

WEEKLY WEATHER AND CROP BULLETIN

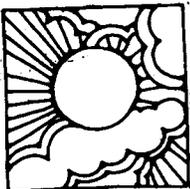
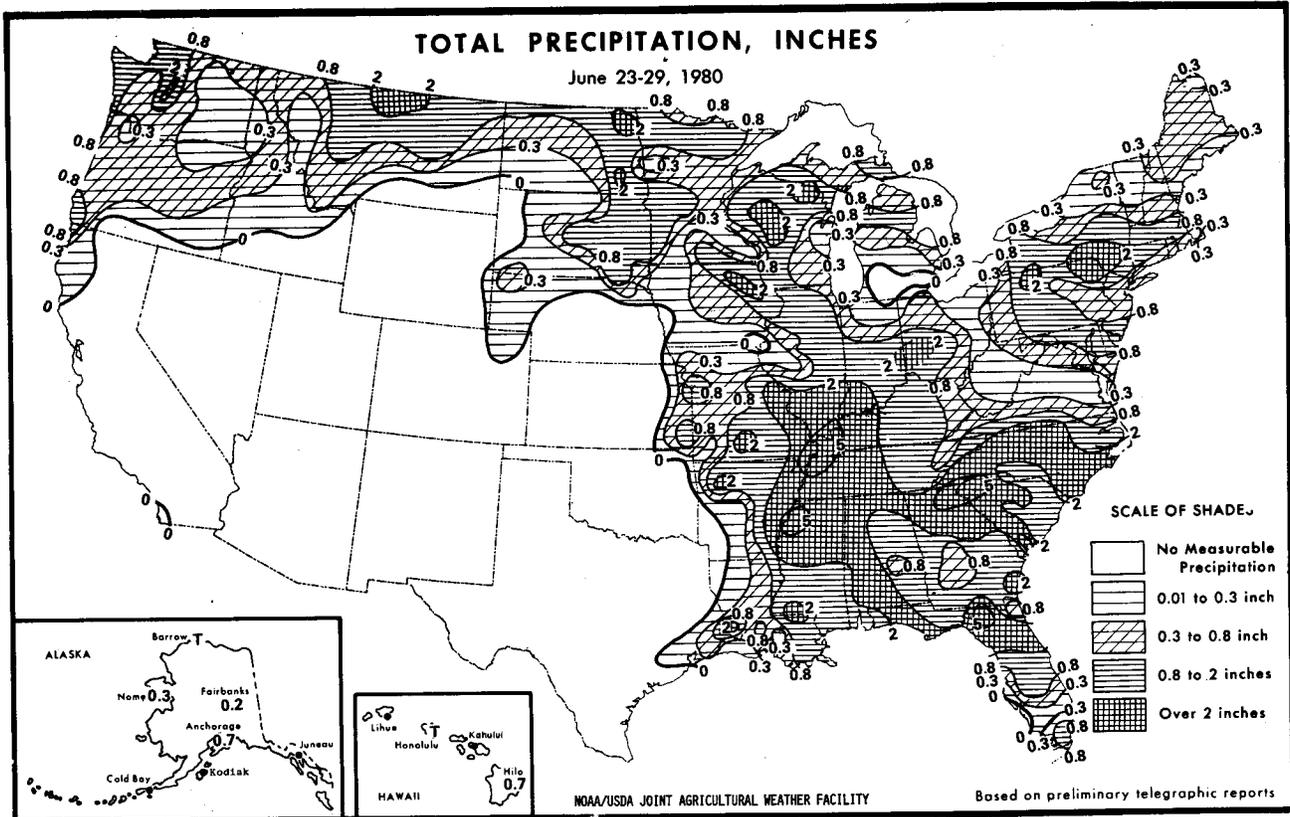
U.S. DEPARTMENT OF COMMERCE
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National Weather Summary

June 23 - 29

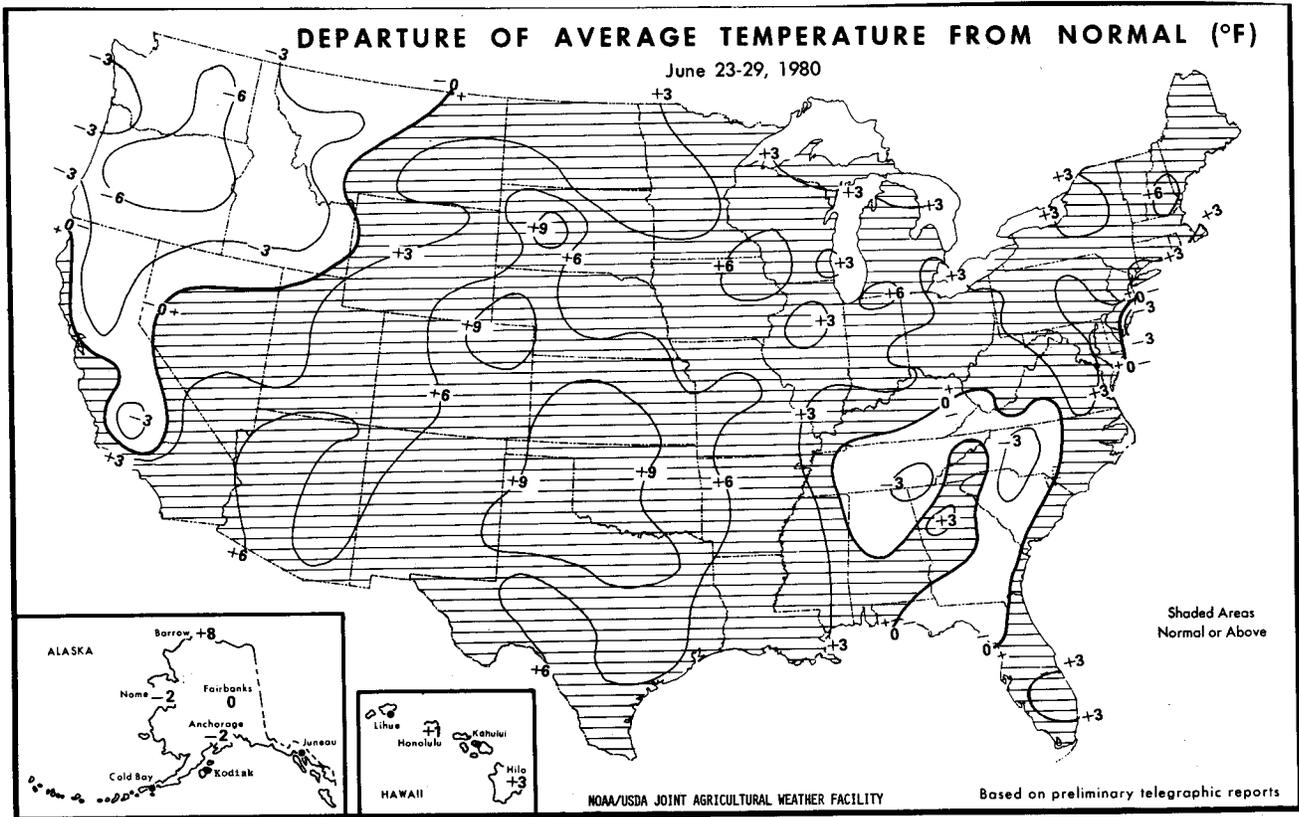
HIGHLIGHTS: The heat wave intensified as temperatures averaged 5 to 11 degrees above normal over the southern and central Plains. Records were broken at several points for the highest temperature as well as the number of consecutive days of the heat. Wichita Falls, north central Texas, scored 117°, its highest reading since records began in 1891. El Paso, Tex., counted its 20th consecutive day of 100-degree heat...its longest string since observations started 93 years ago. More than two dozen people have died from the heat. Crops and livestock were stressed; water and electric power needs were great; and no rain fell during the week. In contrast, rains were heavy over

most of the East, and light to moderate from the Great Lakes to the Pacific Northwest.

MONDAY... Record high temperatures were set throughout the Plains as 100-degree readings reached from Texas into North Dakota. By contrast, only the sixties and seventies covered the Northwest behind a cool front moving through the northern Rockies. Fair, pleasant weather blanketed the Northeast, and a stationary front stretched across the Gulf States.

Showers and thunderstorms pushed eastward through the Mississippi Valley into the Ohio Valley and the Southeast. Rainfall generally ranged from 0.5 to 1.5 inches, but a few southern localities had up to 3 inches which caused flooding. Tornadoes touched down in Florida and Georgia, while large hail fell in Missouri. Light rains covered the Northwest and the Dakotas.

TUESDAY... The heat wave in the Plains intensified in the South while abating in the North. Afternoon temperatures ranged from 111° to 116° in north central Texas and western Oklahoma. Many



parts of Texas notched record high temperatures. Temperatures also warmed into the nineties in New England. Cooler air moving into the northern Plains kept temperatures in the eighties. Rains of 0.25 to 1.5 inches were welcome in the Southeast and the mid-Atlantic Coast where the Carolinas showed topsoil dryness. However, rains of 3 to 6 inches in a few spots in Mississippi and the southern Appalachians produced flooding.

Tornadoes were sighted in Florida, Alabama, and Tennessee. Thundershowers moved into southern Minnesota, as light rains continued along the Pacific Northwest Coast.

WEDNESDAY...Unseasonably hot weather continued over the central and southern Plains; 111° to 114° scorched north central Texas and southwestern Oklahoma. Thunderstorms were scattered along the Atlantic Coast from Florida to the southern parts of Virginia and Maryland where top soils had become dry. Very heavy rains, up to 4.5 inches, doused northern Florida and eastern South Carolina, while up to 3 inches fell in North Carolina. At least three tornadoes injured several people and damaged property in northern Florida. Showers dotted a region from western Montana to the Pacific Northwest Coast.

THURSDAY...Thunderstorms with severe weather developed in the northern Plains along a slow-moving cool front that extended into Canada's St. Lawrence Valley. Three tornadoes were reported in Nebraska and two in South Dakota, with hail in both States. Welcome rains of 0.25 to 1.5 inches fell over the drought-stricken spring wheatlands and extended into the northwestern Corn Belt. Thunderstorms also developed from Florida into eastern Maryland. Rains continued from Montana to the northwestern coast. Unseasonably hot weather, setting records of high temperatures and duration, persisted over the central and southern Plains. Pleasant afternoon readings in the seventies covered most of the Northwest and northern tier of States to the Great Lakes.

FRIDAY...Strong thunderstorms rumbled through the upper Mississippi Valley in advance of a low pressure frontal system in Iowa. Heavy rains of 0.5 to 2.5 inches along with strong winds, large hail, and a few tornadoes were reported from Minnesota to central Indiana. Rains extended from North Dakota to Washington. The heat wave kept its grip on the central and southern Plains. Dallas/Fort Worth, broke its all-time record both Thursday and Friday with 113°. The Desert Southwest was hot, as well as the East Coast where Washington, D.C., measured 98°. Cooler, drier air pushed into the northern Plains and the Northwest quarter of the Nation.

SATURDAY...The heat wave peaked in the southern Plains as Wichita Falls, Texas, measured 117°--its highest since records began in 1891. Hot weather also engulfed the Desert Southwest...Blythe, California, had the Nation's highest reading with 119°. By contrast, mild and dry air covered the northern tier of States. A low pressure frontal system moving through the Great Lakes produced very heavy rains from the central Mississippi Valley into New England. High winds, hail, localized flooding, and a few tornadoes dotted the central Mississippi Valley.

SUNDAY...Hot weather dominated the southern half of the Nation. Norfolk, Va., measured 100°, which tied a 100-year record. El Paso, Tex., counted its 20th consecutive day of 100° or higher...the longest string since records began 93 years ago; and in the northern tier of States, afternoon temperatures only climbed into the sixties and seventies. Strong thunderstorms, producing heavy rain, hail, damaging winds, and a few tornadoes, were triggered by a front moving through the East and Southeast. Tornadoes injured several people in Maryland, twelve in Baltimore and another ten at the Aberdeen Proving Grounds, 50 miles northwest. A few showers fell over the central and northern Plains and from California to Montana.



National Agricultural Summary

June 23 - 29

HIGHLIGHTS: Temperatures well above normal stressed crops and livestock throughout much of the Nation. Many record high readings were recorded. Only parts of the Southeast and the Northwest had subnormal temperatures. Rainfall, mostly in the form of showers and thunderstorms, was limited to eastern and northern regions of the Nation. Nearly all areas of the Nation, except the Southeast, had 5 to 7 days suitable for fieldwork. Farmers in the Southeast had 2 to 5 days available. Winter wheat rated fair to mostly good except in the northern Plains and parts of Montana, where conditions remained poor to fair due to lack of moisture. Small grain stands in these areas are thin and uneven, and some fields have been plowed under and either planted to row crops and sudan or summer fallowed. Winter wheat combining in the 15 major producing States was 24% completed, 2 points ahead of last year but slightly behind normal. Spring wheat heading reached 58%, well ahead of last year's 12% and the 35% average. Corn silking was limited to southern areas, extending northward into Virginia. Soybean planting in the 18 major States advanced to 96% complete, 1 point behind last year but 1 point ahead of average. Planting progress has been slow in the Southeast because many farmers are waiting to plant double-cropped soybeans after harvesting small grains. Cotton was 38% squared in the 14 major States and was setting bolls in most areas. Grain sorghum planting in the 7 major States advanced to 98% complete, 1 point ahead of both last year and the average. Only Oklahoma and South Dakota lagged the average. Pastures rated fair to good in all areas of the Nation except the northern Plains. Conditions deteriorated in many areas due to the hot, dry weather. Supplemental feeding was still necessary in the northern Plains for some of the roughage requirements of livestock. On the Great Plains, the extremely hot weather has heat-stressed livestock; weight gains have slowed and milk production was reduced. Some poultry was lost in Arkansas.

CORN: Good stands held up in most areas. Silking was confined to southern areas, extending northward into Virginia. Some fields in the extreme South reached the dough stage. Growth ranged from 17 inches in Michigan to 41 inches in Illinois, up to 11 inches more than last year and slightly more than average.

SOYBEANS: Soybean seeding in the 18 major producing States reached 96% complete, 1 point behind last year but 1 point ahead of average. Planting progress has been slow in the Southeast because many farmers are waiting to plant double-cropped soybeans after harvesting small grains. Planting was completed in Iowa, Missouri, Nebraska, and Ohio.

SMALL GRAINS: Winter wheat rated fair to mostly good except in the northern Plains and parts of Montana, where conditions remained poor to fair. Harvest in the 15 major producing States was 24% complete, 2 points ahead of last year but slightly behind normal.

Spring wheat heading reached 58%, well ahead of last year's 12% and the 35% average.

Small grains in the northern Plains are thin and uneven. Some fields have been plowed under and either planted to row crops and sudan or summer fallowed.

OTHER CROPS: Grain sorghum planting in the 7 major producing States advanced to 98% complete, 1 point ahead of both last year and the average. Only Oklahoma and South Dakota lagged the average. Hot, dry weather in Texas continued to stress the crop. Fields in central Texas southward were wilting. Farmers on the High Plains stepped up irrigation operations.

Peanut planting was 97% completed in Texas, compared with 93% last year and the 91% average. Moisture is needed to complete planting and for germination. Early-planted fields were blooming and pegging in southern areas of the Nation.

Tobacco transplanting stayed generally on schedule. Harvesting reached 16% in Georgia, slightly behind normal. Blue mold was reported in Tennessee.

FRUITS AND NUTS: Growers harvested cherries in the Pacific Northwest, while in Michigan and the Northeast crop development fell slightly behind normal. Apples and peaches generally sized well and rated good; some growers thinned apples in the Northwest. Peach harvests ranged from 22% complete in South Carolina to 29% in Mississippi and 55% in Georgia.

California almonds and walnuts rated good with large sizes reported.

Florida citrus groves rated excellent with adequate moisture in most areas. Abundant new growth appeared on all trees. Old crop fruit harvest neared completion. The Arizona citrus harvest also wound down. The California Valencia orange and lemon harvests continued; growers also harvested freestone peaches, plums, and nectarines.

VEGETABLES: Sweet corn and tomatoes were harvested in northern production areas. Florida vegetable shipments declined 18% from the previous week as harvest wound down. Supplies of sweet corn and parsley increased; all other vegetable shipments either held steady or decreased.

PASTURE AND LIVESTOCK: Pastures rated fair to good in all areas of the Nation except the northern Plains where conditions remained poor to fair. Conditions deteriorated in many areas due to the hot, dry weather. Supplemental feeding was still necessary in the northern Plains for some of the roughage requirements of livestock. On the Great Plains, the extremely hot weather has heat-stressed livestock in many areas; weight gains have slowed and milk production has been reduced. Some poultry was lost in Arkansas.

Weather Data for the Week Ending June 29, 1980

States and Stations	Temperature °F						Precipitation					Relative Humidity, percent		Number of Days				
	Average maximum	Average minimum	Extreme high	Extreme low	Average	Departure from normal	Weekly total, in.	Departure from normal	Greatest in 24-hour, in.	Total, in., since June 2	Pct. normal since June 2	Average maximum	Average minimum	Temperature °F		Precipitation		
														90 and above	32 and below	.01 inch or more	.50 inch or more	
AL BIRMINGHAM	87	69	94	66	78	-1	1.9	.9	.9	3.0	81	94	58	3	0	3	2	
MOBILE	90	74	93	72	82	1	.8	.9	.6	2.5	44	95	60	5	0	4	1	
MONTGOMERY	89	72	92	70	81	1	.3	.8	.1	2.6	68	94	57	4	0	3	0	
AK ANCHORAGE	60	50	66	46	55	-2	.7	.4	.4	2.4	240	80	64	0	0	5	0	
BARROW	43	33	47	30	44	8	.7	.4	T	.5	125	84	71	0	2	0	0	
FAIRBANKS	72	50	78	44	61	0	.2	.2	.2	.6	40	72	44	0	0	3	0	
KODIAK	59	48	66	45	53	1	.6	.3	1.4	38	82	69	0	0	3	0	0	
NOME	51	43	55	40	46	-2	.3	0	.2	3.8	475	83	76	0	0	4	0	
AZ FLAGSTAFF	88	50	92	43	69	7	T	.2	T	0	43	14	3	0	0	0	0	
PHOENIX	109	81	113	76	95	5	0	.1	0	0	24	8	7	0	0	0	0	
TUCSON	106	74	108	70	90	5	T	.2	T	.1	50	26	9	7	0	1	0	
WINSLOW	96	63	99	50	80	5	T	0	0	0	0	--	--	6	0	0	0	
YUMA	109	77	113	70	93	4	0	0	0	--	40	--	7	0	0	0	0	
AR FORT SMITH	97	75	99	68	86	6	0	.8	0	3.2	89	93	47	7	0	0	0	
LITTLE ROCK	95	76	101	68	85	5	T	.8	T	.6	18	89	55	7	0	1	0	
CA BAKERSFIELD	92	62	110	56	77	-3	0	0	0	0	--	23	3	0	0	0	0	
EUREKA	62	51	67	49	57	1	.2	.1	.1	.5	71	95	68	0	0	3	0	
FRESNO	93	61	102	56	77	0	0	0	0	0	53	19	4	0	0	0	0	
LOS ANGELES	80	61	98	58	71	1	T	0	T	0	84	47	1	0	0	0	0	
RED BLUFF	89	60	101	55	75	-4	0	.1	0	1.2	300	--	19	3	0	0	0	
SAN DIEGO	80	65	95	62	72	6	T	0	0	0	--	84	54	1	0	0	0	
SAN FRANCISCO	75	53	89	52	64	2	T	0	0	0	80	39	0	0	0	0	0	
STOCKTON	91	58	103	52	75	0	T	0	0	0	77	22	4	0	0	0	0	
CO DENVER	94	61	98	57	78	9	0	.4	0	.1	6	41	12	6	0	0	0	
GRAND JUNCTION	96	62	100	55	79	4	0	.1	0	0	24	11	7	0	0	0	0	
PUEBLO	103	59	110	54	81	7	0	.4	0	.4	31	65	14	7	0	0	0	
CT BRIDGEPORT	82	65	89	61	74	3	.8	.2	.8	2.2	92	82	46	0	0	1	1	
HARTFORD	87	63	94	54	75	4	1.5	.7	1.5	3.7	116	81	37	3	0	2	1	
DC WASHINGTON	93	72	98	69	83	6	.3	.5	.3	1.6	50	83	47	5	0	1	0	
FL APALACHICOLA	85	73	90	70	79	-2	2.2	.7	1.2	4.3	86	94	74	1	0	4	2	
DAYTONA BEACH	91	73	95	71	82	1	2.8	1.1	1.5	5.5	87	98	54	5	0	5	2	
FORT MYERS	95	76	98	74	85	3	0	-2.3	0	1.4	17	99	57	7	0	0	0	
JACKSONVILLE	90	73	95	71	82	2	.7	.9	.4	4.6	79	97	57	4	0	4	0	
KEY WEST	90	82	92	79	86	2	.3	.8	.3	2.5	58	75	56	5	0	1	0	
MIAMI	90	76	92	74	83	1	.9	-1.2	.8	3.0	35	97	62	5	0	3	1	
ORLANDO	92	72	94	71	82	1	1.4	.5	1.3	5.2	79	98	53	6	0	3	1	
TALLAHASSEE	88	72	91	71	80	-1	1.5	.3	1.2	5.2	84	98	59	2	0	3	1	
TAMPA	90	77	91	73	83	3	T	-1.8	T	3.7	60	95	63	3	0	4	3	
WEST PALM BEACH	95	74	97	73	84	1	.1	-1.8	.1	3.7	48	95	42	7	0	2	0	
GA ATLANTA	89	72	94	68	81	4	3.5	2.5	1.6	4.5	129	96	56	3	0	4	3	
AUGUSTA	87	70	93	66	78	-1	2.0	1.0	1.1	4.3	123	93	58	3	0	3	2	
MACON	91	71	97	67	81	0	.4	.6	.3	2.0	56	--	56	4	0	3	0	
SAVANNAH	88	73	93	70	80	0	1.9	.3	1.8	3.5	64	95	59	2	0	3	1	
HI HILO	--	--	--	--	--	--	.7	.9	0	7.4	119	--	--	--	--	--	--	
HONOLULU	87	74	88	73	80	1	T	.1	T	1.0	250	82	53	0	0	1	0	
KAHULUI	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0	--	--	
LIHUE	--	--	--	--	80	2	.1	0	--	--	--	--	--	0	0	--	--	
ID BOISE	80	49	89	41	64	-4	T	.2	T	.3	27	65	21	0	0	1	0	
LEWISTON	75	53	83	47	64	-5	.1	.3	.1	1.1	61	77	37	0	0	2	0	
POCATELLO	79	45	88	38	62	-4	T	.2	T	.8	67	69	25	0	0	0	0	
IL CAIRO	89	72	96	68	81	1	5.2	4.3	2.6	5.4	132	--	--	4	0	3	3	
CHICAGO	83	64	91	61	74	3	.5	.5	.5	2.7	71	88	48	1	0	1	1	
MOLINE	88	64	94	61	76	3	1.1	0	.7	4.1	98	90	48	2	0	3	1	
PEORIA	85	66	93	60	76	2	.7	.2	.5	6.9	192	92	58	2	0	2	1	
ROCKFORD	8	64	91	60	74	3	.8	.3	.8	5.5	128	90	50	1	0	1	0	
SPRINGFIELD	90	68	97	64	79	4	.1	.9	T	.7	18	90	52	5	0	2	0	
IN EVANSVILLE	89	69	96	64	79	2	3.9	3.1	2.5	6.0	182	88	54	3	0	2	2	
FORT WAYNE	86	64	89	58	75	3	.2	.7	.1	2.0	56	93	52	0	0	2	0	
INDIANAPOLIS	86	67	90	62	77	3	1.0	0	.7	3.7	92	91	52	2	0	2	1	
SOUTH BEND	88	68	92	62	78	7	.1	.8	.1	2.4	69	90	50	2	0	1	0	
IA BURLINGTON	86	68	93	64	77	3	T	-1.1	T	6.5	148	--	--	3	0	0	0	
DES MOINES	87	67	95	63	77	4	.3	.8	.3	4.8	102	71	49	2	0	1	0	
DUBUQUE	84	66	91	62	75	5	1.1	.1	1.1	5.4	108	88	63	2	0	1	1	
SIOUX CITY	88	63	97	56	76	3	.1	.9	.1	1.2	28	87	47	3	0	1	0	
KS CONCORDIA	95	68	104	60	81	6	0	-1.1	0	1.2	26	87	42	7	0	0	0	
DODGE CITY	100	72	107	68	86	9	T	.8	T	3.9	122	64	32	7	0	0	0	
GOODLAND	97	61	104	54	79	7	T	.7	T	1.9	68	76	23	7	0	0	0	
TOPEKA	94	70	106	57	82	6	0	-1.3	0	.5	9	78	45	5	0	0	0	
WICHITA	104	74	109	68	89	10	0	-1.1	0	1.3	30	81	30	7	0	0	0	
KY LEXINGTON	85	66	91	61	76	1	1.4	.3	.8	2.0	49	90	53	2	0	3	1	
LOUISVILLE	87	69	96	67	78	2	1.9	1.0	.7	3.7	97	92	58	3	0	3	2	

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending June 29, 1980

States and Stations	Temperature °F						Precipitation					Relative Humidity, percent		Number of Days			
	Average maximum	Average minimum	Extreme high	Extreme low	Average	Departure from normal	Weekly total, in.	Departure from normal	Greatest in 24-hours, in.	Total, in., since June 2	Pct. normal since June 2	Average maximum	Average minimum	Temperature °F		Precipitation	
														90 and above	32 and below	.01 inch or more	.80 inch or more
LA BATON ROUGE	92	77	94	72	85	3	.2	-.9	.1	5.3	147	94	58	6	0	4	0
LA LAKE CHARLES	94	77	97	75	86	4	.1	-1.2	.1	1.4	30	97	57	7	0	2	0
LA NEW ORLEANS	95	78	96	74	86	5	1.2	-.1	1.0	3.7	84	88	55	7	0	2	0
LA SHREVEPORT	97	77	100	72	87	5	T	-.7	T	2.6	84	91	42	7	0	0	0
ME CARIBOU	77	54	88	42	66	3	.3	-.5	.1	1.9	59	81	52	0	0	3	0
ME PORTLAND	83	57	92	49	70	4	.2	-.5	.2	2.7	93	68	41	2	0	1	0
MD BALTIMORE	89	65	95	62	77	2	1.1	-.2	1.1	3.0	86	85	42	3	0	1	1
MA BOSTON	87	66	96	60	76	5	1.5	-.8	1.5	2.8	90	67	41	3	0	1	1
MA CHATHAM	73	61	78	58	67	1	.3	-.4	.3	2.4	77	83	68	0	0	2	0
MI ALPENA	77	54	90	47	66	2	.5	-.1	.4	3.2	119	--	--	1	0	2	0
MI DETROIT	84	61	90	57	73	2	0	-.8	0	6.3	197	87	50	1	0	0	0
MI FLINT	82	60	87	57	71	3	T	-.8	T	2.2	69	93	47	0	0	1	0
MI GRAND RAPIDS	86	64	91	60	75	5	T	-.8	T	3.4	106	92	51	1	0	0	1
MI HOUGHTON LAKE	79	55	88	49	67	2	.7	-.8	.7	3.4	106	91	54	0	0	0	0
MI LANSING	85	64	88	58	74	5	T	-.8	T	.9	28	93	50	0	0	1	0
MI MARQUETTE	74	54	89	45	64	0	.7	-.1	.3	2.5	78	90	56	0	0	4	0
MI MUSKOGON	81	61	86	57	71	2	.1	-.5	.1	4.3	179	92	56	0	0	1	0
MI SAULT-STE. MARIE	74	51	87	49	62	1	1.2	-.5	.6	3.9	126	95	55	0	0	4	2
MN DULUTH	76	55	93	47	65	3	.5	-.5	.4	1.4	33	90	50	1	0	3	0
MN INT'L FALLS	78	58	92	50	68	4	.6	-.4	.4	1.4	39	82	43	2	0	3	0
MN MINNEAPOLIS	81	62	92	54	72	2	T	-.9	T	4.6	124	72	49	1	0	1	0
MN ROCHESTER	83	62	94	50	73	4	.2	-.9	.2	1.8	41	87	50	2	0	0	0
MN SAINT CLOUD	79	57	91	51	68	1	1.1	-.1	1.0	5.0	116	90	--	1	0	2	1
MS JACKSON	93	76	98	71	85	4	1.3	.5	1.2	1.8	56	94	56	6	0	3	3
MS MERIDIAN	91	73	96	68	82	1	1.7	.7	1.6	3.3	94	95	59	5	0	3	1
MO COLUMBIA	93	70	101	63	82	6	.4	-.6	.3	.4	87	43	5	0	0	1	0
MO KANSAS CITY	91	69	105	62	80	5	1.2	-.1	1.2	2.4	46	87	45	4	0	1	1
MO SAINT LOUIS	90	72	97	68	81	4	2.1	1.1	1.2	2.6	62	89	53	4	0	2	0
MO SPRINGFIELD	91	71	95	64	81	5	.1	-1.0	.1	3.6	82	92	54	5	0	1	2
MT BILLINGS	85	54	95	50	70	3	0	-.5	0	1.5	63	53	22	3	0	0	0
MT GLASGOW	79	53	88	49	66	0	.9	.3	.8	2.5	96	81	36	0	0	2	1
MT GREAT FALLS	73	50	85	46	61	-2	1.1	.5	.4	3.9	130	72	38	0	0	4	0
MT HAVRE	77	51	90	48	64	-1	2.1	1.5	.8	3.0	125	89	37	1	0	5	2
MT HELENA	73	49	85	45	61	-1	.8	.3	.5	3.1	135	74	39	0	0	2	1
MT KALISPELL	69	46	78	39	58	-2	.2	-.3	.1	2.7	117	89	47	0	0	3	0
MT MILES CITY	85	59	94	53	72	3	T	-.7	T	3.0	97	63	22	1	0	1	0
MT MISSOULA	72	46	84	40	59	-3	.2	.2	.1	1.9	31	90	48	0	0	4	0
NE GRAND ISLAND	93	64	103	55	78	5	5	0	0	3.4	155	91	38	4	0	0	0
NE LINCOLN	94	67	103	60	81	6	0	-1.1	T	2.5	53	91	40	5	0	0	0
NE NORFOLK	91	64	98	56	78	5	T	-1.1	T	3.9	83	82	39	4	0	0	0
NE NORTH PLATTE	95	60	101	48	77	6	T	-.8	T	1.6	46	83	32	7	0	0	0
NE OMAHA	90	68	99	61	79	5	T	-1.1	T	7.0	149	88	50	3	0	0	0
NE VALENTINE	92	60	98	45	76	5	5	-.8	T	2.7	79	76	25	5	0	1	0
NV ELY	84	44	88	34	64	2	T	-.2	T	.5	63	40	11	0	0	0	0
NV LAS VEGAS	105	76	109	67	91	5	5	-.1	T	0	20	10	7	0	0	0	0
NV RENO	84	47	95	39	65	0	T	-.1	T	.1	25	60	16	1	0	0	0
NV WINNEMUCCA	84	46	94	37	65	0	0	-.2	0	.4	40	52	12	2	0	0	0
NH CONCORD	89	56	98	49	72	5	.7	-.1	.7	2.6	81	82	34	4	0	2	1
NJ ATLANTIC CITY	80	57	87	53	69	-5	1.2	-.4	1.2	3.6	112	90	55	0	0	2	1
NJ TRENTON	87	66	92	63	77	3	.7	-.1	.5	1.7	57	--	--	1	0	2	0
NM ALBUQUERQUE	103	64	105	56	84	6	T	-.2	T	0	30	8	7	0	0	0	0
NM ROSWELL	104	71	106	65	87	8	0	-.3	0	.3	25	--	--	7	0	0	0
NY ALBANY	83	58	91	51	71	0	1.6	-.9	1.6	4.6	164	80	42	2	0	2	1
NY BINGHAMTON	83	59	89	53	71	3	3.8	3.0	2.6	5.6	175	84	48	0	0	3	2
NY BUFFALO	80	62	88	56	71	2	1.2	.7	1.1	5.5	262	86	55	0	0	2	1
NY NEW YORK	85	69	94	65	77	3	.7	0	.6	3.4	126	68	45	3	0	1	1
NY ROCHESTER	82	62	90	58	72	2	.8	-.2	.5	6.4	267	88	53	2	0	3	0
NY SYRACUSE	83	59	91	52	71	1	.4	-.3	.3	3.6	124	96	53	3	0	2	0
NC ASHEVILLE	84	64	94	60	74	1	2.9	1.9	1.2	4.7	127	92	56	2	0	4	2
NC CHARLOTTE	83	66	93	64	75	-3	1.4	.4	1.3	2.3	66	92	64	2	0	4	1
NC GREENSBORO	81	64	92	61	73	-3	3.0	2.0	2.5	3.4	92	99	64	2	0	4	1
NC HATTERAS	84	69	89	56	76	0	3.0	1.8	2.6	4.8	107	98	67	0	0	2	1
NC RALEIGH	86	68	97	64	77	1	4.0	3.0	3.4	4.9	140	97	64	3	0	3	2
NC WILMINGTON	89	71	98	61	80	1	1.5	0	1.2	2.5	48	89	54	3	0	3	1
ND BISMARCK	82	56	95	46	69	2	.2	-.6	.1	1.7	50	77	30	1	0	2	0
ND FARGO	79	59	91	54	69	1	.2	-.6	.1	2.6	84	70	51	1	0	3	0
ND WILLISTON	80	54	101	42	67	1	.3	-.5	-.2	1.8	58	75	34	1	0	3	0
OH AKRON-CANTON	83	61	89	56	72	1	T	-.8	T	3.5	109	90	51	0	0	2	0
OH CINCINNATI	86	67	93	64	77	2	.8	-.1	.4	3.7	106	88	54	2	0	2	0
OH CLEVELAND	85	61	90	58	73	3	T	-.8	T	2.5	78	88	46	1	0	1	0
OH COLUMBUS	85	64	91	59	75	2	1.0	0	.4	4.5	115	91	57	2	0	4	0
OH DAYTON	88	64	93	59	76	2	4.7	3.8	3.5	8.6	239	87	38	3	0	3	1
OH TOLEDO	86	63	91	57	75	3	.5	-.3	.5	2.8	87	86	48	2	0	1	0
OH YOUNGSTOWN	83	57	89	52	70	0	.6	-.2	.3	3.4	106	95	46	0	0	3	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending June 29, 1980

States and Stations	Temperature °F						Precipitation					Relative Humidity, percent		Number of Days			
	Average maximum	Average minimum	Extreme high	Extreme low	Average	Departure from normal	Weekly total, in.	Departure from normal	Greatest in 24-hours, in.	Total, in., since June 2	Pct. normal since June 2	Average maximum	Average minimum	Temperature °F		Precipitation	
														90 and above	32 and below	.01 inch or more	.50 inch or more
OK OKLAHOMA CITY	101	74	105	71	88	8	0	-.9	0	2.5	63	71	37	7	0	0	0
OK TULSA	100	79	102	75	89	10	0	-1.0	0	5.5	125	84	47	7	0	0	0
OR ASTORIA	64	50	65	44	57	-1	.9	-.4	.7	1.4	61	95	66	0	0	6	1
OR BURNS	71	39	83	30	55	-7	.3	-.1	.3	.8	80	82	30	0	0	0	0
OR MEDFORD	79	49	90	42	64	-4	.4	-.1	1.2	1.50	150	80	31	1	0	1	0
OR PENDLETON	74	50	82	46	62	-7	.1	-.1	.1	1.1	110	--	34	0	0	2	0
OR PORTLAND	70	54	74	50	62	-2	.2	-.1	.1	2.3	153	88	54	0	0	3	0
OR SALEM	69	47	75	40	58	-5	.4	-.2	.2	1.8	138	96	46	0	0	3	0
PA ALLENTOWN	87	63	93	59	75	3	.6	-.3	.6	2.5	76	89	50	1	0	1	1
PA ERIE	81	62	85	57	72	3	.2	-.6	.2	4.8	150	--	--	0	0	1	0
PA HARRISBURG	87	62	93	56	75	1	1.0	-.3	1.0	2.6	90	95	51	1	0	2	1
PA PHILADELPHIA	89	66	94	61	77	2	.7	-.2	.7	1.8	53	86	45	2	0	1	1
PA PITTSBURGH	87	64	92	61	76	5	.8	0	.7	4.2	131	87	44	2	0	2	1
PA SCRANTON	87	61	91	55	74	4	2.5	1.7	2.5	4.2	131	85	37	2	0	1	1
RI PROVIDENCE	86	62	96	59	74	4	.5	-.1	.5	3.4	136	76	44	3	0	2	0
SC CHARLESTON	86	73	9	70	80	0	1.2	-.5	.6	3.2	54	94	67	3	0	2	2
SC COLUMBIA	86	67	94	60	77	-4	1.7	-.7	1.3	2.3	66	94	56	3	0	2	1
SC GREENVILLE	82	67	91	63	75	-3	5.7	4.7	3.6	6.8	174	95	59	1	1	3	2
SD ABERDEEN	82	58	90	50	70	2	.2	-.6	.2	2.4	71	82	39	1	0	0	0
SD HURON	87	58	97	52	73	2	1.8	1.0	1.8	4.9	140	90	43	3	0	2	1
SD RAPID CITY	88	56	100	46	72	4	0	-.8	0	4.8	137	70	27	2	0	0	0
SD SIOUX FALLS	87	61	94	50	74	3	.4	-.6	.3	2.2	54	83	45	2	0	2	0
TN CHATTANOOGA	82	66	90	64	74	-4	1.3	-.3	.8	2.7	77	95	60	1	0	2	1
TN KNOXVILLE	84	68	91	64	76	-1	.7	-.3	.7	1.9	54	95	64	2	0	2	1
TN MEMPHIS	92	75	96	70	84	3	4.8	4.0	4.0	5.8	181	88	58	6	0	2	2
TN NASHVILLE	89	68	98	65	78	0	2.7	1.9	2.4	2.9	91	91	51	4	0	2	1
TX ABILENE	104	77	109	74	91	9	0	-.6	0	1.1	41	64	25	7	0	0	0
TX AMARILLO	103	69	106	64	86	9	0	-.8	0	1.3	41	52	11	7	0	0	0
TX AUSTIN	101	77	105	75	89	6	0	-.6	0	.3	10	89	32	7	0	2	1
TX BEAUMONT	96	77	98	72	86	4	.6	-.6	.5	.8	78	95	54	7	0	0	0
TX BROWNSVILLE	98	80	100	79	89	5	0	-.6	0	0	0	85	46	7	0	0	0
TX CORPUS CHRISTI	97	77	101	75	87	3	0	-.5	0	0	0	90	46	7	0	0	0
TX DEL RIO	105	78	108	78	92	6	0	-.4	0	.3	15	68	19	7	0	0	0
TX EL PASO	107	74	109	71	91	9	0	-.2	0	0	0	25	8	7	0	0	0
TX FORT WORTH	109	79	113	75	94	11	0	-.6	0	1.3	45	77	25	7	0	0	0
TX GALVESTON	87	80	88	79	84	1	0	-1.0	0	.4	11	95	76	0	0	0	0
TX HOUSTON	100	79	102	78	90	8	.1	-.9	.1	1.1	26	94	41	7	0	0	0
TX LUBBOCK	106	74	108	71	90	11	0	-.6	0	1.8	69	42	11	7	0	0	0
TX MIDLAND	103	69	106	66	86	4	0	-.4	0	1.6	107	56	12	7	0	0	0
TX SAN ANGELO	101	73	105	68	87	4	0	-.4	0	3.1	172	74	24	7	0	0	0
TX SAN ANTONIO	102	77	105	76	90	6	0	-.6	0	.5	19	89	29	7	0	0	0
TX VICTORIA	97	78	100	76	87	5	0	-.7	0	0	0	46	7	0	0	0	0
TX WACO	105	77	109	75	91	7	0	-.5	0	.3	12	85	30	7	0	0	0
TX WICHITA FALLS	112	76	117	72	94	10	0	-.7	0	.3	9	61	17	7	0	0	0
UT BLANDING	92	56	95	50	74	5	0	-.1	0	0	0	38	14	5	0	0	0
UT SALT LAKE CITY	89	57	97	49	73	3	0	-.3	0	.4	31	45	15	3	0	0	0
VT BURLINGTON	84	58	93	45	71	3	.1	-.7	.1	1.2	37	72	40	3	0	2	0
VA LYNCHBURG	84	62	95	58	73	-1	.3	-.5	.1	.7	22	100	--	3	0	3	0
VA NORFOLK	89	69	100	60	79	2	.1	-.9	.1	1.2	34	88	51	3	0	2	0
VA RICHMOND	90	68	101	63	79	2	.1	-.8	.1	.4	13	94	55	4	0	2	0
VA ROANOKE	85	64	95	60	75	1	.5	-.3	.3	1.8	56	92	51	3	0	2	0
WA COLEVILLE	70	49	76	46	60	-4	-.6	-.5	.5	1.6	200	--	--	0	0	3	0
WA OMAK	74	48	78	42	61	-6	.2	-.1	.2	1.4	117	--	16	0	0	1	0
WA QUILLAYUTE	62	48	65	42	55	-2	.8	-.1	.4	1.9	59	99	66	0	0	3	0
WA SEATTLE-TACOMA	65	52	68	48	59	-3	.7	-.4	.6	1.7	113	86	56	0	0	2	1
WA SPOKANE	70	51	76	47	60	-5	.1	-.2	.1	1.0	71	86	41	0	0	2	0
WA WALLA-WALLA	76	54	85	50	65	-5	.1	-.1	.1	.7	58	75	41	0	0	2	0
WA YAKIMA	75	49	81	44	62	-5	.4	-.3	.3	1.1	157	79	37	0	0	2	0
WV BECKLEY	79	60	86	55	69	0	.1	-.9	.1	2.6	65	90	49	0	0	2	0
WV CHARLESTON	86	62	93	56	74	0	.3	-.6	.1	2.1	68	94	47	3	0	5	0
WV HUNTINGTON	87	65	95	59	76	2	.4	-.4	.4	1.6	50	92	50	3	0	2	0
WV PARKERSBURG	85	64	90	58	75	1	.3	-.7	.2	3.0	79	85	46	1	0	3	0
WI GREEN BAY	81	59	90	55	70	3	.2	-.6	.1	3.8	119	88	57	1	0	2	0
WI LA CROSSE	88	68	97	63	78	7	.1	-.9	0	3.6	86	85	49	5	0	0	0
WI MADISON	87	60	96	55	73	5	.5	-.5	.4	3.4	83	69	43	4	0	2	0
WI MILWAUKEE	79	58	92	53	68	1	.3	-.6	.3	4.6	135	85	54	1	0	1	0
WY CASPER	90	49	96	43	69	3	T	-.3	T	.1	7	52	9	4	0	0	0
WY CHEYENNE	89	55	93	50	72	7	0	-.5	0	0	0	0	45	14	2	0	0
WY LANDER	86	52	92	42	69	4	0	-.4	0	0	0	0	20	2	0	0	0
PR SHERIDAN	85	46	97	39	66	1	0	-.6	0	1.0	36	75	18	2	0	0	0
PR SAN JUAN	92	80	93	78	86	5	.3	-1.0	.2	1.4	26	85	58	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: Rain covered most of State. Temperatures near normal.

Fieldwork: 4.0 days suitable. Soil moisture adequate. Planting progress: Soybeans 90%, 93% 1979, 90% average; sorghum 75%, 82% 1979. Corn silked 44%, 57% 1979, 51% average. Cotton squaring 41%, 48% 1979, 52% average. Peanuts pegging 16%, 25% 1979, 34% average. Wheat harvested 100%. Hay harvested 53%. Condition: All crops and pastures rated fair to good.

ARIZONA: Hot, dry week. Moist air by weekend. Scattered showers, thundershowers. Amounts light. Temperatures 3 to 7° above normal.

Cotton planting virtually complete, squaring, boll setting increasing, favorable. Small grain harvest winding down. Most corn pre-tasseling stage. Sorghum late planting continues, earlier plantings forming heads. Safflower setting seed. Harvest sugarbeets continues, 50% harvested. Cantaloup, watermelon harvest increasing volume, well behind normal. Grape harvest full swing. Dry onion harvest rapidly winding down. Potato harvest full swing. Harvest Valencia oranges, grapefruit winding down. Rangeland declined. Southern ranges very poor to poor, mostly fair north. Livestock mostly fair. Stock water short to adequate.

ARKANSAS: Temperatures above normal. Highest 103°, lowest 62°. All departures from normal +2 to +7°. Most rainfall 3.65 in., least 0.

Fieldwork: 5.0 days suitable. Soil moisture adequate, central and southeastern counties still need rain. Cotton condition good. Rains improved growth. Squaring 64%. Soybeans 88% seeded, 91% 1979, 92% average. Some low area rain damage. Rice 100% planted, 100% 1979, good condition. Corn 100% planted, 98% 1979, 99% average, good condition. Sorghum 92% planted, 92% 1979, 96% average. Wheat 95% harvested, 94% 1979, 96% average. Oats 96% harvested, 98% 1979, 96% average. Peach, tomato harvests continue. Cattle condition good. Some poultry loss due to heat. Haying continued. Pastures supplying average feed.

CALIFORNIA: Temperatures continued below normal, warming toward end of period. Exception was South Coast where temperatures averaged above normal. Some light rain near the Oregon border.

Sugarbeet, wheat, barley harvests full swing. Winter wheat 56% harvested, 60% last year. Stubble baled, burned, disced under, replanted to corn, milo, or dry beans. Cotton 19% squaring, 85% last year. Alfalfa haying normal. Safflower full bloom. Normal field activities. Most crops one to two weeks behind normal development. Tilden apricot harvest underway. Heavy set for San Joaquin Valley avocados. Sulfur continues for grape mildew. Perlette grapes harvested, Thompson seedless underway. Nectarine and Freestone peach volume good. Olive set good. Red Beaut Santa Rosa plums picked. Citrus skin problems. Valencia and lemon harvest continues. Almonds sizing well. Walnut crop good, large sizes. Asparagus harvest almost finished. Snap bean harvest still active. Carrot harvest very active Kern District, Central Coast. Broccoli, cauliflower harvest very active Central Coast. Sweet corn volume decreasing Desert. Lettuce harvest heavy Central Coast. Green pepper harvest active.

Potato harvest declining Kern District. Shipments continue Tulalake. Market tomato harvest increasing San Joaquin Valley. Range, water conditions good to excellent. Range grass extremely dry many areas. Some small grass fires occurred. Aircraft fuel for crop spraying operations tight supply.

COLORADO: Hot, dry, windy weather prevailed with only a few showers and no significant precipitation. Average temperatures 3 to 7° above normal with record highs set in southeast.

Winter wheat turned color 81%, 64% 1979, 74% average. Corn average height 18 in., 16 in. 1979. Sorghum emerged 78%, 89% 1979, 92% average. Dry beans emerged 85%, 86% 1979, 88% average. Sugarbeets thinned 90%, 92% 1979, 95% average. Barley headed 58%, 64% 1979. Turned color 30%, 20% 1979. Alfalfa hay first cutting 67%, 67% 1979, 66% average. Fieldwork: 6.0 days suitable. Topsoil moisture supplies diminishing. Livestock good condition despite heat.

FLORIDA: Rainfall averaged near 2.00 in. except less than 0.50 in. in the southwest. Temperatures were near normal except 2 to 4° above normal in the south.

Soil moisture variable, mostly adequate north and west, a little short central and south. Non-irrigated corn poor, irrigated corn good condition. Peanuts, soybeans, tobacco fair to good condition. Soybean planting continues. Tobacco harvest increasing. Sugarcane good to excellent condition. Pastures good to excellent in most central and northern areas. Some Panhandle and extreme southern areas poor to fair. Cattle condition mostly good. Citrus grove condition continues excellent, moisture adequate most areas. New growth on trees of all ages. Valencia orange harvest slowing. Grapefruit harvest all but complete. Hot days and warm nights continued in the vegetable growing areas. Harvest of all remaining vegetable crops almost complete. Shipments are down 18% from the previous week. Supplies sweet corn, parsley, increased while tomatoes, watermelons held steady but shipments snap beans, carrots, celery, cucumbers, eggplant, okra, peppers, potatoes, radishes, squash decreased. Some light watermelon scragging continues in the west central area as the season is practically over. Supplies are declining in the north central area as the season is nearing completion. Volume steady north as harvest continues active. Harvest from small acreage in Panhandle increasing. Crop set back due to dry weather conditions.

GEORGIA: Heavy rains, 2.00 to 6.00 in., broke dry spell. Temperatures averaged 2 to 5° below normal.

Soil moisture mostly adequate to surplus. Some spots still dry, other spots had flooded fields. Fieldwork: 3.0 days suitable. Corn much improved, fair to good, 70% silked, 34% dough, 13% dent. Soybeans fair to mostly good, 88% planted, last year 95%. Peanuts much improved, condition good, 86% blooming, last year 92%, average 88%. Pegging 48%, last year 72%, average 63%. Cotton fair to mostly good, 86% squaring, last year 92%, setting bolls 29%, last year 58%, average 48%. Tobacco fair to good, some drowned, 16% harvested, last year 20%, average 24%. Sorghum 75% planted, last year 84%. Wheat 95% harvested, last year 98%.

Pastures and hay crops improved, fair to good. Cattle and hogs good. Peaches good, 55% harvested, 61% last year, average 67%. Apples good. Water-melons fair to good, 21% harvested, 34% last year, 36% average. Vegetable crops mostly fair to good.

HAWAII: Weather favorable. Showers light. Sunny periods most crop areas improving crop growth. Good downpours, Kona District Island beneficial to orchards and pastures. Spraying for insect, disease control. Vegetable supplies adequate. Most leafy crops increasing. Banana supplies light. Orchards damaged by early January storm flowering and fruiting. Papayas: Rains beneficial. Ending of current flush. Will be approaching declining stage in few weeks. Pine-apple harvesting getting heavier. Sugar harvest- ing active. Pastures generally fair to good. Rains beneficial.

IDAHO: Temperatures ranged from 101 to 29°. Most stations report below normal temperatures. All stations in the north reported excess of 0.25 in. precipitation, most other areas less.

Winter wheat 90% headed, spring wheat 50% headed, and spring barley 37% headed. Dry beans 90% emerged. Potatoes 96% emerged, 46% 6 in. high, 25% 12 in. high and 6% closing the middles. Over 60% of first cutting of alfalfa complete. Cherries 28% harvest- ed. Range and pastures excellent. Fieldwork: 6.0 days suitable.

ILLINOIS: Temperatures 6° above normal north- west, 1° above extreme south, 2 to 4° above other areas. Precipitation 1.00 northwest, 1.00 to 3.00 in. south, up to 4.00 in. extreme south, none to 0.25 in. other areas.

Soil moisture adequate to short. Corn con- dition good. Average height 41 in., 30 in. 1979, 38 in. average. Most advanced 56 in., 45 in. 1979, 54 in. average. Soybean condition good to fair. Winter wheat good, 85% ripe, 80% 1979, 83% average; 10% harvested, 24% 1979, 38% aver- age. Oats good, 75% filled, 76% 1979, 74% aver- age; 15% turning yellow, 18% 1979, 28% average. Alfalfa good, 25% second crop cut, 30% 1979, 24% average. Red clover good, 90% cut, 89% 1979, 91% average. Pastures good to fair. Fieldwork: 6.0 days suitable.

INDIANA: Warm to hot, heavy rains in south. Tem- peratures averaged 5° above normal and ranged from 52 to 96°. Humidity, soil temperatures and evap- oration above normal. Rainfall 0.30 in. north, 0.90 in. in central, and in south from 1.30 in. east to 3.60 in. west.

Fieldwork: 5.0 days suitable. Topsoil and sub- soil moisture adequate. Wheat 25% ripe. Wheat 5% combined, 1979 5%, average 15%. Oats 90% headed, average 90%. Rye 5% combined, 1979 5%, average 25%. Corn condition fair to mostly good. Corn 30 in. high, 1979 26 in., average 30 in. Soybeans 8 in., 1979 9 in., average 9 in. Alfalfa hay 100% cut first time, 1979 95%, average 90%. Clover hay 90% cut, 1979 90%, average 80%. Tobacco plants 95% set. Pasture condition good.

IOWA: Hot dry week. Temperatures averaged 5° above normal, reached 105° at Shenandoah and 102° at Rock Rapids on 27th. Showers fell mostly over the northeast with little or none elsewhere.

Fieldwork: 6.4 days suitable. Height of corn: Average of all corn 34", average of tallest corn 46". Soybean acreage planted: 100%, 1979 100%, normal 100%. Soybean stand: 90% of normal, last year 89%. First crop alfalfa hay harvest: 98%, 1979 100%, normal 96%. First crop clover hay harvested: 82%, 1979 78%, normal 73%. Topsoil

moisture: 30% short, 66% adequate, 4% surplus. Subsoil moisture: 7% short, 89% adequate, 4% sur- plus. Crop conditions improved, all crops good, except oats fair to good. Pastures declined. Live- stock good condition, market movement increased.

KANSAS: Record breaking heat and spotty but local beneficial moisture. Precipitation from 1.00 in. northeast to 0.50 in. north central and southwest and from 0.10 in. to 0.20 in. elsewhere. Tempera- tures averaged 81° in the northwest to 89° south central, 8 to 11° above normal. Temperatures were frequently over 100° with many record high temperatures.

Wheat harvested 15%, last year 5%, average 35%. Wheat ripe 65%, last year 40%, average 55%. Wheat turned 97%, last year 94%, 97% average. Sorghums planted 96%, last year and average 95%. Soybeans planted 90%, last year 90%, average 85%. Extremely hot weather has stressed livestock. Soil moisture adequate to short.

KENTUCKY: Hot, wet weather past week. Tempera- tures averaged 2 to 4° above normal. Precipita- tion showed a wide range; from 0.03 in. in the southeast to over 5.00 in. in the northwest.

Soil moisture short to adequate. Rain brought relief to stressed crops. Fieldwork: 4.9 days suitable. Average height corn 33 in., average but ahead of last year. Corn condition good to fair. Corn tasseled 1%. Tobacco condition mostly fair to good. Resetting still active. Soybean condition mostly good. Some double-crop fields left to be planted. Soybean average height, 9 in. Burley growth late, 95% less than 12 in. high. Wheat harvest 48% complete. Alfalfa second cutting 33% complete. Condition of hay crops mostly good. Pasture condition mostly good to fair.

LOUISIANA: Rains all areas, heaviest 3.56 in. Temperatures 4 to 6° above normal. Extremes: 67 and 101°.

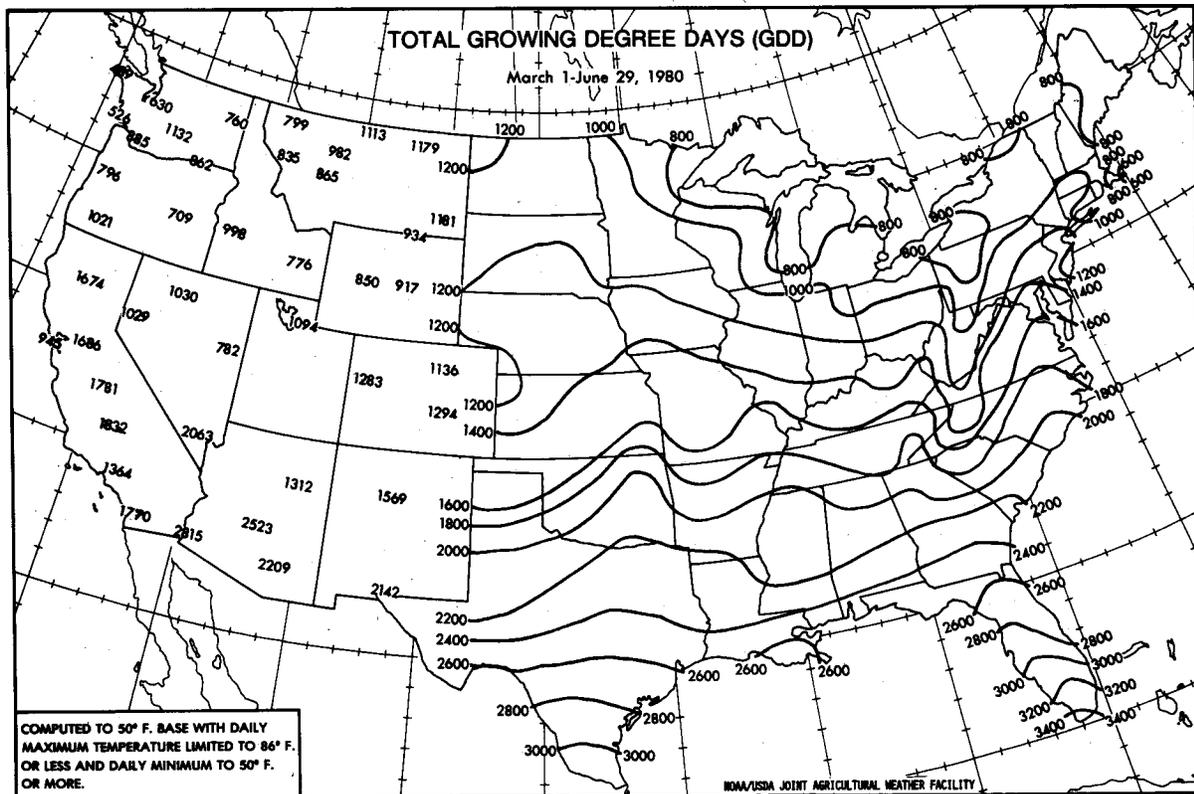
Soil moisture adequate. Fieldwork: 4.5 days suitable. Corn fair, silked 68%, 85% 1979, dough 31%, 40% 1979, mature 8%, 6% 1979. Rice good, headed 28%, 27% 1979. Cotton fair to good, squaring 45%, 37% 1979, setting bolls 11%, 7% 1979. Sorghum planted 90%, 92% 1979, 88% aver- age, emerged 82%, 88% 1979, condition fair to good. Soybeans planted 94%, 97% 1979, 92% average, emerged 77%, 92% 1979, condition fair to good. Sugarcane good. Pastures fair to good. Livestock good. Hay first cutting 90%. Wheat harvest complete. Sweetpotatoes planted 93%, 96% 1979, 90% average. Condition fair to good. Vegetables fair.

MARYLAND & DELAWARE: Temperatures averaged 2° below normal except 2° above normal in upper southern counties. Highs mid to upper 80's, lows low to mid 60's. Precipitation very light.

Soybean plantings 90%, 80% last year, 88% normal. Corn good condition. Peach and apple prospects excellent. Barley harvest 95% complete, wheat 60% cut, rye, 50% cut. Fieldwork: 6.6 days suitable.

MICHIGAN: Temperatures averaged 4 to 8° above nor- mal in the southwest Lower and up to 4° above normal elsewhere. Maximum temperatures were in the 80's. Local thundershowers, amounts up to 1.50 in. Aver- age 0.30 in. southern Lower and 0.50 in. northern Lower and upper.

Warm temperatures accelerating crop growth. Corn 17 in. high, 16 last year, 20 normal. Soy- beans 97% planted, 100% last year and normal. Dry beans 95% planted, 97% last year, 93% normal. Hay 71% first cut is up, 78% last year, 73% normal. Wheat 22% yellow, 41% last year, 47% normal. Oats



27% headed, 45% last year, 54% normal. Strawberries 55% harvested, 62% last year, 70% normal. Some irrigation started.

MINNESOTA: Temperatures averaged 2 to 5° above normal. Extremes: 97 and 40°. Precipitation averaged up to 1.00 in. below normal in the southeast and east central districts, 0.50 in. below normal in the west central, central, southwest, and south central districts, and near normal to slightly above normal in the northern districts. Precipitation totals were 1.00 in. or more in extreme northwest and northeast districts and locally in the central and southwest districts.

Rapid crop growth as result of warm weather, light rains. Crops ahead of normal and improving from dry, hot spring. Most areas becoming dry. Wide variation in stages of growth. Small grains in northwest in poor shape. Row crops fairly good condition. Crops worse than many remember. Jointing: Spring wheat 97%, 1979 43%, normal 79%; oats 98%, 1979 59%, normal 84%; barley 99%, 1979 36%, normal 78%. Heading: Winter wheat 98%, 1979 79%, normal 91%; rye 99%, 1979 85%, normal 94%; spring wheat 75%, 1979 7%, normal 47%; oats 77%, 1979 19%, normal 56%; barley 85%, 1979 5%, normal 53%. Turning ripe: Winter wheat 24%, 1979 0%, normal 27%; rye 23%, 1979 4%, normal 31%; spring wheat 4%, 1979 0%, normal 5%; oats 3%, 1979 0%, normal 8%; barley 6%, 1979 0%, normal 7%. First cutting alfalfa hay 91%, 1979 68%, normal 81%.

MISSISSIPPI: Temperatures 2 to 8° above normal. Heavy rains, 4.00 to 5.00 in. in northwest. Soil moisture mostly adequate. Fieldwork: 2.9 days suitable. Heavy rains in parts of the Delta will require replanting of some soybeans. Insects (plant bugs and thrips) increasing in cotton. Hay 42% harvested, 43% 1979, 39% average. Peaches

29% harvested, 29% 1979, 34% average; fair to good condition. Watermelons 3% harvested, 10% 1979. Sorghum 90% planted, 95% 1979, 88% average. Sweetpotatoes 96% planted, 98% 1979, 92% average. Soybeans 88% planted, 96% 1979, 92% average; 76% up to stand, 85% 1979, 78% average; good to fair condition. Cotton 65% squaring, 70% 1979, 58% average; 3% blooming, 8% 1979; good to fair condition. Corn 40% silked, 60% 1979, 47% average; 13% dough stage, 23% 1979; condition good to fair. Wheat 98% harvested, 96% 1979, 93% average. Rice good to fair condition. Pastures good to fair condition.

MISSOURI: Temperatures averaged 1° above normal. Average precipitation less than 0.50 in. in northeast and west central, with 1.00 to 2.00 in. falling elsewhere.

Fieldwork: 5.2 days suitable. Corn 5% tasseled. Wheat 78% ripened, last year 66%, normal 88%. Wheat 29% harvested, last year 26%, normal 55%. Cotton 55% squared, last year 9%, normal 44%. Alfalfa hay 34% harvested second cutting, last year 26%, normal 35%. Condition of corn mostly fair to good. Condition of pasture poor to fair. Topsoil moisture supply short to adequate.

MONTANA: Wet over north central and parts of northeast and central areas. Some north central areas had over 2.00 in. of rain. Very dry week south central and southeast. Other areas had mostly moderate rainfall. Some thunderstorms were accompanied by damaging hail and winds. Temperatures averaged 5° above normal southeast and 2 to 4° above normal northeast, south central and southwest. West and north central had temperatures 1° below normal. Extremes: 96 and 34°. Topsoil moisture mostly adequate except east. Subsoil moisture short east and adequate west.

Fieldwork: 5.0 days suitable. Winter wheat, spring wheat, barley, and oats crops good condition except east. Sugarbeets, potatoes, and corn crops good condition. Sugarbeets 90% thinned. First cutting alfalfa 40% complete, wild hay cut 20%, grasshopper activity light.

NEBRASKA: Precipitation, isolated thundershowers, 0.10 in. Panhandle to 0.50 in. south and east. Temperatures 10° above normal Panhandle; 5° above normal elsewhere.

Winter wheat fair to mostly good. Winter wheat 95% turning or turned color; 70% last year and 85% normal. Winter wheat 15% ripe; less than 5% last year and 25% normal. Winter wheat harvest less than 5%; 0% last year and 5% normal. Corn mostly good. Sorghum mostly good. Soybean condition mostly good. Second cutting of alfalfa 20% harvested; 5% last year. Alfalfa mostly good. Topsoil moisture mostly short to adequate. Subsoil moisture mostly adequate. Range and pasture feed supplies mostly adequate. Wild hay mostly good. Livestock heat stress widespread. Fieldwork: 6.4 days suitable.

NEVADA: Cool and windy early, typical warm summer weather with clear sunny skies last half of week. Temperatures averaged 2° below normal north and central, but 4° above normal extreme south. Extremes: 109 and 26°. No significant precipitation.

Dry weather ideal for hay harvest. Potatoes and small grain benefited from warm weather.

NEW ENGLAND: Well above normal temperatures. Records threatened and broken mid-week. Normal temperatures returned by weekend. About 0.33 in. of rain fell over northeastern Maine. Central and southern parts of the region received about 0.25 in.

Fieldwork: 6.0 days suitable. Over 75% of the first crop hay cut, with reports of some farmers finished. Growth of corn crop is behind schedule but has improved in the warm weather. Needed rain fell in Aroostook County, enhancing the growing conditions for the potato crop. Warm weather vegetable crops improved. Some growers irrigating fields. Cranberry crop prospects continue good as producers prepare to irrigate bogs and apply second treatment of fungicide. Grazing conditions mostly short to adequate. Soil moisture short.

NEW JERSEY: Temperatures averaged 1 to 2° above normal. Extremes: 50 and 94°. Rainfall averaged 1.11 in. north, 1.08 in. central and 1.53 in. south. Estimated soil moisture, in percent of field capacity, averaged; 63 north, 41 central and 56 south. Four inch soil temperature averaged; 70° north, 75° central and 76° south.

Fieldwork: 6.2 days suitable. Hot weather advancing crop maturity. Recent showers beneficial to unirrigated crops but hay making and grain combining temporarily interrupted. Sweet corn and tomato harvest begun. Harvest of other early summer crops increasing. Blueberry harvest increasing. Peach harvest beginning. Apples sizing nicely. Wheat combining started. Soybean planting continues following wheat harvest.

NEW MEXICO: Dry, hot days with light scattered showers some mountain areas.

High temperatures and windy days keep soil moisture short. Crops and livestock good condition. First cutting alfalfa to begin this week, in central and northern areas. Cotton beginning to bloom in southern portions. Dryland grain sorghum in fair condition. Harvest of wheat and barley 85% complete. Harvest of early

planted onions slowing. Prospects favorable for good pecan crop. Poor fruit sets in apple orchards. Ranges in fair condition. Ranchers supplemental feeding. Livestock generally good.

NEW YORK: Temperatures 1 to 5° above normal. Storms 28th and 29th brought needed rain.

Corn growth improved. First cutting alfalfa 86% complete, 75% 1979, 66% average. Clover-timothy 63% cut, 60% 1979, 55% average. Grass silage 87% harvested, 78% 1979, 75% average. Long Island potatoes good condition. Most fields flowering. Isolated rain and hail damage in a few Upstate vegetable areas. Spinach harvest nearing completion. Apples, peaches, pears in good condition. Sweet cherries behind normal in development.

NORTH CAROLINA: Temperatures 5° below normal. Precipitation averaged 1.00 to 4.00 in.

Fieldwork: 3.8 days suitable. Soil moisture adequate. Conditions: Pastures, corn, Irish potatoes fair to good; field tobacco, cotton, peanuts, soybeans, hay, apples, peaches fair to mostly good; sweetpotatoes good. Plantings: Sweetpotatoes 97%, 1979 92%, average 95%; soybeans 91%, 1979 96%, average 92%; burley tobacco 99%, 1979 99%, average 100%; sorghum 85%, 1979 90%, average 95%. Harvested: Irish potatoes 45%, 1979 49%, average 55%; wheat 90%, 1979 70%, average 75%; oats 96%, 1979 76%, average 81%; barley 98%, 1979 84%, average 86%; rye 100%, 1979 79%, average 81%. Phenological stages: Cotton 37% squared, 3% setting bolls; corn 19% silking.

NORTH DAKOTA: Rainfall averaged only trace southwest to around 1.00 in. northeast. Few areas received lot more. Seasonal rainfall since April 1 still less than half of normal. Some large hail reported. Temperatures near normal. Extremes: 39 and 101°.

Southwest further hit by hot, dry winds, depleting soil moisture. Some soil erosion extensive. Other areas received only light scattered rain. Soil moisture supplies mostly short. Some early small grain fields having trouble filling heads. Development continues ahead of normal. Forty-eight to 39% (barley to durum) of small grain acreage heading or beyond compared to average of 32 to 15%. Hard red spring wheat 42% headed and beyond compared to 3% last year and 24% average. Small grain crop condition rated mostly poor to fair. Row crop condition mostly fair. Average heights vs. height last year and average: Corn 15, 5, 10; sunflower 12, 5, 11 and soybeans 7, 4, and 7. Pasture growth mostly poor to fair. Hay cutting 43% complete for alfalfa and 15% wild hay.

OHIO: Average temperatures ranged up to 6° above normal. Extremes: 97 and 51°. Precipitation below normal except west central areas. Growing degree days since April 1 range from 20 to 210 GDD's below average. Corn height 25 in., 28 in. 1979, 28 in. average. Soybean height 9 in., 10 in. 1979, 10 in. average. Alfalfa cut 95%, 95% 1979, 95% average. Clover-timothy cut 85%, 80% 1979, 85% average. Wheat ripe 10%, 10% 1979, 25% average. Oats headed 80%, 85% 1979, 90% average. Fieldwork: 6.5 days suitable. Pasture condition good. Soil moisture adequate.

OKLAHOMA: Temperatures averaged 7° above normal east central to 11° above normal southwest breaking several temperature records. No precipitation reported.

Hot temperatures, dry winds aided wheat harvest and ripening later maturing varieties. Wheat har-

vest nearly 60% completed and nearly completed south central, southwest. Crops southwest, south central showing signs heat stress. Livestock Panhandle affected by continued hot weather. Wheat harvested 55%, 65% 1979, 85% average. Sorghum 95% planted, 100% 1979, 95% average. Cotton squaring less than 5%, 10% 1979, and 5% average. Fieldwork: 5.8 days suitable.

OREGON: Temperatures ranged from near normal along the coast to 3 to 6° below normal elsewhere. Precipitation average 0.50 in., ranging from 0.10 in. in the southeast to an average of 0.80 along the coast.

Soil moisture adequate to surplus. Winter wheat mostly fair to good, over 50% turning color. Wet weather seriously hampering haying. Rain damage in sweet cherries slight to severe. Strawberries past peak. Raspberries harvesting beginning. Pea harvest in progress. Livestock, range and pasture condition good to excellent. Grasshoppers causing some problems.

PENNSYLVANIA: Fieldwork: 6.0 days suitable. Soil moisture mostly short. Average height corn is 16 in., same as last year. Tobacco 93% transplanted; last year 94%. Soybeans 95% planted, last year complete. Barley 12% headed, 34% turning yellow, 38% ripe and 16% harvested; last year, 16% headed, 41% turning yellow, 28% ripe and 15% harvested. Wheat 56% headed, 39% turning yellow and 5% ripe; last year, 36% headed and 63% turning yellow. Oats 37% not yet headed and 62% headed; last year, 34% not yet headed and 65% headed. First cutting alfalfa 89%, last year 84%. Second cutting 8%, last year 6%. Clo-Tim 77% harvested, last year 74%. Hay conditions good. Feed from pasture mostly average to below average.

PUERTO RICO: Island average rainfall 0.56 in. or 0.63 in. below normal. Highest weekly total 2.50 in. Temperatures averaged 84° on coasts and 77 to 79° interior divisions. Extremes: 60 and 96°.

SOUTH CAROLINA: Temperatures averaged below normal first part of period, above normal latter part.

Soil moisture adequate. Corn improved, fair. Soybean planting 90%, 96% last year and 94% average. Planting slowed due to moist conditions. Tobacco fair to good. Peach harvest 22% complete, 29% last year, 34% average. Condition fair to good. Fruit size improving. Cotton fair to good condition. Cotton squaring 81%, 86% last year, 78% average. Setting bolls 6%, 16% last year and average. Small grain harvest winding down. Tomatoes fair to good condition. Harvesting active, 57% harvested, 56% last year. Snap beans, 88% harvested, 81% last year. All cucumbers, 89% harvested, 97% harvested last year.

SOUTH DAKOTA: Temperatures above normal, heavy rainfall in some areas, none in others. Extremes: 109 and 40°.

Topsoil moisture adequate in most of Northeast and East Central; critically short in North Central; short in extreme Southeast and elsewhere. Fieldwork: 5.0 days suitable. Small grains fair to poor condition with stands thin and uneven; some damaged by heavy rains and hail; some plowed under and planted to row crops and sudan. Ranges poor to fair, water short, some grasshopper problems. Alfalfa yield reduced and regrowth slow until rains are received. Sorghum 95% planted, 100% 1979, 100% average. Sunflowers 95% planted, 100% 1979, 98% average. Oats 88% headed, 58% 1979, 76% average. Spring wheat 88% headed, 48% 1979, 66% average. Barley 91% headed, 58%

1979, 74% average. Oats 16% turning color, 0% 1979, 13% average. Spring wheat 9% turning color, 0% 1979, 7% average. Barley 22% turning color, 0% 1979, 16% average. Winter wheat 72% turning color, 15% 1979, 49% average. Winter wheat 8% ripe, 0% 1979, 9% average.

TENNESSEE: Precipitation widespread. Amounts ranged from 1.00 to 3.00 in. Temperatures near normal.

Fieldwork: 4.6 days suitable. Soil moisture mostly short. Soybeans 92% planted, 1979 92%, average 88%. Cotton 60% squaring, 1979 35%, average 50%. Corn 5% silked, 1979 20%, average 20%. Wheat 80% harvested, 1979 82%, average 74%. Oats 75% harvested, 1979 74%, average 60%. Barley 80% harvested, 1979 80%, average 70%. Tobacco setting virtually complete. Blue mold reported in several fields. Cattle good. Pastures improved. Alfalfa second cut 80% harvested.

TEXAS: In Lower Rio Grande Valley vegetable shipments nearing completion. Cantaloups, watermelons, honeydew melons, tomatoes being harvested. Watermelons continue to be harvested in Coastal Bend area. Slow progress other vegetables. In San Antonio-Winter Garden area, harvest of watermelons, cucumbers, tomatoes, peppers nearing completion. In Central Texas, spring vegetables are wilting from hot dry weather and production slowing. Preparation for fall vegetables underway. In East, harvest of squash, cucumbers, tomatoes, corn, beans continued. Sweetpotatoes and watermelons progressing well but rain is needed. Insects and disease noticed on some vegetables. In North, damage to vegetables occurred from hot conditions. Harvest of greens, squash, cucumbers, beans, and onions continues. Trans-Pecos area, early onion harvest finishing. Cabbage harvest continued at El Paso. Land preparation for fall crops beginning. High Plains, onions, potatoes, peppers made good growth. Peach harvest continued. Pecans are being sprayed for second generation casebearers and aphids. Some droppage occurred.

Range and livestock: Range, pastures continued to dry as hot windy conditions continued. Ranges providing adequate forage most areas. Livestock in good condition, but high temperatures slowed weight gains and reduced milk production. Stock water, shade protection adequate.

Weather: Temperatures 7 to 9° above normal North, 4 to 6° above normal elsewhere. Averages range near 80. Rainfall 0.25 to 0.50 in. below normal West, Central; 0.50 in. to 1.00 in. below normal elsewhere. Average rainfall 0.25 in. or less Southwest, 0.50 in. to 1.00 in. South, East, Northcentral, Northern Panhandle.

Crops: Cotton planting complete. High Plains, fields hard time getting started; young fields wilting from heat, hot winds. Insect problems heavy Central, South. Farmers increasing control measures. Fields moisture-stressed. Fields Blacklands, along Coast shedding squares due to hot, dry weather. First bale harvested Hidalgo County June 19. Sorghum virtually complete. Hot, dry weather continued moisture-stress crop. Fields Central southward wilting. High Plains farmers stepped up irrigation operations. Midge build-ups East. Corn irrigation operations increased High Plains. Central, Southcentral, insect, drought damage many areas. East small ears forming some fields. Peanuts Central need moisture complete dryland plantings. South, some fields not germinating well because hot, dry weather. Soybeans, dry weather along Coast, South stressed pod set, development. Dry, open weather near ideal conditions wheat harvest. Harvesting

operations full swing Panhandle; shriveled kernels reported. Central southward, farmers plowing under wheat stubble. Dry conditions restrict growth. Second cutting hay Central and South-central. Grasshopper damage problem Blacklands. Cotton squaring 33%, 24% 1979. Cotton setting bolls 17%, 11% 1979. Cotton open bolls 2%, 1% 1979. Rice headed 45%, 47% 1979. Rice turning color 11%, 2% 1979. Sorghum planted all purposes 100%, 99% 1979, 98% average. Sorghum headed 58%, 51% 1979. Sorghum turning color 35%, 31% 1979. Sorghum mature 17%, 9% 1979. Sorghum harvested for grain 4%.

UTAH: Few isolated very light showers northwest. Average temperatures ranged from 2° below normal to 6° above.

Soil moisture deficit continued to increase with fire danger becoming critical many forests and rangeland. Hot dry winds sapped moisture from soil and matured crops rapidly. Irrigation systems operating constantly. Fieldwork: 7.0 days suitable. First crop hay harvest continued, 84% complete. Winter wheat 93% headed, 20% turning color. Barley 64% headed; spring wheat 57%; oats 55%.

VIRGINIA: Temperatures a little below normal, turning well above normal by end of period. Extremes: 101 and 42°. Heavy rainfall, scattered thunderstorms south, southwest; otherwise light and spotty. Rainfall ranged 3.54 in. south to none north.

Dry weather hampering double cropped soybean germination; but speeding small grain combining. Topsoil moisture mostly short. Fieldwork: 5.5 days suitable. Soybeans 85% planted, 85% 1979. Small grains combined: wheat 60%, 51% 1979, 56% usual; barley 90%, 80% 1979, 83% average; oats 50%, 26% 1979, 52% average. Corn 7% silked, 7% 1979, 14% usual. Pastures, corn, soybean condition only fair: Tobacco, peanuts remain good.

WASHINGTON: West: Temperatures averaged 1° below normal. Precipitation normal to 0.60 in. above. Strawberry picking continues. Red raspberry harvest underway; ash on some. Harvesting lettuce, cauliflower, green peas. Rained on hay in fields. Cutting silage.

East: Temperatures averaged 3 to 4° below normal. Precipitation 0.10 to 0.50 in. above normal. Periodic rains not allowing baling of hay. Cherry picking, hand thinning apples. Potatoes growing

well. Wheat in good condition. Range, forage short.

WEST VIRGINIA: Temperatures normal to above normal. Extremes: 98 and 35°. Precipitation well below normal.

Soil moisture mostly short. Fieldwork: 5.3 days suitable. Small grains mostly good. Wheat harvest beginning, 2% pre-headed, 78% headed, 18% ripe, 2% harvested, 2%, 83%, 14% and 1% harvested respectively 1979. Barley 36% headed, 56% ripe, 8% harvested, 67%, 25% and 8% respectively 1979. Oats 44% pre-headed, 55% headed, 1% ripe, 45%, 42%, 13% respectively 1979. Corn mostly fair, planting complete. Tobacco fair, 92% set, 80% 1979. Haying: 1st cutting 70%, 66% 1979, 2nd cutting nearly 10% complete, same as 1979. Pastures good. Potatoes mostly good. Fruit good to fair. Cool nights, hot days delaying some crops.

WISCONSIN: Temperatures 3° above normal. Highs in 80's and 90's, lows in 50's and 60's. Extremes: 96 and 47°. Scattered showers, thunderstorms. Rainfall heaviest north where more than 1.00 in. received, other areas had about 0.50 in.

Fieldwork: 7.0 days suitable. First crop hay harvest 85% completed, 1979 75%, normal 67%. Second crop growth coming good where moisture sufficient. Corn grew rapidly in hot weather. Corn height averages 25 in., 1979 17 in., normal 19 in. Early plantings over waist high, good color. Oats 50% headed, 1979 30%, normal 45%. Crop uneven some areas, excellent other areas. Straw length shorter than usual. Oatlage being made on some farms. Wheat and barley good. Soybeans uneven some fields but growing good. Pasture conditions normal. Peas being harvested. Potatoes and vegetable crops fair to good. Strawberry harvest past peak. Most tobacco planting done. Topsoil moisture short to adequate.

WYOMING: Hot and dry. Temperatures averaged more than 6° above normal, some areas as much as 10° above normal. Very dry with no rain.

Fieldwork: 7.0 days suitable. Topsoil moisture short to very short. Subsoil moisture short to very short. Winter wheat headed 86%; turn color 30%. Acreage headed: Spring wheat 59%; oats 41%; barley 60%. Sugarbeets thinned 96%. First cutting alfalfa 37% complete. Other hay 7% cut. Range and pasture condition fair to good. Stock water supply adequate.

International Weather and Crop Summary

June 23 - 29

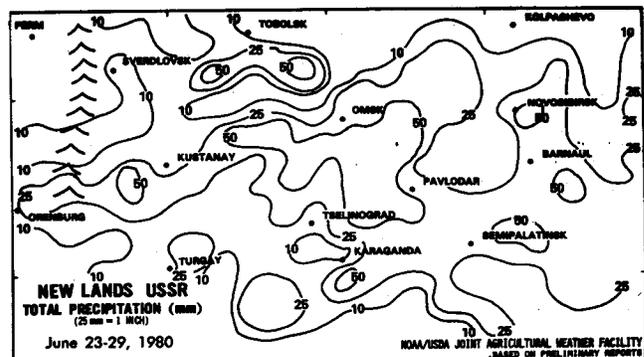
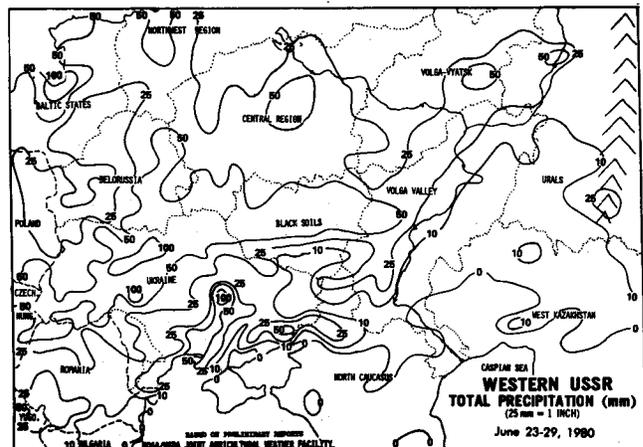
HIGHLIGHTS:

- USSR:** Harvesting of some winter grain in the South...dry Southeast; excessively wet in Ukraine. Spring grains in vegetative stage...good rains in New Lands; hot and dry in lower Volga.
- EUROPE:** Harvesting winter grains in the South*...too wet in the Southeast.
- CHINA:** Winter grain harvest nearly complete in the North...conditions too wet. Early rice nearly ready for harvest*...generally favorable conditions.
- INDIA:** Planting season in progress...rainfall good, except in parts of the South.
- THAILAND:** Dry-season rice heading in Central Plain*...continued beneficial rains.
- AUSTRALIA:** Winter grain sowing nearly complete*...moisture generally in adequate supply.
- ARGENTINA:** Soybean harvest nearly complete...dry weather. Sowing winter grains*...adequate soil moisture.
- BRAZIL:** Sowing winter wheat...excellent weather conditions.
- MEXICO:** Cotton setting bolls...intense heat wave keeping moisture needs at high level.
- CANADA:** Spring grains heading...rainfall too late east of Alberta.

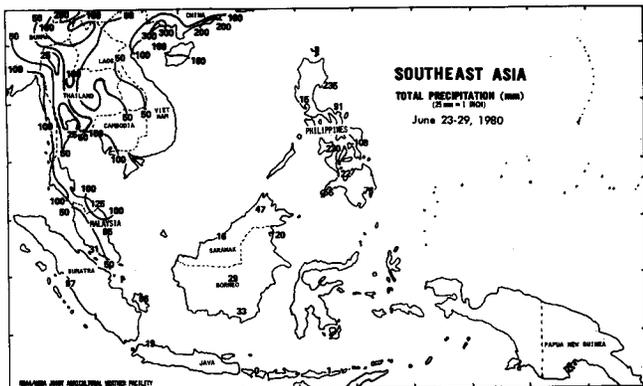
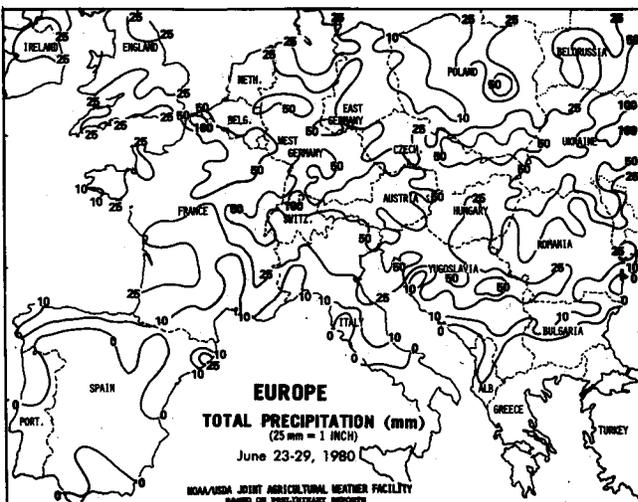
*Based on normal crop calendar information.

USSR. High pressure, which had dominated eastern European USSR, moved slowly eastward and allowed rainy weather in from the west. Fair weather prevailed in Crimea and the North Caucasus as some harvesting of winter grains began, but most areas to the north and west received above-normal rainfall. Totals of about 100 mm at many locations in the Ukraine were not really needed by spring-planted crops and may well have caused some damage to maturing winter grains. The wet weather extended northeastward along the northwest side of the Volga River and probably benefited crops in some previously dry areas. The western half of European USSR experienced lower than normal temperatures, which further delayed crop development, but temperatures surged above normal in extreme southeastern crop areas at the week's end. Hot, dry air from the desert to the southeast pushed into spring wheat areas in parts of the southern fringe of the crop area, and this "sukhovei" may have hurt spring grains.

In the New Lands, a cold front from the north sent temperatures plunging in the eastern two-thirds, with lows ranging between 5 and 10°C by the weekend. Abundant rainfall accompanied the front, with most of the New Lands receiving more than 25 mm, and extensive areas getting more than 50 mm. Even the driest area in the east was dampened by near-normal rains of 10 to 15 mm. Growing conditions were much improved by the moisture.

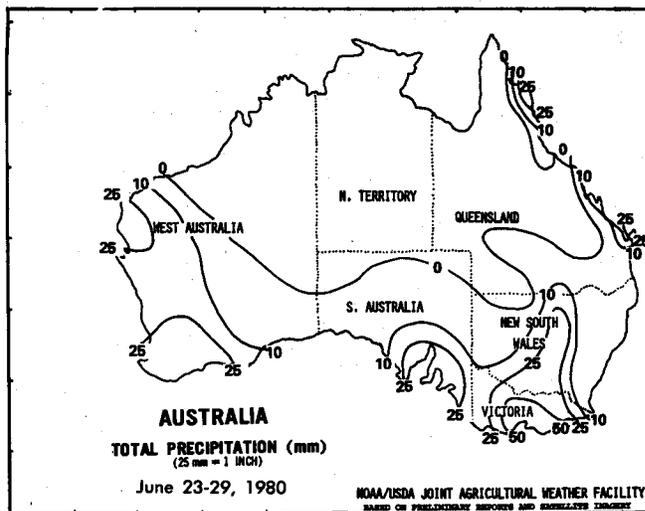


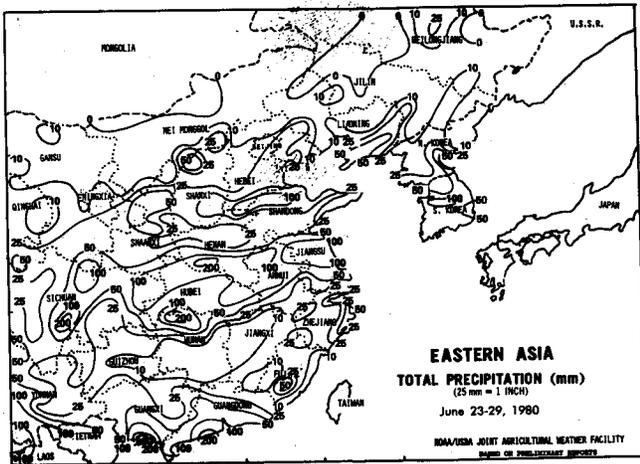
EUROPE. A series of frontal systems dumped above-normal rainfall across all but the southern most areas. Amounts were not heavy enough to cause losses in winter grain harvest areas in the south, but this return of wet weather was not at all favorable. Some areas in the north may have benefited from this third consecutive week of wet weather, but over a substantial portion, the wetness of fields probably adversely affected plant development. Temperatures dropped further below normal in all areas but the extreme southeast, indicating that crops incurred more delays in their growth cycle.



SOUTHEAST ASIA. Seasonal rainfall continued to provide adequate moisture for the development of maize and rice crops in Thailand. Reservoirs also benefited from this past week's rainfall. Although data receipts were poor, rainfall was reported in Malaysia where planting of a rice crop normally begins in July.

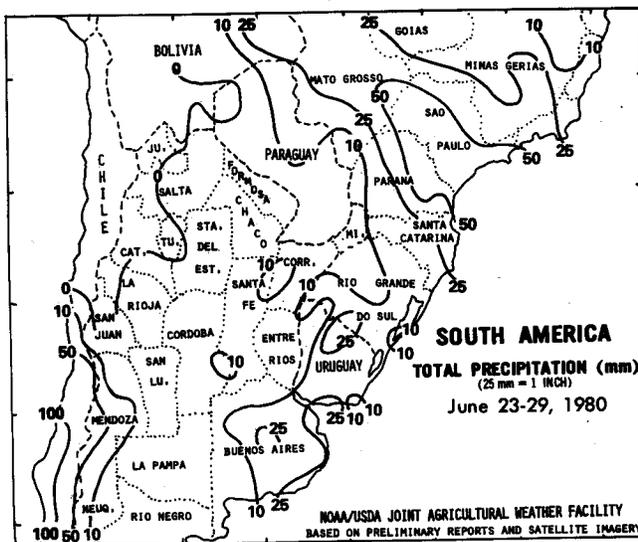
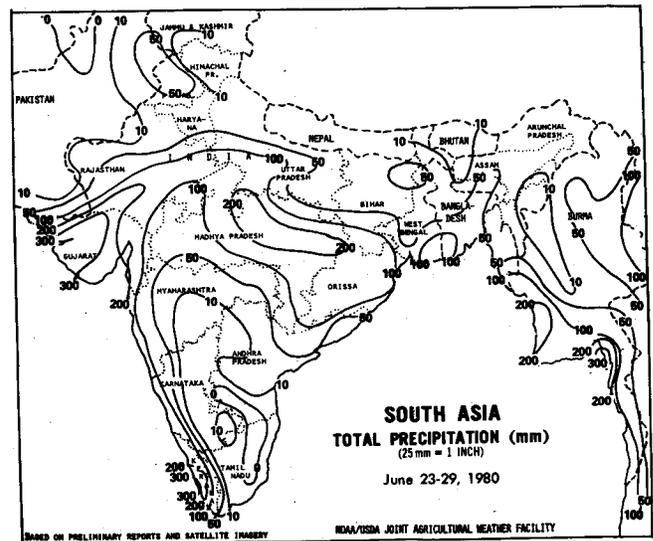
AUSTRALIA. Storms continued to sweep across the southern portion of the continent bringing seasonal amounts of rainfall to most winter wheat areas. Below average amounts fell in the northern crop region of New South Wales and Queensland where soil moisture is in somewhat less than adequate supply. Most crops have sufficient moisture for vegetative growth, however.



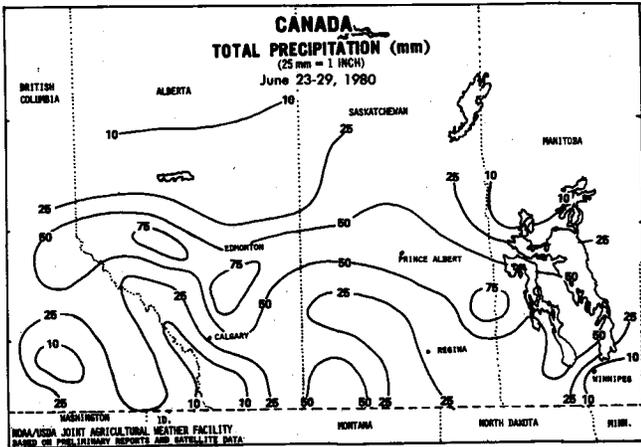


CHINA. A front became stationary over the winter wheat belt early in the week, dropping above-normal rainfall over the entire belt and excessive amounts over a broad area. Heaviest totals fell in southern Henan, northern Anhui, and northern Jiangsu), where harvesting had been completed, but the excess water probably interfered with planting of successive crops. At the end of the week, a second front was dropping additional excessive rains in Shandong in the northern portion of the belt, causing problems for late harvesting activities. Rainfall in the hills south of the Yangtze Valley remained relatively light for a second consecutive week--an improvement in conditions. Except for some heavy amounts along the coast, most rice areas in the southern coastal provinces received near-normal rainfall as the harvest season for the first rice crop approached.

SOUTHERN ASIA. Above-normal rainfall continued over most of India as the monsoon advanced even into Pakistan. Totals in central India are perhaps becoming excessive, but little detrimental effect should be expected. Planting of all crops should be well along, and it seems that in India an excess of water is always better than a deficit. Relatively dry weather continued over an extensive area in the south. Soil moisture remained adequate, but rain will be needed soon if good crop growth is to continue.

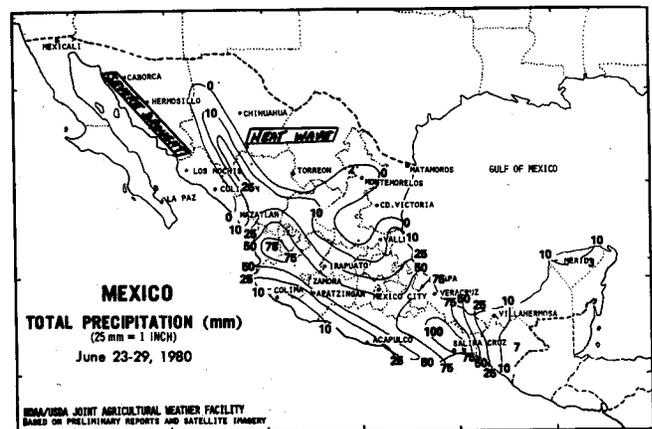


SOUTH AMERICA. Weather conditions have aided the progress of wheat planting in the states of Parana and Rio Grande do Sul in Brazil. These two states produce 90 to 95% of the total wheat crop. In Parana state, all wheat acreage has been sown except for about 15 to 20% in the south. About 60% of the crop had been sown in Rio Grande do Sul state as of June 25. In the coffee area of northern Parana state, a light frost was reported during the latter part of the week; however, the cold spell did not damage coffee trees. Light rain fell in the main wheat growing zone of Argentina which is situated in the province of Buenos Aires. Dry weather prevailed in surrounding wheat-growing provinces. Moisture reserves are in adequate supply for wheat planting which will continue through July.

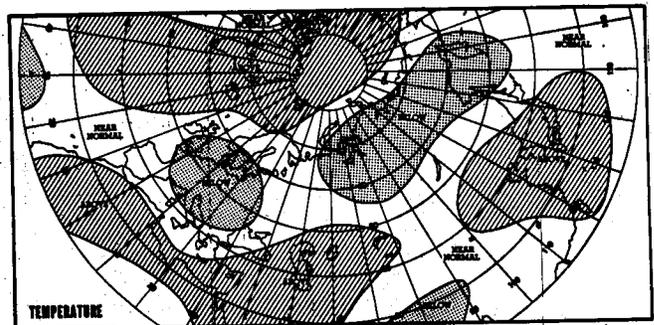
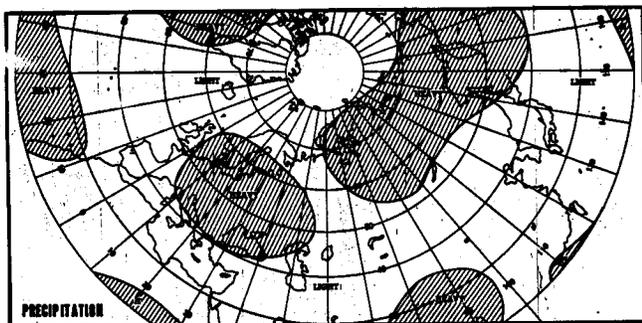


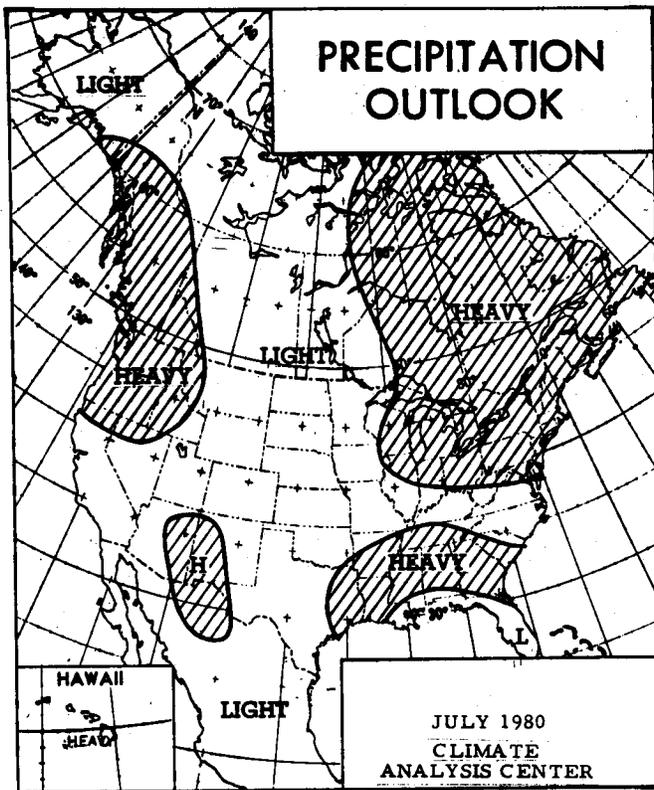
CANADA. A frontal system produced showers activity throughout the Canadian Prairies this past week. In Alberta, conditions were favorable for crop development with cereals advancing into flowering and heading stages. Soil moisture was in adequate supply. Further east in Saskatchewan and Manitoba provinces, this moisture was needed much earlier in the crop season. Crops are reported in fair to poor condition in Saskatchewan with about 25 to 50% of the grain crops advancing into flowering and heading stages with very low soil moisture reserves. In Manitoba, crop conditions have deteriorated to such an extent that fields have been plowed under or used for cattle grazing. Significant rainfall is needed to replenish soil moisture reserves in the Prairie provinces.

MEXICO. The summer rainy regime continuing over watersheds of the western mountains brightened prospects for some summer crops of the drought-stricken northwest. Satellite photos showed considerable thundershowers over the western slopes of the continental divide during the late afternoons. Seasonal rains continued in the south, which will benefit corn, beans, citrus, sugarcane, and coffee. A heat wave intensified over the north with temperatures averaging 2 to 5°C above normal. Extreme highs of 39 to 44°C in the northeast and 38 to 47°C in the northwest adversely affected livestock, crops and pastures. No significant rain fell to offer relief to the north.

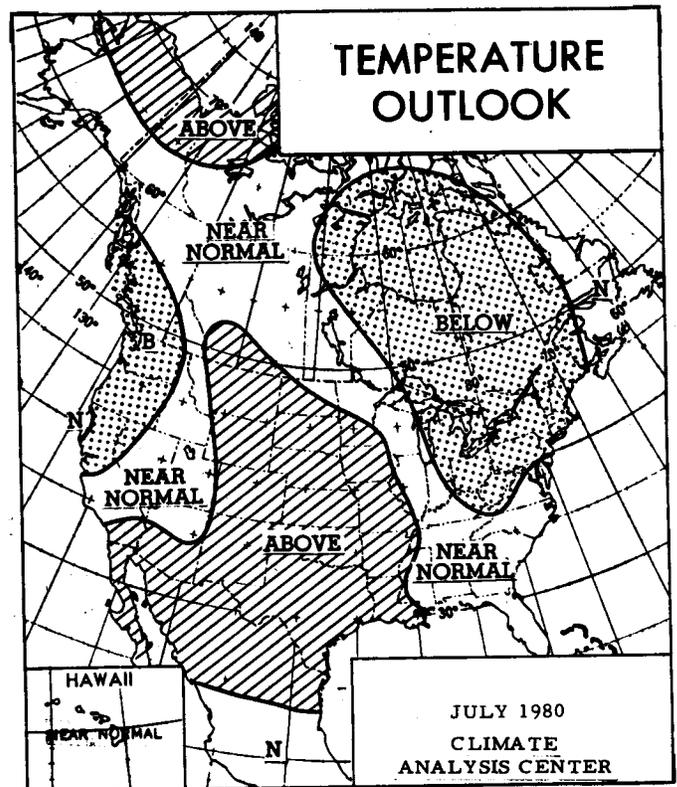


EURASIA WEATHER OUTLOOK ... JULY 1980 ... CLIMATE ANALYSIS CENTER





Average Monthly Weather Outlook



CROP PROGRESS

FOR WEEK ENDING JUNE 29, 1980

**SOYBEAN
% PLANTED**

	1980	1979	AVG.
ALA	90	93	90
ARK	88	91	92
GA	88	95	2/
ILL	2/	100	100
IND	2/	2/	95
IOWA	100	100	100
KANS	90	98	85
NY	93	88	88
LA	94	97	92
MICH	97	100	100
MINN	99	99	99
MISS	88	96	92
MO	100	94	92
NEBR	100	100	100
N C	91	96	92
OHIO	100	100	100
S C	90	96	94
TENN	92	92	88
18 STATES	96	97	95

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

	1980	1979	AVG.
ALA	41	48	52
ARIZ	67	NA	NA
ARK	64	NA	NA
CALF	19	85	NA
GA	86	92	NA
LA	45	37	NA
MISS	65	70	58
MO	55	0	44
N MEX	75	85	90
N C	37	34	NA
OKLA	0	8	6
S C	81	86	78
TENN	60	35	50
TEX	33	24	NA
14 STATES	38	NA	NA

THESE 14 STATES PRODUCED 99%
OF THE 1979 COTTON CROP.**WINTER WHEAT
% HARVESTED**

	1980	1979	AVG.
CALF	56	60	NA
COLO	0	0	0
IDA	0	0	0
ILL	10	24	38
IND	5	5	15
KANS	15	5	35
MO	29	26	53
MONT	1/	1/	1/
NEBR	1/	0	5
OHIO	0	0	5
OKLA	57	67	85
OREG	0	0	NA
S DAK	0	0	0
TEX	73	63	76
WASH	0	0	NA
15 STATES	24	22	NA
EXCL. STATES WITH NA	25	23	39

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

	1980	1979	AVG.
COLO	2/	96	96
KANS	96	95	95
MO	100	93	92
NEBR	100	100	100
OKLA	96	98	97
S DAK	95	100	100
TEX	100	99	98
7 STATES	98	97	97

THESE 7 STATES PRODUCED 92%
OF THE 1979 SORGHUM CROP.**COTTON
% SETTING BOLLS**

	1980	1979	AVG.
ALA	NA	NA	NA
ARIZ	14	NA	NA
ARK	1/	NA	NA
CALF	2	9	NA
GA	29	58	48
LA	11	7	NA
MISS	1/	1/	5
MO	0	0	0
N MEX	0	0	5
N C	1/	NA	NA
OKLA	0	0	0
S C	6	16	16
TENN	1/	1/	1/
TEX	17	11	NA

THESE 14 STATES PRODUCED 99%
OF THE 1979 COTTON CROP.**SPRING WHEAT
% HEADED**

	1980	1979	AVG.
IDA	50	59	44
MINN	75	7	47
MONT	55	1/	25
N D	42	3	24
S DAK	88	48	66
5 STATES	58	12	35

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

1/ LESS THAN 5%

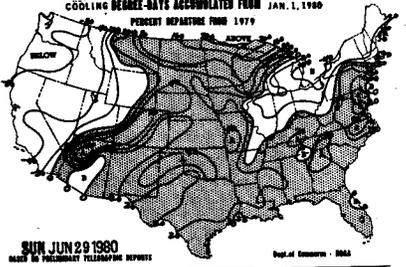
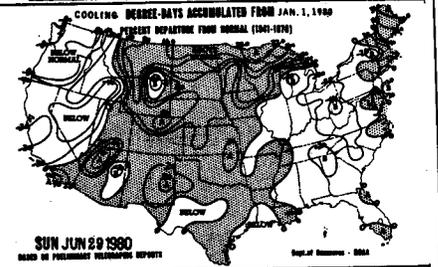
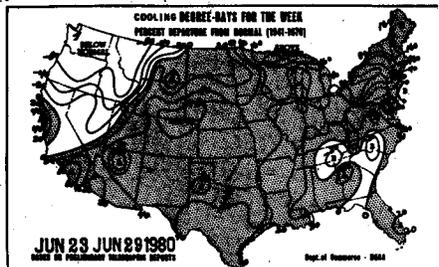
2/ GREATER THAN 95%

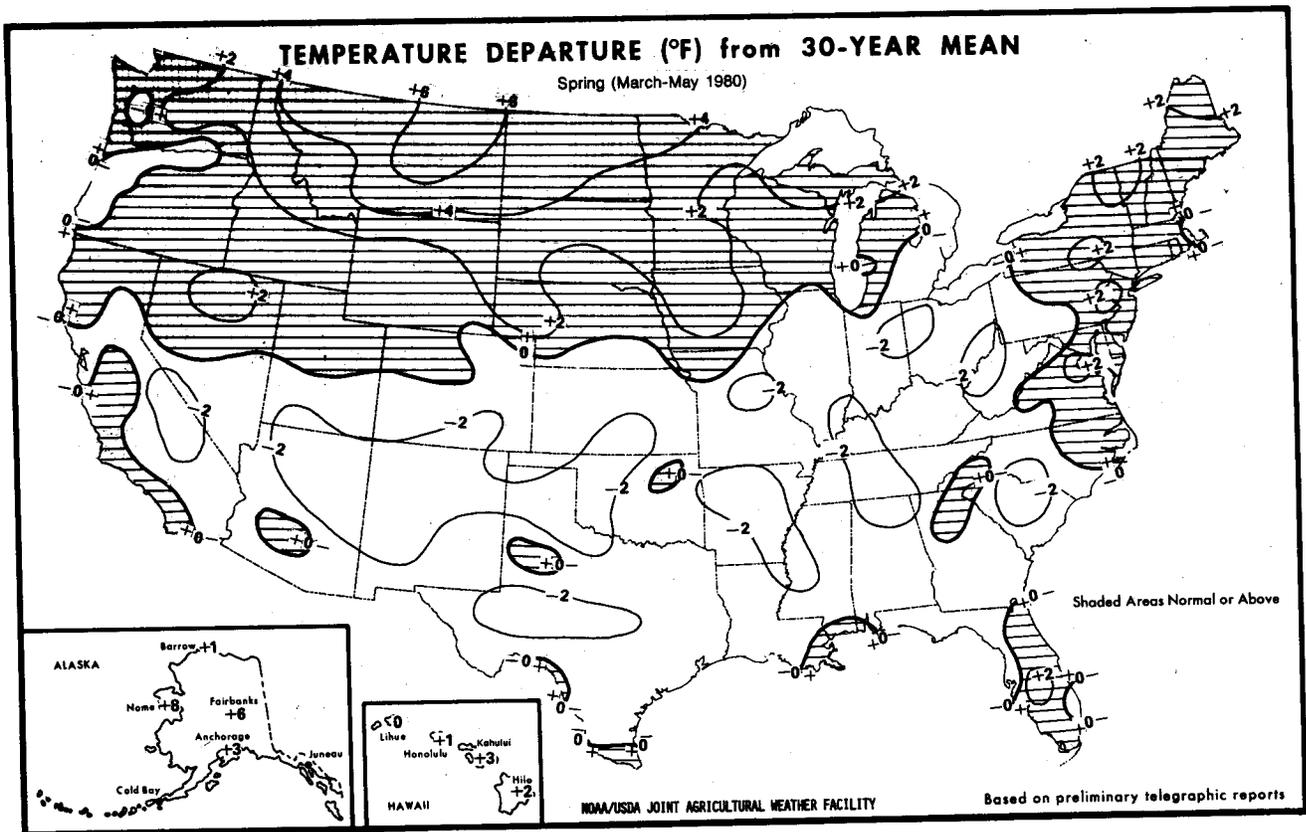
NA - NOT AVAILABLE

COOLING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JUN. 29, 1980.

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

Table with columns for STATES AND STATIONS, WEEKLY DEPARTURE*, WEEKLY ACCUMULATION +, and SEASONAL ACCUMULATION + FROM 1978-79. Rows list various cities across the United States with their respective cooling degree day data.





Spring Weather Review

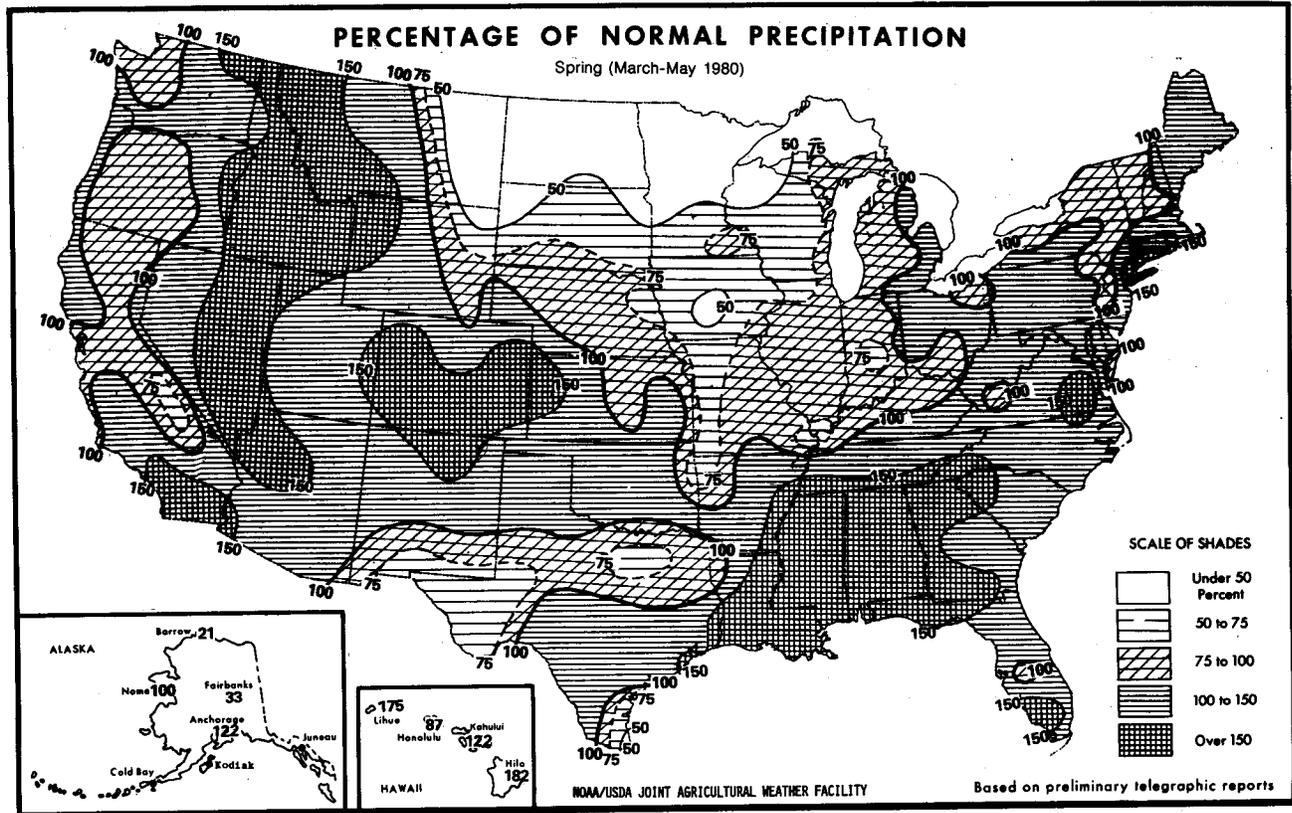
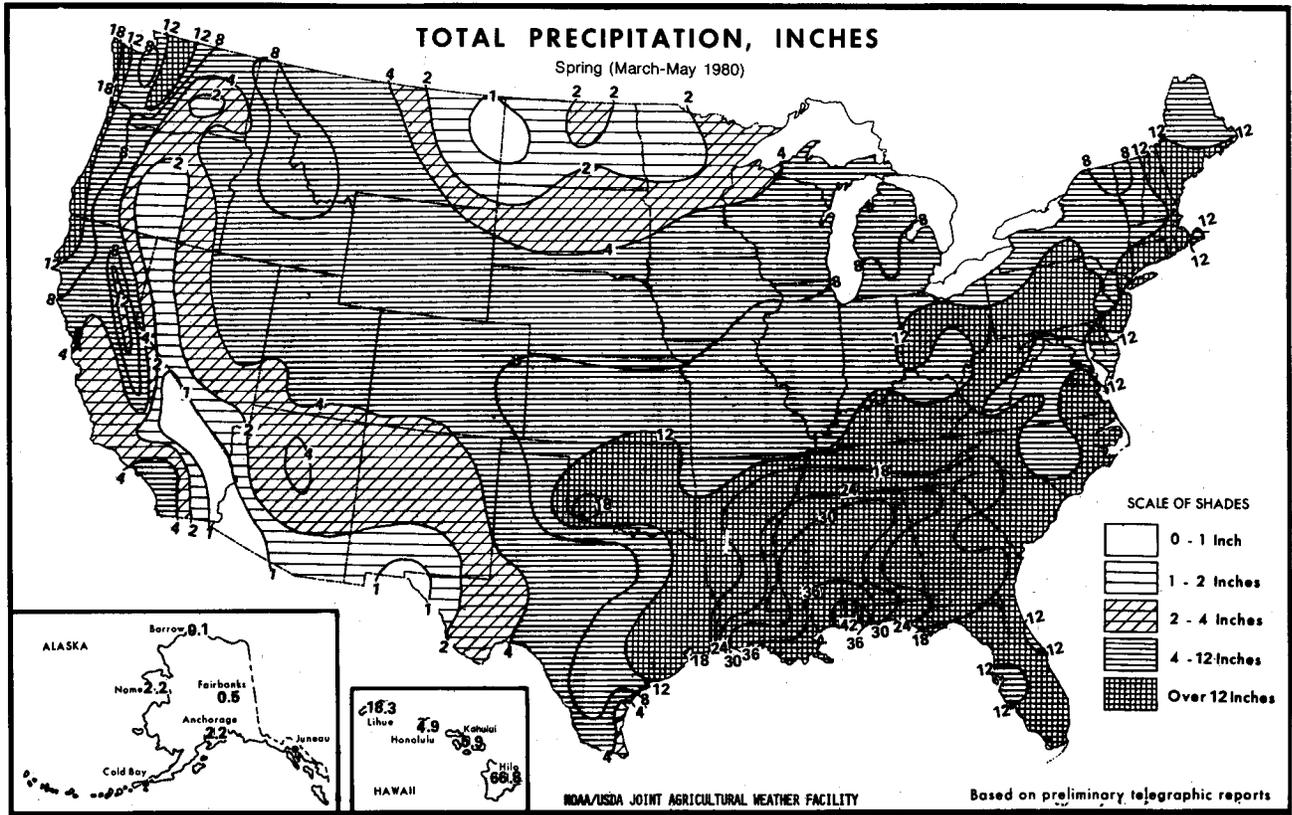
March, April, and May

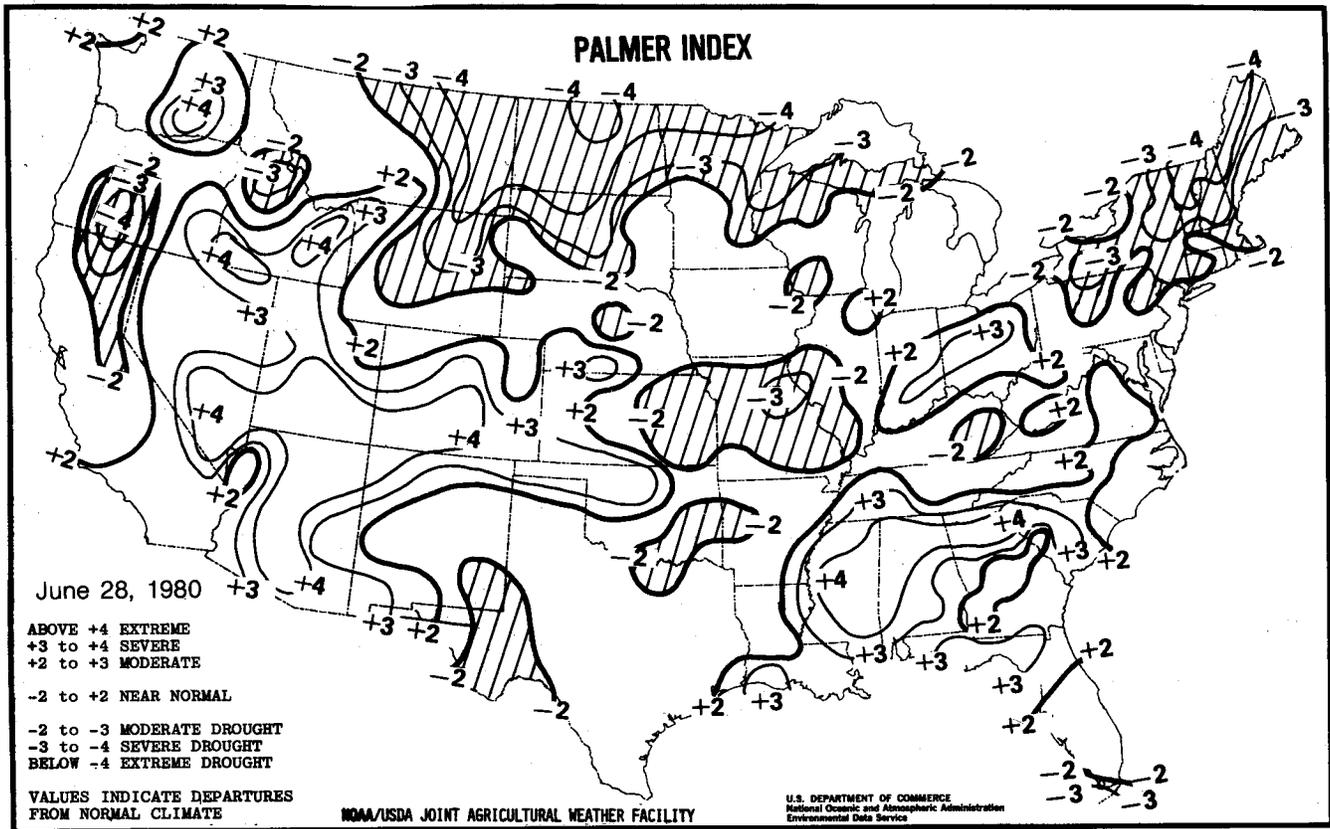
HIGHLIGHTS: A drought over southwestern Tex., since last fall, was relieved somewhat by rains in May. Another drought developed over the northern Plains during April and May. Temperatures averaging 3 to 6 degrees above normal throughout the spring accentuated the devastating effect of the drought on wheat in Montana and the Dakotas. Excessively heavy rains delayed planting of early spring crops in the South. Mississippi and Alabama recorded 24 to 36 inches with the heaviest amounts falling in March and April.

MARCH...Unseasonably cool conditions dominated much of the East and Southwest, while the Northwest was warmer than usual. Freezing temperatures, reaching all the way to Miami, Florida, during the first week, hurt some crops in the Southeast. A dry weather pattern, which developed over a small portion of the northern Plains in January, expanded to the western Great Lakes in February and continued throughout March. Drought continued over southwestern Texas, while much of the southeastern quarter of the Nation and the central Plains had twice their normal precipitation. Heavy rainfall of 12 to 15 inches delayed early planting of crops in the South. A blizzard produced up to 15 inches of snow in the central Rockies and west central Plains during the last of the month.

APRIL...One drought developed over the northern Plains, while another maintained its grip on southwestern Texas and expanded into South Texas. The northern half of the Nation was warmer than usual, especially the northern Plains, which had record-breaking high temperatures after mid-April. Cool weather settled across the southern Rockies and extended eastward through the Ohio Valley and into the Southeast. Above-normal precipitation fell across the South and parts of the central and southern Plains. Heavy rainfall of 12 to 16 inches continued to delay planting of spring crops in Mississippi.

MAY...The drought intensified over the northern Plains; very little rain fell, and temperatures averaged 4 to 8 degrees above normal. Topsoils also became dry in the western Corn Belt, and corn was planted in record time; it was not until mid-month that enough rain fell to ensure good germination. Scattered light rains fell across the northern Plains during the last of May, but for many wheatfields it was too little, too late to help this year's spring crop. The drought in southern and southwestern Texas was relieved some by rains in early May. The rainy pattern diminished somewhat across the lower Mississippi Valley and allowed most crops to be planted on schedule.





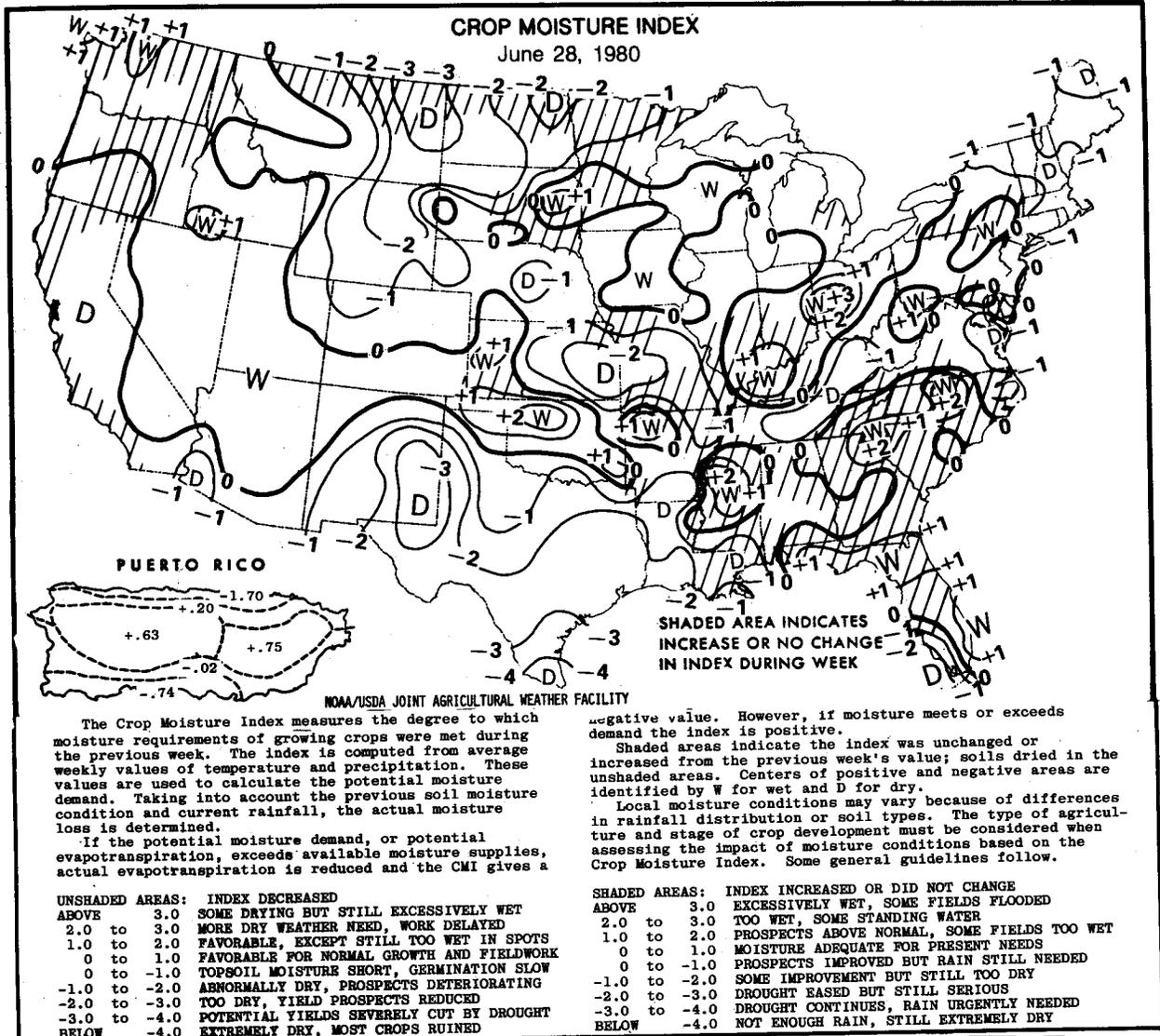
The Palmer Index

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.



DROUGHT CONTINUED IN THE NORTHERN PLAINS WHEATLAND, BUT RAINS SLIGHTLY IMPROVED SOIL MOISTURE IN THE EXTREME NORTHERN AND EASTERN SECTIONS. A STRONG HEAT WAVE INTENSIFIED THE DROUGHT IN THE EAST CENTRAL AND SOUTHERN PLAINS ... THE SEVERE DROUGHT AREA EXPANDED INTO SOME WEST AND CENTRAL TEXAS COTTON AND GRAIN SORGHUM DISTRICTS. HEAVY RAINS IMPROVED MOISTURE IN THE SOUTHEAST

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