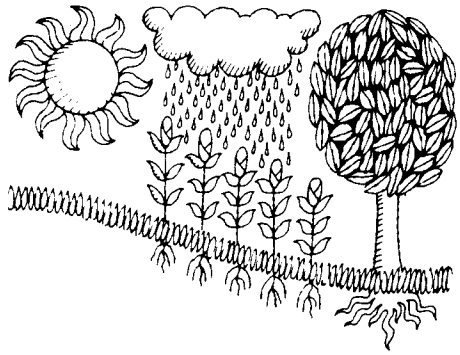
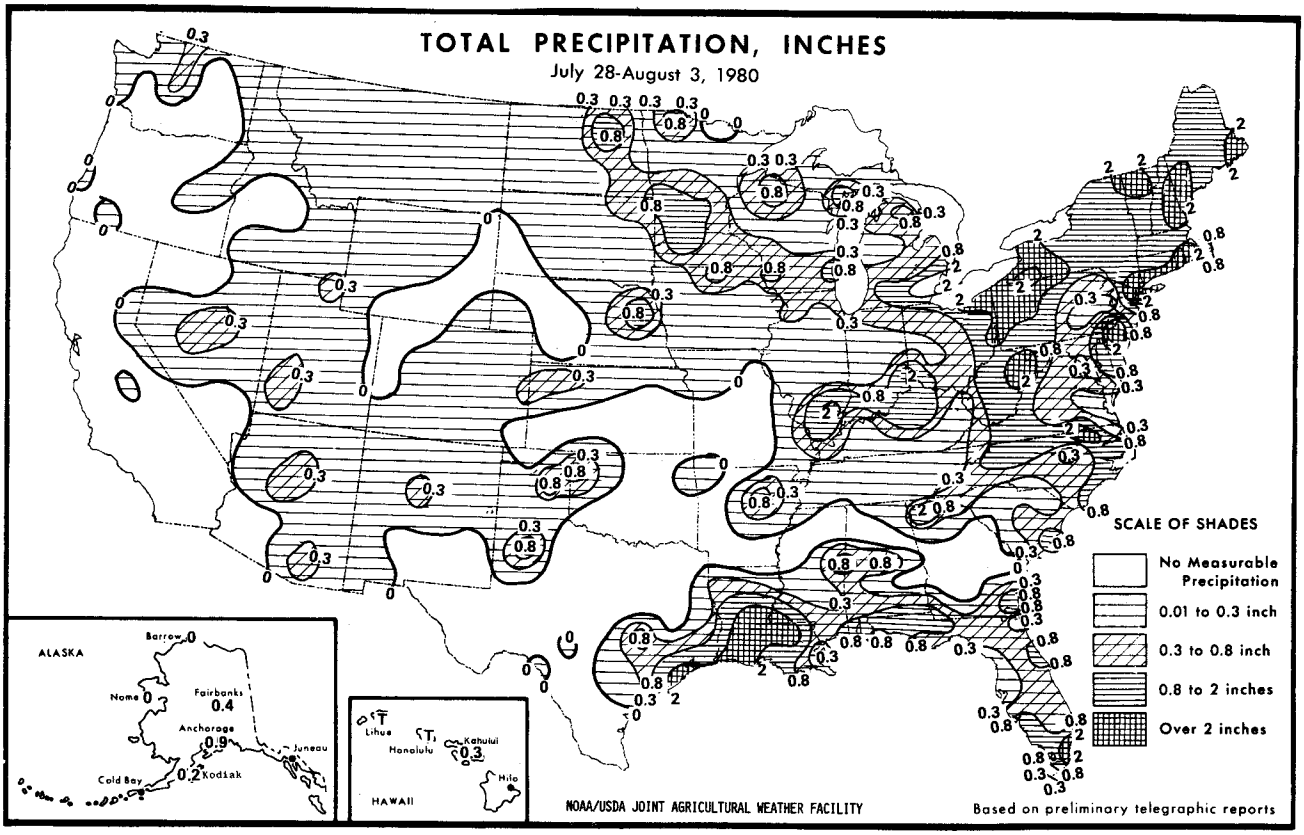


WEEKLY WEATHER AND CROP BULLETIN

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

Volume 67, No. 32 | Washington, D.C. | Aug. 5, 1980



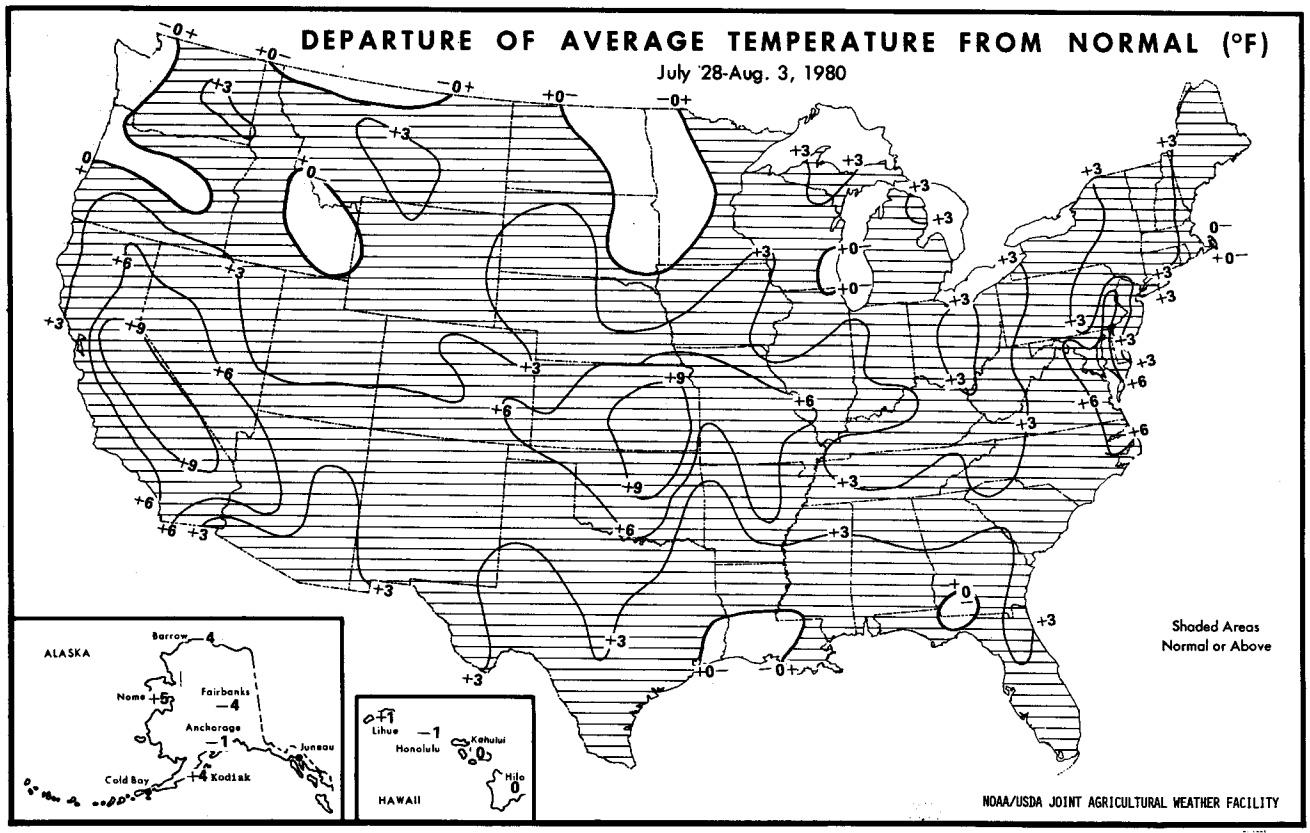
National Weather Summary

July 28 - August 3

HIGHLIGHTS: Hot weather persisted in the central and southern Plains. Temperatures averaged 9 to 11 degrees warmer than normal. Readings remained comparatively mild over the Corn Belt averaging 2 to 4 degrees above normal. Welcome showers fell in the Ohio Valley on most days of the week. Accumulations of 1 to 2 inches in southern Illinois and Indiana should help crops. Some widely scattered, but occasionally heavy, thundershowers doused the Texas Panhandle. Heavy showers also fell along the Gulf Coast and the East Coast.

MONDAY...A cold front moved into the Appalachians and across northern Georgia to central Texas. Showers and thunderstorms were heavy at times along and ahead of the front. Local flooding was reported in western Pennsylvania and in parts of the South. Temperatures in excess of 100° continued through central Texas and into the central Plains. Most of the West was very hot. Pendleton, northwestern Oregon, and Lewiston, western Idaho reached 100° and 102° respectively. Showers and thunderstorms over northern California were associated with a low pressure system in that area.

TUESDAY...The slow-moving cold front brought thundershowers with heavy rain to southeastern Pennsylvania and Delaware. A low pressure center, moving northward along the East Coast caused some heavy rain in the Northeast. Out West, Hurricane Georgette--south of Baja--affected the weather across the Southwest. Thunderstorms moved through southern California and into the southern Plateau Region. Temperatures were hot again through the Plains. Readings of 100° or higher were reported from central Texas to North Dakota and Montana and in all but coastal California. Pueblo, south central Colorado,tied its all-time high reading



with 106°--the record high temperature was set earlier this year on June 26.

WEDNESDAY...Cool Canadian air brought milder temperatures to the northern Plains but the mercury climbed past the century mark from the southern and central Plains to Missouri and Arkansas. Dallas, Tex., marked its 38th day over 100° when the thermometer measured 106°. Record highs baked Kansas, Missouri, and parts of the Southeast. Cooler air advanced behind a front that reached from Wisconsin to New Mexico. Showers dotted an area from New England to the mid-Atlantic States, over Florida, the central Plains, the Plateau, the central and northern Rockies, and the mountain areas of California.

THURSDAY...The 100-plus temperatures remained in central Texas and parts of the central Plains and spread over the middle Mississippi Valley. The high temperature at Cairo, southern Illinois, was 104°, while 101° scorched Evanston, southern Indiana. Temperatures in the high nineties reached the Southeast Coast. The cold front stretched from Lake Huron through Ohio and to southern Iowa. Widely scattered showers and thundershowers occurred in portions of the central Plains and central Mississippi Valley. Farther East, some scattered showers fell over Maryland and New Jersey and into the lower Great Lakes Region. Elsewhere, a few showers and thunderstorms carried over the Plateau and the northern Rockies.

FRIDAY...The cold front was moving through New England but remained nearly stationary through the Midwest and into Kansas. Showers and thunderstorms were frequent along and ahead of the front moving through New England but became widely scattered down the East Coast to the Carolinas. Some of the storms were heavy and produced hail and high winds. Thunderstorms stayed close together in parts of southern Minnesota, southwestern Wisconsin, and southern Michigan, but became light and widely scattered through the Ohio Valley and from the central Rockies and Plains northward. The highest temperatures--over 100°--extended northward from central Texas through the western Plains to South Dakota and into Missouri and Arkansas. Temperatures rose to the century mark in many areas along the Southeast Coast. A record high of 100° was recorded at Wilmington, on the North Carolina Coast.

SATURDAY...Precipitation areas were well-defined from New England through the Ohio Valley to Kansas and through northern New Mexico and Arizona. Showers extended northward to the lower Great Lakes. They were heavy and frequent from the upper Ohio Valley northward to the Lakes and into New England but became widely scattered westward. Only traces of rain fell in the central Plains. Some heavy, but isolated, thunderstorms raked the Southwest. Temperatures climbed above 100° again in the central and southern Plains and in parts of the Southeast. Record high temperatures hovered over these areas. The century mark was also topped in the Southwest and through California.

SUNDAY...A frontal system stretching from New England to the Texas Panhandle produced a band of showers and thunderstorms from Maine across the lower Great Lakes and into the Ohio and Tennessee Valleys. The showers were widely scattered from the lower Ohio Valley across Arkansas to the Texas Panhandle and New Mexico. Further north, another front spread showers from Montana to the western Great Lakes. A tornado touched down in central North Dakota. Some heavy rain resulted from thundershowers in northeastern Nebraska. Hot temperatures persisted in the central and southern Plains and the Southeast. Dallas scored a high of 102° and notched 42 consecutive days with temperatures over 100°.

National Agricultural Summary

July 28 - August 3

HIGHLIGHTS: Above-normal temperatures blanketed nearly the entire Nation putting further stress on crops and livestock. Temperatures averaged as much as 11 degrees above normal in parts of Oklahoma and California and as much as 9 to 10 degrees above normal in much of Kansas. Rainfall, mainly from showers and thunderstorms, was limited to areas from the northern Plains eastward, from southeastern Texas eastward, and in the Atlantic States. Farmers in all areas of the Nation had 4 to 7 days suitable for fieldwork. Much of the West had 7 days available. The winter wheat harvest reached 89% complete, slightly ahead of last year and the average. Spring wheat harvesting was active in all major areas, progressing to 23% complete, well ahead of last year's 2% and the 15% average. Nearly 90% of the corn crop reached the silking stage of development, and 28% reached the dough stage. Harvesting was underway in the extreme South. Sorghum reached 56% headed with harvesting passing the halfway mark in Texas. Rice was 45% headed, and harvest got underway in Louisiana and Texas. Almost 80% of the soybean crop had bloomed and 38% of the crop was setting pods. Cotton growth progressed rapidly with 72% of the crop setting bolls. Cotton harvest peaked in South Texas. Fruit harvests became more widespread in northern areas. Northern vegetable growers harvested a wide variety of summer vegetables, and in some areas began planting fall vegetables. Pastures and ranges deteriorated under the hot, dry conditions and generally rated poor to good. Livestock weight gains were limited by the heat, and herd reduction continued. Supplemental feeding was necessary in many areas.

CORN: Corn rated fair to good throughout most of the Corn Belt but poor to fair in other areas of the Nation. Almost 90% of the crop reached the silking stage of development and 28% of the crop progressed to the dough stage. In the South, much of the crop reached the dent stage. Harvesting got underway in the extreme South. In the Southeast, where hot, dry conditions severely stressed the crop, many fields were harvested for silage rather than grain.

SOYBEANS: Soybeans rated fair to good in most of the Corn Belt, but rated poor in the central Plains, Missouri, much of the Delta States and the Southeast. Nearly 80% of the crop had bloomed and 38% of the crop was setting pods. Progress was generally ahead of last year and the average.

SMALL GRAINS: Winter wheat combining advanced to 89% complete, slightly ahead of last year and the average. Harvesting was completed in all States except California, Colorado, Idaho, Montana, Ohio, Oregon, and Washington.

Spring wheat harvesting moved actively in all major producing States and reached 23% complete, well ahead of last year's 2% and the 15% average. Progress ranged from 2% in Idaho to 81% in South Dakota.

COTTON: Cotton growth progressed rapidly, with 72% of the crop setting bolls, slightly ahead of last year and the average. Progress ranged from 20% in Oklahoma to 99% in Georgia. Peak harvest spanned southern Texas, where crop conditions continued to decline. Plants are maturing early with poor development.

OTHER CROPS: Grain sorghum was 56% headed, compared with 43% a year earlier. Harvesting in Texas reached 56%, compared with 35% last year and the average of 41%. Many fields were being baled or cut for silage and those remaining fields expected to reflect the effects of moisture shortages in lighter, less-developed heads.

Rice heading reached 45% complete, about equal to last year and the average. Progress ranged from 10% in California to 100% in Texas. Harvesting continued in Louisiana and Texas at 20% and 41%, respectively.

Tobacco topping and harvesting continued with little delay. Harvesting reached 55% in Georgia, 22% in North Carolina, 33% in South Carolina, and 5% in Virginia. Cool weather in parts of Virginia promoted blue mold growth in burley tobacco, while in Kentucky, black shank and blue mold were causing problems.

Nearly 90% of the Idaho potatoes were closing middles and 12% were turning color. In Maine, the crop rated excellent while growers applied disease and insect controls.

FRUITS: Fruit harvests became more widespread in northern production areas. Early peaches, apples, and plums were harvested in the Northeast. The Michigan sweet cherry harvest reached 90% complete, and the tart cherry harvest scored 66% complete.

Florida citrus groves rated very good to excellent with new-crop fruit progressing normally. Many growers were irrigating groves.

California growers harvested apples, avocados, nectarines, Cling peaches, pears, plums, prunes, Freestone peaches, Valencia oranges, and grapefruit. The fluctuating temperatures caused dates to drop. The Valencia crop was 60% harvested, and the Navel crop sized well. Cling peaches matur too fast for some pickers and canners.

Arizona citrus groves showed good condition, with new-crop fruit sizing well.

VEGETABLES: Northern growers harvested increasing supplies of summer vegetables, and in some areas began planting fall vegetables. In southern areas, land preparation for fall vegetable crops continued very actively.

A limited supply of Florida summer vegetables continued to move to local markets.

California growers harvested broccoli, cauliflower, celery, lettuce, carrots, sweet corn, onions, tomatoes, peppers, and a number of other vegetables.

In Texas, light supplies of summer vegetables continued. In southern areas, land preparation and fall vegetable planting was active. In northern areas, growers prepared land for plantings as harvests wound down. Most areas need a good rainfall.

PASTURES AND LIVESTOCK: Pastures and ranges deteriorated under the hot, dry conditions and generally rated poor to good. Poor conditions extended over much of the Great Plains and Southwest where supplemental feeding was necessary. Good conditions were reported in the West and in much of the Corn Belt, where timely rains have maintained growth. In the drought areas, pastures have turned brown, and new growth is nonexistent. Hay supplies are short, and herd reduction continues. Stock water supplies are short in many areas.

Weather Data for the Week Ending Aug. 3, 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	94	71	97	66	82	2	.1	- 1.1	T	5.2	54	88	41	6	0	2	0
MOBILE	91	74	94	73	83	0	1.2	- .6	.5	9.4	60	94	55	6	0	4	1
MONTGOMERY	91	73	94	69	82	1	T	- 1.0	T	5.8	61	93	52	6	0	0	0
AK ANCHORAGE	64	52	67	49	58	0	.9	.4	.2	5.3	156	86	62	0	0	5	0
BARROW	39	31	41	29	35	-4	0	- .3	0	1.1	79	90	71	0	2	0	0
FAIRBANKS	64	46	67	42	55	-4	.4	- .1	.2	2.4	65	75	59	0	0	4	0
KODIAK	67	52	72	51	60	4	.2	- .6	.2	1.6	20	78	57	0	0	1	0
NOME	65	47	69	40	56	5	0	- .7	0	5.1	138	73	62	0	0	0	0
AZ FLAGSTAFF	84	58	88	54	71	5	.7	0	.4	3.0	91	81	34	0	0	3	0
PHOENIX	106	87	115	84	97	6	T	- .3	T	.5	50	46	25	7	0	0	0
TUCSON	100	76	103	73	88	2	.5	- .1	.4	2.0	71	66	30	7	0	3	0
WINSLOW	94	67	97	61	81	2	.1	- .3	.1	1.9	119	--	--	6	0	2	0
YUMA	107	87	112	83	97	2	0	- .1	0	0	0	54	--	7	0	0	0
AR FORT SMITH	101	69	104	63	85	2	0	- .7	0	4.6	63	88	25	7	0	0	0
LITTLE ROCK	101	75	106	69	88	6	.3	- .3	.3	1.3	18	74	31	7	0	1	0
CA BAKERSFIELD	106	79	111	74	92	8	0	0	0	0	0	--	23	7	0	0	0
EUREKA	61	53	64	52	57	0	0	0	0	.5	62	97	74	0	0	0	0
FRESNO	106	76	110	67	91	10	T	0	T	0	0	42	18	7	0	1	0
LOS ANGELES	83	66	91	60	74	0	0	0	0	0	--	85	49	1	0	0	0
RED BLUFF	104	71	106	64	87	5	T	0	T	1.2	240	--	19	7	0	0	0
SAN DIEGO	84	73	92	70	79	8	0	0	0	0	--	89	56	2	0	0	0
SAN FRANCISCO	78	57	85	55	67	5	0	0	0	.1	50	86	43	0	0	0	0
STOCKTON	105	72	109	63	88	12	T	0	T	.5	500	49	20	7	0	0	0
CO DENVER	94	65	97	61	80	6	.1	- .3	.1	3.1	82	47	16	7	0	2	0
GRAND JUNCTION	97	66	99	62	81	3	T	- .2	T	1.0	100	45	18	7	0	0	0
PUEBLO	98	63	106	53	81	4	T	- .5	T	1.2	34	70	22	7	0	1	0
CT BRIDGEPORT	84	71	89	69	77	3	4.4	3.6	3.9	9.1	147	91	72	0	0	2	1
HARTFORD	85	65	91	61	75	3	1.6	.8	1.1	7.4	103	90	51	1	0	4	1
DC WASHINGTON	94	77	99	76	85	6	.3	- .8	.2	5.7	72	84	45	7	0	3	0
FL APALACHICOLA	89	74	92	72	82	0	.4	- 1.4	.3	11.8	84	98	62	3	0	2	0
DAYTONA BEACH	92	74	94	72	83	1	1.4	- .1	1.3	9.4	68	94	53	7	0	2	1
FORT MYERS	93	75	94	74	84	1	1.5	- .3	1.2	10.3	56	99	56	7	0	2	1
JACKSONVILLE	96	74	98	72	85	4	.2	- 1.5	.2	10.0	71	95	50	7	0	1	0
KEY WEST	90	81	92	80	86	1	T	- .8	T	9.2	102	78	57	6	0	1	0
MIAMI	91	76	94	73	84	1	2.7	1.3	2.0	14.7	91	93	57	7	0	5	1
ORLANDO	93	74	95	73	84	2	.7	- 1.0	.5	10.4	65	98	53	7	0	4	1
TALLAHASSEE	91	70	94	68	81	-1	1.1	- .7	.7	16.8	104	--	58	6	0	2	1
TAMPA	90	77	93	75	84	2	.1	- 1.8	T	9.5	61	87	60	4	0	2	0
WEST PALM BEACH	92	75	95	73	83	1	.8	- .5	.6	12.0	81	96	52	6	0	3	1
GA ATLANTA	96	72	99	68	84	6	.2	- .8	.2	5.4	60	86	39	7	0	1	0
AUGUSTA	97	71	100	69	84	3	0	- 1.1	0	6.5	70	93	37	7	0	0	0
MACON	96	70	98	65	83	1	0	- .9	0	6.2	71	66	40	7	0	0	0
SAVANNAH	97	75	101	71	86	5	T	- 1.7	T	5.9	41	78	47	7	0	1	0
HI HILO	--	--	--	--	76	0	1.6	- .9	--	15.7	92	--	--	-	-	-	-
HONOLULU	88	75	89	72	80	-1	T	- .2	T	.3	30	80	53	0	0	2	0
KAHULUI	--	--	--	--	--	--	0	0	0	0	0	--	--	0	0	0	0
LIHUE	--	--	--	--	79	0	.3	- .2	--	4.2	111	--	--	-	-	-	-
ID BOISE	90	62	97	56	76	1	T	0	T	.3	23	52	20	6	0	0	0
LEWISTON	93	61	102	57	77	3	T	- .1	T	1.9	76	54	17	6	0	1	0
POCATELLO	88	55	97	47	71	-1	T	- .1	T	1.5	88	65	21	3	0	1	0
IL CAIRO	94	74	98	67	84	3	.6	- .1	.6	10.9	140	--	--	6	0	1	0
CHICAGO	85	65	90	59	75	2	.4	- .8	.3	6.6	79	89	49	1	0	2	0
MOLINE	88	65	92	60	76	1	.3	- .6	.2	7.8	83	89	51	2	0	3	0
PEORIA	89	65	94	59	77	2	.1	- .6	T	8.4	109	85	50	3	0	3	0
ROCKFORD	84	60	87	35	72	-1	.3	- .6	.2	9.3	101	89	50	0	0	3	0
SPRINGFIELD	90	69	96	63	80	4	.1	- .6	.1	2.9	35	84	52	4	0	1	0
IN EVANSVILLE	93	72	101	64	83	5	.2	- .6	.2	10.7	143	82	46	6	0	1	0
FORT WAYNE	82	64	90	56	73	0	.4	- .4	.4	6.0	76	80	67	1	0	2	0
INDIANAPOLIS	87	66	91	60	77	2	.1	- .6	.1	6.7	83	90	54	2	0	1	0
SOUTH BEND	83	66	90	59	74	1	.6	- .2	.3	6.1	80	88	52	1	0	3	0
IA BURLINGTON	88	67	96	58	77	1	T	- .8	T	10.5	121	--	--	2	0	1	0
DES MOINES	91	66	102	60	79	3	T	- .7	T	6.4	76	82	37	3	0	1	0
DUBUQUE	85	63	90	56	74	2	.3	- .6	.2	7.4	75	91	46	1	0	2	0
SIOUX CITY	90	64	93	59	77	1	T	- .6	T	1.7	21	79	41	3	0	1	0
KS CONCORDIA	103	68	107	64	86	7	.1	- .5	T	2.0	24	71	19	7	0	2	0
DODGE CITY	103	73	106	71	88	8	T	- .6	T	5.4	82	59	22	7	0	0	0
GOODLAND	95	65	100	62	80	4	.3	- .3	.3	9.5	164	63	23	7	0	1	0
TOPEKA	104	73	110	63	89	10	T	- .9	T	1.4	14	69	24	7	0	0	0
WICHITA	107	76	110	68	91	9	T	- .8	T	1.8	20	52	20	7	0	0	0
KY LEXINGTON	87	69	92	62	78	2	1.5	.5	1.5	9.0	95	86	56	3	0	1	1
LOUISVILLE	90	71	97	64	81	4	1.0	.2	.9	10.1	126	88	55	4	0	2	1

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Aug. 3, 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	90	68	94	43	79	-3	2.3	.9	2.2	13.1	121	98	58	6	0	2	1
LAKE CHARLES	89	74	93	69	82	-1	4.2	2.9	4.2	9.5	80	89	57	6	0	1	1
NEW ORLEANS	93	75	97	71	84	2	.1	- 1.3	.1	8.6	72	92	56	6	0	1	0
SHREVEPORT	97	73	101	68	85	1	.3	- .3	.3	4.4	70	89	42	7	0	1	0
ME CARIBOU	79	62	87	58	70	5	1.0	.1	.3	8.0	104	94	62	0	0	4	0
PORTLAND	81	62	87	59	72	3	1.3	.7	.8	5.9	100	--	60	0	0	2	2
MD BALTIMORE	91	70	96	65	81	4	1.1	.1	.7	7.3	90	84	34	4	0	5	1
MA BOSTON	84	67	92	64	76	2	1.6	.9	1.4	5.6	90	88	54	1	0	3	1
CHATHAM	77	63	82	60	70	-1		0	.3	4.3	69	92	72	0	0	3	0
MI ALPENA	80	60	87	56	70	4	T	- .6	T	5.4	95	--	--	0	0	1	0
DETROIT	82	64	88	58	73	1	3.3	2.6	1.5	12.3	184	92	63	0	0	5	2
FLINT	79	61	85	54	70	0	.6	- .1	.3	8.2	124	95	62	0	0	4	0
GRAND RAPIDS	82	62	88	55	72	0	.3	- .3	.2	9.5	144	96	56	0	0	3	0
HOUGHTON LAKE	78	57	83	51	67	1	.5	- .1	.4	5.1	76	94	56	0	0	2	0
LANSING	81	63	87	52	72	1	.6	0	.3	4.9	78	95	68	0	0	3	0
MARQUETTE	78	55	82	50	66	-1	T	- .7	T	5.6	85	79	47	0	0	1	0
MUSKEGON	80	63	84	54	72	1	.2	- .4	.1	8.1	150	98	55	0	0	1	0
SAULT STE. MARIE	79	51	84	47	65	0	.1	- .5	.1	5.7	92	--	49	0	0	1	0
MN DULUTH	80	56	83	48	68	1	.3	- .5	.2	5.6	67	86	43	0	0	4	0
INT'L FALLS	83	53	88	46	68	2	T	- .8	T	3.7	46	80	34	0	0	0	0
MINNEAPOLIS	86	62	92	57	74	1	.5	- .3	.4	7.4	94	84	38	1	0	2	0
ROCHESTER	86	60	92	55	73	2	.4	- .4	.3	4.8	55	84	50	1	0	2	0
SAINT CLOUD	84	56	90	50	70	-1	.8	0	.6	6.5	81	98	--	1	0	4	1
MS JACKSON	96	71	99	69	84	2	.2	- .7	.2	4.9	61	96	43	7	0	1	0
MERIDIAN	93	70	97	68	82	0	.5	- .6	.5	7.4	80	99	53	5	0	2	1
MO COLUMBIA	102	70	111	57	86	8	T	- .7	T	1.8	21	54	20	7	0	0	0
KANSAS CITY	99	70	106	62	85	6	T	- .8	T	4.3	42	72	30	7	0	1	0
SAINT LOUIS	96	73	104	62	85	6	T	- .7	T	6.2	74	74	37	6	0	1	0
SPRINGFIELD	102	69	105	58	85	6	T	- .7	T	4.3	51	72	21	7	0	0	0
MT BILLINGS	93	62	98	52	78	5	.1	0	.1	2.1	64	44	17	6	0	2	0
GLASGOW	90	57	97	47	73	1	.1	- .2	.1	3.0	70	56	21	4	0	1	0
GREAT FALLS	89	58	95	49	74	3	T	- .2	T	4.2	95	48	19	4	0	1	0
HAVRE	85	56	96	49	71	0	T	- .2	T	3.3	82	62	21	2	0	1	0
HELENA	86	54	94	50	70	1	.1	- .1	.1	5.1	146	64	19	3	0	2	0
KALISPELL	85	47	92	40	66	1	.1	- .1	.1	3.6	100	93	23	1	0	2	0
MILES CITY	92	64	101	57	78	2	.1	- .1	0	3.9	80	44	18	6	0	0	0
MISSOULA	86	51	92	45	68	1	T	- .1	T	3.4	56	76	23	2	0	1	0
NE GRAND ISLAND	96	64	103	58	80	3	.1	- .5	.1	4.3	195	73	37	7	0	1	0
LINCOLN	98	69	102	64	83	5	.2	- .5	.2	4.5	53	80	35	7	0	1	0
NORFOLK	92	65	96	60	78	2	.9	.3	.6	5.7	69	76	32	5	0	3	1
NORTH PLATTE	100	60	106	52	80	5	T	- .5	T	2.3	34	69	19	7	0	0	0
OMAHA	91	69	95	64	80	3	T	- .8	T	9.5	106	--	47	5	0	1	0
VALENTINE	99	62	110	56	81	6	T	- .5	T	3.1	49	60	19	6	0	1	0
NV ELY	89	52	92	49	71	2	.1	0	.1	1.5	107	71	24	2	0	4	0
LAS VEGAS	109	84	114	79	97	7	0	- .1	0	.5	83	38	28	7	0	0	0
RENO	97	56	98	46	77	7	T	0	T	.6	75	63	16	7	0	1	0
WINNEMUCCA	96	58	100	49	77	6	0	0	0	.5	38	47	14	6	0	0	0
NH CONCORD	85	60	89	55	73	3	3.9	3.3	2.4	7.7	115	92	48	0	0	3	2
NJ ATLANTIC CITY	86	66	92	63	76	1	.5	- .6	.2	6.3	77	90	55	2	0	2	0
TRENTON	88	71	93	69	80	4	.8	- .3	.6	4.5	54	--	--	4	0	3	1
NM ALBUQUERQUE	99	68	102	65	83	5	.6	.2	.5	.7	32	55	18	7	0	2	0
ROSWELL	99	71	104	66	85	4	T	- .4	T	.3	9	--	--	7	0	0	0
NY ALBANY	84	62	88	55	73	1	1.4	.7	1.2	8.7	138	93	53	0	0	3	1
BINGHAMTON	79	62	86	58	71	2	1.3	.5	.7	8.4	114	96	57	0	0	4	1
BUFFALO	78	68	81	63	73	3	3.3	2.5	2.7	11.8	215	92	67	0	0	4	2
NEW YORK	86	72	93	70	79	2	3.7	2.7	3.5	8.4	118	87	57	2	0	2	1
ROCHESTER	83	67	88	60	75	4	.9	.2	.6	9.1	163	96	56	0	0	4	1
SYRACUSE	83	67	86	63	75	4	1.7	.9	.9	7.1	109	91	56	0	0	4	1
NC ASHEVILLE	89	64	91	62	76	2	.8	- .3	.6	7.0	76	98	50	3	0	2	1
CHARLOTTE	93	70	98	68	82	3	.3	- .7	.3	5.2	60	92	40	5	0	1	0
GREENSBORO	92	70	96	68	81	4	.8	- .2	.5	6.6	76	95	46	5	0	2	0
HATTERAS	88	76	90	74	82	4	1.9	.4	1.2	10.2	90	96	69	1	0	3	1
RALEIGH	93	70	98	66	81	3	.2	- 1.0	.2	7.3	79	93	49	5	0	2	0
WILMINGTON	95	76	101	72	85	4	1.3	- .5	1.1	8.7	60	88	50	6	0	3	1
ND BISMARCK	87	56	98	48	72	0	.1	- .3	T	4.9	83	70	29	2	0	2	0
FARGO	87	57	92	52	72	0	.1	- .6	T	3.3	49	83	28	1	0	2	0
WILLISTON	90	58	102	49	74	3	.1	- .3	.1	2.5	46	68	24	4	0	1	0
OH AKRON-CANTON	83	66	87	64	75	3	1.1	.3	.9	9.8	131	88	56	0	0	4	1
CINCINNATI	86	67	95	60	77	1	1.5	.7	.6	10.7	130	97	60	2	0	3	1
CLEVELAND	82	65	87	62	73	2	3.0	2.3	1.9	9.2	130	92	58	0	0	4	2
COLUMBUS	86	68	93	62	77	4	.6	- .2	.5	9.6	112	90	57	3	0	3	0
DAYTON	87	66	95	56	77	2	.2	- .5	T	11.7	156	95	52	3	0	2	0
TOLEDO	83	65	91	60	74	2	1.4	.7	.7	8.0	116	52	69	1	0	3	2
YOUNGSTOWN	80	62	84	57	71	0	4.3	3.5	2.8	12.8	171	94	63	0	0	4	2

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Aug. 3, 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	106	75	110	71	91	9	0	- .5	0	2.9	41	52	19	7	0	0	0
TULSA	107	80	109	70	94	11	T	- .7	T	5.6	67	54	22	7	0	0	0
OR ASTORIA	66	54	70	51	60	-1	T	- .2	T	2.1	62	93	66	0	0	0	0
BURNS	91	52	95	49	71	2	.1	0	.1	1.1	73	71	26	3	0	1	0
MEDFORD	97	57	102	52	77	4	T	- .1	T	1.2	100	74	19	7	0	1	0
PENDLETON	90	59	100	55	75	1	0	- .1	--	1.9	136	--	16	4	0	0	0
PORTLAND	81	57	89	52	69	1	T	- .1	T	2.5	119	82	37	0	0	0	0
SALEM	84	51	93	43	67	0	0	- .1	0	2.0	105	90	30	1	0	0	0
PA ALLENTOWN	91	70	97	62	81	7	.2	- .8	.1	4.1	50	80	42	4	0	3	0
ERIE	78	66	81	60	72	1	4.6	3.8	2.5	14.0	194	--	--	0	0	5	3
HARRISBURG	88	70	92	64	79	3	.2	- .6	.1	4.2	61	100	54	3	0	2	0
PHILADELPHIA	91	73	95	72	82	5	3.8	2.8	3.4	8.5	106	89	50	4	0	5	1
PITTSBURGH	83	67	87	65	75	3	1.8	1.0	1.0	12.0	162	90	63	0	0	4	2
SCRANTON	84	66	90	60	75	3	.7	- .2	.4	8.5	109	87	47	1	0	3	0
RI PROVIDENCE	85	67	90	65	76	4	2.3	1.5	1.5	6.8	117	93	56	1	0	3	2
SC CHARLESTON	94	75	96	72	84	4	1.2	- .5	1.2	10.2	68	94	58	7	0	1	1
COLUMBIA	98	70	110	67	84	3	.3	- 1.0	.3	3.5	35	93	37	7	0	1	0
GREENVILLE	93	69	98	68	81	2	.3	- .6	.2	8.1	94	89	42	6	0	2	0
SD ABERDEEN	89	57	94	49	73	0	.3	- .2	.3	3.5	53	83	29	4	0	1	0
HURON	90	57	96	50	74	-1	T	- .4	T	8.2	137	90	31	3	0	1	0
RAPID CITY	95	62	106	58	79	5	T	- .4	T	6.6	112	49	16	6	0	0	0
SIOUX FALLS	88	58	91	48	73	-1	.1	- .5	.1	3.9	53	80	38	2	0	3	0
TN CHATTANOOGA	94	68	99	62	81	2	T	- 1.0	T	4.0	44	90	42	5	0	1	0
KNOXVILLE	91	70	95	68	81	2	T	- .9	T	5.7	66	88	48	5	0	1	0
MEMPHIS	97	78	102	73	87	5	T	- .8	T	10.5	146	77	34	7	0	1	0
NASHVILLE	91	70	97	63	81	0	.1	- .7	.1	6.6	89	95	46	4	0	1	0
TX ABILENE	101	76	103	73	89	4	0	- .5	0	1.3	24	60	17	7	0	0	0
AMARILLO	98	68	99	66	83	4	T	- .7	T	1.9	29	48	20	7	0	1	0
AUSTIN	100	74	101	70	87	2	.3	- .1	.3	.6	12	82	30	7	0	1	0
BEAUMONT	91	74	95	70	83	-1	1.3	0	1.3	3.1	28	95	60	6	0	1	1
BROWNSVILLE	97	79	98	74	88	3	0	- .3	0	1.5	37	85	44	7	0	0	0
CORPUS CHRISTI	96	76	98	71	86	1	0	- .5	0	1.5	33	91	46	7	0	0	0
DEL RIO	102	76	107	74	89	2	.1	0	.1	.6	19	68	22	7	0	1	0
EL PASO	103	71	108	67	87	5	0	- .3	0	.2	8	37	14	7	0	0	0
FORT WORTH	104	76	106	72	90	4	0	- .4	0	2.0	40	68	20	7	0	0	0
GALVESTON	88	79	90	72	83	-1	2.7	1.8	2.7	4.3	49	81	62	1	0	1	1
HOUSTON	96	74	99	71	85	1	1.2	.3	1.2	2.7	30	92	48	6	0	1	1
LUBBOCK	97	70	98	66	83	3	1.1	.7	1.1	3.1	61	54	20	7	0	1	1
MIDLAND	97	69	100	64	83	0	0	- .4	0	1.6	46	53	19	7	0	0	0
SAN ANGELO	101	74	103	67	87	1	0	- .2	0	3.4	106	72	20	7	0	0	0
SAN ANTONIO	99	77	102	72	88	3	.1	- .3	.1	.7	15	84	31	7	0	1	0
VICTORIA	96	75	99	70	86	1	.2	- .4	.1	.4	6	91	47	7	0	2	0
WACO	102	74	103	70	88	1	0	- .3	0	.3	7	84	27	7	0	0	0
WICHITA FALLS	107	75	110	69	91	4	0	- .4	0	.3	5	60	16	7	0	0	0
UT BLANDING	93	63	97	60	78	5	.1	- .2	.1	.4	27	52	20	6	0	3	0
SALT LAKE CITY	93	67	101	62	80	2	.1	- .1	.1	1.8	86	56	19	6	0	2	0
VT BURLINGTON	81	64	86	59	73	3	2.6	1.8	1.7	8.4	117	82	62	0	0	4	1
VA LYNCHBURG	91	67	97	61	79	3	.4	- .6	.4	4.2	54	93	--	4	0	1	0
NORFOLK	97	75	110	73	86	8	T	- 1.4	T	2.4	24	87	46	6	0	1	0
RICHMOND	94	73	99	68	84	5	.1	- 1.2	.1	5.7	61	93	46	5	0	2	0
ROANOKE	88	68	93	63	78	3	1.1	.2	1.1	7.0	95	87	47	4	0	1	1
WA COLEVILLE	84	55	93	48	69	0	.1	.1	.1	2.6	325	--	--	2	0	1	0
OMAK	--	--	--	--	--	--	--	--	--	--	--	--	--	-	-	-	-
QUILLAYUTE	66	51	69	43	59	-1	.2	- .3	.2	6.8	115	95	65	0	0	2	0
SEATTLE-TACOMA	75	54	81	50	65	0	.1	0	.1	2.3	105	81	43	0	0	1	0
SPOKANE	86	57	95	50	71	1	.1	0	.1	1.3	65	55	18	2	0	1	0
WALLA-WALLA	91	66	101	57	78	1	T	- .1	T	1.0	63	50	19	4	0	0	0
YAKIMA	89	55	97	50	72	1	T	0	T	1.1	122	65	22	3	0	0	0
WV BECKLEY	81	63	86	59	72	2	1.5	.6	1.0	9.9	110	90	52	0	0	3	1
CHARLESTON	87	67	92	64	77	2	1.6	.5	1.2	11.7	133	92	60	2	0	3	1
HUNTINGTON	89	69	97	66	79	4	.2	- .7	.1	9.7	121	83	54	2	0	3	0
PARKERSBURG	86	70	92	65	78	3	1.1	.2	.6	9.5	109	89	54	2	0	3	1
WI GREEN BAY	82	59	86	53	71	1	.1	- .5	.1	5.7	86	92	53	0	0	2	0
LA CROSSE	89	65	96	60	77	3	.4	- .3	.1	6.1	74	97	40	2	0	3	0
MADISON	85	56	93	47	71	0	.7	0	.6	6.7	80	96	45	2	0	2	1
MILWAUKEE	78	62	87	56	70	-1	.8	.1	.4	8.5	118	88	54	0	0	3	0
WY CASPER	91	54	98	50	73	0	T	- .1	T	1.0	42	50	16	6	0	1	0
CHEYENNE	88	57	95	48	73	3	.2	- .2	.2	2.0	45	49	22	2	0	2	0
LANDER	90	58	95	51	74	2	T	- .1	T	.3	12	44	16	5	0	1	0
SHERIDAN	92	55	101	47	74	2	.2	.1	.1	1.4	36	53	17	5	0	3	0
PR SAN JUAN	93	79	95	78	86	5	.2	- 1.4	.2	3.5	28	88	57	7	0	2	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: Rainfall short of normal. Temperatures 2° above normal.

Soil moisture very short to short. Fieldwork: 5.6 days suitable. Activity: Insect control, care of livestock and poultry. Corn dented 78%, 70% 1979, 62% average; mature 48%, 47% 1979; harvested 10%, 5% 1979. Soybeans blooming 55%, 55% 1979, 57% average; setting pods 32%, 32% 1979. Cotton setting bolls 78%, 74% 1979, 75% average. Peanuts pegging 85%. Condition: Cotton, peanuts, sorghum, fair to good; corn poor; pasture poor to fair; soybeans fair.

ALASKA: Tanana Valley temperatures averaged 3 to 4° cooler than normal. Precipitation abundant. However seasonal precipitation remains below normal most areas. Matanuska Valley temperatures averaged near to slightly below normal. Rain fell every day, totals ranging from just under an inch to over 1.50 in. Seasonal precipitation remains well above normal. Kenai Peninsula maximum temperatures averaged 1 to 3° below normal while minimum temperatures averaged 4 to 5° above normal. Little over 1.00 in. of rain fell. Seasonal precipitation remains above normal. Kodiak Island temperatures averaged nearly 5° above normal. Less than 0.25 in. of rain fell. Seasonal precipitation about 2.50 in. below normal.

ARIZONA: Hot, humid, scattered afternoon, evening thunderstorms, heaviest Northeast, North Central. Temperatures averaged 1 to 8° above normal.

Cotton growing well, very good conditions, almost 95% setting bolls. Safflower harvest active, well advanced. Sorghum very good progress, seed setting, development good, early planted fields ready harvest, later plantings all stages. Corn good progress, most corn for grain Southeast into or beyond tasseling. Sugarbeet harvest completed, better than average yields. Alfalfa haying seasonal progress, 5th cutting well advanced west, 4th cutting underway Central. Harvest watermelons, cantaloups virtually complete. Honeydew harvest steady. Harvest most other mixed vegetables almost complete. Citrus groves good condition, new crop fruit sizing well. Rangeland conditions showed improvement. Southern ranges very poor to fair, fair to good North. Livestock fair to good. Water remains generally short South, adequate North.

ARKANSAS: Temperatures above normal. Scattered showers south. Highest temperature 112°, lowest 56°. All departures from normal +1 to +9°.

Soil moisture short. All crops suffering from lack of rain. Some beyond recovery. Fieldwork possible 7.0 days. Soybean condition poor, some stunted growth. Blooming 32%, pod setting 14%. Early planted rice heading out, 21%. Cotton crop poor to fair condition. Bolls, squares shedding and bolls deformed due to intense heat. Cotton setting bolls 98%, 85% 1979, 90% average. Corn and sorghum poor condition, being harvested for silage instead of grain in some cases. Cattle condition fair, still losing weight. Milk production lower. Supplemental feeding continued. Pastures supplying below average feed requirements.

CALIFORNIA: Average temperatures much above normal, some departures in double digit numbers. Maximum temperatures were 100° or higher all areas. A few minor sprinkles noted, otherwise dry.

High temperatures increased growth, field crops. Wheat, barley nearly harvested; rice 10% headed, 45% last year. Crop developing rapidly. Weeds prevalent. Cotton developing rapidly, minimal insect and disease problems, some boll drop. Bolls set 43%, 62% last year; one to two weeks late. Late beans still planted. Some bloom drop. Sugarbeets near completion, Imperial. Developing well in Valley. Corn and milo various stages growth. Safflower harvest starting. Alfalfa quality affected by temperatures. Harvesting Gravenstein apples, avocados, nectarines, Cling peaches, pears, plums and prunes. Fluctuating temperatures causing date drop. Cling peaches maturing too fast for some pickers, canners. Freestone peach harvest continues. Citrus good. Valencia's 60% complete, Navels sizing well. Grapefruit harvest continues, good demand. Almond shaking near; walnuts fighting sunburn. Broccoli, cauliflower good supply Salinas-Watsonville, Santa Maria areas. Fairly heavy diversion to processors. Celery and lettuce supplies lighter. Trading slow. Cantaloup, carrot, sweet corn, onion, market tomato, bell pepper and watermelon harvests continue normally. Honeydew melon harvest starting to increase, Sacramento and San Joaquin Valleys. Processing tomato harvest continues to gain momentum. Harvest continues heavy in the San Joaquin Valley. Kern and Mendota areas at peak volume. Harvest beginning to move north into Sacramento Valley. Extreme heat resulted in lower livestock weight gains, higher death loss of feedlot cattle and poultry. Range feed good, although drying rapidly. Some rangeland lost to fire. Stock water plentiful.

COLORADO: Temperatures averaged 2 to 4° above normal Showers and thunderstorms afternoons and evenings. Average rainfall ranged from a trace to 1.81 in.

Winter wheat harvested 95%, 91% 1979, 94% average. Barley ripe 57%, 47% 1979; harvested 46%, 33% 1979, 34% average. Spring wheat harvested 27%, 23% 1979. Corn average height 65 in., 71 in. 1979; silked 64%, 53% 1979. Sorghum headed 19%, 14% 1979. Dry beans flowered 44%, 53% 1979. Alfalfa 2nd cutting 65%, 64% 1979, 61% average; 3rd cutting 1%, 2% 1979, 8% average. Fieldwork: 6.5 days suitable. Ranges and pastures fair to good condition. Livestock good condition.

FLORIDA: Western half of State had a few morning showers, thundershowers while the Eastern half had numerous heavy to locally severe afternoon thunderstorms. High temperatures remained in the low to mid 90's, lows in the mid 70's.

Soil moisture adequate most areas, a few dry spots remain and there are a few wet areas where rainfall has been heavy. Corn, tobacco harvest active. Tobacco marketing full swing. Condition peanuts, soybeans improving. Sugarcane continues excellent condition. Haymaking active. Pastures showed continued improvement many areas; generally good to excellent. Additional rainfall would be beneficial. Cattle, calves mostly good condition. Citrus grove condition continues very good to excellent. Many growers irrigating. New growth variable. New crop fruit progressing normally. Land preparation for fall vegetable crops continues very active. Planting expected to begin soon. Several summer vegetables continue to move to local markets, limited basis.

GEORGIA: Temperatures near normal. Low 70's north to low 80's south and central. Less than 1.00 in.

at most stations but amounts of more than 2.00 in. were scattered around south and central.

Soil moisture ranged from very short to adequate. Five days suitable for fieldwork. Scattered showers helpful for late crops where received but too late for most corn and some soybeans. Corn mostly poor to fair. Much salvage harvest for silage. Fields surviving were 97% dough, 86% dent, 53% mature, 13% harvested, 12% last year. Soybeans poor to fair, 45% blooming, 18% setting pods. Peanuts fair to good, 99% blooming this year and average, 100% last year, 98% pegging, last year 100% and average 99%. Cotton fair to good, 99% setting bolls this year and last, 97% average, 1% open this year and last year, 3% average. Tobacco fair to good, 55% harvested, 73% last year and 75% average. Watermelons mostly fair, 89% harvested, 88% last year and 90% average. Peaches fair to good, 96% picked this year and average, 95% last year. Apples fair to good, 19% picked, 21% last year. Pecans mostly fair to good. Pastures and hay crops poor to fair. Cattle and hogs fair to good.

IDAHO: Temperatures near normal. Light precipitation. All areas below normal.

Winter wheat harvested 16%, 10% 1979, 13% average. Spring wheat harvested 2%, 2% 1979, 5% average. Spring barley harvested 3%, 2% 1979. Mint harvested 49%, 32% 1979. Potatoes 90% closed middles, 12% turning color. Fieldwork: 7.0 days suitable. Range and pastures beginning to dry. High fire risk.

ILLINOIS: Temperatures normal to 6° above normal. Precipitation 0.10 to 0.30 in.

Soil moisture 15% adequate, 85% short. Corn condition 4% excellent, 27% good, 49% fair, 20% poor; 62% dough, 29% last year, average 45%; 10% dented, 1% last year, average 11%. Soybean condition 2% excellent, 37% good, 51% fair, 10% poor; 90% blooming, 82% 1979, 83% average; 58% setting pods, 44% 1979, 55% average. Winter wheat acreage 30% plowed, 18% 1979, 25% average. Oats 87% harvested, 72% 1979, 87% average. Alfalfa 3% excellent, 35% good, 51% fair, 11% poor; 95% second crop cut, 86% 1979, 86% average; third crop cut 20%, 24% 1979, 17% average. Pastures 13% good, 43% fair, 39% poor, 5% failure. Fieldwork: 6.3 days suitable.

INDIANA: Warm and dry except in South. Temperatures averaged 4° above normal and ranged from 54 to 101°. Showers heavy, 1.50 to 2.90 in. east, in central and north 0.10 to 0.60 in.

Fieldwork averaged 5.0 days. Topsoil and subsoil moisture short to mostly adequate. Corn condition fair to good. Soybean condition fair to mostly good. Pastures fair. Corn 90% silked, 1979 80%, average 80%. Corn 30% in dough, 1979 15%. Soybeans 85% blooming, 1979 80%, average 80%. Soybeans 25 in. high. Oats 85% combined, 1979 55%, average 85%. Wheat 1981 cropland 10% plowed, 1979 5%, average 10%. Alfalfa hay 85% cut second time, 1979 80%, average 85%. Peaches 45% picked, watermelons 65% picked first time.

IOWA: Continued hot and dry. Temperatures averaged 1 to 5° above normal. Showers spread eastward across west early on 3d. Showers fell over northeast. Other localities reported little or no rain.

Fieldwork: 6.7 days suitable. Corn acreage silked: 96%, 1979 79%, normal 89%. Corn in or past milk stage: 56%, 1979 27%, normal 47%. Corn in or past dough stage: 21%, 1979 7%, normal 15%. Soybean acreage blooming: 93%, 1979 87%, normal 90%. Soybean acreage pods setting: 64%, 1979 54%, normal 62%. Oats harvested: 98%, 1979 74%, normal 90%. Second crop alfalfa hay harvested: 94%, 1979 87%, normal 88%. Second crop clover hay harvested: 71%, 1979 59%, normal 59%. Topsoil moisture: 82% short, 18% adequate. Subsoil moisture: 50% short, 50% adequate. Crop conditions decline: Corn and soybeans, good; hays, fair to good; pasture, poor to fair. Grain market movement increased. Livestock fair condition, some stress, market movement increased.

KANSAS: Precipitation limited to spotty light showers, with over 50% of the stations receiving no measurable rain. Temperatures averaged from 83° in the northwest to 91° south central and 86 to 89° elsewhere. This was from 6° above normal Northwest to 10° above normal East Central.

Corn 20% dough, last year 25%, average 35%. Sorghum 25% headed, last year 20%, average 25%. Soybeans setting pods 15%, last year 30%, average 30%. Soil moisture levels continue to fall. Crop conditions deteriorating.

KENTUCKY: Temperatures averaged in the upper 70's to low 80's, 3 to 5° above normal. Precipitation amounts near 1.00 in. in the North and less than 0.50 in. across South.

Soil moisture 46% short, 50% adequate and 4% surplus. Heat and lack of moisture continue to stress crops, especially in West and Southeast. Corn 88% silked, 22% in dough stage. Many poorly filled ears in West, some barren stalks. Soybeans 65% blooming or beyond compared with 42% last year and average of 50%. Soybeans fair to good condition. Late planted beans very small and show heat stress. Overall condition soybeans fair to good with output dependent on future rains. Nearly 33% burley blooming. Height of tobacco plants very irregular. Black shank most prevalent disease, some blue mold. Pastures mostly poor in West and parts of Southeast, fair to good elsewhere.

LOUISIANA: Rains scattered. Temperatures 2° above to 2° below normal. Extremes: 61 and 102°.

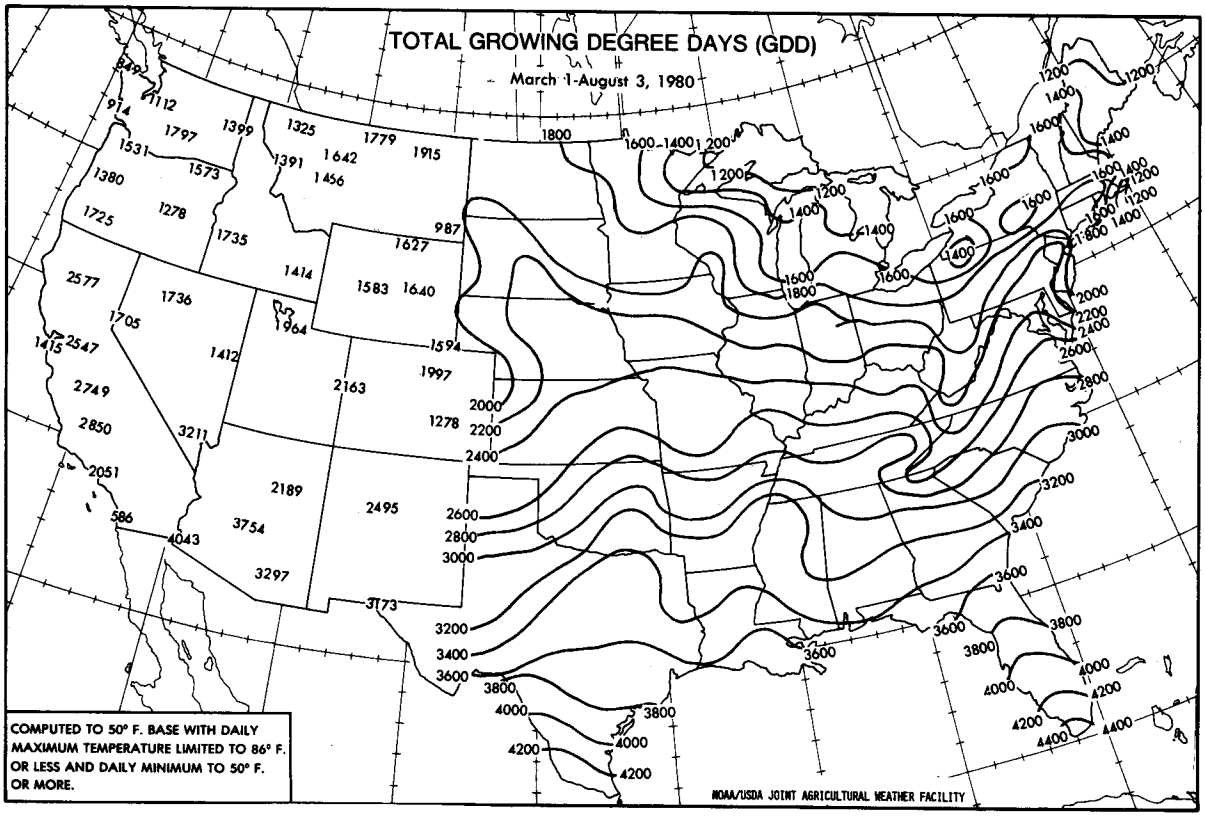
Soil moisture short. Fieldwork: 5.3 days suitable. Corn poor to fair; dough 90%, 94% 1979; mature 50%, 62% 1979; harvested 18%. Cotton fair; squaring 100%, 97% 1979; setting bolls 96%, 84% 1979. Rice fair to good; headed 80%, 69% 1979; ripe 32%, 23% 1979; harvested 20%, 10% 1979. Sorghum fair; headed 84%, 91% 1979; turning color 40%, 62% 1979. Soybeans fair; blooming 62%, 52% 1979; setting pods 37%, 30% 1979. Sugarcane fair to good. Pastures fair. Haying active. Livestock fair to good. Peaches harvested 97%. Vegetables poor to fair. Sweetpotatoes fair.

MARYLAND AND DELAWARE: Temperatures 2° above normal Highs in upper 80's to low 90's. Lows mid 60's to low 70's. Precipitation light.

Corn 70% silked, 30% dough. Last year 70% silked 30% dough. Soybean 30% bloomed, 15% podded. Rye 100% harvested. Wheat 98% harvested, last year 97%. Alfalfa, second cutting 100%, third cut 50%. Second cutting clover 85%. Soil moisutre short to adequate. Seven days suitable for fieldwork.

MICHIGAN: Temperatures mostly 3° above normal. Heavy precipitation occurred over Southeastern Lower with over 3.00 in. received. Most of Upper Peninsula received less than 0.25 in. Spotty precipitation fell elsewhere.

Adequate to surplus soil moisture pushing corn and hay growth but hurting navy beans. Wheat and hay harvest extremely difficult. Corn 65% silked, 60% last year, 65% normal. Hay 2d cut, 45% complete, 51% last year, 59% normal. Oats harvested 6%, 13% last year, 30% normal. Dry beans 26% of pods set, 26% last year, 30% normal. Soybeans pods set 12%, 12% last year, 22% normal. Wheat harvested 80%, 76% last year, 87% normal. Sweet cherries



90% harvested, 97% last year. Tart cherries 66% harvested, 78% last year, 88% normal. Peach and summer apple harvest starting. Plenty of fresh vegetables reaching market.

MINNESOTA: Temperatures averaged near normal except locally up to 3° above normal. Extremes: 96 and 40°. Precipitation averaged near normal in the Southwest, South Central, and Central districts, up to 0.86 in. above normal in the West Central district, near normal to 0.80 in. below normal Northern districts, near normal to 0.40 in. below in the East Central and Southeast districts.

Growing conditions not favorable. Scattered thunderstorms, hot and dry. Topsoil moisture very short. Crop prospects variable. Field corn and soybeans drying up, need rain to fill. Progress slow. Dry weather enabled rapid harvest small grains. Field corn: Tasseling 97%, 1979 79%, normal 90%; in milk 25%, 1979 3%, normal 33%; in dough 4%, 1979 0%, normal 9%. Soybeans: Blooming 94%, 1979 82%, normal 91%; setting pods 45%, 1979 21%, normal 48%. Turning ripe: Spring wheat 95%, 1979 38%, normal 80%; oats 99%, 1979 69%, normal 90%; barley 99%, 1979 69%, normal 91%. Cut or swathed: Rye 94%, 1979 36%, normal 80%; winter wheat 91%, 1979 40%, normal 81%; spring wheat 51%, 1979 2%, normal 36%; oats 76%, 1979 18%, normal 59%; barley 85%, 1979 8%, normal 56%. Combined: Rye 57%, 1979 6%, normal 57%; winter wheat 63%, 1979 13%, normal 57%; spring wheat 19%, 1979 1%, normal 20%; oats 44%; 1979 3%, normal 36%; barley 55%, 1979 1%, normal 34%. Sweet corn for processing: Percent harvested 7%, 1979 0%, normal 7%.

MISSISSIPPI: Temperature slightly above normal. Extremes: 60 and 102°. Rainfall scattered.

Soil moisture adequate to short. Fieldwork: 5.6 days suitable. Corn damaged by drought has not developed and much is being cut for silage instead harvested for grain. Fall armyworms increasing in pastures and in some crops. Rains of recent weeks being used up and additional rainfall needed. Hay 63% harvested, 58% 1979, 57% average. Peaches 78% harvested, 85% 1979, 84% average. Watermelons 69% harvested, 81% 1979, 72% average. Corn cut for silage 39% harvested, 33% average. Soybeans 67% blooming, 64% 1979, 64% average; 24% podding, 25% 1979, 27% average; fair to good condition. Corn 92% dough stage, 91% 1979; 66% dented, 64% 1979; 23% mature, 28% average; fair condition. Cotton 99% blooming, 98% 1979; 86% setting bolls, 73% 1979 and average; good to fair condition. Rice 33% headed, 31% 1979, 31% average; good to fair condition. Sorghum 53% headed, 44% 1979. Pastures fair to good condition.

MISSOURI: Temperatures averaged 3° above normal North, 6° above normal South. Precipitation light as drought continued.

Fieldwork: 6.1 days suitable. Corn 83% silking, last year 76%, normal 76%. Corn 44% in dough stage. Grain sorghum 59% headed, last year 45%, normal 55%. Soybeans 72% blooming, last year 55%, normal 55%. Soybeans 28% setting pods, last year 21%, normal 25%. Alfalfa hay third cutting 27% harvested, last year 19%, normal 27%. Cotton 85% setting bolls, last year 61%, normal 69%. Condition of corn, soybeans, grain sorghum and cotton poor to fair. Condition of pasture poor. Topsoil moisture supplies short.

MONTANA: Precipitation confined mostly to Southwest and South central. Portions received from 0.50 to over 1.00 in. Temperatures 2 to 5° above normal.

Moisture supplies very short east, dry central, adequate west. Fieldwork: 7.0 days suitable.

Turning color: Winter wheat 30%, 1979 40%, normal 25%; spring wheat 50%, 1979 35%, normal 40%; barley 45%, 1979 50%, normal 45%; oats 45%, 1979 45%, normal 40%. Ripe but not harvested: Winter wheat 30%, 1979 50%, normal 50%; spring wheat 25%, 1979 5%, normal 20%; barley 30%, 1979 10%, normal 15%; oats 30%, 1979 15%, normal 20%. Harvested: Winter wheat 40%, 1979 10%, normal 25%; spring wheat 10%, 1979 0%, normal 10%; barley 10%, 1979 0%, normal 10%; oats 10%, 1979 0%, normal 10%. Second cutting alfalfa hay 25% harvested. Wild hay 75% harvested. Range feed supplies poor to surplus except in eastern third. Here feed nearly non-existent except on lowlands.

NEBRASKA: Precipitation: Panhandle 0.50 in., remainder less than 0.10 in. Temperatures: 3 to 5° above normal.

Dryland corn poor to fair. Irrigated corn fair to mostly good. Silking 95% complete; 80% last year; 85% normal, 30% in dough. Soybeans mostly fair to good, 90% blooming, 65% podding, 45% last year, 55% normal. Sorghum mostly fair to good, heading 75% complete, 40% last year, 55% normal. Alfalfa mostly fair, third cutting 20% harvested. Topsoil moisture short. Subsoil moisture short. Pasture and range feed supplies short. Livestock weight gains reduced because of continued hot weather.

NEVADA: Unseasonal high humidity, widely scattered thunderstorms. Despite shower activity, temperatures at record levels. Temperatures averaged 5° above normal. Extremes: 114 and 40°.

Ranges drying, increasing fire hazard. Good progress combining small grains. Wild hay harvest full swing.

NEW ENGLAND: Warm, humid weather continued. Heavy rain 29th lowered temperatures briefly. Up to 4.00 in. in Connecticut. Widely scattered thunderstorms late week.

Fieldwork: 5.0 days suitable. Northern Maine potato crop appears excellent. Growers applying disease and insect controls. Sweet corn and most other vegetables in heavy supply in southern New England. Demand good. Sweet corn harvest beginning Central sections. Second crop hay harvest slow due to rain. Cranberries still need moisture but crop sizing well. Early peaches, apples, and plums being harvested. Some bird problems reported. Blueberry and raspberry harvest full swing. Soil moisture adequate. Grazing conditions mostly short.

NEW JERSEY: Temperatures averaged 2 to 5° above normal. Extremes: 57 and 95°. Rainfall averaged 1.43 in. North, 2.19 in. Central and 1.33 in. South.

Fieldwork: 5.6 days suitable. Soil moisture adequate to short. Summer vegetable volume good. High temperatures maturing crops rapidly. Processing tomato harvest beginning. Blueberry harvest declining. Oat combining well advanced. Second cutting of hay complete many areas. Fall vegetable planting well advanced.

NEW MEXICO: Weather hot and dry. Increased shower activity, but totals generally well below normal.

Soil moisture very short. Irrigated crops generally good condition. Dryland crops mostly poor due to lack of moisture. Cotton, 85% of bolls set, 55% last year, 85% normal. Second cutting alfalfa nearly completed in northern counties, while third cutting nearing completion in southern counties. Fourth cutting beginning. Livestock fair condition. Ranchers supplemental feeding. Ranges poor and dry. Some liquidation of herds occurring.

NEW YORK: Temperatures 1 to 4° above normal. Humid conditions with widespread showers.

Wheat 40% harvested, 43% 1979, 62% average. Oat harvest starting, same 1979, 17% average. Second cut alfalfa 39% in, 43% 1979, 50% average. Corn, dry beans good condition. Harvest of early sweet corn, snap beans, potatoes, cabbage underway. Long Island still dry. Apples, pears developing well. Spot picking of early variety apples begun along Lake Ontario, Hudson Valley. Early variety peaches being harvested.

NORTH CAROLINA: Temperatures 5° below normal. Precipitation below to near normal.

Fieldwork: 6.1 days suitable. Soil moisture: 20% very short, 48% short, 32% adequate. Conditions: Pastures mostly fair to good; corn, hay, Irish potatoes fair to good; field tobacco, peanuts fair to mostly good; apples, peaches, sweetpotatoes good. Harvested: Flue-cured tobacco 22%, 1979 40%, average 34%; peaches 71%, 1979 75%, average 77%; hay 60%, 1979 75%, average 73%; apples, sweet potatoes, corn for silage just underway. Phenological stages: Cotton squared 92%, 1979 96%; cotton set bolls 79%, 1979 72%; corn silked 94%, 1979 83%; corn soft dough 80%, 1979 56%; corn dent 54%, 1979 42%; corn mature 23%; soybean blooming 38%, 1979 22%; soybeans pod set 9%, 1979 4%.

NORTH DAKOTA: Some showers and thunderstorms occurred in Central and Eastern areas. Western third received almost no rainfall. Some hail damage occurred in the central part of the State. Temperature extremes ranged from 43 to 102°.

Excellent harvesting weather allowed swathing and combining to advance rapidly although row crops continued to suffer from drought stress. Combining of barley and oats made particularly good progress. Producers also combined 10% of the spring wheat but only 4% of the durum. Harvest operations underway all areas. Small grains swathed or combined this year, last year and average: Durum, 18, 1, 7; spring wheat 38, 1, 15; barley 48, 6, 33; oats 47, 6, 27. Sunflower development lagging with 38% in bloom compared to 48% normally. Topsoil and subsoil moisture short. Pasture growth very poor and hay supplies very short.

OHIO: Average weekly high temperatures near normal; lows from 4 to 8° above normal. Range 40 to 95°. Precipitation above normal. Amounts varied from 0.22 to 3.98 in.

Wheat harvest complete except few areas Northeast. Corn maturing well although many bare spots. Soybeans benefited from precipitation. Tobacco crop being damaged by blue mold. Corn silked 85%, 80% 1979, 80% average. Corn in dough 25%, 20% 1979, 20% average. Soybeans setting pods 55%, 50% 1979. 65% average. Oats harvested 60%, 45% 1979, 75% average. Potatoes harvested 10%, 10% 1979, 10% average. Fieldwork: 4.5 days suitable. Pasture condition good. Soil moisture adequate.

OKLAHOMA: Temperatures averaged 4 to 9° above normal. Panhandle division reported 0.51 in. rainfall, all other divisions less than 0.10 in.

Scattered rains temporarily relieved some areas. Sorghum heading 60%, 25% 1979, 50% average. Sorghum milk to dough 10%, 10% 1979, 20% average. Cotton squaring 85%, 75% 1979, 90% average. Cotton setting bolls 20%, 10% 1979, 35% average. Days suitable fieldwork: 6.8.

OREGON: Temperatures near normal along coast, 4 to 9° above normal interior. No precipitation except light showers in extreme east.

Soil moisture supplies short in scattered areas in west and in several counties in east. Winter wheat good, 29% harvested, 64% 1979. Haying and grass seed combining active. Sour cherry crop good. Early peach and blueberry harvest continues; black-

berries coming on. Filbert set good; spraying continues. Early potato harvest progressing. Bush beans in full swing. Onion harvest nearing. Livestock, range and pasture good to excellent. Non-irrigated pastures drying up. Fire danger moderate to high. Grasshopper problems in scattered areas.

PENNSYLVANIA: Warm and humid with scattered showers and thunderstorms. Temperatures 2 to 5° above normal Eastern and Southern half and 1 to 2° below normal Northwest. Extremes: 42 and 97°. Rainfall from 0.25 in. to 6.50 in.

Fieldwork: 5.0 days suitable. Soil moisture short to adequate. Activities: Making hay; combining grain; baling straw; digging potatoes; harvesting early cabbage and peaches; topping tobacco; plowing; planting wheat and barley. Barley harvest virtually complete. Wheat harvest 89%, last year 69%. Oats 57% combined, 27% last year. Potatoes 8% harvested, 12% last year. Corn 49% silked and 3% in dough; last year 50% silked, average 54% silked and 3% in dough. Alfalfa second cutting 75%, last year 56%. Third cutting alfalfa 19%. Second cutting Clo-tim 33%. Hay quality mostly good to fair. Feed from pasture below average to average.

PUERTO RICO: Island average rainfall 0.51 in. or 1.04 in. below normal. Temperatures averaged about 84° on coasts and 75 to 78° interior divisions. Extremes: 96 and 60°.

SOUTH CAROLINA: Temperatures above normal. Precipitation averages light as scattered thunderstorms.

Days available for fieldwork: 6.0. Drought reducing crop prospects. Corn poor to fair condition, 89% dough stage, 91% last year and average; 40% mature, 52% year ago, 54% average; 3% corn harvested, 5% 1979. Cotton condition fair, but drought caused some small fruit, boll drop; boll weevil, bollworm numbers increasing, require spraying; 96% setting bolls, 95% year ago, 90% average. Soybean condition fair under hot, dry stress, some insect pressure; 40% blooming, but some premature, 52% year ago, 54% average; 4% setting pods, 8% last year. Peanuts poor to fair due to drought. Tobacco fair to good condition, disappointing quality due to stresses; 33% harvested, 77% year ago, 68% average.

Peaches fair condition, major harvest shifting to Piedmont at 81% completion, 87% year ago, 88% average. Apples, grapes good condition with harvest underway later than 1979. Watermelon harvest at 88%, 91% last year, 90% average. Pastures poor to fair condition due to drought.

SOUTH DAKOTA: Hot, dry, and windy. Temperatures 3 to 5° above normal. Extremes: 110 and 45°. Rainfall very light and scattered.

Topsoil and subsoil moisture adequate only in a small part of the Northeast. Short to critically short elsewhere. Small grain harvest nearing completion 10 days ahead of average. Row crops deteriorating. Armyworms damaging corn and grain sorghum few localized areas. Grasshoppers causing economic damage over larger areas. Pastures poor. Supplemental feed and watering needed most areas. Herd reduction or movement out of State continuing. Soybeans bloomed 91%, 84% 1979, 89% average. Sunflowers bloomed 52%, 24% 1979, 24% average. Flax ripe 39%, 15% 1979, 31% average. Rye harvested 95%, 30% 1979, 78% average. Barley 93%, 27% 1979, 68% average. Oats 90%, 30% 1979, 65% average. Spring wheat harvested 81%, 13% 1979, 46% average. Corn silked 67%, 53% 1979, 66% average. Grain sorghum headed 43%, 24% 1979, 30% average.

TENNESSEE: Widely scattered showers early week. Amounts averaged less than 1.00 in. Temperatures averaged 5° above normal West, 2 to 3° above normal middle and East. Soil moisture mostly short.

Fieldwork: 5.8 days suitable. Activities: Topping tobacco, cultivating, harvesting hay, feeding cattle. Corn 95% silked, 1979 81%, average 87%. Corn 70% dough, 1979 78%, average 55%. Corn 20% dented, 1979 7%, average 19%. Cotton 90% setting bolls, 1979 56%, average 65%. Soybeans 65% blooming, 1979 45%, average 61%. Soybeans 25% setting pods, 1979 12%, average 16%. Burley tobacco 15% topped. Lespedeza hay 15% harvested, 1979 and average, 15%. Pastures mostly poor. Cattle good, being fed hay and silage.

TEXAS: Hot, dry weather continued. Temperatures remained well above normal for sixth consecutive week. Dryland crops showing effects of relentless heat. Plants maturing rapidly, development poor. Scattered showers and some hail reported Panhandle. Harvest of corn, cotton, sorghum in full swing South, moving northward toward Cross-Timbers, Plains. Cotton crop continues to decline. Insects building Plains, producers actively spraying. Cotton in Low Plains, Cross-Timbers blooming but shedding fruit at tops. Blacklands, bolls small, beginning to open, maturing early. Harvest peak Rio Grande Valley, South moving toward East, Blacklands. Sorghum harvest 56% harvested. Many fields being baled or cut for silage. Fields remaining expected to reflect effects of moisture shortage in lighter, less developed heads. Irrigated sorghum in fair condition. Many fields intended for grain lost, will not produce grain. Plants burned badly, dry broken stalks causing ear droppage, lodging. Harvesting activity moving northward, wrapping up valley. Yields from early planted fields fair, late planted corn expected to yield considerably less. Rice harvest moving rapidly despite some shower delays. Yields show wide variation. Quality down due to lack of adequate overhead moisture. Peanuts in fair condition, harvest expected in some areas shortly. Central stands developing slowly, some fields burned because of heat. Soybeans progressing slowly. Coastal fields blooming, early fields setting pods. Fields East, Blacklands suffering from moisture stress, beginning to bloom. Hay production, harvest virtually complete. Heat has stopped all growth. Second cuttings very minimal, some areas not getting any second crop.

Cotton setting bolls 73%. Cotton harvested 6%, 2% 1979, 2% average. Rice harvested 41%, 25% 1979, 38% average. Sorghum harvested for grain 56%, 35% 1979, 41% average. Corn for grain harvested 22%, 7% 1979, 8% average.

Commercial vegetables: In Lower Rio Grande Valley, land preparation, planting active for fall vegetables. Light supplies mixed vegetables, melons available. In Coastal Bend, scattered showers benefited late watermelons, land prepared for fall cucumbers. In San Antonio-Winter Garden area land preparation fall planting continued. Some planting fall tomatoes, cabbage completed. Light volume honeydew melons, cantaloup continued. In Central land preparation fall vegetables underway. In East watermelon harvest slowing. Production most summer vegetables ended. Land preparation, fall planting active. Some tomatoes planted. Sweetpotatoes need rain. In North land preparation for fall vegetables began. Light supplies tomatoes, okra, cantaloup available. At El Paso harvest of squash, cucumbers, cantaloups, honeydew melons, tomatoes active. On High Plains, volume harvest of onions, potatoes, cucumbers continued. Light supplies tomatoes, watermelons, cabbage available. Peach harvest continued North. Pecans continued to suffer from drought conditions and droppage increased.

Range and livestock: Drought conditions persisted. Range, forage growth deteriorated. Supplemental feeding hay, protein became more preva-

lent. Calves being weaned earlier and sold. Culling increased to reduce demands on limited forage production. Stock water available most areas, however, some hauling necessary. Goat shearing underway Edwards Plateau.

UTAH: Recurring periods shower and thunderstorm activity many areas. Accumulated amounts moisture generally light to moderate but heavy few isolated stations. Average temperatures continued to climb forepart period but cooling trend over weekend. Averages ranged from near normal to 7° above.

Fieldwork active 6.6 days. Major activities included irrigation and harvest of small grains and hay. Winter wheat and barley about 20% harvested. Second crop hay about 66% cut. Some cut early to minimize aphid damage. Corn averaging 57 in. in height and starting to tassel. Crop only fair due to poor spring weather. Spraying for root worm active. Tart cherry harvest 66% complete. Cattle, sheep good condition.

VIRGINIA: Hot, humid. Temperatures averaged upper 70's, a few degrees above normal. Extremes: 51 and 104°. Record-breaking temperatures several locations. Rainfall light, 0.60 in. occurred mainly on 28th, 29th. Isolated thunderstorms on 1st produced hail, strong winds. Rainfall varied from zero Southeast to over 2.00 in. West.

Scattered rain aided late corn, soybean growth central Piedmont, Tidewater. Topsoil moisture short to adequate. Fieldwork: 4.9 days available. Corn 85% silked, 45% in dough; condition: Very poor Tidewater, Southeast; good Southwest, southern Piedmont; poor to fair elsewhere; corn silage harvested. Soybeans good southern Piedmont, fair elsewhere; showing stress from lack of moisture Southeast. Tobacco harvested: Flue-cured 5%, 15% 1979, 13% average; fire-cured 2%, 5% 1979, 13% average; burley 1%, less than 1% 1979, 1% average; sun-cured less than 1%, 15% 1979, 4% usual. Wet, cool weather Southwest promoting blue mold growth in burley. Peanuts rated good but showing stress from dry conditions Southeast. Pastures, hay fair. Livestock fed supplemental rations in dry areas. Other activity: Peach, apple picking; pasture clipping; plowing for fall seedings.

WASHINGTON: West: Temperatures averaged 2 to 3° above normal. Precipitation much below normal. Vegetables including cauliflower, green peas, broccoli, cabbage seed, and cucumbers harvested. Red raspberry picking winding down. Blueberries in full swing. Hay cutting active with supplies adequate.

East: Temperatures averaged 1° below normal to 6° above normal. Precipitation below normal. Apricots, prunes, early peaches, and late cherries harvested. Cherries virtually completed. Hand thinning of apples winding down. Apple and pear orchards good. Digging of early Norgold potatoes took place. Green pea harvest almost complete, dry beans just getting started. Sweet corn and snap bean harvest to begin soon. Second cutting of alfalfa hay continues. Small grains continue to make rapid maturity, while harvest progressed nicely. Dry peas and grass seeds also harvested.

WEST VIRGINIA: Temperatures 3° above normal. Extremes: 97 and 51°. Precipitation above normal, unevenly distributed.

Soil moisture adequate. Days suitable for fieldwork: 4.0. Wheat good to fair, 95% ripe, 71% harvested; 90%, 51% respectively 1979. Barley good to fair, 99% ripe, 88% harvested; 87%, 66% respectively 1979. Oats good to fair, 71% ripe, 42% harvested; 73%, 35% respectively 1979. Corn good to fair. Hay good to fair, 1st cutting 96% complete, 2d cutting 36% or 83% of normal. Fruit good to fair, peaches 29% harvested, 69% of normal. Pastures good to fair. Potatoes good to fair.

WISCONSIN: Temperatures near normal. Extremes: 96 and 46°. Showers and thunderstorms nearly every day. Rainfall amounts variable. Heaviest Northeast at over 1.00 in., lightest Northwest and Central at less than 0.50 in.

Fieldwork: 5.0 days suitable. Oat harvest 20% completed, 1979 6%, normal 20%. Lodging, weed growth, and high humidity slowed harvest some areas Second crop hay 65% harvested, 1979 50%, normal 40% Third crop growth coming good, a few started harvesting. Showers and high humidity slowed hay harvest. Pasture conditions below year ago but near normal for early August. Corn continues to look excellent most areas. Corn 80% silked, 1979 60%, normal 60%. Hail damage to corn and other crops severe few counties. Sweet corn harvest underway, other vegetable crops also being harvested. Early tobacco being topped, crop better in southern areas where had more moisture. Early apples being picked, cherry harvest continuing. Topsoil moisture mostly adequate except short West Central and Southwest.

WYOMING: Temperatures above normal. Precipitation below normal.

Topsoil moisture short. Average 7.0 days suitable for fieldwork. Winter wheat mature 98%, harvested 82%. Spring wheat turning color 84%; mature 52%; harvested 34%. Oats turning color 73%; mature 35%; harvested 20%. Barley turning color 80%; mature 48%; harvested 21%. Corn fair to good condition, 54% tasseled, 36% silked. Dry beans good condition, 72% in bloom. Potatoes good condition, 62% in bloom. Sugarbeets good to excellent condition. First cutting alfalfa 97% complete, second cutting 28%. Other hay 47% harvested. Fall, winter grazing prospects mostly fair. Livestock mostly good condition. Ranges, pastures mostly fair condition.

International Weather and Crop Summary

July 28 - August 3

HIGHLIGHTS:

USSR: Harvesting winter grains...too wet in the West.
Spring grains heading in the North*...good soil moisture.

EUROPE: Harvesting winter grains...improved weather.

CHINA: Main rice crop turning color*...excessive rainfall along Yangtze River.

INDIA: Rice jointing*...abundant rainfall in most areas.

THAILAND: Early rice crop maturing*...beneficial rains continue.

AUSTRALIA: Winter grains semi-dormant...rain in Northeast.

ARGENTINA: Winter grains semi-dormant...soil moisture adequate.

BRAZIL: Winter grains semi-dormant...favorable weather.

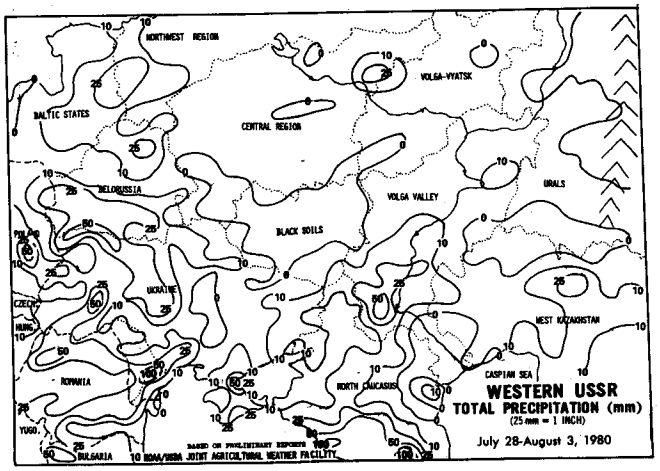
MEXICO: Immature citrus...suffering from lack of moisture in the Northeast.

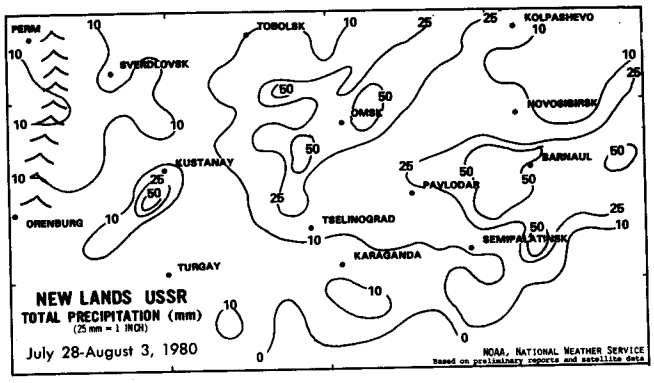
CANADA: Spring grains in filling stage...too dry in the south and central portions.

*Based on normal crop calendar information.

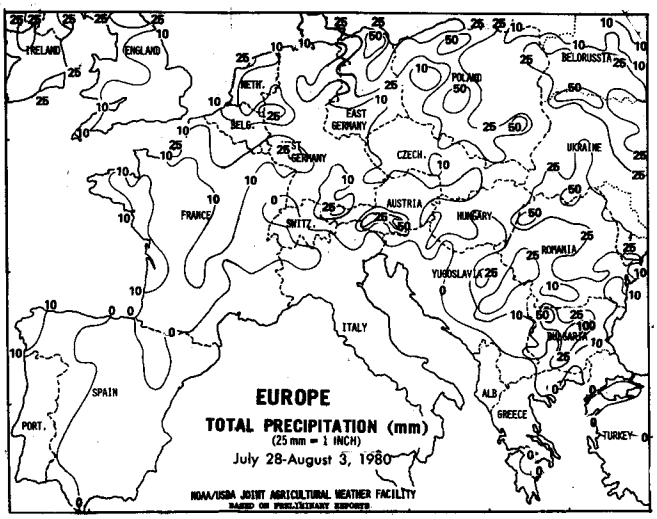
USSR. Winter grain harvest weather improved in some parts of southern European USSR, but wet conditions interrupted the harvest in many areas. Rainfall in the lower Volga Valley is not expected to cause any problems since it was the first in quite some time. Persistent wet weather in the western Ukraine and Belorussia has not favored harvesting, however. Temperatures remained near to slightly above normal, but the dampness will surely affect grain quality. In the dry southern Urals, temperatures dipped below normal as winter grain harvesting neared completion and spring grains ripened.

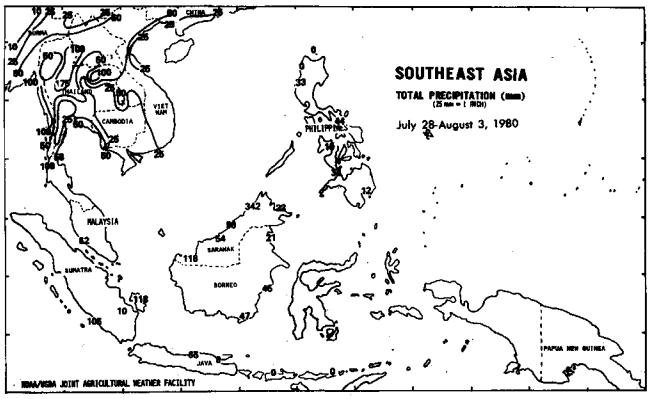
New Lands' temperatures ranged even further below normal, but this should not seriously delay spring grain development. Abundant rainfall ranging much above normal benefited most areas, and only along the southwestern fringe of the crop area were soils too dry as the grains neared maturity.





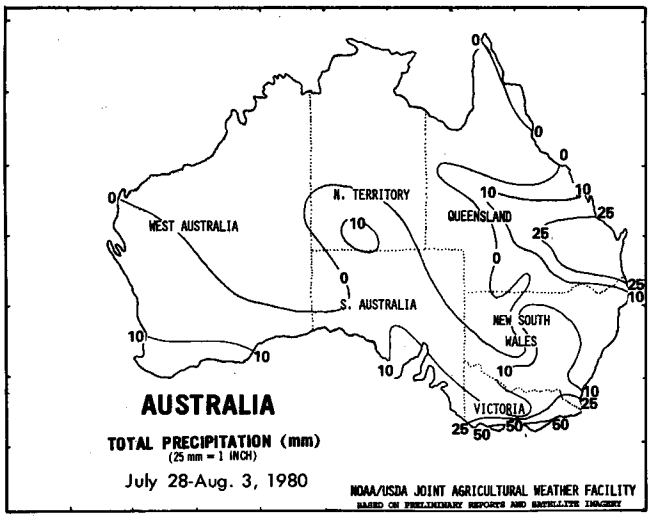
EUROPE. Rainfall slackened somewhat over most of the region, although a variable pattern left above-normal totals at many locations. Harvesting of winter grains increased with the drier weather. The slow maturation of these grains may have saved them from serious damage by recent wet weather. Although lodging posed a problem for harvesting of early fields, good yields have been reported. Spring-planted row crops may have suffered more from the earlier wetness, and the delayed development may cause bottlenecks in fieldwork later in the season. Above-normal temperatures associated with the sunnier weather will help. The southeastern countries remained somewhat wetter, with temperatures running near normal. Although some local areas were drier, conditions for crops remained too wet in general.

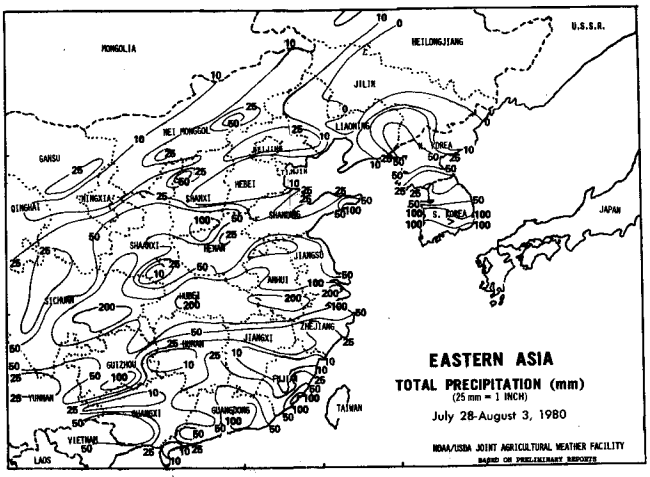




SOUTHEAST ASIA. Monsoonal activity continued to produce above-normal rainfall throughout most of Thailand. Weekly totals generally ranged from 50 to 70 mm with more abundant amounts (100 to 175 mm) found in north central Thailand. Lesser amounts (10 to 30 mm) fell in the agriculturally productive region north of Bangkok. This drier weather should aid the development of the early-season rice crop since the quality of the grain is related to the amount of sunshine received during the maturation period. Conditions remain favorable for maize and other crops.

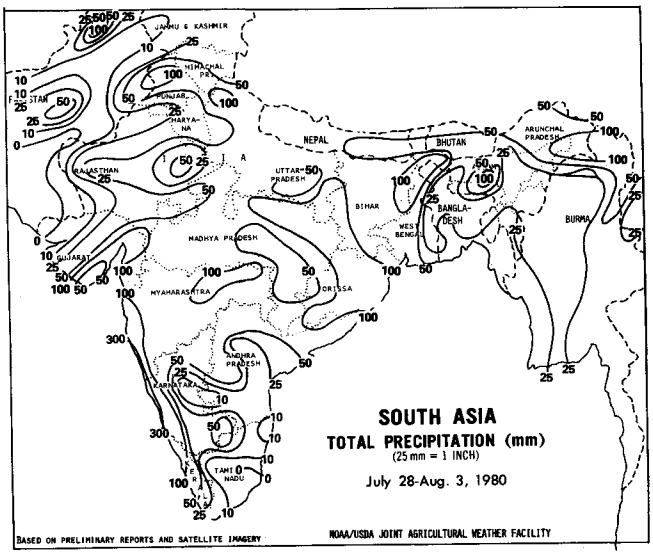
AUSTRALIA. Weekly rainfall totals of 10 to 30 mm fell in those winter wheat areas of Queensland and New South Wales which have experienced persistently dry conditions since the sowing season began this past fall. Highest amounts were recorded in the cropland of Queensland where conditions are rated fair to poor. More rain is needed to replenish soil moisture for favorable crop development once the crop begins vigorous growth in the spring. Elsewhere, only light rain fell this week in the southern portion of the continent except for along the southern coast of Victoria where over 50 mm fell. Moisture conditions remain favorable except for isolated pockets of dryness in West Australia.

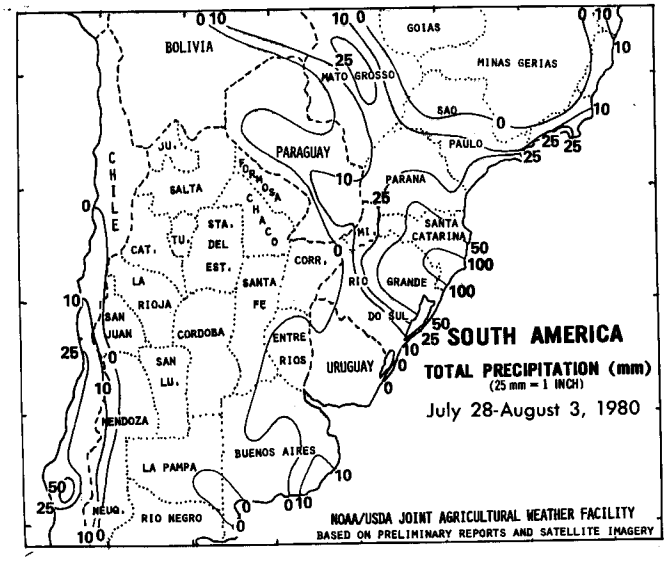




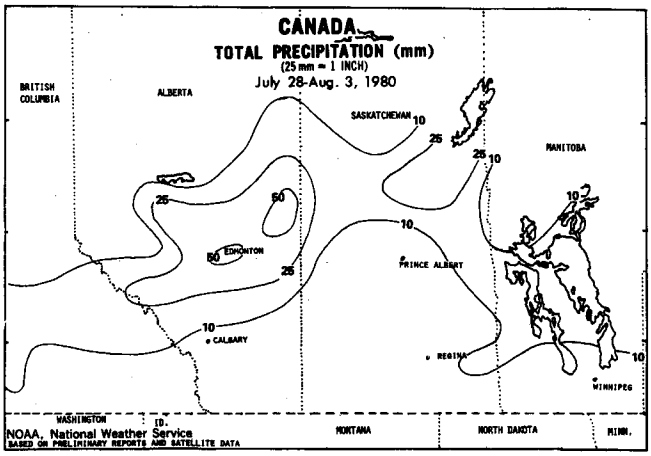
CHINA. Heavy rain returned to the Yangtze Valley where the weather had been relatively dry last week. The main rice crop there should be nearing maturity now, and this excessive water created unfavorable conditions. Parts of Guangdong continued to be plagued by above-normal rains from Tropical Storm Kim early in the week. Northwestern areas extending into Nei Monggol benefited from some of the heaviest rainfall seen there this year. On the other hand, dry weather in the Manchurian Valley probably served as a relief from persistent wet weather in recent weeks.

SOUTH ASIA. Abundant rainfall continued across much of the region. Flooding in the Ganges Plain caused serious problems for crops other than rice, but farmers in upland areas welcomed the wet conditions. The mood is much more optimistic than last year at this time. Rainfall slackened somewhat in some peninsular areas and in Bangladesh, but soils remained quite adequately moist.



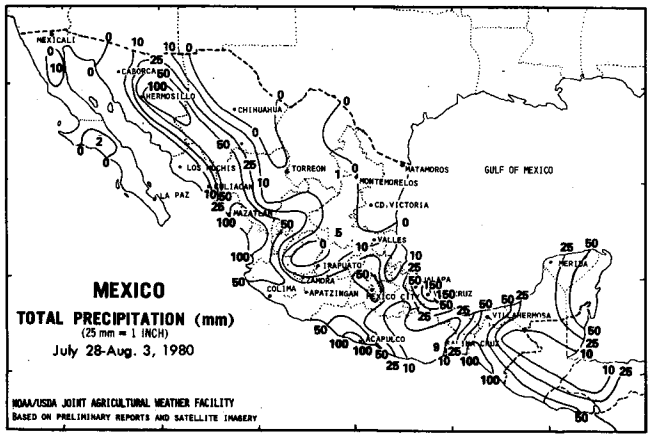


SOUTH AMERICA. A frontal system produced moderate rainfall through southern Brazil and Paraguay early in the week. The winter wheat areas in Parana, Santa Catarina, and Rio Grande do Sul benefited from weekly totals of approximately 25, 50 and 75 mm, respectively. Soil moisture is in ample supply for the wheat crop which remains in near-dormancy during the winter months. The cold airmass did not penetrate into the coffee areas of northern Parana. A second storm produced light rain in Buenos Aires Province in Argentina late in the week. In general, soil moisture remain adequate for the Argentine winter wheat crop.

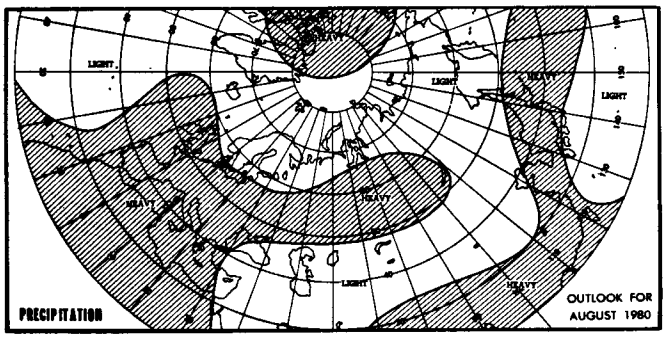


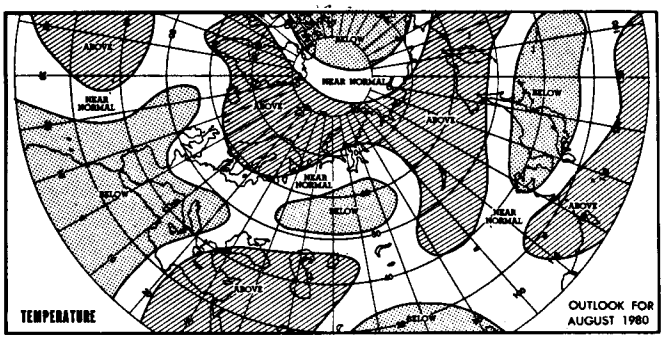
CANADA. Light rain fell over the Canadian Prairies this week. Significant weekly totals (more than 10 mm) dampened the crop areas of northern Alberta, extreme eastern Saskatchewan, and northern Manitoba. Southern portions of the grain belt received minimal amounts of rains. Most crops are in the grain-filling stage with some early-seeded cereals beginning to ripen. The scattered showers improved conditions for late-seeded crops; however, additional moisture will have little impact on crops which have advanced into the period of maturation.

MEXICO. Hot, dry weather continuing since late May in the northeast has decreased water supplies and strongly stressed citrus. Further south, timely rains are maintaining adequate soil moisture in the Jalapa-Veracruz citrus district. Abundant rains continuing to fall over western and northwestern watersheds is replenishing water supplies for late fall and winter vegetables. Most of the southern plateau's corn belt received beneficial rains as the crop nears the tasseling stage; however, the northern fringe was slightly dry.



EURASIA WEATHER OUTLOOK ... AUGUST 1980 ... CLIMATE ANALYSIS CENTER





CROP PROGRESS

FOR WEEK ENDING AUG 3, 1980

CORN
% STLKING

	1980	1979	AVG.
COLO	64	53	NA
GA	100	2/	2/
ILL	2/	88	92
IND	90	79	80
IOWA	96	79	89
KANS	NA	NA	NA
KY	88	65	70
MICH	65	60	65
MINN	94	65	85
MO	95	78	76
NEBR	95	80	85
N C	94	83	NA
OHIO	85	80	80
PA	49	50	54
S DAK	67	53	66
VA	85	NA	NA
WIS	80	50	60
EXCL. STATES WITH NA	90	75	82

THESE 17 STATES PRODUCED 93% OF THE 1979 CORN CROP.

CORN
% DOUGH

	1980	1979	AVG.
COLO	0	0	NA
GA	97	NA	NA
ILL	62	29	45
IND	30	15	NA
IOWA	21	7	15
KANS	20	25	35
KY	22	10	20
MICH	5	2	14
MINN	1	0	9
MO	44	11	40
NEBR	30	NA	NA
N C	80	56	NA
OHIO	25	20	20
PA	3	0	3
S DAK	0	0	0
VA	45	NA	NA
WIS	0	0	3
17 STATES	28	NA	NA

THESE 17 STATES PRODUCED 93% OF THE 1979 CORN CROP.

SORGHUM
% HEADED

	1980	1979	AVG.
COLO	19	14	NA
KANS	25	20	25
MO	59	45	55
NEBR	75	40	55
OKLA	60	25	50
S DAK	43	24	30
TEX	79	71	NA
7 STATES	56	43	NA

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

SOYBEAN
% BLOOMING

	1980	1979	AVG.
ALA	55	55	57
ARK	32	NA	NA
GA	45	NA	NA
ILL	90	82	83
IND	85	80	80
IOWA	93	87	90
KANS	NA	NA	NA
KY	65	42	50
LA	62	52	NA
MICH	57	55	49
MINN	94	82	91
MISS	67	64	64
MO	72	55	58
NEBR	90	NA	NA
N C	38	22	NA
OHIO	NA	NA	NA
S C	46	52	49
TENN	65	49	61
EXCL. STATES WITH NA	80	71	74

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

SOYBEAN
% SETTING PODS

	1980	1979	AVG.
ALA	32	32	NA
ARK	14	NA	NA
GA	18	NA	NA
ILL	58	44	55
IND	35	20	40
IOWA	60	54	62
KANS	15	30	30
KY	25	10	15
LA	37	30	NA
MICH	12	12	22
MINN	45	21	48
MISS	20	25	27
MO	28	21	25
NEBR	65	45	55
N C	9	1/	NA
OHIO	55	50	65
S C	4	8	NA
TENN	25	12	16
18 STATES	38	NA	NA

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

RICE
% HEADED

	1980	1979	AVG.
ARK	21	NA	NA
CALF	10	05	NA
LA	80	69	NA
MISS	33	31	31
TEX	100	100	NA
5 STATES	45	NA	NA

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

COTTON
% SETTING BOLLS

	1980	1979	AVG.
ALA	78	78	75
ARIZ	95	NA	NA
ARK	98	85	90
CALF	43	62	NA
GA	90	99	97
LA	96	84	NA
MISS	86	73	73
MO	85	61	76
N MEX	85	55	85
N C	70	72	NA
OKLA	20	10	35
S C	96	95	90
TENN	90	56	65
TEX	73	55	NA
14 STATES	72	NA	NA
EXCL. STATES WITH NA	77	64	71

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

WINTER WHEAT
% HARVESTED

	1980	1979	AVG.
CALF	97	100	NA
COLO	95	91	94
IDA	10	15	13
ILL	100	100	100
IND	100	100	100
KANS	100	100	100
MO	100	100	100
MONT	40	10	25
NEBR	100	90	98
OHIO	99	99	99
OKLA	100	100	100
OREG	29	64	NA
S DAK	100	50	86
TEX	100	100	100
WASH	40	53	NA
15 STATES	89	87	NA

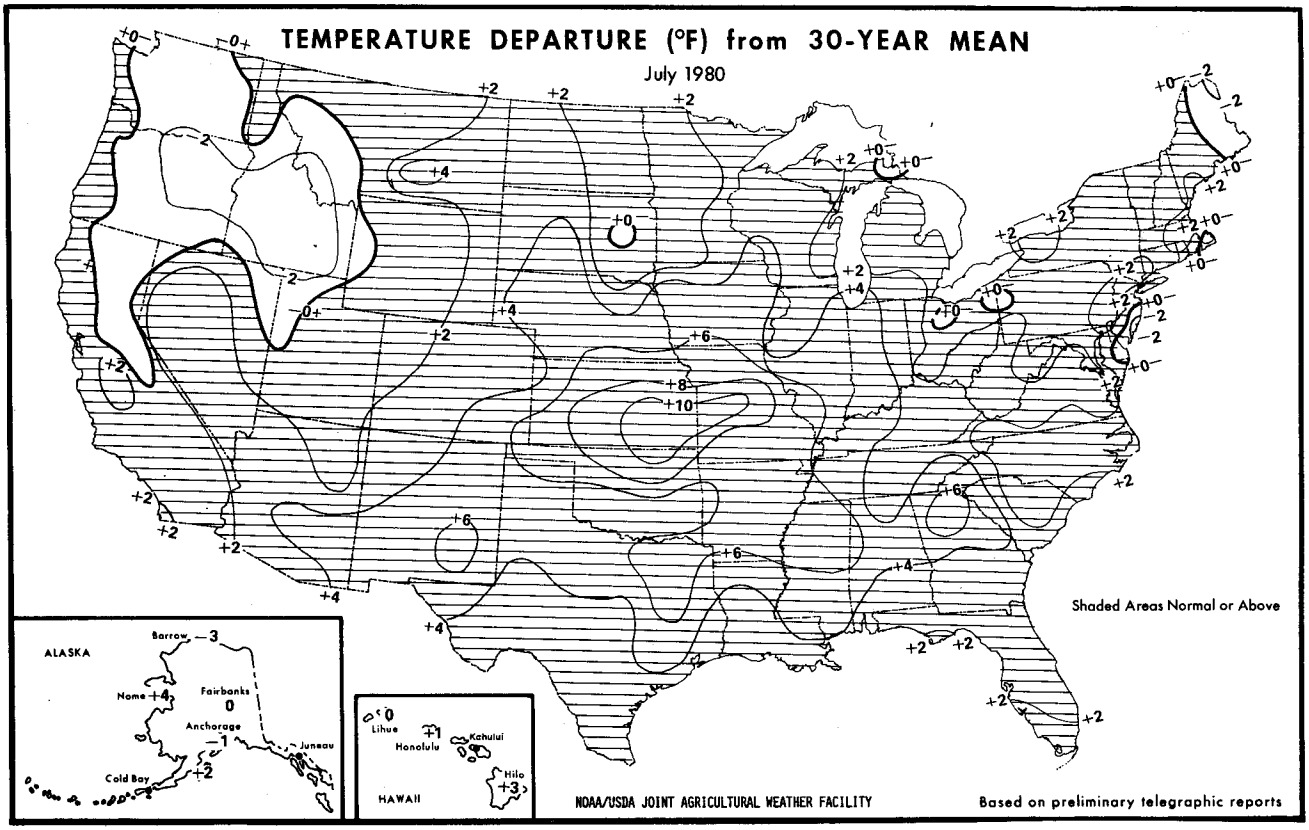
THESE 15 STATES PRODUCED 90% OF THE 1979 WINTER WHEAT CROP.

SPRING WHEAT
% HARVESTED

	1980	1979	AVG.
IDA	2	2	5
MINN	19	1	20
MONT	10	0	10
N D	13	0	4
S DAK	81	13	46
5 STATES	23	2	15

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

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



July Weather Summary

HIGHLIGHTS: The heat wave, which began in June, bore down on the eastern two-thirds of the Nation for most of the month. During the last 10 days of July, the ridge of high pressure aloft responsible for the anomaly moved westward and allowed cooler air to come in to the northern Plains. Although precipitation was heavy in some areas, the high temperatures put a tremendous demand on moisture supplies. The central and southern Plains and parts of the South suffered losses in human lives as well as crops, poultry, and livestock.

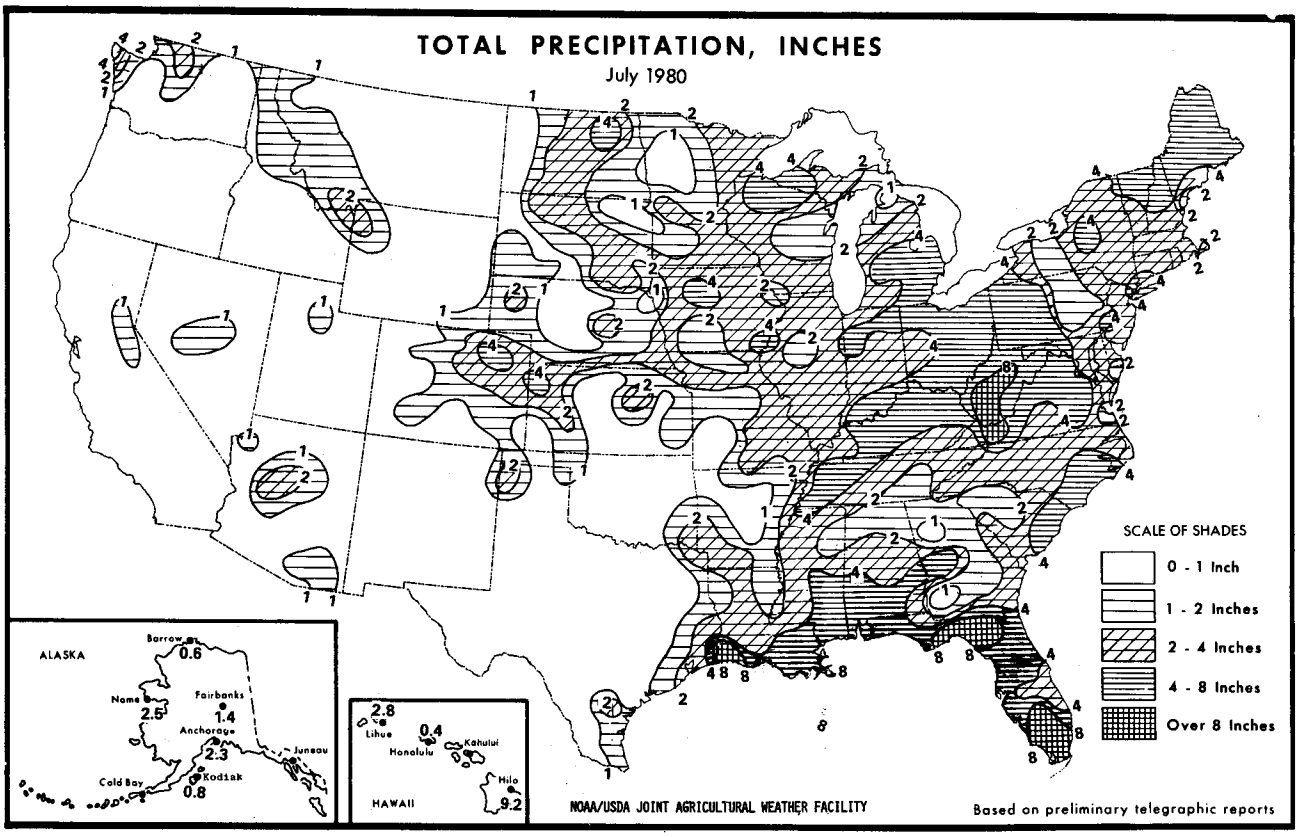
FIRST WEEK...July began with a continuation of the severe heat wave affecting much of the United States. Only the Northwest, the Great Lakes area, and the Northeast were spared the heat. Temperatures ranged from 9 to 11 degrees above normal in Oklahoma, Kansas, Missouri, and Arkansas, and well-above-normal temperatures extended throughout the Plains and the South. The heat and high humidities took a heavy toll from the poultry industry and hurt other livestock. Frontal systems moving through the northern tier of States became nearly stationary from New England through the Ohio Valley and into the central Plains. Very welcome rain--up to 2 inches--fell through northern Kansas and Missouri and through the lower Ohio Valley.

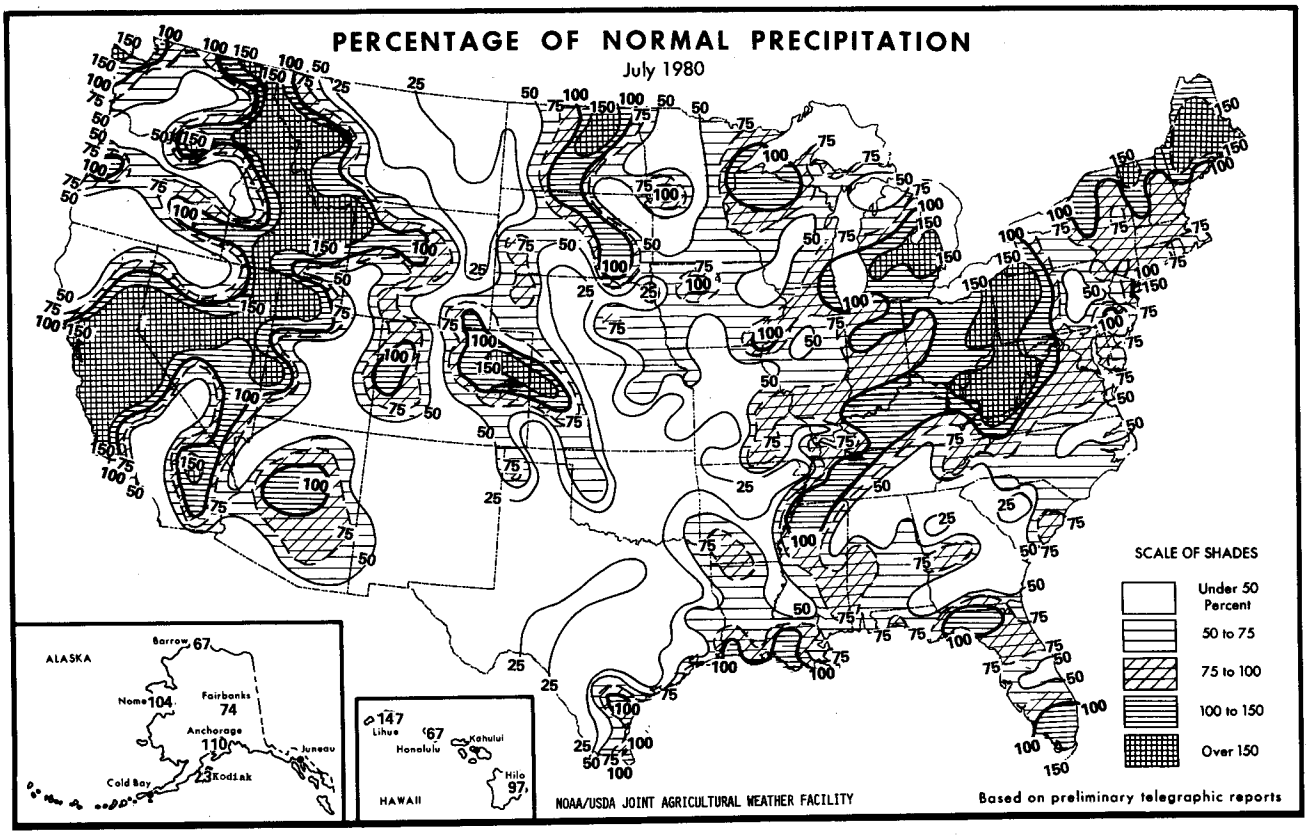
SECOND WEEK...The hot weather spread eastward and intensified in the central Plains. New England remained cool, but the Southwest and all other areas east of the Rockies were hot. Average temperatures in Kansas, Missouri, and Arkansas ranged from 12 to 15 degrees above normal. The heat edged into the southern fringes of the Corn Belt and stressed corn as it began its sensitive propagation stage. Some heavy showers fell in parts of northeastern Iowa, but most of the State had little or no rain. Heavy showers fell in the upper Ohio Valley and the central Appalachians. The central Gulf Coast and the Southeast recorded scattered light to moderate showers.

THIRD WEEK...Record-breaking heat continued in the eastern two-thirds of the Nation, but some cooling began from the northern Plains by the end of the week. The ridge of high pressure associated with the hot weather showed signs of backing westward. The averages for the week were still 12 to 15 degrees above normal in the central Plains. Temperatures over 100° or in the high nineties dominated much of the western Corn Belt on most days. Showers dotted the central and northern Rockies through the Great Lakes to New England and down the East Coast. A disturbance in the Gulf of Mexico spread heavy showers through the eastern Gulf Coast States.

FOURTH WEEK...The pattern of hot weather did change early in the week. Cooler air moved into the northern Plains and pushed eastward and southward. The wedge of hot weather moved westward and 100° temperatures extended as far north as the State of Washington. Texas and the Southwest saw little relief from the hot weather. A slow-moving frontal system moved to a position from New England to the Texas Panhandle and triggered some heavy rain. A disturbance from the Gulf of Mexico moved through the Southeast. The heaviest rain fell from the Mississippi Delta to southern Michigan and in the upper Ohio Valley. Thunderstorms produced heavy rain down the East Coast and in the South.

During the last 4 days of the month, hot weather again began pushing northward through the Plains, but by the last day, another surge of cool air began to move into the western portions of the Midwest. A lack of moisture in the air kept rain to small amounts, although some isolated heavy thunderstorms did occur.


TOTAL PRECIPITATION, INCHES
July 1980
SCALE OF SHADES
0 - 1 Inch
1 - 2 Inches
2 - 4 Inches
4 - 8 Inches
Over 8 Inches
ALASKA
Barrow 0.6
Nome 2.5
Fairbanks 1.4
Anchorage 2.3
Juneau
Cold Bay
Kodiak 0.8
HAWAII
Lihue 2.8
Honolulu 0.4
Kahului
Hilo 9.2
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


PERCENTAGE OF NORMAL PRECIPITATION
July 1980
SCALE OF SHADES
Under 50 Percent
50 to 75
75 to 100
100 to 150
Over 150
ALASKA
Barrow 67
Nome 104
Fairbanks 74
Anchorage 110
Juneau
Cold Bay
Kodiak
HAWAII
Lihue 147
Honolulu 67
Kahului
Hilo 97
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports

Temperature and Precipitation Data for July 1980

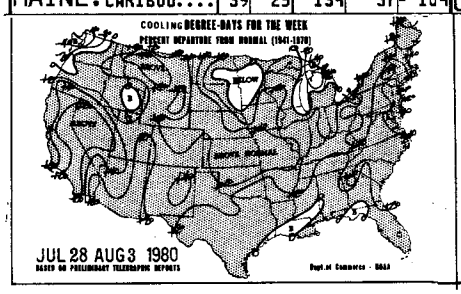
States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
ALA.Birmingham. . .	85	+5	2.1	- 3.1
Moblie.	85	+3	6.5	- 2.4
Montgomery. . . .	84	+3	3.3	- 1.8
ALASKA.Anchorage. .	57	-1	2.3	+ .2
Barrow.	36	-3	.6	- .3
Fairbanks	61	0	1.4	- .5
Juneau.	--	--	---	---
Kodiak.	56	+2	.8	- 2.7
Nome.	54	+4	2.5	+ .1
ARIZ.Flagstaff. . .	69	+3	2.5	0
Phoenix	96	+5	.6	- .2
Tucson.	89	+3	1.8	- .6
Winslow	79	+1	1.7	+ .5
Yuma.	95	+1	0	- .2
ARK.Fort Smith. . .	86	+4	1.4	- 1.8
Little Rock . . .	89	+7	.6	- 2.4
CALIF.Bakersfield .	85	+1	0	0
Eureka.	57	+1	T	- .1
Fresno.	84	+3	T	0
Los Angeles . . .	69	0	0	0
Red Bluff	82	0	T	0
San Diego	73	+3	T	0
San Francisco . .	63	0	.1	+ .1
Stockton.	80	+3	.5	+ .5
COLO.Denver	76	+3	2.9	+ 1.1
Grand Junction. .	79	0	.6	+ .1
Pueblo.	80	+4	.8	- 1.1
CONN.Bridgeport . .	76	+2	6.0	+ 2.6
Hartford.	74	+1	2.7	- .7
D.C.Washington. . .	82	+3	3.9	- .2
FLA.Apalachicola. .	82	+1	6.4	- 1.6
Daytona Beach . .	83	+2	5.8	- .9
Ft. Myers	84	+1	7.0	- 1.9
Jacksonville. . .	84	+3	5.3	- 2.1
Key West.	85	0	6.7	+ 2.6
Lakeland.	86	+4	3.3	- 4.8
Miami	83	+1	9.4	+ 2.5
Orlando	84	+3	5.1	- 3.2
Tallahassee . . .	83	+2	11.0	+ 2.1
Tampa	84	+2	5.7	- 2.7
W.Palm Beach. . .	84	+2	7.6	+ 1.1
GA.Atlanta.	85	+7	.8	- 4.1
Augusta	84	+4	2.1	- 3.0
Macon	84	+3	4.1	- .4
Savannah.	84	+3	2.4	- 5.5
HAWAII.Hilo	78	+3	9.2	- .3
Honolulu.	81	+1	.4	- .2
Kahului	--	--	---	---
Lihue	78	0	2.8	+ .9
IDAHO.Boise	73	-2	T	- .2
Lewiston.	74	+1	.9	+ .4
Pocatello	69	-3	.7	+ .3
ILL.Cairo	86	+5	2.5	- .7
Chicago	76	+4	3.6	+ .1
Moline.	78	+3	3.5	- 1.1
Peoria.	79	+3	1.4	- 2.4
Rockford.	75	+2	3.6	- .7
Springfield . . .	81	+5	2.1	- 1.7
IND.Evansville. . .	82	+4	4.5	+ .7
Ft. Wayne	75	+2	4.0	+ .1
Indianapolis. . .	79	+4	2.9	- .8
South Bend. . . .	77	+5	3.3	- .4
IOWA.Burlington . .	78	+3	5.5	+ 1.7
Des Moines. . . .	80	+5	1.5	- 1.8
Dubuque	76	+4	1.8	- 2.5
Sioux City. . . .	79	+4	.5	- 2.8
KANS.Concordia. . .	85	+7	.7	- 2.6
Dodge City. . . .	87	+8	2.0	- 1.1
Goodland.	79	+3	7.3	+ 4.6
Topeka.	86	+8	.9	- 3.3
Wichita	91	+10	.5	- 3.9
KY.Lexington. . . .	79	+3	5.4	+ .6
Louisville. . . .	82	+5	5.4	+ 1.6
LA.Baton Rouge. . .	84	+2	7.7	+ 1.2
Lake Charles. . .	84	+2	8.2	+ 1.6
New Orleans . . .	86	+4	4.8	- 1.9
Shreveport. . . .	87	+4	1.8	- 1.1
MAINE.Caribou . . .	63	-2	5.4	+ 1.4
Portland.	70	+2	2.0	- .6
MD.Baltimore. . . .	78	+1	3.3	- .8
MASS.Boston	76	+3	2.2	- .5
Chatham	69	-1	1.6	- 1.1
MICH.Alpena	68	+2	2.1	- .4
Detroit	73	+1	4.3	+ 1.2
Flint	71	+1	5.6	+ 2.6
Grand Rapids. . .	73	+1	5.9	+ 2.8
Houghton Lake . .	67	+1	2.3	- .8
Lansing	73	+2	3.6	+ .8
Marquette	66	+2	3.2	- .6
Muskegon.	71	+1	3.6	+ 1.1
S. Ste. Marie . .	63	-1	1.8	- .8
MINN.Duluth	68	+2	3.9	+ .2
Internatl Falls .	69	+3	2.2	- 1.8
Minneapolis . . .	75	+3	2.3	- 1.4
Rochester	73	+3	2.6	- 1.1
St. Cloud	71	+1	1.3	- 1.9
MISS.Jackson. . . .	86	+4	2.9	- 1.4
Meridian.	85	+4	4.0	- 1.1
MO.Columbia	87	+10	1.4	- 2.0
Kansas City . . .	85	+7	2.0	- 2.4
St. Louis	85	+6	3.6	- .1
Springfield . . .	84	+6	.7	- 2.9
MONT.Billings . . .	76	+4	.4	- .5
Glasgow	72	+1	.4	- 1.0
Great Falls . . .	69	0	.3	- 1.0
Havre	70	0	.3	- 1.1
Helena.	67	-1	1.9	+ .9
Kalispell	64	0	.8	- .2
Miles City. . . .	77	+3	.5	- 1.1
Missoula.	66	-1	1.6	+ .7
NEBR.Grand Island .	81	+5	.9	- 2.1
Lincoln	82	+5	1.8	- 1.5
Norfolk	79	+3	1.1	- 2.1
N.Platte.	78	+4	.6	- 2.4
Omaha	79	+4	2.5	- 1.2
Valentine	78	+4	.3	- 2.2
NEV.Ely	68	+1	.8	+ .2
Las Vegas	92	+2	.4	0
Reno.	71	+2	.5	+ .2
Winnemucca. . . .	73	+2	.1	- .1
N.H.Concord	71	+1	2.4	- .7
N.J.Atlantic City .	72	-3	2.5	- 1.9
Trenton	76	0	2.5	- 2.2
N.MEX.Albuquerque .	83	+4	.1	- 1.3
Roswell	85	+6	T	- 1.7
N.Y.Albany.	72	0	2.7	- .4
Binghamton. . . .	70	+1	2.1	- 1.7
Buffalo	72	+2	3.6	+ .7
New York.	79	+2	4.7	+ .8
Rochester	73	+2	1.9	- 1.0
Syracuse.	73	+1	2.6	- .5
N.C.Asheville . . .	78	+4	2.2	- 2.7
Charlotte	80	+1	2.6	- 2.0
Greensboro. . . .	78	+1	2.7	- 1.7
Hatteras.	79	+1	3.5	- 2.4
Raleigh	79	+1	2.1	- 3.0
Wilmington. . . .	83	+3	5.6	- 2.7
N.DAK.Bismarck. . .	73	+2	3.2	+ 1.0
Fargo	72	+1	.8	- 2.4
Williston	73	+3	.5	- 1.5
OHIO.Akron-Canton .	73	+1	5.4	+ 1.6
Cincinnati. . . .	77	+1	5.1	+ 1.0
Cleveland	71	0	4.8	+ 1.3
Columbus.	76	+2	4.6	+ .4
Dayton.	77	+2	3.0	- .5
Toledo.	74	+2	4.5	+ 1.3
Youngstown. . . .	69	-2	6.2	+ 2.3
OKLA.Okla. City . .	88	+6	.4	- 2.3
Tulsa	92	+10	.1	- 3.4
OREG.Astoria. . . .	61	+1	.6	- .4
Burns	66	-2	.3	0
Medford	73	+1	T	- .3
Pendleton	72	-2	.8	+ .5
Portland.	69	+2	.2	- .3
Salem	66	-1	.2	- .2
PA.Allentown. . . .	77	+3	1.5	- 2.9
Erie.	70	+1	5.4	+ 1.9
Harrisburg. . . .	76	0	1.6	- 2.1
Philadelphia. . .	79	+2	6.6	+ 2.5
Pittsburgh. . . .	75	+3	6.8	+ 3.0
Scranton.	73	0	3.8	- .5
R.I. Providence . .	75	+3	2.0	- .9
S.C. Charleston . .	82	+2	7.0	- 1.2
Columbia.	82	+1	1.2	- 4.5
Greenville. . . .	82	+4	1.1	- 3.1
S.D. Aberdeen . . .	73	+1	.8	- 1.9
Huron	73	-1	3.2	+ 1.0
Rapid City. . . .	75	+2	1.8	- .3
Sioux Falls . . .	74	+1	1.6	- 1.3
TENN.Chattanooga. .	83	+4	1.3	- 3.9
Knoxville	82	+4	3.6	- 1.1
Memphis	89	+7	4.7	+ 1.2
Nashville	83	+3	3.5	- .3
TEX.Abilene	89	+5	.2	- 2.1
Amarillo.	83	+4	.7	- 2.3
Austin.	88	+3	.3	- 1.6
Beaumont.	85	+2	2.2	- 3.7
Brownsville . . .	88	+4	1.5	+ .3
Corpus Christi. .	86	+1	1.5	- .4
Del Rio	90	+3	.3	- .7
El Paso	87	+5	.2	- 1.3
Fort Worth. . . .	92	+7	.7	- 1.1
Galveston	84	+1	3.9	- .5
Houston	88	+5	1.6	- 2.5
Lubbock	84	+4	.2	- 2.0
Midland	84	+2	T	- 1.8
San Angelo. . . .	87	+2	.3	- .9
San Antonio . . .	88	+3	.3	- 1.4
Victoria.	87	+3	.4	- 2.4
Waco.	89	+3	T	- 1.5
Wichita Falls . .	91	+5	T	- 2.2
UTAH.Blanding . . .	75	+2	.4	- .6
Salt Lake City. .	78	+1	1.3	+ .6
VT.Burlington . . .	71	+1	6.1	+ 2.6
VA.Lynchburg. . . .	78	+2	3.6	- .5
Norfolk	81	+3	1.9	- 3.8
Richmond.	80	+2	5.2	- .4
Roanoke	78	+3	5.2	+ 1.5
WASH.Colville . . .	68	0	.9	+ .2
Omak.	--	--	---	---
Quillayute. . . .	60	+1	4.7	+ 2.3
Seattle-Tacoma. .	64	-1	.5	- .2
Spokane	69	-1	.2	- .2
Walla Walla . . .	75	-1	.3	0
Yakima.	70	-1	T	- .2
W.VA.Beckley. . . .	72	+2	6.8	+ 2.4
Charleston. . . .	77	+2	8.5	+ 3.5
Huntington. . . .	78	+3	7.9	+ 3.7
Parkersburg . . .	77	+2	5.6	+ 1.3
WISC.Green Bay. . .	71	+2	1.9	- 1.2
La Crosse	78	+5	2.3	- 1.2
Madison	73	+3	2.7	- 1.1
Milwaukee	71	+1	3.4	0
WYO.Casper.	72	+1	.9	- .1
Cheyenne.	71	+2	2.0	+ .2
Lander.	72	+1	.3	- .3
Sheridan.	71	+1	.3	- .8
P.R.San Juan. . . .	--	--	---	---

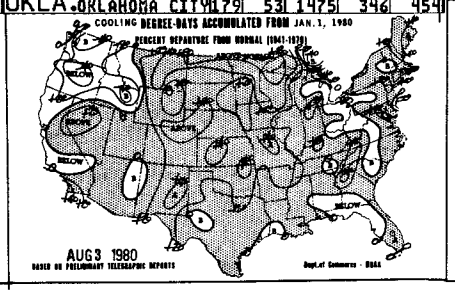
Based on 1941-70 normals

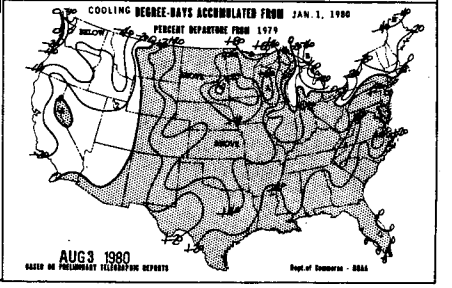
COOLING DEGREE DAYS (BASE 65°) FOR WEEK ENDING AUG. 3, 1980.

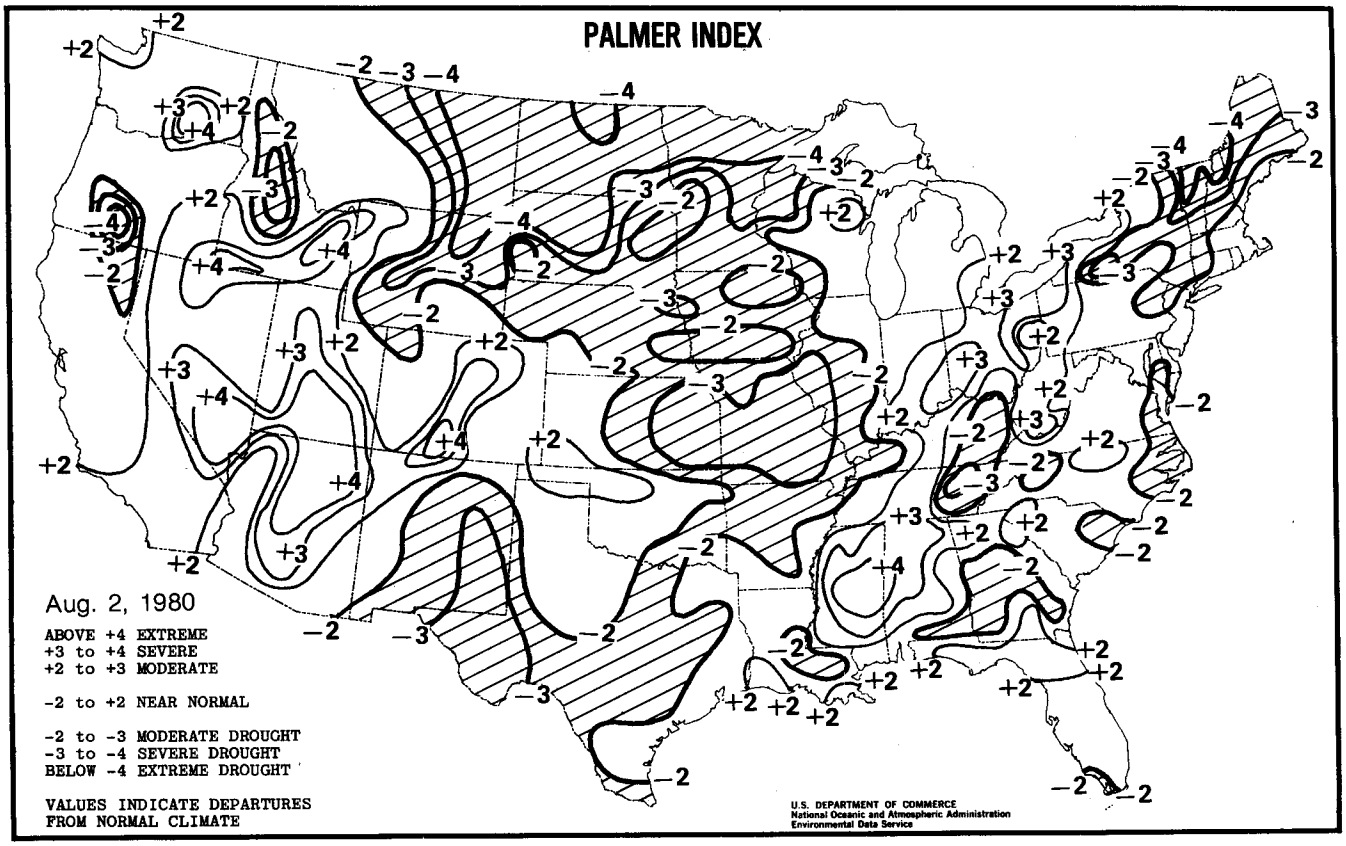
* BASED ON 1941-70 NORMALS. ACCUMULATIONS FROM JANUARY 1, 1980.

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL ACCUMULATION + DEPARTURE*	SEASONAL ACCUMULATION + DEPARTURE FROM 1979
ALA.					
BIRMINGHAM	122	17	1260	64	177
MOBILE	125	6	1641	65	164
MONTGOMERY	119	7	1366	5	165
ARIZ.					
FLAGSTAFF	43	29	195	102	122
PHOENIX	225	43	2315	276-	68
TUCSON	162	19	1731	78	28
WINSLOW	111	18	711	32-	33
YUMA	224	17	2612	237	165
ARK.					
FORT SMITH	143	17	1319	86	338
LITTLE ROCK	160	41	1474	282	266
CALIF.					
BAKERSFIELD	193	62	1178	92-	414
EUREKA	0	0	2	2	2
FRESNO	185	77	1095	109-	210
LOS ANGELES	68	34	247	0	55
RED BLUFF	158	38	914	205-	373
SAN DIEGO	97	55	475	181-	5
SAN FRANCISCO	20	20	38	8-	17
STOCKTON	163	80	817	93-	163
COLO.					
DENVER	103	40	639	245	200
GRAND JUNCTION	115	20	783	49	11
PUEBLO	111	28	810	165	207
CONN.					
BRIDGEPORT	86	23	513	76	65
HARTFORD	74	19	476	80-	119
DEL. WILMINGTON	110	33	729	106	147
D.C. WASHINGTON	144	46	1106	221	225
FLA.					
APALACHICOLA	117-	2	1432-	122	35
DAYTONA BEACH	129	14	1733	88	26
FORT MYERS	137	11	2325	227	8
JACKSONVILLE	142	30	1641	126	230
KEY WEST	147	7	2795	40	0
LAKELAND	133	14	1912	3	27
MIAMI	135	9	2371	102	6
ORLANDO	133	14	1852	5	8
TALLAHASSEE	113-	6	1453	95	156
TAMPA	133	14	1924	13	11
WEST PALM BEACH	133	14	2157	48	164
GA.					
ATLANTA	135	44	1403	432	342
AUGUSTA	134	22	1286	38	206
MACON	129	19	1483	98	236
SAVANNAH	148	33	1512	92	116
IDAHO.					
BOISE	81	9	372	71-	116
LEWISTON	86	23	367	35-	188
POCATELLO	48-	6	163	130-	141
ILL.					
CAIRO	152	40	1385	231	291
MOLINE	82	12	660	65	63
PEORIA	88	18	701	66	143
ROCKFORD	58-	3	572	101	137
SPRINGFIELD	103	26	883	158	120
IND.					
EVANSVILLE	125	34	967	72	171
FORT WAYNE	57	1	495	6	57
INDIANAPOLIS	83	13	698	58	147
SOUTH BEND	67	11	624	177	121
IOWA.					
BURLINGTON	89	12	714	62	127
DES MOINES	99	23	815	205	217
DUBUQUE	63	8	586	182	214
SIOUX CITY	86	9	732	104	166
KANS.					
CONCORDIA	148	50	1108	303	363
DODGE CITY	164	59	1255	375	436
GOODLAND	108	26	740	151	142
TOPEKA	169	71	1175	307	396
WICHITA	185	66	1409	366	465
KY.					
LEXINGTON	93	16	775	8	180
LOUISVILLE	110	26	969	166	226
LA.					
BATON ROUGE	103-	16	1678	99	229
LAKE CHARLES	117-	9	1610-	40	145
NEW ORLEANS	135	16	1858	234	123
SHREVEPORT	141	8	1667	151	390
MAINE.					
CARIBOU	39	25	134	37-	104
PORTLAND	49	21	234	76-	17
MD.					
BALTIMORE	110	27	781	79	91
MASS.					
BOSTON	77	19	516	87-	6
MICH.					
ALPENA	40	12	211	69	24
DETROIT	58	2	384-	45	35
FLINT	37	1	282-	8-	79
GRAND RAPIDS	53	4	403	24	5
HOUGHTON LAKE	20-	7	158-	12-	46
LANSING	50	2	405	49	9
MARQUETTE	16	2	150	63	31
MUSKEGON	47	5	287-	7	34
S. STE. MARIE	8-	13	49-	33-	62
MINN.					
DULUTH	22	1	202	90	70
INTERNATL FALLS	24	3	266	134	153
MINNEAPOLIS	64	10	571	168	122
ROCHESTER	55	13	491	161	72
ST. CLOUD	35-	7	314	18	90
MISS.					
JACKSON	132	13	1486	53	289
MERIDIAN	118-	1	1379-	12	239
MO.					
COLUMBIA	149	58	1157	342	447
KANSAS CITY	139	48	1099	293	390
ST. LOUIS	138	40	1134	185	165
SPRINGFIELD	143	45	1063	209	459
MONT.					
BILLINGS	91	35	531	212	79
GLASGOW	60	11	434	151	88
GREAT FALLS	65	28	254	47	22
HAVRE	49	7	297	38-	2
HELENA	43	15	147-	12-	76
KALISPELL	15	1	56-	12-	117
MILES CITY	95	18	654	176	137
MISSOULA	29	8	99-	20-	156
NEBR.					
GRAND ISLAND	109	25	880	211	286
LINCOLN	129	38	1002	251	345
NORFOLK	95	18	802	195	204
NORTH PLATTE	107	37	736	206	217
OMAHA	108	17	901	139	180
VALENTINE	111	41	720	237	237
NEV.					
ELY	41	19	147	21-	16
LAS VEGAS	223	49	1754-	15-	261
RENO	82	47	283	65	5
WINNEMUCCA	87	43	347	71-	97
N.H.					
CONCORD	55	20	298	59-	81
N.J.					
ATLANTIC CITY	77	7	406-	140-	117
TRENTON	115	38	690	69	139
N.MEX.					
ALBUQUERQUE	130	35	1012	170	106
ROSWELL	141	40	1436	426	399
N.Y.					
ALBANY	56	7	345-	50-	103
BINGHAMTON	42	7	307	47	25
BUFFALO	57	15	529	42-	87
NEW YORK	101	17	728	72	97
ROCHESTER	74	27	359	42	55
SYRACUSE	73	24	379	18-	61
N.C.					
ASHEVILLE	81	18	706	158	237
CHARLOTTE	120	22	955-	38	160
GREENSBORO	115	31	781-	84	94
HATTERAS	120	29	938	74	129
RALEIGH	117	26	1026	146	332
WILMINGTON	142	31	1302	111	137
N.DAK.					
BISMARCK	48-	1	414	91	137
FARGO	49	0	446	129	101
WILLISTON	63	21	518	241	224
OHIO.					
AKRON-CANTON	69	20	374-	39	19
CINCINNATI	81	4	687	2	180
CLEVELAND	61	12	559-	41-	66
COLUMBUS	88	26	574	42	78
DAYTON	82	12	628	22	71
TOLEDO	64	8	443-	6	59
YOUNGSTOWN	42	0	227-	113-	92
OKLA.					
OKLAHOMA CITY	179	53	1475	346	454
TULSA	202	76	1698	522	438
OREG.					
ASTORIA	0	0	13-	1-	2
BURNS	34	2	94-	94-	159
MEDFORD	83	32	300	30-	84
PENDLETON	72	9	265	146-	166
PORTLAND	29	1	149-	26-	129
SALEM	20-	3	80-	61-	78
PA.					
ALLENTOWN	111	48	644	132	138
ERIE	50	15	280	40	23
HARRISBURG	97	29	683	12	162
PHILADELPHIA	121	38	761	58	86
PITTSBURGH	74	25	499	70	91
SCRANTON	74	25	448	45	65
R.I. PROVIDENCE	79	28	450	112	27
S.C.					
CHARLESTON	138	31	1323	56	49
COLUMBIA	135	23	1123-	178-	174
GREENVILLE	116	18	1020	28	237
S.DAK.					
ABERDEEN	59	3	468	93	168
HURON	62-	8	515	37-	20
RAPID CITY	97	34	515	105	186
SIOUX FALLS	56-	7	538	60	59
TENN.					
CHATTANOOGA	117	19	1006-	21	178
KNOXVILLE	112	17	1053	69	294
MEMPHIS	156	37	1582	307	298
NASHVILLE	111	6	1086	21	254
TEXAS.					
ABILENE	169	29	1770	266	388
AMARILLO	126	28	1086	188	377
AUSTIN	155	12	1889	142	440
BEAUMONT	127-	4	1560	95	15
BROWNSVILLE	163	23	2537	224	297
CORPUS CHRISTI	150	4	2107	50	17
DEL RIO	172	18	2253	159	449
EL PASO	156	37	1650	302	271
FORT WORTH	175	28	1979	458	557
GALVESTON	130-	3	1626	93	96
HOUSTON	142	9	1933	217	369
LUBBOCK	128	23	1412	346	237
MIDLAND	128	2	1353	26	108
SAN ANGELO	156	9	1600	73	213
SAN ANTONIO	164	22	1980	159	267
VICTORIA	146	6	1939	82	253
WACO	164	11	1799	101	505
WICHITA FALLS	183	29	1759	185	337
UTAH					
SALT LAKE CITY	106	17	627	60-	148
VT.					
BURLINGTON	57	20	308	35-	128
VA.					
LYNCHBURG	98	21	706-	4	128
NORFOLK	147	56	1009	123	247
RICHMOND	131	40	957	87	166
ROANOKE	95	24	743	89	196
WASH.					
QUILLAYUTE	0	0	11	3	0
SEATTLE-TACOMA	7-	7	36-	48-	100
SPOKANE	46	4	171	71-	147
WALLA WALLA	95	16	389-	143-	244
YAKIMA	47	4	247	72-	143
W.VA.					
BECKLEY	52	17	354	36	131
CHARLESTON	86	16	625	74	87
HUNTINGTON	102	32	736	13	125
PARKERSBURG	90	20	564	107	62
WIS.					
GREEN BAY	40-	1	307	44	17
LACROSSE	86	24	783	314	391
MADISON	42	0	435	125	123
MILWAUKEE	39	3	311	32-	32
WYO.					
CASPER	56	4	327	40	45
CHEYENNE	55	20	316	102	78
LANDER	66	17	326	80	22
SHERIDAN	63	14	279	2	96







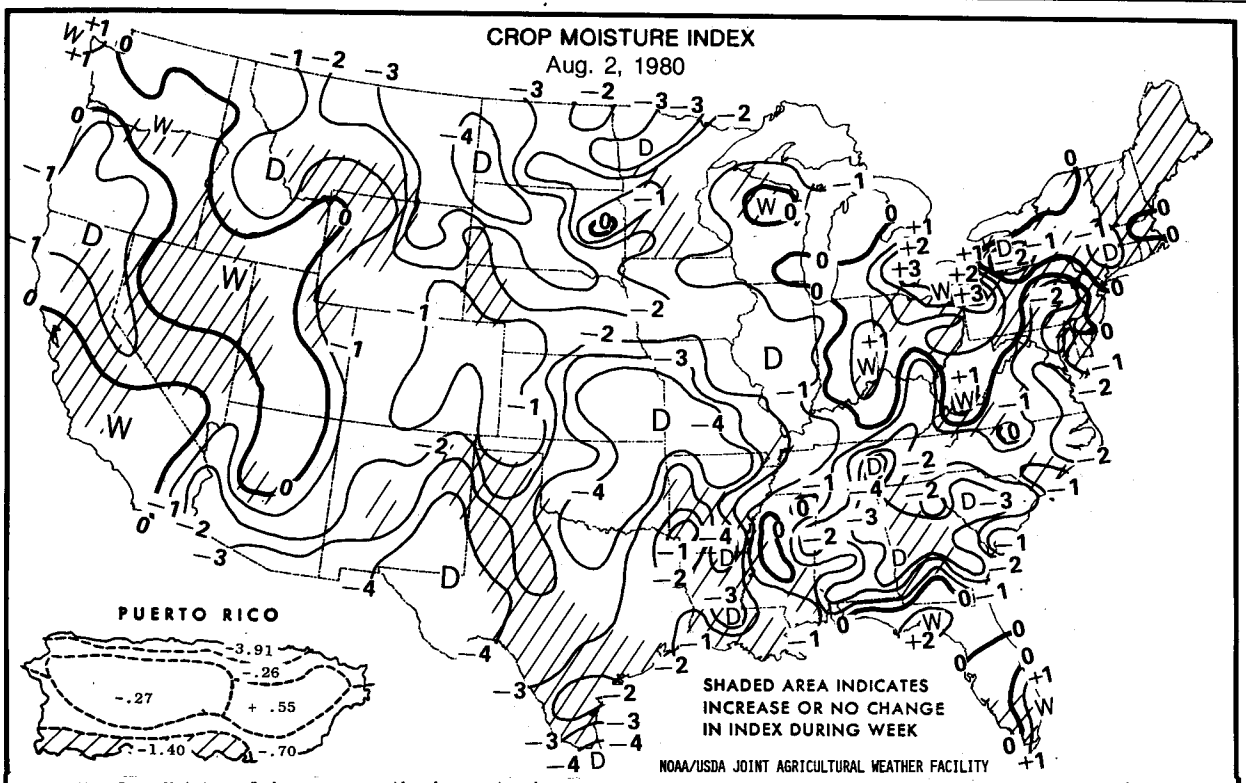


The Palmer Index

The Palmer Index is an index of meteorological drought, which may be defined as a prolonged and abnormal moisture deficiency. The general concept is one of supply and demand. Supply is represented by precipitation and stored soil moisture. Demand is the combination of potential evapotranspiration, the amount needed to recharge the soil moisture, and the runoff needed to keep the rivers, lakes, and reservoirs at a normal level. The results of this water balance accounting produce a positive or negative anomaly which is then weighted by a climate factor. The final product is an index that expresses the abnormality for that particular place for the period of time being computed. This manipulation allows the index to have a reasonably comparable local significance in space and time, that is, a certain index value obtained for a division in New York would have the same local significance as a like value in the more arid areas of western Kansas. This monthly increment is added to a portion of the previous month's index to include the duration of the anomaly in the final index.

The Palmer Index was designed as a climatological indicator of the scope and severity of past droughts. Using the Palmer Index on a real-time basis presents difficulties. A day or so of normal or better rainfall is certainly welcome in an area that has experienced a long drought, but one cannot know whether it indicates the end of the drought or just a brief respite. In order to make the program have some real-time value, a system of computing a "probability" that a weather spell has ended was devised. This is not entirely satisfactory, but does allow one to assign a definite index value at times when there may be some doubt as to whether it should be positive (wet) or negative (dry).

Another aspect of using the Palmer Index is that one must remember that the demand part of the computations includes three parameters---potential evapotranspiration, recharge of soil moisture, and runoff, any one of which may produce a negative index. For instance if only enough rain fell to satisfy most of the expected evapotranspiration, but not enough to supply the expected recharge and runoff, then a negative index would result. If such a situation continued then one might find that agriculture was progressing at a near normal pace but the Palmer Index would be indicating a worsening drought. In this situation the drought would cause shallow wells and springs to go dry and the levels of rivers, lakes and reservoirs to fall below normal and, if this odd situation continued long enough, would cause serious economic stress to the livestock industry and eventually to other industries and cities. Then if rainfall fell below the minimum needed for agriculture, crops would suffer drastic and rapid decline because there would be no reserve water in the soil. Such a situation, to some extent, occurred during the Northeast drought in the 1960's when New York City almost ran out of water.



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

THE EXTREMELY DRY AREA IN OKLAHOMA, KANSAS, AND MISSOURI HAS EXPANDED AND BECOME EVEN DRIER AS CROP DEMAND FOR MOISTURE HAS EXCEEDED THE SUPPLY. THE SCANTY SOIL MOISTURE RESERVE IS BEING DEPLETED RAPIDLY. THE WESTERN CORN BELT--IOWA AND ILLINOIS--IS DRYING RAPIDLY, BUT SOME SOIL MOISTURE RESERVE REMAINS. RAIN IS BADLY NEEDED IN THESE AREAS. LARGE AREAS IN THE SOUTHEASTERN UNITED STATES ARE SERIOUSLY DRY.

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

Annual subscription: $13 domestic and $18 foreign airmail, checks drawn on U.S. banks or international money orders in U.S. funds... payable to U.S. Department of Commerce, NOAA. Order from the NOAA/USDA Joint Agricultural Weather Facility, USDA South Building, Room 3526, Washington, DC 20250.

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service/Climate Analysis Center
Managing Editor.....Don Haddock
Meteorologists.....Lyle Denny
Ray McInturff
Jim Williams
Meteorological Technician.....Wes Byrd
Subscriptions.....Thelma Elis

U.S. Department of Agriculture
Economics, Statistics, and Cooperatives Service
Editor/Writer.....Jim Carlin
Agricultural Statistician.....Bill Blackson

World Food & Agricultural Outlook & Situation Board
Agricultural Weather Analysts.....Laras Lambert
Ray Motha

NOAA/USDA Joint Agricultural
Weather Facility
USDA South Bldg., Room 3526
Washington, D.C. 20250

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Heating Degree Days (Base 65° F.)

July 1980

ALA.Birmingham	0	MAINE,Caribou	71	OKLA.Okla. City	0
Mobile	0	Portland	16	Tulsa	0
Montgomery	0	MD.Baltimore	0	OREG.Astoria	140
ALASKA,Anchorage	-	MASS.Boston	2	Burns U	52
Barrow	-	Chatham	9	Medford	1
Kodiak	274	MICH.Alpena	23	Pendleton	4
Juneau	-	Detroit	0	Portland	15
Nome	-	Flint	2	Salem	51
ARIZ.Flagstaff	6	Grand Rapids	0	PA.Allentown	0
Phoenix	0	Houghton Lake	18	Erie	5
Tucson	0	Lansing	0	Harrisburg	0
Winslow	0	Marquette U	53	Philadelphia	0
Yuma	0	S. Ste. Marie	70	Pittsburgh	0
ARK.Fort Smith	0	MINN.Duluth	39	Scranton	1
Little Rock	0	Internatl Falls	19	R.I.Providence	0
CALIF.Bakersfield	0	Minneapolis	0	S.C.Charleston	0
Eureka U	230	Rochester	0	Columbia	0
Fresno	0	St. Cloud	4	Greenville	0
Los Angeles U	1	MISS.Jackson	0	S.DAK.Aberdeen	1
Red Bluff	0	Meridian	0	Huron	1
Stockton	0			Rapid City	1
San Diego	0	MO.Columbia	0	Sioux Falls	1
San Francisco	76	Kansas City	0	TENN.Chattanooga	0
COLO.Denver	0	St. Louis	0	Knoxville	0
Grand Junction	0	Springfield	0	Memphis	0
Pueblo	0	MONT.Billings	0	Nashville	0
CONN.Bridgeport	0	Glasgow	2	TEX.Abilene	0
Hartford	0	Great Falls	16	Amarillo	0
D.C.Washington	0	Havre	15	Austin	0
FLA.Apalachicola	0	Helena	25	Beaumont	0
Ft. Myers	0	Kalispell	72	Brownsville	0
Jacksonville	0	Miles City	1	Corpus Christi	0
Key West	0	Missoula	53	Dallas	-
Lakeland U	0	NEBR.Grand Island	0	Del Rio	0
Miami	0	Lincoln	0	El Paso	0
Orlando	0	Norfolk	0	Fort Worth	0
W. Palm Beach	0	North Platte	0	Galveston U	0
Tallahassee	0	Omaha	0	Houston	0
Tampa	0	Valentine	0	Lubbock	0
GA.Atlanta	0	NEV.Ely	11	Midland	0
Augusta	0	Las Vegas	0	San Angelo	0
Macon	0	Reno	13	San Antonio	0
Savannah	0	Winnemucca	0	Victoria	0
IDAHO,Boise	0	N.H.Concord	13	Waco	0
Lewiston	0	N.J.Atlantic City	3	Wichita Falls	0
Pocatello	5	Trenton U	0	UTAH,Blanding R	-
ILL.Cairo U	0	N.MEX.Albuquerque	0	Salt Lake City	0
Chicago	0	Roswell	0	VT.Burlington	10
Moline	0	N.Y.Albany	0	VA.Lynchburg	0
Peoria	0	Binghamton	7	Norfolk	0
Rockford	0	Buffalo	2	Richmond	0
Springfield	0	New York	0	Roanoke	0
IND.Evansville	0	Rochester	1	WASH.Colville	30
Fort Wayne	0	Syracuse	3	Omak	-
Indianapolis	0	N.C.Asheville	0	Quillayute	167
South Bend	0	Charlotte	0	Seattle-Tacoma	66
IOWA,Burlington	0	Greensboro	0	Spokane	19
Des Moines	0	Hatteras R	0	Walla Walla U	0
Dubuque	0	Raleigh	0	Yakima	24
Sioux City	0	Wilmington	0	W.VA,Beckley	0
KANS.Concordia	0	N.DAK.Bismarck	5	Charleston	0
Dodge City	0	Fargo	3	Huntington	0
Goodland	0	Williston U	5	Parkersburg U	0
Topeka	0	OHIO.Akron-Canton	1	WIS.Green Bay	11
Wichita	0	Cincinnati U	0	Madison	2
KY.Lexington	0	Cleveland	3	Milwaukee	8
Louisville	0	Columbus	0	WYO.Casper	0
LA.Baton Rouge	0	Dayton	0	Cheyenne	0
Lake Charles	0	Toledo	0	Lander	0
New Orleans	0	Youngstown	11	Sheridan	0
Shreveport	0				

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