

WEEKLY WEATHER AND CROP BULLETIN

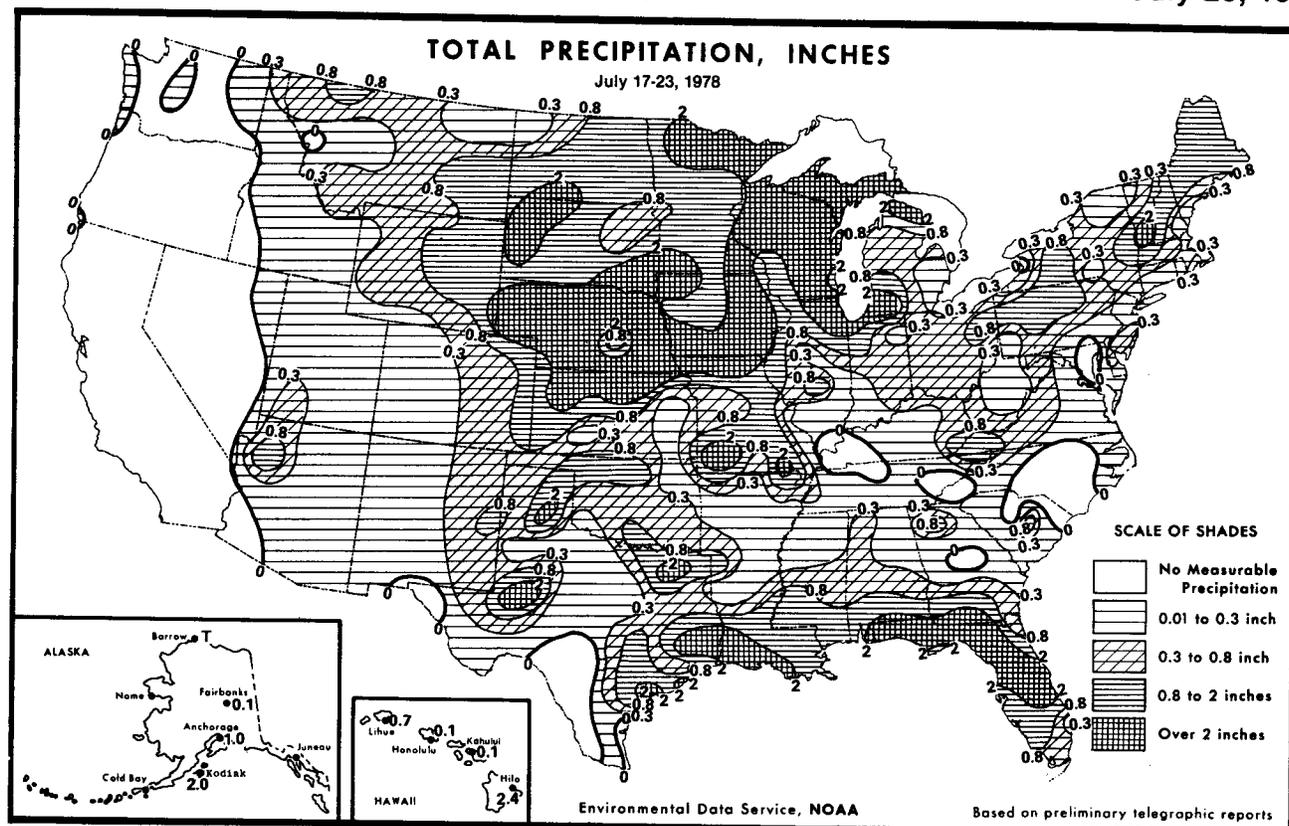
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National Weather Summary

July 17 - 23

HIGHLIGHTS: A slow moving cold front moved through the northern Plains early in the week and off the coast of New England by the end of the week. A high pressure system off the coast of the mid-Atlantic States extended southwestward into Texas resulting in hot, moist air moving northward to, and over, the cold front. Some very severe weather resulted. Heavy thunderstorms, tornadoes, hail and flooding were reported along and behind the front. Hot weather prevailed ahead of the front.

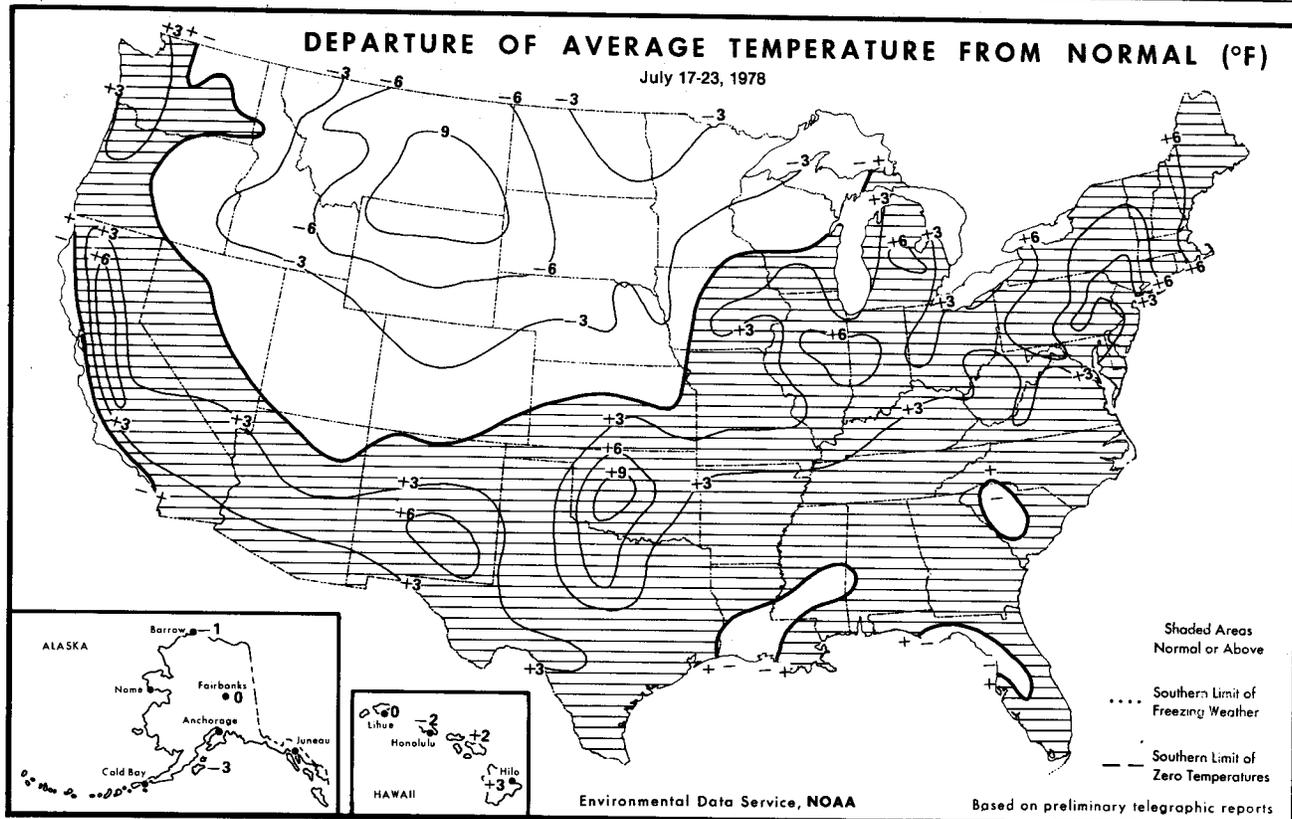
Monday's rainfall became heaviest in the widely separated States of Minnesota and Florida. One to

2 inches drenched the Minnesota towns of Rochester, International Falls, and Bemidji. A record crest was reached on the Austin River in southeastern Minnesota, but the water level began to subside by day's end. The Florida cities of Valparaiso, Jacksonville, and Tampa notched one to 2 inches of rain.

By evening, intense weather raked the central Plains with high winds and hail. Seven tornadoes were sighted during the day--2 each in Florida and North Dakota and one each in Wisconsin, South Dakota, and Nebraska.

Wilting heat persisted over Texas where more records were shattered. Abilene, at 110°, broke the 1886 mark by 3. Midland called in 103° while San Angelo equaled its record of 104°. El Paso opened the books to 104°, and in doing so, noted its 27th day above 100° this year. By contrast, Detroit chalked up a new low reading of 46°, undercutting the 1971 record by 5.

Morning thunderstorms dampened the Plains and upper Midwest, abated, and formed again by evening over Nebraska and the Dakotas. Totals for the day included a half to one and one-half inches in parts



of Iowa, Wisconsin, and Michigan. Late rains doused DeWitt and Swanton, southeastern Nebraska, with 2.5 to 3.5 inches. Other points in the upper half of the Plains and Iowa gathered up to an inch and three-quarters.

Portions of Florida and southern Georgia got more than an inch; sections in the northern half of the Rockies were dampened by three-quarters inch; large hail pelted towns in Montana; and a tornado touched down near the northern Texas/New Mexico line.

The Southwest's heat wave showed no signs of dissipating. El Paso reached a record 105°. Lubbock set its highest minimum temperature for this date, 78°.

Heavy thunderstorms extended from the Great Plains to the Delta Region and across the Mississippi Valley to the Great Lakes on Wednesday. Southeastern Nebraska collected 3.5 inches while stations in the other States noted a half-inch to one and a half inches. By afternoon, Lafayette, southern Louisiana was saturated by nearly 4 inches. Late afternoon storms erupted over Florida bringing 1.5 to 2.5 inches to several towns. Several tornadoes were sighted in the Plains, upper Midwest, and South.

The heat wave persisted in the southern Plains, and Rochester, western New York, marked a record high reading of 95°.

Thunderstorms continued over the central and northern Plains on Thursday morning. The storms moved from Nebraska eastward through Iowa later in the day and spread northward into Minnesota and Wisconsin. Heavy rains caused local flooding in Wisconsin and Iowa. By day's end thunderstorms had been reported from eastern Wyoming into Michigan and from eastern Kansas to northern Illinois. Elsewhere, heavy showers fell along the Gulf Coast. The warm weather continued in the southern Plains and southwest with many 100 plus readings reported.

As Friday began, an area of rain, drizzle, and a few thunderstorms persisted north of a stationary front extending from the central Rockies to the lower Great Lakes. As the day progressed, it proved to be almost a repeat of Thursday's weather. Heavy rain continued the flooding in Nebraska, Iowa, and Wisconsin. At least a dozen tornadoes touched down during the day. Hot weather was developing in much of the East and persisted in the southern Plains and Southwest. Even the West Coast was hot where Seattle had a record high of 93°. The California Valleys were near 100° and other areas of the West Coast were in the 90's.

The frontal system causing the severe weather in the central Plains, upper Mississippi Valley, and lower Great Lakes was moving very slowly southeastward on Saturday. The warm, moist air from the Gulf of Mexico continued to over-run the front causing heavy thunderstorms from Missouri into Michigan and generally less intense storms from Missouri and Oklahoma to much of northern Texas and began pushing into western New York and Pennsylvania by late Saturday. Scattered thunderstorms broke out in Arizona, the Gulf Coast and parts of the Appalachians. It was cooler behind the front from the Rockies to the Great Lakes but the hot weather persisted elsewhere.

After several days of heavy rains in the north central part of the Nation, Sunday morning shower activity was concentrated over the southern States. Later in the day, a long band of showers and thunderstorms stretched along the cold front from Texas through the Ohio Valley and into New England. Wind damage in thunderstorms occurred in Pennsylvania, New York, and New England as the front moved through the area late Sunday. The heat wave persisted in the East. Record high temperatures were posted in Washington, D.C., Baltimore, Philadelphia, and Hartford, Conn. Showers and thunderstorms were reported all along the Gulf Coast and in Florida.



National Agricultural Summary

July 17 - 23

HIGHLIGHTS: Rain fell through most of the Corn Belt and Great Plains States bringing needed moisture to the area. Fieldwork was not hampered to any great extent. Days suitable for fieldwork averaged 5 to 6 days except thru Iowa, Missouri, North Dakota and Montana where activity was held to 3 to 4 days. Soil moisture rated short to adequate in all parts of the Nation except adequate to surplus in Iowa, Minnesota, and Wisconsin. Activities included cultivating late row crops, spraying pesticides and harvesting small grains, fruits and vegetables. Winter wheat harvest advanced to 88% compared with last year's 92% and the average of 89%. Harvest had not yet begun in Montana. Corn rated fair to good. Development was well into the dough stage in the South and 50 to 70% tasseled in the Corn Belt. Soybean bloom ranged from 7% in the south to 78% in Minnesota; condition rated fair to good. Cotton squaring neared completion; boll set ranged up to 84%. Rice and grain sorghum harvest continued in Texas. Pastures rated fair to good in most areas. However, dry soil brought stress to western ranges. Grasshopper infestation presented problems through many parts of country.

SMALL GRAINS: Winter wheat harvest continued northward through the Great Plains and Corn Belt. Combining was complete in Oklahoma, Texas, North Carolina, Arizona and nearing completion in Illinois, Missouri and Kansas. In the 11 major producing States, harvest advanced 8 points for the week, reaching 88%, compared with 92% last year and 89% average. Harvest was not yet underway in Montana.

Barley and oats harvest advanced to about 14% in South Dakota compared with last year's average of around 65%.

CORN: Corn rated mostly fair to good with some poor to fair in the Southeast. Tasselling in the Corn Belt ranged from 50 to 70%. Soil moisture supplies in the Corn Belt were generally adequate. Silking ranged from 20 to 40% in the Corn Belt.

In the southern States silking was 40 to 95% complete and the dough stages had advanced to 20 to 80%.

SOYBEANS: Soybeans rated fair to good. Some double cropped planting was still taking place. Bloom ranged from 20 to 78% in the north central States. Podding ranged from zero to 10%. Bloom in north central area was well behind last year's range of 25 to 95%.

The Southeast bloom ranged from 7 to 49% compared to last year's range of 35 to 64%. Soybean bloom for all the country generally lagged the average by 5 to 10%.

COTTON: Cotton condition rated fair to good. Squaring progressed well in most States. Oklahoma squaring; stood at 47%, behind last year's 63% and the average of 54%. Boll set ranged from 28% in Alabama to 84% in Georgia, among the southeastern States. Missouri boll set stood at 50% compared with 77% last year and 45% average. California cotton was starting to bloom.

OTHER CROPS: Grain sorghum scored fair to good. Heading was 17% in Oklahoma and about 5% in Nebraska and Kansas. Heading lagged last year by 10 to 40 points, but was generally running just behind normal.

Rice rated good; 46% headed in Mississippi and 73% headed in Louisiana with 14% ripe. Texas rice harvest continued on the upper Gulf Coast. Peanuts rated good. Pegging was 64% in Alabama compared to 77% last year and the 89% average. Pegging in Georgia was 92% -- last year 94%.

FRUITS AND NUTS: Apple and peach picking started as far north as New Jersey. Peach harvest in the major southern areas was very active and had advanced to 78% completion in Georgia. The grapefruit and orange crops in the Rio Grande Valley of Texas made good progress. Pecan nut droppage continued due to dry conditions in central and east Texas. West Coast growers continue harvest of an assortment of fruits, including apples, apricots, nectarines, peaches, plums, sweet and tart cherries. Michigan tart cherry harvest was 45% complete compared to 85% last year, and sweet cherries were 55% picked compared to 95% last year. Citrus grove conditions continued excellent in Florida. Florida Valencia harvest was almost complete.

VEGETABLES: Northern areas turned out a wide selection of summer vegetables including sweet corn, tomatoes, bell peppers and peas. Southern areas prepared fields for fall seeding. The Florida spring vegetable season was nearly complete. Texas shipped a good selection bell peppers, melons, cucumbers, onions, and potatoes. In California fresh and processing tomatoes, cantaloupes, melons, peppers and sweet corn continued in good supply. Harvest continued on broccoli, cauliflower, celery, carrots, and lettuce.

PASTURE AND LIVESTOCK: Pasture generally rated fair to good. Lack of soil moisture in western ranges generally caused those ratings to be poor to fair, but livestock there are generally rated in good condition. Stock water supplies were adequate. Range fires in the West destroyed a limited amount of forage.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., July 23, 1978

States and Stations	Temperature of		Precipitation Inches		States and Stations	Temperature of		Precipitation Inches		States and Stations	Temperature of		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA. Birmingham	81	+1	.1	-1.1	LA. Baton Rouge	82	0	1.4	-.1	Youngstown	75	+4	1.7	+.8
Mobile	83	+1	.9	-1.2	Lake Charles	82	-1	2.2	+.7	OKLA. Okla. City	93	+11	.5	-.1
Montgomery	82	+1	.3	-.9	New Orleans	82	0	1.5	-.1	Tulsa	88	+5	.2	-.6
ALASKA. Anchorage	58	-1	1.0	+.5	Shreveport	84	+1	.2	-.4	OREG. Astoria	63	+3	T	-.1
Barrow	38	-1	T	-.2	MAINE. Caribou	70	+4	1.6	+.7	Burns	68	-2	T	-.1
Fairbanks	61	0	.1	-.3	Portland	74	+5	.1	-.5	Medford	75	+2	0	0
Juneau	--	--	--	--	MD. Baltimore	81	+4	T	-.9	Pendleton	74	-1	0	0
Kodiak	52	-3	2.0	+1.2	MASS. Boston	78	+4	.3	-.3	Portland	72	+4	0	-.1
Nome	--	--	--	--	Chatham	69	-4	.6	--	Salem	73	+6	0	-.1
ARIZ. Flagstaff	68	+1	.1	-.5	MICH. Alpena	69	+3	2.5	+1.9	PA. Allentown	79	+4	T	1.0
Phoenix	97	+1	.1	-.1	Detroit	76	+3	.2	-.5	Erie	75	+6	T	-.8
Tucson	89	+2	.1	-.5	Flint	76	+6	.1	-.5	Harrisburg	79	+2	T	-.8
Winslow	79	+2	.2	-.1	Grand Rapids	77	+5	1.2	+.5	Philadelphia	81	+4	.2	-.7
Yuma	97	+2	0	-.1	Houghton Lake	71	+5	.5	-.2	Pittsburgh	79	+7	.1	-.8
ARK. Fort Smith	85	+2	.2	-.5	Lansing	76	+5	.7	+.1	Scranton	75	+2	.4	-.5
Little Rock	82	+2	T	-.8	Marquette	65	-2	2.5	+1.8	R. I. Providence	79	+6	.2	-.5
CALIF. Bakersfield	90	+5	0	0	Muskegon	73	+3	.7	+.1	S. C. Charleston	81	+1	.1	1.8
Eureka	55	-1	T	0	S. Ste. Marie	66	+2	2.9	+2.3	Columbia	79	-2	T	1.3
Fresno	85	+3	0	0	MINN. Duluth	61	-5	1.2	+.4	Greenville	78	0	.3	-.6
Los Angeles	72	+2	0	0	Internatl Falls	63	-3	3.2	+2.3	S. D. Aberdeen	68	-4	.8	+.2
Red Bluff	89	+6	0	0	Minneapolis	71	-1	1.3	+.5	Huron	70	-4	.7	+.3
San Diego	71	+1	0	0	Rochester	70	0	4.0	+3.2	Rapid City	66	-8	2.1	+1.7
San Francisco	61	-2	T	0	St. Cloud	67	-4	.9	+.2	Sioux Falls	70	-4	2.9	+2.3
Stockton	83	+6	0	0	MISS. Jackson	82	0	.8	-.2	TENN. Chattanooga	81	+2	T	1.2
COLO. Denver	71	-3	.3	-.1	Meridian	80	-1	.5	-.7	Knoxville	80	+2	T	1.1
Grand Junction	78	-2	T	-.1	MO. Columbia	80	+2	.5	-.4	Memphis	84	+2	.2	-.6
Pueblo	76	-1	.4	0	Kansas City	80	+1	.4	-.5	Nashville	82	+2	0	-.9
CONN. Bridgeport	79	+5	.1	-.7	St. Louis	81	+2	.2	-.6	TEX. Abilene	89	+5	.1	-.4
Hartford	79	+6	.3	-.5	Springfield	81	+3	2.1	+1.3	Amarillo	81	+2	.4	-.2
D. C. Washington	84	+5	0	1.0	MONT. Billings	63	-10	.4	+.3	Austin	87	+2	.7	+.3
FLA. Apalachicola	81	-1	1.4	-.5	Glasgow	64	-8	.2	-.1	Beaumont	85	+2	1.6	+.2
Daytona Beach	82	+1	1.5	0	Great Falls	63	-7	.1	-.1	Brownsville	88	+3	0	-.2
Ft. Myers	81	+2	1.2	-.8	Havre	63	-8	.4	+.1	Corpus Christi	86	+1	0	-.4
Jacksonville	81	+1	.6	1.1	Helena	65	-4	T	-.2	Del Rio	90	+3	0	-.2
Key West	86	+1	1.9	+.1	KallsPELL	63	-2	.4	+.2	El Paso	85	+3	T	-.4
Lakeland	80	+2	1.9	1.0	Miles City	66	-10	1.4	+1.1	Fort Worth	88	+3	.3	-.1
Miami	83	+1	3.0	+1.1	Missoula	62	-6	T	-.2	Galveston	83	0	1.9	+.9
Orlando	82	0	2.5	+.4	NEBR. Grand Island	74	-3	.8	+.2	Houston	84	+1	.3	-.6
Tallahassee	81	0	1.7	-.3	Lincoln	76	-2	2.9	+2.2	Lubbock	82	+2	T	-.5
Tampa	82	0	.3	1.1	Norfolk	74	-2	3.5	+2.9	Midland	83	+1	2.1	+1.7
W. Palm Beach	82	0	.3	-.8	N. Platte	73	-2	2.3	+1.7	San Angelo	86	+1	.2	-.1
GA. Atlanta	80	+2	.3	-.8	Omaha	72	-3	2.5	+1.7	San Antonio	88	+3	T	-.4
Augusta	81	0	T	1.2	Valentine	70	-5	1.8	+1.3	Victoria	85	0	1.5	+.9
Macon	83	+1	0	1.0	NEV. Ely	97	-1	0	-.1	Waco	89	+3	.3	0
Savannah	82	+1	2.2	1.6	Las Vegas	65	+5	0	-.1	Wichita Falls	94	+8	.1	-.4
HAWAII. Hilo	78	+3	2.4	+.1	Reno	71	+1	0	-.1	UTAH. Blanding	74	0	.1	-.1
Honolulu	78	-2	.1	0	Winnemucca	72	0	0	0	Salt Lake City	76	-2	T	-.1
Kahului	80	+2	.1	0	N. H. Concord	79	+9	.1	-.6	VT. Burlington	76	+6	.3	-.5
Lihue	79	0	.7	+.3	N. J. Atlantic City	77	+1	T	1.0	VA. Lynchburg	77	+1	.7	-.2
IDAHO. Boise	72	-4	0	0	Trenton	79	+3	.2	-.9	Norfolk	79	0	T	1.4
Lewiston	76	+2	0	-.1	N. MEX. Albuquerque	82	+3	.2	-.2	Richmond	80	+2	.1	1.2
Pocatello	67	-6	T	-.1	Roswell	85	+6	.3	-.1	Roanoke	78	+3	.3	-.5
ILL. Cairo	85	+4	0	-.7	N. Y. Albany	76	+3	.9	+.2	WASH. Colville	69	0	.2	+.1
Chicago	77	+2	4.4	+3.5	Binghamton	75	+5	.2	-.7	Omak	70	-1	0	-.1
Moline	78	+3	.8	-.2	Buffalo	76	+5	T	-.7	Quillayute	63	+4	T	-.5
Peoria	81	+6	T	-.8	New York	80	+3	.1	-.8	Seattle-Tacoma	70	+5	0	-.1
Rockford	76	+3	2.2	+1.3	Rochester	80	+8	1.0	+.3	Spokane	69	-2	T	-.1
Springfield	81	+5	.5	-.3	Syracuse	78	+6	.4	-.3	Walla Walla	77	0	0	-.1
IND. Evansville	82	+4	T	-.8	N. C. Asheville	74	0	T	1.1	Yakima	72	0	0	0
Ft. Wayne	78	+5	.2	-.7	Charlotte	79	0	0	1.1	W. VA. Beckley	72	+2	.3	-.7
Indianapolis	81	+6	.7	-.1	Greensboro	78	+1	0	1.0	Charleston	77	+2	.1	1.1
South Bend	77	+5	2.0	+1.2	Hatteras	80	+2	.2	1.2	Huntington	80	+4	.4	-.6
IOWA. Burlington	77	+1	1.6	+.8	Raleigh	79	+1	0	1.2	Parkersburg	77	+1	T	1.0
Des Moines	78	+3	1.7	+1.0	Wilmington	82	+1	T	2.0	WISC. Green Bay	70	0	2.9	+2.2
Dubuque	75	+3	1.4	+.5	N. DAK. Bismarck	68	-4	1.5	+1.1	La Crosse	73	0	1.8	+1.0
Sioux City	73	-3	1.9	+1.2	Fargo	69	-2	1.5	+.8	Madison	74	+4	2.2	+1.4
KANS. Concordia	78	0	4.8	+4.1	Williston	65	-6	.1	-.3	Milwaukee	72	+2	1.5	+.7
Dodge City	82	+2	.2	-.5	OHIO. Akron-Canton	76	+4	.9	0	WYO. Casper	65	-7	1.4	+1.2
Goodland	74	-2	1.2	+.6	Cincinnati	79	+3	.3	-.6	Cheyenne	66	-4	.4	0
Topeka	78	-1	.1	-.8	Cleveland	78	+6	.8	0	Lander	66	-6	.4	+.3
Wichita	86	+5	.4	-.6	Columbus	78	+4	.4	-.6	Sheridan	61	-11	.6	+.4
WY. Lexington	78	+2	T	1.1	Dayton	77	+2	.5	-.3	P. R. San Juan	83	+2	1.2	-.3
Louisville	81	+4	.3	-.5	Toledo	76	+3	.3	-.4					

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 averaged 2° above normal. Rainfall limited to scattered afternoon thunder-showers.

Fieldwork: 5.8 days suitable. Soil moisture short. Major activities: Cultivation of row crops and application of pesticides. Cotton fair to good, 28% setting bolls, 81% 1977, 49% average. Corn fair to good, 44% tasselled, 51% 1977, 35% average. Some corn for silage harvested. Soybeans good, 24% blooming, 35% 1977, 33% average. Peanuts good, 64% pegging, 77% 1977, 89% average. Pastures adequate, but seasonally short.

ALASKA: Rain showers kept most haying activities in Matanuska Valley and Kenai Peninsula at a standstill. Many mowed fields of hay have been lost due to rain damage. Crops continue favorably most areas of railbelt; although cool weather and lack of sunshine have slowed development. 80% of oats and barley intended for grain has headed and some fields in dough stage. Soil moisture supplies generally rated adequate.

ARIZONA: Thundershowers prevailed throughout State except southwest area. Thunderstorms caused flooding southeast, central sections. Temperatures averaged near seasonal normals.

Cotton made excellent progress. Bolls are developing, maturing, opening. Insect activity increased. Grain sorghum made good progress. Corn making good growth, development. Grasshoppers remain a problem. Wheat, barley harvest virtually complete. Safflower harvest nearing completion. Spring sugarbeet harvest winding down, quality, yields good. Alfalfa haying continued. Cantaloup harvest virtually complete. Watermelon harvest nearing completion. Preliminary preparation for lettuce underway some areas. New crop citrus making good progress. Lemon ring picking will start soon. Citrus groves in good condition. Scattered showers helped desert ranges. Topsoil moisture mostly short in desert, adequate higher elevations. Mountain ranges mostly fair condition. Livestock feed, water supplies sufficient. Cattle, calves mostly good condition. Screwworm problems, some areas.

ARKANSAS: Temperatures near normal but almost no rainfall was recorded. Highest temperature 101°, lowest 62°. Most precipitation, 43 in.

Field crops, fruits, vegetables, and cattle continued to show signs of stress from the hot, dry weather. Soil moisture short. Fieldwork: 6.0 days suitable. Soybeans fair; 7% bloom, pods beginning to set. Cotton crop fair to good, 97% squaring, 73% setting bolls. Rice good. Corn fair. Sorghum good. Peach harvest continues. Tomato harvest active northern areas. Harvest in south nearly completed. Apple harvest early varieties. Pastures below average. Hay harvest active northern one-third. Cattle fair to good. Supplemental feeding being supplied.

CALIFORNIA: A dry week for all of California. Temperatures ranged from near normal along the coastal areas and in the mountains to as much as 5° above normal at several valley and desert locations.

Warm temperatures benefit field crop growth. Early corn plantings tasseling. Sugarbeets developing well. Dry beans good growth early

fields blooming. Cotton bloom beginning; bolls beginning set. Rice, soybeans good growth. Alfalfa hay cut, baled. Ladino clover full bloom. Deciduous fruit and table grape harvests underway in Central Valley. Prunes showing color. Almonds nearing maturity. Walnuts sizing well. Broccoli, cauliflower, celery, carrots, lettuce continue coastal districts. Strawberries light supplies. Fresh and processing tomatoes, cantaloups, melons, watermelons, peppers, sweet corn good supplies. Range good to excellent. Livestock good condition.

COLORADO: Increasing afternoon showers Monday with temperatures over 100° southeast. Thursday, heavy thundershowers over mountains, eastern plains.

Winter wheat ripe 98%, 99% 1977, 90% average; harvested 89%, 93% 1977, 73% average. Winter Barley good; ripe 94%; harvested 64%, 86% 1977, 75% average. Spring barley good; ripe 72%; harvested 45%. Corn good; average height 52 in., 68 in. 1977; tasseled 23%, 65% 1977, 41% average. Oats, potatoes, sugarbeets good to very good. Dry beans good. Alfalfa good; second cutting 52%, 33% 1977. Ranges and pastures fair to poor condition. Livestock good condition. Soil moisture short. Fieldwork: 6 days suitable.

FLORIDA: A trough of low pressure until around the 19th yielded considerable rains mostly to north and central areas. Rainfall for period averaged 2.00 to 3.00 in. with heaviest amounts over 6.00 in. Temperatures were near normal. Soil moisture mostly adequate.

Corn, tobacco harvest active. Soybeans, peanuts, sugarcane good to excellent. Hay harvest interrupted by showers. Grazing generally good to excellent; however, a few dry localities north, some low lying flooded pastures central and south. Pasture reseeding seasonally active some areas. Most cattle, calves continue good to excellent. Citrus grove continues excellent. Abundance new foliage, excellent new crop progress. Valencia harvest almost complete. Land preparation very active for fall vegetable season. Tomatoes for fall crop being set Gadsden County. Planting other vegetables expected to be underway next 2 to 3 weeks. Summer vegetables continue to move through local markets on limited basis.

GEORGIA: Temperatures 1 to 2° below normal except 1° above southwest. Averaged low 70's mountains, low 80's central, 80° south. Precipitation less than 0.50 in., few places received more than 2.00 in.

Soil moisture improved to short to mostly adequate, except very short northwest. Farmers watching insects closely. Fieldwork: 6 days suitable. Corn poor to mostly fair except irrigated excellent, 2% harvested, none last year. Peanuts fair to mostly good, 99% blooming, 92% pegging, last year 98% and 94%. Soybeans fair to good, some replanting still occurring. Cotton mostly fair to good, 84% setting bolls, 94% last year, 81% average. Tobacco fair to mostly good, 35% harvested, 34% last year, 59% average. Hay and pastures fair to good. Cattle fair to mostly good. Hogs good. Peaches mostly fair to good, 78% harvested, 91% last year, 88% average. Watermelons mostly fair to good, 73% harvested, 88% last year. Apples mostly fair to good, 3% harvested, 12% last year.

IDAHO: Temperatures averaged 4° below normal. Extremes 103° and 38°. Precipitation above normal north.

Irrigated crops continue good while dryland crops in southcentral and east were under continued stress. First crop hay virtually harvested, second crop 10%. Winter wheat 10% ripe, 25% last year. Percent ripe this year, last year: Spring wheat, 5, 15; barley, 5, 20; mixed grain, 5, 30. Potatoes 12 in. or over 90% this year, 100% last year. Pasture growth poor. Livestock good condition.

ILLINOIS: Temperatures 2 to 6° above normal. Precipitation 1 to 4 in. northern third; remainder dry.

Corn 64% silked, 1977 100%, average 87%. Soybeans 58% bloomed, 1977 80%, average 75%. Pods set 10%, 1977 49%, average 43%. Winter wheat 95% harvested, 1977 100%, average 100%. Oats 95% turned yellow, 1977 100%, average 100%. Oats 50% ripe, 1977 100%, average 93%. Barley 65% combined. Alfalfa hay 70% second cut, 1977 87%, average 77%. Corn, soybean, oats, hay, pasture condition good to fair. Fieldwork: 6.0 days suitable. Soil moisture short to adequate.

INDIANA: Hot then cool with showers over weekend. Temperatures averaged 5° above normal and reached 97°. Some showers extreme northwest early in week.

Fieldwork: 6 days suitable. Topsoil and subsoil moisture short to mostly adequate. Wheat 90% combined, 1977 100%, average 95%. Oats 25% combined, 1977 70%, average 45%. Rye 65% harvested. Corn fair to mostly good. Corn 65 in. high, 1977 75 in. Corn 30% silked, average 45%. Soybeans 35% in bloom, 1977 60%, average 40%. Soybeans 5% setting pods.

IOWA: A wet week with seasonal temperatures. Heaviest thundershowers fell 20th, 21st, and 22d with daily amounts to 4.22 in. at Brooklyn and 4.10 in. at Randolph and Conesville.

Topsoil moisture: Adequate to surplus. Subsoil moisture: Adequate to surplus. Good condition of corn, oats, wheat, hays, and pasture. Corn tasseled: 70%, last year 92%. Corn silked: 40%, last year 75%, normal 62%. Soybeans cultivated: Final time 90%. Oats for hay harvested: 68%, last year 100%. Oats for grain harvested: 35%, last year 95%, normal 64%. Soybean acreage bloomed: 59%, last year 86%, normal 65%. Second crop alfalfa hay harvested: 58%, last year 87%, normal 67%. Second crop clover hay harvested: 29%, last year 50%. Winter wheat harvested: 56%, last year 100%. Light to moderate damage done by grasshoppers. Fieldwork: 3.1 days suitable. Livestock good. Some heat stress. Stable market movement.

KANSAS: Moisture ranged 2.00 to 3.00 in. north central to locally an inch west and little or none east and south central. Temperatures averaged from 76° northwest to 83 to 85° south or near normal northwest to 3 to 6° above normal east and south.

Corn tasseled 40%, last year 75%, average 50%. Corn development 1 1/2 weeks behind last year. Corn in or past dough stage 5%, last year 20%, average 10%. Sorghum grain headed 5%, last year 15%, average 5%. Soybean acreage blooming equals 25%, last year 25%. Soybeans setting pods 5%, last year and average 15%. Second cutting alfalfa 85%, last year 95%, average 90%. Third cutting alfalfa 25% completed, last year 30%, average 20%. Topsoil moisture short except for adequate in north central and northeast. Fieldwork: 6 days suitable.

KENTUCKY: Temperatures averaged a little above normal for the week. Stations had no rainfall and very few showers were reported for the period. Soil moisture short to adequate. Fieldwork: 5.3 days suitable. Corn 56% tasseling or tasseled. Corn mostly poor to fair in major corn producing area. Tobacco height 37% under 24 in., 47% 24-36 in. and 16% over 36 in. Soybeans blooming 21%, 54% last year, 28% average. Average date of planting double crop beans was June 29. General rain is needed to pull crop out of stress with condition more critical in west.

LOUISIANA: Temperatures near normal. Extremes: 101 and 65°. Showers general south, few north.

Fieldwork: 5.0 days suitable. Soil moisture short to adequate. Rice good, 73% headed, 68% last year; 14% ripe, 16% last year; 5% harvested. Cotton fair to good, 98% squaring, 75% setting bolls. Soybeans fair to good, 49% blooming, 55% last year. Corn fair to good, 88% dough, 83% last year; 55% mature, 20% last year. Sorghum fair, 78% headed, 82% last year. Sweet-potatoes, sugarcane fair to good. Pasture, hay fair. Livestock fair to good.

MARYLAND & DELAWARE: Temperatures averaged 1° above normal. Highs in upper 80's, lows in mid-60's. Precipitation light, 0 to 1.5 in. Heaviest on Eastern Shore.

Fieldwork: 6.5 days suitable. Soil moisture supplies short to adequate. Pastures supplying average amounts of feed, although many starting to show signs of moisture stress. Corn crop 55% silked, 69% 1977, 56% average. Soybean planting completed. Combining small grains active. Much good quality hay made. Second cutting alfalfa 85% completed, third cutting 25%. Second cutting clover and clover mixtures 65%. Tobacco being cultivated, sidedressed and sprayed. Early fields being topped. Vegetable harvest very active. Early apples and peaches being harvested.

MICHIGAN: Temperatures 1 to 2° below normal over most of upper and from 2 to 6° above normal over lower Michigan. Hot period with maximum in mid-80's, mid-90's. Cooled to 70° on 23d. Spotty precipitation.

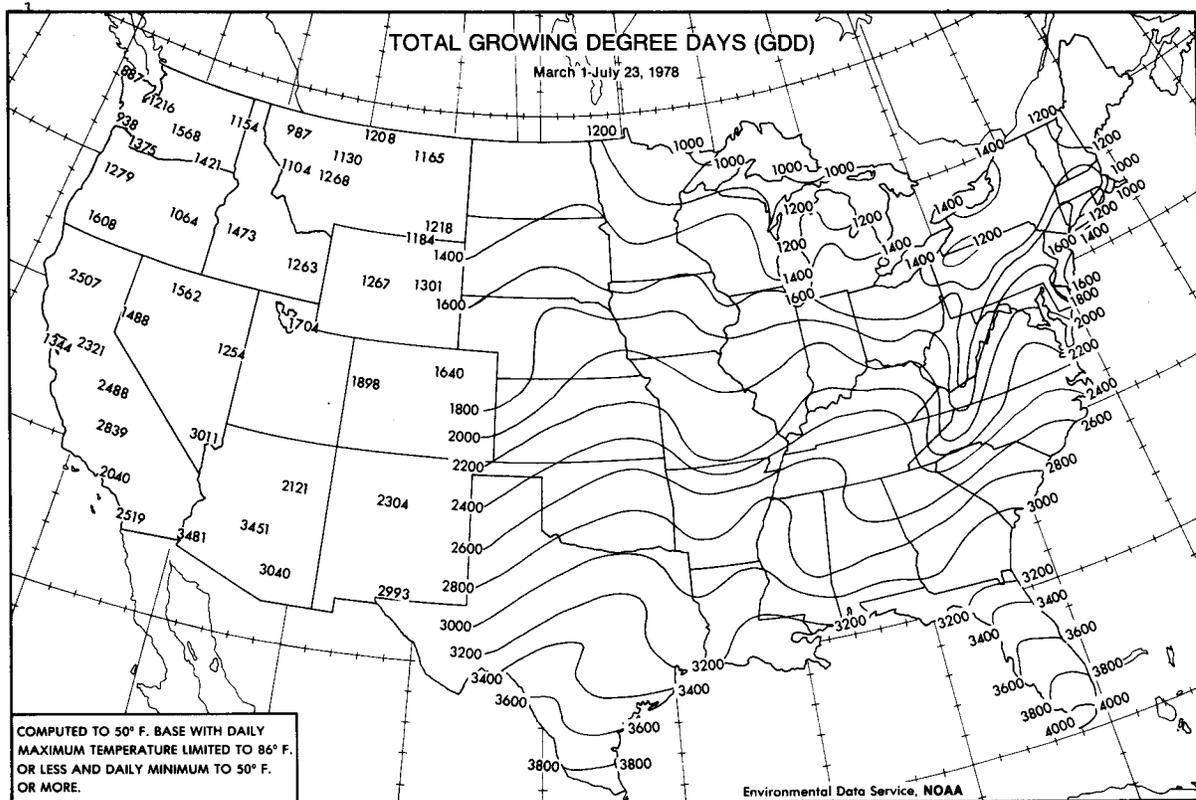
Fieldwork: 6 days suitable. Soil moisture short to adequate. Corn height 56 in., 39 in. normally. Winter wheat 20% harvested, 80% last year, 55% normally. Oats ripening in south. Second cut of hay 25% complete, 45% last year. Pasture feed supplies short to adequate. Size of apples, blueberries, grapes average. Sweet cherries 55% picked, 95% last year. Tart cherries 45% picked, 85% last year. Fresh vegetable harvesting underway.

MINNESOTA: Temperatures averaged 3° below normal. Extremes: 96 and 42°. Precipitation totals ranged from less than 0.30 in. west central to more than 3.00 in. north central and southeast.

Most crops growing well. Surplus moisture in northeastern and southeastern district slowing crop development, small grain and hay harvests. Moisture adequate elsewhere. Small grain harvest beginning. Corn: 73% tasseling, 1977 99%, normal 71%. Soybeans 78% blooming, 1977 95%, normal 81%. Swathed: Spring wheat 6%, 1977 53%, normal 19%; oats 8%, 1977 70%, normal 35%; barley 6%, 1977 71%, normal 32%; winter wheat 30%, 1977 88%, normal 52%; rye 22%, 1977 83%, normal 62%. Flax 87% blooming, 1977 96%, normal 95%.

MISSISSIPPI: Temperatures near normal. Scattered thundershowers, mostly in southern half.

Soil moisture short. Fieldwork: 6.0 days suitable. Crop progress good but most areas need



rain. Cotton insect numbers building. Soybeans 37% blooming, 55% 1977, 29% average; 6% podding, 16% 1977. Cotton 99% squaring, 91% average; 93% blooming, 96% 1977; 45% setting bolls, 85% 1977, 61% average. Corn 94% silked, 93% 1977, 77% average; 72% dough stage, 70% 1977; 32% dented, 39% 1977. Corn silage 15% harvested, 29% 1977. Sorghum 40% headed, 46% 1977. Hay crops 57% harvested, 51% 1977, 51% average. Rice 12% headed, 20% 1977. Watermelons 45% harvested, 51% 1977, 44% average. Soybeans, cotton, corn, good to fair. Rice good. Pastures fair.

MISSOURI: Temperatures 2 to 5° above normal. Precipitation averaged 1.25 in.

Fieldwork: 4.4 days suitable. Oats 74% harvested, last year 100%, normal 80%. Wheat 96% harvested, last year and normal 100%. Corn 22% silked, last year 89%, normal 56%. Grain sorghum 20% headed, last year 59%, normal 20%. Soybeans 20% blooming, last year 54%, normal 33%. Cotton 81% bloomed; 50% setting bolls, last year 77%, normal 45%. Alfalfa hay second cutting 65% harvested, last year 90%, normal 83%. Other hay 83% harvested. Corn, soybeans, cotton, and pasture mostly fair to good. Soil moisture mostly adequate.

MONTANA: Cool, wet weather dominated the first part of the week. Temperatures averaged below normal and precipitation averaged above normal in most areas. Hot and dry weather settled in by weekend.

Soil moisture generally adequate. Fieldwork: 3.6 days suitable. Crops continue in good condition. Winter wheat 20% headed, 75% turning, 5% ripe/not harvested, normal 15%, 60%, 25%. Harvest generally expected to start August 7. Spring wheat 15% boot, 75% headed, 10% turning, normal 10%, 55%, 30%. Barley 20% boot, 70% headed, 10% turning,

normal 10%, 50%, 35%. Oats 15% boot, 65% headed, 15% turning, normal 10%, 55%, 30%. First cutting alfalfa hay 80% complete, other hay 50%. Grasshopper activity generally light.

NEBRASKA: Temperatures above normal first and mid-week. Thundershowers dumped up to 5.00 in. southeast, some lowland flooding. Most areas averaged 1.50 to 2.50 in.

Corn 30% silking; 85% year ago; 55% normal. Sorghum less than 5% heading; 50% year ago; 15% normal. Soybeans 10% podding; 35% year ago; 10% normal. Winter wheat harvest 80% complete; 100% year ago; 85% normal. Second cutting alfalfa hay 70% complete; 90% year ago. General rain improved soil moisture. Grasshopper problems continue. Fieldwork: 5 days suitable.

NEVADA: Hot, dry days but cool nights. Temperatures averaged a few degrees above normal most areas. Extremes: 31 and 114°. No precipitation recorded.

Hay harvest active. Combining small grains extending northward. Potatoes showing good growth.

NEW ENGLAND: Rapid warming began on 18th and by 19th a heat wave had set in. Temperatures 20° above normal. Along with the heat was a very high humidity.

Apples, peaches and pears continue to size well. Some early variety peaches are available. Heavy set evident as cranberry prospects continue to be good. The potato crop in Aroostook County, Maine, is progressing well with early varieties in full bloom. Growers spraying on a very short schedule to control late blight. Sweet corn, tomatoes, and snap beans are being harvested in southern New England. Most farmers have completed first cuttings of hay. Additional moisture needed for

silage crops in most areas. Soil moisture short except in a few areas.

NEW JERSEY: Temperatures averaged 2° above normal. Extremes: 54 and 97°. Weekly rainfall averaged 0.40 in. north, 0.17 in. central and 0.02 in. south.

Fieldwork: 6 days suitable. Irrigation increasing. Hot weekend weather advanced crop development. Some vegetable scalding and blossom drop possible. Supplies of sweet corn and tomatoes increasing. Pepper, eggplant and onion movement light. Blueberry supplies continue good. Apple and peach harvest light. Weather good for hay making and grain combining. Field corn and soybean growth good.

NEW MEXICO: Very hot first half of week. Slight cooling last half due to increased cloudiness. Temperatures generally averaged 2 to 4° above normal.

Cotton fair, in southern half of State. Alfalfa 2d cutting practically complete, 3d cutting 60% complete, and 4th cutting just starting. Irrigated grain sorghum and corn good, dryland sorghum poor to fair. Onion harvest continued, and some green chili being picked. Livestock in good shape, but ranges dry.

NEW YORK: Temperatures averaged 6° above normal reaching 90's. Rain was spotty. Most of State had below normal rainfall.

Corn beginning to show effects of heat and low rainfall. Oats beginning to turn and change color. Wheat harvest started. Second cutting of hay underway. Onions, sweet corn, celery and potatoes in fair to good condition. Tart cherry harvest underway. Fruit crops need rain.

NORTH CAROLINA: Temperatures near normal, subnormal early week, above normal latter week. Scattered showers and thundershowers. Amounts averaged 0.25 to 1.00 in.

Fieldwork: 5.1 days suitable. Soil moisture adequate. Condition: Cotton and pasture fair to good; tobacco, corn, peanuts, soybeans, hay crops, Irish potatoes, sweetpotatoes, and apples mostly good. Harvested: Flue-cured tobacco 12%, 1977 18%, average 21%; Irish potatoes 97%, 1977 96%, average 90%; hays 79%, 1977 71%, average 67%; peaches 48%, 1977 76%, average 63%; wheat, oats, barley, rye virtually complete.

NORTH DAKOTA: Showers and thunderstorms moved over the State. Many stations reported rainfall amounts greater than 1.00 in. Temperatures at the beginning were above normal. As week progressed temperatures fell.

Crops are progressing rapidly and swathings of small grains is becoming general. Sunflowers are beginning to bloom, corn is beginning to tassel. Second cutting of alfalfa began. Condition of all crops still considered good to very good.

OHIO: Temperatures 2 to 4° above normal. Precipitation below normal.

Early planted crops in general look good. Late planted crops improved by recent rains. Development is catching up to the 5-year average. More than normal amount of insect problems reported. Corn tasseled 50%, 60% 1977, 50% average. Corn in dough stage less than 5%, 10% 1977, 5% average. Soybeans setting pods 30%, 50% 1977, 40% average. Wheat harvested 85%, 95% 1977, 90% average. Oats harvested 20%, 50% 1977, 40% average. Fieldwork: 6.5 days suitable. Soil moisture short. Pasture condition fair.

OKLAHOMA: Temperatures averaging 2 to 6° above normal. Rain fell all divisions ranging from 0.10 in. west central to 0.99 in. north central.

Topsoil and subsoil moisture short. Grasshoppers a severe problem in the southeast and northwest. Sorghums fair, 17% headed, 31% 1977 and average. Cotton fair, 47% squaring, 63% 1977, 54% average. Beet armyworms, bollworms, and grasshoppers reported feasting on crop. Damage light so far. Peanuts fair, 34% flowering, 43% 1977, 51% average. Soybeans good to fair, 21% flowering, 31% 1977, 19% average. Fieldwork: 5.8 days suitable.

OREGON: Total rainfall was light. Most areas received less than 0.10 in. Temperatures averaged near normal.

Soil moisture adequate. Fall grain harvest underway in east, nearing harvest west. Haying continues. Grass seed harvest underway. Cherry harvest nearly complete, early peach and apple harvests beginning. Caneberry harvest underway. Nut crops look fair. Vegetable harvests at various stages of completion. Early potato harvest continues, russet crop progressing normally. Livestock generally good. Feed supply is good. Ranges and pastures are drying up but no problems expected.

PENNSYLVANIA: Sunny and cool 18th and 19th, warm and humid 20th, hot and humid thru 23d. Weekly temperatures 3 to 6° above normal. Extremes: 45 and 99°.

Fieldwork: 6 days suitable. Soil moisture adequate to short. Activities: Making hay and filling silos; combining barley and wheat; baling straw; cultivating; spraying; harvesting early apples, peaches, cabbage, sweet corn, snap beans, tomatoes. Corn 4 ft., last year 61 in. Barley 66% combined, 17% ripe, last year 80% combined. Wheat 30% combined, 37% ripe, last year 48% combined. Oats 5% ripe, 45% turning, last year 41% ripe. Alfalfa hay second cut 43%, clo-tim first cut 91%, both 9 days later than 1977. Hay quality mostly good to fair. Feed from pastures average or below.

PUERTO RICO: Island average rainfall 1.17 in. or 0.18 in. below normal. Temperatures averaged about 81° on coasts and 75° interior. Extremes: 97 and 60°.

SOUTH CAROLINA: Earlier highs cooler than usual, mostly above usual near weekend, averaging about normal. Drier than usual with scattered thundershowers mostly at beginning of week.

Soil moisture short to adequate. Fieldwork: 5 days suitable. Corn fair, 74% dough stage, 86% last year; 26% mature, 52% last year, 22% average. Cotton fair to good, 93% squaring, 99% last year, 94% average; setting bolls 70%, equals average, behind 93% last year. Soybeans fair to good, blooming 10%, 21% last year. Tobacco good, 25% harvested, 45% last year, 47% average. Peaches fair to good, 58% harvested, 81% last year, 70% average. Cucumber, tomato shipping complete.

SOUTH DAKOTA: Average temperatures 2 to 7° below normal. Precipitation 2.00 to 4.00 in. west, 1.00 to 3.00 in. most areas elsewhere.

Grasshoppers spread over entire State. Small grain harvest active. Topsoil moisture generally adequate. Fieldwork: 4.5 days suitable. Oats 81% turning, 1977 100%, normal 98%. Oats 45% ripe, 1977 97%, normal 72%. Oats 13% harvested, 1977 67%, normal 32%. Spring wheat 58% turning, 1977 100%, normal 82%. Spring wheat 15% ripe, 1977 83%, normal 47%. Spring wheat 4% harvested, 1977 39%, normal 17%. Barley 83% turning, 1977 100%, normal

TENNESSEE: Weather hot and humid. Temperatures 2° above normal. Highs upper 90's, lows lower 70's. Thunderstorms scattered. Amounts light.

Fieldwork: 5.3 days suitable. Soil moisture short to adequate. Corn 74% silked, 1977 84%, average 70%. Corn dough stage 23%, 1977 40%, average 28%. Cotton 93% squaring, 1977 95%, average 91%. Cotton setting bolls 42%, 1977 66%, average 37%. Soybeans 43% blooming, 1977 64%, average 35%. Soybeans setting pods 8%, 1977 20%, average 8%. Small grain harvest virtually complete. Pastures fair. Cattle good. Bollworm in cotton. Boll weevils slight. Corn borer in corn. Haying active.

TEXAS: Temperatures near normal west, 2° below normal across northeast, east. Rest of State, temperatures 2 to 4° above normal. Rainfall below normal across northwestern part of south Texas, above normal along upper Gulf Coast, normal elsewhere.

Grain sorghum harvest progressing rapidly; harvest active Blacklands; nearly complete Lower Valley. Cotton, corn harvest full swing Lower Valley; becoming active Coastal Bend. Rice harvest started upper Gulf Coast. Grain sorghum harvest active Blacklands southward; 40% harvested, 26% last year, average 24%. Cotton harvest full swing Lower Valley. Irrigated cotton good condition. Corn harvest underway in Valley and Coastal Bend. Harvested 3%, 1% last year, average 3%. Most of corn High Plains tassel stage. Grasshoppers reported in several fields High Plains. Rice harvest slow upper Gulf Coast. Harvested 8%, last year 9%, average 12%. Peanuts irrigated stands fair to good. Soybean planting complete, early stands upper Gulf Coast and in east blooming, late stands stressed for moisture. Hay harvest active across State. Sunflowers planted 100%, last year and average 100%.

Lower Rio Grande Valley melon harvest completed. Grapefruit, oranges making good progress. Coastal Bend rain needed before land preparation for fall vegetables underway. San Antonio-Winter Garden harvest bell peppers, melons, cucumbers, late season onions continued. Planting fall cabbage, bell peppers has begun. Laredo melon harvest active. Central Texas some areas finish harvest of early watermelon fields, later fields need rain. High Plains harvest potatoes, cucumbers continued. Harvest early onion varieties neared completion. Pecan nut droppage continued due dry conditions in central, east.

Livestock remain in fair to good condition. Pasture continued to deteriorate due to hot, dry weather. Range fires and grasshopper infestations reported. Ranches cull livestock due to extended dry period. Pastures range from poor to very poor.

UTAH: Few isolated afternoon and evening thunderstorms forepart of period principally southeast. Accumulated amounts light to locally moderate. Rising trend in temperatures to range from normal to 5° above.

Soil moisture on nonirrigated land short. Range feed poor to fair. Second cutting alfalfa 45% complete. Spring grains 44% ripe with 10% harvested and good yields. Apricot harvest 72% complete. Sour cherry harvest 80% complete.

VIRGINIA: Temperatures averaged near normal for the period. Highest 100° at Richmond on 23d and lowest 46° at Chilhowie on 18th. Scattered showers and thunderstorms at beginning of period with heaviest rainfall southeast half of State.

Fieldwork: 5.3 days suitable. Soil moisture condition improved. Haying, small grain harvest and row crop cultivation most common activities. Corn very good, silking 52%, 72% 1977. Soybean condition very good. Peanuts good, applying leaf spot controls. Flue-cured tobacco 2% harvested. Hay fields and pastures in excellent condition. Potato, cucumber and tomato harvests continue. Early apple and peach harvest more widespread.

WASHINGTON: West: Temperatures ranged from 2° above to 2° below normal. Precipitation was below normal in the Puget Sound area and above normal in south.

Berry and vegetable harvests continue. Conditions excellent for all crop development. Hay production very active.

East: Temperatures varied 3 to 4° below normal. Precipitation above normal in central, north, and northeast areas, below normal in southeast.

Apricot and peach harvest continues. Bartlett pears to be ready soon. Early norgold potatoes being harvested. Barley and grass seed harvests continue. Wheat harvest beginning. Range and pasture conditions remain stable.

WEST VIRGINIA: Temperatures above normal statewide. Precipitation below normal.

Fieldwork: 5 days suitable. Soil moisture mostly adequate. Haying, gardening major farm activities. Small grain harvest: Wheat 48%, 76% 1977, 73% average; barley 69%, 87% 1977, 83% average; oats 23%, 51% 1977, 32% average. Corn good to excellent. Hay 1st cutting 90% complete, same as 1977 and average; 2d cutting 21%, average same, 32% 1977. Pastures good. Potato digging 8% complete, 1977 and average nearly same. Crop condition good. Peach picking beginning. Insect problems: Corn borer and Japanese beetle. Cattle bothered with pink eye and flies.

WISCONSIN: Temperatures below normal north but above south. Highs 70's to 80's, lows 60's to 70's except 50's 23d. Extremes: 89 and 50°. Rainfall heavy with showers and thunderstorms most days except 23d.

Corn continues rapid development. Corn 25% silked, 1977 67%, normal 25%. Winter wheat and rye being harvested. Oat harvest about week away. More oats lodged in storms 20th and 21st. Second crop haying 25% harvested, 1977 55%, normal 20%. First crop haying still continuing north. Poor hay drying weather. Pasture condition very good. Soybeans developing well. Tobacco planting mostly done. Pea harvest nearing end, wet fields hampered harvest with some acreage bypassed. Cherry harvest underway. Apple crop prospects good. Soil moisture adequate to surplus.

WYOMING: Precipitation mostly above normal. Largest amount 2.50 in. Several areas had amounts exceeding one inch. Temperatures normal to below normal. Maximums mostly in 90's; minimums in 40's and 50's.

Topsoil moisture short. Winter wheat 69% mature; harvest 25% complete. Spring wheat 37% turning color; 16% mature. Oats 85% headed; 25% turning color; 3% mature. Barley 86% headed; 46% turning color; 17% mature. First cutting alfalfa 83% complete, second cutting started. Other hay 53% harvested. Small grains and row crop maturity behind last year. Row crops fair to good. Stock water adequate in most of State.

World Weather and Crop update

World Weather and Crop Update

USSR. Harvesting of winter grains continued to move northward, but field operations during the past week were hampered by cool, rainy weather in some areas. Harvesting conditions were generally favorable in the North Caucasus and lower Volga Valley, but heavy rains continued to plague much of the Ukraine with especially heavy amounts throughout the soggy southwestern region and in the east and northeast. Precipitation amounts also were well above normal over the central Black Soil and central non-Black Soil zones. As of July 17, small grains and pulses had been cut on 12 million hectares, of which 6.7 million hectares had been threshed. Harvest prospects remain favorable in the spring wheat regions of western Siberia and North Kazakhstan with spotty but significant rains over much of these areas. Altai Kray, an important spring wheat region in eastern Siberia, recorded two inches of precipitation for the week.

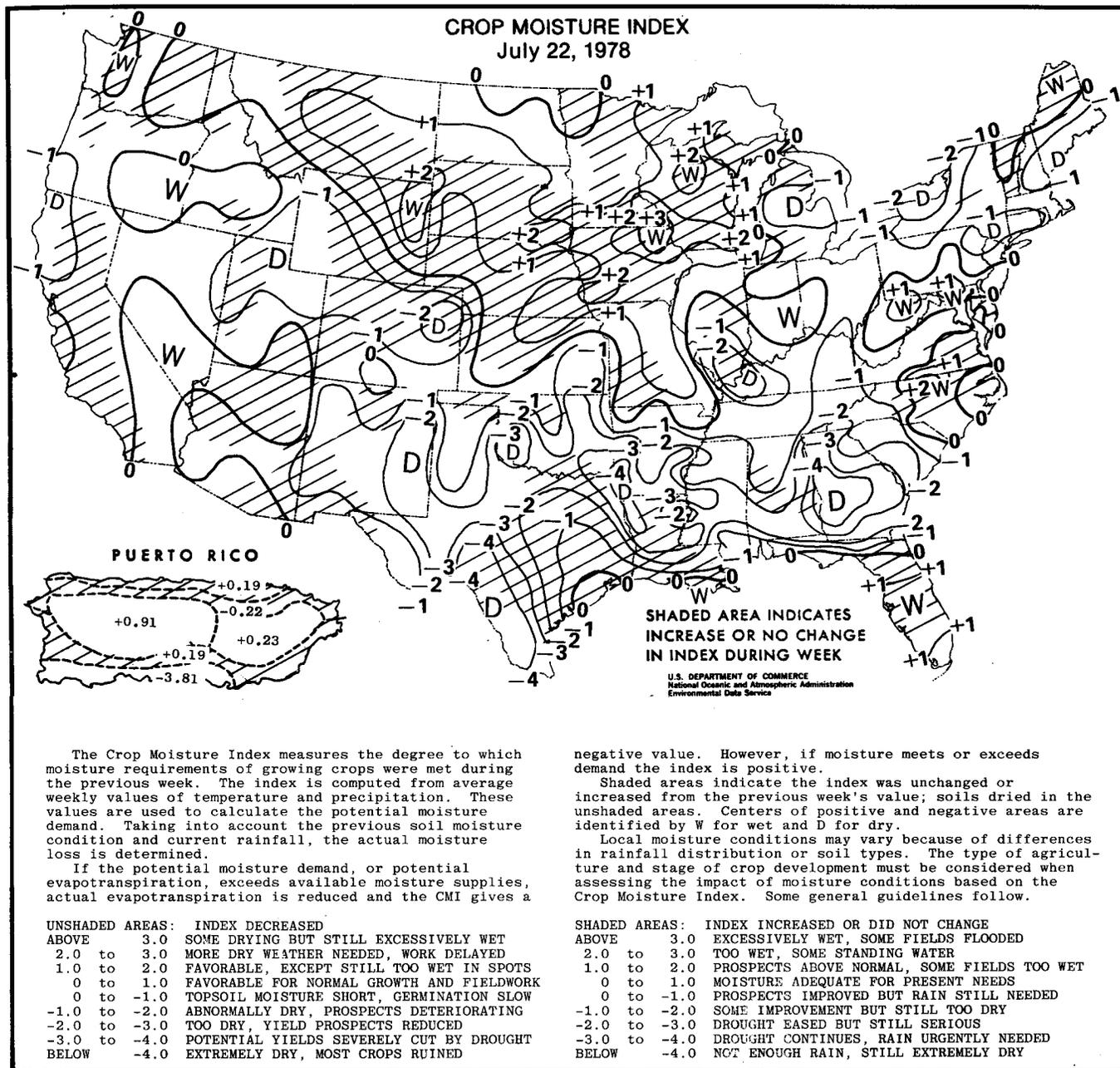
ASIA. In the People's Republic of China, the rains eased somewhat in some areas of the North China plain, a major producing region for corn, cotton, and soybeans. Light rains fell in Honan and Shantung, but precipitation averaged 2 inches in Shansi while more than an inch fell in Hopei. Temperatures---although seasonally warm---returned to a more normal mode in the rice growing provinces south of the Yangtze River. Moderate to heavy rains improved the moisture situation throughout this region, but some areas are in need of additional precipitation. Chinese media indicate that the recent hot, dry spell adversely affected crops, especially nonirrigated crops, in some areas. The southwest monsoon continued its seasonal activity over the Indian subcontinent bringing widespread precipitation over most of the country. The rainfall situation throughout India was normal or above from June 1 to July 19, a condition which has not occurred during the past decade. Floods, however, are creating localized problems in parts of Assam, Bihar, and Uttar Pradesh.

AUSTRALIA. Substantial rains have greatly improved the moisture picture in southwestern Australia, parts of which have been suffering from serious to severe moisture deficiencies. Timely rains also occurred in South Australia and Victoria, but precipitation was generally light in New South Wales and wheat-producing regions in Queensland.

AFRICA. North Africa---Algeria, Tunisia, and Morocco---received virtually no rainfall during the week as seasonally hot temperatures prevailed. It was seasonally cool with insignificant precipitation in the main agricultural areas of South Africa.

EUROPE. Cloudy, cool weather with generally light precipitation predominated over most of the northern part of western Europe, the United Kingdom, and Scandinavia. Spain, Mediterranean France, and Italy were warm and dry except for widely scattered light showers. The northern countries in eastern Europe---East Germany, Poland, and Czechoslovakia---also experienced cool, cloudy weather with light precipitation. Rainfall was greater---5 mm to 20 mm, locally heavier---with near normal temperatures in Hungary and the Balkan countries. Turkey was seasonally warm and dry except for light showers along the Black Sea coast. Crop development throughout Europe is generally one to two weeks behind normal.

AMERICAS. Temperatures continued to be well above freezing in the coffee-growing areas of Brazil. Heavy rains in southern Brazil improved the moisture situation in that important agricultural area. Rains fell over most of Argentina's grain belt including La Pampa province and in the extreme southern part of Buenos Aires province, both of which were in need of moisture for sowing winter crops. Crop prospects in the Prairie Provinces of Canada continue to be favorable. The central and western portions of Saskatchewan, however, are still quite dry despite near normal rainfall since April 1.



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.

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

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HARVESTING PROGRESS

PERCENT OF ACREAGE HARVESTED
AS OF JULY 23

	WINTER WHEAT		AVG.
	1978	1977	
COLO	89	93	73
ILL	95	100	100
IND	90	100	95
KANS	100	100	100
MO	96	100	100
MONT	0	0	0
NEBR	80	100	85
OHIO	85	95	90
OKLA	100	100	100
S DAK	40	81	61
TEX	100	100	100
11 STATES	88	92	89

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