

WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE

Environmental Data Service, NOAA

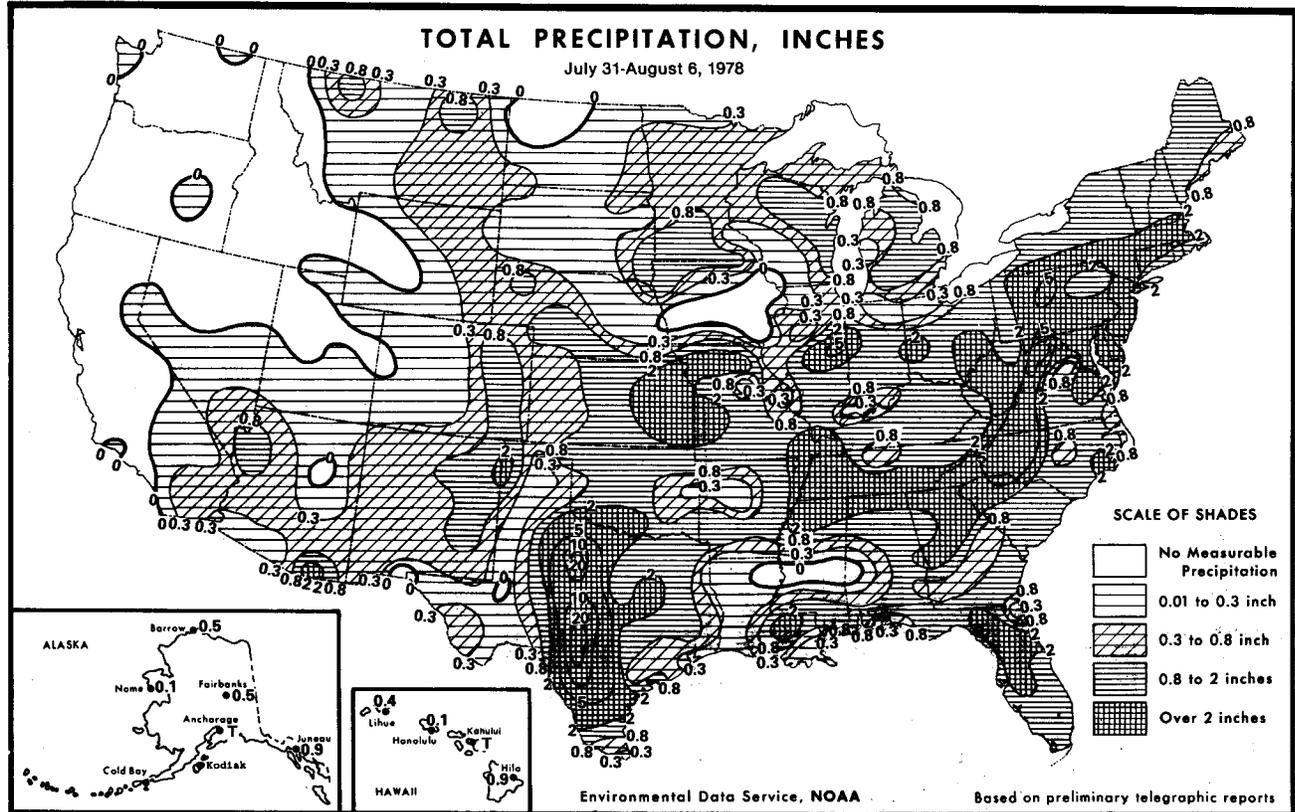
U.S. DEPARTMENT OF AGRICULTURE

Economics, Statistics, and Cooperatives Service

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Aug. 8, 1978



National Weather Summary

July 31 - August 6

HIGHLIGHTS: Tropical Storm Amelia barged into Texas, deteriorated to unsettled weather, and dumped huge amounts of rain on the Lone Star State. Cool air alternated with heat in the northern Plains to keep the thermometer moving. The southerly flow of Gulf air kept rain falling below the cool air.

The remnants of Tropical Storm Amelia spread rain up the south central Texas coast but provided relief from the long hot spell, and the middle Atlantic Coast States gathered heavy rain on Monday.

Corpus Christi, Tex., collected more than 4 inches of rain as Amelia gradually lost her punch

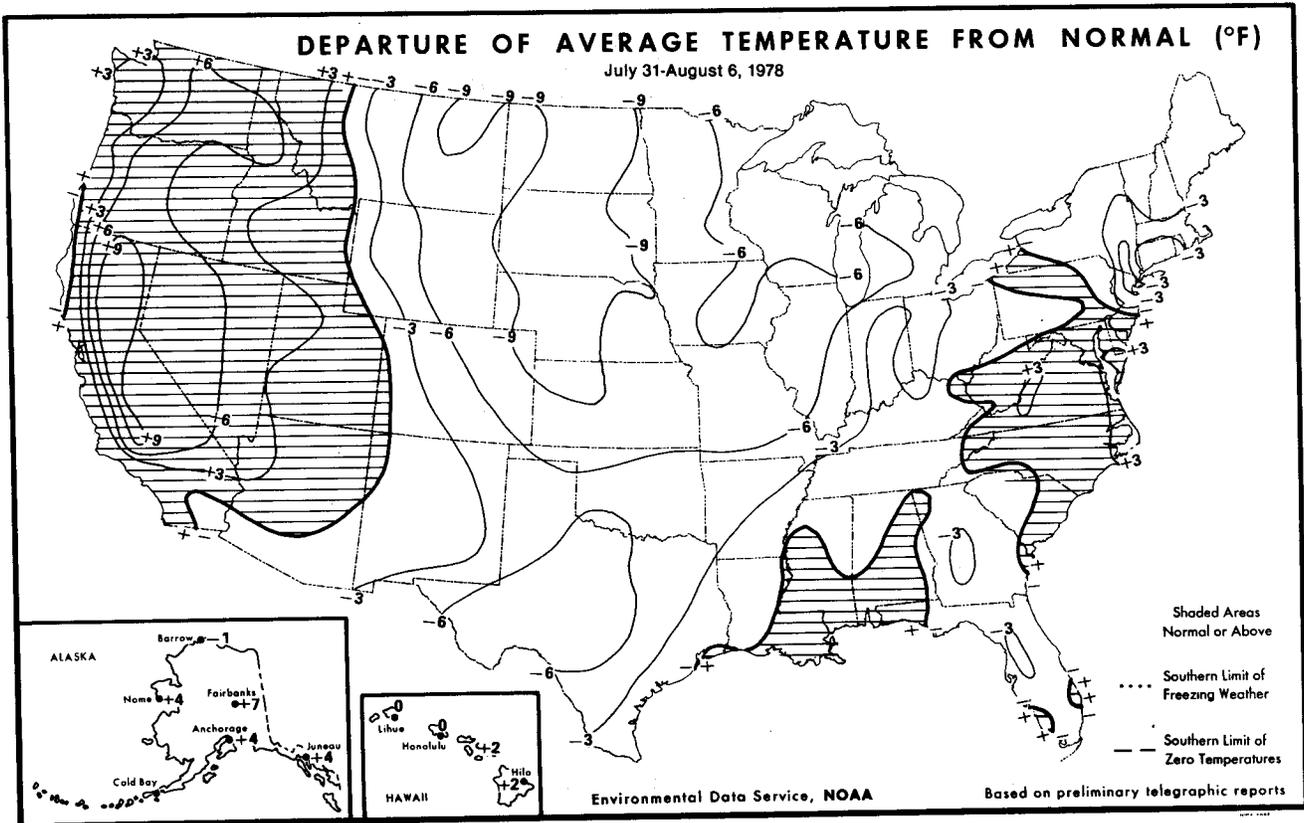
as a tropical storm but continued as an intense rainstorm. To the west, San Antonio checked in with 4 inches, and a couple of tornadoes cropped up in the Lone Star State. Further north, central Oklahoma and northern Arkansas noted one to 2 inches.

In the South, Troy, southeastern Alabama, and Ft. Benning, west central Georgia, counted 3 inches. Other points in those States and Florida and South Carolina measured one to 2 inches. Many towns in the Washington, D.C. area, chalked up more than an inch with Andrews AFB, Md., soaked by 3.85 in. Accumulations amounted to 1.21 in. at Baltimore and 2 inches at Dover, Del.

Cool air swept into the north central States where Chicago's Midway Airport set a record-tying 53° and Alpena, Mich., dipped 5 degrees below its former record to 40°.

Widely separated areas of heavy, sometimes intense, rains characterized Tuesday's weather.

Though Amelia toned down after hitting land, the system triggered a series of downpours that inundated portions of southern Texas. Many towns within a 100-mile radius of San Antonio counted



at least 4 inches and sometimes more than 7 inches of rain. Local waterways topped their banks and flash flooding was common. These heavy rains followed a very hot and dry period in an area where August normals call for about 2.5 inches of rain for the entire month.

Stations in eastern Kansas were drenched by 2 to 4 inches of rain while some Arizona sections contended with high winds, heavy rains, and large hail as did parts of eastern Minnesota. On the East Coast, one-half to 2 inches of rain ranged from Virginia to Florida.

A deluge of rain held southern Texas under siege on Wednesday. Strong thunderstorms unleashed massive amounts of water triggering record flooding over a large area.

About 50 miles northwest of San Antonio, Kerrville reported 22 inches of rain; close-by Medina was awash in 20 inches and Vanderpool measured 13. Very few towns in the area escaped with less than 4 inches. Several rivers and streams reached record crests, and by day's end the system had extended as far west and north as Roswell, N.M., where 1.36 in. fell.

Other areas of heavy downpours included the Southwest, over an inch; northwestern Missouri, up to 3 inches; sections of the Midwest, nearly 2 inches; the Ohio Valley's Dayton, Ohio, 2.37 in. and Paducah, Ky., 1.47 in.; and the lower two-thirds of the Atlantic Seaboard, one to one and one-half inches.

Steamy temperatures hit the Gulf Coast as New Orleans noted a record-breaking 96° and Apalachicola, Fla., equaled its high mark of 95°. El Paso, Tex., marked its 30th day this season at 100° or more, edging toward the 1969 record of 36 days.

Storms spawned by Amelia persisted on Thursday; more than 10 inches drenched some sections.

Several waterways continued to overflow. Portions of New Mexico and Arkansas gathered more than one inch.

Heavy rain also fell from the Ohio Valley eastward to the Atlantic Coast; 4 inches soaked Charlotte, N.C., while more than an inch dampened most stations throughout the area. On the other hand, Seattle noted its 38th consecutive day without precipitation.

The northern Plains and upper Midwest contended with record cold. A sampling showed new lows of 37° at Bismarck, N. Dak.; 45° at Rochester, Minn.; and 44° at Valentine, northern Nebraska. In contrast, the New Orleans airport called in a record high 97°.

Rain, rain again in North and West Texas on Friday after nighttime precipitation amounted to 18 inches in Abilene and 14 inches in Albany. The rain reached northward into the southern Plains where Okeene, Okla., saw 1.71 in. and Pittsburg, Kans., 3 inches.

Storms also rumbled from the upper Delta Region and South across the country to the East Coast. Memphis measured 3.23 in.; Anderson, S.C., and Newport News, Va., received 2.8 inches; and Islip, N.Y., managed an inch. A tropical disturbance in the Atlantic poured an inch on Puerto Rico and 2 to 8 inches on the Virgin Islands.

The unseasonably cold north central U.S. scored more than a dozen record temperatures---among them Minneapolis/St. Paul's 48°, Denver's 50°, 43° at Dubuque, Iowa, and Toledo's 46°.

The Texas rains finally began to die down on Saturday, but flooding remained a problem. Dallas/Ft. Worth garnered 2 inches of rain.

Heavy rain ranged from the South and Ohio Valley eastward. More than an inch fell on points in Kentucky, the Virginias, the Carolinas, Florida,

(continued on page 14)



National Agricultural Summary

July 31 - August 6

HIGHLIGHTS: Heavy rains spread havoc through wide areas of Texas and saturated soils in some of the central States, parts of the South, and the Northeast. Soil moisture rated short in the northern Plains, northern Corn Belt, most of the South, and West. Most of the row crop areas enjoyed subnormal temperatures saving crops from high temperature stress. Tasseling and silking were well along in the Corn Belt, and some corn moved into the dough stage. Most of the southern corn was dented. Soybeans bloomed and set pods in the north central States only a few days behind normal. South central States soybean bloom was well advanced and pod set ranged up to 50%. Cotton boll set was almost finished except in Oklahoma and California. Some cotton on dry soils dropped bolls. Rains lodged some Gulf Coast rice, but harvest advanced slowly. Sorghum heading advanced into South Dakota. Farmers plowed some wheat land in the Corn Belt and Northeast. Pasture rated fair to good in all areas of the Nation except in the West where dry soils and high temperatures took their toll. Winter wheat harvest advanced to 94%, 3 points less than last year and 1 point less than average. Spring wheat combining stood at 10%, far behind 1977's 37% and the 21% average.

SMALL GRAINS: Winter wheat harvest centered in the Pacific Northwest, Montana, and the Dakotas. Warm, dry weather speeded harvest in Oregon and Washington. In the 11 major States, combining reached 94%, close to last year and the average. Farmers plowed harvested winter wheat fields in the north central States and the Northeast.

Spring wheat harvest crawled to 10% in the 5 major producing States; harvest had not reached Montana and Idaho. Last year combining stood at 37% and on the average 21%. Harvest lagged far behind in all the States.

Oats and barley harvests were not far behind average but lagged well behind 1977. Oats harvest neared completion in Iowa, but only got started in Wisconsin and North Dakota.

CORN: Corn rated good and in some areas excellent in the north central States. In the eastern part of the region, development ranged from 70% to 91% silked, and dough stage ranged from 7 to 40%; some of the Illinois corn was dented. In the western north central States, silking ranged from 72 to 97% except Missouri's 47%. Some of the Kansas crop dented.

In the South, corn rated fair to good; dent stage ranged from 24 to 74%. About 10 to 37% of the corn was mature. Harvest advanced to 14% in Texas and 9% in Georgia. Showers helped some late-planted southern corn.

SOYBEANS: Soybeans rated fair to good throughout the Nation. In the eastern north central States, bloom ranged from 50 to 85%; pod set 10 to 50%. On the average, pod set ranged from 15 to 73%. In the western north central States, bloom ranged from 52 to 91% and pod set 22 to 61%; Missouri set the low side, most States were much farther advanced. In the south central States,

dry soils stressed some plants but rains improved some stands. Bloom ranged from 34 to 79% complete. Pod set ranged from a low 9% in Oklahoma to 51% in Louisiana.

COTTON: The crop ranged from fair to good; boll set was almost complete in the 11 southern States. Dry soils stressed some stands and plants dropped bolls. Oklahoma boll set stood at 25%, less than half 1977's rate and well behind the average. Texas cotton harvest reached 4%; irrigated Plains stands fruited. Dryland Plains fields showed drought stress although showers helped some stands. Arizona's early stands showed open bolls. About 50% of California's Imperial Valley crop had open bolls, and ranged from pre-bloom to unopened boll stage in the San Joaquin Valley.

OTHER CROPS: Grain sorghum harvest in Texas reached 57%, easily maintaining its lead over 1977's 46% and the 41% average. Harvest was nearly complete through the Blacklands. High Plains dryland stands suffered drought stress, but irrigated stands rated good. Heading in the other major producing States ranged from 25% in Kansas to 60% in Nebraska, 30% in South Dakota, 29% in Oklahoma and 47% in Missouri; generally not far behind average but almost half last year's rate.

Rice harvest advanced to 50% in Texas and 24% in Louisiana. High winds and rain lodged some of the Texas crop. Heading advanced to 25% in Arkansas and 48% in Mississippi. Early California rice began heading.

Potatoes rated good in Maine. Idaho potato vines grew closed in the middle of the rows except at higher elevations. Potato harvests got underway in Michigan, Wisconsin, and Oregon.

FRUITS AND NUTS: Apple and peach picking extended into the most northerly production areas. Tart and sweet cherry harvests wound down to completion. Pacific Northwest growers picked apricots and nectarines in addition to peaches and apples. California growers picked peaches---both fresh and processing---plums, and nectarines. Growers prepared almond orchards for harvest. Rains helped the Texas pecan crop.

VEGETABLES: Growers harvested sweet corn, tomatoes, snap beans, cabbage, and cucumbers from northern production areas. Florida growers cared for transplants; prepared fall seedbeds; and began transplanting and staking the early tomato crop. Texas vegetable growth improved after the recent moisture; preparations for fall plantings continued. California harvested melons and lettuce, broccoli, cauliflower, and processing tomatoes.

PASTURES AND LIVESTOCK: Grasslands rated fair to good in the north central States; Wisconsin had the best pastures in years. Southern pastures rated fair, showing the effects of dry soils in spite of the week's rains. Western rangeland reflected the high temperatures and dry soils prevailing over that area. High elevation pastures took ratings of good to excellent while low elevation grazing land rated poor to fair. Texas rains improved pastures along the Gulf Coast, central, and southern areas. Producers lost some livestock to floods in the hill country.

Temperature and Precipitation Data for the Week Ending Midnight, L.s.t., Aug. 6, 1978

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches						
	Average	Departure	Total	Departure		Average	Departure	Total	Departure					
ALA. Birmingham . . .	80	0	1.0	- .1	LA. Baton Rouge . . .	83	+ 1	2.2	+ .9	Youngstown . . .	68	- 3	1.3	+ .5
Mobile . . .	85	+ 3	1.7	0	Lake Charles . . .	82	- 1	T	- 1.3	OKLA. Okla. City . . .	78	- 5	1.1	+ .6
Montgomery . . .	81	0	.8	- .1	New Orleans . . .	86	+ 4	T	- 1.3	Tulsa . . .	79	- 4	.9	+ .3
ALASKA Anchorage . . .	62	+ 4	T	- .5	Shreveport . . .	82	- 2	.1	- .5	OREG. Astoria . . .	61	0	T	- .2
Barrow . . .	38	- 1	.5	+ .2	MAINE. Caribou . . .	65	- 0	.9	0	Burns . . .	74	+ 5	.1	0
Fairbanks . . .	66	+ 7	.5	0	Portland . . .	67	- 1	.6	0	Medford . . .	78	+ 5	0	- .1
Juneau . . .	60	+ 4	.9	- .2	MD. Baltimore . . .	78	+ 2	2.4	+ 1.4	Pendleton . . .	79	+ 5	0	- .1
Kodiak . . .	---	---	---	---	MASS. Boston . . .	69	- 4	2.6	+ 1.9	Portland . . .	71	+ 3	T	- .1
Nome . . .	55	+ 4	.1	- .7	Chatham . . .	68	- 5	.7	0	Salem . . .	71	+ 4	0	- .1
ARIZ. Flagstaff . . .	68	+ 2	.5	- .2	MICH. Alpena . . .	61	- 5	.6	0	PA. Allentown . . .	72	- 2	2.3	+ 1.3
Phoenix . . .	92	+ 1	.4	+ .1	Detroit . . .	68	- 4	.4	0	Erie . . .	71	+ 2	2.0	+ 1.2
Tucson . . .	84	- 1	.3	- .3	Flint . . .	66	- 4	1.0	+ .3	Harrisburg . . .	75	- 1	2.3	+ 1.5
Winslow . . .	82	+ 4	T	- .4	Grand Rapids . . .	63	- 9	1.0	+ .4	Philadelphia . . .	77	0	3.2	+ 2.2
Yuma . . .	92	- 2	.2	+ .1	Houghton Lake . . .	62	- 4	.7	+ .2	Pittsburgh . . .	71	- 1	1.6	+ .8
ARK. Fort Smith . . .	80	- 3	T	- .7	Lansing . . .	64	- 7	.9	+ .3	Scranton . . .	71	- 1	1.4	+ .6
Little Rock . . .	79	- 3	.2	- .5	Marquette . . .	64	- 3	.3	- .3	R. I. Providence . . .	69	- 3	1.9	+ 1.1
CALIF. Bakersfield . . .	93	+ 10	0	0	Muskegon . . .	63	- 8	.2	- .3	S. C. Charleston . . .	81	+ 1	1.8	+ .1
Eureka . . .	54	- 3	0	0	S. Ste. Marie . . .	61	- 4	.6	0	Columbia . . .	79	- 2	1.7	+ .4
Fresno . . .	88	+ 8	T	0	MINN. Duluth . . .	62	- 4	.6	0	Greenville . . .	78	- 1	3.9	+ 3.0
Los Angeles . . .	75	0	0	0	Internatl Falls . . .	60	- 6	.2	- .5	S. D. Aberdeen . . .	65	- 8	.3	- .2
Red Bluff . . .	91	+ 9	0	0	Minneapolis . . .	68	- 4	.3	- .6	Huron . . .	65	- 10	.2	- .2
San Diego . . .	73	+ 2	0	0	Rochester . . .	65	- 6	.2	- .4	Rapid City . . .	65	- 9	.1	- .3
San Francisco . . .	63	+ 1	0	0	St. Cloud . . .	64	- 7	.7	- .1	Sioux Falls . . .	66	- 8	.9	+ .3
Stockton . . .	80	+ 4	0	0	MISS. Jackson . . .	83	+ 1	0	- .9	TENN. Chattanooga . . .	79	0	2.1	+ 1.2
COLO. Denver . . .	68	- 6	.2	- .1	Meridian . . .	82	0	0	- 1.0	Knoxville . . .	72	- 6	1.4	+ .5
Grand Junction . . .	78	0	T	- .2	MO. Columbia . . .	72	- 6	.2	- .5	Memphis . . .	81	- 1	4.0	+ 3.2
Pueblo . . .	71	- 6	T	- .5	Kansas City . . .	70	- 9	1.2	+ .4	Nashville . . .	78	- 2	.8	0
CONN. Bridgeport . . .	73	- 1	1.1	+ .2	St. Louis . . .	72	- 7	1.7	+ 1.1	TEX. Abilene . . .	77	- 8	6.5	+ 6.0
Hartford . . .	80	- 2	2.6	+ 1.8	Springfield . . .	73	- 6	.3	+ .2	Amarillo . . .	74	- 5	.1	- .6
D. C. Washington . . .	70	+ 1	2.0	+ .9	MONT. Billings . . .	66	- 7	.3	+ .2	Austin . . .	80	- 6	1.9	+ 1.5
FLA. Apalachicola . . .	80	- 2	1.0	- .8	Glasgow . . .	63	- 9	.9	+ .6	Beaumont . . .	85	+ 1	.3	- 1.0
Daytona Beach . . .	81	- 1	3.0	+ 1.5	Great Falls . . .	67	- 3	.2	0	Brownsville . . .	84	- 1	.2	- .1
Ft. Myers . . .	83	0	1.6	- .1	Havre . . .	66	- 5	T	- .2	Corpus Christi . . .	84	- 2	3.8	+ 3.3
Jacksonville . . .	80	- 1	.2	- 1.5	Helena . . .	69	0	T	- .2	Del Rio . . .	81	- 6	T	- .1
Key West . . .	84	- 1	1.2	+ .4	Kalispell . . .	69	+ 4	T	- .2	El Paso . . .	78	- 4	T	- .3
Lakeland . . .	79	- 3	4.6	+ 2.9	Miles City . . .	68	- 8	.6	+ .4	Fort Worth . . .	81	- 5	1.3	+ .9
Miami . . .	81	- 2	1.6	+ .2	Missoula . . .	71	+ 4	T	- .3	Galveston . . .	84	0	.1	- .8
Orlando . . .	81	- 1	1.9	+ .3	NEBR. Grand Island . . .	69	- 8	.3	- .6	Houston . . .	82	- 2	.4	- .5
Tallahassee . . .	80	- 2	1.3	- .4	Lincoln . . .	70	- 8	.1	- .5	Lubbock . . .	75	- 5	.1	- .3
Tampa . . .	81	- 1	1.9	0	Norfolk . . .	68	- 8	1.8	+ 1.3	Midland . . .	75	- 8	T	- .4
W. Palm Beach . . .	82	0	1.8	+ .5	N. Platte . . .	64	- 11	0	- .9	San Angelo . . .	75	- 11	1.4	+ 1.2
GA. Atlanta . . .	76	- 2	1.4	+ .5	Omaha . . .	69	- 7	.9	+ .6	San Antonio . . .	80	- 6	5.0	+ 4.6
Augusta . . .	81	0	.7	- .4	Valentine . . .	65	- 10	.1	- .5	Victoria . . .	83	- 2	.6	0
Macon . . .	79	- 3	2.3	+ 1.4	NEV. Ely . . .	72	+ 4	T	- .1	Waco . . .	81	- 6	1.4	+ 1.1
Savannah . . .	82	+ 1	1.4	- .2	Las Vegas . . .	95	+ 5	.5	+ .4	Wichita Falls . . .	79	- 8	2.4	+ 2.0
HAWAII. Hilo . . .	77	+ 2	.9	- 1.7	Reno . . .	77	+ 8	.2	+ .1	UTAH. Blanding . . .	75	+ 2	T	- .4
Honolulu . . .	80	0	.1	- .1	Winnemucca . . .	79	+ 0	0	0	Salt Lake City . . .	80	+ 3	0	- .2
Kahului . . .	80	+ 2	T	- .1	N. H. Concord . . .	69	0	1.0	+ .4	VT. Burlington . . .	68	- 2	.9	+ .1
Lihue . . .	74	0	.4	- .1	N. J. Atlantic City . . .	76	+ 1	4.1	+ 2.9	VA. Lynchburg . . .	77	+ 1	1.8	+ .8
IDAHO. Boise . . .	78	+ 3	0	- .1	Trenton . . .	72	- 4	.7	+ 1.8	Norfolk . . .	81	+ 3	.6	- .8
Lewiston . . .	81	+ 7	0	- .1	N. MEX. Albuquerque . . .	77	- 1	1.4	+ 1.0	Richmond . . .	80	+ 2	4.7	+ 3.4
Pocatello . . .	73	+ 1	0	- .1	Roswell . . .	78	- 1	1.9	+ 1.2	Roanoke . . .	78	+ 3	5.2	+ 4.3
ILL. Cairo . . .	78	- 3	4.7	+ 4.0	N. Y. Albany . . .	68	- 4	1.9	+ 2.7	WASH. Colville . . .	73	+ 4	0	- .2
Chicago . . .	68	- 7	.4	- .4	Binghamton . . .	67	- 2	3.5	+ 2.2	Omak . . .	76	+ 6	0	- .1
Moline . . .	68	- 7	.1	- .7	Buffalo . . .	70	0	1.0	+ .2	Quillayute . . .	62	+ 3	T	- .5
Peoria . . .	68	- 7	T	- .7	New York . . .	71	- 6	3.1	+ 2.1	Seattle-Tacoma . . .	67	+ 2	T	- .2
Rockford . . .	66	- 7	.2	- .6	Rochester . . .	70	- 1	1.2	+ .5	Spokane . . .	77	+ 7	0	- .1
Springfield . . .	69	- 7	1.6	- .9	Syracuse . . .	70	- 1	.9	+ .9	Walla Walla . . .	82	+ 6	0	- .1
IND. Evansville . . .	74	- 4	.1	- .6	N. C. Asheville . . .	75	+ 1	2.0	+ .9	Yakima . . .	77	+ 6	0	0
Ft. Wayne . . .	71	- 2	.1	- .6	Charlotte . . .	79	0	5.8	+ 4.8	W. VA. Beckley . . .	70	0	2.0	+ 1.1
Indianapolis . . .	74	- 1	1.2	+ .5	Greensboro . . .	78	+ 1	5.3	+ 4.3	Charleston . . .	76	+ 1	3.8	+ 2.8
South Bend . . .	68	- 5	.1	- .7	Hatteras . . .	82	+ 4	.7	- 1.4	Huntington . . .	76	+ 1	1.3	+ .4
IOWA. Burlington . . .	68	- 8	T	- .7	Raleigh . . .	80	+ 2	.7	- .5	Parkersburg . . .	73	- 2	5.0	+ 4.1
Des Moines . . .	70	- 5	T	- .7	Wilmington . . .	83	+ 2	1.7	0	WISC. Green Bay . . .	65	- 5	1.8	+ 1.2
Dubuque . . .	65	- 7	T	- .8	N. DAK. Bismarck . . .	63	- 9	.2	- .2	La Crosse . . .	69	- 4	.1	- .6
Sioux City . . .	67	- 9	1.7	+ 1.1	Fargo . . .	64	- 8	.5	- .2	Madison . . .	64	- 7	.2	- .5
KANS. Concordia . . .	71	- 8	1.2	+ .5	Williston . . .	64	- 7	T	- .4	Milwaukee . . .	66	- 5	1.0	+ .4
Dodge City . . .	73	- 7	.7	+ .1	OHIO. Akron-Canton . . .	70	- 2	1.0	+ .3	WYO. Casper . . .	65	- 7	.3	+ .2
Goodland . . .	67	- 9	.5	- .1	Cincinnati . . .	71	- 5	.8	+ .1	Cheyenne . . .	62	- 8	.6	+ .2
Goodland . . .	70	- 9	3.1	+ 2.2	Cleveland . . .	70	- 1	.8	+ .1	Lander . . .	67	- 5	T	- .1
Topeka . . .	76	- 6	.9	+ .1	Columbus . . .	72	- 1	1.0	+ .2	Sheridan . . .	64	- 8	.4	+ .3
Wichita . . .	73	- 3	1.8	+ .9	Dayton . . .	69	- 5	2.9	+ 2.3	P. R. San Juan . . .	83	+ 2	.2	- 1.4
KY. Lexington . . .	75	- 2	.6	- .1	Toledo . . .	68	- 4	T	- .7					

Based on 1941-70 normals

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State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by ESCS State offices in cooperation with the National Weather Service.

ALABAMA: Temperatures 1° above normal. Most areas received at least 1.00 in. of rain.

Fieldwork: 5.3 days suitable. Soil moisture short. Major activities: Weed and insect control, making hay, putting up silage, preparing fall pastures. Cotton fair to good condition; 73% setting bolls, 94% 1977, 82% average. Corn fair condition; 74% dented, 75% 1977, 61% average; 37% mature, 41% 1977, 31% average. Soybeans fair to good condition; 58% blooming, 63% 1977, 63% average. Peanuts good condition. Pasture fair condition.

ALASKA: Temperatures above average. Rainfall light. Precipitation for season below average.

Sunny, warm temperatures hastened crop development throughout railbelt. Small grains fair to excellent. Oats and barley headed. Second crop hay excellent growth. Potatoes and vegetables responded favorably. Soil moisture adequate.

ARIZONA: Hot, humid. Temperatures normal to 5° above. Rainfall all regions, over 2.00 in. some areas.

Heavy rains many cropland areas. Cotton continued good growth, early plantings showing open cotton. Early grain sorghum nearing maturity, later plantings good progress. Corn doing well, pollination in progress. Fall sugarbeets good stands. Alfalfa haying continued, some damaged by rain. Nearly all fruit, melon crop harvests complete. Field preparations well advanced fall vegetables. Lettuce planting continued Willcox area. Harvest green chilis underway. Lemon ring picking continued, Yuma. Ranges all elevations showed improvement. Lower ranges remain mostly poor, higher elevations very good condition. Cattle, calves, sheep, lambs fair to good condition.

ARKANSAS: Temperatures generally few degrees below normal. Rainfall light to moderate in central and northern areas; light in south. Highest temperature 100°, lowest 54°. Most precipitation 2.13 in., least 0.

Crops and livestock continue to show drought stress in many central and southern areas. Soil moisture short. Fieldwork: 6 days available. Soybeans fair condition; 34% bloom, 20% pods set. Cotton fair condition; 97% boll set. Rice good condition; 25% forming heads. Corn fair condition. Sorghum fair to good condition. Peach harvest active. Size and quality good. Tomato harvest in northern area. Watermelon good to excellent quality and size. Pastures below average. Hay harvest limited. Livestock fair to good condition.

CALIFORNIA: Temperatures above seasonal normal; only marine air from Pacific kept mercury near normal along immediate coast. Precipitation limited to shower activity along mountains.

Field crops excellent growth. Field corn fertilization, irrigation. Silage corn cut. Cotton Imperial Valley open boll 50% fields. San Joaquin Valley pre-bloom to large unopened boll stage. Insect populations Imperial Valley slowly increasing. Growers continue pesticides. Pink bollworms, tobacco budworms major threat. Early varieties rice heading out. Alfalfa hay cut, good set alfalfa seed non-hardy varieties, lighter set hardy varieties. Oat hay harvested

north coast. Safflower harvested southern San Joaquin Valley. Late freestone peaches, plums, nectarines picked. Figs matured. Wine grapes colored; cardinal grape finished. Cling peach harvest full swing, some brown rot quality problems. Almond orchards prepared for harvest. Walnuts treated for husk fly. Broccoli, cauliflower heavy diversion freezers. Cantaloup, honeydew, miscellaneous melon harvest heavy San Joaquin Valley. Lettuce harvest normal. Harvest processing tomatoes started Sacramento Valley, increasing San Joaquin Valley. Lower elevation ranges dry, some supplemental feeding. Higher elevation excellent. Livestock good to excellent condition; stock water adequate.

COLORADO: Locally heavy showers east with high wind and hail. Scattered activity mountains and west. Cooler, 3 to 9° below normal.

Winter wheat harvested 99%, 96% 1977, 91% average. Corn good condition; average height 70 in., 76 in. 1977; tasseled 84%, 93% 1977, 79% average; silked 51%, 88% 1977. Dry beans good condition; flowered 67%, 64% 1977. Alfalfa good condition; second cutting 78%, 61% 1977; third cutting 5%, 22% 1977. Oats, spring barley harvest active. Sugarbeets, potatoes, sorghum good condition. Ranges and pastures fair to poor condition. Livestock good condition. Fieldwork: 6 days suitable.

FLORIDA: Partly cloudy, warm, humid with scattered, mainly afternoon, evening thunder-showers. Rainfall a little above normal, averaging 1.50 to 3.50 in. Temperatures 1 to 3° below normal.

Soil moisture excessive. Corn harvest slowed due to wet weather. Peanuts, soybeans, sugarcane good to excellent condition. Tobacco harvest nearing completion. Hay making at near-standstill due to wet conditions. Many pastures producing surplus grass. Excessive water many low lying areas. More sunny weather needed, especially central and northern Peninsula. Some spraying underway for armyworm control. Cattle, calves good to excellent progress. Citrus excellent growing conditions. Frequent rains all areas; some excessive moisture but few problems. Abundant new growth, fruit sizes excellent. Growers actively preparing fields, seedbeds for fall planting. Plants in greenhouses, seedbeds progressing favorably. Gadsden County tomatoes making excellent growth. Stands near perfect. Staking underway. Light tomato transplanting Palmetto-Ruskin area. Small acreages squash, okra harvesting Dade County.

GEORGIA: Temperatures normal except 1 to 2° below normal central and extreme south and 1° above average east. Temperatures ranged from middle 70's mountains to low 80's east and southeast. Thundershowers numerous and heavy north 31st and numerous east and south 2d and 3d; amounts generally less than 0.50 in. but several places received near 2.00 in.

Soil moisture improved, short to mostly adequate, some localized dry spots. Fieldwork: 5 days suitable. Insects increasing, control measures very active. Corn poor to fair, showers helping late planted; 9% harvested. Peanuts fair to mostly good, all blooming and 99% pegging, 99% blooming and 99% pegging last

year. Soybeans fair to mostly good, cultivation active. Cotton fair to good, insects very active; 97% setting bolls, last year 99%, average 95%. Tobacco fair to mostly good; 63% harvested, last year 55%, 79% average; auctioning active. Peaches small, mostly fair to good; 91% picked, last year 97%, average 97%. Apples fair to good; 26% picked, last year 17%. Watermelons mostly fair to good, 89% harvested, last year 93%. Hay and pastures fair to good. Cattle fair to mostly good. Hogs good.

HAWAII: Warm, humid weather continued. Rainfall light, mainly windward areas. Skies partly cloudy to clear.

Insects increasing; frequent spraying necessary. Vegetable supplies light to moderate. Leafy crops generally light. Banana, papaya supplies steady. Sugar harvesting steady. Pineapple harvesting heavy; peak continues. Pastures good.

IDAHO: Temperatures generally below normal south-east but above normal other areas. Week's high 105°. Only a few stations reported precipitation.

Winter wheat harvest becoming more general with 10% harvested, last year 30% harvested. Percent ripe this year, last year: Spring wheat 15%, 54%; barley 20%, 63%. Potatoes continue to make good development. Middles closed except for high elevation acreage. Second crop hay 40% harvested. Range feed adequate.

ILLINOIS: Temperatures 4 to 8° below normal. Precipitation light, mostly trace to 0.33 in.

Corn 91% silked, 100% 1977, 98% average. Dough stage 40%, 79% 1977, 65% average. Dent stage 10%, 40% 1977, 25% average. Condition good. Soybeans good; 80% bloomed, 94% 1977, 93% average; 50% set pods, 78% 1977, 73% average. Winter wheat 25% plowed, 47% 1977, 38% average. Oats 85% combined, 100% 1977 and average. Barley 95% harvested. Second cutting alfalfa hay 85% cut, 100% 1977, 92% average. Condition good. Pastures good. Fieldwork: 5.3 days suitable. Soil moisture adequate.

INDIANA: Temperatures 2° below normal. Precipitation 1.20 to 2.20 in. central and south, 0.80 in. northwest, and 0.40 in. northeast coming early and late in period.

Fieldwork averaged 4 days. Oats 95% harvested, 1977 100%, average 85%. Wheat land 10% plowed, 1977 10%, average 20%. Corn 25% dough, 1977 55%, average 35%. Soybeans 85% in bloom, 1977 90%; 25% setting pods. Alfalfa hay 85% cut 2d time, 1977 95% cut. Topsoil and subsoil moisture adequate. Condition corn good; soybeans and pastures fair to mostly good.

IOWA: Cool, dry. Record lows on 4th.

Topsoil and subsoil moisture adequate. Condition of corn, oats, hays and pasture good to excellent. Corn silked 97%, last year 100%, normal 91%; milk stage 40%, last year 100%. Oats for hay harvested 99%, last year 100%. Oats for grain harvested 95%, last year 100%, normal 98%. Soybean acreage bloomed 91%, last year 93%, normal 85%; setting pods 61%, last year 79%, normal 61%. Second crop alfalfa hay harvested 94%, last year 100%, normal 88%. Second crop clover hay harvested 65%, last year 62%, normal 58%. Light to moderate damage done by grasshoppers. Fieldwork: 6.2 days suitable. Livestock in good condition.

KANSAS: Abnormally cool, temperatures near 100° early week, daytime highs 60's and 70's latter part. Temperatures averaged 8° below normal.

Significant precipitation widespread, ranging 0.50 to 1.00 in. west and 1.00 to 3.00 in. east. Some areas central and east central in excess of 3.00 in.

Sorghum headed 25%, 45% last year, average 30%. Scattered fields showing color, last year 5%. Sorghum development slightly behind normal, 1.5 weeks behind 1977. Corn dough stage 30%, 60% last year, 40% average; 5% dented, last year 25%, average 10%; less than 5% matured. Corn development 5 days behind average. Soybeans setting pods 35%, 45% last year, 40% average; development 3 days behind average. Third cutting alfalfa 50%, last year 67%, average 40%. Topsoil short south half, adequate north half. Fieldwork: 5 days suitable.

KENTUCKY: Rainfall averaged 3.00 to 5.00 in. over south central and southeast and 1.00 to 2.00 in. elsewhere. Most rain fell during last three days of week. Temperatures 4 to 6° below normal for daily highs; lows near normal.

Soil moisture short to adequate. Heavy rain, wind and scattered hail caused minor crop damage but provided welcome relief from dry conditions. Corn 21% pre-silk, 43% silking, 36% milk or later. Condition of corn good; conditions worst in west. Soybean condition fair to good; recent rains improved prospects. Nearly half the crop in bloom or post-bloom stage. Tobacco rated good to fair. Burley 11% topped, dark types 14% topped. Pasture and hay good in east and north central but poor to very poor in west.

LOUISIANA: Temperatures normal to 2° above.

Extremes: 101 and 65°. Scattered showers south.

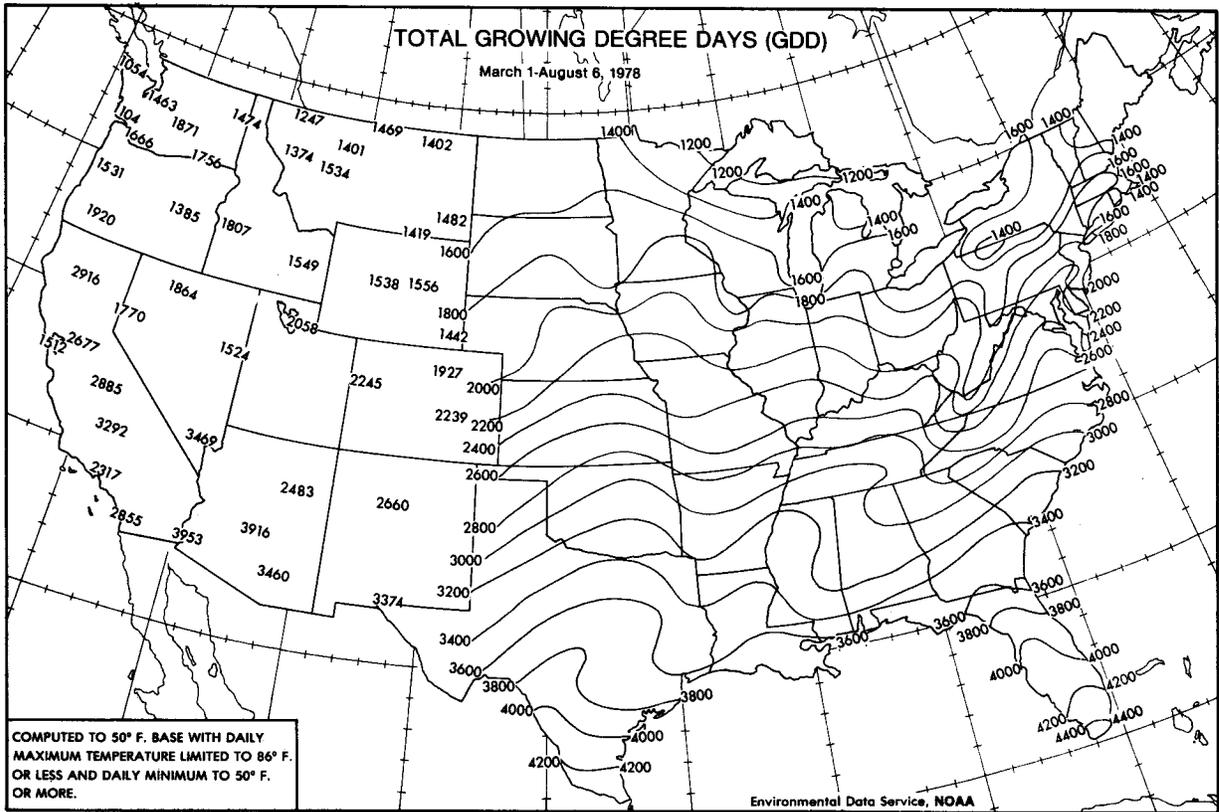
Fieldwork: 5.1 days suitable. Soil moisture short north two-thirds, adequate south. Rice good; 84% headed, 81% last year; 38% ripe, 38% last year; 24% harvested, 19% last year. Corn fair to good; 91% mature, 45% last year; 16% harvested. Soybeans fair to good; 77% blooming, 81% last year; 51% setting pods. Cotton fair to good; 93% setting bolls, 97% last year. Sorghum fair to good; 90% headed, 91% last year; 46% turning color. Sweet-potatoes, sugarcane and pastures fair to good. Livestock good. Hay fair.

MARYLAND & DELAWARE: Temperatures near normal; highs mid-80's, lows near 70°. Precipitation moderate to heavy, averaging 2.00 to 3.00 in.

Fieldwork: 2.3 days suitable. Soil moisture adequate to surplus. Pastures supplying heavy to above average amounts of feed. Corn 75% silked, 92% 1977, 84% average. Soybeans 40% bloomed, 37% 1977, 39% average. Alfalfa third cutting 50% complete, second cutting clover and clover mixtures 80%. Tobacco being topped and sprayed. Peach harvest expected to pick up momentum.

MICHIGAN: Temperatures well below normal. Record lows set in various parts of State. High temperatures in general fluctuated between low 70's and low 80's. Precipitation light to moderate and spotty.

Fieldwork: 6 days suitable. Soil moisture generally short to adequate. Corn 70% silked, 7% in dough. Winter wheat 85% harvested, 90% last year. Oats 30% harvested, 70% last year. Potato digging Bay area full swing. Dry beans 45% blooming, 44% setting pods. Soybeans 50% blooming, 25% setting pods. Second cut of hay 60% complete, 80% last season, 50% normally. Pasture feed supplies mostly adequate. Sweet cherry picking ending; tart cherries 90% picked, 95% normally. Pickle and other vegetable and fruit harvests active.



MINNESOTA: Temperatures near normal extreme northeast and 3 to 8° below normal elsewhere. Extremes: 93 and 36°. Precipitation averaged near normal north central and west central through east central and normal to 0.75 in. below normal elsewhere. Precipitation totals 0.50 to 1.00 in. north central and west central through east central as well as patchy areas of south central and southwest. Precipitation elsewhere averaged less than 0.50 in.

Small grain harvest made good progress, will accelerate in northern areas. Most corn tasseling, soybeans blooming. Moisture becoming short in western third of State; surplus in northeast, mostly adequate elsewhere. Corn 38% in milk, 1977 96%, normal 46%. Soybeans 60% setting pods, 1977 84%, normal 65%. Combined: Spring wheat 10%, 1977 58%, normal 31%; oats 32%, 1977 77%, normal 54%; barley 42%, 1977 83%, normal 52%; winter wheat 60%, 1977 94%, normal 77%; rye 52%, 1977 92%, normal 80%; flax 53% turning ripe, 1977 82%, normal 66%. Sunflowers 75% blooming.

MISSISSIPPI: Temperatures near normal. Extremes: 64 and 101°. Widely scattered thunder-showers.

Soil moisture short to very short except southeast where adequate. Fieldwork: 6.1 days suitable. Some soybeans showing moisture stress, some cotton dropping fruit due to lack of moisture. Soybeans 66% blooming, 84% 1977, 57% average; 25% podding, 43% 1977. Cotton 96% setting bolls, 96% 1977, 82% average. Corn 95% dough stage, 94% 1977; 72% dented, 73% 1977; 27% mature, 27% 1977. Corn silage 47% harvested, 43% 1977. Sorghum 65% headed, 65% 1977. Rice 48% headed, 55% 1977. Hay crops 67% harvested, 53% 1977, 58% average. Peanuts 2% harvested,

9% 1977. Watermelon 81% harvested, 77% 1977, 66% average. Soybeans, cotton good to fair condition. Rice good condition. Corn fair to good condition. Pastures fair condition.

MISSOURI: Temperatures averaged 7° below normal in north and Ozarks but remained around or slightly above normal in Bootheel. Precipitation averaged 1 to 2 in. generally but only slight amounts from Columbia to St. Louis to Cape Girardeau.

Fieldwork: 4.2 days suitable. Corn 71% tasseled or beyond, 47% silked, last year 100% tasseled and silked, normal 100% tasseled, 81% silked. Soybeans 52% blooming, 22% setting pods, last year 75% blooming and 45% setting pods, normally 62% blooming and 33% setting pods. Grain sorghum 47% headed, last year 83%, normal 53%. Cotton 89% setting bolls, last year 98%, normal 74%. Alfalfa second cutting 87%, last year 95%, normal 100%. Alfalfa third cutting 20%, last year 45%, normal 27%. Other hay 94% harvested. Condition of corn, soybeans, cotton and pasture fair to mostly good.

MONTANA: Warm west, but generally cooler than normal elsewhere. Temperatures 4° above normal west to 9° below normal northeast. Significant warming weekend. Precipitation above normal north central, central, northeast, and southeast; below normal elsewhere.

Winter wheat harvest active, with favorable weather, 10% done, normal 35%; about 50% ripe, 40% turning, normally 65% ripe, 35% harvested. Spring grains lag; spring wheat and barley 5% ripe, normal 25%. Oats 15% ripe, normal 30%. All spring grains 5% harvested. Fieldwork: 5 days suitable. Topsoil moisture adequate. Second cutting alfalfa 20% harvested; normal 25%. Wild hay 60% cut, normal 70%.

NEBRASKA: Temperatures 7 to 11° below normal. Scattered showers brought beneficial amounts several sections. Smallest amounts east central areas.

Corn silking 90%, year ago over 95%, normal 95%. Sorghum heading 60%, year ago 90%, normal 80%. Soybean podding near 55%, year ago 75%, normal 65%. Winter wheat harvest virtually complete. Second cutting alfalfa hay 95% complete. Fieldwork: 5.8 days suitable.

NEVADA: Record high temperatures common; temperatures averaged 2 to 11° above normal. Extremes: 45 and 115°. Rainfall spotty and light.

Wild hay harvest active. Ranges drying most areas. Extreme heat hard on livestock.

NEW ENGLAND: Persistent cloudiness kept daily maximum temperatures at near to below normal. First significant rain in some time fell. Precipitation from 0.50 to 3.00 in. with greater amounts over extreme south.

Soil moisture supply short to very short, except in Vermont where reports range from adequate to short. Grazing and condition of field corn follow same pattern. Corn growth uneven. Potatoes in Aroostook County, Maine looking good. Early apples and peaches being picked. Cranberry crop looks heavy. Early sweet corn picked. Tomatoes ripening slowly.

NEW JERSEY: Temperatures averaged 1° below normal. Extremes: 56 and 90°. Rainfall averaged 3.80 in. north, 3.20 in. central and 3.80 in. south.

Soil moisture in percent of field capacity averaged 96% north, 99% central and 99% south. Soil temperature averaged 72° north, 76° central and south. Fieldwork: 4 days suitable. Soil moisture adequate to excessive. Frequent showers hampering harvests. Development and sizing of later crops benefiting. Potato harvest, hay making and grain combining at standstill. Field corn and soybean prospects good. Pasture growth improved.

NEW MEXICO: Higher temperatures midweek. Averages near normal lower elevations and below normal in mountainous areas. Rains midweek with 1.00 in. some areas south and east.

Surface and subsoil moisture short. Cotton blooming, setting squares and bolls. Second cut alfalfa virtually complete, third cut in full swing, some fourth cut started. Grain sorghum heading, corn tasseling. Ranges and livestock generally fair to good condition.

NEW YORK: Cool, rainy. Rainfall above normal. Temperatures 1 to 4° below normal.

Crop growth improved. Wheat 45% harvested, 90% 1977. Oats 10% combined, 25% 1977. Second crop alfalfa 55% harvested. Sweet corn harvest 10% complete, tomatoes 5%. Onion condition good. Early variety apples and peaches being harvested. Tart cherry harvest complete.

NORTH CAROLINA: Temperature highs mid-80's to low 90's, lows mid-60's to low 70's. Precipitation scattered showers and thundershowers; Piedmont and mountains 1.00 to 3.00 in.

Fieldwork: 5.1 days suitable. Soil moisture adequate. Condition of tobacco, corn, cotton, peanuts, soybeans, hay crops, Irish potatoes, sweetpotatoes, apples, and pasture fair to mostly good. Harvested: Flue-cured tobacco 28%, 1977 33%, average 42%; hays 85%, 1977 72%, average 70%. Apple and sweetpotato harvests just getting underway.

NORTH DAKOTA: Rain 0.20 to 0.60 common south and east. Northwest totally dry. Temperatures to 5° below normal. Morning of 3d quite chilly and frost reported in central and west.

Temperatures 35° southwest to 99° northwest. Cool temperatures slowed crop development. Many areas getting short of topsoil moisture. General rain would be welcomed to finish off late seeded small grains and row crops. Harvesting: Hard spring wheat 7% combined, 25% 1977, 11% average; durum, 3% combined, 11% 1977, 4% average; barley 28% combined, 49% 1977, 25% average; oats 15% combined, 39% 1977, 20% average.

OHIO: Temperatures below normal. Rainfall 0.50 to 3.00 in.

Main activities: Vegetable harvesting, oat combining, plowing winter wheat ground, hay and straw baling, caring of livestock and clipping pastures. Welcome rains received, except extreme northwest, over weekend. Corn tasseled 85%, 90% 1977, 85% average. Soybean pod-set 10%, 20% 1977, 15% average. Oats harvested 80%, 95% 1977, 90% average. Potatoes dug 10%, 15% 1977, 15% average. Alfalfa second cutting 85%, 95% 1977, 85% average. Tobacco topped 10%, 35% 1977, 10% average. Fieldwork: 5.5 days favorable. Pasture condition fair. Soil moisture short to adequate.

OKLAHOMA: Temperatures ranged from 3° below normal southeast and east central to 7° below normal Panhandle. Rain ranged from 0.24 in. east central to 0.93 in. north central.

Topsoil and subsoil moisture supplies short. Most row crop development behind normal. Corn good to fair; 10% mature 1978, 1977, and normal. Sorghum fair condition with 29% heading, 57% 1977, 63% normal. Producers spraying greenbugs in Panhandle. Cotton fair condition with 25% setting bolls, 56% 1977, 39% normal. Peanuts fair condition with 23% spiking, 34% 1977, 37% normal. Soybeans fair to good condition with 9% setting pods, 35% 1977, 15% normal. Alfalfa hay fair condition, growth very slow at present. Native pastures continue decline, over 20% acreage supplying inadequate forage. Livestock condition good to fair. Fieldwork: 6.6 days suitable.

OREGON: Rainfall virtually non-existent except for isolated thunderstorms east of the Cascades. Temperatures 4 to 8° above normal over interior and near normal along coast. Extremes: Over 100°, mid-40's west; over 100°, high 30's east.

Wheat harvest underway both east and west of Cascades. Warm weather speeded harvest activity. Haying continues with some areas well into third cutting. Early grass seed harvest near completion. Early peaches, apricots, and apples being picked. Pear harvest to start next week. Caneberries showing heat stress, harvest is in final stages. Vegetable crops also affected by heat. Sweet corn silking and snap bean, cucumber and early potatoes being harvested. Onion harvest should start soon. Livestock in good to excellent shape. Dryland pastures and low level ranges drying up. Irrigated pastures and high elevation ranges look good.

PENNSYLVANIA: Mostly cloudy and very humid with almost daily showers and thunderstorms south central and east. Locally heavy downpours of 4.00 to 6.00 in. few spots central mountains. Most rainfall from 2.00 to 3.00 in. east and 0.50 to 1.50 in. west for wettest week since mid-May. Partly sunny but cool west. Temperatures near to 4° below normal with extremes 91 and 43°.

Fieldwork: 3 days suitable. Soil moisture adequate. Activities: Spraying; haymaking; fill-

ing silos; combining wheat, oats; digging early potatoes; baling straw; fall plowing; topping tobacco; harvesting fruits and vegetables. Oats 30% combined, last year 63%. Potatoes under 5% dug, same as last year. Corn 48% silk, 8% dough; last year 63% silk. Fall plowing under 5%, same as last year. Alfalfa second cut 68%, third cut 8%. Clo-tim second cut 27%. Hay quality poor to fair. Feed from pastures average.

PUERTO RICO: Island rainfall 0.29 in. or 1.26 in. below normal. Temperatures 82° on coasts and 76° interior. Extremes: 95 and 59°.

SOUTH CAROLINA: Temperatures near normal. Rainfall ranged above normal through north central, west; normal elsewhere.

Soil moisture mostly adequate. Fieldwork: 4 days suitable. Late planted corn fair to good; older corn severely damaged by dry weather, rainfall too late; 58% mature, 77% last year, 46% average. Cotton good; 85% setting bolls, 96% last year, 88% average. Soybeans good; 49% blooming, 61% last year. Tobacco good; 54% harvested, 66% last year, 74% average. All crops improved by recent rainfall. Peaches good; 83% harvested, 92% last year, 87% average. Watermelon harvest ending; 89% harvested, 96% last year, 91% average.

SOUTH DAKOTA: Unseasonably cool, 5 to 11° below normal. Coolest Plains reading 35°, warmest reading 99°. Precipitation generally below normal, 0.25 in. or less.

Hail damaged crops in east central 1st. Grain harvest active. Topsoil moisture short to adequate. Fieldwork: 5.1 days suitable. Oats 60% harvested, 1977 94%, normal 75%. Spring wheat 30% harvested, 1977 84%, normal 62%. Barley 63% harvested, 1977 95%, normal 81%. Winter wheat 93% harvested, 1977 100%, normal 93%. Rye 81% harvested, 1977 100%, normal 90%. Flax 14% ripe, 1977 68%, normal 39%; less than 1% harvested, 1977 19%, normal 7%. Soybeans 42% podded, 1977 77%, normal 53%. Sorghum 30% headed, 1977 79%, normal 41%. Corn 86% tasseled, 1977 100%, normal 85%; 72% silked, 1977 92%, normal 82%. Alfalfa 71% harvested 2d time, 1977 84%, normal 66%. Wild hay 62% harvested, 1977 75%, normal 75%.

TENNESSEE: Thunderstorms several days; amounts 0.50 to 1.00 in. Some places 3.00 in. Temperatures 1 to 2° below normal west, 1 to 3° above normal east.

Fieldwork: 5.1 days suitable. Soil moisture short to adequate. Cotton setting bolls 88%, 1977 86%, average 70%. Corn in dough stage 65%, 1977 72%, average 59%. Corn in dent stage 24%, 1977 34%, average 24%. Soybeans 79% blooming, 1977 85%, average 65%. Soybeans 32% setting pods, 1977 45%, average 23%. Burley tobacco topped 30%, 1977 50%. Bollworm populations increasing. Armyworms infesting corn. Cyst nematode in soybeans. Pastures fair. Cattle requiring supplemental feed some areas. Commercial vegetable harvest active.

TEXAS: Early week Tropical Storm Amelia moved inland into hill country of South Texas near San Antonio creating record rainfalls, very heavy flooding. Amelia's movement very slow, heading in north-northwest direction. Heavy rains western portions north central by midweek with heavy flooding Abilene area. Weekly average rainfall for time of year ranged from 0.25 in. South Texas to near 1.00 in. extreme southeast. Southeast Texas near normal rainfall; all other areas above average rainfall. Rainfall amounts very much above normal; South Texas 2.00 in., south central Texas 2.20 in., Edwards Plateau 4.30 in., Cross-

Timbers area 5.50 in., southern Low Plains 6.10 in. Temperatures ranged from near 86° northeast, South Texas to near 81° Panhandle. Temperatures 2 to 4° above normal coast, 1 to 2° above normal West Texas, 2° below normal Panhandle, 3 to 6° below normal extreme northeast Texas.

Grain sorghum harvest nearly complete most parts Blacklands; 57% harvested, last year 46%, average 41%. High Plains dryland sorghum stressed for moisture. Irrigated sorghum good condition. Cotton harvested 4%, last year 2%, average 2%. Irrigated cotton fruiting High, Low Plains, condition good. Scattered showers benefited dryland cotton, but most fields still stressed from lack of moisture. Corn harvest almost complete Coastal Bend; harvested 14%, last year 5%, average 9%. Cooler weather, scattered showers beneficial High Plains. Rice upper Gulf Coast harvest full swing. Harvested 50%, last year 57%, average 47%. Lodging becoming major problem some areas due rains, high winds. Soybeans beginning set pods along upper Gulf Coast. East crop blooming; needs rain for setting pods. Irrigated stands High Plains blooming, good condition. Peanut harvest gaining momentum South Texas; harvested 3%, slightly ahead of last year, average 3%. Dryland peanuts Cross-Timbers need moisture, holding well. Sunflowers good condition High Plains, early stands approaching maturity. Hay prospects south, central Texas helped by recent rains. Fourth cutting of alfalfa hay reported on Plains. Planting fall vegetables continue. Cabbage, bell peppers good growth after recent rains. Harvest cantaloups, onions, melons, cucumbers continues. Peach harvest underway north central and east. Pecan trees that were shedding nutlets because dry weather helped by recent rains in central, southeast. Upper Gulf Coast nutlets enlarging; pecans soft dough stage south central.

Recent rains helped improve pastures and rangeland along Gulf Coast, central, South Texas. Pastures, rangeland northeast still need moisture. Scattered showers received these areas, more rains needed to fill stock tanks, promote new growth. Flooding caused livestock losses hill country.

UTAH: Light precipitation. Maximum temperatures set new records.

Soil moisture deficit on nonirrigated crop and rangeland. Range feed condition poor to fair. Stock water supplies adequate. Moisture on nonirrigated crop and rangeland very short. Winter wheat 70% harvested. Spring grains 30% harvested. Apricot harvest complete.

VIRGINIA: Temperatures 2° above normal. Extremes: 98° and 51°. Precipitation ranges 0.70 in. southwest to 3.00 in. east with some local flooding.

Topsoil moisture mostly adequate to surplus, short in central valley and far southwest. Fieldwork: 3.4 days available. Tobacco pulling: Flue-cured 6%, 12% 1977, 14% average; fire-cured less than 1%, 2% 1977, 1% average. Potato digging nearing end on Eastern Shore. Wet fields prevented application of sucker and insect controls on tobacco, corn; delayed hay baling; enhanced growth of peanut diseases. Pastures, corn, soybeans, tobacco, peanuts, hay good to excellent condition. Hail damaged southside tobacco. Apple, peach, sweet corn, melon, tomato, okra, cabbage harvested. Fall cucumbers seeded east. Corn growers preparing for silage, grain harvests. Some widely scattered severe local grasshopper infestations in grasslands and hay. Thistles more than normal.

WASHINGTON: West: Temperatures near normal. Precipitation to 0.40 in. below normal.

Small grain combining started. Early field and sweet corn harvest also began.

East: Temperatures up to 5° above normal. No precipitation reported.

Early apple harvest beginning. Peach and nectarine harvest continue.

WEST VIRGINIA: Temperatures near normal and precipitation above normal.

Fieldwork: 3.5 days suitable. Soil moisture adequate. Major activities: Haying, pasture clipping. Haying 1st cutting 92%, 93% 1977, 94% average; 2d cutting 28%, 47% 1977, 29% average. Small grain harvest: Wheat 77%, 86% 1977, 86% average; barley 80%; oats 37%, 76% 1977, 49% average. Potatoes 9%, 20% 1977. Pastures good. All crops mostly good. Peach picking 14%.

WISCONSIN: Temperatures 6° subnormal. Extremes: 89 and 40°. Highs 70's and 80's until midweek cooling to 60's and 70's. Warm 80's again 6th. Overnight lows generally 40's. Rainfall light except north central and northeast where locally up to 3.00 in. Showers and thunderstorms early week.

Good week for harvesting. Fieldwork: 5 days suitable. Second crop hay 50% harvested, 1977 80%,

normal 45%. Few farmers finishing first crop. Third growth coming good. Oats 15% harvested, 1977 60%, normal 30%. Winter wheat and barley being harvested. Corn 70% silked, 1977 95%, normal 65%. Corn very good to excellent except where water damaged. Soybeans doing well. Pasture condition best in many years for early August. Early tobacco being topped. Pea harvest done. Sweet corn harvest starting. Picking good crop cherries. Early potatoes and apples good. Soil moisture mostly adequate to surplus.

WYOMING: Precipitation definitely on increase. Temperatures 5 to 10° below normal. Average temperatures ranged from low 90's to high 40's with mean near 65°.

Topsoil moisture adequate. Winter wheat 87% mature, harvest 66% completed. Spring wheat 70% turning color, 23% mature; 19% harvested. Oats 58% turning color, 23% mature, 12% harvested. Barley 74% turning color, 37% mature, 10% harvested. Second cutting alfalfa 19% complete, 67% other hay harvested. Row crops fair to mostly good condition. Corn 50% tasseled, 18% silked. Dry beans 64% in bloom. Fall, winter grazing prospects mostly good. Livestock good to excellent condition. Ranges and pastures fair to good condition.

World Weather and Crop Update

July 31 - August 6

USSR. Rainfall was generally light throughout European USSR with substantial rains confined mainly to Moldavia and the southern Ukraine. Small grain harvesting moved rapidly ahead, but harvesting operations have been complicated in some areas because of lodged grain fields. The small grain harvest was underway over most of European USSR with harvesting virtually completed in the North Caucasus and the southern Ukraine. The pace of harvesting, however, continued to lag behind 1977. By the end of July, small grains and pulses had been cut on 27.6 million hectares (22 percent of the seeded area) with threshing completed on two-thirds of the area. Generally light rainfall dotted the principal spring wheat areas east of the Volga River. Harvesting of winter grains started in most areas, and the harvest of spring wheat is expected to begin about mid-month in the more southerly areas of western Siberia and North Kazakhstan.

ASIA. In the People's Republic of China, heavy rains across the Manchurian plain may have interfered with spring wheat combining in some areas. Light to moderate amounts of precipitation were scattered over North China with the heavier amounts falling in the northern part of this important coarse grain, cotton, and soybean region. Light to moderate, locally heavy, rains fell throughout central China where the harvesting of early rice started. Heavy rains, locally excessive, drenched the extreme south---Kwangtung, Kwangsi, and Yunnan provinces. Monsoon activity continued strong throughout most of India holding forth the promise of an excellent fall harvest this year.

AUSTRALIA. Weather conditions favored planting of wheat and barley in New South Wales where earlier wet weather had hampered sowing operations. Light to moderate showers dampened most of Australia's grain regions except in Queensland.

AFRICA. Hot, dry weather continued to dominate North Africa. In South Africa, seasonally dry weather prevailed throughout the main agricultural areas. Drought in the northern Cape however, hurt wheat in the Swartland area which produces about 12 percent of the South African crop. Rainfall in central Africa through July was somewhat below the long-term average, but accumulated totals ranged significantly greater than last year at this time. Precipitation is generally 80 to 100 percent of normal in the broad area extending from the Equator to 20° N. latitude. Small areas of drought turned up in some spots, notably the western Sahel, southern Chad, and the Gulf of Guinea coast.

EUROPE. Light to moderate, locally heavy, showers fell over western Europe during the first half of the reporting period, but sunny weather prevailed in most countries in the latter half of the week. The United Kingdom, however, was generally cloudy and showery with seasonal temperatures. Spain experienced sunny dry weather except for a few isolated showers. Italy also was hot and dry except for isolated thunderstorms in the north. Harvesting in eastern Europe was favored by generally sunny weather although light showers fell in most countries. Turkey was hot and dry except for localized showers along the Black Sea coast.

AMERICAS. Dry, sunny weather dominated the important agricultural states of southern Brazil. It also was mainly dry and sunny with above-normal temperatures in the principal grain areas in Argentina with only light, widely scattered showers in La Pampa and Buenos Aires provinces. In the Prairie Provinces of Canada, precipitation was generally under 5 mm throughout Saskatchewan and Alberta, providing little relief for drought-stressed crops in parts of these important spring wheat regions.

FIELD CROPS - DOLLAR VALUE OF PRODUCTION AND SALES

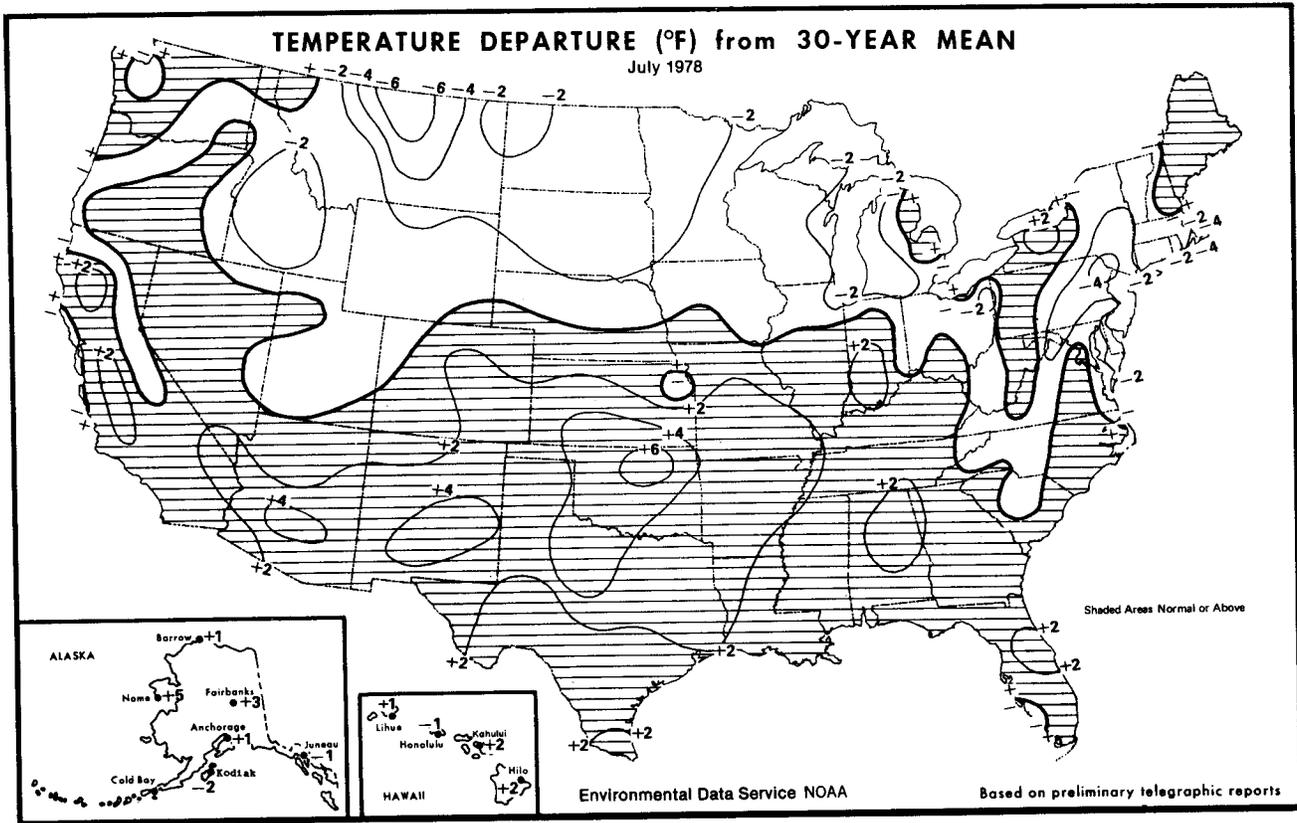
VALUES - 1000 DOLLARS

	1977	PRODUCTION	RANK	SALES	RANK
People often ask which are the major field crops produced in the U.S. The table gives the value and rank of total production and sales of the ten most valuable field crops. The difference between value of production and sales represents on-farm use.	CORN FOR GRAIN	12,886,621	1	8,180,309	2
	SOYBEANS FOR BEANS	9,944,975	2	9,794,975	1
	ALL WHEAT	4,677,339	4	4,413,432	3
	HAY	6,801,364	3	1,433,137	6
	COTTON - LINT AND SEED	3,958,813	5	3,958,813	4
	TOBACCO	2,235,773	6	2,235,773	5
	SORGHUM FOR GRAIN	1,357,262	7	968,746	7
	POTATOES	1,275,261	8	N/A	(8)
	RICE	935,673	9	929,128	9
	OATS	853,434	10	328,636	-
BARLEY	746,199	-	544,362	10	
	1976				
	CORN FOR GRAIN	13,471,796	1	8,520,095	2
	SOYBEANS FOR BEANS	8,768,979	2	8,606,456	1
	ALL WHEAT	5,851,443	4	5,564,331	3
	HAY	6,810,799	3	1,541,477	6
	COTTON - LINT AND SEED	3,680,365	5	3,680,365	4
	TOBACCO	2,403,723	6	2,403,723	5
	SORGHUM FOR GRAIN	1,450,085	7	1,041,095	7
	POTATOES	1,282,856	8	N/A	(8)
	RICE	811,358	-	808,837	9
	OATS	845,188	9	301,514	-
	BARLEY	829,716	10	617,127	10
	1975				
	CORN FOR GRAIN	14,789,368	1	9,414,949	1
	SOYBEANS FOR BEANS	7,617,984	2	7,515,000	2
	ALL WHEAT	7,534,851	3	7,206,683	3
	HAY	6,449,148	4	1,388,933	6
	COTTON - LINT AND SEED	2,355,942	5	2,355,942	4
	TOBACCO	2,238,002	6	2,238,002	5
	SORGHUM FOR GRAIN	1,775,023	7	1,363,848	7
	POTATOES	1,444,608	8	1,314,710	8
	RICE	1,071,924	9	1,065,502	9
	OATS	928,391	10	357,177	-
	BARLEY	894,729	-	664,571	10

N/A Exact value not available - rank estimated

DATELINE
MONTH OF JULY

- *Sweating it Out---
Albuquerque's hottest July ever - daytime high averaged 96.8°.
- *Sunny Skies---
Wichita Falls, Tex., on the 25th, marked its warmest temperature in history - 114°. In fact, all but two days in July soared past 100°.
- *Melting Mizzou---
Springfield, Mo., hit 103° on the 9th - hottest day in 22 years.
- *Wild, Wonderful---and Wet
Charleston, W. Va., soaked by 9.83 in., wettest July on record.
- *Blistered---
Houston notched a record five consecutive days above 100°.
- *Kicked up the Dust---
Phoenix set July record of a half-inch downpour in five minutes.
- *Quaker City Blues---
Philadelphia broke 52-year old July/August record with 12 straight rainy days.



July Weather Summary

HIGHLIGHTS: July weather was dominated by two events. First, a series of cool air outbreaks moved regularly from the northern Plains to New England. As the cool air moved eastward, it was replaced by hot, humid air from the Gulf until the next cool outbreak. The second persistent event was an extension of the Bermuda high pressure system which reached from the mid-Atlantic States to Texas. The resultant southerly flow into the U.S. brought warm, moist air northward to encounter the cooler air and set off severe weather.

A low pressure system was located over southern Minnesota at the beginning of the month; heavy rain inundated the already-wet southern Minnesota area and moved on to Illinois, southern Michigan, and into Pennsylvania.

During the week of July 3 to 9, the low center moved off the East Coast through Pennsylvania and spread rain into southern New England. A high pressure area marked the cool air behind the storm system. The northeastern U.S. was blessed with cool, partly cloudy days. However, the backside of the high pressure brought warm, moist air from the Gulf of Mexico northward through the Plains causing widespread thunderstorms in the central and northern Plains and the lower Mississippi Valley. Hot weather ensued throughout the Plains until another push of cool air moved into the Dakotas at the end of the week.

By Monday, July 10th, the cool air had moved rapidly southward and eastward with showers and isolated thunderstorms occurring along the front marking the leading edge of the cooler air. The rapidly moving cold front moved off the East Coast

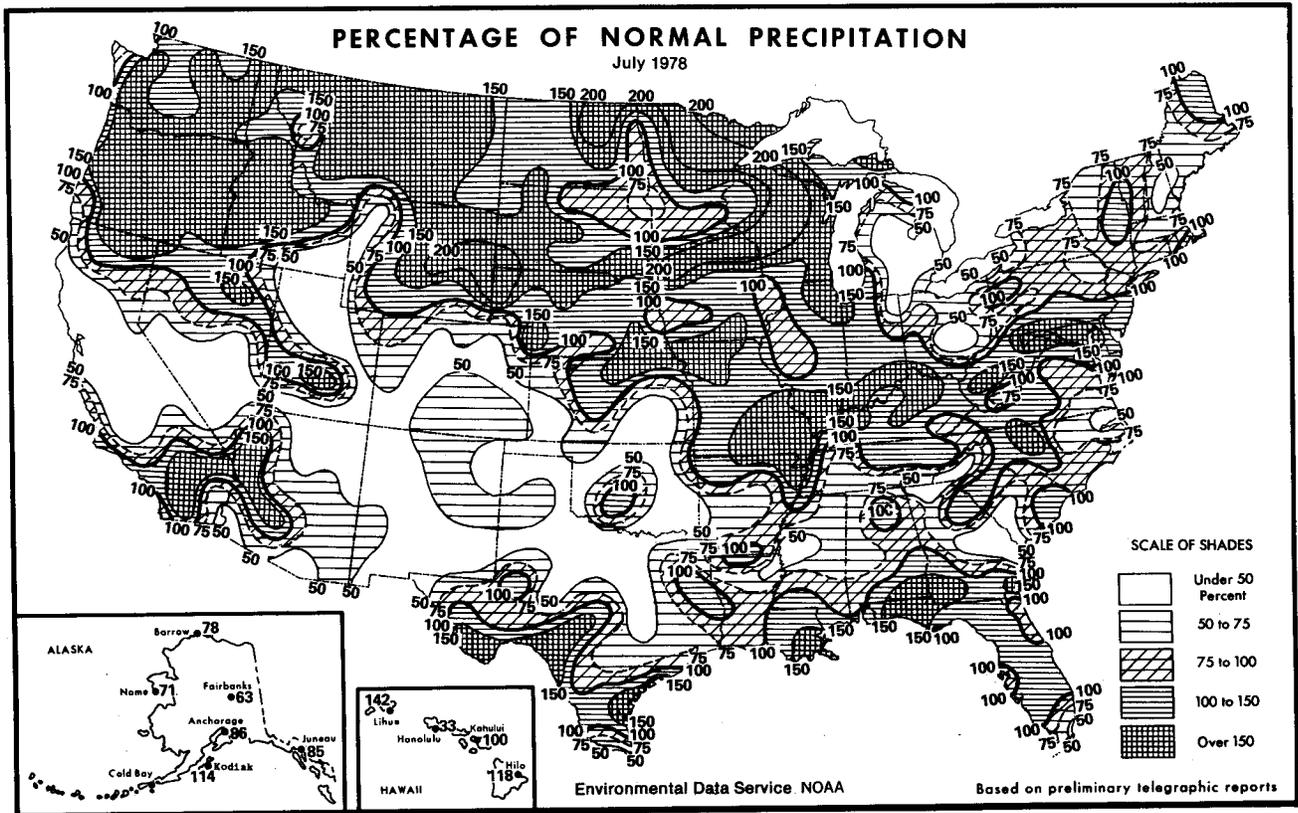
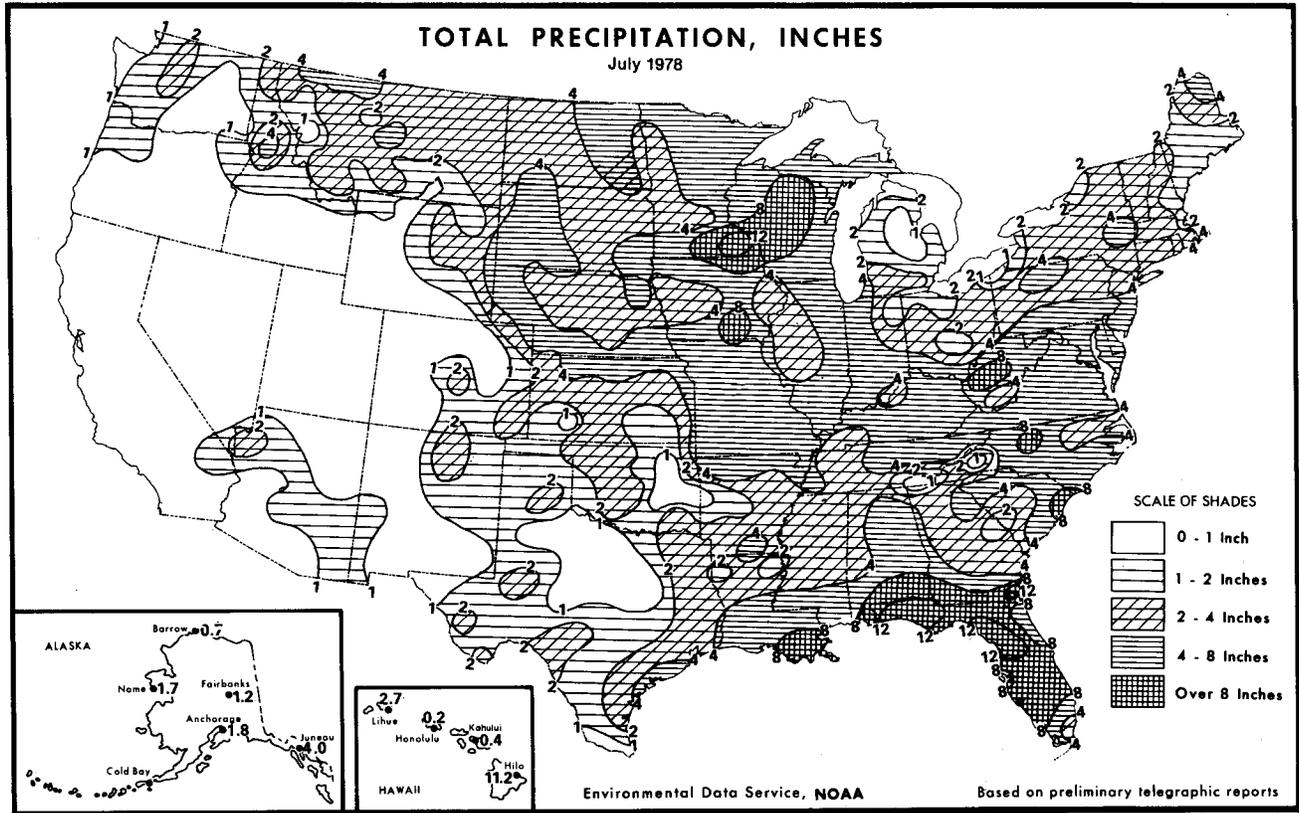
by midweek and became stationary from the Carolinas to Oklahoma. The northern Plains and the Northeast had a cool week, but the south central States were hot. By the end of the week the warm air had returned to the northern Plains. Heavy rain drenched an area from Missouri to Florida, along the southeastern coast, and into North Carolina and parts of Virginia. Most of the West was warm. Showers and thunderstorms fell from Arizona to Colorado.

In the week beginning June 17, another slow-moving cold front trekked from Montana to New England. Heavy rain and thunderstorms hit from Nebraska to Wisconsin and parts of Minnesota. Severe local flooding was reported in these States as more than three inches of rain fell. Thunderstorms were a daily occurrence along the Gulf Coast and welcome showers dampened portions of the Texas Panhandle. Hot weather held sway over much of the Nation. The mercury climbed to over 100° in Texas and the Southwest. Early in the week, readings reached the mid-90's in the northern Plains, and by midweek, near 90° in the Pacific Northwest.

The last week of the month saw rain fall in nearly all the Nation. A trough of low pressure in the Southwest and a cool front moving through the Northwest caused showers in much of the West with some isolated heavy showers in parts of Arizona and Nevada.

Elsewhere, the lower Mississippi Valley, Ohio Valley, southern Appalachians, and Gulf Coast bore the brunt of the severe weather. Parts of Alabama and Florida measured downpours of over 5 inches.

As the month ended, some relief from the heat was felt in the South; however, the central Plains approached 100° and the mid-90's extended to South Dakota.



Temperature and Precipitation Data for July 1978

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA. Birmingham	82	+2	5.1	-.1	LA. Baton Rouge	83	+1	7.1	+ .6	Youngstown	68	-3	4.0	+ .1
Mobile	83	+1	7.7	-1.2	Lake Charles	83	+1	5.0	-1.6	OKLA. Okla. City	87	+5	3.8	+1.1
Montgomery	83	+2	4.0	-1.1	New Orleans	83	+1	10.3	+3.6	Tulsa	88	+6	.4	-3.1
ALASKA Anchorage	59	+1	1.8	-.3	Shreveport	85	+2	1.7	-1.2	OREG. Astoria	61	+1	.9	-.1
Barrow	40	+1	.7	-.2	MAINE Caribou	66	+0	5.6	+1.6	Burns	68	0	.5	+ .2
Fairbanks	64	+3	1.2	-.7	Portland	68	0	1.7	-.9	Medford	73	+1	.5	+ .2
Juneau	55	-1	4.0	-.7	MD. Baltimore	76	-1	6.8	+2.7	Pendleton	72	-2	.7	+ .4
Kodiak	52	-2	4.0	+ .5	MASS. Boston	72	-1	1.5	-1.2	Portland	68	+1	1.4	+ .9
Nome	55	+5	1.7	-.7	Chatham	64	---	4.1	---	Salem	69	+2	1.1	+ .7
ARIZ. Flagstaff	67	+1	1.2	-1.3	MICH. Alpena	66	-0	3.0	-.5	PA. Allentown	72	-2	3.6	-.8
Phoenix	95	+4	1.4	+ .6	Detroit	71	-1	2.0	-1.1	Erie	70	+1	.7	-2.8
Tucson	88	+2	.8	-1.6	Flint	70	-0	2.7	-2.3	Harrisburg	73	-3	4.4	+ .7
Winslow	79	+1	.8	-.4	Grand Rapids	70	-2	2.8	-.3	Philadelphia	76	-1	5.3	+1.2
Yuma	94	+0	T	-.2	Houghton Lake	65	-1	2.2	-.3	Pittsburgh	73	+1	2.2	-1.6
ARK. Fort Smith	85	+3	.5	-.7	Lansing	67	-4	1.2	-1.6	Scranton	69	-4	2.2	-2.1
Little Rock	83	+2	1.9	-1.5	Marquette	67	-1	4.1	+1.0	R.I. Providence	71	-1	2.6	-.3
CALIF. Bakersfield	86	+2	0	0	Muskegon	65	-3	1.5	-1.0	S.C. Charleston	81	+1	6.2	-2.0
Eureka	56	0	T	-.1	S. Ste. Marie	62	-2	5.2	+2.6	Columbia	80	-1	2.1	-3.6
Fresno	82	+1	T	0	MINN. Duluth	65	-1	7.7	+4.0	Greenville	78	0	6.8	+2.6
Los Angeles	73	0	0	0	Internat'l Falls	64	-2	6.3	+2.3	S.D. Aberdeen	70	-2	2.2	-.5
Red Bluff	84	+2	0	0	Minneapolis	69	-1	3.2	+5.5	Huron	71	-3	2.5	+ .3
San Diego	72	+2	0	0	Rochester	68	-1	12.3	+8.6	Rapid City	71	-2	4.1	+2.0
San Francisco	61	-2	T	0	St. Cloud	68	-2	4.4	+1.2	Sioux Falls	71	-2	4.8	+1.9
Stockton	79	+2	0	0	St. Cloud	83	+1	3.7	-1.3	TENN. Chattanooga	81	+2	.8	-4.3
COLO. Denver	75	+2	.5	-1.3	MISS. Jackson	82	+1	3.6	-1.3	Knoxville	79	+1	5.1	+ .4
Grand Junction	78	+1	.3	-.2	Meridian	79	+2	4.6	+1.2	Memphis	84	+2	3.9	+ .4
Pueblo	78	+2	1.0	-.9	MO. Columbia	79	+2	5.5	+1.1	Nashville	81	+1	4.0	+ .2
CONN. Bridgeport	73	-1	2.6	-.8	Kansas City	79	0	6.0	+2.3	TEX. Abilene	89	+5	.7	-1.6
Hartford	72	-1	2.5	-.9	St. Louis	79	+3	4.0	+2.0	Amarillo	81	+2	1.8	-1.2
D.C. Washington	79	0	4.3	+ .2	Springfield	81	+3	1.5	+ .6	Austin	86	+1	1.2	-.7
FLA. Apalachicola	81	0	6.8	-1.2	MONT. Billings	68	-4	1.6	+1.2	Beaumont	85	+2	3.4	-2.5
Daytona Beach	83	+2	5.5	-1.2	Glasgow	67	-2	2.0	+ .7	Brownsville	87	+3	.4	-.8
Ft. Myers	82	-1	10.3	+1.4	Great Falls	67	-2	2.0	+ .7	Corpus Christi	86	+1	3.9	+2.0
Jacksonville	82	+1	6.7	-.7	Havre	63	-3	2.1	+ .7	Del Rio	86	+1	2.2	+1.2
Key West	85	0	1.4	-2.7	Helena	67	-1	2.8	+1.8	El Paso	85	+3	T	-1.5
Lakeland	82	0	8.2	+ .1	Kalispell	72	-2	2.5	+ .9	Fort Worth	88	+3	.3	-1.5
Miami	83	+1	2.7	-4.2	Miles City	75	-2	2.6	-.3	Galveston	84	+1	4.2	-.2
Orlando	83	+2	11.9	+3.6	Missoula	78	0	2.9	-.1	Houston	84	+1	2.4	-1.7
Tallahassee	81	0	11.1	+2.2	NEBR. Grand Island	77	-0	5.1	+1.8	Lubbock	83	+3	2.2	-2.0
Tampa	83	+1	5.9	-2.5	Lincoln	75	-1	4.5	+1.3	Midland	82	0	2.5	+ .7
W. Palm Beach	82	0	5.9	-2.3	Norfolk	75	+1	3.7	+ .7	San Angelo	85	0	.4	-.8
GA. Atlanta	79	+1	2.6	-.6	N. Platte	75	0	3.4	-.3	San Antonio	86	+1	1.2	-.5
Augusta	82	+2	1.7	-3.4	Omaha	72	-2	4.2	+1.7	Victoria	85	+1	2.5	-.3
Macon	82	+1	2.1	-2.4	Valentine	67	0	2	-.4	Waco	89	+3	.3	-1.2
Savannah	82	+1	3.6	-4.3	NEV. Ely	92	+2	2	-.2	Wichita Falls	90	+4	.3	-1.9
HAWAII. Hilo	77	+2	11.2	+1.7	Las Vegas	69	0	2	-.1	UTAH. Blanding	74	+1	.1	-.9
Honolulu	79	-1	.2	-.4	Reno	71	0	2	0	Salt Lake City	78	+1	.1	-.6
Kahului	80	+2	.4	0	Winnemucca	70	0	1.1	-2.0	VT. Burlington	69	-1	3.5	0
Lihue	79	+1	2.7	+ .8	N.H. Concord	72	-3	5.8	+1.4	VA. Lynchburg	75	-1	4.8	+ .7
IDAHO. Boise	73	-2	.5	+ .3	N.J. Atlantic City	73	-3	5.0	+ .3	Norfolk	76	-2	4.2	-1.5
Lewiston	74	+1	.6	+ .1	Trenton	82	+3	2	-1.2	Richmond	78	0	4.2	-1.4
Pocatello	70	-2	T	-.4	N.MEX. Albuquerque	83	+4	.5	-1.2	Roanoke	76	+1	4.8	+1.1
ILL. Cairo	83	+2	5.0	+1.8	Roswell	69	-3	4.0	+ .9	WASH. Colville	68	0	.8	+ .1
Chicago	73	-2	6.4	+2.3	N.Y. Albany	68	-1	2.5	-1.3	Omak	70	0	1.4	+ .9
Moline	74	-1	3.2	-1.4	Binghamton	70	-0	1.5	-1.4	Quillayute	60	+1	.7	-1.7
Peoria	75	0	3.5	-.3	Buffalo	74	-3	3.8	-.1	Seattle-Tacoma	63	-2	1.4	+ .7
Rockford	72	-1	7.4	+3.1	New York	73	+2	2.2	-.7	Spokane	68	-2	1.8	+1.4
Springfield	76	0	3.0	-.8	Rochester	72	0	2.8	-.3	Walla Walla	75	-1	.8	+ .5
IND. Evansville	79	+1	7.7	+3.9	Syracuse	72	-1	.8	-4.3	Yakima	71	0	.3	+ .1
Ft. Wayne	73	0	1.4	-2.5	N.C. Asheville	79	0	4.0	-.6	W.VA. Beckley	69	-1	3.1	-1.3
Indianapolis	77	+2	5.0	+1.3	Charlotte	79	-1	9.2	+4.8	Charleston	74	-1	9.8	+4.8
South Bend	72	0	5.2	+1.5	Greensboro	78	0	4.5	-1.4	Huntington	76	+1	4.5	+ .3
IOWA. Burlington	74	-1	4.0	+ .2	Hatteras	78	0	3.6	-1.5	Parkersburg	74	-1	4.2	-.1
Des Moines	76	+1	3.0	-.3	Raleigh	80	0	7.4	-.9	WISC. Green Bay	77	-2	6.0	+2.9
Dubuque	71	-1	3.5	-.8	Wilmington	69	-2	2.6	+ .4	La Crosse	71	-2	9.2	+5.7
Sioux City	74	-1	3.3	0	N.DAK. Bismarck	69	-2	2.9	-.3	Madison	70	0	4.5	+ .7
KANS. Concordia	79	+1	5.9	+2.6	Fargo	69	-1	2.6	+ .6	Milwaukee	69	-1	6.0	+2.6
Dodge City	83	+4	.2	-2.9	Williston	69	-1	2.6	+ .6	WYO. Casper	70	-1	2.6	+1.6
Goodland	77	+1	1.7	-1.0	OHIO. Akron-Canton	71	-1	2.8	+2.8	Cheyenne	69	0	1.0	-.8
Topeka	77	-1	2.3	-1.9	Cincinnati	75	-1	6.9	+1.1	Lander	70	-1	.8	+ .2
Wichita	85	+4	1.5	-2.9	Cleveland	72	+0	1.8	-2.4	Sheridan	67	-3	1.7	+ .6
KY. Lexington	76	0	7.6	+2.8	Columbus	74	-2	3.8	+ .3	P.R. San Juan	83	+2	3.5	-2.9
Louisville	79	+2	3.8	0	Dayton	73	-1	1.9	-1.3					

Based on 1941-70 normals

(continued from page 2)

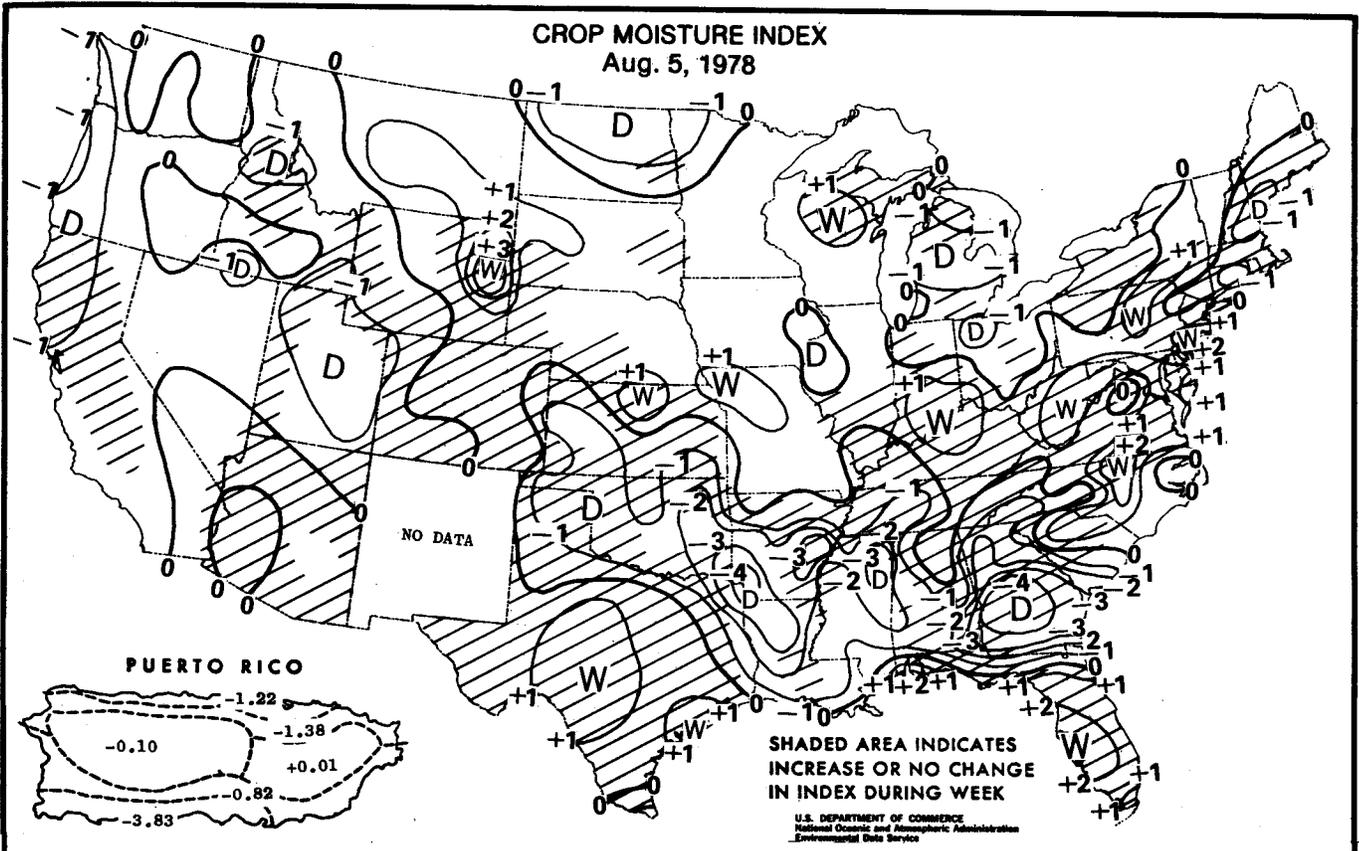
and Alabama. Four tornadoes were sighted---2 in Florida and one each in Virginia and North Carolina.

A band of States from Colorado to Michigan awoke to record low readings. The Denver thermometer plunged to 48°; St. Joseph, Mo., equaled its 53° record; and Grand Rapids, Mich., had 44°.

Heavy rain on Sunday fell in the Appalachian Mountain region; Charleston, W. Va., and Roanoke, Va., were hit by about 2.5 inches. Other areas of

more than an inch included Boston, Salisbury, eastern Maryland, and Baton Rouge, La. Four inches of rain clipped Amicalola Falls, northern Georgia, while a one-hour downpour of 2 inches blasted the already-saturated southern Texas towns of Medina City and Bandera. Three tornadoes---in Florida, Connecticut, and Arizona---did little damage.

Pueblo, Colo., set the only record temperature for the day---a new low of 51°.



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 NEEDED, 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

HARVESTING PROGRESS

	WINTER WHEAT PERCENT OF ACREAGE HARVESTED AS OF AUGUST 6		
	1978	1977	AVG.
COLO	100	100	100
ILL	100	100	100
IND	100	100	100
KANS	100	100	100
MO	100	100	100
MONT	10	55	35
NEBR	100	100	100
OHIO	100	100	100
OKLA	100	100	100
S DAK	93	100	93
TEX	100	100	100
11-STATES	94	97	95

THESE 11 STATES PRODUCED 75% OF THE 1977 U.S. WINTER WHEAT CROP.

	SPRING WHEAT PERCENT OF ACREAGE HARVESTED AS OF AUGUST 6		
	1978	1977	AVG.
IDA	0	0	0
MINN	10	58	31
MONT	0	0	0
N DAK	7	25	11
S DAK	30	84	62
5 STATES	10	37	21

THESE 5 STATES PRODUCED 97% OF THE 1977 U.S. SPRING WHEAT CORP EXCLUDING DURUM.

Agricultural Climatology Service Office
South Building Mail Unit
U. S. Department of Agriculture
Washington, D.C. 20250

IMMEDIATE - U. S. Weather Report

This Report Will be Treated in All Respects as Letter Mail

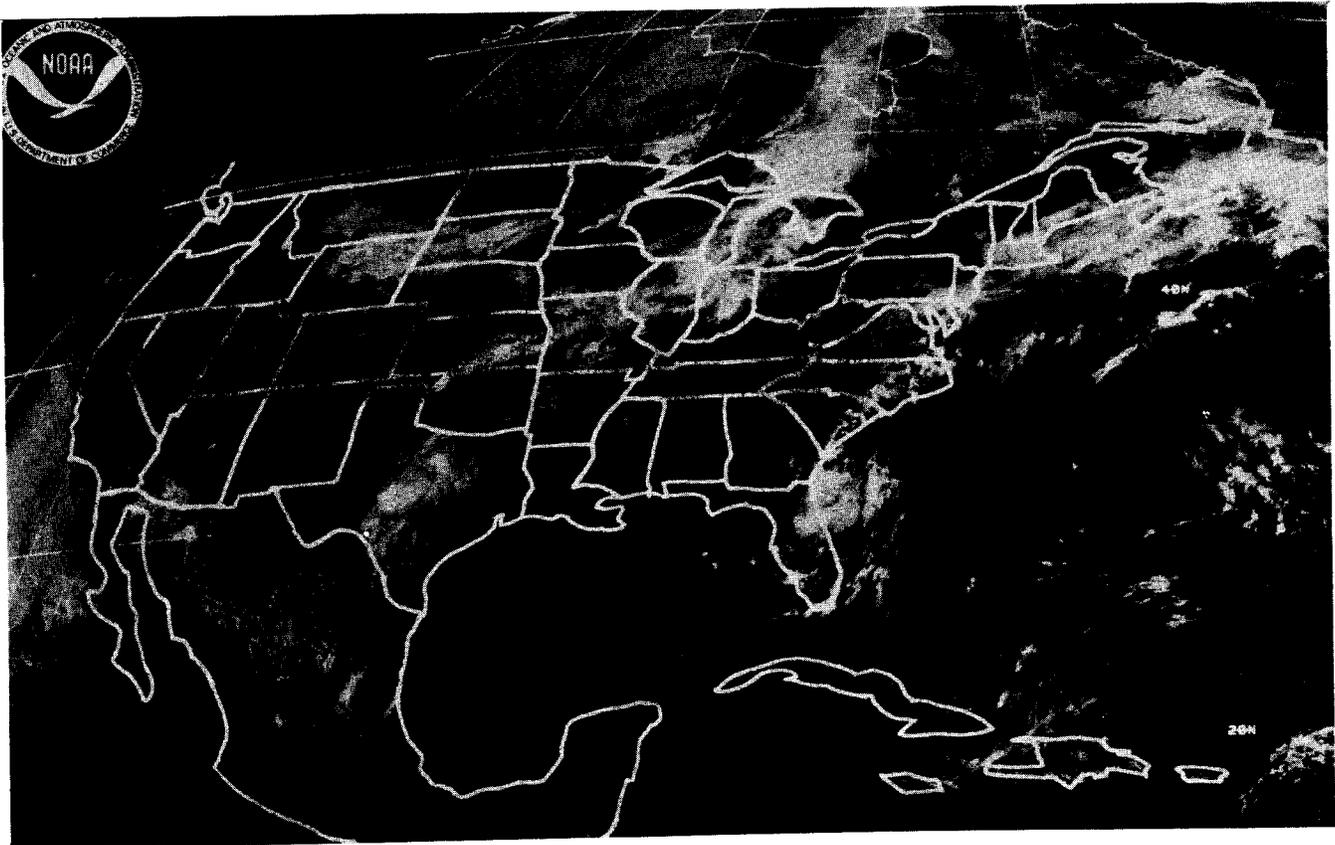
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SATELLITE PHOTO TAKEN AT 1:00 PM EDT, WED., AUGUST 2



In late July, an easterly storm wave formed over the Caribbean and ominously trudged over Mexico's Yucatan Peninsula toward the Texas coast. Named Tropical Storm Amelia on July 30, she reached the mainland only to lose her status as a tropical storm. But the accompanying flow of moist Gulf

air (shown above over Texas) triggered severe thunderstorms over Texas that carried large amounts of rain to southern and central portions of the State. Preliminary counts showed up to 30 inches at some towns with record flooding an obvious result.