE	78	3	3.1	-0.4	ELKINS	67	2	3.0	-1.4
DUBUQUE	71	3	2.1	-2.1	GREENSBORO	76	2	1.2	-2.7	HUNTINGTON	73	1	2.6	-0.9
SIoux CITY	74	3	3.0	-1.0	HATTERAS	75	1	3.0	-1.4	PARKERSBURG	73	2	2.2	-1.7
WATERLOO	73	4	2.7	-1.6	NEW BERN	79	3	6.2	1.1	WI GREEN BAY	69	4	1.8	-1.3
KS CONCORDIA	76	2	3.5	-0.7	RALEIGH	76	2	2.1	-1.6	LACROSSE	73	4	2.8	-1.4
DODGE CITY	73	-1	3.8	0.8	WILMINGTON	79	2	5.2	-0.5	MADISON	70	4	1.2	-2.7
GOODLAND	71	2	5.4	2.7	ND BISMARCK	68	4	1.5	-1.5	MILWAUKEE	72	7	2.2	-1.3
TOPEKA	76	2	4.9	-0.3	FARGO	69	4	0.7	-2.4	WAUSAU	69	4	1.9	-2.0
WICHITA	76	0	4.5	0.4	GRAND FORKS	68	4	1.6	-1.3	WY CASPER	65	2	0.7	-0.5
KY BOWLING GREEN	75	1	3.0	-1.5	WILLISTON	69	5	0.6	-2.0	CHEYENNE	63	1	1.7	-0.3
JACKSON	74	3	3.2	-0.6	OH AKRON-CANTON	70	2	3.2	-0.1	LANDER	66	4	1.4	-0.1
LEXINGTON	75	3	6.6	2.3	CINCINNATI	74	2	4.6	0.6	SHERIDAN	64	3	1.1	-1.1
LOUISVILLE	76	2	3.6	0.0	CLEVELAND	70	2	7.9	4.5	PR SAN JUAN	82	0	7.2	2.4
LA ALEXANDRIA	79	-2	2.7	-1.2	COLUMBUS	73	2	3.6	-0.4					

Based on 1951-80 normals.

Heating Degree Days (Base 65° F.)

June 1987

ALA. Birmingham	0	MAINE, Caribou	142	OKLA. Okla. City	0
Mobile	0	Portland	77	Tulsa	0
Montgomery	0	MD. Baltimore	1	OREG. Astoria	229
ALASKA, Anchorage	386	MASS. Boston	76	Burns U.	158
Barrow	920	Chatham	94	Medford	32
Fairbanks	128	MICH. Alpena	75	Pendleton	71
Juneau	393	Detroit	11	Portland	51
Nome	466	Flint	25	Salem	89
ARIZ. Flagstaff	114	Grand Rapids	20	PA. Allentown	5
Phoenix	0	Houghton Lake	57	Erie	27
Tucson	0	Lansing	23	Harrisburg	2
Winslow	0	Marquette U	106	Philadelphia	1
Yuma	0	S. Ste. Marie	142	Pittsburgh	22
ARK. Fort Smith	0	MINN. Duluth	112	Scranton	20
Little Rock	0	Internatl Falls	103	R. I. Providence	23
CALIF. Bakersfield	0	Minneapolis	13	S. C. Charleston	0
Eureka U.	213	Rochester	31	Columbia	0
Fresno	0	St. Cloud	50	Greenville	0
Los Angeles U	19	MISS. Jackson	0	S. DAK. Aberdeen	31
Redding	0	Meridian	0	Huron	20
Sacramento	0	Vicksburg U	--	Rapid City	46
San Diego	6	MO. Columbia	0	Sioux Falls	23
San Francisco	85	Kansas City	0	TENN. Chattanooga	0
COLO. Denver	22	St. Louis	0	Knoxville	0
Grand Junction	0	Springfield	1	Memphis	0
Pueblo	10	MONT. Billings	44	Nashville	0
CONN. Bridgeport	23	Glasgow	40	TEX. Abilene	0
Hartford	29	Great Falls	44	Amarillo	9
D. C. Washington	0	Havre	65	Austin	0
FLA. Apalachicola	0	Helena	77	Beaumont	0
Ft. Myers	0	Kalispell	124	Brownsville	0
Jacksonville	0	Miles City	36	Corpus Christi	0
Key West	0	Missoula	126	Dallas	--
Lakeland U.	--	NEBR. Grand Island	7	Del Rio	0
Miami	0	Lincoln	2	El Paso	0
Orlando	0	Norfolk	9	Fort Worth	0
Pensacola U	0	North Platte	15	Galveston U.	0
Tallahassee	0	Omaha	2	Houston	0
Tampa	0	Valentine	--	Lubbock	0
GA. Atlanta	0	NEV. Ely	105	Midland	0
Augusta	0	Las Vegas	0	San Angelo	0
Macon	0	Reno	34	San Antonio	0
Savannah	0	Winnemucca	64	Victoria	0
IDAHO, Boise	41	N. H. Concord	77	Waco	0
Lewiston	33	N. J. Atlantic City	6	Wichita Falls	0
Pocatello	64	Trenton U	--	Milford	18
ILL. Cairo U.	0	N. MEX. Albuquerque	2	Salt Lake City	17
Chicago	14	Roswell	0	VT. Burlington	48
Moline	4	N. Y. Albany	29	VA. Lynchburg	0
Peoria	2	Binghamton	52	Norfolk	0
Rockford	11	Buffalo	28	Richmond	0
Springfield	0	New York	7	Roanoke	0
IND. Evansville	0	Rochester	39	WASH. Colville	57
Fort Wayne	10	Syracuse	35	Omak	--
Indianapolis	0	N. C. Asheville	1	Quillayute	285
South Bend	16	Charlotte	0	Seattle-Tacoma	105
IOWA, Burlington	--	Greensboro	0	Spokane	86
Des Moines	6	Hatteras R.	0	Walla Walla U.	23
Dubuque	16	Raleigh	0	Yakima	72
Sioux City	6	Wilmington	0	W. VA. Beckley	19
KANS. Concordia	0	N. DAK. Bismarck	36	Charleston	4
Dodge City	3	Fargo	39	Huntington	3
Goodland	10	Williston U	33	Elkins	43
Topeka	0	OHIO, Akron-Canton	32	WIS. Green Bay	36
Wichita	0	Cincinnati U.	2	Madison	27
KY. Lexington	0	Cleveland	23	Milwaukee	19
Louisville	0	Columbus	9	WYO. Casper	67
LA. Baton Rouge	0	Dayton	6	Cheyenne	78
Lake Charles	0	Toledo	20	Lander	46
New Orleans	0	Youngstown	43	Sheridan	74
Shreveport	0				

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

National Agricultural Summary

June 29 to July 5, 1987

HIGHLIGHTS: Heavy rain slowed small grain harvest in portions of the Corn Belt and in portions of the central and southern Great Plains. Row crops benefitted from moisture from the Central Plains through the lower Corn Belt, the Delta, and in the Southeast. Inadequate moisture began plaguing crops in the northern Corn Belt, northern Great Plains, and Rocky Mountain States. Rain slowed fieldwork in the eastern half of the Nation but most farmers were able to work 3 to 5 days.

Winter wheat harvest climbed 12 points ahead of the previous week to 60-percent % completion. Harvest was 4 percentage points above 1986 and 14 points above the 5-year average. Spring wheat was 88% headed, compared with 56% normally. Minnesota's spring wheat turned color. Corn silking was 20% finished, 13 points above the average. Corn reached maturity in the Delta and Southeast. Soybeans were mostly planted in Delta and Southeast. A few double-crop soybeans were left to be planted. Soybeans blooming was 23 points ahead of normal. Sorghum was 20% headed, equaling the average. Sorghum turned color in Texas. Cotton was 58% squared and 18% was setting bolls. Squaring was 8 points ahead of normal and boll setting was 5 points above average. Rice was 6% headed, compared with 13% normally. Livestock was mostly good.

SMALL GRAINS: Rain slowed winter wheat harvest in portions of the Corn Belt, portions of the central and southern Plains, and in the Southeast. Despite the rain, harvest climbed 12 points ahead of the previous week to 60% completion. This was 4 points ahead of 1986, but 14 points above average. In Indiana, farmers harvested 35% of the acreage, pushing harvest to 70% completion, 37 points greater than normal. Harvest climbed from 62% finished 1 week ago to 92% finished in New Mexico. Wheat harvest ended the week 85% finished in Kansas, 30 points above normal. Heavy rain caused lodging and delays in Ohio, but harvest was still 17 points above normal at 28% completion. Harvest approached completion in Arkansas, Georgia, Illinois, Missouri, New Mexico, North Carolina, and Oklahoma. Spring wheat was 88% headed, compared with 56% last year and average. Heading was finished in South Dakota and neared completion in Minnesota. Twenty-two percent of Minnesota's spring wheat was turning color.

CORN: Moisture promoted growth in the eastern and southern Corn Belt and central Great Plains. Soil moisture remained short in the northern Corn Belt and northern Great Plains, but crop condition remained good. Development continued ahead of normal with some corn reaching maturity in the Southeast and Delta. Corn reached the dough stage as far north as Tennessee. Silking was 20% finished in the 17 major-producing States, surpassing 1986 by 6 points and the average by 13 points. Silking was underway in all States, except Colorado, Minnesota, Pennsylvania, and South Dakota. Silking was ahead of normal in 11 States.

SOYBEANS: Soybeans were 98% planted, equaling 1985 but 1 point above the average. Planting equaled or exceeded the average in most Delta and Southeast States and neared completion. Mostly soybeans following small grains were left to be planted. Thirty percent of the acreage was blooming, compared with 7% normally. Soybeans

were blooming in all major-producing States, except North Carolina. Development lagged behind normal in the Southeast and Delta but surged ahead of normal in the Corn Belt and central Great Plains.

SORGHUM: Sorghum was 20% headed, equaling the average but 2 points behind last year. Heading lagged 13 points behind normal in Louisiana and 9 points behind normal in Texas. Sorghum rapidly turned color in central and southern areas of Texas. Harvest should begin soon in the Rio Grande Valley.

COTTON: Cotton was mostly good. Fifty-eight percent of the acreage reached the squaring stage, compared with 54% in 1986 and the 50% average. Boll setting was 18% finished, 5 points above normal. Cotton was setting bolls in all States, except New Mexico and Oklahoma. Hail damaged cotton in the Plains areas of Texas, and many producers were replanting other crops. Boll setting was virtually finished in southern areas and in the Rio Grande Valley. Bolls were opening in the valley. Cotton progressed favorably in California and Arizona.

OTHER CROPS: Rice was 6% headed, 7 points below the 13% average. Heading lagged 14 points behind normal in Louisiana and 26 points behind normal in Texas. Normally, heading would be underway in Mississippi by this time.

Peanut planting progressed well in Texas. Eighty-four percent of the acreage was planted, 6 points below the average. Peanuts began pegging in the Low Plains. Sixty percent of Alabama's peanuts were pegging. Georgia's peanuts were mostly good and 85% were blooming and 50% were pegging.

Tobacco harvest was active in Florida. Harvest was 10% finished in Georgia. Tobacco was fair to good in Kentucky but good to fair in Tennessee.

FRUIT AND NUTS: Heavy rain alleviated the need for irrigation in Florida's citrus producing areas. However, irrigation continued where producers applied fertilizer through irrigation. New foliage growth was abundant. Valencia orange harvest neared completion.

Apples were treated for codling moth in California. Table grape harvest spread to the San Joaquin Valley. Clingstone peach harvest began and freestone peach, nectarine, plum, and valencia orange harvests continued. Grape harvest slowed in Arizona. Most grapes were being picked on demand. Limited valencia orange and grapefruit shipments continued in the central valley.

VEGETABLES: Vegetable harvest neared completion in Florida. Good supplies of watermelons were available. Producers began land preparation for fall vegetable crops in Texas. Broccoli, carrots, cauliflower, celery, sweet corn, lettuce were harvested in California.

PASTURES AND LIVESTOCK: Livestock were mostly good. Producers sprayed to control external parasites in some areas. Rain provided moisture for growth in the Southeast, Delta, Corn Belt, and central and southern Great Plains. Pastures declined where moisture was short.

CROP PROGRESS

FOR WEEK ENDING JULY 5, 1987

	SOYBEANS % PLANTED		
	1987	1986	AVG.
ALA	95	95	93
ARK	98	94	93
GA	94	94	94
ILL	100	100	100
IND	100	98	99
IOWA	100	100	100
KANS	95	98	85
KY	95	95	90
LA	93	97	97
MICH	100	100	100
MINN	100	100	100
MISS	95	93	92
MO	99	98	90
NEBR	100	100	100
N C	92	92	92
OHIO	100	100	100
S C	94	94	93
S DAK	100	100	100
TENN	95	94	94

19 STATES 98 98 97

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

	SOYBEANS % BLOOM		
	1987	1986	AVG.
ALA	14	8	9
ARK	3	0	0
GA	8	6	9
ILL	63	37	19
IND	50	10	8
IOWA	38	4	4
KANS	15	15	4
KY	20	9	6
LA	5	16	10
MICH	10	1	1
MINN	23	3	2
MISS	3	9	5
MO	36	18	7
NEBR	15	8	5
N C	0	0	0
OHIO	38	4	1
S C	1	1	0
S DAK	22	5	9
TENN	3	5	4

19 STATES 30 12 7

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

	WINTER WHEAT % HARVESTED		
	1987	1986	AVG.
ARK	99	94	96
CALIF	80	75	70
COLO	8	27	11
GA	97	99	97
IDAHO	0	0	0
ILL	95	68	55
IND	70	53	33
KANS	85	98	55
MICH	4	0	0
MO	96	91	58
MONT	0	0	0
NEBR	35	31	13
N MEX	92	97	NA
N C	92	98	89
OHIO	28	19	9
OKLA	97	98	85
OREG	2	2	1
S DAK	6	1	1
TEX	87	94	83
WASH	0	0	0

20 STATES 60 64 NA

EXCL. STATES WITH NA 60 64 46

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

	CORN % SILKING		
	1987	1986	AVG.
COLO	0	0	0
GA	91	95	91
ILL	47	29	12
IND	25	9	2
IOWA	6	0	0
KANS	30	25	5
KY	55	43	20
MICH	3	0	0
MINN	0	0	0
MO	49	40	13
NEBR	10	5	1
N C	48	70	59
OHIO	9	5	3
PA	0	0	0
S DAK	0	0	0
TEX	67	74	73
WIS	2	0	0

17 STATES 20 14 7

THESE 17 STATES PRODUCED 94% OF THE 1986 CORN CROP.

	GRAIN SORGHUM % HEADED		
	1987	1986	AVG.
ARK	37	37	NA
ILL	5	4	NA
KANS	3	1	0
LA	38	68	50
MISS	24	28	23
MO	21	10	2
NEBR	0	0	0
OKLA	2	5	3
S DAK	9	0	0
TENN	30	2	1
TEX	52	61	61

11 STATES 21 22 NA

EXCL. STATES WITH NA 20 22 20

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

NA - NOT AVAILABLE.

	SPRING WHEAT % HEADED		
	1987	1986	AVG.
IDAHO	82	58	62
MINN	99	59	66
MONT	79	54	51
N DAK	84	50	44
S DAK	100	76	83

5 STATES 88 56 56

THESE 5 STATES PRODUCED 94% OF THE 1986 SPRING WHEAT CROP.

	COTTON % SETTING BOLLS		
	1987	1986	AVG.
ALA	18	15	12
ARIZ	60	75	70
ARK	41	21	14
CALIF	20	15	10
GA	24	18	30
LA	27	23	15
MISS	16	13	12
MO	69	2	3
N MEX	0	10	10
N C	16	11	15
OKLA	0	0	0
S C	9	46	45
TENN	10	5	4
TEX	13	11	11

14 STATES 18 15 13

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

	COTTON % SQUARING		
	1987	1986	AVG.
ALA	85	87	79
ARIZ	98	97	98
ARK	93	92	77
CALIF	90	85	66
GA	81	74	83
LA	90	86	71
MISS	92	86	82
MO	97	72	67
N MEX	54	55	56
N C	72	78	62
OKLA	10	15	10
S C	83	83	88
TENN	88	80	65
TEX	32	26	28

14 STATES 58 54 50

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

	RICE % HEADED		
	1987	1986	AVG.
ARK	0	0	0
CALIF	0	0	0
LA	16	33	30
MISS	0	2	6
TEX	26	49	52

5 STATES 6 12 13

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

NA - NOT AVAILABLE.

CROP CONDITION

FOR WEEK ENDING JULY 5, 1987

WINTER WHEAT

STATE	VP	P	F	G	EX
ARK	0	9	47	34	10
COLO	0	4	17	68	11
GA	0	24	29	47	0
IDAHO	0	1	8	68	23
IND	0	0	22	64	14
KANS	0	6	4	36	54
MICH	2	8	35	50	5
MONT	0	0	10	76	14
NEBR	0	0	2	92	6
N MEX	0	0	0	78	22
N C	0	0	26	69	5
OHIO	0	3	22	60	15
OKLA	0	10	50	40	0
OREG	0	0	6	84	10
S DAK	4	7	32	49	8
TEX	1	12	49	27	11
WASH	0	0	25	65	10

CORN

STATE	VP	P	F	G	EX
COLO	0	2	11	71	16
GA	0	0	12	70	18
ILL	0	1	10	65	24
IND	0	0	5	62	33
IOWA	0	0	20	64	16
KANS	4	7	3	11	75
KY	0	2	31	53	14
MICH	2	8	20	50	20
MINN	0	4	28	51	17
MO	0	4	33	52	11
NEBR	0	0	5	80	15
N C	0	6	32	61	1
OHIO	0	1	14	55	30
PA	0	4	11	49	36
S DAK	0	1	16	60	23
TEX	0	2	15	53	30
WISC	0	4	11	68	17

COTTON

STATE	VP	P	F	G	EX
ALA	0	3	27	65	5
ARIZ	0	0	0	65	35
ARK	0	0	0	82	18
CALIF	0	0	0	40	60
GA	0	0	18	74	8
LA	0	0	18	71	11
MISS	0	0	28	64	8
MO	0	0	11	67	22
N MEX	0	0	13	87	0
N C	0	0	17	79	4
OKLA	0	0	30	50	20
S C	0	0	28	58	14
TENN	0	0	24	53	23
TEX	0	6	47	44	3

GRAIN SORGHUM

STATE	VP	P	F	G	EX
ARK	0	0	28	61	11
ILL	0	0	16	75	9
KANS	0	6	6	23	65
LA	0	5	32	63	0
MISS	0	0	15	78	7
MO	0	3	33	59	5
NEBR	0	0	10	69	21
OKLA	0	0	5	90	5
S DAK	0	2	21	74	3
TENN	0	0	30	59	11
TEX	0	1	17	58	24

SOYBEANS

STATE	VP	P	F	G	EX
ALA	0	0	18	76	6
ARK	0	0	22	78	0
GA	0	0	8	86	6
ILL	0	3	16	71	10
IND	0	0	11	75	14
IOWA	0	2	23	67	8
KANS	0	3	9	15	73
KY	0	1	50	48	1
LA	0	21	27	48	4
MICH	1	4	30	50	15
MINN	2	2	39	51	6
MISS	0	0	43	55	2
MO	0	6	43	49	2
NEBR	0	0	18	67	15
N C	0	2	37	61	0
OHIO	1	4	19	57	19
S C	0	0	18	76	6
S DAK	1	2	17	65	15
TENN	0	2	36	55	7

SPRING WHEAT

STATE	VP	P	F	G	EX
IDAHO	0	3	25	46	26
MINN	0	6	47	41	6
MONT	0	0	23	71	6
N DAK	0	8	39	51	2
S DAK	2	7	44	43	4

RICE

STATE	VP	P	F	G	EX
ARK	0	0	18	82	0
CALIF	0	0	0	75	25
LA	0	0	29	71	0
MISS	0	0	2	91	7
TEX	0	0	12	76	12

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 1.00 in.; local amounts over 4.00 in. Temperatures averaged near normal to 1° below normal.

Days suitable for fieldwork 3.9. Soil moisture 5% short, 64% adequate, 31% surplus. Scattered showers interrupted fieldwork, provided needed moisture for crop growth. Soybeans 95% planted, 95% 1986, 93% avg.; 14% blooming, 8% 1986, 9% avg.; 3% poor, 27% fair, 65% good, 5% excellent. Sorghum 91% planted, 92% 1986, 89% avg.; 3% poor, 20% fair, 69% good, 8% excellent. Cotton 85% squaring, 87% 1986, 79% avg.; 18% setting bolls, 15% 1986, 12% avg.; 18% fair, 76% good, 6% excellent. Corn 80% silking, 85% 1986, 77% avg.; 23% dented, 10% 1986, 17% avg.; 18% fair, 72% good, 10% excellent. Peanuts 60% pegging, 39% 1986, 44% avg.; 33% fair, 60% good, 7% excellent. Wheat 90% harvested, 98% 1986, 94% avg. FIRST hay 97% harvested, 86% 1986, 88% avg. Livestock, pastures mostly good. Primary activities: Planting soybeans, sorghum; harvesting hay, wheat, vegetables, fruits; cultivating row crops; controlling insects on fruits, vegetables; spraying cotton; routine care of livestock, poultry.

ALASKA: Generally hot, dry weather conditions continued in Tanana Valley while conditions most other areas improved with warmer, drier weather from previous week. Temperature lows ranged from 2° below normal to 10° warmer than normal, highs ranged 4° below normal to 10° above normal. Seasonal precipitation totals ranged from 0.52 in. drier than normal to 0.46 in. wetter than normal.

Days suitable for haymaking 5.0. Topsoil moisture supplies 26% short, 73% adequate. Subsoil moisture supplies 14% short, 86% adequate. Barley for grain 29% poor, 32% fair, 39% good. Barley, oats for grain heights averaged over 11 in. compared with 22 in. 1986. Crop growth 28% slow, 40% moderate, 32% rapid. First cutting of hay, grass silage harvest averaged over 45% complete, 1986 1st cutting 60% complete. Potato heights averaged 8 in. comparable to 1986. Commercial radishes, other greens harvest underway.

ARIZONA: Typical pre-monsoon weather entire week. Dry westerly winds aloft resulted in hot sunny days, low humidities, breezy afternoons. Isolated light showers extreme northeast 29th. Afternoon temperatures 105 to 110° lower deserts, 90s 5,000 ft., 80s mountains. Wider than normal range in daily temperatures 30 to 45°. Average temperatures 5° below normal to 2° above.

Cotton progress excellent, weather ideal. Limited spot treatments for pink bollworm west, expected mid to late July central areas. Lay-by, cultivation complete. Wheat, barley combining winding down, yields average to above. Harvest virtually complete, except small acreages east, central areas. Alfalfa good, harvest progressed. Summer-type hay harvested west, quality fair to good. Armyworm populations above normal Yuma County. Poor market conditions dictated stacking hay. Irrigation, cultivation corn, sorghum. Early corn fields harvested west. Dry onion packing southeast complete. Chipper potatoes continued central areas. Carrots, winter squash harvested. Canning tomatoes picked west. Cantaloup, honeydew shipments continued central areas; sharilyns picked. Movement west light, packing to finish 10th. Watermelon movement continued, 1st crop neared completion, quality high. Grape harvest slowed; thompsons, few flame seedless central areas.

Grapes now picked on demand. Limited valencia orange, grapefruit shipments continued central valley.

ARKANSAS: Temperatures slightly below normal but very humid with cloudy skies, numerous showers. Temperature extremes 56°; 98°. Rainfall 0.19 to 4.45 in.

Days suitable for fieldwork 6.0. Major activities: Planting soybeans; cultivating, irrigating crops; harvesting wheat, oats, fescue seed; cutting, baling hay; applying pesticides, fertilizer; spraying pecans, apples, grapes. Livestock treated for external parasites.

CALIFORNIA: Coastal, valley stations below normal, mountain stations above. Precipitation spotty northern mountains. Central valley floor stations 2° below normal.

Wheat harvest remained active. Cotton, rice progressed favorably. Cotton setting bolls. Rice, sugarbeets weeded. Corn development excellent. Alfalfa cutting, baling continued all districts. Apples treated for codling moth. Some unusual apple drop. Harvesting of table grapes spread to San Joaquin Valley. Many growers pumping ground water sources, irrigation district water short. Nectarine, freestone peach harvests continued. Clingstone peach harvest began. Plum harvest continued. Lemons 95% harvested, few groves left for harvest southern coast. Valencia orange harvest continued. Almond, walnut crops looked excellent. Artichokes very light, good quality, Salinas. Broccoli moderate Salinas; fairly light Santa Maria; good quality. Carrots fairly heavy Salinas, good quality. Cauliflower moderate both Salinas, Santa Maria, good quality. Celery moderate but increasing Salinas-Watsonville; moderate Santa Maria-Oceano; quality good, very good respectively. Sweet corn harvesting continued Sacramento Valley, Delta, Westside. Picking Coachella Valley finished. Cucumber packing active Delta, Westside. Lettuce packing both Salinas, Santa Maria moderate, variable quality. Melon fields progressed normally statewide. Picking Sacramento Valley expected to start mid-July. Harvest Palo Verde Valley continued fair quality, light demand. Dry onion digging active Delta, desert. Summer potato harvest began Hemet-San Jacinto. Fall potato fields Shasta Valley good. Packing sheds Tulelake-Butte Valley operated part-time. Sweetpotato fields good growth, statewide. Tomatoes processing and fresh market, continued to look good statewide. Some planting still done, Delta. Production central valley, south coast continued, good quality. Livestock high ranges good shape, pastures held up better due few earlier showers. Lower country ranges continued drier than normal. Fire danger high. Stock ponds low. Cattle movement light.

COLORADO: Temperatures 1 to 5° below normal. Heavy rains, thundershowers throughout State; 0.20 to 1.53 in.; San Luis Valley, 0.03. Tornado activity eastern plains.

Days suitable for fieldwork 4.7. Soil moisture adequate. Small grains, livestock good. Corn good. Potatoes, onions good. Sorghum 98% planted, 85% emerged.

FLORIDA: First full week of routine summer weather prevailed; warm, humid. Randomly scattered summertime showers, thunderstorms. Rainfall quite variable, ranged mostly between 1.00 to 3.00 in.

with isolated amounts to 5.00 in. Temperatures near normal.

Topsoil moisture adequate to surplus Panhandle, mostly short to adequate Peninsula. Tobacco harvest, haymaking active, weather permitting. Corn, peanut, cotton generally good. Sugarcane continued to make good growth. Pasture good to excellent, except central area mostly fair. Cattle, calves generally good. Hard rain most citrus areas few days. Most irrigation discontinued; however, fertilization through irrigation continued. Much new foliage growth. Valencia harvest almost complete. Grapefruit harvest down to few thousand boxes. Caretakers very active. Hot days, mild nights prevailed over vegetable producing areas. Harvest most vegetables nearly complete. Good supply watermelons available. Light supplies sweet corn, tomatoes, celery.

GEORGIA: Wet with measurable rain 3 to 5 days most stations. Rain averaged over 0.50 in., local totals 3.00 to 5.00 in. Temperatures near normal. Warmest temperatures mid, upper 80s mountains to mid 90s extreme south, east. Coolest temperatures mid 50s mountains to mid 70s along coast.

Days suitable for fieldwork 4.7. Crops continued improvement. Disease, insect, weed problems building. Soil moisture 7% short, 80% adequate, 13% surplus. Corn 62% dough, 66% 1986, 64% avg.; 19% dent, 35% 1986, 33% avg.; 2% mature, 8% 1986, 8% avg. Stink bugs problem some areas. Spraying for insect, cultivation active cotton. Sorghum grain good; 97% planted, 95% 1986, 91% avg. Peanuts 10% fair, 80% good, 10% excellent; 85% blooming, 75% 1986, 87% avg.; 50% pegging, 39% 1986, 57% avg. Insect, disease, weed control active. Tobacco 12% fair, 76% good, 12% excellent; 10% harvested, 11% 1986, 16% avg. Watermelons 34% fair, 63% good, 3% excellent; 34% harvested, 56% 1986, 42% avg. Apples mostly good. Peaches 1% poor, 6% fair, 88% good, 5% excellent; 70% harvested, 76% 1986, 70% avg. Pastures, hay mostly good. Livestock good. Main activities: Planting; haying; spraying for insects, disease, weed control.

HAWAII: Conditions mostly fair. Light morning showers preceded sunny afternoons. Winds northeasterly 10 to 20 mph, gustier toward weekend. Temperature ranged upper 80s to lower 90s. Rainfall ranged none to 4.40 in.

Days suitable for fieldwork 7.0. Weather mostly favorable for crop development. Papaya orchards fair to good, output steady. Leafy vegetables fair to good.

IDAHO: Temperatures average 3 to 11° above normal. Precipitation light, spotty averaging well below normal.

Days suitable for fieldwork 7.0. Warm conditions continued to promote rapid crop development. Small grains turning, harvest expected soon. Potatoes closing middles making good growth. Some aphid problems southwest. Dry bean planting virtually complete. Sugarbeets closing row middles. First cutting alfalfa winding down, second cutting underway. Range, pasture generally good. Livestock good.

ILLINOIS: Temperatures averaged near normal east, elsewhere 1 to 3° below normal. Precipitation widely scattered 0.33 to 1.00 in., north and central, southern totals 1.00 to 4.00 in.

Days suitable for fieldwork 4.3. Soil moisture 44% short, 50% adequate, 6% surplus. Corn height averaged all fields 69 in., 64 in. 1986, 49 in. avg.; most advanced fields 82 in., 79 in. 1986, 66 in. avg. Soybeans 13% setting pods, 9% 1986, 3% avg. Oats 88% turning yellow, 76% 1986, 53% avg.; 50% ripe, 27% 1986, 16% avg.; 3% very poor, 3%

poor, 21% fair, 68% good, 5% excellent. Alfalfa hay 2nd crop 58% cut, 37% 1986, 41% avg.; 8% poor, 28% fair, 57% good, 7% excellent. Pasture 3% very poor, 13% poor, 42% fair, 40% good, 2% excellent.

INDIANA: Temperatures near normal all locations. Lows upper 50s, highs upper 80s. Precipitation above normal except for north central, northwest sections at normal. Amounts varied from 0.79 north to 6.38 central.

Days suitable for fieldwork 2.9. Topsoil moisture 63% adequate, 37% surplus. Subsoil moisture 9% short, 80% adequate, 11% surplus. Corn, soybeans improved. Corn 70 in. tall, 50 in. 1986, 37 in. avg. Soybeans 20 in. tall, 11 in. 1986, 9 in. avg. Wheat 100% ripe, 86% 1986, 78% avg. Alfalfa 35% cut twice, 12% 1986, 30% avg. Oats 25% harvested, 5% 1986, 2% avg. Pastures 1% poor, 37% fair, 58% good, 4% excellent. Rain slowed wheat harvest.

IOWA: Seasonal to cool temperatures. Late week spotty thunderstorms, moderate precipitation northwest. Little or none elsewhere.

Days suitable for fieldwork 6.7. Topsoil moisture 68% short, 32% adequate. Subsoil moisture 29% short, 70% adequate, 1% surplus. Oats 9% poor, 39% fair, 44% good, 8% excellent; 90% turning color, 47% 1986, 41% avg.; 8% harvested, none 1986, 1% avg. Winter wheat fair to good; 45% harvested, 7% 1986, 6% avg. Hay 9% poor, 30% fair, 54% good, 7% excellent. Second crop alfalfa 30% harvested, 14% 1986, 13% avg. First crop clover 95% harvested, 81% 1986, 80% avg. Corn 20% tasseled, 3% 1986, 2% avg. Soybeans cultivated 1st time 95%, 73% 1986, 68% avg. Livestock mostly good. Face flies on cattle, some reports of pink eye. Pastures mostly fair to good.

KANSAS: Temperatures averaged 73 to 75°, 2 to 6° below normal. Rainfall widespread, averaged 0.75 to 3.38 in.

Days suitable for fieldwork 3.0. Soil moisture 4% short, 63% adequate, 33% surplus. Wheat ripe, harvest delayed by rain but modest progress noted. Corn excellent progress moisture conditions above normal. Scattered corn borer, corn ear worm infestations reported. Sorghum planting neared completion, only few fields left to be planted. Emerged stands good to excellent. Soybean planting complete most areas except east, south central. Blooming ahead schedule. Alfalfa 2nd cutting 55% complete, some 3rd cuttings made. Haying operations delayed by rain. Range, pasture excellent grazing.

KENTUCKY: Temperatures near normal. Lows averaged 60s. Highs averaged upper 80s with weekly maximums 90° or more. Precipitation widespread, many instances heavy. Average rainfall between 1.50 and 2.00 in., few locations, around 4.00 in. Some areas received excess of 2.00 in. during 24-hour period.

Days suitable fieldwork 4.8. Soil moisture 11% very short, 38% short, 49% adequate, 2% surplus. Corn growing rapidly. Soybean planting neared completion. Tobacco variable; 1% poor, 49% fair, 48% good, 2% excellent. More than 50% over 2 ft. tall, 15% over 3 ft. Wheat harvest 95% complete, 91% 1986, 77% avg. Pastures fair to good. Hay harvest active.

LOUISIANA: Temperature normal to 2° below normal. Temperature extremes 58°; 95°. Rainfall averaged 0.39 to 4.72 in.

Days suitable for fieldwork 3.4. Soil moisture 4% short, 59% adequate, 37% surplus. Corn fair to good; 95% silked, 100% 1986, 93% avg.; 68% dough stage, 85% 1986, 66% avg.; 4% mature, 9% 1986, 10% avg. Cotton 90% squaring, 86% 1986, 71% avg.; 27% setting bolls, 23% 1986, 15% avg. Rice 16% headed,

33% 1986, 30% avg. Sorghum 38% headed, 68% 1986, 50% avg. Soybeans 93% planted, 97% 1986, 97% avg.; 91% emerged, 94% 1986, 93% avg.; 5% blooming, 16% 1986, 10% avg. Sweetpotatoes good; 99% planted, 98% 1986, 98% avg. Winter wheat 100% harvested, 100% 1986, 99% avg. Peaches 52% harvested, 85% 1986, 59% avg. Hay 1st cutting 93%, 93% 1986, 94% avg. Sugarcane, pastures, livestock good; vegetables fair to good. Main activities: Harvesting hay, vegetables; weed, insect control; topdressing rice, pastures.

MARYLAND & DELAWARE: **Maryland:** Temperatures averaged 76°, 74° normal; lowest temperature 45° Oakland; highest temperature 95°. Precipitation averaged 1.30 in., ranging from 0.06 in. Washington Airport to 4.22 in. Westminster.

Days suitable for fieldwork 5.7. Topsoil moisture short to adequate. Subsoil moisture short to adequate. Corn good; 10% silk. Soybeans fair to good; 90% planted, 90% avg. Wheat, oats, barley, rye good. Wheat 60% harvested, 60% avg. Barley 90% harvested, 95% avg. Apples, peaches good.

Delaware: Temperatures averaged 78°, 75° normal. Precipitation averaged 0.75 in., ranging from 0.12 in. Georgetown to 2.47 in. Wilmington.

Days suitable for fieldwork 6.5. Topsoil moisture short to adequate. Subsoil moisture mostly short to adequate. Wheat, barley, rye good. Wheat 60% harvested, 65% avg. Soybeans, corn fair to good. Corn 10% silk. Soybeans 80% planted, 80% avg.

MICHIGAN: Temperatures ranged 3° below normal to normal. Temperature extremes 43°; 91°. Precipitation ranged from none to 1.57 in. across State.

Days suitable for fieldwork 5.5. Soil moisture 65% short, 30% adequate, 5% surplus. Corn 3% silking, none 1986, none avg.; 2% very poor, 8% poor, 20% fair, 50% good, 20% excellent. Soybeans 10% blooming, 1% 1986, 1% avg.; 1% very poor, 4% poor, 30% fair, 50% good, 15% excellent. Wheat 99% turning, 55% 1986, 65% avg.; 4% harvested, none 1986, none avg.; 2% very poor, 8% poor, 35% fair, 50% good, 5% excellent. Major activities: Making hay, cultivating, combining, spraying. Sweet cherry harvest underway. Tart cherry harvest began Hart-Shelby, well along southwest.

MINNESOTA: Temperatures averaged near normal to 3° below normal. Temperature extremes 38°; 94°. Precipitation averaged 0.18 to 0.73 in. above normal west central, east central, southwest. Precipitation totals averaged 0.82 to 1.62 in. central third, southwest and 0.25 to 0.54 in. elsewhere. Greatest weekly total 2.67 in.

Days suitable for fieldwork 5.9. Topsoil moisture 28% very short, 42% short, 30% adequate. Spring wheat 99% heading, 59% 1986, 66% avg.; 22% turning ripe, none 1986, 1% avg.; 1% cut, none 1986, none avg. Oats 99% heading, 79% 1986, 77% avg.; 54% turning ripe, 4% 1986, 4% avg.; 1% cut and some combined, none 1986, none avg. Barley 99% heading, 57% 1986, 71% avg.; 20% turning ripe, 2% 1986, 4% avg.; 1% cut, none 1986, none avg. Field corn height 53 in., 33 in. 1986, 26 in. avg.; 6% tasseling, none 1986, none avg. Soybeans 99% cultivated, 77% 1986, 71% avg.; height 15 in., 9 in. 1986, 8 in. avg.; 23% blooming, 3% 1986, 2% avg. Winter wheat 2% harvested, none 1986, none avg. Rye 3% harvested, none 1986, none avg. Field corn 4% poor, 28% fair, 51% good, 17% excellent. Soybeans 2% very poor, 2% poor, 39% fair, 51% good, 6% excellent. Spring wheat 6% poor, 47% fair, 41% good, 6% excellent.

MISSISSIPPI: Temperatures near normal; extremes 59°; 96°. Weak high pressure dominated weather

with few upper level disturbances resulting in scattered thunderstorms. Rainfall averaged 0.70 in. southwest and coast, 2.80 in. southern Delta. Greatest 24-hour total rainfall 3.22 in. Greatest weekly total rainfall 4.50 in.

Days suitable for fieldwork 3.2, 4.4 1986, 5.2 avg. Soil moisture 53% adequate, 42% surplus, 5% excessive. Corn 74% silking, 78% 1986, 66% avg.; 38% dough stage, 46% 1986, 38% avg.; 11% dented, 17% 1986; 8% fair, 78% good, 14% excellent. Wheat 99% harvested, 96% 1986, 92% avg. Sweetpotatoes 98% planted, 94% 1986. Hay 47% harvested, 42% 1986, 48% avg. Rice 2% fair, 91% good, 7% excellent. Sorghum 24% heading, 28% 1986, 23% avg.; 15% fair, 78% good, 7% excellent. Cotton 92% squaring, 86% 1986, 82% avg.; 16% setting bolls, 13% 1986, 12% avg.; 28% fair, 64% good, 8% excellent. Soybeans 95% planted, 93% 1986, 92% avg.; 90% emerged, 82% 1986, 82% avg.; 43% fair, 55% good, 2% excellent.

MISSOURI: Temperatures averaged 2° below normal. Precipitation 2 in. south, 0.50 in. central, west central, 1.50 in. rest of State.

Days suitable for fieldwork 4.4. Topsoil moisture 46% short, 42% adequate, 12% surplus. Corn 70% tasseling, 54% 1986, 23% avg. Oat 67% harvested, 47% 1986, 26% avg. Alfalfa hay 2nd cutting 79%, 60% 1986, 45% avg. Alfalfa hay 3rd cutting 5%, 5% 1986, 1% avg. Other hay 84% harvested, 76% 1986, 72% avg. Pasture 3% very poor, 24% poor, 51% fair, 20% good, 2% excellent.

MONTANA: Temperatures 7° above normal west, 1 to 4° above east. Showers most areas. Heavier amounts south central, central.

Days suitable for fieldwork 6.6. Topsoil moisture 60% short, 40% adequate. Subsoil moisture 39% short, 61% adequate. Barley 1% poor, 33% fair, 59% good, 7% excellent. Oats 1% poor, 31% fair, 62% good, 6% excellent. Sugarbeets 77% good, 23% excellent. Barley 80% headed, 48% 1986, 53% avg. Oats 77% headed, 45% 1986, 43% avg. First cutting alfalfa 86% harvested, 77% 1986, 62% avg. Wild hay 48% harvested, 50% 1986, 31% avg. Winter wheat harvest expected to start 18th. Grasshopper infestation 1% none, 23% light, 44% moderate, 33% heavy.

NEBRASKA: Temperatures averaged 3° below normal. Precipitation averaged 0.50 in. for State. Extremes 43°, 94°.

Days suitable for fieldwork 5.0. Topsoil moisture 30% short, 61% adequate, 9% surplus. Subsoil moisture 5% short, 95% adequate. Winter wheat 75% ripe, 72% 1986, 38% avg. Harvest most advanced east central, southeast. For State, 35% harvested, 31% 1986, 13% avg. Winter wheat mostly good. Oats 10% harvested, none 1986, 3% avg. Corn mostly good to excellent; 10% silking, 5% 1986, 1% avg. Some fields tasseling southern counties. Soybeans mostly good; 15% blooming, 8% 1986, 5% avg. Sorghum mostly good to excellent. Alfalfa hay mostly good to fair. Second cutting 30%, 23% 1986, 16% avg. Pasture, range supplies mostly adequate. Livestock making good gains.

NEVADA: Summer weather continued with near normal temperatures. Widely scattered afternoon, evening thunderstorms common most areas. Rain generally light, some hail reported. Most thunderstorms very little rain, but produced strong down drafts, gusty winds. Lightning set off local wildfires, severe damage to several homes. Drier end of period.

Warm weather, strong gusty winds stressed crops all areas. Irrigation water requirements increased. Pasture, range conditions holding.

NEW ENGLAND: Precipitation averaged less than 0.25 in. coastal Connecticut, 0.25 to 0.50 in. Maine, 0.75 to 1.00 in. northern and central New

Hampshire, northern and central Vermont, eastern Massachusetts, interior Connecticut, 1.00 to 1.50 in. southern Vermont, southern New Hampshire, central and western Massachusetts, Rhode Island. Temperatures averaged mid 60s north near 70 south.

Days suitable for fieldwork 5.5. Soil moisture 24% short, 59% adequate, 18% surplus. Fieldwork 1.5 days behind normal. Grazing availability 8% short, 75% adequate, 17% surplus. Maine potatoes good. Field corn good. Hay good to excellent. Second cutting began. Shade tobacco harvest started. Cranberry crop progressed well. Apples good. Major farm activities: Haying, strawberry picking, vegetable harvesting, applying fertilizer and pesticides.

NEW JERSEY: Temperatures averaged near normal north, above normal central, much above normal south. Extremes 47°; 98°. Rainfall averaged 0.94 in. north, 2.91 in. central, 2.29 in. south. Heaviest 24-hour total 5.30 in. on 2nd, 3rd. Estimated soil moisture percent field capacity averaged 71% north, 82% central, 68% south. Four inch soil temperatures averaged 70°, 75° central, 76° south.

Heavy thunderstorms again caused local flooding. Summer vegetable marketings increased. Peach harvest light for early clingstone varieties. Blueberry movement moderate. Limited raspberry, blackberry volumes harvested. Barley, wheat, rye combining active as conditions permitted. Soybean planting continued following small grain harvest. Early field corn waist high. Early soybeans showed good growth. Standing water caused some problems. Pasture growth responded to rain.

NEW MEXICO: Temperatures over State slightly above to slightly below normal. Low temperature 31° Quemado; high temperature 105° Hobbs, Carlsbad. Most precipitation over northeast plains.

Days suitable for fieldwork 6.3. Soil moisture 33% short, 67% adequate. Some localized severe hail damage high Plains, southeastern desert. Alfalfa 100% good. Cotton 13% fair, 87% good. Squaring reported many fields; some blossoms, none setting bolls. Barley 86% good, 14% excellent; harvest virtually over. Wheat 78% good, 22% excellent. Harvest 92% complete. Onion harvest continued; good market prevails. Pecans 100% good; average nut set. Chile 100% good; average pod set reported. Range 33% fair, 45% good, 22% excellent. Cattle, sheep reported fair to good.

NEW YORK: Temperatures near to slightly below normal. Rain plentiful, many areas over 1.00 in. Amounts averaged 0.50 to 0.67 in. Champlain Valley, elsewhere 0.75 to 1.25 in.

Days suitable for fieldwork 4.5. Soil moisture mostly adequate. Pastures fair to good. First cutting alfalfa hay 80% complete, 68% 1986, 74% avg. Clo-tim harvest 65% complete, 55% 1986, 56% avg. Grass silage harvest 84% complete, 71% 1986, 78% avg. Wheat drying down. Oats heading out. Dry bean planting neared completion. Fruits good to excellent. Sweet cherries showed splitting to due rains.

NORTH CAROLINA: Temperatures averaged near to slightly above normal. Temperature extremes 46°; 94°. Precipitation ranged from 0.05 to 4.04 in. across State. Storms scattered.

Days suitable for fieldwork 5.5. Soil moisture 9% very short, 36% short, 55% adequate. Irish potatoes 8% poor, 38% fair, 54% good; 78% harvested, 60% 1986, 56% avg. Pasture fair to mostly good. Tobacco 26% fair, 73% good, 1% excellent. Peanuts 21% fair, 79% good. Hay 1% poor, 37% fair, 61% good, 1% excellent. Oats 93% harvested, 98% 1986, 92% avg. Barley 95% harvested, 98% 1986, 95% avg. Rye 85% harvested, 96% 1986, 91% avg. Sorghum 93% planted, 91% 1986,

91% avg. Sweetpotatoes 99% planted, 98% 1986, 97% avg.; 29% fair, 71% good. Fruit, truck crops fair to mostly good. Peaches 35% harvested, 56% 1986, 57% avg. Major farm activities: Harvesting small grains; cutting, baling hay; transplanting sweetpotatoes; planting sorghum, soybeans; cultivating tobacco, soybeans, corn, peanuts, cotton; sidedressing corn, cotton, tobacco; herbicide applications; harvesting vegetables, peaches, blueberries; shearing christmas trees; topping tobacco; applying sucker control to tobacco; tending livestock; general farm maintenance.

NORTH DAKOTA: Temperatures near normal, cool early, warming later. Extremes 39° southwest; 92° northwest. Scattered showers, thunderstorms, precipitation light, spotty.

Days suitable for fieldwork 6.5. Soil moisture further depleted. Topsoil 17% very short, 55% short, 28% adequate. Subsoil 4% very short, 48% short, 48% adequate. Small grains progressed ahead of normal. Spring wheat 34% milk-dough and beyond, 15% 1986, 10% avg.; durum 27%, 6% 1986, 5% avg.; oats 49%, 24% 1986, 14% avg.; barley 56%, 25% 1986, 21% avg. Row crops exceed average height. Corn 32 in., 26 in. 1986, 19 in. avg; soybeans 13 in., 11 in. 1986, 9 in. avg.; sunflower 18 in., 16 in. 1986, 13 in. avg.; dry edible beans 10 in., 10 in. 1986, 9 in. avg.; potatoes 17 in., 13 in. 1986, 12 in. avg. Bloom or beyond ahead of normal. Potatoes 48%, 29% 1986, 13% avg.; flax 27%, 19% 1986, 12% avg.; dry edible beans 7%, 7% 1986, 4% avg.; soybeans 5%, 3% 1986, 2% avg. Pastures further depleted, 3% very poor, 23% poor, 52% fair, 22% good. First cutting alfalfa essentially completed, other hay 74% complete. Some winter wheat, barley swathed.

OHIO: Temperatures averaged 1 or 2° above and below normal. Extremes low 90s, low 50s. Precipitation widespread, heavy ranging from 1.00 to 4.00 in.

Days suitable for fieldwork 3.0. Soil moisture 8% short, 46% adequate, 46% surplus. Corn 14 to 16 leaves fully emerged, 14 leaves 1986, 12 leaves avg.; good to excellent. Some hail, water damage. Soybeans good; bloom far ahead of recent years. Some rain damage, low lying drown out. Winter wheat good; harvest delayed by rain, some lodging. Grasslands good; hay harvest difficult, to much rain. Potato leafhopper economic levels some alfalfa stands.

OKLAHOMA: Temperatures averaged 1° below normal northeast to 7° below normal north central. Precipitation averaged 0.74 in. Panhandle to 2.41 in. central.

Days suitable for fieldwork 4.2. Topsoil moisture 5% short, 55% adequate, 40% surplus. Subsoil moisture 100% adequate. Wheat 97% harvested, 98% 1986, 85% avg. Harvest complete except wet fields. Quality below average but slightly above 1986. Stubble 50% tilled. Sorghum 5% fair, 90% good, 5% excellent; 95% planted, 95% 1986, 95% avg.; 2% heading, 5% 1986, 3% avg. Cotton 30% fair, 50% good, 20% excellent; 90% planted, 95% 1986, 95% avg.; 10% squaring, 15% 1986, 10% avg.; none setting bolls, none 1986, none avg. Development hindered by cool, wet weather. Pastures good to excellent, livestock good. Cattle marketings average, prices below last weeks level.

OREGON: Temperatures normal along coast, 8 to 10° above normal interior. First of period high temperatures in 90s interior, cooled to 70s, 80s end of period. Light precipitation along coast, northwest interior. East of Cascades scattered thunderstorms brought varied rainfall, greatest amount 1.63 in. Prineville. Golf ball size hail Klamath Falls 30th. Soil moisture 60% short, 40%

adequate. Despite hot, dry conditions grains, grass seeds look good; maturing 10 to 14 days early most areas. Barley 12% harvested, 8% 1986, 5% 1985. Grass seed harvest full swing, crimson clover seed harvested, red clover sprayed for aphids west. Alfalfa, other hay cutting continued all areas, showers slowed baling. Dry beans began to close rows Malheur County. Strawberry harvest completed; raspberry, marionberry, boysenberry picking past peak, yields hurt by heat; blueberry harvest peaked Willamette Valley. Cherry picking continued The Dalles, Willamette Valley; started Union County. Cranberry fruit set fair to good; size development good to excellent south coast. Willamette Valley vegetables under irrigation, excellent crop prospects. Broccoli, green pea harvest continued. Snap bean harvest to begin around 8th, 10 days early, mid-Willamette Valley. Cauliflower seeding started, over wintering onions harvested; sweet corn, snap beans grew well western fields. Early sweet corn tasseling Jackson, Malheur Counties. Some early squash picked southwest. Chipping, early red potato harvest to begin within week Hermiston-Boardman. Potato fields setting on, sizing Klamath Basin. Livestock mostly good throughout State. Range, pasture fair to good. Non-irrigated pastures drying fast west. Recent showers, warm temperatures improved pastures, good forage growth northeast. Stockwater still short Klamath Basin.

PENNSYLVANIA: Cool conditions across Commonwealth beginning of week. Warm, humid, stormy conditions during middle, end of week. Average temperature 71°, 2° above normal. Temperature extremes 46°; 93°. Average precipitation 1.67 in., 0.77 in. above normal.

Days suitable for fieldwork 3.0. Soil moisture 23% short, 51% adequate, 26% surplus. Corn 4% poor, 11% fair, 49% good, 36% excellent; average height 33 in., 33 in. 1986, 26 in. avg. Soybeans 95% planted, 99% 1986, 95% avg.; 3% poor, 16% fair, 57% good, 24% excellent. Barley 8% heading or headed, 1% 1986; 15% turning yellow, 23% 1986; 27% ripe, 34% 1986; 50% harvested, 42% 1986. Wheat 13% heading or headed, 7% 1986; 49% turning yellow, 46% 1986; 32% ripe, 40% 1986; 6% harvested, 7% 1986; 2% poor, 13% fair, 51% good, 34% excellent. Oats 57% heading or headed, 50% 1986; 41% turning yellow, 46% 1986; 2% ripe, 4% 1986; 1% poor, 12% fair, 55% good, 32% excellent. First cutting alfalfa 93% complete, 93% 1986. Second cutting alfalfa 28% complete, 38% 1986. First cutting clover-timothy 84% complete, 88% 1986. Hay stands mostly fair. Feed from pastures average to below average. Activities: Spraying corn, soybeans; harvesting barley, wheat, hay, haylage; machinery maintenance; caring for livestock.

PUERTO RICO: Island average rainfall 0.93 in., 0.27 in. below normal. Highest weekly total rainfall 4.01 in. Pico Del Este-Luquillo followed by 3.28 in. Mayaguez Ceer, 2.97 in. Vega Baja. Highest 24-hour total 2.46 in. Mayaguez Ceer. San Juan mean temperature 82°, 1° below normal. Total rainfall 1.45 in., 0.40 in. above normal. Divisional temperature averaged about 80 to 81° on coasts and 77° interior with mean station temperature ranging 75° San Sebastian to 83° Fajardo. Lowest minimum temperature 59° San Sebastian. Highest maximum temperature 93° several places.

SOUTH CAROLINA: Warm, humid conditions with numerous thundershowers each day. Rains produced 0.75 to 2.00 in. accumulation with some areas receiving more than 4.00 in.

Days suitable for fieldwork 5.0. Soil moisture 28% short, 69% adequate, 3% surplus. Cotton 83% squaring, 83% 1986, 88% avg.; 9% setting bolls, 46% 1986, 45% avg. Soybeans 94% planted, 94% 1986,

93% avg.; 1% blooming, 1% 1986. Corn, peanuts, tobacco good. Fruits, vegetables all good. Hay good to excellent yields. Most small grains, pastures good.

SOUTH DAKOTA: Average temperatures 2° below normal. Extremes 43°; 96°. Black Hills low 31°. Rainfall since April 5th continued below normal.

Days suitable for fieldwork 5.9. Topsoil, subsoil moisture mostly short. Topsoil 18% critically short, 61% short, 21% adequate. Subsoil 4% critically short, 41% short, 56% adequate. Winter wheat harvest began. Moisture stress on small grain, hay. Crop progress continued ahead of normal. Livestock good to excellent. Feed, stockwater supplies adequate.

TENNESSEE: Temperatures above normal west, below normal east. Widespread heavy rainfall.

Days suitable for fieldwork 4.1. Soil moisture 2% very short, 21% short, 67% adequate, 10% surplus. Corn 65% tasseling, 50% 1986, 35% avg.; 7% dough, 10% 1986, 5% avg.; 1% poor, 29% fair, 52% good, 18% excellent. Tobacco 34% fair, 60% good, 6% excellent. Wheat 94% harvested, 96% 1986, 88% avg. Alfalfa 2nd cutting 75%, 85% 1986, 80% avg. Hay 4% poor, 33% fair, 58% good, 5% excellent. Cattle mostly good. Pastures mostly good. Crops improved.

TEXAS: Upper level disturbance, cool front joined forces trigger thunderstorms over western, central areas early week. Considerable hail damage Lubbock area. Midweek thunderstorm activity central, eastern sections. Dry weather weekend. Rainfall above normal Plains, north, Upper Coast. Below normal south, southwest, Trans-Pecos. Temperatures below normal Low Plains; above normal Blacklands, southeast.

Crops: Corn crop progressed rapidly central, southern areas many fields now denting. Yield expectations remained high. Fields Plains silking. Bad weather early week minor damage. Irrigation cut back, increased as daytime temperatures increased. Corn 49% doughing, 64% 1986, 61% avg.; 13% dented, 49% 1986, 46% avg.; none mature, 16% 1986, 10% avg. Grain sorghum planting some progress Plains, scattered fields remained for planting. Some replanting necessary because hail damage. Growth, progress good other areas. Heading Low Plains. Fields rapidly turning color central, southern areas, mature fields soon harvested Valley. Some scattered midge problems Upper Coast, Blacklands; treatment underway. Sorghum 98% planted, 95% 1986, 98% avg.; 30% turning color, 51% 1986, 44% avg.; 3% mature, 28% 1986, 21% avg.; none harvested, 19% 1986, 7% avg. Cotton planting virtually completed last week Plains. Hail damage some replanting alternative crops. Most fields squaring. Warmer weather aid progress. Cultivation active many areas. Boll set virtually over southern areas, Valley. Spraying boll weevils increased Blacklands. Bolls opening Valley. Cotton 100% planted, 99% 1986, 100% avg. Small grain harvest progressed rapidly Plains until rain halted operations. Yields average dryland, good irrigated fields. Harvest virtually complete other areas. Rice fertilization continued Upper Coast. Fields continued heading. Rice none turning color, 12% 1986, 8% avg. Soybeans Upper Coast more rain already wet fields. Additional replanting necessary. Fields good progress Plains. Some hail damage. Peanut planting good progress. Growth good most areas. Fields started to peg Low Plains. Other crops planted: Peanuts 84%, 79% 1986, 90% avg. Soybeans 93%, 87% 1986, 91% avg. Sunflowers 93%, 85% 1986, 89% avg. Other crops harvested: Oats 83%, 75% 1986, 84% avg.

Commercial Vegetables: Rio Grande Valley land preparation fall crops. San Antonio-Winter Garden onion, watermelon harvest continued. Trans-Pecos

watermelons, cantaloups setting fruit. Onion harvest continued. East watermelon harvest continued. Harvest sweet corn, peas, tomatoes continued. Sweetpotatoes good progress. High Plains onion harvest getting underway. Potato harvest begin soon. Peppers good progress. Pecans good progress across State. Walnut caterpillars, aphids caused problems. Webworms increased untreated groves. Heavier than normal June nut drop occurred.

Range and Pasture: Range, pastures good, some areas need additional moisture. Forage availability good. Haying operations active statewide, except east where rain stalled cutting. Routine working livestock. Hot temperatures detrimental to poultry. Marketing lambs active.

UTAH: Precipitation very light to moderate south central. Temperatures 1 to 50 above normal.

Days suitable for fieldwork 5.5. Soil moisture 76% short, 24% adequate. Winter wheat 85% turned color, 91% 1986, 62% avg.; 12% ripe, 11% 1986, 2% avg.; 2% harvested, none 1986, none avg. Spring wheat 61% turned color, 46% 1986, 27% avg.; 2% ripe, none 1986, none avg. Barley 63% turned color, 73% 1986, 36% avg.; 7% ripe, none 1986, none avg. Oats 76% headed, 53% 1986, 50% avg.; 20% turned color, 14% 1986, 6% avg. Alfalfa 2nd cutting 12% complete, 1% 1986, 8% avg. Corn 36 in. high, 25 in. 1986, 17 in. avg. Tart cherry, apricot harvests began; sweet cherries well along. Apples 3% fair, 96% good, 1% excellent. Peaches 4% poor to fair, 96% good. Pears 1% poor, 3% fair, 96% good. Ranges, pastures need rain. Cattle good. Major farm activities: Irrigating, cultivating corn, harvesting hay.

VIRGINIA: Hot, humid. Continued scattered thunderstorm activity. Temperatures averaged normal. Range 47 to 95°. Precipitation uneven, range 0.04 to 3.82 in.

Days suitable for fieldwork 5.6. Topsoil moisture 56% short, 42% adequate, 2% surplus. Heat, dry pockets stressed corn, hay, pastures. Corn good, 18% in or beyond silk stage, 19% 1986, 30% avg. Soybeans good to excellent, 87% planted, 83% 1986, 88% avg. Peanuts excellent. Tobacco good to mostly excellent. Sprayed for hornworms, aphids, cultivated, some began topping flue-cured tobacco. Barley 91% harvested, 98% 1986, 96% avg. Oats 83% harvested, 71% 1986, 68% avg. Wheat 68% harvested, 83% 1986, 83% avg. Fruit good to excellent. Pastures, hay good, but declining with dry weather. Potato leafhoppers problem in alfalfa. Potatoes 34% harvested, 38% avg. Harvested squash, cucumbers, tomatoes, other vegetables. Livestock excellent.

WASHINGTON: Hot, dry weather continued. Temperature extremes 48° Mount Vernon; 104° Walla Walla. Precipitation below normal.

Days suitable for fieldwork 7.0. Soil moisture 60% short, 40% adequate. Dry weather stressed crops. Winter wheat 100% headed, 100% 1986, 98% avg. Spring wheat, barley also 100% headed. Winter barley harvest began. Dryland barley fair to good. Dryland wheat good. Farmers geared up for harvest. Potatoes good to excellent. Alfalfa hay 2nd cutting started. Timothy hay harvest continued. Cherry harvest on going. Hand thinning of apples, pears progressed slow due to labor shortage. Heavy fruit yields predicted. Strawberry harvest ended. Raspberry harvest now in full swing. Blueberry harvest began. Range, pasture 55% short, 45% adequate; below normal. Dry conditions prevail. Grant County green pea harvest 65% complete. Onion seed also being harvested. Sweet corn progressed rapidly. Vegetable crops looked good where irrigation available.

WEST VIRGINIA: Average temperature 73°, near normal to 4° above normal. Extremes 39° Greenbank; 94° Martinsburg. Precipitation averaged 1.27 in.; 0.07 in. below normal to 0.05 in. above normal central, northwestern, northeastern divisions. Precipitation 0.40 to 0.97 in. above normal elsewhere.

Days suitable for fieldwork 3.3. Soil moisture 5% very short, 21% short, 53% adequate, 21% surplus. Wheat, barley, oats, corn, good to fair. Tobacco fair to good; 98% set. Hay good to fair. Pasture fair to good. Feed supplies adequate. Farm activities: Harvesting hay, clipping pastures, farm maintenance, gardening.

WISCONSIN: Temperatures averaged 69°, 20 below normal. Extremes 40°; 89°. Rainfall 0.30 to 1.30 in.

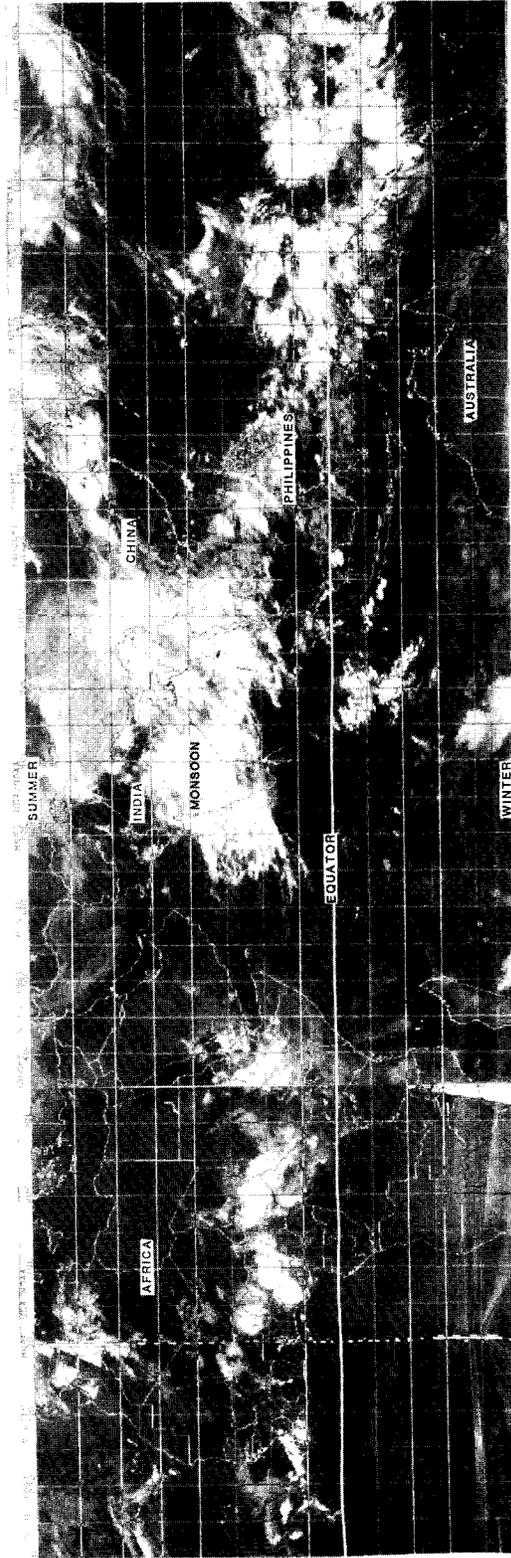
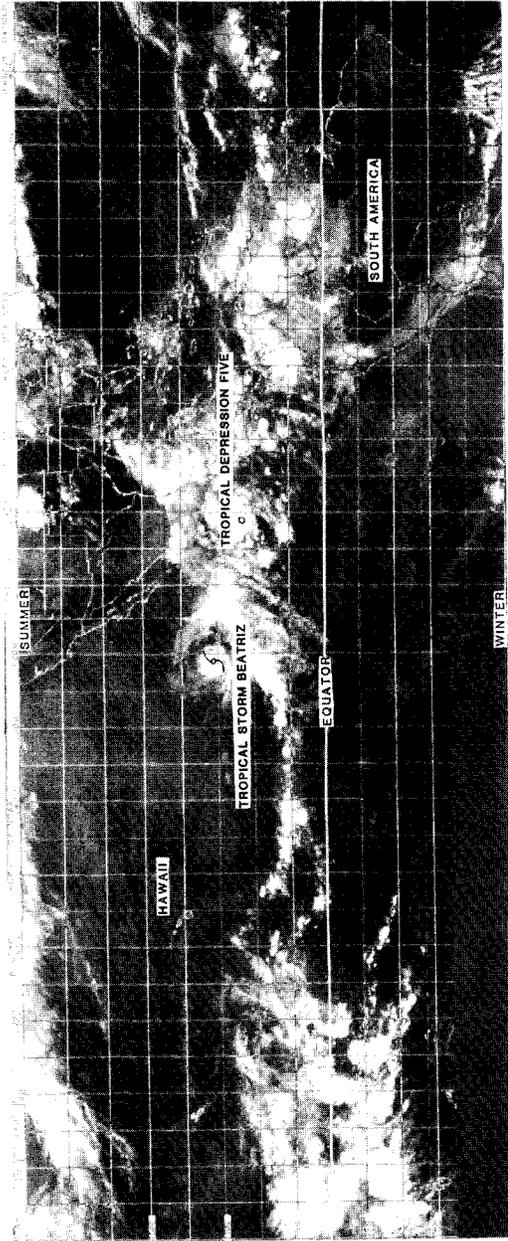
Days suitable for fieldwork 4.5. Soil moisture 78% short, 22% adequate. Crops 2% very poor, 5% poor, 27% fair, 66% good. Corn better, average height 48 in., 32 in. 1986, 25 in. avg. Corn 2% silked, none 1986, none avg. First crop hay 95% cut, 90% 1986, 88% avg. Second crop hay 8% cut, 6% 1986, 6% avg. Rain needed, growth slow. Oats 95% headed, 87% 1986, 67% avg.; turning color, short, light kernels. Winter wheat, barley ripening fast; yields expected below average. Pea yields down due to hot, dry weather. Sweet corn in silk, rain needed. Cherry picking started, good crop. Pasture 65% of normal.

WYOMING: Temperatures above normal except southeast. Precipitation below normal except isolated locations.

Days suitable for fieldwork 6.0. Topsoil moisture 63% short, 37% adequate. Winter wheat 40% headed, 50% 1986; 55% turning color, 45% 1986; 5% mature. Barley 10% not yet jointed, 10% 1986; 10% jointed, 5% 1986; 20% booted, 25% 1986; 35% headed, 50% 1986, 55% avg.; 25% turning color, 10% 1986. Spring wheat 5% jointed, 20% 1986; 35% booted, 25% 1986; 50% headed, 45% 1986, 50% avg.; 10% turning color, 5% 1986. Oats 10% not jointed, 5% 1986; 15% jointed, 15% 1986; 35% booted, 25% 1986; 35% headed, 55% 1986, 40% avg.; 5% turning color. Sugarbeets 95% thinned, 95% 1986. Alfalfa 1st cut 65% complete, 60% 1986, 55% avg. Other hay 25% harvested, 20% 1986, 20% avg. Livestock mostly good to excellent. Ranges, pastures mostly good. Stockwater supplies mostly adequate.

Global Weather Satellite Image

July 5, 1987



Tropical depression five in the eastern Pacific became Tropical Storm Calvin on July 6.

International Weather and Crop Summary

June 1987

MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
*** = DATA NOT AVAILABLE

June 28 - July 4, 1987

HIGHLIGHTS:

UNITED STATES ... Heavy rain slows small grain harvest in portions of the Corn Belt and central and southern Great Plains. Row crops benefit from moisture in the central Plains through the lower Corn Belt, in the Delta, and in the Southeast. Inadequate moisture plagues crops in the northern Corn Belt, northern Great Plains, and Rocky Mountain States.

U.S.S.R. ... Sunshine and mild weather favor filling winter wheat in the Ukraine and North Caucasus. A cooling trend and widespread showers ease stress on spring grains in the eastern Volga, Urals, and western Kazakhstan.

EUROPE ... Dry, warm weather favors crop growth in western and northern Europe.

SOUTH ASIA ... Increased rainfall in central and southern India boosts summer crop planting.

SOUTHEAST ASIA ... Mostly light rain covers Thailand's tasseling corn. Beneficial showers cover most Philippine crop areas.

EASTERN ASIA ... Timely, soaking rains benefit corn and soybeans in the Manchurian Valley. Moderate to heavy rain covers rice areas along the Yangtze Valley.

SOUTH AMERICA ... Rain favors Argentina's wheat planting. Heavy rain falls in southern Brazil but dryness favors the coffee harvest.

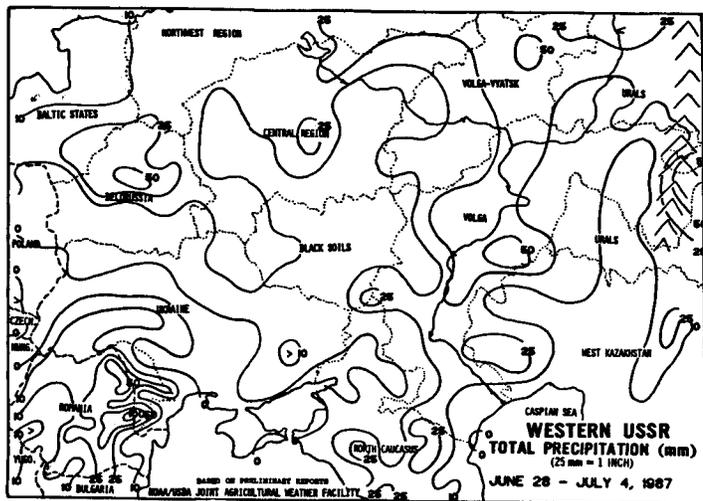
AUSTRALIA ... Dry weather returns to eastern Australia. Rain in Western Australia benefits vegetative wheat.

MEXICO ... Showers benefit Southern Plateau corn.

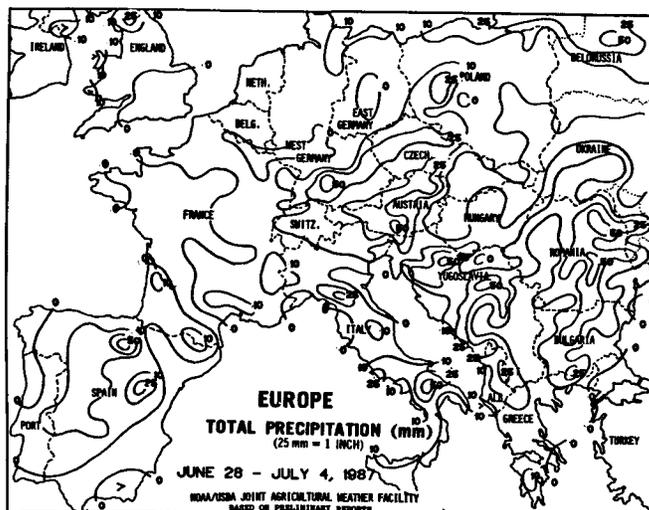
CANADA ... Widespread showers and near normal temperatures help spring grains advancing into heading and grain forming.

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI	LO	DPART AVG	F/NRM	TOTAL	DPART F/NRM
NORWAY	OSLO	15	7	24	2	11	-2.8	182.4	109.0
SWEDEN	STOCKHOLM	16	9	22	6	12	-3.2	57.4	10.9
FINLND	HELSINKI	17	8	24	2	13	-2.5	84.6	42.4
U KING	GLASGOW	16	8	21	2	12	-2.4	92.9	27.6
	EDINBURGH	15	8	21	3	11	-1.8	99.3	53.4
	BIRMINGHAM	17	9	26	2	13	-1.3	110.7	57.8
	LONDON	18	10	27	2	14	-0.5	79.2	20.3
IRELND	DUBLIN	16	9	23	3	12	-1.1	111.8	59.0
ICELND	REYKJAVIK	12	7	17	3	10	0.6	16.6	-30.9
DENMRK	COPENHAGEN	16	9	24	4	13	-2.9	95.8	48.8
LUXEMB	LUXEMBOURG	17	10	30	4	14	-2.2	179.9	118.1
SWITZL	ZURICH	19	11	32	7	15	-0.8	238.8	105.1
	GENEVA	21	11	31	7	16	-0.9	194.9	104.3
FRANCE	PARIS	20	11	31	6	15	-1.0	96.7	40.4
	STRASBOURG	20	12	32	6	16	-0.8	147.0	72.3
	BOURGES	20	11	31	5	16	-1.3	109.4	48.2
	BORDEAUX	22	13	33	8	17	-0.1	85.8	21.3
	TOULOUSE	23	12	33	7	18	-0.4	53.3	-11.1
	MARSEILLE	26	15	33	12	20	-0.3	20.8	-10.8
SPAIN	VALLADOLID	26	11	36	5	19	0.9	12.7	-26.6
	MADRID	30	13	38	7	22	1.0	7.0	-19.1
	SEVILLE	33	17	40	11	25	1.4	0.0	-15.3
E GRMY	LEIPZIG	20	11	32	7	15	-1.3	63.8	-3.3
	DRESDEN	20	12	32	7	16	-0.8	99.1	31.1
W GRMY	HAMBURG	17	10	30	4	14	-2.0	90.9	21.0
	BERLIN	19	12	33	8	16	-2.1	60.4	-15.8
	DUSSELDORF	20	12	32	7	16	-1.2	87.4	21.4
	STUTTGART	19	11	30	6	15	-1.6	118.5	24.7
	NURNBERG	20	11	32	7	16	-1.1	109.4	35.7
	MUNICH	19	10	30	4	14	-1.1	133.0	-2.0
AUSTRI	VIENNA	22	13	29	6	17	-0.9	76.6	14.6
	INNSBRUCK	22	10	33	6	16	-0.6	132.3	20.3
CZECH	PRAGUE	20	10	31	6	15	-1.1	95.9	17.4
POLAND	WARSAW	21	11	29	3	16	-1.2	125.9	61.7
	LODZ	21	11	30	1	16	-0.1	99.8	30.7
	KATOWICE	21	11	30	4	16	0.3	90.5	2.6
	PRZEMYSL	22	12	30	4	17	0.4	41.0	-57.9
HUNGAR	BUDAPEST	25	14	32	8	19	-0.1	70.0	1.6
YUGOSL	SARAJEVO	24	11	33	4	17	0.5	50.3	-55.6
ROMANI	BUCHAREST	28	14	36	9	21	0.6	46.5	-41.3
BULGAR	SOFIA	25	14	34	7	19	1.8	8.4	-68.6
ITALY	MILAN	25	15	32	9	20	-0.3	47.2	-40.3
	VERONA	25	15	32	9	20	-0.8	116.1	37.5
	VENICE	24	15	31	11	20	-1.0	50.4	-26.3
	GENOA	24	18	34	15	21	-0.9	25.2	-23.8
	ROME	26	16	31	11	21	-0.5	17.4	-4.0
	NAPLES	28	16	34	12	22	1.2	21.2	-12.8
GREECE	THESSALONIKA	29	16	36	10	23	-1.7	45.1	15.3
	LARISSA	31	15	41	9	23	-2.0	1.6	-24.9
	ATHENS	28	20	34	15	24	-1.1	14.0	5.8
TURKEY	ISTANBUL	26	17	31	12	21	0.9	36.1	12.1
	ANKARA	24	9	30	4	17	-3.8	34.0	-4.0
CYPRUS	LARNACA	29	18	33	14	24	-1.0	0.0	-5.1
USSR	TALLINN	17	9	25	4	13	-1.6	87.4	41.4
	LENINGRAD	19	12	24	9	15	-0.3	117.7	66.8
	KAUNAS	19	10	24	4	15	-1.5	123.9	35.7
	MINSK	21	11	29	6	16	-0.4	111.8	44.7
	KAZAN	26	14	34	7	20	2.8	45.7	-15.6
	MOSCOW	22	14	28	7	18	1.1	118.6	50.7
	SVERDLOVSK	26	12	34	-2	19	3.8	43.4	-25.5
	OMSK	23	11	34	-1	17	-0.5	3.6	-52.8
	KUSTANAY	28	14	38	3	21	2.4	14.5	-22.6
	KRASNOYARSK	18	7	25	1	13	-3.5	47.1	-10.2
	NOVOSIBIRSK	19	9	26	-1	14	-2.2	39.4	-13.9
	BARNAUL	20	10	26	0	15	-3.2	45.6	-1.5
	KHABAROVSK	24	13	33	5	19	1.1	94.1	16.4
	VLADIVOSTOK	19	11	31	7	15	2.0	79.5	-22.7
	KIEV	23	13	31	6	18	-0.5	62.5	-0.4
	LVOV	22	11	29	4	17	0.3	50.3	-38.7
	KIROVOGRAD	24	13	31	8	19	-0.7	54.7	3.2

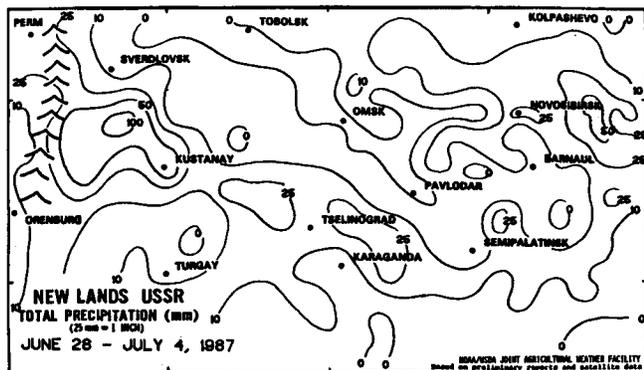
USSR	ODESSA	24	15	33	7	20	0.2	16.8	-24.7	GABON	LIBREVILLE	29	24	36	22	26	1.2	1.0	-17.4		
	YALTA	22	16	31	12	19	-1.8	78.5	35.6	TOGO	LOME	31	24	36	20	27	1.7	105.1	-173.7		
	VORONEZH	25	14	31	8	19	0.5	83.3	33.9	B FASO	OUAGADOUGOU	35	25	38	21	30	1.1	210.3	85.9		
	SARATOV	27	17	33	10	22	2.9	26.2	-10.2	IVRY C	ABIDJAN	29	24	32	23	26	0.5	283.6	-347.0		
	KHARKOV	23	14	31	8	19	-0.5	82.4	32.9	MOZAMB	MAPUTO	26	14	33	9	20	1.0	2.8	-13.2		
	VOLGOGRAD	28	17	36	9	22	0.8	14.5	-12.3	ZAMBIA	KABWE	23	9	28	6	16	0.5	0.0	0.0		
	ROSTOV	24	16	32	5	20	-0.9	138.2	77.7	ZIMBAB	HARARE	21	8	27	5	15	1.1	0.0	-4.0		
	ASTRAKHAN	30	19	38	12	25	1.5	22.9	2.7	S AFRI	PRETORIA	19	4	24	0	12	1.1	3.5	-2.5		
	KRASNODAR	25	16	31	11	20	-0.6	166.3	89.2		KROONSTAD	17	-2	23	-7	8	-0.4	0.0	-7.9		
	ORENBURG	30	16	38	5	23	3.2	40.5	-1.9		JOHANNESBURG	17	4	21	-2	10	1.1	0.1	-6.1		
	TSELINOGRAD	24	12	34	2	18	0.0	78.1	46.1		BETHAL	15	1	21	-5	8	0.0	4.2	-3.7		
	KARAGANDA	23	11	33	2	17	-1.4	40.0	-0.2		DURBAN	23	12	30	7	17	0.8	32.0	5.8		
	TBILISI	28	17	35	12	23	1.3	62.0	-5.1		CAPE TOWN	19	8	29	1	14	1.1	118.7	27.5		
	TASHKENT	32	17	39	6	24	-0.8	19.6	9.1	CANADA	TORONTO	26	13	35	4	20	1.9	67.9	0.8		
	ASHKHABAD	37	20	43	16	28	0.0	0.0	-4.8		MONTREAL	24	13	32	7	19	0.4	129.1	46.6		
SYRIA	DAMASCUS	34	13	39	6	24	-1.4	15.0	15.0		WINNIPEG	26	12	35	2	19	2.1	55.8	-24.4		
ISRAEL	JERUSALEM	27	16	33	8	21	-1.1	0.0	0.0		REGINA	26	11	37	3	18	2.5	54.8	-24.9		
PAKIST	KARACHI	36	28	39	13	32	0.6	0.0	-7.7		SASKATOON	26	11	39	4	19	2.9	29.0	-29.5		
INDIA	AMRITSAR	40	23	45	21	31	-1.2	37.1	-20.1		LETHBRIDGE	25	10	34	4	18	2.2	63.8	-14.4		
	NEW DELHI	41	29	45	23	35	1.0	31.3	-25.4		CALGARY	24	10	32	5	17	3.4	21.6	-67.9		
	AHMEDABAD	40	28	43	25	34	1.3	16.5	-88.9		EDMONTON	23	11	38	7	17	1.8	40.0	-37.4		
	INDORE	38	25	42	22	31	1.2	105.9	-28.2		VANCOUVER	20	11	29	8	16	0.9	18.4	-26.9		
	CALCUTTA	35	27	39	23	31	0.9	262.5	12.2	MEXICO	GUADALAJARA	30	16	33	12	23	0.7	184.0	32.0		
	VERAVAL	33	28	34	25	30	0.8	25.0	-134.9		MEXICO CITY	24	14	28	10	19	1.3	107.7	3.6		
	BOMBAY	33	26	36	22	29	0.6	411.6	-235.9		ACAPULCO	35	26	37	21	31	2.1	15.7	-263.1		
	POONA	33	23	40	21	28	0.6	74.1	-43.6		BERMUD	ST. GEORGES	27	23	29	20	25	0.6	56.7	-80.2	
	BEGAMPET	36	24	41	20	30	1.3	91.4	-8.6		BAHAMA	NASSAU	32	23	34	20	28	0.9	94.0	-130.7	
	MADRAS	38	28	43	24	33	1.0	85.2	23.0		CUBA	HAVANA	32	24	34	23	28	1.4	112.4	-49.5	
	MANGALORE	30	24	35	23	27	0.1	867.8	-114.2		JAMAIC	KINGSTON	34	26	36	25	30	2.0	17.1	-61.3	
H KONG	HONG KONG	30	26	33	22	28	0.2	233.9	-198.0		P RICO	SAN JUAN	31	24	33	23	28	0.2	183.7	60.8	
N KREA	PYONGYANG	25	15	31	9	20	1.0	91.2	-65.8		MARTNQ	LAMENTIN	31	24	33	21	28	0.9	72.3	-8.0	
S KREA	SEOUL	27	18	32	12	23	1.8	129.1	-39.8		BARBAD	BRIDGETOWN	30	25	31	23	28	0.2	58.5	-32.2	
JAPAN	SAPPORO	22	14	30	10	18	2.1	17.5	-59.1		TRINID	PORT OF SPAIN	32	24	34	23	28	1.7	69.4	-184.9	
	NAGOYA	28	19	35	17	24	2.0	71.0	-138.9		COLOMB	BOGOTA	19	9	21	1	14	0.7	33.0	-38.3	
	TOKYO	26	19	32	15	22	0.9	114.2	-66.5		VENEZU	CARACAS	31	25	33	23	28	1.7	31.0	-22.3	
	YOKOHAMA	25	19	32	15	22	0.8	128.2	-87.7		F GUIA	CAYENNE	31	23	32	22	27	1.7	286.1	-177.8	
	KYOTO	29	19	37	14	24	2.3	145.5	-87.3		BRAZIL	FORTALEZA	30	24	32	22	27	0.3	233.7	81.3	
	OSAKA	29	20	35	16	24	1.7	90.0	-122.8			RECIFE	29	22	30	21	26	1.0	443.1	90.2	
THAILN	PHETCHABUN	34	25	38	23	30	1.5	116.5	-65.6			BELO HORIZONTE	25	15	28	10	20	1.2	55.0	44.0	
	BANGKOK	33	27	38	24	30	0.9	288.0	129.9			CAMPO GRANDE	26	15	30	6	20	1.0	74.0	24.0	
MALAYS	KUALA LUMPUR	32	25	34	23	28	1.3	172.2	40.3			FRANCA	23	14	28	9	19	1.3	23.8	1.7	
VIETNM	HANOI	33	26	39	21	30	0.3	139.7	-99.1			RIO DE JANEIRO	25	18	33	15	22	0.0	142.1	98.3	
CHINA	HARBIN	27	14	32	8	20	0.4	63.3	-14.7			LONDRINA	22	10	26	3	16	-0.6	152.0	60.4	
	HAMI	30	16	35	9	23	-2.1	14.9	10.2			SANTA MARIA	18	8	28	0	13	-1.5	162.0	-2.1	
	LANCHOW	25	15	33	9	20	-0.3	69.9	37.3			PORTO ALEGRE	19	10	28	4	14	-0.6	97.7	-42.3	
	BEIJING	29	18	33	11	23	-0.8	92.0	14.1	PERU	LIMA	21	16	25	13	19	1.6	1.6	0.7		
	TIENTSIN	28	19	35	10	24	-0.3	67.2	-2.1		BOLIVI	LA PAZ	12	-2	15	-5	5	-2.1	2.5	-0.9	
	LHASA	25	11	29	6	18	1.7	47.0	-23.3		CHILE	SANTIAGO	17	3	25	-4	10	2.1	31.9	-38.7	
	KUNMING	25	18	29	12	21	1.7	82.4	-98.0		ARGENT	IGUAZU	20	11	26	-2	16	***	71.7	***	
	CHENGCHOW	28	18	35	12	23	-3.0	81.0	12.9			FORMOSA	22	12	30	0	17	-0.5	111.5	34.5	
	YEHCHANG	28	21	33	15	24	-1.2	123.9	-34.9			CERES	20	7	28	-3	14	0.8	0.7	-24.6	
	HANKOW	28	21	34	13	25	-1.0	115.4	-94.2			CORDOBA	20	6	29	-3	13	2.5	0.9	-12.7	
	CHIHKIANG	28	20	34	13	24	-0.3	200.0	17.3			RIO CUARTO	18	6	27	-3	12	2.4	0.0	-23.6	
	SHANGHAI	26	19	35	13	23	-0.6	93.0	-66.0			ROSARIO	18	5	24	-4	12	1.1	0.0	-45.2	
	NANCHANG	29	22	33	15	25	-0.2	83.3	-207.8			BUENOS AIRES	17	6	25	-4	11	1.5	6.3	-53.6	
	TAIPEI	30	24	36	15	27	0.5	140.6	-175.4			SANTA ROSA	16	4	22	-7	10	2.2	0.0	-25.1	
	CANTON	31	25	35	19	28	0.8	157.3	-130.2			TRES ARROYOS	14	5	22	-3	9	1.3	23.2	-21.1	
	NANNING	32	25	37	18	29	1.2	350.3	118.3		MIDW I	MIDWAY ISLAND	27	22	29	21	25	0.4	47.1	-25.0	
CNRY I	LAS PALMAS	26	20	30	17	23	1.8	0.0	0.0		N CALD	NOUMEA	24	18	26	10	21	0.1	138.1	23.9	
MOROCC	CASABLANCA	24	18	27	13	21	0.6	4.4	-1.4		FIJI	NAUSORI	25	19	28	16	22	-1.1	89.1	-77.5	
	MARRAKECH	33	18	37	14	25	2.2	0.1	-6.1		SAMOA	PAGO PAGO	28	24	30	18	26	-0.5	101.9	-115.7	
ALGERI	ALGER	28	16	35	11	22	0.7	15.3	-6.7			TAHITI	PAPEETE	29	23	32	19	26	1.2	59.1	-2.4
	BATNA	30	15	37	7	23	1.8	11.3	-11.8			N ZEAL	AUCKLAND	15	9	18	2	12	-0.1	101.4	-30.3
TUNISI	TUNIS	29	17	37	11	23	0.2	3.2	-11.4			WELLINGTON	12	7	17	3	10	0.6	64.4	-74.7	
NIGER	NIAMEY	39	27	43	21	33	2.1	63.4	-11.7			PA N G	PORT MORESBY	30	25	33	21	27	1.0	0.0	-47.7
MALI	TIMBUKTU	40	28	44	21	34	-0.1	25.5	8.7			AUSTRAL	DARWIN	31	23	33	18	27	1.6	0.0	-1.8
	BAMAKO	35	24	40	22	30	1.0	346.8	209.7			MOREE	MOREE	19	9	22	0	14	2.2	28.9	2.0
MAURIT	NOUAKCHOTT	34	23	45	20	29	1.2	0.0	-0.8			BRISBANE	20	13	23	5	17	0.3	34.6	-39.8	
SENEGL	DAKAR	29	24	31	21	27	1.1	3.3	-6.7			PERTH	19								



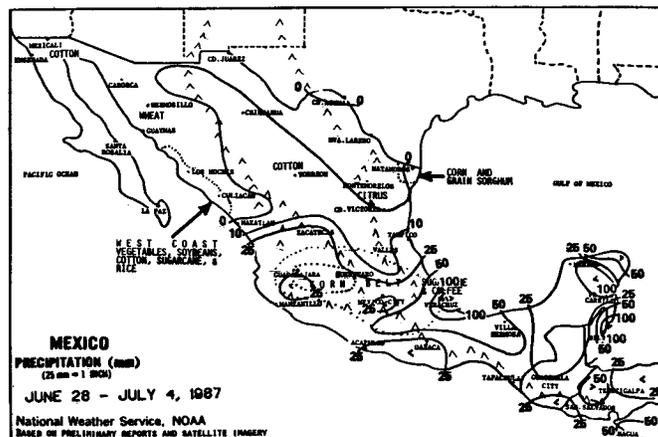
U.S.S.R. ... In Western U.S.S.R., early-week light scattered showers over major winter wheat producing areas of the Ukraine and North Caucasus were followed by abundant sunshine and mild weather. Soil moisture conditions in these areas were adequate to surplus for winter wheat in the filling stage, corn in the vegetative stage, and spring barley in the reproductive stage. Unseasonably cool weather over the Baltic States, Belorussia, and the Northwest Region was accompanied by light showers. In the Volga Vyatsk, Urals, and eastern Volga, early-week hot, dry weather was followed by a cooling trend and significant showers. Rainfall amounts ranging from 10-50mm in these areas eased stress conditions on spring grains, advancing through the reproductive stages of development in southern areas, and the heading stage in the Volga Vyatsk and Urals.



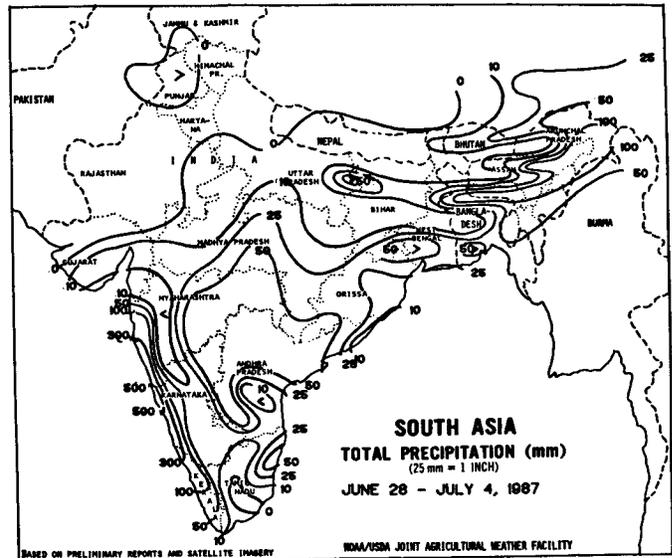
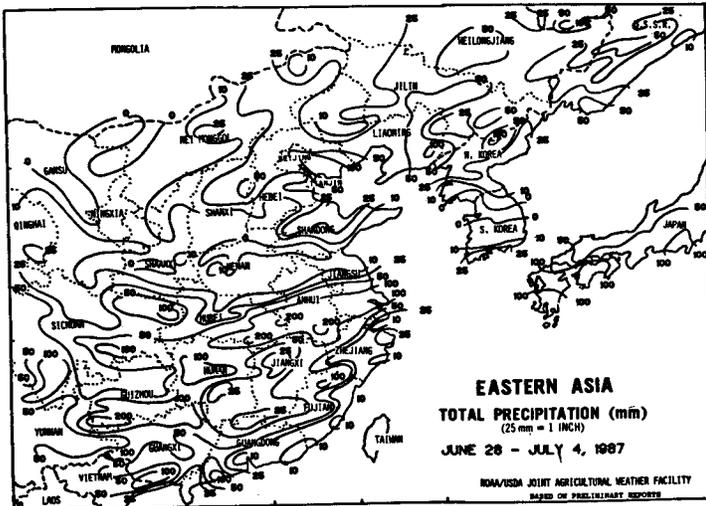
EUROPE ... Minimal rain (less than 10mm) continued in western Europe from the United Kingdom through France and the Iberian Peninsula into Italy, and spread over northern Europe from Belgium and the Netherlands to Poland. Warm weather accompanied the dryness, favoring winter grain, corn, and sugarbeet development, which had been slowed by this season's persistent cool weather. The dryness in Spain, France, and Italy benefited mature winter wheat and favored harvesting. Moisture reserves continued favorable, however, for heading to filling wheat in western and northern Europe and for vegetative French corn. Moisture reserves in Spain, however, are too low for normal crop development. Scattered showers fell in the southeast but dry pockets persisted in Hungary, Romania, and Yugoslavia, where moisture may be limited in some areas for filling wheat and vegetative summer crops.



In the New Lands, after 3 weeks of unfavorably hot, dry weather, a cooling trend and widespread showers in the southern Urals and western Kazakhstan eased stress on spring wheat in the highly weather sensitive heading and flowering stages. Rainfall amounts from the Ural mountains eastward to Kustanay ranged from 50-100mm with lesser amounts (9-18mm) covering the southern Urals. A dry pocket still existed over crop areas that extended eastward from Sverdlovsk to Omsk. Daily maximum temperatures in western areas dropped from around 35 degrees C early in the week to around 25 degrees C by week's end, relieving heat stress. In eastern areas, light showers and mild weather maintained favorable conditions for spring wheat in the jointing stage.

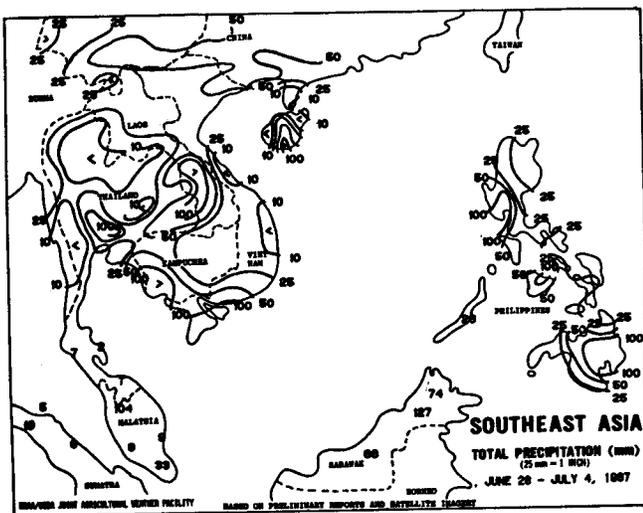


MEXICO ... Widespread showers across the Southern Plateau corn belt generally produced near to somewhat below average weekly rainfall. The moisture (18-44mm) greatly benefited vegetative and tasseling corn in the western portion of the major corn producing region. Substantial rain (50-100mm) fell in the southeast and on the tip of the Yacatan peninsula. Mostly dry weather covered the northern half of the country. Light showers (less than 10mm) were scattered over the north-central cotton and rangeland areas while sunny skies and mild weather prevailed along the west coast farming region.

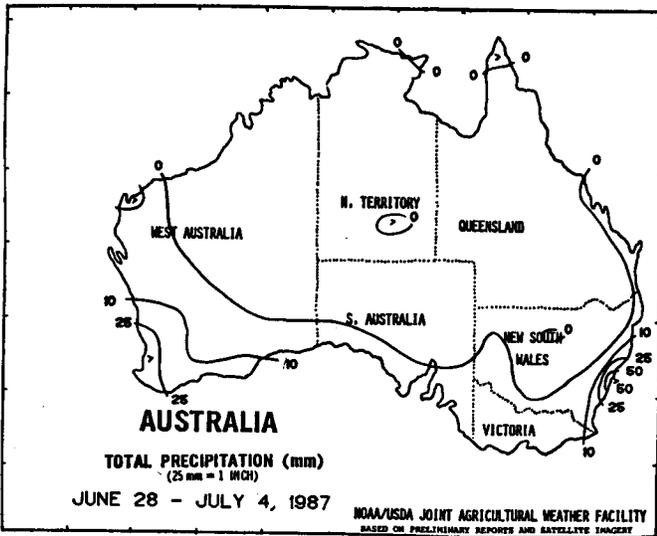


EASTERN ASIA ... Soaking rain covered the Manchurian Valley, benefiting corn and soybeans in the vegetative stage. Rainfall amounts generally ranged from 20-50mm with localized areas receiving rainfall in excess of 50mm. Showers (10-30mm) continued over crop areas in Shandong and Hebei where late corn and soybeans are approaching the reproductive stages. In the Yangtze Valley, moderate to heavy rains fell over most areas. Rainfall amounts ranged from 70-100mm with crop areas in northern Hunan, eastern Hubei, southern Anhui, and southern Jiangsu receiving rainfall from 100-200mm. Moisture conditions in these areas were likely too wet for cotton approaching the flowering stage.

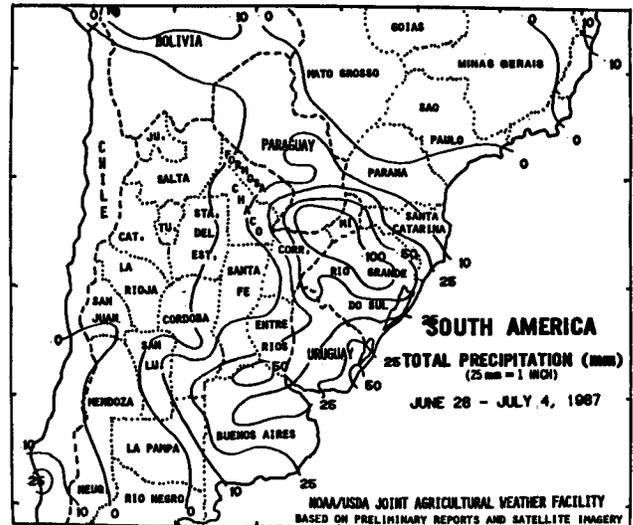
SOUTH ASIA ... Monsoon showers (10-78mm) covered central and southern India's cotton and groundnut regions, boosting planting activities from Gujarat through Andhra Pradesh to northeastern Tamil Nadu. The showers were the heaviest of this season in parts of Gujarat and Andhra Pradesh, which normally account for more than 40 percent of India's total cotton output and about 30 percent of the total groundnut production. Light rain (8-25mm) returned to summer crop areas of Maharashtra and Karnataka. Heavy showers (100 to more than 300mm) flooded some previously wet areas in eastern India and Bangladesh and along India's southwest coast. Dry, warm weather continued in the heavily irrigated crop areas of northern India and northern Pakistan, where vegetative cotton and rice are progressing normally.



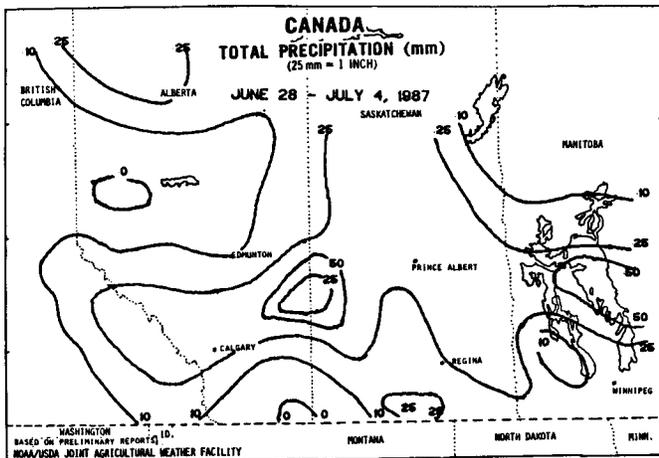
SOUTHEAST ASIA ... Light rain (3-25mm) persisted in Thailand's rainfed grain areas. Corn and rice are reproducing throughout Thailand, and more rain is needed, especially in central Thailand's western corn region, for normal development. Heavy rain (100-370mm) covered central Laos and southwestern Kampuchea, but mostly light to moderate rain (10-50mm) fell elsewhere in Indochina. Dry weather continued along Vietnam's central coast. Variable showers (15 to more than 100mm) benefited Philippine crop areas, but heavy showers (100-293mm) may have caused local flooding in eastern Mindanao and southwestern Luzon. Mostly dry weather covered the the Malay Peninsula as scattered, beneficial showers returned to Indonesia.



AUSTRALIA ... Dry weather returned to eastern Australia's grain areas. Soil moisture continued adequate to abundant, however, in South Australia, Victoria, and southern New South Wales for vegetative winter wheat. Moisture levels remained low in northern New South Wales and southeastern Queensland where winter wheat, planted in response to last week's beneficial showers, is emerging. Conditions have been generally poor in most northern grain areas since April, the beginning of the normal planting season. Light to moderate showers (10-25mm) benefited vegetative winter wheat in Western Australia. Dry weather persisted in coastal Queensland's sugarcane areas.



SOUTH AMERICA ... In Argentina, the first substantial rain (15-63mm) in over a month in Buenos Aires moistened topsoils for land preparation and wheat planting that has been slowed by dryness. Early planted emerging wheat has been stressed by inadequate moisture. Showers (10-25mm) also covered wheat areas of northeastern La Pampa, southern Cordoba and southern Santa Fe. Moisture is limited for wheat development throughout Argentina's wheat belt. The storm system stalled over southern Brazil, causing copious rainfall (50-193mm) over Rio Grande do Sul. Dry weather prevailed over the remainder of Brazil's center-south. Moisture is likely adequate for Parana's wheat. The dryness favored coffee harvesting in Sao Paulo and Minas Gerais.



CANADA ... Widespread showers and seasonably mild weather eased stress on spring grains advancing into weather sensitive phases of development. In Manitoba, weekly rainfall averaged 10-20mm in most crop areas with cereals well into the heading and grain forming period. Substantial rain (20-60mm) fell over most northern portions of Saskatchewan's grain belt, maintaining generally adequate moisture for crops progressing into heading. Timely showers (10-25mm) brought relief to stressed crops in the south but rainfall continued inadequate in the extreme southwest and in southern Alberta. Crop deterioration has likely continued in southern Alberta, while beneficial rain fell over northern crop areas. Temperatures across the Prairie grain belt averaged near normal, easing heat stress during the critical growth phases.

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