

# Weekly Weather & Crop Bulletin

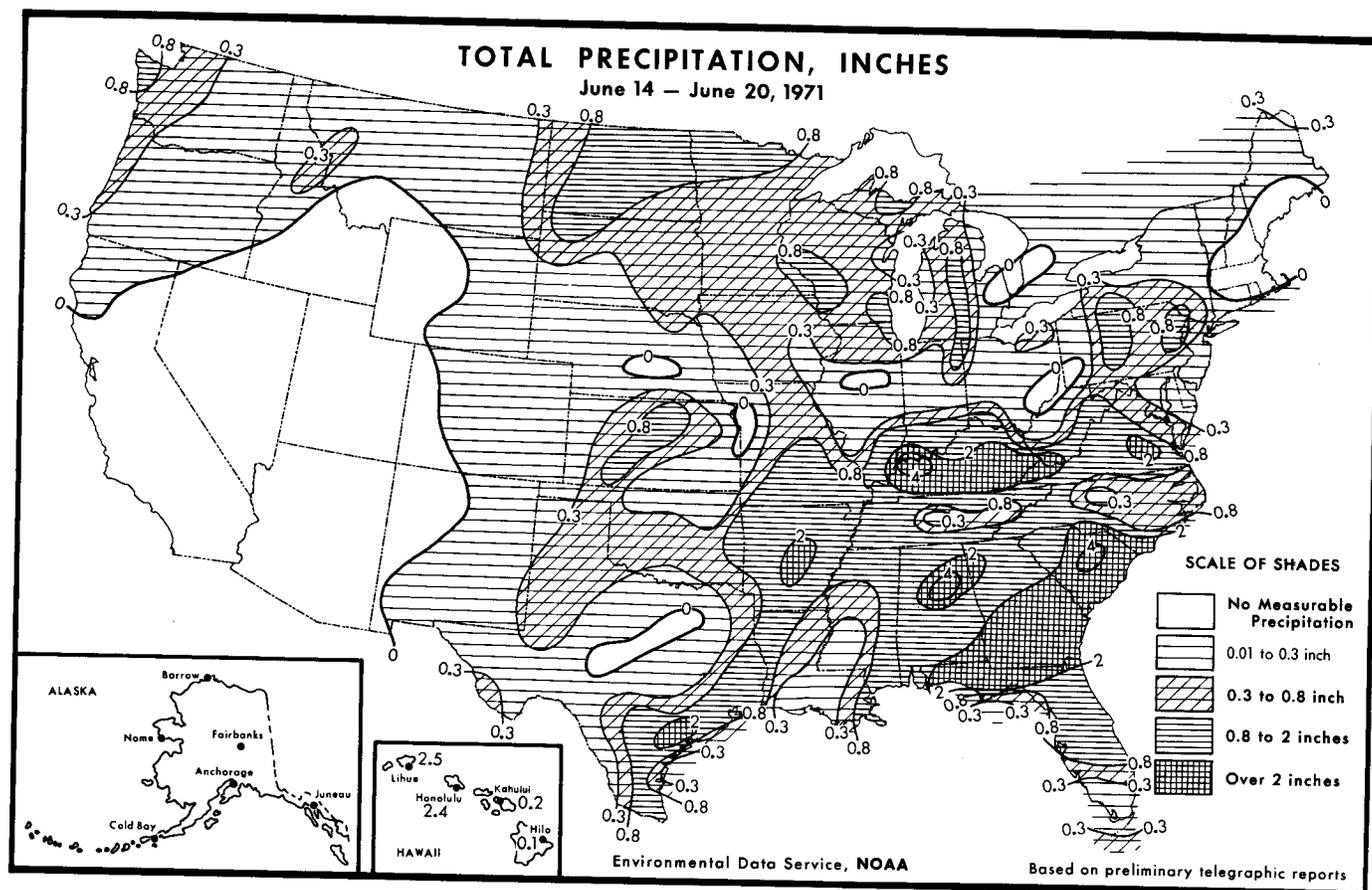
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Edited by Lucius W. Dye

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## NATIONAL WEATHER SUMMARY

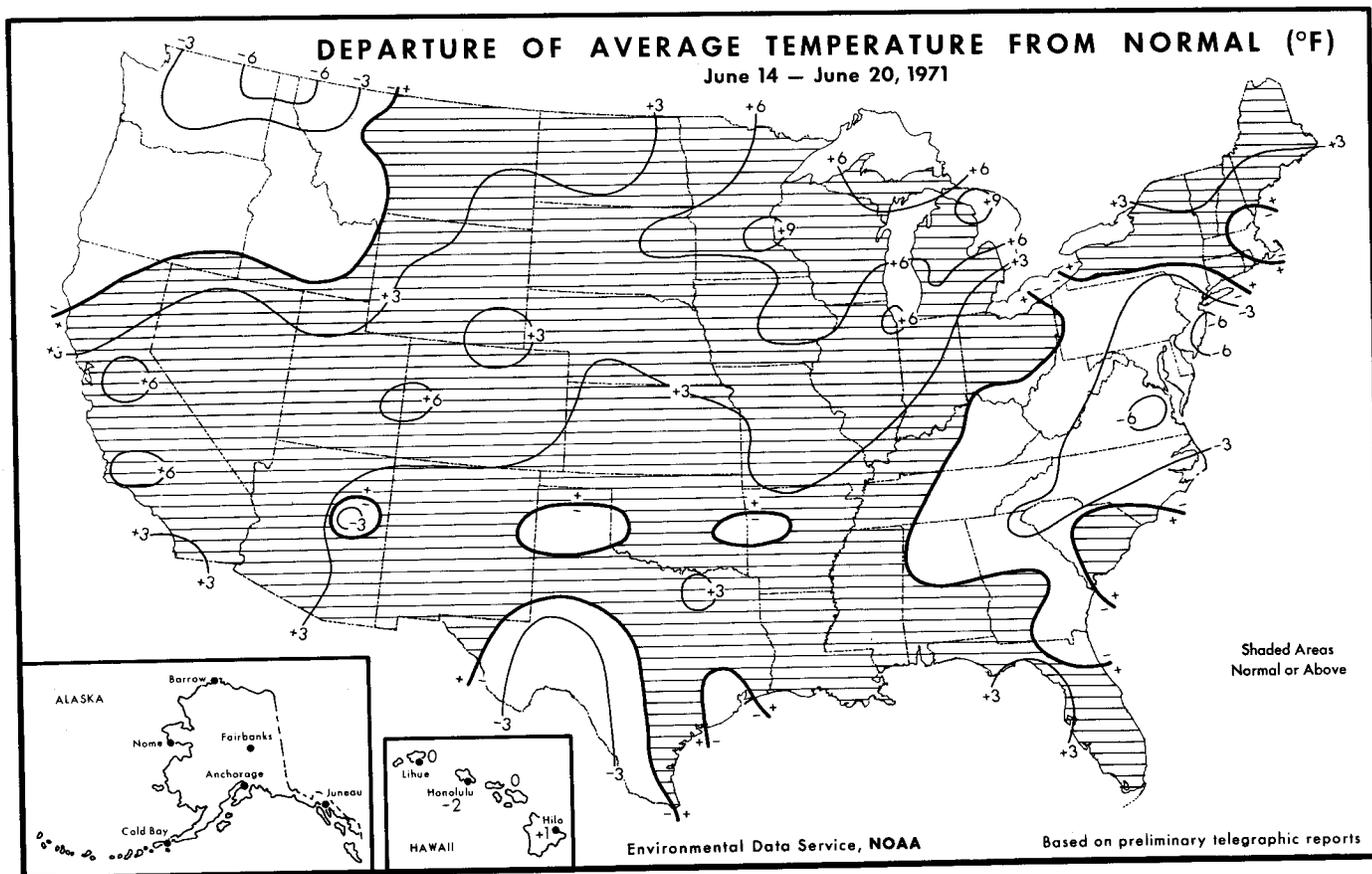
**HIGHLIGHTS:** Summer heat prevailed over most of the Nation. Afternoon and evening thundershowers brought most of the rain to the eastern half of the Nation.

**PRECIPITATION:** Most of the precipitation occurred in connection with afternoon and evening thundershowers over the Great Plains and eastward to the middle and southern Atlantic coast. Hail, high winds, and torrential showers accompanied some of the thundershowers. Early Monday evening hail about the size of marbles accumulated to a depth of 4 inches at Eads, Colo., about 95 miles east of Pueblo. Thundershowers were widespread from the central Great Plains to the middle and southern Atlantic coast Tuesday. Evansville, Ind., received 1.65 inches of rain in about 20 minutes in the afternoon. Rainfall of this intensity falls in streams instead of drops. It is some-

times referred to as a "cloudburst." A thunderstorm at Wilmington, N. Dak., produced hail as large as baseballs and 80 m.p.h. wind gusts lashed Hill City, Kans., late Wednesday.

Summer thundershowers continued over much of mid-America in the last half of the week and over the weekend being especially frequent and widespread along and in the moist air east of a quasi-stationary front that stretched from the Great Lakes to northern Texas. Little Rock, Ark., received 1.25 inches of rain in 20 minutes late Friday. Hail up to 2 1/2 inches in diameter pelted an area a few miles northwest of Dickenson, N. Dak., and winds reaching 64 m.p.h. at Albuquerque, N. Mex., raised clouds of dust reducing the visibility to less than 200 yards.

Precipitation totals over most of the West were less than 0.50 inch. Most of the area from California to the Continental Divide received



no rain or only widely scattered light sprinkles. The western edge of the Great Plains averaged from 0.01 to 0.25 inch. Further east, totals ranged generally from 0.50 to 2.00 inches with a few spots receiving over 4.00 inches. One of the largest totals, 5.18 inches, fell at Evansville, Ind.

**TEMPERATURE:** Pleasant temperatures prevailed most of last week in the Far Northwest and the Northeast. The warming trend continued over the Great Plains with afternoon temperatures in the 80's and low 90's most days. The hottest afternoons were in the interior valleys of California and the Southwestern Deserts where the maximum temperatures exceeded 100°. Blythe, Calif., registered 116° Wednesday afternoon. Nighttime temperatures in the Deserts were near 80°. In Texas, maximum temperatures reached the 90's on most days. A number of localities recorded 100° or higher on 1 or 2 afternoons. Mineral Wells and Laredo registered 102° Tuesday. Hot weather occurred in the Southeast too. Augusta and Brunswick, Ga., recorded 100° Tues-

day afternoon. The lowest overnight temperatures at St. Petersburg and Miami, Fla., recorded Thursday morning, were 77° and 79°, respectively. High humidity, combined with the high temperature, made the weather feel oppressive in the central and southeastern portions of the Nation. In the Southwest, the excessive heat made the citizens uncomfortable although the dew points and relative humidity were much lower than in the central and eastern portions of the Nation.

The weekend brought a warming trend to the Northern States and a continuation of summer heat across the South. Sunday afternoon temperatures reached the 80's from southeastern Washington to the western edge of the Great Plains. The Northeast warmed to the upper 80's and low 90's. Hot weather continued in the Southwestern Deserts with maximums ranging from 100° to 109° from southeastern California across southern Arizona to southwestern New Mexico with 90° heat across the southern Great Plains to the Atlantic coast.

L. W. Dye

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** Small grain harvest in high gear on the Southern Great Plains. \* Warm temperatures stimulated crop growth. \* Hailstorm damaged crops in South Carolina.

**SMALL GRAINS:** Winter wheat harvest made rapid headway in Oklahoma and Texas. The wheat crop is nearly half combined in Texas and 69 percent complete in Oklahoma. Progress is behind last year in both States. Wheat combining was at full scale in southern Kansas, however only 7 percent of the crop is cut, behind last year and average. At the week's end harvest was edging into central Kansas. Some wheat growers in southeast Colorado also started combining as warm temperatures pushed maturity. Wheat combining gained momentum in the Desert areas of California, and was picking up speed in the Central Valley. Showers limited harvest in the Southeast. Barley cutting was underway as far north as Maryland. In the north the winter wheat crop remains in excellent condition. However some rank growth areas were lodging in Nebraska. Cool temperatures have been perfect for filling grain in the Pacific Northwest. Barley and wheat are starting to ripen in southern areas of the Corn Belt. Heading of spring-seeded grains made good progress under favorable weather in the Northern Plains.

**CORN:** The third straight week of hot, humid weather pushed corn growth in the Corn Belt. Most of the acreage is in good to excellent condition. Moisture supplies are satisfactory. In Illinois corn plants are about 2 feet high, with some early planted fields 3 feet high. Weed control is a problem in many States. South Dakota fields finally dried out enough to allow much needed cultivation.

Moisture supplies are good in the Atlantic and South Central States. Warm temperatures continue to stimulate growth in Tennessee and Kentucky. Early fields are starting to tassel in Kentucky.

Hot, humid weather was ideal for the development of Southern corn leaf blight, but development was very slow. Blight was identified in additional counties of Iowa, Indiana, and Nebraska. In Iowa spore production was observed for the 1st time this season on infected plants, previous infections originated from corn plant debris in fields, volunteer plants and shelling operations.

**SOYBEANS:** Soybean planting is nearing the home-ward stretch in the North Central States. Emergence is very good. Hot weather and good moisture have got the crop off to a fast start and prospects are rated good to excellent.

Arkansas soybeans are 90 percent planted, with early acreage growing well. Planting was about 3/4 finished in the Deep South, with some Alabama dryland acreage in need of rain to improve germination. Most of the full season soybean acreage is planted, with dual crop acreage being seeded after barley harvest.

**COTTON:** Cotton planting moved right along in Texas and 94 percent of the acreage is seeded. Showers and warm weather benefited cotton throughout the South, but Louisiana acreage needs more

moisture. A mid-week hail storm damaged considerable acreage in South Carolina. Some fields will be plowed under. A few Mississippi fields began setting bolls.

Hot, dry weather was favorable for Arizona cotton, but development lags behind normal. Desert acreage in California was also starting to set bolls.

**OTHER CROPS:** Sorghum planting made rapid progress in Kansas and over 4/5 of the acreage is in. Texas growers are nearly finished planting sorghum. Planting in most other States was well along. Severe hail damaged the tobacco crop in South Carolina, with much of the acreage destroyed. The crop continues 1 to 2 weeks late in Kentucky. Some burley was set in Virginia, with conditions good for rapid growth in Tennessee. Georgia harvest is 8 percent complete. Peanuts made good growth throughout the South. Potato planting is completed with cultivating and spraying the main chore in all regions. Digging was slow in Kern County California. Sugar beet growers spent most of the week thinning their stands. Seeding of the dry bean crop in Michigan and Colorado, the 2 leading dry bean producing States is coming to a close.

**Fruits and Nuts:** Fruit crops are developing well in New York and New England. Sweet cherry picking should start this week in New York's Hudson Valley. Dry soils are limiting Michigan tree fruit development in the heavy producing southwest area. The Georgia peach crop is about one week late, but 19 percent of the expected crop is picked.

Warm California temperatures accelerated growth of the State's fruit and nut crops. Weekly rains have improved the condition of Florida citrus trees and most trees are in excellent condition with new fruit sizing well.

**Vegetables:** Dry weather in the Northeast section of the country has retarded vegetable growth and necessitated the start of heavy irrigation. Crop development is behind normal. Strawberry picking continues its movement northward, with local supplies available in most areas. Pea harvest is underway in many sections of the Nation. Hot weather pushed pea maturity in Wisconsin, but quality remains good.

Vegetable shipments declined from Florida, but increased supplies are available from other Southern States. Tomato harvesting got underway in the Visalia area of California, with picking into the 2nd week in Kern county. Warmer temperatures are needed to speed vegetable maturity in the Pacific Northwest.

**PASTURES AND LIVESTOCK:** Pastures grew well in the Southeast as ample moisture was received. Florida pastures continue to improve as rains and warm temperatures aided grass growth. Livestock producers in the Southwest continue heavy supplemental feeding, with pastures in the Northeast also becoming short due to dry weather. Ranges prospered in Oklahoma and along the Texas Coast and Low Plains due to recent rains. Most California herds are grazing on summer ranges which are supplying good amounts of feed.

Steve Pscodna  
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., June 20, 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	- 1	4.4	+3.5	New Orleans . . .	81	0	1.1	0	OKLA, Okla. City . .	79	0	.5	- .5
Mobile . . .	84	+ 2	.7	- .8	Shreveport . . .	81	0	.9	+ .2	Tulsa . . .	80	+ 2	.1	-1.1
Montgomery . . .	81	+ 1	1.1	+ .1	MAINE, Caribou . . .	65	+ 5	.3	- .6	OREG, Astoria . . .	56	- 2	.4	- .3
ALASKA, Anchorage . .	---	---	---	---	Portland . . .	64	+ 1	0	- .8	Burns . . .	59	- 1	.2	0
Barrow . . .	---	---	---	---	MD, Baltimore . . .	69	- 4	.3	- .5	Medford . . .	63	- 2	.1	- .1
Fairbanks . . .	---	---	---	---	MASS, Boston . . .	68	- 1	T	- .8	Pendleton . . .	65	- 1	T	- .3
Juneau . . .	---	---	---	---	Nantucket . . .	60	---	.1	---	Portland . . .	61	- 2	.2	- .2
Nome . . .	---	---	---	---	MICH, Alpena . . .	70	+ 9	.2	- .4	Salem . . .	59	- 2	.2	- .1
ARIZ, Flagstaff . . .	64	+ 4	0	- .2	Detroit . . .	71	0	.2	- .5	PA, Allentown . . .	65	- 5	1.1	+ .2
Phoenix . . .	90	+ 6	0	0	Flint . . .	71	+ 4	T	- .7	Erie . . .	66	- 2	.1	- .6
Tucson . . .	86	+ 2	T	- .1	Grand Rapids . . .	74	+ 6	.8	0	Harrisburg . . .	68	- 4	.7	- .1
Winslow . . .	71	- 4	0	- .1	Houghton Lake . . .	71	+ 7	1.1	+ .4	Philadelphia . . .	69	- 3	.2	- .8
Yuma . . .	91	+ 5	0	0	Lansing . . .	72	+ 4	1.5	+ .7	Pittsburgh . . .	69	- 1	0	- .9
ARK, Fort Smith . . .	79	- 1	1.2	+ .2	Marquette . . .	66	+ 5	.8	0	Scranton . . .	65	- 4	1.2	+ .3
Little Rock . . .	80	0	2.2	+1.4	Muskegon . . .	72	+ 4	.2	- .4	R. I, Providence . .	67	0	T	- .7
CALIF, Bakersfield . .	83	+ 6	0	0	S. Ste, Marie . . .	65	+ 5	.3	- .5	S. C, Charleston . .	81	+ 1	1.8	+ .6
Eureka . . .	54	- 2	.1	- .1	MINN, Duluth . . .	66	+ 6	.6	- .5	Columbia . . .	81	+ 1	4.0	+3.1
Fresno . . .	80	+ 5	0	0	Internatl Falls . .	67	+ 6	1.2	+ .2	Greenville . . .	74	- 5	.7	0
Los Angeles . . .	73	+ 5	0	0	Minneapolis . . .	76	+ 9	.8	- .2	S. DAK, Aberdeen . .	73	+ 6	.4	- .7
Red Bluff . . .	79	+ 2	T	- .1	Rochester . . .	74	+ 6	.9	- .2	Huron . . .	74	+ 6	.7	- .2
San Diego . . .	67	+ 1	0	0	St. Cloud . . .	74	+ 8	.4	- .7	Rapid City . . .	69	+ 3	.3	- .4
San Francisco . . .	65	+ 4	T	0	MISS, Jackson . . .	81	+ 1	T	- .9	Sioux Falls . . .	73	+ 4	.8	- .3
Stockton . . .	79	+ 6	0	0	Meridian . . .	82	+ 2	1.0	0	TENN, Chattanooga .	78	- 1	1.6	+ .7
COLO, Denver . . .	72	+ 4	T	- .3	MO, Columbia . . .	78	+ 3	.8	- .3	Knoxville . . .	75	- 1	.5	- .3
Grand Junction . . .	78	+ 6	0	- .1	Kansas City . . .	80	+ 3	T	-1.2	Memphis . . .	81	+ 2	.9	0
Pueblo . . .	76	+ 4	.1	- .2	St. Louis . . .	79	+ 4	T	-1.0	Nashville . . .	78	0	.3	- .4
CONN, Bridgeport . . .	67	- 2	.1	- .7	Springfield . . .	79	+ 4	.9	- .3	TEX, Abilene . . .	81	0	.1	- .5
Hartford . . .	69	0	0	- .9	MONT, Billings . . .	67	+ 1	.2	- .5	Amarillo . . .	77	- 1	.7	+ .1
D. C, Washington . . .	71	- 4	.3	- .4	Glasgow . . .	64	+ 1	.1	- .5	Austin . . .	84	+ 1	.1	- .6
FLA, Apalachicola . .	84	+ 3	T	-1.3	Great Falls . . .	63	+ 3	.4	- .4	Beaumont . . .	82	+ 1	1.9	+ .9
Ft. Myers . . .	82	+ 1	.2	-2.0	Havre . . .	62	+ 1	.2	- .6	Brownsville . . .	83	0	1.7	+ .9
Jacksonville . . .	81	- 1	1.9	+ .3	Helena . . .	58	- 2	T	- .6	Corpus Christi . . .	83	0	.3	- .2
Key West . . .	84	+ 2	.3	- .7	Kalispell . . .	54	- 5	.2	- .4	Dallas . . .	86	+ 4	T	- .7
Lakeland . . .	83	+ 2	.1	-1.6	Miles City . . .	71	+ 5	.2	- .4	Del Rio . . .	80	- 5	.1	- .4
Miami . . .	83	+ 2	0	-1.7	Missoula . . .	58	- 1	.4	- .1	El Paso . . .	83	+ 1	T	- .2
Orlando . . .	84	+ 2	1.0	- .9	NEBR, Grand Island .	78	+ 6	T	- .9	Fort Worth . . .	84	+ 2	T	- .7
Tallahassee . . .	81	0	3.4	+1.8	Lincoln . . .	79	+ 5	.1	-1.0	Galveston . . .	81	- 1	1.1	+ .3
Tampa . . .	84	+ 3	T	-1.7	Norfolk . . .	76	+ 4	.3	- .7	Houston . . .	81	- 1	.4	- .2
GA, Atlanta . . .	76	- 1	1.7	+ .8	North Platte . . .	73	+ 3	T	- .8	Lubbock . . .	79	+ 1	.8	+ .3
Augusta . . .	79	- 1	2.1	+1.4	Omaha . . .	77	+ 5	.2	-1.1	Midland . . .	78	- 4	.6	+ .2
Macon . . .	81	0	2.4	+1.6	Valentine . . .	73	+ 4	.1	- .7	San Angelo . . .	80	- 3	0	- .4
Savannah . . .	81	0	3.8	+2.6	NEV, Las Vegas . . .	63	+ 4	T	- .1	San Antonio . . .	83	0	.9	+ .2
HAWAII, Hilo . . .	76	+ 1	.1	-1.5	Reno . . .	65	+ 4	0	- .1	Victoria . . .	84	+ 2	2.7	+2.0
Honolulu . . .	76	- 2	2.4	+2.3	Winnemucca . . .	66	+ 4	0	- .2	Waco . . .	84	+ 1	T	- .6
Kahului . . .	77	0	.2	+ .2	N. H, Concord . . .	65	0	0	- .8	Wichita Falls . . .	84	+ 1	.1	- .6
Lihue . . .	77	0	2.5	+2.2	N. J, Atlantic City .	63	- 8	T	- .7	UTAH, Blanding . . .	72	+ 6	0	- .1
IDAHO, Boise . . .	65	- 1	T	- .2	Trenton . . .	67	- 5	.4	- .5	Salt Lake City . . .	71	+ 3	T	- .2
Lewiston . . .	63	- 2	T	- .4	N. MEX, Albuquerque .	77	+ 1	T	- .1	VT, Burlington . . .	69	+ 4	.2	- .6
Pocatello . . .	63	0	0	- .2	Roswell . . .	80	+ 2	.2	- .1	VA, Lynchburg . . .	70	- 4	.9	- .1
ILL, Cairo . . .	79	0	1.5	+1.5	N. Y, Albany . . .	68	0	T	- .8	Norfolk . . .	72	- 5	.8	0
Chicago . . .	77	+ 6	.8	- .2	Binghamton . . .	65	+ 1	.4	- .5	Richmond . . .	70	- 6	2.4	+1.5
Moline . . .	78	+ 6	.5	- .6	Buffalo . . .	69	+ 3	.4	- .2	Roanoke . . .	69	- 5	1.4	+ .5
Peoria . . .	79	+ 6	T	-1.0	New York . . .	68	- 5	.3	- .5	WASH, Colville . . .	54	- 8	.2	- .1
Rockford . . .	76	+ 5	.6	- .4	Rochester . . .	68	0	.1	- .5	Omak . . .	61	- 4	T	- .4
Springfield . . .	79	+ 4	.1	- .9	Syracuse . . .	69	+ 1	---	---	Quillayute . . .	54	- 2	1.1	+ .3
IND, Evansville . . .	79	+ 2	5.2	+4.3	N. C, Asheville . . .	72	- 1	1.9	+1.1	Seattle-Tacoma . . .	57	- 3	.6	+ .2
Fort Wayne . . .	74	+ 3	1.0	- .1	Charlotte . . .	74	- 4	2.3	+1.4	Spokane . . .	59	- 3	.1	- .3
Indianapolis . . .	75	+ 3	.1	-1.1	Greensboro . . .	71	- 5	.1	- .7	Walla Walla . . .	64	- 4	.2	- .1
South Bend . . .	74	+ 4	.3	- .6	Hatteras . . .	74	- 2	.7	- .2	Yakima . . .	62	- 3	.1	- .1
IOWA, Burlington . . .	78	+ 5	T	-1.5	Raleigh . . .	72	- 4	.4	- .6	W. VA, Beckley . . .	68	0	1.4	+ .4
Des Moines . . .	78	+ 6	.5	- .7	Wilmington . . .	78	0	3.6	+2.6	Charleston . . .	72	- 1	.1	- .8
Dubuque . . .	76	+ 7	.7	- .5	N. DAK, Bismarck . .	67	+ 2	1.5	+ .6	Huntington . . .	72	- 1	.3	- .7
Sioux City . . .	77	+ 5	.2	- .9	Fargo . . .	69	+ 3	.7	- .1	Parkersburg . . .	73	0	0	-1.0
KANS, Concordia . . .	77	+ 1	1.9	+ .9	Williston . . .	65	+ 1	.5	- .4	WIS, Green Bay . . .	73	+ 7	.1	- .8
Dodge City . . .	77	+ 1	1.2	+ .5	OHIO, Akron-Canton .	71	+ 1	T	-1.0	La Crosse . . .	74	+ 4	1.8	+ .8
Goodland . . .	74	+ 3	.1	- .5	Cincinnati . . .	74	0	1.5	+ .5	Madison . . .	74	+ 7	.8	- .2
Topeka . . .	78	+ 2	.4	- .7	Cleveland . . .	70	+ 1	1.5	+ .7	Milwaukee . . .	68	+ 4	1.6	+ .7
Wichita . . .	78	0	.1	-1.1	Columbus . . .	72	0	.1	- .9	WYO, Casper . . .	67	+ 3	.1	- .2
KY, Lexington . . .	73	- 1	3.2	+2.1	Dayton . . .	73	+ 1	.2	- .8	Cheyenne . . .	66	+ 2	.1	- .4
Louisville . . .	76	- 1	1.4	+ .4	Toledo . . .	71	+ 2	T	-1.0	Lander . . .	68	+ 5	0	- .3
LA, Baton Rouge . . .	81	- 1	.8	+ .2	Youngstown . . .	69	+ 1	.2	- .6	Sheridan . . .	66	+ 3	.1	- .5
Lake Charles . . .	83	+ 1	1.0	- .1						P. R. San Juan . . .	---	---	---	---

\* 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:** Scattered thundershowers began on Tuesday and continued off and on for remainder of period. Partly cloudy to cloudy, hot, and humid with average temperatures above normal. Rainfall moderate to heavy with 2.00 to 4.00 inches over much of the southeast and north-central sections. Showers and warm temperatures benefited row crops. Several previously dry areas received showers, but many areas need additional moisture. Farmers busy cultivating row crops, applying herbicides, cutting hay and harvesting crops in season. Cotton fruiting freely southern and central counties and beginning to square Tennessee Valley. Corn made good progress. Soybean planting active; recent seedings need moisture for germination many areas. Peanuts made good growth. Small grain harvest active. Increased marketing peaches and vegetables. Cutting hay made good progress. Pastures and livestock good.

**ALASKA:** Temperatures averaged far below normal mostly due to low maximum temperatures. Cumulative growing degree days near normal Tanana Valley, well below normal elsewhere. Precipitation near normal Matanuska Valley and Anchorage area, above normal southern Kenai Peninsula, below normal Tanana Valley, Kodiak and remainder Kenai Peninsula. Numerous thunderstorms with lightning but no serious lightning-caused fires. Topsoil moisture remains short Railbelt despite light rains. Additional rain and warmer temperatures needed for crop growth. Average height grain about 4 inches. Growth grasses and most crops continues slow, 2 to 3 weeks behind normal. First cutting grasses to begin about 10 days. Crop prospects fair. Planting crops Kenai for 1971 doubtful as frost remains at 2 foot level at weekend.

**ARIZONA:** Skies mostly clear and temperatures above normal. No measurable precipitation. Hot, dry weather favorable for cotton, but development still behind normal. Early Yuma fields started to bloom. Most early fields squaring central area. Small grain harvesting active southwest and central areas, increasing southeast area. Sorghum making good growth. Early plantings Yuma area setting heads. Safflower development good. Sugar beet harvest continued active. Cantaloupe harvest volume proportions Yuma area. Quality, yields very good. Cantaloupes Salt River Valley making good progress. Lettuce harvest continued Cochise County. Limited grapefruit harvest Salt River Valley. New crop fruit developing well all areas. Grape harvest underway. Ranges supplying less than adequate amounts of feed. Livestock being sustained by extensive supplemental feeding and water hauling.

**ARKANSAS:** Weekly mean temperatures averaged 2° above normal ranging from upper 70's northwest to low 80's elsewhere. Daily extremes: 59° to 103°. Mostly afternoon and evening thundershowers, heaviest central and east-central. Eudora high with 2.76 inches but some totals between 3.00 and 4.00 inches just west Little Rock. No measurable amounts most of southwest. Crops continued to improve after slow start. Rain needed, but excess moisture few eastern delta counties. Cotton mostly fair to good and

squaring. Rice crop good, making normal progress. Soybeans 90% planted. Early acreage growing well. Small grain harvest general, near completion south. Fair to good yields. Corn and sorghum making satisfactory growth, but need rain. No reports Southern Corn Leaf Blight. Haying active as showers permit. Peach harvest underway. Tomato volume increasing southern markets. Other fruits and vegetables satisfactory development. Grazing diminishing driest areas, but pastures still supplying sufficient feed all areas.

**CALIFORNIA:** Temperatures well above normal except on north coast, with 100° readings most Central Valley and Desert stations. Few light showers northern mountains. Barley harvest declining desert; active Central Valley. Wheat active desert; increasing Central Valley. Alfalfa cutting continues. Sugar beets making good growth. Cotton growth increasing San Joaquin; blooms with some bolls Desert areas. Corn growth increasing. Rice good progress; pest control active. Milo and dry bean planting continues. Warm weather accelerated growth fruit and nut crops. Harvest cherries nearing completion. Picking freestone peaches, plums, nectarines continues; sizes below normal, quality good. Apricot harvest continues. Good sets walnuts and almonds. Thinning clingstone peaches nearing end. Bartlett pears developing well. Apples normal growth. Warm weather stimulated lemon growth. Most livestock on summer ranges. Mountain ranges good. Cantaloupe harvest past peak Imperial Valley. Digging carrots increasing Salinas and San Joaquin Valley. Celery harvest steady Oceano; underway Salinas. Sweet corn increasing Desert Valleys. Lettuce shipments moderate Salinas and Santa Maria. Onion harvest moderate San Joaquin Valley. Potato digging slowed Kern County. Strawberry harvest active; deliveries to freezers increasing. Tomato harvest underway Visalia; continuing Kern County. Watermelon harvest active Desert areas.

**COLORADO:** Gradual warming trend averaged above normal. Maximums reached 90° to 100° lower elevations and 70's and 80's in mountains. General showers widely scattered and spotty. Precipitation totals mostly light to none mountains and west. Moderately heavier eastern half of plains, mostly around 0.50 inch. Warm weather promoted rapid maturity winter wheat. Growth spring-planted crops made good progress. Light hail damaged corn, sugar beets local areas northeast. Strong winds drying topsoil. Surface soil moisture generally adequate except San Luis Valley and local areas south-central and southeast. Conditions small grain crops mostly good. Condition other crops good to excellent. Winter wheat harvest underway extreme southeast. Nearly all acreage headed, 1/2 turned color. All corn emerged. Sorghum 91% seeded, nearly 3/4 up. Dry bean seeding 90% complete, 55% emerged. Over 3/4 sugar beet acreage thinned. First cutting alfalfa 56% complete. Ranges and pastures limited improvement. Livestock generally good.

**FLORIDA:** Temperatures averaged 2° to 3° above normal with high daytime readings in the mid-90's interior sections. Rainfall averaged 0.75 inch to 1.50 inches in most sections except over

1.75 inches in southwestern division and less than 0.50 inch in the Keys. Rainfall fell as showers and thundershowers with some locally heavy thundershowers accompanied by hail and damaging winds mainly in south and central Florida latter half of week. Field crops generally good condition. Soybean planting nearing completion. Wheat yields very good. Southern Corn Leaf Blight of no economic consequence, now reported in 8 counties. Most reports from experimental plots. Most growers using N-Cytoplasm. Pastures and cattle improving all areas except south. Citrus trees continue improving, now mostly excellent. New fruit sizing well with droppage normal. Harvest near end. About half orange processors closed. Total vegetable shipments declining. Full volume of sweet corn from Zellwood area and watermelons from north-central and north Florida available. Commodity shipments lead by watermelons followed by sweet corn, green peppers, tomatoes, celery. Spring eggplant in good supply. Tomato harvest nearly complete. Celery harvest nearly complete after this week.

GEORGIA: Light to locally heavy showers occurred over Georgia daily during past week. Heaviest showers were mainly in southeast but widely scattered heavy thundershowers were reported in all sections. Amounts of 3.00 to 5.00 inches occurred in some areas of south and central from Macon area to Savannah and Brunswick. Following the pattern of previous weeks, some areas received only very light showers of a few hundredths of an inch occurring on several days. Hot at beginning of week becoming a little cooler later in week with an increase in daytime cloudiness. Outside of mountainous areas, afternoon temperatures were generally in 90's except where thundershowers developed in early afternoon. Averages over State were near normal. Highest reported was 102° at Savannah on 16th. Soil moisture adequate. Temperatures favorable for crop development. Cultivation, hay making, grain harvest limited by showers and wet fields. Insect and disease control measures active on crops and orchards. Wheat harvest 69%, oats 77%, peach 19%, tobacco 8% complete, all about week later than normal. Condition all crops improved considerably. Corn judged mostly good, peanuts good, hay crops, cattle and pastures good. Seeding soybeans 76%, sorghum 66% complete. Important truck crop area Thomas County still dry. Truck crops improved other areas. Light movement cantaloupes and watermelons. Tomato harvest nearing peak.

HAWAII: Warm and dry with scattered light showers on Hawaii, Maui, and Kauai. Oahu received beneficial moderate to heavy showers Tuesday and Wednesday. Crop progress fair to good with heavy irrigation. Sugarcane harvest progressing normally, but pineapple picking increasing seasonally. Vegetable supplies adequate. Heavy harvesting watermelons. Banana supplies light, but papaya increasing gradually. Pastures and cattle remain fair to good.

IDAHO: Temperatures averaged 2° to 5° below normal north and normal elsewhere. Precipitation was showery and associated with scattered thunderstorms. Totals averaged heavy with some hail north. Heaviest rain and hail were on the 13th and 14th. Moscow recorded 1.18 inches and Potlatch 1.05 inches on the 13th, 1.37 inches and 1.26 inches, respectively, for the week, for the heavier amounts. Hail reported further south without significant damage at Orofino, Nezperce, and Winchester. Precipitation over other areas

was generally scattered and light. Growing conditions improved with warmer temperatures. Crops recovering from slow start. Harvest first cutting alfalfa nearing completion southwest, underway elsewhere. Winter grains good condition, development ranges from boot in eastern and northern counties to full head in southwest. Spring grains made rapid progress, beginning to head. Potato planting complete. Condition generally good. Crop late eastern Idaho, but stands good. Sugar beet thinning nearing completion southwest, underway eastern counties.

ILLINOIS: Another warm humid week with frequent evening thundershowers causing some locally severe winds and heavy rain. Rainfall ranged from 0.20 inch in central to 1.60 inches in west-southwest districts. Daily high temperatures near 90° until cooler in northwest on 20th. Corn 50% excellent, good 44%, fair 6%. Average corn height 24 inches, most advanced corn height 38 inches. Scattered hail damage northwest. Rain needed many areas. Weeds posing problem. Soybeans excellent 34%, good 59%, fair 5%, poor 2%. Stands good. Late planted needs rain northeast. Wheat excellent 35%, good 50%, fair 14%, poor 1%. Wheat 95% turning yellow, 20% ripe. Alfalfa excellent 23%, good 48%, fair 20%, poor 9%. Red clover excellent 25%, good 47%, fair 19%, poor 9%. Alfalfa 85% cut, red clover 70% cut. Pastures excellent 26%, good 34%, fair 27%, poor 13%. Soil moisture short 36%, adequate 53%, surplus 11%. Average work days 5. Activities: cultivating, making hay, applying pesticides.

INDIANA: Warm and humid. Frequent evening thunderstorms caused local heavy rain to 3.00 and scattered wind damage. Cool front passage on 20th triggered a few funnel clouds in north. Some daily highs to the mid-90's. Five days suitable. Topsoil and subsoil moisture adequate. Soybeans 95% planted, 5 inches tall, 4 is average. Corn is 15 inches tall, 10 is average. Southern Corn Leaf Blight confirmed in 26 counties. Wheat all headed, 5% ripe. Oats 75% headed. Major harvest of small grains yet to begin. Alfalfa hay 70% cut 1st time. Clover 40% cut. Pastures fair to mostly good.

IOWA: Temperatures averaged 5° to 7° above normal. Showers were heavy over some north-central, northeast and east-central localities. Otherwise precipitation was mostly subnormal. Warm sunny weather accelerated crop growth. Corn and soybean cultivating and haying progressed rapidly with nearly 6 days suitable fieldwork. Condition corn crop mostly good to excellent. Weed control cornfields fair to excellent. Southern Corn Leaf Blight identified in individual cornfields 6 additional counties. The 6 counties identified are: Tama, Black Hawk, Hardin, Page, Hamilton and Carroll. Spore production observed for 1st time this season on infected plants in fields examined. Previously infection originated from corn plant debris in fields and shelling operations. Soybeans mostly good to excellent condition; weed control fair to excellent. Over 70% oats headed. Alfalfa hay over 70% cut with clover hay near 40%. Condition alfalfa hay, clover hay and pasture mostly good.

KANSAS: Locally heavy precipitation southwest and central 1/3 generally light to moderate elsewhere. Weekly mean temperatures averaged above seasonal northwest and northeast, near normal elsewhere. Maxima hit 100° locally western portion June 17 and 18. Cold front late in period dropped high into 80's on the 20th.

Little severe weather during week. Wheat harvest rapid progress southern counties edging into central areas. For State wheat 7% harvested, compared 9% last year and 10-year average 16%. Only 23% wheat ripe, 45% last year, average 38%. Insect and disease damage light and scattered. Planting and cultivation continued for row crops. Sorghum 81% planted, 81% last year, average 78%. Soybeans 78% now and last year. Young sorghum plants still bothered by greenbugs. Corn 34% laid by, 34% year earlier. One case Southern Corn Leaf Blight confirmed eastern Kansas. Some sugar beets weeded. Alfalfa 2d cut 15% complete, 13% last year, average 16%. Cattle movement light. Few flies, mosquitos, and some pinkeye. Pasture feed mostly good.

**KENTUCKY:** Daily showers, scattered most days but general on the 15th, some locally heavy. Weekly totals variable, from 0.06 inch at Paducah to more than 2.00 inches at a number of locations. Generally warm and humid except somewhat cooler 15th and 16th, average just about seasonal greater part of State. Rain limited fieldwork to 3.5 days. Soil moisture 7% short, 68% adequate, 25% surplus. Corn averaging 25 inches tall, early fields beginning to tassel. Weather conditions ideal for propagation and spread Southern Corn Leaf Blight during past 10 days, but no serious trouble yet. About dozen counties reported disease, but buildup slow. Much more resistant seed planted in 1971. Soybeans 3/4 planted. Burley 82% set, week to 2 weeks later than normal. Barley 51% harvested, wheat 4%. Pastures excellent.

**LOUISIANA:** Temperatures averaged near seasonal. Hot mostly dry early in week. Tropical moisture moved into State with afternoon showers daily south from midweek and statewide over weekend. Temperature extremes both at Hammond: 99° Monday, 62° Friday. Rainfall 2 to 5 days most areas. Weekly totals 0.25 to 1.25 inches. Some heavier showers south. Greatest 24-hour amount 5.75 inches measured at 8 a.m. Friday at Bogalusa. This fell between 3:30 and 5:30 p.m. Thursday. Weather favorable for fieldwork, but local showers caused some interruption. Cultivation and chemical weed control active. Some progress made planting, but completion delayed by dry soils. Soybeans 90% planted, sorghum 85%, sweetpotatoes 85%. Recent plantings need moisture to germinate seed. All areas need rain, but widespread weekend showers provided relief. Corn in all stages growth, some damaged by drought. Cotton needing moisture, some thin stands plowed under. Rice growing well, flooding and topdressing continue. Sugarcane layby virtually completed, crops fairly clean, but growth slow. Soybeans mostly fair to good, early plantings have good stands, but recent plantings spotty. Early sweetpotatoes running; late plantings continue. Harvest wheat and oats virtually completed. Pastures and hay crops need rain.

**MARYLAND AND DELAWARE:** Temperatures cool from 15th through 18th and near normal other days, averaged 3° to 7° below normal in east and 1° to 3° in west. Rainfall from scattered showers and thunderstorms on 14th, and 16th spotty, 0.10 to over 2.00 inches. Thunderstorms especially severe on 14th with wind and hail damage in southeast Baltimore County and western Talbot County. Fieldwork interrupted by showers. Corn generally good but weedy. Barley harvest underway southern shore. Full season soybean acreage practically planted, dual crop acreage being seeded follow-

ing barley. Second cutting hay started south, first cutting 1/3 to 1/2 done north. Harvest processing peas full swing and snap bean started.

**MICHIGAN:** Temperatures averaged about 2° to 3° above normal in southern Lower Michigan, 4° to 6° above normal in central Lower Michigan and the Upper Peninsula and 7° to 8° above normal in northern areas of Lower Michigan. Gradual warming throughout the week, becoming quite warm and humid as the week ended, but cold front passage late Sunday alleviated the situation. Precipitation occurred mostly with passage of frontal system Sunday, the 20th, with amounts of 0.75 to 1.50 inches in central portions, while the remainder of the State received much less, except for western Upper Peninsula where totals for the week were around 0.75 inch. Much of the fruit and vegetable region of western Lower Michigan becoming very dry. Some stations in these areas have received only 1.00 to 1.25 inches in the past 4 weeks. Warm weather stimulated crop growth where soil moisture was adequate. Dry soils retarded growth Lower Peninsula. State averaged 5.6 days suitable fieldwork. Fall potato and soybean planting nearing completion, dry beans 80% planted. Winter wheat 95%, oats 25% headed. Corn development uneven due variable soil moisture. First cutting alfalfa short, about 2/5 1st cutting hay made. Pasture feed supplies less than average southern 2/3 State, average elsewhere. Dry soils limiting tree fruit development southwest. Peach thinning underway. Strawberry harvest rapid southwest, starting further north. Vegetable growth retarded by dry soils.

**MINNESOTA:** Very warm week with temperatures 4° to 9° above normal. Extremes: 93°, 45°. Precipitation variable across the State. Greatest amount, 6.17 inches at Isabella Ranger Station. Southern districts averaged 0.75 inch, little to no rainfall across central districts, and northwest averaged 1.00 and north-central and northeast received more than 2.00 inches. Several small tornadoes reported causing minor damage. Crop progress good. Corn height 13 inches, normal 9 inches. Soybeans 6 inches, normal 4 1/2 inches. Corn cultivated once 75%, normal 71%. No Southern Corn Leaf Blight identified. Alfalfa 47% cut, normal 42%; quality fair to good. Small grains headed: Rye 95%, normal 79%; winter wheat 84%, normal 59%; spring wheat 16%, normal 10%; oats 24%, normal 8%; barley 20%, normal 8%. Topsoil moisture generally adequate, except west-central short. Subsoil moisture generally adequate.

**MISSISSIPPI:** Warmer with weekly average temperatures ranging from normal to 4° above normal. Stations reported 1 to 3 days with scattered thundershowers; some locations had wind damage. Weekly rain totals mostly under 1.00 inch, 1-day amount of 2.30 inches was measured at Raleigh Friday morning. Over weekend: Slightly cooler, some thundershowers. A 1-day amount of 1.70 inches was measured at Belzoni Saturday morning. Soil moisture very short to short lower Delta and southwest, other areas mostly adequate. Average 5 days suitable fieldwork. Winter wheat 50%, oats 64%, hay 36%, peaches 20% harvested. Corn 97%, soybeans 78%, sorghum 83%, sweetpotatoes 79% planted. Cotton 7% squaring, 1% setting bolls. Cotton poor to mostly fair. Corn, peaches, truck crops mostly fair to good. Hay crops, soybeans, rice, sweetpotatoes fair to mostly good. Pastures and livestock good.

**MISSOURI:** Another warm humid week. Temperatures averaged 3° to 6° above normal. Missouri's first 100° reading of the season was reported by Ozark Beach on June 18. Showers fell early and late in week, with heaviest amounts occurring in the Northeast Prairie where some totals exceeded 2.00 inches. Days suitable for fieldwork 4.5. Soybean crop 92% planted. Plantings grain sorghum 93% complete. Wheat crop 7% harvested, mostly in Bootheel area. First cutting alfalfa hay 88% complete. Clover-timothy hay crop 42% harvested. Corn mostly good condition. Soybean crop in good condition. Cotton ranges from poor to good in southeast. Soil moisture adequate.

**MONTANA:** Cool west to warm east. Precipitation extremely variable, mostly none southwestern division to locally heavy and damaging thunderstorms Dawson County south. Glendive 1/70 inches in 1 hour, Ekalaka 3.34 inches in one storm totaling 4.01 for week. Hail accompanied most heavier thunderstorms. Warm days, cool nights provided good growing weather. Moisture supplies depleting rapidly as crops develop. Topsoil moisture 34% short, 64% average and 2% surplus. Growth and condition all crops good. Winter wheat 2% poor, 6% fair, 78% good and 14% excellent. Spring wheat 2% poor, 17% fair, 75% good and 6% excellent. Scattered hail damage east. Barley and oats 95% fair to good. Winter wheat 50% boot and 35% headed. Sugar beets 70% thinned. First cutting alfalfa hay 5% complete. Cutting wild hay starting. Alfalfa weevil damage light. Stockwater supplies average. Corn blight infection identified few fields Yellowstone Valley.

**NEBRASKA:** Above normal temperatures; showers and high humidity. Subsoil moisture supplies are generally adequate to surplus. Sorghum and soybean planting nearing completion. Wheat condition good to excellent, but few rank areas lodging. About half wheat acreage turning color, normal for this date. Corn making good growth with 85% good to excellent. Corn leaf blight noted additional counties, but infested plants are few and in scattered locations. Farmers busy cultivating, spraying weeds and fertilizing cornfields. Sorghum and soybeans good to excellent condition, but weeds and grass problem some fields. Alfalfa 85% harvested, but wet conditions caused delays few areas. Livestock good except for hot humid days.

**NEVADA:** Very warm week with temperatures averaging 2° to 5° above normal. Spotty light precipitation in northeast; none elsewhere. Strong surface winds over State on Friday. First cutting alfalfa hay underway northwest, 3d cutting progressing southern valleys. Small grain harvest nearing completion southern valleys. Cattle and sheep remain good. Range feed condition good through most State.

**NEW ENGLAND:** Very sunny and dry. Temperatures mostly seasonal but increasing during week. Maxima mostly in 80's from 17th on, but a few scattered 90's late in week. Week averaged near normal except 3° to 7° above normal in Maine and northern portions of New Hampshire and Vermont. No rain most sections. Scattered showers southwestern Connecticut on 15th. Scattered thunderstorms with some hail on 16th in eastern Maine, and some showers in north on 20th. Most showers gave less than 0.25 inch rainfall. Much of area has had no measurable rain in 12 days. Some areas have had 4 to 5 weeks in a row with sub-normal rainfall. Cutting hay and haylage main

activity. Corn growth slowed by cool nights. Pastures good condition, but beginning to show signs dry weather. Apples, peaches, cranberries, and blueberries progressing seasonally. Strawberry picking active south. Aroostook County potato farmers cultivating and spraying for weeds. Planting peas for processing nearly complete. Late week irrigation begun on summer vegetable crops.

**NEW JERSEY:** Temperatures averaged from 3° to 7° below normal over most of State. Rainfall generally light averaging 0.50 inch over North Jersey, 0.20 inch over the central and southern interior, and 0.10 inch along the coast. Highest temperatures were in upper 80's on 20th and lowest in upper 40's midweek. Recent warm weather increased crop development, but most areas could use general rain. Asparagus harvest nearing completion. Good supplies lettuce, cabbage and greens. Potatoes heavy bloom. Strawberry harvest declining South Jersey, but increasing northern areas. Blueberry harvest expected to get underway this week. Apples and peaches sizing well. Peaches being thinned. First cutting hay nearing completion. Barley and wheat coloring nicely. Combining should begin week to 10 days.

**NEW MEXICO:** Moderate rains end of week northeastern plains. Light scattered showers central and northern mountains. Little or no rain elsewhere. Slightly above normal temperatures Rio Grande Valley westward. Near normal temperatures elsewhere. Coolest 1st part of week. Ruidoso 35°. Warmest 101° latter part of week Rodeo and Deming. Scattered thundershowers in many isolated areas. Most of State still extremely dry. Harvesting wheat and barley active. Cotton good. Alfalfa 2d cutting active some areas. Onion harvest active. Ranges vary from very poor to good. Livestock holding up very well with heavy supplemental feeding.

**NEW YORK:** Cool early week followed by steady warming trend 16th through weekend. Maximums ranged from near 60° southern Upstate on 15th to 85° to low 90's on 19th and 20th. Lowest minimums 45° to low 50's on 16th and 17th. Precipitation negligible through 19th. Showers night of 20th and 21st totaled 0.10 to 0.40 inch western 1/2 decreasing to none in southeast 1/4. Alfalfa 1st cutting 40% complete. Considerable weevil damage. Clover-timothy harvest 20% complete. Dry beans virtually all planted. Many have emerged. Corn growth improved. Wheat and oats fair to good condition, wheat headed out. Pastures mostly fair. Potatoes making good growth. Earliest fields sweet corn Hudson Valley tassel stage. Iceberg lettuce harvested Orange County about 7 days later than usual. Planting lettuce and celery continues on muckland. Onion fields developing satisfactorily. Tomatoes, cabbage, snap beans, and cauliflower all good. Fruit sizing and good condition. Sweet cherry harvest expected to begin June 21 Hudson Valley. Western New York tart cherries sizing well. Apples developing well. Strawberry harvest active.

**NORTH CAROLINA:** Hot days and mild nights except heavy cloudiness and mild daytime temperatures 17th through 19th. Average temperatures near normal. Precipitation in showers occurring daily in some areas and less frequently others. Total amounts 0.50 to 3.00 inches mostly 1.00 to 2.00 inches. A few thunderstorms with some hail damage. Soil moisture increased, but continued mostly adequate except surplus northern mountains. Growing crops remained generally good and improved slightly.

Corn good and improving. Trace amounts Helmen-  
thosporium Maydis in corn identified from 6 coun-  
ties, but does not pose threat of economic impor-  
tance. Late soybean and sorghum planting continues.  
Hay harvest 2/5, small grain combining 1/3 com-  
plete. Farm labor generally adequate. Field cul-  
tivation main farming activity.

**NORTH DAKOTA:** Temperatures averaged 2° to 4°  
above normal. Precipitation ranged 0.20 inch  
extreme northwest to more than 3.00 inches in  
southcentral in thunderstorms throughout most of  
week. Many stations in south 1/2 of State reported  
amounts in excess of 1.50 inches. Crop develop-  
ment good progress. Over 1/3 hard spring and durum  
wheat, barley, and oats have reached boot stage.  
Most winter wheat and rye headed. Wild oat spray-  
ing nearing completion. First cutting alfalfa  
underway.

**OHIO:** High pressure dominated Ohio's weather  
much of the week. Southerly winds brought humid  
Gulf air into Ohio latter half of week. Rainfall  
deficiencies continue to increase in many areas.  
Daily mean temperatures averaged 4° above normal  
14th and from 18th thru 20th. During remainder of  
week temperatures were near normal. Days favorable  
for fieldwork, 6. Soil moisture supplies 50%  
short, 50% adequate. Corn height 15 inches, last  
year same, normal 11 inches. Soybean height 5  
inches, last year same, normal 4 inches. Trans-  
planting tobacco 65% completed, last year 90%,  
normal 85%. First crop alfalfa harvest 80% com-  
pleted, same as last year, normal 75%. Clover-  
timothy harvest 60% finished, last year same,  
average 55%. Wheat virtually all headed and 35%  
turning, normal 50%. Oats 75% headed, same as  
last year, average 50% headed. Barley 50% turn-  
ing or ripe.

**OKLAHOMA:** Rainfall averaged 0.16 inch northeast  
to 0.67 inch southwest. Temperatures averaged  
near normal most of State except 7° above normal  
southwest and 4° above normal Panhandle. Extremes:  
104° and 52°. Wheat harvest making rapid progress  
under favorable weather conditions. Harvest 69%  
complete, year ago 78%. Oats 68%, year ago 79%.  
Panhandle, central and northeast only areas with  
significant acreage remaining to be harvested.  
Sorghums, peanuts, soybeans around 90% and cotton  
72% planted; year earlier planting essentially  
complete. All row crops mostly fair to good con-  
dition, except cotton where 63% rated poor to fair.  
Large acreage cotton not expected to be planted  
due dry conditions earlier in season. Second cut-  
ting alfalfa nearly 1/5 complete; much improved  
over 1st cutting. Picking early varieties peaches  
continues. Harvest cucumbers full swing. Range  
and pastures continue to improve. Livestock  
making good gains most areas. Topsoil moisture  
remains 2/3 adequate, but subsoil dropped to only  
35% adequate.

**OREGON:** Mostly below-normal temperatures with  
cloudy skies providing showers 1 to 4 days early  
in week and last day. Weekly temperatures near  
normal to 2° below normal southern 1/3 and most  
east border, elsewhere 3° to 6° below normal.  
Minima 29° to 33° higher eastern areas, elsewhere  
varied 38° to 47°. Maxima 60° to 70° coast, else-  
where 71° to 88°. Showers totaled mostly 0.10  
to 0.20 inch southern 1/3 and eastern 2/3 except  
few dry stations east-central border. Totals  
elsewhere 0.30 to 0.50 inch except 0.80 to 1.30  
inches north coast and south end Willamette Valley.  
Cool, wet weather hindered growth and harvest

hay crops. Grain crops excellent condition. Straw-  
berry harvest started. Few sweet cherries picked.  
Green pea harvest underway. Asparagus harvest  
about over. Livestock excellent.

**PENNSYLVANIA:** Temperatures and precipitation near  
normal. Cool and wet first half, warming trend  
thereafter. Extremes: 46° Eagles Mere Wednesday  
morning and at Canton and Wellsboro Thursday morn-  
ing to 90° Lewistown and Renovo Sunday afternoon.  
Showers and thunderstorms from unstable and very  
moist air Monday and Tuesday produced rainfall  
amounts of 0.50 to 1.00 inch most places. Excep-  
tions southwest and extreme southeast where less  
than 0.25 inch and at Warren where isolated thunder-  
storm produced better than 4.00 inches rainfall.  
Rains beneficial to plant growth, but limited  
field capacity. Barley harvest rapidly approach-  
ing. Winter wheat headed and starting to turn  
color. Unfavorable curing weather reduced quality  
of hay baled. Tobacco transplanting continued,  
but behind schedule. Strawberry harvest full swing.  
Transplanting cabbage active. Sweet cherry har-  
vest expected to begin July 1.

**SOUTH CAROLINA:** Scattered showers early in week.  
Increased cloudiness and showers latter part.  
Most locations received from 1.00 to 2.00 inches  
of rain. Temperatures averaged near normal except  
2° above normal in the south. Soil moisture;  
southern ridge short, central plain excessive,  
remainder adequate. Rain softened fields, limited  
field activity late week. Tobacco condition good  
to excellent. Severe hail storm June 15 and 16  
damaged and destroyed much acreage. Condition  
cotton improved. Boll weevil infestation reported.  
Much plow-up expected due hail. Corn good to excel-  
lent. Soybean planting 80% complete, stands good  
to excellent. Sorghum condition good to excellent,  
stands good, 73% planted. Sweetpotato trans-  
planting 79% complete. Peach harvest all areas.  
Condition fair to good. Hail damaged peaches and  
grapes. Small grains ripe; 54% wheat, 71% oats  
combined. Condition pastures, hays good. Vege-  
tables fair to good. Melons good condition.  
Weather condition favorable for Southern corn leaf  
blight infections and spread. No new reports  
blight on corn.

**SOUTH DAKOTA:** Weekly temperatures averaged from  
3° above normal in west to 8° above normal in east.  
Extremes ranged from 50° at Oelrichs on the 15th  
to 96° at Winner and Kennebec on the 16th and  
Wagner on the 17th. Precipitation fell as showers  
and thundershowers scattered through week with  
totals ranging from less than 0.10 inch to over  
2.50 inches. Severe weather occurred in the east  
on the 19th with numerous tornadoes and damaging  
hail reported. Generally favorable weather pro-  
moted good crop growth and development. Corn par-  
ticularly made good growth. Many fields dried  
out enough to allow much needed cultivation. Most  
corn fields cultivated first time. Weeds still  
problem some areas. Subsoil moisture generally  
adequate. Topsoil moisture adequate, but some  
shortages developing. Heading spring seeded grains  
well ahead normal. Few early rye fields starting  
to turn color. Some local cut worm and wire worm  
problems corn, but no Southern corn leaf blight  
reported to date. First cutting alfalfa 63% com-  
plete, well ahead normal. Flies and mosquitoes  
becoming problem with livestock. Pastures remain  
good to excellent. Livestock good.

**TENNESSEE:** Temperatures near normal in most areas. Precipitation averaged from 0.25 inch to slightly over 1.50 inches with heaviest amounts in mountains. Scattered hail. Warm temperatures and scattered showers continued to stimulate rapid growth corn and cotton. Row crop cultivation and hay harvest continues as major farm activities. Small grains ripening rapidly and harvest increasing. Wheat 80% ripe and 20% harvested. About 95% oats yellow and 50% ripe. Corn 90% emerged. Soybean planting 85% complete and 80% soybeans planted have emerged. Cotton plants 90% emerged and growing rapidly. Over 95% tobacco planted and conditions good for rapid growth. Hay harvesting active. Days favorable for fieldwork 4.1. Soil moisture 52% adequate, 22% short, and 26% surplus.

**TEXAS:** Showers during week were the most numerous and widespread since the last week in May. Except for locally heavy rains in Live Oak and McMullen counties Tuesday, most shower activity was confined to the period, Friday through Sunday. Rains of 1.00 inch or more were numerous with South-Central and East Texas benefitting the most. Significant 24-hour amounts included: Calliham 5.10 inches, Simmons 3.20 inches, Madisonville 2.80 inches, Yoakum 2.70 inches, Presidio 2.25 inches and Beaumont 2.15 inches. Temperatures were unchanged from previous week. Farmers wait for needed moisture. Main farm and ranch activities culling foundation stock, cultivation, and irrigation. Harvest dryland wheat crop full swing. Irrigated crop later. Planting cotton, sorghum, soybeans, and peanuts moving right along. Heavy rains along coast and Low Plains brought temporary relief, improved range and pasture conditions. Percent harvested: wheat 49, 64 last year; oats 89, 86 last year. Percent planted: cotton 94, 98 last year; sorghum 93, 95 last year; peanuts 72, 81 last year; soybeans 84, 87 last year. Lower Valley spring vegetable harvest nearly complete. Cantaloupe harvest nearly complete Lower Valley, Laredo, active Winter Garden Presidio. Watermelon harvest nearing completion South Texas, active Winter Garden, starts Central, East Texas about July 1. East Texas harvesting light supplies tomatoes, cucumbers. High Plains potatoes, onions good progress with harvest expected about July 1. Peaches being harvested Cross Timbers, northeast Texas. Pecan prospects fair to good north Texas, a poor to fair central areas.

**UTAH:** Few isolated light showers or thunderstorms. Accumulated amounts of moisture very small. Temperatures averaged near to a few degrees above normal. Soil temperatures at 4-inch depth ranged from mid-60's Cache Valley to near 70° at Salt Lake City, mid-70's Richfield and mid-80s St. George. Accumulated growing degree days generally 20 to 100 degree days behind last year western desert and extreme southwest; but 20 to 150 degree days ahead last year remainder State. Soil moisture still adequate north, but short to very short central and southern Utah. Sugar beets 75% thinned. Percent grain headed out 90% for winter wheat, 40% spring wheat and barley and 25% oats. About 50% alfalfa hay cut for 1st crop. Rain damaged downed hay north; freeze damage south. Sweet cherry picking starts next week.

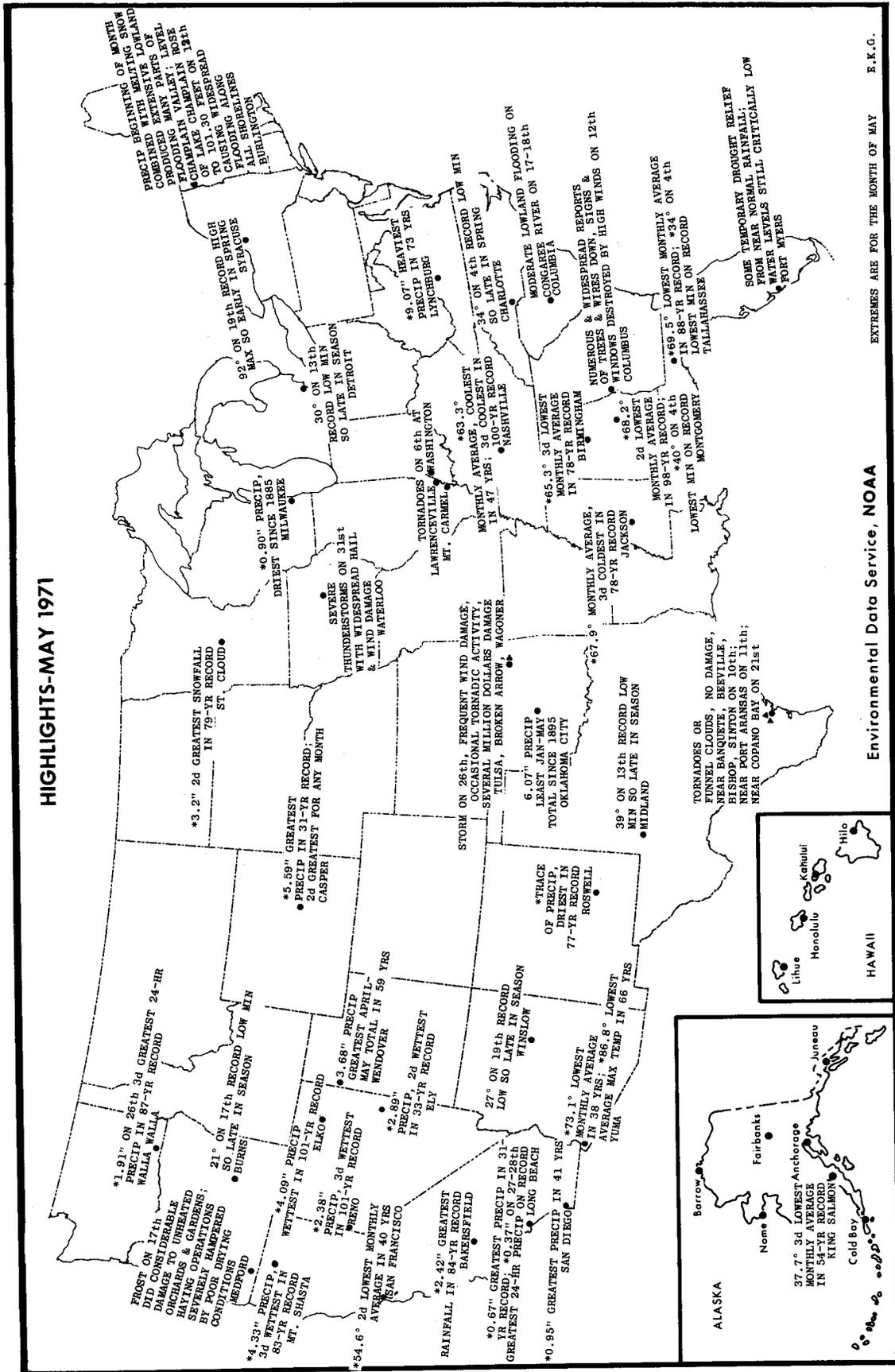
**VIRGINIA:** Temperatures near normal except below normal at midweek. Precipitation mostly heavy from several days of showers and thundershowers. Rain limited fieldwork. Haying at best difficult. Small grain combining delayed. Pastures, hay, and crops grew well. Weed problems increased. Second cutting hay promising. Some corn sprayed for army worms and weeds. Some burley tobacco set. Barley 15% harvested, lodging common, oats 10% out. Some potatoes dug. Cabbage and snap being harvested. Lamb and wool marketing active.

**WASHINGTON:** West of Cascades: Cool and cloudy with showers on several days. Green pea planting completed. Early seeded fields in bloom. Sweet corn, cucumbers, bunch beans, and strawberries need warm weather. Strawberries good size, but ripening slowly. Raspberries good. Harvesting vegetable crops continues. Haying and silage production slowed by rain. East of Cascades: Cool and cloudy with showers beginning and end of week. Rainfall amounts 0.10 inch central basin, 0.25 to 0.50 inch eastern counties. Conditions excellent for filling grain. Hay difficult to cure. Sweet corn tassel stage. Cherry harvest underway. Early potatoes blooming. Asparagus harvest near end. Cabbage harvest starting. Good wheat and barley area.

**WEST VIRGINIA:** Southern half of State had scattered showers most of week with light showers in mountains June 1 and 20. Lowest temperatures occurred Thursday morning. Hot and humid June 19 and 20. Recent rains stimulated crop and pasture growth. Soil moisture adequate to surplus. Fieldwork possible 4 days. Most corn planted and 90% emerged. Tobacco setting 55% complete. First cutting hay active, but hampered by rain.

**WISCONSIN:** Hot and humid summer weather pushed crop development during week. Beneficial rains fell in most dry areas of the State late in week with many weekend rainfall totals in south-central areas exceeding the amounts received during the previous 50-day period. Haying full swing and about 40% 1st crop harvested. Corn growth rapid and average height about 8 inches same as last year. Chemical weed control taking better hold after rains. Small grains excellent. Headed out on short straw southeast 1/3 State. Soybeans growing well. Pastures generally behind normal and only fair to good. Tobacco transplanting. Potato crop looking real good. Pea harvest getting underway, pushed by hot weather. Yields often disappointing in previously dry areas, but quality very good. Strawberry harvest also very good where moisture ample. Soil moisture 90% adequate and 10% short.

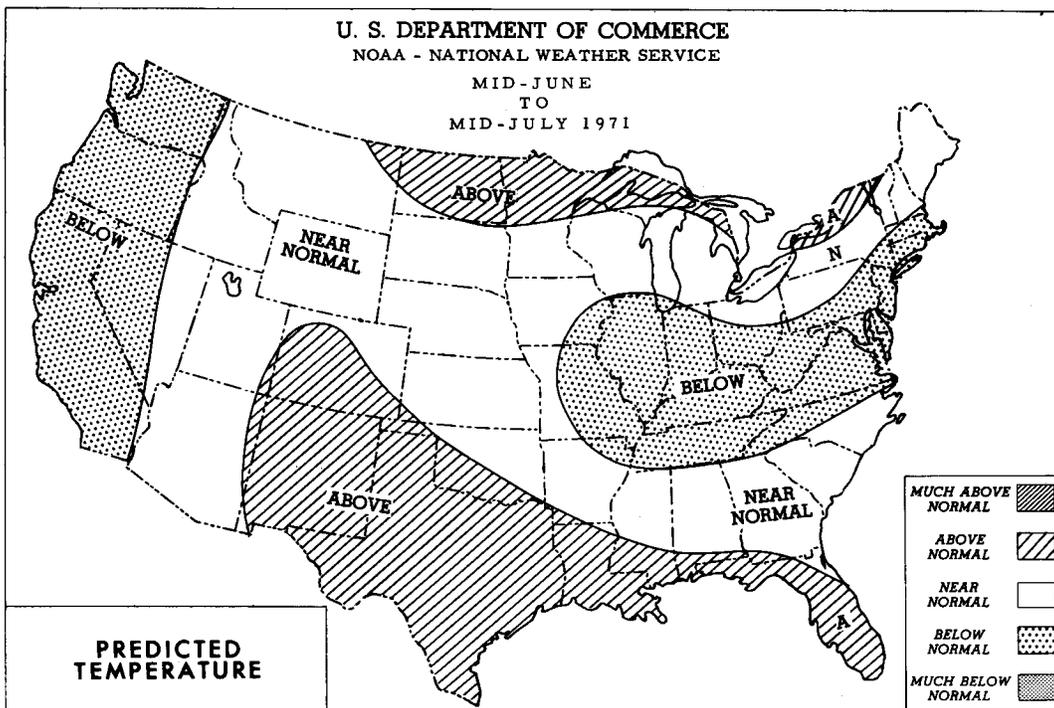
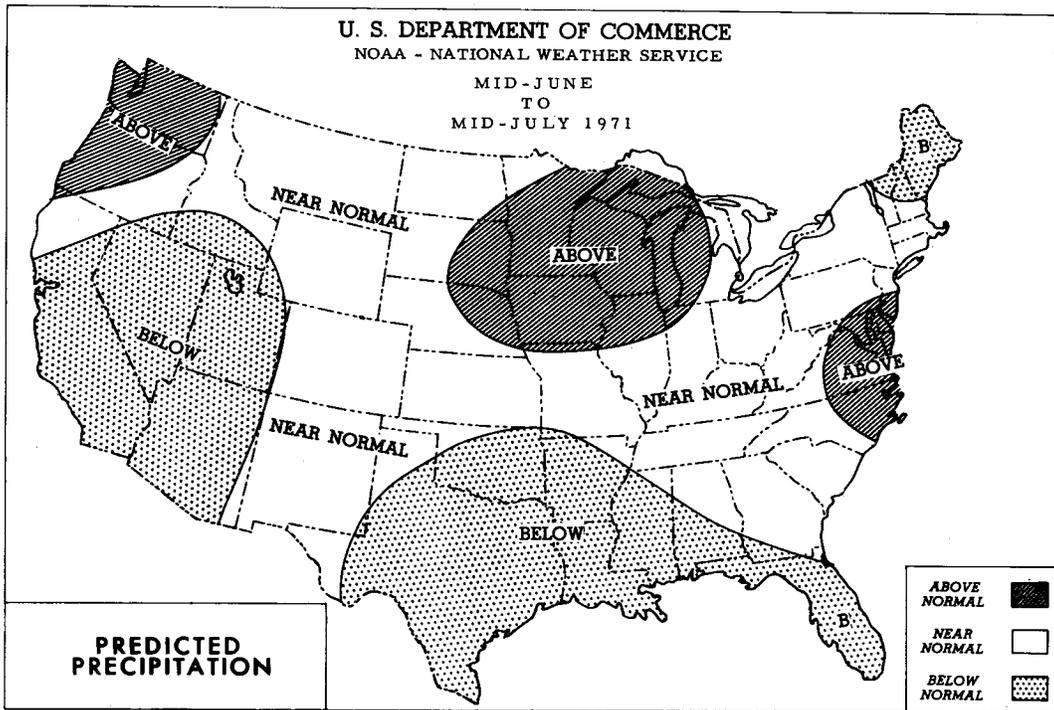
**WYOMING:** Scattered light to moderate showers occurred statewide. Guernsey Dam reported the most moisture with 1.04 inches. Temperatures averaged near to a little above normal. Maxima were mostly 75° to 85° west of Divide, 80's to low 90's east. Minima were mostly 30's to 40's west of Divide, 35° to 50° east. Temperature extremes were 92° at Basin and 27° at Foxpark. Irrigating, cultivating field crops, branding, docking, and moving livestock to summer ranges main agricultural activities. About 2/3 sugar beets thinned. Weather conditions favorable for fieldwork. About 1/2 winter wheat and less than 1/5 barley headed. Some farmers and ranchers cutting alfalfa.



EXTREMES ARE FOR THE MONTH OF MAY E.K.G.

Environmental Data Service, NOAA

### AVERAGE MONTHLY WEATHER OUTLOOK

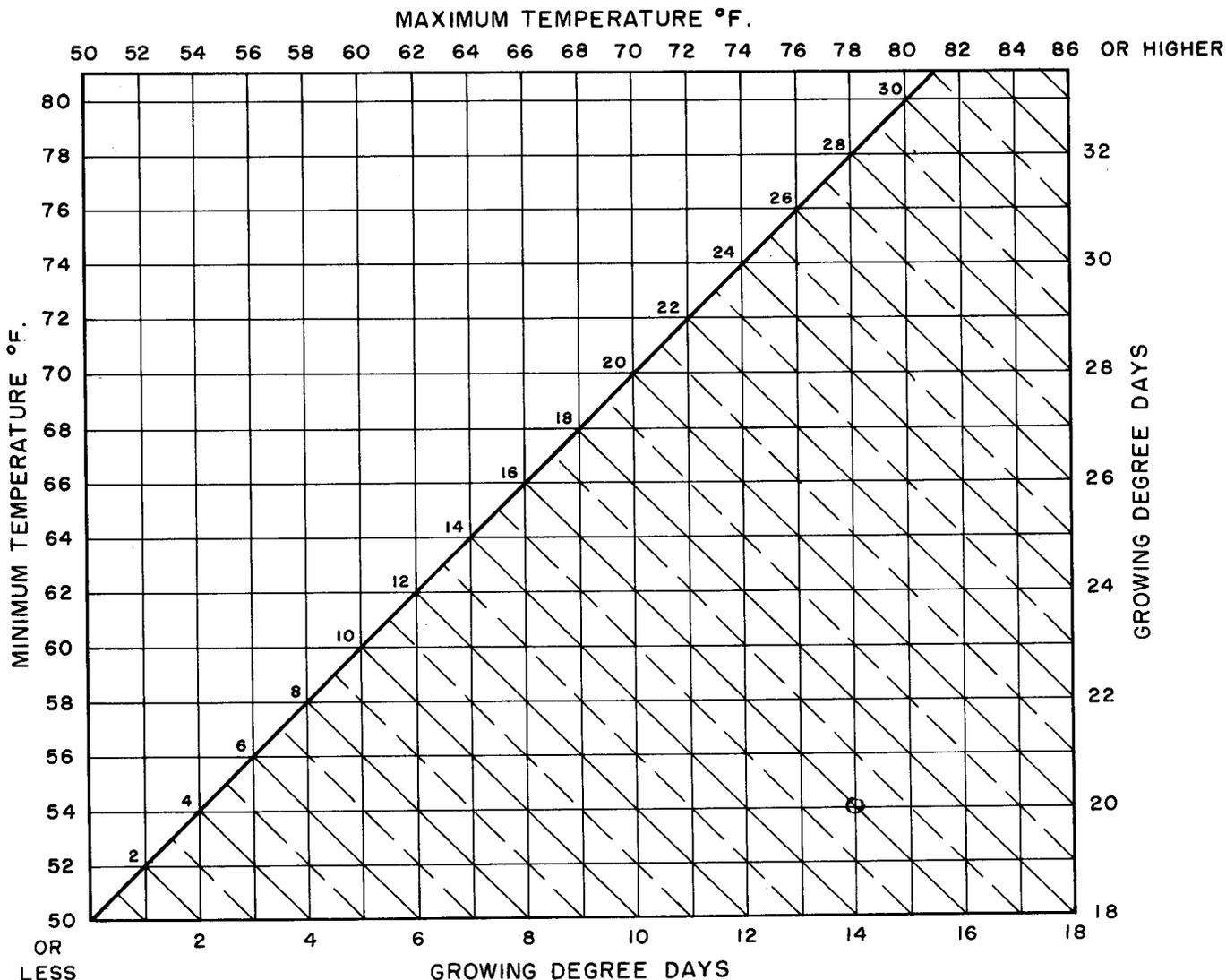


The above prognostic charts show the expected categories of average temperature and total precipitation for the period indicated. They were extracted from the Extended Forecast Division's publication "Average Monthly Weather Outlook" which contains additional information necessary for complete interpretation.

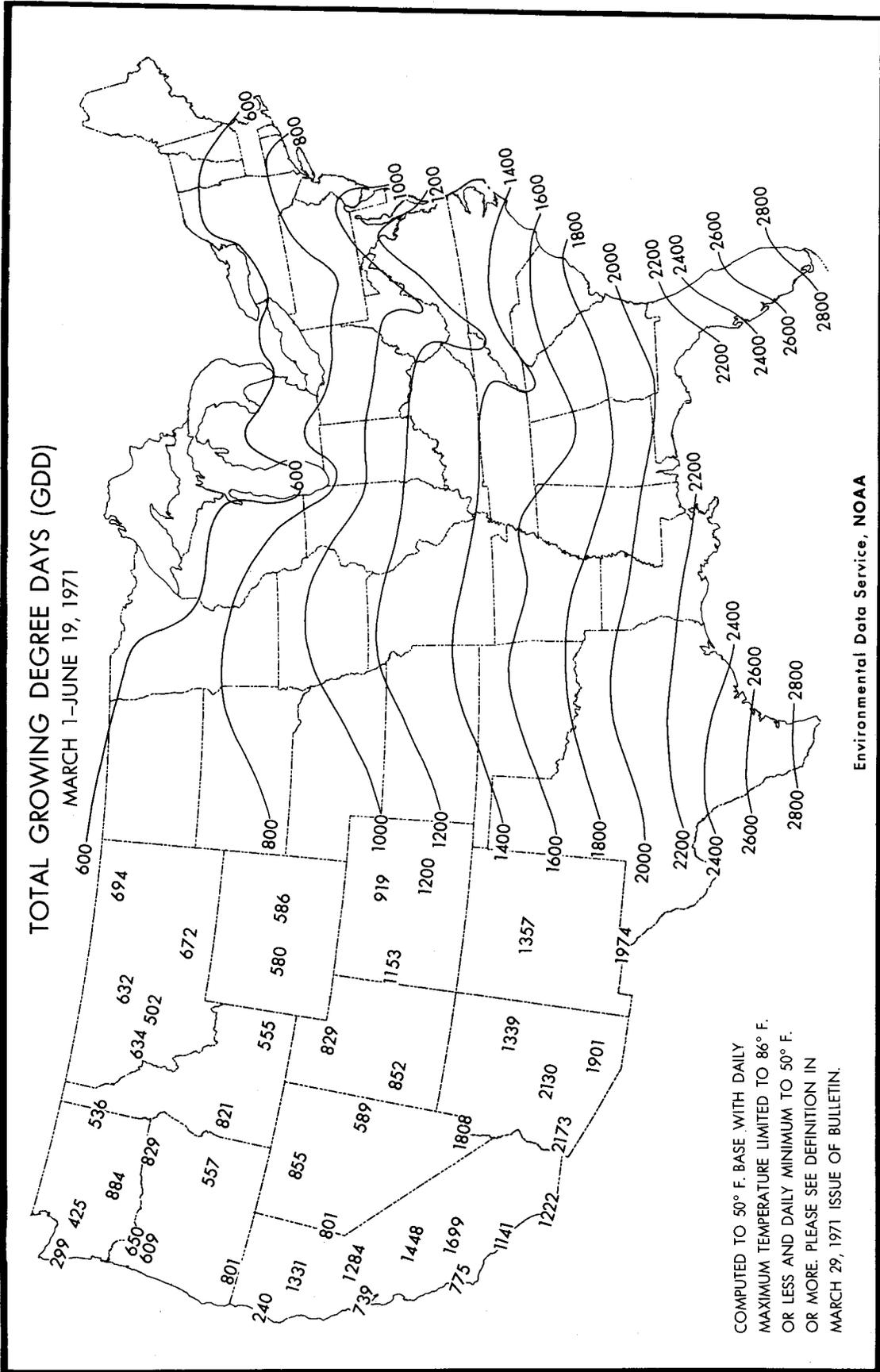
SIMPLIFIED GROWING DEGREE DAY CALCULATIONS

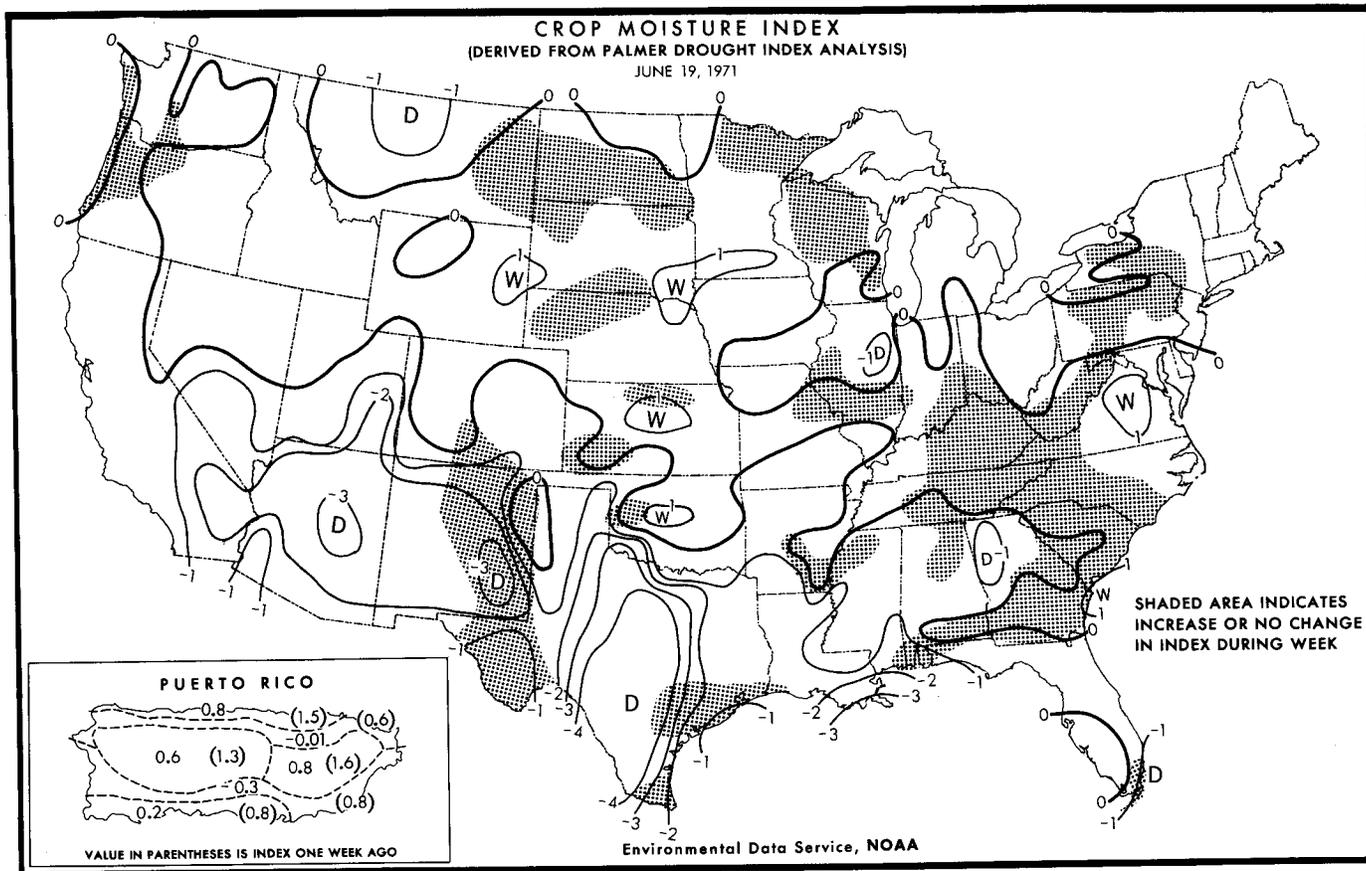
The nomogram below, for calculating daily growing degree day values, was developed by Paul J. Waite, NOAA Climatologist for Iowa. The daily maximum temperature is entered at the top of the graph and the corresponding vertical line is followed until it intersects with the line representing the minimum temperature for the day, entered along the left side of the chart. The daily GDD are then read along the diagonal line passing through the max/min temperature intersection. For example, assume a maximum temperature for the day of 78° and a minimum of 54°. The intersection of the two lines representing the given max/min values is shown on the graph by a circle. The diagonal line through this intersection has the value 16 (found at either end of the line), indicating 16 GDD were accumulated that day.

J. J. Rahn



NOMOGRAM FOR DERIVING GROWING DEGREE DAYS, MODIFIED 50° F. METHOD





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.

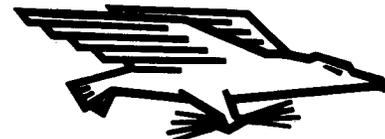
The legend applies primarily to growing rather than matured vegetation. Interpretation of the

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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