

WEEKLY WEATHER AND CROP BULLETIN

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

U.S. DEPARTMENT OF AGRICULTURE
Economics and Statistics Service
World Food and Agricultural Outlook and Situation Board

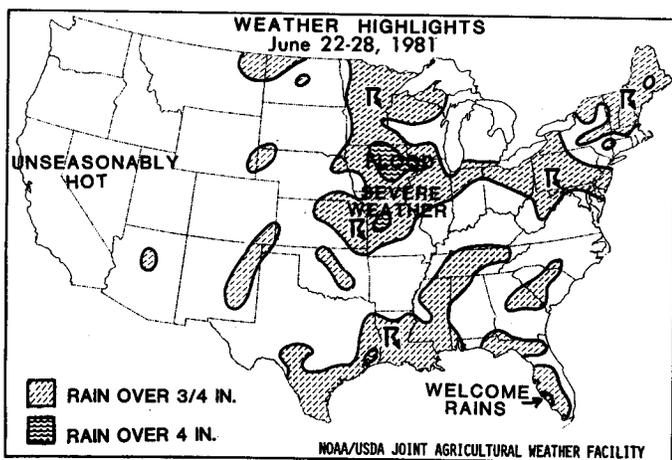
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June 30, 1981

National Weather Summary

June 22-28, 1981



HIGHLIGHTS: Most of the Nation had rain -- even parts of the southern Plateau and southwestern desert -- as tropical moisture moved out of Mexico. Rains were very heavy over parts of Iowa, Missouri, Florida, and southeast Texas, causing local flooding. Most of the severe weather was confined to the north central States. Unusually hot dry weather sapped moisture from rangeland and forests in California through the northern Plateau. The unseasonal warmth also extended into the central Plains and parts of the Southeast. Subnormal temperatures persisted across the Great Lakes, northern Rockies, and south Texas.

MONDAY...A stormy low pressure frontal system stretched from New England to north Texas, producing moderate rains and several tornadoes. Tropical moisture streamed into eastern New Mexico to Kansas and dumped scattered heavy rains. Some homes and crops were flooded in central Kansas. Thundershowers dotted the Gulf Coast and northern tier of States as well as the Pacific Northwest. Very hot temperatures dominated Southern States, topping 110° in the Southwest and around 100° in northern California and from Alabama to the Carolinas. Record highs were tied at some New Mexico sites.

TUESDAY...The cold front moved into the Southeast followed by high pressure which brought peaceful weather to the Northeast. Meanwhile, a frontal system began developing over the central and northern Plains with scattered thunderstorms and a few tornadoes. The activity increased during the evening. High pressure moved into the Pacific Northwest and broke the rainy pattern. Heavy thunderstorms formed along the central gulf coast and produced tornadoes and large hail over parts of southern Louisiana. Southern States continued hot while pleasant afternoon temperatures in the sixties and seventies prevailed over the extreme North.

WEDNESDAY...Numerous thunderstorms ahead of the slow-moving front poured extremely heavy rains over much of Iowa last night and early morning. Up to 8 inches of rain in the central part of the State locally flooded cities and cropland and sent some rivers over their banks. Hail, high winds, and a few tornadoes caused additional damage. Thundershowers popped up along the gulf coast and in the Southeast during the afternoon. The desert Southwest continued hot; Blythe California had 115°, while the extreme northern States only reached the pleasant 70s. By evening, severe weather began developing over the Midwest and showers spread into the Northeast.

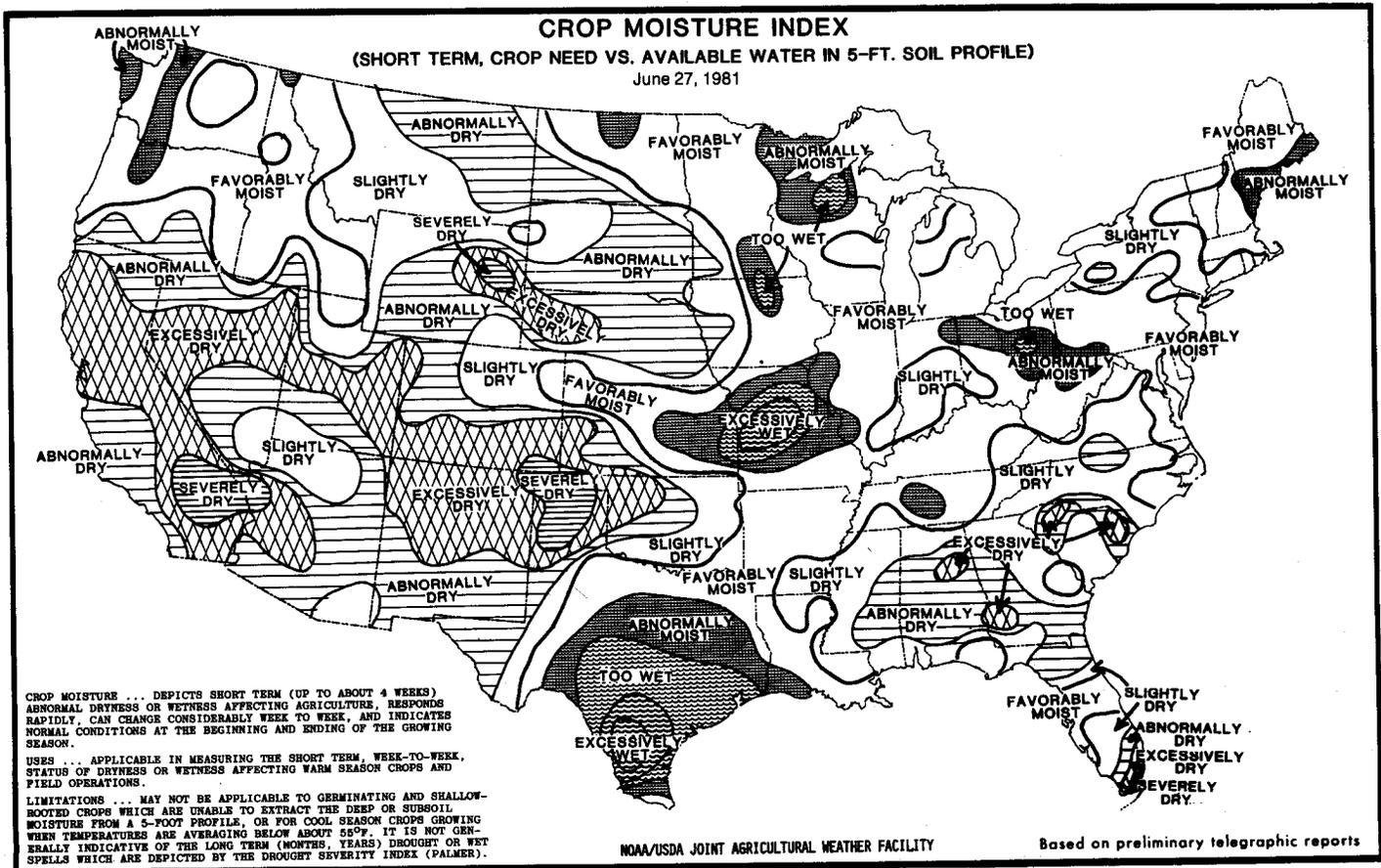
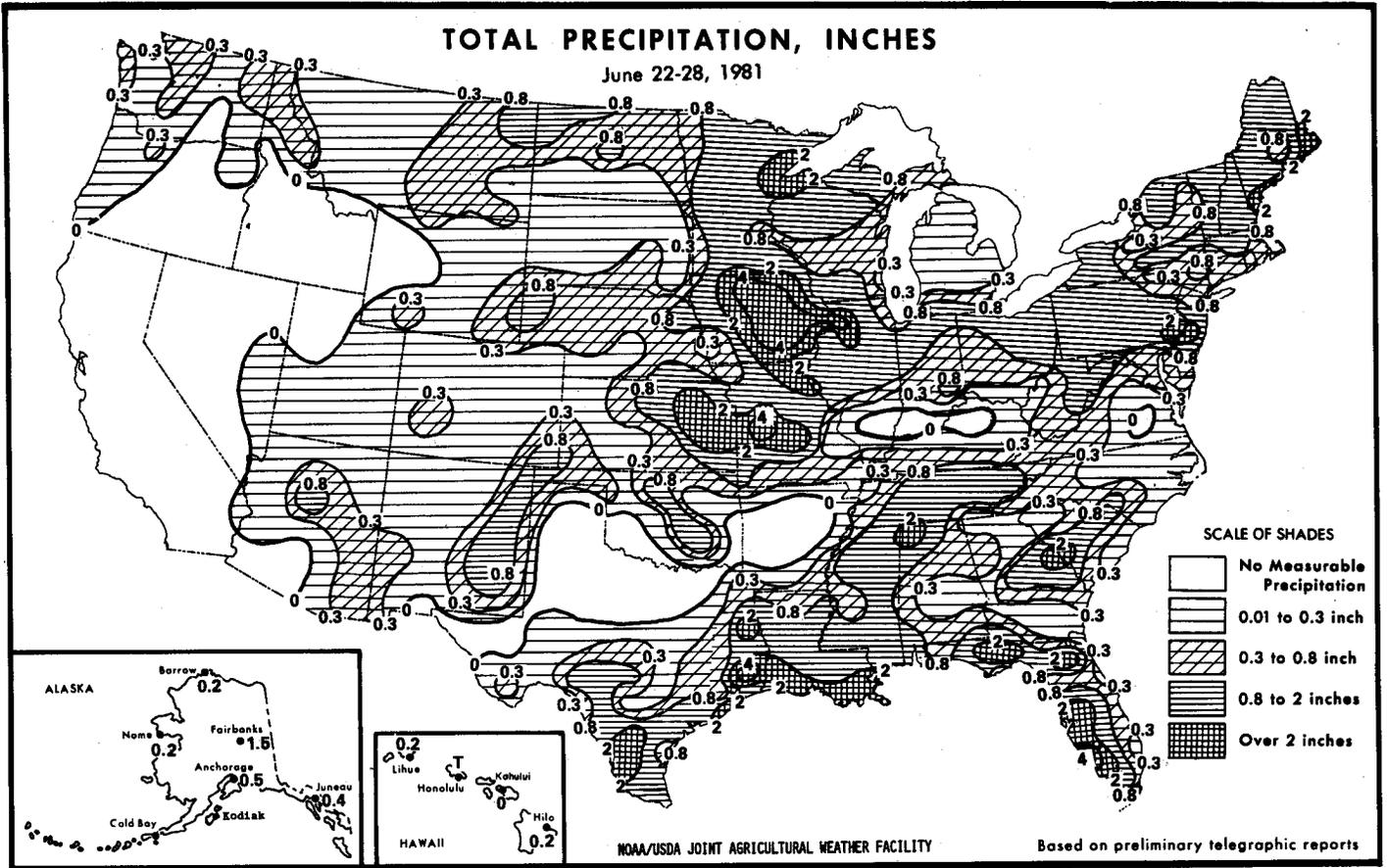
THURSDAY...Widespread heavy rains, triggered by a cold front, advanced into Missouri and Illinois during the morning and over much of the Northeast later in the day. Heaviest rainfall, up to 4 inches, fell very quickly, flooding some western parts of Kansas and Illinois. Thundershowers formed ahead of the front over the South and extended westward into central Arizona. A fair high pressure system continued over the northern Plains with temperatures in the seventies and eighties.

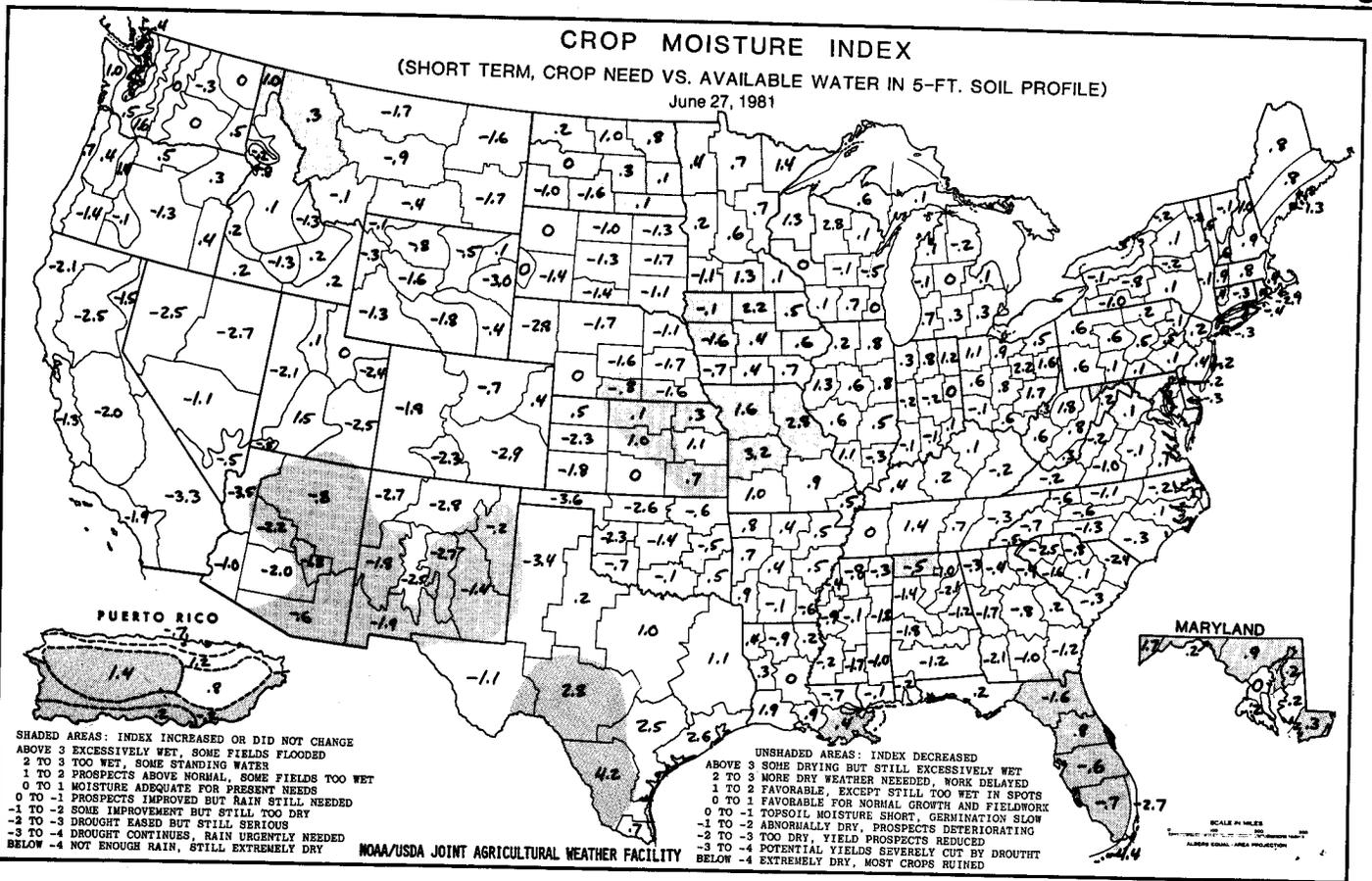
FRIDAY...A cold front pushed through the Southeast, triggering scattered showers along the gulf coast. Moist, unstable air supported numerous showers across South Texas while showers lingered over New England. High pressure advanced into the western Great Lakes, drying to soggy fields. Only a few showers dotted the rest of the nation except in the central Plains where another round of scattered heavy showers developed early in the morning and continued throughout the day. Another cold front moved through the Northwest.

SATURDAY...Cool high pressure settled over the Appalachians and low temperatures dipped into the forties in many northeastern States. A front moving through the northern Rockies spread rains as far east as the Dakotas. Scattered showers developed across the mid and upper Mississippi Valley, along portions of the gulf
(Continued on page 24)

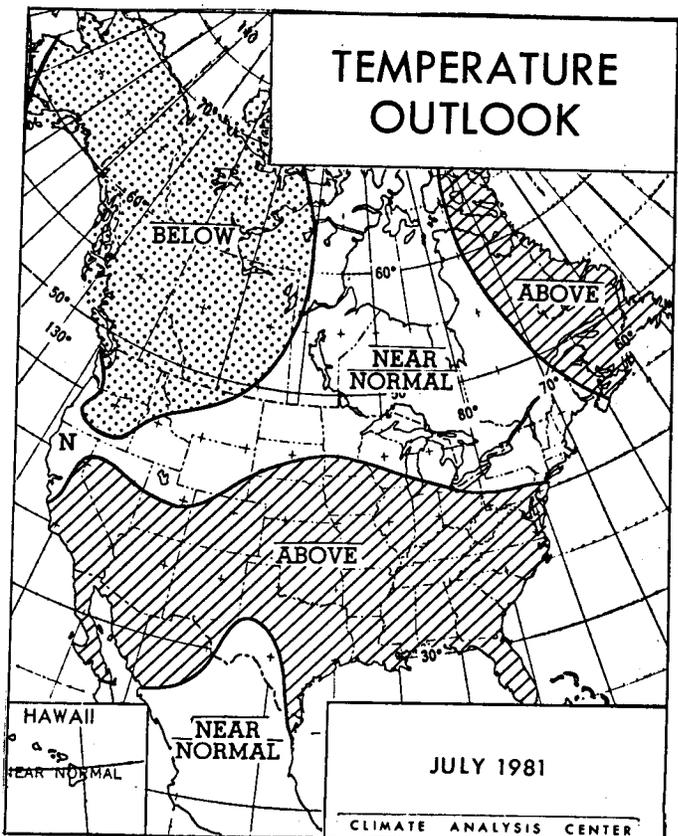
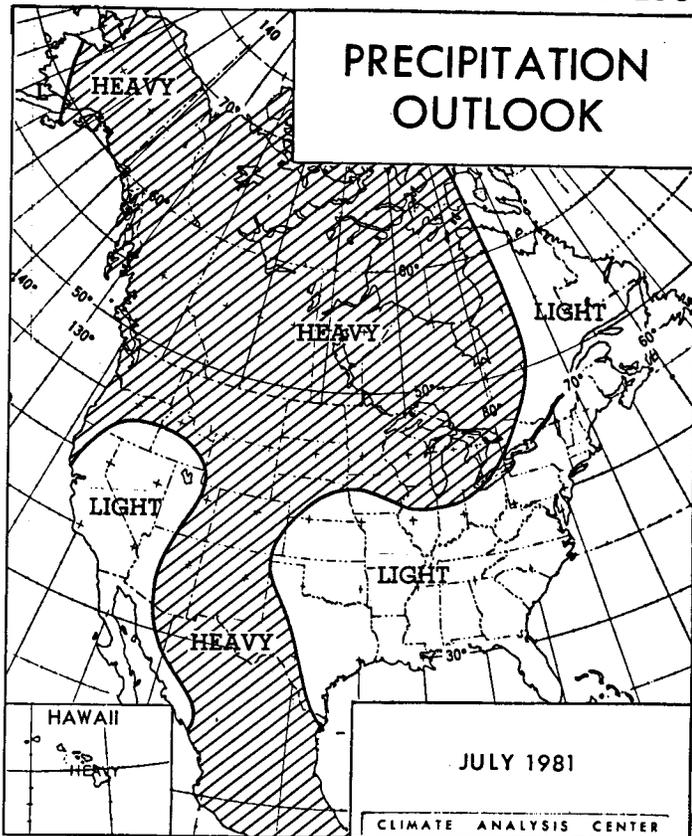
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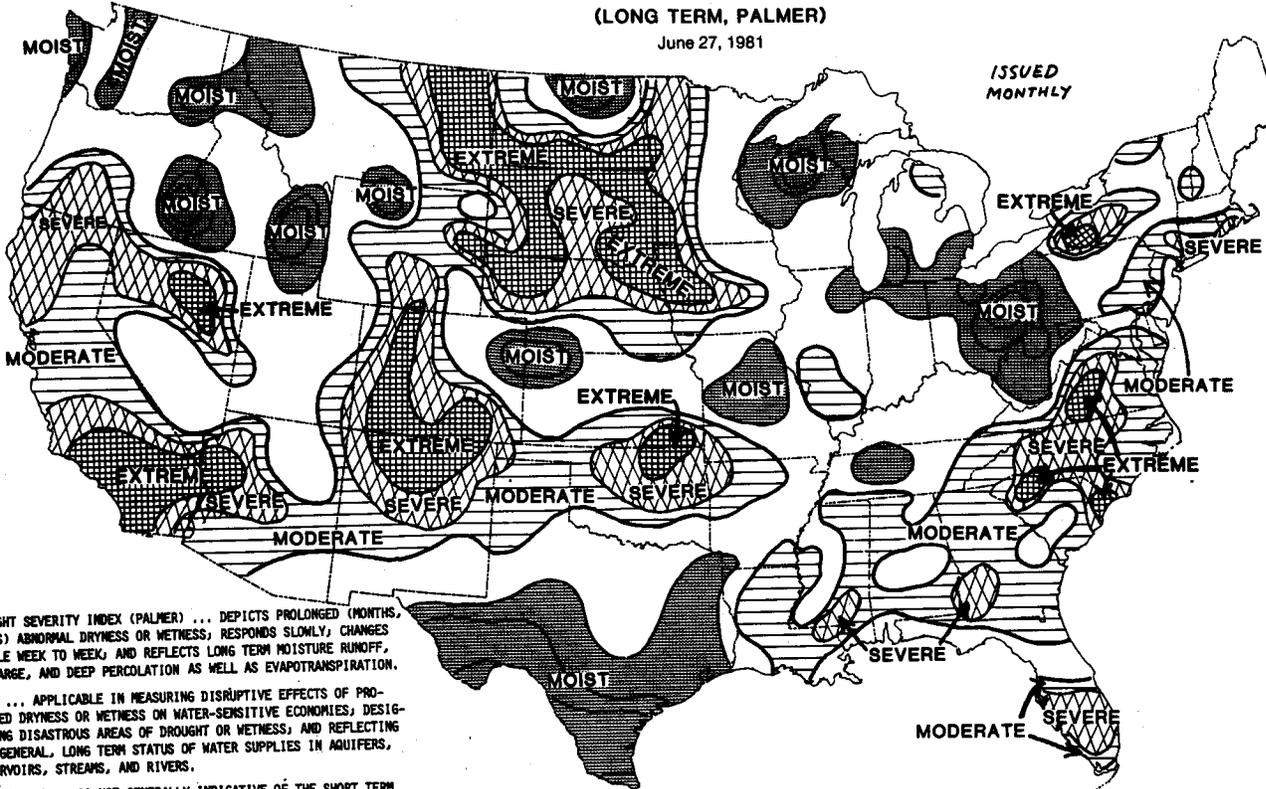
OUTLOOK FOR JULY



DROUGHT SEVERITY (LONG TERM, PALMER)

June 27, 1981

ISSUED MONTHLY



DROUGHT SEVERITY INDEX (PALMER) ... DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS, RESPONDS SLOWLY; CHANGES LITTLE WEEK TO WEEK, AND REFLECTS LONG TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.

USES ... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER-SENSITIVE ECONOMIES; DESIGNATING DISASTROUS AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL, LONG TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS, STREAMS, AND RIVERS.

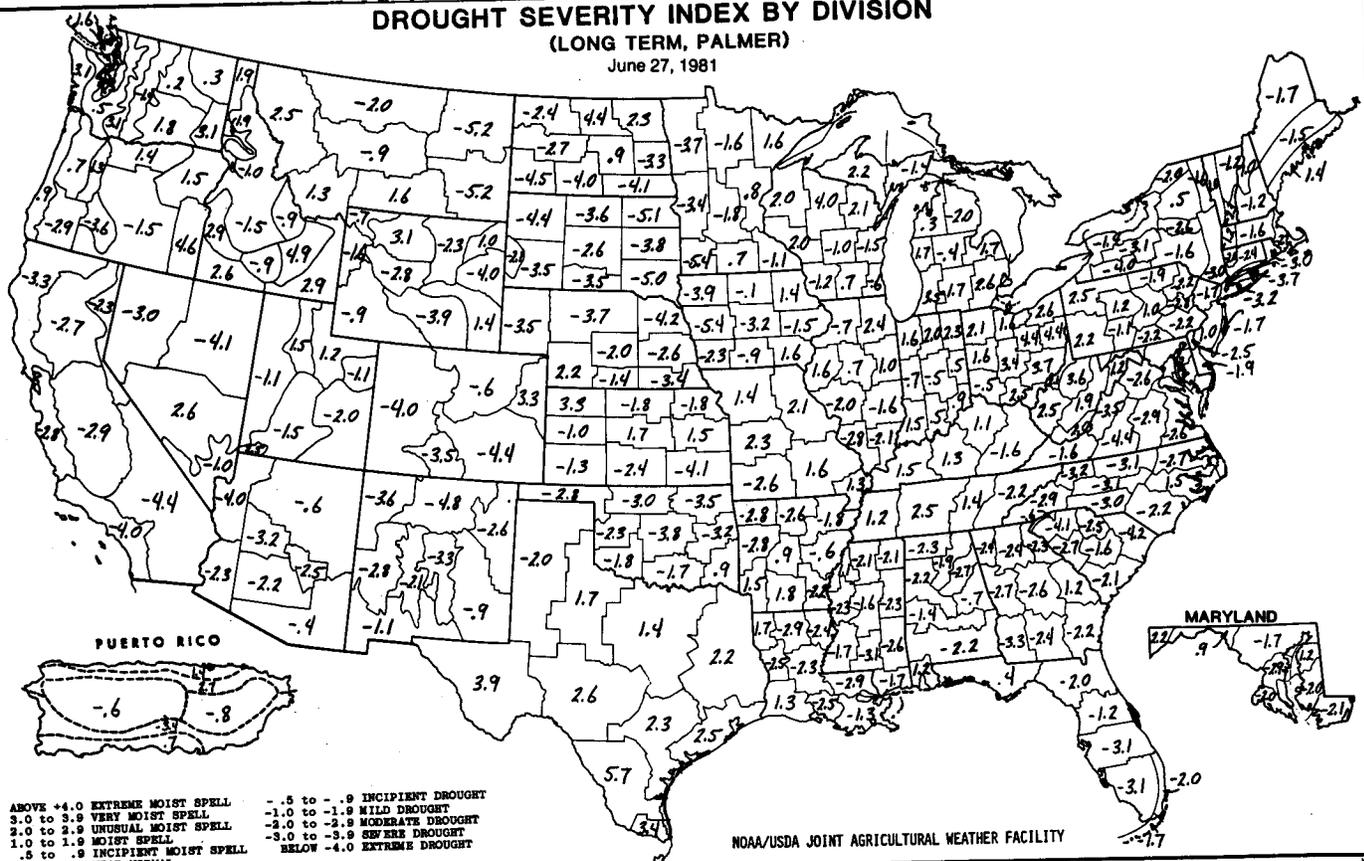
LIMITATION ... IS NOT GENERALLY INDICATIVE OF THE SHORT TERM (FEM WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX WHICH IS ISSUED WEEKLY IN THE GROWING SEASON).

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary telegraphic reports

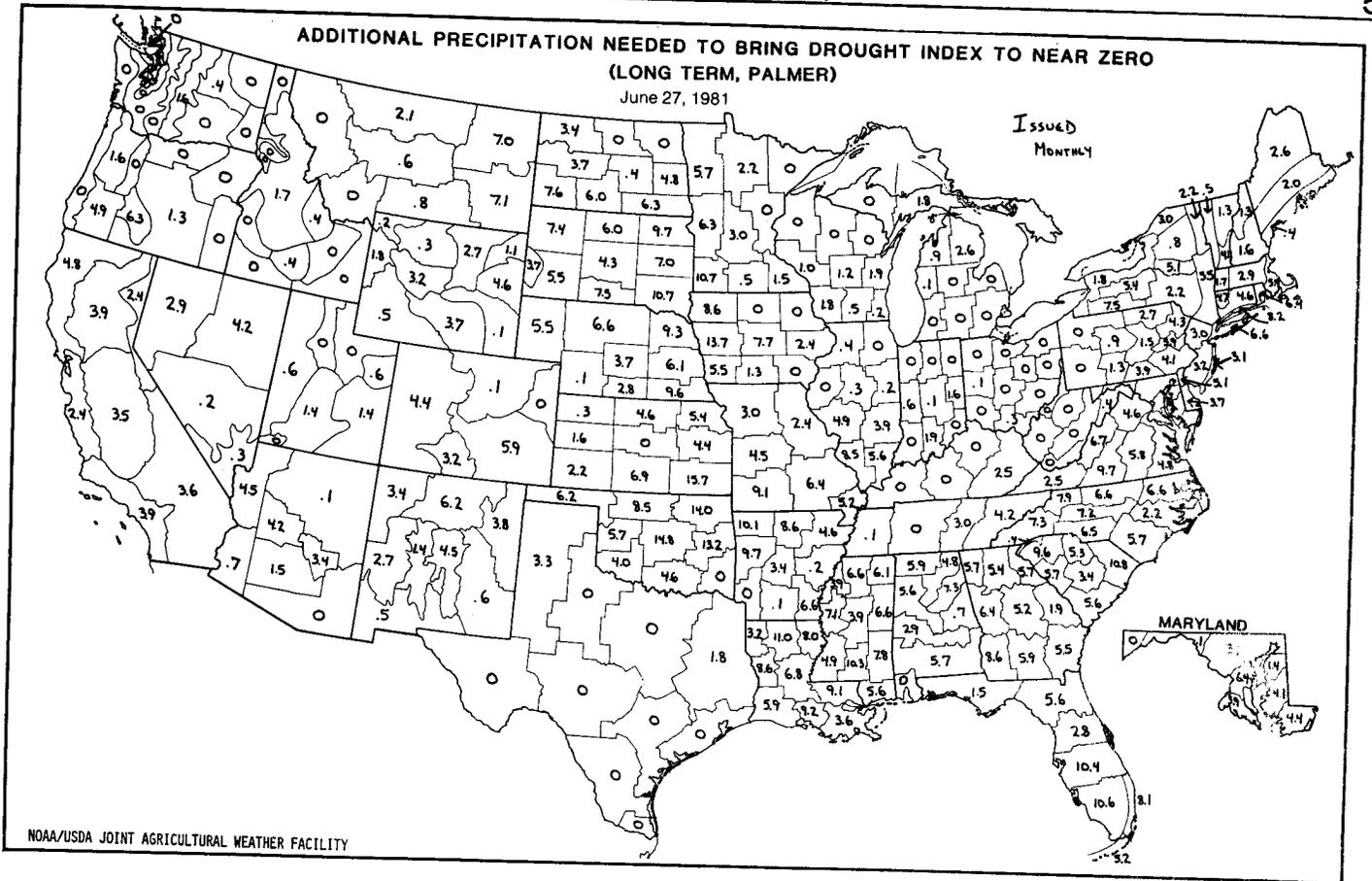
DROUGHT SEVERITY INDEX BY DIVISION (LONG TERM, PALMER)

June 27, 1981

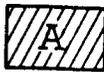
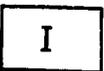


ABOVE +4.0 EXTREME MOIST SPELL
 3.0 to 3.9 VERY MOIST SPELL
 2.0 to 2.9 UNUSUAL MOIST SPELL
 1.0 to 1.9 MOIST SPELL
 -.5 to .9 INCIPENT MOIST SPELL
 .4 to -.4 NEAR NORMAL
 -.5 to -.9 INCIPENT DROUGHT
 -1.0 to -1.9 MILD DROUGHT
 -2.0 to -2.9 MODERATE DROUGHT
 -3.0 to -3.9 SEVERE DROUGHT
 BELOW -4.0 EXTREME DROUGHT

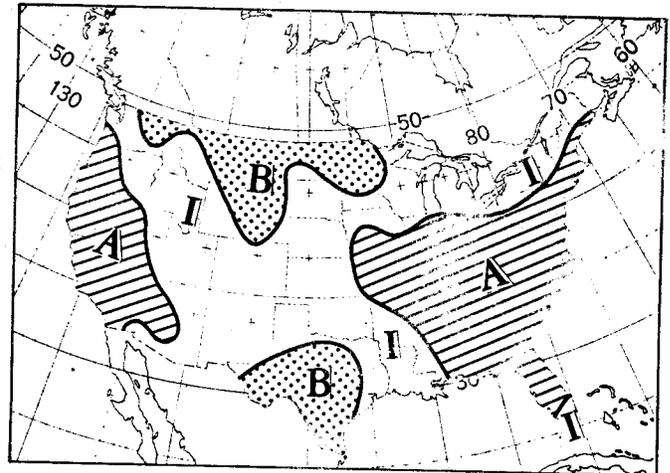
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

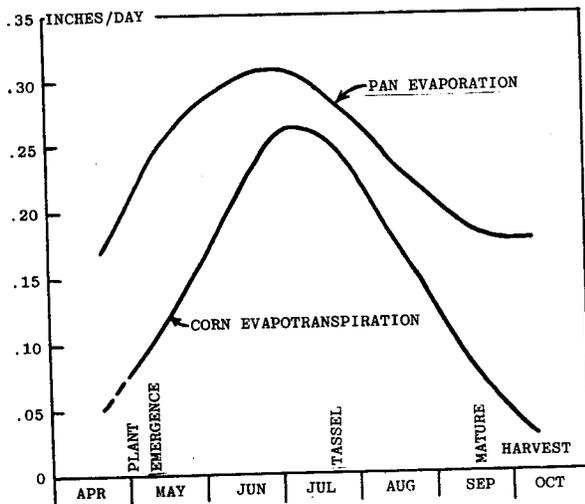
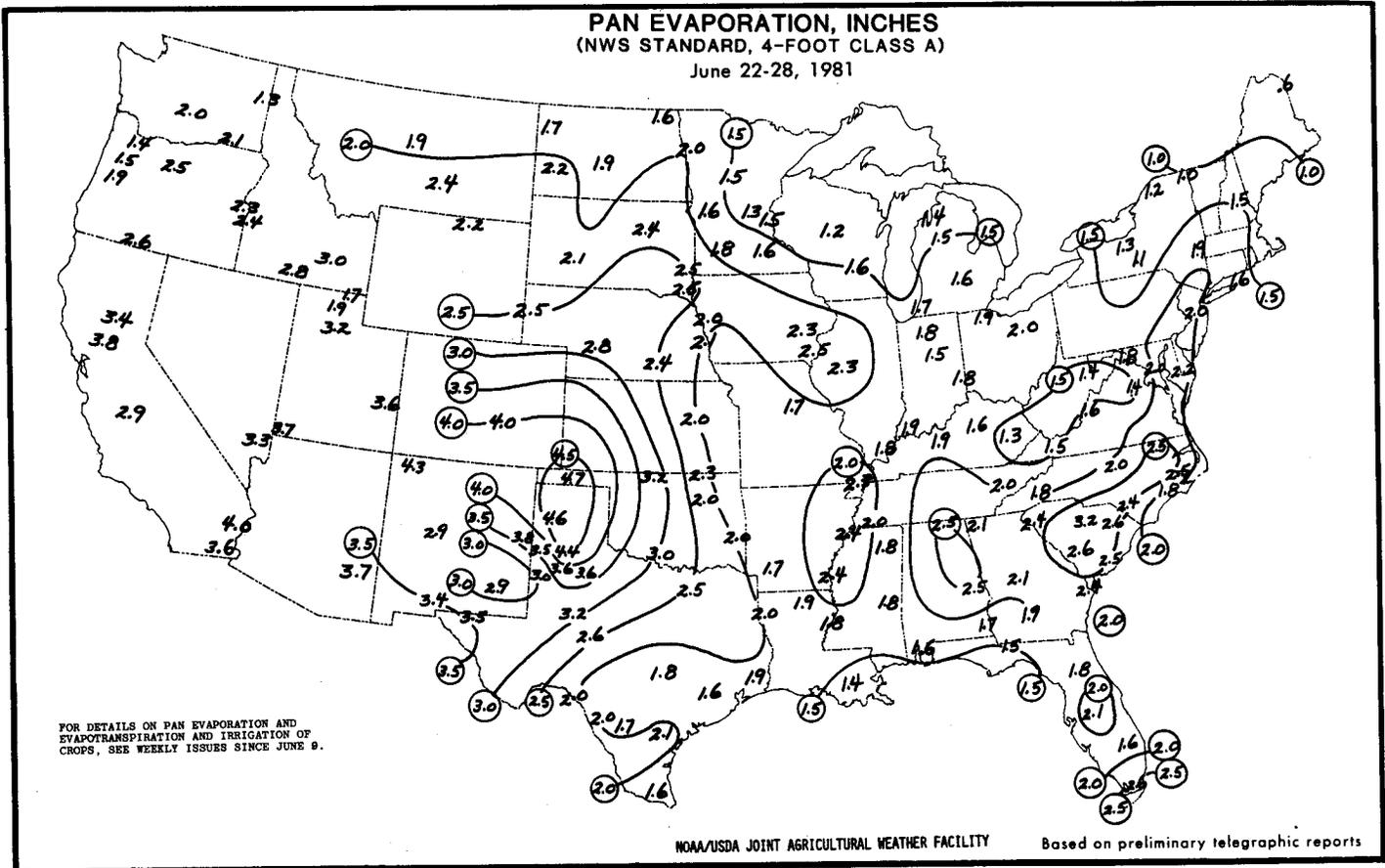


OUTLOOK FOR JULY TO SEPTEMBER

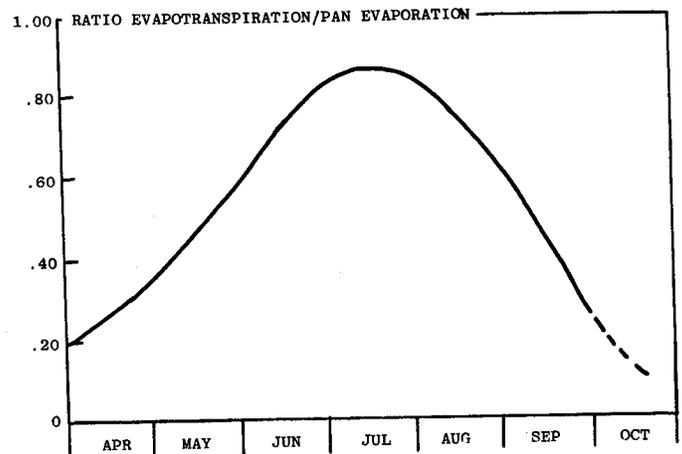
-  ABOVE NORMAL, 60% CHANCE OF OCCURRENCE
-  BELOW NORMAL, 60% CHANCE OF OCCURRENCE
-  INDETERMINATE, 50% CHANCE OF ABOVE NORMAL
50% CHANCE OF BELOW NORMAL

The two categories Above and Below are to be compared to the long-term average or "normal" temperatures of the year 1941-70. Each category has a natural climatic frequency or probability of 50%. Each carries a 60% probability of occurring where forecast (shaded area), based on the verification scores of twenty-two years of experimental seasonal predictions.

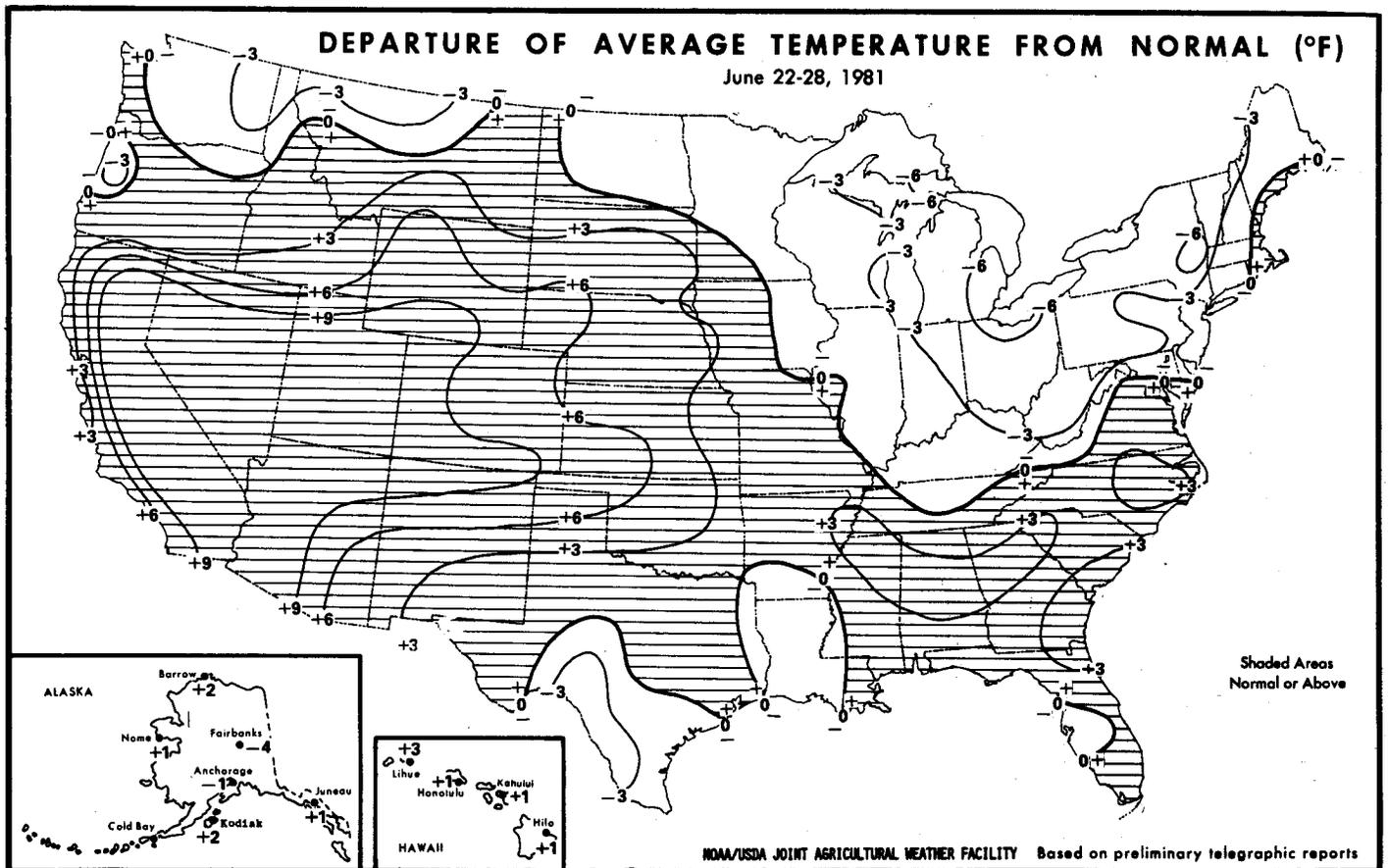
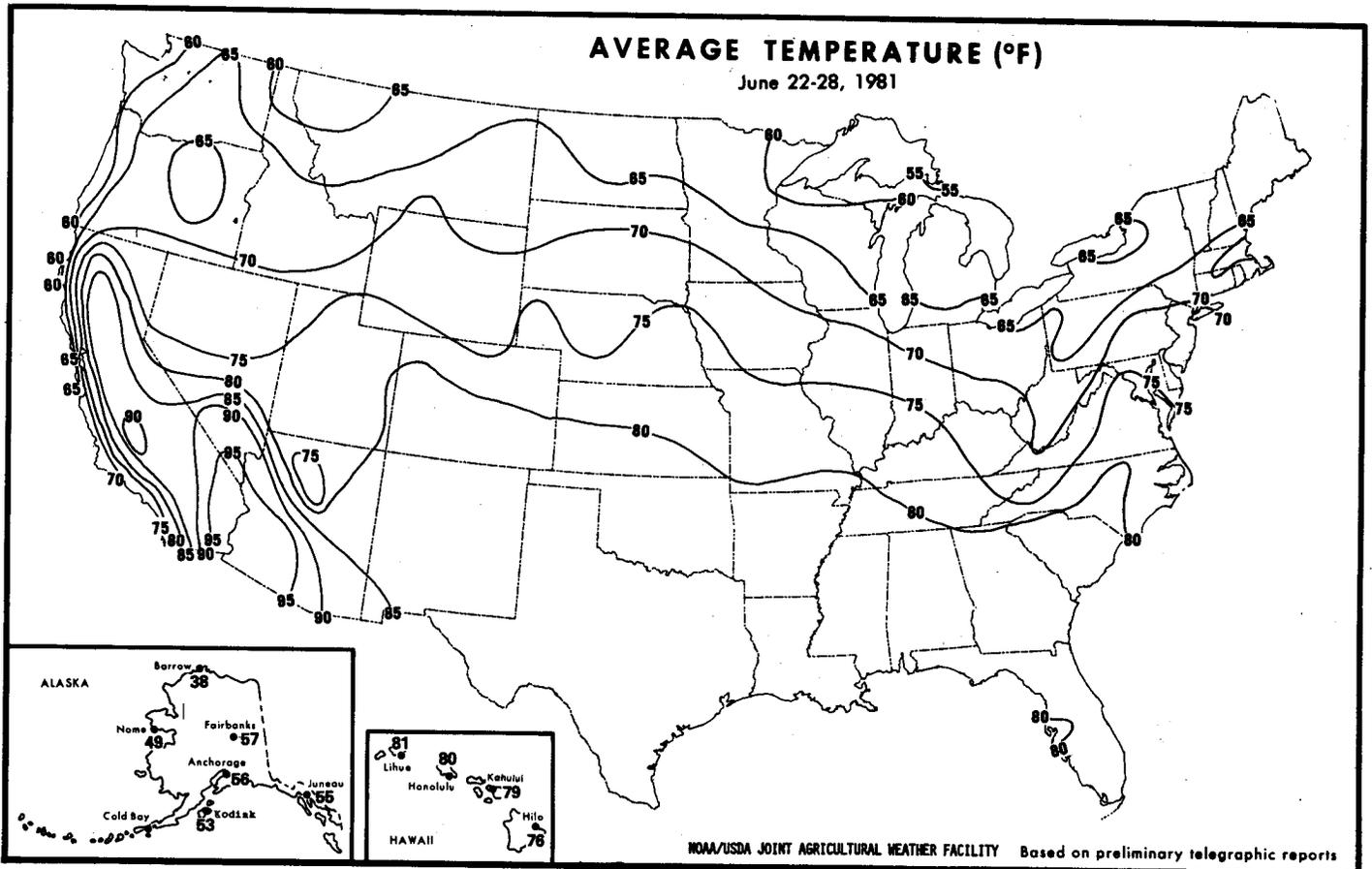


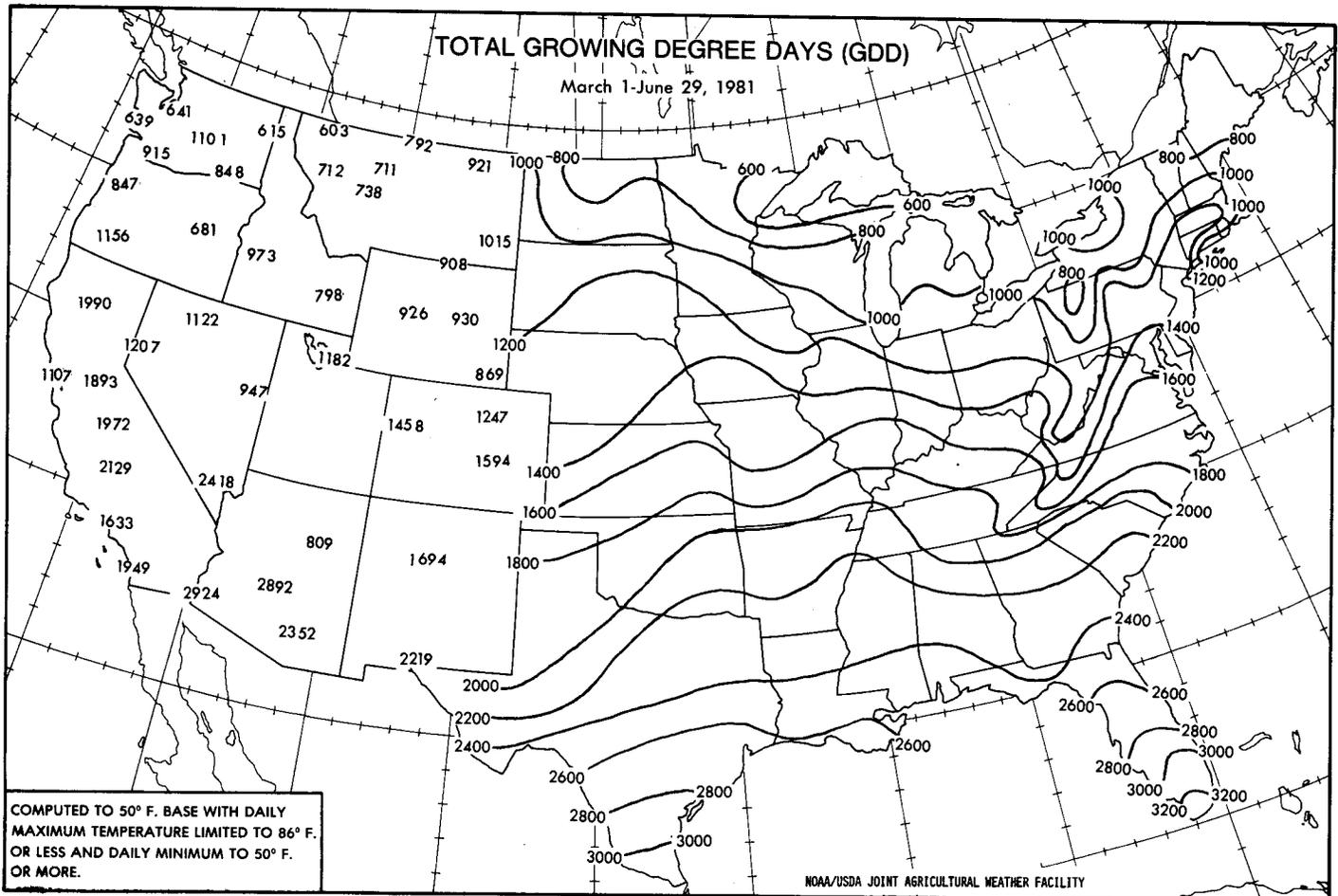


Average daily evapotranspiration of corn and pan evaporation at the Southwest Agricultural Experiment Station, Lamberton, Minnesota, 1961-76. (From Baker, Nelson and Kuehnast).



Ratio of evapotranspiration of corn to pan evaporation when the soil water is at least 50 percent of the available soil water, Southwest Agricultural Experiment Station, Lamberton, Minnesota, 1961-76. (From Baker, Nelson and Kuehnast).





USING THE GROWING DEGREE DAY

Plants grow, develop, and produce best within a certain range of air temperature. At temperatures above or below this range, heat or cold can hinder plant productivity. Within these limits, there is a direct relationship between temperature and the speed a plant develops.

The range of temperature for growth varies with the type of plant. For corn and soybeans, the apparent limits are about 50° and 86°, and for small grains, 40° and 90°. Each degree of temperature above the minimum for growth contributes to development of the crop and is called a growing degree day (GDD) unit.

To calculate the GDD accumulation for a certain day:

$$\text{GDD} = \frac{\text{daily max. } (86^{\circ}) + \text{daily min. } (50^{\circ})}{2.0} - 50^{\circ}$$

Use 86° for maximum temperatures above 86° because above that point heat does not contribute to crop development. For minimums below 50°, use 50°; temperatures below this level stop development.

GDD information has many uses. A grower who knows the expected growing degree day accumulation can select varieties that utilize the entire growing season, and minimize the risk of frost damage. If adverse weather delays planting, a grower can select other varieties. In the same way, GDD information is useful if reseeding is required and also helps in the selection of seed.

After selecting and planting the seed, the grower can follow crop development or progress of the growing season. First, the grower should note the number of GDDs accumulated at the time of planting from the map on this page. This value is the base figure.

For example, assume 350 GDDs had accumulated at planting time. If as of a certain date, 1,200 GDDs had accumulated, only 850 contributed to development of the crop. If the variety requires 2,400 to mature, 1,550 still are needed before the crop is safe from frost. Use a table of normals in the same way to determine if the season is progressing normally.

Weather Data for the Week Ending June 28, 1981

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE June 1	PCT. NORMAL SINCE June 1	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	94	70	99	61	82	3	.4	-.7	.4	2.5	68	20.9	74	84	37	7	0	1	0
MOBILE	92	72	96	69	82	1	1.2	-.4	1.0	5.9	103	32.4	100	90	50	5	0	5	1
MONTGOMERY	94	72	99	65	83	3	.1	-.9	.1	3.0	78	25.9	100	86	43	6	0	2	0
AK ANCHORAGE	62	49	68	47	56	-1	.5	.2	.2	.7	70	3.9	95	80	51	0	0	2	0
BARROW	43	33	50	30	38	2	.2	.2	.1	.5	125	1	1	97	78	0	3	2	0
FAIRBANKS	68	45	77	27	57	-4	1.5	1.2	1.2	1.8	128	3.3	92	84	41	0	1	3	1
JUNEAU	62	48	66	44	55	1	.4	-.4	.1	1.8	67	18.2	92	93	62	0	0	4	0
KODIAK	60	46	64	40	53	2	.0	-.9	0	1.8	46	38.4	149	86	58	0	0	0	0
NOME	56	41	61	34	49	1	.2	-.1	.1	.7	88	6.1	133	79	54	0	0	0	0
AZ FLAGSTAFF	86	59	91	53	72	11	.8	-.6	.5	1.0	200	9.8	127	64	22	3	0	3	1
PHOENIX	109	87	114	84	98	9	T	-.1	T	0	0	3.1	124	34	14	7	0	0	0
TUCSON	103	77	107	74	90	6	.2	.1	.2	.2	200	5.2	193	51	17	7	0	1	0
WINSLOW	97	67	103	61	82	7	.3	.2	0	.3	100	2.4	86	--	--	0	0	0	0
YUMA	111	83	112	79	97	9	0	0	0	0	+100	1.1	79	42	18	7	0	0	0
AR FORT SMITH	91	70	93	67	81	1	0	-.8	0	3.7	97	19.6	84	91	45	7	0	0	0
LITTLE ROCK	92	71	95	66	81	2	0	-.7	0	4.0	121	26.6	97	93	44	6	0	0	0
CA BAKERSFIELD	106	75	108	73	91	10	0	0	0	0	0	4.4	110	41	14	7	0	0	0
EUREKA	61	51	64	48	56	0	0	-.1	0	.6	86	19.0	81	95	71	0	0	0	0
FRESNO	105	71	108	68	88	12	0	0	0	0	0	7.5	107	50	16	7	0	0	0
LOS ANGELES	77	65	81	64	71	5	0	0	0	T	+100	6.6	84	84	60	0	0	0	0
RED BLUFF	104	74	105	68	89	11	0	-.1	0	0	0	16.3	120	41	14	7	0	0	0
SAN DIEGO	79	70	80	69	74	7	0	0	0	0	0	0	142	86	64	0	0	0	0
SAN FRANCISCO	74	53	88	50	64	2	0	0	0	T	+100	8.5	142	86	45	0	0	0	0
STOCKTON	104	65	108	62	84	11	0	0	0	0	0	12.2	99	86	45	0	0	0	0
CO DENVER	91	63	96	57	77	8	.1	-.4	T	.7	37	8.5	97	66	20	5	0	2	0
GRAND JUNCTION	98	70	103	65	84	9	.1	0	.1	.2	40	4.1	117	47	15	6	0	2	0
PUEBLO	98	63	102	58	81	7	.7	-.3	.1	.2	14	2.5	42	65	20	7	0	2	0
CT BRIDGEPORT	77	61	81	52	69	-2	.1	-.1	.7	2.1	81	13.1	72	79	41	0	0	1	1
HARTFORD	81	58	88	52	70	-1	.5	-.3	.3	1.4	44	14.3	69	80	38	0	0	2	0
DC WASHINGTON	89	69	98	60	79	2	.3	-.5	.3	2.6	81	13.2	73	80	37	3	0	2	0
FL APALACHICOLA	91	73	93	70	82	1	.5	-1.0	.2	.8	17	9.6	41	90	58	7	0	3	0
DAYTONA BEACH	91	71	93	69	81	1	T	-1.7	T	1.1	17	11.9	60	88	52	6	0	1	0
FORT MYERS	92	74	94	72	83	1	5.8	3.5	1.3	11.6	141	18.6	89	94	53	7	0	6	5
JACKSONVILLE	95	70	99	68	83	3	.1	-1.6	T	3.4	58	16.2	73	97	50	7	0	2	0
KEY WEST	89	79	92	77	84	0	.5	-.6	.2	.6	15	5.0	36	89	67	4	0	4	0
MIAMI	90	75	91	75	83	1	.8	-1.3	.5	4.4	52	16.1	66	92	59	5	0	4	0
ORLANDO	93	72	95	71	83	2	1.3	-.6	.6	12.8	194	21.5	101	93	47	6	0	4	1
TALLAHASSEE	93	71	94	70	82	1	2.1	-.4	1.3	6.1	102	27.8	98	97	52	7	0	3	2
TAMPA	89	71	90	69	80	-2	2.3	.5	1.0	9.4	159	18.6	94	98	63	1	0	4	2
WEST PALM BEACH	91	74	92	72	82	1	.1	-1.8	.1	4.5	59	17.8	74	91	58	7	0	1	0
GA ATLANTA	93	71	97	69	82	5	.1	-.9	.1	2.8	80	20.2	77	79	37	5	0	1	0
AUGUSTA	93	69	100	62	81	2	2.0	1.1	1.1	6.8	206	23.0	103	96	42	5	0	2	2
MACON	95	71	101	69	83	2	1.1	-.1	1.1	7.5	208	26.0	108	85	37	5	0	1	1
SAVANNAH	95	74	102	70	85	5	.7	-.9	.6	3.0	55	14.8	65	82	41	5	0	2	1
HI HILO	84	68	85	66	76	1	.2	-1.4	.1	1.3	21	--	--	80	53	0	0	3	0
HONOLULU	89	72	90	69	80	1	T	-.1	T	.1	25	4.5	34	83	51	2	0	1	0
KAHULUI	89	69	93	66	79	1	0	-.1	0	0	T	--	--	75	47	3	0	0	0
LIHUE	87	74	88	72	81	3	.2	-.2	.2	.8	53	--	--	86	59	0	0	0	0
ID BOISE	85	51	92	42	68	0	0	-.2	0	.7	64	8.7	118	57	17	3	0	1	0
LEWISTON	80	53	90	47	66	-1	T	-.4	T	1.9	100	8.0	104	75	28	1	0	0	0
POCATELLO	86	50	98	43	68	3	T	-.2	T	.7	54	8.4	133	67	19	2	0	0	0
IL CAIRO	90	70	97	67	80	1	T	-.9	T	3.	75	21.6	81	--	--	0	0	1	0
CHICAGO	81	58	89	48	69	-1	.4	-.6	.4	4.1	108	19.1	118	89	45	0	0	2	0
MOLINE	84	60	88	52	72	-1	1.3	-.2	1.3	3.8	93	13.1	75	88	44	0	0	2	1
PEORIA	84	64	89	58	74	0	1.7	-.8	1.7	6.1	169	21.2	117	88	50	0	0	2	1
ROCKFORD	81	59	86	53	70	-1	1.0	-.1	.8	5.7	136	16.1	92	89	51	0	0	2	1
SPRINGFIELD	87	63	94	59	75	0	1.1	0	.7	5.9	148	21.4	119	92	41	2	0	3	1
IN EVANSVILLE	90	62	94	59	76	-1	0	-.8	0	1.8	56	22.3	96	93	41	3	0	0	0
FORT WAYNE	77	59	85	52	68	-4	.7	-.2	.3	6.1	165	20.3	109	79	40	0	0	2	0
INDIANAPOLIS	84	60	93	56	72	-2	.4	-.6	.4	1.6	41	21.2	102	81	37	1	0	1	0
SOUTH BEND	77	58	85	51	67	-3	.9	0	.7	7.0	200	22.7	127	92	49	0	0	3	1
IA BURLINGTON	82	62	88	57	72	-2	1.1	0	1.0	7.0	163	19.4	113	91	50	0	0	3	1
DES MOINES	85	62	92	57	73	0	2.6	1.5	2.6	4.3	91	10.7	66	79	40	1	0	1	1
DUBUQUE	79	58	86	51	69	-1	1.5	.3	1.1	6.5	130	16.5	83	80	52	0	0	2	1
SIOUX CITY	89	60	98	53	75	2	1.1	.1	1.0	2.8	67	7.7	58	82	36	3	0	3	1
KS CONCORDIA	91	66	98	59	78	3	1.8	.7	1.8	4.5	96	14.9	105	81	40	5	0	1	1
DODGE CITY	97	70	103	63	84	8	-.1	-.7	.1	1.2	38	9.9	96	71	25	6	0	1	0
GOODLAND	94	63	101	55	78	6	.2	.5	.2	.3	11	17.0	202	78	24	4	0	2	0
TOPEKA	85	68	92	63	77	1	2.2	.8	1.8	8.5	155	18.6	109	88	61	1	0	4	1
WICHITA	92	70	98	65	81	3	.5	-.6	.5	3.4	81	12.9	89	83	42	5	0	1	1
KY LEXINGTON	85	61	89	56	73	-1	0	-1.1	0	2.3	58	19.0	79	85	41	0	0	0	0
LOUISVILLE	88	64	90	60	76	0	T	-.9	T	3.3	87	17.4	72	78	40	3	0	0	0
LA BATON ROUGE	90	71	94	70	81	-1	.9	-.1	.7	4.8	137	22.6	82	98	58	5	0	3	1

*BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

Weather Data for the Week Ending June 28, 1981

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE June 1	PCT. NORMAL SINCE June 1	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPI-TATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
LAKE CHARLES	89	73	90	71	81	-1	2.8	1.5	.8	14.3	298	28.5	107	96	62	3	0	4	4
NEW ORLEANS	91	73	95	71	82	1	2.5	1.3	1.4	8.4	195	28.1	101	100	59	5	0	5	2
SHREVEPORT	91	68	97	62	80	-2	.9	.2	.5	6.4	200	26.8	106	98	50	5	0	2	0
ME CARIBOU	69	52	81	46	61	-1	1.7	.8	.8	4.2	127	17.3	114	91	52	0	0	4	2
PORTLAND	75	54	82	49	64	0	2.2	1.5	1.3	4.6	153	19.8	97	93	50	0	0	3	2
MD BALTIMORE	85	62	95	55	74	-1	.8	-.1	.8	5.4	159	15.7	81	82	40	2	0	1	1
MA BOSTON	80	63	83	58	71	1	.7	0	.4	1.7	57	14.1	67	80	42	0	0	2	0
CHATHAM	72	59	75	56	66	999	.8	-.1	.8	5.1	-.1	21.1	-.1	90	68	0	0	1	1
MI ALPENA	74	48	83	41	61	-2	.2	-.4	-.1	1.9	70	9.9	77	96	44	0	0	3	0
DETROIT	76	53	81	46	65	-6	.5	-.3	.5	3.3	103	13.8	87	81	44	0	0	1	0
FLINT	73	51	79	43	62	-6	.3	-.5	.2	3.0	91	13.8	95	91	48	0	0	3	0
GRAND RAPIDS	77	55	82	48	66	-4	.1	-.7	.1	4.0	121	22.1	140	88	46	0	0	2	0
HOUGHTON LAKE	72	49	78	40	61	-4	.2	-.6	.2	1.9	59	11.6	89	86	43	0	0	1	0
LANSING	76	52	82	45	64	-5	.1	-.7	.1	3.3	103	16.2	106	96	49	0	0	1	0
MARQUETTE	69	48	78	42	58	-4	.9	-.1	.9	6.3	162	18.4	115	94	45	0	0	2	1
MUSKEGON	73	53	81	44	63	-5	.1	-.6	.1	3.4	142	14.5	98	88	50	0	0	1	0
SAULT STE. MARIE	66	42	74	36	54	-7	.2	-.3	.2	4.4	137	13.2	96	100	60	0	0	3	0
MN DULUTH	68	50	73	46	59	-2	2.4	1.2	.7	5.7	136	14.1	101	98	63	0	0	6	1
INT'L FALLS	72	52	78	45	62	-1	1.0	0	.4	3.7	103	9.4	87	85	51	0	0	6	0
MINNEAPOLIS	78	57	85	50	67	-2	.7	-.2	.5	4.4	122	11.8	96	88	48	0	0	2	1
ROCHESTER	79	56	88	48	67	-1	1.0	-.1	.6	3.1	70	11.1	85	94	52	0	0	2	1
SAINT CLOUD	75	56	82	49	65	-2	1.1	0	.6	6.7	155	14.1	105	81	55	0	0	2	1
MS JACKSON	93	68	97	59	81	0	.6	-.3	.6	3.7	112	22.1	80	94	42	7	0	1	1
MERIDIAN	95	68	99	60	82	1	.8	-.1	.6	2.6	74	25.4	92	92	43	7	0	2	1
MO COLUMBIA	84	67	92	63	76	1	1.5	.4	1.5	7.2	167	23.7	123	88	50	1	0	1	1
KANSAS CITY	85	67	92	63	76	1	1.2	-.1	.7	5.0	98	18.6	103	92	58	1	0	2	2
SAINT LOUIS	85	66	92	61	76	-1	.1	-1.0	-.1	5.8	135	21.8	115	90	47	1	0	1	0
SPRINGFIELD	87	65	95	60	76	0	.7	-.4	.4	7.0	159	21.2	102	92	55	3	0	2	0
MT BILLINGS	86	55	95	50	70	5	.5	-.1	.3	1.7	68	11.6	136	65	26	1	0	2	0
GLASGOW	77	52	90	46	65	0	.7	-.1	.4	1.9	76	4.7	81	77	29	1	0	5	0
GREAT FALLS	77	47	91	39	62	-2	.1	-.6	.1	1.3	42	9.8	107	73	24	1	0	1	0
HAVRE	76	46	92	42	61	-4	.2	-.4	.2	1.2	50	4.7	72	87	29	1	0	2	0
HELENA	80	48	92	40	64	2	T	-.5	T	1.1	48	9.3	148	70	23	1	0	1	0
KALISPELL	70	43	82	35	57	-3	.1	-.4	.1	3.6	157	12.9	145	89	39	0	0	3	0
MILES CITY	82	57	95	49	69	1	.1	-.6	.1	2.6	84	6.1	75	71	29	1	0	1	0
MISSOULA	77	46	88	38	61	0	.3	-.2	.3	2.5	125	9.6	130	91	32	0	0	1	0
NE GRAND ISLAND	93	61	103	52	77	4	.1	-.9	.1	.5	12	9.6	74	87	31	4	0	3	0
LINCOLN	93	65	97	55	79	4	.5	-.6	.2	.9	20	8.0	59	81	39	6	0	2	0
NORFOLK	90	60	100	54	75	3	1.0	-.1	.6	3.2	68	8.7	66	81	33	4	0	3	1
NORTH PLATTE	89	57	99	48	73	3	.6	-.3	.5	2.2	61	13.1	124	93	34	3	0	2	1
OMAHA	89	67	97	61	78	5	.2	-.9	.2	1.4	30	8.4	57	69	43	2	0	1	0
VALENTINE	88	69	97	66	78	4	.4	-.4	.2	1.3	37	5.5	56	81	41	1	0	2	0
NV ELY	93	49	96	43	71	10	.1	-.1	.1	.2	22	5.7	127	56	14	6	0	1	0
LAS VEGAS	107	82	112	80	95	10	T	-.1	T	T	0	2.2	116	24	11	7	0	0	0
RENO	96	54	99	46	75	11	0	-.1	0	T	0	2.5	58	50	11	7	0	0	0
WINNEMUCCA	94	54	99	45	74	9	0	-.2	0	T	0	4.1	82	39	10	7	0	0	0
NH CONCORD	78	52	85	45	65	-2	1.1	.4	.7	2.9	91	18.3	108	92	42	0	0	2	1
NJ ATLANTIC CITY	82	59	93	52	71	-2	1.2	.4	1.2	4.9	153	20.0	93	93	47	1	0	2	1
TRENTON	84	64	91	57	74	0	1.2	.4	.7	4.5	155	17.4	93	93	48	1	0	2	1
NM ALBUQUERQUE	98	68	104	61	83	6	T	-.1	T	.1	25	2.5	93	48	15	7	0	1	0
ROSWELL	94	67	103	63	80	2	1.5	1.2	1.3	1.5	136	6.4	160	74	29	7	0	2	1
NY ALBANY	76	51	81	44	63	-6	.5	-.2	.4	2.7	96	13.0	83	88	41	0	0	2	0
BINGHAMTON	73	53	81	49	63	-4	.3	-.6	.3	3.4	106	14.1	78	92	48	0	0	2	0
BUFFALO	73	54	80	51	64	-4	1.1	.6	.8	2.9	138	14.8	90	89	46	0	0	2	1
NEW YORK	80	66	91	58	73	-1	.3	-.4	.3	2.4	86	15.7	80	78	39	1	0	2	0
ROCHESTER	77	54	82	48	65	-4	1.0	.4	.8	2.7	108	12.5	82	89	44	0	0	2	1
SYRACUSE	77	53	83	49	65	-4	.2	-.5	.1	1.9	68	11.6	67	89	47	0	0	4	0
NC ASHEVILLE	86	61	93	54	74	2	.7	-.3	.7	4.0	111	22.1	99	97	43	3	0	1	1
CHARLOTTE	88	69	96	63	79	1	.4	-.6	.4	1.9	53	13.9	64	80	39	4	0	1	0
GREENSBORO	89	65	97	53	77	1	.2	-.8	.2	2.9	81	13.6	68	84	38	4	0	1	0
HATTERAS	85	73	88	69	79	3	.2	-.1.1	.2	3.9	87	17.0	72	87	57	0	0	1	0
RALEIGH	91	69	100	56	80	4	T	-.9	T	.5	15	12.2	61	81	32	4	0	1	0
WILMINGTON	88	69	96	58	79	0	T	-1.5	T	2.3	45	15.9	70	95	52	3	0	1	0
ND BISMARCK	78	50	92	44	64	-2	.1	-.7	.1	1.7	50	3.9	45	96	38	1	0	2	0
FARGO	75	55	80	49	65	-2	.8	0	.3	2.6	.84	7.9	86	90	52	0	0	4	0
WILLISTON	79	53	90	49	66	1	.9	-.1	.8	3.6	116	5.9	81	82	42	1	0	2	1
OH AKRON-CANTON	76	55	81	48	66	-5	1.2	.3	.8	5.7	173	25.4	135	87	45	0	0	3	1
CINCINNATI	83	58	87	53	70	-4	.1	-.9	.1	3.4	94	20.0	94	93	45	0	0	1	0
CLEVELAND	75	53	81	44	64	-6	1.7	.9	1.0	4.8	150	16.8	91	88	44	0	0	3	2
COLUMBUS	79	55	90	45	67	-6	.4	-.6	.2	5.8	145	24.3	120	79	43	1	0	3	0
DAYTON	81	58	89	52	70	-4	.4	-.5	.2	6.4	173	21.2	111	84	40	0	0	3	0
TOLEDO	76	54	83	47	65	-6	2.0	-.1.2	.9	8.6	269	18.6	118	90	45	0	0	3	2
YOUNGSTOWN	77	56	82	46	66	-3	.8	-.1	.6	3.3	103	19.0	98	80	44	0	0	2	1
OK OKLAHOMA CITY	93	71	95	68	82	3	T	-.9	T	5.1	128	14.9	86	86	43	6	0	1	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

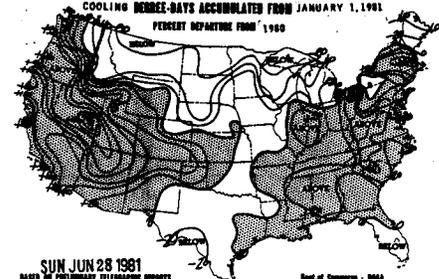
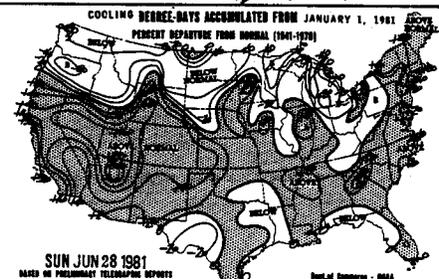
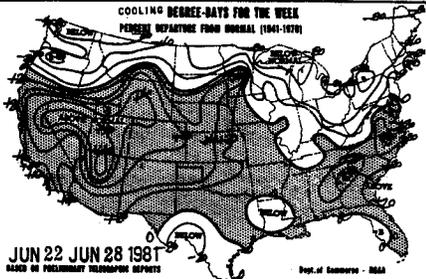
Weather Data for the Week Ending June 28, 1981

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE June 1	PCT. NORMAL SINCE June 1	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
OR TULSA	93	72	95	68	83	3	T	-1.0	T	3.3	73	16.0	82	99	58	6	0	1	0	
OR ASTORIA	67	53	73	44	60	2	.2	-.3	.1	5.6	233	32.9	96	82	56	0	0	2	0	
BURNS	84	41	92	34	63	1	0	-.2	0	.5	50	6.9	108	--	--	1	0	0	0	
MEDFORD	87	51	94	45	69	2	0	-.1	0	.5	56	5.9	55	79	27	3	0	0	0	
PENDLETON	78	52	86	46	65	1	0	-.2	T	1.5	167	8.1	113	69	25	0	0	0	0	
PORTLAND	76	53	85	51	65	1	T	-.3	T	3.2	213	15.1	78	89	43	0	0	1	0	
SALEM	75	47	83	40	61	2	T	-.2	T	3.4	243	16.5	76	95	45	0	0	0	0	
PA ALLENTOWN	82	60	89	53	71	1	.9	-.1	.6	5.7	184	20.0	101	87	42	0	0	2	1	
ERIE	73	55	81	48	64	3	2.0	1.2	1.5	4.9	153	20.8	118	81	52	0	0	2	1	
HARRISBURG	82	59	89	53	71	3	1.1	.4	1.1	4.6	159	16.6	93	87	40	0	0	2	1	
PHILADELPHIA	83	62	92	54	72	2	2.0	1.1	1.9	4.4	129	17.7	92	89	44	2	0	2	1	
PITTSBURGH	77	52	81	45	64	6	1.9	1.0	1.7	7.4	224	21.0	111	92	43	0	0	2	1	
SCRANTON	77	56	84	51	67	3	.5	-.4	.3	3.5	106	19.4	118	83	47	0	0	2	0	
RI PROVIDENCE	79	59	86	54	69	0	.4	-.2	.3	2.3	92	14.5	71	87	40	0	0	2	0	
SC CHARLESTON	91	73	98	66	82	3	.3	-.4	.2	5.9	102	17.5	75	95	54	5	0	2	0	
COLUMBIA	92	69	100	59	81	1	1.1	-.1	1.1	5.3	147	17.7	79	91	40	4	0	2	1	
GREENVILLE	92	70	99	62	81	4	T	-.1	T	1.1	30	13.6	55	80	37	5	0	1	0	
SD ABERDEEN	84	55	93	46	69	1	.1	-.8	T	2.1	60	6.3	64	88	40	1	0	2	0	
HURON	91	57	102	48	74	4	.3	-.5	.1	1.5	43	4.4	42	87	29	3	0	4	0	
RAPID CITY	84	56	93	51	70	3	.1	-.7	.1	1.9	53	5.4	50	82	35	2	0	2	0	
SIoux FALLS	86	60	96	53	73	3	.1	-.9	.1	3.9	93	7.3	56	77	39	1	0	2	0	
TN CHATTANOOGA	91	67	97	63	79	1	.1	-.9	.1	3.8	112	22.3	84	87	37	4	0	1	0	
KNOXVILLE	88	66	92	62	77	0	1.4	-.5	1.4	5.5	162	20.9	85	98	50	3	0	2	1	
MEMPHIS	93	73	97	65	83	3	T	-.7	T	2.5	78	23.2	83	77	38	5	0	1	0	
NASHVILLE	90	65	95	62	78	1	1.8	1.0	1.3	8.1	253	24.8	97	94	45	4	0	2	1	
TX ABILENE	93	71	94	69	82	0	0	-.6	0	2.7	100	12.2	101	85	38	7	0	0	0	
AMARILLO	97	68	100	65	83	6	0	-.8	0	.8	25	6.1	71	67	24	7	0	0	0	
AUSTIN	92	74	94	72	83	0	T	-.6	T	15.0	500	30.9	176	91	51	7	0	1	0	
BEAUMONT	90	73	93	70	82	0	.6	-.6	.3	8.7	198	23.4	94	97	62	5	0	2	0	
BROWNSVILLE	92	75	93	73	83	0	1.1	-.6	.9	2.2	85	14.6	144	92	56	7	0	4	1	
CORPUS CHRISTI	87	76	91	75	82	2	.5	0	.4	3.0	120	19.4	153	94	64	2	0	3	0	
DEL RIO	90	72	92	70	81	5	.1	-.3	.1	5.6	295	17.5	208	93	58	4	0	1	0	
EL PASO	97	71	110	67	84	2	T	-.2	T	.4	80	3.7	148	63	24	7	0	0	0	
FORT WORTH	95	72	96	70	84	1	0	-.6	0	7.9	263	22.3	121	90	41	7	0	0	0	
GALVESTON	88	77	90	73	83	0	2.7	1.8	1.1	10.7	281	19.1	106	86	71	1	0	4	2	
HOUSTON	91	74	93	72	83	1	.6	-.4	.3	9.6	223	27.5	120	95	56	7	0	4	0	
LUBBOCK	93	68	100	63	80	1	0	-.6	0	.8	30	6.2	71	78	29	6	0	0	0	
MIDLAND	94	67	95	64	81	0	T	-.3	T	.4	29	6.5	114	85	31	7	0	1	0	
SAN ANGELO	90	69	91	66	80	3	.2	-.1	.2	2.0	118	14.7	173	92	44	7	0	2	0	
SAN ANTONIO	89	74	92	71	82	2	.2	-.4	.1	8.4	323	23.0	165	98	60	2	0	3	0	
VICTORIA	89	74	93	74	82	1	.9	-.2	.3	9.1	284	23.5	149	98	62	3	0	5	0	
WACO	94	74	95	71	84	0	.1	-.5	.1	7.2	267	17.9	99	93	48	7	0	1	0	
WICHITA FALLS	96	71	98	70	84	0	0	-.7	0	4.6	144	17.5	115	89	40	7	0	0	0	
UT BLANDING	96	60	99	56	78	9	.1	0	.1	.4	100	5.0	104	34	15	7	0	2	0	
SALT LAKE CITY	92	65	101	55	79	9	T	-.3	T	1.0	77	8.8	97	53	18	4	0	0	0	
VT BURLINGTON	75	52	82	47	64	4	.5	-.3	.4	3.0	94	17.2	125	91	44	0	0	3	0	
VA LYNCHBURG	87	64	95	56	75	1	.3	-.5	.3	5.2	163	15.4	85	81	36	2	0	1	0	
NORFOLK	87	69	99	60	78	1	.1	-.8	.1	4.6	139	14.7	76	87	39	2	0	1	0	
RICHMOND	88	65	96	56	77	0	T	-.9	T	3.7	116	18.5	99	85	37	3	0	0	0	
ROANOKE	86	59	93	49	72	1	.4	-.4	.4	2.0	61	13.8	73	86	38	2	0	1	0	
WA COLVILLE	75	47	85	42	60	4	.4	-.1	.3	3.0	200	12.0	138	84	44	0	0	2	0	
OMAK	83	50	93	45	67	1	T	-.1	T	.7	--	5.8	87	--	--	0	0	1	0	
QUILLAYUTE	66	49	75	40	57	1	.4	-.4	.4	8.3	252	53.1	99	96	58	0	0	2	0	
SEATTLE-TACOMA	69	50	78	47	60	2	T	-.3	T	2.3	164	14.5	76	87	44	0	0	1	0	
SPOKANE	73	47	83	42	60	4	.7	-.4	.7	2.0	143	9.0	89	85	34	0	0	1	1	
WALLA-WALLA	82	56	89	50	69	1	.1	-.1	.1	2.7	245	13.3	140	69	26	0	0	1	0	
YAKIMA	82	50	91	43	66	1	T	-.1	T	.4	57	2.9	69	72	23	1	0	1	0	
WV BECKLEY	77	56	83	45	67	3	.5	-.5	.5	4.7	117	17.8	78	88	50	0	0	3	0	
CHARLESTON	83	57	89	49	70	4	.6	-.2	.6	6.1	203	21.5	104	93	40	0	0	2	1	
HUNTINGTON	84	58	90	52	71	3	.1	-.8	.1	5.9	184	25.0	121	95	43	1	0	1	0	
PARKERSBURG	82	59	86	52	70	4	.3	-.6	.3	5.1	134	17.8	88	92	43	0	0	1	0	
WI GREEN BAY	75	53	83	48	64	2	.5	-.2	.2	2.5	78	10.5	81	92	49	0	0	2	0	
LA CROSSE	80	58	87	51	69	1	.6	-.4	.4	2.4	59	11.5	80	96	51	0	0	2	0	
MADISON	80	54	86	48	67	1	.9	-.1	.5	5.0	125	11.9	83	89	46	0	0	4	1	
MILWAUKEE	74	53	84	47	64	4	.1	-.8	.1	2.1	62	13.6	98	92	53	0	0	3	0	
WY CASPER	88	53	97	43	71	6	.1	-.2	.1	.4	31	7.1	108	68	19	3	0	1	0	
CHEYENNE	85	55	92	47	70	6	.5	0	.3	1.7	74	9.1	108	82	26	2	0	4	0	
LANDER	87	58	93	52	72	8	0	-.4	0	T	0	7.2	83	52	19	1	0	0	0	
SHERIDAN	82	53	96	48	67	3	.3	-.3	.2	2.0	69	8.0	78	80	31	1	0	2	0	
PR SAN JUAN	91	78	93	75	85	4	.4	-.9	.2	4.0	75	27.7	118	87	62	7	0	4	0	

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

COOLING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JUN. 28, 1981.
BASED ON 1941-70 NORMALS.
+ ACCUMULATION FROM JULY 1, 1980.

Table with 15 columns: STATES AND STATIONS, WEEKLY DEPARTURE, SEASONAL ACCUMULATION, etc. Lists data for various states including ALA., ARIZ., ARK., CALIF., CONN., DEL., D.C., FLA., GA., IDAHO, ILL., IND., IOWA, KANS., KY., LA., MAINE, MD., MASS., MICH., MINN., MISS., MO., MONT., NEBR., NEV., N.H., N.J., N.MEX., N.Y., N.C., N.DAK., OHIO, OKLA., OREG., PA., R.I., S.C., S.DAK., TENN., TEXAS, UTAH, VT., VA., WASH., W.VA., WIS., WYO.



National Agricultural Summary

June 22-28, 1981

HIGHLIGHTS: Heavy rainfall and widespread flooding in many areas of Missouri limited planting activities. The northern Plains again received much needed rain for the crops and pastures. The eastern Corn Belt continued wet; however, farmers were able to plant a limited amount of corn and soybeans. Soil moisture supplies were rated adequate to surplus in Pennsylvania, Illinois, Wisconsin, Missouri, West Virginia, Ohio, and Indiana. Elsewhere, supplies were short to mostly adequate. Rainfall has been light in the Southeast and soils are rapidly becoming very dry. Corn was silking as far north as Virginia. In southern areas, many fields were in the dough stage with some early planted fields in the dent stage. Planting in Ohio was 88% complete and 95% finished in Indiana. Soybean seeding reached 89% complete. Planting in the Southeast has been slow because many producers are waiting to plant double-cropped soybeans after harvesting small grains. Winter wheat harvesting was 43% finished in the 15 major producing States, nearly double last year's progress of 23%. Spring wheat was 46% headed. In the 14 major producing States, 40% of the acreage was squaring. Grain sorghum seeding neared completion. Tobacco harvest continued in the Southeast. Pastures were in fair to good condition except in the dry Southwest where pastures were poor to fair.

CORN: Corn was silking as for north as Virginia where 7% of the acreage was in the silk stage. In Georgia, 92% of the acreage was silking, 62% was in the dough stage, and 17% was in the dent stage. Planting in northern areas was finished except in Indiana and Ohio. Ohio and Indiana acreages were 88% and 95% planted, respectively. Large areas in these two States have been flooded and nitrogen leaching has been severe.

SOYBEANS: Soybean seeding in the 18 major producing States was 89% complete, lagging last year's progress of 96%. Ohio producers were 25 percentage points behind average; Kentucky, 22 points; Missouri, 19 points; and Indiana, 15 points. Planting progress in the Southeast has been slow because many farmers are waiting to plant double-cropped soybeans after harvesting small grains. Some double-cropped planting has started in early harvested winter wheat fields. Planting was completed in Iowa and Nebraska.

SMALL GRAINS: Winter wheat harvesting in the 15 major producing States reached 43% complete, nearly double last year's progress of 23%. On the Great Plains, harvesting was underway as far north as Nebraska. Virtually all of the acreage in Kansas has turned color and 90% was ripe. Harvest was moving into northern Kansas and should be in full swing soon. Harvesting in Kansas was 55% finished, 40 points ahead of normal. The Oklahoma harvest was 95% complete and, in Texas, combining was 84% finished.

Spring wheat was 46% headed, compared to 55% last year and the 43% average. Most growing areas received timely rains and the crop was in fair to good condition.

COTTON: In the 14 major producing States, 40% of the cotton acreage was squaring, 1 point ahead of last year. Plants were in fair to good condition. Bolls were developing in Arizona, Georgia, Louisiana, Mississippi, and Texas.

Other Crops: Grain sorghum seeding neared completion in the 7 major producing States. In

Texas, 99% of the acreage was planted, 59% was heading, 39% was turning color, and 11% was mature. Harvesting was underway in the Lower Valley of Texas.

Tobacco harvest was underway in the Southeast, although many growers continued to top the crop. Harvesting was 11% complete in Georgia.

Peanuts were in good condition. In Alabama, 32% of the acreage was pegging and, in Georgia, 81% was blooming and 43% was pegging. Texas peanuts were 72% planted.

Fruits and Nuts: Harvesting of peaches was 48% finished in Georgia, 36% in North Carolina and 25% in South Carolina. The sweet cherry harvest started in Michigan.

Rain improved the condition of Florida's citrus groves, but more is needed. A few growers were still irrigating. The Valencia orange harvest was almost over. Arizona's citrus groves were in good condition. The Valencia orange harvest was over and the grapefruit harvest wound down. The Thomson seedless grape harvest was in full swing. California growers harvested Hass avocados, figs, grapes, nectarines, peaches, plums, and oranges.

Vegetables: Florida vegetable shipments declined 21% from the previous week, with only okra showing an increase. Harvest was finished for snap beans and almost complete for cabbage, carrots, potatoes, radishes, and squash. California producers harvested artichokes, asparagus, broccoli, cauliflower, lettuce, onions, and tomatoes.

Pasture and Livestock: Pastures were in fair to good condition in all areas of the Nation except the Southwest where grasslands continued to deteriorate because of the dry weather. Pastures rated poor to fair in this region. Much needed rainfall in the northern Plains improved conditions, but more is needed. Cattle were in fair to good condition.

CROP PROGRESS

FOR WEEK ENDING JUNE 28, 1981

	WINTER WHEAT % HARVESTED			CORN % SILKING		
	1981	1980	AVG.	1981	1980	AVG.
CALIF	60	56	NA	0	0	0
COLO	4	7	4	92	71	NA
IDAHO	0	0	0	0	0	2
ILL	28	12	29	0	0	0
IND	8	0	10	0	0	0
KANS	55	15	15	0	0	0
MO	29	27	41	5	1	5
MONT	0	0	0	0	0	0
NEBR	15	1	10	0	0	2
OHIO	1	0	2	0	0	NA
OKLA	95	55	80	NEBR	0	0
OREG	0	0	NA	N C	51	19
S DAK	0	0	0	OHIO	0	0
TEX	84	69	72	PA	0	0
WASH	0	0	0	S DAK	0	0
				VA	7	3
15 STATES	43	23	NA	WIS	0	0
EXCL. STATES WITH NA	44	23	29	17 STATES	3	2
				EXCL. STATES WITH NA	0	0

THESE 15 STATES PRODUCED 88% OF THE 1980 WINTER WHEAT CROP.

THESE 17 STATES PRODUCED 93% OF THE 1980 CORN CROP.

NA - NOT AVAILABLE

NA - NOT AVAILABLE

SOYBEANS % PLANTED				SORGHUM % PLANTED				COTTON % SQUARING			
	1981	1980	AVG.		1981	1980	AVG.		1981	1980	AVG.
ALA	93	89	NA	COLO	92	99	100	ALA	68	42	46
ARK	79	88	88	KANS	85	95	95	ARIZ	90	67	79
GA	87	88	NA	MO	70	100	92	ARK	45	64	NA
ILL	94	100	100	NEBR	100	100	100	CALIF	30	19	NA
IND	85	100	100	OKLA	95	95	97	GA	86	86	NA
IOWA	100	100	100	S DAK	100	95	99	LA	68	42	47
KANS	80	90	85	TEX	99	99	98	MISS	88	65	60
KY	70	96	92					MO	31	55	20
LA	97	92	95	7 STATES	92	98	97	N MEX	65	60	NA
MICH	98	98	99					N C	41	35	NA
MINN	99	99	99					OKLA	0	0	5
MISS	93	88	91	THESE 7 STATES PRODUCED 92%				S C	91	81	78
MO	74	100	93	OF THE 1980 SORGHUM CROP.				TENN	37	57	31
NEBR	100	100	100					TEX	28	35	NA
N C	88	89	89					14 STATES	40	39	NA
OHIO	75	100	100					EXCL. STATES			
S C	90	90	92					WITH NA	62	48	47
TENN	80	91	88								
18 STATES	89	96	NA								
EXCL. STATES											
WITH NA	89	96	96								

THESE 18 STATES PRODUCED 95%
OF THE 1980 SOYBEAN CROP.

THESE 14 STATES PRODUCED 99%
OF THE 1980 COTTON CROP.

NA - NOT AVAILABLE

NA - NOT AVAILABLE

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 ESS State Offices in cooperation with the National Weather Service.

ALABAMA: Temperatures above normal. Rainfall mainly limited to northwest corner and extreme south; amounts exceeded an inch.

Fieldwork: 5.7 days. Soil moisture short. Activities: wheat harvest, planting soybeans, and sorghum and row crop cultivation. Corn 74% silked; 41% 1980; 52% average. Soybeans 93% planted; 89% 1980. Cotton 68% squaring; 42% 1980; 46% average. Peanuts 32% pegging; 18% 1980; 28% average. Wheat 98% harvested. Sorghum 86% planted; 74% 1980. Hay 62% harvested. Conditions: corn, soybeans, cotton, peanuts, and sorghum mostly good; pasture mostly fair.

ALASKA: Scattered showers slowed field activity. Most farmers throughout Railbelt had up to 7 days suitable for fieldwork. Haying gained momentum and harvesting averaged over 50% compared to 30% last year. Crops developed at a moderate to rapid pace. Small grains ranged in height from 6 to 24 in. Scattered fields of oats and barley reached boot stage. Growth moderate and reached between 3 to 16 in. Radishes and greens harvested. Topsoil moisture mostly short to adequate. Subsoil moisture supply short to mostly adequate.

Tanana Valley: Warm and dry weather from previous week gave way to a cool, wet pattern. Significant changes in temperatures and precipitation occurred. Daytime highs were below normal, nighttime lows were about normal. Heavy precipitation fell across the Valley.

Matanuska Valley: Changes in the air last week as rainy and cool weather invaded the Valley. Temperatures fell back to normal from the previous warm week. Precipitation amounts ranged from 0.25 in. south to 0.80 in. north.

Kenai Peninsula: Cold push of air from the northwest combined with ample supply of moisture brought a dramatic change to the Peninsula from the previous dry and warm week. Temperatures returned to normal readings. Precipitation amounts were light across southern areas but were heavier north.

Kodiak Island: Cooler more normal weather returned the past week on the Island. High temperatures were about 5° above normal with lows near normal. Precipitation stayed on the light side with 0.10 in. reported.

ARIZONA: Increasing humidity, hot temperatures dominated during week with scattered afternoon, evening thundershowers eastern two-thirds of State. Moisture amounts mostly between 0.10 and 0.50 in. Average temperatures 2 to 10° above normal.

Growing conditions ideal for cotton, crop about 2 weeks ahead of normal; 90% cotton fields squaring compared 67% same period last year. Higher than normal temperatures beneficial for predator insects and their numbers have multiplied. Balance between beneficial and harmful insects improved reducing need for insecticide application. Wheat harvest continued limited scale, few areas. Alfalfa harvest progressing, very good quality. Safflower bud stage, beginning to flower. Corn for grain ahead of normal. Average stalks 4 ft. tall. Sorghum growing well, crop various stages of development. Planting continues. Sugarbeet harvest full swing. Watermelon harvest full swing, Salt River Valley, finishing Parker, Mohave Valley. Table grade potato, dry onion, carrot harvest complete, Tolleson area. Potato harvest for chippers full swing, Quenn Creek area. Thompson seedless grape harvest full swing, Salt River Valley. Peach, nectarine, apricot, plum harvests complete, Queen Creek area. Grapefruit harvest winding down. Valencia orange harvest finished. Citrus groves good condition. Ranges mid-to-higher elevations fair, southern Deserts very poor to poor. Livestock fair to good higher elevations, poor to fair Deserts. Supplemental feeding, water hauling required Desert ranges. Soil moisture, water supplies short Deserts, short to adequate higher elevations.

ARKANSAS: Near normal weather. Highest temperature 98°, lowest 55°. All departures from normal

+2 to -2°. Most rainfall 1.00 in., least zero.

Soybean planting active following wheat harvest. Soybeans 79% planted, 88% 1980, 88% average; emergence 63%, 80% 1980. Wheat 94% harvested, 95% 1980, 94% average. Oats 93% harvested, 96% 1980, 95% average. Small grain yields generally better than average. Cotton 45% squared, 64% 1980. Weed control continued, a main problem on all spring crops. Seven days available for fieldwork. Soil moisture supplies adequate. Forage cover on pastures slightly above average. Livestock condition good. Pinkeye appearing in cattle herds.

CALIFORNIA: A record breaking week for most stations as a large high remained stationary over the central part of the State and offshore flow kept the fog and low clouds away from the coast for most of the week. With no rain, extreme temperatures and low humidity, forest fires broke out in Napa County, and San Diego County.

Wheat harvest 60% complete compared to 56% year earlier. Yields look good. Small grains doing well. Cotton crop 30% squaring compared to 19% year earlier; irrigation heavy. Cutting and baling of alfalfa ongoing. Sugarbeet harvest continues. Picking Blenheim apricots for drying. Hass avocados moving vigorously. Black Mission figs packed fresh. Desert grapes include Thompson Seedless, Superior Seedless, Flame, Cardinal. Sunrand nectarines picked. June Lady peaches/Santa Rosa plums tapering off. Some prune drop. Desert grapefruit finishing/fruit to by-products. Good quality Valencias. Artichokes, asparagus seasonally light. Broccoli, cauliflower harvest active Central Coast. Cantaloup harvest starting San Joaquin Valley, active Palo Verde Valley, finishing Imperial Valley. Lettuce supplies moderate Central Coast. Onion growers starting harvest direct seeded fields San Joaquin Valley. Light frost damage fall potato fields Tulalake. Market tomato harvest increasing South Coast, San Joaquin Valley. Processing tomato harvest active Desert, starting San Joaquin, Sacramento Valleys. Watermelon harvest finished Imperial, active Palo Verde Valley. Ranges extremely dry, high fire danger. Several fires have occurred. Movement livestock summer pastures complete.

COLORADO: Widely scattered showers and thunderstorms throughout the week, with severe weather near the front range. Average temperatures 7 to 10° above normal with the northeast 5° above normal.

Winter wheat turned color 84%, 81% 1980, 81% average; ripe 17%, 4% 1980, 19% average; harvested 4%, 7% 1980, 4% average. Barley headed 72%, 58% 1980; turned color 26%, 30% 1980; ripe 2%, 0% 1980. Corn average height 19.0 in., 18.0 in. 1980, 23.0 in. average. Sorghum planted 92%, 99% 1980, 100% average; emerged 76%, 78% 1980, 94% average. Dry beans seeded 97%, 97% 1980, 98% average; emerged 85%, 85% 1980, 88% average. Alfalfa 1st cutting 75%, 67% 1980, 73% average; 2nd cutting 3%, 10% 1980, 8% average. Ranges and pastures fair condition. Livestock good condition. Six and one-half days suitable for fieldwork.

FLORIDA: A warm moist high pressure area dominated until weekend, producing numerous afternoon, evening showers, thundershowers. A front moved over the State during weekend, bringing a somewhat drier, high pressure area. Highs in upper 80's to mid 90's. Lows in upper 60's to mid 70's. Most areas received some rain. Amounts averaged near 1.00 in., Panhandle, 0.50 to 1.50 in. north, central, south with local amounts up to 4.00 in.

Soil moisture mostly adequate south, west; mostly short central, north. Corn mostly good condition, however, dry land corn in the drier areas is poor. Tobacco good condition, harvest increasing. Peanuts good progress. Soybeans good condition, planting nearing completion in many areas. Sugarcane fair to good condition. Hay and

silage making increasing. Most pastures responding to recent rains. Still some scattered areas which received little or no rainfall. Southern pastures mostly good to excellent; poor to fair elsewhere. Cattle mostly fair to good condition. Citrus groves improved with rain. Few growers still irrigating, more rain needed. New fruit progressing relative to grove condition and care. Valencia orange harvest almost over. Hot days and warm nights continued in vegetable areas. Skies were partly cloudy to cloudy with numerous afternoon and evening showers and thundershowers. Most areas received some rain. Total vegetable shipments were down 21% from the previous week. Harvest gained for okra. Volume declined celery, sweet corn, cucumbers, eggplant, peppers, southern peas, tomatoes and watermelons. Harvest complete for snap beans and almost complete for cabbage, carrots, potatoes, radishes and squash. Sweet corn, watermelon harvest declining seasonally.

GEORGIA: Temperatures 2 to 6° above normal, ranging from mid 70's in the mountains, near 80 northwest to mid 80's elsewhere. Rainfall spotty ranging from zero to nearly 2.00 in. parts east central. Weekend 27th and 28th mild with near normal temperatures north, below normal south. Rainfall scattered and confined only to southern portion.

Soil moisture very short to short. An average of 6 days suitable for fieldwork, with planting, harvesting, spraying, and weed control continuing to be the heaviest activities. Corn fair to good, 92% silked, 62% dough, 17% dent, last year 71% silked, 36% dough, 13% dent. Soybeans mostly fair to good, 87% planted, 88% last year, 8% blooming, 7% last year. Peanuts fair to good, still applying fungicides and herbicides, 81% blooming, 87% last year, 89% average, 43% pegging, 51% last year, 60% average. Cotton fair to good, 80% squaring, same as last year, 30% setting bolls, 32% last year, 47% average. Tobacco fair to good, 11% harvested, 15% last year, 22% average. Sorghum 80% planted, 76% last year. Wheat 93% harvested, 95% last year. Haymaking continued active, condition fair to good. Pastures, cattle and hogs fair to good. Peaches fair to good, 48% harvested, 54% last year, 64% average. Apples fair to good condition. Watermelons fair to good, 33% harvested, 18% last year, 36% average. Vegetables fair to good.

HAWAII: Weather generally dry. Showers only light. More soil moisture needed. Sugarcane, macadamia, papayas, anthuriums showing stress some sections, Island of Hawaii. Vegetable crops slow from the dry weather. However, where irrigation water available, crop progress was fair to good. Pastures also dry certain areas. Supplemental feeding may become necessary. Irrigation restrictions imposed upper sections, Island of Maui. Water resources low. Crops not seriously affected. Vegetables: Supplies adequate. Dry weather slowing crop progress, especially where no irrigation available. Bananas: Orchards fair to good, supplies light. Papayas: Some fields showing moisture stress, Island of Hawaii, but not serious. Periodic light showers but not sufficient for optimistic moisture level. Pineapples: Harvest active. Sugar: Harvesting simplified by dry weather but fields showing moisture stress, especially eastern sections, Island of Hawaii. Pastures: Some areas low in forage because of the dry conditions.

IDAHO: Temperatures below normal in the north, most other stations above normal; ranging from 101° at Jerome to 28° at McCall. Precipitation heavy in the north until mid-week. Only trace amounts at other stations.

Planting of all crops finally complete. Six days suitable. Potatoes emerged 94%, 95% in 1980 and 96% average; closed rows, 11%. Crop

beginning to recover from last week's frost. Winter wheat headed 67%, 86% last year, 84% average. Stripe rust spread into more areas. Spring wheat headed 44%, 48%, 44%. Spring barley 46%, 38%, 46%. Alfalfa hay first cut 62%, 59%, 52%. Cherry harvest began 20% complete.

ILLINOIS: Temperatures 2° above to 1° below normal. Precipitation mostly 1.00 to 1.75 in., light extreme south, heaviest central.

Corn condition 12% excellent, 72% good, 15% fair and 1% poor; average height 32 in., most advanced 46 in. Soybean planting 94% complete, 100% 1980, 100% average; condition 4% excellent, 68% good, 26% fair, 2% poor. Winter wheat condition 8% excellent, 82% good, 10% fair; 88% ripe, 78% 1980, 78% average; harvest 28% complete, 12% 1980, 29% average. Oats 13% excellent, 82% good, 5% fair; 98% headed, 95% 1980, 94% average; 75% filled, 66% 1980, 68% average; 24% turning yellow, 12% 1980, 22% average. Alfalfa condition 15% excellent, 82% good, 3% fair; second cutting 30% complete, 23% 1980, 25% average. Red clover condition 16% excellent, 80% good, 2% fair, 2% poor; first cutting 80% complete, 87% 1980, 90% average. Pastures 31% excellent, 65% good, 4% fair. Soil moisture 1% short, 50% adequate, 49% surplus. Fieldwork: 3.3 days suitable.

INDIANA: Warm and mostly dry. Temperatures averaged near normal and ranged from 35 to 94°. Rain-fall 0.70 in. north, 0.30 west central, southeast and central, 0.10 southwest, and 1.00 east central. Low humidities.

Fieldwork averaged 4 days. Topsoil and subsoil moisture mostly adequate to surplus. Corn 95% planted, 1980 100%, average 100%. Corn 90% emerged, corn 20 in. high, 1980 28 in., average 30 in. Soybeans 85% planted, 1980 100%, average 100%. Soybeans 75% emerged. Soybeans 5 in. high, 1980 7 in., average 8 in. Wheat 8% combined, 1980 0%, average 10%. Wheat 35% ripe, 1980 25%, average 50%. Oats 95% headed, 1980 90%, average 90%. Alfalfa 90% cut first time, 1980 95%, average 95%. Clover hay 80% cut, 1980 90%, average 85%. Tobacco plants 95% set. Pastures good.

IOWA: Topsoil moisture: 20% short, 58% adequate, 22% surplus. Subsoil moisture: 40% short, 50% adequate, 10% surplus. First cut alfalfa hay harvested: 99% complete, 1980 97%, normal 99%. First crop clover hay harvested: 80% complete, 1980 79%, normal 78%. Fieldwork: 4.3 days suitable. Crop conditions: pasture, winter wheat, alfalfa hay, clover, oats, corn and soybeans good. Livestock excellent.

KANSAS: Little to no precipitation northwest and west central, 1.00 in. to 2.00 in. central and east with local totals over 4.00 in. Temperatures averaged 81 to 85° or 8 to 9° above normal west, 78 to 81° or 2 to 4° above normal east.

Wheat harvest moving into north, expected full swing mid-week. Harvested wheat reached 55%, last year and average 15%; 90% ripe, last year 60%, average 50%; virtually all acreage turned, slightly ahead 1980 and average 95%. Soybean planting 80% trails last year's 90%, average 85%. Sorghum planting 85%, last year and average 95%. Second cut alfalfa 45%, last year 35%, average 30%. Fieldwork: 5.0 days suitable.

KENTUCKY: Very little rain fell the past week with good drying conditions. Temperatures averaged close to normal with weekly readings in the mid to upper 70's.

Days favorable fieldwork: 5.2. Soil moisture 11% short, 78% adequate, 11% surplus. Topsoil moisture shortages in eastern half, surplus amounts in bottomlands of western areas. Corn fair to good, beginning to silk in earliest areas. Soybeans 70% planted, 96% last year and 92% average. Planting progressing rapidly, most remaining acreage in bottomlands and double-

crop following wheat. Tobacco mostly set, but some resetting necessary. Condition fair, earliest set tobacco on well drained soils looks the best. Wheat 52% harvested, last year 42%, average 50%. Yields good despite much down wheat. Pastures good to excellent, but grass has browned considerably.

LOUISIANA: Rain moderate and well distributed. Temperatures 2° below normal to 1° above normal.

Soil moisture adequate. Days suitable: 4.6. Corn silked 86%, 64% 1980, 81% average; dough stage 66%, 30% 1980; mature 27%, 9% 1980; condition good. Rice headed 22%, 26% 1980, 29% average; condition good. Cotton squaring 68%, 42% 1980, 47% average; setting bolls 17%, 11% 1980; condition fair to good. Soybeans planted 97%, 92% 1980, 95% average; emerged 90%, 86% 1980, 89% average; flowering 9%, 5% 1980; condition fair to good. Sorghum planting 97%, 88% 1980, 92% average; emerged 91%, 79% 1980, 85% average; headed 42%, 5% 1980; condition fair to good. Sugarcane good condition. Sweetpotatoes transplanted 98%, 92% 1980, 94% average; condition good. Vegetables fair to good. Wheat harvest in windup stage. Hay first cutting 84%, 88% 1980. Pastures, livestock good condition. Peach harvest 49%, 49% 1980, condition good.

MARYLAND AND DELAWARE: Temperatures 3° above normal. Highs in 80's, lows in 60's. Precipitation 2.00 in.

Wheat harvest Maryland 80%, last year 60%. Delaware 10% cut last year 30%. Barley 60% cut in Maryland and Delaware, last year 85% in Maryland, 65% in Delaware. Rye 50%, last year 40%. Oats 30%. Soybeans in Maryland 90% planted, 85% last year, 80% average; Delaware 85%, equal to average, 70% last year. First cutting alfalfa completed. Second cutting underway. Other hay 2nd cutting, 5% Maryland; 15% Delaware. Tobacco planting nearly completed, 95% last year, 85% average. Fieldwork: 5.5 days. Moisture and feed supplies adequate.

MICHIGAN: Below normal temperatures were reported. Deviations averaged from 4 to 7° below normal. Precipitation was much lighter than the previous few weeks. Average precipitation over the Lower Peninsula ranged from 0.60 in. in the southeast to 0.83 in. over west central lower. Over the Upper Peninsula the west averaged 1.15 in. and the east averaged 0.48 in.

Conditions this week were excellent for farm activities and crop growth. First cutting of hay continued with many areas nearing completion. About 5 days were suitable for fieldwork. Dry beans 95% planted, 95% last year, 95% normal. Corn 16 inches, 17 inches last year, 19 inches normal. Strawberries 75% harvested, 60% last year, 67% normal. Fruit size: apples, average; peaches, average; pears, average. Sweet cherry harvest underway. Vegetable development continues to be normal.

MINNESOTA: Temperatures averaged 2 to 4° below normal in the northern districts except locally in northeast up to 7° below normal; 1 to 2° below normal elsewhere. Extremes: 92° at Pipestone and Lamberton, 42° Grand Marais. Precipitation averaged near normal to 1.00 in. above normal in the northern districts, 1.00 to 1.50 in. above normal central districts, near normal to 0.50 in. below normal southern districts, except locally south central up to 2.00 in. above normal. Precipitation totals were generally 1.00 in. or less in the western districts, 1.50 to 2.00 in. central districts except locally in south central greater than 4.00 in., 1.00 to 1.50 in. eastern districts. Extremes: 0.20 in. Lamberton, 4.76 in. St. James.

Crops in many parts of State severely damaged by adverse weather last few weeks. Hail and strong winds completely destroyed crops in parts

of west central and south central. Blue Earth County particularly hard hit as damage was very extensive. Counties of Chippewa, Redwood, Brown and Waseca also sustained considerable damage. Southwest remains dry despite recent rains and crops continue to suffer. Row crops in many other parts of State under stress from surplus moisture and lack of sunshine. Development of all crops slowed by cool, rainy weather. Alfalfa hay quality deteriorating as fields cannot be cut. Topsoil moisture is 11% short, 70% adequate and 19% surplus. Cultivated once: field corn 84%, 1980 89%, normal 86%; soybeans 68%, 1980 79%, normal 75%; sunflowers 86%, 1980 83%. Height: field corn 18 in., 1980 20 in., normal 25 in.; soybeans 7 in., 1980 8 in., normal 8 in.; sunflowers 9 in., 1980 12 in. Jointing: spring wheat 95%, normal 83%; barley 97%, 1980 98%, normal 83%; oats 98%, 1980 98%, normal 87%. Heading: spring wheat 60%, 1980 72%, normal 56%; oats 76%, 1980 77%, normal 63%; barley 70%, 1980 82%, normal 63%; winter wheat 99%, 1980 98%, normal 93%; rye 97%, 1980 98%, normal 95%. Turning ripe: spring wheat 2%, 1980 3%, normal 5%; oats 1%, 1980 0%, normal 7%; barley 2%, 1980 5%, normal 7%; winter wheat 13%, 1980 21%, normal 30%; rye 21%, 1980 23%, normal 32%. First crop cut: alfalfa hay 71%, 1980 89%, normal 83%.

MISSISSIPPI: Near normal to slightly above normal temperatures. Extremes; 51 and 100°. Rain spotty in northern half, more general in southern half. Greatest 24-hour amount 2.23 in.

Soil moisture short. Fieldwork: 5.7 days suitable. Cotton 88% squaring, 65% last year, 60% average; 30% blooming, 3% last year, 13% average; 5% setting bolls, 4% average; condition good. Soybeans 93% planted, 88% last year, 91% average; condition good to fair. Corn 73% silking, 40% last year; 38% dough stage, 13% last year; condition good. Sorghum 92% planted. Winter wheat 97% harvested, 98% last year, 93% average. Hay harvest 50%; peaches 29%; watermelons 20%. Rice condition good. Pasture condition good.

MISSOURI: Heavy amounts of rainfall reported throughout much of central and northeast. Amounts in excess of 1.00 in. were reported. Widespread flooding reported in many areas. Temperatures average 1 to 2° below normal.

Fieldwork: 2.4 days suitable. Grain sorghum 70% planted, last year 100%, normal 92%. Soybeans 74% planted, last year 100%, normal 93%. Wheat 29% harvested, last year 27%, normal 41%. Alfalfa hay, 2nd cutting 28% harvested, last year 32%, normal 29%. Other hay 57% harvested, last year 80%. Cotton 31% squaring, last year 55%. Pasture and corn mostly good condition. Topsoil moisture supply adequate to surplus.

MONTANA: A few areas of moderate rain were noted over south central, northeast and southeast the past week. Elsewhere, precipitation was mostly light. Temperatures cool first of week but with hot temperatures later in week. Temperatures average 2 to 4° above normal across south and 1 to 2° below normal over north. Highest 100° at Baker, lowest 30° at Jackson and Wisdom.

Topsoil and subsoil moisture adequate except eastern third short to adequate. Fieldwork: 6 days suitable. Winter wheat condition good to excellent except eastern third of State, fair to good. Spring wheat, barley and oats good condition except in southeast; fair to good. Sugarbeets, potatoes and corn condition good. Sugarbeets thinned 80%. Crop progress compared with last year and average: winter wheat headed 80, 65, 70; spring wheat in boot 45, 35, 35; spring wheat headed 20, 50, 35; barley in boot 45, 40, 40; oats in boot 45, 35, 35. First cutting alfalfa hay 20, 40, 40; wild hay 10, 20, 15; slowed by wet, cool weather. Range

feed supply average to surplus except in eastern third of State below average.

NEBRASKA: Temperature: 3 to 7° above normal. Precipitation: scattered showers and thunderstorms; heaviest amounts in east, central and south central where 1.00 to 2.00 in. fell at several locations.

Winter wheat mostly fair, turning color 95%, ahead of 90% last year and 80% normal, mature 30%, 15% last year and 20% normal, harvested 15%, 1% last year and 10% normal. Corn fair to good. Sorghum mostly fair to good. Heavy chinch bug infestations continue to damage acreage. Soybeans fair to good. Alfalfa mostly fair. Second crop harvest 10% complete. Pasture and range feed supplies mostly short to adequate. Topsoil moisture mostly short to adequate. Subsoil moisture mostly short to adequate. Days suitable: 6.3.

NEVADA: Temperatures soared well above normal. Skies mostly clear, partly cloudy west central, few thunderstorms extreme west, east central and south. Average temperatures 5 to 15° above normal. Extremes: 112 and 34°.

Dry weather ideal for hay harvest. Potatoes and small grains helped by warmer weather. Summer ranges showing effect of hot, dry weather.

NEW ENGLAND: Temperatures variable, coolest 24th. Low pressure 21st south, 22nd north, high pressure otherwise. Precipitation 21st, 23rd, 25th central and south. North, only 24th, 25th was dry. Precipitation variable amounts, nearly all areas received portion during week.

Fieldwork: 4.2 days favorable. Hay 55% cut. Corn emergence: 98%. Potato emergence: 96%, cultivating and applying herbicides. Oats 99% emerged, growing well. Apple fruit set: average, drop: heavy. Vegetables growing well, many insects, some gypsy moth. Cranberries in bloom: active bees, heavy bloom. Strawberries: active harvest, good yield prospects. Good conditions: corn, potato, oats, vegetables, cranberries, strawberries. Fair condition: apples. Soil moisture mostly adequate, grazing adequate.

NEW JERSEY: Temperatures averaged 2 to 4° below normal. Extremes: 45° at Newton on 28th and 93° at many locations on 22nd. Rainfall averaged 0.62 in. north, 1.54 in. central and 1.26 in. south. Heaviest 24-hour total was 1.78 at Pemberton on 25th. Estimated soil moisture, in percent of field capacity, averaged: 77 north, 86 central and 82 south. Four inch soil temperature today averaged: 70 north, 73 central and 74 south. Total sunshine at Trenton from June 22 to June 28 was 70% of possible hours.

Fieldwork: 5.6 days suitable. Asparagus harvest complete. Summer vegetable harvest increasing. Light tomato and sweet corn volumes moving to market. Light harvest of early peaches begun. Blueberry volume increasing. Barley combining and hay making progressing as weather conditions permit. Wheat harvest about to begin. Hay and pasture growth good.

NEW MEXICO: Temperatures continue to average from near normal to 8° above normal. Scattered showers occurred in most areas.

Soil moisture remains in short supply but recent rainfall will help many areas. Farming activities included irrigating, harvest of wheat, barley, and onions, hay cutting and cultivation of row crops. Cotton in good condition and beginning to bloom in the southern areas. Alfalfa in good condition, but some down hay was rain damaged. The second cutting progressing towards the north. Harvest of wheat and barley progressing with about 75% harvested. Corn and irrigated grain sorghum in good condition. Pecans progressing about normal with nut

set about average. Chile and onions in good condition. Peanuts have emerged to a good stand.

NEW YORK: Widespread, light rainfall and occasional downpours totaled mostly below normal. Temperatures below normal.

Dry haying delayed again. First cut alfalfa 55% complete, 86% 1980, 69% average. Clover-timothy haying 45% done, 63% 1980, 56% average. Grass silage 70%, 87% 1980, 76% average. Regrowth good. Corn growth good. Oats heading. Long Island potatoes in good condition, bloom ranges from peak to end of bloom. Long Island strawberry harvest ending, Upstate harvest peaking. Lake Ontario, Hudson Valley apples sizing well. Peach set light, size good. Sweet cherry harvest begun, good size.

NORTH CAROLINA: Temperature: Above normal to near normal toward week's end. Precipitation none in eastern sections to nearly 1.00 in. in the northwest.

Fieldwork: 6.0 days suitable. Soil moisture: 13% very short, 59% short, 28% adequate. Conditions: Pasture mostly fair to good; field tobacco fair to mostly good; corn fair to good; cotton, peanuts, soybeans, hay, Irish potatoes, sweet potatoes, and peaches fair to mostly good; apples mostly good; truck crops fair to good. Supplies: Fuel supplies adequate. Plantings: Sweetpotatoes 95%, 1980 96%, 95% average; sorghum 91%, 1980 85%, 93% average; soybeans 88%, 1980 89%, 89% average; burley tobacco 99%, 1980 98%, 99% average. Harvest: Irish potatoes 62%, 1980 42%, 52% average; wheat 89%, 1980 88%, 71% average; oats 93%, 1980 94%, 80% average; barley 97%, 1980 98%, 84% average; rye 90%, 1980 97%, 80% average; peaches 36%, 1980 59%, 29% average; hay 64%, 1980 64%, 60% average. Phenological stages: Cotton squared 41%, 1980 35%; corn silked 51%, 1980 19%.

NORTH DAKOTA: Showers and thunderstorms brought rain again last week. Heavy amounts in northeast, but much drier southwest and south central. Largest total 2.31 in. northeast. Temperatures slightly below normal. Extremes: 94° southwest to 38° southeast.

Showers helped maintain soil moisture but slowed row crop development. Also hampered haying and other fieldwork. Topsoil moisture short in only 16%, last year 71% and average 36%. Small grain development ahead of average pace. Condition remains mostly good to very good. Warmer weather helped disease concerns some areas, but fungicide being applied other areas. Percent heading or beyond with last year and average: Hard red spring wheat 35, 39, 31; durum wheat 31, 36, 22; barley 47, 45, 40; oats 35, 43, 32. Winter wheat acreage 44% milk to dough or beyond and rye 70%. Row crop development lagged behind average as warmer weather needed. Row crops in mostly good condition. Percent in bloom or beyond with last year and average: Potatoes 4, 3, 9; dry beans less than one-half, 3, 1; flax less than one-half, 2, 5. Average height of fields with last year and average: Sunflower 7, 12, 12; corn 10, 14, 13; soybeans 6, 7, 8. Haying underway between showers all areas.

OHIO: Temperatures averaged 1 to 3° below normal in most areas. Average highs were in the mid-70's north to the low 80's south. Lows fell into the 40's at several stations. Growing degree days for the week were from 94 to 150, from 10 to 20 below normal. Precipitation totals were over an inch in much of the northeast. Otherwise most areas received less than 0.50 in.; some stations in the south reported none.

Corn planted this week was for silage. The emerged crop rated fair. Much acreage has been flooded and nitrogen leaching has been severe. No seed shortages of short season soybean varieties reported. The crop rated fair. Mexican bean beetles and bean leaf beetles have yet to do

serious damage. Winter wheat rated fair. While spraying curtailed armyworm infestations before major losses, excess moisture has promoted disease; glume blotch and head scab will cut yields. Lodging will complicate combining, which is just underway in the south. Corn planted 88%, 100% 1980, 100% average. Soybeans planted 75%, 100% 1980, 100% average. Tobacco transplanted 90%, 99% 1980, 99% average. Alfalfa harvested 70%, 92% 1980, 98% average. Other hay harvested 55%, 80% 1980, 80% average. Wheat ripe 15%, 7% 1980, 20% average. Oats headed 90%, 80% 1980, 85% average. Days favorable: 3.5. Pasture condition good. Soil moisture 28% adequate, 72% surplus.

OKLAHOMA: No rainfall received west central, southwest and south central. Elsewhere, precipitation averaged 0.01 in. southeast to 0.30 in. Panhandle. Temperatures averaged near normal south central and southeast. Elsewhere, averaged 2° above normal southwest to 7° above normal Panhandle.

Wheat harvest nearing completion. Short soil moisture supplies far northwest and Panhandle areas. Wheat harvested: 95%, 55% 1980, 80% average. Sorghum grain planted: 95%, 95% 1980, 97% average. Sorghum grain up to stand: 75%, 60% 1980, 75% average. Cotton up to stand: 70%, 85% 1980, 85% average. Days suitable fieldwork: 6.4.

PENNSYLVANIA: Temperatures averaged 3 to 6° below normal. Extremes were 90 at Philadelphia on the 25th and 37° on the 27th at Germania. Rainfall averaged 0.85 in., slightly below normal. Several 1.00 in. amounts were recorded in the central mountains. Philadelphia recorded the weekly maximum rainfall of 2.00 in.

Four days suitable. Topsoil moisture adequate to surplus. Activities: making hay, haylage, and green chop; cultivating corn, potatoes, and tobacco; spraying alfalfa and fruit trees; harvesting barley and cherries. Average height of corn is 19 in.; last year 16 in. Tobacco 87% transplanted; last year 93%. Soybeans 92% planted; last year 95%. Barley 19% headed, 42% turning yellow, 28% ripe, and 9% harvested; last year 14% headed, 33% turning yellow, 37% ripe and 16% harvested. Wheat 40% headed, 53% turning yellow and 5% ripe; last year 56% headed, 39% turning yellow and 5% ripe. Oats 66% headed; last year 61% headed. First cutting alfalfa 73%; last year 89%. Second cutting 12%; last year 8%. Clo-tim 61% harvested, last year 76%. Quality of hay made, fair to poor. Feed from pasture average to above average.

PUERTO RICO: Island average rainfall 1.34 in. or 0.11 in. below normal. Highest total 5.32 in. Temperatures averaged about 83 to 81° on Coasts and 77° Interior Divisions. Extremes: 94 and 59°.

SOUTH CAROLINA: Temperatures ranged from extremely hot most of the week to below normal by week's ending. Above the 100° mark on 22nd to below 55° on the 28th. Scattered thundershowers about midweek. Few downpours in the eastern part.

Soil moisture short. Six days for fieldwork. Corn fair condition, 86% silking, 48 last year, 69 average. Hot weather stress. Cotton 91% squaring, 81 last year, 78 average. Bollweevil active. Condition fair to good. Soybeans 90% planted, 90 last year, 92 average. Lesser corn stalk borer and weeds evident. Condition fair to good. Tobacco 67% topped, 35 last year, 54 average. Leaf blisters discovered. Peaches fairly good condition, 25% harvested, 22 last year, 30 average. Snap beans 78% harvested, 88 last year. Condition fair. All cucumbers poor to fair, 89% harvested, 89 last year. Tomato harvest at 80%, 57 last year. Condition poor to fair. Wheat fairly good condition, 97% harvested, 95 last year, 92 average. Oats fair to good condition, 97% harvested, 96 last year, 94 average.

SOUTH DAKOTA: Precipitation scattered, mostly under 1.00 in. Temperatures 2 to 4° above normal. Extremes: 103 and 39°.

Six days suitable. Topsoil moisture critically short in parts of central and east central, short in most of West River, central and east central; north central, northeast and southeast mostly adequate. Subsoil moisture critically short in parts of West River, north central, central, east central and southeast; adequate in two small areas in center and north central areas of State. All row crops in good condition. Some soybeans damaged by hail have been replanted. Average corn height 16 in., 93% cultivated once. Most small grains in good condition. Only oats rated in fair condition. Livestock in good condition. Range and pasture conditions continue to improve except where overgrazed. First crop alfalfa 76% harvested. Spring wheat headed 89%, 1980 82%, average 65%. Winter wheat turning color 75%, 1980 72%, average 49%. Winter rye turning color 51%, 1980 56%, average 46%. Oats turning color 23%, 1980 16%, average 12%. Spring wheat turning color 16%, 1980 10%, average 7%. Barley turning color 29%, 1980 22%, average 16%.

TENNESSEE: Two week fronts caused scattered showers. Rainfall ranged from 0.50 in. in the west, 1.00 in. in middle and east and 1.50 in. on the Cumberland Plateau. High pressure over the weekend brought clearing skies and cooler temperatures. Temperatures averaged 2° above normal in the west and normal in east and middle.

Fieldwork: 5.0 days suitable. Soil moisture supplies deteriorated somewhat but still considered adequate. Soybean planting 80% completed, 1980 91%, average 88%. Corn 19% silking, 1980 6%, average 14%. European corn borer damage relatively light. Cotton 37% squaring, 1980 57%, average 31%. Wheat 77% harvested, 1980 76%, average 74%. Oats 74% harvested, 1980 69%, average 58%. Barley 80% harvested, 1980 76%, average 72%. Tobacco showing effect of excess moisture by blooming early, suckering and diseased by black fire, black boot rot and wildfire. Peaches, snap beans and squash harvest continues. Population of the Japanese beetle increasing and damage on fruit trees becoming noticeable. Cattle in good condition. Flies and pinkeye are still a problem. Pastures in good condition. Haymaking progressing well. Second cutting of alfalfa 68% completed, 1980 74%, average 63%.

TEXAS: Weather: Warm, humid conditions as southerly winds blew off Gulf. Thunderstorms confined Coast, South, East Texas. Temperatures ranged near 80° East Texas, Trans-Pecos, Northern High Plains; near 83° Cross-Timbers. Precipitation ranged less 0.10 in. West Texas; over 2.00 in. East Texas, along Upper Coast.

Crops: Wheat harvest rapid progress. Planting most field crops gaining momentum with open weather. Some crops High Plains damaged high winds blowing sand. Grasshoppers problem fields, pastures Low Plains, Cross-Timbers. Haying operations full swing. Cotton fields Panhandle responding hot weather. Some stands Southern High Plains squaring; Northern High Plains fields 4 to 6 leaf stage. Low Plains hot, dry winds following recent showers baked soil, preventing some stands from emerging. Grasshoppers damaged several fields. Coastal Bend excessive vegetative growth hurting crop prospects. Flea hoppers problem Blacklands. Reported condition Statewide is 5% excellent; 78% good; and 17% fair. Sorghum harvest underway Lower Valley. Fields ready harvest Coastal Bend, but scattered showers delayed operations. Heads filling out well South Central Texas. Stands turning color Blacklands. Reported condition Statewide is 37% excellent; 53% good; and 10% fair. Early corn fields Northern High Plains tasselling. Irrigation active Panhandle. Statewide, reported

condition is 23% excellent; 36% good; and 21% fair. Wheat harvest 75% complete Northern High Plains. Scattered areas yields better than expected. Harvest operations winding down Blacklands through Low Plains, except areas where too wet for combining. Grass, weeds slowing harvest. Blacklands oats hard to combine because lodging. Reported wheat condition Statewide is 12% excellent; 41% good; 40% fair; and 7% poor. Peanut planting good progress Cross-Timbers with warmer temperatures. Scattered showers delayed late plantings South Texas. Soybean planting gaining momentum Panhandle; most early planted fields making good progress. Some fields along Coast replanted.

Range and livestock: Grazing remained good, hot conditions beginning to slow growth of grasses. Plains, moisture remains short, grazing limited. Livestock good to excellent condition. Grasshoppers, other insects building up.

Commercial vegetables: Rio Grande Valley, harvest of cucumber, cantaloups, cabbage active. Watermelon harvest nearly complete. Producers busy with land preparation for fall planting. Coastal Bend, harvest aided by dry, open weather. Watermelon harvest active, size, quality affected by excess moisture. East Texas, tomato, watermelon, cantaloup, pepper harvest in full swing. Sweetpotatoes developing well, are in good condition. San Antonio-Winter Garden, harvest of watermelons, cucumbers, tomatoes, peppers resumed. Some fields remained muddy, hand harvest continued Trans-Pecos region, cabbage harvest active. Cantaloups developing well. Plains, potatoes, onions developing well, onion digging underway. Potato harvest expected early July. Peach harvest continued, some late varieties active, quality good. Pecans continue to develop, minor insect damage. Cotton planted 100%, 100% 1980, 100% average. Cotton squaring 28%, 35% 1980. Cotton setting bolls 16%, 17% 1980. Cotton open bolls 0%, 2% 1980. Rice headed 56%, 47% 1980. Sorghum planted 99%, 99% 1980, 98% average. Sorghum headed 59%, 58% 1980. Sorghum turning color 39%, 37% 1980. Sorghum mature 11%, 19% 1980. Sorghum harvested 0%, 5% 1980, 2% average. Wheat turning color 98%, 100% 1980. Wheat harvested for grain 84%, 69% 1980, 71% average. Corn harvested 77%, 95% 1980, 96% average.

UTAH: Few isolated afternoon and evening showers and thunderstorms latter part period, principally south portion. Accumulated amounts moisture generally light. Warming trend temperatures forepart period but cooling over weekend. Average temperatures ranged between 4 and 13° above. Soil moisture deficit increasing most areas with warm temperatures and high evaporation rates. Pan evaporation accumulations ranged from 1.73 in. in Cache Valley to 3.71 in. in Dixie.

Good weather throughout the week allowed first crop hay harvest to near completion. Crop below normal because of frost, weeds, and rains during harvest. Some frost damage to corn and small grains in central areas. Corn recovering, but will require long fall season for good yield. Some grain fields cut for hay. Irrigation water running low in some areas. Ranges drying quickly. Range fires serious problem. Harvest of good sweet cherry crop about 10% complete. Tart cherry harvest to start in two weeks.

VIRGINIA: Hot and humid. Scattered showers and thunderstorms at beginning and mid period. Precipitation averaged about 0.50 in. The heaviest recorded was 2.41 in. at Elkwood. Temperature extremes were several 99's in south and central areas to a low of 48° at Dulles in the north.

Topsoil moisture mostly short. Northern areas adequate. Days suitable for fieldwork: 5.5. Widely scattered showers have helped some areas but high temperatures stressing crops. A few fields being irrigated. Soybean plantings now 79% complete, compared with 82% 1980, 75% average. Emerged plants in excellent condi-

tion except southeast in fair condition. Corn in good condition. Leaves were curling in many areas during extremely hot days. Seven percent of the fields silking compared to 3% last year. Tobacco in good condition. Some fields have been laid by while other fields still being cultivated. Some stressed fields blooming prematurely and being topped. Peanuts in good condition. Pastures mostly good to excellent condition except central and southeastern fair. Baling hay and straw very active. Harvest of excellent small grain crops continuing and barley now 84% cut, compared with 72% 1980, 68% average. Oats 27% combined, 27% 1980, 32% average. Wheat harvest 58% complete, 38% last year and average. Many vegetables and berries being harvested including potatoes, tomatoes, squash, cucumbers, snap beans, blueberries and raspberries.

WASHINGTON: West: Average temperatures were near normal for the week. Rainfall totals were slightly above normal along the coast and about 0.20 to 0.30 in. less than normal in the interior. Field activities and crop growth flourished under the improved weather. Hay was being cut while field corn was being seeded and reseeded. Strawberry harvesting increased during the week as did prospects for a good crop. Early raspberry harvest got underway. Planting of cauliflower, broccoli and cucumbers continued. Lettuce harvesting continued as did flower bulb harvesting. Dairymen continued green chopping. Soil moisture was generally good throughout the westside.

East: Temperatures were 2 to 4° less than normal except in the east Cascades and Okanogan regions where they were near normal. Rainfall was sparse over the east slopes, Central Basin and Okanogan regions. Cherry harvest in full swing with minor amounts of split fruit. Apples showing powdery mildew, but should subside with the warmer temperatures. Overall, apples and pears growing well. Spring planting virtually complete with the crops in good shape. Small grains continued to suffer from rust and aphid problems. However, continued hot, dry weather could alleviate the problems. Fall seeded grains now completely headed and heading is well along in spring grains. Winter wheat and barley now in average or better condition. Winter wheat harvest will be getting underway later this week or early next. The first cutting of alfalfa near completion.

WEST VIRGINIA: Temperatures near normal. High 94°, low 33°. Precipitation near normal, range 2.31 in. to 0.20 in.

Soil moisture adequate to surplus. Days suitable for fieldwork: 3.7. Major activities: hay harvesting and gardening, wheat, barley, oats and corn all in good to fair condition. Wheat: 81% headed, 13% ripe and 67% harvested compared to 82% headed and 18% ripe in 1980. Barley: 54% headed, 28% ripe and 18% harvested;

54%, 36% and 10% in 1980. Oats: 45% pre-headed, 52% headed, 2% ripe and 1% harvested; 44% pre-headed, 56% headed in 1980. Corn: 98% planted, 94% emerged, same as in 1980. Hay: good to fair, 1st cutting 42% complete, 2nd cutting 10% complete. Tobacco fair to good, 83% set compared to 92% in 1980. Potatoes good to fair, gardens fair to good, fruit fair to poor. Weeks weather was clear and warm, broken by some heavy showers.

WISCONSIN: Temperatures 3° below normal. Highs mostly 70's and 80's, lows 40's to 60's. Extremes: 91 and 39°. Rainfall heaviest north where totals averaged near 2.00 in., most coming on weekend. Other areas had almost 1.00 in. except east which received less than 0.50 in.

Fieldwork: 3 days suitable. Rains slowed haying, especially north. First crop 70% harvested, 1980 85%, average 64%. Hay getting too mature and quality declining. Second crop growing very fast where first crop removed. A few started harvesting second crop. Corn height averaged 20 in., 1980 23 in., average 18 in. Early corn growing well, late corn uneven due to spotty germination in May when soils were dry. Lot of weeds in corn fields where herbicides were not effective because moisture was lacking. Soybeans also have weedy stands and some herbicide injury. Oats 55% headed, 1980 47%, average 40%. Small grains look good and should fill well as moisture adequate in June. Some wheat lodged by strong winds 23rd but most small grains have short height. Oatlage going in silos. Pastures good condition. Tobacco planting continuing with moisture sufficient for early plant growth. Strawberry crop fair to good. Pea harvest underway, yields at budget levels except lower on non-irrigated acreage. Sweet corn and other vegetables improved with recent rains and warmer temperatures. Topsoil moisture 7% short, 65% adequate, 28% surplus. Sandy areas most need of rain.

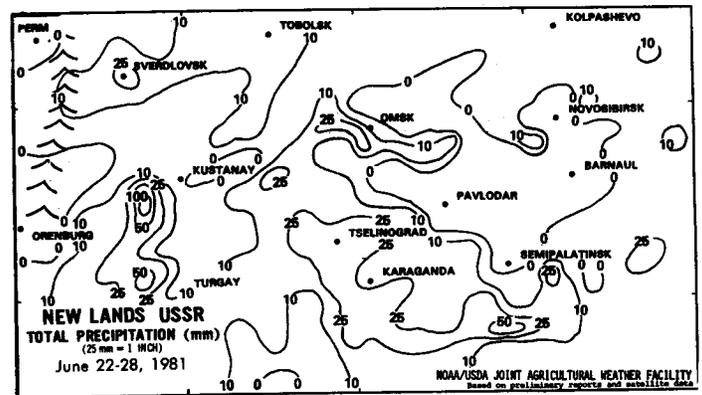
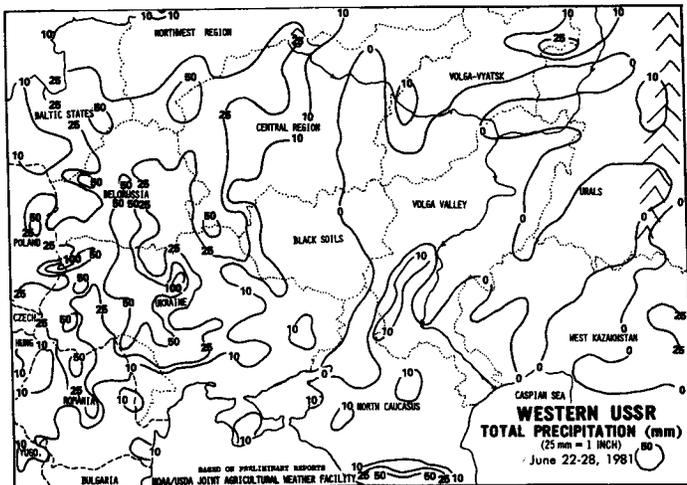
WYOMING: Temperatures above normal. Highest temperature 100°, lowest temperature 34°. Below normal precipitation reported. Largest amount 0.43 in.

Topsoil moisture short 76% State. Subsoil moisture short 67% State. Average 7 days suitable for fieldwork. Winter wheat headed: 97%; year ago 85%; normal 93%. Winter wheat turned color: 45%; year ago 27%; normal 30%. Spring wheat headed: 45%; year ago 58%; normal 54%. Oats headed: 40%; year ago 38%; normal 42%. Barley headed: 60%; year ago 58%; normal 62%. Sugarbeets thinned 95%. First cutting alfalfa 45%; year ago 34%; normal 38%. First cutting other hay: 10%; year ago 5%; normal 13%. Range and pasture fair to good condition. Stock water supplies mostly adequate.

International Weather and Crop Summary

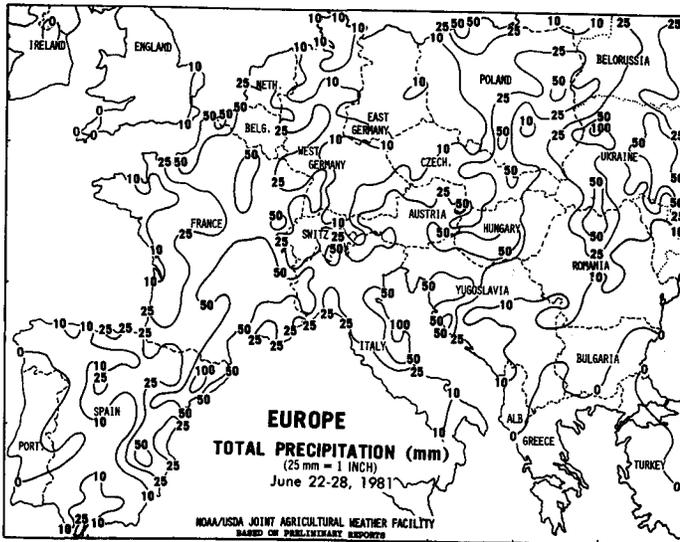
June 22-28, 1981
HIGHLIGHTS

- EUROPE: Generally favorable weather benefited crops, but some east-central areas stayed too wet.
- USSR: Hot and dry weather stressed spring grains in eastern European areas, reducing potential yields. Dryness also posed a threat to spring grains in the eastern New Lands.
- CHINA: Above-normal rainfall in the Manchurian and Yangtze Valley made growing conditions too wet in some portions, but posed no serious threat.
- INDIA: The monsoon advanced rapidly to cover much of India; abundant rains permitted planting in many areas.
- AUSTRALIA: Showers benefited the south; conditions remained favorable for early crop growth.
- SOUTHEAST ASIA: Wet-season crops received adequate moisture for development.
- CANADA: Widespread showers aided crop development throughout most of the Prairie Provinces.
- SOUTH AMERICA: Wet weather delayed fieldwork in Rio Grande do Sul; milder weather prevailed in Brazil.
- MEXICO: Rain benefited most crops, but northern citrus continued in need of moisture.

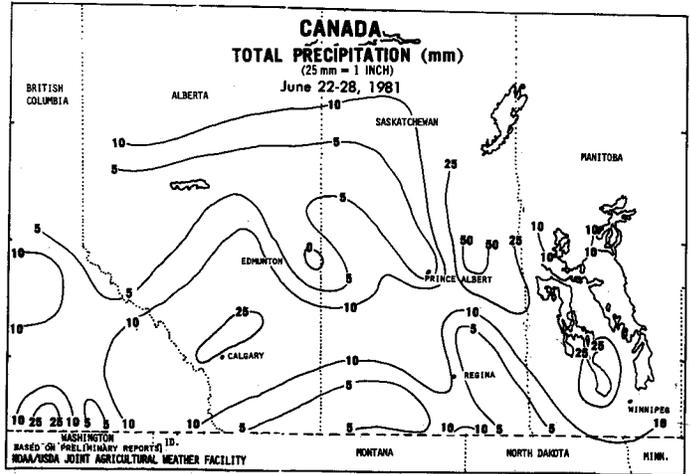


USSR: Hot and dry weather persisted through the first half of the week in the Chernozem Region, lower Volga Valley, eastern Ukraine, and northern portions of the North Caucasus. Temperatures ran nearly 10 degrees Celsius above normal, and only scattered rainfall occurred in the area. Winter grains were nearing maturity and probably avoided any damage. Spring grains should have been in the heading stage, and may have suffered substantial decline in yield. Temperatures moderated later in the week, but still remained well above normal. Potential yields will continue to decline unless rainfall arrives very soon. Much-above-normal

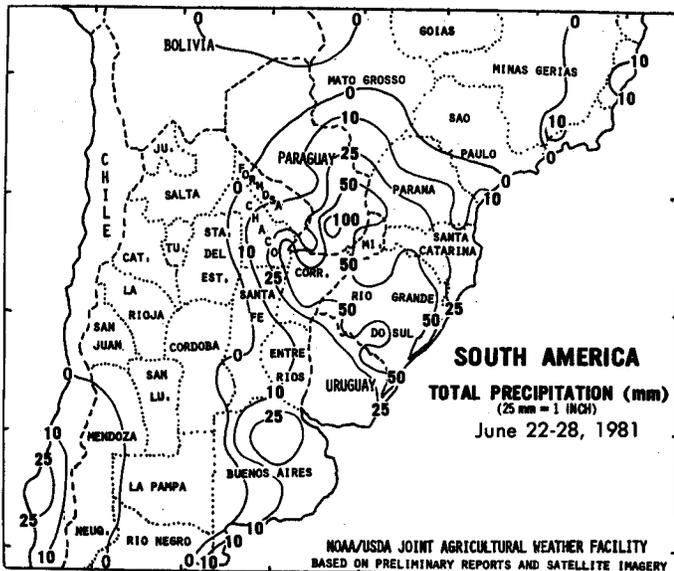
rainfall occurred in the western portion of the country, making conditions a little too wet. In the New Lands, beneficial rains fell over many central and western portions, but some dryness may be developing in the northwest. Dry weather continued in the eastern part, and growing conditions deteriorated for spring grains. Temperatures remained above normal throughout the week in the south half of this dry area, stressing spring grains which should be in the late jointing to boot stage of development. Impacts on potential yields have been minimal over most of this eastern area, but serious problems could develop if above-normal rain is not received in the next few weeks. Yield prospects in an area northwest of Pavlodar remain poor, for rainfall has been deficient since before sowing.



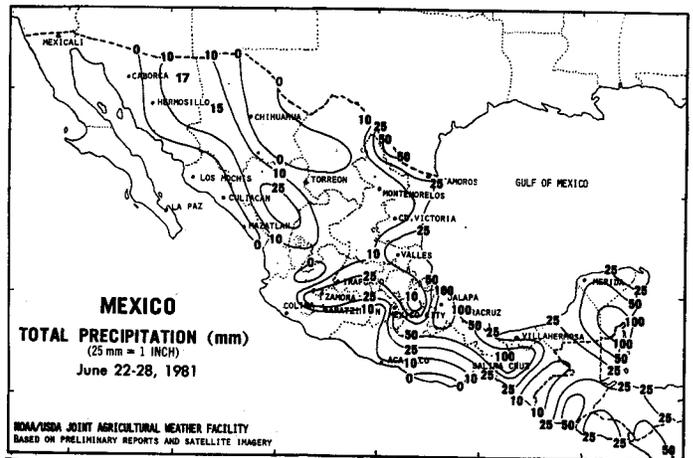
EUROPE: A low-pressure system developed over the Iberian Peninsula at midweek, and spread above-normal rainfall in a broad path as it moved northeastward across the region. Following last week's dry weather in the west, the moisture was mostly beneficial. Growing conditions were especially improved in Spain, where high temperatures last week damaged crops. Some crop areas in the east central portion of the region stayed too wet; however, the situation would become serious only if the dampness were to persist for several more weeks. Drier weather in the southeastern countries benefited maturing winter grains. Favorably dry weather was also reported in the United Kingdom and East Germany. No sharp temperature departures from normal occurred.



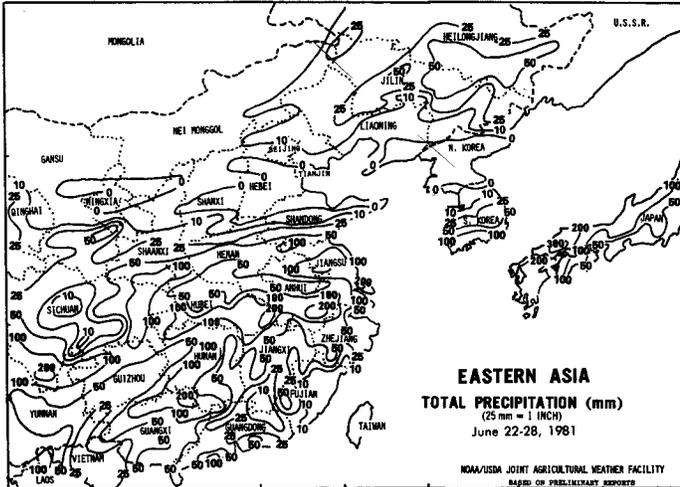
CANADA: Widespread showers brought moisture to the entire wheat belt of the Canadian Prairies. Weekly totals were generally less than 20 mm except for isolated crop areas of central Alberta, northeastern Saskatchewan, and southern Manitoba where 25-50 mm of rain fell. Moisture supplies are adequate in all wheat areas and crops are rated good to excellent. Rainfall has been especially abundant in Alberta during the past several weeks. Early seeded wheat has entered the heading stage while the remainder is in vegetative development. Cool weather prevailed during most of the week in the wheat belt, but the unseasonably low temperatures occurring north of Lake Superior in Ontario were east of the major grain belt.



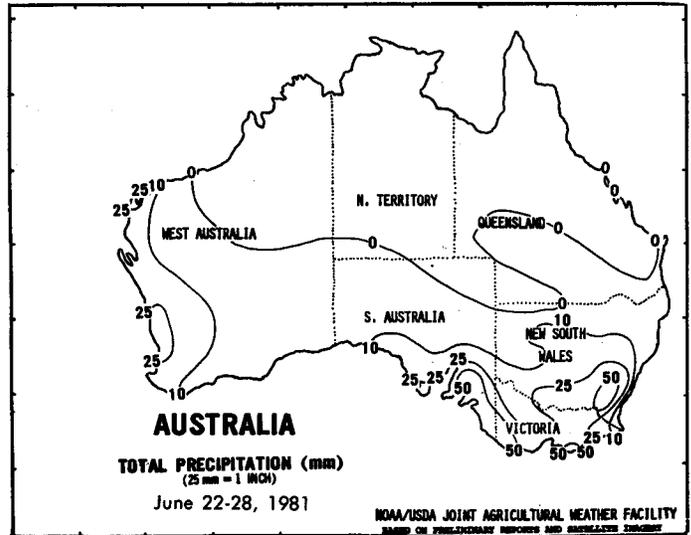
SOUTH AMERICA: Heavy rain (50-65 mm) fell in Rio Grande do Sul. Wet weather interfered with fieldwork, especially late wheat planting in southern Brazil. Rainfall was lighter in more northern wheat areas of Brazil. Early seeded wheat has advanced into the heading stage in Parana, and the cold weather which occurred during the previous week may have adversely affected the wheat crop in western and northern portions of Parana. Wheat is especially susceptible to frost damage during the heading stage. Damage usually becomes apparent a few weeks after the frost when indications of no seedset in the heads become observable. In Argentina, showers occurred in eastern Buenos Aires. Elsewhere, dry weather prevailed.



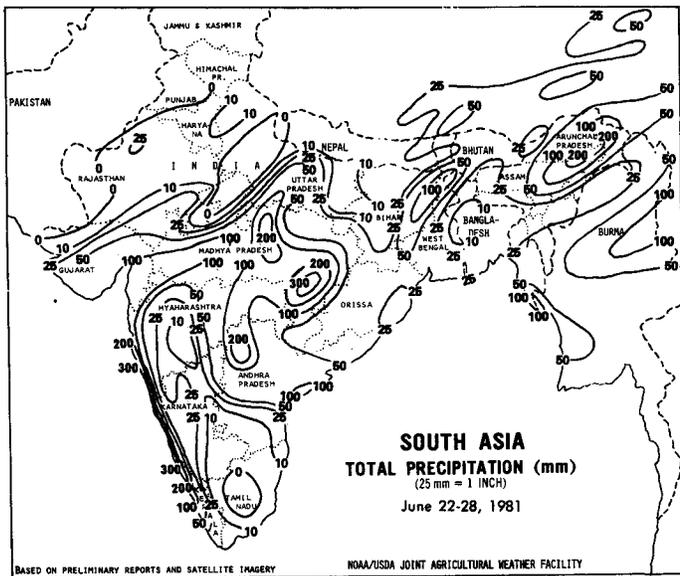
MEXICO: Scattered moderate showers developed over the northwestern watersheds while afternoon thunderstorms brought heavy rains to the southern mountains. Rains benefited crops, especially most of the young corn in the southern Plateau and citrus and sugarcane from Valles to Jalapa. However, many non-irrigated northern citrus orchards continued to be stressed from lack of moisture. Sunny, warm-to-hot weather, favorable for cotton development, persisted across northern and west coast fields. Rains of about 25 mm dampened maturing grain sorghum and corn around Matamoros. It slowed harvesting of some of the early sorghum.



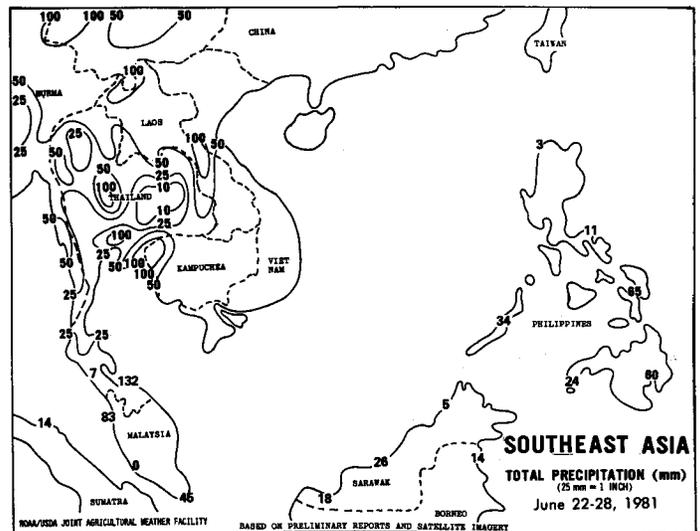
EASTERN ASIA: Drier weather in the northern portion of the winter wheat belt allowed harvesting to resume. Above-normal rainfall occurred over much of the Yangtze Valley, with heaviest amounts concentrated along the Yangtze River itself. Dry weather in recent weeks had allowed stream levels to retreat somewhat, so that flooding danger will be minimal unless the heavy rains continue. Eastern portions of the hills south of the Yangtze received lighter than normal rainfall. In general, rice crop prospects remain good. Above-normal rainfall also continued in the Manchurian Valley, maintaining favorable growing conditions in the west and wet conditions in the east. In South Korea, rainfall increased to above normal in the south, substantially improving rice prospects.



AUSTRALIA: Some rain fell in nearly all wheat areas of Australia, except in extreme northern New South Wales and Queensland where mostly dry weather prevailed. Greatest weekly amounts (25 to 50 mm) were found in southern wheat areas where moisture had been somewhat deficient during the past few months. Based on recent rains, soil moisture conditions should be favorable for early wheat growth in most areas. After a slow start due to persistent dryness during the early part of the planting season, timely rains during late May and early June have improved crop prospects considerably. Some crop areas received enough moisture to cause temporary planting delays due to wet fields. The planting season should be nearing completion in most areas.



SOUTH ASIA: The monsoon surged across northern India, approaching its normal position for this time of the year. Abundant rains in upland areas centered in Madhya Pradesh, permitting planting of dryland crops. Streams flowing through Andhra Pradesh should be on the rise, providing irrigation water for eastern rice areas. Both Bangladesh and Tamil Nadu received only light rainfall. Moisture conditions should remain good in Bangladesh, but soils may be getting too dry in Tamil Nadu. Planting of cotton and peanuts should be getting underway in Gujarat and adjacent areas with onset of the rains. Monsoon activity should cover northwestern India within the next 2 weeks.

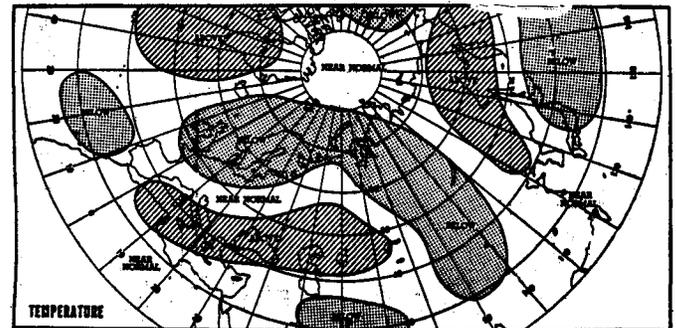
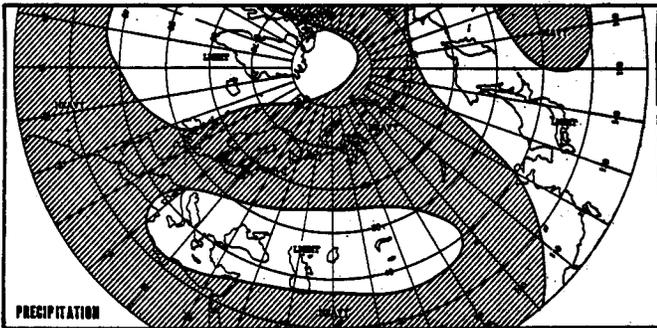


SOUTHEAST ASIA: Monsoon rain showers continued over Southeast Asia, producing highly variable weekly rainfall. Amounts ranged from less than 10 mm in eastern and far western portions of Thailand to over 150 mm in the Central Plains. Wet season crops continue to benefit from the moisture. Early planted corn should be approaching maturity in some areas while the rice crop, which is now in early vegetative development, has ample moisture for growth. Eastern Burma received 20-50 mm of rain, and although station reports were not available, the rainfall pattern suggests that beneficial moisture also fell in central and southern Laos and western Kampuchea.



FIRST CLASS MAIL

EURASIA OUTLOOK FOR JULY



National Weather Summary

(Continued from page 1)

coast and southern Plateau. Strong southerly winds pushed afternoon readings into the hundreds across the central Plains.

SUNDAY...A front spread thunderstorms from southern Colorado to central Minnesota. High winds and hail accompanied some of the storms.

Elsewhere, showers and thundershowers were scattered along the gulf coast, and over the southern Rockies and southern Plateau into the central Plains. Cooler weather spread behind the front and kept highs in the sixties and seventies across the northern Plains. Strong southerly winds pushed temperatures above 100° in eastern Kansas.

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