

Weekly Weather & Crop Bulletin

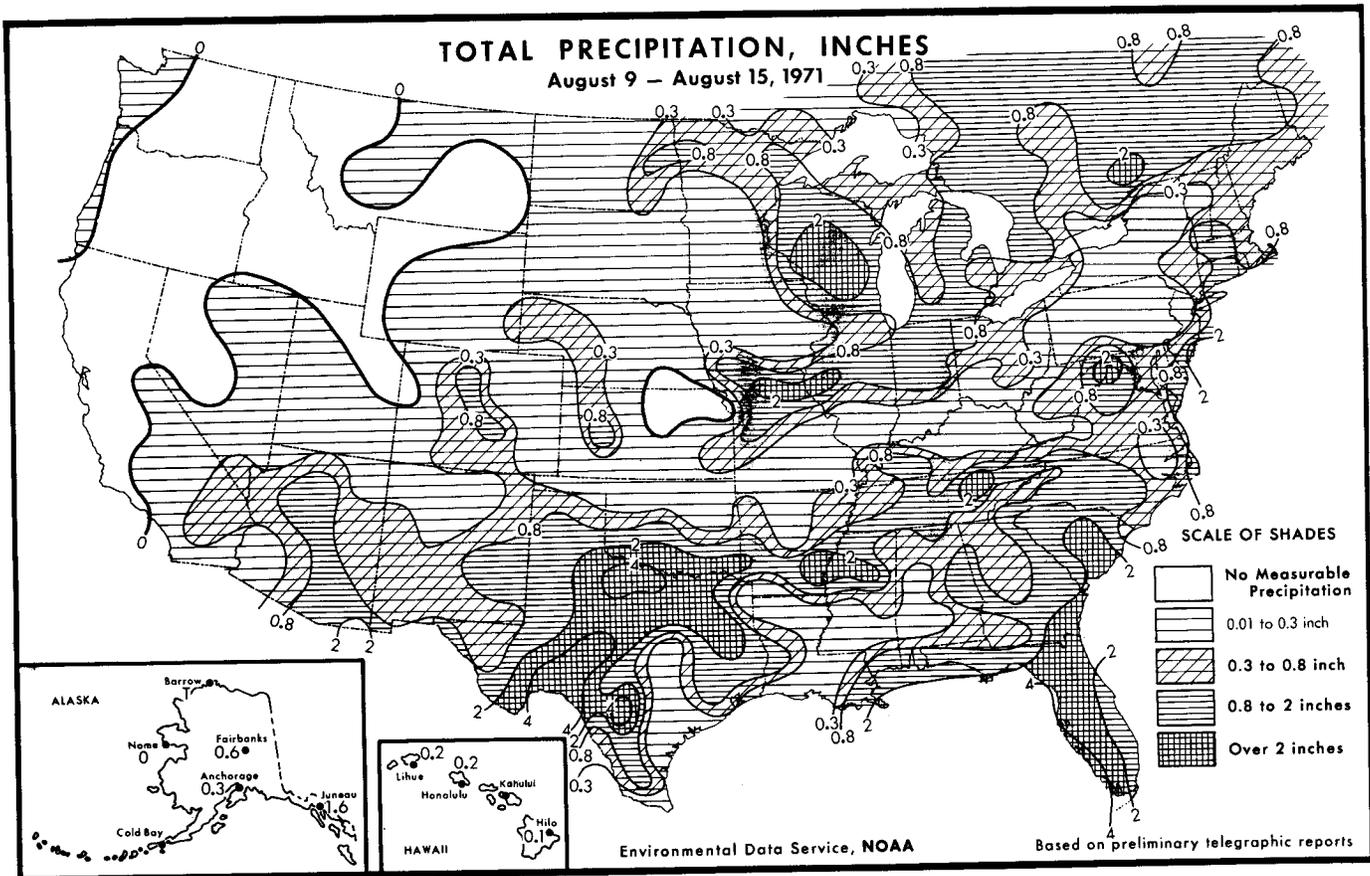
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Edited by Lucius W. Dye

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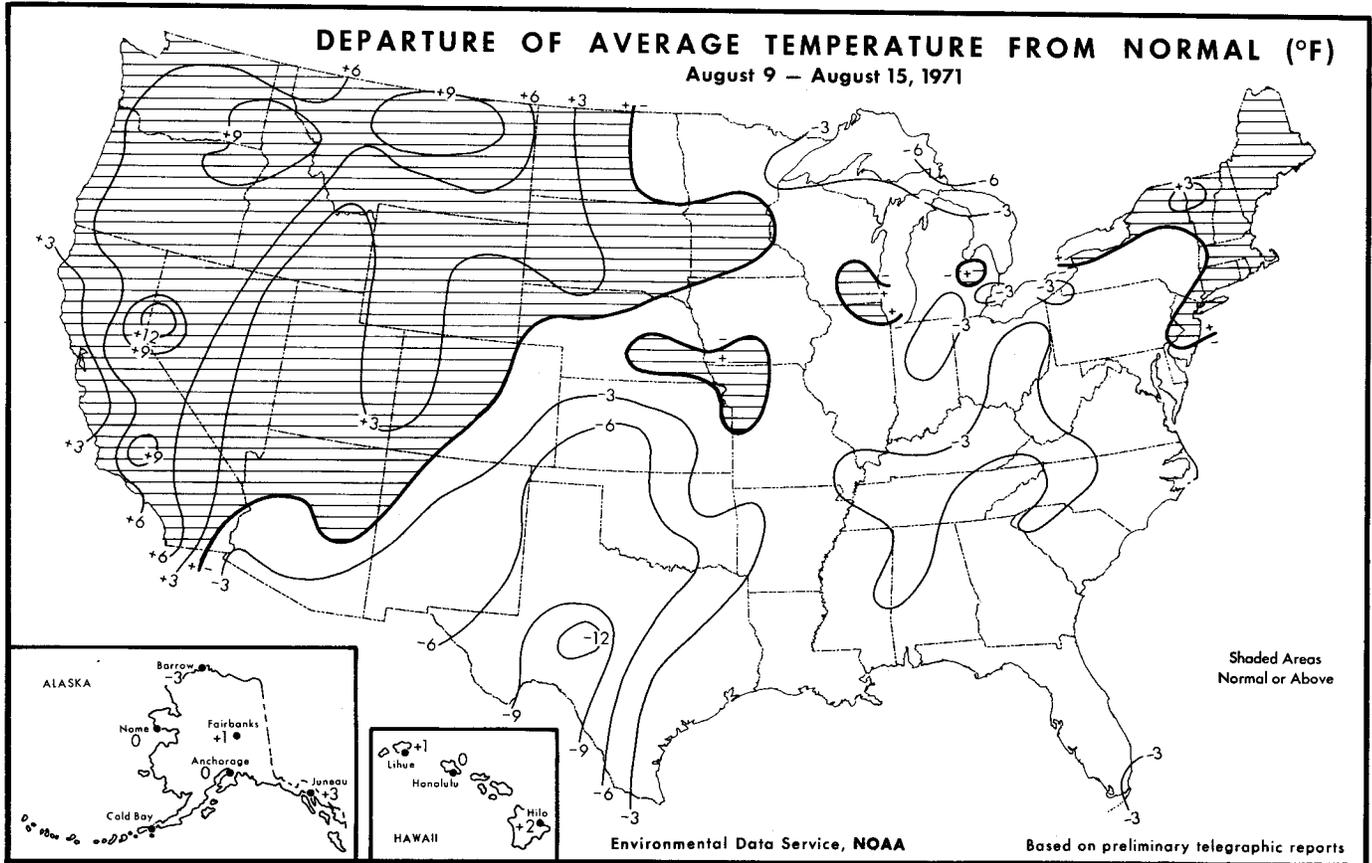
HIGHLIGHTS: Summer heat continued in the Far West. The Central and East averaged cooler than normal. Strong winds and damaging hail occurred in several North Central States. Heavy rains caused flash floods in parts of Texas.

PRECIPITATION: Thunderstorms accompanied by strong winds occurred in the northern Great Plains late Monday afternoon. At Jamestown, N. Dak., the winds gusted to 86 m.p.h. Hail and 56 m.p.h. gusts occurred at Fargo, N. Dak. The severe weather moved to Wisconsin and Michigan Tuesday. A thunderstorm at Oshkosh, Wis., produced winds gusting to 95 m.p.h. and at La Crosse, the winds gusted to 71 m.p.h. and hail 3/4 inch in diameter fell. Strong winds and hail occurred in several States, Iowa, Illinois, Michigan, and Ohio, late afternoon and early Tues-

day evening. The strong winds damaged trees and power lines. At Camp Grayling, Mich., the storm flattened 150 tents causing numerous personal injuries.

The showers Tuesday and Tuesday night covered much of the Corn Belt from eastern Iowa to western Pennsylvania. Wednesday's rains covered most of the States from New England to Texas. The heaviest showers occurred in Texas where up to 8.00 inches fell in the Hondo and Seco Creek Watersheds west of San Antonio and up to 5.25 inches fell in the Upper Guadalupe Basin northwest of San Antonio.

Widespread flooding occurred Thursday in parts of Alaska. Palmer, Alaska, was isolated by high water and roads and highways between Anchorage and Fairbanks became closed by floods or washouts.



Weekend rains were heaviest in northern Texas where amounts ranged from light sprinkles to over 6.00 inches. Light showers also fell in the southern Rockies, from Nebraska and Missouri to the Great Lakes, and over the Florida Peninsula.

TEMPERATURE: Hot sunny weather prevailed over most of the Nation early in the week. Temperatures climbed to 100° or higher at many western stations. Death Valley, Calif., warmed to 121° Monday afternoon. Red Bluff, Calif., recorded 118° Tuesday afternoon. This is the highest temperature of record for Red Bluff. Hartford, Conn., registered 95° Monday. Northern Minnesota was one of the cooler places. The highest temperature at International Falls, Minn., Tuesday was a comfortable 71°.

The weather continued hot over the Far West with many stations in Washington, Oregon, California, Nevada, and Arizona recording tempera-

tures above 100°. Havre, Mont., recorded 100° Wednesday afternoon and Huron, S. Dak., registered 100° Thursday. Northerly breezes brought cool dry air to much of the Northeast Thursday. Many spots in the Northeast were 10° to 12° cooler Thursday than Wednesday. The maximums at Washington, D.C., were: Wednesday, 93°; Thursday, 81°. Warmer air returned to the Northeast Friday and Saturday before another cool day, Sunday. Albany, N. Y., registered 85° Saturday but no higher than 69° Sunday. High temperatures continued over the West with temperatures exceeding 100° over much of eastern Montana and northern Wyoming Saturday.

Weekly mean temperatures averaged above normal northwest of a line from southern California to eastern South Dakota and in New England and below normal over most of the rest of the Nation.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Drought breaking rains improve Texas crop prospects. * Grain combining rapid in Northern States. * Rain needed in Western Corn Belt. * Dryer weather would benefit crop development in the South.

SMALL GRAINS: Combines continued to roll in the Northern Section of the Nation. Hot, dry weather allowed farmers to make good headway in getting in this year's grain crop. Only scattered rains around the Great Lakes interrupted combining. Progress of this season's harvest is well ahead of last year and normal. The lack of early morning dew enabled North Dakota combines to get early morning starts. Winter wheat is over 90 percent cut in Colorado, with most of the remaining fields left to be cut in the northeast. Wyoming winter wheat combining is nearly complete, with most of the action now focused on spring-planted grains. Harvesting dryland winter wheat is ahead of the irrigated acreage in Utah. Progress is well ahead of last year in Montana with 55 percent of the crop cut compared to only 15 percent last August 15. Ideal weather also aided grain combining in the Pacific Northwest.

In the Northeast, winter wheat combining is in the final stages, with oat harvest approaching the three quarters mark. Many grain farmers in Nebraska, Illinois, Indiana, and Ohio were busy plowing their fields for this fall's crop.

CORN: A general rain is needed in the western Corn Belt. Dry conditions continued to develop during the week, and some corn started to fire in South Dakota. Non-irrigated fields declined slightly in Nebraska. The moisture situation is better in the eastern Corn Belt as good rainfall was received from northern Missouri into Ohio. Fine summer weather with timely rains improved the corn outlook in Wisconsin and Michigan. Corn maturity is ahead of last year in most Corn Belt States.

In the South, wet fields are putting a damper on harvesting. However, some corn was picked as far north as the Carolina's, with Arkansas harvest to start soon. The crop is maturing fast, but warmer and dryer weather would aid the process. Silage cutting began in Tennessee and Virginia. Corn crop prospects are good in the Northeast.

Although temperatures were below normal in the Corn Belt, a slight increase in the severity of Southern corn leaf blight occurred. However, the use of resistant hybrids and the advancement of maturity should limit crop losses.

SOYBEANS: Maturity of the 1971 soybean crop remains well ahead of last season in the North Central States. Virtually all the Illinois acreage has set pods, with pod setting about 3/4 finished in the adjoining States. Like the corn crop, a rain is needed in Iowa, Minnesota, the Dakotas and Nebraska. The crop in the South has the opposite problem, as too much rain is holding back pod setting. Moisture is surplus over much of the South, with some fields suffering from wet spots. Weeds are also increasing as growers are unable to cultivate. Abundant moisture has put plants in good to excellent shape.

COTTON: For the third straight week drought-breaking rains halted cotton harvesting in Texas. However, this week's heavy rains from the Southern Plains to the Lower Rio Grande Valley improved the crop outlook. However, conditions are reversed in the Deep South where

growers hope for dryer weather, as almost daily showers for the past month have interfered with insect control measures and delayed development. Many growers are spraying between showers. The Arkansas crop is badly in need of open weather as crop prospects declined due to the wet conditions. Most of the crop is setting bolls throughout the South. Cotton made good progress in New Mexico and Arizona, but the high humidity caused an increase in boll rot. Fields look spotty in California, although blooms, squares and bolls are becoming evident.

OTHER CROPS: Sorghum harvesting made little progress in Texas as drought-relieving rains restricted activity. Heading is ahead of last year in Kansas; while 5 percent of the Nebraska crop is turning color. The California acreage is nearing maturity, while 18 percent of the Oklahoma crop is ripe. Cutting of the earliest fields already started in Louisiana. Tobacco prospects improved in Kentucky due to the dry weather. Burley is making rapid growth after topping. Excessive rainfall has also damaged some Tennessee areas, but gathering was increasing. Flue-cured harvest was active in North Carolina and Virginia. Showers slowed Georgia peanut digging, but some Spanish varieties were dug. Harvesting of the Long Island, New York, potato crop increased rapidly during the week. Digging of early varieties was also active in Maryland, Ohio, Michigan, and Wisconsin. Development of the Idaho sugar beet crop remains excellent, with the Nebraska acreage looking good. Only 10 percent of the Louisiana rice crop is in, but over 50 percent is ready for the combines. Some Arkansas fields were drained in preparation of harvest. Dry bean cutting started in Colorado and California while the crop is turning color in Michigan. Rains plagued haymaking from New Mexico eastward across the South. Baling and chopping were widespread in the dryer Northern region of the Nation.

Fruits and Nuts: Picking of peaches and summer apples continued to widen in the Northern growing areas. Apples are sizing well in New York. Hail and wind damaged some Wisconsin orchards. Picking of this year's peach crop is about complete in the South. Citrus prospects continue to improve in both Florida and Texas. Warm temperatures are hastening the maturity of California fruit and nut crops. Grapefruit picking is declining.

Vegetables: Good supplies of vegetables are available from the eastern Corn Belt to the Atlantic coast. Sweet corn is abundant in all areas, with tomatoes ripening fast. The pickle harvest is over half completed in Michigan. Iceberg lettuce is available from Osage County, New York and celery from Orange and Wayne Counties. Wet fields interrupted harvest on the High Plains of Texas. The soft fields also limited planting of the fall and winter crops in Texas. California harvest is active with most supplies about normal for the season. Rains damaged some lettuce in Cochise County, Arizona.

PASTURES AND LIVESTOCK: Pastures in the South are providing excellent feed. Growth has been so good that many pastures need mowing. Good rains improved grazing prospects in the Southwest, but some supplemental feeding continued. Dry, hot weather reduced the pasture and range outlook in the other Western and Great Plains States.

Steve J. Psodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, 1st., August 15, 1971

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 . . .	79	- 3	.1	-1.1	New Orleans . . .	82	0	2.0	+ .8	OKLA,Okla. City . .	77	- 7	1.9	+1.4
Mobile . . .	83	0	1.4	0	Shreveport . . .	82	- 2	.1	-.5	Tulsa . . .	81	- 2	T	-.7
Montgomery . . .	80	- 2	.3	-.7	MAINE,Caribou . . .	64	0	.9	+ .1	OREG,Astoria . . .	64	- 3	T	-.3
ALASKA,Anchorage . .	57	0	.3	-.7	Portland . . .	70	+ 2	.4	-.1	Burns . . .	76	+ 7	0	-.1
Barrow . . .	36	- 3	T	-.2	MD,Baltimore . . .	74	- 2	.5	-.7	Medford . . .	79	+ 7	0	0
Fairbanks . . .	57	+ 1	.6	0	MASS,Boston . . .	75	+ 2	.5	-.3	Pendleton . . .	82	+ 9	0	-.1
Juneau . . .	58	+ 3	1.6	+ .5	Chatham . . .	69	---	.8	---	Portland . . .	76	+ 9	0	-.2
Nome . . .	50	0	0	-.9	MICH,Alpena . . .	63	- 3	1.1	+ .4	Salem . . .	73	+ 6	0	-.1
ARIZ,Flagstaff . . .	65	0	1.4	+ .7	Detroit . . .	71	- 3	1.1	+ .5	PA,Allentown . . .	72	- 1	.1	-1.0
Phoenix . . .	87	- 1	.3	+ .1	Flint . . .	70	+ 1	.3	-.4	Erie . . .	67	- 4	.7	0
Tucson . . .	80	- 4	1.2	+ .5	Grand Rapids . . .	71	- 1	.7	+ .1	Harrisburg . . .	77	- 2	T	-.8
Winslow . . .	80	+ 1	.5	+ .2	Houghton Lake . . .	65	- 2	1.2	+ .6	Philadelphia . . .	73	+ 3	.1	-1.0
Yuma . . .	89	- 3	.1	0	Lansing . . .	69	- 3	.9	+ .2	Pittsburgh . . .	70	- 1	T	-.7
ARK,Fort Smith . . .	79	- 4	.4	-.2	Marquette . . .	64	- 3	.5	-.2	Scranton . . .	70	- 1	T	-.8
Little Rock . . .	80	- 2	.1	-.6	Muskegon . . .	70	- 2	1.0	+ .4	R.I,Providence . . .	74	+ 2	.4	-.5
CALIF,Bakersfield . .	91	+ 9	T	0	S.Ste.Marie . . .	59	- 6	1.5	+ .9	S.C,Charleston . . .	78	- 2	3.5	+2.0
Eureka . . .	60	+ 3	T	0	MINN,Duluth . . .	62	- 4	1.1	+ .2	Columbia . . .	79	- 2	2.2	+ .9
Fresno . . .	85	+ 6	0	0	Internatl Falls . .	64	- 1	.2	-.6	Greenville . . .	75	- 4	.6	-.5
Los Angeles . . .	79	+ 6	0	0	Minneapolis . . .	72	+ 1	.1	-.6	S,DAK,Aberdeen . .	75	+ 2	T	-.5
Red Bluff . . .	77	+ 5	0	0	Rochester . . .	70	- 1	.3	-.5	Huron . . .	76	+ 2	T	-.5
San Diego . . .	79	+ 7	T	0	St. Cloud . . .	71	+ 1	.2	-.6	Rapid City . . .	76	+ 3	.1	-.3
San Francisco . . .	64	+ 1	0	0	MISS,Jackson . . .	80	- 2	.1	-.7	Sioux Falls . . .	75	+ 2	T	-.8
Stockton . . .	84	+ 7	0	0	Meridian . . .	79	- 3	.3	-.5	TENN,Chattanooga .	79	- 2	.5	-.3
COLO,Denver . . .	74	+ 1	T	-.3	MO,Columbia . . .	77	- 1	.6	-.2	Knoxville . . .	77	- 1	.1	-.7
Grand Junction . . .	81	+ 4	0	-.3	Kansas City . . .	82	+ 1	0	-.9	Memphis . . .	79	- 2	1.1	+ .4
Pueblo . . .	75	- 1	.8	+ .4	St. Louis . . .	78	0	T	-.7	Nashville . . .	76	- 4	.7	+ .1
CONN,Bridgeport . . .	73	- 1	1.2	+ .2	Springfield . . .	78	- 1	T	-.7	TEX,Abilene . . .	76	- 8	3.0	+2.7
Hartford . . .	74	+ 2	.7	-.2	MONT,Billings . . .	79	+ 5	0	-.2	Amarillo . . .	70	-10	1.0	+ .4
D,C,Washington . . .	77	- 1	.3	-.8	Glasgow . . .	79	+10	0	-.3	Austin . . .	82	- 3	T	-.4
FLA,Apalachicola . .	81	- 1	2.1	+ .5	Great Falls . . .	78	+10	0	-.3	Beaumont . . .	81	- 2	.1	-1.1
Ft. Myers . . .	80	- 3	5.2	+3.5	Havre . . .	78	+ 9	T	-.3	Brownsville . . .	84	- 1	T	-.6
Jacksonville . . .	81	- 2	2.7	+1.2	Helena . . .	72	+ 4	T	-.2	Corpus Christi . .	84	- 1	0	-.7
Key West . . .	82	- 2	4.6	+3.7	Kalspell . . .	71	+ 6	0	-.3	Dallas . . .	82	- 4	2.7	+2.3
Lakeland . . .	79	- 3	2.6	+1.0	Miles City . . .	81	+ 7	0	-.3	Del Rio . . .	77	-10	5.0	+4.7
Miami . . .	80	- 3	1.5	0	Missoula . . .	75	+ 9	0	-.2	El Paso . . .	76	- 5	1.0	+ .7
Orlando . . .	81	- 2	1.9	+ .3	NEBR,Grand Island .	78	+ 1	T	-.5	Fort Worth . . .	80	- 6	3.5	+3.1
Tallahassee . . .	81	0	.5	-1.0	Lincoln . . .	79	0	0	-.7	Galveston . . .	84	0	.1	-.9
Tampa . . .	81	- 1	3.8	+1.9	Norfolk . . .	75	- 1	.1	-.5	Houston . . .	82	- 1	1.9	+ .9
GA,Atlanta . . .	77	- 2	.4	-.4	North Platte . . .	74	- 2	.5	0	Lubbock . . .	71	- 8	1.8	+1.4
Augusta . . .	78	- 3	1.1	-.2	Omaha . . .	76	0	.1	-.8	Midland . . .	73	-10	1.4	+1.1
Macon . . .	81	- 1	.1	-.9	Valentine . . .	77	+ 3	T	-.6	San Angelo . . .	74	-12	4.8	+4.5
Savannah . . .	82	0	2.5	+1.1	NEV,Ely . . .	69	+ 2	T	-.1	San Antonio . . .	81	- 4	2.0	+1.5
HAWAII,Hilo . . .	78	+ 2	.1	-2.5	Las Vegas . . .	90	+ 2	.5	+ .4	Victoria . . .	84	0	T	-.7
Honolulu . . .	80	0	.2	0	Reno . . .	78	+12	0	-.1	Waco . . .	82	- 4	.1	-.3
Kahului . . .	---	---	---	---	Winnemucca . . .	77	+ 8	T	0	Wichita Falls . . .	80	- 7	5.3	+4.9
Lihue . . .	80	+ 1	.2	-.3	N.H,Concord . . .	69	0	.5	-.2	UTAH,Blanding . . .	74	+ 3	.2	-.1
IDAHO,Boise . . .	81	+ 8	0	0	N.J,Atlantic City . .	71	- 4	2.9	+1.7	Salt Lake City . . .	78	+ 2	T	-.2
Lewiston . . .	82	+ 9	0	-.1	Trenton . . .	75	0	.2	-.9	VT,Burlington . . .	71	+ 3	T	-.8
Pocatello . . .	74	+ 2	0	-.1	N.MEX,Albuquerque . .	73	- 4	.3	0	VA,Lynchburg . . .	74	- 1	.6	-.5
ILL,Cairo . . .	76	- 5	T	-.7	Roswell . . .	73	- 5	1.5	+ .9	Norfolk . . .	77	- 1	.4	-.8
Chicago . . .	75	0	.5	-.2	N.Y,Albany . . .	69	- 2	.1	-.6	Richmond . . .	75	- 2	.3	-1.0
Moline . . .	---	---	---	---	Binghamton . . .	66	- 2	T	-.8	Roanoke . . .	73	- 3	.2	-.9
Peoria . . .	74	- 1	1.9	+1.3	Buffalo . . .	69	0	.3	-.4	WASH,Colville . . .	73	+ 5	0	-.2
Rockford . . .	73	0	.5	-.4	New York . . .	77	0	.1	-1.1	Omak . . .	74	+ 4	0	-.1
Springfield . . .	75	- 1	.7	+ .1	Rochester . . .	71	0	.1	-.5	Quillayute . . .	65	+ 5	.2	-.3
IND,Evansville . . .	77	- 1	0	-.7	Syracuse . . .	69	- 3	.1	-.6	Seattle-Tacoma . .	71	+ 6	T	-.2
Fort Wayne . . .	71	- 3	1.5	+ .8	N.C,Asheville . . .	73	- 1	.7	-.2	Spokane . . .	78	+ 9	0	-.1
Indianapolis . . .	72	- 3	1.3	-.6	Charlotte . . .	76	- 3	.3	-.7	Walla Walla . . .	83	+ 8	0	-.1
South Bend . . .	70	- 3	1.7	+ .9	Greensboro . . .	74	- 3	1.4	+ .3	Yakima . . .	77	+ 7	0	0
IOWA,Burlington . . .	75	- 1	0	-.8	Hatteras . . .	78	0	1.2	-.3	W.VA,Beckley . . .	68	- 3	T	-.9
Des Moines . . .	76	0	T	-.7	Raleigh . . .	76	- 1	1.4	+ .2	Charleston . . .	72	- 3	.7	-.3
Dubuque . . .	69	- 3	1.2	+ .4	Wilmington . . .	78	- 2	.7	-.8	Huntington . . .	71	- 4	T	-.7
Sioux City . . .	76	- 1	T	-.6	N,DAK,Bismarck . . .	73	+ 2	T	-.4	Parkersburg . . .	72	- 3	T	-.9
KANS,Concordia . . .	78	- 2	0	-.8	Fargo . . .	70	- 1	.7	0	WIS,Green Bay . . .	68	- 2	1.4	+ .8
Dodge City . . .	74	- 7	.2	-.4	Williston . . .	75	+ 5	T	-.4	La Crosse . . .	71	- 2	2.1	+1.3
Goodland . . .	73	- 3	T	-.6	OHIO,Akron-Canton . .	69	- 4	.1	-.6	Madison . . .	72	+ 1	2.5	+1.8
Topeka . . .	78	- 2	T	-.4	Cincinnati . . .	75	- 2	T	-.8	Milwaukee . . .	69	0	1.2	+ .5
Wichita . . .	77	- 5	T	-.7	Cleveland . . .	71	0	.3	-.4	WYO,Casper . . .	72	+ 1	T	-.2
KY,Lexington . . .	74	- 3	T	-.7	Columbus . . .	70	- 4	T	-.7	Cheyenne . . .	70	+ 1	T	-.3
Louisville . . .	75	- 2	T	-.7	Dayton . . .	72	- 2	.1	-.6	Lander . . .	74	+ 4	.2	+ .1
LA,Baton Rouge . . .	83	0	0	-1.1	Toledo . . .	70	- 2	.6	-.2	Sheridan . . .	75	+ 4	0	-.2
Lake Charles . . .	83	0	.2	-.9	Youngstown . . .	69	- 2	.1	-.7	P.R. San Juan . . .	84	+ 3	1.0	-.5

* Departures are from 30-year means (1931-60). Based on preliminary reports

CONDENSED STATE SUMMARIES

These summaries provide brief descriptions of condition and activities important on a national scale. Detailed reports of crop and weather conditions during the growing season are contained in State issues of Weekly Weather and Crop Bulletins published by field offices of the Statistical Reporting Service, U.S.D.A. in cooperation with NOAA Climatologists

ALABAMA: Numerous showers, hot and humid early in period with rain in all sections. Mainly sunny days fair nights and moderate temperatures with only a few scattered showers Wednesday through weekend. Temperatures for week averaged near normal. Rainfall quite variable but mostly moderate. More open weather favored crop development, but numerous showers interfered with weed, insect, and disease control programs and upset haying schedules. Practically all cotton setting bolls, few open. Insect controls continued southern and central counties and started in "hot spots" north Alabama. Corn prospects remain favorable. No appreciable increase Southern corn leaf blight. Soybeans good growth, many fields weedy. Plants need open weather to set beans. Peanuts good, but disease prevalent. No commercial digging yet. Harvest peaches and Irish potatoes about complete. Light harvest sweetpotatoes Cullman County. Tomato harvest continued Blount and St. Clair Counties, quality off due rain. Pecan prospects uncertain, although good in sprayed orchards. Pastures furnishing adequate grazing; many need mowing. Much hay cut, but rains continued to hamper harvest. Livestock remain very good.

ALASKA: Unusually heavy rains in the Anchorage and Matanuska Valley areas produced extensive flooding of fields. Damage costs still being evaluated. Precipitation was above average all areas. Fire danger at present is nil. Temperatures were warm despite cloudy skies and were above average in all areas. Losses were minimal to cropland due flooding in Matanuska and Susitna Valleys. With adequate soil moisture throughout Railbelt, warm sunny weather is imperative for crop maturity. Second cutting of grasses will begin when dry enough. Harvest grain silage started. Grain crops mostly headed Matanuska and Tanana Valleys. Some early potatoes being dug Tanana Valley.

ARIZONA: Temperatures were slightly below normal over most of State this week and humidity above normal. Showers were widespread over State with heaviest rainfall amounts in mountains in southeastern sections. Strong winds and blowing dust occurred in irrigated valleys in southern part. Cotton good. Development varies from 20% acreage with open bolls southwest to no acreage with open bolls southeast. High humidity caused boll rot increase. Blowing winds southwest, central irrigated valleys caused some lodging. Early sorghum Yuma ready for harvest. Later plantings developing normally. Safflower harvest virtually complete. Spring-planted sugar beets progress normally. Limited alfalfa hay harvest continues. Land preparations continued central, western areas for fall and winter vegetables. Heavy rain damaged lettuce Cochise County. Cantaloupe thinning near completion Yuma. New crop citrus making rapid growth. Recent rains helped improve range conditions most areas. Supplemental feeding continued. Cattle, calves and sheep remain mostly fair.

ARKANSAS: Weekly mean temperatures 2° to 4° below normal. Daily extremes 58° to 97°. Spotty showers around midweek totaled over 1.00 inch in parts of southeast, northeast, and south-central. Heaviest

1.56 inches at Pine Bluff. None at Mountain Home and Shirley. Soil moisture adequate to surplus most areas. Delta and southern areas very wet. Cotton needs open weather, prospects declined due wet conditions. Weevils and worms causing problems some areas. Peak squaring is over. Rice generally promising, some fields being drained. Soybeans good to excellent on well drained fields, some suffered significant damage from wet weather. Open weather urgently needed. Early fields blooming and setting pods. Harvest to begin soon for corn and sorghum. Some milks showing up sorghum. Hay yields late cuttings expected to be excellent. Harvest fruit and vegetables continues. Pastures supplying good to excellent grazing. Cattle good.

CALIFORNIA: Several August or all-time maximum temperature records set northern interior of State on 10th. Average temperatures for week much above normal all but low desert; slightly warmer than last week. Strong winds and locally moderate precipitation in Imperial, Colorado River Valleys on 11th and 12th. Some grain harvesting. Rice fields making good progress. Cotton fields appear slightly spotty in and between areas, although blooms, squares, and bolls becoming evident. Some harvesting dry beans Sacramento Valley. Field corn and milo nearing maturity. Cutting alfalfa continues, some fields into 5th cutting. Sugar beet harvest nearly complete desert. Warm temperatures hasten maturity fruit and nut crops. Harvest dates now nearer normal. Grapes packed fresh markets. Wine grapes coloring, sizing well. Harvest clingstone peaches underway. Picking late varieties freestone peaches, plums, nectarines progress. Harvest Bartlett pears increasing. Prunes coloring well, harvest next week. Almonds splitting. Walnuts making normal growth, some sunburn damage. Harvest figs underway. Harvest valencia oranges picking up south, slow central valley. New navel, valencia crops prospects good. Picking grapefruit declining. Hot weather drying ranges. Milk, egg production down. Santa Maria, Salinas broccoli-cauliflower seasonally normal, celery continues. West Side cantaloupes continue active. Salinas carrots continue near normal. Sweet corn active south. Honeydews continue active central valley. Lettuce cutting normal central coast. San Joaquin onions currently active, central coast light. Potato digging Riverside County slight decrease; Kern County near end. Most coastal strawberries to processors. Tomatoes active Chula Vista, Salinas Valley, northern San Joaquin Valley districts. Watermelons good supplies from San Joaquin Valley.

COLORADO: Temperatures near normal west; continued cool east. Local moderate to heavy precipitation some mountains and southeast. Little or none most other areas. Scattered reports hail. Topsoil moisture mostly short to very short, except nearly adequate southeast. Final summer fallow some fields. Seedbeds excellent for winter wheat seeding southeast, very dry other areas. Winter wheat harvest 20% complete northeast, 91% statewide. Harvest spring barley 92% complete, oats 93%. Corn 91% tasseled, 69% silked, 13% in or past dough. Light insect infestation. Sorghum

76% headed, few acres turned color southeast. Dry beans cut on small acreage northeast. Second cutting alfalfa 90% complete, 5% 3d crop cut. Late summer potatoes Arkansas Valley 45% dug. Range and pastures deteriorating. Conditions fair. Livestock mostly good. Some weight loss due dry short grass.

FLORIDA: Two tropical depressions brought widespread cloudiness to Florida this week. Temperatures averaged 2° to 4° below normal throughout the State due to this cloudiness. In the early portion of the week, a tropical depression in the Atlantic, which later became Hurricane Bess, brought rain and cloudy skies to northwest Florida with rainfall for the week averaging 1.50 inches in this area. During the later part of the week, another tropical depression moved into southwest Florida with rainfall averaging above 2.00 inches in this section. On the weekend, this depression moved north along the west coast, bringing isolated heavy rain and local flooding, especially in Tampa area. Six inches of rain were reported in Pinellas Park within 24 hours and 4.50 inches in St. Petersburg. Moisture adequate for field crops. Frequent showers hindering hay, tobacco, and peanut harvest. Crop condition generally good. Pastures and livestock seasonally above average. Citrus grove condition excellent. New growth heavy. Excellent moisture. Land preparation for fall vegetable crop continues active. Small acreage celery transplanted early August at Zellwood and last week Everglades. Sweet corn planting increasing Everglades. Planting snap beans, eggplant underway. Cucumber seeding expected start late August. Seeding tomatoes Dade County began. Seeding ground culture continues other south Florida areas.

GEORGIA: Showers continued through most of week but generally less frequent and lighter than during the last few weeks. Amounts ranged from less than 0.50 inch in several places to locally over 4.00 inches at Dublin and Thomaston. There was little rain from Friday to Sunday afternoon but a Gulf tropical depression had spread rain over most of the State by early Monday. Temperatures were near normal early in the week but turned slightly cooler Friday and continued seasonally mild. Averages ranged from near normal in northwest to slightly below normal most other areas. Soil moisture adequate to surplus. Cutting silage, haymaking and applying insecticides, herbicides and fungicides active. Tobacco 87% and peaches 97% harvested. Light digging Spanish peanuts, condition mostly good. Cotton mostly good and needing dry weather. Insects in cotton are bad. Corn, soybeans, cattle, and pasute good to excellent. Vegetable volume declined seasonally.

HAWAII: Weather generally dry. Shower activity provided partial relief but more rain needed. Moisture stress becoming evident on Hawaii and Maui. Sugar and pineapple harvesting continued normal despite west coast shipping strike. Lack of storage space problem for raw sugar and canned pineapples. Supplies most vegetables and fruits adequate. Dry conditions affecting pastures. Cattle fair to good condition.

IDAHO: Another hot and dry week. Two stations, Orofino, north, and Parma, southwest, recorded temperatures 100° or higher each day. New August records have already been set. Grace, east, has had 12 days reaching 90° or higher compared to the previous August record of 8 days. At least 3 stations have already exceeded their August

record for temperatures reaching 100° or higher. These are: Parma, southwest, with 13 compared to 10 in August previously; Lewiston, north, with 9 compared to 7; and Moscow, north, reached 100° on 1 day for the first time in August. Precipitation was widely scattered and light except for isolated thundershowers. Significant amounts were recorded at Dubois Experiment Station with 0.43 inch and American Falls with 0.20 inch for the larger amounts. Harvesting crops well underway under ideal weather. Development corn, potatoes, and sugar beets excellent. Winter wheat 15% and peas 50% harvested north. In southwest about 90% winter wheat, 75% spring wheat and barley combined. Mint and onion harvest also underway. Winter wheat harvest about 50% done in the east. Hot weather hastening maturity.

ILLINOIS: Mild, comparatively dry, week with heavy showers and some hail at weekend. Precipitation varied from near none in south to over 2.00 inches some northern locations. Temperatures ranged from normal to 3° below normal. Corn reported 46% excellent, 46% good, and 8% fair. Corn 90% dough stage, 40% dented; 70% dough, 25% dented last year. Southern corn leaf blight picture changed little overall during week. With hotter, more humid weather, blight likely to continue developing, isolated "hot spots". Soybeans virtually all setting pods, 10% turning yellow; 80% setting pods and 5% turning yellow year earlier. Soybeans excellent 50%, good 46%, fair 4%. Third cutting alfalfa 30% complete. Nearly 60% land intended for winter wheat plowed. Pasture conditions continue decline. Pastures 18% excellent, 35% good, 33% fair, 14% poor. Soil moisture 57% short, 41% adequate, 2% surplus. Over 6 days favorable fieldwork.

INDIANA: Fifth consecutive cool week. Precipitation ranged from 0.10 inch south to 1.30 inch north with 0.70 inch central. In last 4 weeks, showers below normal. 0.70 inch in extreme southwest and northeast. Normal to 3.00 inches above normal elsewhere. Sunshine and evaporation above normal. Six days suitable. Topsoil and subsoil moisture rated adequate. Corn crop development 65% dough or later stage. Nearly 20% dented, compared with 15% 1970 and 20% in 1969. Southern corn leaf blight moderate to mild. About 75% soybean crop reached pod stage, ahead 65% last year. Plowing winter wheat land 45% complete, ahead 40% last year. Apples 15%, peaches 45%, tomatoes 35%, watermelons 50% harvested. Pastures rated fair to good.

IOWA: Dry week with seasonal temperatures. Fifth consecutive dry week. Precipitation for last 5 weeks 20% of normal northwest and about 25% southwest, central and west-central. Generally, corn and soybeans still mostly good to excellent condition, but rain needed. Drought conditions developing over much of State. Over 6 days suitable for fieldwork. Corn condition 35% excellent, 57% good, 6% fair, 1% poor, 1% very poor. Over 60% corn in or past dough stage, 15% in or past dent. Last year 65% dough and 20% past dent. Little change in Southern corn leaf blight situation. Soybeans 38% excellent, 51% good, 8% fair, and 3% poor. Soybeans 85% setting pods, same as last year, but ahead 5-year average. Leaves starting to turn in some early-planted fields. Alfalfa 3d crop 30% complete, last year about 20%. Pastures mostly fair to good. Topsoil moisture 68% short, 32% adequate. Last week 42% short, 57% adequate, and 1% surplus.

KANSAS: Unseasonably cool 4th consecutive week. Weekly mean temperatures much below normal south-west and south-central. Maxima above 100° locally southeast of 10th, only day during first half of month with maxima above 100°. Precipitation spotty and generally light, few localities western 1/3 and southeast had 1.00 to 2.50 inches, mostly under 0.10 inch elsewhere. Row crops made mostly satisfactory growth, but some areas need rain. Corn 74% dough stage, average 67% and 28% dented, average 34%. Corn 6% fully matured and some being ensiled. Southern corn leaf blight infection now in 41 counties, but spread limited by weather. Sorghum 58% headed, average 54%. Natural predators reducing greenbugs and corn leaf aphid infestations, some fields sprayed. Soybeans 75% podding, average 64%, some bothered by green clover worms and bean leaf beetles. Peach harvest progressing. Some cattle being contracted or marketed off grass. Pastures and range feed continued mostly fair to good, but dry some areas. Prairie hay harvest full swing. Alfalfa 3d cutting 61% complete, average 60%. Some alfalfa and red clover seed cut.

KENTUCKY: Warm and humid through 11th, then cooler and less humid until warming over weekend. Sunny 12th to 14th. Widely scattered showers other days. Little or no rain over much of State except a few moderate to heavy totals 0.50 inch to 1.30 inches south-central, northern Bluegrass, and west over much of State as of 15th. From 10 to 12 days since a day with at least 0.25 inch of rain. Topsoils dry some areas, but moisture not limiting crop growth or development. Corn making excellent progress. Large portion crop now dented or in late dough stage. Leaf blight increasing in severity, but resistant hybrids and advancement of maturity should help limit losses. Early soybeans rapidly setting pods, late-planted beans growing well. Tobacco prospects improving with dry weather. Burley growth rapid after topping. Half of crop blooming and sizeable portion already topped. Alfalfa 3d cutting 1/2 complete. All hay growth good due plentiful moisture. Tree fruit harvest continues active.

LOUISIANA: Average temperature 1° to 3° below normal most areas, 1° above normal southwest. Daily extremes: 96° several stations and 65° Ashland Friday. Precipitation in scattered showers, light to moderate ranging from less than 0.20 to more than 2.00 inches. Greatest 1-day total 2.41, Winnsboro Tuesday morning. Fieldwork delayed by water-soaked fields. Soil moisture excessive and dry weather needed for insect and weed control and early crop harvest. Cotton continued good. Farmers applied insecticide between showers. Rice harvest 10% completed, but over 50% ready for combining with lodging increasing. Sugarcane growth ideal in hot humid weather. Soybean growth good. Wet fields holding back corn harvest. Earliest fields grain sorghum cut. Sweetpotato digging active central. Haying further delayed. Pastures above average, and livestock good.

MARYLAND AND DELAWARE: Mostly sunny weather with temperatures averaging near normal. Showers and thunderstorms on 11th, 12th gave totals mostly between 0.30 and 0.50 inch but ranging from 1.00 inch or more from Baltimore metropolitan area into northern Eastern Shore and central Delaware to 0.10 inch in Allegany and Washington Counties. Corn and soybean prospects continue to improve with additional moisture. Tobacco harvest and topping made good progress. Hay prospects im-

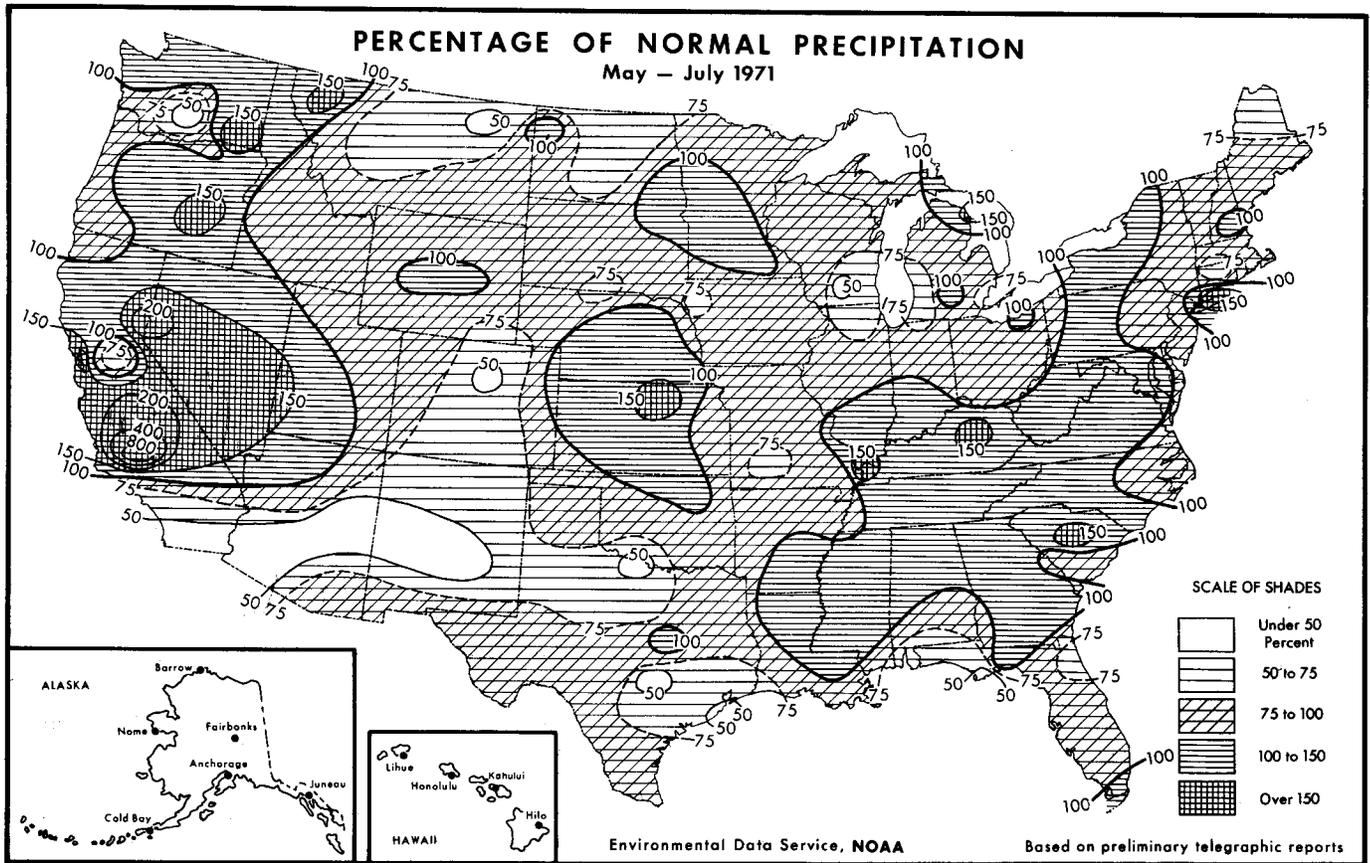
proved and pastures good. Harvest peaches and early summer potatoes continues.

MICHIGAN: Variable temperatures, unseasonably cool mornings middle and end of period. Beneficial rains early in week except south-central State border area. Temperatures averaged 2° to 4° below normal Upper Peninsula, normal to 4° below normal Lower Peninsula. Precipitation totals, 0.50 to 1.75 inches Upper Peninsula, 0.75 to 1.75 inches Lower Peninsula except less than 0.25 inch south-central, Flint to Indiana-Ohio border area. General rain showers throughout State improved crop prospects. Soil moisture still not adequate many parts to bring crops to harvest. State averaged 5 days suitable fieldwork. Midweek rains improved corn prospects many dry areas. Corn 90% silked, wheat harvest virtually complete. Oats 75% harvested. Dry beans beginning to turn color. Soybean development hindered by dry weather. Potato digging underway, 15% harvested. Second cutting hay over 60% complete, but reported short due drought. Pasture and feed supplies continue to be short Lower Peninsula. Pickle harvest over half complete. Summer apple harvest full swing. Rains helped sizing pears and peaches; harvest just getting underway.

MINNESOTA: Temperatures near normal across State. Extremes: 101°, 38°. Precipitation little or none across State except in northeast and central part of northwest and north-central districts and scattered areas along the Wisconsin border. This is the 4th consecutive dry week for most of southern 2/3 of State except for eastern counties near Wisconsin border. Other dry years for Twin Cities area from July 15 through August 15 were in 1946 and 1947. Short topsoil moisture reducing soybean and corn prospects. Field corn fair. Corn 65% milk stage, normal 45%; 13% dough stage, normal 14%. Southern corn leaf blight remains at trace levels. Soybeans fair, 88% setting pods, normal 77%. Flax harvest underway south. Flax 20% combined, normal 8%. Small grain harvest progressing well. Small grains combined: Spring wheat 46%, normal 27%; oats 72%, normal 59%; barley 74%, normal 55%; rye 92%, normal 90%; winter wheat 91%, normal 71%.

MISSISSIPPI: Mostly 2 to 5 days with rain. Weekly totals ranged from 0.10 inch parts of coastal division to 1.00 inch and above elsewhere. A 1-day amount of 2.51 inches was measured at Holly Springs on morning of 8th. Thursday was first time in many days that no showers or thunderstorms occurred in State. Weekly temperature averages ranged from normal to about 4° below normal. Daily extremes: 95° and 58°. Over weekend: Few widely scattered showers mainly in northern and east-central Mississippi Saturday and north-central portion Sunday. Soil moisture mostly adequate south and north-central, mostly excessive Delta counties, and mostly surplus northeast. Average 2 1/2 days suitable for fieldwork. Peaches 86%, watermelons 80% harvested. Corn 58% dented. Soybeans 31% setting pods, sorghum 76% headed. Cotton and pecans mostly fair to good condition. Corn, hay crops, soybeans, rice, sweetpotatoes, pastures and livestock mostly good condition.

MISSOURI: Near normal temperatures prevailed past week. Cooler air pushed across State Saturday, August 14. Rainfall averaged over 1.00 inch in a diagonal band 100 miles wide from Springfield to Hannibal. Other areas received around 0.50 inch. Majority corn good condition, 76% dough,



PRECIPITATION - MAY TO JULY 1971

Most of the Nation received less than normal rainfall in the 3-month period, May to July 1971. The exceptions include most of the Great Basin, a portion of the Great Plains, and a large area extending from the Ohio River almost to the Gulf of Mexico. A few widely scattered spots received less than half the normal rainfall in the 3-month period. The largest of these reached from extreme southern California to central New Mexico.

Most of the areas with more than normal rain-

fall, received generous rains in each month. Beneficial rains fell in at least one month in most of the other areas. For instance, the heavy July rains in northeastern Texas, partially offset the scanty rains of May and June. Similarly, the 3-month map above tends to hide the torrential rains that fell in the central Great Plains and in the middle Appalachians in one of the three months.

L. W. Dye

65% last year. Southern corn leaf blight showed increased activity, though variable. Fungicides inhibiting rapid infections upper leaves. Soybeans 61% setting pods, 49% last year. Majority good condition. Grain sorghum 86% headed, 72% year ago, 16% mature. Cotton setting bolls changed little during week, no bolls opening yet. Third cutting alfalfa 62% complete, 56% last year. Pastures 21% poor, 59% fair and 20% good. Soil moisture 60% short, 37% adequate, 3% surplus.

MONTANA: Another hot and dry week. Temperatures averaged 5° to 19° above normal with no precipitation. Highest temperature, Glasgow, 106° on the 14th. Grain harvest progressing rapidly as dry, hot weather prevails. Topsoil moisture continues short. Winter wheat harvest about 55% complete; spring wheat and barley 30%; oats 35%. Harvesting progress ahead last year, especially spring seeded grains. Second crop alfalfa cutting moving at good pace. Sweet cherry harvest complete, quality very good. Range feed supplies continue short to adequate.

NEBRASKA: Seasonal temperatures returned after prolonged cool spell. Widely scattered mostly very light showers. Non-irrigated crop conditions declined slightly some areas and general rain would be beneficial. Corn 40% dough stage with few fields dented. Southern corn leaf blight development was static. Sorghum made good progress and 5% acreage turning color. Soybean conditions mostly good to excellent. Farmers preparing seedbeds for fall-sown small grains and legumes. Sugar beets, dry beans, and potatoes making good development with limited disease and insect problems. Highest temperatures caused some discomfort for livestock.

NEVADA: Fourth consecutive hot week. Temperatures averaged 6° to 10° above normal all divisions. No precipitation in north. Las Deba reported 0.35 inch of precipitation Monday causing flooding. Second cutting alfalfa hay remains main farm activity throughout northern and central Nevada. Harvest wild hay and clover-timothy nearing completion. Small grain har-

vest in progress many areas. Alfalfa seed development good. Cattle and sheep remain good. Calves and lambs doing good. Summer ranges generally good, but some deteriorating due lack moisture.

NEW ENGLAND: Many dry sunny days. Temperatures seasonal, but warmest at first of week. Means near normal to 3° above normal. Rainfall varied widely, from near none to 2.00 inches, but mostly 0.50 to 1.50 inches. Rain mostly from showers and thunderstorms August 11, with locally damaging winds. A small tornado reported at Fryeburg, Me., with possibly another at Bingham. Cloudy with some very light rain in coastal areas on Sunday, August 15, from fringe effects of hurricane Beth far offshore. All crops making good progress. Silage corn prospects good. Some 2d cutting hay in the barn. Pastures providing good supplemental feed. Early apples, peaches, plums, and blueberries available roadside stands. Sweet corn, tomatoes at peak. Most summer vegetables available. Maine potato crop has adequate moisture and showing excellent growth. Tobacco harvest active Connecticut Valley and potato digging picking up momentum. Cranberry prospects good although crop could use rain.

NEW JERSEY: Temperatures averaged near normal most areas, with extremes ranging from mid-40's to mid-90's. Showers brought variable rainfall to State middle of week with amounts varying from less than 0.10 inch at Flemington and Newark to 2.90 inches in Atlantic City area. Soil moisture adequate. Harvest summer crops advancing on schedule. Planting fall vegetables nearing completion. Tomatoes, corn, cabbage, beans, onions, peppers, squash, eggplants, potatoes, and cucumbers are available. Cantaloupe and ice-box melons in good supply. Many growers have completed blueberry harvest. Peach picking heavy. Cranberry prospects favorable. Corn leaf blight increasing, growers spraying grain corn and some silage corn. Third cutting hay advancing. Oat combining nearing completion.

NEW MEXICO: Scattered light showers throughout week except locally moderate to heavy in east and southern mountains where totals were 1.00 to 3.00 inches. Temperatures continued below normal with little day-to-day change. Cool days in east with average temperature 4° to 7° below normal. Moisture improved most areas. Third and 4th cuttings alfalfa underway. Some rain damaged hay in windrows. Cotton, sorghum grain, other crops good condition. Scattered infestations cotton bollworm Dona Ana County. Vegetable harvest continuing. Range conditions improving. Cattle, sheep fair to good; depending on feed.

NEW YORK: Cool midweek and on 15th, otherwise temperatures above normal. Maximums 86° to low 90's on 9th and 10th with sharp change on weekend from mid-80's on 14th down to 65° to 70° on 15th. Nights warm through 11th but minimums cooled to mid-40's to low 50's midweek. Light to very light showers mid-period totaled mostly 0.10 to 0.40 inch with up to 0.70 inch widely scattered areas. Rain needed in central southern tier where August totals through 15th less than 0.50 inch. Corn excellent and continued to develop rapidly with good growing weather and adequate moisture. Oat harvest 30% complete. Wheat harvest 75% complete. Recent rains stimulated regrowth hay. Second cutting excellent condition and 75% harvested. Dry beans continue to develop well. Pastures fair to good. Long Island potato harvest increasing rapidly. Early

seed onion harvest well along Orange County. Celery cutting remains active Orange and Wayne Counties. Most iceberg lettuce volume from Oswego County. Good volume sweet corn available. Seasonal increases underway for snap beans, cabbage, cucumbers and tomatoes. Apples continue to size well Hudson Valley and western New York, harvest summer varieties continues. Tart cherry harvest complete. Some early variety peaches being picked, size fair, quality good.

NORTH CAROLINA: Temperatures averaged slightly below normal with little trend. Rain light to none eastern half of State except amounts up to 1.00 inch immediate coast with tropical disturbance 12th and 13th. Showers on 2 to 5 days west portion with amounts ranging 0.50 inch to 5.00 inches averaging 1.00 inch. Statewide soil moisture mostly adequate, except surplus mountains some short northern Piedmont and mostly short northern Coastal Plain. Crops generally good, mostly unchanged from week earlier, except corn and cotton declined slightly. Condition soybeans improved slightly. Southern corn leaf blight probably present in all counties susceptible types corn. Harvest flue-cured tobacco active and near 60% complete. Commercial peach harvest 3/4 complete. Apple harvest continues active. Corn harvest beginning Coastal Plain.

NORTH DAKOTA: Temperatures averaged 5° to 8° above normal in west and 2° to 4° above normal in east. Precipitation ranged from none to 0.01 inch over State except in east where amounts ranged from 0.16 to 0.94 inch. Greatest amounts occurred in northeast and central sections. Scattered showers slowed combining some areas, but generally harvest proceeding rapidly. Lack of early morning dew enabling farmers to put in long days. Row crops and pastures need moisture.

OHIO: Sunny and cool most of week. Rainfall widespread only on 10th when amounts ranged from 0.03 inch at Youngstown to 4.55 inches at Galion. On the 10th, the daily mean temperature was above normal over central Ohio for the first time since July 9. Days favorable for field work 6. Soil moisture supplies 30% short, 68% adequate and 2% surplus. Corn 60% dough stage, 15% dented, but not hard. 1965 to 1969 average corn maturity 40% dough and 10% dented, but not hard. Soybeans 50% pods set with leaves green, last year and normal 35%. Alfalfa 2d cutting 90% harvested, 65% 2d crop clover-timothy cut. Potatoes 20% dug, last year and usual 15%. Sweet clover and red clover seed 10% harvested. Tobacco 25% topped. Fall plowing for winter wheat 35% finished, equal to last year and above average. Southern corn leaf blight confirmed 77 of 88 counties. Damage in few fields northwest worst than last year. Cool weather hindering spread.

OKLAHOMA: Substantial rains in southwest brought considerable improvement from drought. Excessively heavy rain fell Sunday in Cotton County. Weekly rainfall totals range 0.20 inch Panhandle and northeast up to 2.90 inches southwest and south-central. Temperatures averaged 3° to 7° below normal except 1° below normal northeast. Extreme temperatures were 99° and 53°. General rainfall substantially improved soil moisture, especially Panhandle and southwest. Surface soil moisture 42% short, 56% adequate, 2% surplus. Surface moisture southwest 40% short, 60% adequate, week earlier 83% short. Development cotton still sharply behind year

ago, 36% setting bolls. Other row crops wide range development, but seasonal progress now near year ago. Corn 28%, sorghum 18% mature. Peanuts 58% spiking, soybeans 45% setting pods. Cotton fair to good, other row crops good to excellent. Substantial improvement southwest. Alfalfa hay harvest delayed, wet weather. Pastures improving mostly fair to good. Livestock mostly good, some supplemental feeding still necessary west.

OREGON: Continued hot and dry with push of marine air at close of week cooling statewide. 1 to 3 days above 100° western valleys, 3 to 7 days east of Cascades. Temperatures averaged 3° to 5° above normal along coast, 8° to 15° above elsewhere. Maxima, 70° to 83° along coast, 90° to 110° elsewhere. Minima 37° to 65°. Precipitation limited to 0.01 to 0.05 inch along coast and northeast on 1 to 2 days. Few lightning-set fires in forests and rangelands at midweek. Barley and wheat harvest continues active. Grass seed harvest, except bent grass nearing completion. Peppermint harvest active. Peach harvest increasing. Bartlett pears expected next week. Snap beans maturing extremely fast, some fields bypassed. Third cutting alfalfa hay underway. Early potato harvest continues Hermiton and Ontario. Non-irrigated pastures drying out fast.

PENNSYLVANIA: Fair weather most of week, showers with cold front midweek. Most of State had less than 0.25 inch rain, except 0.50 to 1.00 inch parts of northwest and southwest. No rain much of central. Warm and humid early in week, cooler and drier behind front. Temperatures mostly 1° to 2° below normal. Maximum 92°; minimum 38°. Topsoil moisture 2/3 adequate, remainder mostly short. Oats combining nearing end, lodging heavy some localities. Corn developing rapidly, mostly milk stage. Southern corn leaf blight spreading rapidly, southeastern counties, hot spots developing. Pasture and hay crops generally improved. Potato harvest continues. Picking ripe tomatoes just beginning. Topping tobacco started. Gravenstein apple harvest beginning. Peach picking gaining momentum.

PUERTO RICO: Rainfall over Island averaged 1.01 inches or 0.51 inch below normal and well distributed as all stations reported some shower activity. All divisions had areas with totals of 2.00 inches or more except northern slopes where greatest total reported was 1.34 inches. Highest weekly totals recorded 5.36 inches Adjuntas and 4.22 inches Sabana Grande. Crop moisture conditions about normal. Temperatures averaged about 80° coastal and slopes divisions and 76° interior with average departure from normal of -7°. Extremes: 94° and 57°. Variable weather or sowing and cultivating sugarcane. Coffee farmers reported good weather for most field activities. Recent rains islandwide beneficial to condition and cultivating. Pastures looking green and abundant. Minor crop zones good progress fieldwork and harvesting operations.

SOUTH CAROLINA: Scattered showers becoming widely scattered and confined mostly to immediate coast at end of week. Rainfall amounts moderate except few heavy amounts scattered thundershowers. Temperatures averaged 1° to 2° below normal. Soil moisture excessive portions Piedmont coastal areas, adequate elsewhere. Tobacco 86% harvested.

Cotton condition good, 95% setting bolls, bolls opening 10%. Insect infestation increasing. Soybeans good to excellent, 58% blooming, 16% setting pods. Sorghums good to excellent. Harvest sorghum silage underway. Peanuts good to excellent. Corn 98% dough stage, 38% mature, harvest underway, mostly silage. Peach harvest 90% complete. Grape condition mostly good, 22% picked. Apples good to excellent. Harvest hays active weather permitting. Watermelon harvest 94% complete. Planting fall vegetables.

SOUTH DAKOTA: Weekly temperatures averaged from near normal to 5° above normal. Extremes ranged from 43° at Conde, Ralph, and Brookings on 11th to 105° at Milesville on 9th. Precipitation was generally light and widely scattered through week with many areas receiving no rain. Most areas that received rain reported about 0.20 inch or less with one of the greatest amounts of 0.38 inch at McIntosh on 10th. Moisture supplies remain short. Topsoil and subsoil moisture supplies short. Severity of dry conditions increased and several reports indicate corn is firing. Moisture needed soon to fill corn ears, sorghum heads and soybean pods. Flax seed harvest 35% complete, 8 points ahead normal. Sorghum 80% headed and soybeans 90% podded, about normal. Corn development normal at 39% dough stage. Green bugs remain problem sorghum. Second brood corn borer infestation varies with location. Southern corn leaf blight mostly light, but becoming severe especially in some southeastern irrigated fields. Pastures drying out. Some hay and green chop being fed. Cattle being turned on subble fields. Pink eye problem lessening.

TENNESSEE: Hot weather 9th and 10th, followed by cooler rest of week. Temperatures averaged 2° to 4° below normal for week. Extremes lower 90's, 58°. Shower activity less general over State this week, with heaviest in west where some totals of over 2.00 inches, zero to about 1.00 inch elsewhere. Continuing rainfall makes crop care and harvest difficult, particularly hay and silage. Excess moisture damaging some crops. Pastures lush growth. Soybean growth mostly satisfactory, 75% blooming, 35% setting pods. Corn good prospects with early fields mature. Silage harvest underway. Cotton generally good progress, but insects building up and warm dry weather needed, 90% setting bolls. Tobacco damaged some areas by excess rainfall. Harvest gaining momentum. Snap and lima bean harvest active. Tomatoes damaged by excessive moisture. Hay harvest active where dry enough. Days favorable fieldwork averaged 2.7. Soil moisture 53% surplus, 46% adequate and 1% short.

TEXAS: Locally very heavy rains fell almost daily in some parts of Texas. Twelve to 14.00 inches within a 72-hour period in the Hill Country west of San Antonio sent local creeks and rivers on a rampage. Deluges of 3.00 to 6.00 inches also fell north of Del Rio, southeast of Abilene, and north of Abilene. Two-to 4.00-inch rains spread into north-central and northeast Texas while daily showers on southern high plains brought some weekly totals to 4.00 to 5.00 inches. Largely missed by rains was the entire coastal section. Substantial 72-hour totals included Kerrville 13.89 inches, Hondo 12.21 inches, Vanderpool 11.85 inches. Drought covering State for most part broken. Heavy rains from southern Plains to Lower Rio Grande Valley

relieved drought conditions and raised crop prospects. Pastures greening, grazing conditions improved. Fall hay prospects improved. Rains generally beneficial High and Low Plains and late-planted crops elsewhere. Harvest cotton, corn, sorghum, rice little progress because rain. Percent harvested major crops; cotton 5; 4 last year; corn 16, 10 last year; sorghum 33, 30 last year; Peanuts 2, 0 last year; rice 47, 34 last year. High Plains vegetable harvest interrupted by rains, wet fields. Most remaining potatoes, onions expected to be harvested next several weeks. Light supplies carrots, cabbage, cucumbers from High Plains with harvest bell peppers getting underway. Planting fall lettuce complete Hereford. Trans-Pecos onion harvest continues. Cantaloupe harvest active Pecos, with north Texas harvest interrupted rains. Watermelon harvest declining East Texas with harvest North Texas slowed by showers. Land preparation, vegetable seeding hampered by wet fields South Texas. Citrus prospects boosted. Peach harvest nearing completion. Pecan nut set below normal.

UTAH: Scattered showers and thunderstorms early in week and over weekend. Accumulated amounts of moisture locally quite heavy with some local flooding. Temperatures ranged from near normal to 6° above normal. Soil moisture deficit continues high south and central. Crops, pasture, and range feed have held up well to date in spite 2 1/2 months above-normal temperatures and below-normal rainfall. Grass fire danger now extreme most areas. Fall range feed prospects not good. Weather favorable for grain and hay harvesting. Winter wheat harvest 90% complete dryland, 70% irrigated land. Completion spring seeded grain harvest now 70% spring wheat, 60% oats, 75% barley. Hay cutting 80% complete for 2d crop alfalfa, 90% clover-timothy and wild hay. Tart cherries 90% picked, will finish this week.

VIRGINIA: Temperatures above normal first half and below normal second half. Showers and thunder-showers at mid-week and in coastal areas Saturday. Totals mostly less than 0.50 inch. Fieldwork proceeded well. Topsoil moisture generally adequate, except in southeast and some central Piedmont and Coastal counties. Leading activities included haying, putting up silage, clipping pastures, fall plowing, pulling flue-cured tobacco, picking summer apples, peaches, and tomatoes and cultivating late soybeans. Flue-cured tobacco 1/5 harvested.

WASHINGTON: Western Washington: Cooler with night and morning cloudiness at beginning of period, then rapid warming to hot and dry. Cooling on last day. Some light rain along north coast section last day. Raspberry harvest about completed and blueberry picking continues. Corn responding well to hot weather. Cauliflower harvest beginning and broccoli going strong. Pastures need moisture badly. Eastern Washington: Hot and dry. Beginning cooler trend last day of period. Wheat harvest continues. Sweet corn

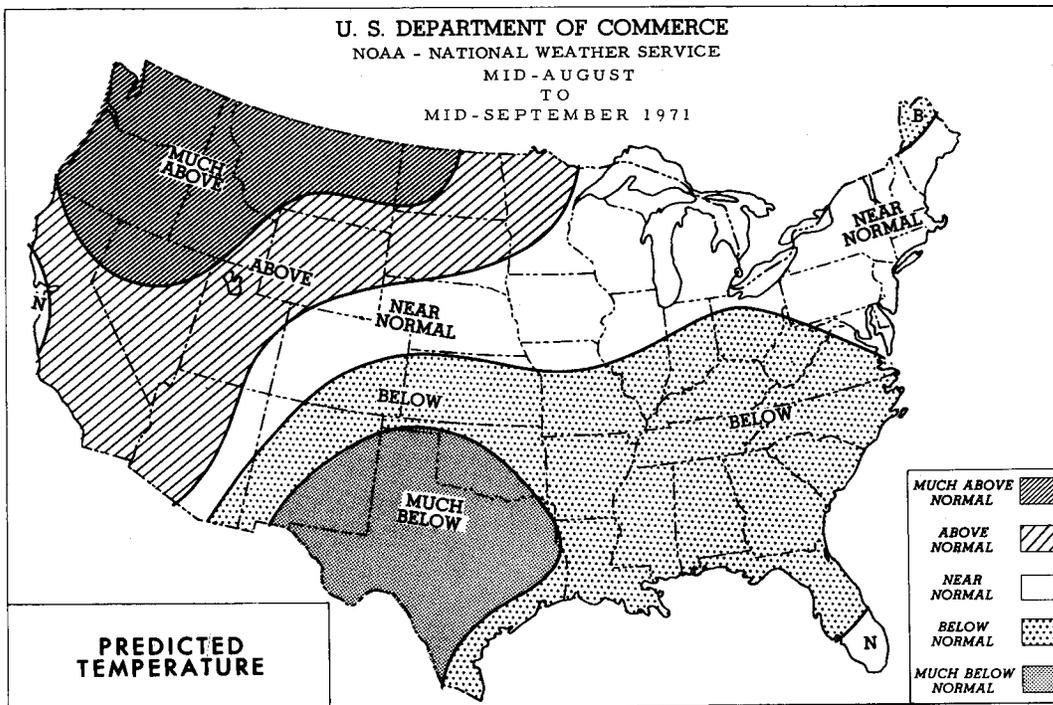
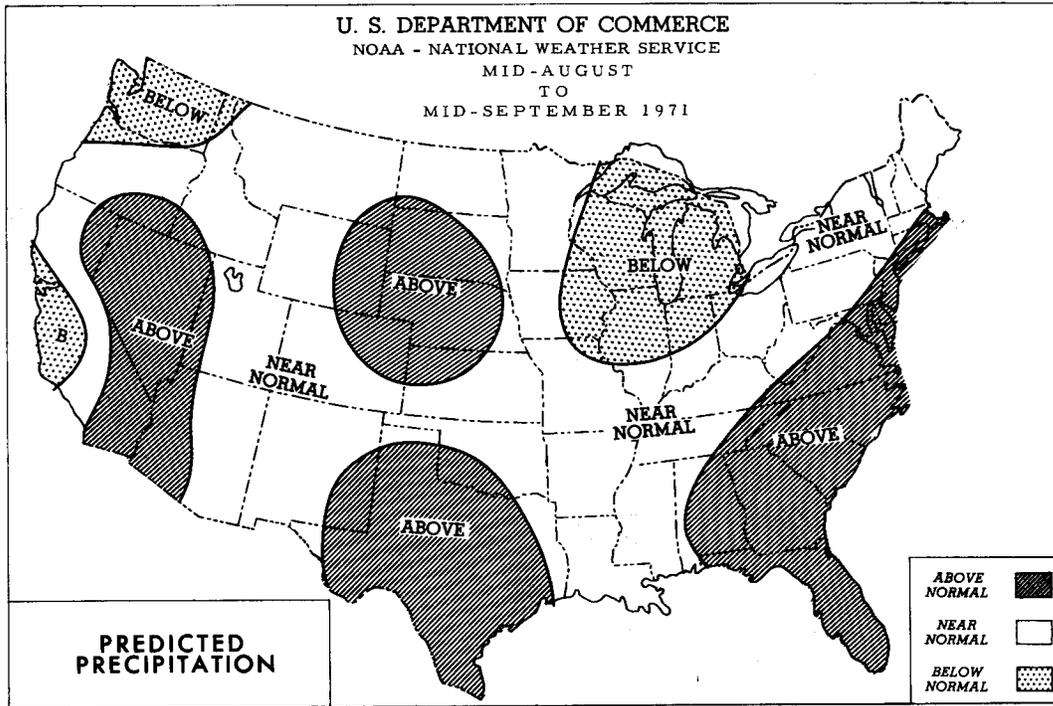
and potatoes being harvested. Peaches and apricots being picked. Bartlett pears beginning early areas, as are prunes and nectarines. Second cutting hay completed, 3d cutting beginning Benton County. Zucchini and cucumber picking progressing well.

WEST VIRGINIA: Dry sunny week. Variable amounts of rainfall Wednesday from cold frontal thunderstorms. Totals generally light except some stations in south and east over 1.00 inch totals. Weekly temperatures continued below normal with early morning fog and warm afternoons. As general rain let up, farmers returned to harvesting activities. Average of 4.4 days suitable fieldwork, compared with 1.4 days previous week. Major activities were hay harvesting, combining grains, and cutting filth. Nearly all areas reporting adequate to surplus moisture. Few eastern counties short. Oats 85% harvested. Second cutting hay about 35% complete. Tobacco 25% topped. Corn about 30% dough stage.

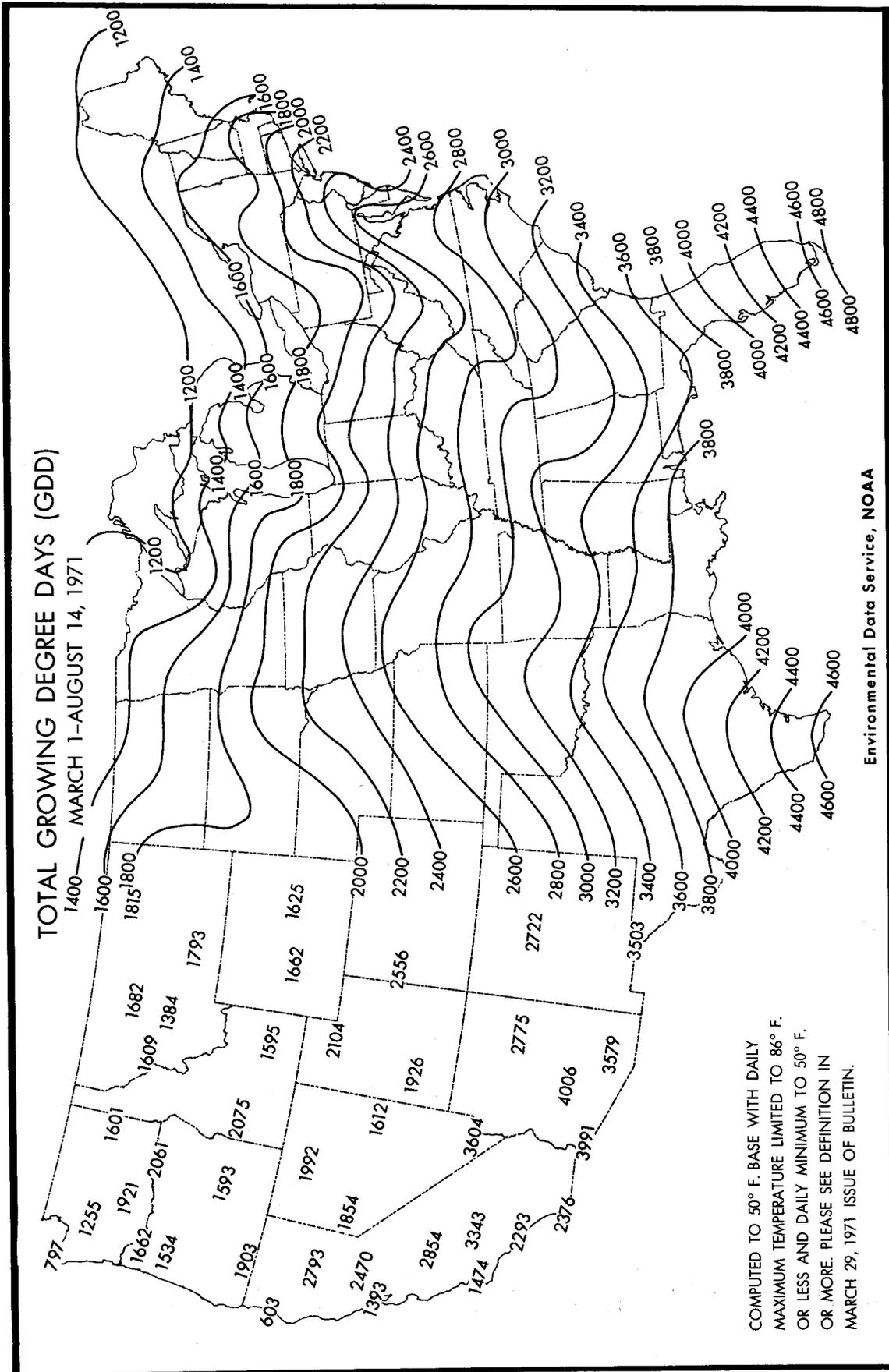
WISCONSIN: Fine summer weather with good rains most sections on Tuesday and Friday. Some local crop damage from wind and hail but rains generally much appreciated as soil moisture conditions were extremely low previously in many areas. Soil moisture still short many southwestern counties, but 80% State reported having adequate supply. Crops responding well to moisture though some reduction in yields already suffered driest areas. Oats harvest continues across north. Yields better than in many southern counties. Over half 2d crop haying completed. Rain should help 3d crop hay and pastures. Corn 1/4 dough. Last year 1/3. Most advanced fields roasting-ear stage. Timely rains will help yields. Significant buildup in severity of blight occurred. Lesions on stalks and husks routinely found on inspection of susceptible fields. Tobacco being topped. Early-planted soybeans doing good. Early potato harvest continues. Sweet corn harvest active. Cucumbers, beets and snap beans also processed. Some early apples picked. Some hail and wind damage to orchards.

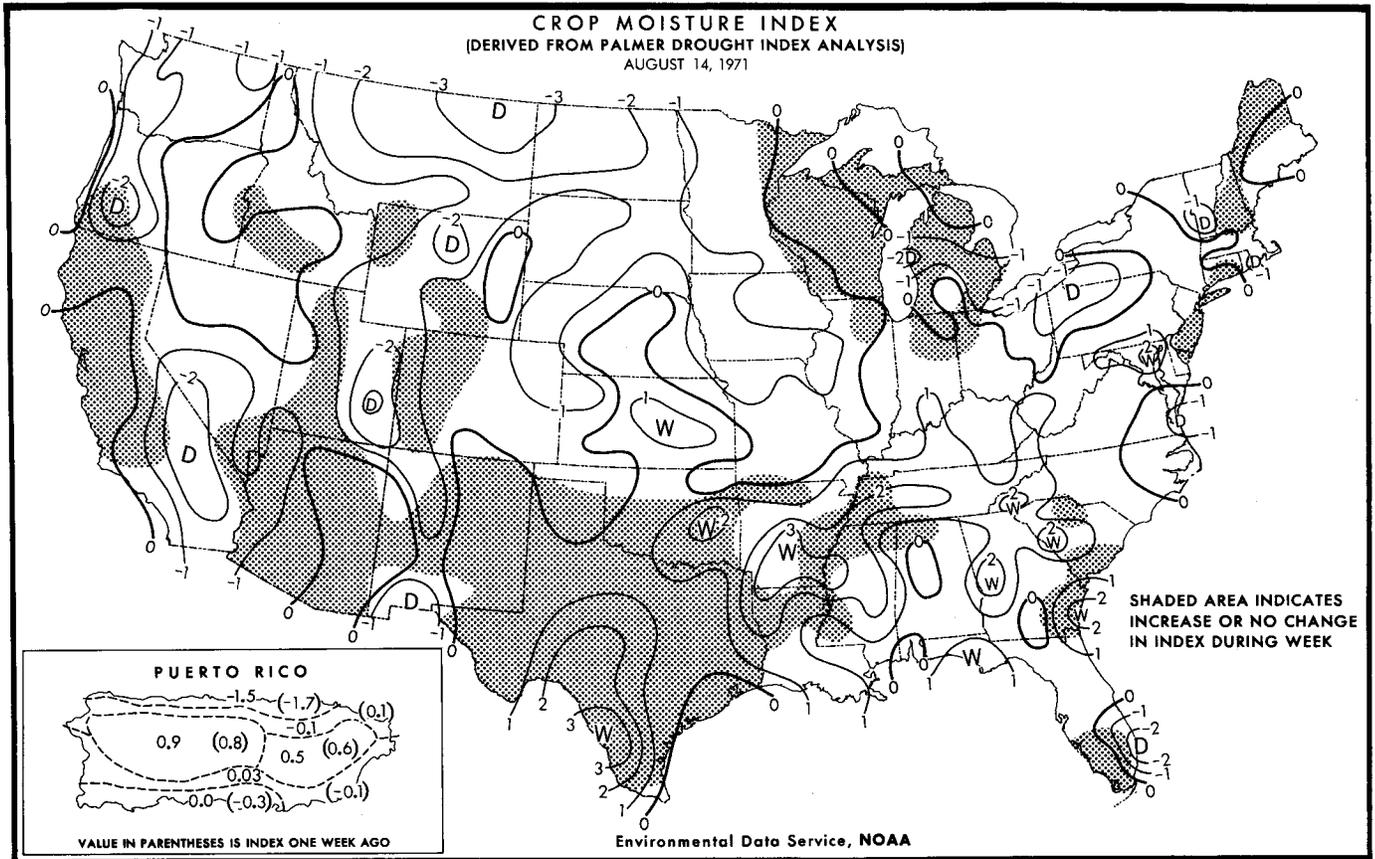
WYOMING: Scattered light showers statewide. Glenrock most moisture with 0.80 inch. Temperatures averaged near normal over south half, above normal over the north half. Maxima were mostly mid-80's to low 90's west of Divide and Upper Platte Drainage, and high 80's and 90's elsewhere. Minima were mostly 30's and 40's west of Divide and Upper Platte Drainage, 40's and 50's elsewhere. Temperature extremes were 100° at Worland and Sheridan Field Station and 26° at Foxpark. Main agricultural activities were irrigating and harvesting hay and grain. Hay harvest continues good, warm dry weather persisted. Winter wheat harvest nearly complete, and spring-planted grains being cut. Although surface moisture supplies generally short, most pastures and ranges continue fair to good, while prospects for fall and winter grazing are generally good.

AVERAGE MONTHLY WEATHER OUTLOOK



The above prognostic charts show the expected categories of average temperature and total precipitation for the period indicated. They were extracted from the Extended Forecast Division's publication "Average Monthly Weather Outlook" which contains additional information necessary for complete interpretation.





INDEX DECREASED DURING WEEK
(Unshaded Areas)

INDEX INCREASED OR DID NOT CHANGE DURING WEEK
(Shaded areas)

INDEX

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 EXCEPTIONALLY DRY, MOST CROPS ABOUT RUINED

INDEX

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 NORMAL 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 EXCEPTIONALLY DRY.

The map above is based on weekly areal mean values of temperature and precipitation for 350 climatological divisions. Weather during previous weeks has been taken into account through successive weekly computations of both topsoil and subsoil moisture. The map shows recent crop moisture conditions; i.e., areas in which crops have been hindered by abnormal dryness or wetness, and areas where moisture conditions have been favorable.

This is a generalized picture; local variations caused by the occurrence or absence of heavy rain or by soil differences are not shown. Shallow rooted crops and crops in areas with poor soils are likely, on occasion, to suffer more than indicated. Conditions may be better than shown in areas having exceptionally good soils.

The legend applies primarily to growing rather than matured vegetation. Interpretation of the

effects on crops and native vegetation must, therefore, take account of the stage of growth as well as the status and trend of moisture conditions. The trend is indicated by the shading which denotes areas where the index did not decrease below its value of a week previous; i.e., conditions did not become noticeably drier during the week. A trend toward drier occurred in the unshaded regions. The lines show the crop moisture situation according to the computed index values which may be interpreted using the legends above. One legend applies to the unshaded areas, the other to the shaded. Centers of relative maximum and minimum index values are marked for easier recognition - W for wet and D for dry. In irrigated regions the index values merely reflect departures from ordinary irrigation requirements.



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Questions and comments are invited; please send to Editor in Agricultural Climatology Service Office, address above.

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