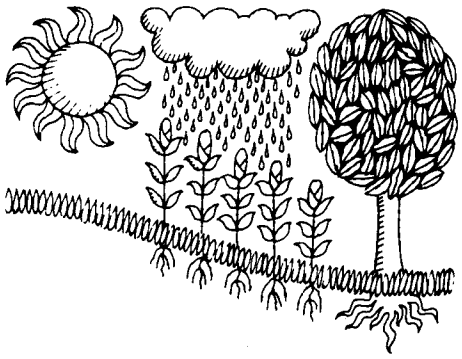

WEEKLY WEATHER AND CROP BULLETIN

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

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

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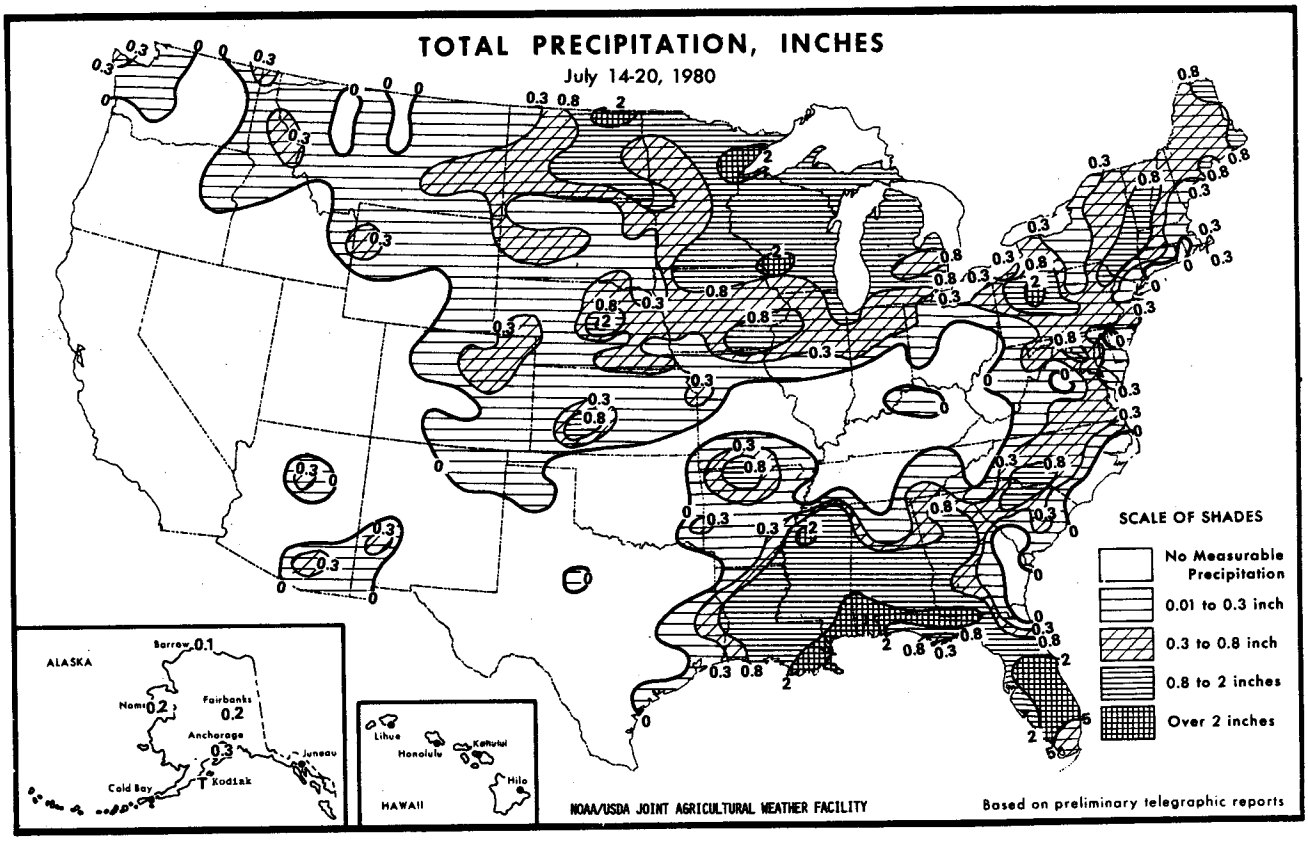


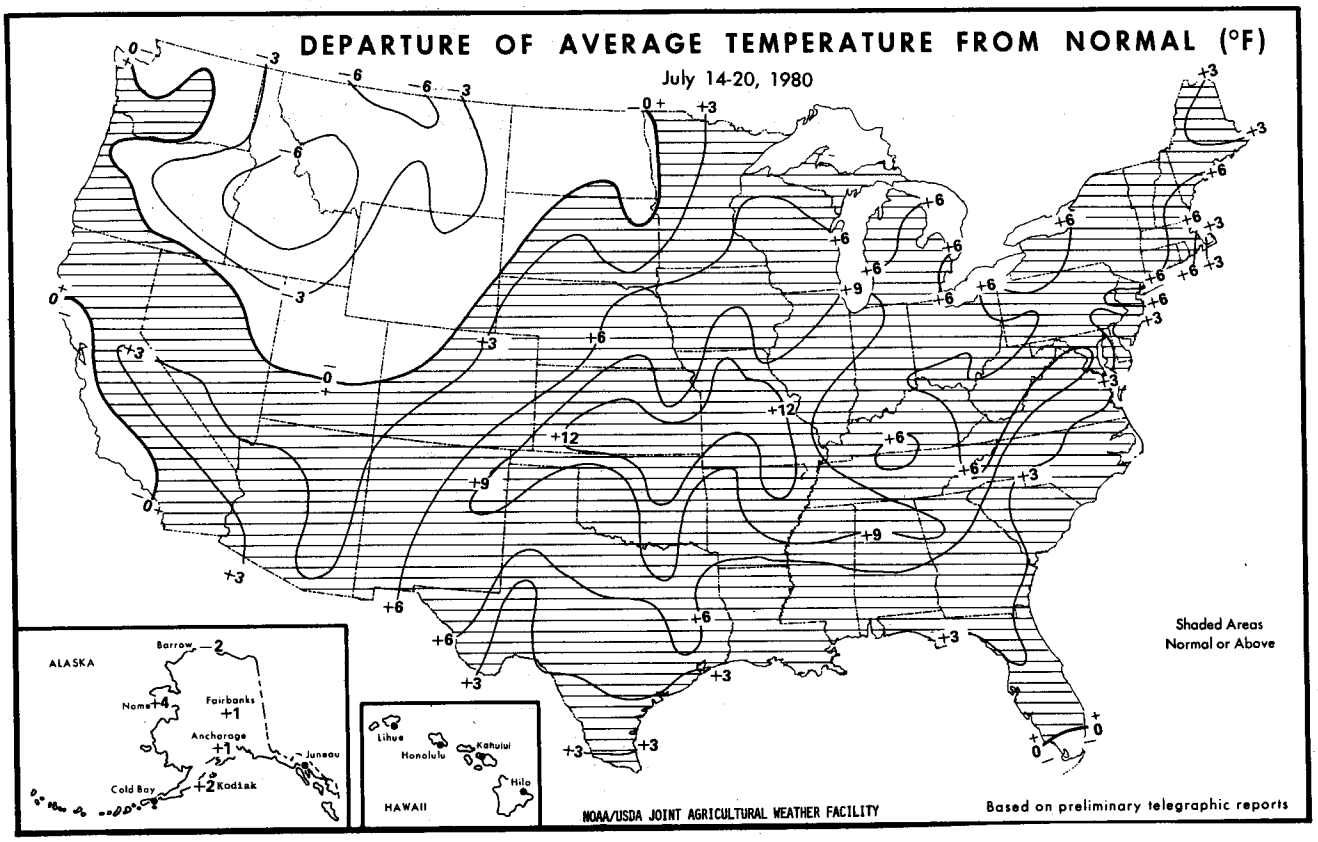
National Weather Summary

July 14 - 20

HIGHLIGHTS: The heat wave continued to dominate the eastern two-thirds of the Nation, but by the end of the week, a marked cooling began from the West. Average temperatures for the week ranged 12 to 15 degrees above normal. The warmest area continued to be in eastern Kansas but spread into Missouri. The Nation's death toll from heat-related causes reached to over 1,100 since the beginning of the hot spell in late June. Showers and thunderstorms were widespread from the central Rockies and northern Plains through the Great Lakes area, along the East Coast and into the Southeast. Texas, Oklahoma, and the Ohio and Tennessee Valleys had very little rain.

MONDAY...Record-breaking temperatures continued over most of the Plains and the Southeast. The 100°-plus temperatures extended from Texas to southern Iowa and southeastward to southern Georgia and the Florida Panhandle. Typical maximum temperature readings showed 107° at Meridian, eastern Mississippi, 108° at Little Rock, Ark., 102° at Des Moines, Ia., 108° at Valdosta, southern Georgia. Hot weather extended through the western Corn Belt where corn was at the very critical propagation stage. Thunderstorms produced only light rainfall in Iowa as a frontal system approached. In other areas, showers were heavy in Montana and in Florida. Light showers fell in the central Rockies.

TUESDAY...Strong thunderstorms developed in the Dakotas, and showers were widely scattered over Nebraska and Iowa. Late in the day, thunderstorms developed across the upper Mississippi Valley, the lower Great Lakes, and the upper Ohio



Valley. Some widely scattered thundershowers dotted western Texas and parts of New Mexico. The hot temperatures persisted, but some cooling was noted in the northern Plains. Readings of 100° or higher extended from Nebraska and southern Iowa across most of Illinois and Indiana and southward through Alabama. Much of the Corn Belt baked under these extreme temperatures.

WEDNESDAY...Temperatures eased somewhat across the northern tier of States as a frontal system moved into the area. However, temperatures in the upper nineties were still recorded in Nebraska and South Dakota. Low nineties held in Iowa, while middle to upper nineties prevailed across the rest of the Corn Belt. One-hundred-degree-plus readings continued from Texas through Kansas, through the Ohio Valley, and southward into Georgia. Parts of the mid-Atlantic States reached the 100° mark. Showers and thunderstorms were scattered across the middle Atlantic States and New England as well as the Great Lakes area. Early in the day, some severe weather pushed into southern Michigan, Ohio, and western Pennsylvania. Southern Florida and the central Gulf Coast recorded some significant showers.

THURSDAY...A cool front reached from New England through the Appalachians and curved through Tennessee and northern Arkansas. The front was moving East and South. Another front extended East and West from a low center in South Dakota. Showers and thunderstorms covered most of New England, and the mid-Atlantic Coast through western South Carolina into Alabama and southern Mississippi. Thunderstorms were also scattered through the northern Plains and upper Mississippi Valley. Temperatures were slow to cool behind the front. Some mid-nineties continued in South Dakota, Iowa, and Illinois and 100°-plus persisted from Texas to Kansas and eastward into northern Georgia.

FRIDAY...Temperatures cooled a little through the Corn Belt with high readings generally in the low nineties. The 100° isotherm enclosed a smaller area, extending from northern New Mexico through central Kansas, northern Missouri, western Tennessee, northern Mississippi and Louisiana, and through southeastern Texas. Light, widely scattered showers fell in the northern Plains, and some more substantial amounts were measured in northern Wisconsin and Illinois. A low pressure system in the Gulf of Mexico moved northward and caused showers in Louisiana and Mississippi. Showers were lighter in the southeastern Gulf States.

SATURDAY...Hot weather pushed northward again into Nebraska, eastward into Indiana, and southward to the Gulf. A complex frontal system brought showers and thunderstorms to New England, New York, the Great Lakes area, and from Kansas northward through the Plains. Strong, gusty winds accompanied some storms in Iowa damaging property late in the day. Heavy thunderstorms covered wide areas in the South. Widely scattered showers fell in Arkansas, Oklahoma, and the Texas Panhandle. Isolated heavy thunderstorms were reported in parts of Kansas and eastern Colorado. In contrast to the heat wave over parts of the Nation, cooler air moving into Montana on brisk northerly winds sent the wind chill factor down to uncomfortable levels late in the day.

SUNDAY...Temperatures moderated through the northern Plains. The mercury failed to rise above 75° in North Dakota and barely reached 90° in parts of Iowa. However, hot weather continued eastward to the mid-Atlantic States. Temperatures approached 100° in Pennsylvania, Maryland, and Virginia. Showers and thunderstorms covered wide areas from the central Rockies to the eastern Great Lakes and New England. Thundershowers continued in the Southeast.

National Agricultural Summary

July 14 - 20

HIGHLIGHTS: Record-breaking temperatures with little, if any, precipitation for the fourth consecutive week continued to scorch crops and stress livestock in the south central and central Plains States. Temperatures averaged up to 15 degrees above normal in these areas. Below-normal temperatures were limited to parts of the northern Plains and the northern portion of the West. Rainfall, mostly from showers and thunderstorms, fell primarily in the north central, eastern, and Delta States. All areas of the Nation had 5 to 7 days suitable for fieldwork. Pastures deteriorated rapidly under the hot, dry conditions and generally rated only poor to fair. In many areas, supplemental feeding was necessary. Winter wheat harvest advanced to 81% complete, well ahead of last year's 72%. Spring wheat heading reached 94%, compared with only 79% a year earlier and the average of 89%. Sorghum heading advanced to 31% and rice heading reached 31%. Cotton was 83% squared, and 35% of the crop had set bolls. Haying advanced rapidly, although dry conditions limited regrowth. Corn silking and soybean bloom became widespread in major production areas. Sorghum heading advanced into Kansas; harvest got underway in southern Texas. Fruit harvests were active as far north as New Jersey. Vegetable growers in southern areas prepared land for planting as harvests declined. In northern areas, vegetable growers harvested increasing supplies of summer crops.

CORN: Corn showed fair to good condition in major production regions. However, the condition of the crop continued to decline due to the hot, dry weather in some areas. Silking became widespread in northern production regions. In southern areas, the crop reached the dough stage, while some fields advanced to the dent stage. Harvest was underway in the extreme South. In the Corn Belt, rain and relief from the hot weather is needed as the crop is in the critical silking stage. Pollination is a concern in many areas.

SOYBEANS: Soybean planting on double-cropped land was completed. Blooming became widespread and averaged 49% in the major producing States, well ahead of last year and slightly ahead of average. Early-planted soybeans were setting pods. Progress ranged from 5% in Kansas, Georgia, and Tennessee to 23% in Illinois. In the southern Plains, development is slow with uneven pod filling. The lack of moisture has hindered plant and pod development. Yields are expected to reflect the stressed condition.

SMALL GRAINS: Winter wheat combining moved actively in all major States except Washington. Progress ranged from 1% in Idaho to 100% in Kansas, Oklahoma, and Texas. Harvesting in the 15 major producing States reached 81% complete, well ahead of last year's 72% and slightly ahead of average.

Spring wheat heading in the five major States advanced to 94% complete, compared to only 79% a year earlier and the average of 89%. The extreme heat prematurely advanced the ripening of small grains. Some grain fields continued to be plowed down, cut for hay, or grazed in the northern Plains. Rains in these areas improved the condition of many fields but more than half are still rated poor.

COTTON: Cotton squaring reached 83%, and 35% of the crop had set bolls in the 14 major States. Progress ranged from 5% in Oklahoma to 93% in Georgia. Harvest got underway in southern Texas. In many areas, fields showed the effects of the relentless heat and dry conditions. Fields were maturing rapidly with some squares and early bolls dropping off. Producers cannot irrigate fast enough to satisfy needs in some areas of Texas.

OTHER CROPS: Grain sorghum heading advanced into Nebraska. Progress in the seven major States reached 31%, compared with 24% last year. Harvest began in Texas with 38% harvested, compared with an average of only 25%. Conditions declined in most production areas due to the heat and dry weather. Fields are maturing early with light heads.

Rice heading reached 31% in the five major States. Heading was most advanced in Louisiana with 60% and Texas with 90%. Harvest was underway in Louisiana where 5% of the crop was out of the fields, and just got started in Texas.

Peanuts were pegging in most production areas. In Texas, the crop was progressing slowly with the establishment of stands hampered by hot, dry conditions.

Tobacco harvesting reached 37% in Georgia, 14% in South Carolina, and 8% in North Carolina, all slightly behind normal. Topping and sucker control measures continued in producing areas.

Potato growth in Idaho advanced rapidly with 58% closing middles. In Maine, potatoes grew well as growers sprayed and hilled potatoes.

FRUITS AND NUTS: Fruit harvests moved northward and became more widespread in New Jersey. The sweet cherry harvest advanced throughout all northern production areas and was 26% complete in Michigan, where severe thunderstorms and hail damaged cherries and cherry trees in the southwestern part of the State.

California walnuts and pecans matured normally. Growers harvested a heavy volume of nectarines, Bartlett pears, and plums. The Cling peach harvest was underway and the Freestone peach harvest reached the halfway mark. Lemon picking was active as the Valencia movement slowed. Navel oranges sized well.

Florida citrus groves rated good to excellent with irrigation active in most areas. The Valencia harvest neared completion.

Arizona citrus groves rated good with new-crop fruit sizing well. The grape harvest was rapidly winding down.

VEGETABLES: Northern growers harvested increasing supplies of summer crops. In southern areas, growers prepared land for planting later in the year as harvests declined.

In Florida, the harvest was essentially complete for all spring vegetables. A limited supply of watermelons remained for harvest.

California growers harvested a wide variety of vegetables including broccoli, carrots, cauliflower sweet corn, tomatoes, peppers, onions, celery, potatoes, and watermelons.

Texas prospects deteriorated, with the quality and maturity hurt by the heat wave. In northern areas, most garden vegetables are burned up and production ended. Production in eastern regions halted for many vegetables, although light supplies of tomatoes, peppers, peas, and okra are still available. Land preparation for fall planting was underway in southern areas.

(continued on page 12)

Weather Data for the Week Ending July 20, 1980

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
														TEMPERATURE °F		PRECIPITATION	
	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 2	PCT. NORMAL SINCE June 2	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	101	75	105	72	88	8	.2	- 1.0	.2	3.5	48	87	37	7	0	2	0
MOBILE	97	77	103	71	87	5	2.1	0	1.3	5.7	48	88	47	6	0	3	2
MONTGOMERY	95	76	102	72	86	5	.9	- .3	.6	3.6	49	87	49	6	0	5	1
AK ANCHORAGE	67	51	75	46	59	1	.3	- .2	.3	3.9	163	85	59	0	0	3	0
BARROW	41	33	48	30	37	-2	.1	- .1	.1	1.0	111	75	74	0	2	1	0
FAIRBANKS	73	52	78	50	62	1	.2	- .2	.1	1.7	63	77	46	0	0	2	0
KODIAK	61	51	67	47	56	2	T	- .8	T	1.3	20	97	74	0	0	2	0
NOME	61	46	71	43	54	4	.2	- .4	.1	4.1	178	82	66	0	0	3	0
AZ FLAGSTAFF	88	53	91	46	70	4	.5	- .1	.5	1.2	60	51	21	2	0	1	0
PHOENIX	109	83	112	78	96	4	0	- .2	0	0	0	39	13	7	0	0	0
TUCSON	102	76	106	71	89	2	.3	- .3	.3	1.3	81	53	17	7	0	1	0
WINSLOW	95	64	99	59	80	1	T	- .3	T	1.8	200	--	--	7	0	2	0
YUMA	111	81	115	74	96	2	0	- .1	0	0	0	44	--	7	0	0	0
AR FORT SMITH	104	73	106	70	89	6	.2	- .5	.1	3.4	58	85	28	7	0	2	0
LITTLE ROCK	104	78	108	74	91	10	.1	- .7	.1	.7	12	71	28	7	0	1	0
CA BAKERSFIELD	100	70	104	64	85	0	0	0	0	0	0	--	21	7	0	0	0
EUREKA	61	54	63	52	57	1	T	0	T	.5	62	92	70	0	0	0	0
FRESNO	101	66	104	62	84	2	0	0	0	0	0	59	17	7	0	0	0
LOS ANGELES	74	61	79	59	68	-6	0	0	0	0	--	86	56	0	0	0	0
RED BLUFF	100	66	105	63	83	0	0	0	0	1.2	240	--	20	7	0	0	0
SAN DIEGO	76	66	84	63	71	1	0	0	0	0	--	84	59	0	0	0	0
SAN FRANCISCO	73	54	78	52	63	0	T	0	T	.1	50	88	52	0	0	0	0
STOCKTON	99	62	101	57	80	3	0	0	0	.5	500	76	24	7	0	0	0
CO DENVER	90	64	93	63	77	3	.8	.4	.8	2.9	97	58	23	5	0	1	0
GRAND JUNCTION	96	62	100	57	79	-1	0	- .1	0	1.0	143	49	14	6	0	0	0
PUEBLO	97	67	100	63	82	5	T	- .4	T	1.1	44	52	20	7	0	0	0
CT BRIDGEPORT	86	70	93	64	78	4	T	- .8	T	3.5	76	87	48	2	0	0	0
HARTFORD	91	64	97	56	78	5	.4	- .4	.4	4.7	84	90	40	4	0	3	0
DC WASHINGTON	97	75	103	67	86	7	1.0	.1	1.0	3.9	67	88	46	7	0	1	0
FL APALACHICOLA	89	76	96	71	82	1	.1	- 1.8	.1	5.9	57	96	66	1	0	3	0
DAYTONA BEACH	91	74	96	68	82	1	1.4	- .1	0	7.1	65	92	55	3	0	0	0
FORT MYERS	91	76	94	72	84	1	1.9	- .1	1.3	8.2	56	94	63	6	0	6	1
JACKSONVILLE	94	72	99	64	83	2	0	- 1.7	0	5.7	53	93	52	7	0	0	0
KEY WEST	88	77	91	74	83	-2	5.0	4.1	2.0	8.6	118	83	62	2	0	6	3
MIAMI	88	74	94	71	81	-1	6.3	4.8	1.4	11.3	84	93	64	3	0	7	5
ORLANDO	93	73	97	71	83	2	2.5	.6	1.1	8.1	65	49	57	7	0	5	2
TALLAHASSEE	94	76	103	72	85	4	2.0	- .1	1.2	8.0	65	92	55	6	0	2	2
TAMPA	89	78	92	75	84	2	1.2	- .7	.4	6.5	55	88	62	4	0	4	0
WEST PALM BEACH	91	73	96	70	82	0	3.9	2.5	2.1	9.5	77	93	50	3	0	5	4
GA ATLANTA	98	77	105	73	87	9	.5	- .7	.4	5.0	72	88	47	7	0	2	0
AUGUSTA	97	72	100	70	84	4	0	- 1.2	0	4.9	70	93	44	7	0	0	0
MACON	97	75	101	74	86	5	1.1	0	1.0	3.4	50	89	46	7	0	2	1
SAVANNAH	93	75	94	71	84	3	.2	- 1.6	.2	4.2	39	88	49	7	0	1	0
HI HILO	--	--	--	--	--	--	--	--	--	--	--	--	--	-	-	-	-
HONOLULU	88	75	89	70	82	--	.1	0	T	.3	43	80	52	0	0	2	0
KAHULUI	--	--	--	--	--	--	--	--	--	--	--	--	--	-	-	-	-
LIHUE	--	--	--	--	--	--	--	--	--	--	--	--	--	-	-	-	-
ID BOISE	85	53	91	49	69	-6	T	0	T	.3	23	56	22	1	0	0	0
LEWISTON	84	58	92	54	71	-3	.1	0	--	1.9	83	81	33	1	0	0	0
POCATELLO	84	50	88	42	67	-6	T	- .1	T	1.5	100	67	23	0	0	0	0
IL CAIRO	95	80	104	74	89	8	0	- .7	0	5.4	84	--	--	7	0	0	0
CHICAGO	93	72	101	68	83	10	2.0	1.1	1.4	5.4	81	81	46	6	0	4	1
MOLINE	93	71	97	63	82	7	1.4	.3	.5	6.6	88	80	51	6	0	3	1
PEORIA	96	71	99	62	84	8	.3	- .5	.3	7.7	124	85	48	7	0	1	0
ROCKFORD	91	71	97	63	81	8	.3	- .7	.3	6.6	89	79	49	5	0	1	0
SPRINGFIELD	98	74	101	64	86	10	.1	- .8	.1	2.3	34	81	49	7	0	1	0
IN EVANSVILLE	97	72	101	66	85	7	0	- .9	0	9.2	156	68	41	7	0	0	0
FORT WAYNE	94	69	101	59	81	8	.4	- .5	.4	3.2	51	90	43	5	0	1	0
INDIANAPOLIS	95	70	100	64	83	8	0	- .8	0	4.3	65	87	44	7	0	0	0
SOUTH BEND	93	72	100	65	83	11	.6	- .2	.5	4.4	73	78	45	5	0	2	0
IA BURLINGTON	93	72	99	65	83	8	1.5	.7	.9	9.5	134	--	--	6	0	3	1
DES MOINES	95	73	102	67	84	9	.4	- .3	.1	5.6	79	77	43	7	0	3	0
DUBUQUE	89	71	93	64	80	8	.1	- .9	.1	6.6	81	84	54	4	0	3	0
SIOUX CITY	95	69	104	63	82	6	.1	- .6	T	1.3	19	86	42	6	0	3	0
KS CONCORDIA	104	73	109	67	88	10	T	- .7	T	1.9	27	61	19	7	0	1	0
DODGE CITY	107	74	108	65	91	12	.9	.2	.6	4.9	92	50	19	7	0	1	1
GOODLAND	97	64	103	61	81	5	.2	- .4	.1	5.0	109	71	21	7	0	2	0
TOPEKA	105	79	110	73	92	4	.1	- .8	.1	.9	11	59	28	7	0	1	0
WICHITA	108	79	110	75	94	13	T	- 1.0	T	1.5	20	54	20	7	0	1	0
KY LEXINGTON	95	71	100	63	83	7	.1	- 1.0	.1	5.0	68	87	38	7	0	1	0
LOUISVILLE	97	73	101	68	85	8	T	- .8	T	6.3	98	83	39	7	0	1	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending July 20, 1980

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
														TEMPERATURE °F		PRECIPITATION	
	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 2	PCT. NORMAL SINCE June 2	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
LA BATON ROUGE	95	76	98	72	86	4	1.3	- .2	1.1	7.3	92	94	52	7	0	3	1
LAKE CHARLES	97	75	102	73	86	4	.6	- .9	.5	2.0	22	87	45	7	0	2	1
NEW ORLEANS	97	78	101	75	87	5	3.3	1.7	1.8	7.1	79	94	52	7	0	3	3
SHREVEPORT	102	74	106	71	88	5	0	- .6	0	2.6	51	87	34	7	0	0	0
ME CARIBOU	80	58	84	51	69	4	1.4	.5	1.3	6.6	112	95	52	0	0	3	1
PORTLAND	86	61	93	55	74	5	.1	- .5	.1	4.2	89	--	44	1	0	2	0
MD BALTIMORE	95	68	101	59	81	4	.2	- .7	.2	4.6	74	85	40	6	0	1	0
MA BOSTON	91	70	98	67	80	6	.2	- .4	.2	3.9	80	79	44	5	0	2	0
CHATHAM	77	64	80	60	71	--	.4	- .2	.4	3.7	76	98	68	0	0	1	0
MI ALPENA	83	60	92	54	83	6	1.1	.5	--	4.4	98	--	--	1	0	3	1
DETROIT	87	66	93	60	77	4	1.0	.3	.8	8.3	157	70	56	2	0	3	1
FLINT	85	66	89	57	76	6	.5	- .1	.3	5.7	110	86	58	0	0	3	0
GRAND RAPIDS	88	67	94	60	77	5	1.7	1.0	.9	6.7	124	93	61	3	0	3	2
HOUGHTON LAKE	83	59	87	50	71	5	1.4	.7	1.2	4.3	78	96	55	0	0	4	1
LANSING	88	69	96	58	79	8	.7	.1	.2	2.5	49	91	54	3	0	4	0
MARQUETTE	77	60	83	56	68	2	1.7	1.0	.8	4.9	91	96	63	0	0	5	2
MUSKEGON	84	66	91	59	75	5	1.0	.4	.4	6.9	164	95	63	1	0	3	0
SAULT STE. MARIE	77	55	80	47	66	2	1.1	.5	.6	5.3	106	98	60	0	0	4	1
MN DULUTH	80	61	90	57	70	4	3.6	2.8	1.6	5.2	76	94	54	1	0	6	3
INT'L FALLS	81	59	95	52	70	4	1.5	.6	.7	3.5	55	88	41	1	0	7	1
MINNEAPOLIS	89	66	99	62	78	6	1.3	.5	1.1	6.2	98	86	38	3	0	5	1
ROCHESTER	88	65	93	57	76	6	1.9	1.1	1.7	4.4	62	83	48	3	0	4	1
SAINT CLOUD	87	60	96	52	73	3	.3	- .4	.2	5.5	85	90	--	2	0	4	0
MS JACKSON	101	73	106	70	87	5	1.3	.3	.8	3.5	57	91	39	7	0	3	1
MERIDAN	100	72	107	70	86	5	2.0	.8	1.6	5.3	76	96	43	7	0	4	1
MO COLUMBIA	107	77	109	69	92	--	0	- .9	0	1.4	20	61	25	7	0	0	0
KANSAS CITY	103	77	106	71	90	12	.5	- .5	.3	3.9	46	58	26	7	0	2	0
SAINT LOUIS	102	76	107	57	89	10	0	- .8	0	4.9	71	66	36	7	0	0	0
SPRINGFIELD	103	74	104	70	88	10	T	- .8	T	3.6	51	68	25	7	0	1	0
MT BILLINGS	85	56	92	52	71	-2	.3	.2	.1	2.0	65	63	23	1	0	3	0
GLASGOW	82	55	87	52	69	-3	.2	- .1	.1	2.9	78	76	28	0	0	2	0
GREAT FALLS	78	51	84	45	65	-6	T	- .2	T	4.2	105	66	32	0	0	1	0
HAVRE	79	51	86	41	65	-6	T	- .3	T	3.3	92	74	26	0	0	0	0
HELENA	78	50	84	44	64	-5	T	- .2	T	5.0	156	76	30	0	0	0	0
KALISPELL	73	48	78	45	61	-4	.2	0	.1	3.5	109	99	49	0	0	2	0
MILES CITY	84	58	91	53	71	-4	.5	.2	.3	3.8	86	70	29	1	0	3	0
MISSOULA	76	47	85	45	61	-6	.1	.1	.1	3.4	56	94	41	0	0	2	0
NE GRAND ISLAND	97	71	107	64	84	7	.1	.1	.1	4.2	191	74	38	7	0	3	0
LINCOLN	100	74	106	63	87	9	.2	- .5	T	3.8	53	76	36	7	0	2	0
NORFOLK	94	70	100	62	82	6	.3	- .4	.3	4.5	63	75	35	6	0	2	0
NORTH PLATTE	94	64	100	54	79	4	.2	- .5	.2	2.3	40	76	31	5	0	2	0
OMAHA	93	73	102	66	83	7	.8	0	.3	9.2	124	82	58	4	0	5	0
VALENTINE	93	63	102	52	78	3	.1	- .5	.1	3.0	57	64	25	5	0	1	0
NV ELY	90	45	93	40	68	0	0	- .1	0	1.4	117	49	13	6	0	0	0
LAS VEGAS	107	78	110	73	93	3	0	- .1	0	.5	125	19	10	7	0	0	0
RENO	94	50	98	45	72	2	0	- .1	0	.6	86	70	13	6	0	0	0
WINNEMUCCA	94	52	98	48	73	1	0	- .1	0	.5	38	46	13	7	0	0	0
NH CONCORD	89	62	94	52	76	6	.1	- .6	.1	3.6	67	88	45	2	0	2	0
NJ ATLANTIC CITY	88	64	94	54	76	1	.1	- .9	.1	4.4	73	--	45	3	0	1	0
TRENTON	93	71	99	64	82	6	.4	- .7	--	2.7	44	--	--	6	0	1	0
NM ALBUQUERQUE	101	67	105	59	84	5	T	- .4	T	0	0	50	14	7	0	0	0
ROSWELL	101	73	105	68	87	8	0	- .4	0	.3	12	--	--	7	0	0	0
NY ALBANY	89	64	93	52	77	4	.9	.2	.9	6.9	141	82	43	2	0	2	1
BINGHAMTON	84	64	91	54	74	4	.2	- .7	.2	6.9	121	86	48	1	0	1	0
BUFFALO	86	68	89	59	77	7	.6	- .1	.4	6.5	163	87	52	0	0	4	0
NEW YORK	91	74	99	68	83	6	.1	- .8	.1	4.1	79	75	42	5	0	2	0
ROCHESTER	89	67	93	57	78	6	.2	- .4	.1	7.0	167	95	49	4	0	3	0
SYRACUSE	89	65	92	55	77	5	.3	- .4	.2	4.4	88	87	49	4	0	3	0
NC ASHEVILLE	90	70	95	66	80	6	T	- 1.1	T	5.6	80	95	57	3	0	0	0
CHARLOTTE	92	71	99	66	82	3	1.3	.2	1.3	4.7	70	80	48	5	0	1	1
GREENSBORO	91	69	98	66	80	3	.5	- .5	.5	5.2	78	91	51	5	0	1	0
HATTERAS	87	71	89	62	79	1	0	- 1.3	0	6.9	82	74	64	0	0	0	0
RALEIGH	91	69	95	66	80	2	.8	- .4	.7	6.9	101	95	54	4	0	2	1
WILMINGTON	93	71	96	66	82	2	T	- 2.0	T	4.3	39	94	45	7	0	0	0
ND BISMARCK	81	57	89	53	69	-2	1.4	.9	1.2	4.5	88	85	35	0	0	3	1
FARGO	83	60	91	57	71	0	.5	- .2	.2	3.2	60	90	44	1	0	4	0
WILLISTON	84	54	92	49	69	-1	.1	- .3	T	2.4	52	86	30	1	0	3	0
OH AKRON-CANTON	90	67	100	53	78	6	T	- .9	T	6.6	112	90	46	4	0	1	0
CINCINNATI	92	68	96	61	80	4	0	- 1.0	0	7.8	120	86	50	4	0	0	0
CLEVELAND	90	65	97	55	78	6	.3	- .5	.3	4.5	80	89	47	4	0	1	0
COLUMBUS	91	68	97	60	80	6	T	- 1.0	T	7.2	104	92	53	4	0	0	0
DAYTON	95	69	101	61	82	7	T	- .8	T	9.4	157	87	40	6	0	1	0
TOLEDO	90	69	97	59	80	7	.2	- .5	.1	5.1	93	90	54	4	0	3	0
YOUNGSTOWN	87	62	92	50	75	4	.6	- .3	.6	6.3	109	94	49	2	0	1	1

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending July 20, 1980

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
														TEMPERATURE °F		PRECIPITATION	
	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 2	PCT. NORMAL SINCE June 2	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OK OKLAHOMA CITY	105	74	106	71	90	8	0	- .6	0	2.5	42	57	21	7	0	0	0
TULSA	107	83	109	81	95	13	0	- .8	0	5.5	79	57	25	7	0	0	0
OR ASTORIA	68	57	75	52	63	2	T	- .2	T	2.1	68	92	65	0	0	0	0
BURNS	82	46	86	41	64	-6	T	- .1	T	1.0	77	72	22	0	0	0	0
MEDFORD	93	55	102	51	74	1	0	- .1	0	1.2	109	78	22	5	0	0	0
PENDLETON	84	58	91	55	71	-3	0	- .1	0	1.9	146	--	23	1	0	0	0
PORTLAND	80	59	87	56	69	2	T	- .1	T	2.5	132	87	47	0	0	0	0
SALEM	82	51	89	45	67	0	0	- .1	0	2.0	118	92	39	0	0	0	0
PA ALLENTOWN	93	67	101	59	80	6	.3	- .7	.1	3.5	56	77	37	7	0	2	0
ERIE	84	66	91	56	75	5	.2	- .6	.2	7.7	137	--	--	2	0	2	0
HARRISBURG	93	67	100	58	80	3	.4	- .4	.4	3.2	60	99	47	6	0	2	0
PHILADELPHIA	91	67	96	61	79	2	.5	- .4	.4	2.7	44	89	46	4	0	2	0
PITTSBURGH	93	69	98	60	81	9	T	- .9	T	7.3	126	89	46	5	0	1	0
SCRANTON	89	66	95	55	78	5	.8	- .2	.8	6.4	107	85	40	2	0	2	0
RI PROVIDENCE	91	66	96	61	79	6	T	- .6	T	4.4	102	87	44	4	0	0	0
SC CHARLESTON	91	72	93	69	82	1	.2	- 1.7	.2	4.2	37	95	51	6	0	1	0
COLUMBIA	94	70	98	68	82	1	.2	- 1.1	.2	3.2	44	90	43	7	0	1	0
GREENVILLE	94	73	100	71	84	5	T	- .9	T	7.5	110	91	51	7	0	1	0
SD ABERDEEN	88	60	93	54	74	1	.3	- .3	.2	3.2	58	91	31	3	0	3	0
HURON	87	61	92	57	74	0	.3	- .2	.1	8.2	158	97	44	3	0	4	0
RAPID CITY	87	58	94	53	73	-1	.4	- .0	.3	6.4	125	77	25	3	0	2	0
SIOUX FALLS	90	65	96	60	77	3	.2	- .4	.1	3.8	61	80	42	4	0	3	0
TN CHATTANOOGA	99	74	105	69	87	8	.6	- .6	.6	3.4	49	89	39	7	0	1	0
KNOXVILLE	97	75	101	72	86	8	.1	- 1.0	.1	4.0	60	87	42	7	0	1	0
MEMPHIS	104	81	107	75	92	11	0	- .8	0	5.8	104	68	35	7	0	0	0
NASHVILLE	100	72	104	67	86	6	0	- .9	0	3.3	57	93	30	7	0	0	0
TX ABILENE	102	78	105	77	90	6	T	- .5	T	1.1	25	54	22	7	0	1	0
AMARILLO	99	71	100	68	85	6	T	- .6	T	1.3	25	43	18	7	0	1	0
AUSTIN	101	76	102	74	88	3	0	- .4	0	.3	7	85	30	7	0	1	0
BEAUMONT	99	76	103	75	88	5	.1	- 1.3	.1	.9	11	92	49	7	0	2	0
BROWNSVILLE	99	76	100	72	88	3	0	- .2	0	.1	3	87	42	7	0	0	0
CORPUS CHRISTI	97	75	97	73	86	1	0	- .4	0	.2	5	91	42	7	0	0	0
DEL RIO	103	77	104	74	90	3	.2	- .2	0	.3	11	64	20	7	0	0	0
EL PASO	104	73	106	70	88	6	T	- .4	T	.3	11	39	15	7	0	0	0
FORT WORTH	107	81	110	79	94	9	0	- .4	0	.2	12	57	21	7	0	0	0
GALVESTON	90	80	95	78	85	2	.2	- .8	.1	1.3	31	87	66	3	0	2	0
HOUSTON	102	76	104	74	89	6	0	- .9	0	.6	9	91	36	7	0	0	0
LUBBOCK	98	73	100	70	86	6	0	- .5	0	1.1	15	45	21	7	0	0	0
MIDLAND	99	69	101	66	84	2	0	- .4	0	1.8	43	54	19	7	0	0	0
SAN ANGELO	102	75	104	70	89	4	0	- .3	0	1.6	59	62	21	7	0	0	0
SAN ANTONIO	100	76	102	71	88	3	0	- .4	0	3.4	126	85	30	7	0	0	0
VICTORIA	99	76	100	74	87	3	T	- .6	T	.5	13	89	37	7	0	1	0
WACO	103	76	105	74	90	4	T	- .3	T	0	0	77	27	7	0	0	0
WICHITA FALLS	107	78	109	75	92	6	0	- .5	0	.3	8	60	18	7	0	0	0
UT BLANDING	92	58	95	55	75	1	0	- .2	0	.3	6	46	11	6	0	0	0
SALT LAKE CITY	91	62	96	58	76	-2	0	- .1	0	.1	11	59	20	5	0	0	0
VT BURLINGTON	86	63	88	54	75	5	.4	- .4	.4	1.7	94	84	51	0	0	3	0
VA LYNCHBURG	94	68	100	65	81	5	.4	- .5	.4	2.8	50	86	--	6	0	1	0
NORFOLK	92	71	97	62	82	3	.3	- 1.0	.3	3.5	59	89	47	5	0	1	0
RICHMOND	96	68	101	59	82	4	.3	- 1.0	.3	1.8	25	91	44	7	0	1	0
ROANOKE	94	69	100	66	81	6	T	- .8	T	2.4	35	76	47	5	0	1	0
WA COLEVILLE	79	55	85	51	67	-2	.2	- .2	.1	5.0	89	--	--	0	0	4	0
OMAK	76	--	92	59	67	5	0	- .1	.1	2.5	312	--	--	1	0	0	0
QUILLAYUTE	67	53	80	47	60	1	.3	- .2	.1	1.4	88	97	68	0	0	3	0
SEATTLE-TACOMA	72	56	78	53	64	-1	T	- .1	T	6.6	135	90	55	0	0	3	0
SPOKANE	80	54	87	50	67	-3	T	- .1	T	2.2	110	76	33	0	0	0	0
WALLA-WALLA	85	62	94	59	74	-2	0	- .1	0	1.2	67	63	27	1	0	0	0
YAKIMA	86	55	90	48	71	0	T	0	T	1.0	67	70	29	1	0	0	0
WV BECKLEY	86	63	90	60	75	5	T	- 1.0	T	1.1	122	83	47	1	0	1	0
CHARLESTON	92	67	97	64	79	4	T	- 1.2	T	7.2	101	--	49	6	0	1	0
HUNTINGTON	92	68	98	64	80	5	0	- 1.0	0	8.3	128	90	55	5	0	0	0
PARKERSBURG	94	69	98	59	81	6	0	- 1.0	0	8.5	139	80	45	7	0	0	0
WI GREEN BAY	85	65	90	60	75	5	1.2	.5	1.0	6.0	88	98	60	1	0	4	1
LA CROSSE	93	71	99	66	82	9	1.9	1.1	.7	5.5	102	96	47	6	0	7	2
MADISON	91	66	95	62	78	8	1.0	.1	.8	5.6	82	91	46	4	0	3	1
MILWAUKEE	88	66	96	61	77	7	1.0	.2	.7	5.6	81	86	48	3	0	2	1
WY CASPER	89	51	95	44	70	-2	T	- .2	T	6.3	109	64	17	3	0	0	0
CHEYENNE	85	57	91	53	71	-1	.1	- .3	.1	.5	24	60	25	1	0	1	0
LANDER	86	54	91	48	70	-2	T	- .1	T	.9	25	58	16	1	0	1	0
SHERIDAN	84	51	91	45	67	-4	0	- .2	0	.3	13	69	90	1	0	0	0
PR SAN JUAN	91	77	94	73	84	3	.9	- .6	.3	3.2	34	--	60	5	0	6	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

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 ESCS State offices in cooperation with the National Weather Service.

ALABAMA: Temperatures abated during the week to highs in the 90's, 6° above normal. Showers over all but extreme north.

Soil moisture very short to short. Fieldwork: 6.0 days suitable. Sorghum planted 99%, 94% 1979. Hay harvested 66%. Corn: Silked 94%, 83% 1979, 90% average; dented 40%, 47% 1979, 36% average; mature 16%, 33% 1979. Soybeans: Blooming 34%, 30% 1979, 28% average; setting pods 8%, 11% 1979. Cotton: Squaring 94%, 91% 1979, 88% average; setting bolls 52%, 40% 1979, 43% average. Peanuts pegging 65%, 83% 1979, 81% average. Condition: Corn and pasture poor to fair; soybeans, cotton and sorghum fair; peanuts good.

ALASKA: Tanana Valley temperatures averaged 2 to 6° above normal. Some rainfall recorded although seasonal values still below normal. Matanuska Valley temperature averages were normal. Precipitation above average bringing the seasonal totals 1.00 to 2.00 in. above normal. Kenai Peninsula temperatures ran above normal. Precipitation light although seasonal values remain well above normal. Kodiak Island temperatures were 1 to 2° above normal. Only slight amounts of precipitation. Seasonal rainfall running 1.00 in. behind normal.

Rain and cool temperatures finally gave way to warm sunny days. Some areas had up to 4 days favorable for fieldwork. First cutting of hay was 50% complete. Some farmers Delta Junction area in wind-up stages. Dairymen made excellent progress making grass silage. Oats 75 to 100% headed out. Nearly 80% barley was headed and few early planted fields in dough stage. Commercial vegetables abundant. Available local markets. Soil moisture supply adequate to surplus.

ARIZONA: Average temperatures 2 to 4° above normal. Widespread, scattered thundershowers. Amounts ranged 0.25 to 0.75 in.

Cotton growth accelerating. Irrigation, weed control, limited pesticide applications. Plants approaching 99% squaring, 75% setting bolls. Safflower harvest gaining momentum. Corn, early planted sorghum good progress. Sugarbeet harvest full swing, 80% complete. Alfalfa haying full swing. Cantaloup harvest virtually complete Yuma, harvest Salt River Valley full swing. Watermelon harvest full swing. Harvest honeydews steady. Grape harvest rapidly winding down. Mixed vegetables being harvested. Citrus groves generally good condition, new crop fruit sizing well. Ranges, water supplies improving in areas that received rain. Sporadic water shortages. Fire danger high. Ranges below average feed. Livestock fair.

ARKANSAS: Temperatures over 100° continued. Scattered light amounts rainfall. Extremes: 110 and 61°. Departures from normal +4 to +10°.

Fieldwork: 7.0 days suitable. Soil moisture short. Cotton poor condition, some dropping squares, bolls from heat. Growth ceased. Squaring 100%. Setting bolls 91%, 36% 1979, 58% average. Soybean condition poor, drought stress, 21% blooming, 8% setting pods. Rice fair condition, 6% headed. Corn poor, drought stress. Sorghum poor, some premature heading. Livestock fair, continued weight loss, herd reduction. Pastures burning.

CALIFORNIA: Temperatures more normal for the period prevailed, although still slightly below normal in the Sacramento Valley and in the mountain areas. No precipitation reported.

Crop development improved with warm weather. Cotton and rice progress rapid. Cotton 65% squared, 12% bolls set. Wheat and barley harvest near completion with 92% and 87% harvested, respectively. Alfalfa harvest continues. Safflower in full bloom. Harvested small grain fields being prepared for second crop corn and milo. Apple development aided by warm weather. End harvest apricots. Some avocado drop. Fresh figs packed. High temperatures lessen mildew in grapes. Desert table grapes nearly all picked. Heavy volume nectarines, Bartlett pears, plums. Heavy olive crop. Cling peach harvest underway. Half Freestone peach harvest in. Slight prune cracking and scab. Lemon pick strong. Navel oranges sizing well. Valencia movement slowed. Nonpareil almond hulls splitting. Walnut, pecans maturing normally. Artichokes to increase slightly. Broccoli, cauliflower, lettuce in moderate supply from Central Coast. Cantaloup underway, westside. Carrots active Salinas, Kern. Celery to increase slightly, Santa Maria. Sweet corn harvest continues active. Honeydew harvest continues San Joaquin Valley, begins Sacramento Valley. Onions near completion Stockton, light from Kern. Green onions in good supply. Potato shipments begin Stockton, decrease from Tulelake cold storage. Strawberries unchanged, quality improves. Fresh market tomato, bell peppers active San Joaquin. Processing tomatoes full swing, Fresno. Watermelons continue, no problems. Range cattle doing very well summer ranges. Feed conditions good to excellent. Stock water supplies more than adequate.

COLORADO: Limited precipitation, and hot temperatures. Rains scattered. Average temperatures 3 to 6° above normal.

Winter wheat harvest 84%, 58% 1979, 74% average. Ripe 94%, 83% 1979, 89% average. Corn average height 55 in., 49 in. 1979. Silked 8%, 2% 1979. Tasseled 16%, 10% 1979. Barley ripe 42%, 10% 1979. Barley harvest underway. Fieldwork: 6.0 days suitable. Ranges, pastures good condition. Livestock good condition. Alfalfa first cutting 92%, 96% 1979, 96% average. Second cutting 30%, 37% 1979, 34% average.

FLORIDA: Hot and mostly dry with only isolated showers. Record high temperatures in excess of 100° in the Panhandle. Rainfall averaged 1.00 to 2.00 in., near 4.00 in. Lower East Coast. Temperatures averaged 4° above normal Panhandle, 2° above normal elsewhere.

Soil moisture short. Harvesting early corn active. Late corn very poor condition. Soybean planting incomplete. Early plantings poor condition. Peanuts slow progress due to dry weather. Tobacco harvest active. Hay harvest active. Sugarcane good growth. Pasture condition declined result of heat stress. Poor to fair north, mostly good elsewhere. Cattle fair condition north, good elsewhere. Citrus grove condition very good to excellent depending on rain. Irrigation active most areas, new growth generally light. Valencia orange harvest almost complete. The season is essentially complete for all spring vegetables. A very limited supply of

watermelons remain for harvest. Fieldwork limited to land preparation for summer vegetables.

GEORGIA: Soil moisture mostly very short to short. Continued very high temperatures and only scattered showers further lowered crop prospects. Fieldwork: 6.0 days suitable. Corn mostly poor to fair, 75% dough, 51% dent and 28% mature, 3% harvested this year and last. Soybeans poor to mostly fair, 24% blooming and 5% pod set. Peanuts fair to good, 90% pegging, 96% last year, 94% average. Cotton fair to good, 93% setting bolls, 94% last year, 85% average. Tobacco fair to good, 37% harvested, 51% last year, 53% average. Pastures and hay crops poor to fair. Hogs and cattle fair to good. Peaches fair to good, 82% harvested, last year 86%, average 87%. Apples mostly fair to good, 12% harvested, last year 10%. Pecans mostly fair to good. Watermelons poor to mostly fair, 71% harvested, last year and average 80%. Other vegetables fair.
IOWA: A hot week with light to moderate showers but turning cooler the 20th. Fieldwork: 6.2 days suitable. Corn acreage tasseled: 84%, 1979 32%, normal 65%. Corn acreage silked: 53%, 1979 14%, normal 43%. Corn in or past milk stage: 8%, 1979 0%, normal 6%. Soybean acreage blooming: 71%, 1979 45%, normal 59%. Soybean acreage pods setting: 21%, 1979 0%, normal 20%. Winter wheat harvested: 94%, 1979 71%, normal 78%. Oats harvested: 54%, 1979 22%, normal 51%. Second crop alfalfa hay harvested: 69%, 1979 60%, normal 65%. Second crop clover hay harvested: 32%, 1979 25%, normal 29%. Topsoil moisture: 61% short, 38% adequate, 1% surplus. Subsoil moisture: 28% short, 72% adequate. Crop conditions: Most crops good, oats fair to good. Pastures fair. Livestock fair, some stress, market movement increased.

IDAHO: Temperatures mostly in upper 80's. Extremes: 97 and 28°. Precipitation ranged from trace to 0.25 in.

Winter wheat harvest just underway. Spring wheat 94% headed, 100% 1979, 92% average. Spring barley 83% headed, 23% turning. Mint harvest underway. Potatoes: 86% 12 in. high, 58% closed middles, both near average. Second cutting alfalfa beginning. Corn, onions, and sugarbeets growing well. Range remains very good. Fieldwork: 6.0 days suitable.

ILLINOIS: Temperatures 7 to 14° above normal. Precipitation none to 3.00.

Soil moisture short. Corn condition good to fair; 84% silked, 40% last year, average 63%; 15% dough, 2% last year, average 11%. Soybean condition good to fair, 76% blooming, 53% 1979, 60% average; 23% setting pods, 16% 1979, 24% average. Winter wheat 98% harvested, 98% 1979, 97% average. Oats 98% turning yellow, 90% 1979, 93% average; 55% ripe, 39% 1979, 65% average; 30% harvested, 25% 1979, 43% average. Barley 75% harvested. Pastures 22% good, 56% fair, 22% poor. Fieldwork: 6.5 days suitable.

INDIANA: Hot, dry week. Temperatures averaged 8° above normal and exceeded 100° in central and north for first time since 1954. Showers averaged 0.50 in. central and northwest, 0.10 to 0.30 elsewhere. Below normal humidity.

Fieldwork: 7.0 days suitable. Topsoil moisture short. Subsoil moisture short to adequate. Wheat 95% combined, 1979 80%, average 95%. Oats 20% combined, 1979 10%, average 40%. Rye 80% combined, 1979 65%, average 80%. Corn 67 in. tall, 1979 60 in. Corn 45% silked, 1979 20%, average 45%. Soybeans 18 in. tall, 1979 20 in. Soybeans 60% bloomed, 1979 45%, average 40%. Alfalfa hay 65% cut second time, 1979 65%, average 65%. Corn condition fair to good. Soybeans mostly fair to good. Pastures fair.

IOWA: A hot week with light-to-moderate showers but turning cooler the 20th. Fieldwork: 6.2 days suitable. Corn acreage tasseled: 84%, 1979 32%, normal 65%. Corn acreage silked: 53%, 1979 14%, normal 43%. Corn in or past milk stage: 8%, 1979 0%, normal 6%. Soybean acreage blooming: 71%, 1979 45%, normal 59%. Soybean acreage pods setting: 21%, 1979 0%, normal 20%. Winter wheat harvested: 94%, 1979 71%, normal 78%. Oats harvested: 54%, 1979 22%, normal 51%. Second crop alfalfa hay harvested: 69%, 1979 60%, normal 65%. Second crop clover hay harvested: 32%, 1979 25%, normal 29%. Topsoil moisture: 61% short, 38% adequate, 1% surplus. Subsoil moisture: 28% short, 72% adequate. Crop conditions: Most crops good, oats fair to good. Pastures fair. Livestock fair, some stress, market movement increased.

KANSAS: Only spotty beneficial moisture locally 0.50 in. to 0.75 in. north central and southwest with rains of 1.00 in. to 2.00 in. southwest. Otherwise continued mostly dry. Temperatures averaged 84° northwest to 92 to 94° east and south central, 8 to 10° above normal west to 12 to 14° above normal east. Many high temperature records broken.

Corn tasseling 50%, last year 30%, average 50%. Corn dough 5%, 3% last year, average 5%. Sorghum headed 5%, 5% last year, 5% average. Soybeans blooming 35%, 15% last year. Soybeans podding 5%, 3% last year. Alfalfa second cutting 90%, 80% last year, average 90%. Alfalfa third cutting 15%, 5% last year, average 20%. Hot, dry weather continues stress crops. Some corn, sorghum harvested forage, poor grain prospects.

KENTUCKY: Unseasonably hot and dry weather continued. Temperatures averaged 5 to 10° above normal. Only precipitation occurred Central with several tenths of an inch reported at widely scattered locations.

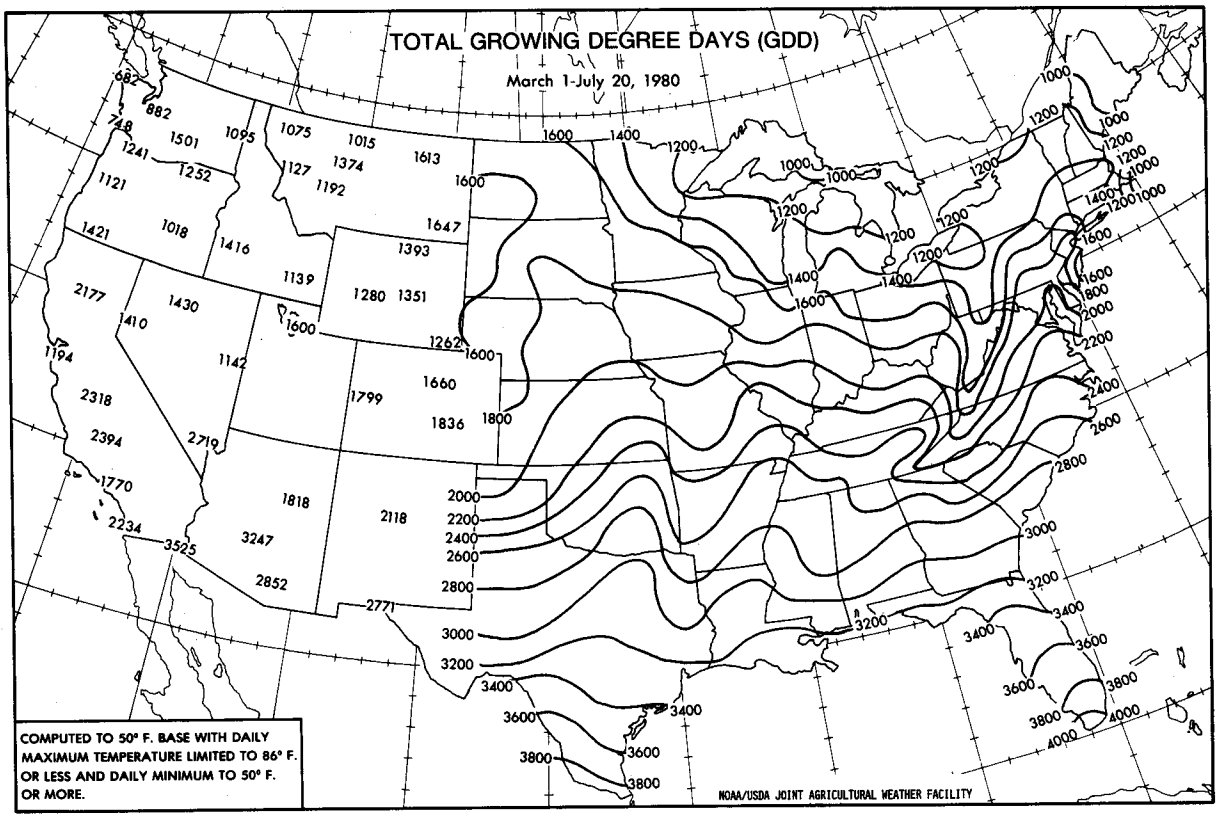
Record high temperatures and virtually no rain causing severe stress and deterioration to crops. Soil moisture mostly short and critically short in west and south. Corn prospects declined significantly. Acreage 60% silked compared with 45% last year and 58% average. Concern over pollination with fear many tassels burnt. Soybeans 28% blooming, 12% year ago, 23% average. Heat appears to be forcing early blooming. Tobacco 12% 3 feet in height, 45% 2 feet or less. Leaves yellowing and in some cases drying up. Pastures show rapid deterioration.

LOUISIANA: Rainfall scattered and light. Heaviest 2.59 in. Temperatures 3 to 5° above normal. Extremes: 69 and 107°.

Soil moisture very short to short. Fieldwork: 6.5 days suitable. Corn poor to fair. Silked 98%, 97% 1979. Dough 76%, 80% 1979. Mature 23%, 38% 1979. Light harvest underway. Cotton fair. Squaring 97%, 91% 1979. Setting bolls 59%, 43% 1979. Rice fair to good. Headed 60%, 56% 1979. Ripe 12%, 12% 1979. Harvested 4%, 2% 1979. Sorghum poor to fair. Headed 36%, 56% 1979. Turning color 20%, 26% 1979. Soybeans poor to fair. Blooming 28%, 29% 1979. Setting pods 11%, 11% 1979. Sugarcane fair. Pastures poor to fair. Haying active. Livestock fair to good. Peaches harvested 88%. Vegetables poor. Sweetpotatoes fair.

MARYLAND & DELAWARE: Temperatures averaged 3° above normal. Highs in mid-80's to low 90's. Lows in mid to upper 60's. Precipitation very light.

Corn 75% tasseled, 40% silked, last year 50% silked. Rye 96% cut, wheat 95% harvested. Last



year rye 80%, wheat 90%. Oats 75% cut, last year 60%. Alfalfa second cut 85%, third cut 40%. Second cutting clover 40%, crop growth slow; development behind. Soil moisture short.

MICHIGAN: Warm and wet. Temperatures were 2 to 6° above normal north and 5 to 10° above normal south. Highs around 90°. Widespread thunderstorms produced precipitation of 0.50 to 2.50 in.

Excellent crop growth. Large amount of cherries and cherry trees in Southwest Lower lost to storm. Scattered dry areas. Corn 48 in. high, 50 last year, 48 normal. Corn tasseling 15%. Hay 2d cut 18%, 28% last year, 30% normal. Dry beans 10% in bloom. Soybeans blooming 15%, 16% last year, 27% normal. Oats yellow 30%, 79% last year, 53% normal. Wheat 43% ripe, 45% last year, 41% normal. Wheat drying down slow. Wheat harvested 6%, 22% last year, 40% normal. Sweet cherries 40% harvested, 38% last year, 63% normal. Tart cherries 26% harvested, 33% last year, 51% normal. Blueberry picking started.

MINNESOTA: Temperatures averaged 3 to 7° above normal. Extremes: 102 and 49°. Precipitation averaged near normal to 2.78 in. above normal.

Rains frequent, scattered Central. Ample rains improved crop prospects. Some damage high winds. Remainder State scattered, light showers. Crop conditions deteriorated. More acreage abandoned Northwest. Field corn tasseling 62%, 1979 8%, normal 53%; in milk 3%, 1979 0%, normal 4%. Blooming: Soybeans 72%, 1979 34%, normal 65%; sunflowers 34%, 1979 3%. Soybeans setting pods 10%, 1979 0%, normal 12%. Turning ripe: Winter wheat 96%, 1979 71%, normal 92%; rye 95%, 1979 81%, normal 95%; spring wheat 64%, 1979 7%, normal 46%; oats 77%, 1979 16%, normal 59%; barley 78%, 1979 9%, normal 51%. Cut or swathed: Winter wheat 36%, 1979 4%, normal 32%; rye 25%, 1979 6%, normal 32%; spring wheat 4%, 1979 0%, normal 12%; oats 9%, 1979 0%, normal 20%; barley 17%, 1979 0%, normal 15%. Combined: Winter wheat 10%, 1979 0%, normal 17%; rye 5%, 1979 0%, normal 16%; spring wheat 1%, 1979 0%, normal 4%; oats 2%, 1979 0%, normal 10%; barley 3%, 1979 0%, normal 7%.

MISSISSIPPI: Temperatures 5° above normal. Extremes: 64 and 107°. Rains during weekend. Greatest 24 hour rainfall 2.77 in.

Soil moisture mostly short. Fieldwork: 6.0 days suitable. Crop conditions continued to worsen early week; conditions improved as rains fell by weekend. Hay 59% harvested, 54% 1979, 51% average. Peaches 52% harvested, 57% 1979, 67% average. Watermelons 41% harvested, 56% 1979, 42% average. Corn silage 14% harvested, 17% 1979. Soybeans 34% blooming, 32% 1979, 29% average; 6% podding, 7% 1979; fair to good condition. Corn 90% silked, 89% 1979, 85% average; 51% dough stage, 61% average; 20% dented, 30% 1979, fair condition. Cotton 97% squaring, 96% 1979, 91% average; 83% blooming, 62% 1979; setting bolls 58%, 40% 1979, 37% average; good to fair condition. Rice 11% headed, 8% 1979, 10% average; good to fair condition. Sorghum 30% headed, 31% average. Pastures fair condition.

MISSOURI: Temperatures 11 to 12° above normal. Daytime highs above 100°. Scattered thunderstorms but most areas had no rain.

Fieldwork: 6.2 days suitable. Corn 80% tasseled, last year 58%. Corn 61% silked, last year 40%, normal 56%. Double-crop soybeans 99% planted, last year 87%. Wheat 99% harvested, last year 89%, normal 97%. Grain sorghum 26% headed, last year 6%, normal 20%. Soybeans 44% blooming, last year 18%, normal 31%. Oats 90% harvested, last

year 65%, normal 80%. Cotton 93% squared, last year 94%, normal 78%. Cotton 87% blooming, last year 56%. Cotton 53% setting bolls, last year 7%, normal 47%. Alfalfa hay second cutting 86% harvested. Other hay 94% harvested. Condition of corn, soybeans, and cotton poor to fair. Condition of pasture poor. Topsoil moisture supply short.

MONTANA: Showers and thunderstorms daily. Moderate precipitation over parts of west, south/central, northeast, and southeast. Temperatures ranged from 5° below normal to near normal.

Moisture conditions remain poor east and adequate west. Winter wheat harvest started. Crops poor east, fair to good central, good to excellent west. Irrigation water supplies below average east, average central and west. Livestock conditions fair, good to excellent in east, central and west, respectively. First cutting alfalfa 85% harvested, wild hay 45. Fieldwork: 6.0 days suitable.

NEBRASKA: Precipitation general but light, 0.20 to 0.30 in. Temperatures 5 to 7° above normal.

Winter wheat 90% harvested; 50% last year and 80% normal. Corn fair to good. Dryland corn under heavy stress. Corn 55% silking; 10% last year; 35% normal. Soybean crop fair to mostly good, 70% blooming; 15% setting pods; less than 5% podding last year and normal. Sorghum fair to good, 15% heading; less than 5% last year; 10% normal. Second cutting of alfalfa 80% harvested; 55% last year. Alfalfa mostly fair to good. Heat stressing all dryland row crops. Topsoil moisture short. Subsoil moisture mostly short. Pasture and range feed supplies mostly short to adequate. Wild hay mostly fair. Pastures deteriorated. Severe livestock stress. Some death losses reported. Feed consumption and resulting weight gains down.

NEVADA: Thundershowers north and central. Rain scattered and light. Temperatures averaged near or slightly above normal. Extremes: 34 and 110°.

Alfalfa hay and small grain harvesting good progress. Warm night temperatures benefited most row crops. Ranges beginning seasonal drying.

NEW ENGLAND: Temperatures 5 to 10° above normal. Widely scattered thunderstorms did little to help generally dry conditions except in northern Maine.

Fieldwork: 5.0 days suitable. Potato crop growing well in Maine. Growers spraying and hilling potatoes. Cranberry crop excellent. Spraying of bogs for fruitworms starting. With little rain, bogs are being irrigated. Blueberries ripening. Corn growing fast but moisture needed. Most first crop hay is cut and 15% of second crop cut. Soil moisture and pasture conditions generally short and very short in Vermont.

NEW JERSEY: Temperatures averaged 4 to 7° above normal with record breaking heat 20th. Extremes: 50 and 103°. Rainfall averaged 0.31 in. north, 0.31 in. central and 0.27 in. south.

Soil moisture, in percent of field capacity, past week averaged: 61 north, 36 central and 43 south. Fieldwork: 6.6 days suitable. Soil moisture extremely short. Growers irrigating. Hot temperatures causing vegetable blossom drop. Crop maturing rapidly. Irish potato harvest continues light. Blueberry harvest at peak. Peach harvest increasing. Wheat combining well advanced. Hay making active. 2d cutting about complete. Field corn and soybeans need rain. Pastures browning.

NEW MEXICO: Weather hot and dry. Only light shower activity.

Soil moisture very short. Irrigated crops generally good condition. Dryland crops fair to poor due to drought conditions. Cotton 100% squared, 40% of bolls set. Third cutting of alfalfa progressing. Harvest of wheat and barley 100% complete. Grasshopper eradication program complete in Catron and Grant Counties. Livestock fair condition. Ranges poor and dry. Ranchers supplemental feeding. Calves and lambs not showing normal gains.

NEW YORK: Above normal temperatures. Spotty rainfall light but widespread.

Crops mostly good condition. Early corn tasseling. Wheat harvest to begin soon, 10% 1979, 19% average. Clover-timothy hay 90% done, 93% 1979, 85% average. Second cutting alfalfa 14% cut, 5% 1979, 15% average. Strawberry harvest complete. Lettuce harvesting widespread, potato harvest underway. Long Island vegetable crops need rain. Apples, peaches, pears developing well. Sweet cherry harvest underway, tart cherries to begin shortly.

NORTH CAROLINA: Temperatures 3° above normal. Precipitation below normal. Fieldwork: 6.0 days suitable. Soil moisture short to adequate. Conditions: Field tobacco, peanuts, soybeans, Irish potatoes, apples fair to mostly good; cotton, sweetpotatoes, peaches good; corn fair to good; pasture mostly fair to good. Harvested: Irish potatoes 90%, 1979 92%; average 92%; flue-cured tobacco 8%, 1979 19%, average 16%; hay 68%, 1979 73%, average 71%; peaches over 50%. Phenological stages: Cotton squared 80%, 1979 73%; cotton set bolls 50%, 1979 48%; corn silked 81%, 1979 75%; corn soft dough 55%, 1979 45%; corn dent 22%, 1979 25%; soybeans blooming 12%, 1979 5%.

NORTH DAKOTA: Frequent scattered showers and thunderstorms. Rainfall averaged over 1.00 in. Western one-third missed the heavier showers with rainfall averaging less than 0.30 in. Temperatures averaged 2 to 5° below normal. Extremes: 94 and 42°.

Rainfall halted crop deterioration over northeast. Rain improved soil moisture after being severely depleted and aided filling of late grain. Growth of row crops improved. Grain harvest increased with barley harvest to be general next week. Quality early harvested grain poor because of drought shriveled kernels. Rain improved condition of small grains but more than half still rated poor. Consequently, some additional acreage plowed down, cut for hay or grazed. Fifty-four to 73% of small grain crops were in milk to dough stage or beyond compared to average of 37 to 62%. Hard red spring wheat 91% heading or beyond compared to 69% last year and 85% normal. Percentages of grain turning to ripe vs. normal: Barley 38, 30; spring wheat 29, 15; durum 16, 7 and oats 35 and 23. Row crop condition improved. Sunflower rated 28% good, 55% fair and 17% poor with 4% in bloom. Potatoes 53% in bloom. Pasture growth improved; 80% poor, 19% fair, 1% good. Hay cutting complete: 91% 1st cutting alfalfa, 65% wild hay. Forage supplies insufficient. Livestock sales steady to heavy.

OHIO: Very warm and humid. Temperatures averaged 6 to 9° warmer than normal. Extremes: 101 and 56°. Rainfall isolated. Average was about 0.10 and 0.70 in. below normal.

Crops show no stress. Corn developing rapidly; more uniform condition than earlier. Soybeans behind normal, many fields spotty. Hail and high winds caused severe damage to corn and soybeans in central and south central. Corn tasseled 55%,

45% 1979, 50% average. Soybeans blooming 50%, 50% 1979. Wheat harvested 75%, 75% 1979, 80% average. Oats ripe 30%, 25% 1979, 60% average. Oats harvested 5%, 5% 1979, 25% average. Fieldwork: 5.5 days suitable. Pasture condition good. Soil moisture adequate.

OKLAHOMA: Week continued hot and dry. Average temperatures 6° above normal southeast, southwest 11° above normal northeast. Light precipitation received mid-week north and widely scattered areas weekend.

Hot winds, clear skies continue fifth straight week taking toll livestock and crops. Grasshoppers continue to infest pastures and crops. Wheat essentially harvested. Sorghum 30% headed, 5% 1979, 25% average. Cotton squaring 35%, 35% 1979, 45% average. Cotton 5% setting bolls, less than 5% 1979 and 5% average. Fieldwork: 6.8 days suitable.

OREGON: Temperatures near normal in west, 2 to 5° below normal in the east. Precipitation negligible except along Northern Coast and in northeast, averaging 0.10 in.

Soil moisture adequate, short in southwest. Winter wheat good; 93% turning color, less than 5% harvested, Haying and grass seed harvest continuing. Lambert cherry harvest. Raspberry and blueberry harvest in progress. Potato harvest started on early plantings. Snap bean and table beet harvest continuing. Livestock, range and pasture condition good to excellent.

PENNSYLVANIA: Hottest weather in 7 years with temperatures averaging 4 to 6° above normal. Sunny, hot, humid with record-breaking temperatures. Extremes: 101 and 45°. Thunderstorms produced 1.00 to 2.00 in. of rainfall in many areas with up to 3.00 in. west central.

Fieldwork: 5.0 days suitable. Soil moisture mostly short to adequate. Average height corn 43 in., last year 41 in. Barley 11% turning yellow, 18% ripe, and 71% harvested; last year, 7% turning yellow, 23% ripe and 66% harvested, wheat 21% turning yellow, 46% ripe and 32% harvested; last year, 25% turning yellow, 50% ripe and 23% harvested. Oats 33% headed, 49% turning yellow, 15% ripe and less than 5% harvested; last year, 45% headed, 43% turning yellow and 10% ripe. Second cutting of alfalfa 48% complete, last year 36%. Clo-tim harvest 95%, last year 94%. Hay condition 57% good to 37% fair. Feed from pasture mostly average to below average.

SOUTH CAROLINA: Hotter, drier than usual, highest temperatures 100° or over at several locations. Widely scattered thunderstorms, too light for general relief.

Fieldwork: 5.6 days suitable. Corn condition poor to fair, some crops lost due to hot, dry weather. Corn 93% silked, 95% last year, 93% average; dough stage at 64%, 71 last year, 74 average; 14% mature, behind 24 last year, 25 average. Some cotton stressed by hot weather; fair condition; insect attacks increasing, controlled by pesticides; squared at 98%, 96 last year, 93 average; 78% setting bolls same at 1978, 69 average. Bolls not open. Soybean stress caused some leaf drop, overall condition fair; 7% blooming behind 18 last year, 13 average. Tobacco being irrigated, development slowed by stress, condition fair to good, 14% harvested, behind 40 last year and 36 average. Peaches fair to good with all available irrigation, past peak harvest at 60%, 63 year ago, 66 average. Pastures poor to fair condition in hot, dry stress and overgrazing pressure. Watermelons poor to fair condition, maturing rapidly with smaller melons under moisture stress.

SOUTH DAKOTA: Temperatures ranged from 3° below normal to 7° above normal. Extremes: 106 and 40°. Hot and humid with isolated thunderstorms and hail.

Topsoil moisture adequate most of northeast and east central, short to critically short elsewhere. Fieldwork: 5.0 days suitable. Winter wheat harvest rapid advancement, over 80% complete. Harvest other small grains in full swing. Supplemental feeding and herd reduction increasing. Pastures poor condition. Stock water supplies becoming critically short. Soybeans 65% bloomed, 34% 1979, 61% average. Winter wheat 82% harvested, 2% 1979, 44% average. Spring wheat 19% harvested, 0% 1979, 11% average. Corn 16% silked, 3% 1979, 16% average.

TENNESSEE: Extremely hot, dry week. Rainfall spotty, average less than 0.25 in. Temperatures averaged 7 to 9° above normal.

Fieldwork: 6.1 days suitable. Soil moisture short. Pastures poor. Livestock being fed hay. Soybeans 30% blooming, 1979 22%, average 30%. Soybeans 5% setting pods, 1979 4%, average 5%. Corn 65% silked, 1979 52%, average 65%. Corn 15% dough, 1979 8%, average 9%. Cotton 95% squaring, 1979 73%, average 91%. Cotton 45% setting bolls, 1979 8%, average 24%. Alfalfa second cutting 95% complete.

TEXAS: Weather: Temperatures 3 to 6° above normal West, North; 2 to 3° elsewhere. Rainfall 0.50 to 0.75 in. below normal. Light showers West, Gulf Coast, Central Plains.

Crops: Hot, dry conditions fourth consecutive week. Dryland crops suffering from prolonged dry spell. Harvest of small grains virtually complete. Harvest of grain sorghum getting into full swing South. Cotton crop showing effects of dry, hot conditions. Crop deteriorating under relentless heat. Stands beginning to bloom despite slow development. Fields maturing rapidly, squares, early bolls dropping off due to heat. Irrigated fields in fair condition. Some areas producers cannot irrigate fast enough to satisfy needs. Harvest underway parts of South. Sorghum condition deteriorating. Dryland losses expected to be significant. Fields heading, stands short, stalks drying rapidly. Grain harvest beginning, many fields already cut for hay. Dryland corn continued to deteriorate. Lodging a problem in some fields. Harvest underway. Kernel development poor, many ears not fully filled. Tasseling occurring Plains, moisture needs critical. Irrigation active. Peanuts progressing slowly, establishment of stands hampered by hot, dry conditions. Stands in fair condition, growing slowly due to moisture shortage. Rice harvest beginning. Stands remain green, in good condition, suffered very few problems. Soybeans developing slowly, uneven pod filling. Lack of moisture affected plant, pod development. Wheat harvest is complete. Many fields grazed out. Plowing of stubble continues.

Commercial vegetables: In Lower Rio Grande Valley land preparation for fall planting underway. Limited supplies tomatoes, okra available. In Coastal Bend area land preparation for fall cucumbers, squash completed. In East production prospects diminished. Although light supplies tomatoes, peppers, peas, okra available, many vegetables ended. In North most garden vegetables burned up. Production ended. Grasshoppers attacked growth available. Peach harvest continued East. Pecans entering water stage. Trees under stress from lack of moisture. Some droppage occurred.

Range and livestock: Continued hot, dry conditions forced increased movement cattle to areas of

available forage and to market. Calves, lambs were weaned earlier and at lighter weights. Supplemental feeding increased most areas due to declining forage growth, quality. Stock water continued to diminish. Smaller ponds drying up.

UTAH: Few isolated showers or thunderstorms principally over and near mountains. Accumulated amounts generally light. Average temperatures continued near normal ranging between 3° below and 5° above.

Soil moisture deficit retarding production of many lower elevation range species. Fieldwork: 6.7 days suitable. Soil moisture short to adequate but drying fast. Irrigation water adequate. Winter wheat 28% ripe, 5% harvested. Second crop alfalfa harvest 20% complete. Sweet cherries 90% harvested. Harvest of tart cherries and apricots has begun and will be most active over the next two weeks.

VIRGINIA: Hot, humid. Average temperatures near 80°, several degrees above normal. Extremes: 104 and 51°. Rainfall light, mostly less than 0.50 in. Severe thunderstorms on 17th.

Hail severely damaged fruit Nelson, Botetourt Counties. Topsoil moisture mostly adequate southwest, mostly short elsewhere. Fieldwork: 5.5 days available. Corn 60% silked, 55% 1979, 62% average. Corn condition: Good to excellent southwest, southern Piedmont; fair north, central mountains; poor elsewhere. Wheat 97% combined, 95% 1979, 93% usual. Flue-cured tobacco less than 2% pulled, 6% 1979, 4% average. Soybeans mostly fair to good; double-cropped acreage shows poor stand north, east, southeast. Peanuts good to excellent; sprayed for leafspot control. Oats combined central areas, cut for hay southwest. Potatoes dug on Eastern Shore. Early peach, apple picking north.

WASHINGTON: West: Temperatures averaged 1 to 2° below normal. Precipitation averaged near to 0.20 in. below normal.

Strawberry picking nearing completion, raspberry harvest full swing. Blueberry picking southern counties. Many types vegetables harvested. Corn growing well, behind schedule. Christmas tree shearing begun. Threshing fall turnip seed. Haying and silage making active.

East: Temperatures averaged 2 to 6° below normal. Precipitation averaged normal to 0.10 in. below normal. Picking apricots, prunes, and peaches. Apples and pears sizing well. Sweet corn tasseling. Potato harvest expected. Haying active. Soil moisture adequate. Limited combining on barley and wheat; season late. Wheat diseases spreading.

WEST VIRGINIA: Temperatures 4° above normal. Extremes: 102 and 45°. Precipitation below normal. All stations less than 1.00 in.

Soil moisture 6% surplus, 57% adequate, 37% short. Fieldwork: 5.0 days suitable. Wheat good to fair. Barley good to fair, 11% headed, 24% ripe and 65% harvested, compared to 14% headed, 27% ripe and 59% harvested in 1979. Oats good to fair, 4% pre-headed, 56% headed, 30% ripe, 10% harvested compared to 6% pre-headed, 66% headed, 23% ripe, and 5% harvested in 1979. Hay good to fair, 1st cutting 91% complete which is 87% of normal. Peach harvesting, 7% complete which is 64% of normal. Potatoes good to fair. Pastures good to fair. Hot dry weather beginning to affect all aspects of crops and livestock.

WISCONSIN: very warm humid week with series of showers and thunderstorms. Temperatures averaged 5° above normal. Extremes: 99 and 50°. Rainfall ranged from 1.50 to 2.00 in., with locally heavier totals of 2.00 to 4.00 in.

Fieldwork: 5.0 days suitable. Harvesting second crop hay 25% completed, 1979 20%, normal 15%. High humidity and rains slowed drying of hay. Second crop growth short where first crop cut late. Corn, soybeans, and other crops benefited from good rains. Corn 35% tasseled, 1979 15%, normal 25%. Corn 15% silked, 1979 2%, normal 10%. Most corn excellent, with dark green color and tall growth. Some corn flattened by wind storms. Soybeans good. Harvesting underway for winter wheat, rye, barley, and early oats. Small grains doing well except some lodged by storms. Pasture conditions below normal. Harvesting continues for peas, snap beans, cucumbers, and other vegetable crops. Tobacco plants growing better after rains. Cherry harvest beginning. Topsoil moisture short to adequate. Light soils need more rain.

WYOMING: Below normal precipitation. Greatest amount 0.30 in. Temperatures generally above normal. Extremes: 99 and 32°.

Fieldwork: 7.0 days suitable. Topsoil moisture short. Winter wheat mature 76%; harvested 34%. Spring wheat turning color 67%, mature 25%. Oats: Headed 88%, turning color 44%; mature 12%. Barley: Headed 95%, turning color 58%; mature 23%. First cutting alfalfa 83% complete, second cutting 8%. Other hay 38% cut. Corn 22% tasseled. Dry beans 40% in bloom. Potatoes 31% in bloom. Row crops mostly good condition. Stock water mostly adequate.

(continued from page 3)

PASTURES AND LIVESTOCK: Pastures rated poor to mostly fair in most regions of the Nation, and conditions continued to decline in many areas due to the hot, dry weather. Poor conditions were reported in much of the Great Plains and Southwest, where supplemental feeding was still necessary. Pastures have turned brown and new growth is nonexistent. Hay supplies are short, and herd reduction continues. Livestock are showing the effects of the extreme heat; weight gains have slowed and milk production has declined. Some death losses were reported. Stock water supplies are short in many areas.

International Weather and Crop Summary

July 14 - 20

HIGHLIGHTS:

USSR: Harvesting winter grains...improved weather in the Ukraine.
Spring grains heading*...adequate soil moisture, except in southeastern Volga.

EUROPE: Harvesting winter grains...too wet in the North.

CHINA: Many crops in the flowering stage*...generally good soil moisture, some excess.

INDIA: Most crops in vegetative stage*...generally good soil moisture.

THAILAND: Crops advancing through vegetative stage*...adequate moisture supply.

AUSTRALIA: Winter wheat in early growth stage*...good soil moisture, except in Queensland.

ARGENTINA: Winter grains in early growth period*...adequate soil moisture.

BRAZIL: Winter wheat in vegetative stage*...favorable weather conditions.

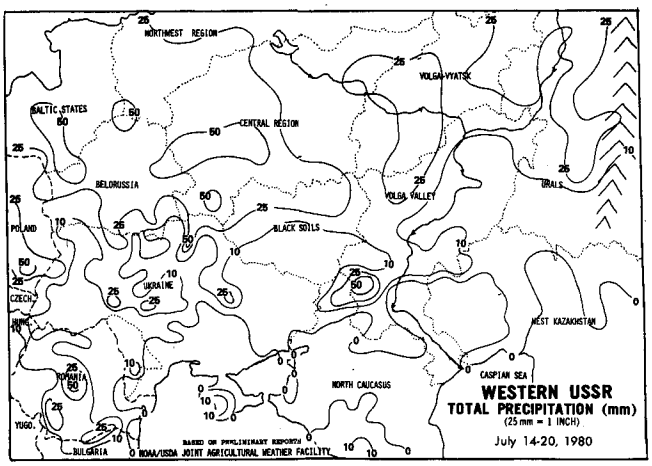
MEXICO: Grains in reproductive stage*...improved moisture conditions.

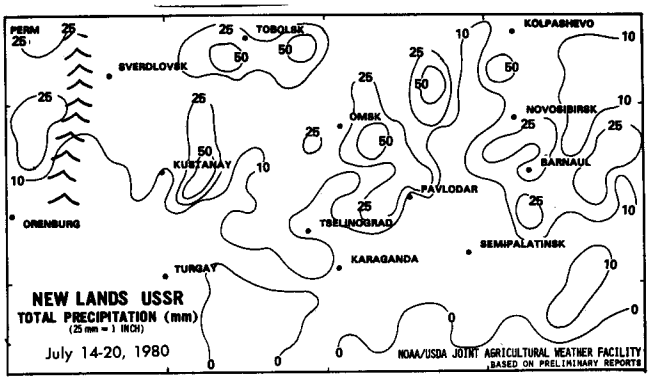
CANADA: Spring-seeded crops in grain-filling stage...beneficial showers.

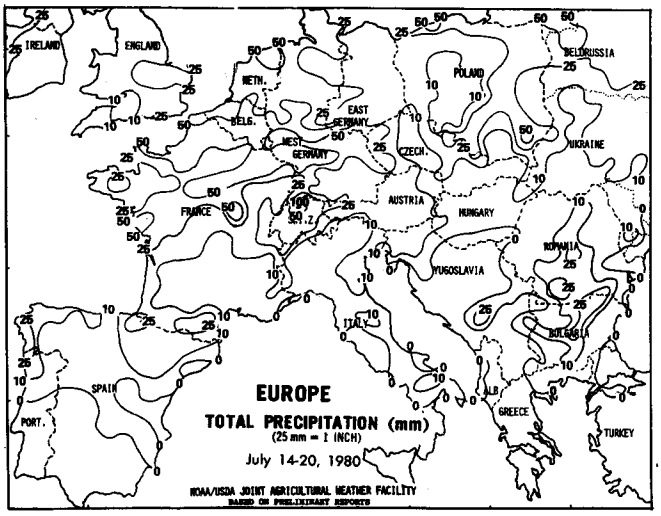
*Based on normal crop calendar information.

USSR. Winter grain harvest weather generally improved as weather systems stayed mostly to the north. Only localized showers in the Lower Volga Valley may have caused some problems. Temperatures remained below normal, however, so conditions were not ideal for grain harvest and row crop development, both of which are much behind schedule. Still less-favorable conditions persisted across northern European USSR, as cold, rainy weather further delayed crop development. Both quality and yields should suffer as a result. There have been some reports of early spring grain harvesting in the southern Urals.

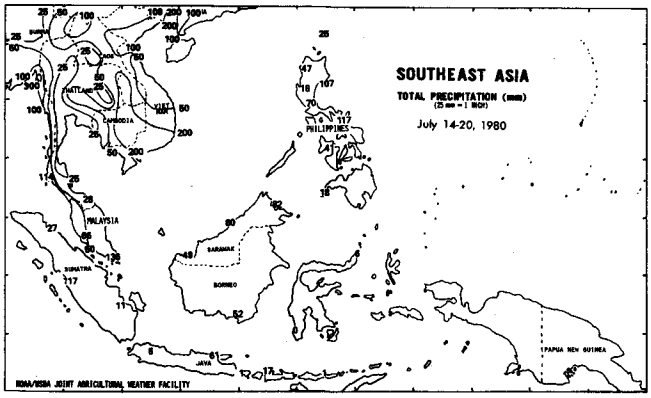
In the New Lands, relatively dry weather persisted across the south as the storm-track stayed to the north. Much of the region received normal rainfall or better from a slow-moving system, maintaining good moisture supplies. Sharply cooler temperatures at midweek had no discernible impact.





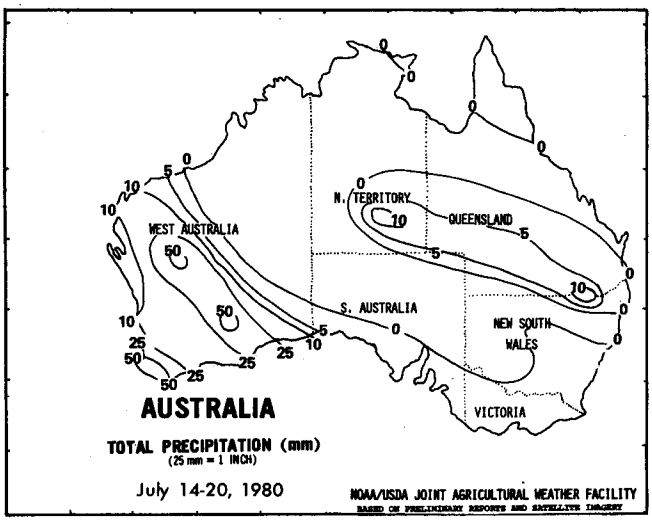


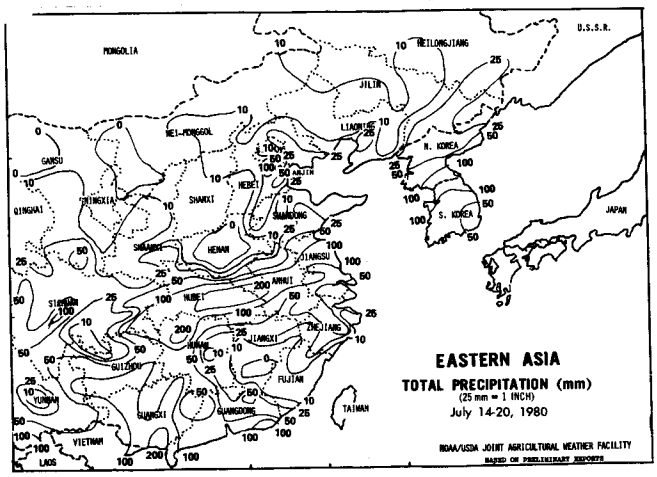
EUROPE. The areas of greatest rainfall shifted somewhat to the north and west, but extensive portions of the northeastern countries also received above-normal amounts this week. Highest totals of 60 to 70 mm from northern France into West Germany were 3 to 4 times normal. Most crops in these northern countries have suffered yield and quality losses from this persistent cool, wet weather. Winter grains may be in greatest danger right now, with harvesting scheduled to begin shortly. Drier and warmer weather in the southeastern countries improved conditions for both row crops and harvesting of winter grains, although southern Romanian crop areas remained too wet.



SOUTHEAST ASIA. Weekly totals for many stations were based on less than 5 days of available data. Satellite data were used to support the analysis. In the agricultural area north of Bangkok, weekly rainfall was generally between 25 and 50 mm. The monsoon continued to produce seasonal amounts of moisture. Adequate moisture supplies are available for maize which has advanced into the late vegetative stage, and rice, which is early in its growth cycle. Reservoirs have benefited from the precipitation.

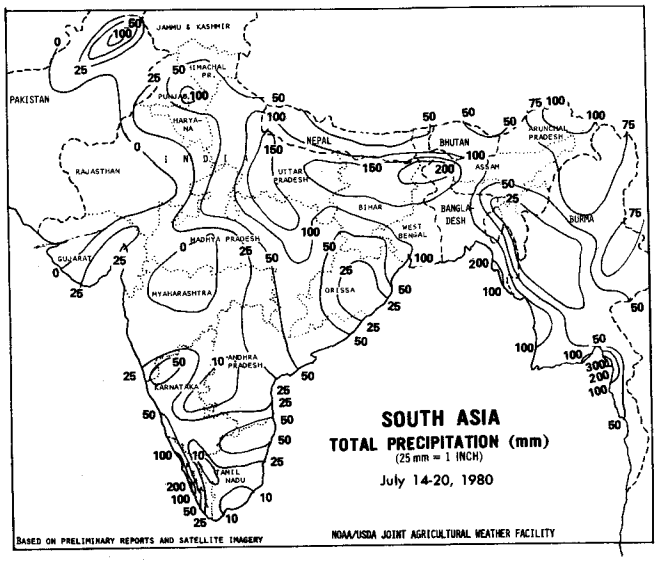
AUSTRALIA. Soil moisture conditions remained favorable in West Australia as storms produced between 10 to 50 mm of rain throughout the wheat-growing area. Lighter amounts fell in South Australia, Victoria, and New South Wales. Soil moisture is generally in adequate supply in these three states. Conditions were less favorable in Queensland, a relatively small wheat-producing state, where lack of significant rainfall is depleting soil moisture reserves.

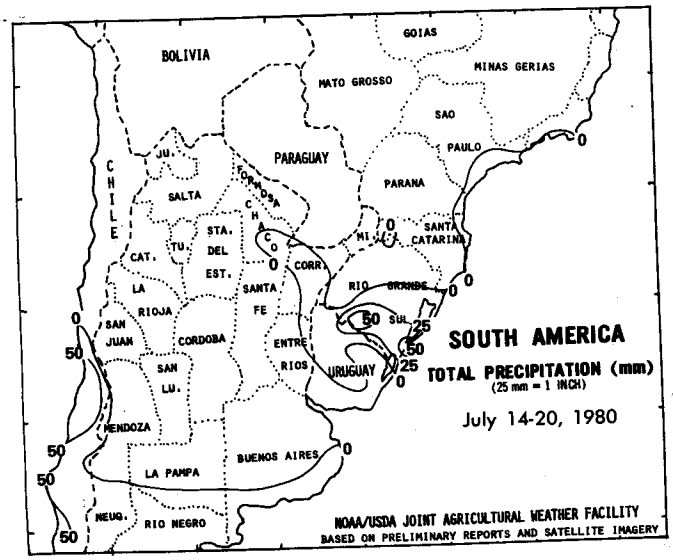




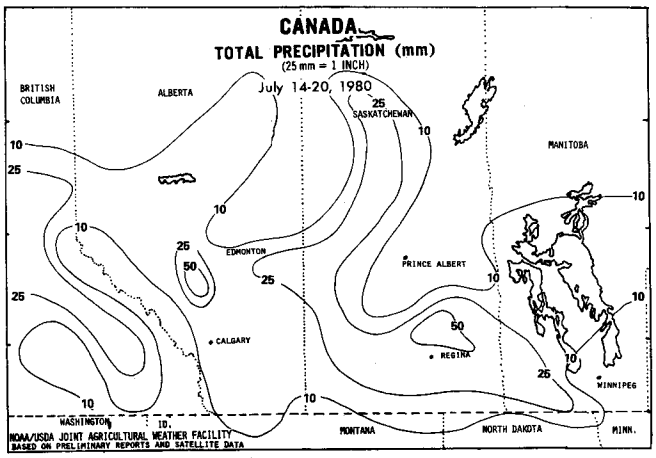
CHINA. Highest rainfall occurred along the Yangtze River, where amounts in excess of 200 mm far exceeded normal but probably caused only local water-control problems. Drier weather over much of the southern coastal provinces speeded harvesting of early rice, but wet weather persisted in Guangxi. Near-normal rainfall in Manchuria maintained good soil moisture, but spotty amounts across Inner Mongolia probably came too late for the maturing spring wheat.

SOUTHERN ASIA. Relatively dry weather advanced into India from the west, but above-normal rainfall continued over the northeastern half and over Bangladesh. Widespread flooding has occurred in these areas, but in general, conditions are regarded as favorable for fall-harvested crops. Western areas have quite adequate water supplies from earlier rains, but persistent dry conditions in southwestern poritions of Andhra Pradesh and Tamil Nadu continue to hamper growth of cotton.



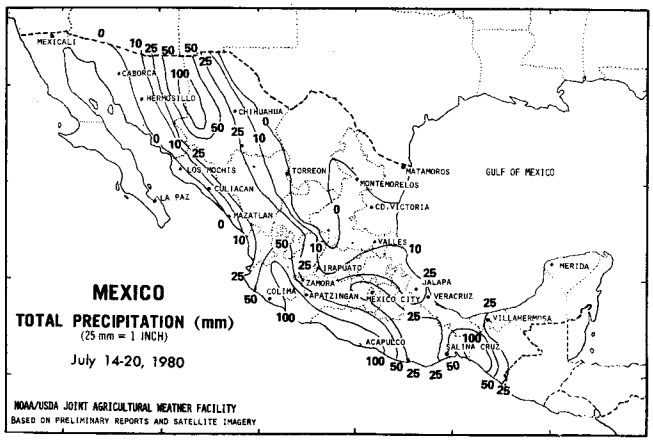


SOUTH AMERICA. Virtually no rain fell in most of the winter wheat areas of Brazil and Argentina. Showers produced 25 to 50 mm in the extreme southern portion of Rio Grande do Sul State in Brazil, and less than 10 mm in the south coastal area of Buenos Aires Province in Argentina. Moisture supplies are adequate for winter crops in these areas. In Brazil, frost has not been a serious problem for the wheat crop or the coffee trees in northern Parana State. The possibility of frost occurring in these areas exists through the month of August, however.



CANADA. Widespread showers fell throughout the Canadian Prairies producing significant weekly rainfall totals. Improved moisture conditions in Saskatchewan and Manitoba will be especially beneficial to late-seeded crops which have advanced into the moisture-sensitive reproductive stage. Soil moisture is still rated fair to poor in some areas, and additional moisture is required for adequate growth. In Alberta, favorable weather conditions have promoted good crop growth.

MEXICO. Heavy showers in the mountain region of northern Mexico produced up to 100 mm of rain. This moisture improved crop-growing conditions as well as reservoir supplies which had been depleted to very low levels. Further south, showers provided timely moisture for maize which is advancing into the critical reproductive period of development. Northeastern Mexico remained hot and dry.



CROP PRODUCTION HIGHLIGHTS

CORN production is forecast at 7.28 billion bushels, 6 percent below the record high 1979 crop. The 90 percent confidence interval for this production is 6.21 billion bushels.

ALL WHEAT production is forecast at a record high 2.32 billion bushels, up to 8 percent from the 1979 production. The 90 percent confidence interval for this production is 2.18 to 2.45 billion bushels.

WINTER WHEAT production is forecast at a record high 1.85 billion bushels, up to 15 percent from the 1979 crop.

DURUM WHEAT production, forecast at 90.5 million bushels, is 15 percent below last year's production.

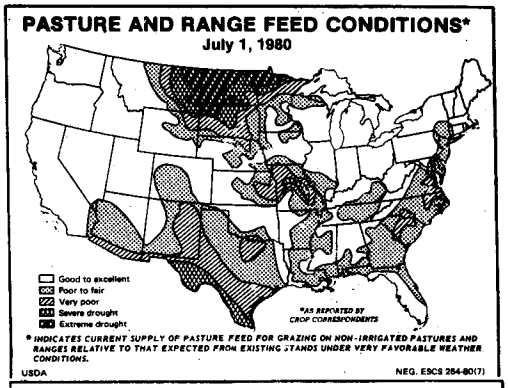
SPRING WHEAT OTHER THAN DURUM is forecast at 378 million bushels, down 11 percent from 1979.

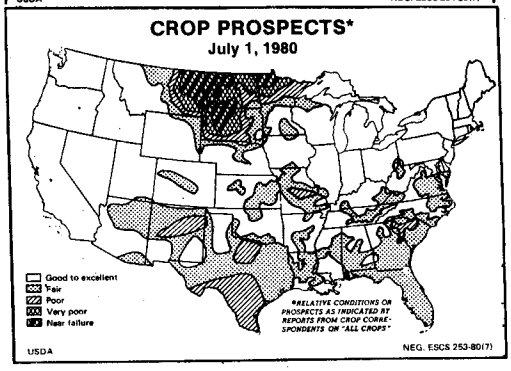
OATS production is forecast at 450 million bushels, 16 percent below the 1979 production and the lowest since the late 1800's.

BARLEY production is forecast at 329 million bushels, 13 percent below the 1979 crop.

APPLE production is forecast at a record 8.22 billion pounds, 2 percent above last year's record production and 8 percent greater than 1978.

POTATO acreage for harvest (all seasonal groups) is estimated at a record low 1.16 million acres, down 9 percent from 1979 and 16 percent below 1978. The fall crop acreage for harvest is estimated at 977 thousand acres, off 9 percent from 1979 and the smallest in 15 years.





CROP PROGRESS

FOR WEEK ENDING JULY 20, 1980

WINTER WHEAT
% HARVESTED

	1980	1979	AVG.
CALF	92	92	NA
COLO	84	58	74
IDA	1	2	2
ILL	98	98	97
IND	95	80	95
KANS	100	90	99
MO	99	89	97
MONT	5	0	15
NEBR	90	50	80
OHIO	75	75	80
OKLA	100	100	100
OREG	1/	5	NA
S DAK	82	2	44
TEX	100	100	100
WASH	0	7	NA
15 STATES	81	72	NA
EXCL. STATES WITH NA	88	78	86

THESE 15 STATES PRODUCED 90%
OF THE 1979 WINTER WHEAT CROP.

SOYBEAN
% BLOOMING

	1980	1979	AVG.
ALA	34	30	28
ARK	21	NA	NA
GA	24	NA	NA
ILL	76	53	60
IND	60	45	40
IOWA	71	45	59
KANS	35	15	NA
KY	28	12	23
LA	28	29	NA
MICH	15	16	27
MINN	72	34	65
MISS	34	32	29
MO	44	18	31
NEBR	70	NA	NA
N C	12	5	NA
OHIO	50	50	NA
S C	7	18	13
TENN	30	22	30
18 STATES	49	NA	NA
EXCL. STATES WITH NA	55	36	45

THESE 18 STATES PRODUCED 94%
OF THE 1979 SOYBEAN CROP.

COTTON
% SQUARING

	1980	1979	AVG.
ALA	94	91	88
ARIZ	2/	NA	NA
ARK	100	NA	NA
CALF	65	2/	NA
GA	2/	2/	2/
LA	97	91	NA
MISS	97	96	91
MO	93	94	78
N MEX	100	100	100
N C	80	73	NA
OKLA	25	35	45
S C	98	96	93
TENN	95	73	91
TEX	83	65	NA
14 STATES	83	NA	NA
EXCL. STATES WITH NA	81	81	81

THESE 14 STATES PRODUCED 99%
OF THE 1979 COTTON CROP.

SPRING WHEAT
% HEADED

	1980	1979	AVG.
IDA	94	100	92
MINN	99	80	95
MONT	90	80	85
N D	91	69	85
S DAK	100	100	100
5 STATES	94	79	89

THESE 5 STATES PRODUCED 92%
OF THE 1979 SPRING WHEAT CROP.

CORN
% SILKING

	1980	1979	AVG.
COLO	8	2	NA
GA	2/	2/	2/
ILL	84	40	63
IND	45	20	45
IOWA	53	14	43
KANS	NA	NA	NA
KY	60	45	58
MICH	0	0	18
MINN	45	2	38
MO	61	40	56
NEBR	55	10	35
N C	81	75	NA
PA	NA	NA	NA
S DAK	16	3	16
VA	60	55	62
WIS	15	2	10
EXCL. STATES WITH NA	52	20	43

COTTON
% SETTING BOLLS

	1980	1979	AVG.
ALA	52	40	43
ARIZ	75	NA	NA
ARK	91	36	58
CALF	12	26	NA
GA	93	94	85
LA	58	43	NA
MISS	58	40	37
MO	53	7	47
N MEX	40	35	45
N C	50	48	NA
OKLA	5	0	5
S C	78	78	69
TENN	45	8	24
TEX	26	21	NA
14 STATES	35	NA	NA
EXCL. STATES WITH NA	54	32	39

THESE 14 STATES PRODUCED 99%
OF THE 1979 COTTON CROP.

RICE
% HEADED

	1980	1979	AVG.
ARK	6	NA	NA
CALF	1/	1/	NA
LA	60	56	NA
MISS	11	8	10
TEX	90	97	NA
5 STATES	31	NA	NA

THESE 5 STATES PRODUCED 99%
OF THE 1979 RICE CROP.

SORGHUM
% HEADED

	1980	1979	AVG.
COLO	0	0	0
KANS	5	4	5
MO	26	6	20
NEBR	15	1/	10
OKLA	30	5	25
S DAK	0	0	0
TEX	67	63	NA
7 STATES	31	24	NA

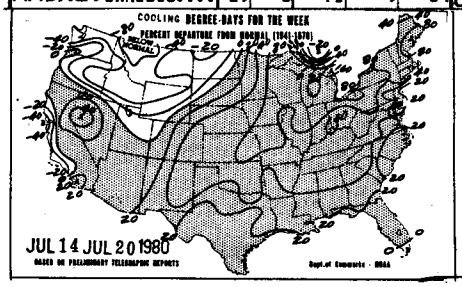
THESE 7 STATES PRODUCED 92%
OF THE 1979 SORGHUM CROP.

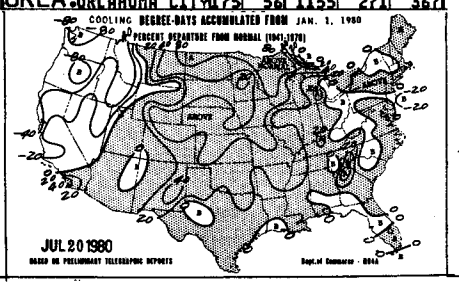
1/ LESS THAN 5%
2/ GREATER THAN 95%
NA = NOT AVAILABLE

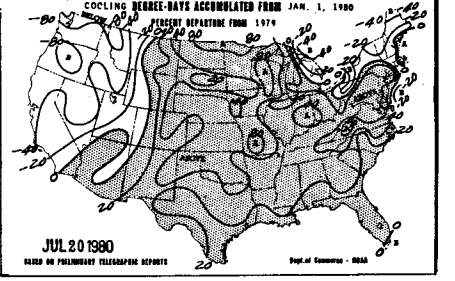
COOLING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JUL. 20, 1980.

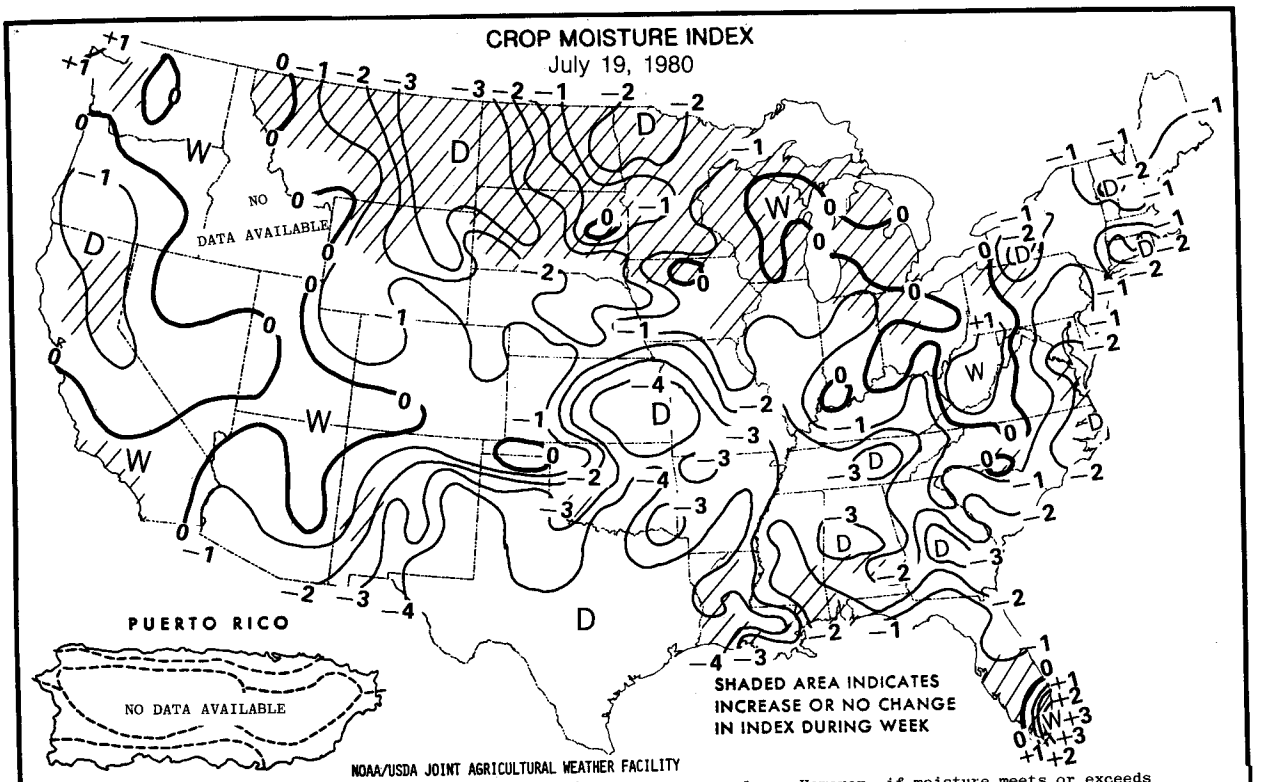
* BASED ON 1941-70 NORMALS. ACCUMULATIONS FROM JANUARY 1, 1980.

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL ACCUMULATION + DEPARTURE*	SEASONAL ACCUMULATION + DEPARTURE FROM 1979
ALA. BIRMINGHAM	161	56	1028	42	188
MOBILE	153	34	1405	67	164
MONTGOMERY	148	36	1137	0	157
ARIZ. FLAGSTAFF	39	22	117	57	88
PHOENIX	219	30	1864	196	83
TUCSON	171	17	1387	24	11
WINSLOW	103	5	488	64	27
YUMA	222	16	2145	187	142
ARK. FORT SMITH	167	46	1058	77	286
LITTLE ROCK	183	68	1200	246	218
CALIF. BAKERSFIELD	142	4	788	214	465
EUREKA	0	0	2	2	2
FRESNO	131	17	727	39	261
LOS ANGELES	20	8	171	8	84
RED BLUFF	130	4	582	291	417
SAN DIEGO	45	10	328	115	41
SAN FRANCISCO	2	5	14	25	35
STOCKTON	108	24	505	52	230
COLO. DENVER	83	22	471	203	168
GRAND JUNCTION	99	3	554	14	3
PUEBLO	122	38	614	136	181
CONN. BRIDGEPORT	93	30	327	22	78
HARTFORD	91	35	320	35	69
DEL. WILMINGTON	113	36	519	50	148
D.C. WASHINGTON	148	50	835	146	196
FLA. APALACHICOLA	123	9	1213	103	35
DAYTONA BEACH	124	12	1482	64	9
FORT MYERS	134	9	2051	205	35
JACKSONVILLE	127	15	1384	93	219
KEY WEST	126	14	2508	47	4
LAKELAND	131	12	1655	16	35
MIAMI	115	4	2117	99	8
ORLANDO	131	17	1596	13	17
TALLAHASSEE	142	30	1231	86	148
TAMPA	131	12	1667	32	19
WEST PALM BEACH	126	7	1898	27	155
GA. ATLANTA	158	67	1148	359	311
AUGUSTA	138	31	1039	15	193
MACON	147	34	1236	39	243
SAVANNAH	135	23	1248	55	112
IDAHO. BOISE	31	43	207	87	129
LEWISTON	42	22	172	97	204
POCATELLO	15	38	66	117	127
ILL. CAIRO	184	71	1141	211	283
MOLINE	122	52	523	68	85
PEORIA	131	61	555	65	148
ROCKFORD	116	60	468	116	171
SPRINGFIELD	149	71	711	142	122
IND. EVANSVILLE	140	49	760	47	144
FORT WAYNE	115	59	391	17	70
INDIANAPOLIS	126	56	557	57	165
SOUTH BEND	125	70	491	156	128
IOWA. BURLINGTON	127	53	563	65	128
DES MOINES	135	62	659	202	230
DUBUQUE	107	58	469	174	213
SIOUX CITY	121	44	598	124	174
KANS. CONCORDIA	164	70	870	261	322
DODGE CITY	180	78	984	314	330
GOODLAND	112	35	569	146	119
TOPEKA	192	98	921	249	342
WICHITA	203	91	1103	292	389
KY. LEXINGTON	128	51	603	4	167
LOUISVILLE	142	58	771	136	207
LA. BATON ROUGE	145	26	1459	118	252
LAKE CHARLES	151	30	1371	27	135
NEW ORLEANS	157	38	1588	202	127
SHREVEPORT	162	36	1390	140	337
MAINE. CARIBOU	29	8	71	9	64
PORTLAND	61	33	124	22	5
MD. BALTIMORE	122	38	569	34	94
MASS. BOSTON	110	47	328	20	3
MICH. ALPENA	57	36	148	55	38
DETROIT	84	28	269	48	32
FLINT	76	41	211	2	39
GRAND RAPIDS	89	40	309	28	24
HOUGHTON LAKE	44	23	124	2	11
LANSING	97	55	314	54	31
MARQUETTE	26	12	128	71	42
MUSKEGON	70	28	212	2	45
S. STE. MARIE	10	4	40	7	30
MINN. DULUTH	39	18	166	96	65
INTERNATL FALLS	36	15	226	136	137
MINNEAPOLIS	91	40	465	172	161
ROCHESTER	82	40	415	169	108
ST. CLOUD	59	17	255	43	95
MISS. JACKSON	159	40	1232	37	259
MERIDIAN	149	37	1145	12	250
MO. COLUMBIA	188	100	913	280	388
KANSAS CITY	177	86	877	253	361
ST. LOUIS	169	71	918	165	162
SPRINGFIELD	163	72	834	174	385
MONT. BILLINGS	41	14	345	138	13
GLASGOW	28	17	308	123	53
GREAT FALLS	5	31	130	2	35
HAVRE	12	30	195	20	33
HELENA	6	22	56	41	96
KALISPELL	0	14	15	25	96
MILES CITY	44	28	460	136	74
MISSOULA	1	20	23	54	144
NEBR. GRAND ISLAND	133	49	702	201	274
LINCOLN	155	64	797	228	305
NORFOLK	120	43	654	201	198
NORTH PLATTE	98	29	560	170	101
OMAHA	125	28	739	159	106
VALENTINE	92	22	536	193	188
NEV. ELY	24	3	51	25	50
LAS VEGAS	195	19	1307	110	296
RENO	49	14	105	41	63
WINNEMUCCA	59	10	159	24	146
N.H. CONCORD	75	34	189	26	7
N.J. ATLANTIC CITY	80	6	267	134	70
TRENTON	93	15	470	5	119
N. MEX. ALBUQUERQUE	133	35	759	110	120
ROSWELL	152	54	1163	355	350
N.Y. ALBANY	82	26	229	63	54
BINGHAMTON	64	29	198	18	36
BUFFALO	86	44	213	19	80
NEW YORK	125	41	510	22	116
ROCHESTER	93	44	258	1	46
SYRACUSE	87	38	241	22	51
N.C. ASHEVILLE	106	44	545	123	215
CHARLOTTE	119	22	736	61	145
GREENSBORO	109	25	574	116	83
HATTERAS	98	7	717	40	134
RALEIGH	107	17	818	120	323
WILMINGTON	122	15	1044	76	130
N. DAK. BISMARCK	36	13	323	98	123
FARGO	45	3	368	149	107
WILLISTON	34	8	393	200	160
OHIO. AKRON-CANTON	96	47	251	64	13
CINCINNATI	107	30	546	15	199
CLEVELAND	91	42	249	53	32
COLUMBUS	106	43	424	17	79
DAYTON	118	48	485	19	94
TOLEDO	103	50	325	12	59
YOUNGSTOWN	69	27	156	100	68
OKLA. OKLAHOMA CITY	175	56	1155	271	367
TULSA	213	92	1352	428	358
OREG. ASTORIA	3	4	3	8	10
BURNS	5	29	10	111	145
MEDFORD	63	11	131	92	121
PENDLETON	45	20	105	176	206
PORTLAND	31	3	58	61	154
SALEM	16	5	20	74	98
PA. ALLENTOWN	109	41	426	42	99
ERIE	76	43	183	13	18
HARRISBURG	113	31	487	29	128
PHILADELPHIA	99	15	529	7	68
PITTSBURGH	112	60	356	28	70
SCRANTON	90	34	306	8	79
R.I. PROVIDENCE	98	43	271	40	34
S.C. CHARLESTON	118	13	1078	27	75
COLUMBIA	122	10	880	191	145
GREENVILLE	131	40	800	3	194
S. DAK. ABERDEEN	61	9	368	105	147
HURON	65	2	413	75	20
RAPID CITY	55	3	360	76	115
SIOUX FALLS	86	23	449	97	87
TENN. CHATTANOOGA	152	54	790	41	152
KNOXVILLE	149	58	833	39	251
MEMPHIS	193	74	1308	271	283
NASHVILLE	151	46	879	24	248
TEXAS. ABILENE	177	44	1441	213	320
AMARILLO	142	44	863	161	325
AUSTIN	164	24	1570	106	380
BEAUMONT	141	15	1310	88	3
BROWNSVILLE	159	24	2216	183	279
CORPUS CHRISTI	146	6	1810	39	18
DEL RIO	175	21	1901	115	404
EL PASO	165	44	1346	236	245
FORT WORTH	204	64	1627	396	467
GALVESTON	141	15	1370	87	84
HOUSTON	171	45	1640	189	324
LUBBOCK	146	41	1167	311	222
MIDLAND	133	14	1095	33	92
SAN ANGELO	167	27	1294	92	159
SAN ANTONIO	163	23	1653	114	221
VICTORIA	157	22	1638	61	215
WACO	174	27	1470	72	413
WICHITA FALLS	193	46	1412	143	280
UTAH. SALT LAKE CITY	81	9	408	21	163
VT. BURLINGTON	67	25	202	8	76
VA. LYNCHBURG	96	19	522	34	129
NORFOLK	118	21	753	54	218
RICHMOND	121	30	724	36	151
ROANOKE	115	44	565	59	184
WASH. QUILLAYUTE	2	4	2	6	9
SEATTLE-TACOMA	4	11	5	49	101
SPOKANE	18	24	46	112	164
WALLA WALLA	61	20	187	182	266
YAKIMA	43	6	122	105	128
W. VA. BECKLEY	72	30	252	8	113
CHARLESTON	103	33	456	103	80
HUNTINGTON	107	34	554	23	118
PARKERSBURG	110	38	394	133	45
WIS. GREEN BAY	69	34	244	57	53
LACROSSE	123	67	638	294	362
MADISON	96	54	361	135	151
MILWAUKEE	86	45	249	54	26
WYO. CASPER	37	11	213	31	28
CHEYENNE	46	11	227	83	77
LANDER	35	11	204	56	5
SHERIDAN	18	31	155	28	36









The Crop Moisture Index measures the degree to which moisture requirements of growing crops were met during the previous week. The index is computed from average weekly values of temperature and precipitation. These values are used to calculate the potential moisture demand. Taking into account the previous soil moisture condition and current rainfall, the actual moisture loss is determined.

If the potential moisture demand, or potential evapotranspiration, exceeds available moisture supplies, actual evapotranspiration is reduced and the CMI gives a negative value. However, if moisture meets or exceeds demand the index is positive.

Shaded areas indicate the index was unchanged or increased from the previous week's value; soils dried in the unshaded areas. Centers of positive and negative areas are identified by W for wet and D for dry.

Local moisture conditions may vary because of differences in rainfall distribution or soil types. The type of agriculture and stage of crop development must be considered when assessing the impact of moisture conditions based on the Crop Moisture Index. Some general guidelines follow.

UNSHADED AREAS:			INDEX DECREASED
ABOVE		3.0	SOME DRYING BUT STILL EXCESSIVELY WET
2.0	to	3.0	MORE DRY WEATHER NEED, WORK DELAYED
1.0	to	2.0	FAVORABLE, EXCEPT STILL TOO WET IN SPOTS
0	to	1.0	FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
0	to	-1.0	TOPSOIL MOISTURE SHORT, GERMINATION SLOW
-1.0	to	-2.0	ABNORMALLY DRY, PROSPECTS DETERIORATING
-2.0	to	-3.0	TOO DRY, YIELD PROSPECTS REDUCED
-3.0	to	-4.0	POTENTIAL YIELDS SEVERELY CUT BY DROUGHT
BELOW		-4.0	EXTREMELY DRY, MOST CROPS RUINED

SHADED AREAS:			INDEX INCREASED OR DID NOT CHANGE
ABOVE		3.0	EXCESSIVELY WET, SOME FIELDS FLOODED
2.0	to	3.0	TOO WET, SOME STANDING WATER
1.0	to	2.0	PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET
0	to	1.0	MOISTURE ADEQUATE FOR PRESENT NEEDS
0	to	-1.0	PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1.0	to	-2.0	SOME IMPROVEMENT BUT STILL TOO DRY
-2.0	to	-3.0	DROUGHT EASED BUT STILL SERIOUS
-3.0	to	-4.0	DROUGHT CONTINUES, RAIN URGENTLY NEEDED
BELOW		-4.0	NOT ENOUGH RAIN, STILL EXTREMELY DRY

HOT, DRY WEATHER IN MUCH OF THE UNITED STATES IS RAPIDLY DEPLETING SOIL MOISTURE. FROM TEXAS THROUGH EASTERN OKLAHOMA TO KANSAS AND MISSOURI, SOILS ARE EXTREMELY DRY, STOCK WATER PONDS ARE NEARLY EMPTY, AND IRRIGATION WATER IS BECOMING SHORT. RECENT RAIN IN THE NORTHERN PLAINS HAVE LESSENED THE SEVERITY OF THE DROUGHT BUT MORE RAIN IS URGENTLY NEEDED. SOILS ARE CONTINUING TO DRY IN NEW ENGLAND, ALONG THE EAST COAST AND IN THE SOUTHEAST, ALTHOUGH A SLIGHT IMPROVEMENT IS NOTED IN PARTS OF THE MID-ATLANTIC STATES.

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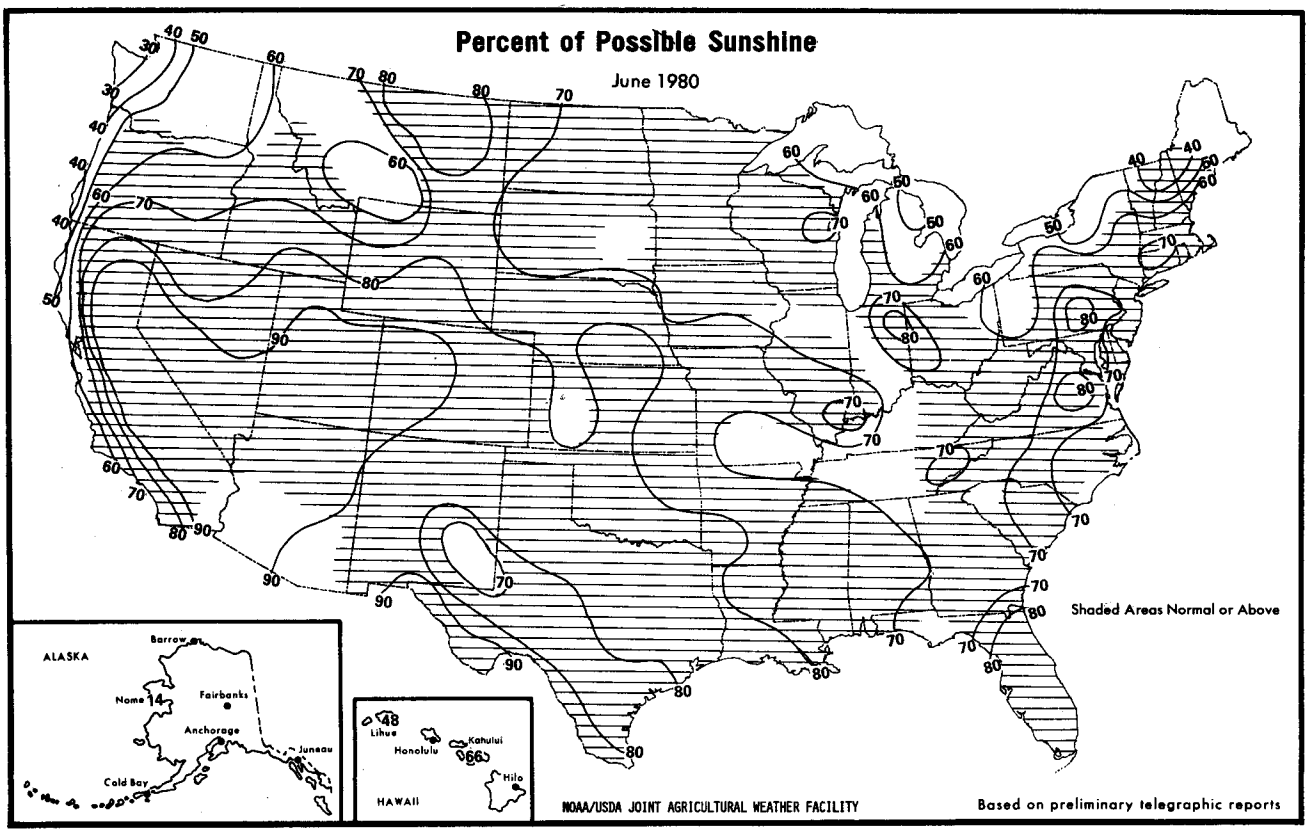
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